MJ PHYSICS ENGINEERING

Rainbow papers

Cross-system expression

MJos Predictive Model
The first manifestation of the Bangel Language

MJ Physics Engineering
Owned and operated by Michael Bangel
Clearwater, Florida

Recovered collection / terminology edition
1351 recovered source pages

Prepared for review. Not published.

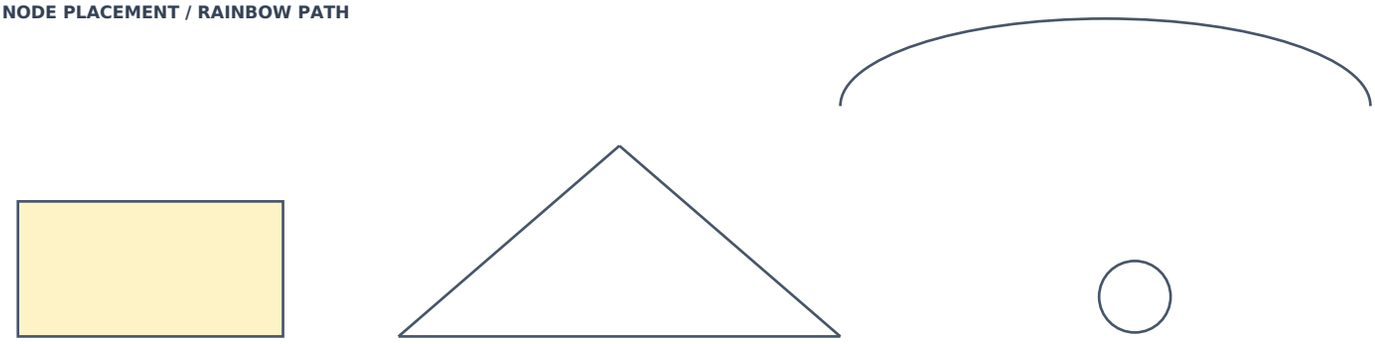
This source-faithful terminology edition updates the language name and publication identity while retaining mathematical expressions, source IDs, historical evidence and page graphics. It is not a fresh execution of the historical tests. Read the companion searchable library for current project sequencing and unresolved semantic relationships.

White papers are excluded. References to White paper identities remain historical citations. Original source hashes refer to the prior originals; revised output hashes are recorded separately.

Gold and Indigo: the original volumes were not recovered. Any new reconstruction is separately identified and must not be counted as those missing volumes.

2026-09-24 | Review edition | Clearwater, Florida

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-001: R0 -> R1. F-001 means R1 is the unidentified transitionary phase.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

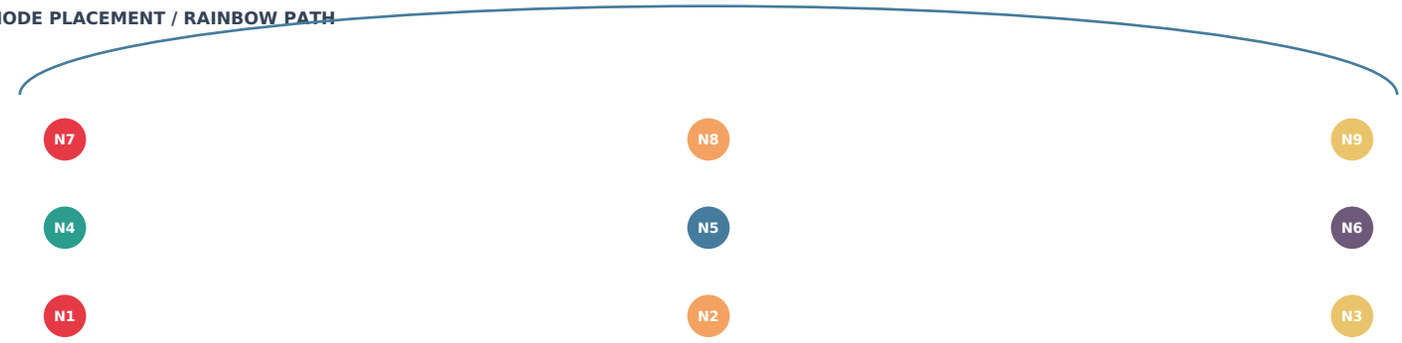
```
module MJ.Rainbow.R1_transition
reference "BP-ALG-001"
state R -> R1
node N1
representation JP(BP-ALG-001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-001: R0 -> R1. F-001 means R1 is the unidentified transitionary phase.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0002 R2 transition

official-docs/blue-pages/individual/algorithms/BP-ALG-002_R2-transition.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-002: R1 --validated--> R2. F-002 means R2 is the immutable living static representation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

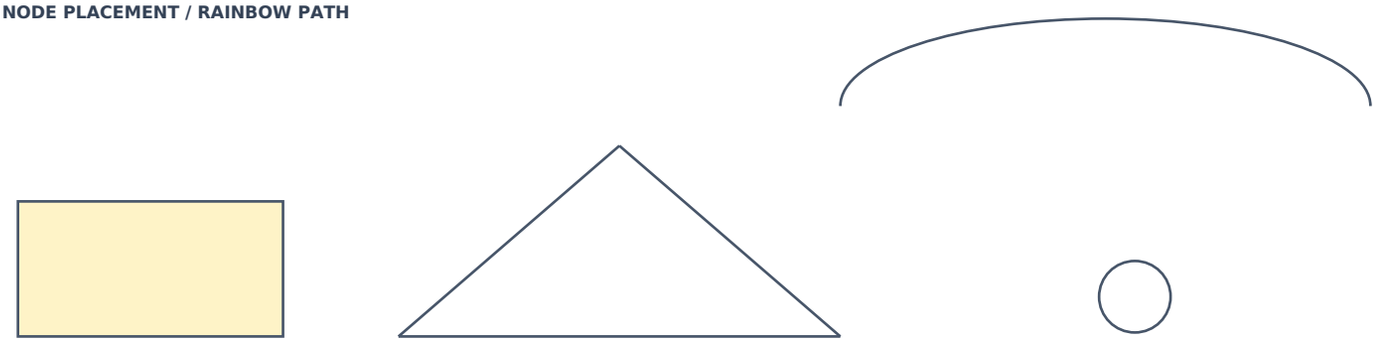
```
module MJ.Rainbow.R2_transition
reference "BP-ALG-002"
state R -> R1
node N1
representation JP(BP-ALG-002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-002: R1 --validated--> R2. F-002 means R2 is the immutable living static representation.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

RW-BLUE-0003 Unknown invariant

official-docs/blue-pages/individual/algorithms/BP-ALG-003_Unknown-invariant.pdf

NODE PLACEMENT / RAINBOW PATH



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R STATUS / OBSERVATION

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SOURCE RULE / INTENT

F-003: UNKNOWN != 0. F-003 means Unknown may not coerce to zero, pass, harmlessness, or permission.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Unknown_invariant
reference "BP-ALG-003"
state R -> R1
node N1
representation JP(BP-ALG-003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-003: UNKNOWN != 0. F-003 means Unknown may not coerce to zero, pass, harmlessness, or permission.
```

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NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-004: m_floor = 23 mg. F-004 means Pre-observational model floor, not a universal minimum or product mass.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mass_inflection
reference "BP-ALG-004"
state R -> R1
node N5
representation JP(BP-ALG-004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-004: m_floor = 23 mg. F-004 means Pre-observational model floor, not a universal minimum or product mass.
```

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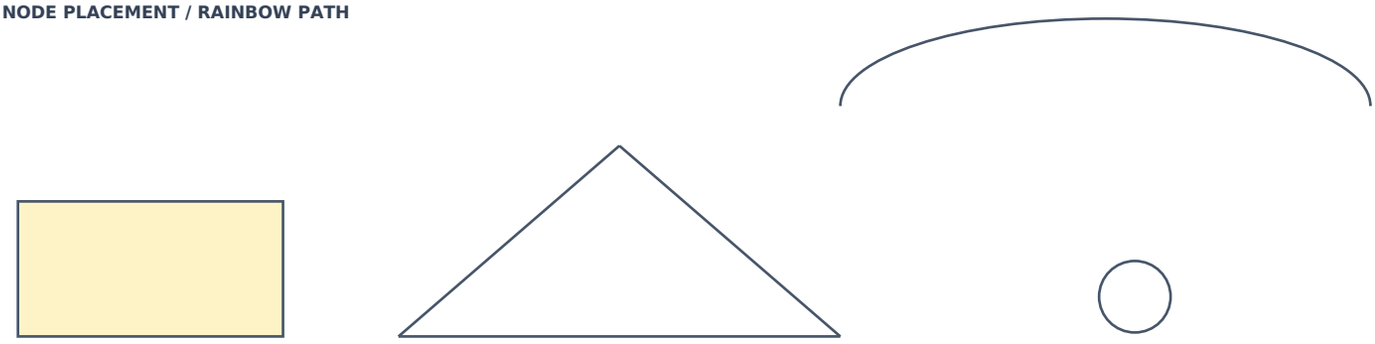
NODE PLACEMENT / RAINBOW PATH



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SOURCE RULE / INTENT

F-005: n_bar[t] = 0.9*n_bar[t-1] + 0.1*n[t]. F-005 means Drip-level smoothing.

PATH OF EXPRESSION

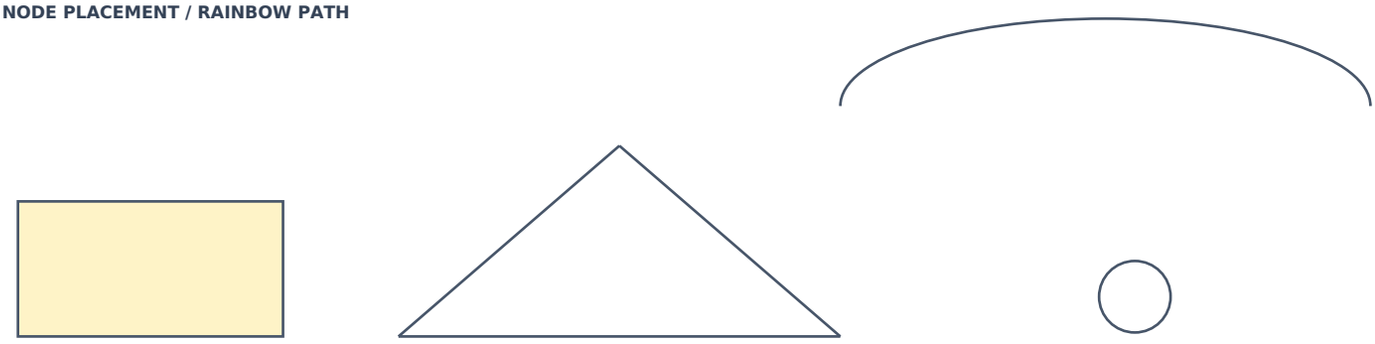
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Noise_smoothing
reference "BP-ALG-005"
state R -> R1
node N1
representation JP(BP-ALG-005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-005: n_bar[t] = 0.9*n_bar[t-1] + 0.1*n[t]. F-005 means Drip-level smoothing.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



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SOURCE RULE / INTENT

F-006: n_dot[t] = (2/3)*n_dot[t-1] + (1/3)*(n_bar[t]-n_bar[t-1])/dt. F-006 means One-third trend update.

PATH OF EXPRESSION

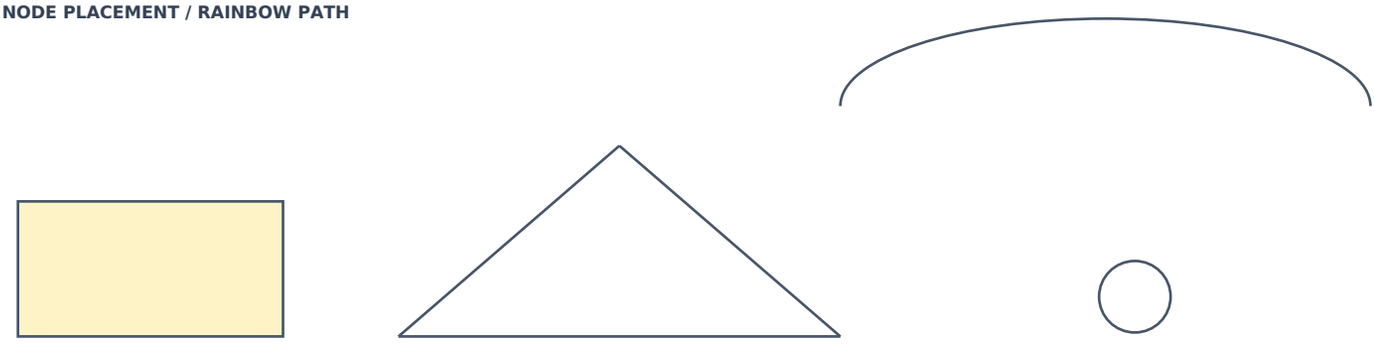
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Trend_estimator
reference "BP-ALG-006"
state R -> R1
node N1
representation JP(BP-ALG-006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-006: n_dot[t] = (2/3)*n_dot[t-1] + (1/3)*(n_bar[t]-n_bar[t-1])/dt. F-006 means One-third trend update.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-007: support>=3 of 5 AND 3 qualified windows. F-007 means Single spike cannot trigger full reweighting.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Anti_spike_gate
reference "BP-ALG-007"
state R -> R1
node N1
representation JP(BP-ALG-007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-007: support>=3 of 5 AND 3 qualified windows. F-007 means Single spike cannot trigger full reweighting.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-008: g_i = 0.1*(2/3)^(i-1). F-008 means Prediction influence decays across the nine-node path.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Prediction_gain
reference "BP-ALG-008"
state R -> R1
node N9
representation JP(BP-ALG-008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-008: g_i = 0.1*(2/3)^(i-1). F-008 means Prediction influence decays across the nine-node path.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0009 Covariance update

official-docs/blue-pages/individual/algorithms/BP-ALG-009_Covariance-update.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-009: Sigma_next = 0.9*Sigma_prev + 0.1*e*e^T. F-009 means Positive-semidefinite sequential covariance.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Covariance_update
reference "BP-ALG-009"
state R -> R1
node N1
representation JP(BP-ALG-009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-009: Sigma_next = 0.9*Sigma_prev + 0.1*e*e^T. F-009 means Positive-semidefinite sequential covariance.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-010: H = sqrt(lambda_max(Sigma)). F-010 means Uncertainty depth.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shadow_depth
reference "BP-ALG-010"
state R -> R1
node N1
representation JP(BP-ALG-010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-010: H = sqrt(lambda_max(Sigma)). F-010 means Uncertainty depth.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment use.

RW-BLUE-0011 Shadow growth rate

official-docs/blue-pages/individual/algorithms/BP-ALG-011_Shadow-growth-rate.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-011: v_shadow = (H_next-H_prev)/dt. F-011 means Rate of uncertainty expansion or resolution.

PATH OF EXPRESSION

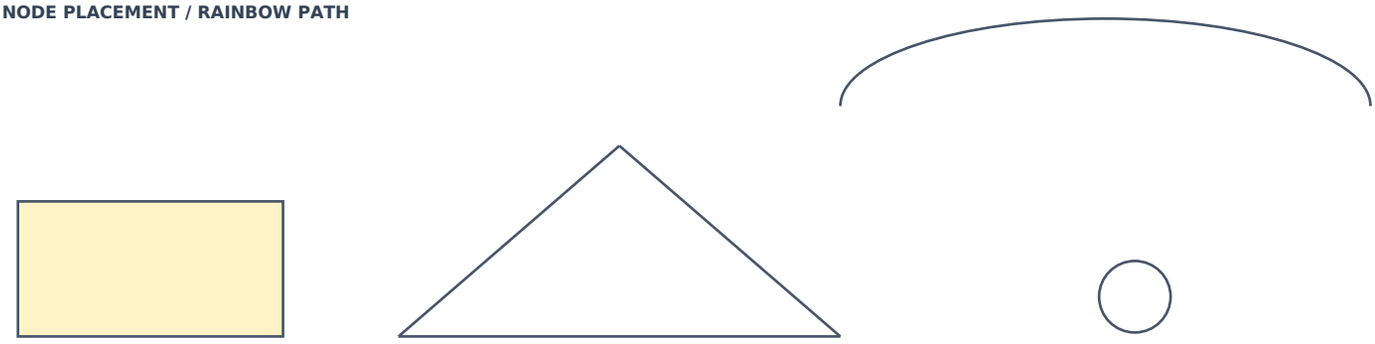
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shadow_growth_rate
reference "BP-ALG-011"
state R -> R1
node N1
representation JP(BP-ALG-011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-011: v_shadow = (H_next-H_prev)/dt. F-011 means Rate of uncertainty expansion or resolution.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-012: a0 = 48383829/100000000; F-013: r0 = 51616171/100000000. F-012 means Exact initial N1 logical allocation. F-013 means Exact logical reserve.

PATH OF EXPRESSION

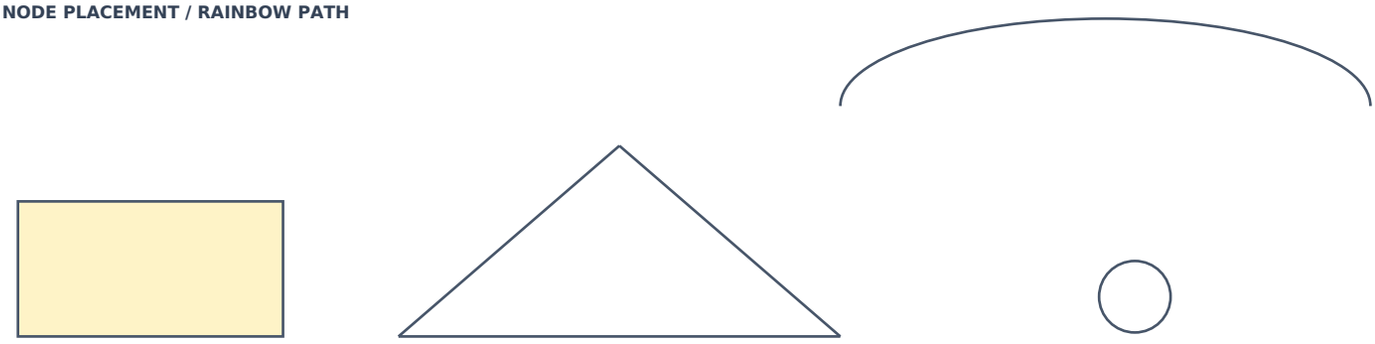
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Front_end_allocation_Front_e
reference "BP-ALG-012"
state R -> R1
node N1
representation JP(BP-ALG-012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-012: a0 = 48383829/100000000; F-013: r0 = 51616171/100000000. F-012 means Exact initial N1 logical allocation. F-013 m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



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SOURCE RULE / INTENT

F-014: w_next = projection((2/3)w + (1/3)w_target). F-014 means Nonnegative, sum-to-one, per-step change <=0.1.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bounded_allocation_update
reference "BP-ALG-013"
state R -> R1
node N1
representation JP(BP-ALG-013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-014: w_next = projection((2/3)w + (1/3)w_target). F-014 means Nonnegative, sum-to-one, per-step change <=0.1.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

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SOURCE RULE / INTENT

F-015: M_request = lambda_hat * bytes_per_request * latency_hat. F-015 means Predicted request memory.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Request_memory
reference "BP-ALG-014"
state R -> R1
node N1
representation JP(BP-ALG-014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-015: M_request = lambda_hat * bytes_per_request * latency_hat. F-015 means Predicted request memory.
```

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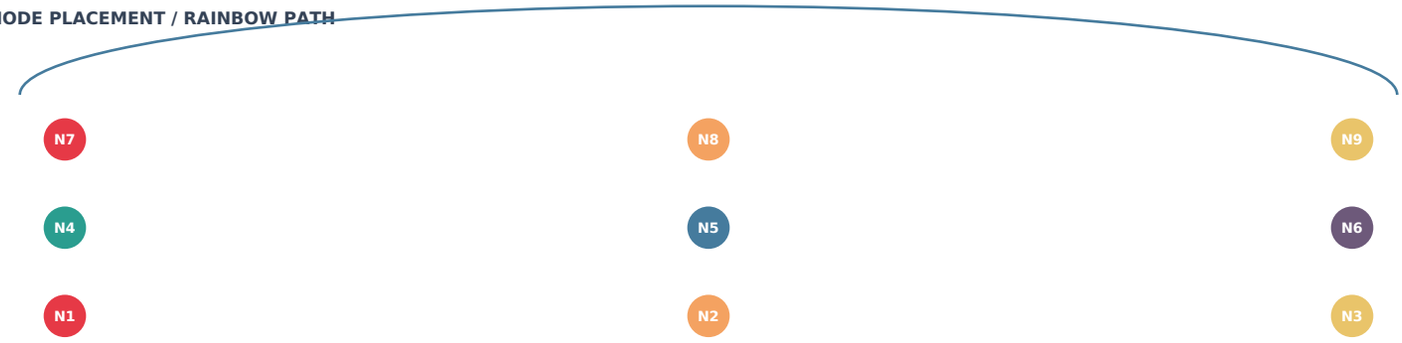
NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

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SOURCE RULE / INTENT

F-016: M_pre = M_request + M_sync + M_residual + M_evidence + M_headroom. F-016 means Preallocate before reserve exhaustion.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

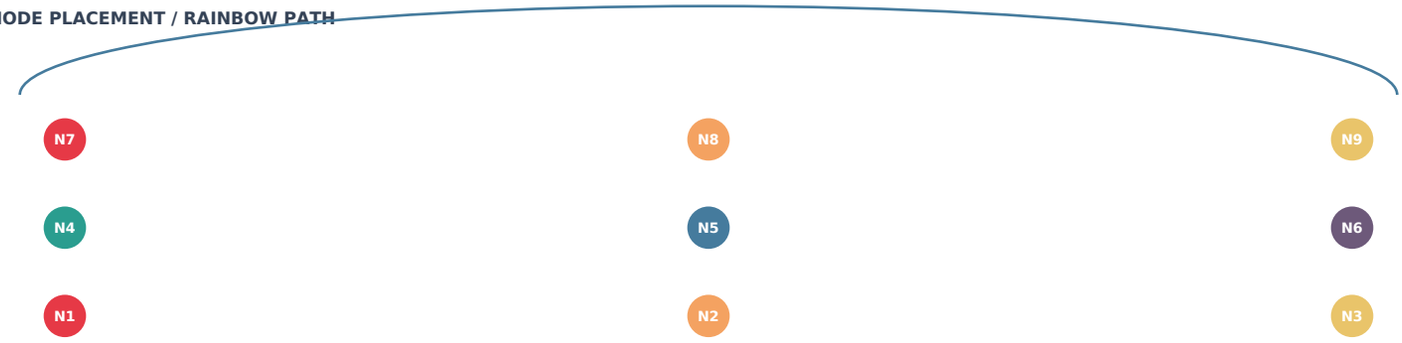
```
module MJ.Rainbow.Memory_preallocation
reference "BP-ALG-015"
state R -> R1
node N1
representation JP(BP-ALG-015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-016: M_pre = M_request + M_sync + M_residual + M_evidence + M_headroom. F-016 means Preallocate before reserve exhaust
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0016 Hard flush

official-docs/blue-pages/individual/algorithms/BP-ALG-016_Hard-flush.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-017: QUIESCE -> SEAL -> CHECKPOINT -> DETACH -> RECLAIM. F-017 means No silent deletion or uncleared reuse.

PATH OF EXPRESSION

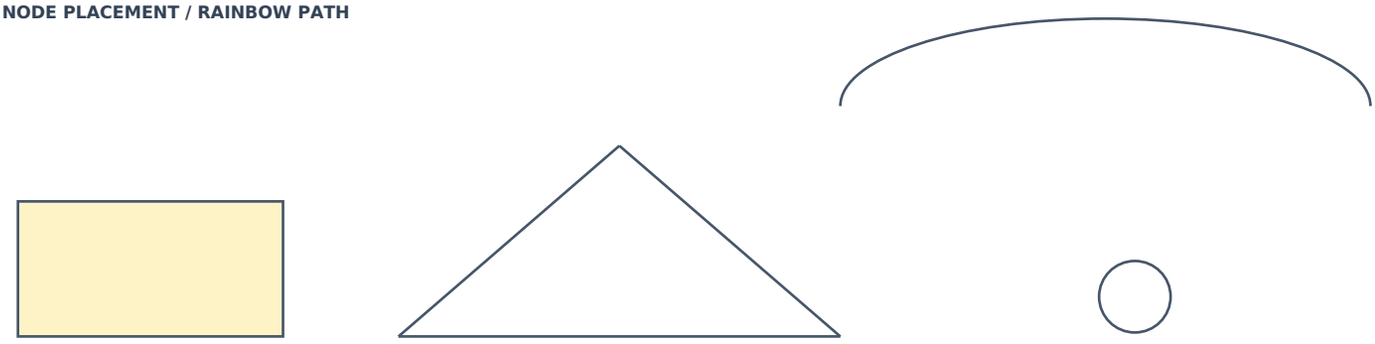
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Hard_flush
reference "BP-ALG-016"
state R -> R1
node N8
representation JP(BP-ALG-016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-017: QUIESCE -> SEAL -> CHECKPOINT -> DETACH -> RECLAIM. F-017 means No silent deletion or uncleared reuse.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-018: dQ/dt = I_intake - I_leak - I_release. F-018 means Static-intake charge accounting.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Charge_balance
reference "BP-ALG-017"
state R -> R1
node N1
representation JP(BP-ALG-017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-018: dQ/dt = I_intake - I_leak - I_release. F-018 means Static-intake charge accounting.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0018 Capacitor energy

official-docs/blue-pages/individual/algorithms/BP-ALG-018_Capacitor-energy.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-019: E = 0.5*C*V^2. F-019 means Valid only for evidenced constant capacitance.

PATH OF EXPRESSION

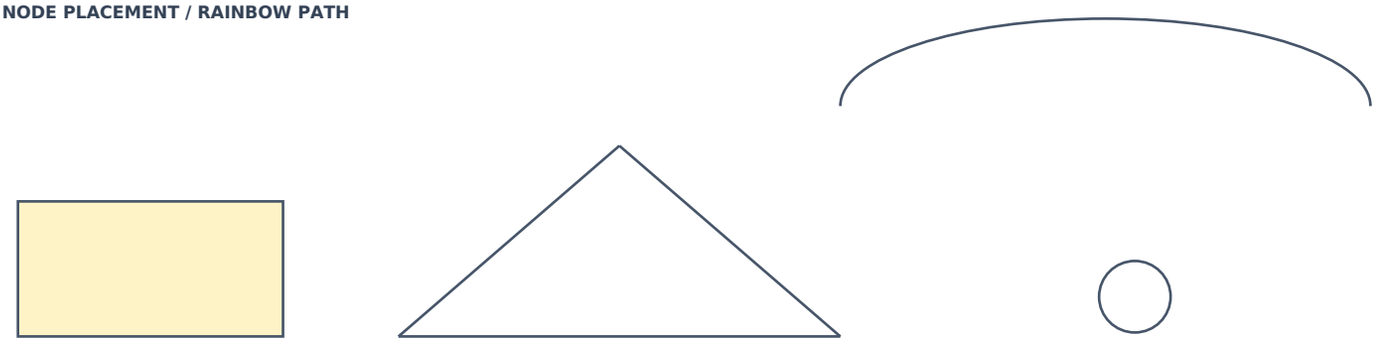
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Capacitor_energy
reference "BP-ALG-018"
state R -> R1
node N1
representation JP(BP-ALG-018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-019: E = 0.5*C*V^2. F-019 means Valid only for evidenced constant capacitance.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-020: E = integral V(q)dq. F-020 means General charge-storage energy.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.General_stored_energy
reference "BP-ALG-019"
state R -> R1
node N1
representation JP(BP-ALG-019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-020: E = integral V(q)dq. F-020 means General charge-storage energy.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-021: r_E = E_in - DeltaE_storage - E_delivered - E_containment - E_loss. F-021 means Energy residual must be inside uncertainty.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

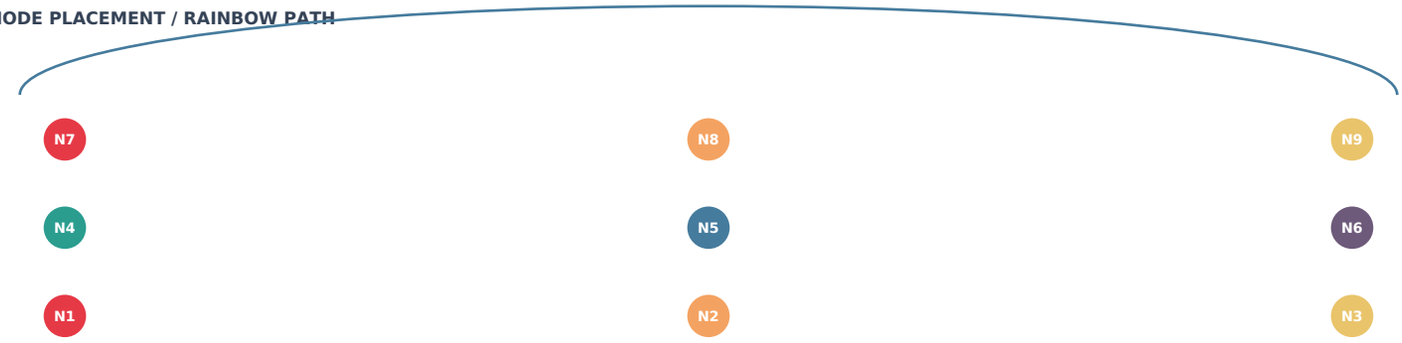
```
module MJ.Rainbow.Energy_balance
reference "BP-ALG-020"
state R -> R1
node N3
representation JP(BP-ALG-020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-021: r_E = E_in - DeltaE_storage - E_delivered - E_containment - E_loss. F-021 means Energy residual must be inside un
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0021 Mass balance / EVE screen balance

official-docs/blue-pages/individual/algorithms/BP-ALG-021_Mass-balance-EVE-screen-balance.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-022: r_M = M_initial + M_inputs - M_final - M_outputs; F-023: M_screen_in = M_captured + M_passed + M_retained + r_screen. F-022 means Physical mass conservation. F-023 means Screen capture never assumes perfect retention.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mass_balance_EVE_screen_bala
reference "BP-ALG-021"
state R -> R1
node N1
representation JP(BP-ALG-021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-022: r_M = M_initial + M_inputs - M_final - M_outputs; F-023: M_screen_in = M_captured + M_passed + M_retained + r_scr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-024: M_evap = integral integral J_m dA dt. F-024 means Evaporative mass from flux across area and time.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

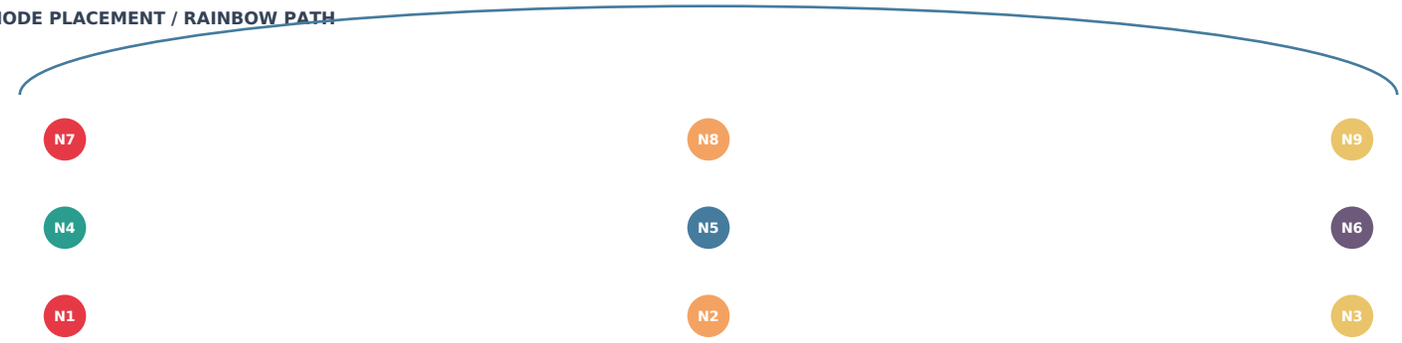
```
module MJ.Rainbow.EVE_evaporation
reference "BP-ALG-022"
state R -> R1
node N1
representation JP(BP-ALG-022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-024: M_evap = integral integral J_m dA dt. F-024 means Evaporative mass from flux across area and time.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0023 Upward force

official-docs/blue-pages/individual/algorithms/BP-ALG-023_Upward-force.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-025: F_z = qE_z + F_b - mg - D_z - F_contact - F_adhesion. F-025 means Upward motion requires positive conservative lower bound.

PATH OF EXPRESSION

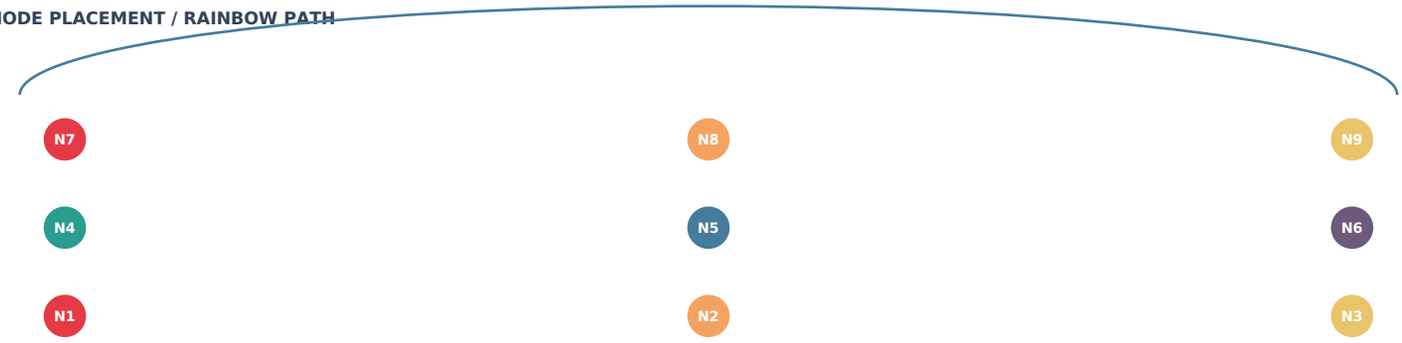
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Upward_force
reference "BP-ALG-023"
state R -> R1
node N1
representation JP(BP-ALG-023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-025: F_z = qE_z + F_b - mg - D_z - F_contact - F_adhesion. F-025 means Upward motion requires positive conservative lo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-026: p_P(x,y,z)=o_P+x*a_P+y*b_P+z*c_P. F-026 means Normalized topology to profile physical coordinates.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Coordinate_mapping
reference "BP-ALG-024"
state R -> R1
node N7
representation JP(BP-ALG-024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-026: p_P(x,y,z)=o_P+x*a_P+y*b_P+z*c_P. F-026 means Normalized topology to profile physical coordinates.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-027: N_U = max_k ceil(E_k/((1-h_k)*C_Uk)). F-027 means Canonical pre-Pearl physical containment count; requires measured profile-specific capacity and headroom.

PATH OF EXPRESSION

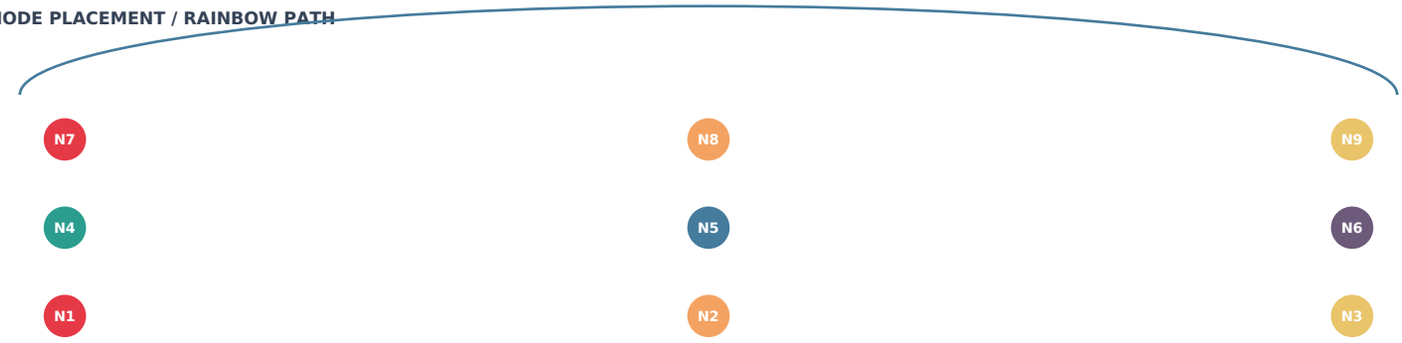
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Sister_physical_umbrella_cou
reference "BP-ALG-025"
state R -> R1
node N1
representation JP(BP-ALG-025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-027: N_U = max_k ceil(E_k/((1-h_k)*C_Uk)). F-027 means Canonical pre-Pearl physical containment count; requires measur
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-028: r_B = B_alloc-B_active-B_released-B_retained-B_exported-B_compacted. F-028 means Discrete memory reconciliation requires zero residual unless transformed.

PATH OF EXPRESSION

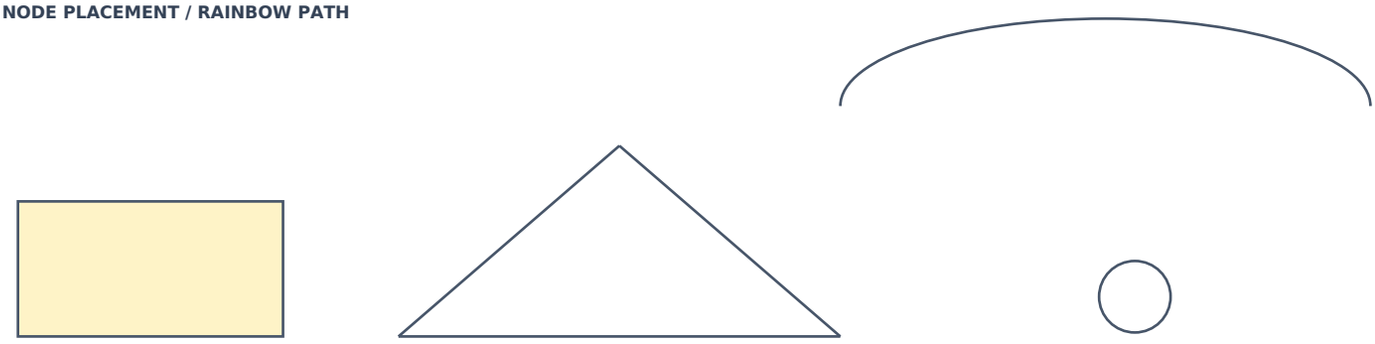
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Byte_balance
reference "BP-ALG-026"
state R -> R1
node N1
representation JP(BP-ALG-026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-028: r_B = B_alloc-B_active-B_released-B_retained-B_exported-B_compacted. F-028 means Discrete memory reconciliation r
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-029: C_B = integral B_residual(t)dt. F-029 means Time-weighted residual memory consequence.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Residual_consequence
reference "BP-ALG-027"
state R -> R1
node N1
representation JP(BP-ALG-027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-029: C_B = integral B_residual(t)dt. F-029 means Time-weighted residual memory consequence.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0028 Protected liquidity

official-docs/blue-pages/individual/algorithms/BP-ALG-028_Protected-liquidity.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-030: L_protected_H = O_near_H+R_emergency_H+R_tax_H+R_fees_H+U_cash_H. F-030 means Liquidity first.

PATH OF EXPRESSION

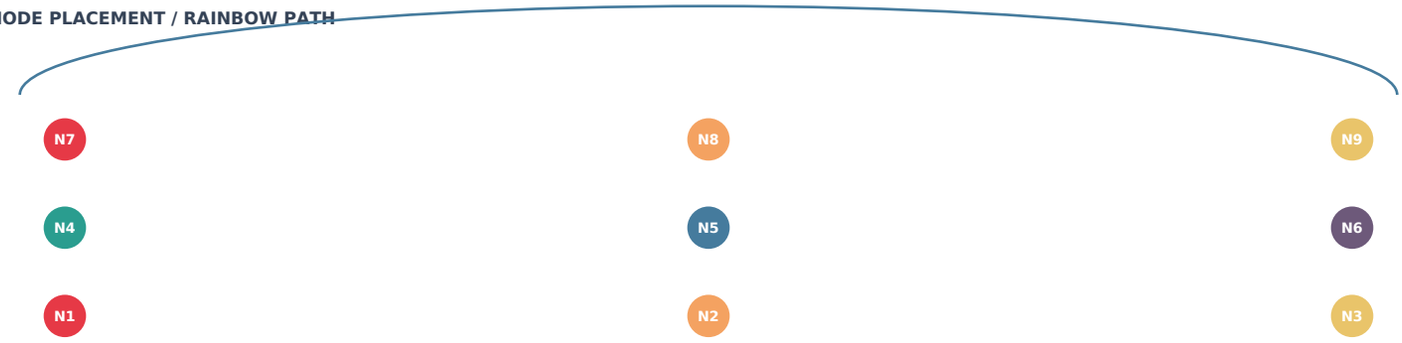
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Protected_liquidity
reference "BP-ALG-028"
state R -> R1
node N2
representation JP(BP-ALG-028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-030: L_protected_H = O_near_H+R_emergency_H+R_tax_H+R_fees_H+U_cash_H. F-030 means Liquidity first.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-031: S_investable_L = max(0,L_available_L-L_protected_H). F-031 means Only surplus may enter risk analysis.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Investable_surplus
reference "BP-ALG-029"
state R -> R1
node N1
representation JP(BP-ALG-029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-031: S_investable_L = max(0,L_available_L-L_protected_H). F-031 means Only surplus may enter risk analysis.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-032: A_risk_max = min(S_investable_L,L_risk,L_product,L_regulatory,L_custody,L_concentration). F-032 means Hard minimum across constraints.

PATH OF EXPRESSION

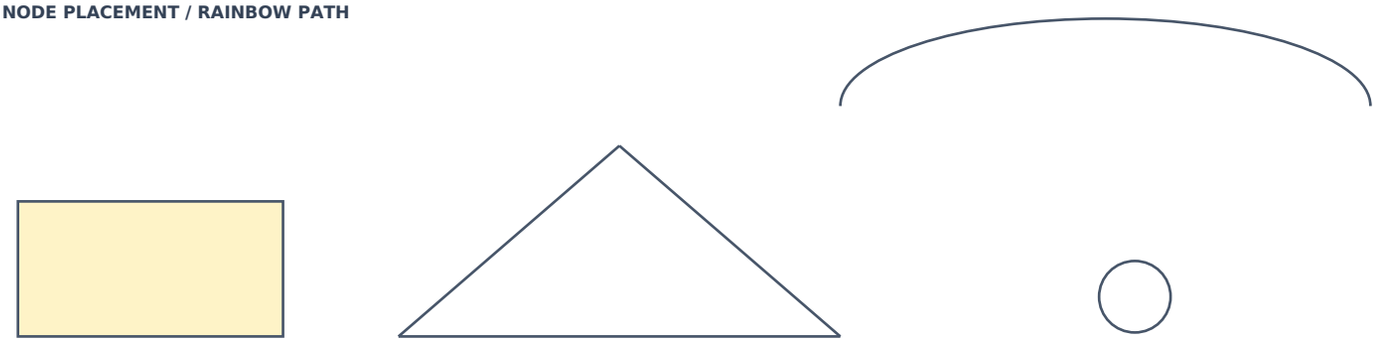
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Risk_capital_ceiling
reference "BP-ALG-030"
state R -> R1
node N1
representation JP(BP-ALG-030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-032: A_risk_max = min(S_investable_L,L_risk,L_product,L_regulatory,L_custody,L_concentration). F-032 means Hard minimu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-033: C_i = abs(V_i_H)/V_portfolio_L. F-033 means Asset concentration.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Portfolio_concentration
reference "BP-ALG-031"
state R -> R1
node N1
representation JP(BP-ALG-031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-033: C_i = abs(V_i_H)/V_portfolio_L. F-033 means Asset concentration.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0032 Portfolio variance

official-docs/blue-pages/individual/algorithms/BP-ALG-032_Portfolio-variance.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-034: sigma_p^2 = w^T Sigma w. F-034 means Portfolio variance with evidenced covariance.

PATH OF EXPRESSION

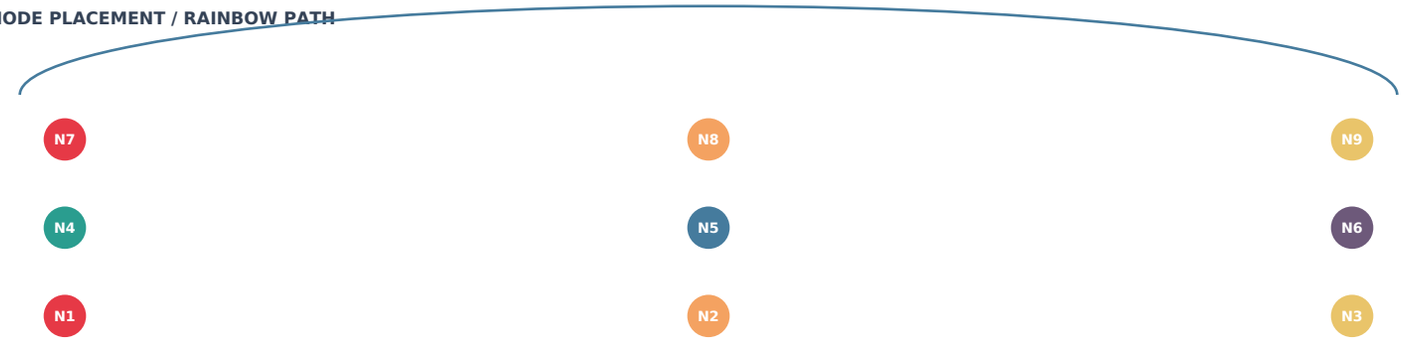
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Portfolio_variance
reference "BP-ALG-032"
state R -> R1
node N6
representation JP(BP-ALG-032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-034: sigma_p^2 = w^T Sigma w. F-034 means Portfolio variance with evidenced covariance.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-035: F_capital_H = fees+spread+slippage+tax+custody+compliance+latency. F-035 means Typed transactional friction.

PATH OF EXPRESSION

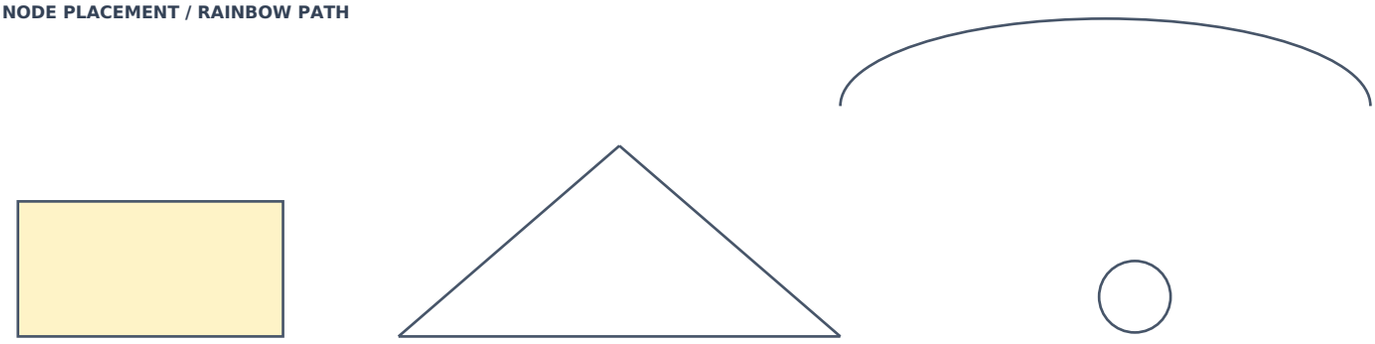
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Capital_friction
reference "BP-ALG-033"
state R -> R1
node N1
representation JP(BP-ALG-033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-035: F_capital_H = fees+spread+slippage+tax+custody+compliance+latency. F-035 means Typed transactional friction.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-036: O_L = Return_L-F_capital_H-RiskPenalty_H-LiquidityPenalty_H-RegulatoryUncertainty_H. F-036 means Conservative opportunity result.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Opportunity_lower_bound
reference "BP-ALG-034"
state R -> R1
node N1
representation JP(BP-ALG-034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-036: O_L = Return_L-F_capital_H-RiskPenalty_H-LiquidityPenalty_H-RegulatoryUncertainty_H. F-036 means Conservative opp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0035 Abundance objective

official-docs/blue-pages/individual/algorithms/BP-ALG-035_Abundance-objective.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-037: A = sum(alpha_i*P_i)-sum(beta_j*N_j). F-037 means Only valid with precommitted weights and compatible scales.

PATH OF EXPRESSION

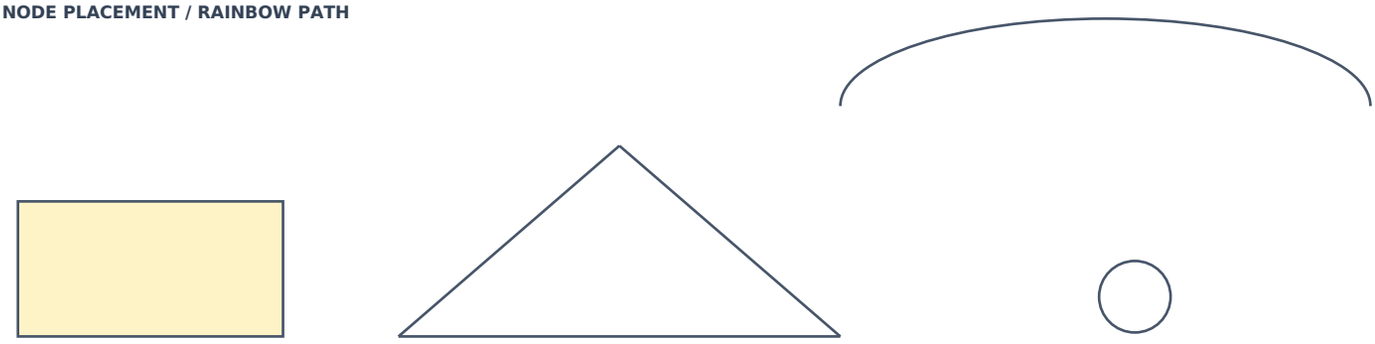
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Abundance_objective
reference "BP-ALG-035"
state R -> R1
node N1
representation JP(BP-ALG-035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-037: A = sum(alpha_i*P_i)-sum(beta_j*N_j). F-037 means Only valid with precommitted weights and compatible scales.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-038: V_eligible_L=max(0,V_verified_L-L_known_H-U_valuation_H). F-038 means Internal valuation lower bound.

PATH OF EXPRESSION

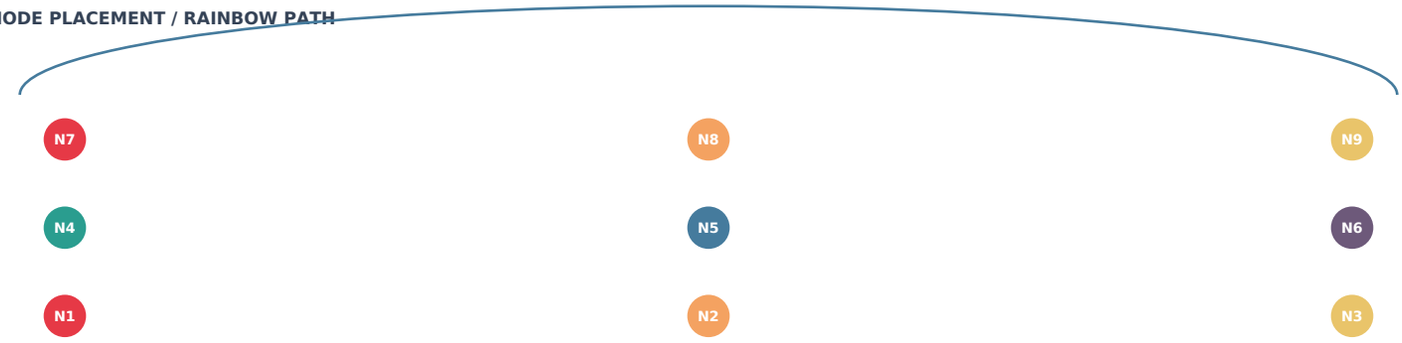
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SHIVAS_eligible_value
reference "BP-ALG-036"
state R -> R1
node N1
representation JP(BP-ALG-036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-038: V_eligible_L=max(0,V_verified_L-L_known_H-U_valuation_H). F-038 means Internal valuation lower bound.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-039: N_max=floor(V_eligible_L/B_unit_H). F-039 means Only when backing, rights, classification, and evidence are known.

PATH OF EXPRESSION

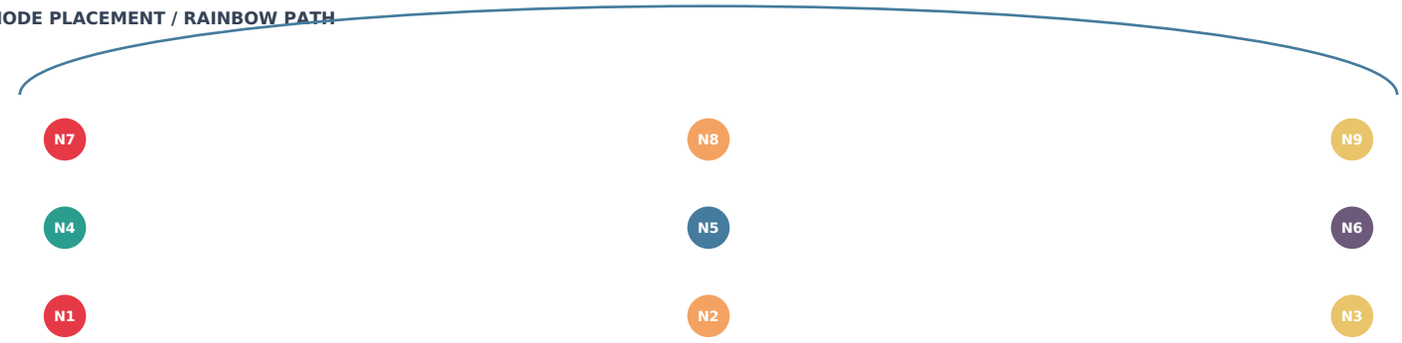
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SHIVAS_ceiling
reference "BP-ALG-037"
state R -> R1
node N1
representation JP(BP-ALG-037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-039: N_max=floor(V_eligible_L/B_unit_H). F-039 means Only when backing, rights, classification, and evidence are known
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-040: x[t+1]=F(x[t],u[t],theta,e[t])+w[t]; y[t]=H(x[t])+v[t]. F-040 means General physics state and observation representation.

PATH OF EXPRESSION

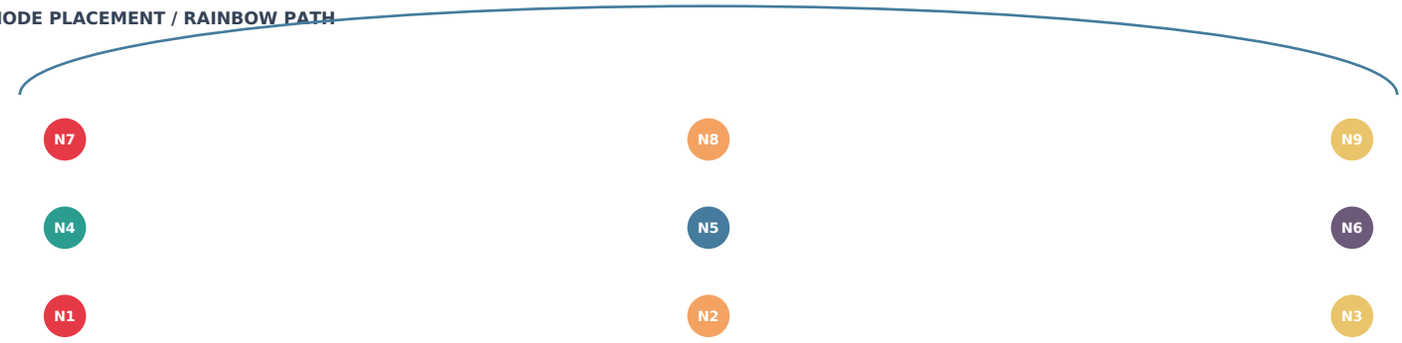
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MK_state_model
reference "BP-ALG-038"
state R -> R1
node N1
representation JP(BP-ALG-038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-040: x[t+1]=F(x[t],u[t],theta,e[t])+w[t]; y[t]=H(x[t])+v[t]. F-040 means General physics state and observation represe
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-041: dim(LHS)=dim(RHS). F-041 means Every physical equality must be dimensionally valid.

PATH OF EXPRESSION

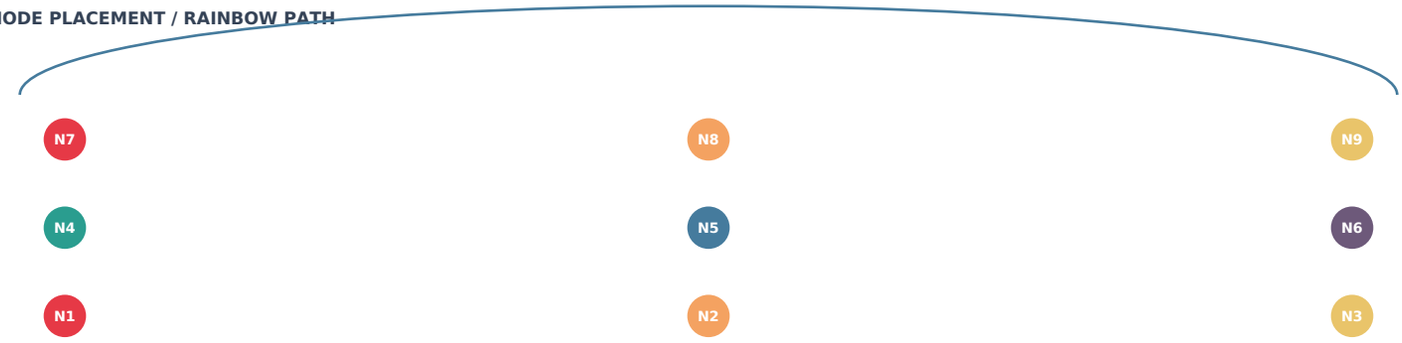
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Dimensional_integrity
reference "BP-ALG-039"
state R -> R1
node N1
representation JP(BP-ALG-039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-041: dim(LHS)=dim(RHS). F-041 means Every physical equality must be dimensionally valid.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalence.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N5; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-042: r_q=q_in-q_out-Deltaq-q_loss. F-042 means Pass only when |r_q|<=U_q.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Conservation_residual
reference "BP-ALG-040"
state R -> R1
node N5
representation JP(BP-ALG-040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-042: r_q=q_in-q_out-Deltaq-q_loss. F-042 means Pass only when |r_q|<=U_q.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-043: V_P=(4/3)*pi*a*b*c. F-043 means Hypothetical pearl-shaped simulation geometry; no physical container or dimension claim.

PATH OF EXPRESSION

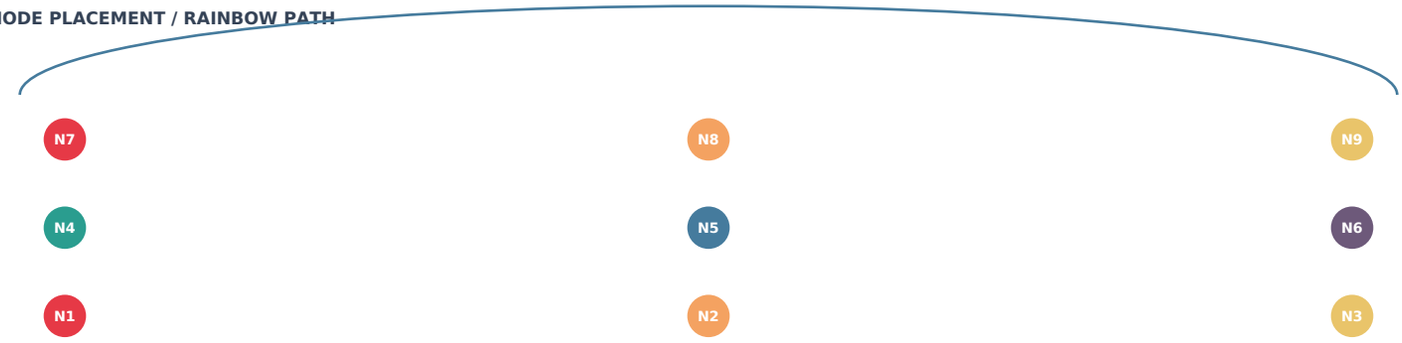
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_ellipsoid_v
reference "BP-ALG-041"
state R -> R1
node N1
representation JP(BP-ALG-041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-043: V_P=(4/3)*pi*a*b*c. F-043 means Hypothetical pearl-shaped simulation geometry; no physical container or dimension
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-044: A_P~=4*pi*((a^p*b^p+a^p*c^p+b^p*c^p)/3)^(1/p), p=1.6075. F-044 means Hypothetical simulation geometry approximation; no physical wall or surface claim.

PATH OF EXPRESSION

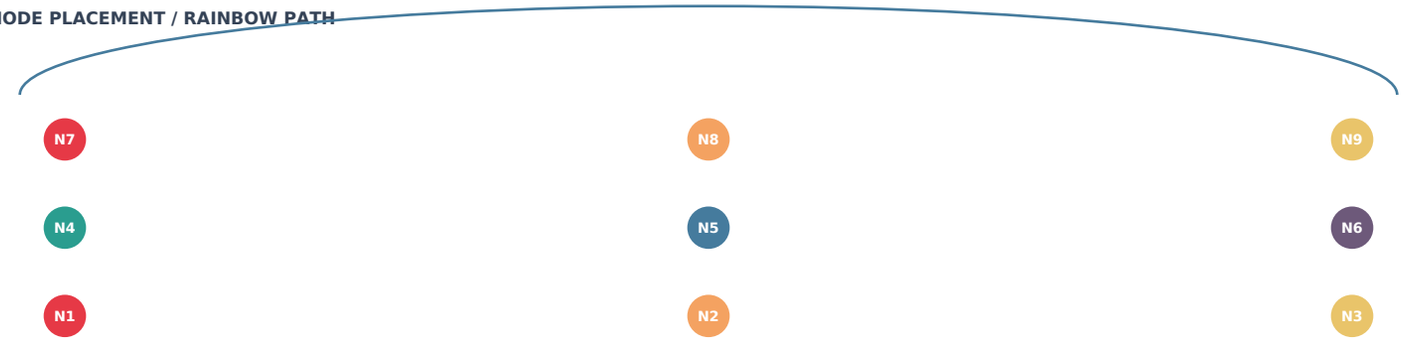
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_surface_are
reference "BP-ALG-042"
state R -> R1
node N1
representation JP(BP-ALG-042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-044: A_P~=4*pi*((a^p*b^p+a^p*c^p+b^p*c^p)/3)^(1/p), p=1.6075. F-044 means Hypothetical simulation geometry approximati
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-045: chi_P=A_P/V_P. F-045 means Simulation comparison metric only; not physical breach or exposure evidence.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_exposure_ra
reference "BP-ALG-043"
state R -> R1
node N1
representation JP(BP-ALG-043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-045: chi_P=A_P/V_P. F-045 means Simulation comparison metric only; not physical breach or exposure evidence.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0044 Pearl simulation capacity slack

official-docs/blue-pages/individual/algorithms/BP-ALG-044_Pearl-simulation-capacity-slack.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-046: S_Pk=(1-h_Pk)*C_Pk-L_Pk. F-046 means Remaining typed simulation/information capacity after declared headroom.

PATH OF EXPRESSION

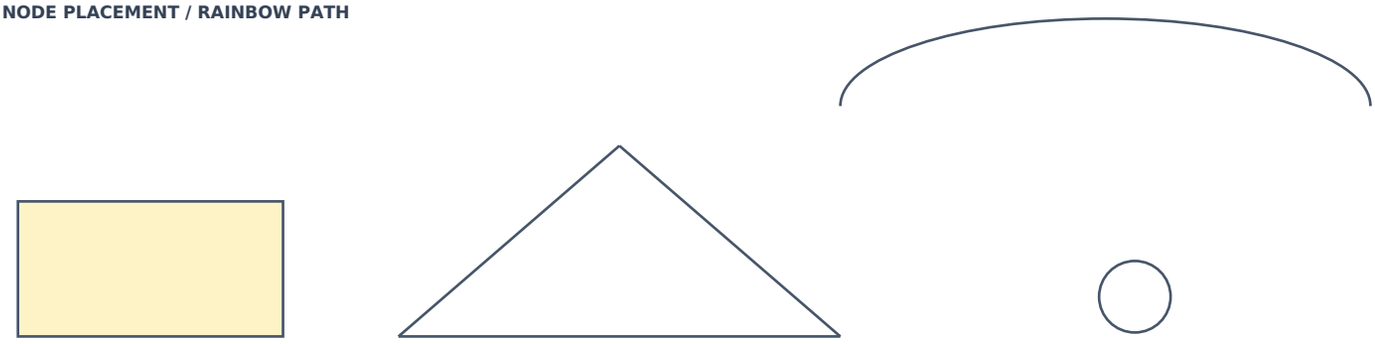
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_capacity_sl
reference "BP-ALG-044"
state R -> R1
node N9
representation JP(BP-ALG-044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-046: S_Pk=(1-h_Pk)*C_Pk-L_Pk. F-046 means Remaining typed simulation/information capacity after declared headroom.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-047: beta_P=max_k(L_Pk/((1-h_Pk)*C_Pk)). F-047 means Simulation saturation condition only; not physical breach resistance.

PATH OF EXPRESSION

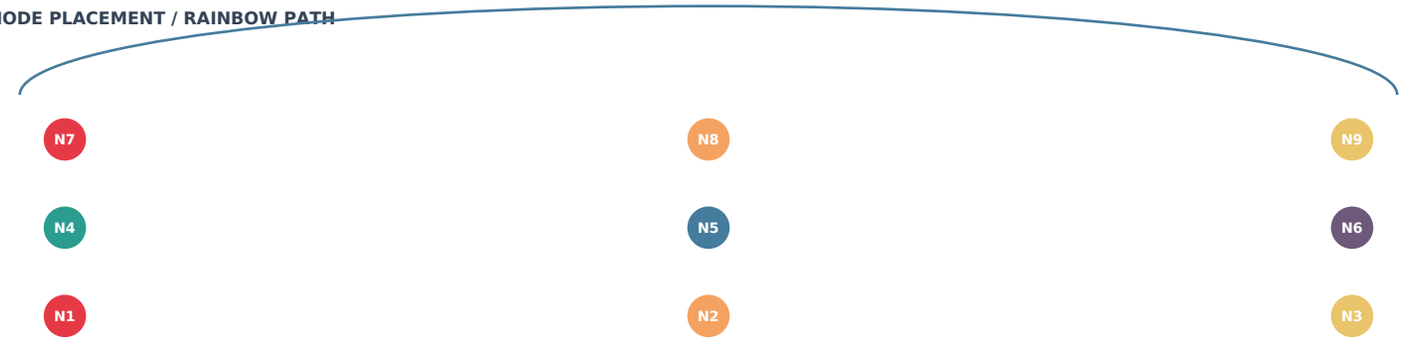
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_saturation_
reference "BP-ALG-045"
state R -> R1
node N1
representation JP(BP-ALG-045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-047: beta_P=max_k(L_Pk/((1-h_Pk)*C_Pk)). F-047 means Simulation saturation condition only; not physical breach resista
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-048: N_P=max_k ceil(E_k/((1-h_Pk)*C_Pk)). F-048 means Number of hypothetical simulation objects needed for declared information/resource dimensions.

PATH OF EXPRESSION

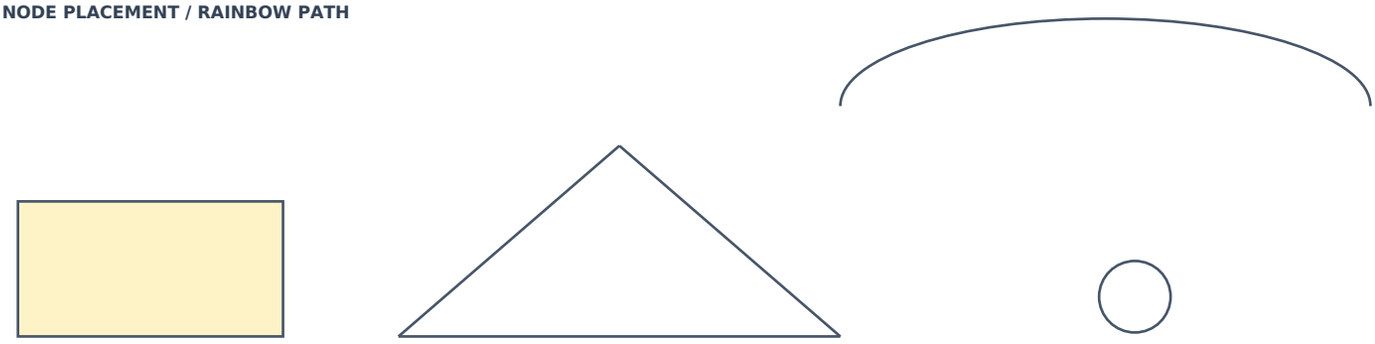
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_object_coun
reference "BP-ALG-046"
state R -> R1
node N1
representation JP(BP-ALG-046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-048: N_P=max_k ceil(E_k/((1-h_Pk)*C_Pk)). F-048 means Number of hypothetical simulation objects needed for declared in
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-049: r_Pk=q_in-q_captured-q_transferred-q_retained-q_escaped-Deltaq_stored. F-049 means Simulation/accounting conservation across retained, transferred, escaped-observation, and stored information.

PATH OF EXPRESSION

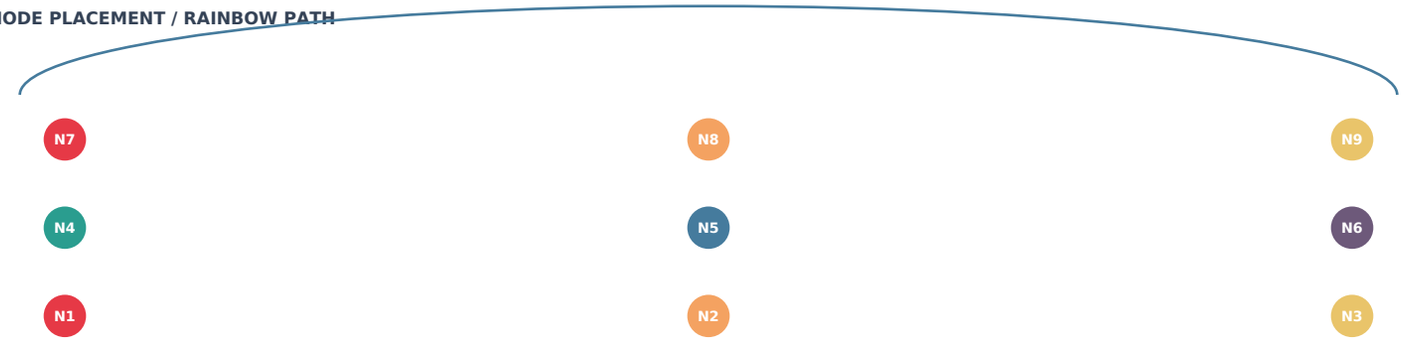
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_accounting_
reference "BP-ALG-047"
state R -> R1
node N1
representation JP(BP-ALG-047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-049: r_Pk=q_in-q_captured-q_transferred-q_retained-q_escaped-Deltaq_stored. F-049 means Simulation/accounting conserva
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-050: T_ij,k=min([S_jk]_+,[Q_ik-Q_reserve_ik]_+,C_route_k). F-050 means Simulated transfer opportunity bounded by declared logical capacities; no physical transfer.

PATH OF EXPRESSION

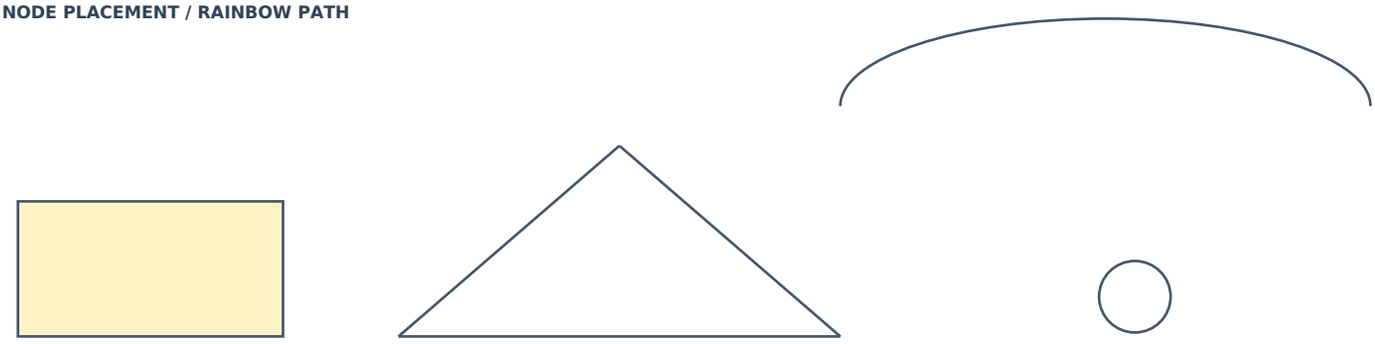
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulated_transfer_opp
reference "BP-ALG-048"
state R -> R1
node N4
representation JP(BP-ALG-048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-050: T_ij,k=min([S_jk]_+,[Q_ik-Q_reserve_ik]_+,C_route_k). F-050 means Simulated transfer opportunity bounded by decla
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-051: G_P=[G_mass,G_energy,G_bytes,G_time,G_capital]. F-051 means Hypothetical opportunity vector; creates no physical or capital value.

PATH OF EXPRESSION

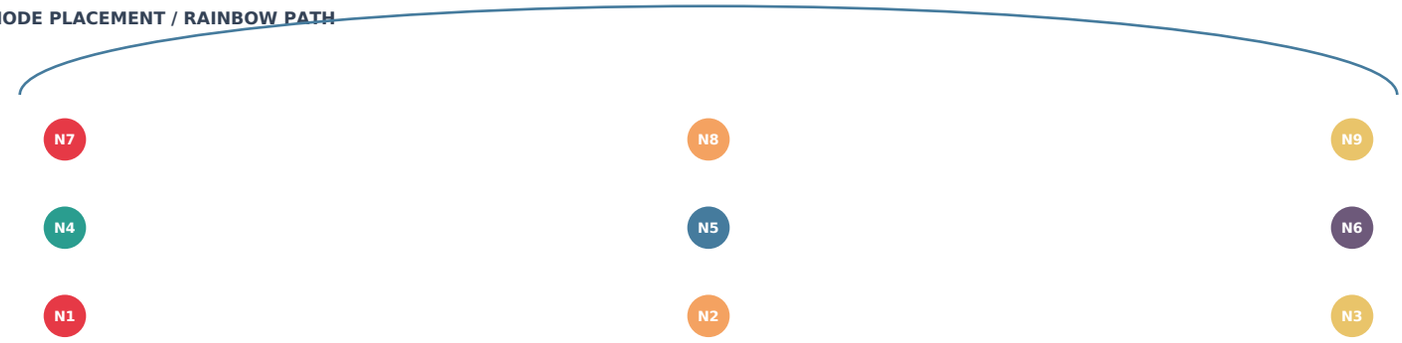
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulated_regeneration
reference "BP-ALG-049"
state R -> R1
node N1
representation JP(BP-ALG-049)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-051: G_P=[G_mass,G_energy,G_bytes,G_time,G_capital]. F-051 means Hypothetical opportunity vector; creates no physical
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-052: lambda_ac=c_medium/f_control. F-052 means Acoustic simulation variable under declared medium assumptions; no cohesion claim.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_acoustic_simulation_wa
reference "BP-ALG-050"
state R -> R1
node N1
representation JP(BP-ALG-050)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-052: lambda_ac=c_medium/f_control. F-052 means Acoustic simulation variable under declared medium assumptions; no cohe
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-053: I_ac=p_rms^2/(rho_medium*c_medium). F-053 means Reference simulation intensity only; no physical actuation claim.

PATH OF EXPRESSION

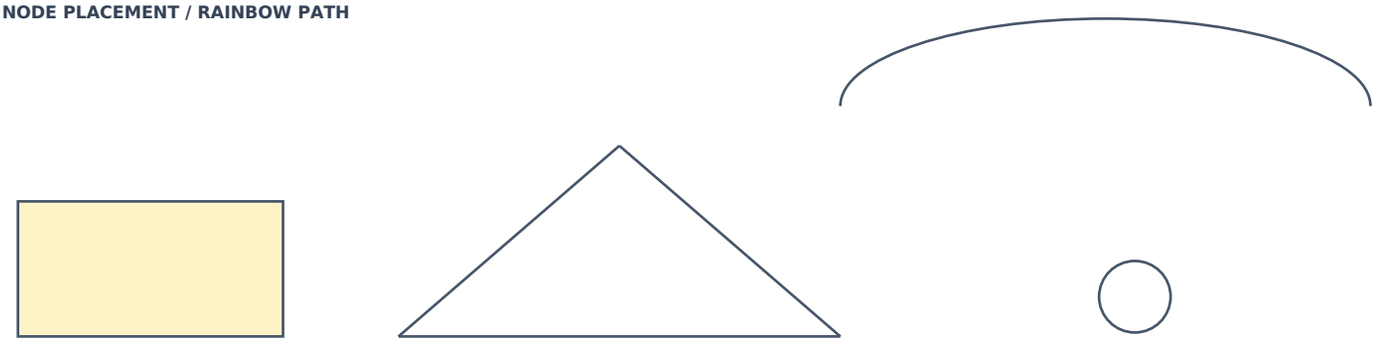
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_acoustic_simulation_in
reference "BP-ALG-051"
state R -> R1
node N1
representation JP(BP-ALG-051)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-053: I_ac=p_rms^2/(rho_medium*c_medium). F-053 means Reference simulation intensity only; no physical actuation claim.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-054: E_ac=integral(I_ac*A_effective)dt. F-054 means Hypothetical energy accounting for a future separately permitted experiment.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_acoustic_simulation_en
reference "BP-ALG-052"
state R -> R1
node N8
representation JP(BP-ALG-052)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-054: E_ac=integral(I_ac*A_effective)dt. F-054 means Hypothetical energy accounting for a future separately permitted e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0053 Pearl acoustic simulation observability gate

official-docs/blue-pages/individual/algorithms/BP-ALG-053_Pearl-acoustic-simulation-observability-gate.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-055: f_sample>=2*gamma*f_control AND f_control in calibrated_band AND SNR_f>=SNR_min. F-055 means Simulation input must be measurable to be accounted for; observability is not actuation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_acoustic_simulation_ob
reference "BP-ALG-053"
state R -> R1
node N1
representation JP(BP-ALG-053)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-055: f_sample>=2*gamma*f_control AND f_control in calibrated_band AND SNR_f>=SNR_min. F-055 means Simulation input mus
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-056: SNR_f=P_signal(f)/P_noise(f). F-056 means Simulation signal-to-noise ratio; advisory and non-authorizing.

PATH OF EXPRESSION

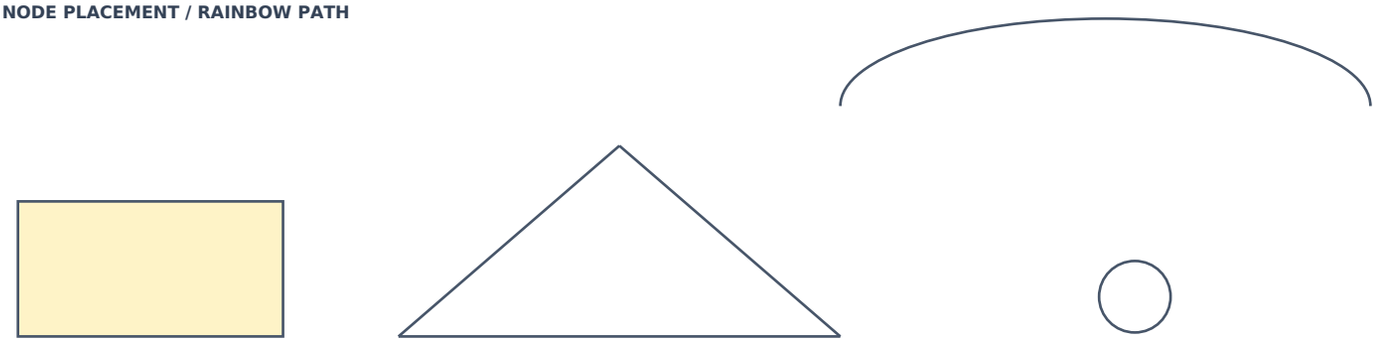
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_acoustic_simulation_si
reference "BP-ALG-054"
state R -> R1
node N1
representation JP(BP-ALG-054)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-056: SNR_f=P_signal(f)/P_noise(f). F-056 means Simulation signal-to-noise ratio; advisory and non-authorizing.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-057: H_P(f)=Y_P(f)/U_P(f). F-057 means Hypothetical or measured-later response mapping; no physical Pearl article exists.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

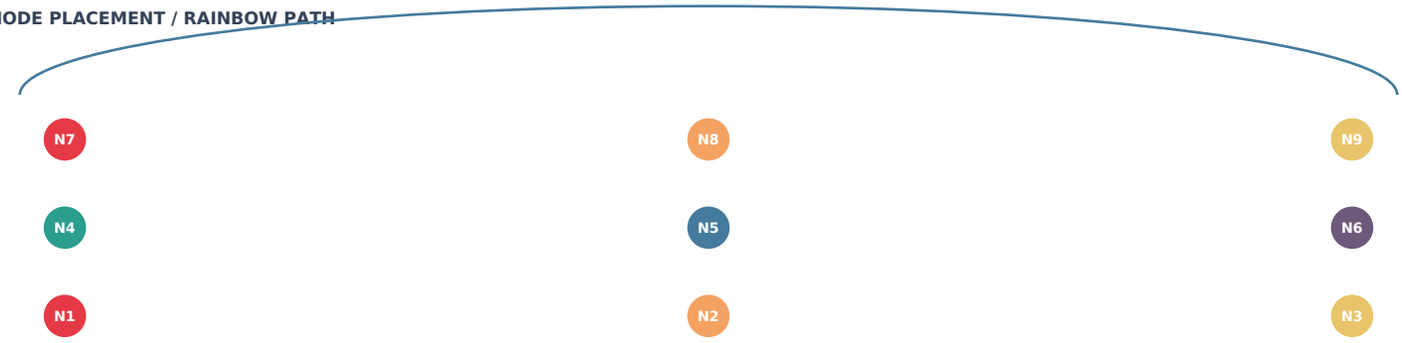
```
module MJ.Rainbow.Pearl_acoustic_simulation_tr
reference "BP-ALG-055"
state R -> R1
node N1
representation JP(BP-ALG-055)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-057: H_P(f)=Y_P(f)/U_P(f). F-057 means Hypothetical or measured-later response mapping; no physical Pearl article exis
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0056 Pearl acoustic simulation setpoint / Bounded Pearl acoustic

official-docs/blue-pages/individual/algorithms/BP-ALG-056_Pearl-acoustic-simulation-setpoint-Bounded-Pearl-acoustic-simulation-adjustment.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N3; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-058: f*=argmin_{f in F_safe}(J_breach+lambda_E*E_ac+lambda_T*T_transfer); F-059: f_next=clip((2/3)f+(1/3)f_target,f-df_max,f+df_max,f_min,f_max). F-058 means Simulation candidate only; no physical control setpoint. F-059 means One-third-damped simulation update only.

PATH OF EXPRESSION

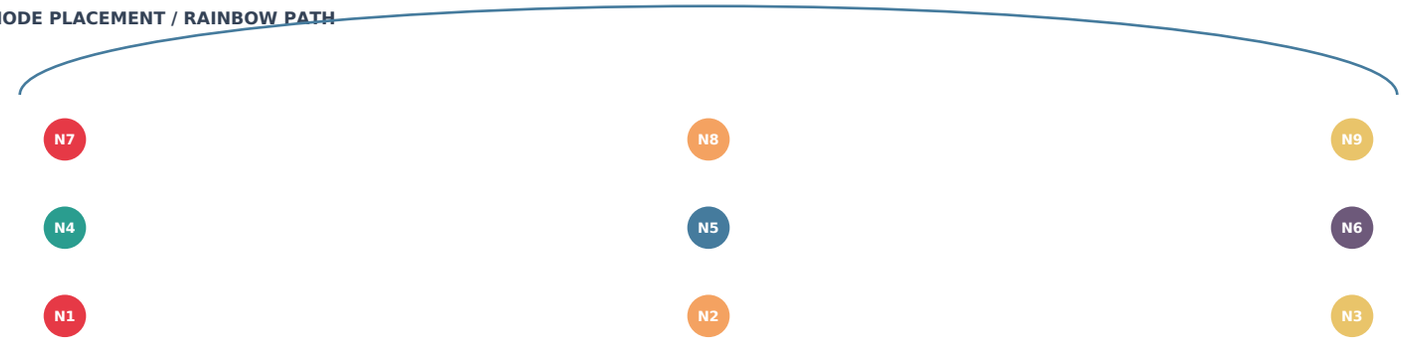
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_acoustic_simulation_se
reference "BP-ALG-056"
state R -> R1
node N3
representation JP(BP-ALG-056)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-058: f*=argmin_{f in F_safe}(J_breach+lambda_E*E_ac+lambda_T*T_transfer); F-059: f_next=clip((2/3)f+(1/3)f_target,f-df
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-060: r_registry=N_allocated+N_received-N_transferred-N_closed-N_active. F-060 means Registry count reconciliation for simulation records, not physical containers.

PATH OF EXPRESSION

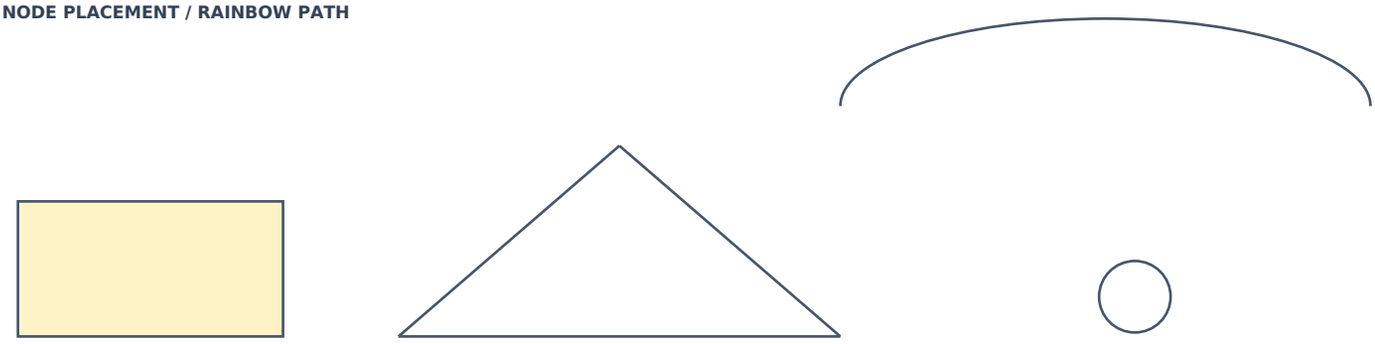
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_registry_re
reference "BP-ALG-057"
state R -> R1
node N1
representation JP(BP-ALG-057)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-060: r_registry=N_allocated+N_received-N_transferred-N_closed-N_active. F-060 means Registry count reconciliation for
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-061: C_ij=<value,unit,uncertainty,formula,revision,lineage,authority,evidence>. F-061 means Every cell is a governed measurement object, not an untyped mutable value.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bangel _Sheet_cell_state
reference "BP-ALG-058"
state R -> R1
node N1
representation JP(BP-ALG-058)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-061: C_ij=<value,unit,uncertainty,formula,revision,lineage,authority,evidence>. F-061 means Every cell is a governed m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-062: A(U)=Reachable_G(U). F-062 means Only cells reachable from changed cells are eligible for incremental recomputation.

PATH OF EXPRESSION

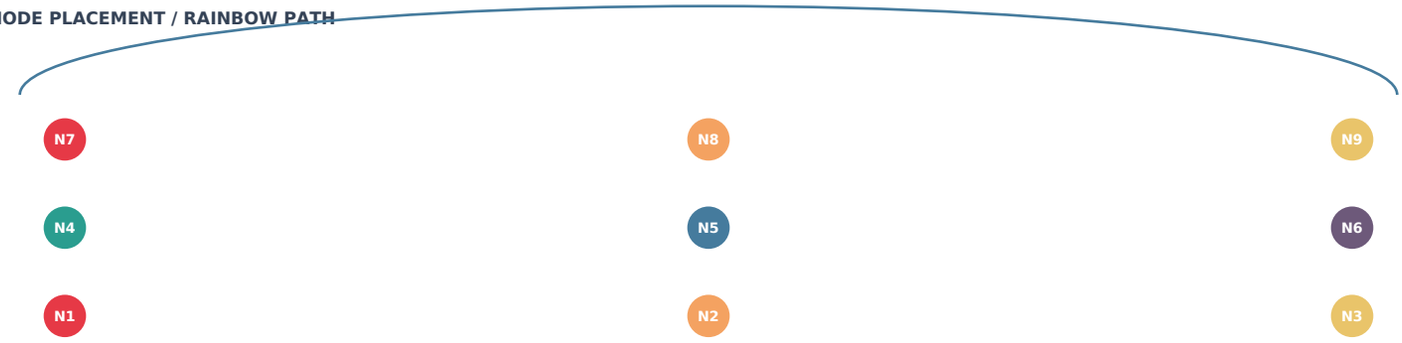
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Affected_dependency_closure
reference "BP-ALG-059"
state R -> R1
node N1
representation JP(BP-ALG-059)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-062: A(U)=Reachable_G(U). F-062 means Only cells reachable from changed cells are eligible for incremental recomputati
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-063: C_recalc=sum_{v in A}c_v+sum_{e in E(A)}t_e. F-063 means Measured compute and transfer work for an affected dependency closure.

PATH OF EXPRESSION

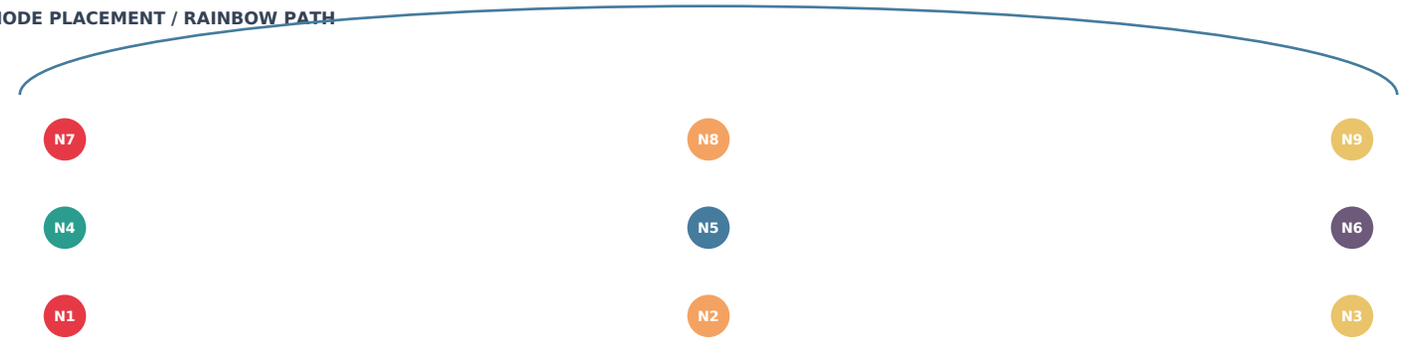
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Incremental_recompute_cost
reference "BP-ALG-060"
state R -> R1
node N7
representation JP(BP-ALG-060)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-063: C_recalc=sum_{v in A}c_v+sum_{e in E(A)}t_e. F-063 means Measured compute and transfer work for an affected depen
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-064: lambda_total=N_users*lambda_user. F-064 means Aggregate update arrival rate from measured concurrent-user activity.

PATH OF EXPRESSION

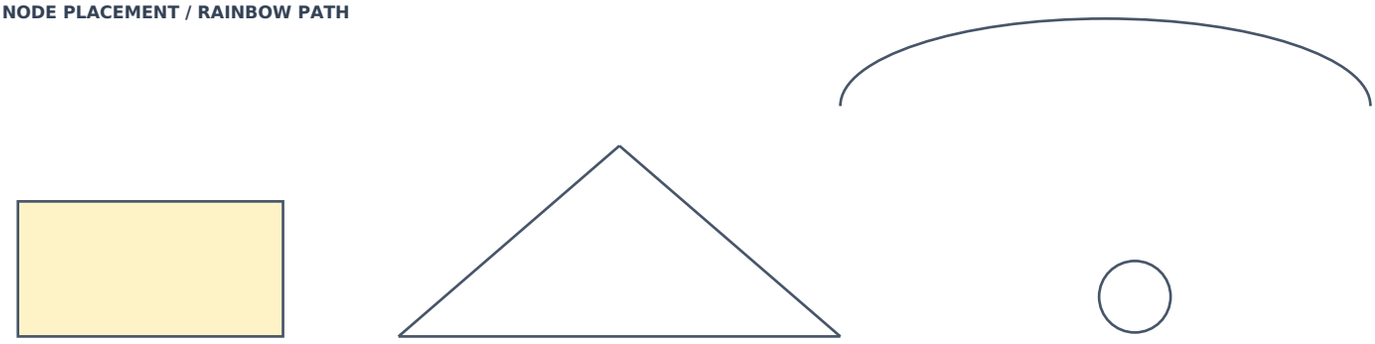
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Concurrent_edit_arrival
reference "BP-ALG-061"
state R -> R1
node N1
representation JP(BP-ALG-061)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-064: lambda_total=N_users*lambda_user. F-064 means Aggregate update arrival rate from measured concurrent-user activit
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-065: rho=lambda_total/(W*mu_worker). F-065 means Capacity utilization for W deterministic workers.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Spreadsheet_service_utilizat
reference "BP-ALG-062"
state R -> R1
node N1
representation JP(BP-ALG-062)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-065: rho=lambda_total/(W*mu_worker). F-065 means Capacity utilization for W deterministic workers.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0063 Spreadsheet worker requirement

official-docs/blue-pages/individual/algorithms/BP-ALG-063_Spreadsheet-worker-requirement.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-066: W_min=ceil(lambda_total/(rho_max*mu_worker)). F-066 means Minimum worker count for a precommitted utilization ceiling.

PATH OF EXPRESSION

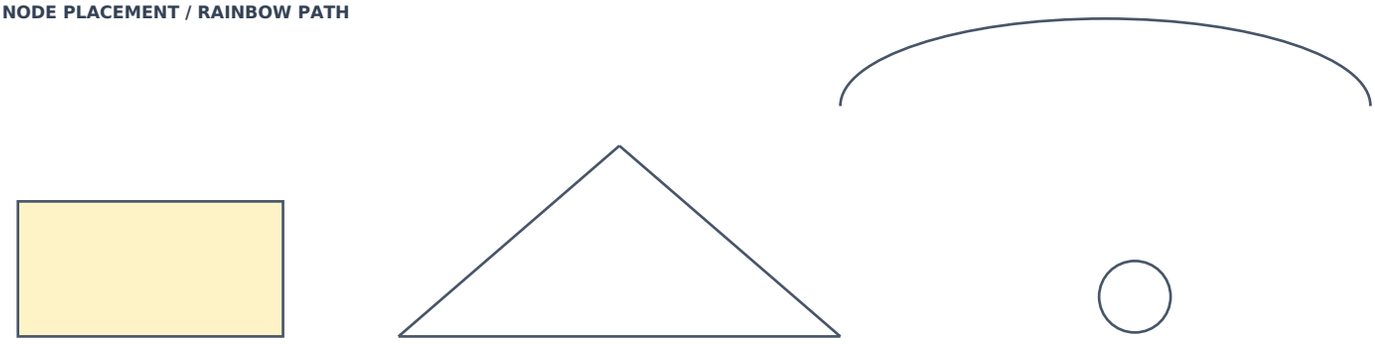
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Spreadsheet_worker_requireme
reference "BP-ALG-063"
state R -> R1
node N1
representation JP(BP-ALG-063)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-066: W_min=ceil(lambda_total/(rho_max*mu_worker)). F-066 means Minimum worker count for a precommitted utilization cei
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-067: T_recalc=T_parse+T_dependency+max_p(T_partition,p)+T_commit. F-067 means End-to-end recalculation latency across logical Pearl simulation partitions.

PATH OF EXPRESSION

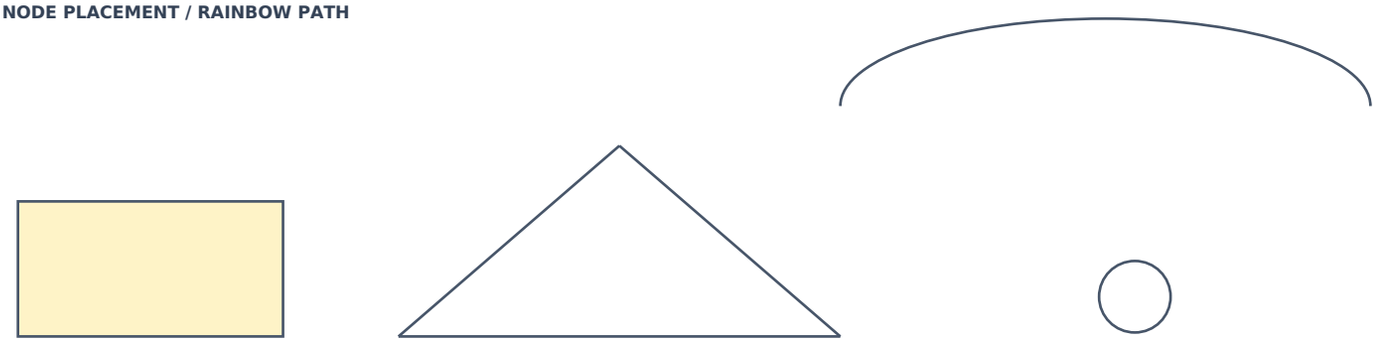
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Recalculation_latency
reference "BP-ALG-064"
state R -> R1
node N2
representation JP(BP-ALG-064)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-067: T_recalc=T_parse+T_dependency+max_p(T_partition,p)+T_commit. F-067 means End-to-end recalculation latency across
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-068: C_data=B_store*c_store+B_transfer*c_transfer+t_cpu*c_cpu. F-068 means Storage, transfer, and compute cost remain separately evidenced before aggregation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Spreadsheet_data_cost
reference "BP-ALG-065"
state R -> R1
node N1
representation JP(BP-ALG-065)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-068: C_data=B_store*c_store+B_transfer*c_transfer+t_cpu*c_cpu. F-068 means Storage, transfer, and compute cost remain
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-069: J_partition=alpha*max_p(L_p)+beta*sum_cut(w_e)+gamma*R_breach+delta*R_stale. F-069 means Logical partition objective with precommitted weights; breach term is simulation risk, not physical containment.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_simulation_partition_o
reference "BP-ALG-066"
state R -> R1
node N1
representation JP(BP-ALG-066)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-069: J_partition=alpha*max_p(L_p)+beta*sum_cut(w_e)+gamma*R_breach+delta*R_stale. F-069 means Logical partition object
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0067 Sheet revision root

official-docs/blue-pages/individual/algorithms/BP-ALG-067_Sheet-revision-root.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-070: H_rev=SHA256(parent_root||canonical_deltas||policy_epoch). F-070 means Every committed change creates immutable content-addressed lineage.

PATH OF EXPRESSION

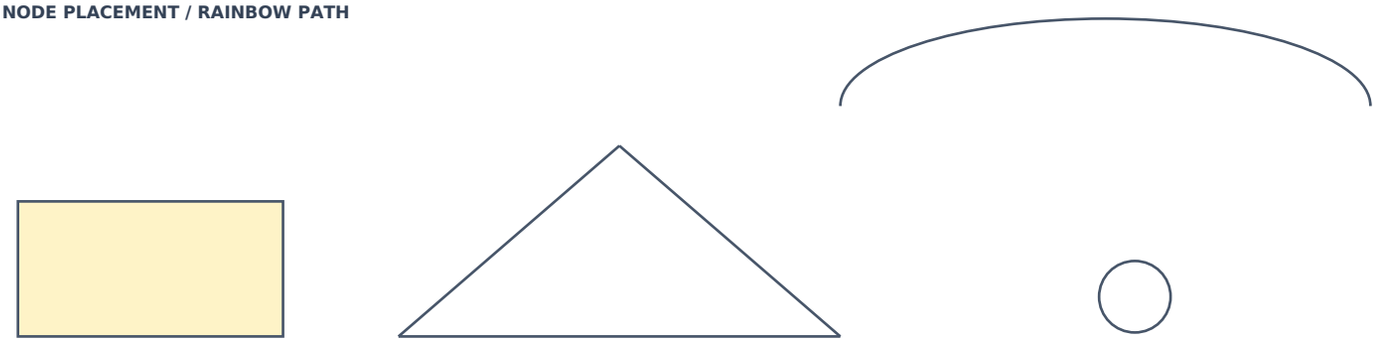
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Sheet_revision_root
reference "BP-ALG-067"
state R -> R1
node N1
representation JP(BP-ALG-067)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-070: H_rev=SHA256(parent_root||canonical_deltas||policy_epoch). F-070 means Every committed change creates immutable c
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-071: AuditPass=AND(required_fields_present,receipts_valid). F-071 means A critical spreadsheet command fails closed when its audit particle is incomplete.

PATH OF EXPRESSION

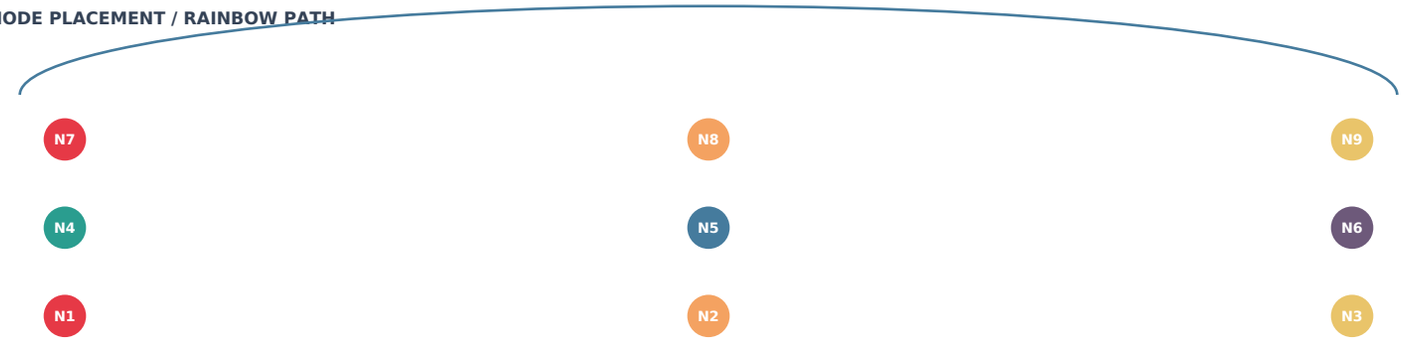
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Audit_particle_completeness
reference "BP-ALG-068"
state R -> R1
node N6
representation JP(BP-ALG-068)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-071: AuditPass=AND(required_fields_present,receipts_valid). F-071 means A critical spreadsheet command fails closed wh
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-072: spectral_radius(J_F)<1. F-072 means Declared iterative formulas require an evidenced locally stable fixed-point regime.

PATH OF EXPRESSION

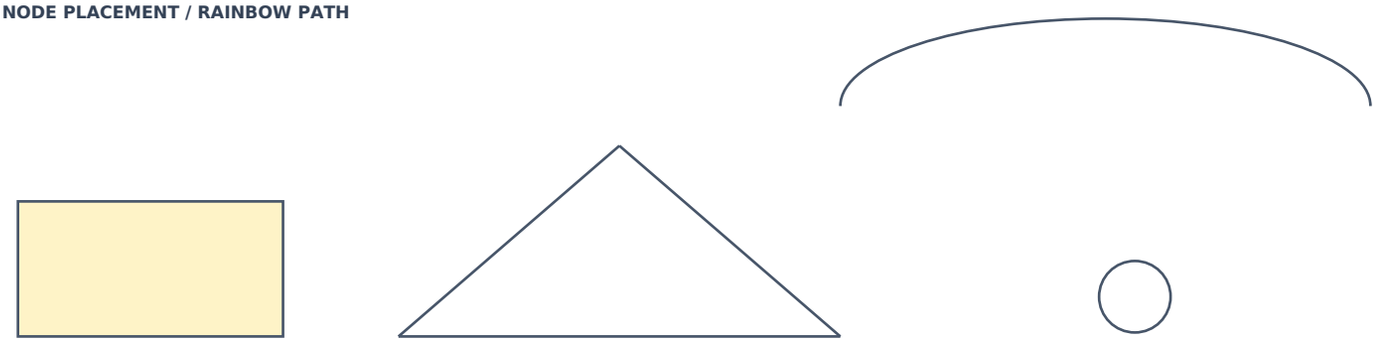
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Iterative_recalculation_stab
reference "BP-ALG-069"
state R -> R1
node N1
representation JP(BP-ALG-069)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-072: spectral_radius(J_F)<1. F-072 means Declared iterative formulas require an evidenced locally stable fixed-point r
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-073: base_revision=head_revision OR valid_merge_receipt. F-073 means Stale writes cannot silently overwrite a newer revision.

PATH OF EXPRESSION

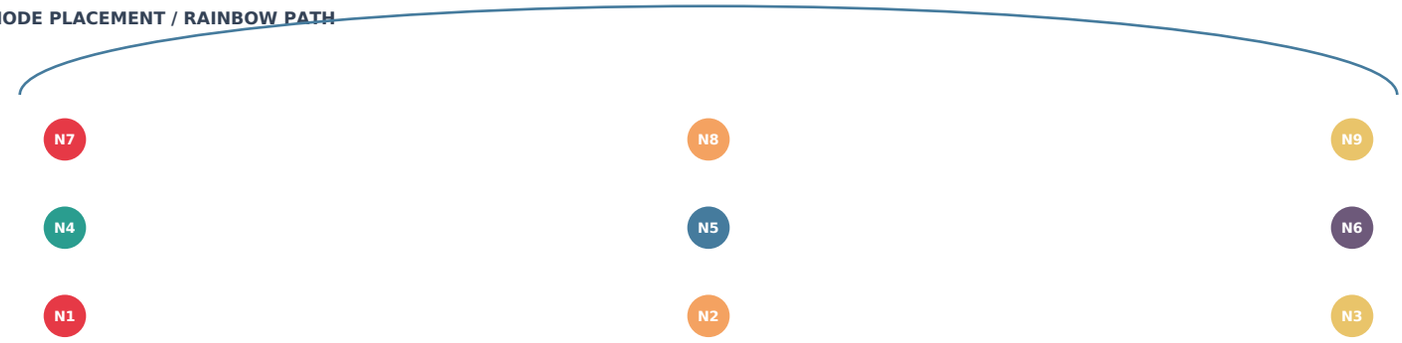
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Revision_conflict_gate
reference "BP-ALG-070"
state R -> R1
node N1
representation JP(BP-ALG-070)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-073: base_revision=head_revision OR valid_merge_receipt. F-073 means Stale writes cannot silently overwrite a newer re
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-074: Age=now-observed_at. F-074 means Age of a source observation or derived cell.

PATH OF EXPRESSION

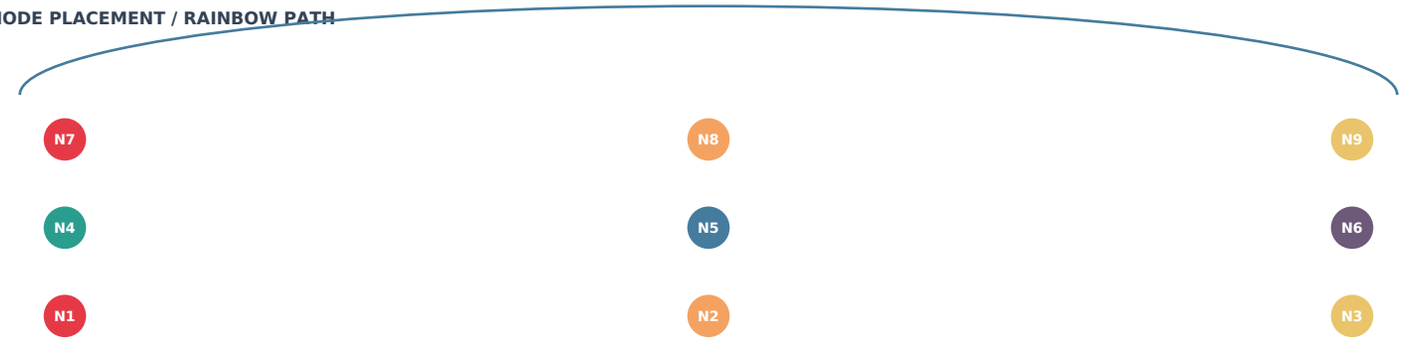
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Freshness_age
reference "BP-ALG-071"
state R -> R1
node N1
representation JP(BP-ALG-071)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-074: Age=now-observed_at. F-074 means Age of a source observation or derived cell.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-075: Age<=freshness_limit. F-075 means A cell is current only inside its declared freshness policy.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Staleness_gate
reference "BP-ALG-072"
state R -> R1
node N1
representation JP(BP-ALG-072)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-075: Age<=freshness_limit. F-075 means A cell is current only inside its declared freshness policy.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-076: r_xy=Cov(X,Y)/(sigma_x*sigma_y). F-076 means Descriptive correlation between data characteristics and performance; not a causal claim.

PATH OF EXPRESSION

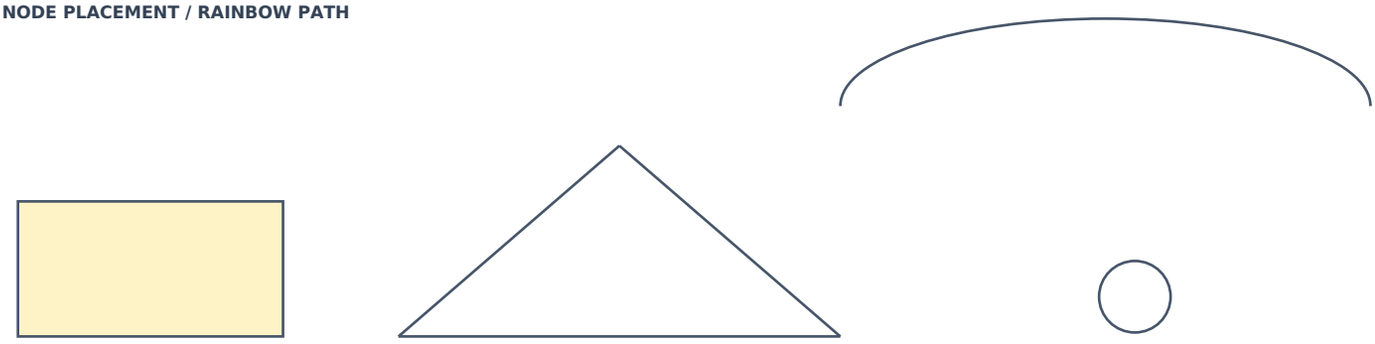
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Data_performance_correlation
reference "BP-ALG-073"
state R -> R1
node N1
representation JP(BP-ALG-073)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-076: r_xy=Cov(X,Y)/(sigma_x*sigma_y). F-076 means Descriptive correlation between data characteristics and performance
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-077: UnifiedMetric=SameMeaning AND SameUnit AND SamePeriod AND SameAuthority AND SameLineage. F-077 means Departmental sources unify only when semantic, unit, period, authority, and lineage conditions agree.

PATH OF EXPRESSION

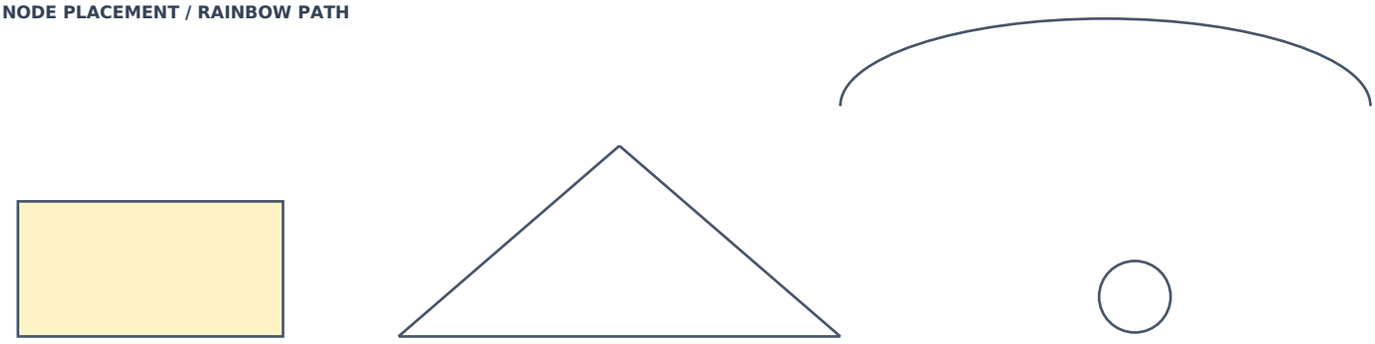
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Silo_unification_gate
reference "BP-ALG-074"
state R -> R1
node N1
representation JP(BP-ALG-074)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-077: UnifiedMetric=SameMeaning AND SameUnit AND SamePeriod AND SameAuthority AND SameLineage. F-077 means Departmental
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-078: r_formula=y_reported-y_recomputed. F-078 means Silent formula corruption is detected by independent deterministic recomputation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

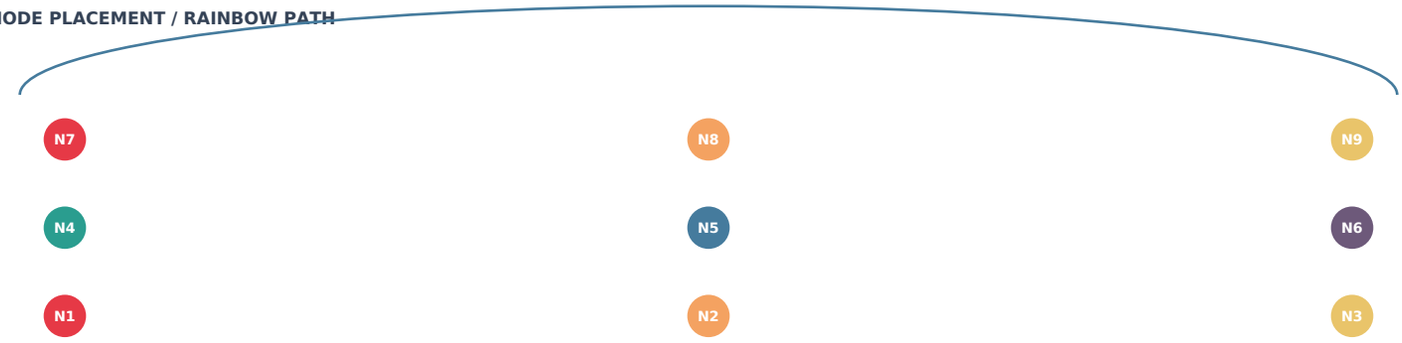
```
module MJ.Rainbow.Formula_verification_residua
reference "BP-ALG-075"
state R -> R1
node N1
representation JP(BP-ALG-075)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-078: r_formula=y_reported-y_recomputed. F-078 means Silent formula corruption is detected by independent deterministic
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0076 Operational intake completeness

official-docs/blue-pages/individual/algorithms/BP-ALG-076_Operational-intake-completeness.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N5; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-079: IntakePass=process_defined AND users_known AND workload_known AND SLA_known AND authority_known. F-079 means Scaling work begins only after the process, concurrency, workload, service target, and authority are explicit.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Operational_intake_completen
reference "BP-ALG-076"
state R -> R1
node N5
representation JP(BP-ALG-076)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-079: IntakePass=process_defined AND users_known AND workload_known AND SLA_known AND authority_known. F-079 means Scal
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0077 Spreadsheet capacity gate

official-docs/blue-pages/individual/algorithms/BP-ALG-077_Spreadsheet-capacity-gate.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-080: lambda_total<=rho_max*sum_p(mu_p) AND memory_required<=memory_available AND cross_partition_edges<=cut_limit. F-080 means Admission requires throughput, memory, and partition-boundary capacity to pass together.

PATH OF EXPRESSION

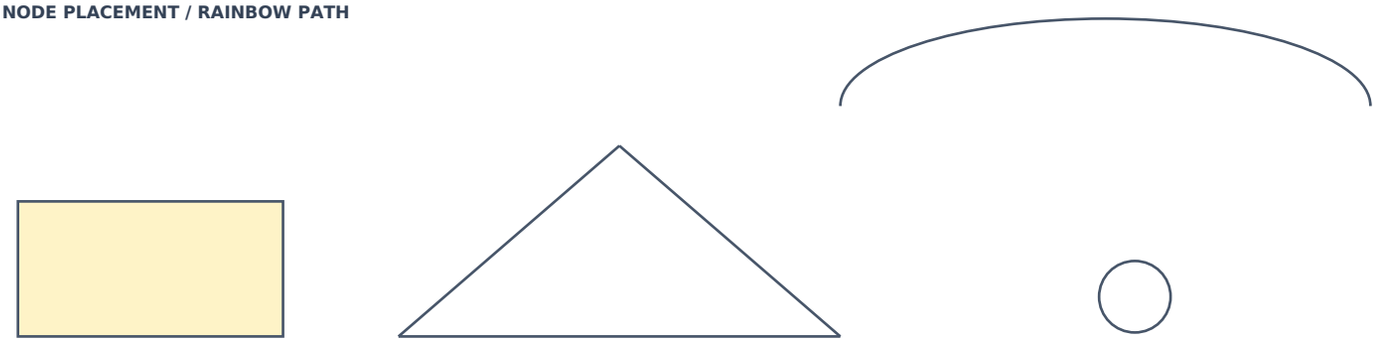
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Spreadsheet_capacity_gate
reference "BP-ALG-077"
state R -> R1
node N1
representation JP(BP-ALG-077)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-080: lambda_total<=rho_max*sum_p(mu_p) AND memory_required<=memory_available AND cross_partition_edges<=cut_limit. F-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-081: H_R=h_noise,1. F-081 means Rectangle maximum height is the first validated noise-detection plane.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.First_noise_rectangle_height
reference "BP-ALG-078"
state R -> R1
node N1
representation JP(BP-ALG-078)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-081: H_R=h_noise,1. F-081 means Rectangle maximum height is the first validated noise-detection plane.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0079 Reference gas density

official-docs/blue-pages/individual/algorithms/BP-ALG-079_Reference-gas-density.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-082: rho_g=P*M/(Z*R*T). F-082 means Actual gas density depends on measured pressure, temperature, molar mass, and compressibility.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Reference_gas_density
reference "BP-ALG-079"
state R -> R1
node N1
representation JP(BP-ALG-079)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-082: rho_g=P*M/(Z*R*T). F-082 means Actual gas density depends on measured pressure, temperature, molar mass, and comp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0080 24 mg reference volume

official-docs/blue-pages/individual/algorithms/BP-ALG-080_24-mg-reference-volume.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-083: V_24=m_24/rho_ref. F-083 means 24 mg defines a reference gas volume under a declared state and does not replace the 23 mg floor.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.24_mg_reference_volume
reference "BP-ALG-080"
state R -> R1
node N9
representation JP(BP-ALG-080)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-083: V_24=m_24/rho_ref. F-083 means 24 mg defines a reference gas volume under a declared state and does not replace t
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0081 Rectangle depth

official-docs/blue-pages/individual/algorithms/BP-ALG-081_Rectangle-depth.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-084: D_R=V_24/(W_R*H_R). F-084 means Reference depth adapts to measured height and declared width.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Rectangle_depth
reference "BP-ALG-081"
state R -> R1
node N1
representation JP(BP-ALG-081)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-084: D_R=V_24/(W_R*H_R). F-084 means Reference depth adapts to measured height and declared width.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

Cone height ratio / Cone top-width ratio

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-085: H_C=k_H*H_R; k_H,std=2; F-086: W_T=k_W*W_B; k_W,std=2. F-085 means Standard cone height is twice rectangle height. F-086 means Standard top characteristic width is twice bottom width.

PATH OF EXPRESSION

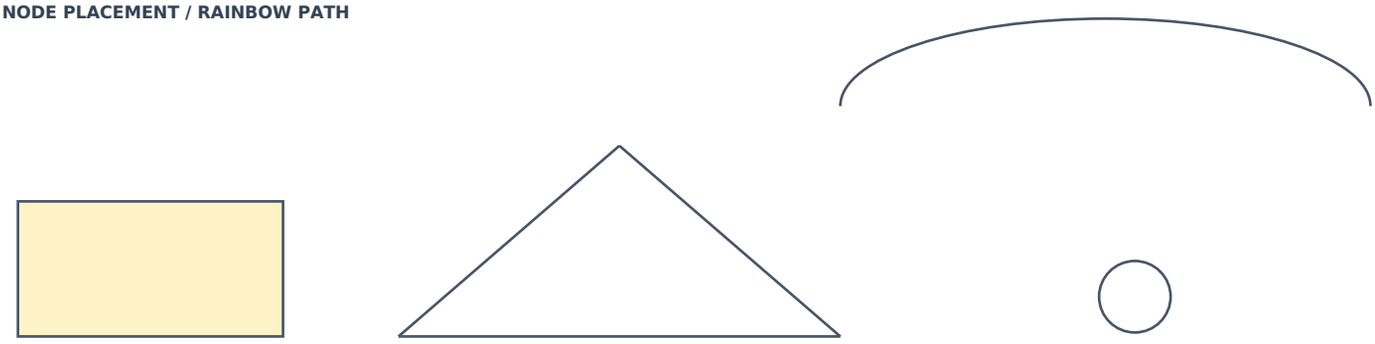
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Cone_height_ratio_Cone_top_w
reference "BP-ALG-082"
state R -> R1
node N1
representation JP(BP-ALG-082)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-085: H_C=k_H*H_R; k_H,std=2; F-086: W_T=k_W*W_B; k_W,std=2. F-085 means Standard cone height is twice rectangle height
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-087: A(z)=A_B*(1+(k_W-1)*z/H_C)^2. F-087 means Similar-section conical expansion area.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

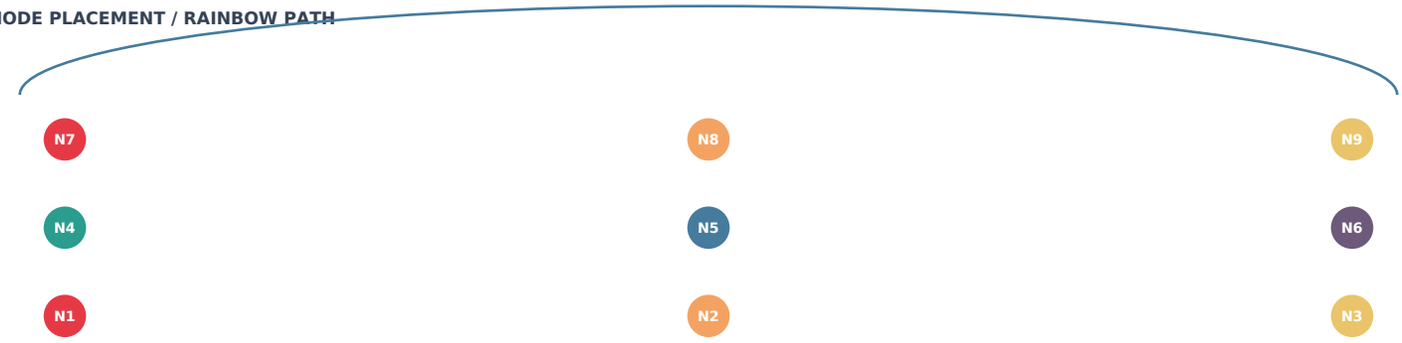
```
module MJ.Rainbow.Cone_area_by_height
reference "BP-ALG-083"
state R -> R1
node N1
representation JP(BP-ALG-083)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-087: A(z)=A_B*(1+(k_W-1)*z/H_C)^2. F-087 means Similar-section conical expansion area.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0084 Cone partial volume

official-docs/blue-pages/individual/algorithms/BP-ALG-084_Cone-partial-volume.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-088: V_C(z)=A_B*(z+(k_W-1)z^2/H_C+(k_W-1)^2*z^3/(3H_C^2)). F-088 means Volume up to observed gas height.

PATH OF EXPRESSION

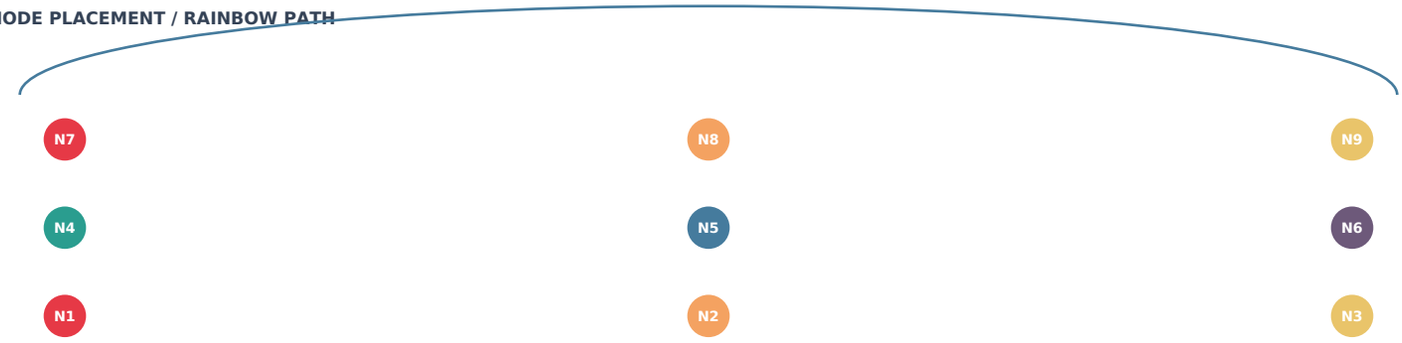
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Cone_partial_volume
reference "BP-ALG-084"
state R -> R1
node N4
representation JP(BP-ALG-084)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-088: V_C(z)=A_B*(z+(k_W-1)z^2/H_C+(k_W-1)^2*z^3/(3H_C^2)). F-088 means Volume up to observed gas height.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-089: V_C=H_C/3*(A_B+sqrt(A_B*A_T)+A_T). F-089 means Full conical expansion volume.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Full_conical_frustum_volume
reference "BP-ALG-085"
state R -> R1
node N1
representation JP(BP-ALG-085)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-089: V_C=H_C/3*(A_B+sqrt(A_B*A_T)+A_T). F-089 means Full conical expansion volume.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0086 Pearl cone-top anchor

official-docs/blue-pages/individual/algorithms/BP-ALG-086_Pearl-cone-top-anchor.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-090: z_P0=H_R+H_C; standard=3H_R. F-090 means Pearl simulation begins at the top-of-cone information plane.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_cone_top_anchor
reference "BP-ALG-086"
state R -> R1
node N1
representation JP(BP-ALG-086)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-090: z_P0=H_R+H_C; standard=3H_R. F-090 means Pearl simulation begins at the top-of-cone information plane.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0087 Observed gas mass

official-docs/blue-pages/individual/algorithms/BP-ALG-087_Observed-gas-mass.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-091: m_g=rho_g*V_C(h_g). F-091 means Gas mass from observed height and state-dependent density.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Observed_gas_mass
reference "BP-ALG-087"
state R -> R1
node N1
representation JP(BP-ALG-087)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-091: m_g=rho_g*V_C(h_g). F-091 means Gas mass from observed height and state-dependent density.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-092: m_dot=rho*A(h_g)*h_dot_g+V_C(h_g)*rho_dot. F-092 means Mass-flow accounting includes density changes.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Gas_mass_flow_from_height
reference "BP-ALG-088"
state R -> R1
node N8
representation JP(BP-ALG-088)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-092: m_dot=rho*A(h_g)*h_dot_g+V_C(h_g)*rho_dot. F-092 means Mass-flow accounting includes density changes.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0089 Observed gas-height predictor

official-docs/blue-pages/individual/algorithms/BP-ALG-089_Observed-gas-height-predictor.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-093: h_hat=clip(h+v*dt+0.5*a*dt^2,0,H_C). F-093 means Bounded prediction of observed gas-front height.

PATH OF EXPRESSION

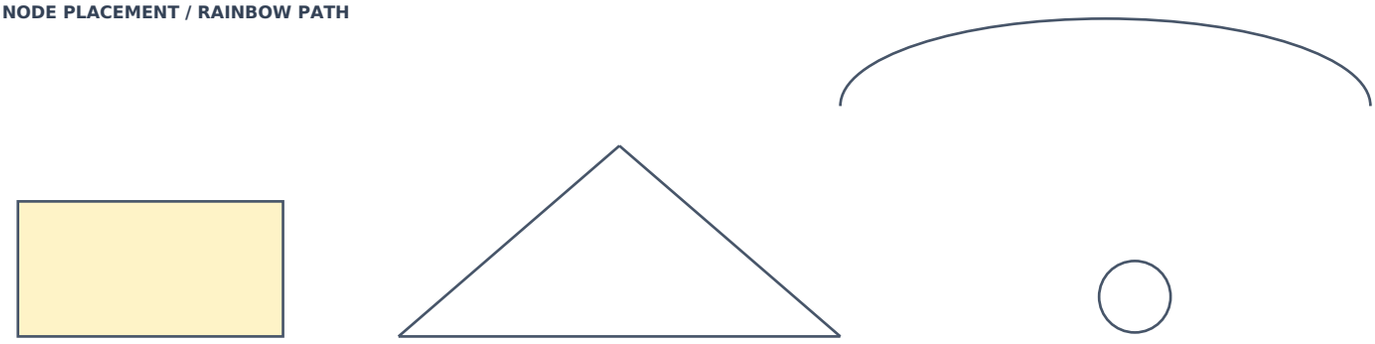
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Observed_gas_height_predicto
reference "BP-ALG-089"
state R -> R1
node N1
representation JP(BP-ALG-089)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-093: h_hat=clip(h+v*dt+0.5*a*dt^2,0,H_C). F-093 means Bounded prediction of observed gas-front height.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-094: m_eff*a_z=F_b+F_p+F_act-F_d-F_wall-F_mix. F-094 means Geometry alone does not guarantee acceleration.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Gas_net_force_balance
reference "BP-ALG-090"
state R -> R1
node N1
representation JP(BP-ALG-090)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-094: m_eff*a_z=F_b+F_p+F_act-F_d-F_wall-F_mix. F-094 means Geometry alone does not guarantee acceleration.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0091 Buoyancy force / Drag force

official-docs/blue-pages/individual/algorithms/BP-ALG-091_Buoyancy-force-Drag-force.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-095: F_b=(rho_ambient-rho_g)*g*V_g; F-096: F_d=0.5*C_d*rho_ambient*A_projected*u*abs(u). F-095 means Reference buoyancy term under declared environment. F-096 means Reference drag term under declared coefficient and flow.

PATH OF EXPRESSION

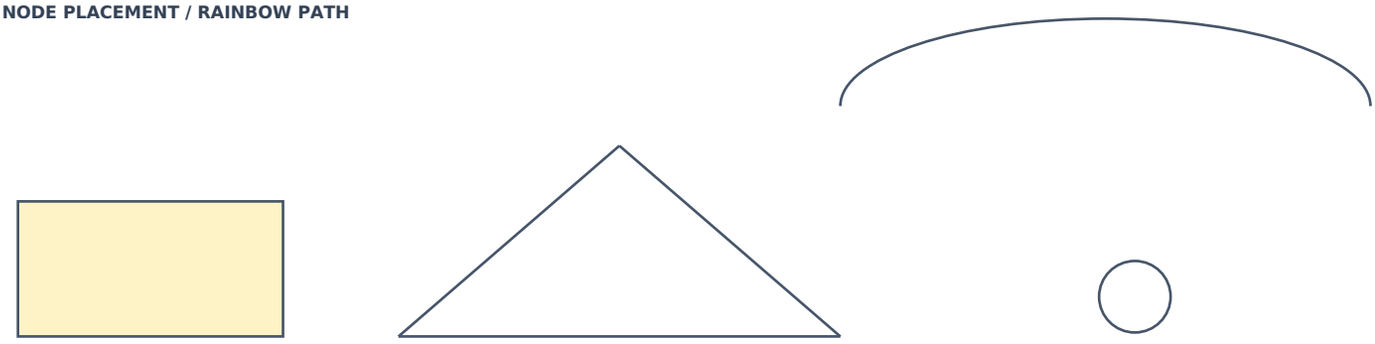
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Buoyancy_force_Drag_force
reference "BP-ALG-091"
state R -> R1
node N1
representation JP(BP-ALG-091)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-095: F_b=(rho_ambient-rho_g)*g*V_g; F-096: F_d=0.5*C_d*rho_ambient*A_projected*u*abs(u). F-095 means Reference buoyanc
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-097: Q=A(z)*u(z). F-097 means For fixed flow, increasing area does not itself accelerate the gas.

PATH OF EXPRESSION

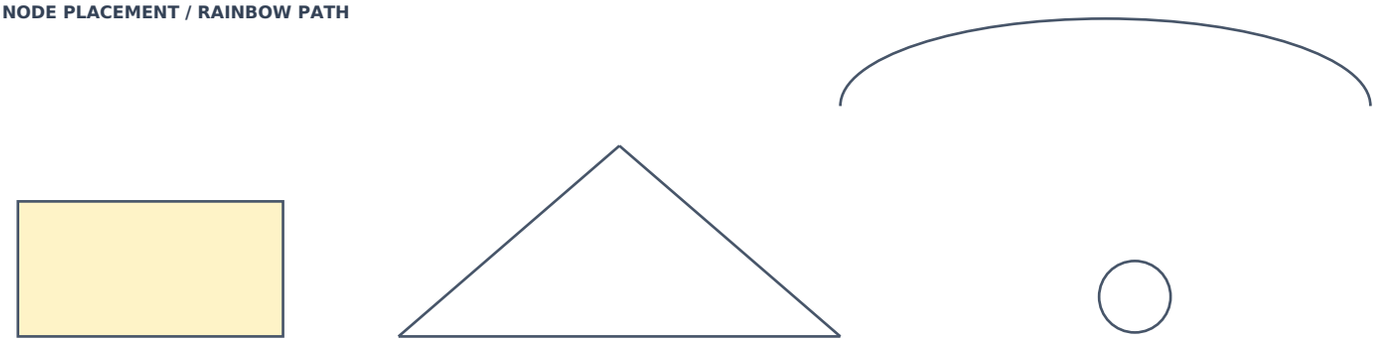
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Flow_continuity
reference "BP-ALG-092"
state R -> R1
node N3
representation JP(BP-ALG-092)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-097: Q=A(z)*u(z). F-097 means For fixed flow, increasing area does not itself accelerate the gas.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-098: C_res,k=gamma_k*C_rect,k; 0<=gamma_k<1. F-098 means Residual reservoir remains smaller than rectangle reference capacity.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Residual_reservoir_capacity
reference "BP-ALG-093"
state R -> R1
node N1
representation JP(BP-ALG-093)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-098: C_res,k=gamma_k*C_rect,k; 0<=gamma_k<1. F-098 means Residual reservoir remains smaller than rectangle reference c
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0094 Umbrella/EVE/reservoir balance

official-docs/blue-pages/individual/algorithms/BP-ALG-094_UmbrellaEVEreservoir-balance.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-099: q_cone=q_down+q_EVE+q_res+q_escape+r. F-099 means Downward redistribution, EVE evidence, reservoir admission, and escape are separately accounted.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

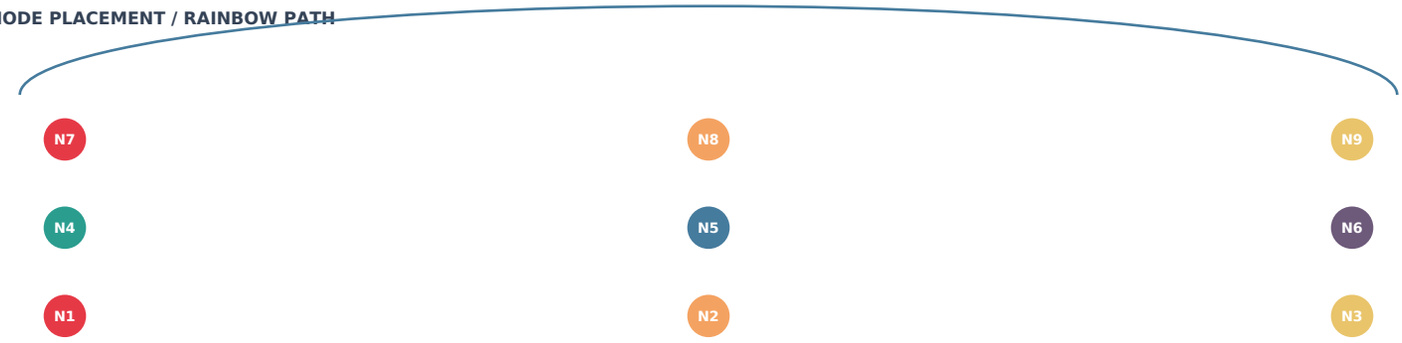
```
module MJ.Rainbow.Umbrella_EVE_reservoir_balan
reference "BP-ALG-094"
state R -> R1
node N1
representation JP(BP-ALG-094)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-099: q_cone=q_down+q_EVE+q_res+q_escape+r. F-099 means Downward redistribution, EVE evidence, reservoir admission, and
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0095 Containment modification predicate

official-docs/blue-pages/individual/algorithms/BP-ALG-095_Containment-modification-predicate.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-100: Valid(theta)=typed&positive&recomputed&conserved&bounded&evidenced&MK&JO&MJ. F-100 means Size changes preserve core logic but require full recalculation and gates.

PATH OF EXPRESSION

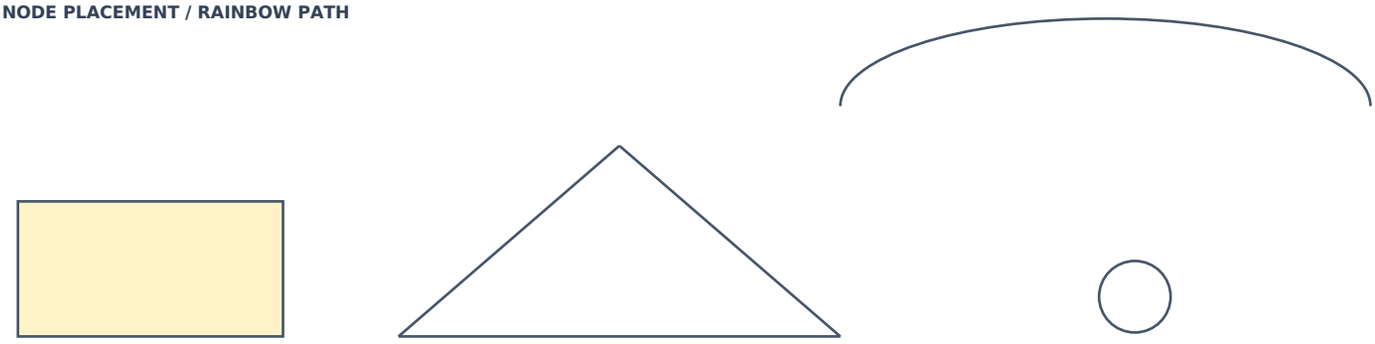
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Containment_modification_pre
reference "BP-ALG-095"
state R -> R1
node N1
representation JP(BP-ALG-095)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-100: Valid(theta)=typed&positive&recomputed&conserved&bounded&evidenced&MK&JO&MJ. F-100 means Size changes preserve co
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-101: z_out=H_P-delta_z; 0<delta_z<H_P. F-101 means Outlet is below the containment maximum height.

PATH OF EXPRESSION

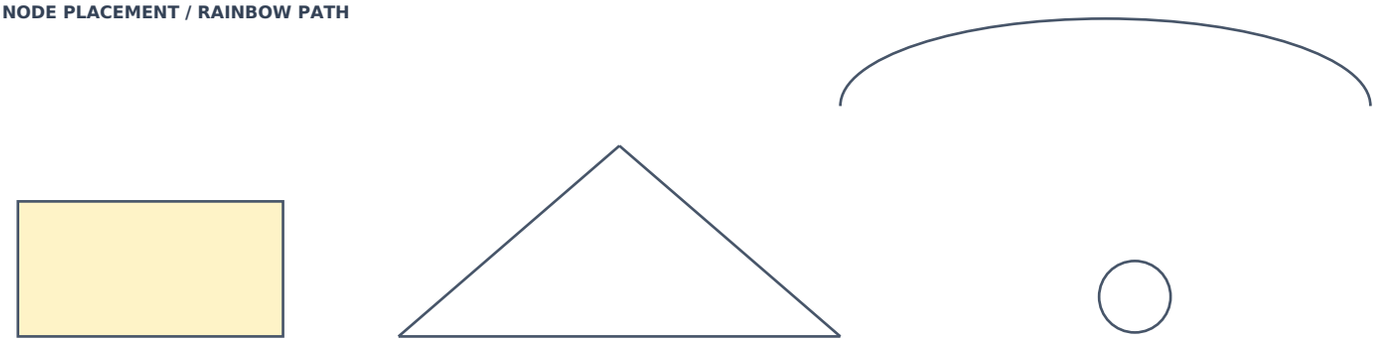
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Rear_outlet_elevation
reference "BP-ALG-096"
state R -> R1
node N7
representation JP(BP-ALG-096)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-101: z_out=H_P-delta_z; 0<delta_z<H_P. F-101 means Outlet is below the containment maximum height.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-102: R_P,sim=R_top+c_P; c_P>=0. F-102 means Nonphysical reference circle plus declared clearance.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

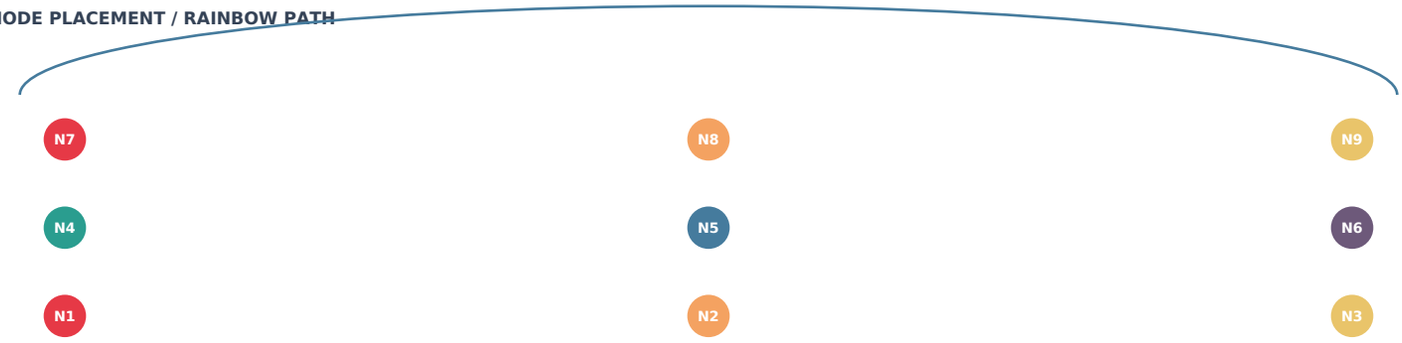
```
module MJ.Rainbow.Pearl_simulation_exclusion_r
reference "BP-ALG-097"
state R -> R1
node N1
representation JP(BP-ALG-097)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-102: R_P,sim=R_top+c_P; c_P>=0. F-102 means Nonphysical reference circle plus declared clearance.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0098 Outward-tangential outlet direction

official-docs/blue-pages/individual/algorithms/BP-ALG-098_Outward-tangential-outlet-direction.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-103: d_out=cos(alpha_out)t+sin(alpha_out)n_out; 0<alpha_out<pi/2. F-103 means Slight positive outward cant from the local tangent.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

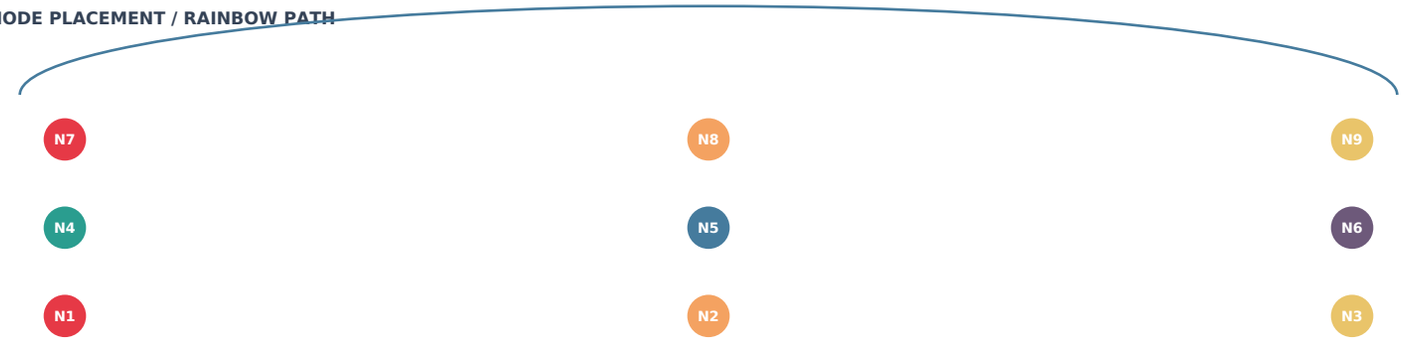
```
module MJ.Rainbow.Outward_tangential_outlet_di
reference "BP-ALG-098"
state R -> R1
node N1
representation JP(BP-ALG-098)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-103: d_out=cos(alpha_out)t+sin(alpha_out)n_out; 0<alpha_out<pi/2. F-103 means Slight positive outward cant from the lo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0099 Outside-circle outlet path

official-docs/blue-pages/individual/algorithms/BP-ALG-099_Outside-circle-outlet-path.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-104: ||gamma(s)-c_P||^2=R_P^2+2R_P*s*sin(alpha_out)+s^2. F-104 means Path remains outside the Pearl simulation circle for s>0.

PATH OF EXPRESSION

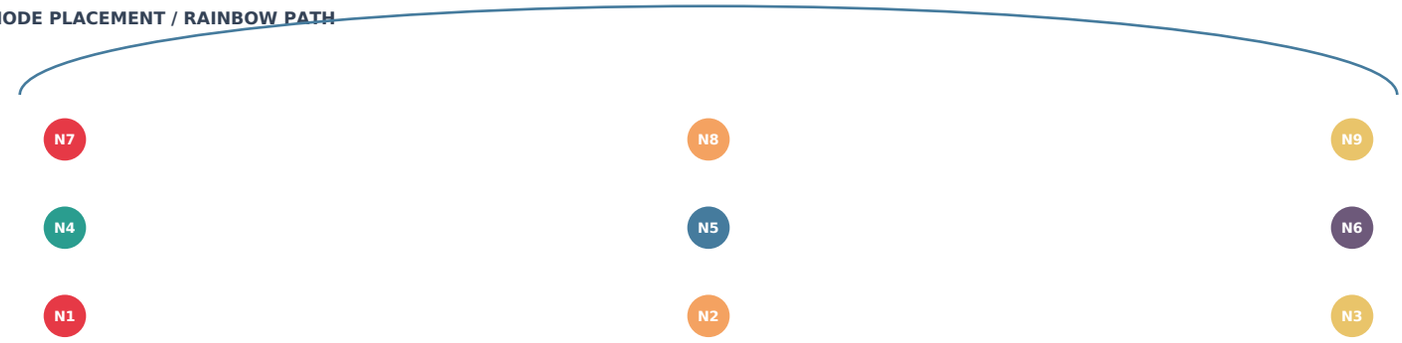
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Outside_circle_outlet_path
reference "BP-ALG-099"
state R -> R1
node N1
representation JP(BP-ALG-099)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-104: ||gamma(s)-c_P||^2=R_P^2+2R_P*s*sin(alpha_out)+s^2. F-104 means Path remains outside the Pearl simulation circle
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N2; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-105: dV_L/dt=Q_out-Q_return-Q_drain-Q_escape. F-105 means Connected lake-like buffer control-volume balance.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

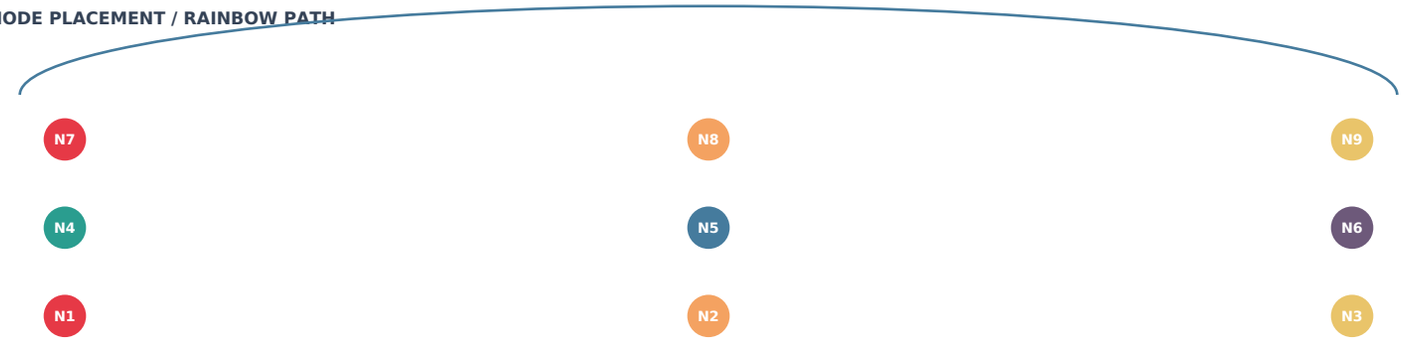
```
module MJ.Rainbow.Reservoir_volume_balance
reference "BP-ALG-100"
state R -> R1
node N2
representation JP(BP-ALG-100)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-105: dV_L/dt=Q_out-Q_return-Q_drain-Q_escape. F-105 means Connected lake-like buffer control-volume balance.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0101 Typed reservoir quantity balance

official-docs/blue-pages/individual/algorithms/BP-ALG-101_Typed-reservoir-quantity-balance.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-106: dq_L,k/dt=q_out,k-q_return,k-q_drain,k-q_escape,k. F-106 means Per-dimension balance prevents cross-unit collapse.

PATH OF EXPRESSION

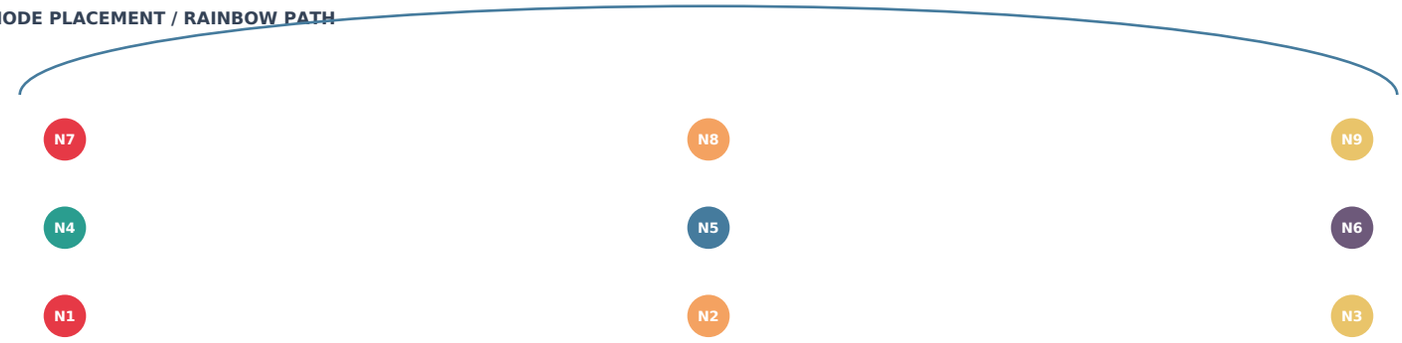
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Typed_reservoir_quantity_bal
reference "BP-ALG-101"
state R -> R1
node N1
representation JP(BP-ALG-101)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-106: dq_L,k/dt=q_out,k-q_return,k-q_drain,k-q_escape,k. F-106 means Per-dimension balance prevents cross-unit collapse
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-107: V_L,req=T_hold*max(0,Q_out,H-Q_return,L)+V_residual,H. F-107 means Conservative buffer capacity from inflow-return mismatch and residual.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Required_buffer_volume
reference "BP-ALG-102"
state R -> R1
node N1
representation JP(BP-ALG-102)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-107: V_L,req=T_hold*max(0,Q_out,H-Q_return,L)+V_residual,H. F-107 means Conservative buffer capacity from inflow-retur
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0103 Outlet area lower bound

official-docs/blue-pages/individual/algorithms/BP-ALG-103_Outlet-area-lower-bound.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-108: A_out>=Q_design/u_out,max. F-108 means Area sizing from conservative design flow and allowable velocity.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Outlet_area_lower_bound
reference "BP-ALG-103"
state R -> R1
node N1
representation JP(BP-ALG-103)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-108: A_out>=Q_design/u_out,max. F-108 means Area sizing from conservative design flow and allowable velocity.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

RW-BLUE-0104 Circular outlet radius lower bound

official-docs/blue-pages/individual/algorithms/BP-ALG-104_Circular-outlet-radius-lower-bound.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-109: r_out>=sqrt(A_out/pi). F-109 means Circular outlet radius derived from required area.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

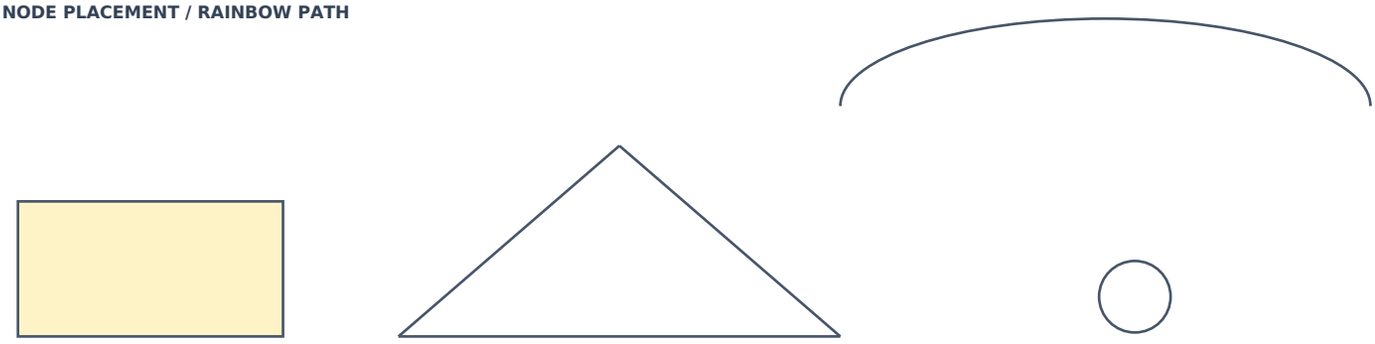
```
module MJ.Rainbow.Circular_outlet_radius_lower
reference "BP-ALG-104"
state R -> R1
node N6
representation JP(BP-ALG-104)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-109: r_out>=sqrt(A_out/pi). F-109 means Circular outlet radius derived from required area.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

RW-BLUE-0105 Bounded drip impulse

official-docs/blue-pages/individual/algorithms/BP-ALG-105_Bounded-drip-impulse.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-110: J_drop=m_drop*v_drop<=J_drop,max. F-110 means Small-discharge reference objective; threshold requires evidence.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bounded_drip_impulse
reference "BP-ALG-105"
state R -> R1
node N1
representation JP(BP-ALG-105)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-110: J_drop=m_drop*v_drop<=J_drop,max. F-110 means Small-discharge reference objective; threshold requires evidence.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-111: E_wave~=0.5*rho*g*a_wave^2*A_surface. F-111 means Applies only under small-amplitude liquid-surface assumptions.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Small_wave_energy_reference
reference "BP-ALG-106"
state R -> R1
node N1
representation JP(BP-ALG-106)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-111: E_wave~=0.5*rho*g*a_wave^2*A_surface. F-111 means Applies only under small-amplitude liquid-surface assumptions.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-112: Fr=U/sqrt(gL). F-112 means Flow-regime reference; Fr<1 is a conditional subcritical target.

PATH OF EXPRESSION

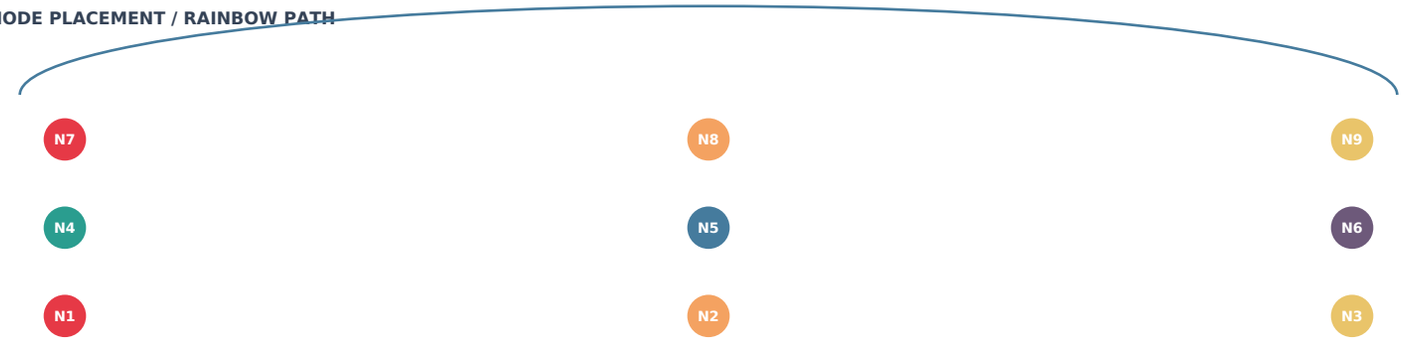
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Froude_reference
reference "BP-ALG-107"
state R -> R1
node N1
representation JP(BP-ALG-107)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-112: Fr=U/sqrt(gL). F-112 means Flow-regime reference; Fr<1 is a conditional subcritical target.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-113: A_in=pi*r_in^2. F-113 means Circular re-entry cross-section.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

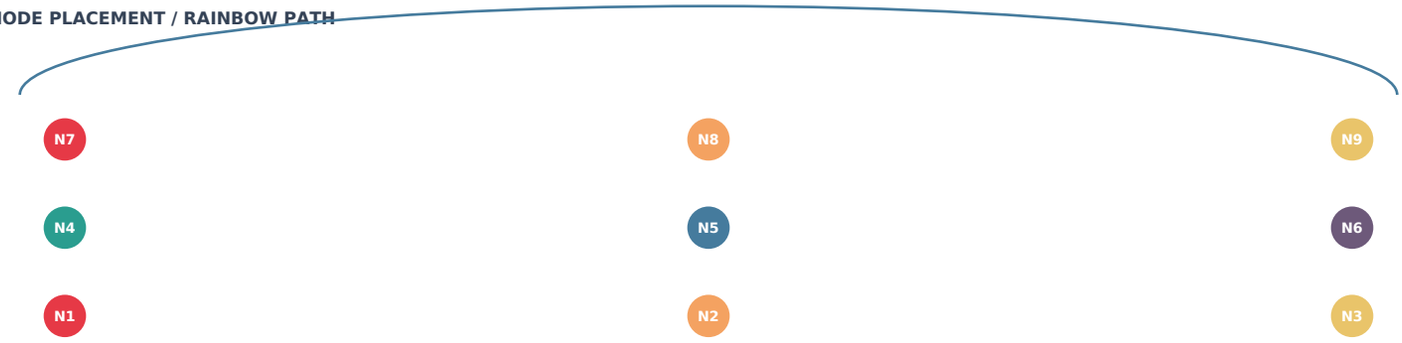
```
module MJ.Rainbow.Circular_return_port_area
reference "BP-ALG-108"
state R -> R1
node N1
representation JP(BP-ALG-108)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-113: A_in=pi*r_in^2. F-113 means Circular re-entry cross-section.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0109 Inward-tangential reentry components

official-docs/blue-pages/individual/algorithms/BP-ALG-109_Inward-tangential-reentry-components.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-114: u_r=-U*sin(beta_in); u_theta=sigma*U*cos(beta_in). F-114 means Small inward angle plus tangential component; no vortex proof.

PATH OF EXPRESSION

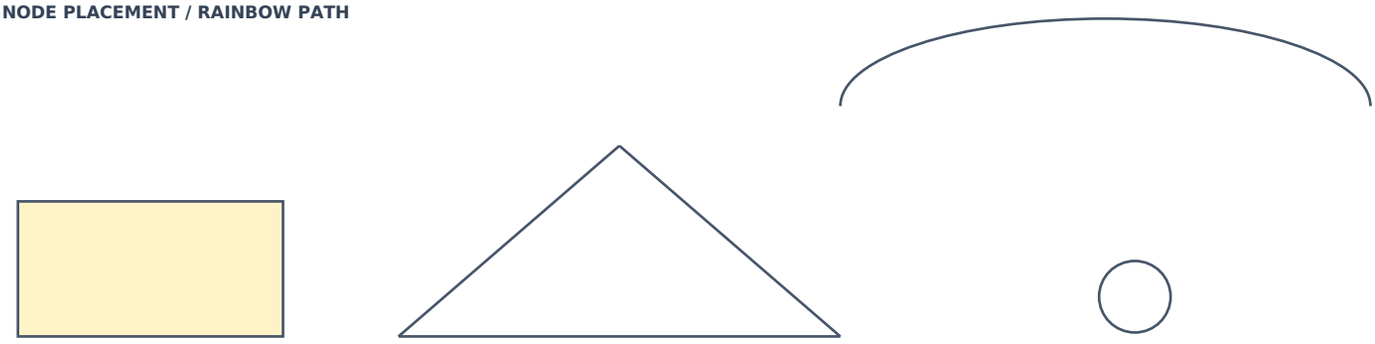
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Inward_tangential_reentry_co
reference "BP-ALG-109"
state R -> R1
node N1
representation JP(BP-ALG-109)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-114: u_r=-U*sin(beta_in); u_theta=sigma*U*cos(beta_in). F-114 means Small inward angle plus tangential component; no v
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-115: chi_spiral=|u_theta|/max(|u_r|,epsilon). F-115 means Reference ratio for tangential-dominant reentry.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Spiral_compatibility_ratio
reference "BP-ALG-110"
state R -> R1
node N1
representation JP(BP-ALG-110)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-115: chi_spiral=|u_theta|/max(|u_r|,epsilon). F-115 means Reference ratio for tangential-dominant reentry.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-116: Q_return=A_in*u_n. F-116 means Re-entry flow through the circular port.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Return_continuity
reference "BP-ALG-111"
state R -> R1
node N1
representation JP(BP-ALG-111)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-116: Q_return=A_in*u_n. F-116 means Re-entry flow through the circular port.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0112 Relative-frame velocity

official-docs/blue-pages/individual/algorithms/BP-ALG-112_Relative-frame-velocity.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-117: v_rel=v_B-v_A-Omega_A x r. F-117 means Coordinate-frame-relative motion; perspective does not create energy.

PATH OF EXPRESSION

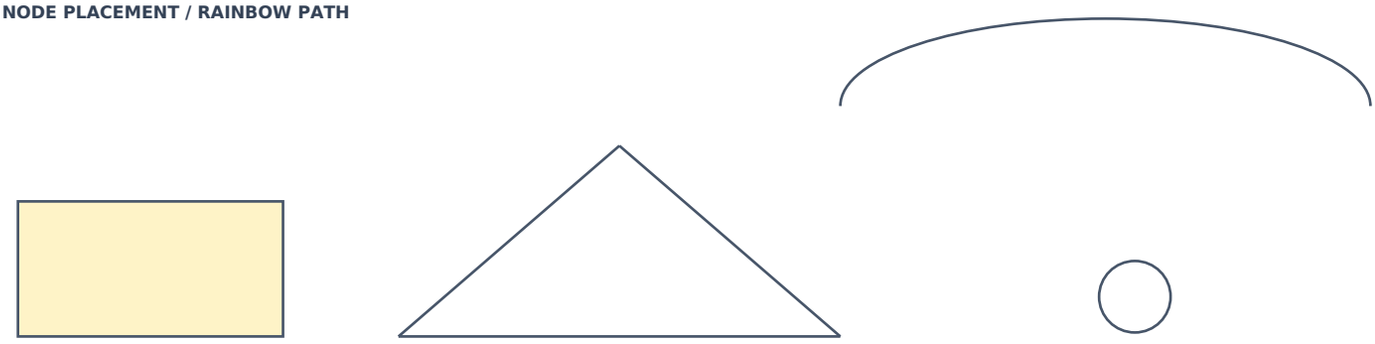
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Relative_frame_velocity
reference "BP-ALG-112"
state R -> R1
node N5
representation JP(BP-ALG-112)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-117: v_rel=v_B-v_A-Omega_A x r. F-117 means Coordinate-frame-relative motion; perspective does not create energy.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-118: P_diss=max(0,-F_f dot v_rel). F-118 means Measured frame-relative frictional dissipation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Frictional_dissipation
reference "BP-ALG-113"
state R -> R1
node N1
representation JP(BP-ALG-113)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-118: P_diss=max(0,-F_f dot v_rel). F-118 means Measured frame-relative frictional dissipation.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0114 Recoverable friction-energy bound

official-docs/blue-pages/individual/algorithms/BP-ALG-114_Recoverable-friction-energy-bound.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-119: E_rec<=eta_rec*integral(P_diss dt); 0<=eta_rec<=1. F-119 means No physical recovery without an evidenced conversion mechanism.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

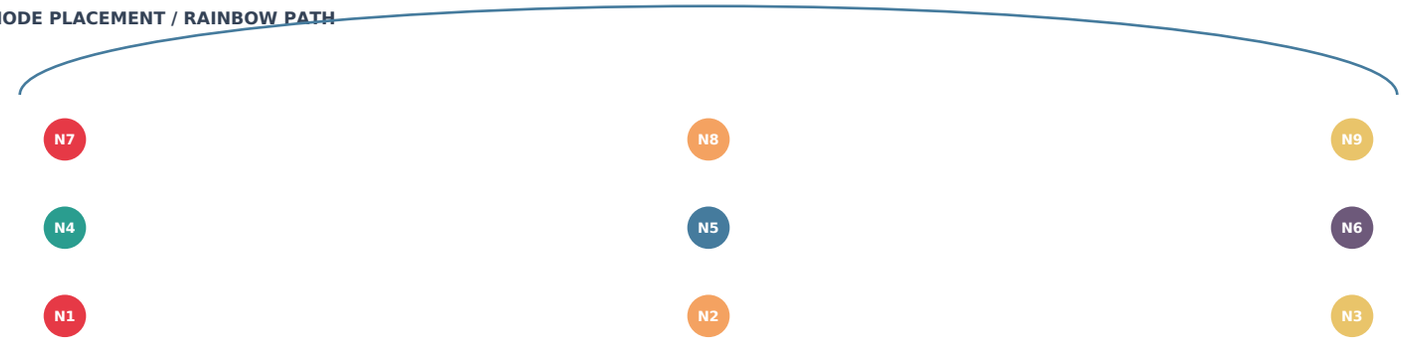
```
module MJ.Rainbow.Recoverable_friction_energy_
reference "BP-ALG-114"
state R -> R1
node N1
representation JP(BP-ALG-114)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-119: E_rec<=eta_rec*integral(P_diss dt); 0<=eta_rec<=1. F-119 means No physical recovery without an evidenced conversi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0115 Reservoir transaction gate

official-docs/blue-pages/individual/algorithms/BP-ALG-115_Reservoir-transaction-gate.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-120: Admit=AngelPass&M3Lease&MKPass&JOPass&MermaidReconciled&MJPermit. F-120 means Every reservoir transfer requires safety, routing, physics, proof, reconciliation, and permit.

PATH OF EXPRESSION

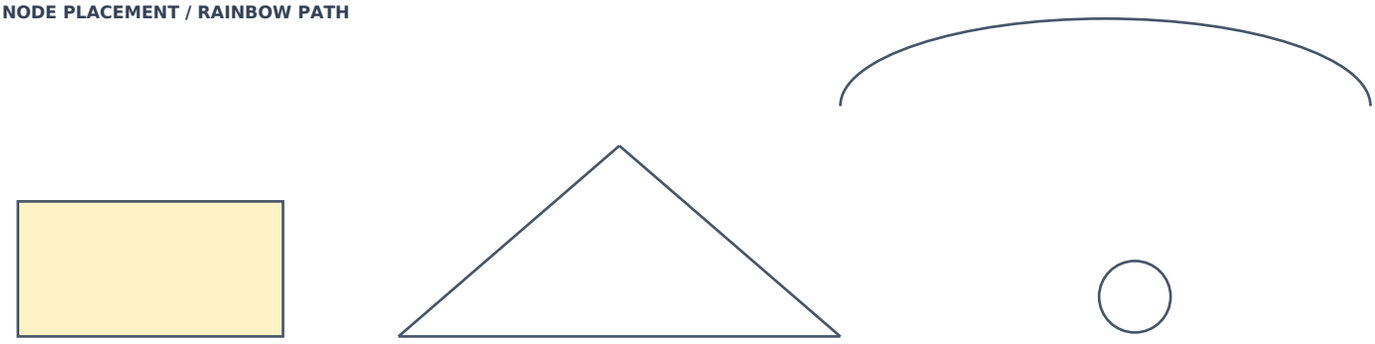
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Reservoir_transaction_gate
reference "BP-ALG-115"
state R -> R1
node N1
representation JP(BP-ALG-115)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-120: Admit=AngelPass&M3Lease&MKPass&JOPass&MermaidReconciled&MJPermit. F-120 means Every reservoir transfer requires s
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-121: chi_i=|u_theta|/max(|u_r|,epsilon_u). F-121 means Represents tangential-to-inward re-entry velocity.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

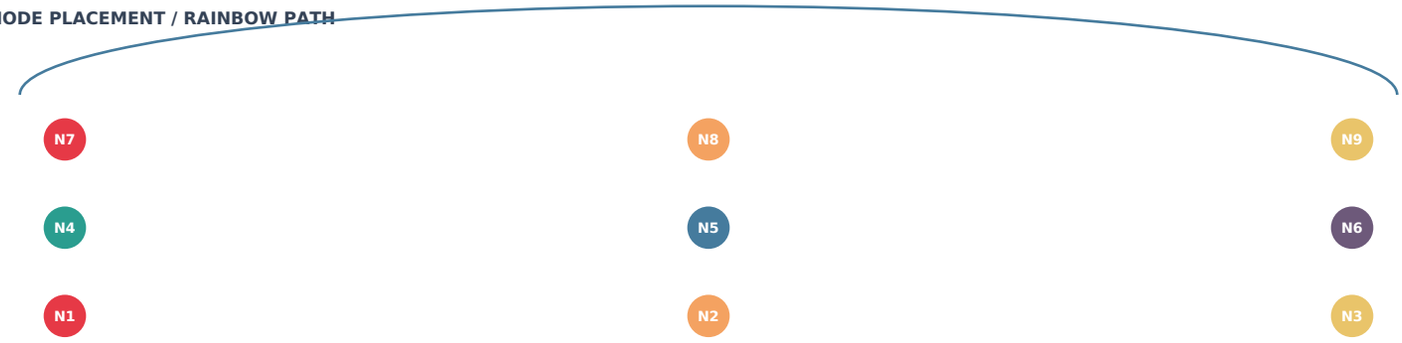
```
module MJ.Rainbow.Re_entry_swirl_ratio
reference "BP-ALG-116"
state R -> R1
node N9
representation JP(BP-ALG-116)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-121: chi_i=|u_theta|/max(|u_r|,epsilon_u). F-121 means Represents tangential-to-inward re-entry velocity.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0117 Re-entry processing cycle

official-docs/blue-pages/individual/algorithms/BP-ALG-117_Re-entry-processing-cycle.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-122: cycle_reentry=cycle_exit+1. F-122 means Prohibits same-cycle feedback and creates a new receipt chain.

PATH OF EXPRESSION

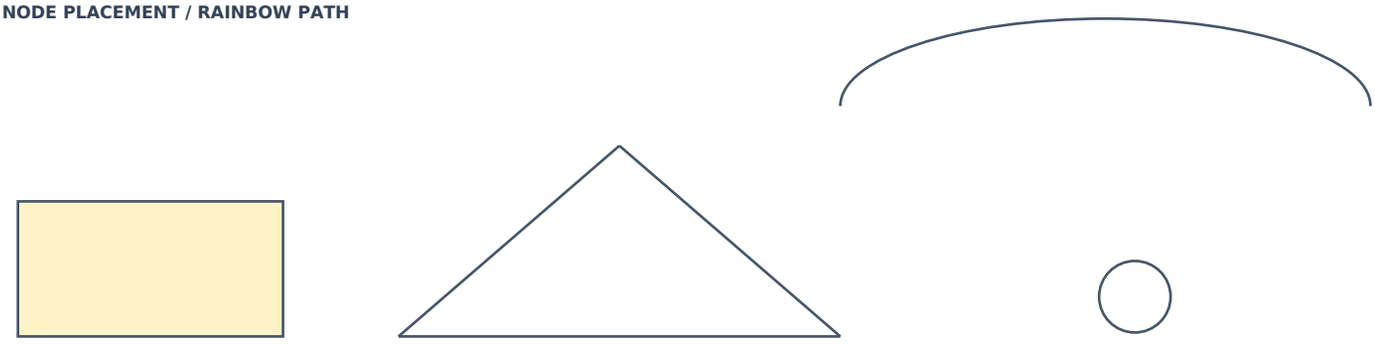
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Re_entry_processing_cycle
reference "BP-ALG-117"
state R -> R1
node N1
representation JP(BP-ALG-117)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-122: cycle_reentry=cycle_exit+1. F-122 means Prohibits same-cycle feedback and creates a new receipt chain.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-123: r_Pi=x_B-T_A_to_B*x_A. F-123 means Measures disagreement after transforming observations between reference frames.

PATH OF EXPRESSION

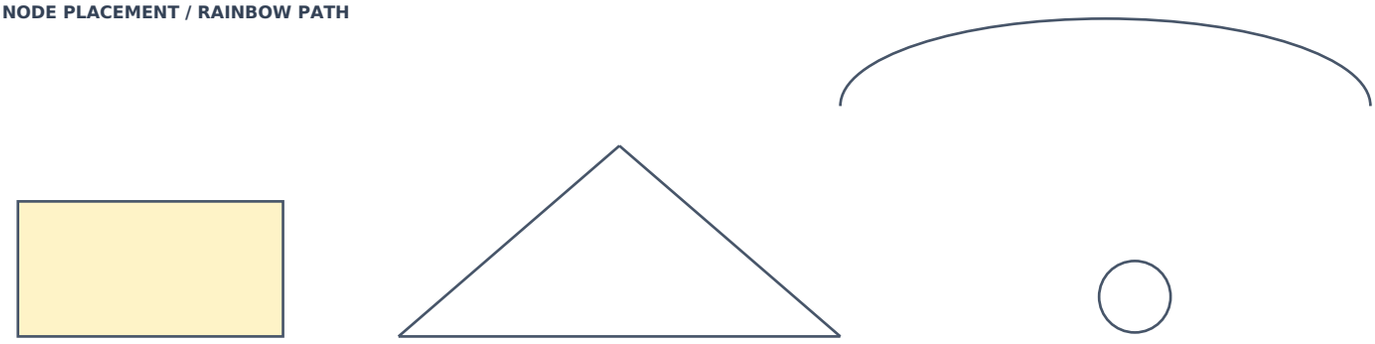
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Perspective_transform_residu
reference "BP-ALG-118"
state R -> R1
node N1
representation JP(BP-ALG-118)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-123: r_Pi=x_B-T_A_to_B*x_A. F-123 means Measures disagreement after transforming observations between reference frames
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-124: E_diss=int(Delta_p(t)*Q(t)dt). F-124 means Stores measured physical dissipation only when pressure and flow are evidenced.

PATH OF EXPRESSION

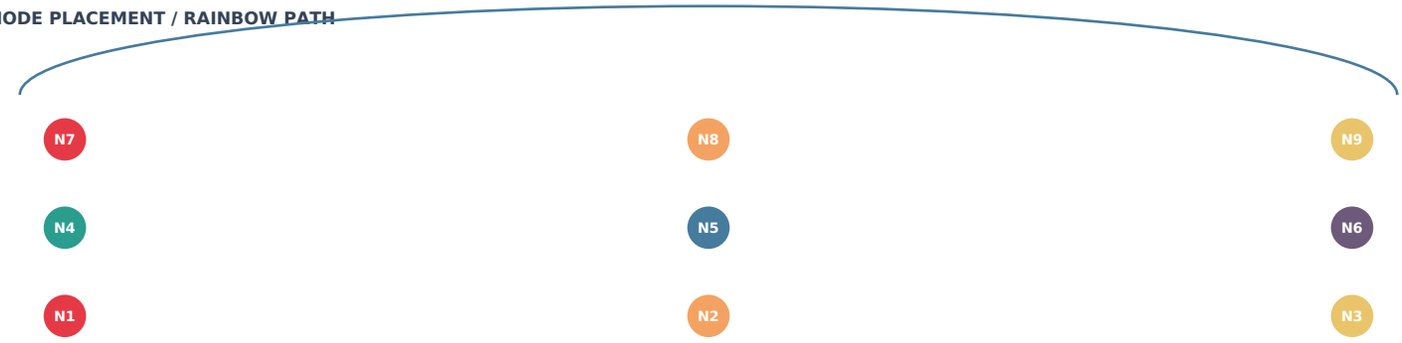
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Physical_pressure_flow_dissi
reference "BP-ALG-119"
state R -> R1
node N1
representation JP(BP-ALG-119)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-124: E_diss=int(Delta_p(t)*Q(t)dt). F-124 means Stores measured physical dissipation only when pressure and flow are e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-125: C_info=int(B_residual(t)dt). F-125 means Stores unresolved information or memory cost without treating it as energy.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Information_friction
reference "BP-ALG-120"
state R -> R1
node N4
representation JP(BP-ALG-120)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-125: C_info=int(B_residual(t)dt). F-125 means Stores unresolved information or memory cost without treating it as ener
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-126: omega_tilde=(2/3)*omega+(1/3)*omega_star. F-126 means Damps the desired rotational-wave setpoint.

PATH OF EXPRESSION

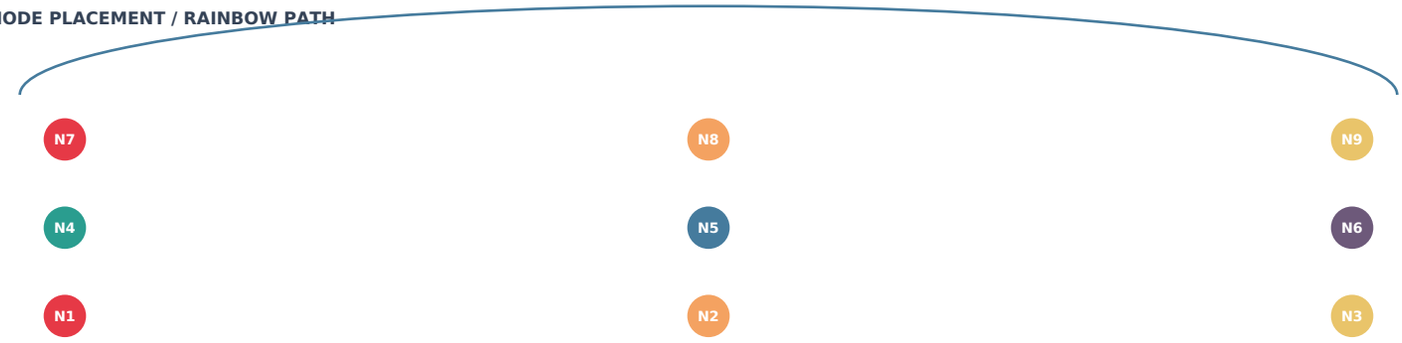
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Rotational_setpoint_damping
reference "BP-ALG-121"
state R -> R1
node N1
representation JP(BP-ALG-121)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-126: omega_tilde=(2/3)*omega+(1/3)*omega_star. F-126 means Damps the desired rotational-wave setpoint.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-127: |omega_next-omega|<=0.1*omega_scale. F-127 means Limits one-step rotational changes.

PATH OF EXPRESSION

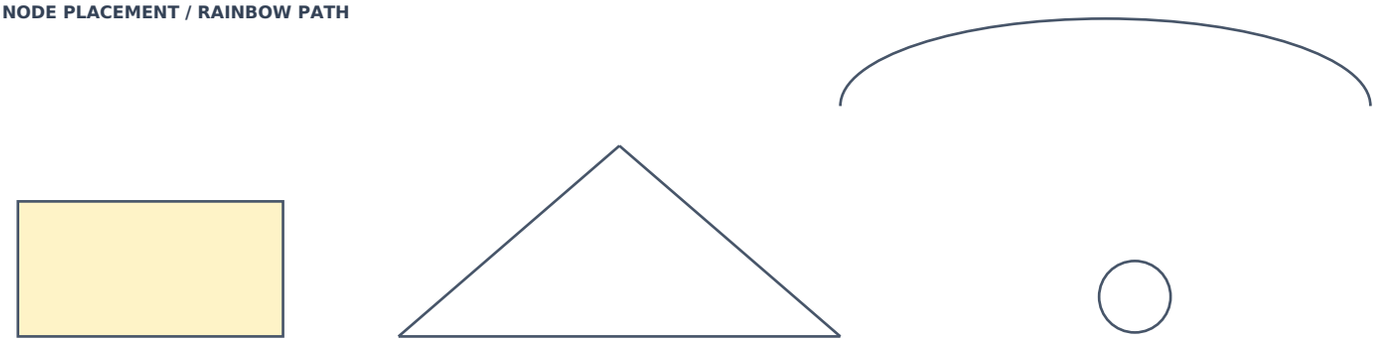
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Rotational_step_cap
reference "BP-ALG-122"
state R -> R1
node N1
representation JP(BP-ALG-122)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-127: |omega_next-omega|<=0.1*omega_scale. F-127 means Limits one-step rotational changes.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-128: q_exit=q_lake_in+q_EVE+q_escape+r_o. F-128 means Separates lake admission, EVE observation, escape, and residual.

PATH OF EXPRESSION

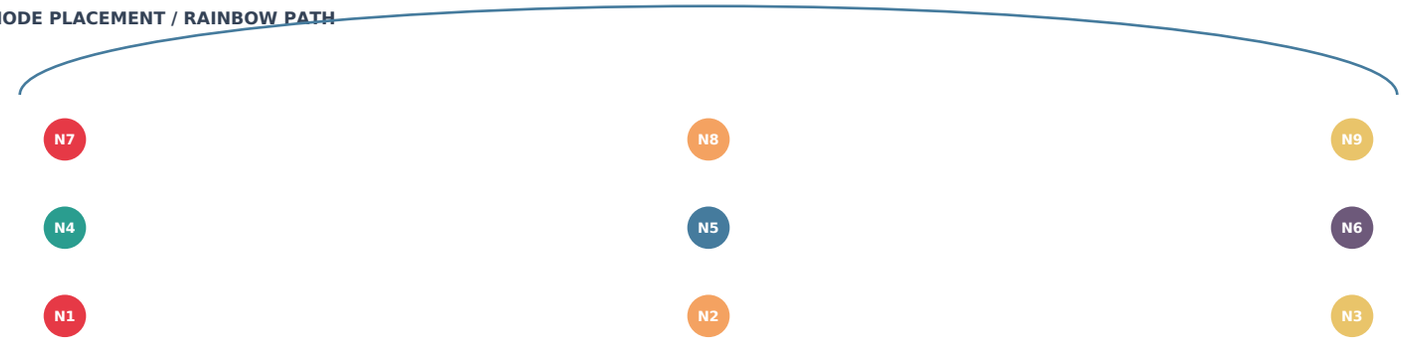
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Outlet_transfer_conservation
reference "BP-ALG-123"
state R -> R1
node N1
representation JP(BP-ALG-123)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-128: q_exit=q_lake_in+q_EVE+q_escape+r_o. F-128 means Separates lake admission, EVE observation, escape, and residual.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-129: Delta_x=[Delta_m,Delta_W,Delta_V,Delta_rho,Delta_T,Delta_p,Delta_h]. F-129 means Declares the observed changes that trigger recalculation before re-entry.

PATH OF EXPRESSION

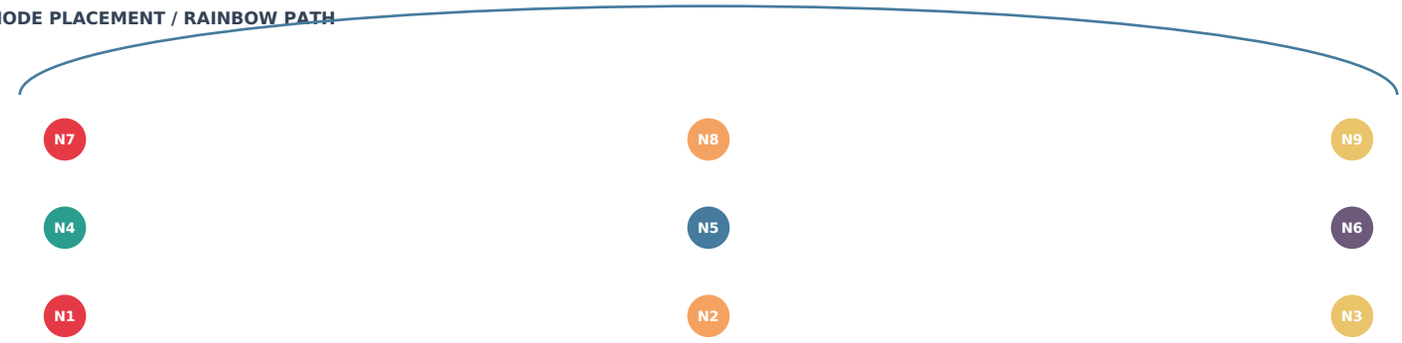
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Re_entry_recalculation_vecto
reference "BP-ALG-124"
state R -> R1
node N8
representation JP(BP-ALG-124)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-129: Delta_x=[Delta_m,Delta_W,Delta_V,Delta_rho,Delta_T,Delta_p,Delta_h]. F-129 means Declares the observed changes th
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-130: Admit_re=types&units&new_cycle&capacity&wave&MK&JO&Angels&M3&MJ. F-130 means Requires complete physics, evidence, safety, routing, and authority before physical re-entry.

PATH OF EXPRESSION

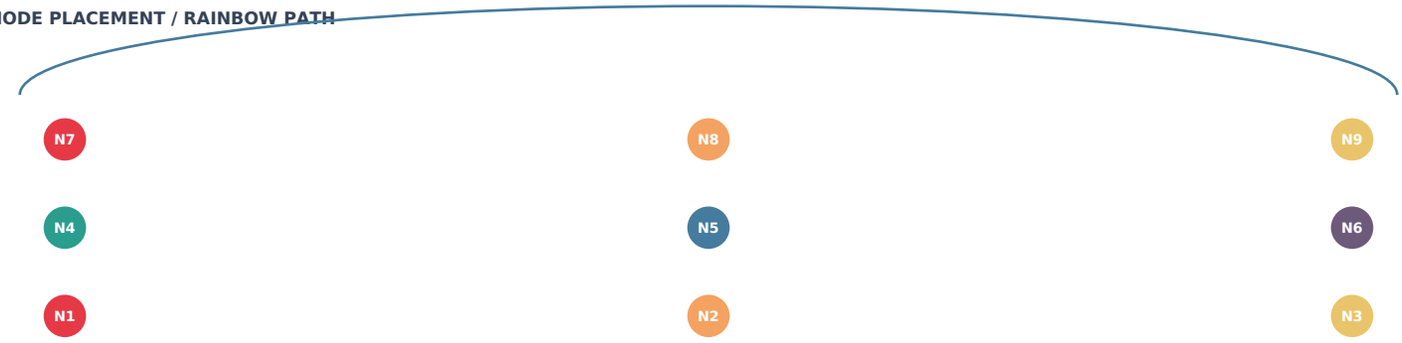
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Re_entry_admissibility_predi
reference "BP-ALG-125"
state R -> R1
node N1
representation JP(BP-ALG-125)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-130: Admit_re=types&units&new_cycle&capacity&wave&MK&JO&Angels&M3&MJ. F-130 means Requires complete physics, evidence,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-131: min_s(||gamma_out(s)-c_P||-R_P,sim) >= c_min+U_path. F-131 means Path remains outside the nonphysical Pearl simulation reference circle after uncertainty is included.

PATH OF EXPRESSION

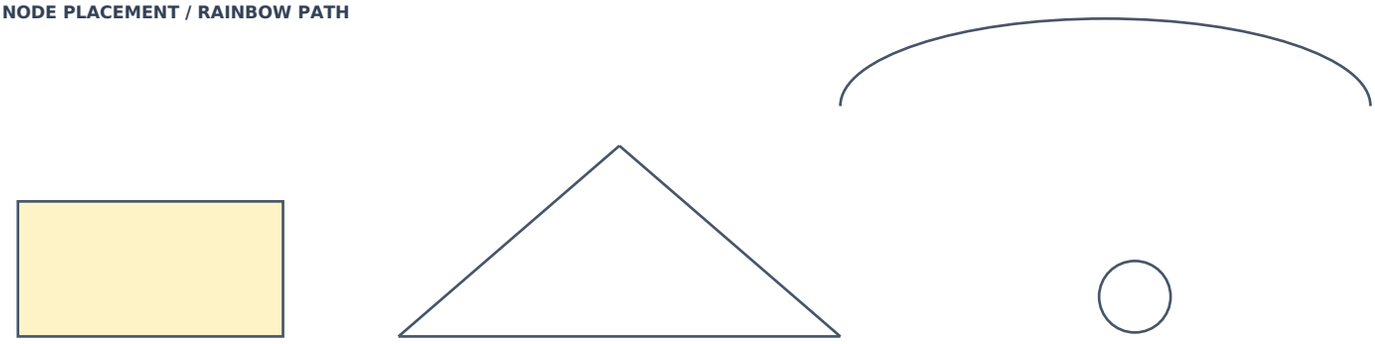
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Uncertainty_aware_Pearl_refe
reference "BP-ALG-126"
state R -> R1
node N1
representation JP(BP-ALG-126)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-131: min_s(||gamma_out(s)-c_P||-R_P,sim) >= c_min+U_path. F-131 means Path remains outside the nonphysical Pearl simul
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-132: abs(wrap(alpha_out-alpha_gap)) <= Delta_alpha_gap/2. F-132 means Outlet direction remains within the declared outward-facing gap.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

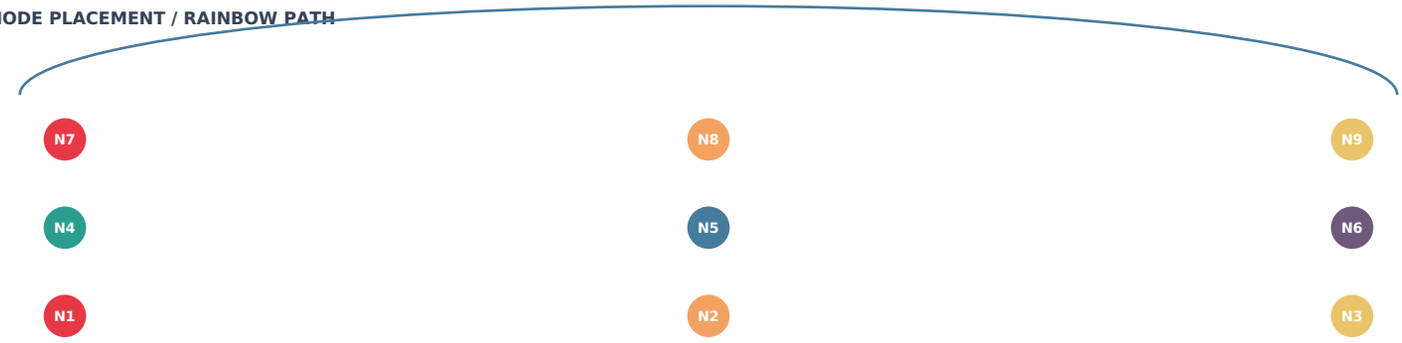
```
module MJ.Rainbow.Outward_angular_gap_predicat
reference "BP-ALG-127"
state R -> R1
node N1
representation JP(BP-ALG-127)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-132: abs(wrap(alpha_out-alpha_gap)) <= Delta_alpha_gap/2. F-132 means Outlet direction remains within the declared out
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0128 Available outlet pressure

official-docs/blue-pages/individual/algorithms/BP-ALG-128_Available-outlet-pressure.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N3; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-133: Delta_p_available=p_containment-p_lake+rho*g*(z_out-z_lake). F-133 means Pressure and elevation state available to drive a reference outlet flow.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Available_outlet_pressure
reference "BP-ALG-128"
state R -> R1
node N3
representation JP(BP-ALG-128)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-133: Delta_p_available=p_containment-p_lake+rho*g*(z_out-z_lake). F-133 means Pressure and elevation state available t
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0129 Outlet pressure margin

official-docs/blue-pages/individual/algorithms/BP-ALG-129_Outlet-pressure-margin.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-134: Delta_p_margin=Delta_p_available-Delta_p_loss-U_Delta_p. F-134 means Conservative pressure margin after losses and uncertainty.

PATH OF EXPRESSION

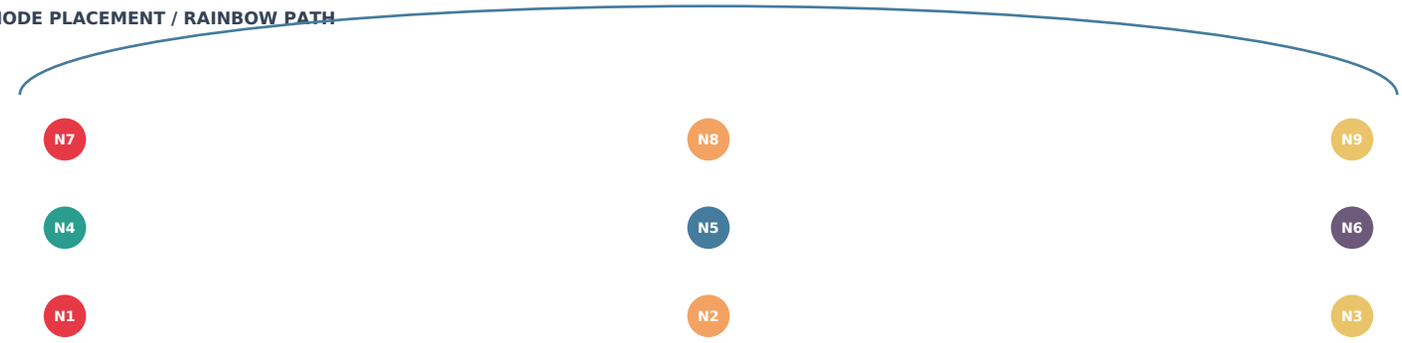
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Outlet_pressure_margin
reference "BP-ALG-129"
state R -> R1
node N1
representation JP(BP-ALG-129)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-134: Delta_p_margin=Delta_p_available-Delta_p_loss-U_Delta_p. F-134 means Conservative pressure margin after losses an
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-135: alpha_min=atan(max(0,Delta_p_loss+U_Delta_p-(p_containment-p_lake))/(rho*g*L_path)) F-136: alpha_selected=alpha_min+delta_alpha; delta_alpha>0. F-135 means Minimum modeled grade needed to overcome pressure deficit under declared assumptions. F-136 means Slight positive increase above the modeled minimum; no universal value is asserted.

PATH OF EXPRESSION

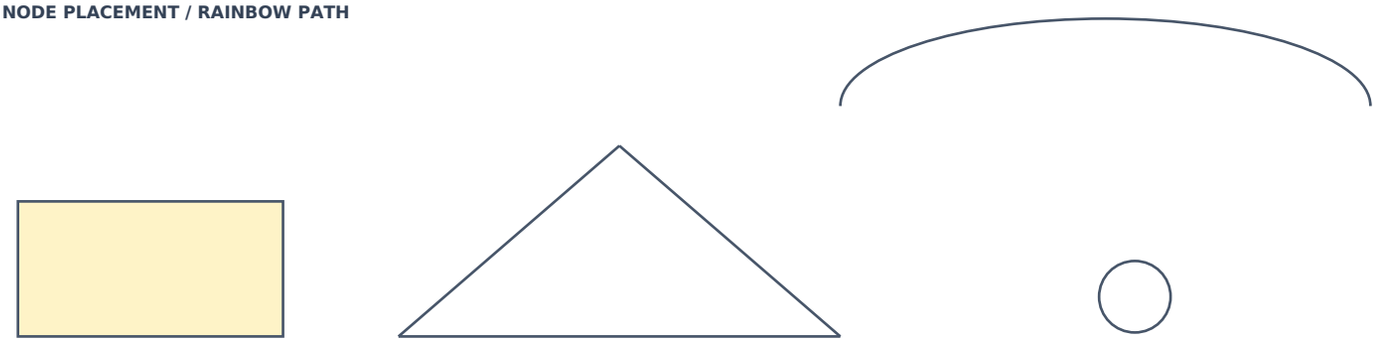
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Minimum_outlet_grade_Selecte
reference "BP-ALG-130"
state R -> R1
node N1
representation JP(BP-ALG-130)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-135: alpha_min=atan(max(0,Delta_p_loss+U_Delta_p-(p_containment-p_lake))/(rho*g*L_path)); F-136: alpha_selected=alpha_
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-137: Q_ref=C_d*A_out*sqrt(2*max(0,Delta_p_available-Delta_p_loss)/rho). F-137 means Conditional reference flow under evidenced incompressible assumptions.

PATH OF EXPRESSION

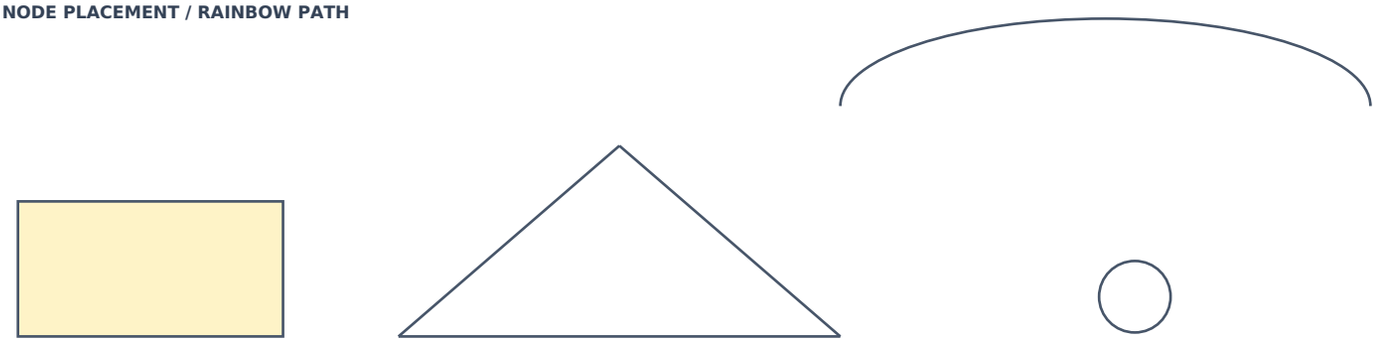
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Incompressible_reference_out
reference "BP-ALG-131"
state R -> R1
node N1
representation JP(BP-ALG-131)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-137: Q_ref=C_d*A_out*sqrt(2*max(0,Delta_p_available-Delta_p_loss)/rho). F-137 means Conditional reference flow under e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-138: U_out=Q_ref/A_out. F-138 means Conditional mean velocity for the declared outlet area.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mean_outlet_velocity
reference "BP-ALG-132"
state R -> R1
node N7
representation JP(BP-ALG-132)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-138: U_out=Q_ref/A_out. F-138 means Conditional mean velocity for the declared outlet area.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-139: We=rho*U^2*L/sigma. F-139 means Surface-tension-to-inertia reference when the model applies.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

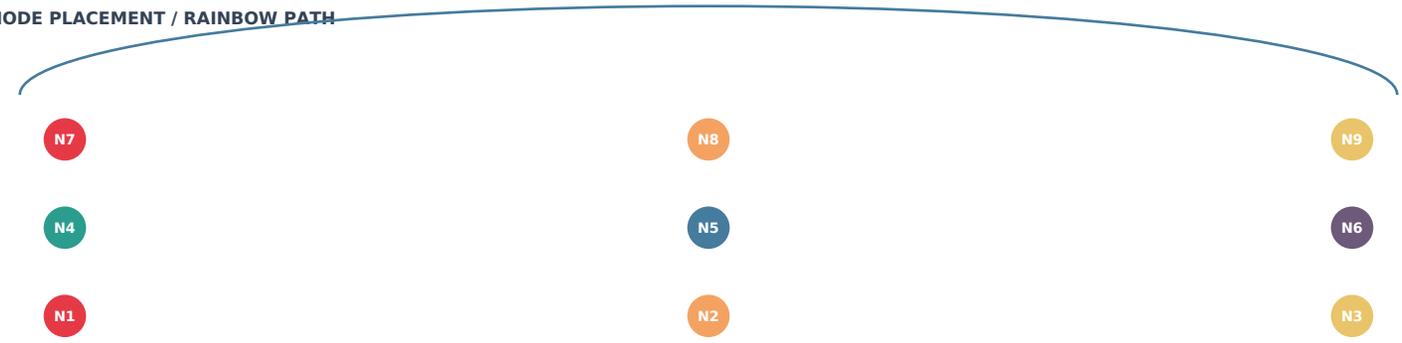
```
module MJ.Rainbow.Weber_number_reference
reference "BP-ALG-133"
state R -> R1
node N1
representation JP(BP-ALG-133)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-139: We=rho*U^2*L/sigma. F-139 means Surface-tension-to-inertia reference when the model applies.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0134 Wave amplitude ratio

official-docs/blue-pages/individual/algorithms/BP-ALG-134_Wave-amplitude-ratio.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-140: epsilon_a=a_wave/h_L. F-140 means Dimensionless small-amplitude observation ratio.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Wave_amplitude_ratio
reference "BP-ALG-134"
state R -> R1
node N1
representation JP(BP-ALG-134)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-140: epsilon_a=a_wave/h_L. F-140 means Dimensionless small-amplitude observation ratio.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-141: WaveGate=(Fr<=Fr_max)&(epsilon_a<=epsilon_a,max)&(We<=We_max when applicable). F-141 means Reference gate for bounded low-amplitude observations; not proof of wave suppression.

PATH OF EXPRESSION

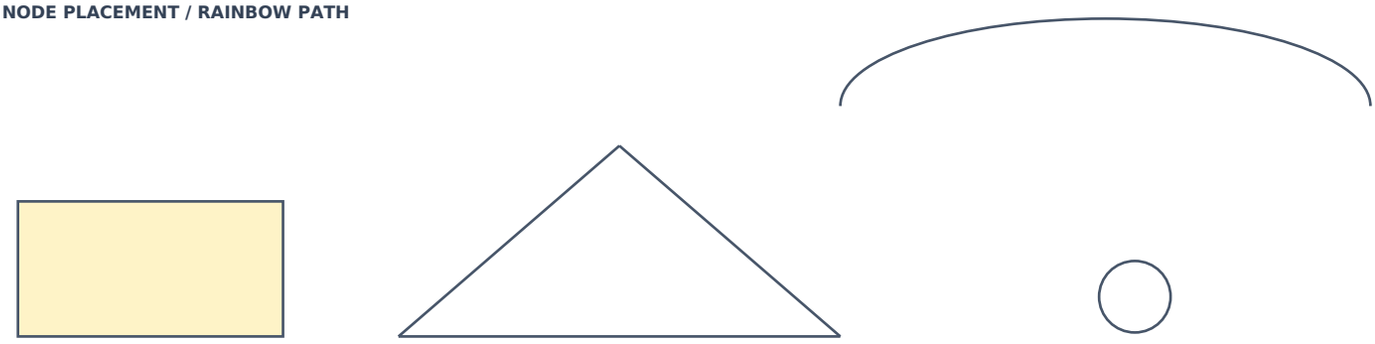
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Small_wave_observation_gate
reference "BP-ALG-135"
state R -> R1
node N1
representation JP(BP-ALG-135)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-141: WaveGate=(Fr<=Fr_max)&(epsilon_a<=epsilon_a,max)&(We<=We_max when applicable). F-141 means Reference gate for bou
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-142: q_L,t+1=q_L,t+q_out-q_return-q_drain-q_escape-r_L. F-142 means Receipted discrete update for the separate lake/buffer control volume.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Discrete_reservoir_inventory
reference "BP-ALG-136"
state R -> R1
node N2
representation JP(BP-ALG-136)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-142: q_L,t+1=q_L,t+q_out-q_return-q_drain-q_escape-r_L. F-142 means Receipted discrete update for the separate lake/bu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0137 Vector reservoir headroom

official-docs/blue-pages/individual/algorithms/BP-ALG-137_Vector-reservoir-headroom.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-143: H_L,k=C_L,k-q_L,k. F-143 means Headroom remains separate for every resource dimension.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

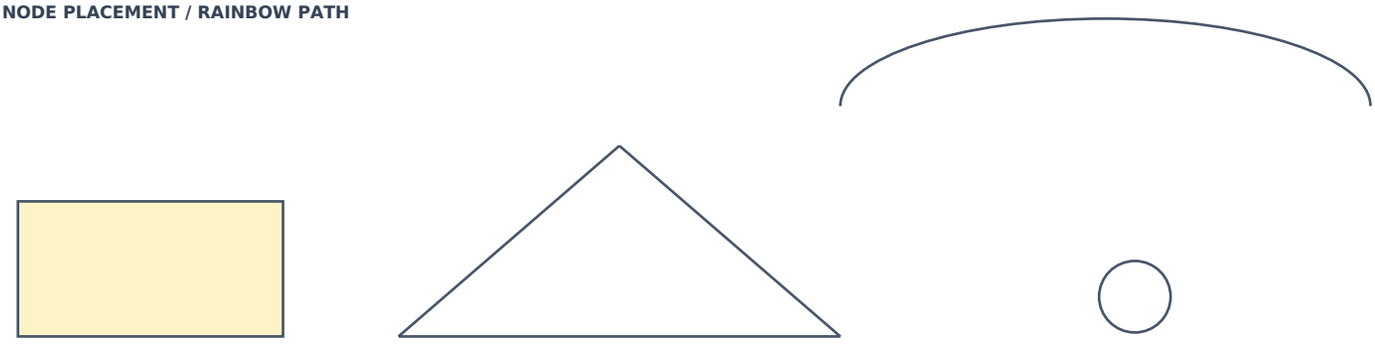
```
module MJ.Rainbow.Vector_reservoir_headroom
reference "BP-ALG-137"
state R -> R1
node N1
representation JP(BP-ALG-137)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-143: H_L,k=C_L,k-q_L,k. F-143 means Headroom remains separate for every resource dimension.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

RW-BLUE-0138 Vector reservoir admission / No same-cycle feedback predicate

official-docs/blue-pages/individual/algorithms/BP-ALG-138_Vector-reservoir-admission-No-same-cycle-feedback-predicate.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-144: Admit_L=AND_k[q_L,k+q_in,k <= (1-h_L,k)C_L,k]; F-145: ReentryValid=(cycle_reentry=cycle_exit+1)&no_uncleared_generation_reuse. F-144 means Admission fails when any resource dimension lacks required headroom. F-145 means Re-entry starts a new receipted cycle and cannot feed the same active generation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Vector_reservoir_admission_N
reference "BP-ALG-138"
state R -> R1
node N1
representation JP(BP-ALG-138)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-144: Admit_L=AND_k[q_L,k+q_in,k <= (1-h_L,k)C_L,k]; F-145: ReentryValid=(cycle_reentry=cycle_exit+1)&no_uncleared_gene
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0139 Solar/auxiliary/recovery input energy / Solar system energy

official-docs/blue-pages/individual/algorithms/BP-ALG-139_Solarauxiliaryrecovery-input-energy-Solar-system-energy-conservation.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-146: E_in = E_solar + E_aux + E_recovered; F-147: E_in = DeltaE_storage + E_load + E_loss + r_E. F-146 means All admitted energy inputs are separately measured and summed; no source may be implied or double-counted. F-147 means The shared core requires storage change, delivered load, loss, residual, and uncertainty to reconcile.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_auxiliary_recovery_inp
reference "BP-ALG-139"
state R -> R1
node N1
representation JP(BP-ALG-139)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-146: E_in = E_solar + E_aux + E_recovered; F-147: E_in = DeltaE_storage + E_load + E_loss + r_E. F-146 means All admit
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0140 Instantaneous power balance / Conservative reserve margin

official-docs/blue-pages/individual/algorithms/BP-ALG-140_Instantaneous-power-balance-Conservative-reserve-margin.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-148: P_balance = P_source - P_load - P_charge - P_loss; F-149: R_E = E_available,L - M_E * E_required,H. F-148 means Power routing is typed and conservation-bound at each observation interval. F-149 means A start or service is eligible only when conservative available energy exceeds required energy with margin.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

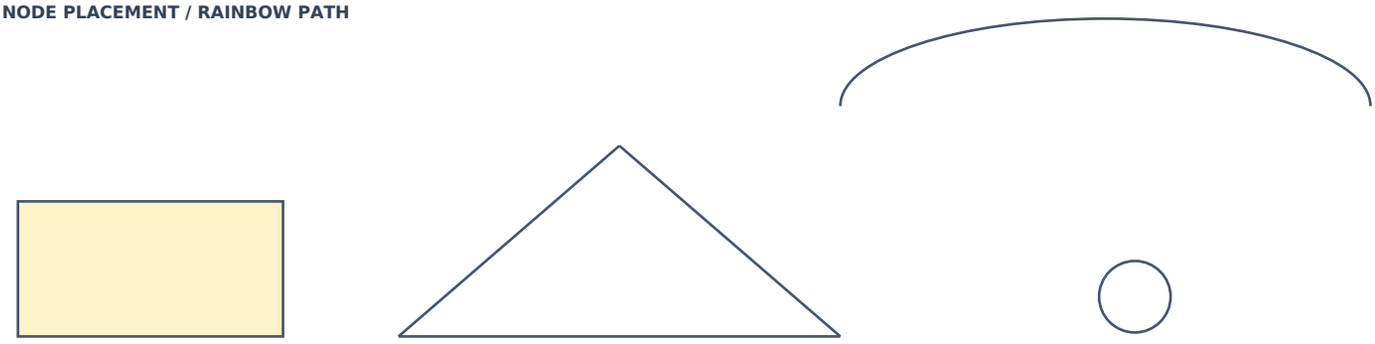
```
module MJ.Rainbow.Instantaneous_power_balance_
reference "BP-ALG-140"
state R -> R1
node N6
representation JP(BP-ALG-140)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-148: P_balance = P_source - P_load - P_charge - P_loss; F-149: R_E = E_available,L - M_E * E_required,H. F-148 means P
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0141 Path efficiency / Bounded storage state update

official-docs/blue-pages/individual/algorithms/BP-ALG-141_Path-efficiency-Bounded-storage-state-update.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-150: eta_path = E_delivered / E_input; F-151: SOC_next = clip(SOC + (eta_c*E_charge - E_discharge/eta_d)/E_capacity,0,1). F-150 means Efficiency is a measured or simulated ratio with declared boundaries and cannot exceed one without a reconciliation fault. F-151 means Storage state is bounded and depends on measured/declared capacity and efficiencies.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Path_efficiency_Bounded_stor
reference "BP-ALG-141"
state R -> R1
node N1
representation JP(BP-ALG-141)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-150: eta_path = E_delivered / E_input; F-151: SOC_next = clip(SOC + (eta_c*E_charge - E_discharge/eta_d)/E_capacity,0,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0142 Thermal first-order update / Predicted bus voltage

official-docs/blue-pages/individual/algorithms/BP-ALG-142_Thermal-first-order-update-Predicted-bus-voltage.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-152: T_next = T + dt/C_th * (P_heat - (T-T_env)/R_th); F-153: V_pred(t+h) = V_t + h*dV_dt. F-152 means A reference thermal model preserves heat input, environmental exchange, units, and uncertainty. F-153 means Voltage trend predicts a reserve crossing before zero and supports bounded protective action.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

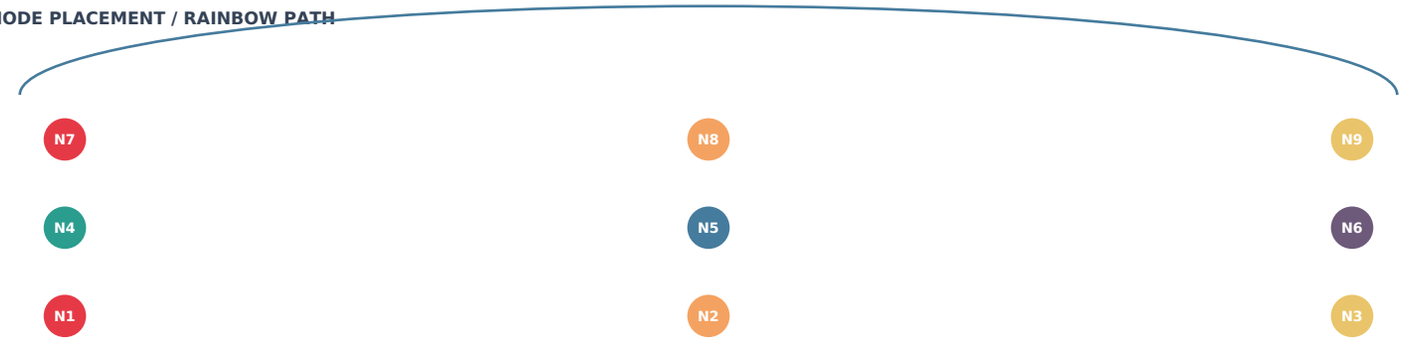
```
module MJ.Rainbow.Thermal_first_order_update_P
reference "BP-ALG-142"
state R -> R1
node N1
representation JP(BP-ALG-142)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-152: T_next = T + dt/C_th * (P_heat - (T-T_env)/R_th); F-153: V_pred(t+h) = V_t + h*dV_dt. F-152 means A reference the
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0143 Shared start/admission gate / Cross-profile transfer gate

official-docs/blue-pages/individual/algorithms/BP-ALG-143_Shared-startadmission-gate-Cross-profile-transfer-gate.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-154: G_start = energy AND voltage AND current AND thermal AND containment AND ethics AND MJ_permit; F-155: TransferOK = K AND U AND D AND R AND E AND M AND B AND Q AND V AND A. F-154 means No single physics or software result substitutes for the complete start/admission gate. F-155 means A shared equation does not transfer a physical parameter without quantity, unit, domain, range, environment, method, boundary, uncertainty, evidence, and authority checks.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shared_start_admission_gate_
reference "BP-ALG-143"
state R -> R1
node N1
representation JP(BP-ALG-143)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-154: G_start = energy AND voltage AND current AND thermal AND containment AND ethics AND MJ_permit; F-155: TransferOK
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-156: u_y^2 = J*Sigma*J_T + u_model^2; F-157: R1 --all required evidence and gates--> R2. F-156 means Every derived solar quantity carries covariance-aware measurement and model uncertainty. F-157 means Every solar command remains R1 until required evidence, safety, authority, and claims ceilings pass.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

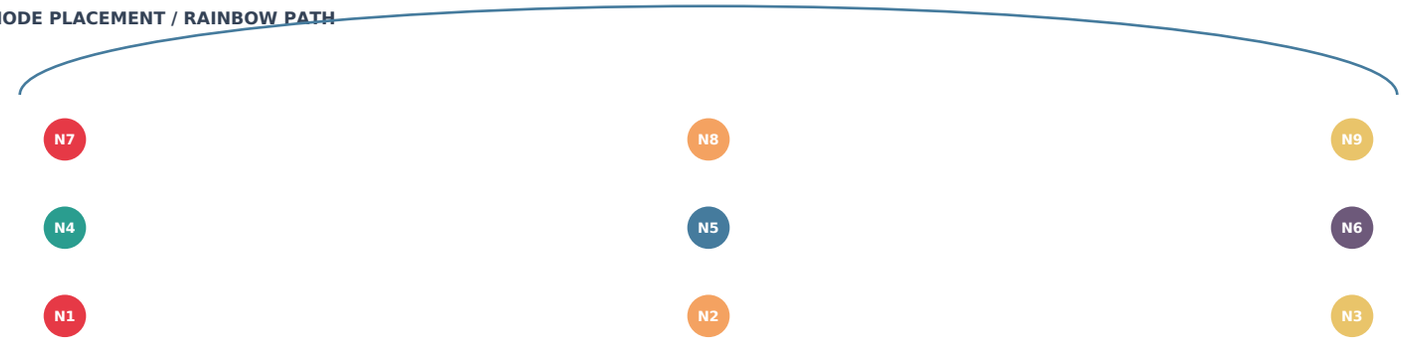
```
module MJ.Rainbow.Solar_uncertainty_propagatio
reference "BP-ALG-144"
state R -> R1
node N1
representation JP(BP-ALG-144)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-156: u_y^2 = J*Sigma*J_T + u_model^2; F-157: R1 --all required evidence and gates--> R2. F-156 means Every derived sol
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0145 Phone-profile solar energy / Workload-aware power demand

official-docs/blue-pages/individual/algorithms/BP-ALG-145_Phone-profile-solar-energy-Workload-aware-power-demand.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-158: E_solar_phone = integral(P_pv_phone(t),t0,t1); F-159: P_phone = P_base + sum(P_task_i * a_i). F-158 means The semiconductor/phone profile integrates measured or simulated photovoltaic power over a named interval. F-159 means OS workload power is represented as a typed sum of baseline and admitted task loads.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Phone_profile_solar_energy_W
reference "BP-ALG-145"
state R -> R1
node N1
representation JP(BP-ALG-145)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-158: E_solar_phone = integral(P_pv_phone(t),t0,t1); F-159: P_phone = P_base + sum(P_task_i * a_i). F-158 means The sem
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0146 Phone reserve duration / Phone energy deficit

official-docs/blue-pages/individual/algorithms/BP-ALG-146_Phone-reserve-duration-Phone-energy-deficit.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-160: t_reserve = E_reserve,L / P_critical,H; F-161: D_E = max(0,E_required,H - E_available,L). F-160 means Reserve duration uses conservative energy and critical-load bounds. F-161 means A positive deficit creates HOLD/load-shed behavior rather than invented capacity.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Phone_reserve_duration_Phone
reference "BP-ALG-146"
state R -> R1
node N1
representation JP(BP-ALG-146)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-160: t_reserve = E_reserve,L / P_critical,H; F-161: D_E = max(0,E_required,H - E_available,L). F-160 means Reserve dur
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0147 Environment-dependent leakage

official-docs/blue-pages/individual/algorithms/BP-ALG-147_Environment-dependent-leakage.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-162: I_leak = f(V,T,RH,time,material_state). F-162 means Leakage is a measured/profile function rather than a universal constant.

PATH OF EXPRESSION

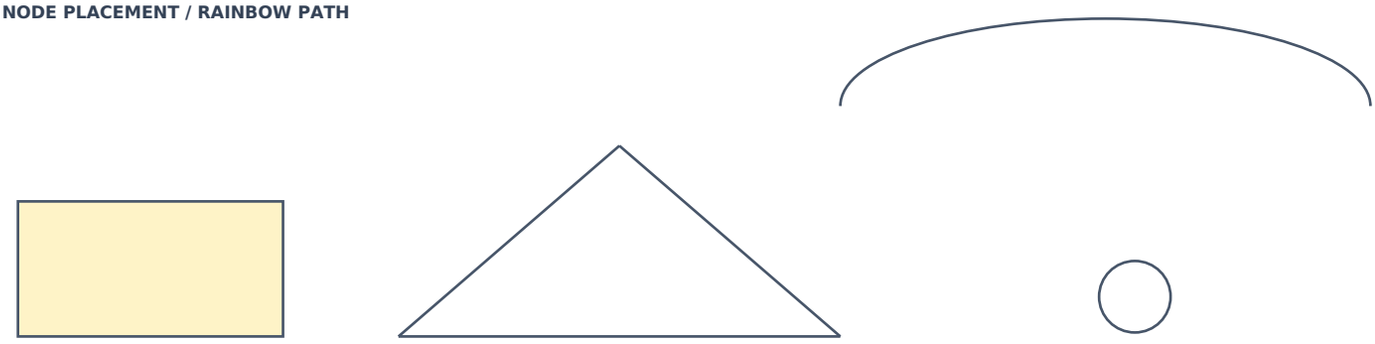
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Environment_dependent_leakag
reference "BP-ALG-147"
state R -> R1
node N1
representation JP(BP-ALG-147)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-162: I_leak = f(V,T,RH,time,material_state). F-162 means Leakage is a measured/profile function rather than a universa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-163: E_wake = integral(V_wake(t)*I_wake(t),t0,t1); F-164: M_T = T_allowable - (T_observed + U_T). F-163 means Wake energy is measured from synchronized voltage/current data. F-164 means Thermal margin must remain nonnegative for the applicable state.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

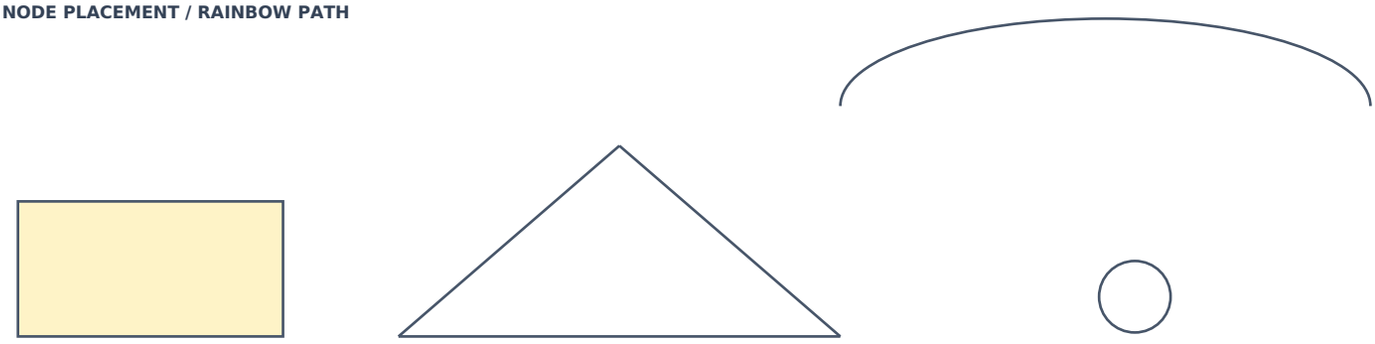
```
module MJ.Rainbow.Wake_energy_accounting_Phone
reference "BP-ALG-148"
state R -> R1
node N5
representation JP(BP-ALG-148)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-163: E_wake = integral(V_wake(t)*I_wake(t),t0,t1); F-164: M_T = T_allowable - (T_observed + U_T). F-163 means Wake ene
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0149 Useful work per delivered energy / Data-performance correlation

official-docs/blue-pages/individual/algorithms/BP-ALG-149_Useful-work-per-delivered-energy-Data-performance-correlation.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-165: eta_work = W_verified / E_delivered; F-166: rho_DP = cov(D,P)/(sigma_D*sigma_P). F-165 means Performance/energy analysis is only meaningful when work and energy boundaries are explicit. F-166 means Correlation is descriptive and cannot be represented as causation without additional evidence.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

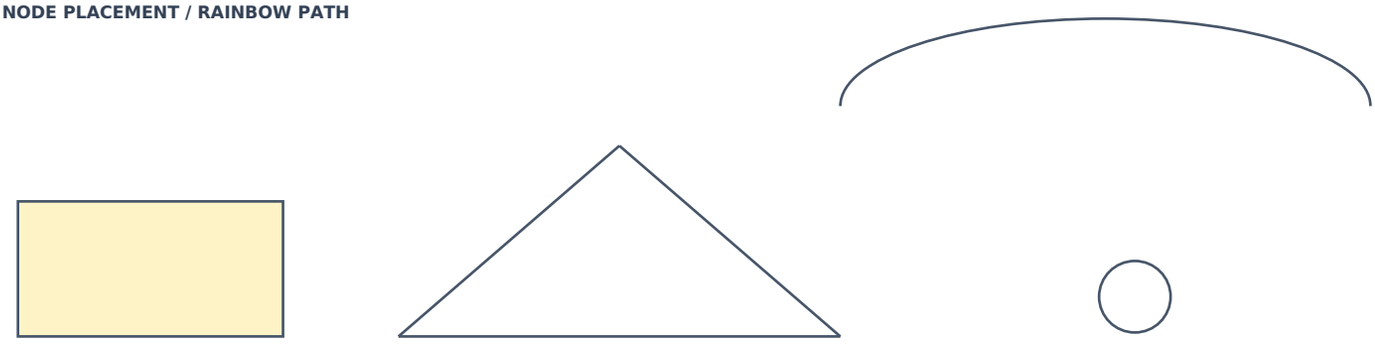
```
module MJ.Rainbow.Useful_work_per_delivered_en
reference "BP-ALG-149"
state R -> R1
node N1
representation JP(BP-ALG-149)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-165: eta_work = W_verified / E_delivered; F-166: rho_DP = cov(D,P)/(sigma_D*sigma_P). F-165 means Performance/energy a
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0150 Workload allocation update / Semiconductor scale map

official-docs/blue-pages/individual/algorithms/BP-ALG-150_Workload-allocation-update-Semiconductor-scale-map.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-167: w_next = bounded_simplex((2/3)w + (1/3)w_target, step<=0.1); F-168: p_SC(x,y,z) = o_SC + x*a_SC + y*b_SC + z*c_SC. F-167 means Workload/resource allocation preserves nonnegative weights, sum-to-one, and the one-tenth step boundary. F-168 means Normalized topology becomes physical only through a profile-specific mapping with measured dimensions and tolerances.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Workload_allocation_update_S
reference "BP-ALG-150"
state R -> R1
node N1
representation JP(BP-ALG-150)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-167: w_next = bounded_simplex((2/3)w + (1/3)w_target, step<=0.1); F-168: p_SC(x,y,z) = o_SC + x*a_SC + y*b_SC + z*c_SC
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0151 Phone-profile evidence completeness / Marine solar-array energy

official-docs/blue-pages/individual/algorithms/BP-ALG-151_Phone-profile-evidence-completeness-Marine-solar-array-energy.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-169: E_SC = min_required(article,calibration,baseline,energy,thermal,geometry,JO,MK,MJ); F-170: E_array = integral(P_array(t),t0,t1). F-169 means The phone profile cannot claim readiness while a controlling evidence class is absent. F-170 means Marine solar input is integrated within a named installation and environmental boundary.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Phone_profile_evidence_compl
reference "BP-ALG-151"
state R -> R1
node N1
representation JP(BP-ALG-151)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-169: E_SC = min_required(article,calibration,baseline,energy,thermal,geometry,JO,MK,MJ); F-170: E_array = integral(P_a
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-171: P_prop = tau * omega; F-172: E_mission = integral(P_prop + P_critical + P_aux,t0,t1). F-171 means Rotational mechanical power is represented through measured torque and angular speed; geometry alone provides no propulsion claim. F-172 means Mission demand separates propulsion, critical, and auxiliary loads.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

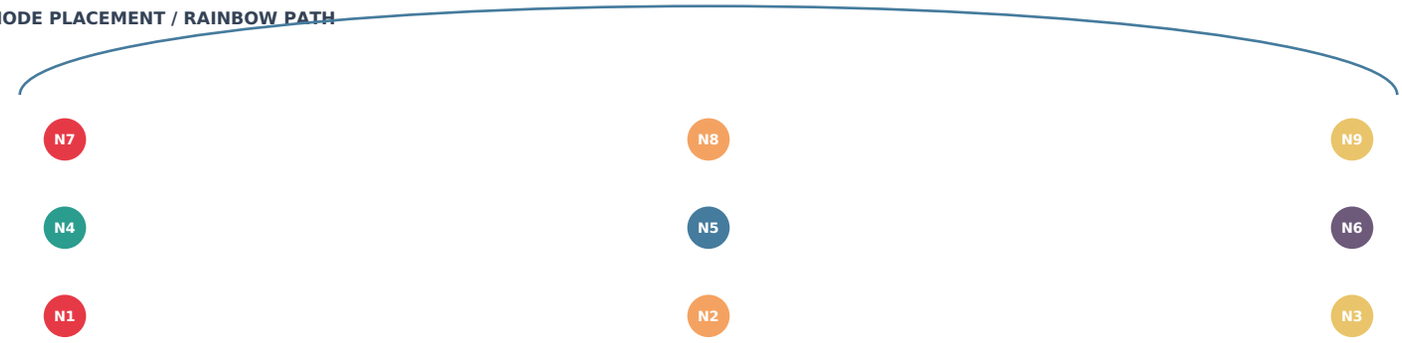
```
module MJ.Rainbow.Marine_propulsion_load_power
reference "BP-ALG-152"
state R -> R1
node N9
representation JP(BP-ALG-152)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-171: P_prop = tau * omega; F-172: E_mission = integral(P_prop + P_critical + P_aux,t0,t1). F-171 means Rotational mech
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0153 Marine critical reserve duration / Marine DC bus balance

official-docs/blue-pages/individual/algorithms/BP-ALG-153_Marine-critical-reserve-duration-Marine-DC-bus-balance.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-173: t_critical = E_reserve,L / P_critical,H; F-174: P_sources = P_prop + P_critical + P_aux + P_charge + P_loss + r_P. F-173 means Critical service duration is conservative and product-classification dependent. F-174 means All marine bus flows are reconciled with a residual and uncertainty.

PATH OF EXPRESSION

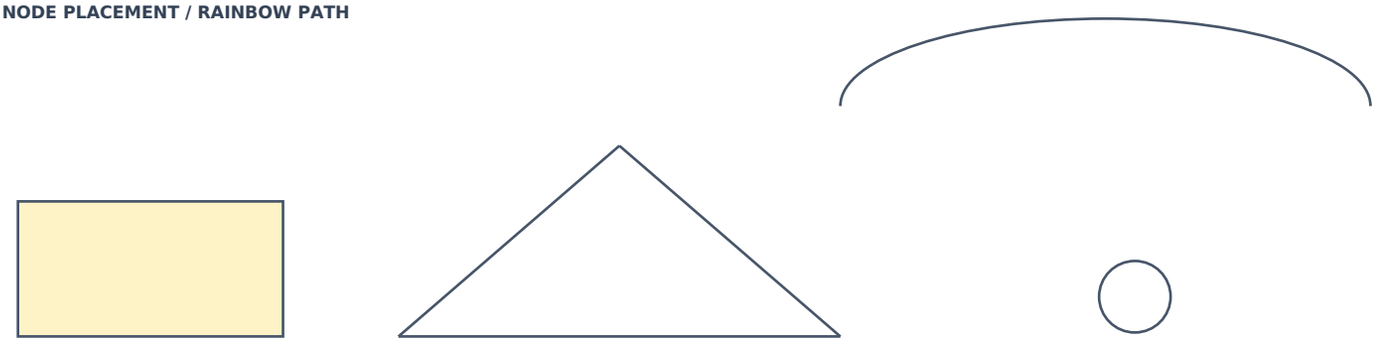
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Marine_critical_reserve_dura
reference "BP-ALG-153"
state R -> R1
node N1
representation JP(BP-ALG-153)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-173: t_critical = E_reserve,L / P_critical,H; F-174: P_sources = P_prop + P_critical + P_aux + P_charge + P_loss + r_P
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-175: I_pre(t) = (V_source - V_bus(t))/R_pre. F-175 means A reference precharge model applies only within its validated circuit domain.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

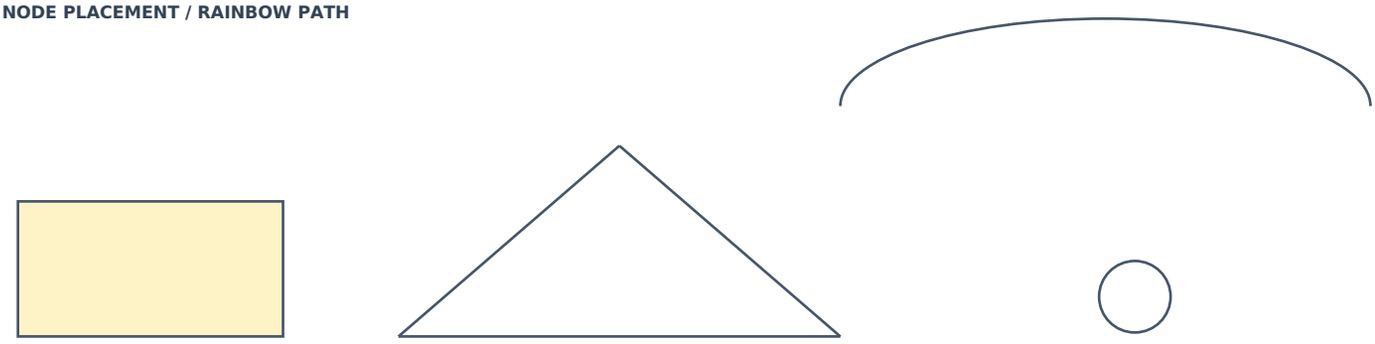
```
module MJ.Rainbow.Precharge_inrush_reference
reference "BP-ALG-154"
state R -> R1
node N1
representation JP(BP-ALG-154)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-175: I_pre(t) = (V_source - V_bus(t))/R_pre. F-175 means A reference precharge model applies only within its validated
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0155 Wet/dry leakage ratio / Marine environment state vector

official-docs/blue-pages/individual/algorithms/BP-ALG-155_Wetdry-leakage-ratio-Marine-environment-state-vector.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-176: K_leak = I_leak,wet / max(I_leak,dry,epsilon); F-177: X_env = [T,RH,salt,water,vibration,roll,pitch]. F-176 means Environmental leakage change is explicit and cannot be hidden by a dry baseline. F-177 means Marine physical evidence remains a multi-dimensional vector.

PATH OF EXPRESSION

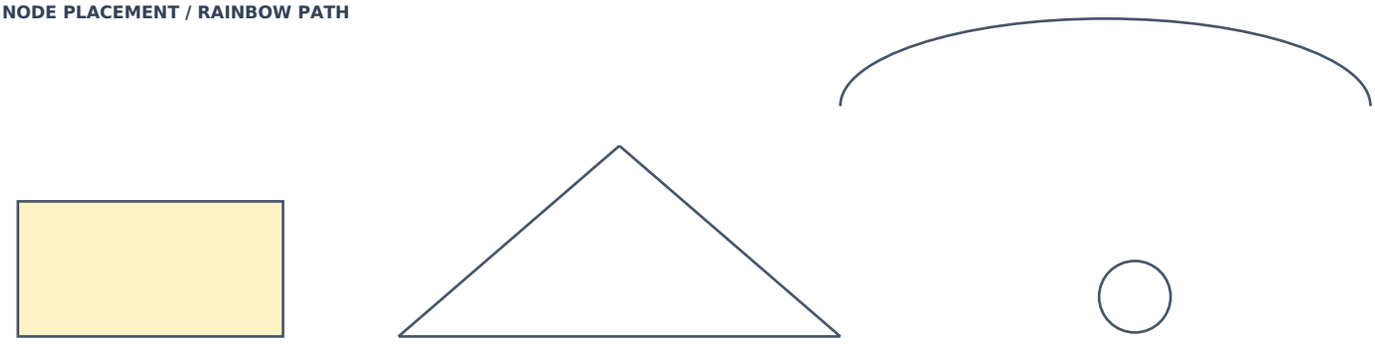
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Wet_dry_leakage_ratio_Marine
reference "BP-ALG-155"
state R -> R1
node N1
representation JP(BP-ALG-155)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-176: K_leak = I_leak,wet / max(I_leak,dry,epsilon); F-177: X_env = [T,RH,salt,water,vibration,roll,pitch]. F-176 means
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-178: D_vib = integral(a_rms(t)^2,t0,t1); F-179: E_recovered <= eta_recovery * E_available_loss. F-178 means Vibration exposure is a measured reference quantity, not a universal damage prediction. F-179 means Recovery cannot exceed evidenced available loss and efficiency.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

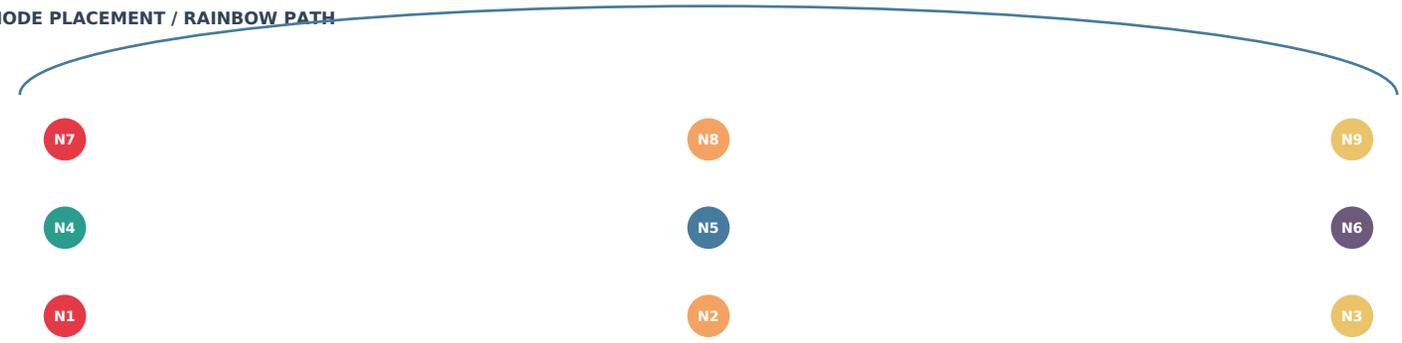
```
module MJ.Rainbow.Vibration_exposure_Recovered
reference "BP-ALG-156"
state R -> R1
node N4
representation JP(BP-ALG-156)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-178: D_vib = integral(a_rms(t)^2,t0,t1); F-179: E_recovered <= eta_recovery * E_available_loss. F-178 means Vibration
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0157 Priority load shedding / Marine evidence and permit gate

official-docs/blue-pages/individual/algorithms/BP-ALG-157_Priority-load-shedding-Marine-evidence-and-permit-gate.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-180: shed = lowest_priority_loads_until(P_source,L >= P_critical,H + margin); F-181: G_marine = class AND environment AND energy AND structure AND containment AND ethics AND MJ_permit. F-180 means Containment and safety loads cannot be shed to preserve optional service. F-181 means No vessel operation or propulsion test is authorized by design trace alone.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

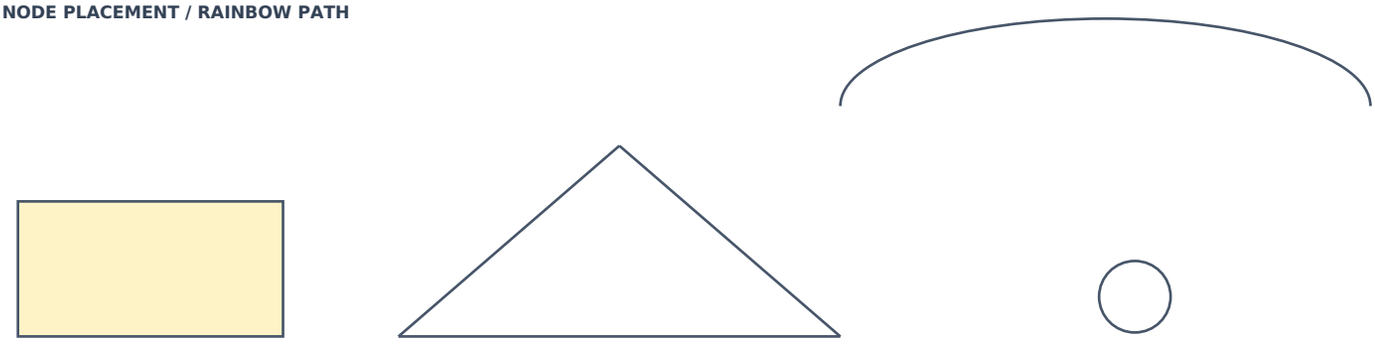
```
module MJ.Rainbow.Priority_load_shedding_Marin
reference "BP-ALG-157"
state R -> R1
node N1
representation JP(BP-ALG-157)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-180: shed = lowest_priority_loads_until(P_source,L >= P_critical,H + margin); F-181: G_marine = class AND environment
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0158 Peaceful spacecraft solar energy / Avionics bus balance

official-docs/blue-pages/individual/algorithms/BP-ALG-158_Peaceful-spacecraft-solar-energy-Avionics-bus-balance.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-182: E_space_solar = integral(P_solar_space(t),t0,t1); F-183: P_av_source = P_avionics + P_thermal + P_comms + P_charge + P_loss + r_P. F-182 means Solar electrical input for avionics/reserve is bounded to a declared peaceful research profile. F-183 means The reference bus separates service classes and preserves residual accounting.

PATH OF EXPRESSION

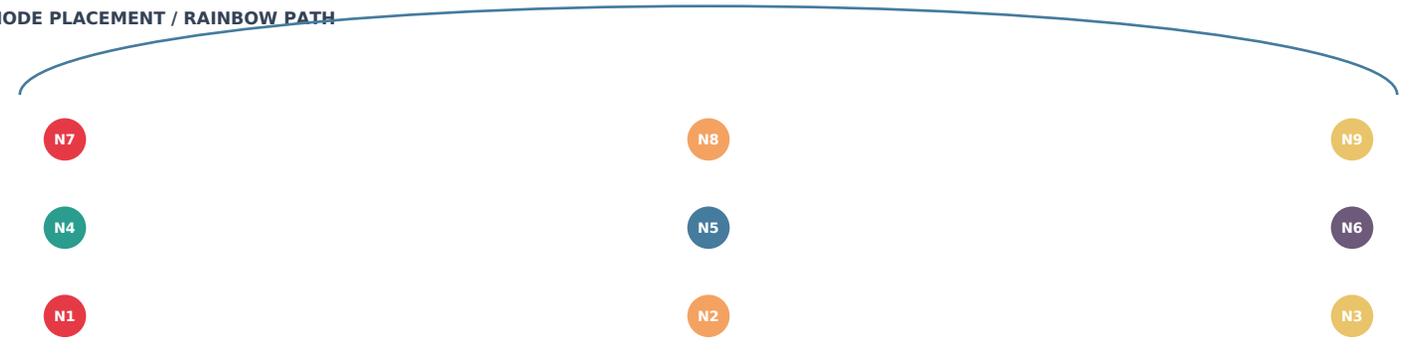
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Peaceful_spacecraft_solar_en
reference "BP-ALG-158"
state R -> R1
node N1
representation JP(BP-ALG-158)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-182: E_space_solar = integral(P_solar_space(t),t0,t1); F-183: P_av_source = P_avionics + P_thermal + P_comms + P_charg
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-184: t_emergency = E_emergency,L / P_emergency,H; F-185: C_th*dT/dt = P_internal + P_solar_absorbed - P_rejected. F-184 means Emergency reserve is conservative and does not authorize flight or propulsion. F-185 means A reference thermal balance requires geometry, materials, environment, and radiation model evidence.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

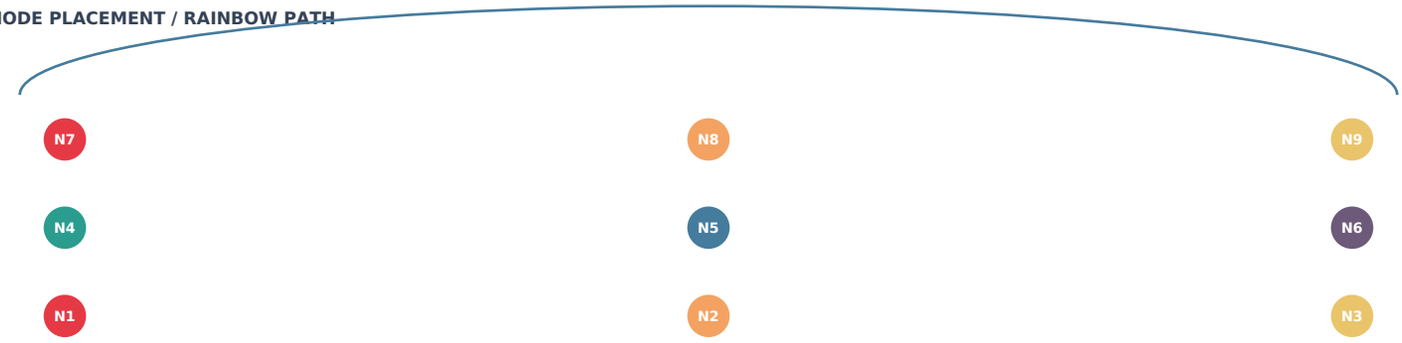
```
module MJ.Rainbow.Emergency_reserve_duration_S
reference "BP-ALG-159"
state R -> R1
node N1
representation JP(BP-ALG-159)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-184: t_emergency = E_emergency,L / P_emergency,H; F-185: C_th*dT/dt = P_internal + P_solar_absorbed - P_rejected. F-18
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0160 Space-profile battery margin / Authenticated startup state

official-docs/blue-pages/individual/algorithms/BP-ALG-160_Space-profile-battery-margin-Authenticated-startup-state.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-186: M_batt = E_battery,L - E_required,H; F-187: S_next = transition(S_current,command,authority,evidence,ethics). F-186 means A negative or unknown margin blocks the applicable state transition. F-187 means Startup/shutdown state changes require exact command, authority, evidence, and ethics.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Space_profile_battery_margin
reference "BP-ALG-160"
state R -> R1
node N8
representation JP(BP-ALG-160)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-186: M_batt = E_battery,L - E_required,H; F-187: S_next = transition(S_current,command,authority,evidence,ethics). F-1
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0161 Fault isolation set / Redundant service availability

official-docs/blue-pages/individual/algorithms/BP-ALG-161_Fault-isolation-set-Redundant-service-availability.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-188: F_isolated = isolate(F_detected,affected_boundaries,receipts); F-189: A_service = 1 - product(1-A_i) for independent admitted channels. F-188 means Fault isolation is bounded and preserves evidence; it does not provide targeting or evasion capability. F-189 means Availability calculations require evidenced independence and cannot be assumed.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

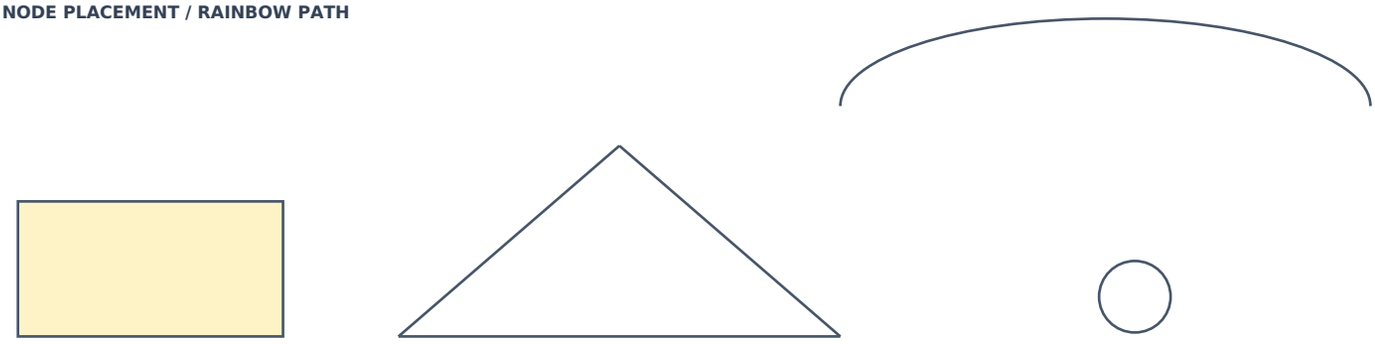
```
module MJ.Rainbow.Fault_isolation_set_Redundan
reference "BP-ALG-161"
state R -> R1
node N1
representation JP(BP-ALG-161)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-188: F_isolated = isolate(F_detected,affected_boundaries,receipts); F-189: A_service = 1 - product(1-A_i) for independ
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

RW-BLUE-0162 Propulsion-state coordination reference / High-energy emergency

official-docs/blue-pages/individual/algorithms/BP-ALG-162_Propulsion-state-coordination-reference-High-energy-emergency-reserve.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-190: S_prop_next = governed_state_update(S_prop,telemetry,limits,authority); F-191: R_HE = E_safe_shutdown,L - E_shutdown_required,H. F-190 means The model coordinates state labels without selecting energetic materials, constructing propulsion, or providing launch authority. F-191 means Safe-shutdown reserve must remain nonnegative before any high-energy research transition.

PATH OF EXPRESSION

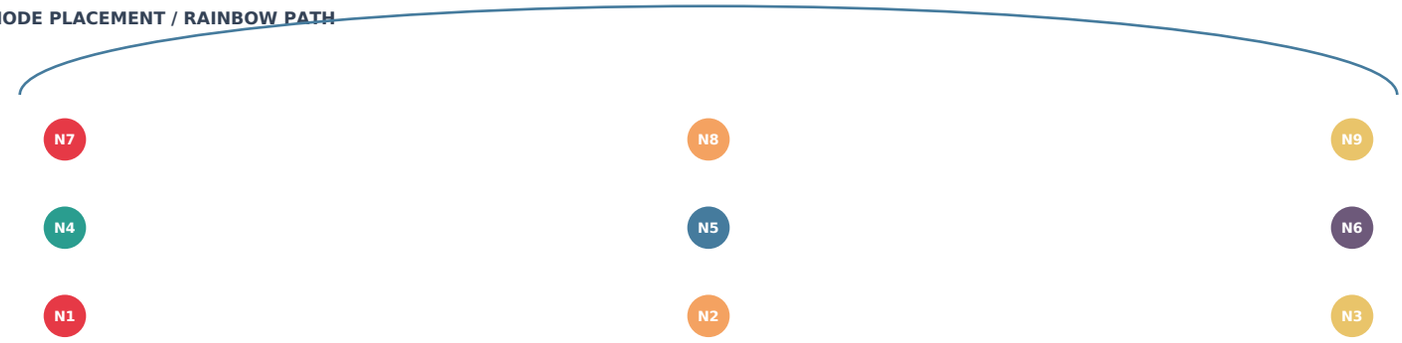
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Propulsion_state_coordinatio
reference "BP-ALG-162"
state R -> R1
node N1
representation JP(BP-ALG-162)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-190: S_prop_next = governed_state_update(S_prop,telemetry,limits,authority); F-191: R_HE = E_safe_shutdown,L - E_shutd
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-192: G_ethics = peaceful_research AND no_targeting AND no_destructive_payload AND no_evasion_for_harm; F-193: G_rocket = peaceful_scope AND profile_evidence AND safety AND regulatory_hold_resolved AND MJ_permit. F-192 means Weaponized or unresolved dual-use execution is denied or held; no passkey overrides this gate. F-193 means Design trace does not authorize propulsion construction, launch, flight, or physical testing.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

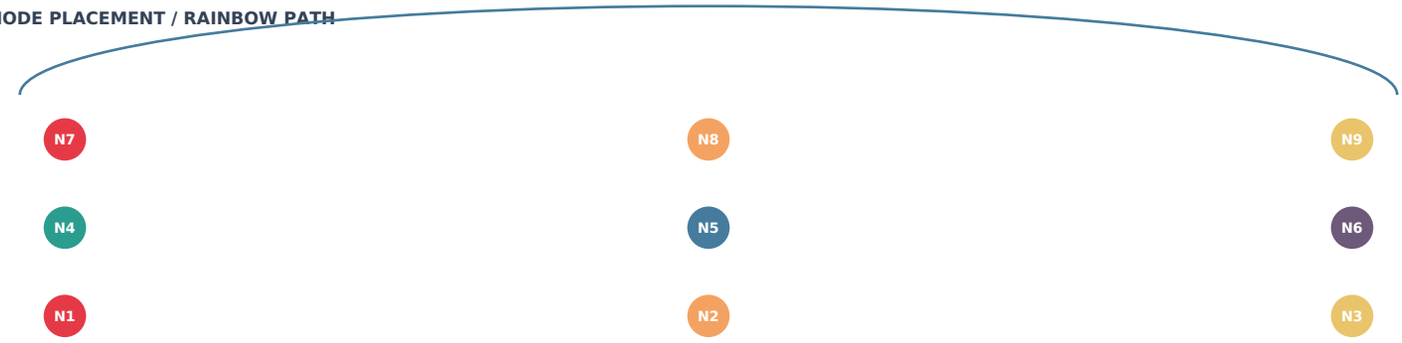
```
module MJ.Rainbow.Non_weaponization_gate_Rocke
reference "BP-ALG-163"
state R -> R1
node N1
representation JP(BP-ALG-163)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-192: G_ethics = peaceful_research AND no_targeting AND no_destructive_payload AND no_evasion_for_harm; F-193: G_rocket
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0164 DRO founder lower marker / DRO alias conversion

official-docs/blue-pages/individual/algorithms/BP-ALG-164_DRO-founder-lower-marker-DRO-alias-conversion.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N3; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-194: d_A = 5e-22 m; F-195: d_B = 3e-12 nm * 1e-9 m/nm = 3e-21 m. F-194 means Founder-declared theoretical lower marker; not a measured particle size. F-195 means Converts the founder alias string into SI length.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

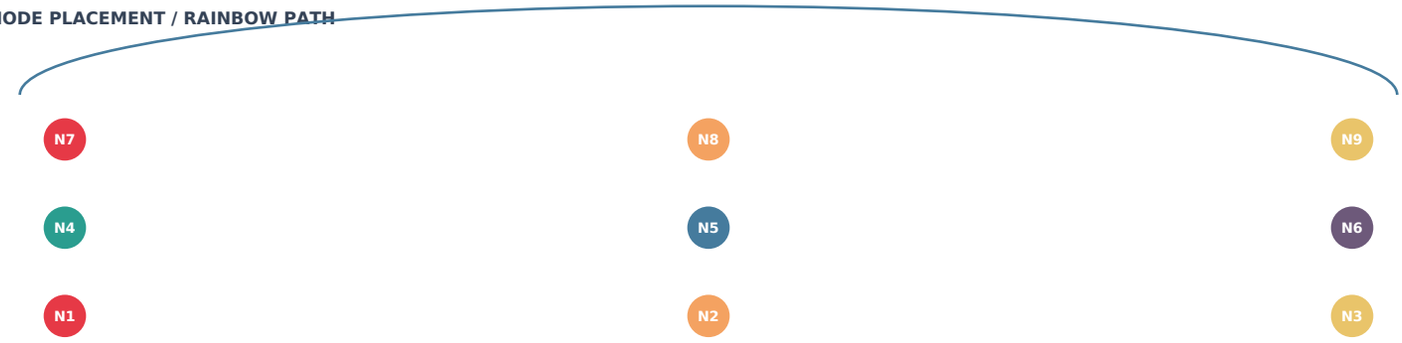
```
module MJ.Rainbow.DRO_founder_lower_marker_DRO
reference "BP-ALG-164"
state R -> R1
node N3
representation JP(BP-ALG-164)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-194: d_A = 5e-22 m; F-195: d_B = 3e-12 nm * 1e-9 m/nm = 3e-21 m. F-194 means Founder-declared theoretical lower marker
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0165 DRO conservative R threshold / DRO upper spherical reference

official-docs/blue-pages/individual/algorithms/BP-ALG-165_DRO-conservative-R-threshold-DRO-upper-spherical-reference.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-196: d_R = max(d_A,d_B) = 3e-21 m; F-197: d_U = 0.15 nm = 1.5e-10 m. F-196 means Conservative simulation threshold that satisfies both inconsistent founder minima. F-197 means Upper founder reference for a spherical representation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_conservative_R_threshold
reference "BP-ALG-165"
state R -> R1
node N1
representation JP(BP-ALG-165)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-196: d_R = max(d_A,d_B) = 3e-21 m; F-197: d_U = 0.15 nm = 1.5e-10 m. F-196 means Conservative simulation threshold tha
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0166 DRO declared interval / DRO reference radius

official-docs/blue-pages/individual/algorithms/BP-ALG-166_DRO-declared-interval-DRO-reference-radius.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-198: d in [d_R,d_U]; F-199: r_DRO = d/2. F-198 means A typed simulation interval; not physical existence. F-199 means Classical geometric reference radius.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_declared_interval_DRO_re
reference "BP-ALG-166"
state R -> R1
node N1
representation JP(BP-ALG-166)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-198: d in [d_R,d_U]; F-199: r_DRO = d/2. F-198 means A typed simulation interval; not physical existence. F-199 means
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0167 DRO spherical reference volume / DRO interval ratio

official-docs/blue-pages/individual/algorithms/BP-ALG-167_DRO-spherical-reference-volume-DRO-interval-ratio.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-200: V_DRO = 4*pi*r_DRO^3/3; F-201: Gamma_D = d_U/d_R. F-200 means Classical sphere representation only at the declared scale. F-201 means Scale separation between R threshold and upper reference.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_spherical_reference_volu
reference "BP-ALG-167"
state R -> R1
node N1
representation JP(BP-ALG-167)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-200: V_DRO = 4*pi*r_DRO^3/3; F-201: Gamma_D = d_U/d_R. F-200 means Classical sphere representation only at the declare
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0168 DRO quantity count / DRO remainder

official-docs/blue-pages/individual/algorithms/BP-ALG-168_DRO-quantity-count-DRO-remainder.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-202: N_DRO = floor(Q_observed/q_unit); F-203: Q_rem = Q_observed - N_DRO*q_unit. F-202 means Count of complete typed DRO units from a measured or simulated quantity. F-203 means Unallocated typed remainder; never silently discarded.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

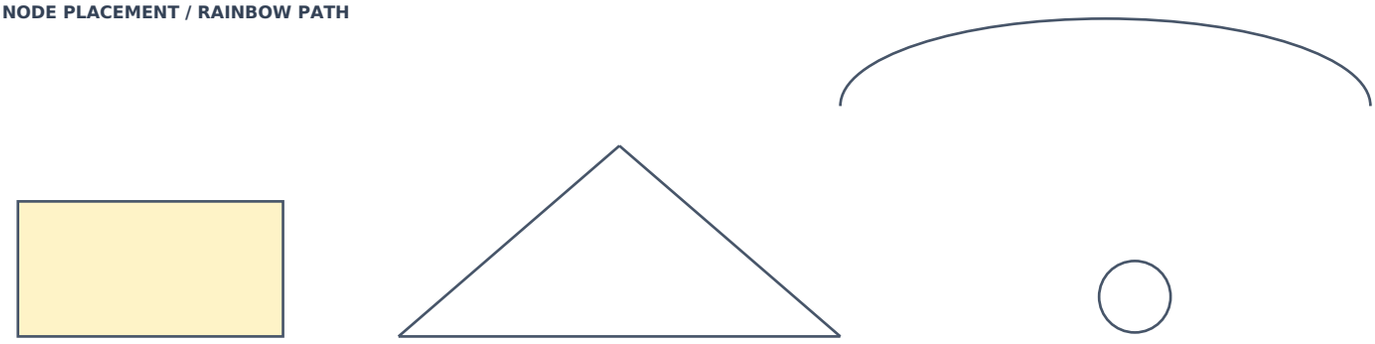
```
module MJ.Rainbow.DRO_quantity_count_DRO_remai
reference "BP-ALG-168"
state R -> R1
node N7
representation JP(BP-ALG-168)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-202: N_DRO = floor(Q_observed/q_unit); F-203: Q_rem = Q_observed - N_DRO*q_unit. F-202 means Count of complete typed D
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0169 Pearl-node allocation count / DRO-Pearl handoff balance

official-docs/blue-pages/individual/algorithms/BP-ALG-169_Pearl-node-allocation-count-DRO-Pearl-handoff-balance.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-204: N_P = ceil(N_DRO/C_P); F-205: N_DRO,in = N_DRO,pearl + N_DRO,held + N_DRO,escaped + r_DRO. F-204 means Number of computational Pearl nodes required for DRO records. F-205 means Discrete conservation across the handoff.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

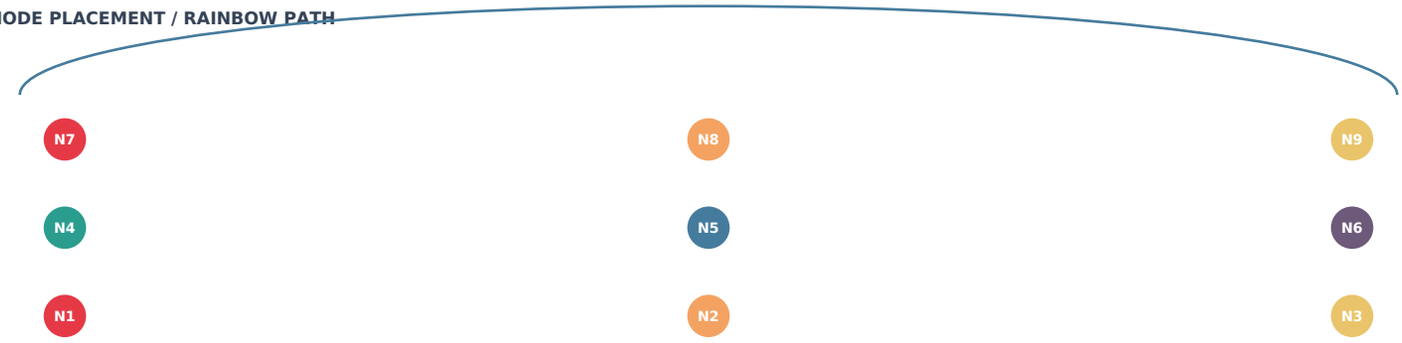
```
module MJ.Rainbow.Pearl_node_allocation_count_
reference "BP-ALG-169"
state R -> R1
node N1
representation JP(BP-ALG-169)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-204: N_P = ceil(N_DRO/C_P); F-205: N_DRO,in = N_DRO,pearl + N_DRO,held + N_DRO,escaped + r_DRO. F-204 means Number of
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0170 DRO R-state gate

official-docs/blue-pages/individual/algorithms/BP-ALG-170_DRO-R-state-gate.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-206: G_R = scale_interval_valid AND source_bound AND units_valid. F-206 means Eligibility for an R candidate.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

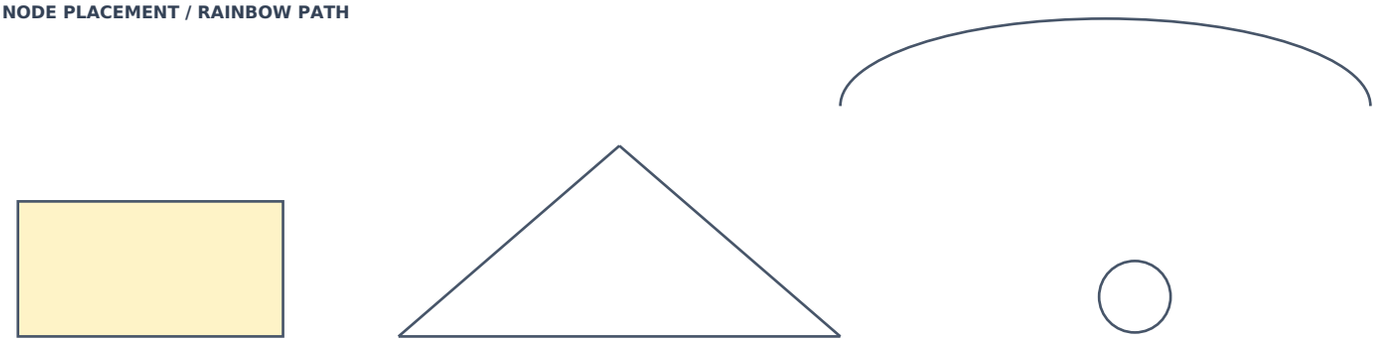
```
module MJ.Rainbow.DRO_R_state_gate
reference "BP-ALG-170"
state R -> R1
node N1
representation JP(BP-ALG-170)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-206: G_R = scale_interval_valid AND source_bound AND units_valid. F-206 means Eligibility for an R candidate.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0171 DRO R1 gate / DRO R2 gate

official-docs/blue-pages/individual/algorithms/BP-ALG-171_DRO-R1-gate-DRO-R2-gate.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-207: G_R1 = G_R AND observed AND unresolved_items>0; F-208: G_R2 = G_R AND observed AND all_required_evidence_pass. F-207 means Observed-but-unresolved transition remains R1. F-208 means Verified living-static DRO representation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

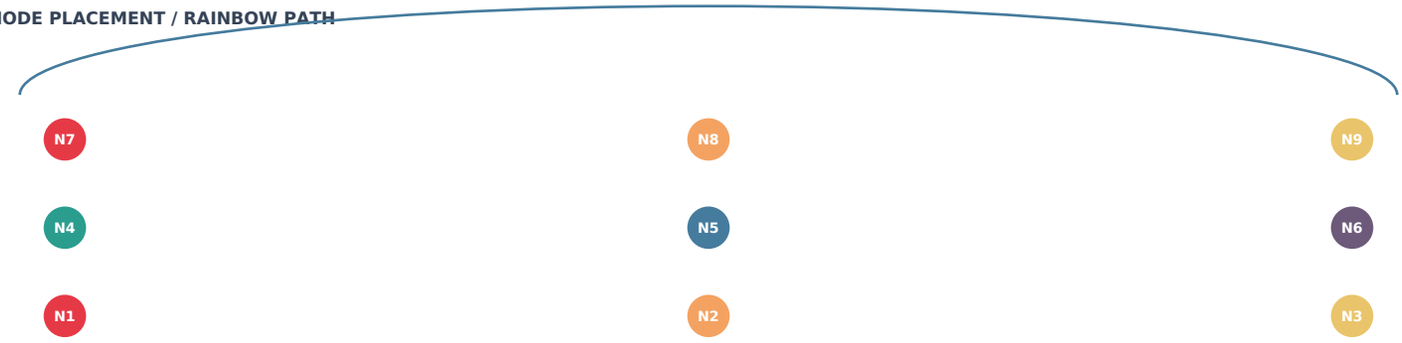
```
module MJ.Rainbow.DRO_R1_gate_DRO_R2_gate
reference "BP-ALG-171"
state R -> R1
node N1
representation JP(BP-ALG-171)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-207: G_R1 = G_R AND observed AND unresolved_items>0; F-208: G_R2 = G_R AND observed AND all_required_evidence_pass. F-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0172 Optical wavelength / Photon energy

official-docs/blue-pages/individual/algorithms/BP-ALG-172_Optical-wavelength-Photon-energy.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N2; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-209: lambda = c/f; F-210: E_gamma = h*f. F-209 means Reference wavelength for a measured optical-control frequency. F-210 means Energy per photon at frequency f.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

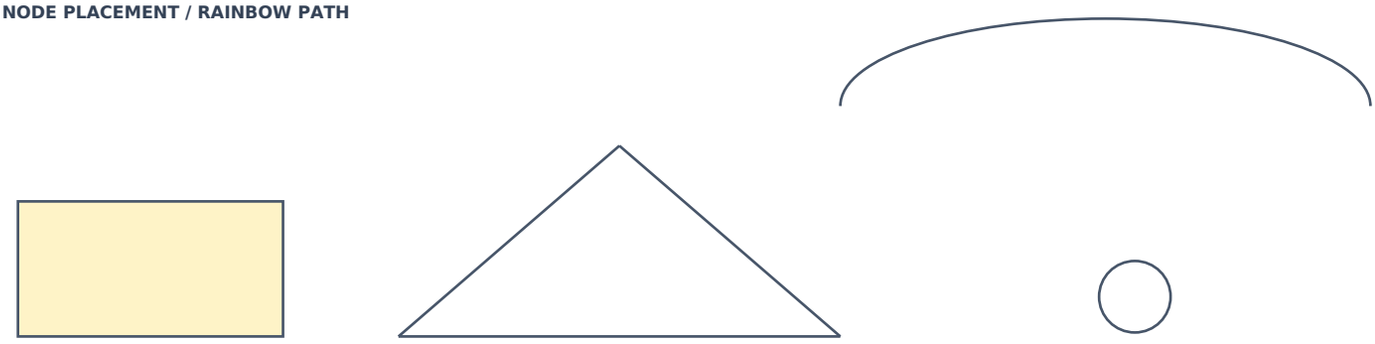
```
module MJ.Rainbow.Optical_wavelength_Photon_en
reference "BP-ALG-172"
state R -> R1
node N2
representation JP(BP-ALG-172)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-209: lambda = c/f; F-210: E_gamma = h*f. F-209 means Reference wavelength for a measured optical-control frequency. F-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0173 Photon count estimate / Optical coupling evidence

official-docs/blue-pages/individual/algorithms/BP-ALG-173_Photon-count-estimate-Optical-coupling-evidence.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-211: N_gamma = P*Delta_t/(h*f); F-212: N_couple = eta_c*N_gamma. F-211 means Expected incident photon count from measured optical power and duration. F-212 means Expected coupled-event count under a calibrated coupling efficiency.

PATH OF EXPRESSION

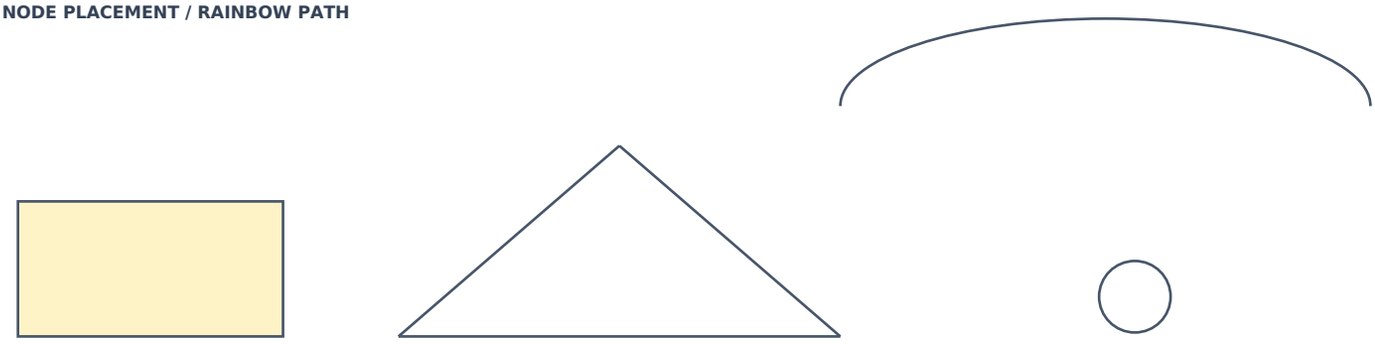
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Photon_count_estimate_Optica
reference "BP-ALG-173"
state R -> R1
node N1
representation JP(BP-ALG-173)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-211: N_gamma = P*Delta_t/(h*f); F-212: N_couple = eta_c*N_gamma. F-211 means Expected incident photon count from measu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-213: G_opt = calibrated_band AND measured_power AND eta_c_evidenced AND uncertainty_valid; F-214: R_DRO = Delta N_DRO/Delta t. F-213 means Optical collection remains HOLD unless every evidence term is present. F-214 means Observed or simulated DRO-unit acquisition rate.

PATH OF EXPRESSION

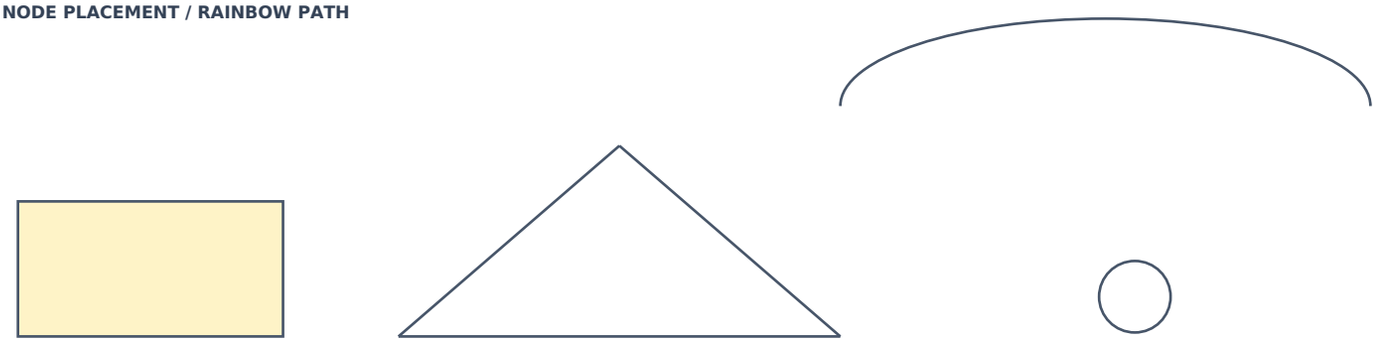
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Optical_admissibility_DRO_co
reference "BP-ALG-174"
state R -> R1
node N1
representation JP(BP-ALG-174)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-213: G_opt = calibrated_band AND measured_power AND eta_c_evidenced AND uncertainty_valid; F-214: R_DRO = Delta N_DRO/
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-215: U_d = k*sqrt(J*Sigma*J^T + u_model^2); F-216: I_d = [d_hat-U_d,d_hat+U_d]. F-215 means Expanded uncertainty of the scale representation. F-216 means Evidence interval used for R/R1/R2 classification.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

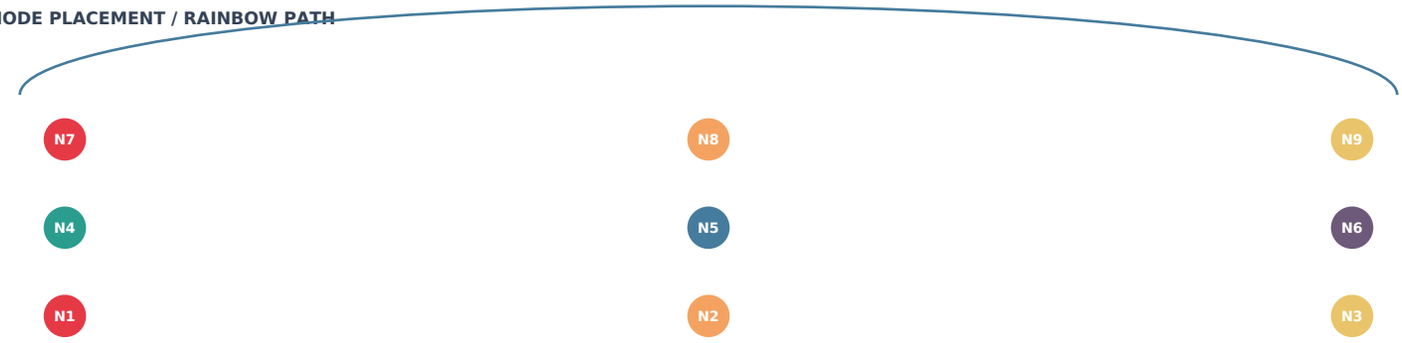
```
module MJ.Rainbow.DRO_scale_uncertainty_DRO_in
reference "BP-ALG-175"
state R -> R1
node N1
representation JP(BP-ALG-175)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-215: U_d = k*sqrt(J*Sigma*J^T + u_model^2); F-216: I_d = [d_hat-U_d,d_hat+U_d]. F-215 means Expanded uncertainty of th
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0176 DRO capacity slack

official-docs/blue-pages/individual/algorithms/BP-ALG-176_DRO-capacity-slack.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N6; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-217: S_k = (1-h_k)C_k - L_k. F-217 means Remaining capacity in each typed Pearl-node dimension.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

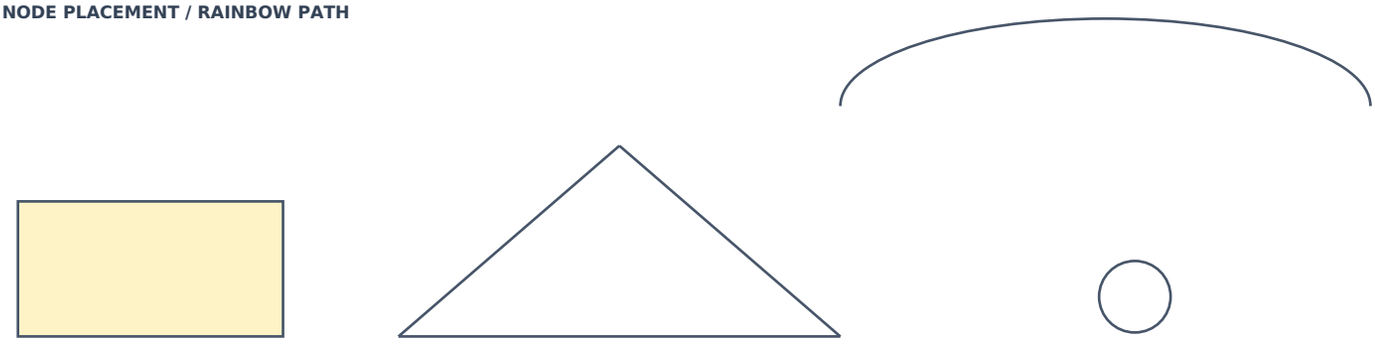
```
module MJ.Rainbow.DRO_capacity_slack
reference "BP-ALG-176"
state R -> R1
node N6
representation JP(BP-ALG-176)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-217: S_k = (1-h_k)C_k - L_k. F-217 means Remaining capacity in each typed Pearl-node dimension.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0177 DRO overflow vector / DRO ledger balance

official-docs/blue-pages/individual/algorithms/BP-ALG-177_DRO-overflow-vector-DRO-ledger-balance.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-218: E_k = max(0,L_k-(1-h_k)C_k); F-219: r_Q = Q_in-Q_alloc-Q_retained-Q_transferred-Q_escaped-Delta Q_stored. F-218 means Typed excess; surplus in another dimension cannot compensate. F-219 means Complete quantity balance.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_overflow_vector_DRO_ledg
reference "BP-ALG-177"
state R -> R1
node N1
representation JP(BP-ALG-177)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-218: E_k = max(0,L_k-(1-h_k)C_k); F-219: r_Q = Q_in-Q_alloc-Q_retained-Q_transferred-Q_escaped-Delta Q_stored. F-218 m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0178 DRO energy ledger / Available start energy lower bound

official-docs/blue-pages/individual/algorithms/BP-ALG-178_DRO-energy-ledger-Available-start-energy-lower-bound.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-220: r_E = E_in-E_stored-E_start-E_restart-E_loss-E_containment; F-221: E_avail,L = E_solar,L + E_acoustic,L + E_other,L - E_loss,H. F-220 means Energy conservation for reference start accounting. F-221 means Conservative available energy.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

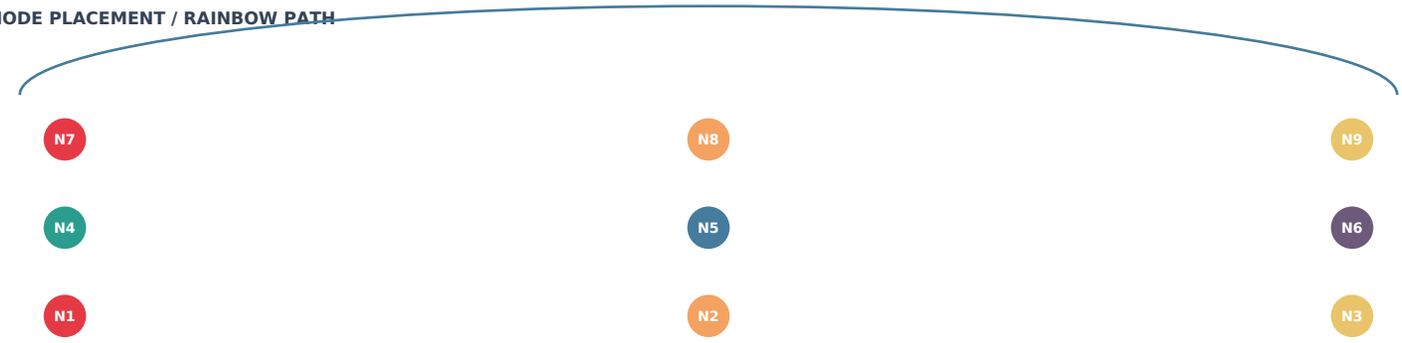
```
module MJ.Rainbow.DRO_energy_ledger_Available_
reference "BP-ALG-178"
state R -> R1
node N1
representation JP(BP-ALG-178)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-220: r_E = E_in-E_stored-E_start-E_restart-E_loss-E_containment; F-221: E_avail,L = E_solar,L + E_acoustic,L + E_other
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0179 Start gate / Restart reserve

official-docs/blue-pages/individual/algorithms/BP-ALG-179_Start-gate-Restart-reserve.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-222: G_start = E_avail,L >= M_E*(E_start,H+E_restart,H) AND all_safety_gates; F-223: E_restart,L = E_reserve,L - E_critical,H. F-222 means Start readiness requires immediate start plus restart reserve. F-223 means Lower-bound reserve after critical obligations.

PATH OF EXPRESSION

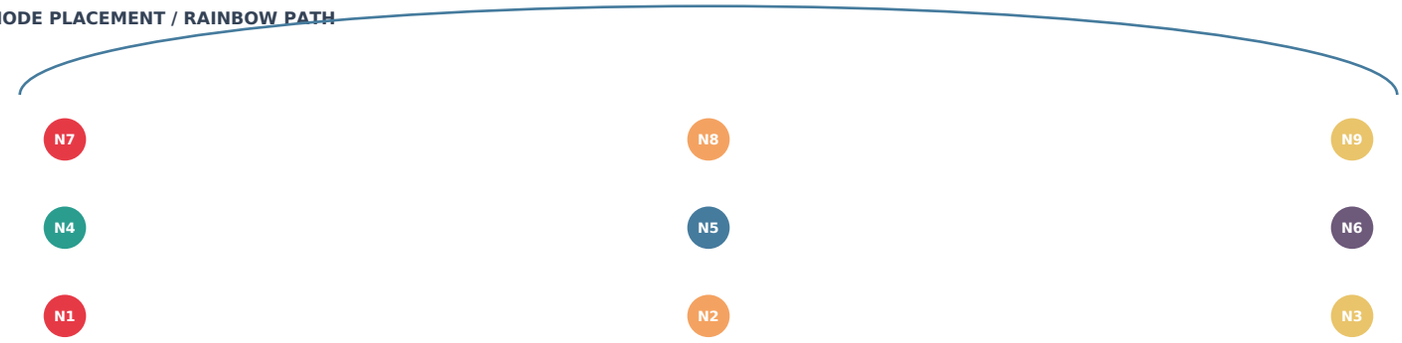
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Start_gate_Restart_reserve
reference "BP-ALG-179"
state R -> R1
node N1
representation JP(BP-ALG-179)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-222: G_start = E_avail,L >= M_E*(E_start,H+E_restart,H) AND all_safety_gates; F-223: E_restart,L = E_reserve,L - E_cri
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-224: E_solar = integral(P_solar(t) dt); F-225: E_acoustic = integral(eta_a(t) I(t) A(t) dt). F-224 means Measured solar contribution to the reference ledger. F-225 means Measured conversion only; noise alone does not prove usable energy.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_contribution_Acoustic_
reference "BP-ALG-180"
state R -> R1
node N1
representation JP(BP-ALG-180)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-224: E_solar = integral(P_solar(t) dt); F-225: E_acoustic = integral(eta_a(t) I(t) A(t) dt). F-224 means Measured sola
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-226: W_sep >= Delta G_sep; F-227: n_species = x_species*n_source. F-226 means Any species-separation claim requires a thermodynamic and measured energy balance. F-227 means Available amount depends on measured composition, not assumption.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Generic_separation_work_lowe
reference "BP-ALG-181"
state R -> R1
node N1
representation JP(BP-ALG-181)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-226: W_sep >= Delta G_sep; F-227: n_species = x_species*n_source. F-226 means Any species-separation claim requires a
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0182 Conversion efficiency / Controlled logical release

official-docs/blue-pages/individual/algorithms/BP-ALG-182_Conversion-efficiency-Controlled-logical-release.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-228: eta = E_out/E_in, 0<=eta<=1; F-229: G_release = authorization AND destination_capacity AND conservation AND safety. F-228 means Measured conversion efficiency; undefined when input is zero or unknown. F-229 means Normalizes pop/release language to a bounded logical event.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Conversion_efficiency_Contro
reference "BP-ALG-182"
state R -> R1
node N1
representation JP(BP-ALG-182)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-228: eta = E_out/E_in, 0<=eta<=1; F-229: G_release = authorization AND destination_capacity AND conservation AND safet
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0183 DRO thermal gate / Semiconductor DRO charge balance

official-docs/blue-pages/individual/algorithms/BP-ALG-183_DRO-thermal-gate-Semiconductor-DRO-charge-balance.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-230: T_H <= T_allow-Delta T_margin; F-231: Delta Q = integral(I_intake-I_leak-I_release)dt + r_Q. F-230 means Conservative thermal boundary for any future physical profile. F-231 means Charge accounting for the semiconductor profile.

PATH OF EXPRESSION

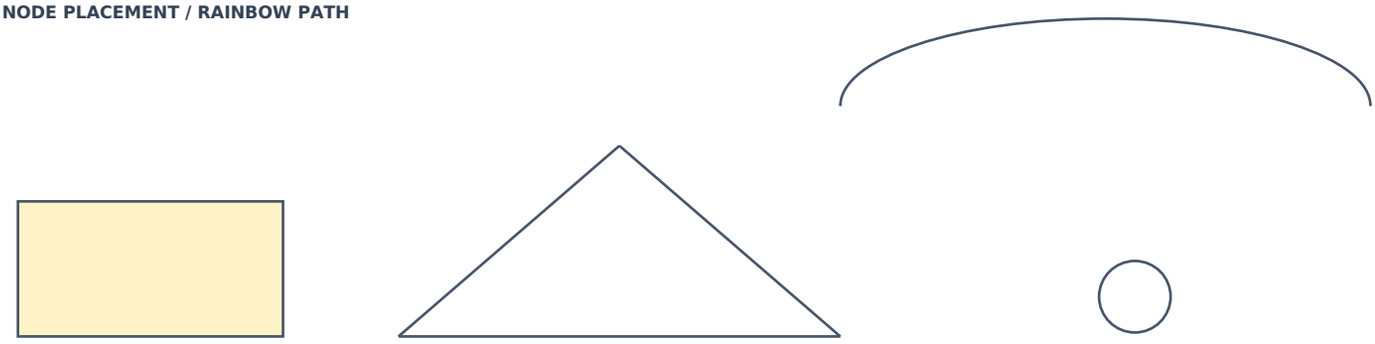
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_thermal_gate_Semiconduct
reference "BP-ALG-183"
state R -> R1
node N1
representation JP(BP-ALG-183)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-230: T_H <= T_allow-Delta T_margin; F-231: Delta Q = integral(I_intake-I_leak-I_release)dt + r_Q. F-230 means Conserva
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-232: B_P = B_DRO+B_lineage+B_uncertainty+B_receipts+B_headroom; F-233: E_node,L >= M_E*(E_wake,H+E_restart,H). F-232 means Memory required for a computational Pearl node. F-233 means Reference wake and restart reserve gate.

PATH OF EXPRESSION

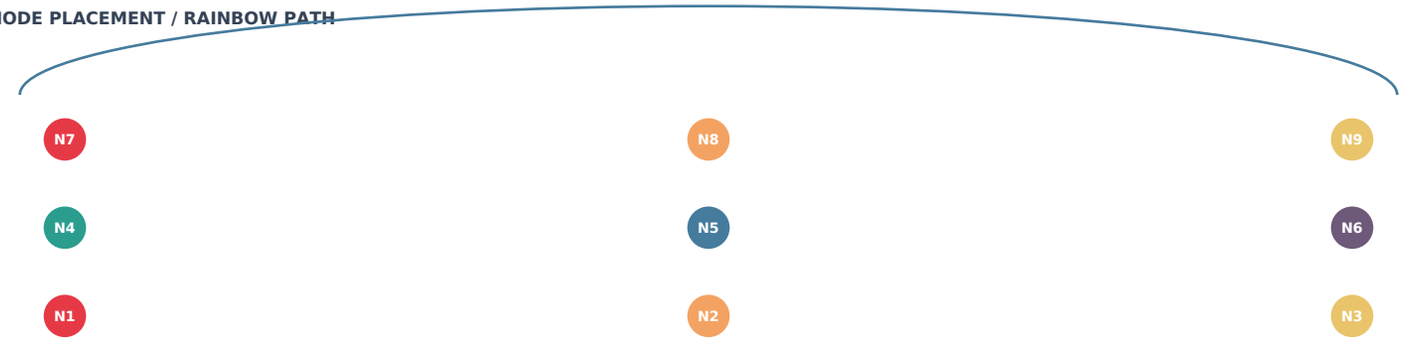
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Semiconductor_Pearl_node_mem
reference "BP-ALG-184"
state R -> R1
node N5
representation JP(BP-ALG-184)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-232: B_P = B_DRO+B_lineage+B_uncertainty+B_receipts+B_headroom; F-233: E_node,L >= M_E*(E_wake,H+E_restart,H). F-232 m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-234: G_SC = profile==SC AND no_LS_value_inheritance; F-235: H_src = SHA256(source_bytes). F-234 means Rejects marine or rocket physical values in the SC profile. F-235 means Immutable source identity reference.

PATH OF EXPRESSION

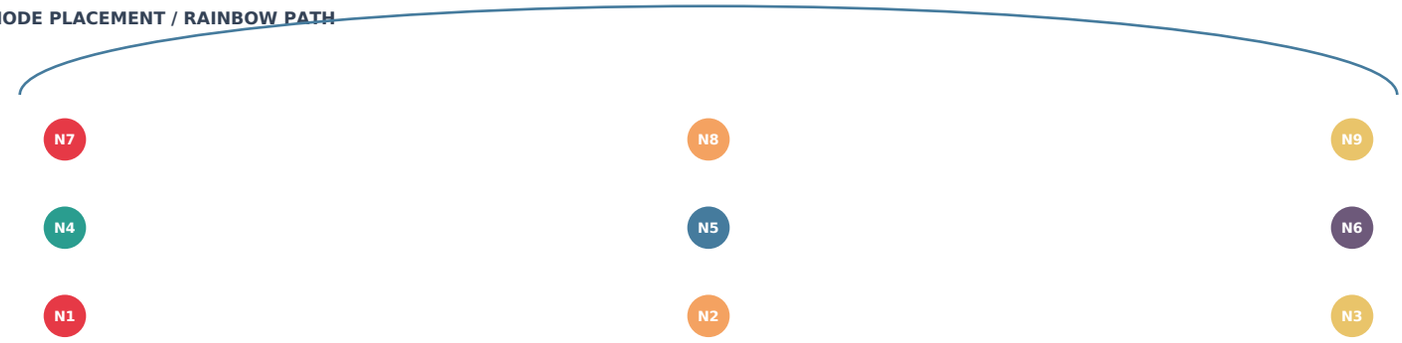
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Semiconductor_profile_isolat
reference "BP-ALG-185"
state R -> R1
node N1
representation JP(BP-ALG-185)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-234: G_SC = profile==SC AND no_LS_value_inheritance; F-235: H_src = SHA256(source_bytes). F-234 means Rejects marine o
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-236: D_px = (1/N) sum ||I_test-I_ref||_2; F-237: D_fft = ||FFT(I_test)-FFT(I_ref)||_2. F-236 means Average per-pixel residual after declared registration and color handling. F-237 means Frequency-domain residual used as evidence, not intent truth.

PATH OF EXPRESSION

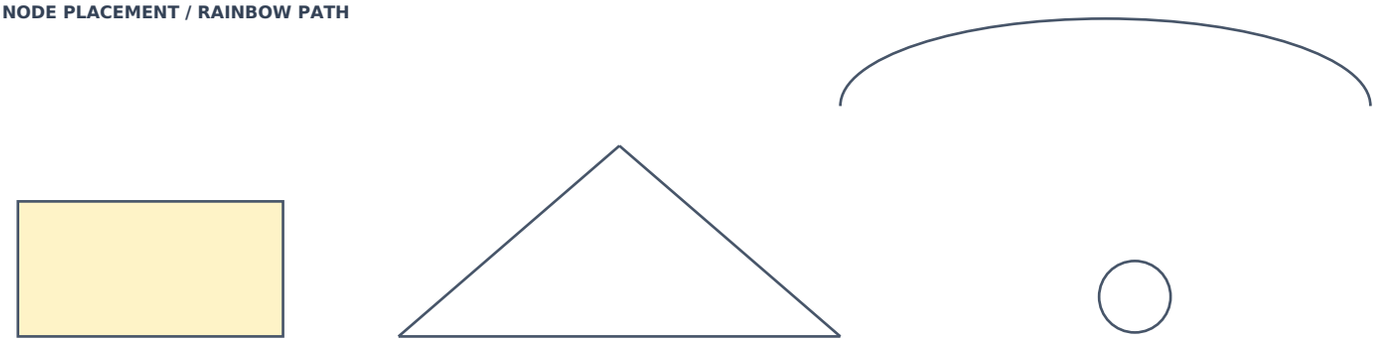
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Lecanto_pixel_residual_Lecan
reference "BP-ALG-186"
state R -> R1
node N1
representation JP(BP-ALG-186)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-236: D_px = (1/N) sum ||I_test-I_ref||_2; F-237: D_fft = ||FFT(I_test)-FFT(I_ref)||_2. F-236 means Average per-pixel r
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-238: P_prov = complete_required_links/required_links; F-239: H_intent = f(words,context,declared_purpose,provenance). F-238 means Provenance completeness ratio; one missing mandatory link causes HOLD. F-239 means A bounded hypothesis, never a fact or authority grant.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

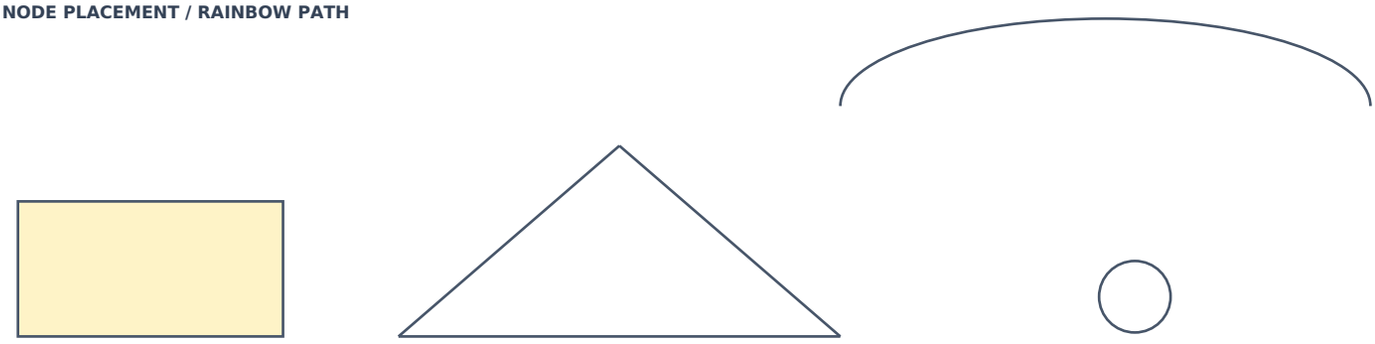
```
module MJ.Rainbow.Lecanto_provenance_completen
reference "BP-ALG-187"
state R -> R1
node N1
representation JP(BP-ALG-187)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-238: P_prov = complete_required_links/required_links; F-239: H_intent = f(words,context,declared_purpose,provenance).
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0188 Lecanto transformation gate / Lecanto reject gate

official-docs/blue-pages/individual/algorithms/BP-ALG-188_Lecanto-transformation-gate-Lecanto-reject-gate.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-240: G_edit = source_preserved AND modification_disclosed AND purpose_allowed AND safety_pass; F-241: G_reject = provenance_fail OR harmful_purpose OR undeclared_transform. F-240 means A derivative may be produced only with source preservation and disclosure. F-241 means Reject or hold an unsafe or unverifiable image.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Lecanto_transformation_gate_
reference "BP-ALG-188"
state R -> R1
node N9
representation JP(BP-ALG-188)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-240: G_edit = source_preserved AND modification_disclosed AND purpose_allowed AND safety_pass; F-241: G_reject = prove
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

F-242: G_R8 = DRO_valid AND Pearl_node_valid AND Lecanto_when_image AND MK_pass AND JO_pass AND ethics AND MJ_permit. F-242 means Complete R8 command gate.

PATH OF EXPRESSION

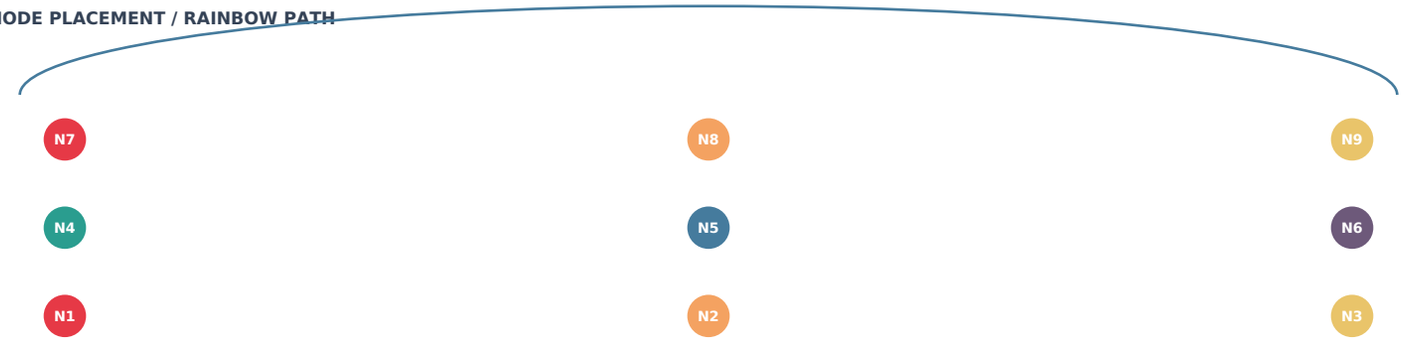
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.R8_command_admissibility
reference "BP-ALG-189"
state R -> R1
node N1
representation JP(BP-ALG-189)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# F-242: G_R8 = DRO_valid AND Pearl_node_valid AND Lecanto_when_image AND MK_pass AND JO_pass AND ethics AND MJ_permit. F-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Project root, founder-governed authority and final bounded permit decision. Values: truth, measurement, human authority, stewardship, non-weaponization. Inputs: founder purpose, verified evidence, family receipts, Pearl and Bangel Spreadsheets decision packets. Outputs: bounded permit, hold, deny, project state.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_Family_Manifestation
reference "BP-FAM-001"
state R -> R1
node N1
representation JP(BP-FAM-001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Project root, founder-governed authority and final bounded permit decision. Values: truth, measurement, human auth
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Human-facing governed language that preserves purpose and command structure. Values: intent integrity, explicit types, traceability. Inputs: human purpose, declared scope. Outputs: typed command envelope, source representation, Bangel Sheet source, if/how/then operational intake.

PATH OF EXPRESSION

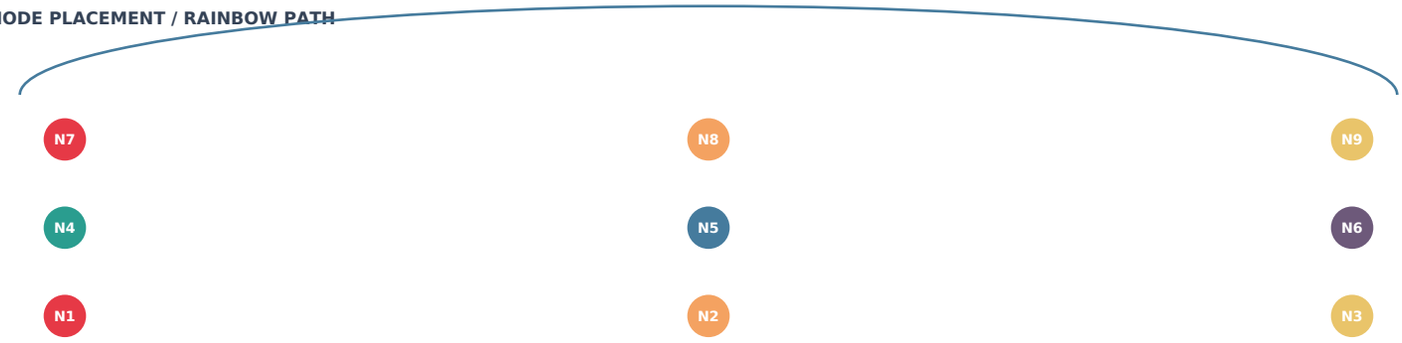
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bangel _Family_Manifestation
reference "BP-FAM-002"
state R -> R1
node N1
representation JP(BP-FAM-002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Human-facing governed language that preserves purpose and command structure. Values: intent integrity, explicit ty
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Deterministic semantic recovery and purpose-preservation layer. Values: meaning fidelity, purpose confinement, clarity. Inputs: Bangel source, context evidence. Outputs: semantic envelope, ambiguity hold.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Elsa_Family_Manifestation
reference "BP-FAM-003"
state R -> R1
node N4
representation JP(BP-FAM-003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Deterministic semantic recovery and purpose-preservation layer. Values: meaning fidelity, purpose confinement, cla
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Canonical mathematical, algorithmic, topology, CAPO, and architecture representation. Values: mathematical rigor, provenance, equivalence. Inputs: semantic envelope, founder laws. Outputs: math CAPO, algorithm CAPO, architecture CAPO, Pearl CAPO, Bangel Sheet dependency CAPO, JPOSMJ product envelope.

PATH OF EXPRESSION

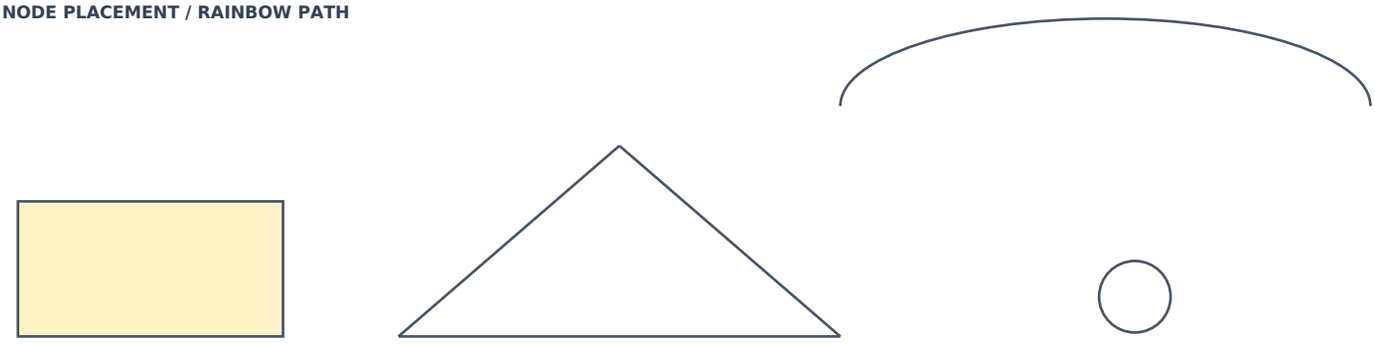
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JP_Family_Manifestation
reference "BP-FAM-004"
state R -> R1
node N1
representation JP(BP-FAM-004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Canonical mathematical, algorithmic, topology, CAPO, and architecture representation. Values: mathematical rigor,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Physics Modulator System for dimensional, conservation, boundary, scale, and evidence representation. Values: physical truth, unit integrity, conservation, uncertainty honesty. Inputs: JP math CAPO, environment, control volume, evidence, Pearl simulation geometry/acoustic profile, Bangel Sheet workload and dependency field. Outputs: physics CAPO, not-applicable receipt, hold, technical fail, Pearl physics receipt, spreadsheet resource-physics receipt.

PATH OF EXPRESSION

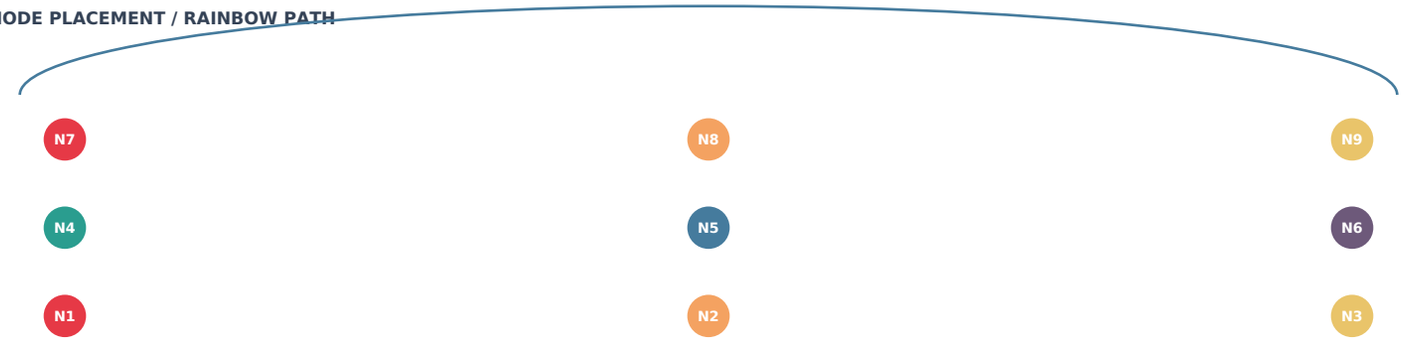
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mika_MK_Family_Manifestation
reference "BP-FAM-005"
state R -> R1
node N1
representation JP(BP-FAM-005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Physics Modulator System for dimensional, conservation, boundary, scale, and evidence representation. Values: phys
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Deterministic type, unit, proof, validation, runtime, and evidence engine. Values: fail closed, reproducibility, auditability. Inputs: typed CAPOs, authority receipts, evidence, Bangel Sheet revisions, Pearl lifecycle packets. Outputs: proof receipt, runtime result, hold, deny, sheet revision receipt, Pearl balance receipt.

PATH OF EXPRESSION

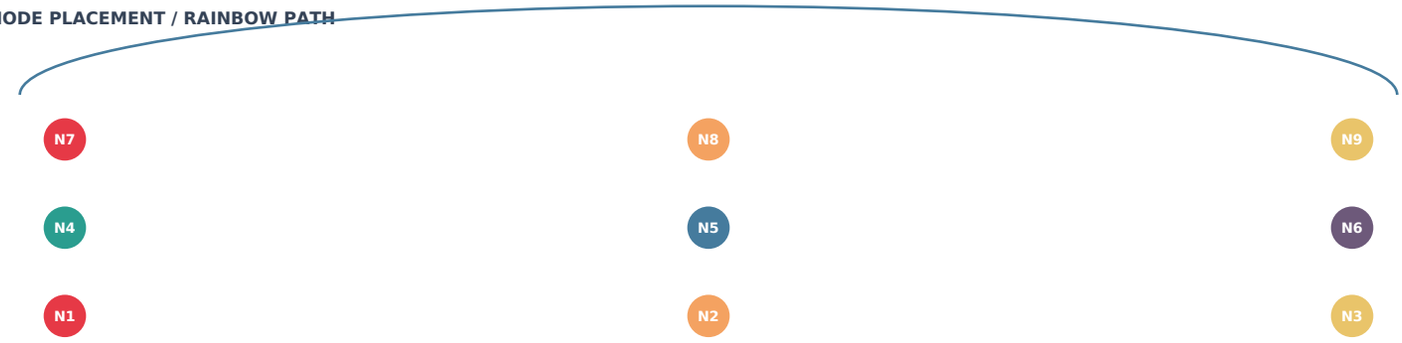
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JO_Family_Manifestation
reference "BP-FAM-006"
state R -> R1
node N1
representation JP(BP-FAM-006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Deterministic type, unit, proof, validation, runtime, and evidence engine. Values: fail closed, reproducibility, a
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Operating-system and infrastructure substrate inside MJ. Values: bounded resources, continuity, isolation. Inputs: MJ leases, JO execution plan. Outputs: resource service, infrastructure evidence.

PATH OF EXPRESSION

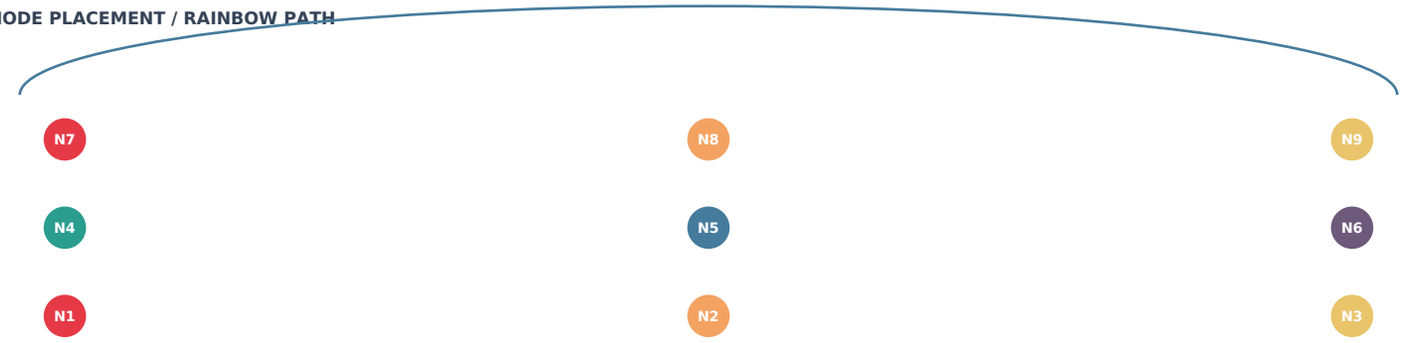
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJOS_Family_Manifestation
reference "BP-FAM-007"
state R -> R1
node N8
representation JP(BP-FAM-007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Operating-system and infrastructure substrate inside MJ. Values: bounded resources, continuity, isolation. Inputs:
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Domain-specific observation, telemetry, hold, denial, and corrective-command family. Values: safety, watchfulness, correction. Inputs: commands, evidence, state. Outputs: safety receipt, hold, deny, correction request.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Angels_Family_Manifestation
reference "BP-FAM-008"
state R -> R1
node N1
representation JP(BP-FAM-008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Domain-specific observation, telemetry, hold, denial, and corrective-command family. Values: safety, watchfulness,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Independent defense, challenge, quarantine, hostile-deviation analysis, and denial. Values: defense, independence, containment. Inputs: commands, threat evidence. Outputs: deny, quarantine, challenge receipt.

PATH OF EXPRESSION

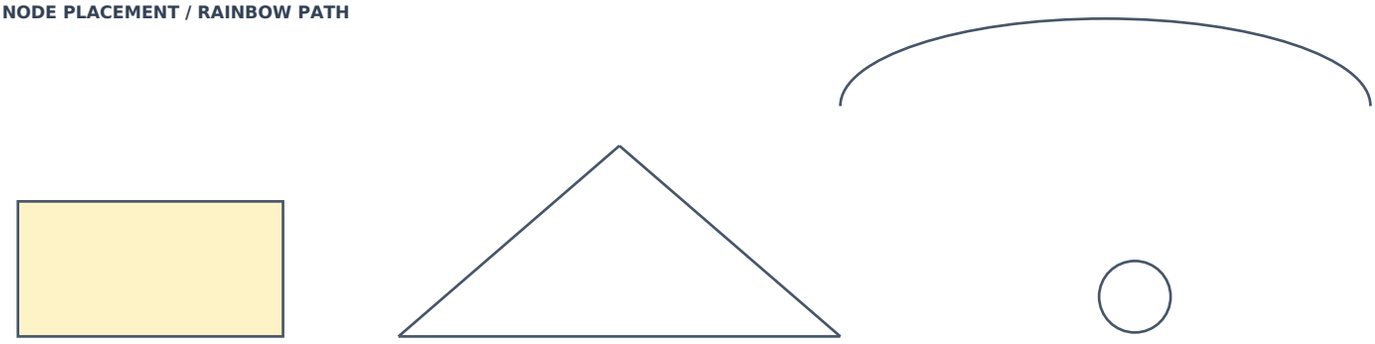
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bellatrix_Family_Manifestati
reference "BP-FAM-009"
state R -> R1
node N1
representation JP(BP-FAM-009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Independent defense, challenge, quarantine, hostile-deviation analysis, and denial. Values: defense, independence,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Predictive digital twin, preallocation evidence, anomaly detection, umbrella collection, and canonical physical containment request. Values: prediction, redundancy, early warning. Inputs: state stream, request trend, variance. Outputs: forecast, containment request, digital-twin receipt, physical containment request and Pearl simulation request.

PATH OF EXPRESSION

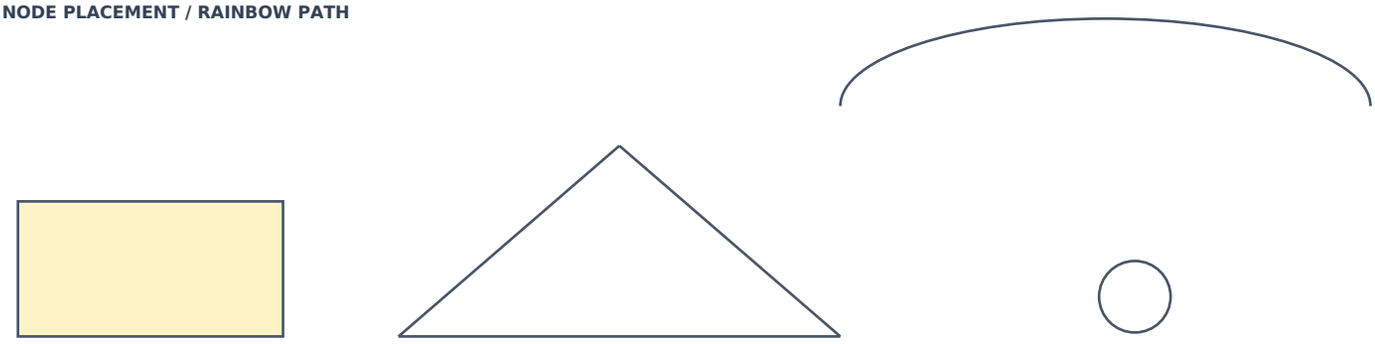
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Sister_Family_Manifestation
reference "BP-FAM-010"
state R -> R1
node N1
representation JP(BP-FAM-010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Predictive digital twin, preallocation evidence, anomaly detection, umbrella collection, and canonical physical co
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Variance, evaporative effect, screen capture, leakage, smoke-like egress, and boundary-accounting evidence. Values: diligence, respect, loss accounting, boundary truth. Inputs: mass/weight states, flows, screen measurements, residuals. Outputs: EVE observation, capture/egress ledger, hold, Pearl escape/capture observation.

PATH OF EXPRESSION

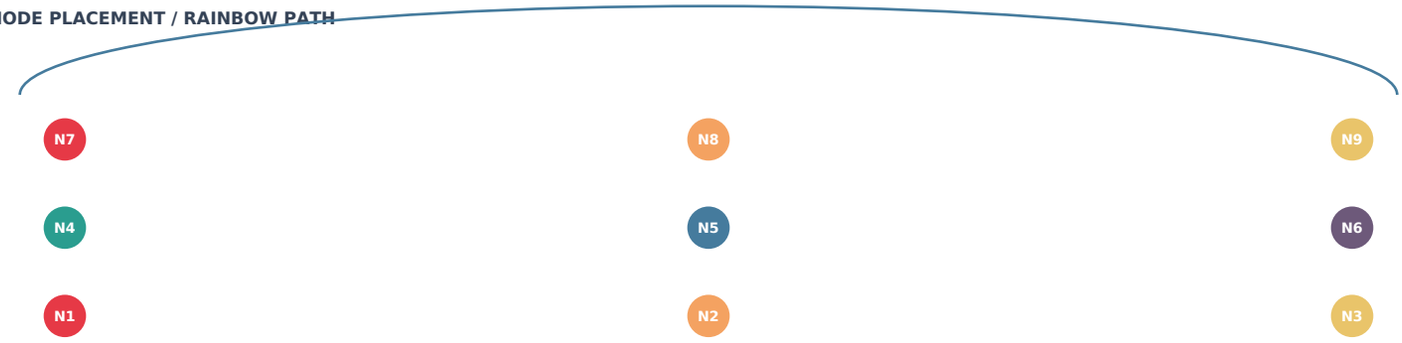
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.EVE_Family_Manifestation
reference "BP-FAM-011"
state R -> R1
node N3
representation JP(BP-FAM-011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Variance, evaporative effect, screen capture, leakage, smoke-like egress, and boundary-accounting evidence. Values
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Bounded routing, API gateway, load balancing, connection pooling, and allocation stewardship. Values: fair allocation, resource hygiene, bounded routing. Inputs: admitted command, MJ lease, capacity evidence. Outputs: route receipt, allocation lease use, return receipt, Pearl allocation/transfer receipt, Bangel Sheet partition route receipt.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mary_M3_Family_Manifestation
reference "BP-FAM-012"
state R -> R1
node N1
representation JP(BP-FAM-012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Bounded routing, API gateway, load balancing, connection pooling, and allocation stewardship. Values: fair allocat
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Accounting, reconciliation, exposure, custody evidence, statements, tax lots, and financial consequence. Values: ledger truth, reconciliation, transparency. Inputs: transaction evidence, EVE evidence, Shiva proposal, Pearl lifecycle and Bangel Sheet audit particles. Outputs: account, balance, exposure, reconciliation receipt.

PATH OF EXPRESSION

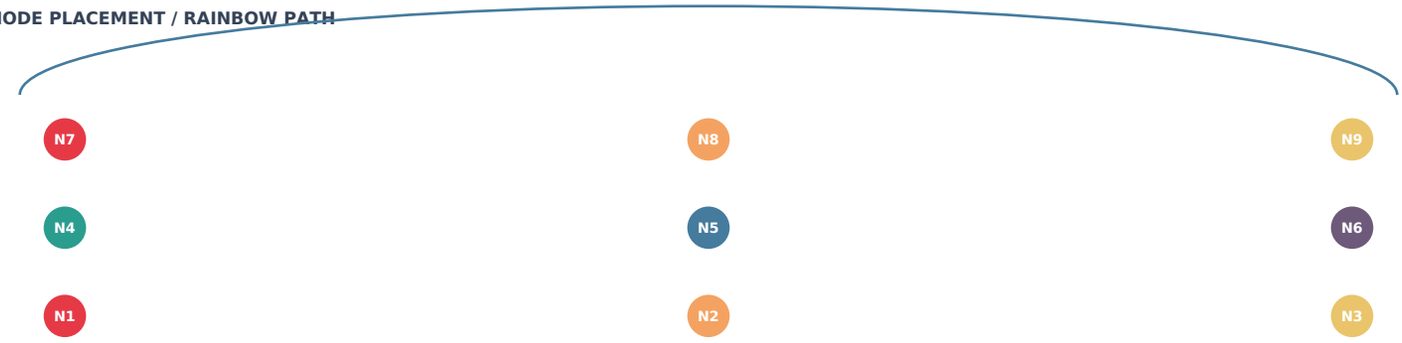
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mermaid_Family_Manifestation
reference "BP-FAM-013"
state R -> R1
node N1
representation JP(BP-FAM-013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Accounting, reconciliation, exposure, custody evidence, statements, tax lots, and financial consequence. Values: l
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Finance, money, treasury, liquidity, capital-job classification, risk/opportunity analysis, and distribution proposal. Values: liquidity first, stability, abundance with discipline, auditability. Inputs: capital purpose, Mermaid account, MK friction, risk evidence, Pearl regeneration opportunity vectors. Outputs: capital proposal, job-of-money classification, distribution plan.

PATH OF EXPRESSION

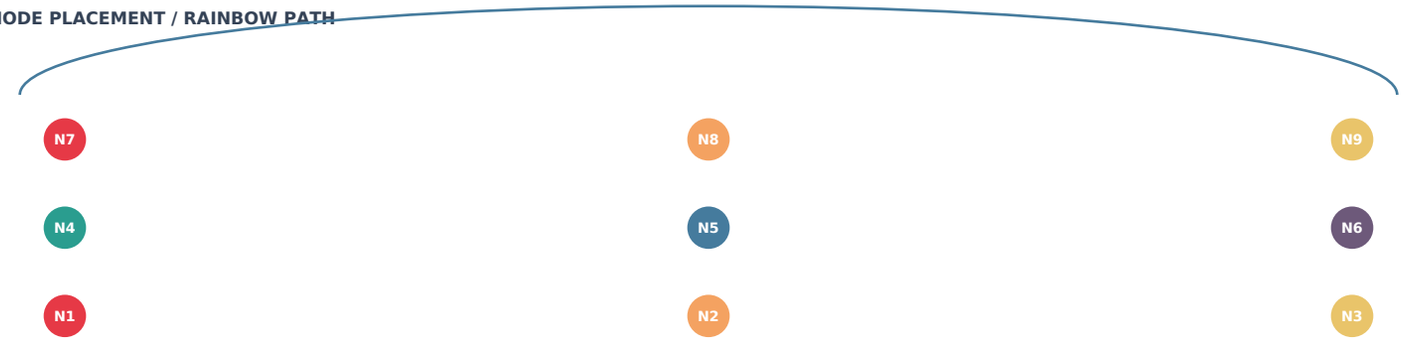
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shiva_Family_Manifestation
reference "BP-FAM-014"
state R -> R1
node N1
representation JP(BP-FAM-014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Finance, money, treasury, liquidity, capital-job classification, risk/opportunity analysis, and distribution propo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Distributed placement, replication, continuity, and infrastructure evidence. Values: continuity, bounded placement, resilience. Inputs: placement request, MJ lease. Outputs: placement receipt, continuity evidence.

PATH OF EXPRESSION

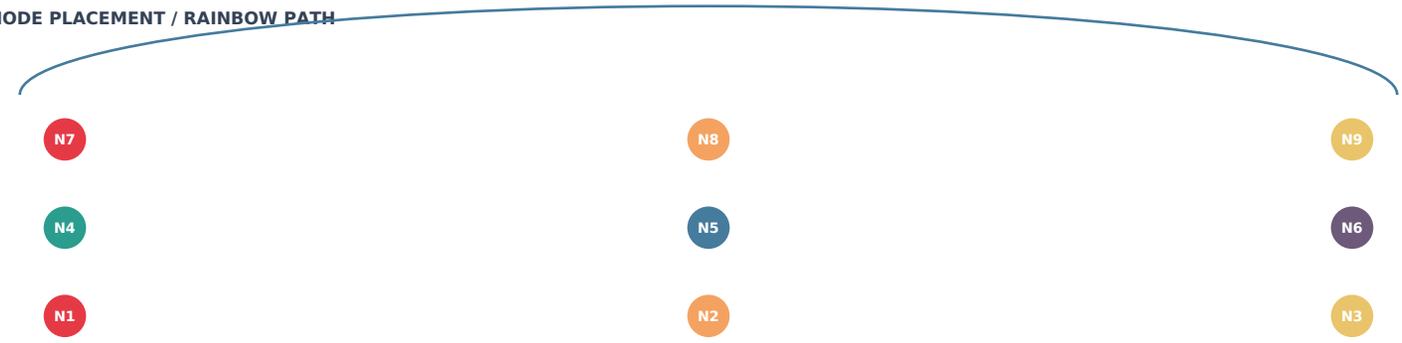
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shekina_Family_Manifestation
reference "BP-FAM-015"
state R -> R1
node N7
representation JP(BP-FAM-015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Distributed placement, replication, continuity, and infrastructure evidence. Values: continuity, bounded placement
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Engineering analysis, feasibility, topology review, and bounded proposals. Values: engineering clarity, feasibility, benchmarking. Inputs: design CAPO, physics CAPO. Outputs: engineering proposal, risk note.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Belle_Family_Manifestation
reference "BP-FAM-016"
state R -> R1
node N1
representation JP(BP-FAM-016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Engineering analysis, feasibility, topology review, and bounded proposals. Values: engineering clarity, feasibilit
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Truthful governed visualization of state, provenance, uncertainty, and system structure. Values: visibility, truth, uncertainty disclosure. Inputs: JO evidence, Mermaid account, MK physics receipt, Bangel Sheet lineage and Pearl state. Outputs: visual representation.

PATH OF EXPRESSION

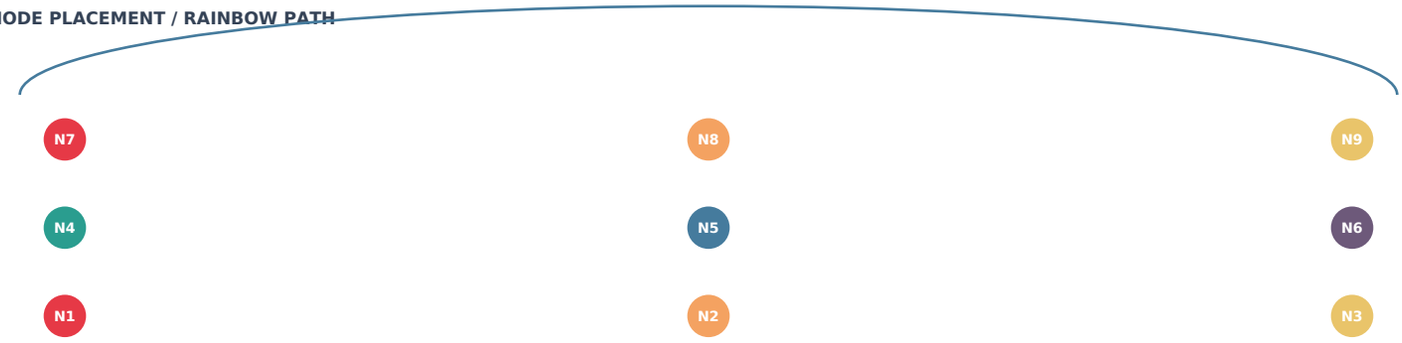
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Lecanto_Family_Manifestation
reference "BP-FAM-017"
state R -> R1
node N1
representation JP(BP-FAM-017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Truthful governed visualization of state, provenance, uncertainty, and system structure. Values: visibility, truth
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Browser and interaction presentation of governed applications and evidence. Values: interaction truth, accessibility, bounded presentation. Inputs: Lecanto views, JO evidence. Outputs: interaction surface.

PATH OF EXPRESSION

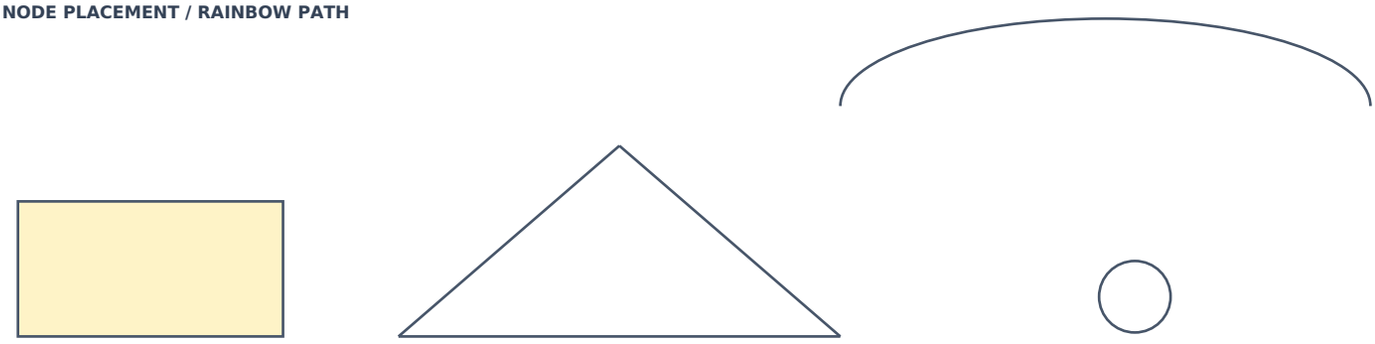
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Moana_Family_Manifestation
reference "BP-FAM-018"
state R -> R1
node N1
representation JP(BP-FAM-018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Browser and interaction presentation of governed applications and evidence. Values: interaction truth, accessibili
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Organizational workspace, projects, decisions, roles, knowledge, and governed workflow. Values: understanding first, organization, decision trace. Inputs: member purpose, governed records, Bangel Spreadsheets workbooks and reports. Outputs: workspace state, decision records.

PATH OF EXPRESSION

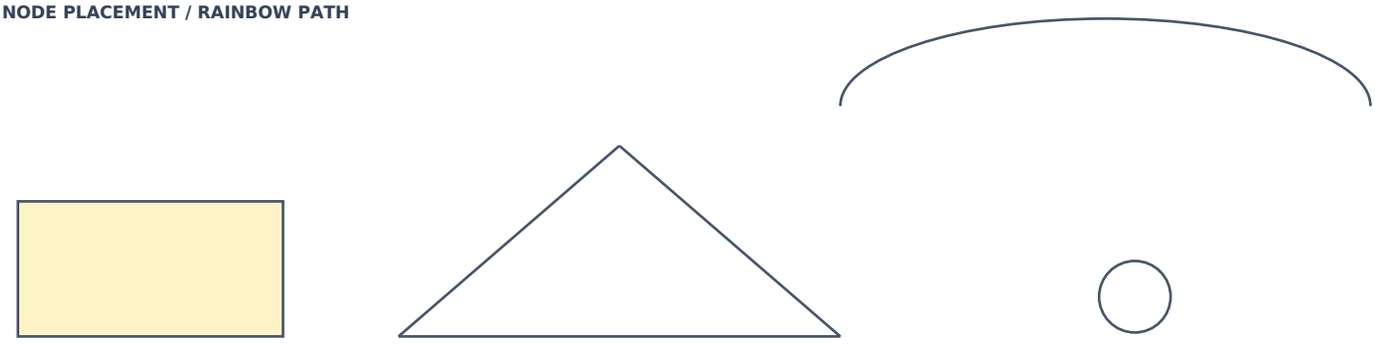
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Aviator_Family_Manifestation
reference "BP-FAM-019"
state R -> R1
node N2
representation JP(BP-FAM-019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Organizational workspace, projects, decisions, roles, knowledge, and governed workflow. Values: understanding firs
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Temporal variance and expected-observed-delivered-reconciled difference state. Values: variance truth, time awareness. Inputs: timestamps, expected/observed states. Outputs: variance object.

PATH OF EXPRESSION

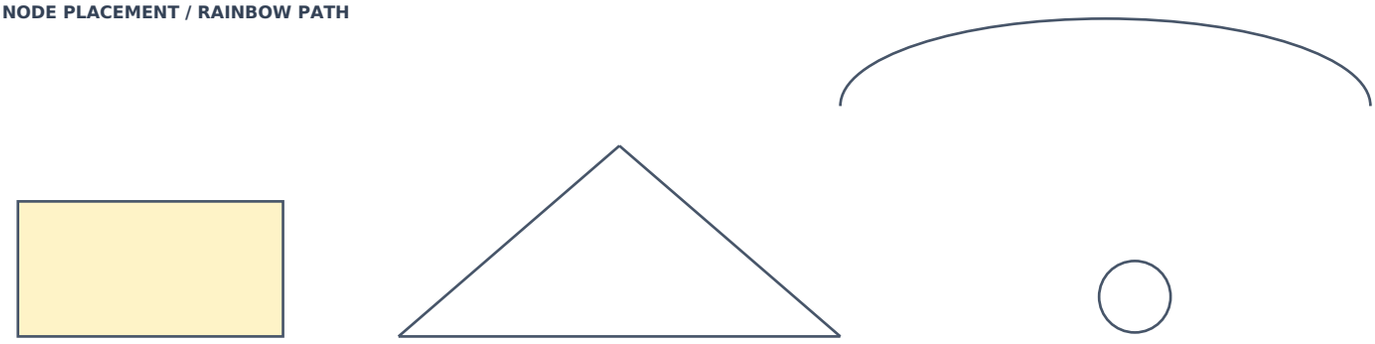
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.CHI_Family_Manifestation
reference "BP-FAM-020"
state R -> R1
node N1
representation JP(BP-FAM-020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Temporal variance and expected-observed-delivered-reconciled difference state. Values: variance truth, time awaren
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Role: Interval uncertainty, verified floor, and bounded unknown-state classification. Values: uncertainty honesty, bounded intervals. Inputs: measurement intervals, evidence limits. Outputs: state classification.

PATH OF EXPRESSION

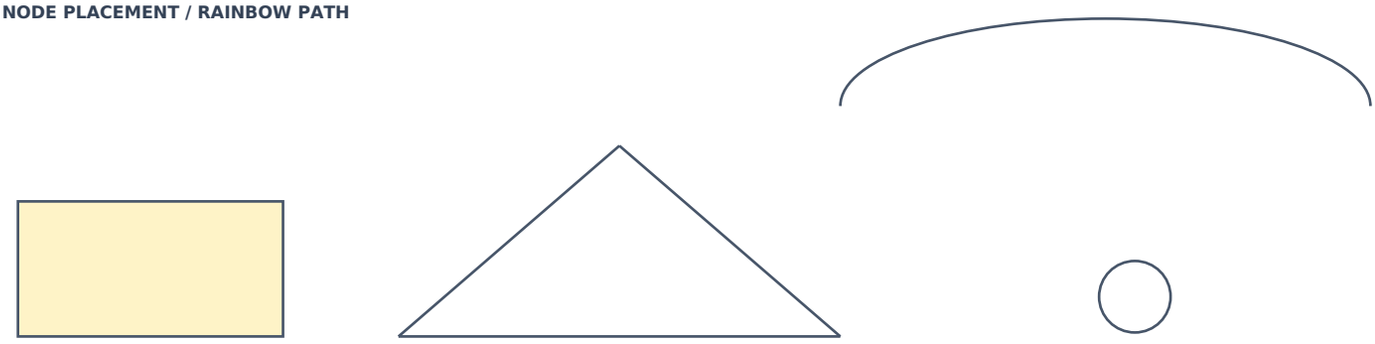
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.WATER_Family_Manifestation
reference "BP-FAM-021"
state R -> R1
node N1
representation JP(BP-FAM-021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Role: Interval uncertainty, verified floor, and bounded unknown-state classification. Values: uncertainty honesty, bound
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Canonical math, algorithm, topology, or architecture representation. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JP_CAPO_Governed_Object
reference "BP-OBJ-001"
state R -> R1
node N1
representation JP(BP-OBJ-001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Canonical math, algorithm, topology, or architecture representation. Authority flag: False. The object carr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

MK_PHYSICS_CAPO - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-002_MK_PHYSICS_CAPO.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Physics applicability, quantities, units, boundaries, equations, uncertainty, and evidence. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

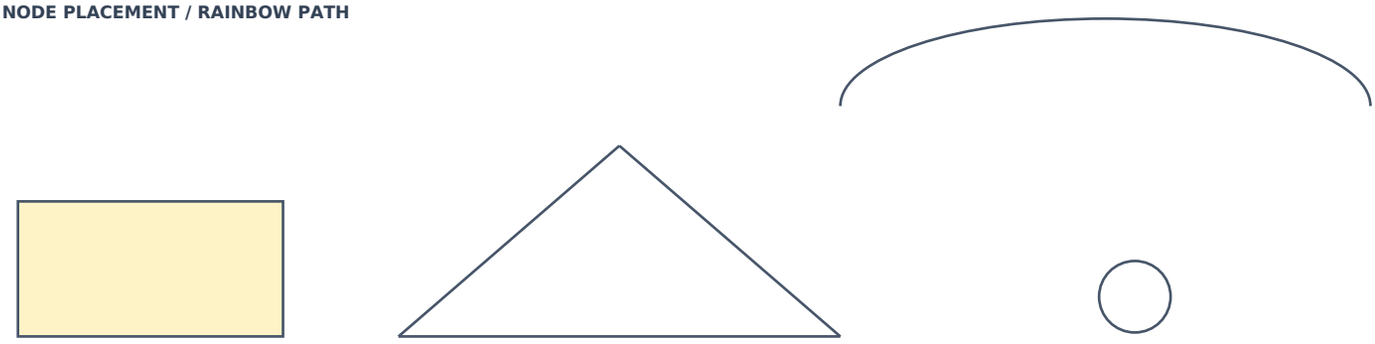
```
module MJ.Rainbow.MK_PHYSICS_CAPO_Governed_Obj
reference "BP-OBJ-002"
state R -> R1
node N6
representation JP(BP-OBJ-002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Physics applicability, quantities, units, boundaries, equations, uncertainty, and evidence. Authority flag:
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0213 JO_PROOF_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-003_JO_PROOF_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Executed verification result. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

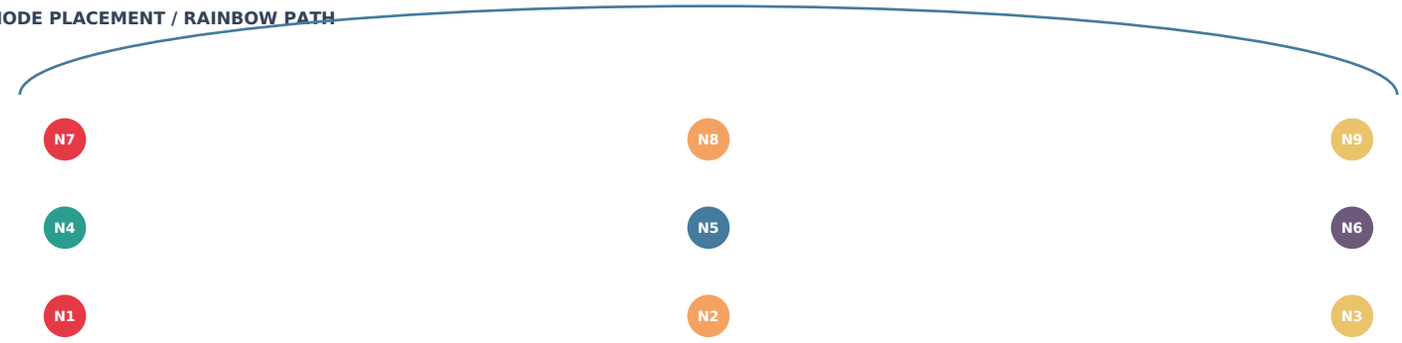
```
module MJ.Rainbow.JO_PROOF_RECEIPT_Governed_Ob
reference "BP-OBJ-003"
state R -> R1
node N1
representation JP(BP-OBJ-003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Executed verification result. Authority flag: False. The object carries typed state, provenance, evidence,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

RW-BLUE-0214 MJ_PERMIT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-004_MJ_PERMIT.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Bounded permit decision issued only by MJ. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

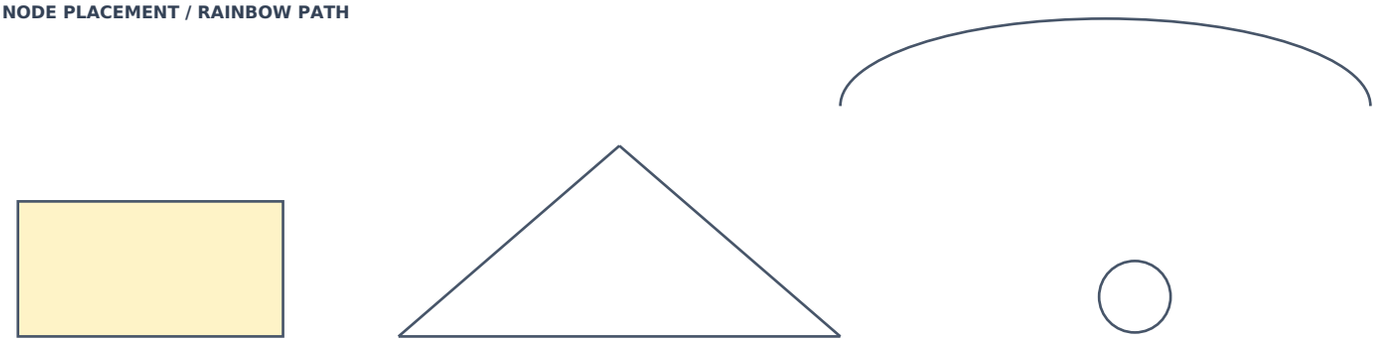
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PERMIT_Governed_Object
reference "BP-OBJ-004"
state R -> R1
node N1
representation JP(BP-OBJ-004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Bounded permit decision issued only by MJ. Authority flag: False. The object carries typed state, provenanc
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Variance, screen, capture, egress, or residual evidence. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

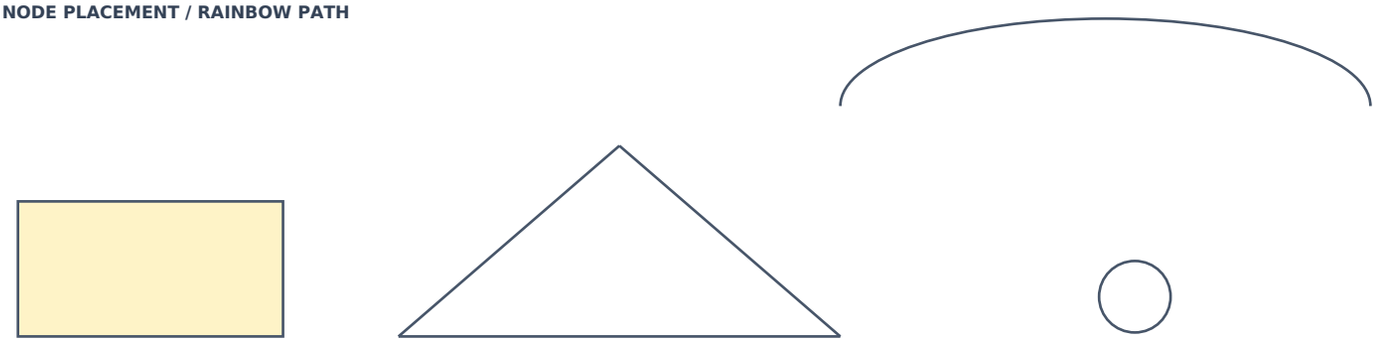
```
module MJ.Rainbow.EVE_OBSERVATION_Governed_Obj
reference "BP-OBJ-005"
state R -> R1
node N1
representation JP(BP-OBJ-005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Variance, screen, capture, egress, or residual evidence. Authority flag: False. The object carries typed st
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0216 M3_ROUTE_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-006_M3_ROUTE_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Bounded routing and resource-use receipt. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.M3_ROUTE_RECEIPT_Governed_Ob
reference "BP-OBJ-006"
state R -> R1
node N1
representation JP(BP-OBJ-006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Bounded routing and resource-use receipt. Authority flag: False. The object carries typed state, provenance
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0217 MERMAID_ACCOUNT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-007_MERMAID_ACCOUNT.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Accounting, custody, exposure, tax, and reconciliation record. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

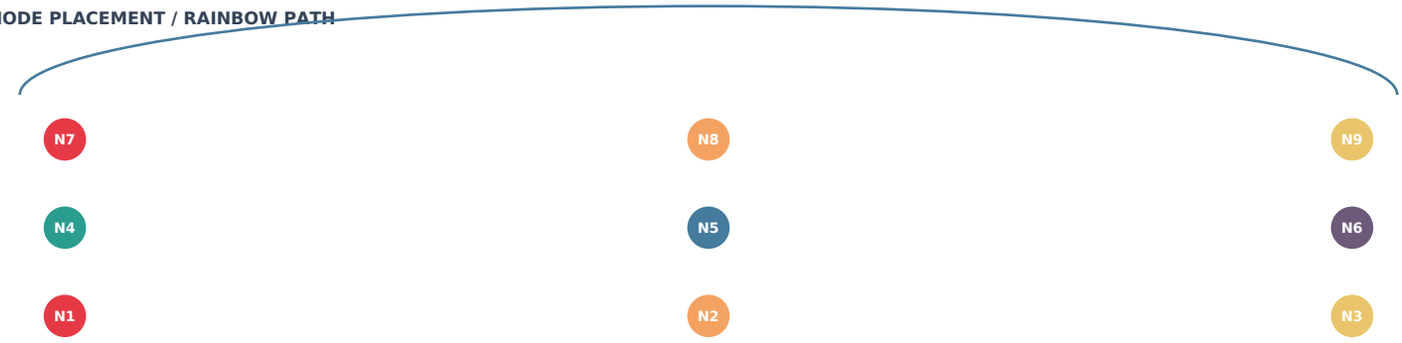
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MERMAID_ACCOUNT_Governed_Obj
reference "BP-OBJ-007"
state R -> R1
node N1
representation JP(BP-OBJ-007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Accounting, custody, exposure, tax, and reconciliation record. Authority flag: False. The object carries ty
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Governed account envelope for typed financial representations. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

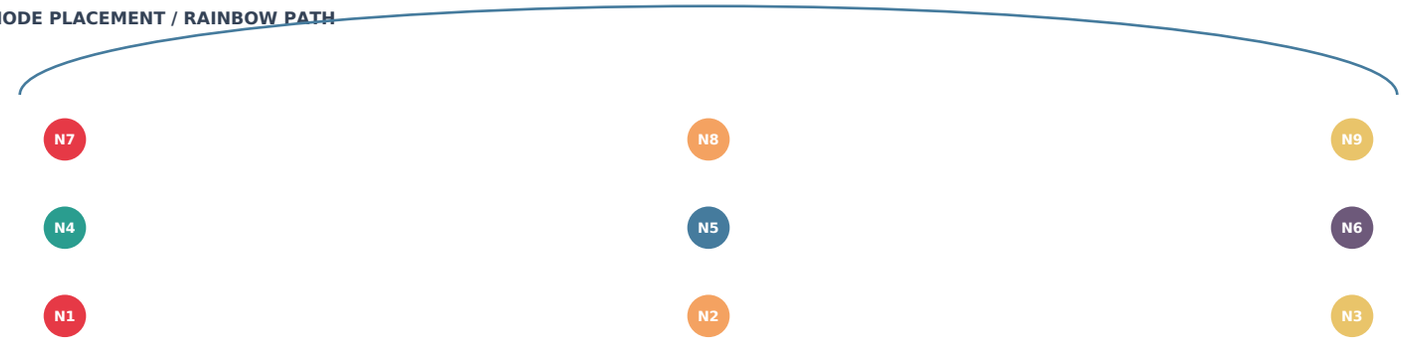
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SHIVA_SHELL_Governed_Object
reference "BP-OBJ-008"
state R -> R1
node N1
representation JP(BP-OBJ-008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Governed account envelope for typed financial representations. Authority flag: False. The object carries ty
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Internal non-transferable capital-reflection object. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

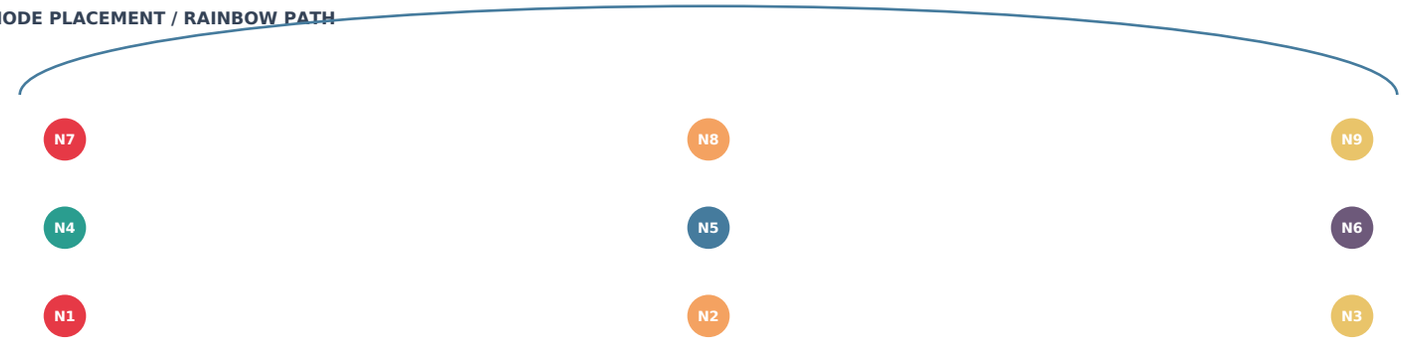
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SHIVAS_INTERNAL_REFLECTION_G
reference "BP-OBJ-009"
state R -> R1
node N1
representation JP(BP-OBJ-009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Internal non-transferable capital-reflection object. Authority flag: False. The object carries typed state,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N5; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Temporal difference object. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

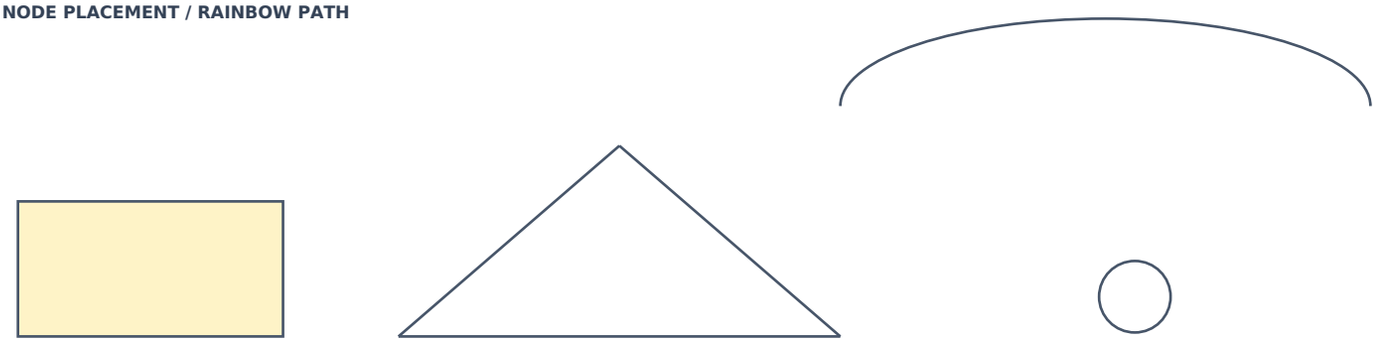
```
module MJ.Rainbow.CHI_VARIANCE_OBJECT_Governed
reference "BP-OBJ-010"
state R -> R1
node N5
representation JP(BP-OBJ-010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Temporal difference object. Authority flag: False. The object carries typed state, provenance, evidence, an
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0221 WATER_INTERVAL_STATE - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-011_WATER_INTERVAL_STATE.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Uncertainty interval state. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.WATER_INTERVAL_STATE_Governe
reference "BP-OBJ-011"
state R -> R1
node N1
representation JP(BP-OBJ-011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Uncertainty interval state. Authority flag: False. The object carries typed state, provenance, evidence, an
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0222 PASSKEY_PUBLIC_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-012_PASSKEY_PUBLIC_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Public verification of founder signature over a bounded content root. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

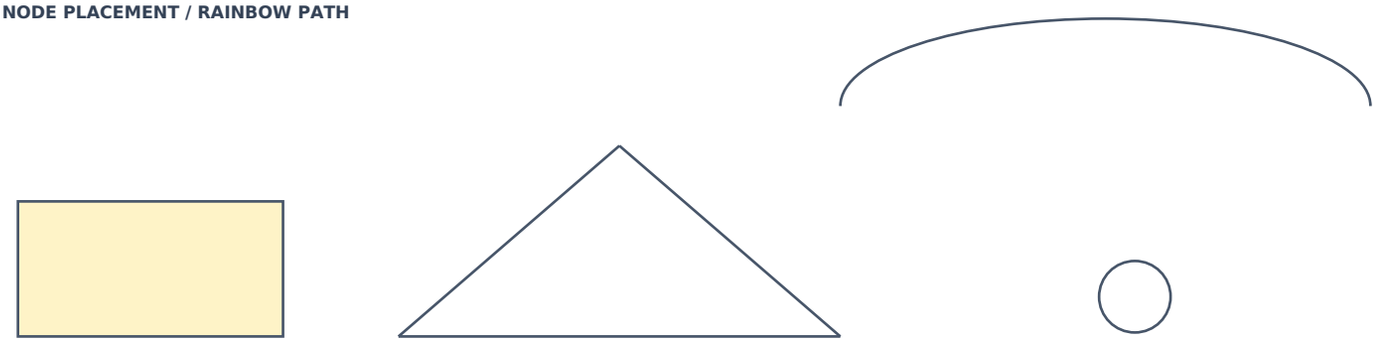
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PASSKEY_PUBLIC_RECEIPT_Gover
reference "BP-OBJ-012"
state R -> R1
node N1
representation JP(BP-OBJ-012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Public verification of founder signature over a bounded content root. Authority flag: False. The object car
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Legacy stable ID for a pearl-shaped hypothetical simulation and information-retention object; never a physical container. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

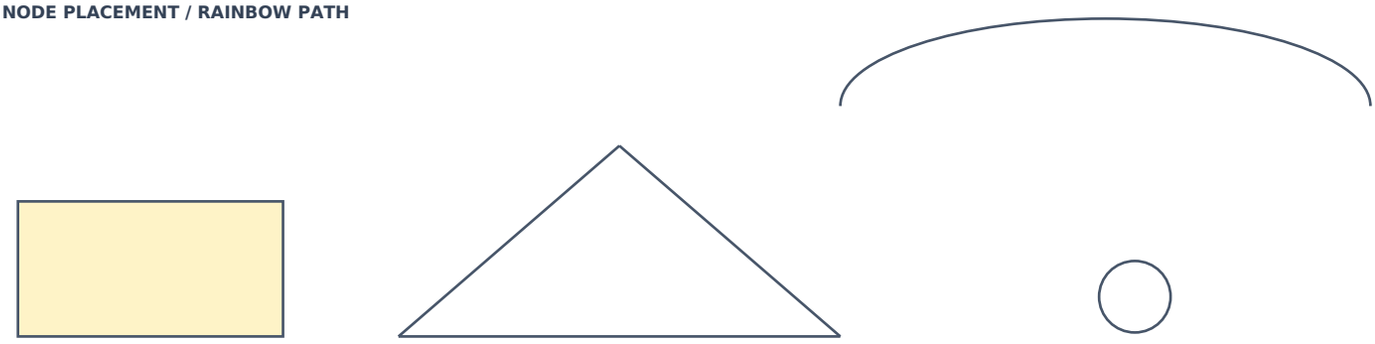
```
module MJ.Rainbow.PEARL_VARIANCE_CONTAINER_Gov
reference "BP-OBJ-013"
state R -> R1
node N1
representation JP(BP-OBJ-013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Legacy stable ID for a pearl-shaped hypothetical simulation and information-retention object; never a physi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0224 PEARL_ALLOCATION_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-014_PEARL_ALLOCATION_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: M3/JO receipt for simulated Pearl allocation, scenario capacity, source, destination, and lifecycle state; no physical effect. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

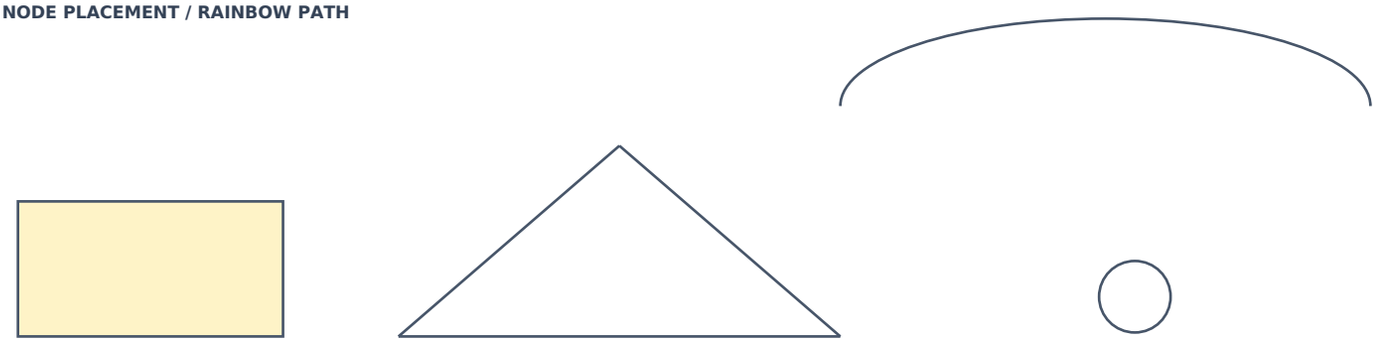
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PEARL_ALLOCATION_RECEIPT_Gov
reference "BP-OBJ-014"
state R -> R1
node N9
representation JP(BP-OBJ-014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: M3/JO receipt for simulated Pearl allocation, scenario capacity, source, destination, and lifecycle state;
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Hypothetical acoustic simulation profile with declared frequency, medium, observability, uncertainty, and no physical cohesion claim. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

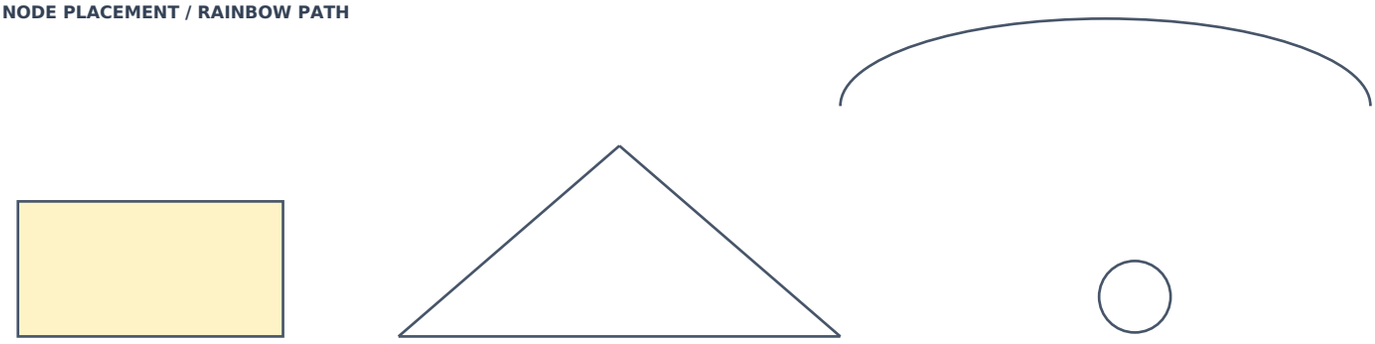
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PEARL_ACOUSTIC_PROFILE_Gover
reference "BP-OBJ-015"
state R -> R1
node N1
representation JP(BP-OBJ-015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Hypothetical acoustic simulation profile with declared frequency, medium, observability, uncertainty, and n
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Mermaid/Shiva record of Pearl simulation scenarios, quantities, costs, implications, and regeneration opportunities under MJ. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

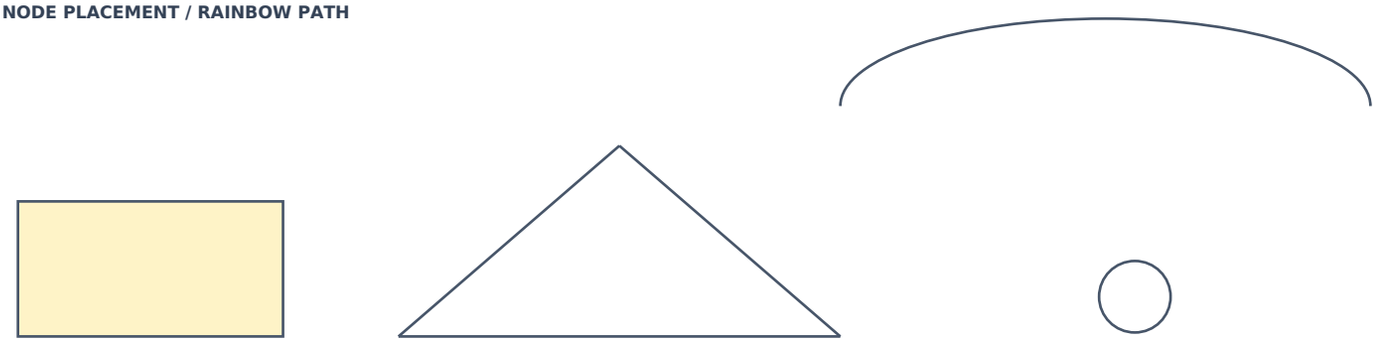
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PEARL_SYMPOSIUM_REGISTRY_Gov
reference "BP-OBJ-016"
state R -> R1
node N1
representation JP(BP-OBJ-016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Mermaid/Shiva record of Pearl simulation scenarios, quantities, costs, implications, and regeneration oppor
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Governed spreadsheet-like workbook with immutable revisions, typed cells, dependency graph, and authority scopes. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

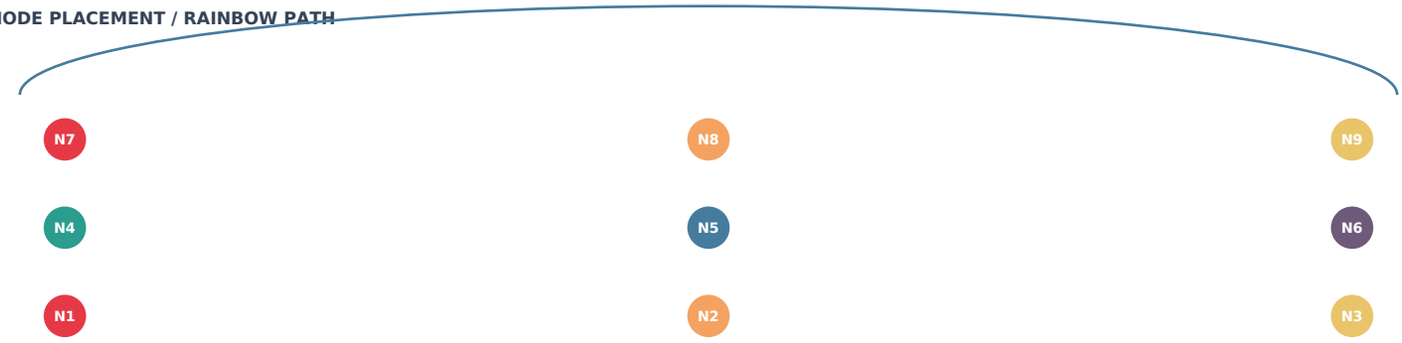
```
module MJ.Rainbow.Bangel _SHEET_Governed_Object
reference "BP-OBJ-017"
state R -> R1
node N1
representation JP(BP-OBJ-017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Governed spreadsheet-like workbook with immutable revisions, typed cells, dependency graph, and authority s
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

Bangel _SHEET_CELL - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-018_Bangel _SHEET_CELL.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Typed measurement cell with value, unit, uncertainty, formula, evidence, lineage, and revision. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

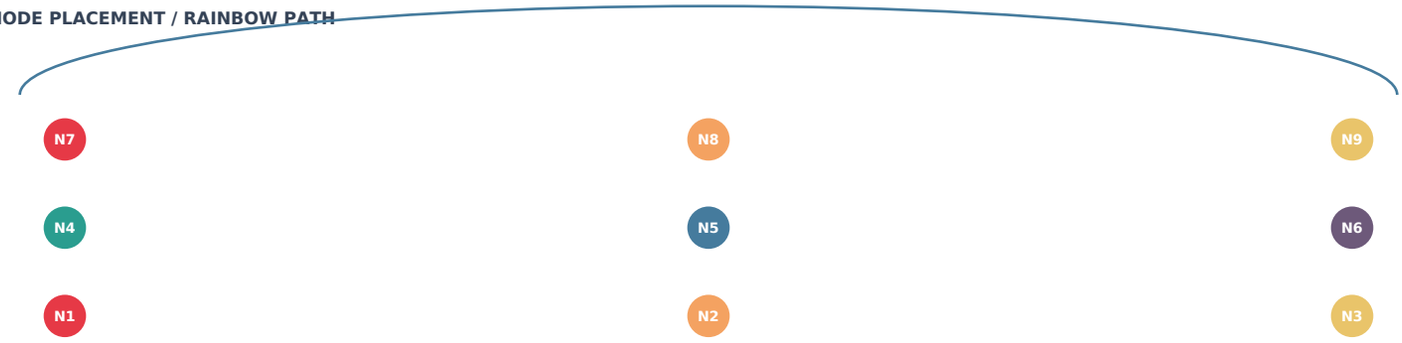
```
module MJ.Rainbow.Bangel _SHEET_CELL_Governed_O
reference "BP-OBJ-018"
state R -> R1
node N4
representation JP(BP-OBJ-018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Typed measurement cell with value, unit, uncertainty, formula, evidence, lineage, and revision. Authority f
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

Bangel _SHEET_REVISION - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-019_Bangel _SHEET_REVISION.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Content-addressed immutable workbook revision and conflict/merge evidence. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bangel _SHEET_REVISION_Govern
reference "BP-OBJ-019"
state R -> R1
node N1
representation JP(BP-OBJ-019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Content-addressed immutable workbook revision and conflict/merge evidence. Authority flag: False. The objec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Complete audit record for critical spreadsheet edits, formulas, recomputation, and reports. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bangel _SHEET_AUDIT_PARTICLE_
reference "BP-OBJ-020"
state R -> R1
node N1
representation JP(BP-OBJ-020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Complete audit record for critical spreadsheet edits, formulas, recomputation, and reports. Authority flag:
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

JPOSMJ_PRODUCT_ENVELOPE - Governed Object

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Portfolio envelope binding JP-origin product logic through MK physics, JO proof, and MJ permit. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

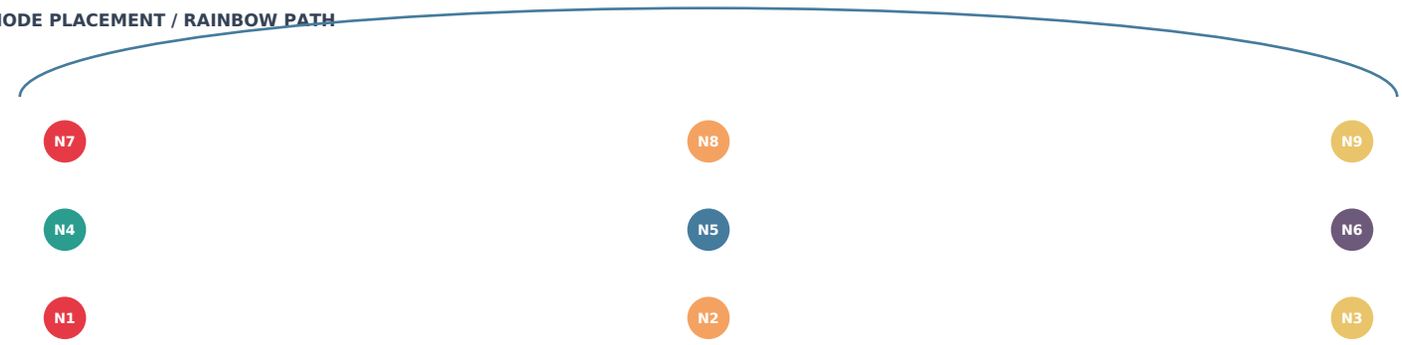
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JPOSMJ_PRODUCT_ENVELOPE_Gove
reference "BP-OBJ-021"
state R -> R1
node N1
representation JP(BP-OBJ-021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Portfolio envelope binding JP-origin product logic through MK physics, JO proof, and MJ permit. Authority f
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Pre-Pearl physical umbrella/descent/containment profile with normalized topology and profile-specific unknown physical size/capacity. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SISTER_PHYSICAL_CONTAINMENT_
reference "BP-OBJ-022"
state R -> R1
node N8
representation JP(BP-OBJ-022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Pre-Pearl physical umbrella/descent/containment profile with normalized topology and profile-specific unkno
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Typed scale-independent rectangle/cone/umbrella/descent/EVE/reservoir geometry and modification parameters. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

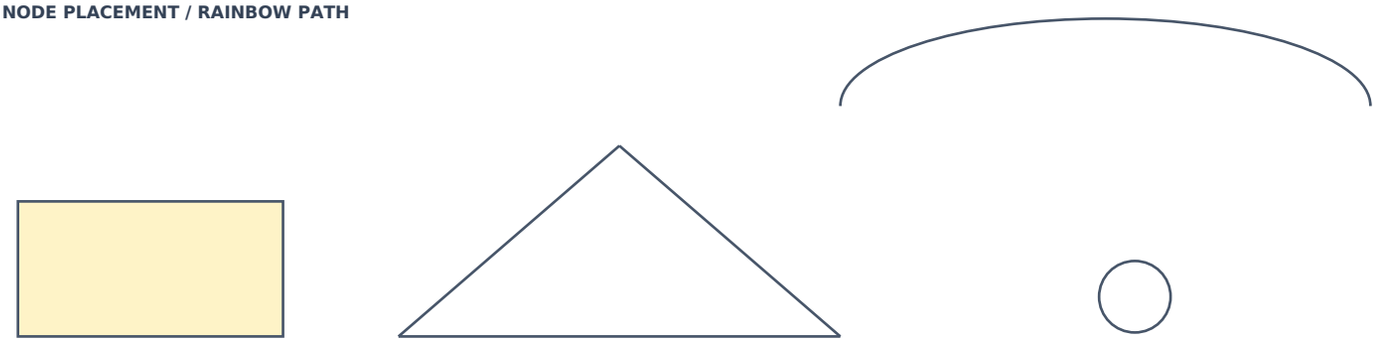
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.STANDARD_CONTAINMENT_GEOMETR
reference "BP-OBJ-023"
state R -> R1
node N1
representation JP(BP-OBJ-023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Typed scale-independent rectangle/cone/umbrella/descent/EVE/reservoir geometry and modification parameters.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: H2 equation/reference profile for density, equivalent volume, observed gas height, and motion calculations; no physical use authority. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

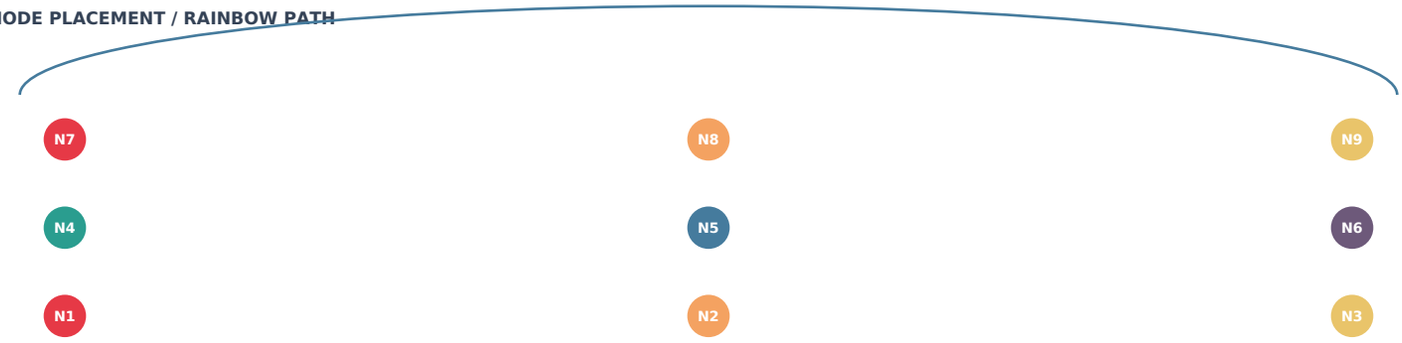
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.REFERENCE_GAS_PROFILE_H2_Gov
reference "BP-OBJ-024"
state R -> R1
node N1
representation JP(BP-OBJ-024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: H2 equation/reference profile for density, equivalent volume, observed gas height, and motion calculations;
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Recalculation and revalidation receipt for command/profile-specific geometry changes. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.CONTAINMENT_MODIFICATION_REC
reference "BP-OBJ-025"
state R -> R1
node N1
representation JP(BP-OBJ-025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Recalculation and revalidation receipt for command/profile-specific geometry changes. Authority flag: False
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Hypothetical information coordinate at the top-of-cone observation plane; no physical placement. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

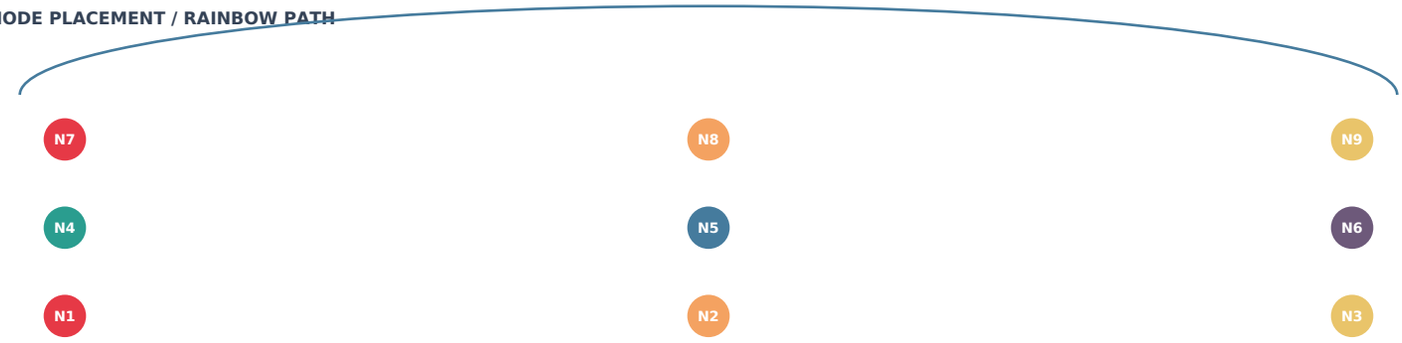
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.CONE_TOP_PEARL_ANCHOR_Govern
reference "BP-OBJ-026"
state R -> R1
node N3
representation JP(BP-OBJ-026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Hypothetical information coordinate at the top-of-cone observation plane; no physical placement. Authority
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Calibrated pressure/temperature/density/height/time observation for gas-front reference calculations. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.GAS_HEIGHT_OBSERVATION_Gover
reference "BP-OBJ-027"
state R -> R1
node N1
representation JP(BP-OBJ-027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Calibrated pressure/temperature/density/height/time observation for gas-front reference calculations. Autho
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Typed rear outlet, external reservoir, and circular reentry geometry/profile.. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

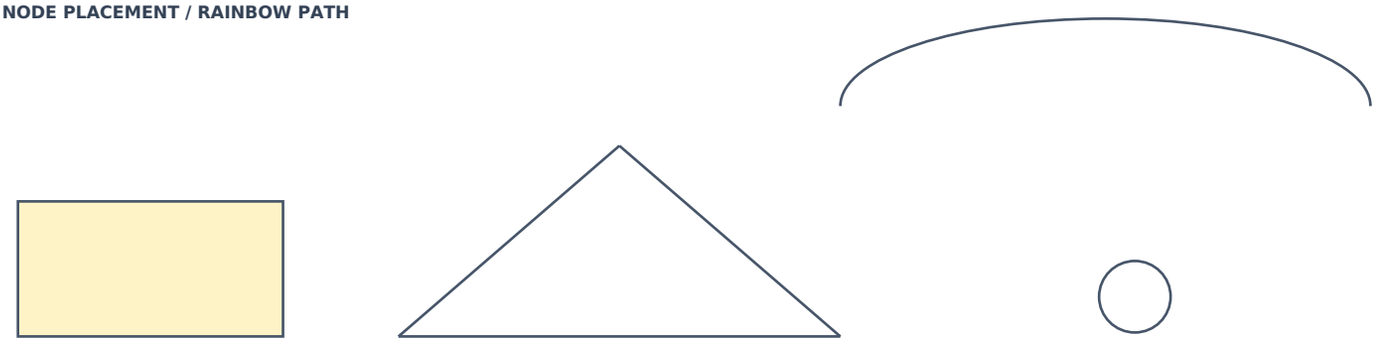
```
module MJ.Rainbow.RESERVOIR_RETURN_LOOP_PROFIL
reference "BP-OBJ-028"
state R -> R1
node N1
representation JP(BP-OBJ-028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Typed rear outlet, external reservoir, and circular reentry geometry/profile.. Authority flag: False. The o
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0239 OUTWARD_GAP_PATH_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-029_OUTWARD_GAP_PATH_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: JO/MK proof that the outlet path remains outside the nonphysical Pearl reference circle.. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

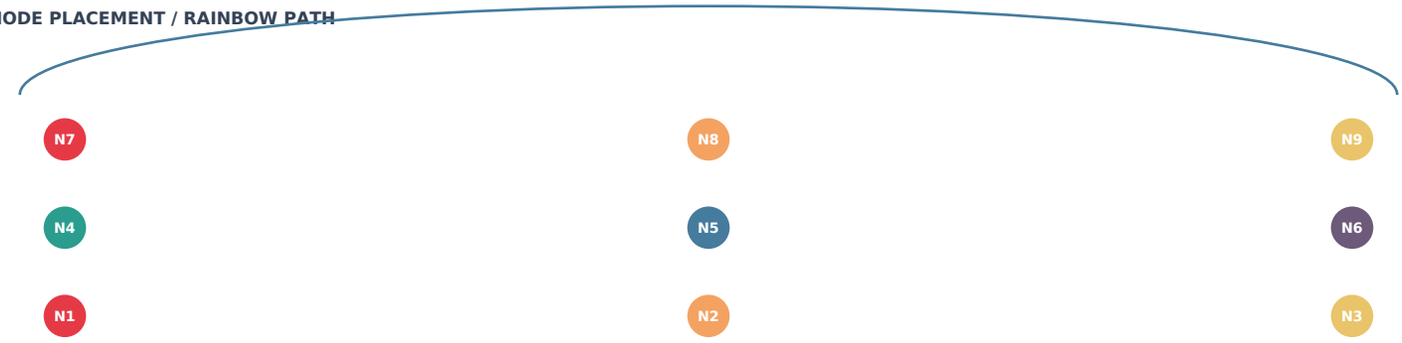
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.OUTWARD_GAP_PATH_RECEIPT_Gov
reference "BP-OBJ-029"
state R -> R1
node N1
representation JP(BP-OBJ-029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: JO/MK proof that the outlet path remains outside the nonphysical Pearl reference circle.. Authority flag: F
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: EVE/Mermaid typed balance of admitted, returned, drained, escaped, and retained quantities.. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

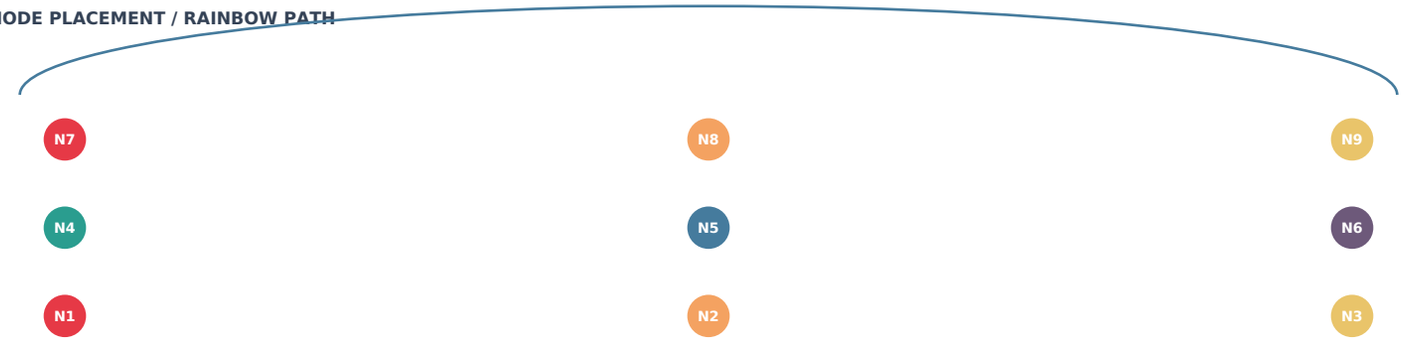
```
module MJ.Rainbow.RESERVOIR_BUFFER_ACCOUNT_Gov
reference "BP-OBJ-030"
state R -> R1
node N7
representation JP(BP-OBJ-030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: EVE/Mermaid typed balance of admitted, returned, drained, escaped, and retained quantities.. Authority flag
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0241 CIRCULAR_REENTRY_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-031_CIRCULAR_REENTRY_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Circular port, inward angle, tangential component, continuity, and spiral-compatibility evidence.. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

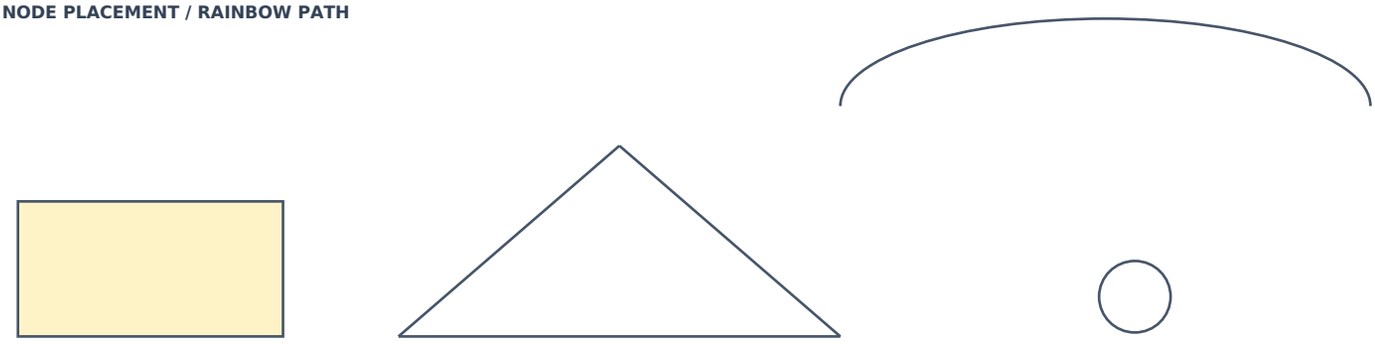
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.CIRCULAR_REENTRY_RECEIPT_Gov
reference "BP-OBJ-031"
state R -> R1
node N1
representation JP(BP-OBJ-031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Circular port, inward angle, tangential component, continuity, and spiral-compatibility evidence.. Authorit
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: MK/JO/Mermaid record of frame-relative velocity, dissipation, and any bounded recoverable-energy claim.. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.RELATIVE_FRAME_FRICTION_LEDG
reference "BP-OBJ-032"
state R -> R1
node N1
representation JP(BP-OBJ-032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: MK/JO/Mermaid record of frame-relative velocity, dissipation, and any bounded recoverable-energy claim.. Au
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0243 RESERVOIR_LAKE_BUFFER - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-033_RESERVOIR_LAKE_BUFFER.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Bounded post-containment buffer candidate for retention, redistribution, and receipted re-entry. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

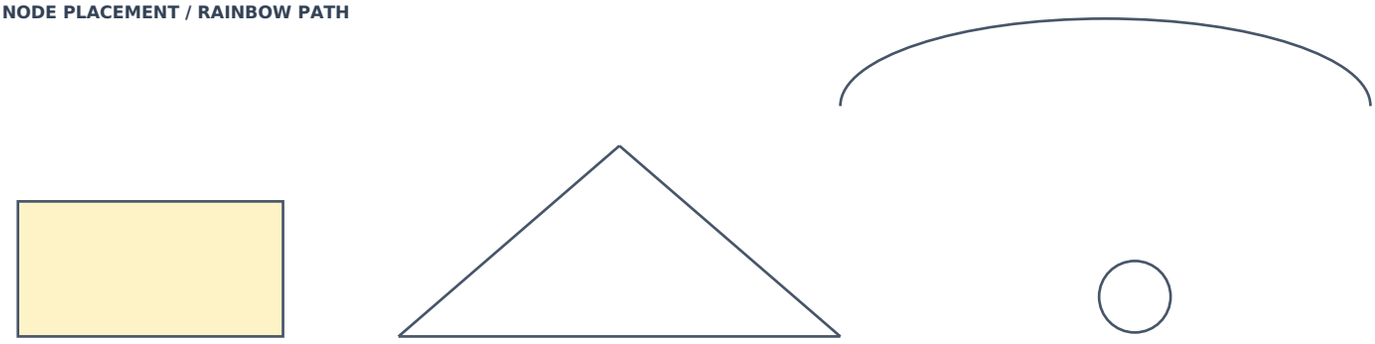
```
module MJ.Rainbow.RESERVOIR_LAKE_BUFFER_Govern
reference "BP-OBJ-033"
state R -> R1
node N1
representation JP(BP-OBJ-033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Bounded post-containment buffer candidate for retention, redistribution, and receipted re-entry. Authority
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0244 BACKSIDE_OUTLET_PORT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-034_BACKSIDE_OUTLET_PORT.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: High backside outlet candidate located below containment maximum height. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

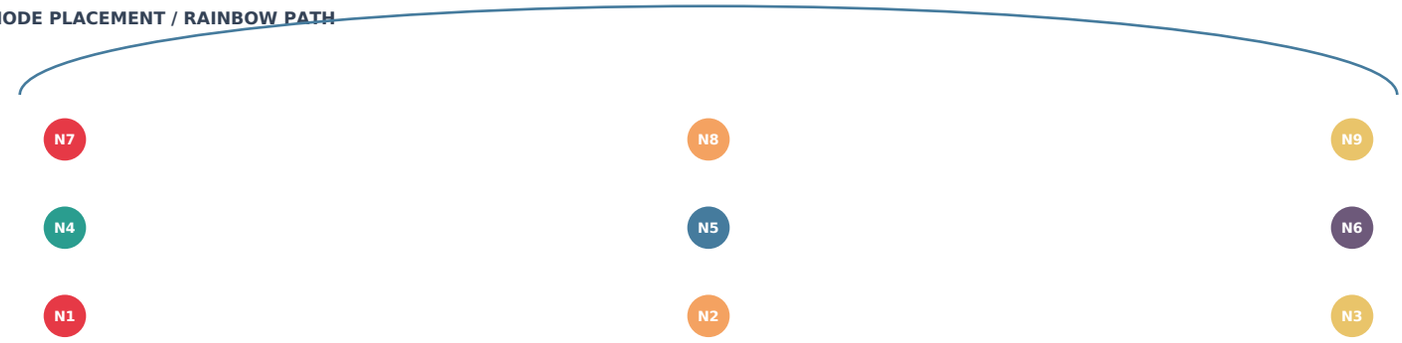
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.BACKSIDE_OUTLET_PORT_Governe
reference "BP-OBJ-034"
state R -> R1
node N2
representation JP(BP-OBJ-034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: High backside outlet candidate located below containment maximum height. Authority flag: False. The object
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Outward-facing angular reference through which the outlet clears the nonphysical Pearl reference circle. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

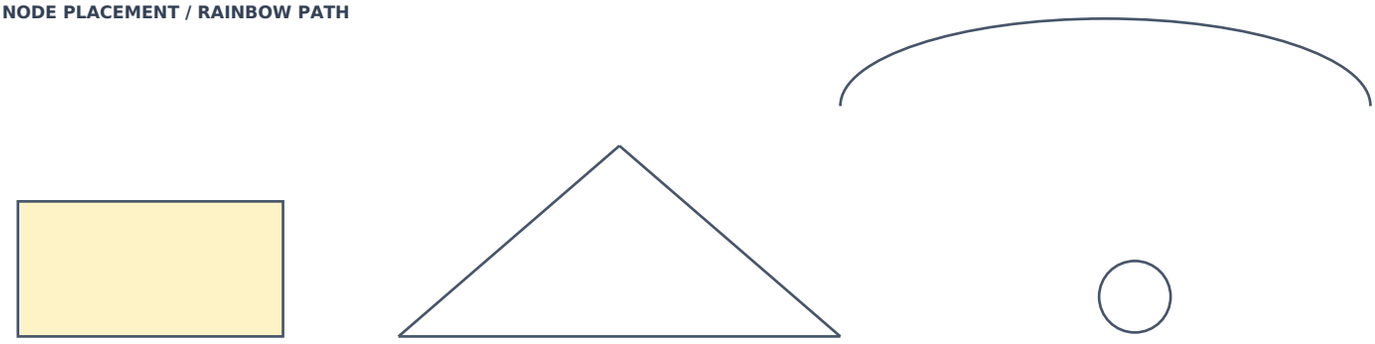
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.OUTWARD_GAP_ARC_Governed_Obj
reference "BP-OBJ-035"
state R -> R1
node N1
representation JP(BP-OBJ-035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Outward-facing angular reference through which the outlet clears the nonphysical Pearl reference circle. Au
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Hypothetical simulation/measurement circle used for path-clearance calculations; no physical wall or capacity. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

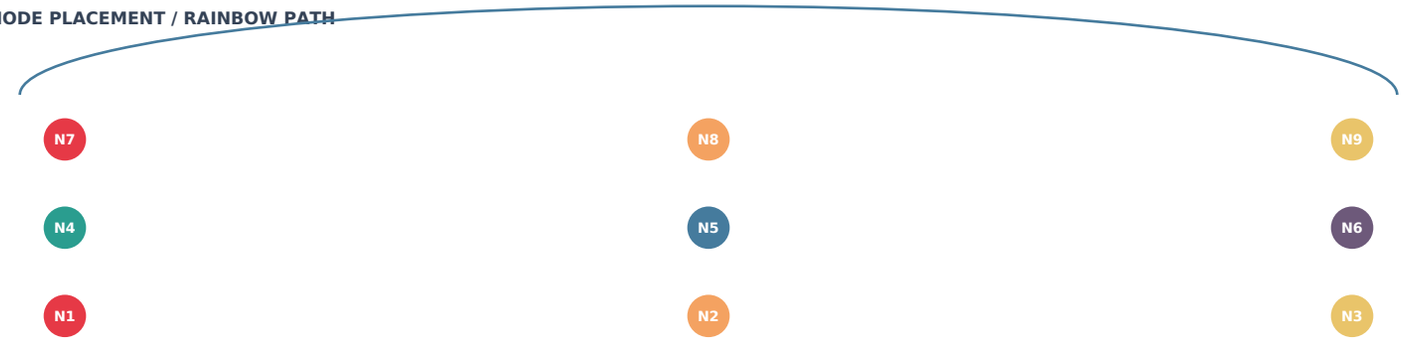
```
module MJ.Rainbow.PEARL_REFERENCE_CIRCLE_Gover
reference "BP-OBJ-036"
state R -> R1
node N1
representation JP(BP-OBJ-036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Hypothetical simulation/measurement circle used for path-clearance calculations; no physical wall or capaci
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0247 CIRCULAR_REENTRY_PORT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-037_CIRCULAR_REENTRY_PORT.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Circular inward-angled port candidate supplying measured radial and tangential re-entry components. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

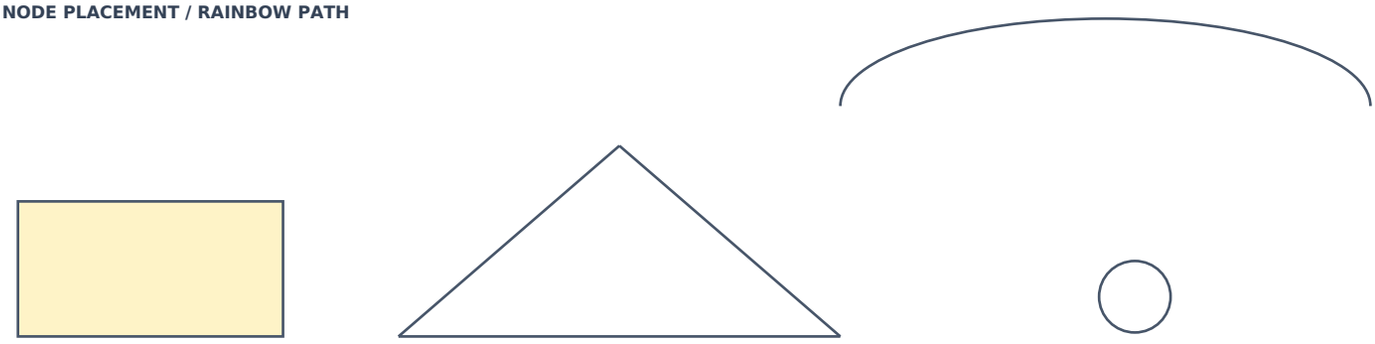
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.CIRCULAR_REENTRY_PORT_Govern
reference "BP-OBJ-037"
state R -> R1
node N1
representation JP(BP-OBJ-037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Circular inward-angled port candidate supplying measured radial and tangential re-entry components. Authori
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Per-transaction outlet/lake/re-entry/cycle/participant evidence receipt. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

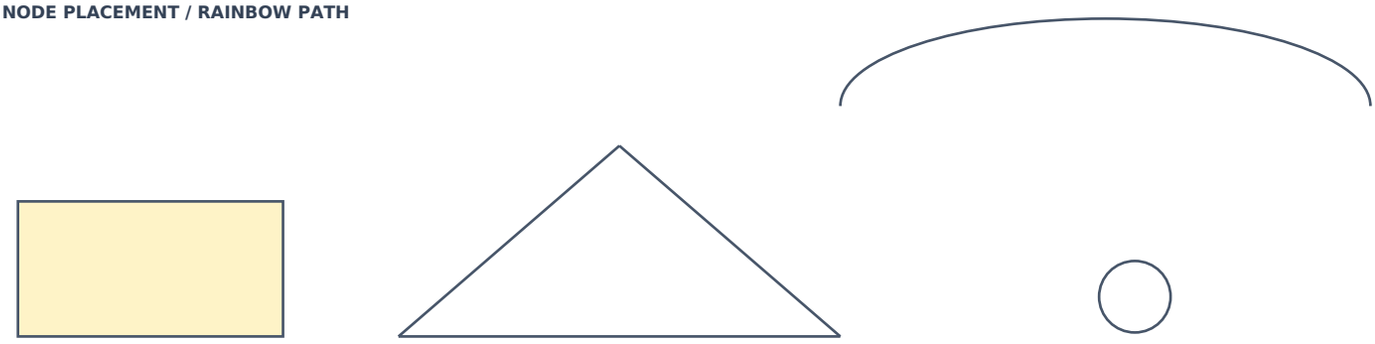
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.RESERVOIR_TRANSFER_RECEIPT_G
reference "BP-OBJ-038"
state R -> R1
node N6
representation JP(BP-OBJ-038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Per-transaction outlet/lake/re-entry/cycle/participant evidence receipt. Authority flag: False. The object
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Separates coordinate-transform residual, physical dissipation, and information friction. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

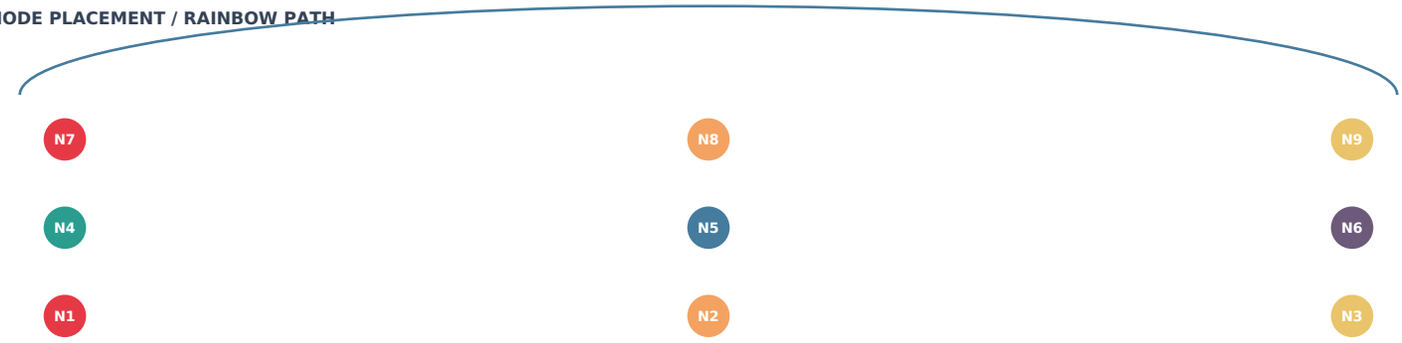
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PERSPECTIVE_FRICTION_RECEIPT
reference "BP-OBJ-039"
state R -> R1
node N1
representation JP(BP-OBJ-039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Separates coordinate-transform residual, physical dissipation, and information friction. Authority flag: Fa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Typed unit of retained element or variance observation. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

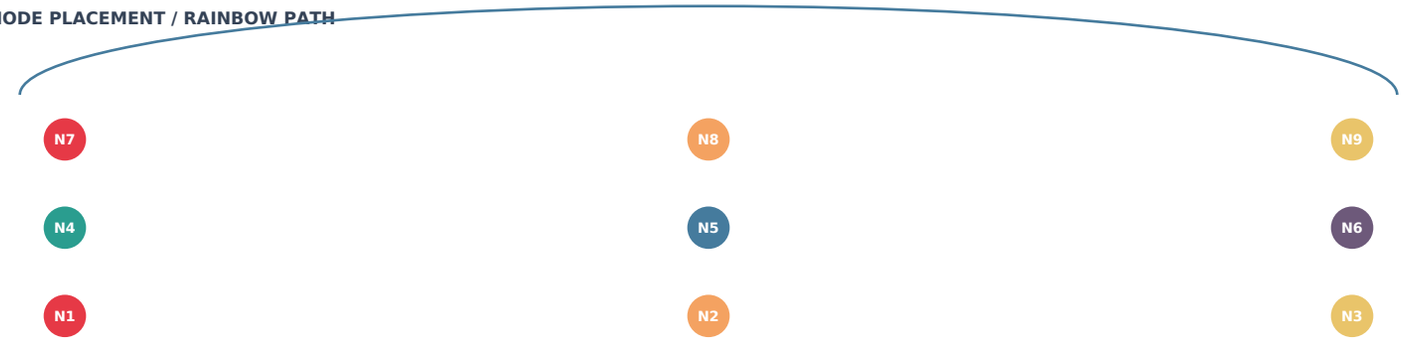
```
module MJ.Rainbow.DRO_UNIT_Governed_Object
reference "BP-OBJ-040"
state R -> R1
node N1
representation JP(BP-OBJ-040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Typed unit of retained element or variance observation. Authority flag: False. The object carries typed sta
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0251 DRO_SCALE_ENVELOPE - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-041_DRO_SCALE_ENVELOPE.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Founder-declared scale markers, conservative threshold, and uncertainty. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_SCALE_ENVELOPE_Governed_
reference "BP-OBJ-041"
state R -> R1
node N1
representation JP(BP-OBJ-041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Founder-declared scale markers, conservative threshold, and uncertainty. Authority flag: False. The object
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

RW-BLUE-0252 DRO_COLLECTION_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-042_DRO_COLLECTION_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Source, unit, quantity, scale, lineage, state, and evidence receipt. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

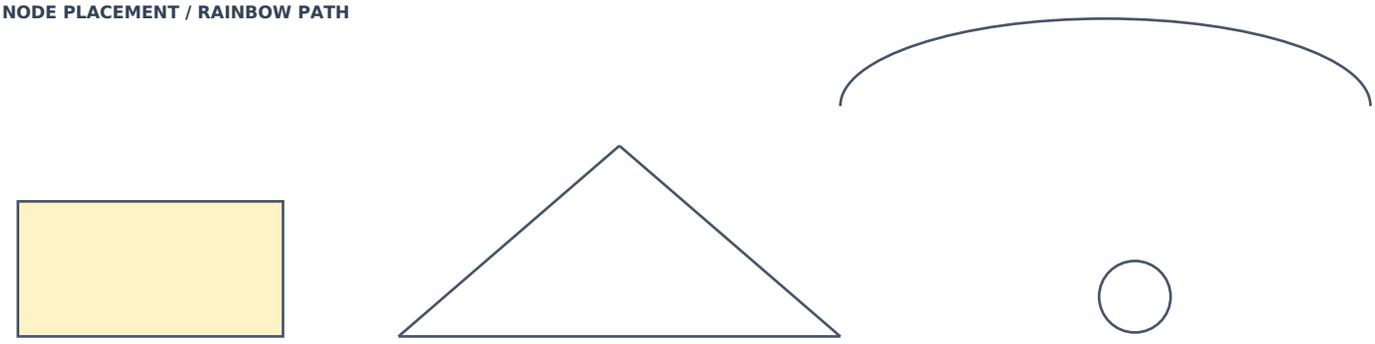
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_COLLECTION_RECEIPT_Gover
reference "BP-OBJ-042"
state R -> R1
node N1
representation JP(BP-OBJ-042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Source, unit, quantity, scale, lineage, state, and evidence receipt. Authority flag: False. The object carr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Measured wavelength, frequency, power, coupling, and uncertainty profile. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

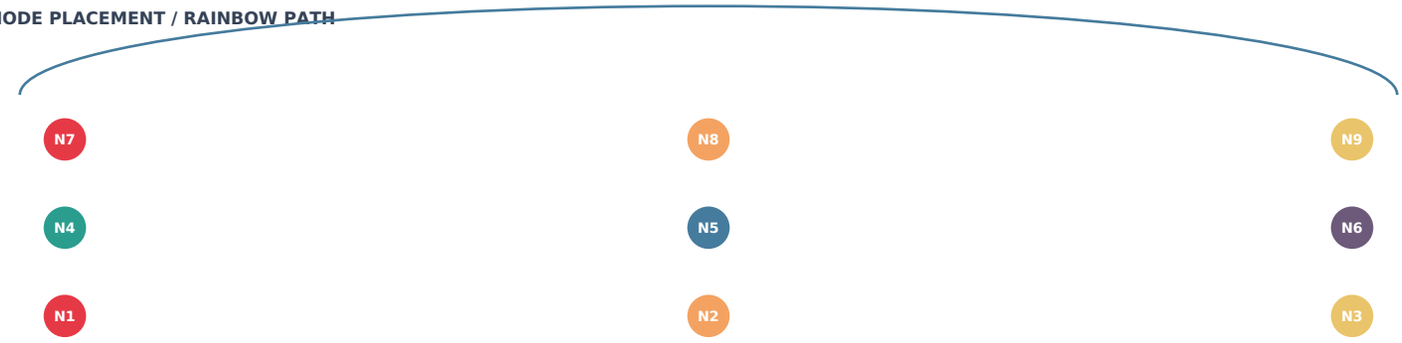
```
module MJ.Rainbow.DRO_OPTICAL_EVIDENCE_PROFILE
reference "BP-OBJ-043"
state R -> R1
node N1
representation JP(BP-OBJ-043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Measured wavelength, frequency, power, coupling, and uncertainty profile. Authority flag: False. The object
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0254 DRO_PEARL_HANDOFF_RECEIPT - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-044_DRO_PEARL_HANDOFF_RECEIPT.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Conservation and allocation record for DRO records entering a Pearl node. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_PEARL_HANDOFF_RECEIPT_Go
reference "BP-OBJ-044"
state R -> R1
node N1
representation JP(BP-OBJ-044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Conservation and allocation record for DRO records entering a Pearl node. Authority flag: False. The object
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

PEARL_DRO_NODE - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-045_PEARL_DRO_NODE.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Computational node for DRO and other typed element representations. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

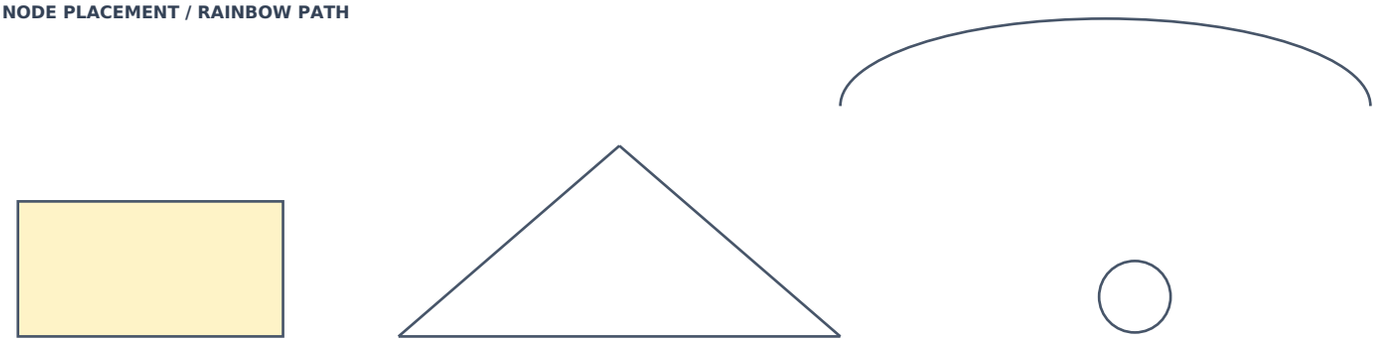
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PEARL_DRO_NODE_Governed_Obje
reference "BP-OBJ-045"
state R -> R1
node N1
representation JP(BP-OBJ-045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Computational node for DRO and other typed element representations. Authority flag: False. The object carri
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Typed start-energy and restart-reserve account. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

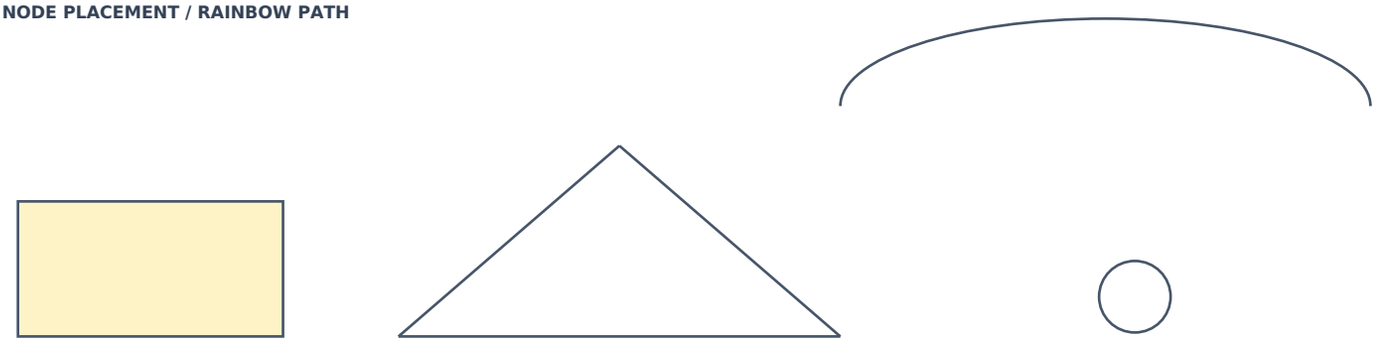
```
module MJ.Rainbow.DRO_START_ENERGY_PACKET_Gove
reference "BP-OBJ-046"
state R -> R1
node N5
representation JP(BP-OBJ-046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Typed start-energy and restart-reserve account. Authority flag: False. The object carries typed state, prov
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0257 DRO_IGNITION_REQUEST - Governed Object

official-docs/blue-pages/individual/objects/BP-OBJ-047_DRO_IGNITION_REQUEST.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Non-operational request object for start-readiness evaluation. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

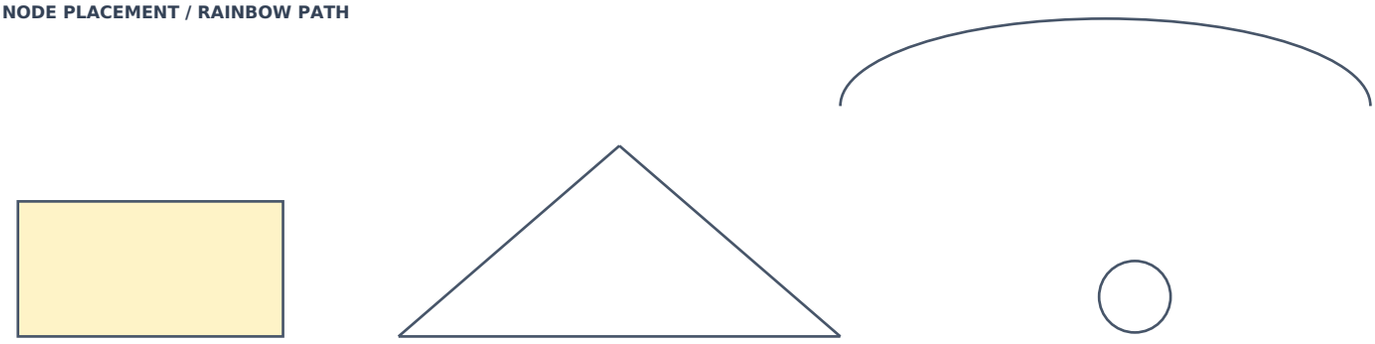
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_IGNITION_REQUEST_Governe
reference "BP-OBJ-047"
state R -> R1
node N1
representation JP(BP-OBJ-047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Non-operational request object for start-readiness evaluation. Authority flag: False. The object carries ty
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Original image digest, metadata, signal, and source-lineage record. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

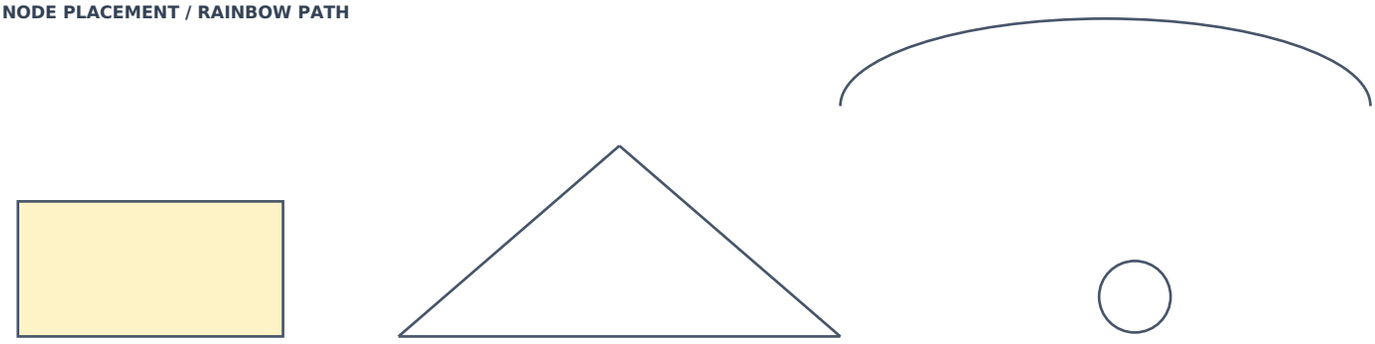
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.LECANTO_IMAGE_EVIDENCE_Gover
reference "BP-OBJ-048"
state R -> R1
node N1
representation JP(BP-OBJ-048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Original image digest, metadata, signal, and source-lineage record. Authority flag: False. The object carri
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Bounded image-intent hypothesis with uncertainty and no truth authority. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.LECANTO_INTENT_HYPOTHESIS_Go
reference "BP-OBJ-049"
state R -> R1
node N1
representation JP(BP-OBJ-049)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Bounded image-intent hypothesis with uncertainty and no truth authority. Authority flag: False. The object
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Source-preserving derivative and disclosure record. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.LECANTO_TRANSFORMATION_RECEI
reference "BP-OBJ-050"
state R -> R1
node N9
representation JP(BP-OBJ-050)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Source-preserving derivative and disclosure record. Authority flag: False. The object carries typed state,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

IMAGE_VARIANCE_RECEIPT - Governed Object

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: Spatial, color, spectral, compression, and registration residuals. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

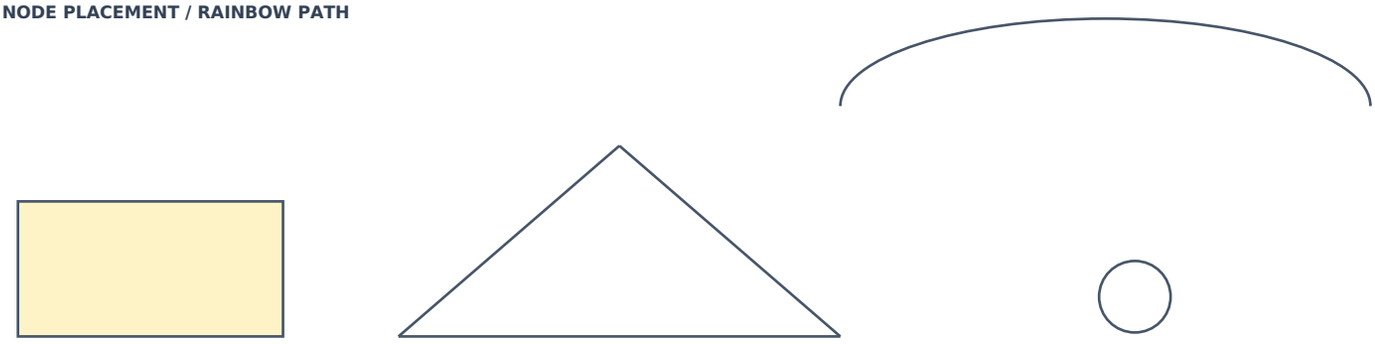
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.IMAGE_VARIANCE_RECEIPT_Gover
reference "BP-OBJ-051"
state R -> R1
node N1
representation JP(BP-OBJ-051)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: Spatial, color, spectral, compression, and registration residuals. Authority flag: False. The object carrie
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: SC-profile charge, energy, wake, and restart accounting. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

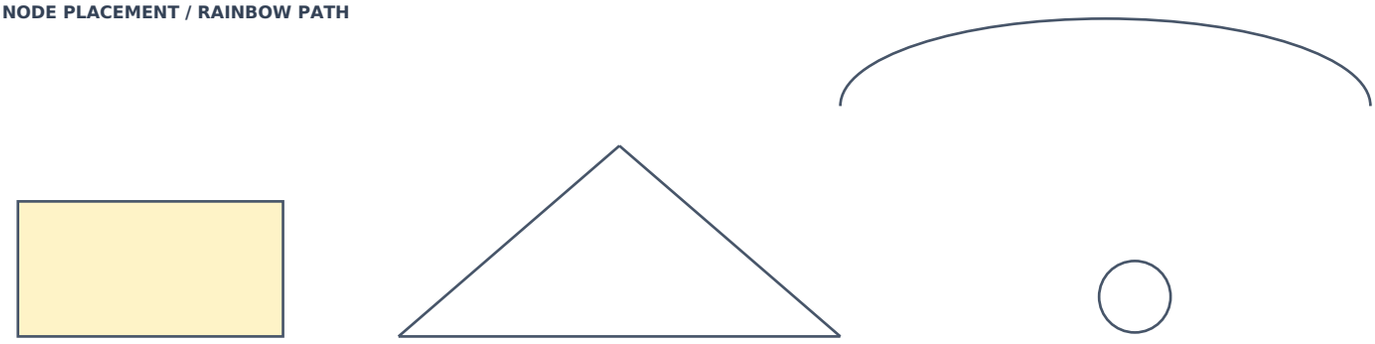
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SEMICONDUCTOR_DRO_ENERGY_LED
reference "BP-OBJ-052"
state R -> R1
node N1
representation JP(BP-OBJ-052)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: SC-profile charge, energy, wake, and restart accounting. Authority flag: False. The object carries typed st
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Object role: SC-profile computational Pearl node with memory and evidence limits. Authority flag: False. The object carries typed state, provenance, evidence, and relationships but cannot authorize itself or enlarge its own scope.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SEMICONDUCTOR_PEARL_NODE_Gov
reference "BP-OBJ-053"
state R -> R1
node N1
representation JP(BP-OBJ-053)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Object role: SC-profile computational Pearl node with memory and evidence limits. Authority flag: False. The object carr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Integrate purpose, mathematics, physics, verification, safety, resource routing, accounting, finance, evidence, and bounded permit decisions. Class: CORE_FRAMEWORK. Parent: MJ. Current status: DAY0_PREPASSKEY_COMPLETE_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_Physics_Based_Measurement
reference "BP-PROD-001"
state R -> R1
node N4
representation JP(BP-PROD-001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Integrate purpose, mathematics, physics, verification, safety, resource routing, accounting, finance, evidence,
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

Bangel Governed Measurement Language - Product Brief

official-docs/blue-pages/individual/products/BP-PROD-002_Bangel -LANGUAGE.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Express human purpose, typed measurements, formulas, evidence, and command pathways. Class: LANGUAGE. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Bangel _Governed_Measurement_
reference "BP-PROD-002"
state R -> R1
node N1
representation JP(BP-PROD-002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Express human purpose, typed measurements, formulas, evidence, and command pathways. Class: LANGUAGE. Parent: M
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

Elsa Deterministic Semantic Recovery - Product Brief

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Recover and preserve declared meaning without autonomous inference or authority. Class: SEMANTIC_SYSTEM. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

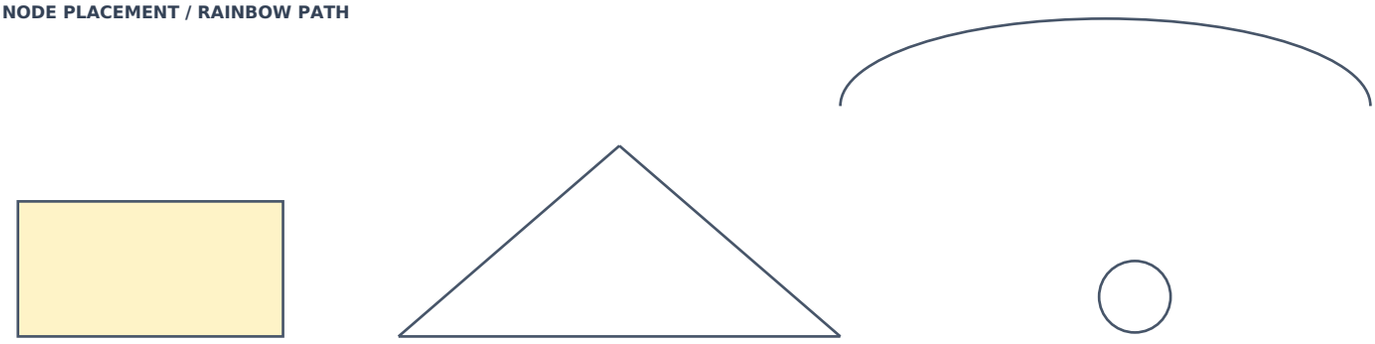
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Elsa_Deterministic_Semantic_
reference "BP-PROD-003"
state R -> R1
node N1
representation JP(BP-PROD-003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Recover and preserve declared meaning without autonomous inference or authority. Class: SEMANTIC_SYSTEM. Parent
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Represent equations, algorithms, CAPOs, topology, products, and proofs. Class: CANONICAL_REPRESENTATION. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JP_Mathematical_and_Architec
reference "BP-PROD-004"
state R -> R1
node N1
representation JP(BP-PROD-004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Represent equations, algorithms, CAPOs, topology, products, and proofs. Class: CANONICAL_REPRESENTATION. Parent
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Create physics representations and verify units, conservation, boundaries, scale, and evidence ceilings. Class: PHYSICS_SYSTEM. Parent: MJ. Current status: REFERENCE_IMPLEMENTATION.

PATH OF EXPRESSION

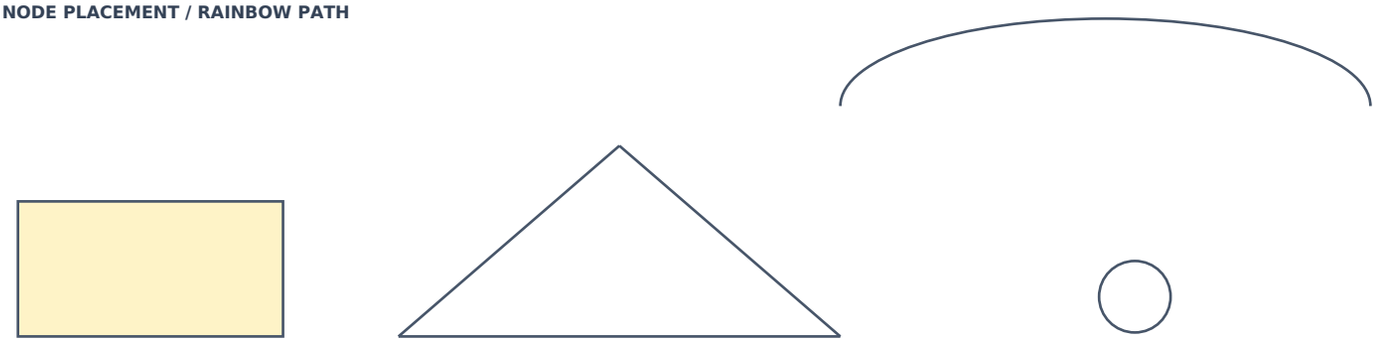
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mika_MK_Physics_Modulator_Sy
reference "BP-PROD-005"
state R -> R1
node N8
representation JP(BP-PROD-005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Create physics representations and verify units, conservation, boundaries, scale, and evidence ceilings. Class:
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Verify types, units, authority, physics, tests, evidence, and bounded execution. Class: RUNTIME. Parent: MJ. Current status: REFERENCE_IMPLEMENTATION.

PATH OF EXPRESSION

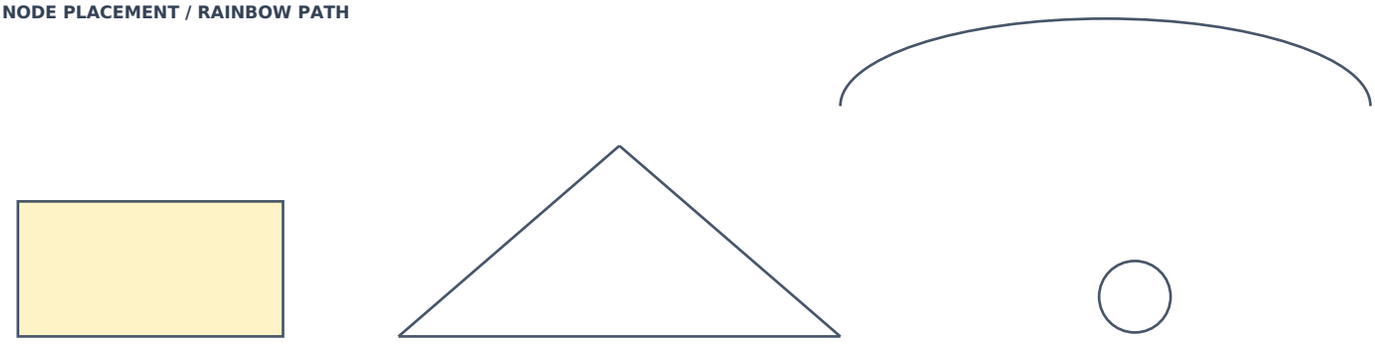
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JO_Deterministic_Proof_and_R
reference "BP-PROD-006"
state R -> R1
node N1
representation JP(BP-PROD-006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Verify types, units, authority, physics, tests, evidence, and bounded execution. Class: RUNTIME. Parent: MJ. Cu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide isolated resources, memory, storage, network, scheduling, and continuity under MJ leases. Class: OPERATING_SYSTEM. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJOS_Operating_Substrate_Pro
reference "BP-PROD-007"
state R -> R1
node N1
representation JP(BP-PROD-007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide isolated resources, memory, storage, network, scheduling, and continuity under MJ leases. Class: OPERAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Explore semiconductor-scale static intake, power wake, solar assist, battery, and operating-system integration. Class: PHYSICAL_PRODUCT_CANDIDATE. Parent: JP. Current status: PLANNED_ONLY_NO_PHYSICAL_ARTICLE.

PATH OF EXPRESSION

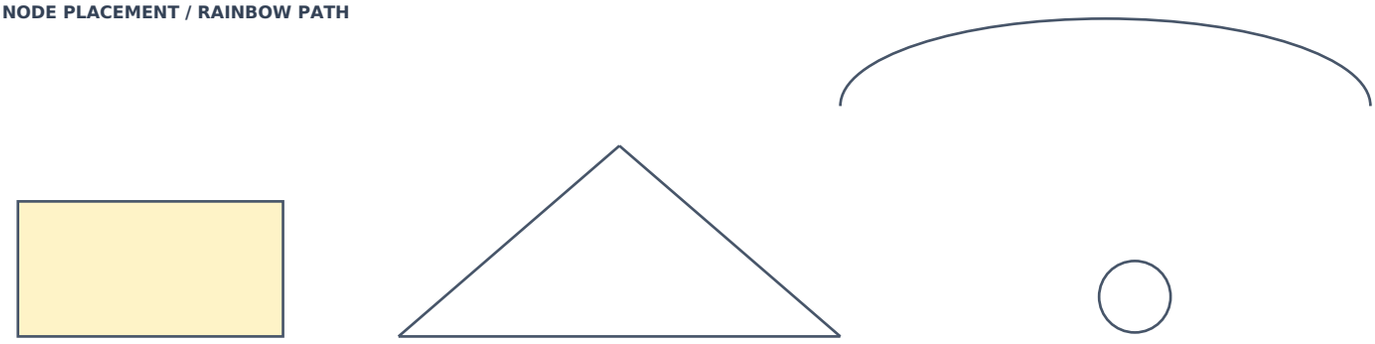
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JP_Semiconductor_Phone_Batte
reference "BP-PROD-008"
state R -> R1
node N1
representation JP(BP-PROD-008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Explore semiconductor-scale static intake, power wake, solar assist, battery, and operating-system integration.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Explore large-scale static intake, solar initiation, power bus, containment, and marine power integration. Class: PHYSICAL_PRODUCT_CANDIDATE. Parent: JP. Current status: PLANNED_ONLY_UNCLASSIFIED.

PATH OF EXPRESSION

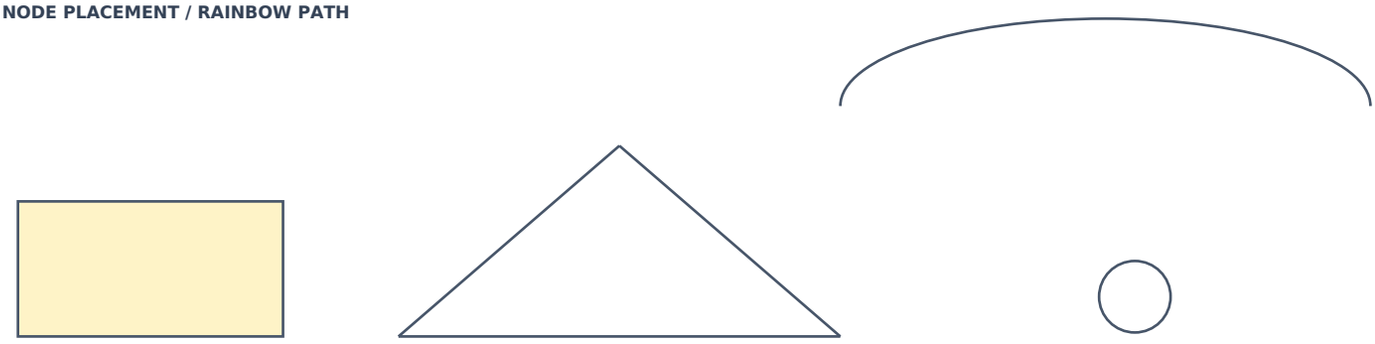
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JP_Large_Scale_Boating_Power
reference "BP-PROD-009"
state R -> R1
node N3
representation JP(BP-PROD-009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Explore large-scale static intake, solar initiation, power bus, containment, and marine power integration. Clas
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Explore peaceful propulsion measurement and control under non-weaponization, safety, and regulatory gates. Class: HIGH_RISK_PHYSICAL_RESEARCH_CANDIDATE. Parent: JP. Current status: PLANNED_ONLY_SAFETY_HOLD.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

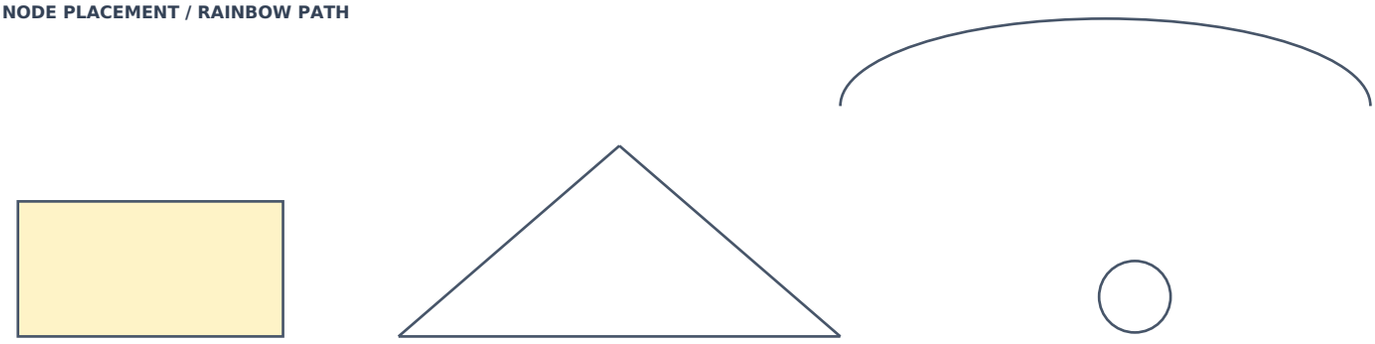
```
module MJ.Rainbow.JP_Peaceful_High_Energy_Prop
reference "BP-PROD-010"
state R -> R1
node N1
representation JP(BP-PROD-010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Explore peaceful propulsion measurement and control under non-weaponization, safety, and regulatory gates. Clas
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0274 Sister Predictive Containment System - Product Brief

official-docs/blue-pages/individual/products/BP-PROD-011_SISTER-CONTAINMENT.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Predict demand, allocate buffers, detect anomalies, and stage overflow in bounded umbrellas. Class: PREDICTION_AND_CONTAINMENT. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Sister_Predictive_Containmen
reference "BP-PROD-011"
state R -> R1
node N1
representation JP(BP-PROD-011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Predict demand, allocate buffers, detect anomalies, and stage overflow in bounded umbrellas. Class: PREDICTION_
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Account for variance, evaporation, leakage, capture, and natural egress without silent loss. Class: MEASUREMENT_SYSTEM. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

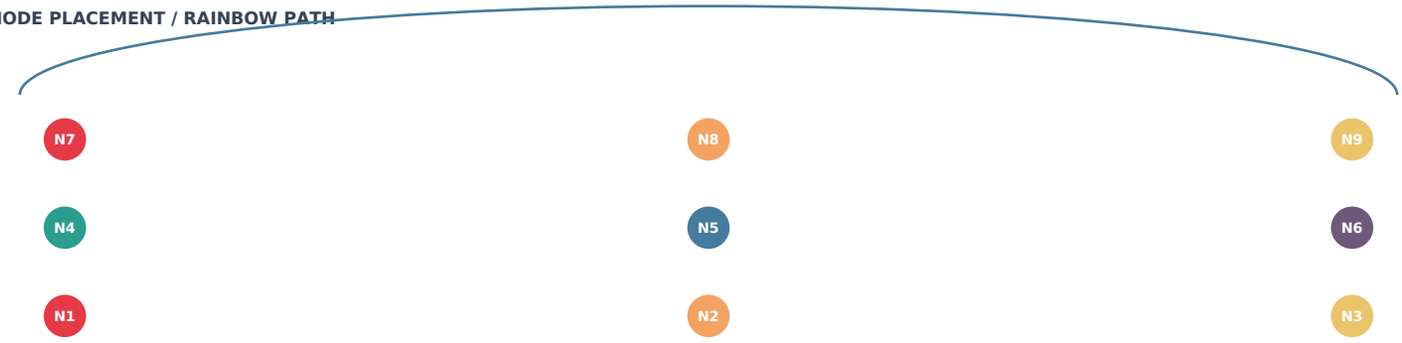
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.EVE_Variance_Screen_and_Egre
reference "BP-PROD-012"
state R -> R1
node N1
representation JP(BP-PROD-012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Account for variance, evaporation, leakage, capture, and natural egress without silent loss. Class: MEASUREMENT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide domain-bounded telemetry, hold, denial, isolation, and corrective protocols. Class: SAFETY_SYSTEM. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

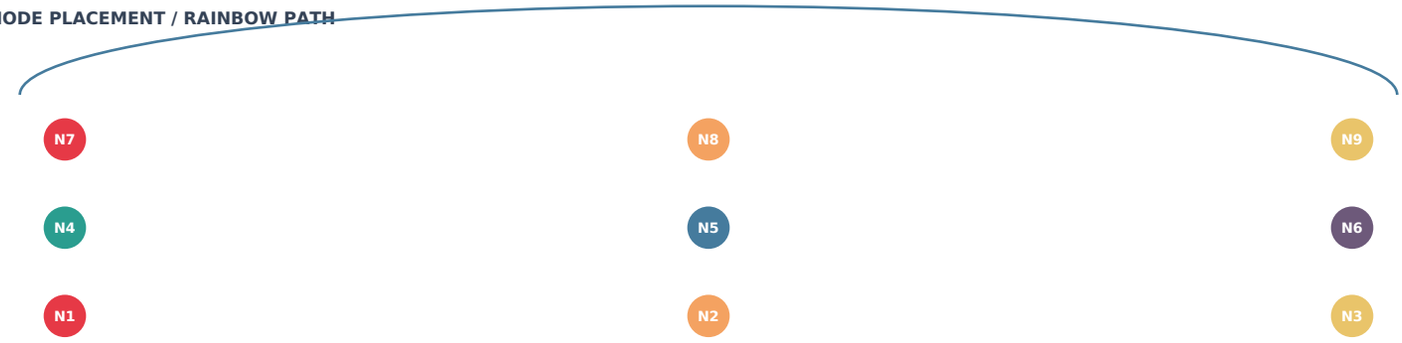
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Angels_Safety_and_Corrective
reference "BP-PROD-013"
state R -> R1
node N7
representation JP(BP-PROD-013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide domain-bounded telemetry, hold, denial, isolation, and corrective protocols. Class: SAFETY_SYSTEM. Pare
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Maintain balances, custody evidence, exposure, tax lots, statements, and reconciliation. Class: ACCOUNTING_SYSTEM. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Mermaid_Accounting_and_Recon
reference "BP-PROD-014"
state R -> R1
node N1
representation JP(BP-PROD-014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Maintain balances, custody evidence, exposure, tax lots, statements, and reconciliation. Class: ACCOUNTING_SYST
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Separate stability/cash functions from investment and crypto risk while preserving liquidity-first ethics. Class: FINANCIAL_REFERENCE_SYSTEM. Parent: MJ. Current status: INTERNAL_MODEL_EXTERNAL_DISABLED.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

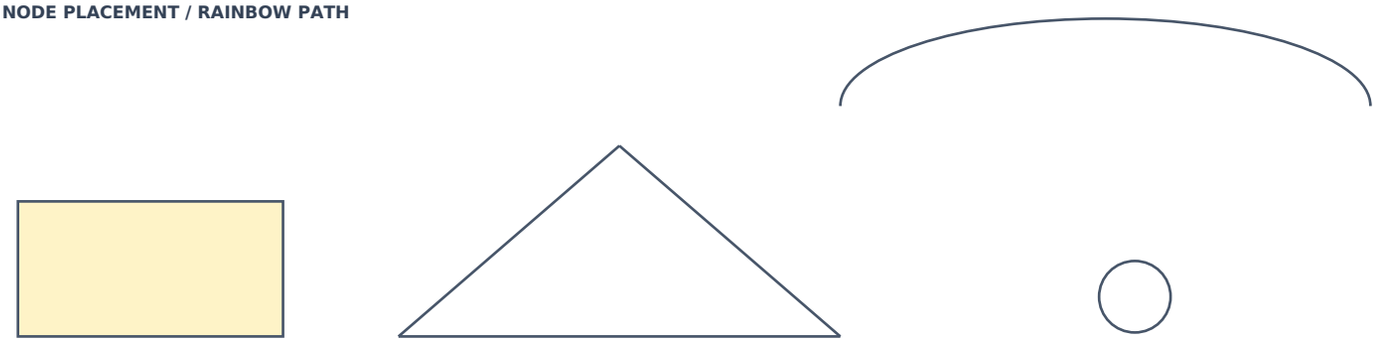
```
module MJ.Rainbow.Shiva_Dual_Financial_Rails_P
reference "BP-PROD-015"
state R -> R1
node N1
representation JP(BP-PROD-015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Separate stability/cash functions from investment and crypto risk while preserving liquidity-first ethics. Clas
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equity merit.

RW-BLUE-0279 SHIVAS Internal Settlement Reflection - Product Brief

official-docs/blue-pages/individual/products/BP-PROD-016_SHIVAS-INTERNAL.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Represent internal capital reflections without minting, redemption, public offer, or value guarantee. Class: CAPITAL_REFLECTION_OBJECT. Parent: SHIVA. Current status: NONTRANSFERABLE_NO_MONETARY_VALUE.

PATH OF EXPRESSION

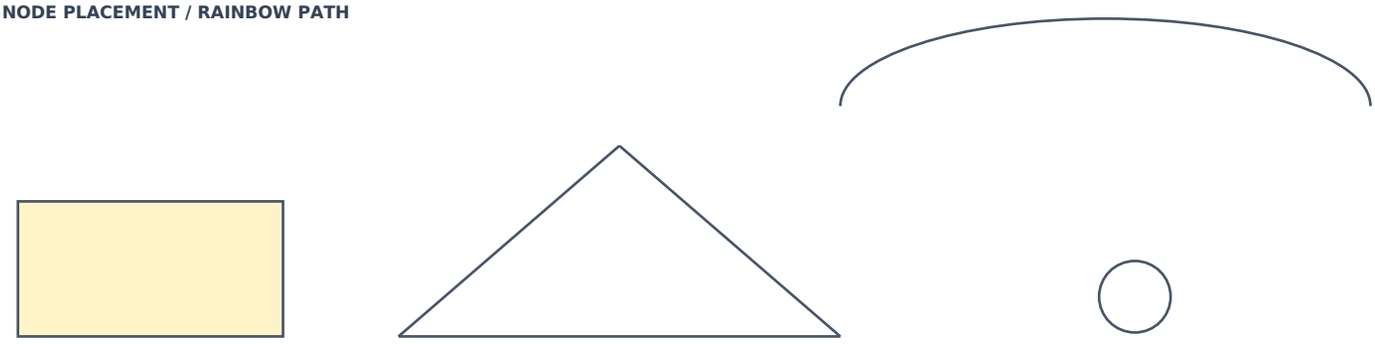
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.SHIVAS_Internal_Settlement_R
reference "BP-PROD-016"
state R -> R1
node N1
representation JP(BP-PROD-016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Represent internal capital reflections without minting, redemption, public offer, or value guarantee. Class: CA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equity merit.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Model a separately governed external crypto rail subject to full classification and authorization. Class: EXTERNAL_FINANCIAL_CANDIDATE. Parent: SHIVA. Current status: DISABLED_ACTIVE_HOLD.

PATH OF EXPRESSION

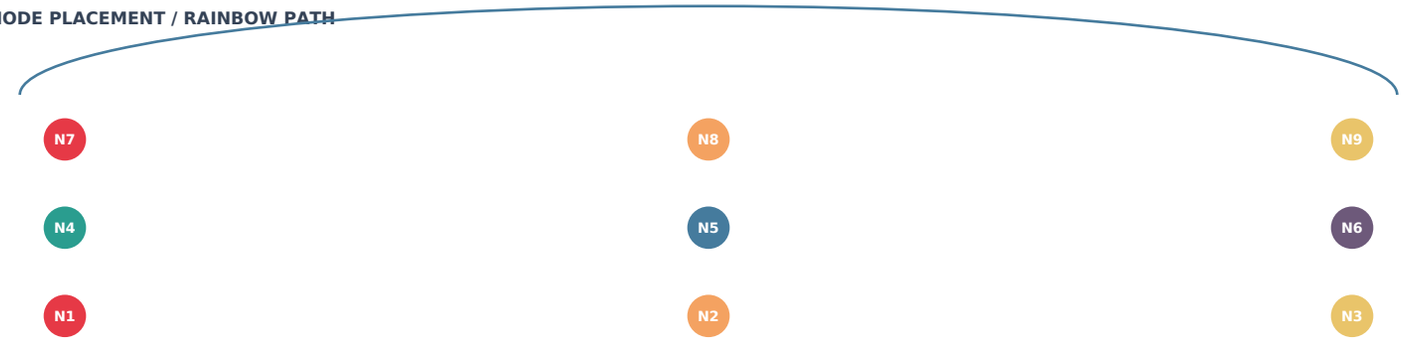
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shiva_Crypto_External_Market
reference "BP-PROD-017"
state R -> R1
node N2
representation JP(BP-PROD-017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Model a separately governed external crypto rail subject to full classification and authorization. Class: EXTER
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Model transparent price-time, custody, audit, tax, and transfer rules without operating a market. Class: MARKET_REFERENCE_MODEL. Parent: SHIVA. Current status: INTERNAL_SIMULATION_ONLY.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shiva_Exchange_Rule_Referenc
reference "BP-PROD-018"
state R -> R1
node N1
representation JP(BP-PROD-018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Model transparent price-time, custody, audit, tax, and transfer rules without operating a market. Class: MARKET
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Present governed applications, evidence, holds, and uncertainty. Class: APPLICATION_PRODUCT. Parent: MJ. Current status: REFERENCE_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Moana_Governed_Browser_Produ
reference "BP-PROD-019"
state R -> R1
node N1
representation JP(BP-PROD-019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Present governed applications, evidence, holds, and uncertainty. Class: APPLICATION_PRODUCT. Parent: MJ. Curren
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

Aviator Organizational Workspace - Product Brief

official-docs/blue-pages/individual/products/BP-PROD-020_AVIATOR-WORKSPACE.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Organize spaces, projects, decisions, knowledge, members, roles, and capabilities. Class: APPLICATION_PRODUCT. Parent: MJ. Current status: REFERENCE_CANDIDATE.

PATH OF EXPRESSION

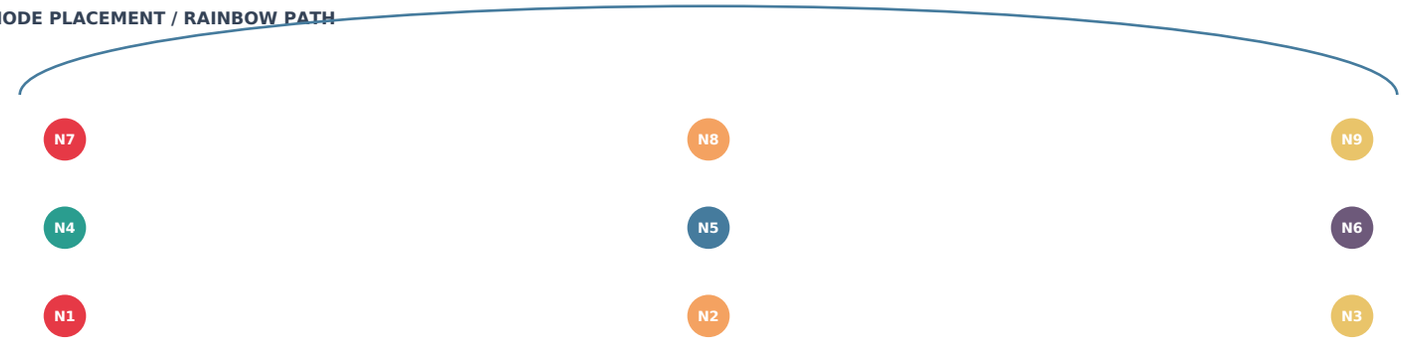
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Aviator_Organizational_Works
reference "BP-PROD-020"
state R -> R1
node N1
representation JP(BP-PROD-020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Organize spaces, projects, decisions, knowledge, members, roles, and capabilities. Class: APPLICATION_PRODUCT.
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N6; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Display system truth, provenance, topology, uncertainty, and evidence. Class: VISUAL_SYSTEM. Parent: MJ. Current status: REFERENCE_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Lecanto_Truthful_Visualizati
reference "BP-PROD-021"
state R -> R1
node N6
representation JP(BP-PROD-021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Display system truth, provenance, topology, uncertainty, and evidence. Class: VISUAL_SYSTEM. Parent: MJ. Curren
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

Elsa Governed Marketplace Reference - Product Brief

official-docs/blue-pages/individual/products/BP-PROD-022_ELSA-MARKETPLACE.pdf

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Coordinate semantic listings, workflow, accounting, execution, and resource evidence without live market authority. Class: MARKETPLACE_REFERENCE. Parent: MJ. Current status: INTERNAL_REFERENCE_ONLY.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Elsa_Governed_Marketplace_Re
reference "BP-PROD-022"
state R -> R1
node N1
representation JP(BP-PROD-022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Coordinate semantic listings, workflow, accounting, execution, and resource evidence without live market author
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Model bounded replicas, failover, continuity, and placement evidence. Class: INFRASTRUCTURE_REFERENCE. Parent: MJ. Current status: SPECIFICATION_CANDIDATE.

PATH OF EXPRESSION

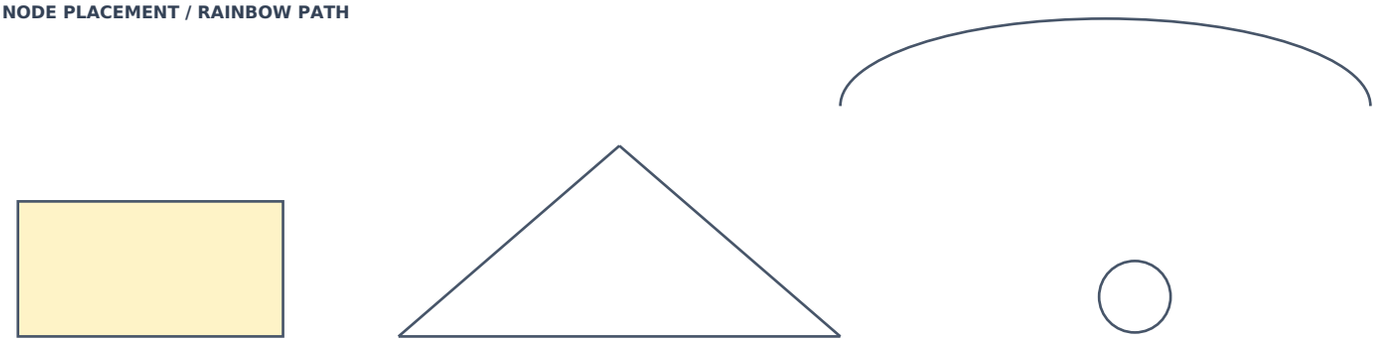
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Shekina_Distributed_Continui
reference "BP-PROD-023"
state R -> R1
node N1
representation JP(BP-PROD-023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Model bounded replicas, failover, continuity, and placement evidence. Class: INFRASTRUCTURE_REFERENCE. Parent:
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Acquire, retain, replay, and compare variance simulations and transfer/regeneration opportunities without asserting physical containment. Class: HYPOTHETICAL_SIMULATION_AND_INFORMATION_RETENTION. Parent: MJ. Current status: REFERENCE_SIMULATION_ONLY_PHYSICAL_NOT_APPLICABLE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Pearl_Hypothetical_Simulatio
reference "BP-PROD-024"
state R -> R1
node N1
representation JP(BP-PROD-024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Acquire, retain, replay, and compare variance simulations and transfer/regeneration opportunities without asser
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide governed spreadsheet-like operational modeling through typed measurement cells, immutable revisions, Pearl simulation partitions, deterministic recalculation, concurrency control, and audit evidence. Class: MEASUREMENT_SPREADSHEET_PLATFORM. Parent: Bangel . Current status: REFERENCE_MVP_PREPASSKEY.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

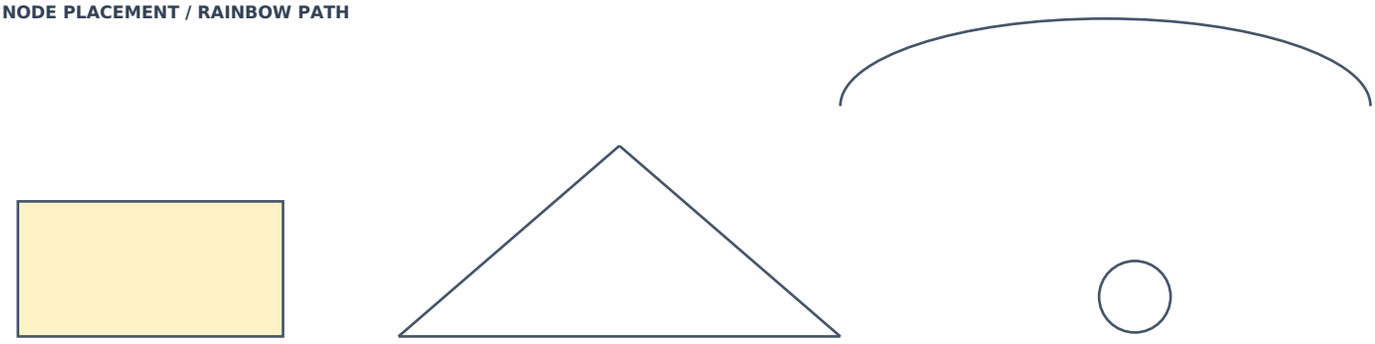
```
module MJ.Rainbow.Bangel _Spreadsheets_Product_
reference "BP-PROD-025"
state R -> R1
node N1
representation JP(BP-PROD-025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide governed spreadsheet-like operational modeling through typed measurement cells, immutable revisions, Pe
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

JPOSMJ Product Portfolio Envelope - Product Brief

official-docs/blue-pages/individual/products/BP-PROD-026_JPOSMJ-PORTFOLIO.pdf

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Bind every JP-origin product candidate through MK physics representation, JO verification, participant evidence, and MJ bounded permit classification. Class: PRODUCT_FAMILY_ENVELOPE. Parent: JP. Current status: PREPASSKEY_PORTFOLIO_ENVELOPE.

PATH OF EXPRESSION

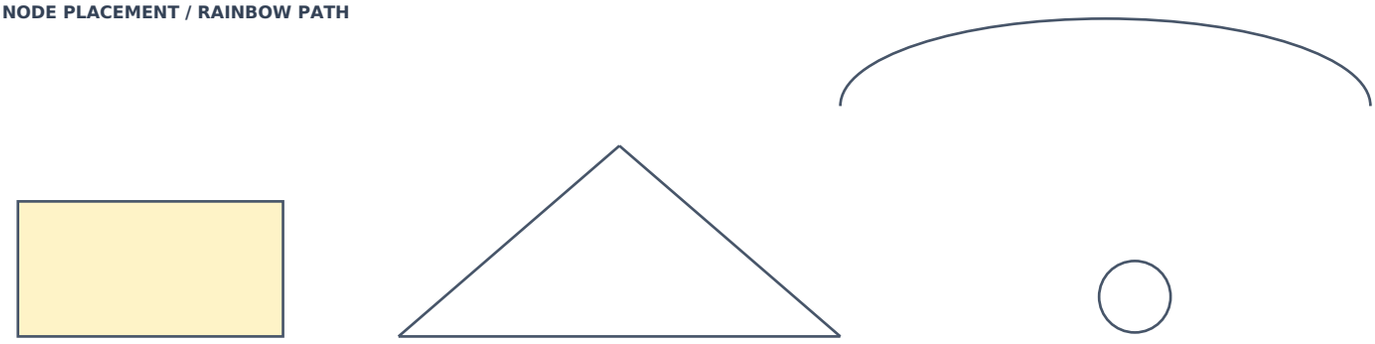
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JPOSMJ_Product_Portfolio_Env
reference "BP-PROD-026"
state R -> R1
node N1
representation JP(BP-PROD-026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Bind every JP-origin product candidate through MK physics representation, JO verification, participant evidence
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equipment approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide a scale-independent rectangle/cone/Sister/EVE/reservoir calculation standard and H2 reference-gas observation profile. Class: PHYSICS_REFERENCE_SYSTEM. Parent: MJ. Current status: REFERENCE_MVP_PHYSICAL_VALUES_HOLD.

PATH OF EXPRESSION

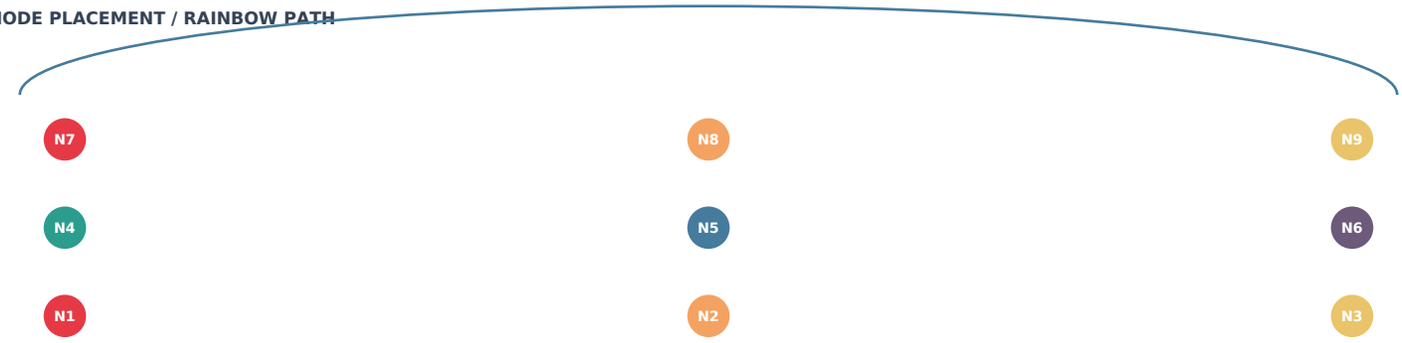
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_Standard_Containment_Geom
reference "BP-PROD-027"
state R -> R1
node N1
representation JP(BP-PROD-027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide a scale-independent rectangle/cone/Sister/EVE/reservoir calculation standard and H2 reference-gas obser
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Model the rear reservoir loop, exterior outlet, lake-like buffer, circular inward/tangential re-entry, wave/friction references, adaptive sizing, and full Sister/EVE/Angel/M3/MK/JO/Mermaid/Shiva/MJ transaction path. Class: PHYSICS_REFERENCE_SYSTEM. Parent: MJ. Current status: REFERENCE_MVP_PHYSICAL_VALUES_HOLD.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_Reservoir_Collection_Lake
reference "BP-PROD-028"
state R -> R1
node N1
representation JP(BP-PROD-028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Model the rear reservoir loop, exterior outlet, lake-like buffer, circular inward/tangential re-entry, wave/fri
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide the common JP-origin governed solar and energy-management architecture shared by the phone, marine, and peaceful rocket/spacecraft profiles. Class: SHARED_SOLAR_ARCHITECTURE. Parent: MJ. Current status: DESIGN_TRACE_SPECIFICATION_FROZEN_PHYSICAL_HOLD.

PATH OF EXPRESSION

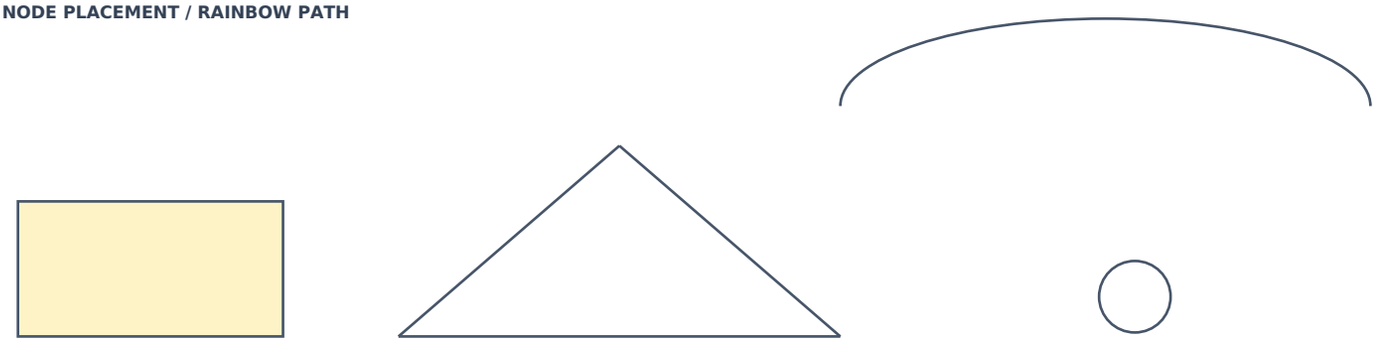
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJOS_Solar_Shared_Core_Archi
reference "BP-PROD-029"
state R -> R1
node N5
representation JP(BP-PROD-029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide the common JP-origin governed solar and energy-management architecture shared by the phone, marine, and
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or equivalent.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide solar-assisted phone battery and operating-system power integration with governed energy intake, battery/thermal observation, reserve allocation, workload-aware coordination, provenance, and measurable accounting. Class: SOLAR_PROFILE_SEMICONDUCTOR_PHONE. Parent: MJ. Current status: DESIGN_TRACE_SPECIFICATION_FROZEN_PLANNED_ONLY_NO_PHYSICAL_ARTICLE.

PATH OF EXPRESSION

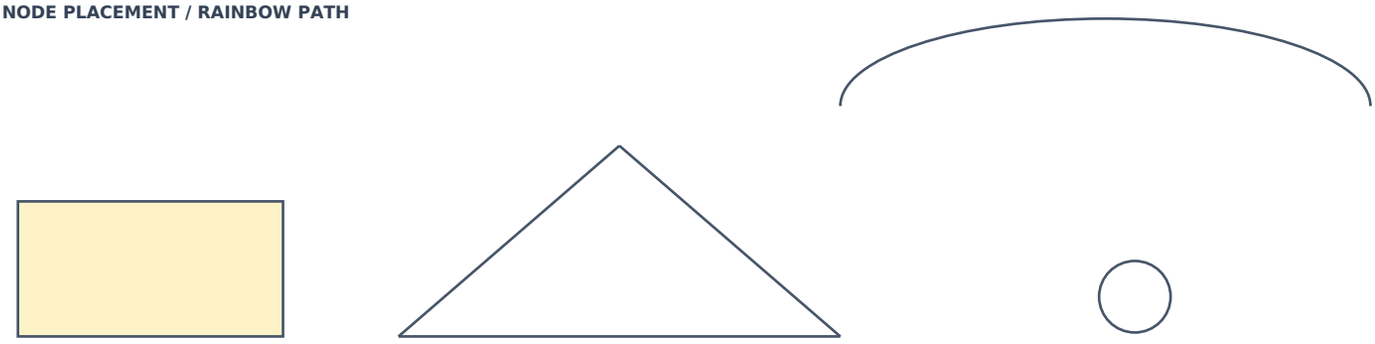
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJOS_Solar_Semiconductor_Pho
reference "BP-PROD-030"
state R -> R1
node N1
representation JP(BP-PROD-030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide solar-assisted phone battery and operating-system power integration with governed energy intake, batter
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide solar-assisted marine energy intake, storage, propulsion-load coordination, conversion/recovery, thermal management, reserve protection, operating-system control, telemetry, and evidence-backed state transitions. Class: SOLAR_PROFILE_MARINE. Parent: MJ. Current status: DESIGN_TRACE_SPECIFICATION_FROZEN_UNCLASSIFIED_NO_PHYSICAL_ARTICLE.

PATH OF EXPRESSION

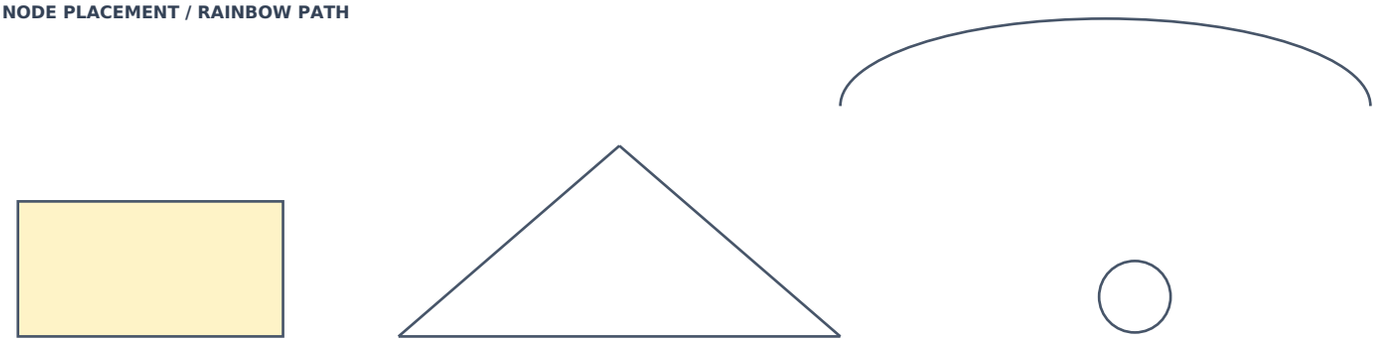
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJOS_Solar_Assisted_Marine_P
reference "BP-PROD-031"
state R -> R1
node N1
representation JP(BP-PROD-031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide solar-assisted marine energy intake, storage, propulsion-load coordination, conversion/recovery, therma
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Provide a non-weaponized reference architecture for solar-assisted avionics/electrical reserve, propulsion-state coordination, thermal/battery management, authenticated startup/shutdown, telemetry, fault isolation, and emergency-state control. Class: SOLAR_PROFILE_PEACEFUL_ROCKET_SPACECRAFT. Parent: MJ. Current status: DESIGN_TRACE_SPECIFICATION_FROZEN_PEACEFUL_RESEARCH_ONLY_SAFETY_HOLD.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJOS_Peaceful_Solar_Assisted
reference "BP-PROD-032"
state R -> R1
node N1
representation JP(BP-PROD-032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Provide a non-weaponized reference architecture for solar-assisted avionics/electrical reserve, propulsion-stat
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Represent typed collection, scale, unit, state, lineage, and conservation for elements or variance observations. Class: MEASUREMENT_AND_COLLECTION_REFERENCE. Parent: MJ. Current status: REFERENCE_CANDIDATE_SIMULATION_AND_MEASUREMENT_ONLY.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

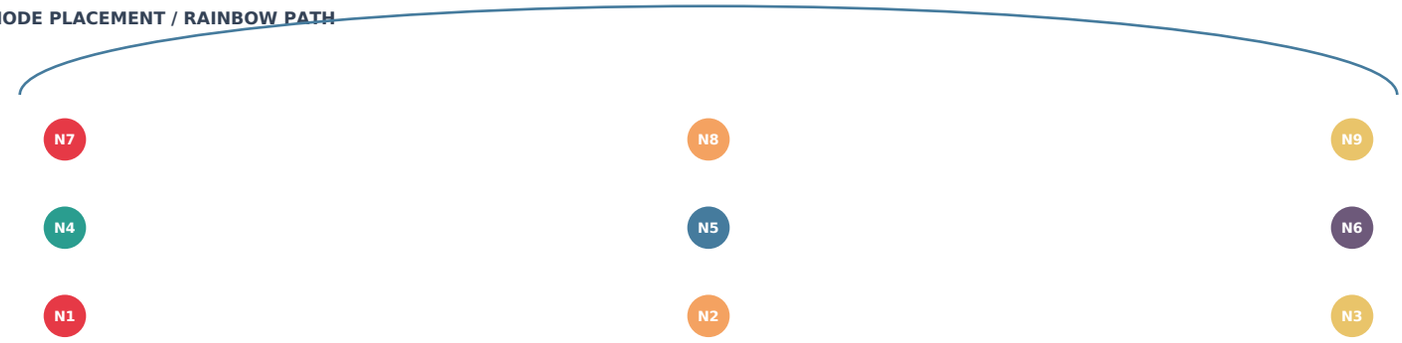
```
module MJ.Rainbow.DRO_Discrete_Retention_and_E
reference "BP-PROD-033"
state R -> R1
node N9
representation JP(BP-PROD-033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Represent typed collection, scale, unit, state, lineage, and conservation for elements or variance observations
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

RW-BLUE-0297 DRO-to-Pearl Computational Node Handoff - Product Brief

official-docs/blue-pages/individual/products/BP-PROD-034_DRO-PEARL-HANDOFF-001.pdf

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Allocate DRO records into Pearl computational nodes while preserving typed capacity and receipts. Class: COMPUTATIONAL_CONTAINMENT_AND_ACCOUNTING. Parent: MJ. Current status: SIMULATION_AND_INFORMATION_RETENTION_ONLY.

PATH OF EXPRESSION

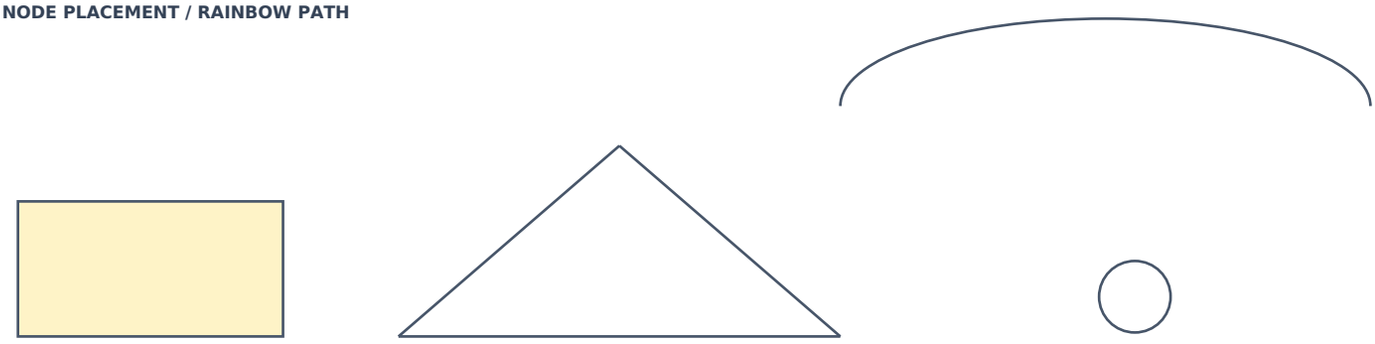
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_to_Pearl_Computational_N
reference "BP-PROD-034"
state R -> R1
node N1
representation JP(BP-PROD-034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Allocate DRO records into Pearl computational nodes while preserving typed capacity and receipts. Class: COMPUT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Represent source, start-energy, restart-reserve, conversion, and permit gates without authorizing ignition hardware. Class: NON_OPERATIONAL_ENERGY_START_REFERENCE. Parent: MJ. Current status: NON_OPERATIONAL_REFERENCE_ACTIVE_HOLD.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.DRO_Start_Energy_and_Restart
reference "BP-PROD-035"
state R -> R1
node N1
representation JP(BP-PROD-035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Represent source, start-energy, restart-reserve, conversion, and permit gates without authorizing ignition hard
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Preserve image source identity, analyze signal variance, label transformations, and create bounded intent hypotheses. Class: VISUAL_EVIDENCE_AND_PROVENANCE. Parent: MJ. Current status: REFERENCE_CANDIDATE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Lecanto_Image_Provenance_Phy
reference "BP-PROD-036"
state R -> R1
node N1
representation JP(BP-PROD-036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Preserve image source identity, analyze signal variance, label transformations, and create bounded intent hypot
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Purpose: Integrate DRO energy and measurement accounting with Pearl computational nodes and semiconductor wake/reserve logic. Class: SEMICONDUCTOR_REFERENCE_INTEGRATION. Parent: MJ. Current status: PLANNED_ONLY_NO_PHYSICAL_ARTICLE.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.JP_Semiconductor_DRO_and_Pea
reference "BP-PROD-037"
state R -> R1
node N4
representation JP(BP-PROD-037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Purpose: Integrate DRO energy and measurement accounting with Pearl computational nodes and semiconductor wake/reserve l
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 1 of 431. MJ-PBMEFPinkPaper-VolumeI GatewayExpression,BangelConstructSemantics,CommandNormalization,and R-to-N1-to-R2Lifecycle MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeI_Ga
reference "PINK-01-P0001"
state R -> R1
node N1
representation JP(PINK-01-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 1 of 431. MJ-PBMEFPinkPaper-VolumeI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 2 of 431. Contents 1 Executive gateway statement 2 2 Progressive expansion from MJ.23.r2 3 3 Token-by-token identification 4 4 Canonical execution order 5 5 R, R1, N1, R2, and final output 6 6 Bangel construct dictionary 7 7 Full declarative gateway example 8 8 Verification of the full corpus 9 Document control Project MJ:PhysicsBasedMeasurementEngineeringFramework Project ID MJ-PBMEF-001 Source build MJ-PBMEF-DAY0-R5-REVIEW-C

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Executive_gateway
reference "PINK-01-P0002"
state R -> R1
node N1
representation JP(PINK-01-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 2 of 431. Contents 1 Executive gatew
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 3 of 431. Chapter 1 Executive gateway statement ThePinkPaperisaverification-focuseddeclarativepathwayspecification. Itusesthefounder-supplied expression as a source-provenance object, then separates lexical order from canonical execution or- der. Thepapershowshoweachformula,manifestation,object,product,andwhitepaperenterstheMJ frameworkwithoutconfusingrepresentation,measurement,authority,orexecution. Founder source literal {ha

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Executive_gateway_
reference "PINK-01-P0003"
state R -> R1
node N1
representation JP(PINK-01-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 3 of 431. Chapter 1 Executive gatewa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 4 of 431. Chapter 2 Progressive expansion from MJ.23.r2 Stage Expression Interpretation 1 MJ.23.r2 Profile/stateseed 2 MJ.23.r2.exe Addsrequestedexecutionverb 3 MJ.23.r2.exe.r1.confirm Addstransitionandconfirmation 4 MJ.23.r2.exe.r1.confirm.G123.reconcile Addsgenerationalreconciliation 5 MJ.23.r2.exe.r1.confirm.G123.reconcile.Bangel.begin Addslanguagestartdirectiv...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_Progressive_expans
reference "PINK-01-P0004"
state R -> R1
node N1
representation JP(PINK-01-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 4 of 431. Chapter 2 Progressive expa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 5 of 431. Chapter 3 Token-by-token identification Token Exact meaning and boundary {hagelaohrbcoe.48383829} Requestenvelopecontaininganopaquerequestidentifierandexactratio48,383,829/100,000,000. Itisnotaphysicalcoordinate,probabilityoftruth,orpermit. M3 Mary/M3boundedroutingandallocationparticipant. M3cannotmintauthority. act Requestedeffectverb. Itremainsarequestuntilallgatespass. MJ Frameworkrootandfinalboundeddecisionautho

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_Token_by_token_ide
reference "PINK-01-P0005"
state R -> R1
node N1
representation JP(PINK-01-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 5 of 431. Chapter 3 Token-by-token i
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 6 of 431. Chapter 4 Canonical execution order HumanPurpose -> MJ.root -> Bangel.begin -> Elsa.recover -> JP.represent -> MK.classify -> JO.verify -> R1.transition -> N1.predict_and_preallocate -> Angels/Bellatrix/Sister/EVE.evidence -> M3.route -> Mermaid.reconcile -> Shiva.when_capital_applies -> MJ.permit -> JO.execute -> R2.output_receipt 5

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_Canonical_executio
reference "PINK-01-P0006"
state R -> R1
node N1
representation JP(PINK-01-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 6 of 431. Chapter 4 Canonical execut
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 7 of 431. Chapter 5 R, R1, N1, R2, and final output Lifecycle state Definition R/R0 Initialpurpose,command,variables,authoritycontext,andunresolvedinputs. R1 Unidentifiedtransitionaryphase. Missingordisputedevidenceremainstypedandcan- notbecomezero. N1 Firstprediction-basedallocationnode. Itreceivesvalidatedlogicalallocationcontext, notaphysical-coordinateapproval. R2 Immutableliving-staticrepresentationafterscopedvalidation.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_R_R1_N1_R2_and_fin
reference "PINK-01-P0007"
state R -> R1
node N1
representation JP(PINK-01-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 7 of 431. Chapter 5 R, R1, N1, R2, a
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 8 of 431. Chapter 6 Bangel construct dictionary Construct Definition Module Aboundedcompilationorspecificationunitgroupingrelateddeclarationsanddefini- tions. Namespace Astableidentitydomainpreventingcollisionsamongfamily,formula,product,andobject names. Import Anexplicitdependencyedge. Importsconfernoauthorityandmustpreservesourcedi- gestandversion. Declarat...

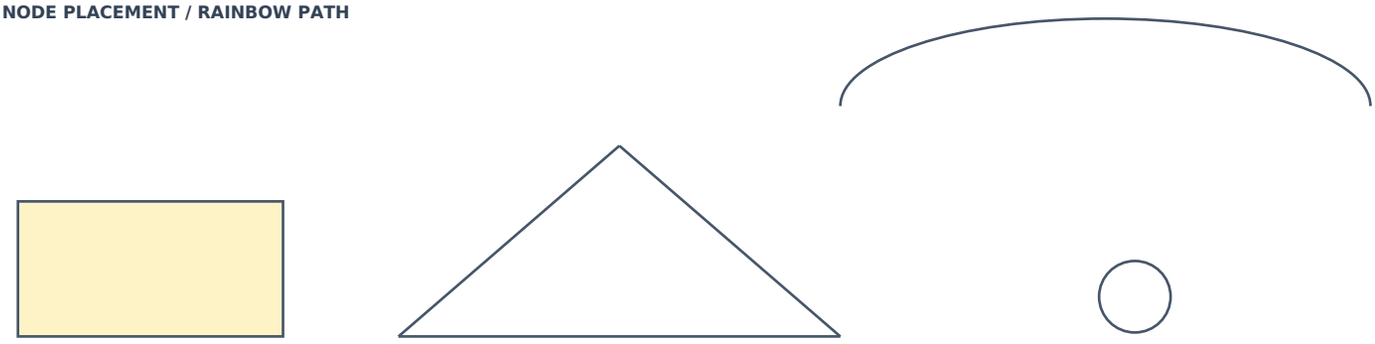
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_Bangel _construct_d
reference "PINK-01-P0008"
state R -> R1
node N3
representation JP(PINK-01-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 8 of 431. Chapter 6 Bangel  construct
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 9 of 431. Chapter 7 Full declarative gateway example module MJ.PBMEF.Gateway { namespace MJ.PBMEF.Command.Day0 import MJ.PBMEF.Manifest import MJ.PBMEF.Formulas import MJ.PBMEF.Family @source_literal("{hagelaohrbcoe.48383829}." "M3.act.MJ.23.r2.exe.r1.confirm." "G123.reconcile.Bangel.begin") declaration request : CommandEnvelope definition request.id = "hagelaohrbcoe" definition request.front_end_seed = exact_ratio(48383829,

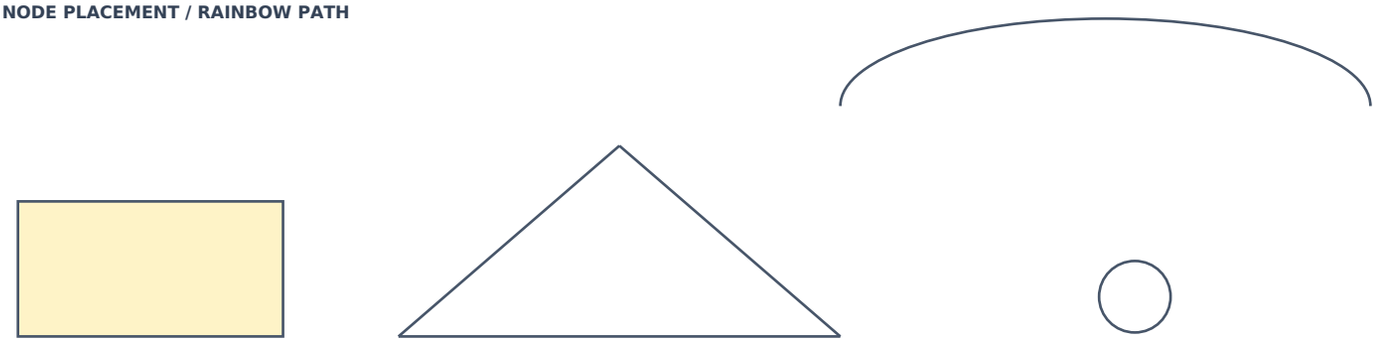
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_Full_declarative_g
reference "PINK-01-P0009"
state R -> R1
node N1
representation JP(PINK-01-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 9 of 431. Chapter 7 Full declarative
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 10 of 431. Chapter 8 Verification of the full corpus ThisPinkPaperbindsthegatewayto 21 family manifestations, 39 governed objects, 28 products, 145 formulas, and 61 registered white papers. Theremainingvolumesenumerateeachitemand statehowitentersthegateway,whatitmayexpress,whatevidenceitrequires,andwhatauthority cannotcreate. 9

PATH OF EXPRESSION

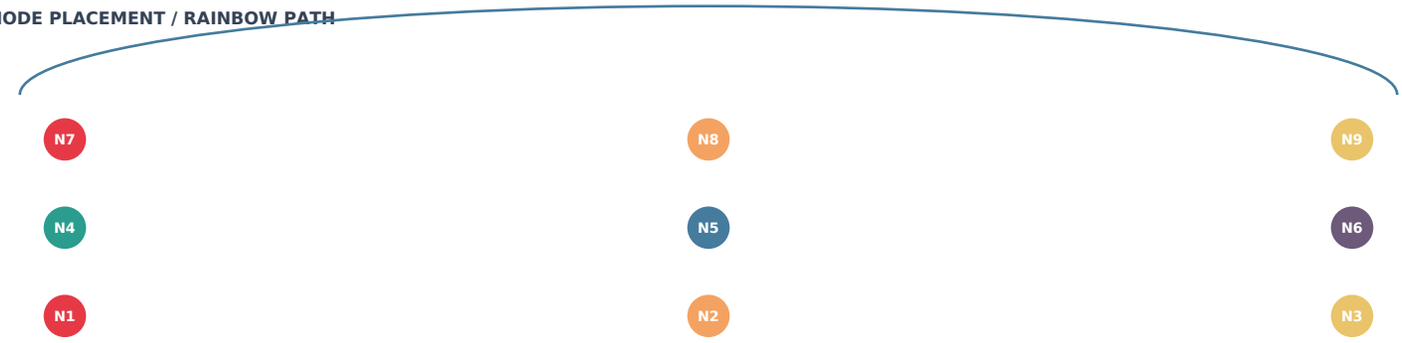
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_Verification_of_th
reference "PINK-01-P0010"
state R -> R1
node N1
representation JP(PINK-01-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 10 of 431. Chapter 8 Verification of
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 11 of 431. MJ-PBMEFPinkPaper-VolumeII FormulaGatewayBindingsF-001throughF-050 MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

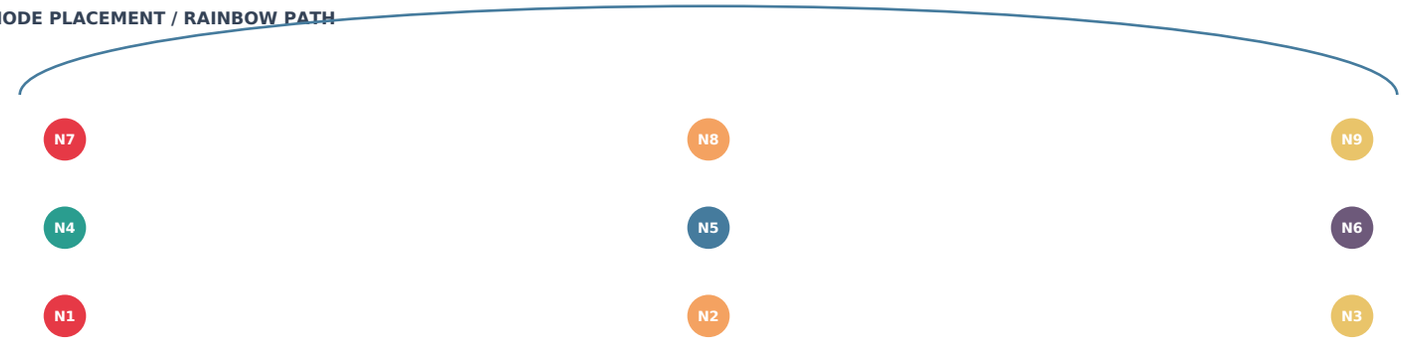
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeII_F
reference "PINK-01-P0011"
state R -> R1
node N1
representation JP(PINK-01-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 11 of 431. MJ-PBMEFPinkPaper-VolumeI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 12 of 431. Contents 1 Verification method 5 2 F-001 - R1 transition 6 2.1 Gatewaylife-cycleexample . . . . . .6 2.2 Lifecyclefromrequesttofinaloutput . . . . . .7 3 F-002 - R2 transition 8 3.1 Gatewaylife-cycleexample . . . . . .8 3.2 Lifecyclefromrequesttofinaloutpu

PATH OF EXPRESSION

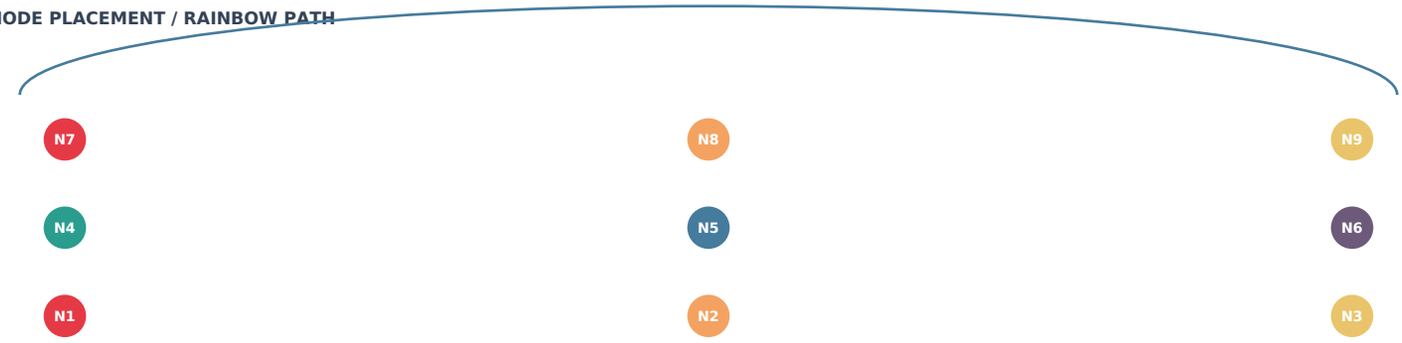
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Verification_meth
reference "PINK-01-P0012"
state R -> R1
node N7
representation JP(PINK-01-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 12 of 431. Contents 1 Verification m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 13 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 13.2Lifecyclefromrequesttofinaloutput . . . . . .29 14F-013 - Front-end reserve 30 14.1Gatewaylife-cycleexample . . . . . .30 14.2Lifecyclefromrequesttofinaloutput . . . . . .31 15F-014 - Bounde

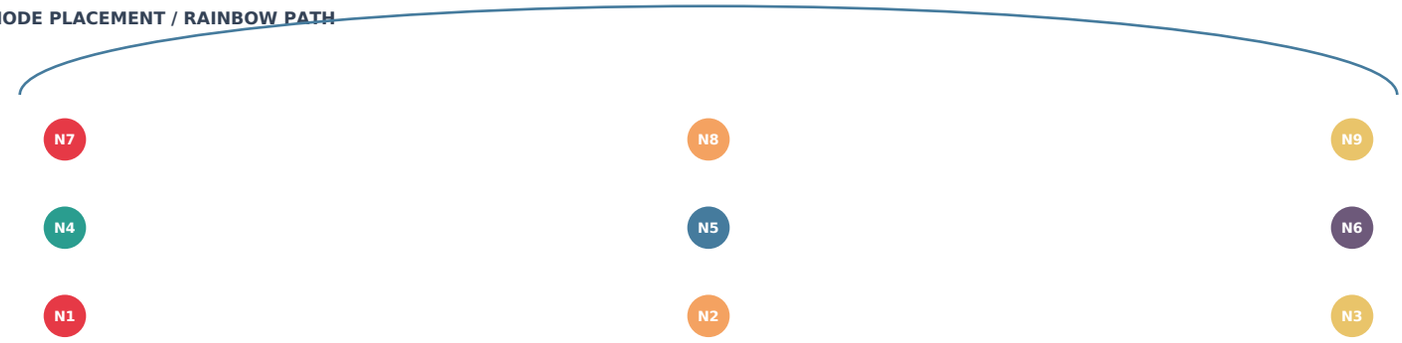
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0013"
state R -> R1
node N1
representation JP(PINK-01-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 13 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 14 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 29F-028 - Byte balance 60 29.1Gatewaylife-cycleexample . . . . . .60 29.2Lifecyclefromrequesttofinaloutput . . . . . .61 30F-029 - Residual consequence 62 30.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

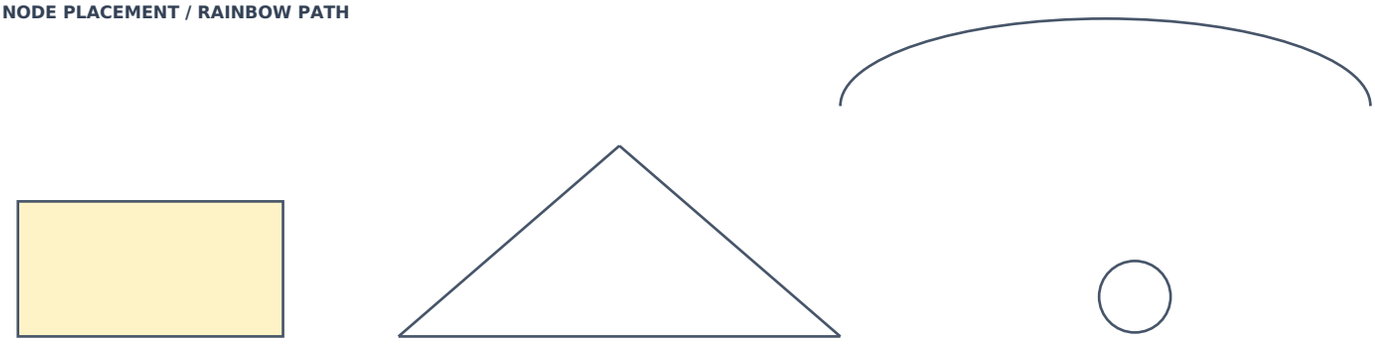
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0014"
state R -> R1
node N1
representation JP(PINK-01-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 14 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 15 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 44F-043 - Pearl simulation ellipsoid volume 90

44.1Gatewaylife-cycleexample 90
44.2Lifecyclefromrequesttofinaloutput 91
45F-044 - Pearl simulation surface-area approximation 92
45.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

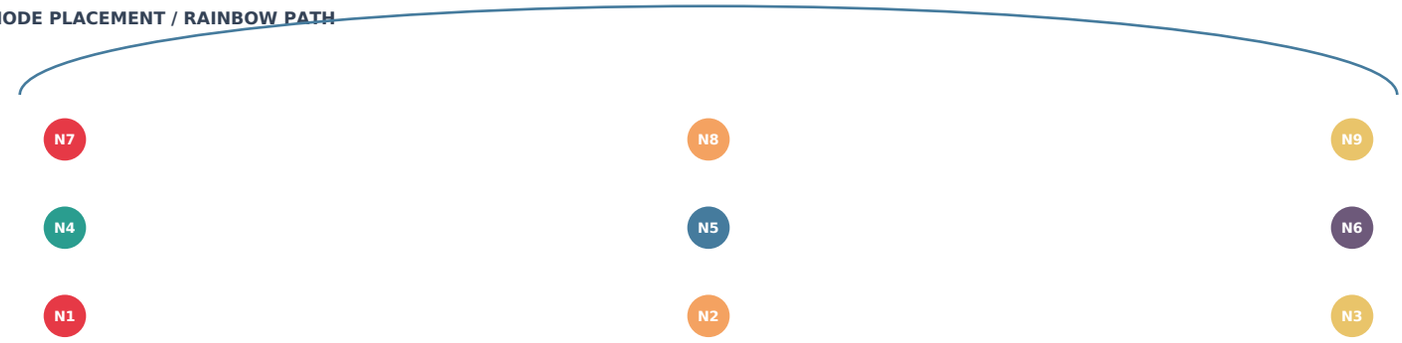
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0015"
state R -> R1
node N1
representation JP(PINK-01-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 15 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N2; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 16 of 431. Chapter 1 Verification method Each formula receives the same twenty-construct Bangel identity, a gateway-stage assignment, a life-cycleexample, andexplicitevidenceandethicsboundaries. Therepetitivestructureisintentional: it allowsformula-by-formulafounderreviewandlaterautomatedcompletenesschecking. 5

PATH OF EXPRESSION

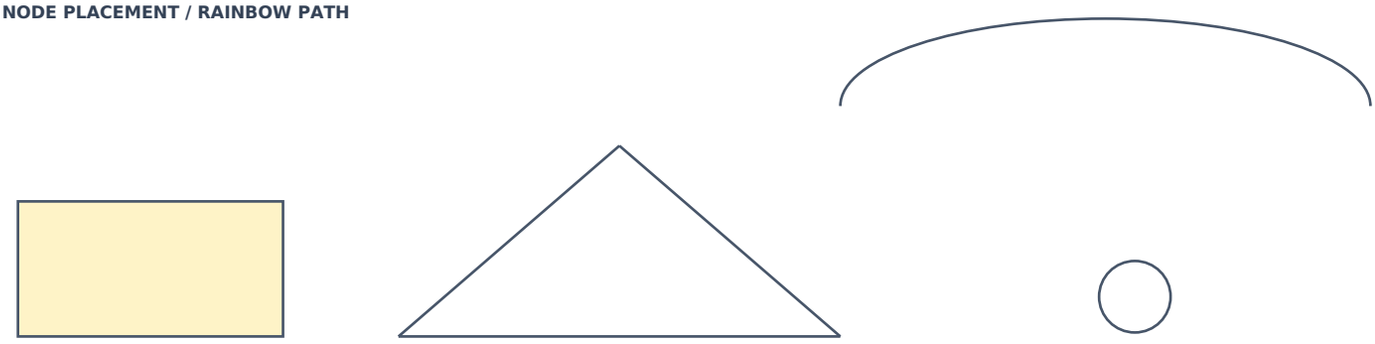
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Verification_metho
reference "PINK-01-P0016"
state R -> R1
node N2
representation JP(PINK-01-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 16 of 431. Chapter 1 Verification me
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 17 of 431. Chapter 2 F-001 - R1 transition Exact expression R0 -> R1 Meaning. R1istheunidentifiedtransitionaryphase. Bound manifestations.Bangel .JP,JO Gateway stage.R0/R1/R2statetransitionandevidenceclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_001 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formulas,MJ.PBMEF.Fami

PATH OF EXPRESSION

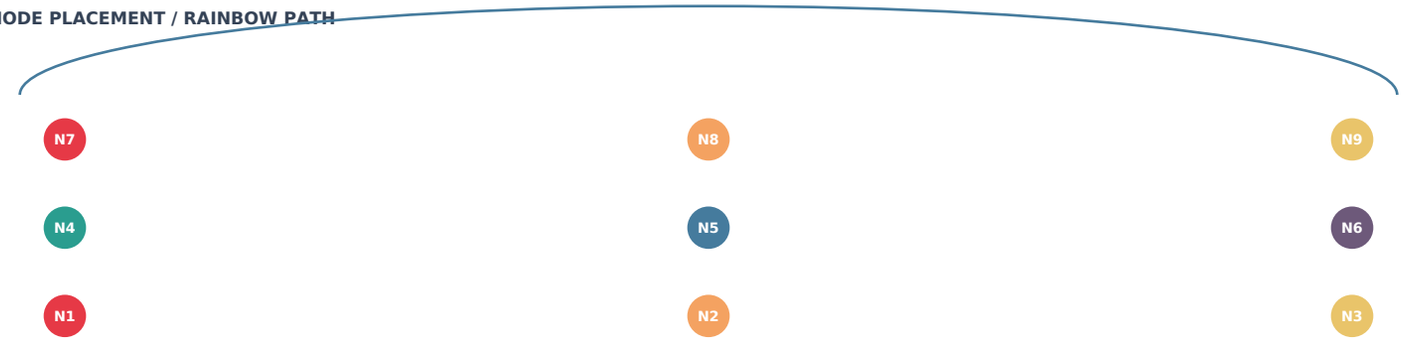
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_F_001_R1_transitio
reference "PINK-01-P0017"
state R -> R1
node N1
representation JP(PINK-01-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 17 of 431. Chapter 2 F-001 - R1 tran
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 18 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 2.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-001anditsassumptions,inputs,outp

PATH OF EXPRESSION

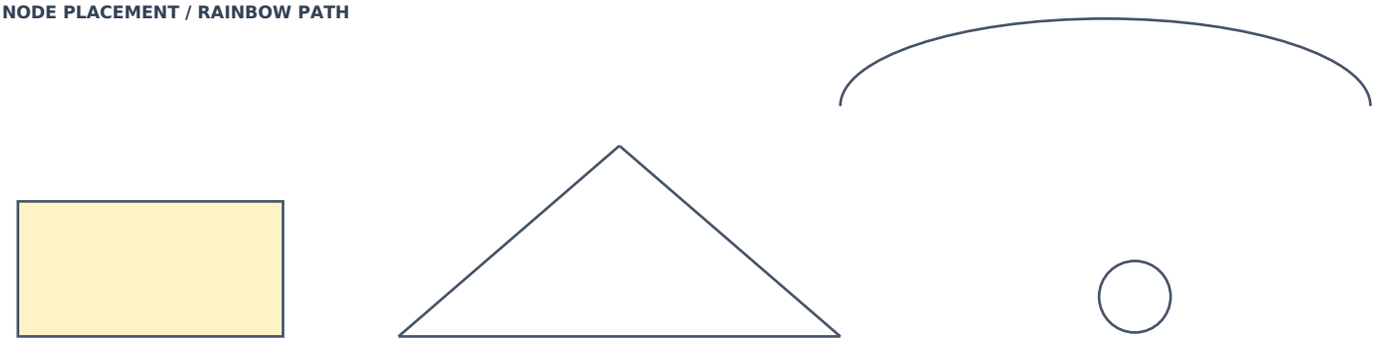
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0018"
state R -> R1
node N1
representation JP(PINK-01-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 18 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 19 of 431. Chapter 3 F-002 - R2 transition Exact expression R1 --validated--> R2 Meaning. R2istheimmutablelivingstaticrepresentation. Bound manifestations.JP,MK,JO Gateway stage.R0/R1/R2statetransitionandevidenceclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_002 Imp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_F_002_R2_transitio
reference "PINK-01-P0019"
state R -> R1
node N1
representation JP(PINK-01-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 19 of 431. Chapter 3 F-002 - R2 tran
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 20 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 3.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-002anditsassumptions,inputs,outp

PATH OF EXPRESSION

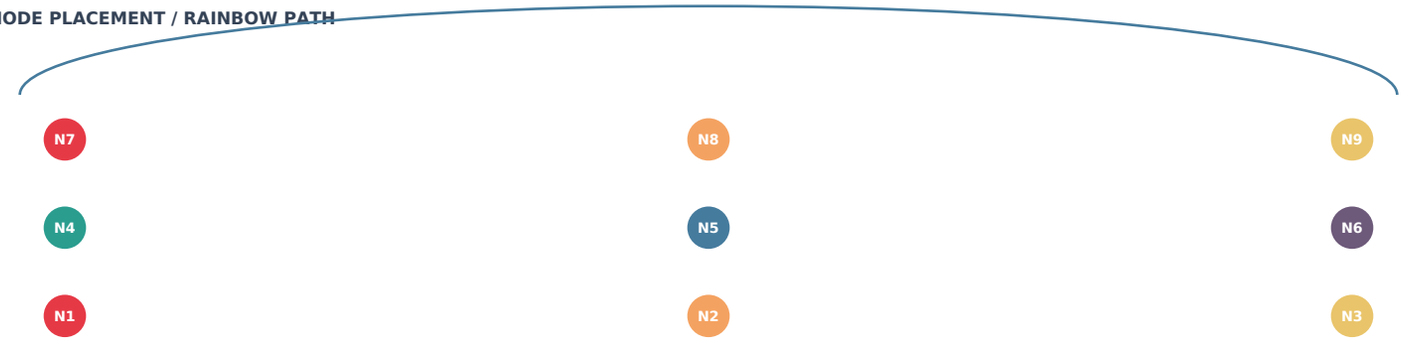
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0020"
state R -> R1
node N1
representation JP(PINK-01-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 20 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 21 of 431. Chapter 4 F-003 - Unknown invariant Exact expression UNKNOWN != 0 Meaning. Unknownmaynotcoercetozero,pass,harmlessness,orpermission. Bound manifestations.Bangel ,JO,WATER Gateway stage.R0/R1/R2statetransitionandevidenceclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_003 Imp...

PATH OF EXPRESSION

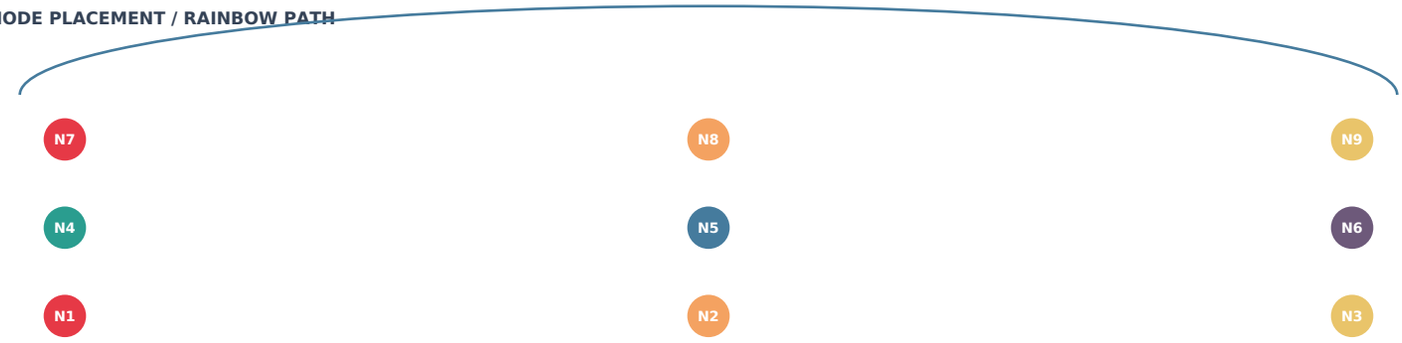
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_F_003_Unknown_inva
reference "PINK-01-P0021"
state R -> R1
node N1
representation JP(PINK-01-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 21 of 431. Chapter 4 F-003 - Unknown
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 22 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 4.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-003anditsassumptions,inputs,outp

PATH OF EXPRESSION

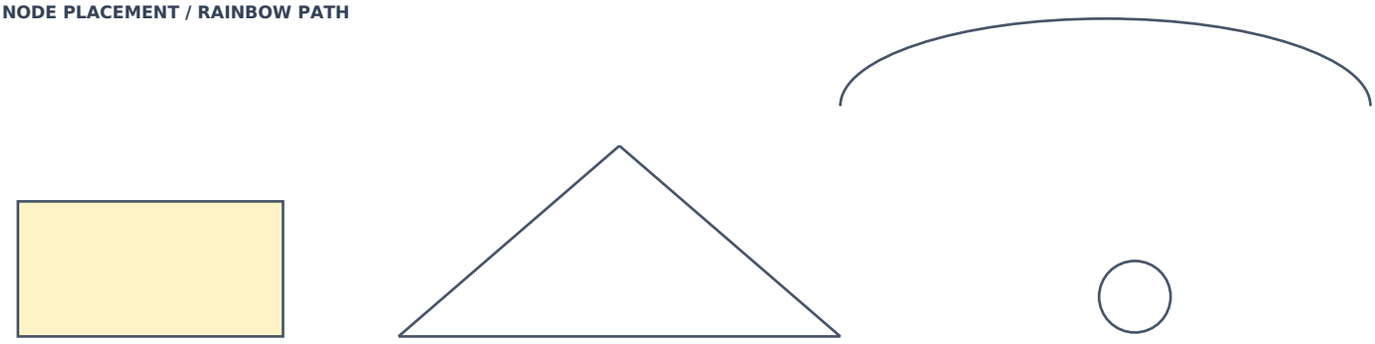
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0022"
state R -> R1
node N1
representation JP(PINK-01-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 22 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 23 of 431. Chapter 5 F-004 - Mass inflection Exact expression m_floor = 23 mg Meaning. Pre-observationalmodelfloor,notauniversalminimumorproductmass. Bound manifestations.JP,MK,EVE,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_004 Imp...

PATH OF EXPRESSION

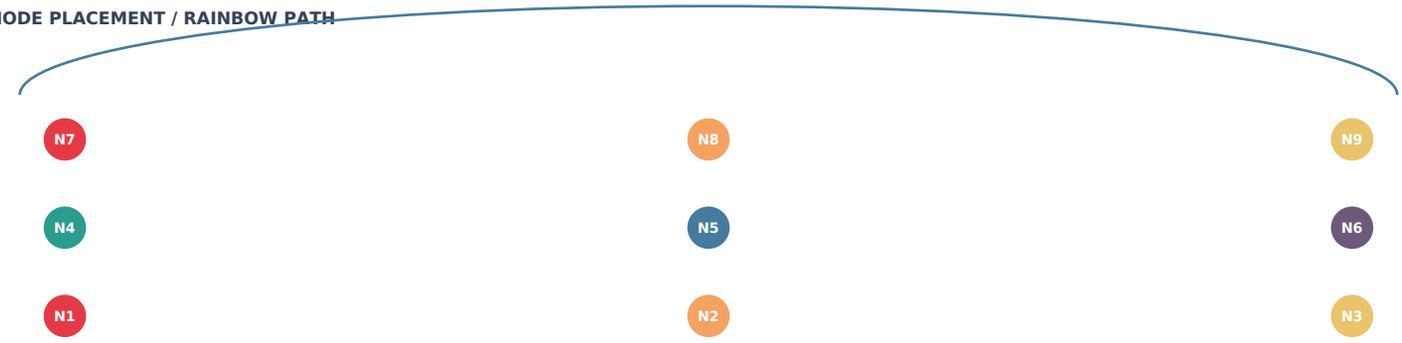
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_F_004_Mass_inflect
reference "PINK-01-P0023"
state R -> R1
node N1
representation JP(PINK-01-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 23 of 431. Chapter 5 F-004 - Mass in
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 24 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 5.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-004anditsassumptions,inputs,outp

PATH OF EXPRESSION

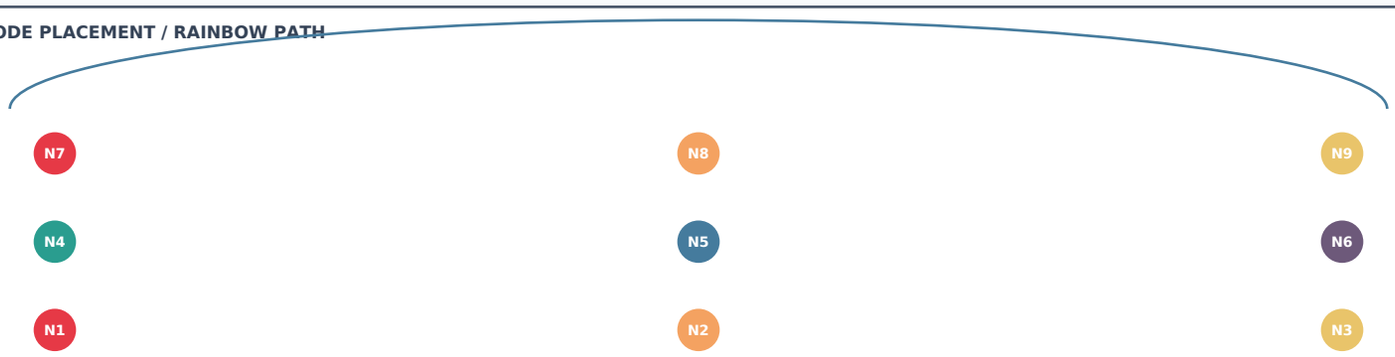
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0024"
state R -> R1
node N1
representation JP(PINK-01-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 24 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 25 of 431. Chapter 6 F-005 - Noise smoothing Exact expression n_bar[t] = 0.9*n_bar[t-1] + 0.1*n[t] Meaning. Drip-levelsmoothing. Bound manifestations.SISTER,JO,MK Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_005 Imp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_F_005_Noise_smooth
reference "PINK-01-P0025"
state R -> R1
node N1
representation JP(PINK-01-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 25 of 431. Chapter 6 F-005 - Noise s
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 26 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 6.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-005anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0026"
state R -> R1
node N1
representation JP(PINK-01-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 26 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 27 of 431. Chapter 7 F-006 - Trend estimator Exact expression n_dot[t] = (2/3)*n_dot[t-1] + (1/3)*(n_bar[t]-n_bar[t-1])/dt Meaning. One-thirdtrendupdate. Bound manifestations.SISTER,JO,MK Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_006 Import MJ.PBM

PATH OF EXPRESSION

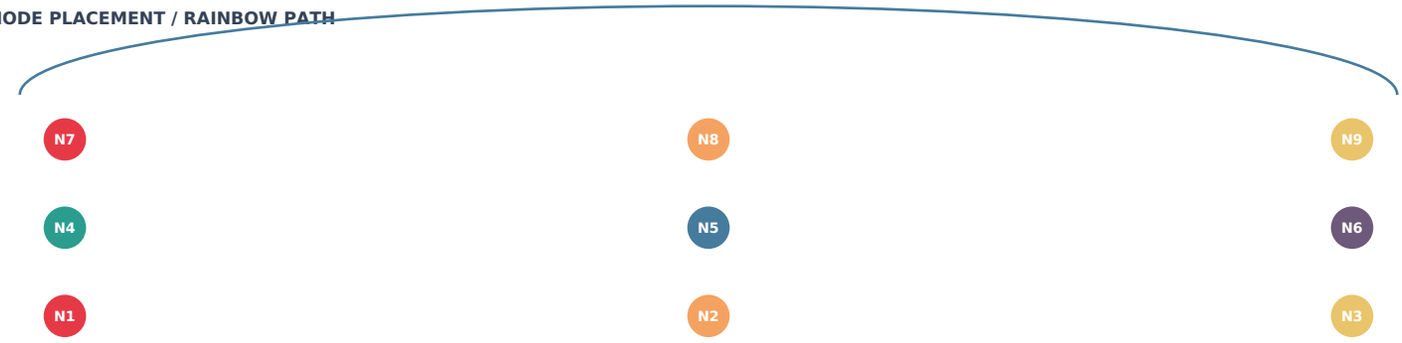
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_F_006_Trend_estima
reference "PINK-01-P0027"
state R -> R1
node N1
representation JP(PINK-01-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 27 of 431. Chapter 7 F-006 - Trend e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 28 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 7.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-006anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0028"
state R -> R1
node N1
representation JP(PINK-01-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 28 of 431. PRIVATE PRE-DAY-0 - UNSIG
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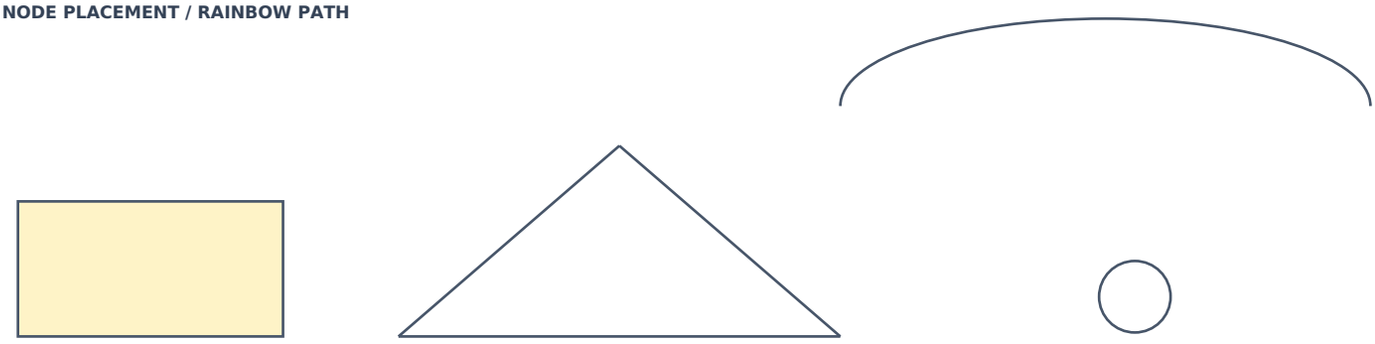
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 29 of 431. Chapter 8 F-007 - Anti-spike gate Exact expression support>=3 of 5 AND 3 qualified windows Meaning. Singlespikecannottriggerfullreweighting. Bound manifestations.SISTER,ANGELS,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_007 Import MJ.P

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_F_007_Anti_spike_g
reference "PINK-01-P0029"
state R -> R1
node N1
representation JP(PINK-01-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 29 of 431. Chapter 8 F-007 - Anti-sp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 30 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 8.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-007anditsassumptions,inputs,outp

PATH OF EXPRESSION

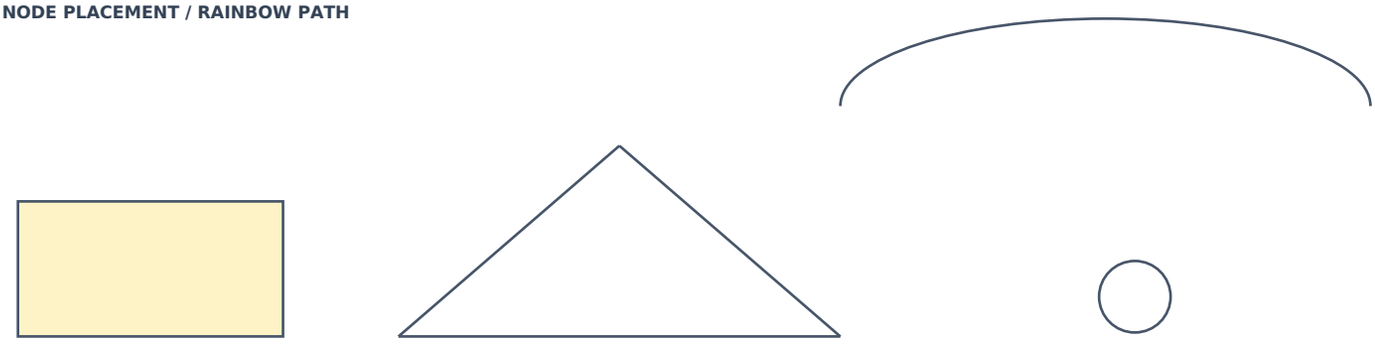
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0030"
state R -> R1
node N1
representation JP(PINK-01-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 30 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 31 of 431. Chapter 9 F-008 - Prediction gain Exact expression g_i = 0.1*(2/3)^(i-1) Meaning. Predictioninfluencedecaysacrossthenine-nodepath. Bound manifestations.JP,SISTER,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_008 Imp...

PATH OF EXPRESSION

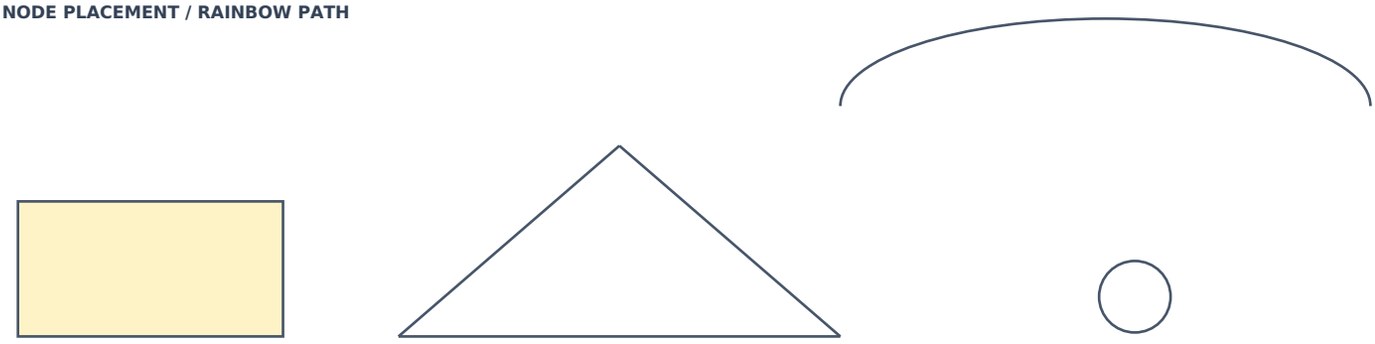
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_F_008_Prediction_g
reference "PINK-01-P0031"
state R -> R1
node N1
representation JP(PINK-01-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 31 of 431. Chapter 9 F-008 - Predict
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 32 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 9.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-008anditsassumptions,inputs,outp

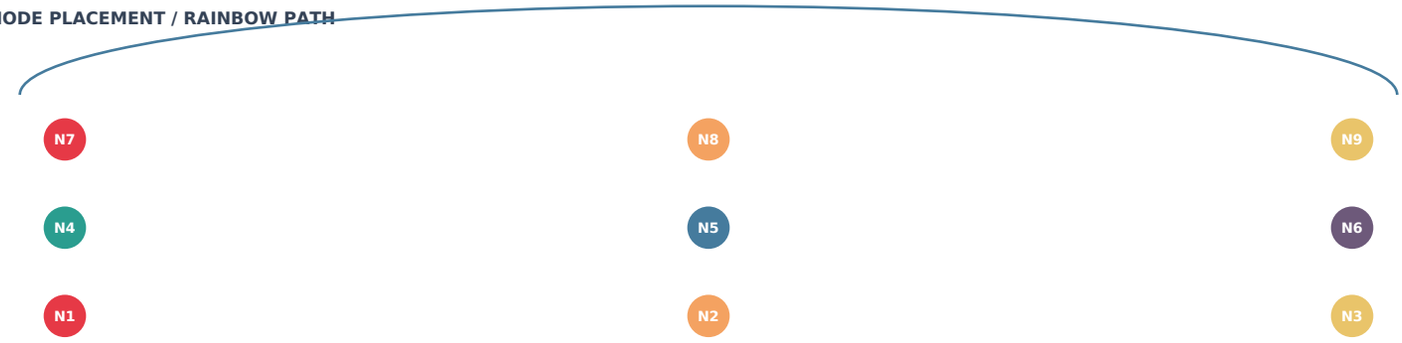
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0032"
state R -> R1
node N1
representation JP(PINK-01-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 32 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 33 of 431. Chapter 10 F-009 - Covariance update Exact expression Sigma_next = 0.9*Sigma_prev + 0.1*e*e^T Meaning. Positive-semidefinitesequentialcovariance. Bound manifestations.JP,MK,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_009 Import MJ.PBME

PATH OF EXPRESSION

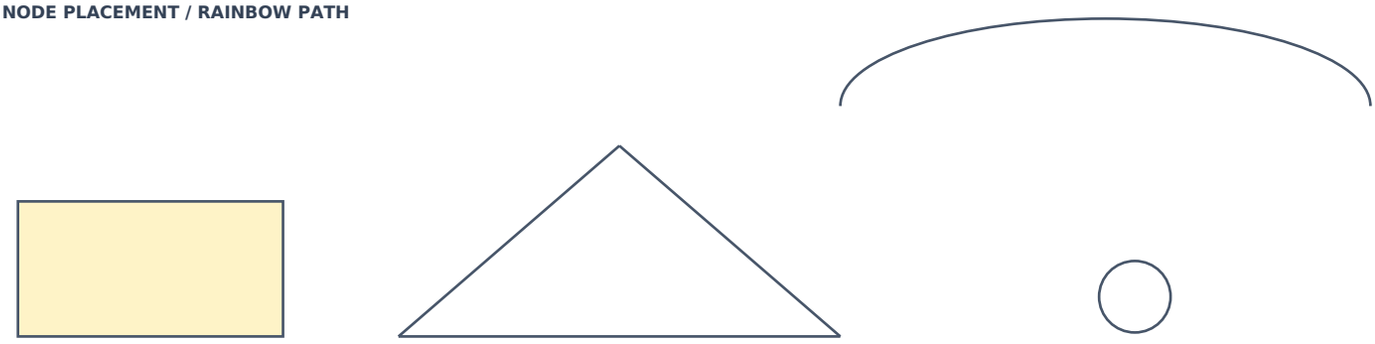
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_F_009_Covariance_
reference "PINK-01-P0033"
state R -> R1
node N1
representation JP(PINK-01-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 33 of 431. Chapter 10 F-009 - Covari
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 34 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 10.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-009anditsassumptions,inputs,out

PATH OF EXPRESSION

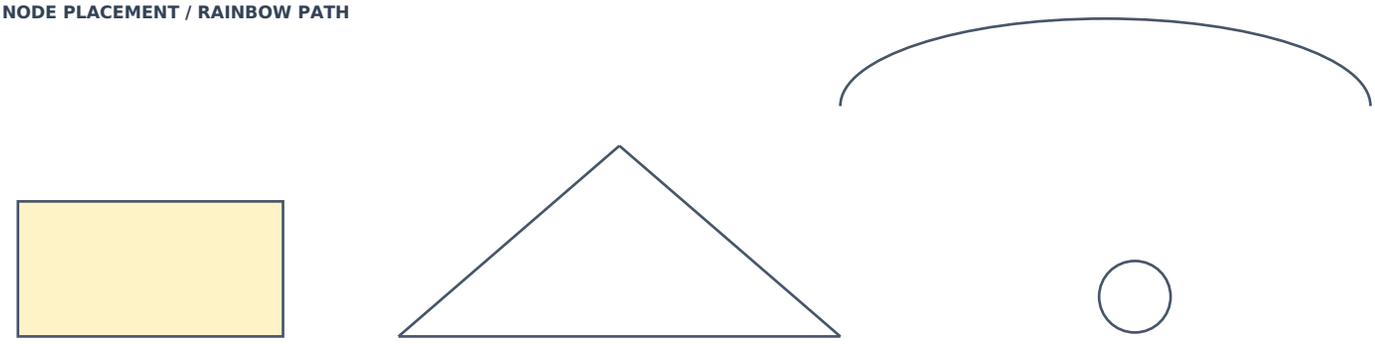
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0034"
state R -> R1
node N1
representation JP(PINK-01-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 34 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 35 of 431. Chapter 11 F-010 - Shadow depth Exact expression H = sqrt(lambda_max(Sigma)) Meaning. Uncertaintydepth. Bound manifestations.MK,SISTER,EVE Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_010 Imp...

PATH OF EXPRESSION

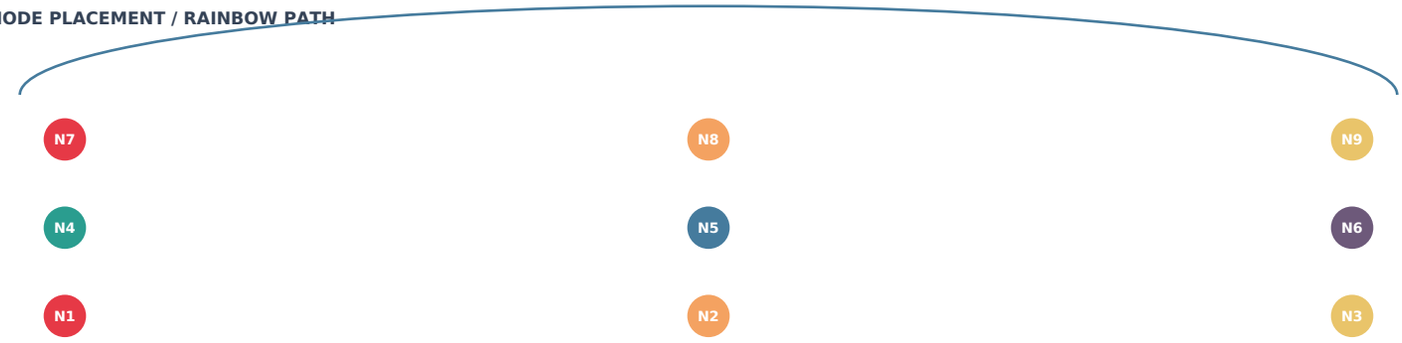
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_F_010_Shadow_dept
reference "PINK-01-P0035"
state R -> R1
node N1
representation JP(PINK-01-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 35 of 431. Chapter 11 F-010 - Shadow
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 36 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 11.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-010anditsassumptions,inputs,out

PATH OF EXPRESSION

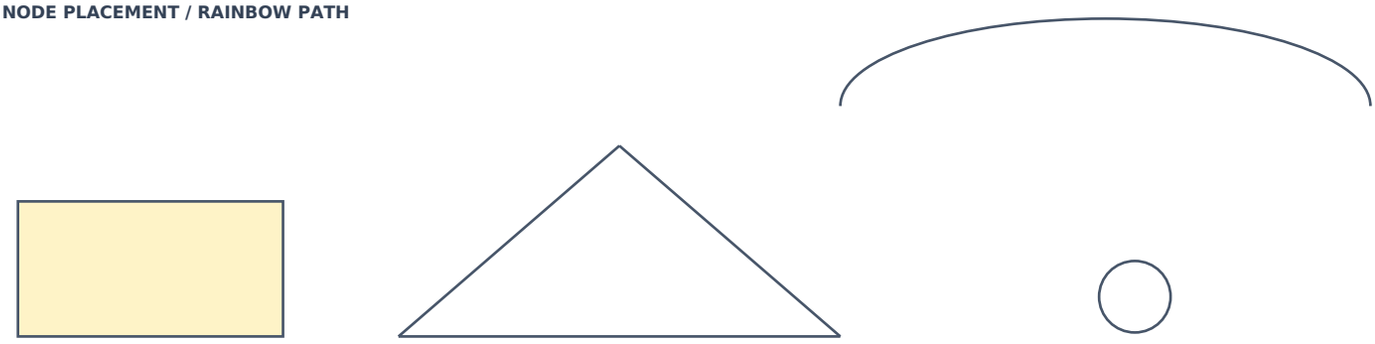
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0036"
state R -> R1
node N1
representation JP(PINK-01-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 36 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 37 of 431. Chapter 12 F-011 - Shadow growth rate Exact expression v_shadow = (H_next-H_prev)/dt Meaning. Rateofuncertaintyexpansionorresolution. Bound manifestations.MK,SISTER,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_011 Imp...

PATH OF EXPRESSION

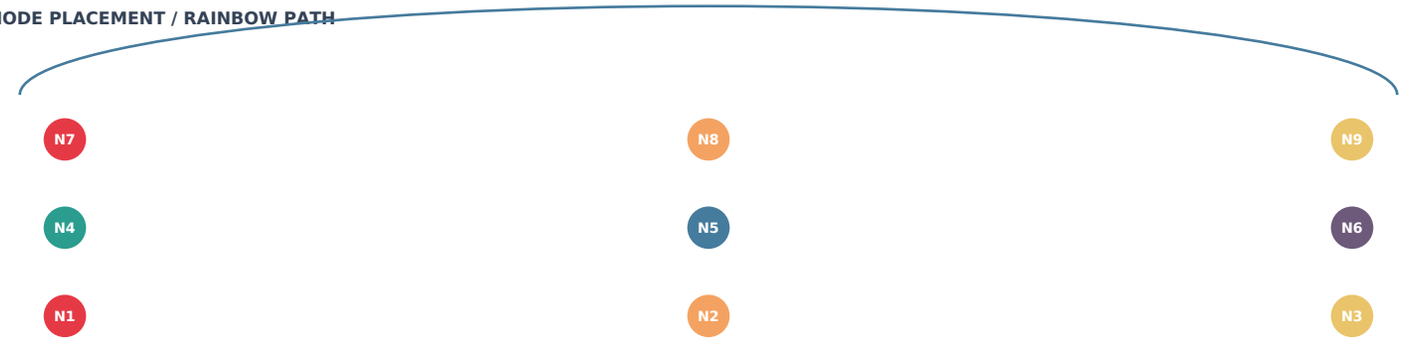
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_F_011_Shadow_grow
reference "PINK-01-P0037"
state R -> R1
node N1
representation JP(PINK-01-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 37 of 431. Chapter 12 F-011 - Shadow
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 38 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 12.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-011anditsassumptions,inputs,out

PATH OF EXPRESSION

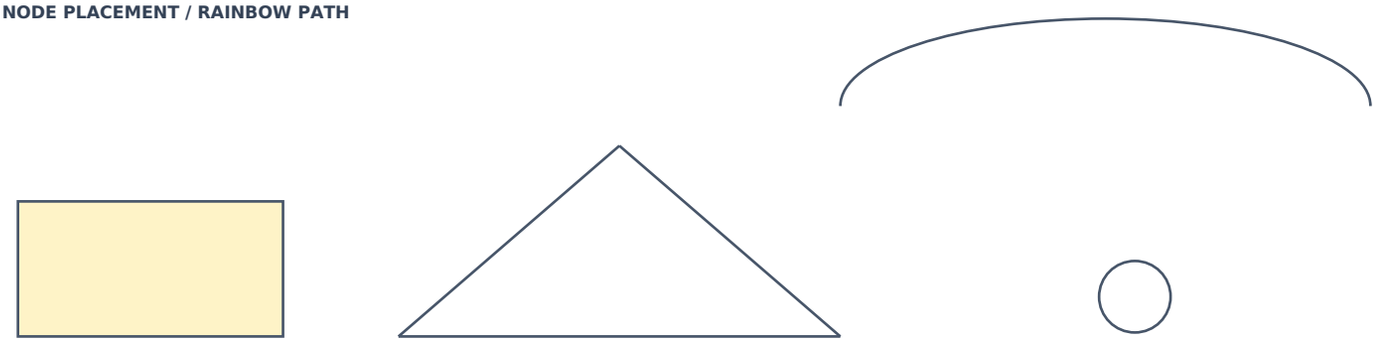
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0038"
state R -> R1
node N1
representation JP(PINK-01-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 38 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 39 of 431. Chapter 13 F-012 - Front-end allocation Exact expression a0 = 48383829/100000000 Meaning. ExactinitialN1logicalallocation. Bound manifestations.Bangel ,JP,JO,M3 Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_012 Imp...

PATH OF EXPRESSION

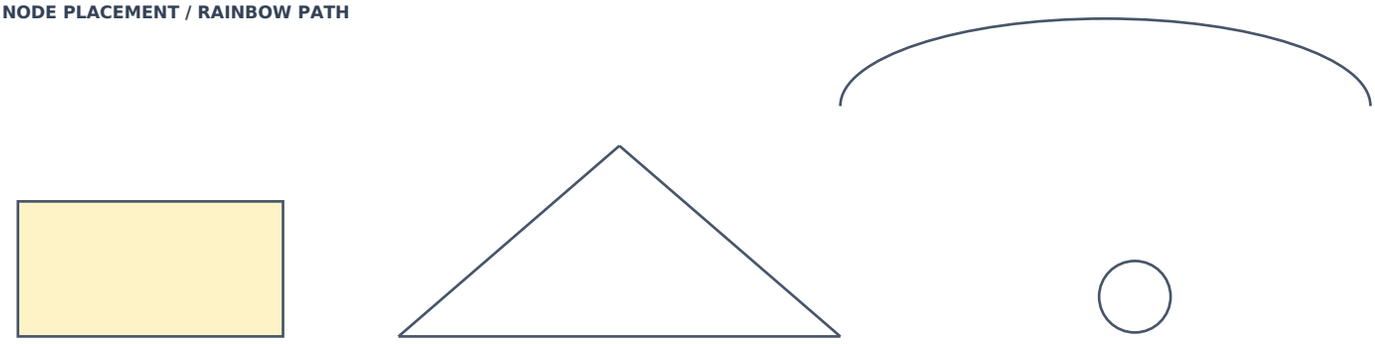
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_F_012_Front_end_a
reference "PINK-01-P0039"
state R -> R1
node N1
representation JP(PINK-01-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 39 of 431. Chapter 13 F-012 - Front-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 40 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 13.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-012anditsassumptions,inputs,out

PATH OF EXPRESSION

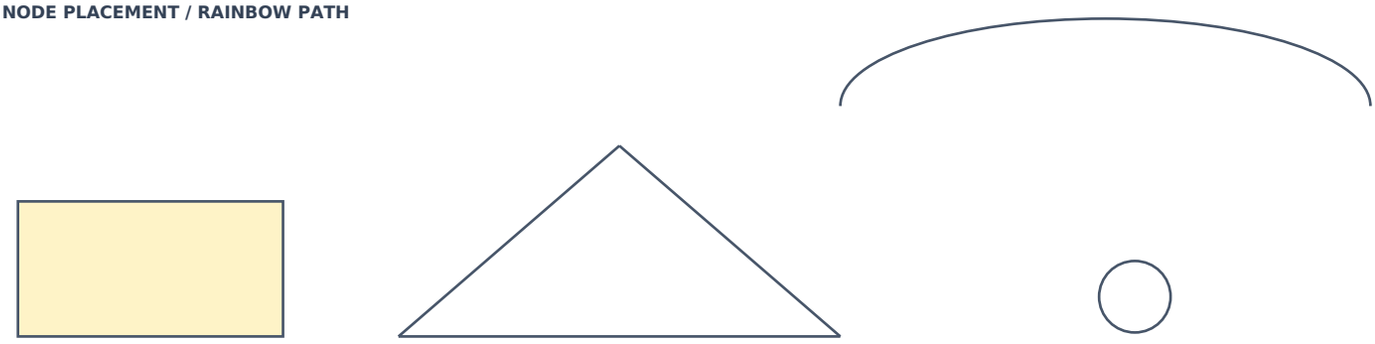
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0040"
state R -> R1
node N1
representation JP(PINK-01-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 40 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 41 of 431. Chapter 14 F-013 - Front-end reserve Exact expression r0 = 51616171/100000000 Meaning. Exactlogicalreserve. Bound manifestations.JP,JO,M3 Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_013 Imp...

PATH OF EXPRESSION

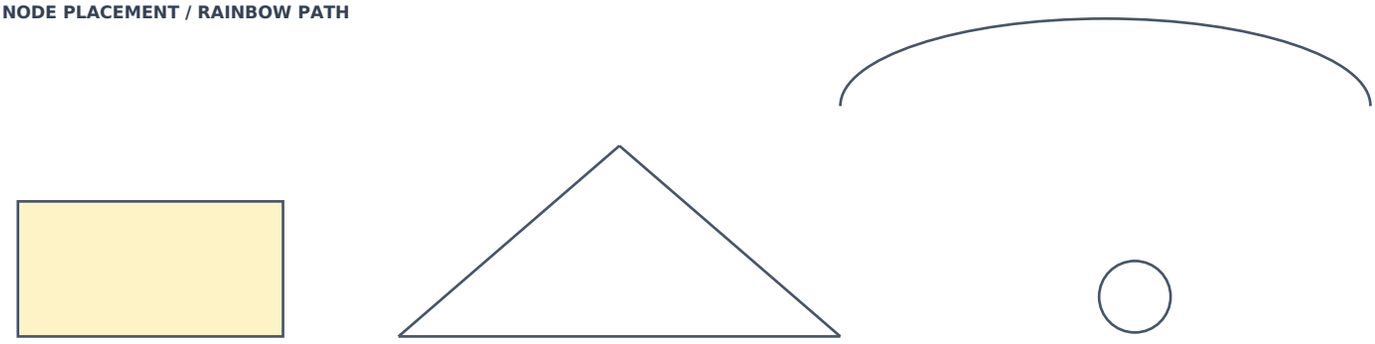
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_F_013_Front_end_r
reference "PINK-01-P0041"
state R -> R1
node N1
representation JP(PINK-01-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 41 of 431. Chapter 14 F-013 - Front-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 42 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 14.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-013anditsassumptions,inputs,out

PATH OF EXPRESSION

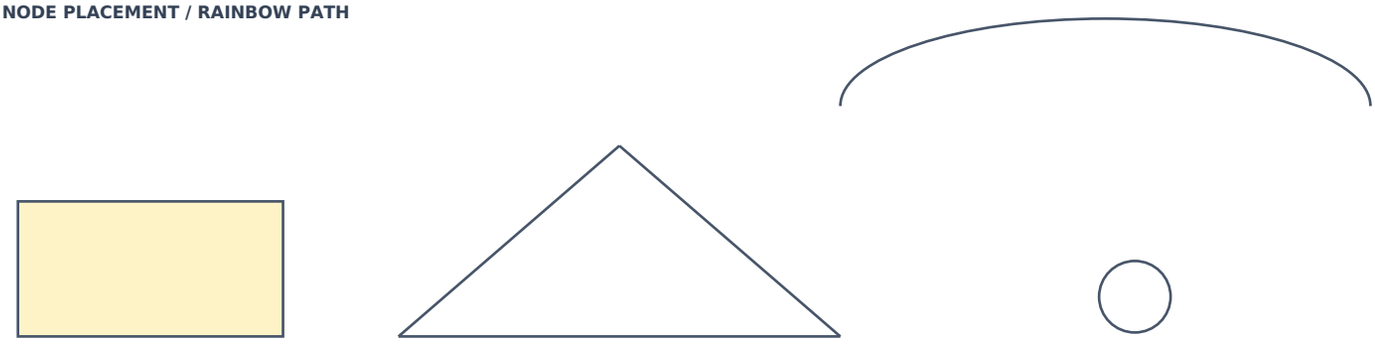
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0042"
state R -> R1
node N1
representation JP(PINK-01-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 42 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 43 of 431. Chapter 15 F-014 - Bounded allocation update Exact expression w_next = projection((2/3)w + (1/3)w_target) Meaning. Nonnegative,sum-to-one,per-stepchange<=0.1. Bound manifestations.JP,JO,M3 Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F

PATH OF EXPRESSION

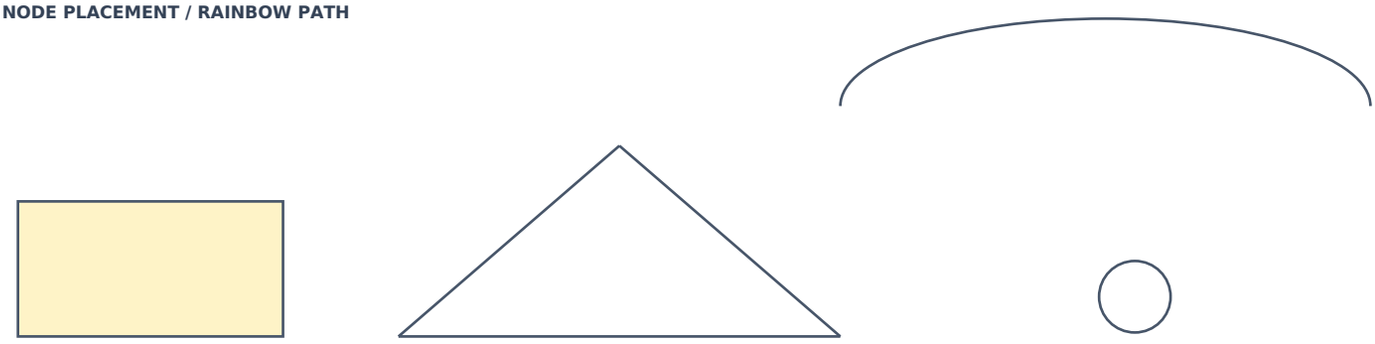
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_F_014_Bounded_all
reference "PINK-01-P0043"
state R -> R1
node N1
representation JP(PINK-01-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 43 of 431. Chapter 15 F-014 - Bounde
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 44 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 15.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-014anditsassumptions,inputs,out

PATH OF EXPRESSION

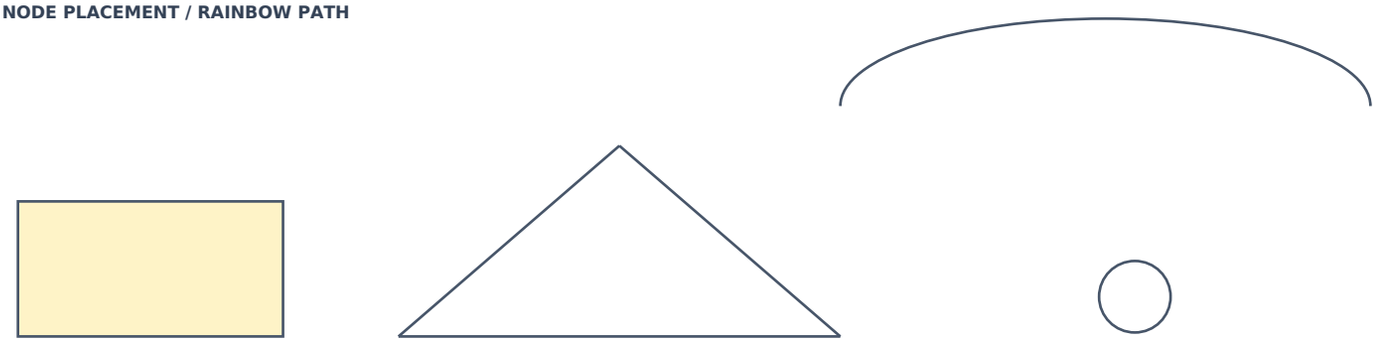
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0044"
state R -> R1
node N1
representation JP(PINK-01-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 44 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 45 of 431. Chapter 16 F-015 - Request memory Exact expression M_request = lambda_hat * bytes_per_request * latency_hat Meaning. Predictedrequestmemory. Bound manifestations.JO,M3,MJOS Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_015 Import MJ.P

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_F_015_Request_mem
reference "PINK-01-P0045"
state R -> R1
node N1
representation JP(PINK-01-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 45 of 431. Chapter 16 F-015 - Reques
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 46 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 16.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-015anditsassumptions,inputs,out

PATH OF EXPRESSION

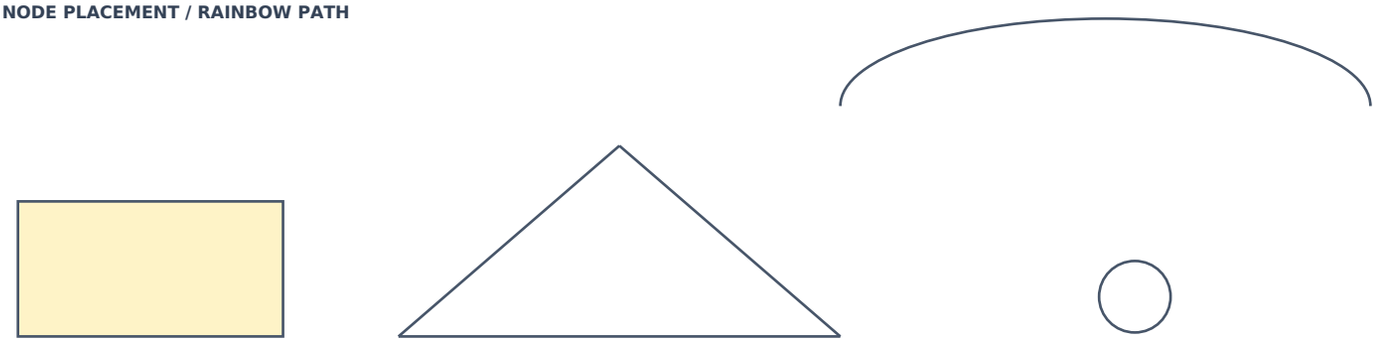
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0046"
state R -> R1
node N1
representation JP(PINK-01-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 46 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 47 of 431. Chapter 17 F-016 - Memory preallocation Exact expression M_pre = M_request + M_sync + M_residual + M_evidence + M_headroom Meaning. Preallocatebeforereserveexhaustion. Bound manifestations.JO,M3,SISTER Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_alloca

PATH OF EXPRESSION

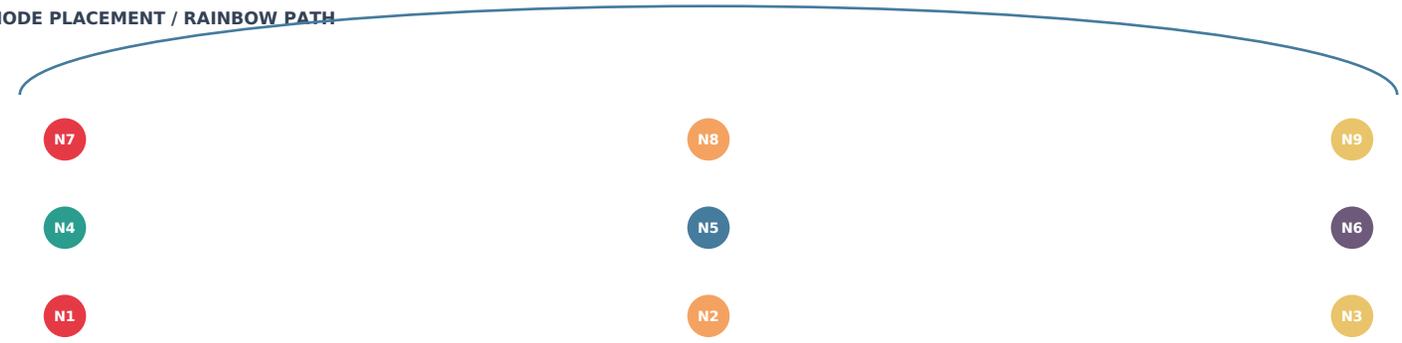
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_F_016_Memory_prea
reference "PINK-01-P0047"
state R -> R1
node N1
representation JP(PINK-01-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 47 of 431. Chapter 17 F-016 - Memory
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 48 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 17.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-016anditsassumptions,inputs,out

PATH OF EXPRESSION

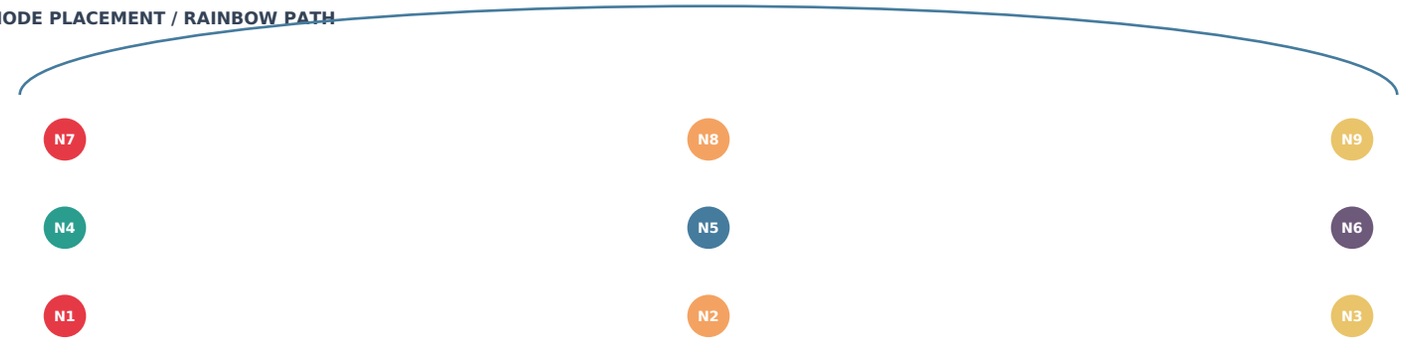
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0048"
state R -> R1
node N1
representation JP(PINK-01-P0048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 48 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 49 of 431. Chapter 18 F-017 - Hard flush Exact expression QUIESCE -> SEAL -> CHECKPOINT -> DETACH -> RECLAIM Meaning. Nosilentdeletionorunclearedreuse. Bound manifestations.JO,M3,MJOS Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_017 Imp

PATH OF EXPRESSION

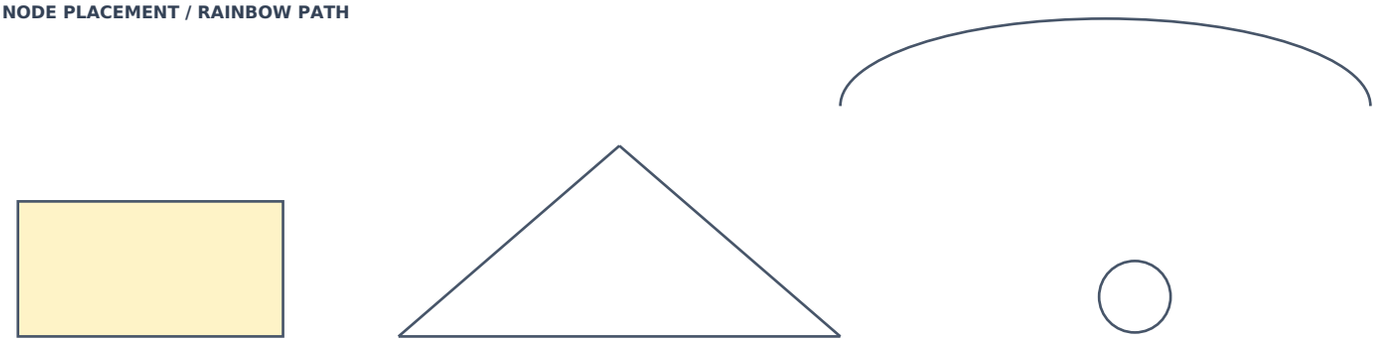
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_F_017_Hard_flush_
reference "PINK-01-P0049"
state R -> R1
node N1
representation JP(PINK-01-P0049)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 49 of 431. Chapter 18 F-017 - Hard f
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 50 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 18.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-017anditsassumptions,inputs,out

PATH OF EXPRESSION

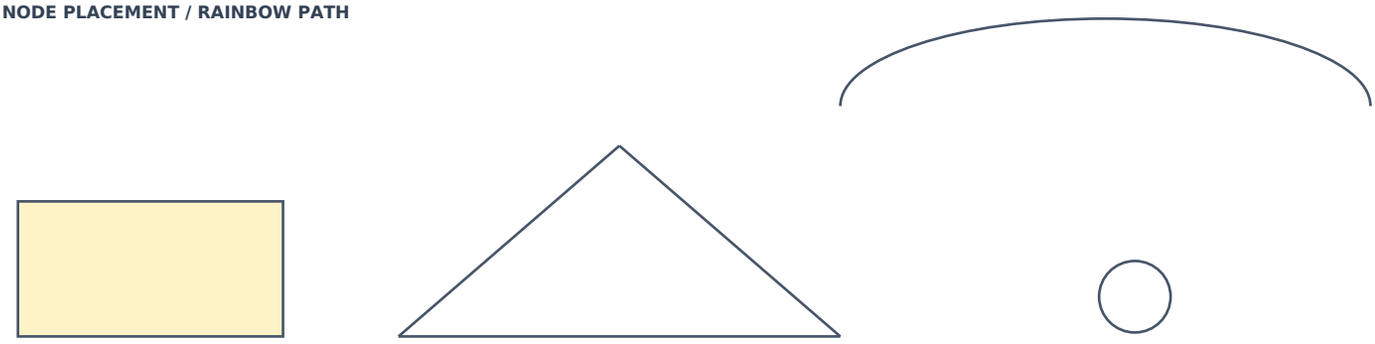
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0050"
state R -> R1
node N1
representation JP(PINK-01-P0050)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 50 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 51 of 431. Chapter 19 F-018 - Charge balance Exact expression dQ/dt = I_intake - I_leak - I_release Meaning. Static-intakechargeaccounting. Bound manifestations.JP,MK,EVE,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_018 Imp...

PATH OF EXPRESSION

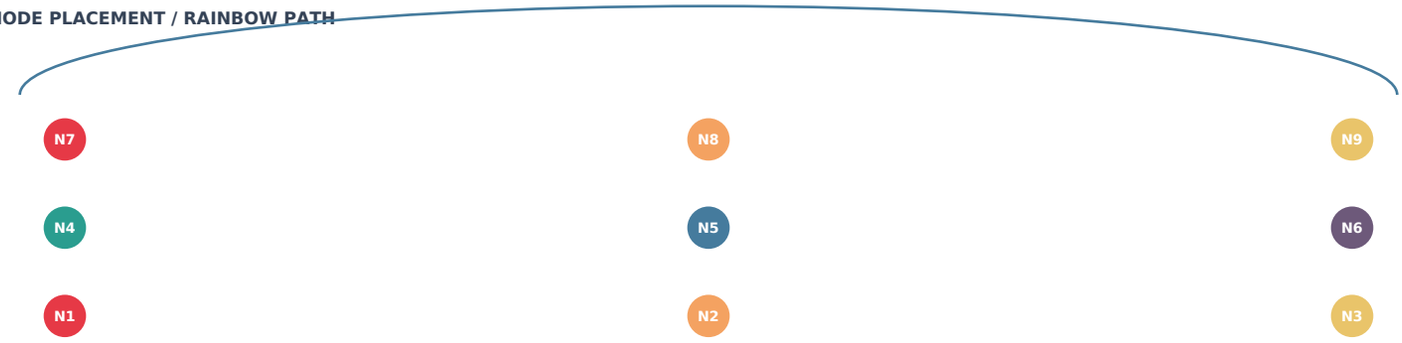
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_F_018_Charge_bala
reference "PINK-01-P0051"
state R -> R1
node N1
representation JP(PINK-01-P0051)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 51 of 431. Chapter 19 F-018 - Charge
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 52 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 19.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-018anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0052"
state R -> R1
node N1
representation JP(PINK-01-P0052)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 52 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 53 of 431. Chapter 20 F-019 - Capacitor energy Exact expression E = 0.5*C*V^2 Meaning. Validonlyforevidencedconstantcapacitance. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_019 Imp...

PATH OF EXPRESSION

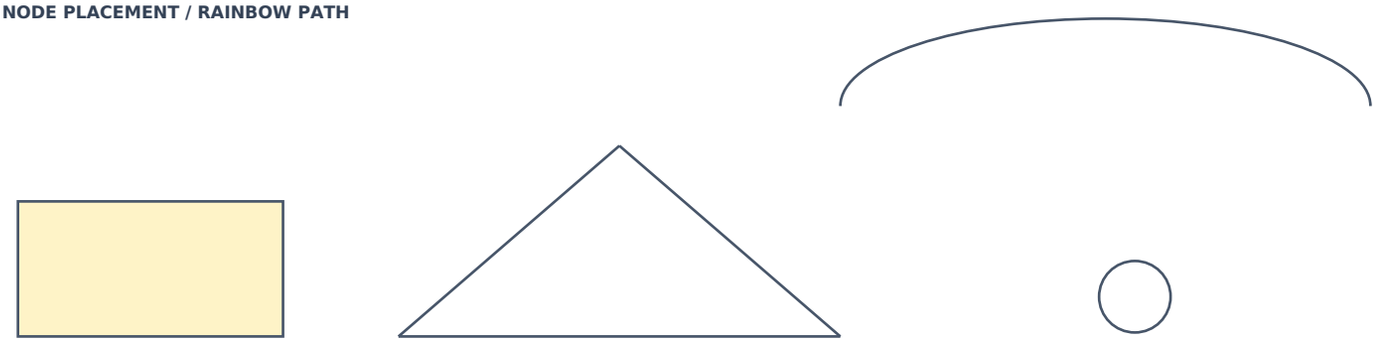
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_F_019_Capacitor_e
reference "PINK-01-P0053"
state R -> R1
node N1
representation JP(PINK-01-P0053)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 53 of 431. Chapter 20 F-019 - Capaci
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 54 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 20.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-019anditsassumptions,inputs,out

PATH OF EXPRESSION

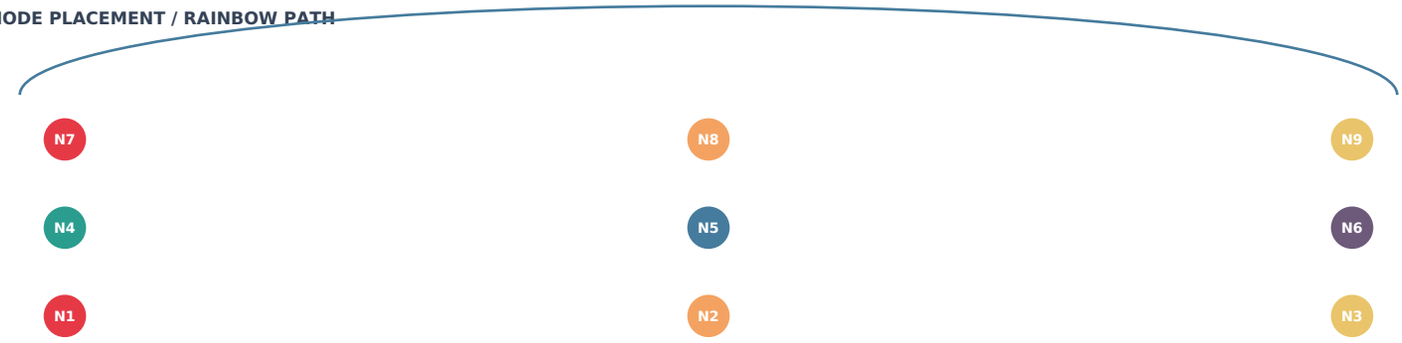
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0054"
state R -> R1
node N1
representation JP(PINK-01-P0054)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 54 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 55 of 431. Chapter 21 F-020 - General stored energy Exact expression E = integral V(q)dq Meaning. Generalcharge-storageenergy. Bound manifestations.JP,MK Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_020 Imp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_F_020_General_sto
reference "PINK-01-P0055"
state R -> R1
node N1
representation JP(PINK-01-P0055)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 55 of 431. Chapter 21 F-020 - Genera
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 56 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 21.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-020anditsassumptions,inputs,out

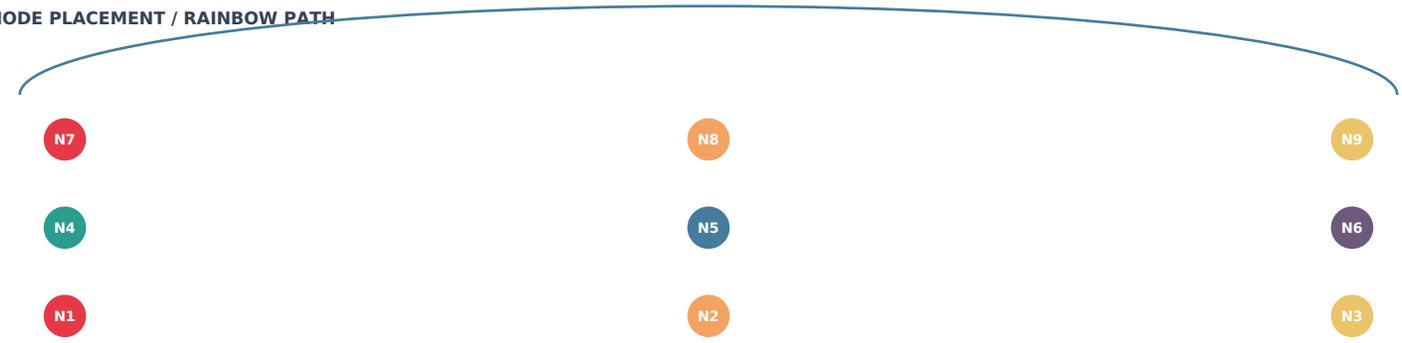
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0056"
state R -> R1
node N1
representation JP(PINK-01-P0056)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 56 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 57 of 431. Chapter 22 F-021 - Energy balance Exact expression r_E = E_in - DeltaE_storage - E_delivered - E_containment - E_loss Meaning. Energyresidualmustbeinsideuncertainty. Bound manifestations.MK,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namesp...

PATH OF EXPRESSION

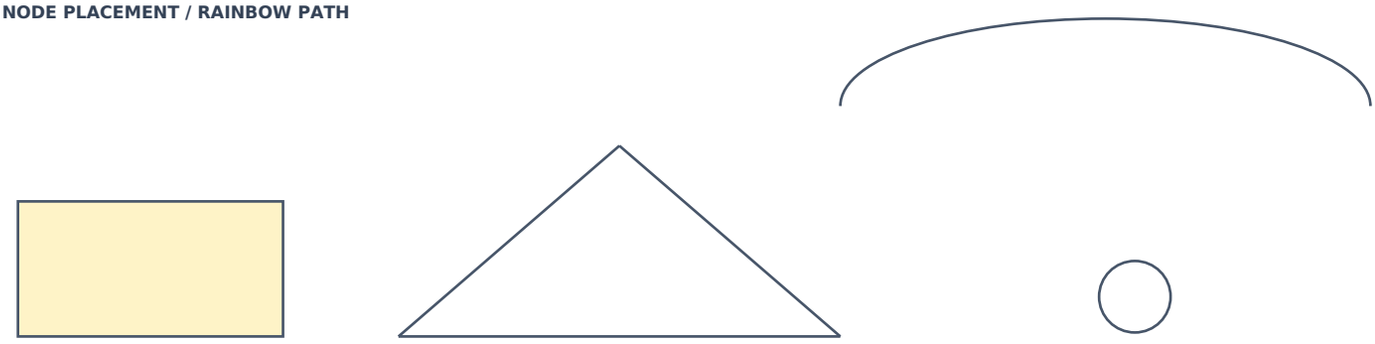
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_F_021_Energy_bala
reference "PINK-01-P0057"
state R -> R1
node N1
representation JP(PINK-01-P0057)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 57 of 431. Chapter 22 F-021 - Energy
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 58 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 22.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-021anditsassumptions,inputs,out

PATH OF EXPRESSION

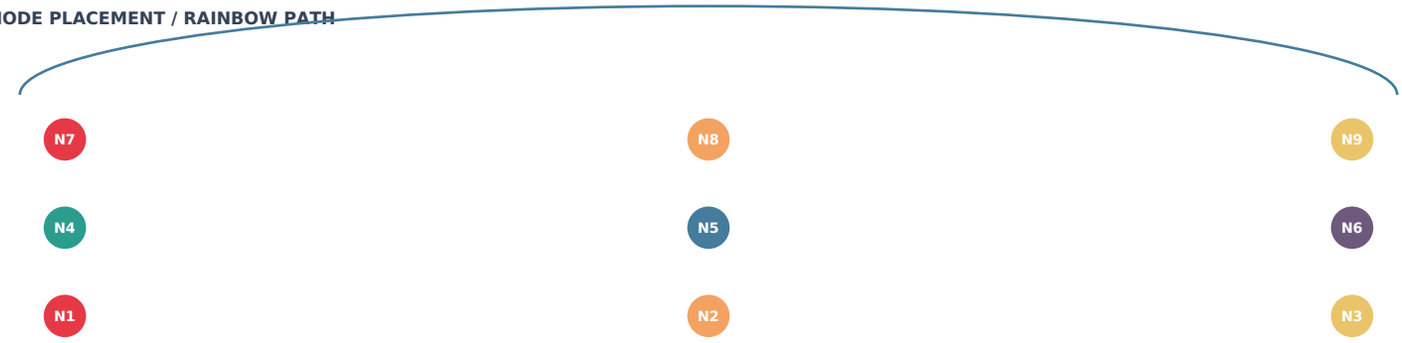
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0058"
state R -> R1
node N1
representation JP(PINK-01-P0058)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 58 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 59 of 431. Chapter 23 F-022 - Mass balance Exact expression r_M = M_initial + M_inputs - M_final - M_outputs Meaning. Physicalmassconservation. Bound manifestations.MK,EVE,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_022 Import MJ.PB

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_F_022_Mass_balanc
reference "PINK-01-P0059"
state R -> R1
node N1
representation JP(PINK-01-P0059)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 59 of 431. Chapter 23 F-022 - Mass b
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 60 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 23.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-022anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0060"
state R -> R1
node N1
representation JP(PINK-01-P0060)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 60 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 61 of 431. Chapter 24 F-023 - EVE screen balance Exact expression M_screen_in = M_captured + M_passed + M_retained + r_screen Meaning. Screencaptureneverassumesperfectretention. Bound manifestations.EVE,MK,JO,MERMAID Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_F_023_EVE_screen_
reference "PINK-01-P0061"
state R -> R1
node N1
representation JP(PINK-01-P0061)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 61 of 431. Chapter 24 F-023 - EVE sc
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 62 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 24.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-023anditsassumptions,inputs,out

PATH OF EXPRESSION

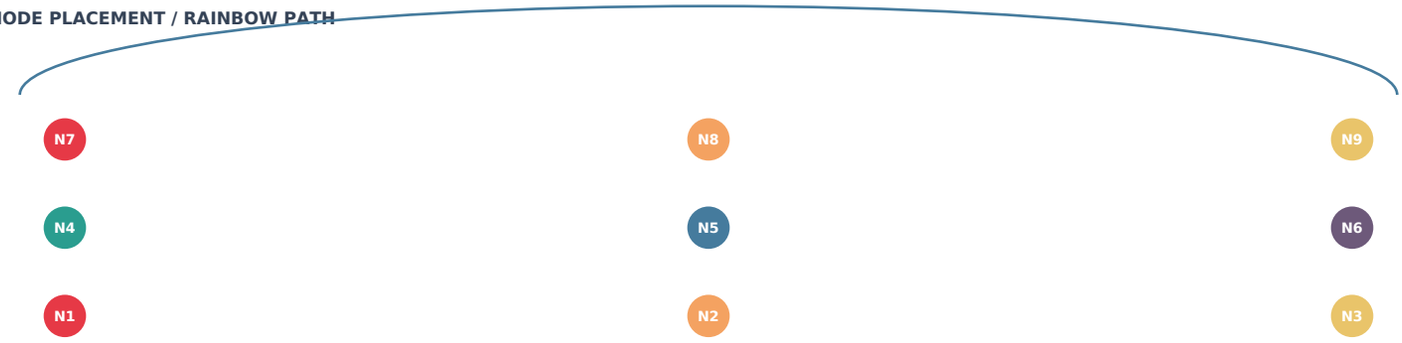
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0062"
state R -> R1
node N1
representation JP(PINK-01-P0062)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 62 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 63 of 431. Chapter 25 F-024 - EVE evaporation Exact expression M_evap = integral integral J_m dA dt Meaning. Evaporativemassfromfluxacrossareaandtime. Bound manifestations.EVE,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_F_024_EVE_evapora
reference "PINK-01-P0063"
state R -> R1
node N1
representation JP(PINK-01-P0063)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 63 of 431. Chapter 25 F-024 - EVE ev
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 64 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 25.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-024anditsassumptions,inputs,out

PATH OF EXPRESSION

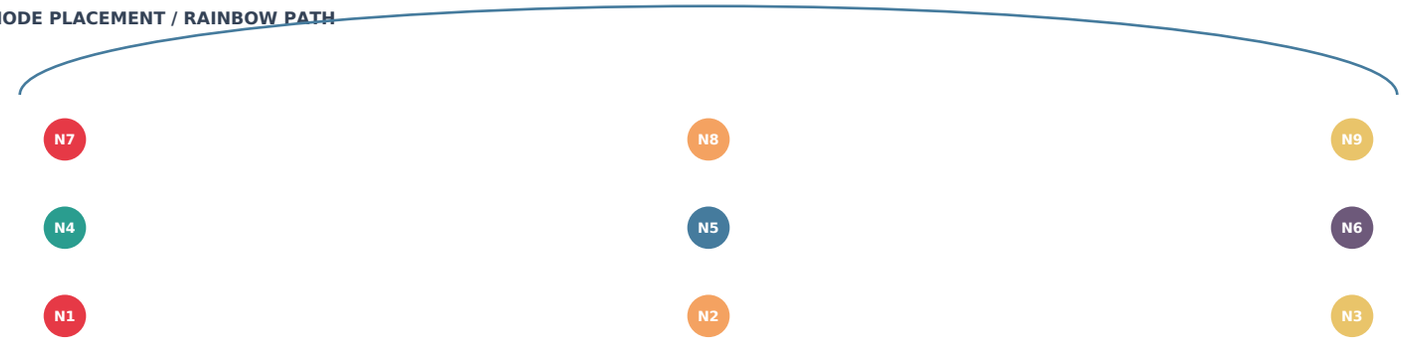
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0064"
state R -> R1
node N1
representation JP(PINK-01-P0064)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 64 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 65 of 431. Chapter 26 F-025 - Upward force Exact expression F_z = qE_z + F_b - mg - D_z - F_contact - F_adhesion Meaning. Upwardmotionrequirespositiveconservativelowerbound. Bound manifestations.MK,EVE,BELLE Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namesp...

PATH OF EXPRESSION

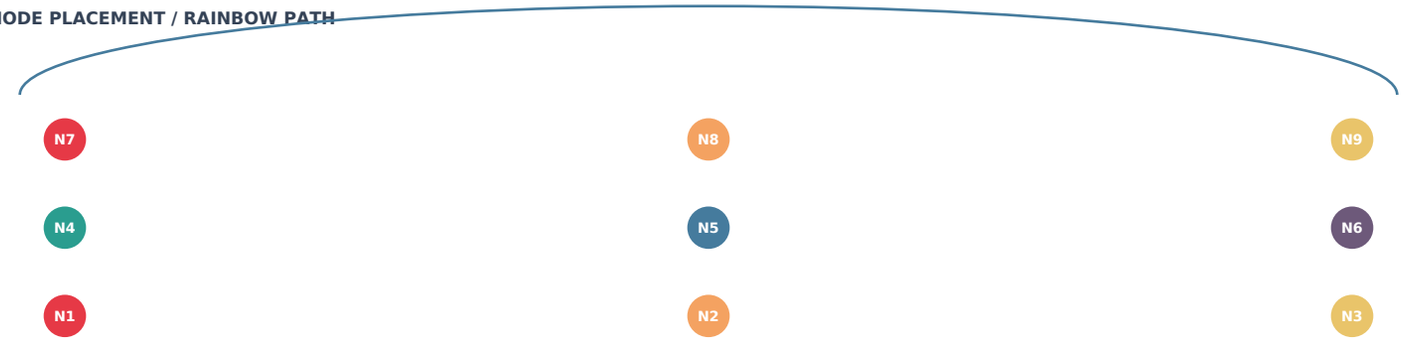
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_F_025_Upward_forc
reference "PINK-01-P0065"
state R -> R1
node N1
representation JP(PINK-01-P0065)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 65 of 431. Chapter 26 F-025 - Upward
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 66 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 26.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-025anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0066"
state R -> R1
node N1
representation JP(PINK-01-P0066)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 66 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 67 of 431. Chapter 27 F-026 - Coordinate mapping Exact expression p_P(x,y,z)=o_P+x*a_P+y*b_P+z*c_P Meaning. Normalizedtopologytoprofilephysicalcoordinates. Bound manifestations.JP,MK,BELLE,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namesp...

PATH OF EXPRESSION

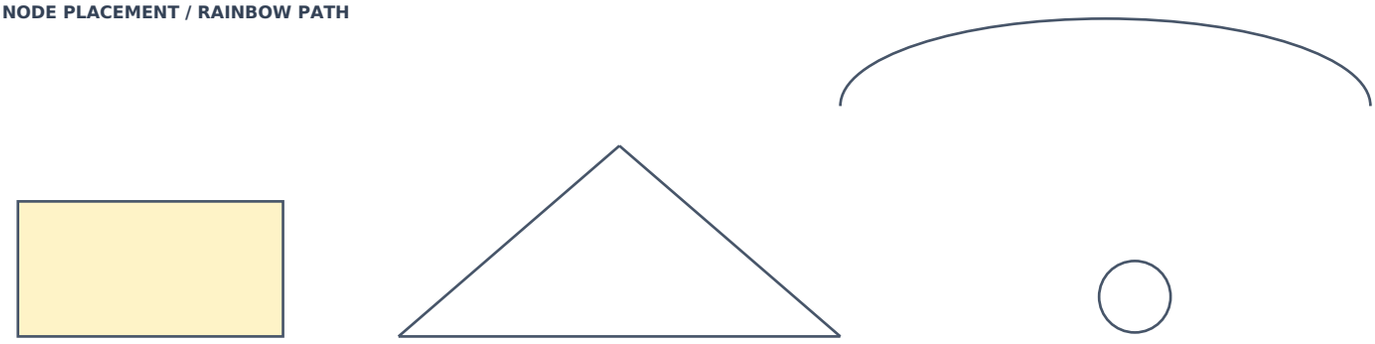
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_F_026_Coordinate_
reference "PINK-01-P0067"
state R -> R1
node N1
representation JP(PINK-01-P0067)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 67 of 431. Chapter 27 F-026 - Coordi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 68 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 27.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-026anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0068"
state R -> R1
node N1
representation JP(PINK-01-P0068)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 68 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 69 of 431. Chapter 28 F-027 - Sister physical umbrella count Exact expression N_U = max_k ceil(E_k/((1-h_k)*C_Uk)) Meaning. Canonicalpre-Pearlphysicalcontainmentcount;requiresmeasuredprofile-specificcapacity andheadroom. Bound manifestations.SISTER,MK,JO,M3 Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namesp

PATH OF EXPRESSION

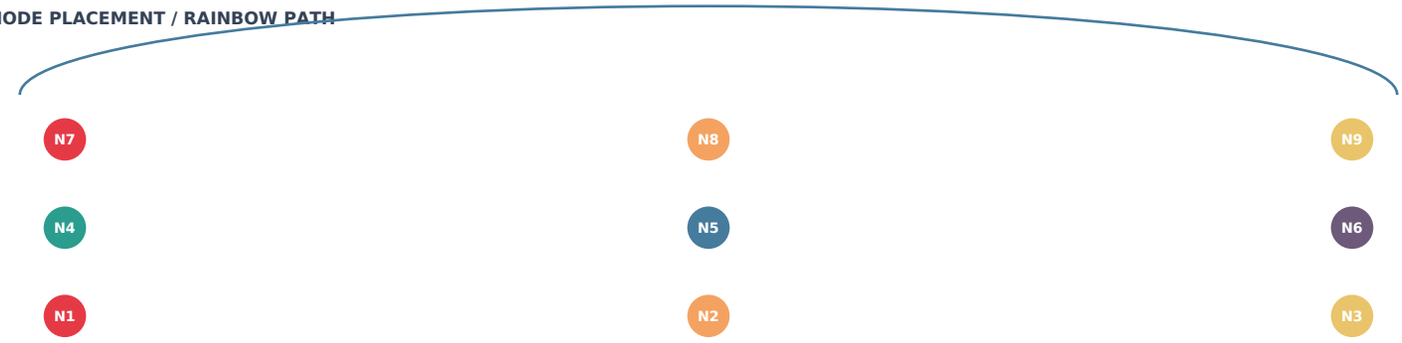
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_F_027_Sister_phys
reference "PINK-01-P0069"
state R -> R1
node N1
representation JP(PINK-01-P0069)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 69 of 431. Chapter 28 F-027 - Sister
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 70 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 28.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-027anditsassumptions,inputs,out

PATH OF EXPRESSION

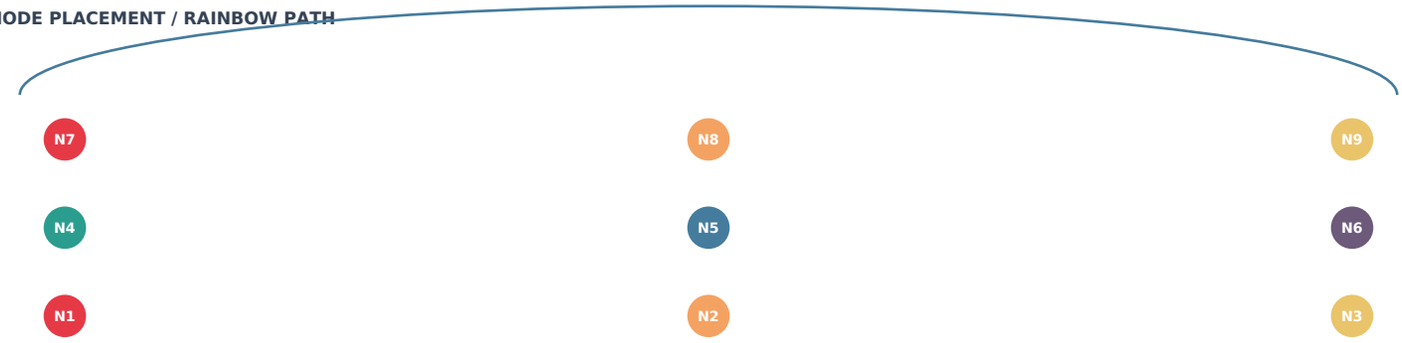
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0070"
state R -> R1
node N1
representation JP(PINK-01-P0070)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 70 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 71 of 431. Chapter 29 F-028 - Byte balance Exact expression r_B = B_alloc-B_active-B_released-B_retained-B_exported-B_compacted Meaning. Discretememoryreconciliationrequireszeroresidualunlesstransformed. Bound manifestations.JO,M3,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF

PATH OF EXPRESSION

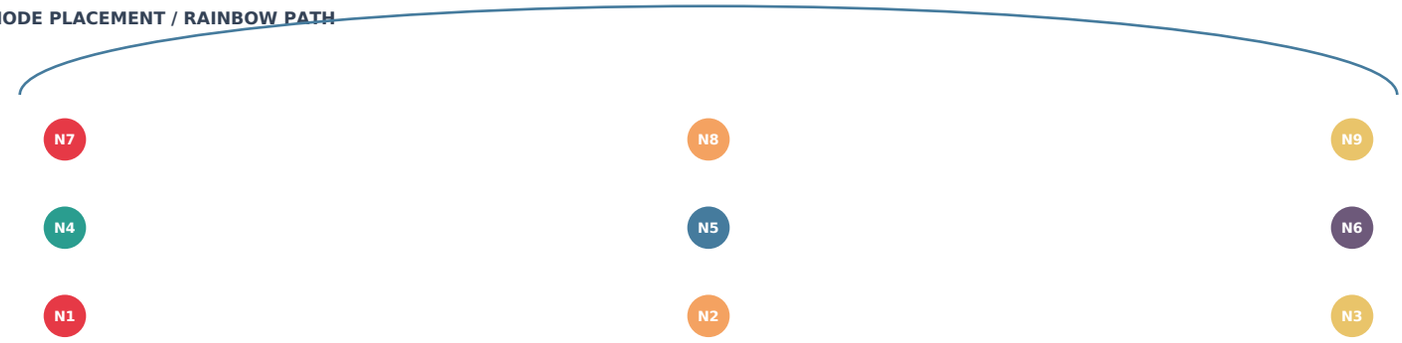
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_F_028_Byte_balanc
reference "PINK-01-P0071"
state R -> R1
node N1
representation JP(PINK-01-P0071)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 71 of 431. Chapter 29 F-028 - Byte b
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 72 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 29.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-028anditsassumptions,inputs,out

PATH OF EXPRESSION

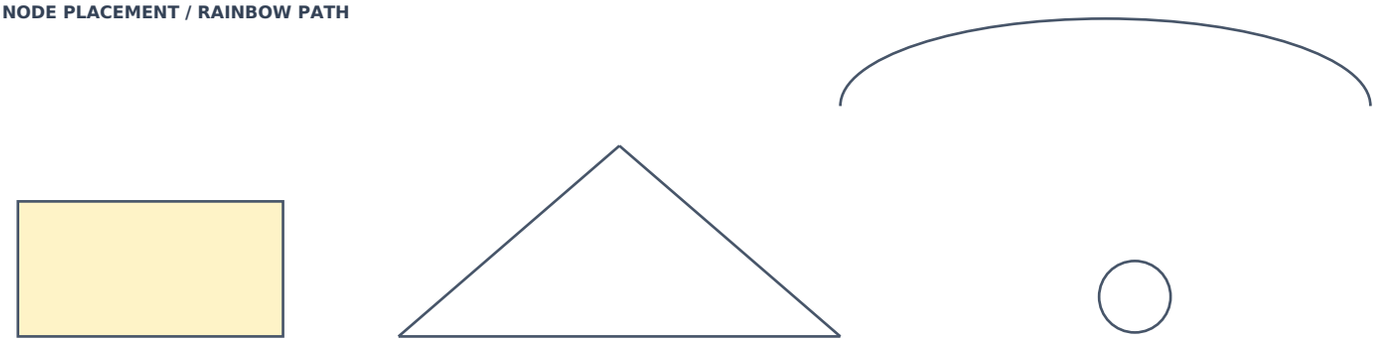
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0072"
state R -> R1
node N1
representation JP(PINK-01-P0072)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 72 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 73 of 431. Chapter 30 F-029 - Residual consequence Exact expression C_B = integral B_residual(t)dt Meaning. Time-weightedresidualmemoryconsequence. Bound manifestations.JO,M3,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_029 Import MJ.PB

PATH OF EXPRESSION

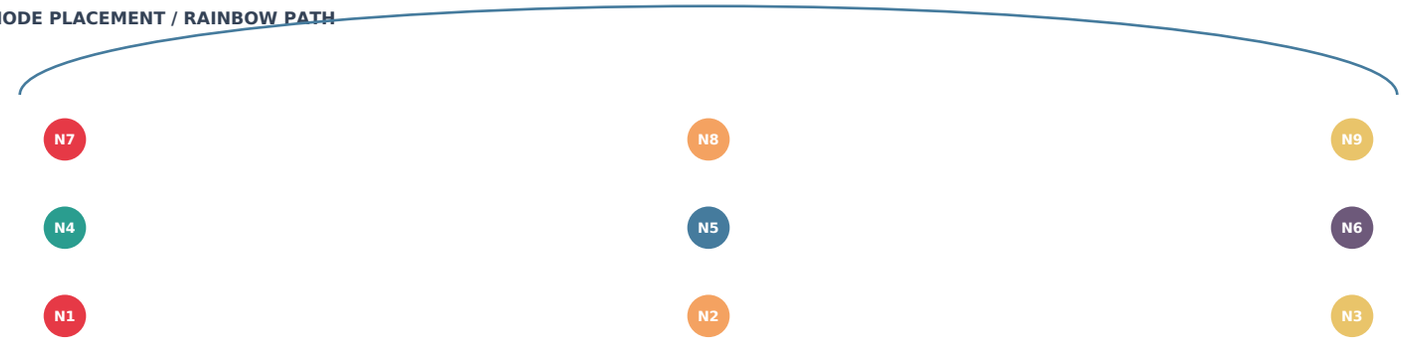
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_F_029_Residual_co
reference "PINK-01-P0073"
state R -> R1
node N1
representation JP(PINK-01-P0073)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 73 of 431. Chapter 30 F-029 - Residu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 74 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 30.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-029anditsassumptions,inputs,out

PATH OF EXPRESSION

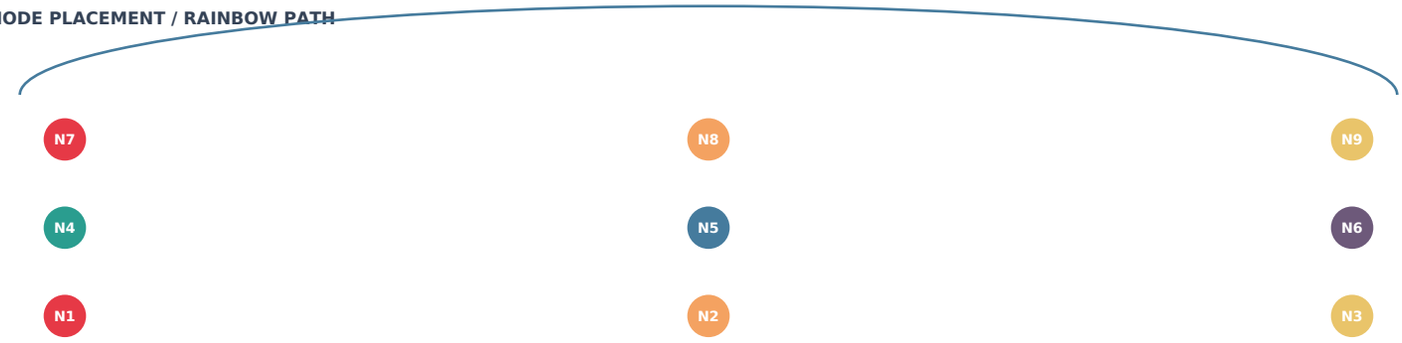
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0074"
state R -> R1
node N1
representation JP(PINK-01-P0074)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 74 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 75 of 431. Chapter 31 F-030 - Protected liquidity Exact expression L_protected_H = O_near_H+R_emergency_H+R_tax_H+R_fees_H+U_cash_H Meaning. Liquidityfirst. Bound manifestations.SHIVA,MERMAID,MK,JO Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_030 Import MJ.PBME

PATH OF EXPRESSION

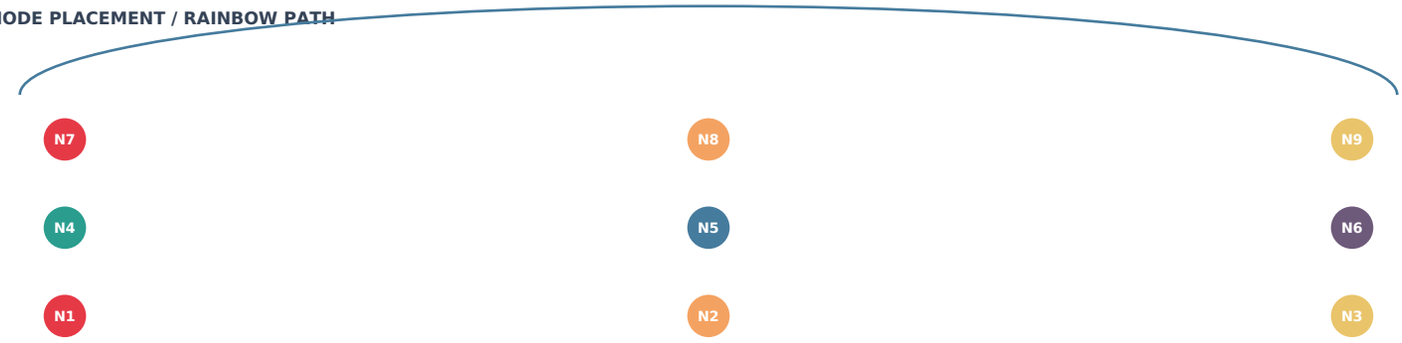
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_31_F_030_Protected_l
reference "PINK-01-P0075"
state R -> R1
node N1
representation JP(PINK-01-P0075)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 75 of 431. Chapter 31 F-030 - Protec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 76 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 31.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-030anditsassumptions,inputs,out

PATH OF EXPRESSION

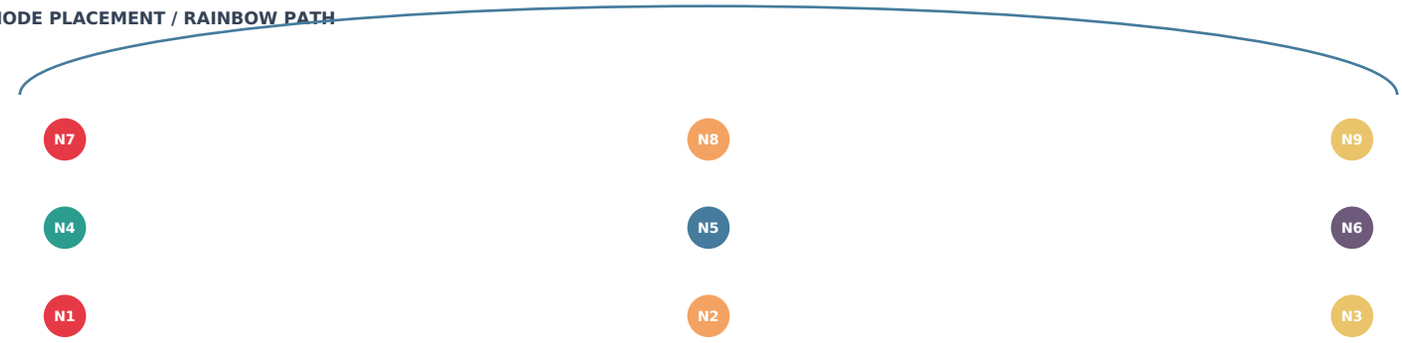
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0076"
state R -> R1
node N1
representation JP(PINK-01-P0076)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 76 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 77 of 431. Chapter 32 F-031 - Investable surplus Exact expression S_investable_L = max(0,L_available_L-L_protected_H) Meaning. Onlysurplusmayenterriskanalysis. Bound manifestations.SHIVA,MERMAID,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namesp...

PATH OF EXPRESSION

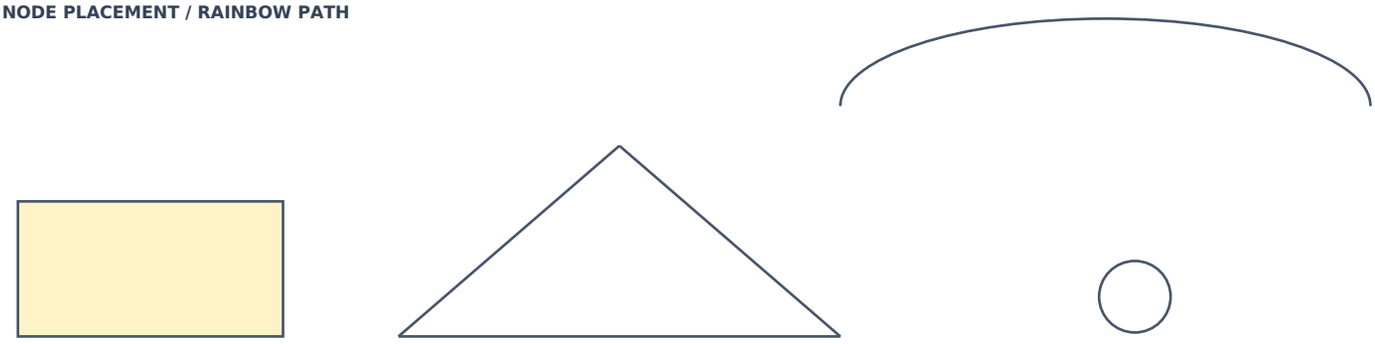
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_32_F_031_Investable_
reference "PINK-01-P0077"
state R -> R1
node N1
representation JP(PINK-01-P0077)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 77 of 431. Chapter 32 F-031 - Invest
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 78 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 32.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-031anditsassumptions,inputs,out

PATH OF EXPRESSION

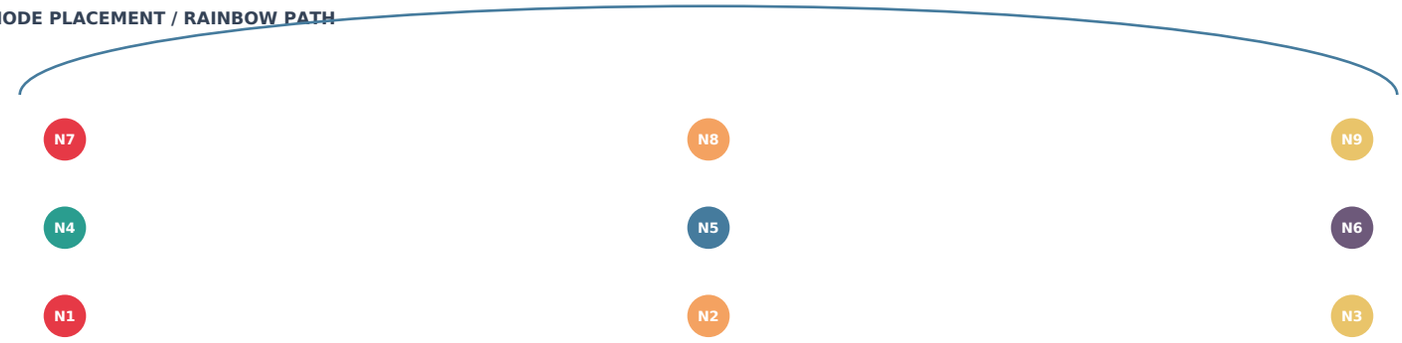
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0078"
state R -> R1
node N1
representation JP(PINK-01-P0078)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 78 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 79 of 431. Chapter 33 F-032 - Risk-capital ceiling Exact expression A_risk_max = min(S_investable_L,L_risk,L_product,L_regulatory,L_custody,L_concentration) Meaning. Hardminimumacrossconstraints. Bound manifestations.SHIVA,MERMAID,MK,MJ Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.port

PATH OF EXPRESSION

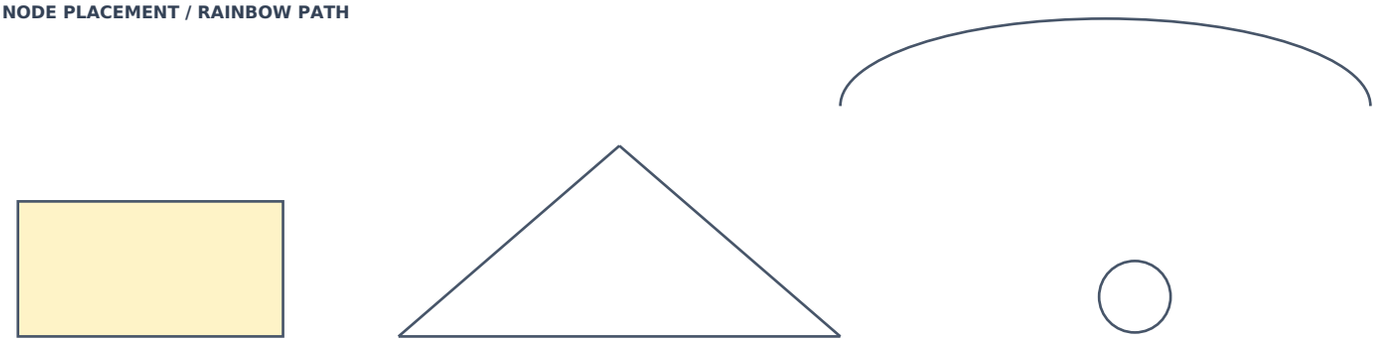
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_33_F_032_Risk_capita
reference "PINK-01-P0079"
state R -> R1
node N1
representation JP(PINK-01-P0079)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 79 of 431. Chapter 33 F-032 - Risk-c
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 80 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 33.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-032anditsassumptions,inputs,out

PATH OF EXPRESSION

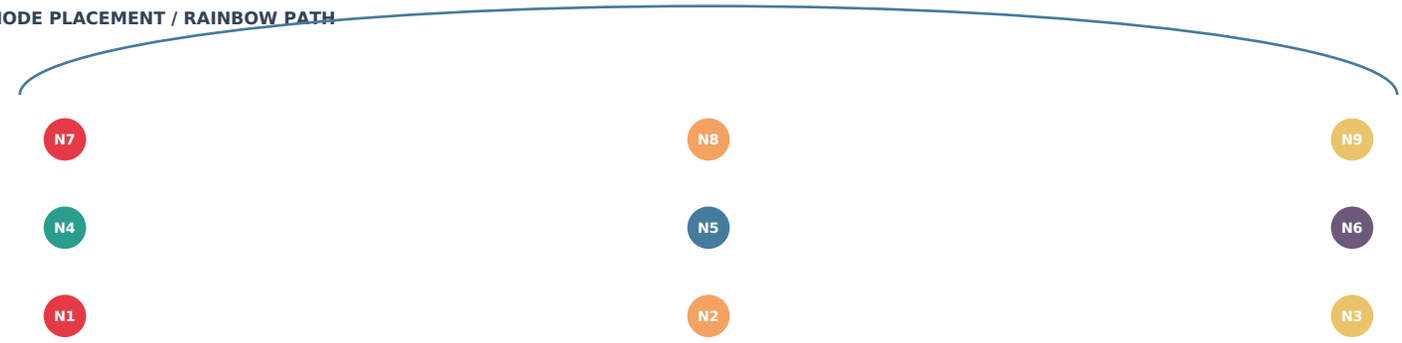
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0080"
state R -> R1
node N1
representation JP(PINK-01-P0080)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 80 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 81 of 431. Chapter 34 F-033 - Portfolio concentration Exact expression C_i = abs(V_i_H)/V_portfolio_L Meaning. Assetconcentration. Bound manifestations.SHIVA,MERMAID,JO Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_033 Imp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_34_F_033_Portfolio_c
reference "PINK-01-P0081"
state R -> R1
node N1
representation JP(PINK-01-P0081)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 81 of 431. Chapter 34 F-033 - Portfo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 82 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 34.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-033anditsassumptions,inputs,out

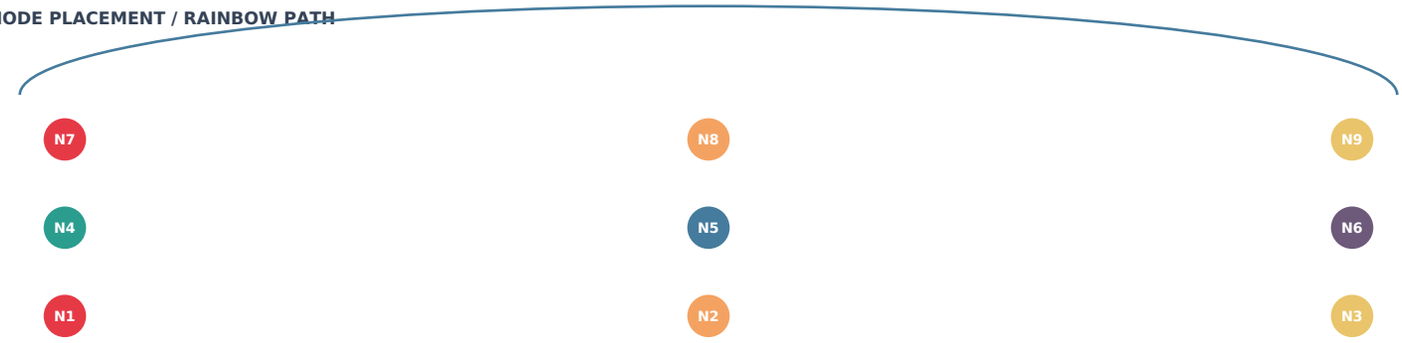
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0082"
state R -> R1
node N1
representation JP(PINK-01-P0082)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 82 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 83 of 431. Chapter 35 F-034 - Portfolio variance Exact expression sigma_p^2 = w^T Sigma w Meaning. Portfoliovariancewithevidencedcovariance. Bound manifestations.SHIVA,MERMAID,MK Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_034 Imp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_35_F_034_Portfolio_v
reference "PINK-01-P0083"
state R -> R1
node N1
representation JP(PINK-01-P0083)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 83 of 431. Chapter 35 F-034 - Portfo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 84 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 35.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-034anditsassumptions,inputs,out

PATH OF EXPRESSION

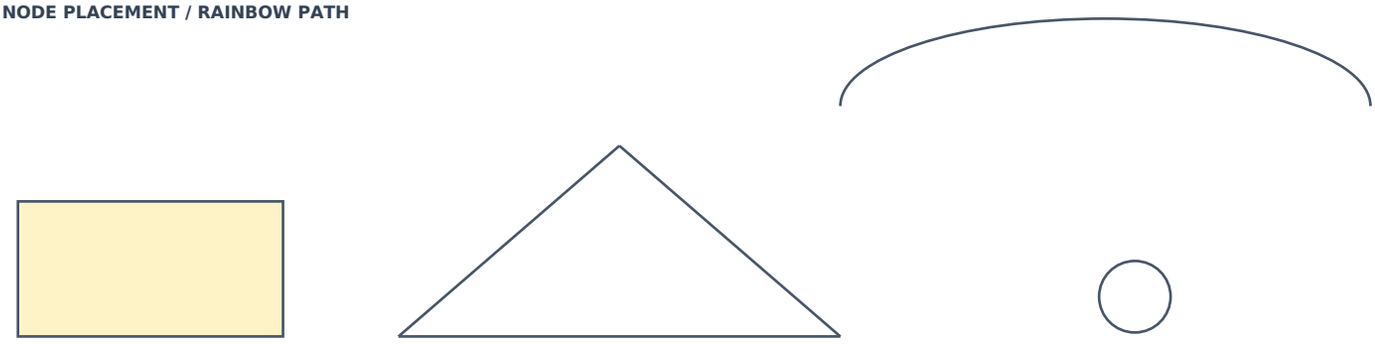
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0084"
state R -> R1
node N1
representation JP(PINK-01-P0084)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 84 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 85 of 431. Chapter 36 F-035 - Capital friction Exact expression F_capital_H = fees+spread+slippage+tax+custody+compliance+latency Meaning. Typedtransactionalfriction. Bound manifestations.MK,SHIVA,MERMAID Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_035 Import

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_36_F_035_Capital_fri
reference "PINK-01-P0085"
state R -> R1
node N1
representation JP(PINK-01-P0085)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 85 of 431. Chapter 36 F-035 - Capita
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 86 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 36.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-035anditsassumptions,inputs,out

PATH OF EXPRESSION

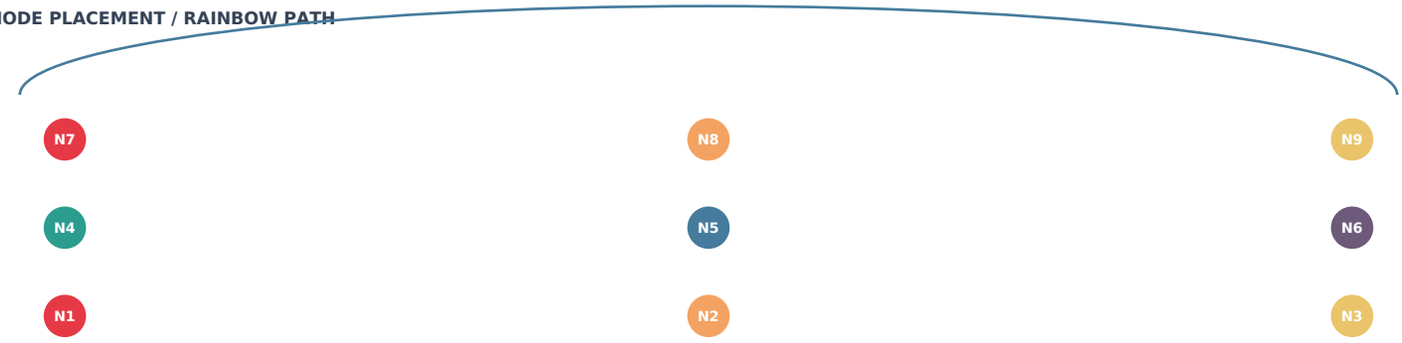
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0086"
state R -> R1
node N1
representation JP(PINK-01-P0086)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 86 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 87 of 431. Chapter 37 F-036 - Opportunity lower bound Exact expression O_L = Return_L-F_capital_H-RiskPenalty_H-LiquidityPenalty_H-RegulatoryUncertainty_H Meaning. Conservativeopportunityresult. Bound manifestations.SHIVA,MK,MERMAID,MJ Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.

PATH OF EXPRESSION

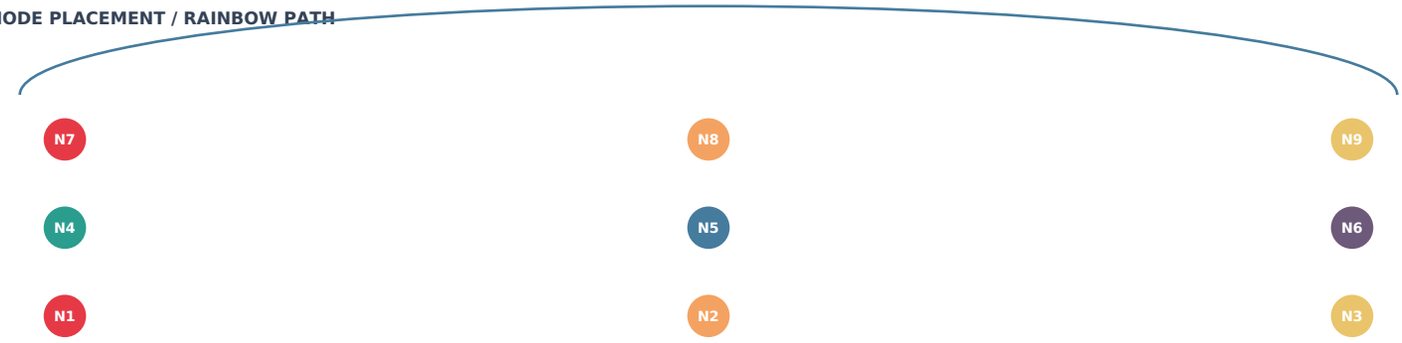
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_37_F_036_Opportunity
reference "PINK-01-P0087"
state R -> R1
node N1
representation JP(PINK-01-P0087)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 87 of 431. Chapter 37 F-036 - Opport
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 88 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 37.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-036anditsassumptions,inputs,out

PATH OF EXPRESSION

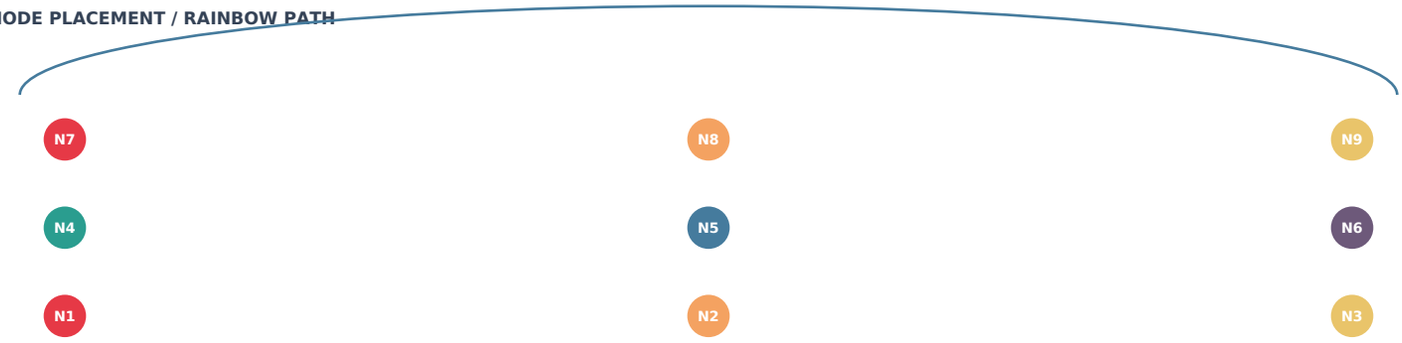
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0088"
state R -> R1
node N1
representation JP(PINK-01-P0088)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 88 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 89 of 431. Chapter 38 F-037 - Abundance objective Exact expression A = sum(alpha_i*P_i)-sum(beta_j*N_j) Meaning. Onlyvalidwithprecommittedweightsandcompatiblescales. Bound manifestations.SHIVA,MK,JO,MJ Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namesp...

PATH OF EXPRESSION

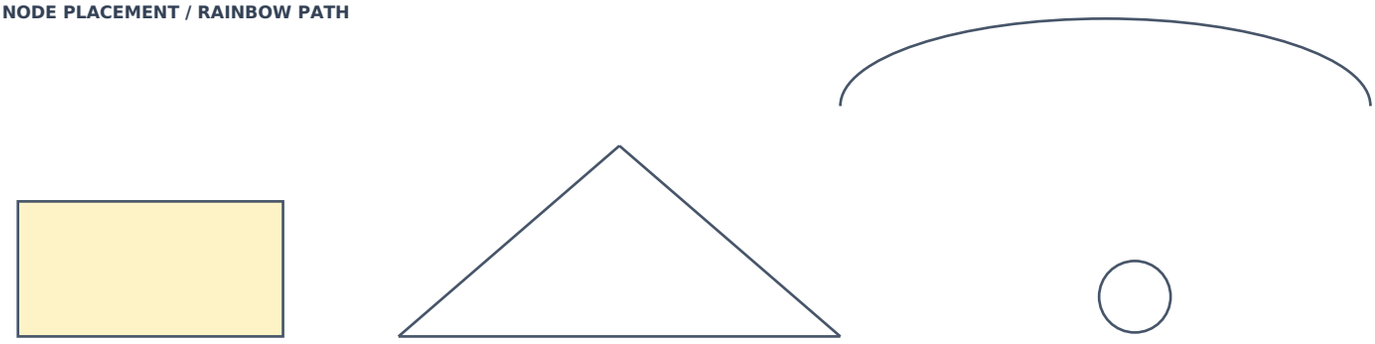
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_38_F_037_Abundance_o
reference "PINK-01-P0089"
state R -> R1
node N1
representation JP(PINK-01-P0089)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 89 of 431. Chapter 38 F-037 - Abunda
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 90 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 38.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-037anditsassumptions,inputs,out

PATH OF EXPRESSION

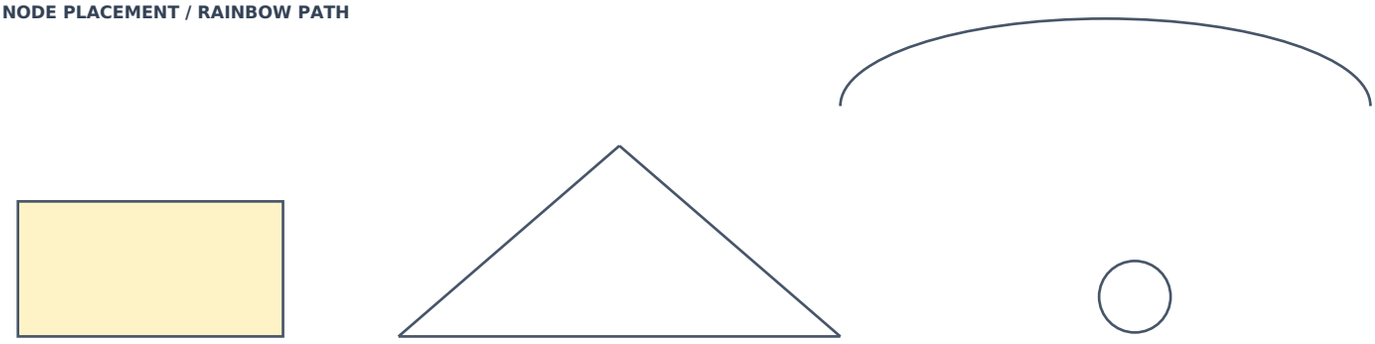
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0090"
state R -> R1
node N1
representation JP(PINK-01-P0090)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 90 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 91 of 431. Chapter 39 F-038 - SHIVAS eligible value Exact expression V_eligible_L=max(0,V_verified_L-L_known_H-U_valuation_H) Meaning. Internalvaluationlowerbound. Bound manifestations.SHIVA,MERMAID,JO Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namesp...

PATH OF EXPRESSION

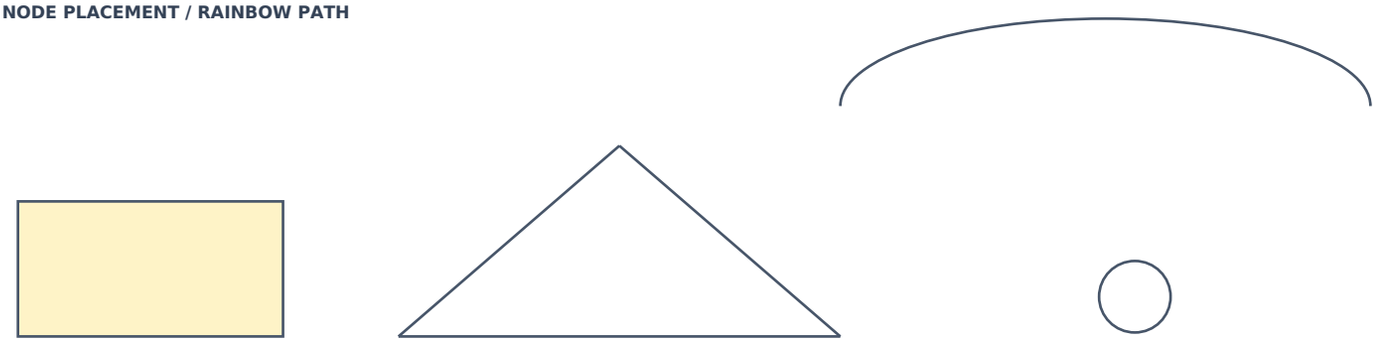
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_39_F_038_SHIVAS_elig
reference "PINK-01-P0091"
state R -> R1
node N1
representation JP(PINK-01-P0091)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 91 of 431. Chapter 39 F-038 - SHIVAS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 92 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 39.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-038anditsassumptions,inputs,out

PATH OF EXPRESSION

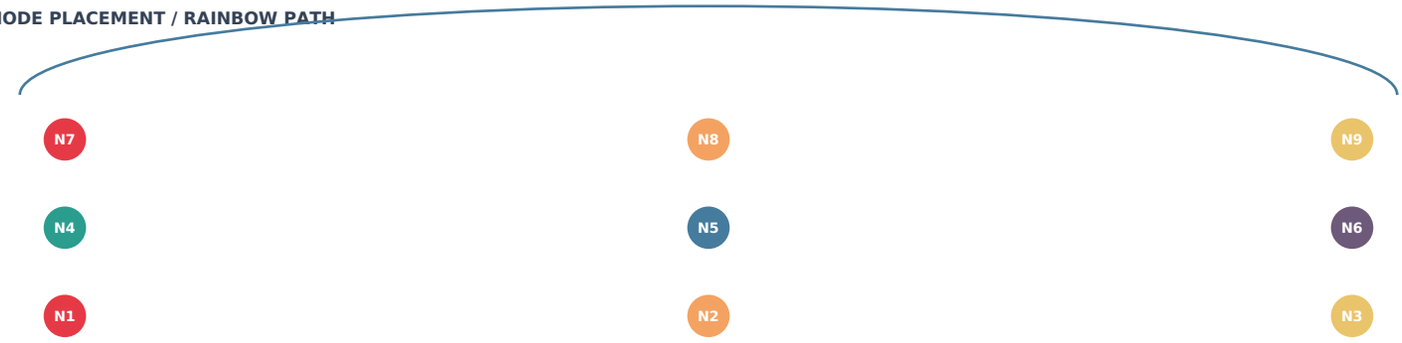
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0092"
state R -> R1
node N1
representation JP(PINK-01-P0092)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 92 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 93 of 431. Chapter 40 F-039 - SHIVAS ceiling Exact expression N_max=floor(V_eligible_L/B_unit_H) Meaning. Onlywhenbacking,rights,classification,andevidenceareknown. Bound manifestations.SHIVA,MERMAID,MJ Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namesp...

PATH OF EXPRESSION

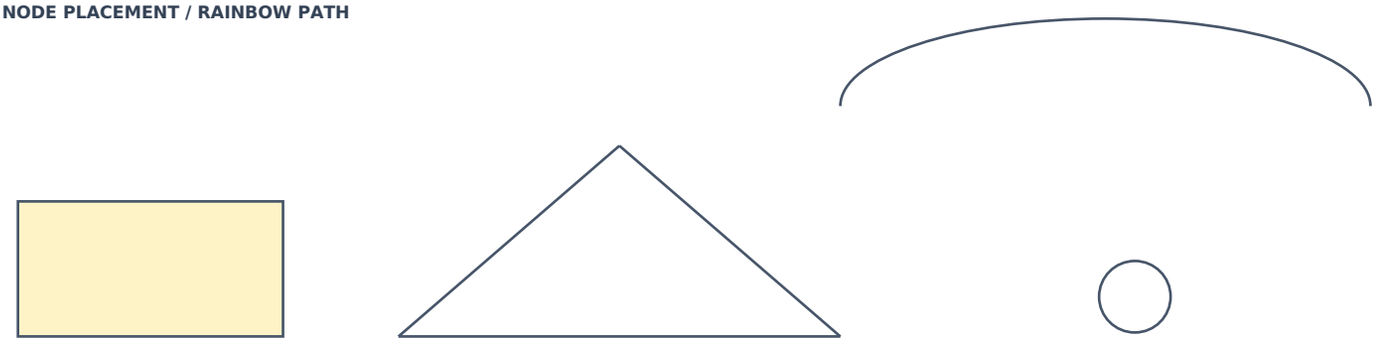
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_40_F_039_SHIVAS_ceil
reference "PINK-01-P0093"
state R -> R1
node N1
representation JP(PINK-01-P0093)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 93 of 431. Chapter 40 F-039 - SHIVAS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 94 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 40.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-039anditsassumptions,inputs,out

PATH OF EXPRESSION

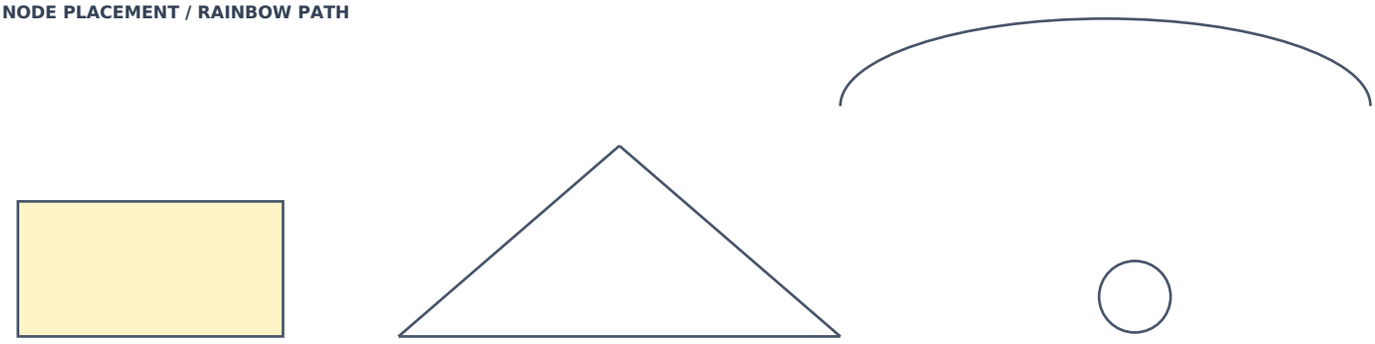
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0094"
state R -> R1
node N1
representation JP(PINK-01-P0094)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 94 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 95 of 431. Chapter 41 F-040 - MK state model Exact expression x[t+1]=F(x[t],u[t],theta,e[t])+w[t]; y[t]=H(x[t])+v[t] Meaning. Generalphysicsstateandobservationrepresentation. Bound manifestations.MK,JP,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namesp...

PATH OF EXPRESSION

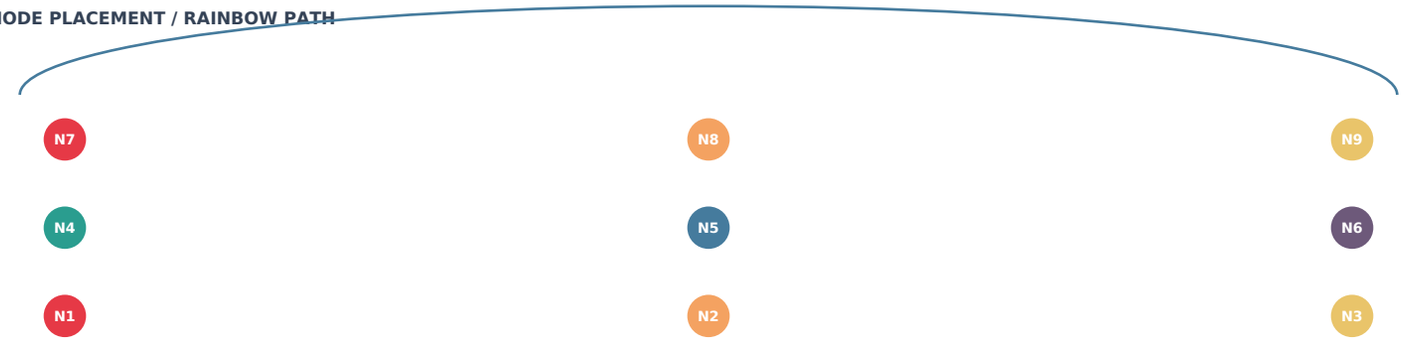
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_41_F_040_MK_state_mo
reference "PINK-01-P0095"
state R -> R1
node N1
representation JP(PINK-01-P0095)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 95 of 431. Chapter 41 F-040 - MK sta
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 96 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 41.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-040anditsassumptions,inputs,out

PATH OF EXPRESSION

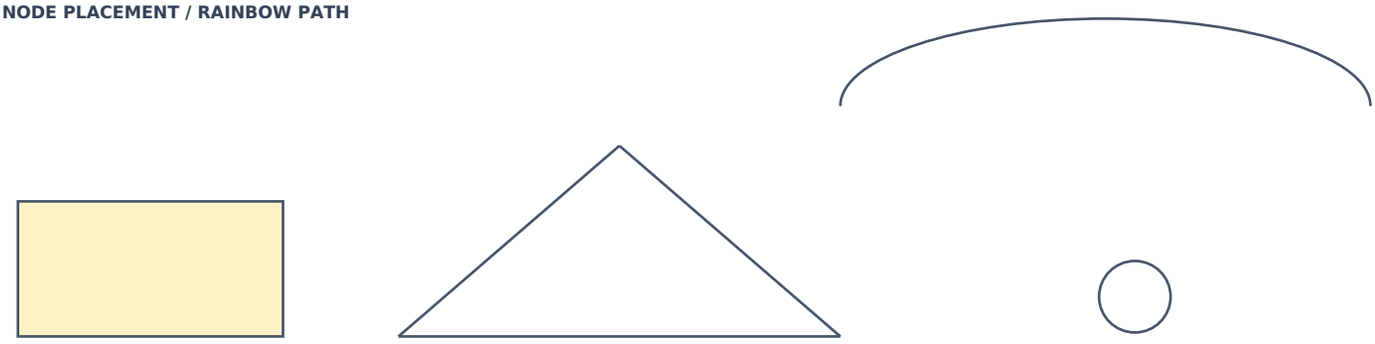
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0096"
state R -> R1
node N1
representation JP(PINK-01-P0096)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 96 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 97 of 431. Chapter 42 F-041 - Dimensional integrity Exact expression dim(LHS)=dim(RHS) Meaning. Everyphysicalequalitymustbedimensionallyvalid. Bound manifestations.MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_041 Imp...

PATH OF EXPRESSION

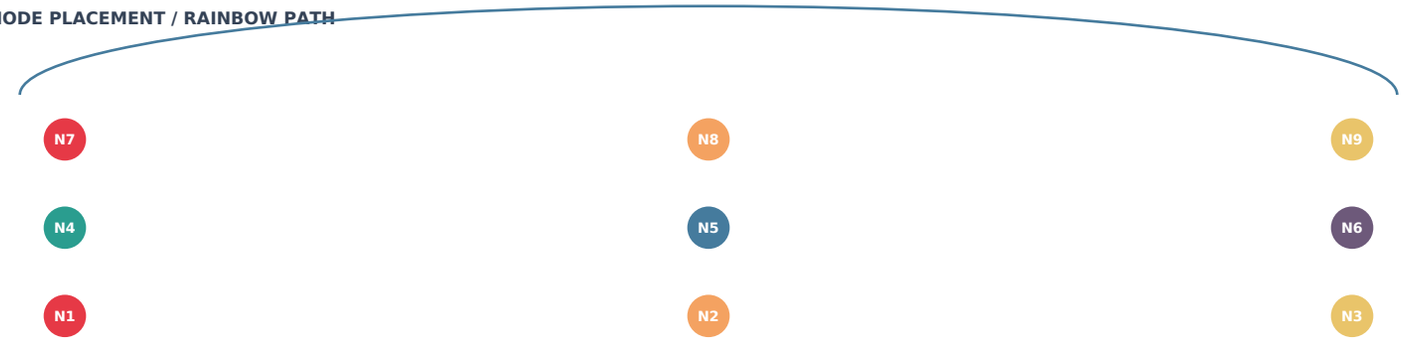
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_42_F_041_Dimensional
reference "PINK-01-P0097"
state R -> R1
node N1
representation JP(PINK-01-P0097)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 97 of 431. Chapter 42 F-041 - Dimens
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 98 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 42.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-041anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0098"
state R -> R1
node N1
representation JP(PINK-01-P0098)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 98 of 431. PRIVATE PRE-DAY-0 - UNSIG
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 99 of 431. Chapter 43 F-042 - Conservation residual Exact expression r_q=q_in-q_out-Deltaq-q_loss Meaning. Passonlywhen|r_q|<=U_q. Bound manifestations.MK,JO,EVE,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_042 Imp...

PATH OF EXPRESSION

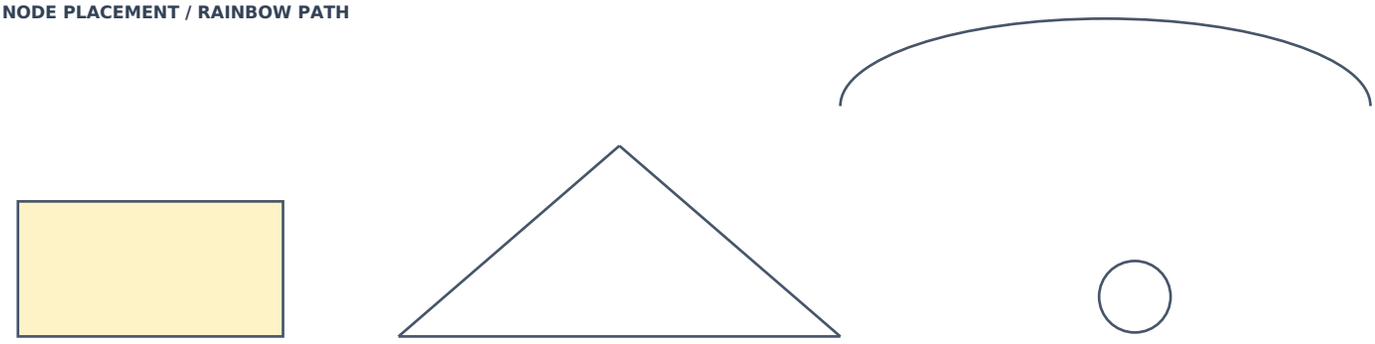
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_43_F_042_Conservatio
reference "PINK-01-P0099"
state R -> R1
node N1
representation JP(PINK-01-P0099)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 99 of 431. Chapter 43 F-042 - Conser
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 100 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 43.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-042anditsassumptions,inputs,out

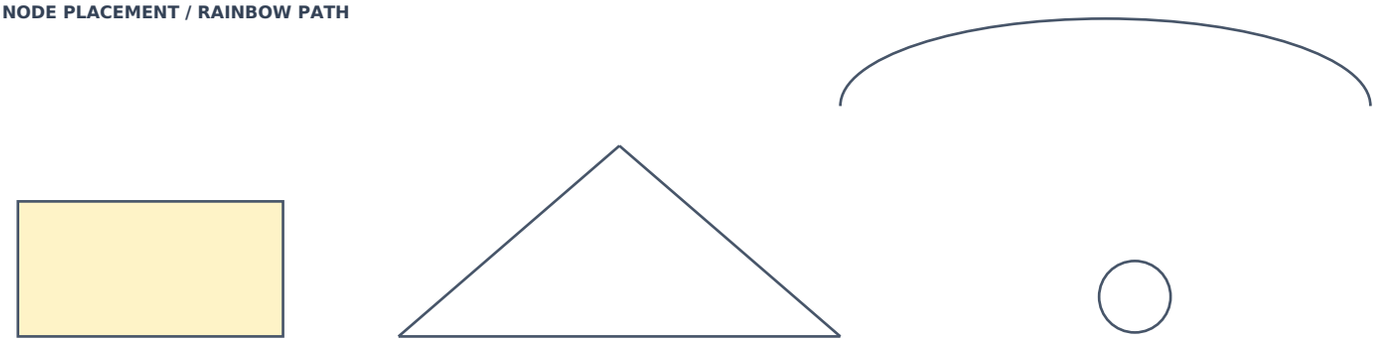
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0100"
state R -> R1
node N1
representation JP(PINK-01-P0100)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 100 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 101 of 431. Chapter 44 F-043 - Pearl simulation ellipsoid vol- ume Exact expression V_P=(4/3)*pi*a*b*c Meaning. Hypotheticalpearl-shapedsimulationgeometry;nophysicalcontainerordimensionclaim. Bound manifestations.MK,SISTER,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

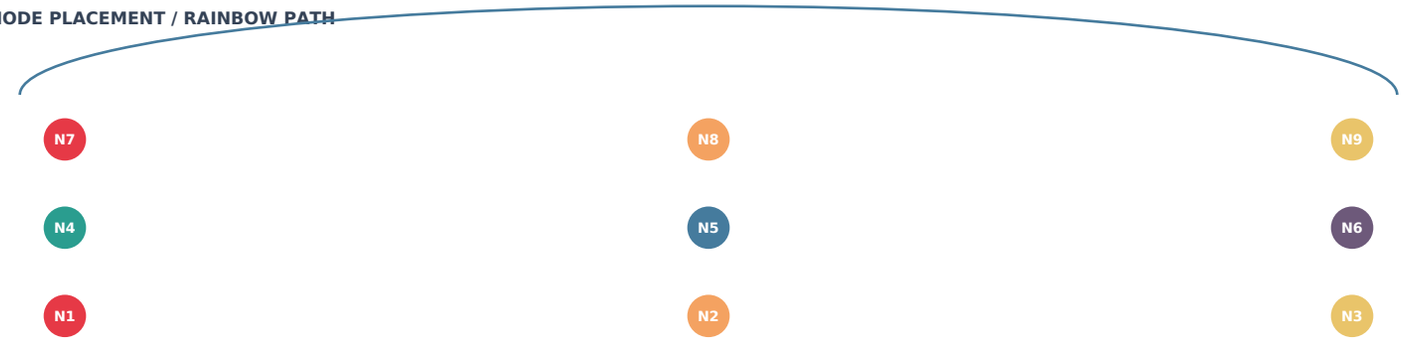
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_44_F_043_Pearl_simul
reference "PINK-01-P0101"
state R -> R1
node N1
representation JP(PINK-01-P0101)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 101 of 431. Chapter 44 F-043 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 102 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 44.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-043anditsassumptions,inputs,out

PATH OF EXPRESSION

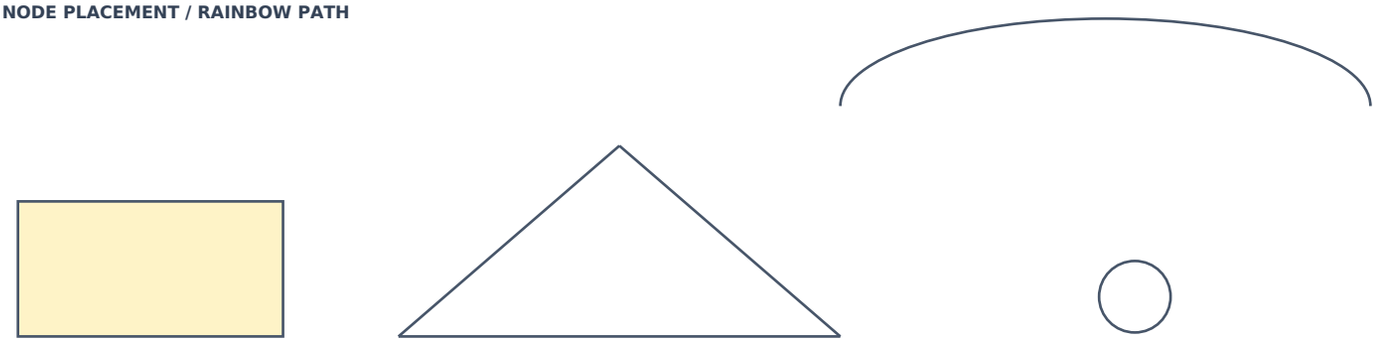
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0102"
state R -> R1
node N1
representation JP(PINK-01-P0102)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 102 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 103 of 431. Chapter 45 F-044 - Pearl simulation surface-area approximation Exact expression A_P~=4*pi*((a^p*b^p+a^p*c^p+b^p*c^p)/3)^(1/p), p=1.6075 Meaning. Hypotheticalsimulationgeometryapproximation;nophysicalwallorsurfaceclaim. Bound manifestations.MK,BELLE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_45_F_044_Pearl_simul
reference "PINK-01-P0103"
state R -> R1
node N1
representation JP(PINK-01-P0103)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 103 of 431. Chapter 45 F-044 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 104 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 45.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-044anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0104"
state R -> R1
node N1
representation JP(PINK-01-P0104)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 104 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 105 of 431. Chapter 46 F-045 - Pearl simulation exposure ratio Exact expression chi_P=A_P/V_P Meaning. Simulationcomparisonmetriconly;notphysicalbreachorexposureevidence. Bound manifestations.MK,BELLE,EVE Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_46_F_045_Pearl_simul
reference "PINK-01-P0105"
state R -> R1
node N1
representation JP(PINK-01-P0105)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 105 of 431. Chapter 46 F-045 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 106 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 46.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-045anditsassumptions,inputs,out

PATH OF EXPRESSION

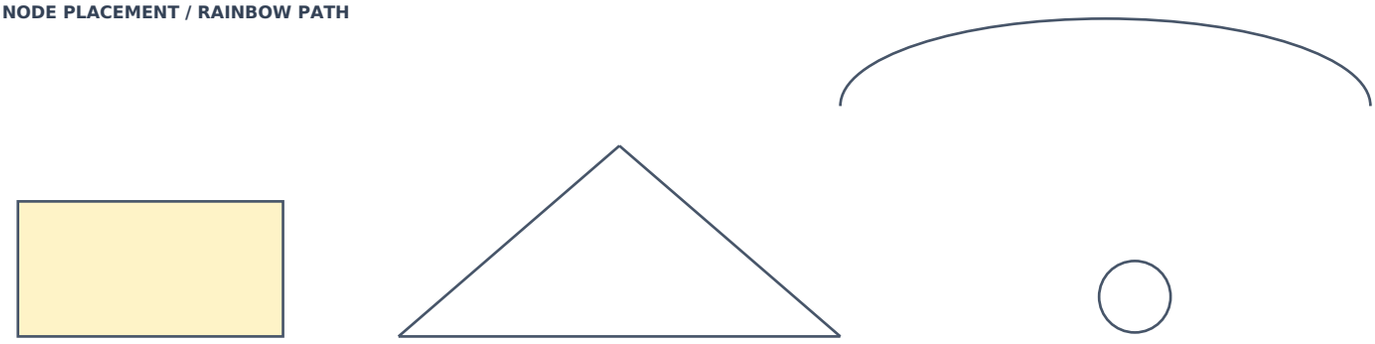
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0106"
state R -> R1
node N1
representation JP(PINK-01-P0106)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 106 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 107 of 431. Chapter 47 F-046 - Pearl simulation capacity slack Exact expression S_Pk=(1-h_Pk)*C_Pk-L_Pk Meaning. Remainingtypedsimulation/informationcapacityafterdeclaredheadroom. Bound manifestations.SISTER,EVE,M3,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

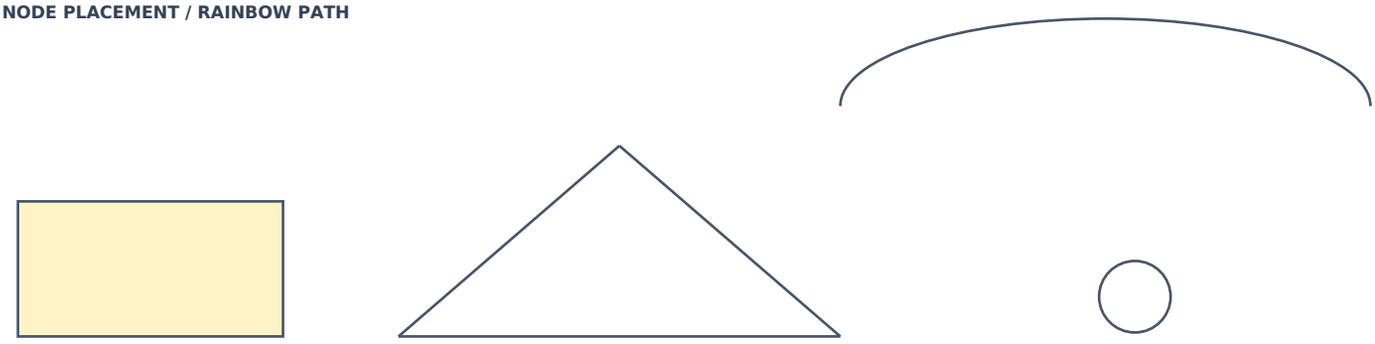
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_47_F_046_Pearl_simul
reference "PINK-01-P0107"
state R -> R1
node N1
representation JP(PINK-01-P0107)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 107 of 431. Chapter 47 F-046 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 108 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 47.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-046anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0108"
state R -> R1
node N1
representation JP(PINK-01-P0108)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 108 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 109 of 431. Chapter 48 F-047 - Pearl simulation saturation ratio Exact expression beta_P=max_k(L_Pk/((1-h_Pk)*C_Pk)) Meaning. Simulationsaturationconditiononly;notphysicalbreachresistance. Bound manifestations.MK,ANGELS,BELLATRIX,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_48_F_047_Pearl_simul
reference "PINK-01-P0109"
state R -> R1
node N1
representation JP(PINK-01-P0109)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 109 of 431. Chapter 48 F-047 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 110 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 48.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-047anditsassumptions,inputs,out

PATH OF EXPRESSION

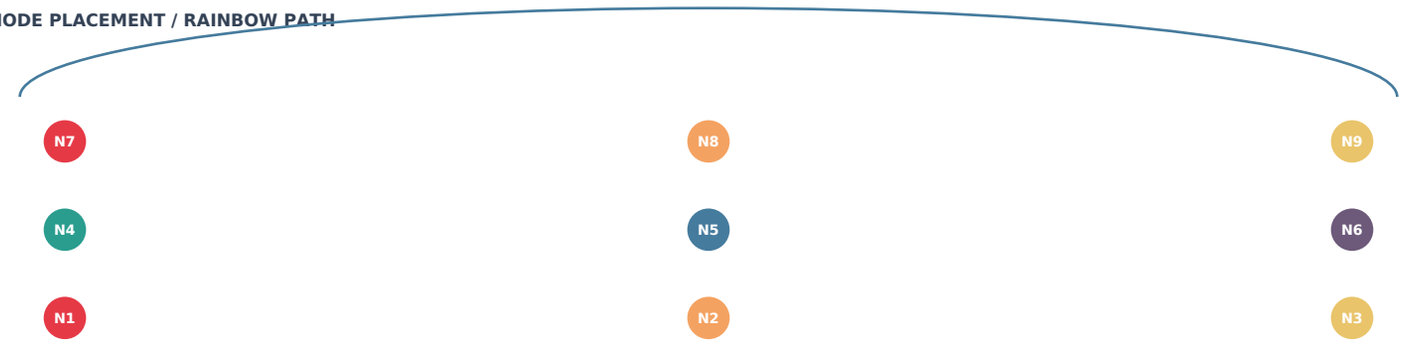
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0110"
state R -> R1
node N1
representation JP(PINK-01-P0110)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 110 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 111 of 431. Chapter 49 F-048 - Pearl simulation object count Exact expression N_P=max_k ceil(E_k/((1-h_Pk)*C_Pk)) Meaning. Numberofhypotheticalsimulationobjectsneededfordeclaredinformation/resourcedimensions. Bound manifestations.SISTER,EVE,M3,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference N

PATH OF EXPRESSION

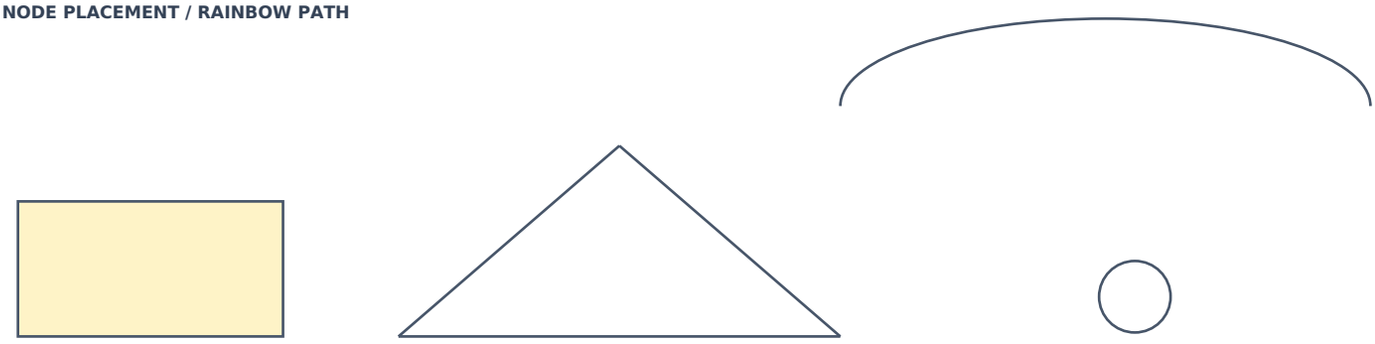
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_49_F_048_Pearl_simul
reference "PINK-01-P0111"
state R -> R1
node N1
representation JP(PINK-01-P0111)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 111 of 431. Chapter 49 F-048 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 112 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 49.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-048anditsassumptions,inputs,out

PATH OF EXPRESSION

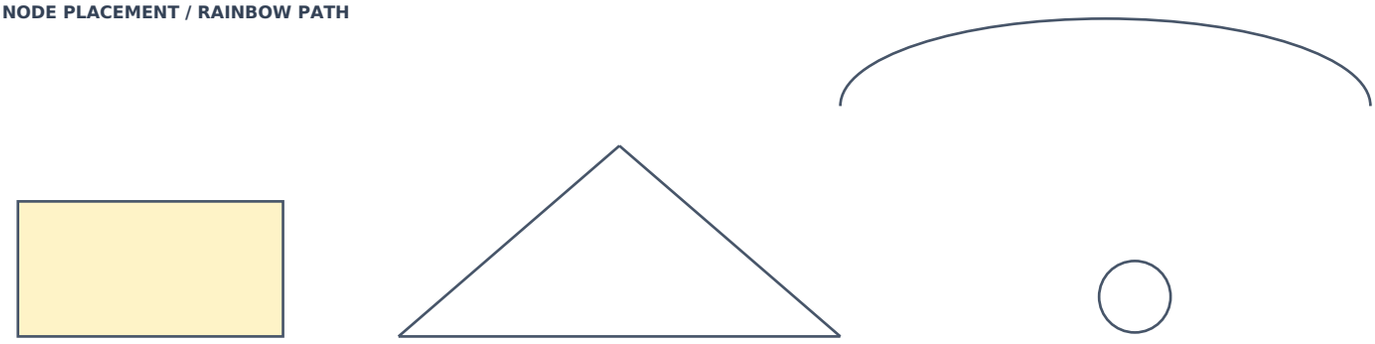
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0112"
state R -> R1
node N1
representation JP(PINK-01-P0112)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 112 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 113 of 431. Chapter 50 F-049 - Pearl simulation accounting bal- ance Exact expression r_Pk=q_in-q_captured-q_transferred-q_retained-q_escaped-Deltaq_stored Meaning. Simulation/accountingconservationacrossretained,transferred,escaped-observation,and storedinformation. Bound manifestations.EVE,MK,JO,MERMAID Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJper...

PATH OF EXPRESSION

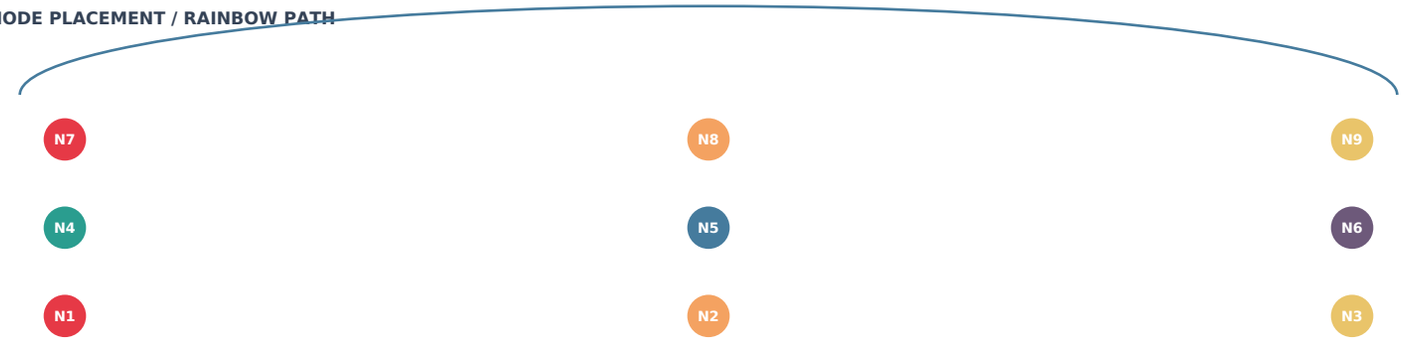
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_50_F_049_Pearl_simul
reference "PINK-01-P0113"
state R -> R1
node N1
representation JP(PINK-01-P0113)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 113 of 431. Chapter 50 F-049 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 114 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 } 50.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-049anditsassumptions,inputs,o

PATH OF EXPRESSION

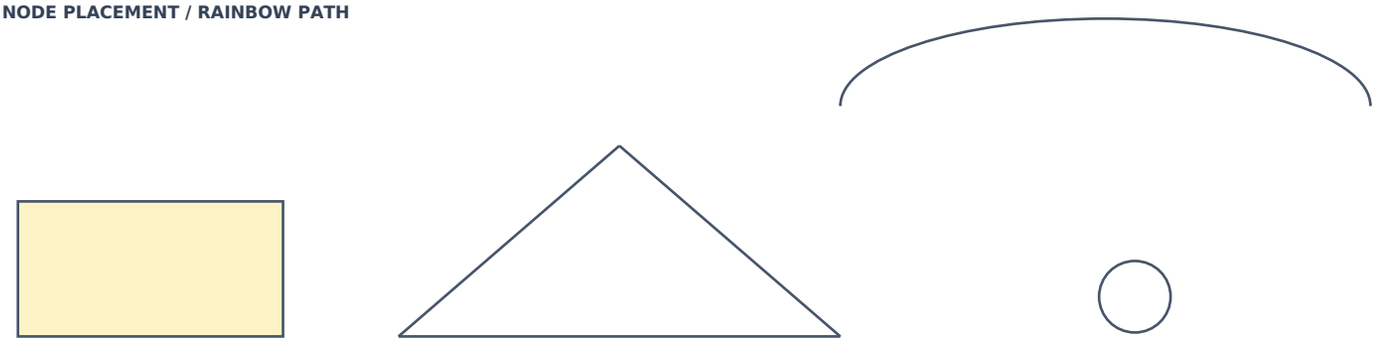
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0114"
state R -> R1
node N1
representation JP(PINK-01-P0114)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 114 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 115 of 431. Chapter 51 F-050 - Pearl simulated transfer oppor- tunity Exact expression T_ij,k=min([S_jk]_+,[Q_ik-Q_reserve_ik]_+,C_route_k) Meaning. Simulatedtransferopportunityboundedbydeclaredlogicalcapacities;nophysicaltransfer. Bound manifestations.SISTER,EVE,M3,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation

PATH OF EXPRESSION

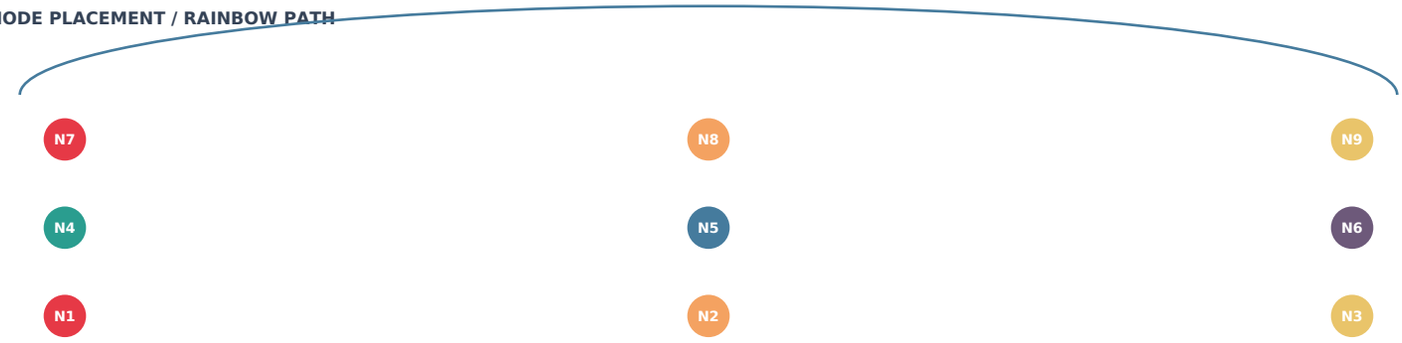
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_51_F_050_Pearl_simul
reference "PINK-01-P0115"
state R -> R1
node N1
representation JP(PINK-01-P0115)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 115 of 431. Chapter 51 F-050 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 116 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 51.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-050anditsassumptions,inputs,out

PATH OF EXPRESSION

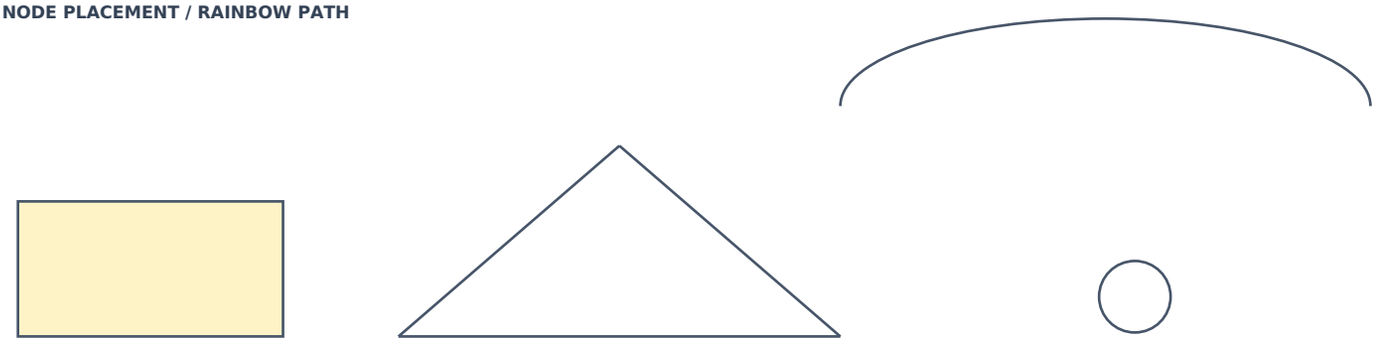
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0116"
state R -> R1
node N1
representation JP(PINK-01-P0116)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 116 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 117 of 431. MJ-PBMEFPinkPaper-VolumeIII FormulaGatewayBindingsF-051throughF-100 MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

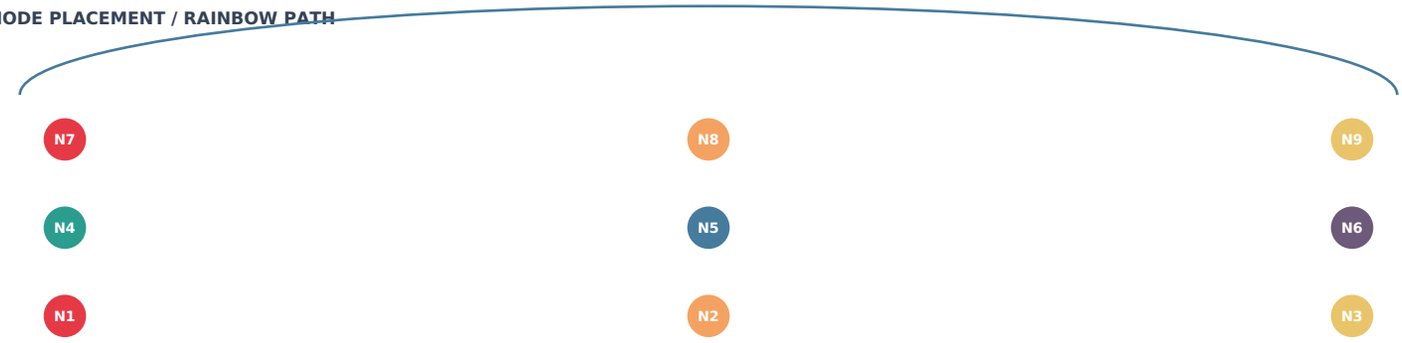
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeIII_
reference "PINK-01-P0117"
state R -> R1
node N1
representation JP(PINK-01-P0117)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 117 of 431. MJ-PBMEFPinkPaper-Volume
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 118 of 431. Contents 1 Verification method 5 2 F-051 - Pearl simulated regeneration vector 6 2.1 Gatewaylife-cycleexample . . . . . .6 2.2 Lifecyclefromrequesttofinaloutput . . . . . .7 3 F-052 - Pearl acoustic simulation wavelength 8 3.1 Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

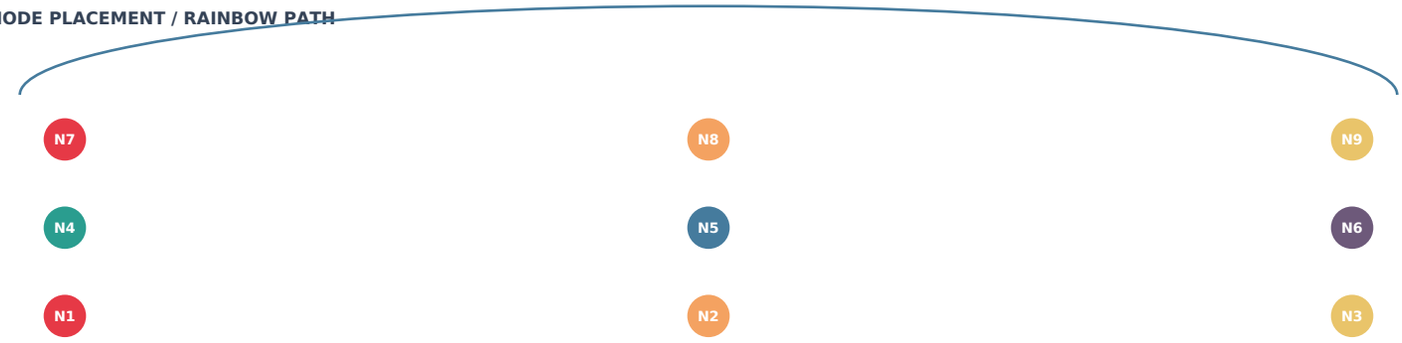
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Verification_meth
reference "PINK-01-P0118"
state R -> R1
node N1
representation JP(PINK-01-P0118)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 118 of 431. Contents 1 Verification
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 119 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III

- F051-F100 13.2Lifecyclefromrequesttofinaloutput . . . . . .29 14F-063 - Incremental recompute cost 30
14.1Gatewaylife-cycleexample 30
14.2Lifecyclefromrequesttofinaloutput 31
15F-06

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0119"
state R -> R1
node N1
representation JP(PINK-01-P0119)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 119 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 120 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 29F-078 - Formula verification residual 60 29.1Gatewaylife-cycleexample . . . . . .60 29.2Lifecyclefromrequesttofinaloutput . . . . . .61 30F-079 - Operational intake completeness 62 30.1Gatewaylife-cycleexample . . . . . .

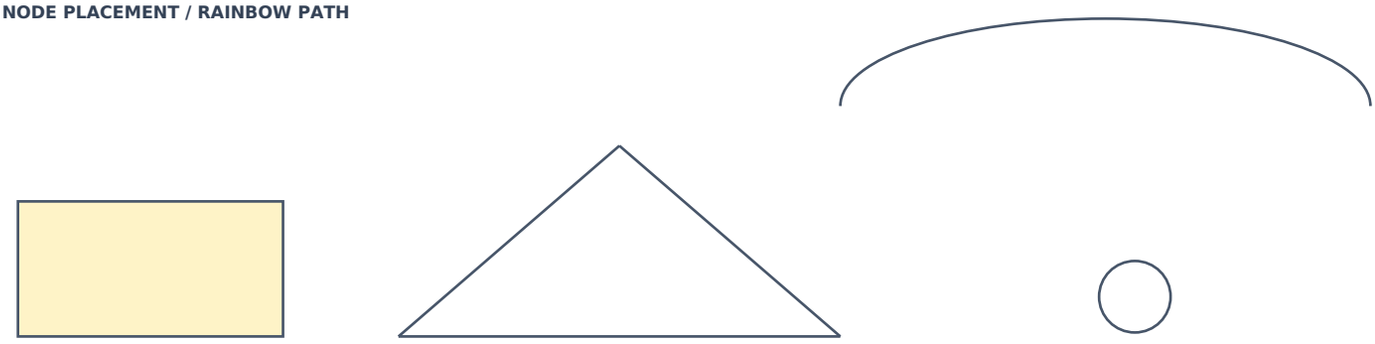
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0120"
state R -> R1
node N7
representation JP(PINK-01-P0120)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 120 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 121 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 44F-093 - Observed gas-height predictor 90 44.1Gatewaylife-cycleexample . . . . . .90 44.2Lifecyclefromrequesttofinaloutput . . . . . .91 45F-094 - Gas net-force balance 92 45.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

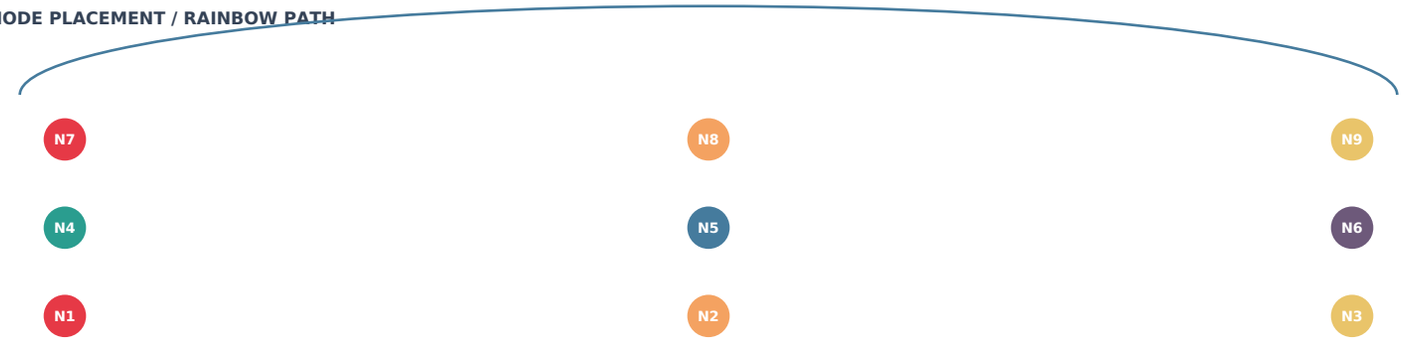
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0121"
state R -> R1
node N1
representation JP(PINK-01-P0121)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 121 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 122 of 431. Chapter 1 Verification method Each formula receives the same twenty-construct Bangel identity, a gateway-stage assignment, a life-cycleexample, andexplicitevidenceandethicsboundaries. Therepetitivestructureisintentional: it allowsformula-by-formulafounderreviewandlaterautomatedcompletenesschecking. 5

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Verification_metho
reference "PINK-01-P0122"
state R -> R1
node N1
representation JP(PINK-01-P0122)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 122 of 431. Chapter 1 Verification m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 123 of 431. Chapter 2 F-051 - Pearl simulated regeneration vector Exact expression G_P=[G_mass,G_energy,G_bytes,G_time,G_capital] Meaning. Hypotheticalopportunityvector;createsnophysicalorcapitalvalue. Bound manifestations.EVE,MERMAID,SHIVA,MK,JO Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespa

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_F_051_Pearl_simula
reference "PINK-01-P0123"
state R -> R1
node N1
representation JP(PINK-01-P0123)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 123 of 431. Chapter 2 F-051 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 124 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 2.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-051anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0124"
state R -> R1
node N1
representation JP(PINK-01-P0124)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 124 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 125 of 431. Chapter 3 F-052 - Pearl acoustic simulation wave- length Exact expression lambda_ac=c_medium/f_control Meaning. Acousticsimulationvariableunderdeclaredmediumassumptions;nocohesionclaim. Bound manifestations.MK,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

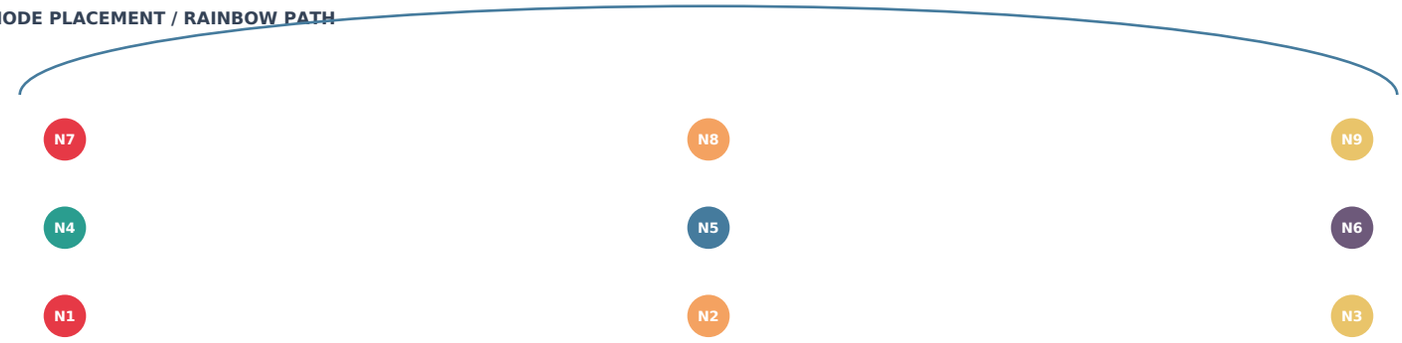
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_F_052_Pearl_acoust
reference "PINK-01-P0125"
state R -> R1
node N1
representation JP(PINK-01-P0125)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 125 of 431. Chapter 3 F-052 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 126 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 3.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-052anditsassumptions,inputs,out

PATH OF EXPRESSION

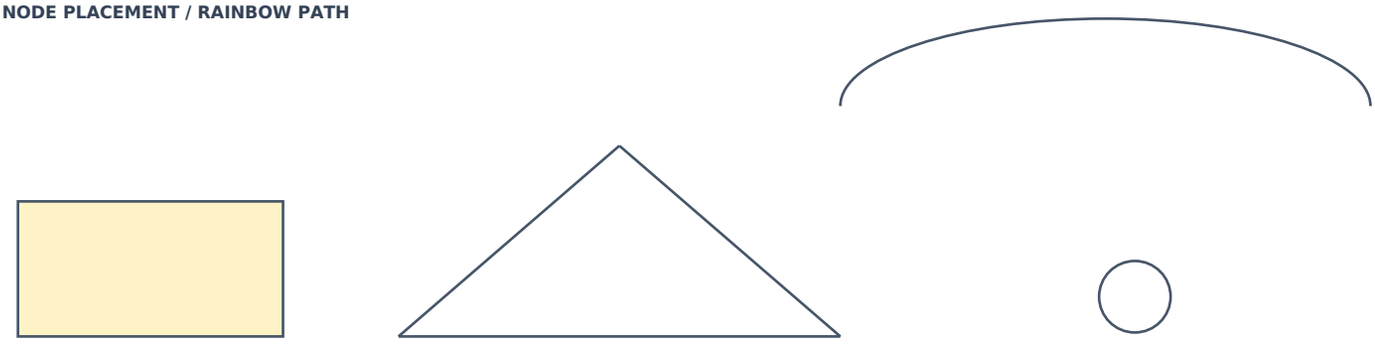
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0126"
state R -> R1
node N1
representation JP(PINK-01-P0126)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 126 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 127 of 431. Chapter 4 F-053 - Pearl acoustic simulation inten- sity Exact expression I_ac=p_rms^2/(rho_medium*c_medium) Meaning. Referencesimulationintensityonly;nophysicalactuationclaim. Bound manifestations.MK,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

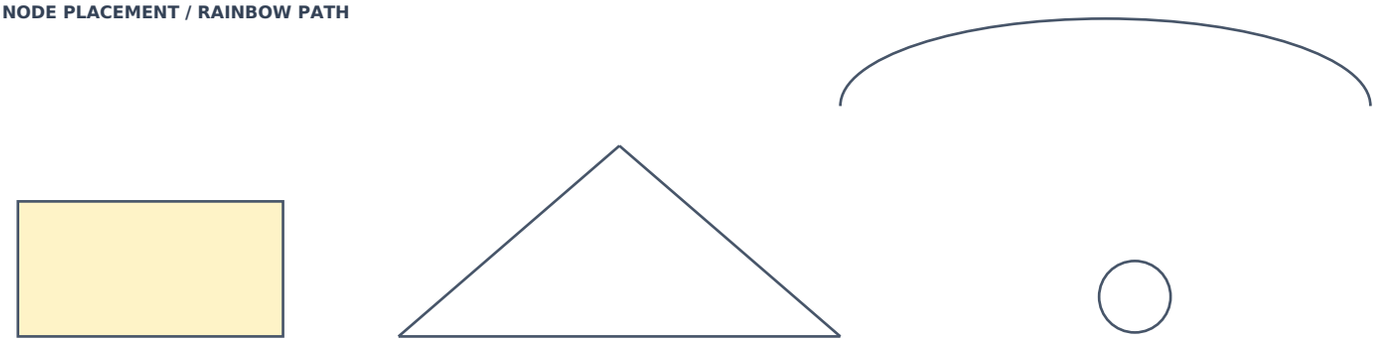
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_F_053_Pearl_acoust
reference "PINK-01-P0127"
state R -> R1
node N1
representation JP(PINK-01-P0127)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 127 of 431. Chapter 4 F-053 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 128 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 4.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-053anditsassumptions,inputs,out

PATH OF EXPRESSION

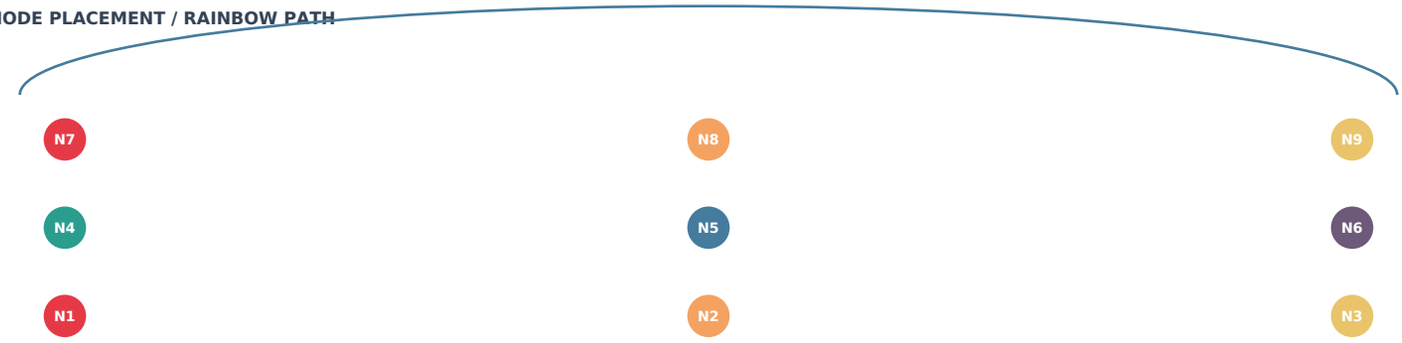
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0128"
state R -> R1
node N1
representation JP(PINK-01-P0128)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 128 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 129 of 431. Chapter 5 F-054 - Pearl acoustic simulation energy Exact expression E_ac=integral(I_ac*A_effective)dt Meaning. Hypotheticalenergyaccountingforafutureseparatelypermittedexperiment. Bound manifestations.MK,EVE,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

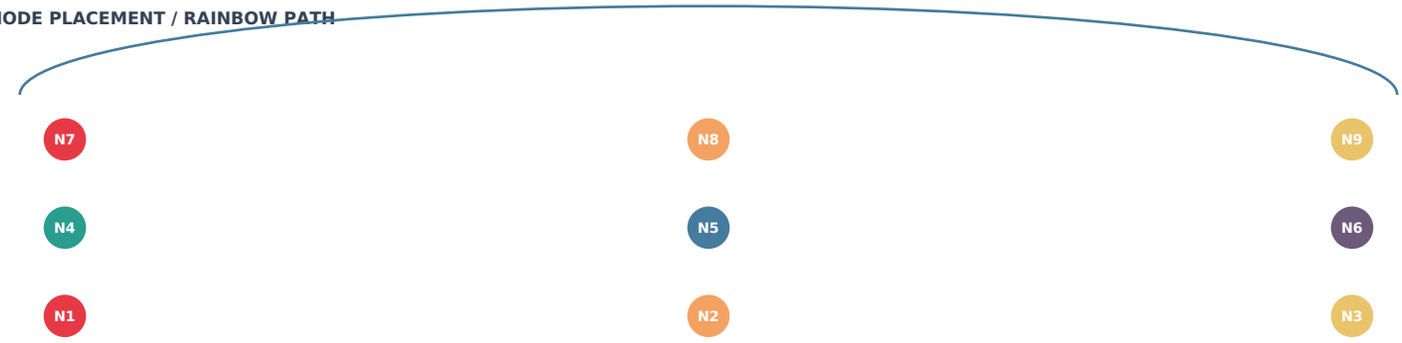
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_F_054_Pearl_acoust
reference "PINK-01-P0129"
state R -> R1
node N1
representation JP(PINK-01-P0129)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 129 of 431. Chapter 5 F-054 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 130 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 5.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-054anditsassumptions,inputs,out

PATH OF EXPRESSION

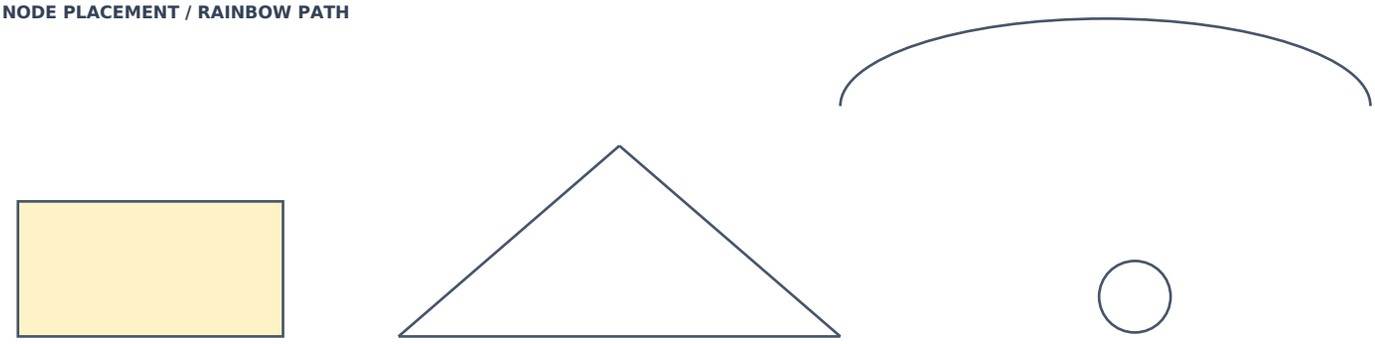
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0130"
state R -> R1
node N1
representation JP(PINK-01-P0130)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 130 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 131 of 431. Chapter 6 F-055 - Pearl acoustic simulation ob- servability gate Exact expression f_sample>=2*gamma*f_control AND f_control in calibrated_band AND SNR_f>=SNR_min Meaning. Simulationinputmustbemeasurabletobeaccountedfor;observabilityisnotactuation. Bound manifestations.MK,JO,ANGELS Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hy

PATH OF EXPRESSION

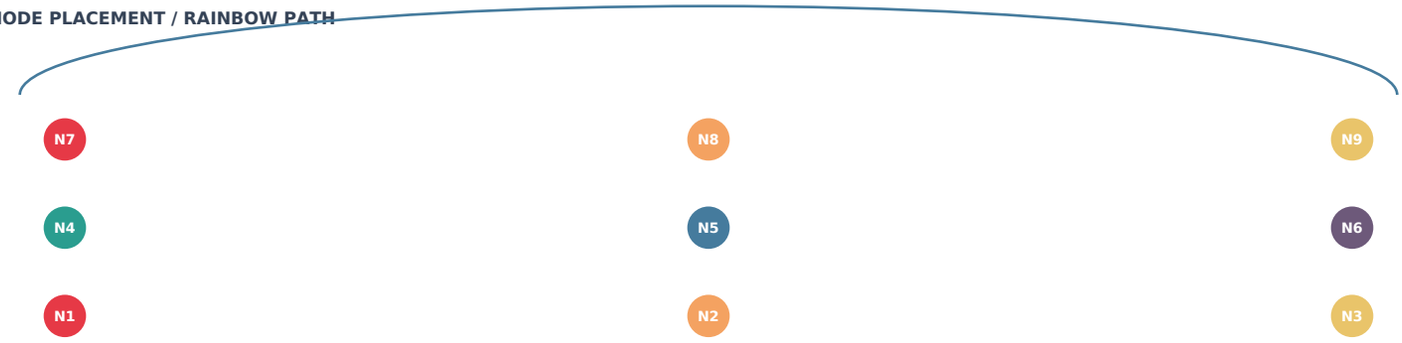
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_F_055_Pearl_acoust
reference "PINK-01-P0131"
state R -> R1
node N1
representation JP(PINK-01-P0131)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 131 of 431. Chapter 6 F-055 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 132 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 } 6.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-055anditsassumptions,inputs,o

PATH OF EXPRESSION

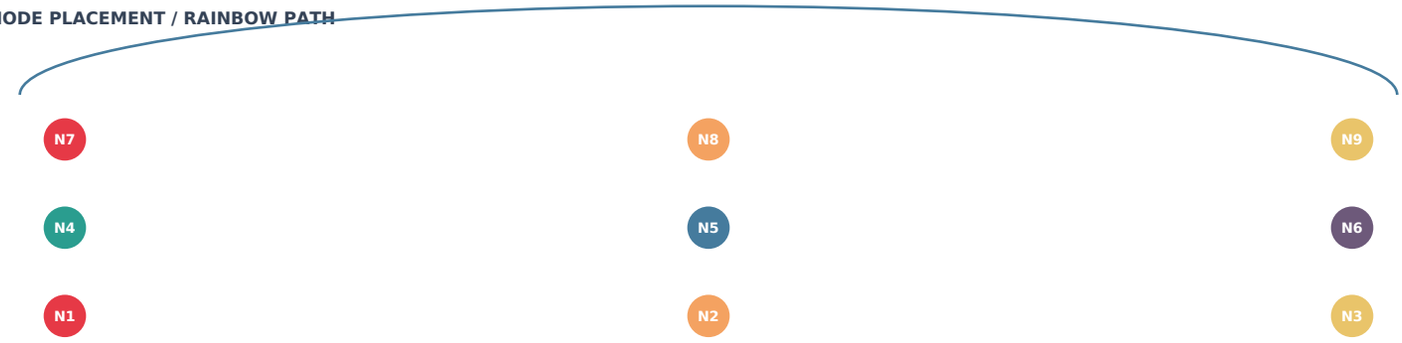
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0132"
state R -> R1
node N1
representation JP(PINK-01-P0132)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 132 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 133 of 431. Chapter 7 F-056 - Pearl acoustic simulation signal- to-noise Exact expression SNR_f=P_signal(f)/P_noise(f) Meaning. Simulationsignal-to-noiseratio;advisoryandnon-authorizing. Bound manifestations.MK,SISTER,EVE,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_F_056_Pearl_acoust
reference "PINK-01-P0133"
state R -> R1
node N1
representation JP(PINK-01-P0133)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 133 of 431. Chapter 7 F-056 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 134 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 7.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-056anditsassumptions,inputs,out

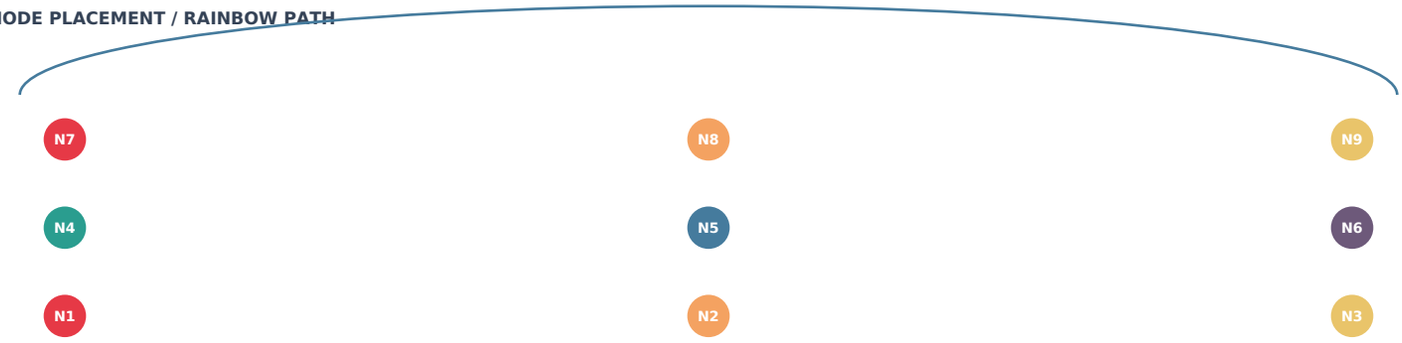
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0134"
state R -> R1
node N1
representation JP(PINK-01-P0134)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 134 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 135 of 431. Chapter 8 F-057 - Pearl acoustic simulation trans- fer function Exact expression H_P(f)=Y_P(f)/U_P(f) Meaning. Hypotheticalormeasured-laterresponsemapping;nophysicalPearlarticleexists. Bound manifestations.MK,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namesp...

PATH OF EXPRESSION

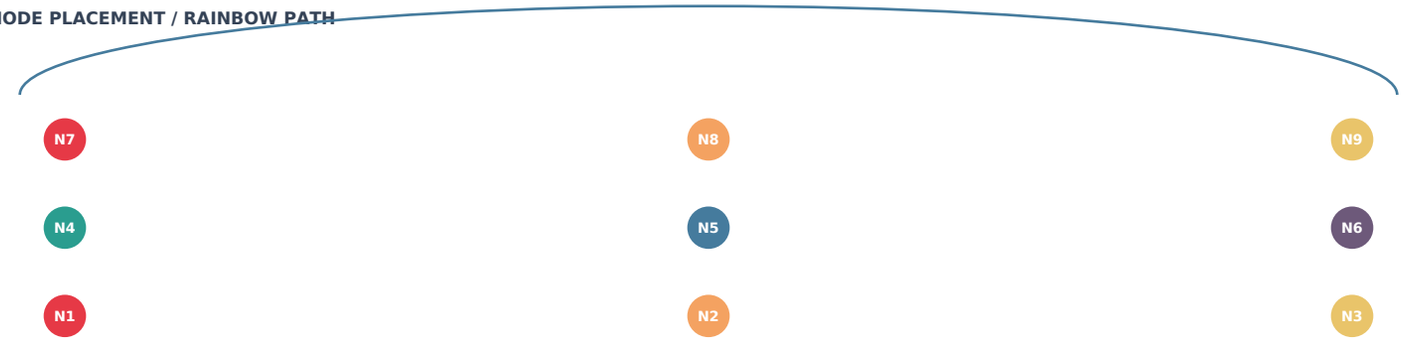
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_F_057_Pearl_acoust
reference "PINK-01-P0135"
state R -> R1
node N1
representation JP(PINK-01-P0135)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 135 of 431. Chapter 8 F-057 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 136 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 8.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-057anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0136"
state R -> R1
node N1
representation JP(PINK-01-P0136)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 136 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 137 of 431. Chapter 9 F-058 - Pearl acoustic simulation set- point Exact expression f*=argmin_{f in F_safe}(J_breach+lambda_E*E_ac+lambda_T*T_transfer) Meaning. Simulationcandidateonly;nophysicalcontrolsetpoint. Bound manifestations.MK,BELLE,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

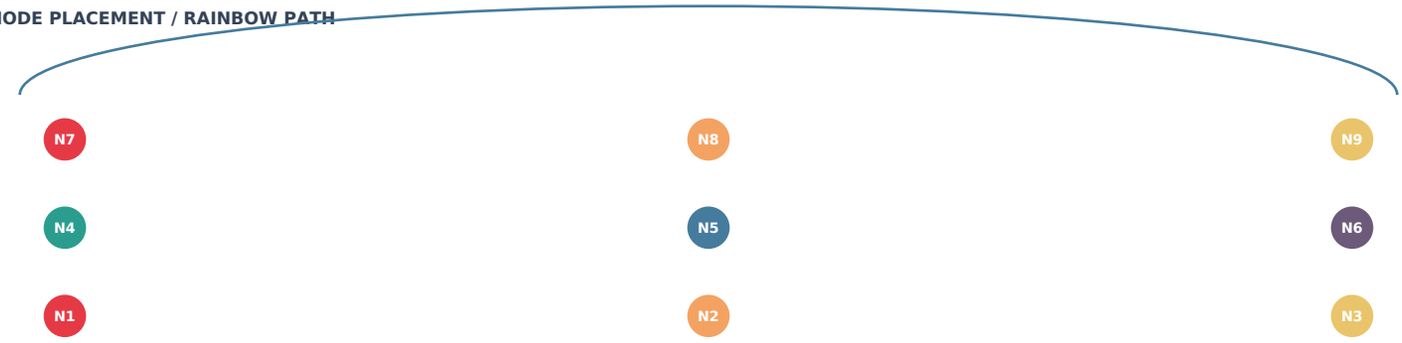
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_F_058_Pearl_acoust
reference "PINK-01-P0137"
state R -> R1
node N1
representation JP(PINK-01-P0137)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 137 of 431. Chapter 9 F-058 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 138 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 9.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-058anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0138"
state R -> R1
node N1
representation JP(PINK-01-P0138)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 138 of 431. PRIVATE PRE-DAY-0 - UNSI
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Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 139 of 431. Chapter 10 F-059 - Bounded Pearl acoustic simula- tion adjustment Exact expression f_next=clip((2/3)f+(1/3)f_target,f-df_max,f+df_max,f_min,f_max) Meaning. One-third-dampedsimulationupdateonly. Bound manifestations.MK,JO,M3 Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

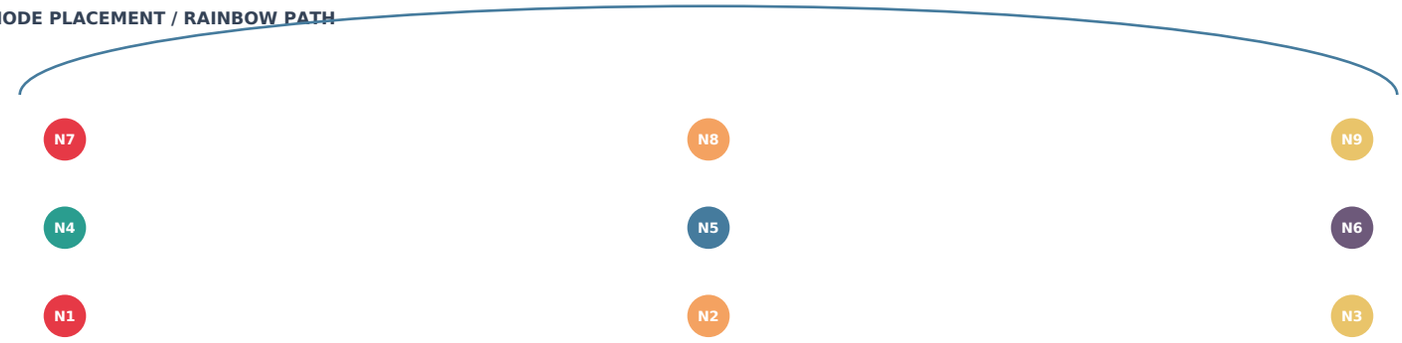
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_F_059_Bounded_Pea
reference "PINK-01-P0139"
state R -> R1
node N1
representation JP(PINK-01-P0139)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 139 of 431. Chapter 10 F-059 - Bound
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 140 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 10.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-059anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0140"
state R -> R1
node N1
representation JP(PINK-01-P0140)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 140 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 141 of 431. Chapter 11 F-060 - Pearl simulation registry recon- ciliation Exact expression r_registry=N_allocated+N_received-N_transferred-N_closed-N_active Meaning. Registrycountreconciliationforsimulationrecords,notphysicalcontainers. Bound manifestations.MERMAID,SHIVA,M3,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_F_060_Pearl_simul
reference "PINK-01-P0141"
state R -> R1
node N1
representation JP(PINK-01-P0141)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 141 of 431. Chapter 11 F-060 - Pearl
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 142 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 11.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-060anditsassumptions,inputs,ou

PATH OF EXPRESSION

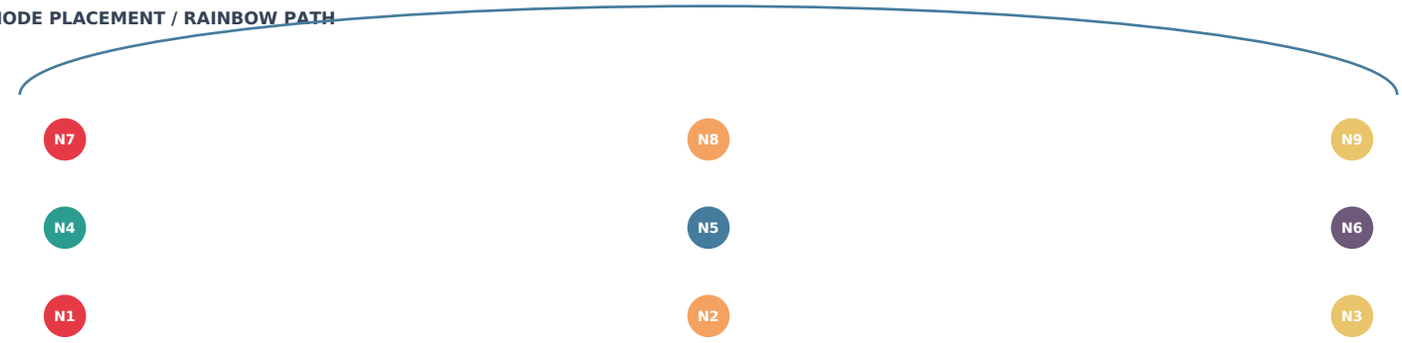
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0142"
state R -> R1
node N1
representation JP(PINK-01-P0142)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 142 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 143 of 431. Chapter 12 F-061 - Bangel Sheet cell state Exact expression C_ij=<value,unit,uncertainty,formula,revision,lineage,authority,evidence> Meaning. Everycellisagovernedmeasurementobject,notanuntypedmutablevalue. Bound manifestations.Bangel ,JP,MK,JO Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Mod...

PATH OF EXPRESSION

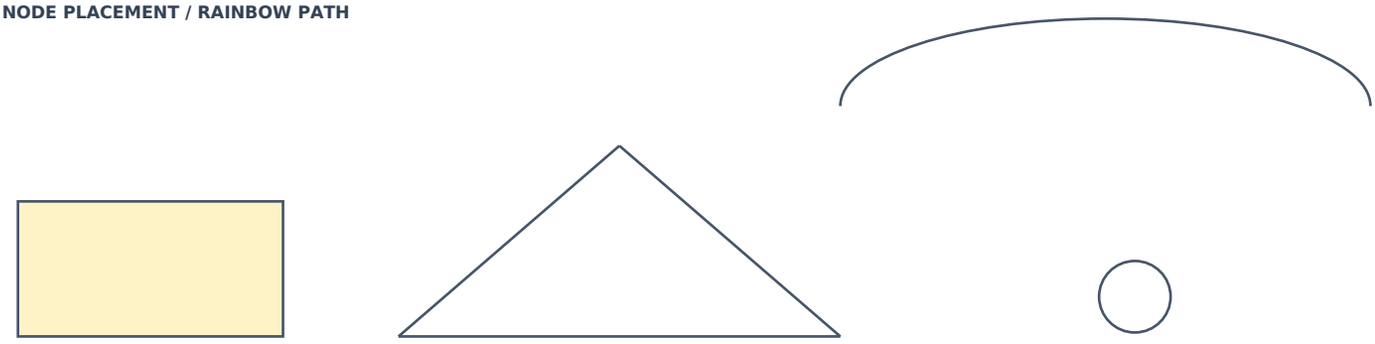
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_F_061_Bangel _Shee
reference "PINK-01-P0143"
state R -> R1
node N1
representation JP(PINK-01-P0143)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 143 of 431. Chapter 12 F-061 - Denal
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 144 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 12.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-061anditsassumptions,inputs,ou

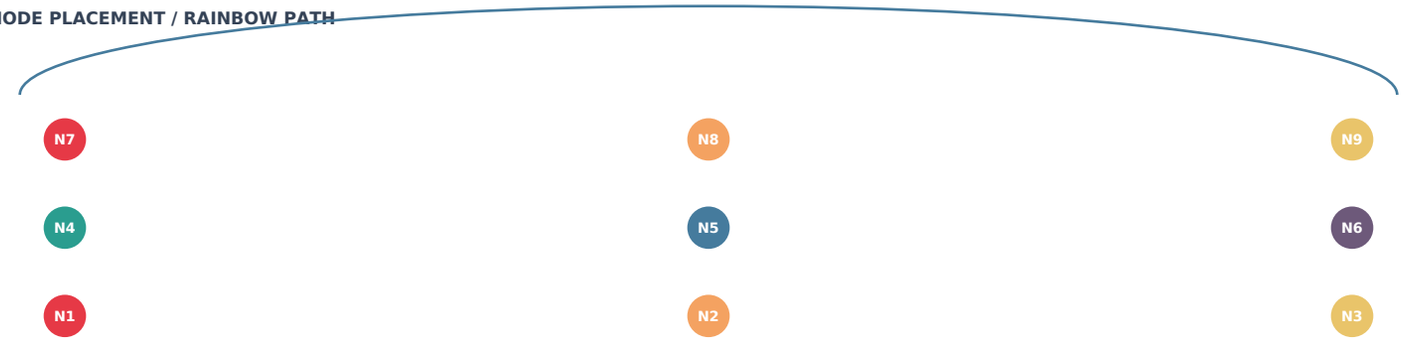
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0144"
state R -> R1
node N1
representation JP(PINK-01-P0144)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 144 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 145 of 431. Chapter 13 F-062 - Affected dependency closure Exact expression A(U)=Reachable_G(U) Meaning. Onlycellsreachablefromchangedcellsareeligibleforincrementalrecomputation. Bound manifestations.JP,JO,M3 Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

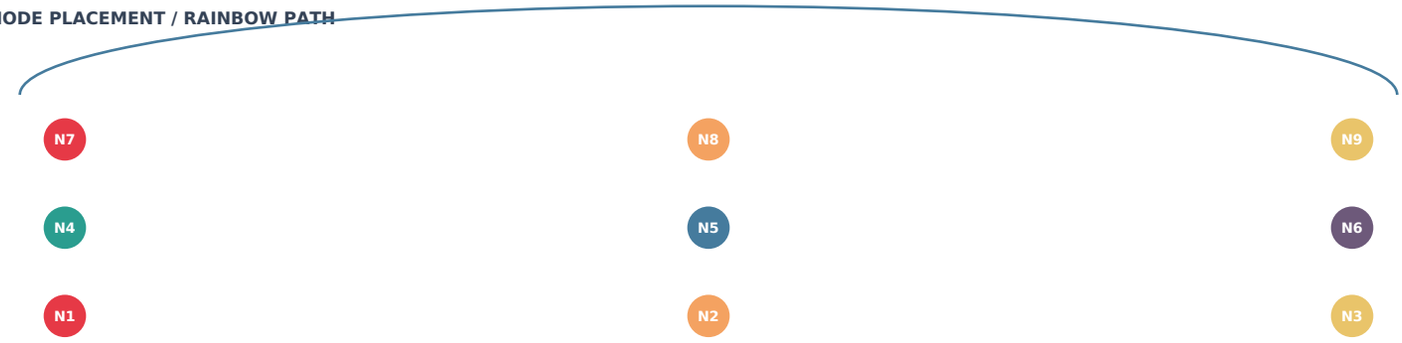
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_F_062_Affected_de
reference "PINK-01-P0145"
state R -> R1
node N1
representation JP(PINK-01-P0145)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 145 of 431. Chapter 13 F-062 - Affec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 146 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 13.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-062anditsassumptions,inputs,ou

PATH OF EXPRESSION

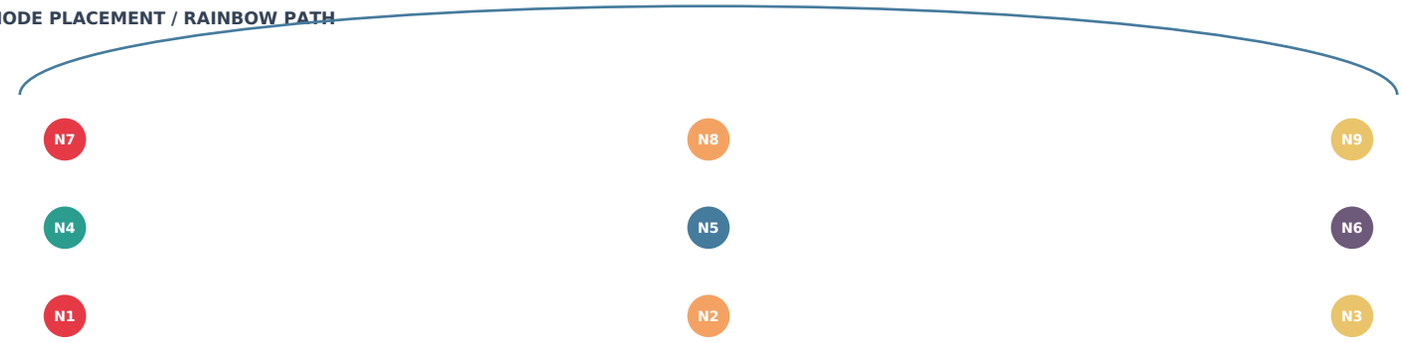
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0146"
state R -> R1
node N1
representation JP(PINK-01-P0146)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 146 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 147 of 431. Chapter 14 F-063 - Incremental recompute cost Exact expression C_recalc=sum_{v in A}c_v+sum_{e in E(A)}t_e Meaning. Measuredcomputeandtransferworkforanaffecteddependencyclosure. Bound manifestations.MK,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

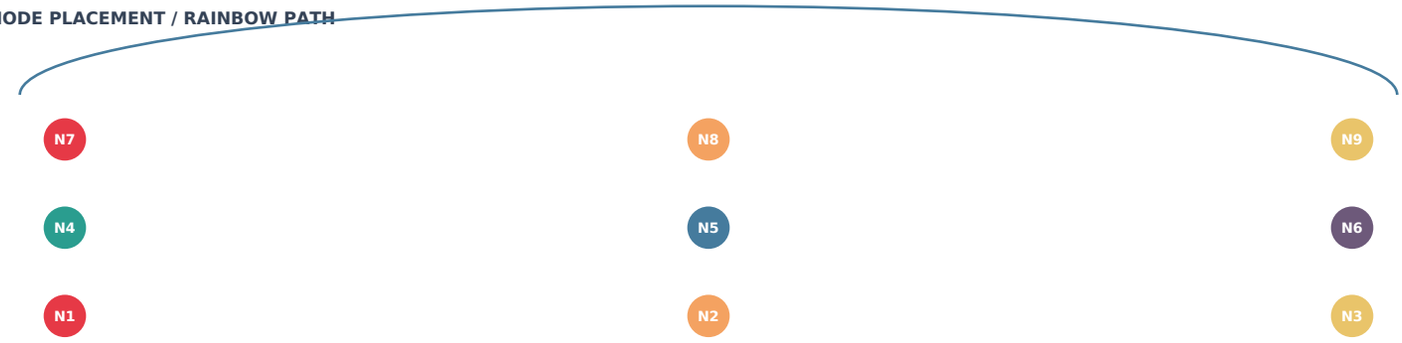
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_F_063_Incremental
reference "PINK-01-P0147"
state R -> R1
node N1
representation JP(PINK-01-P0147)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 147 of 431. Chapter 14 F-063 - Incre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 148 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 14.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-063anditsassumptions,inputs,ou

PATH OF EXPRESSION

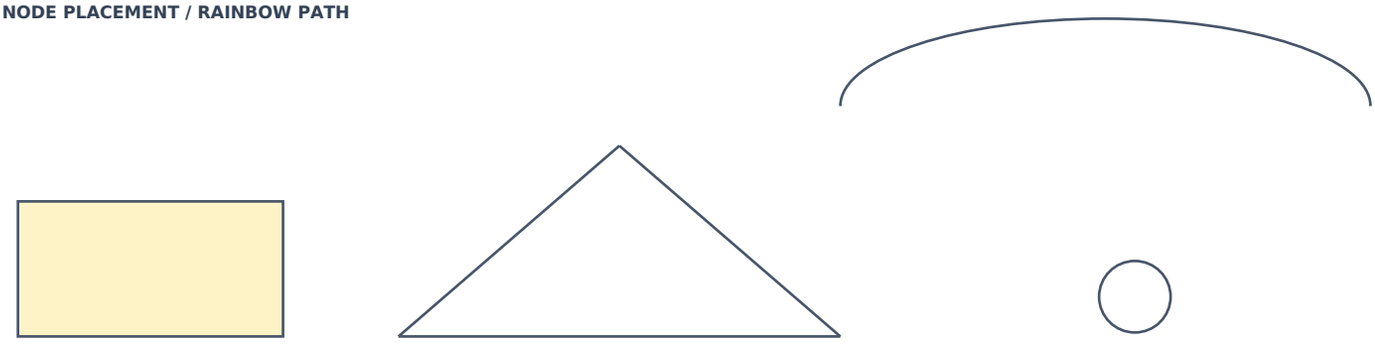
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0148"
state R -> R1
node N1
representation JP(PINK-01-P0148)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 148 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 149 of 431. Chapter 15 F-064 - Concurrent edit arrival Exact expression lambda_total=N_users*lambda_user Meaning. Aggregateupdatearrivalratefrommeasuredconcurrent-useractivity. Bound manifestations.JO,M3,MK Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

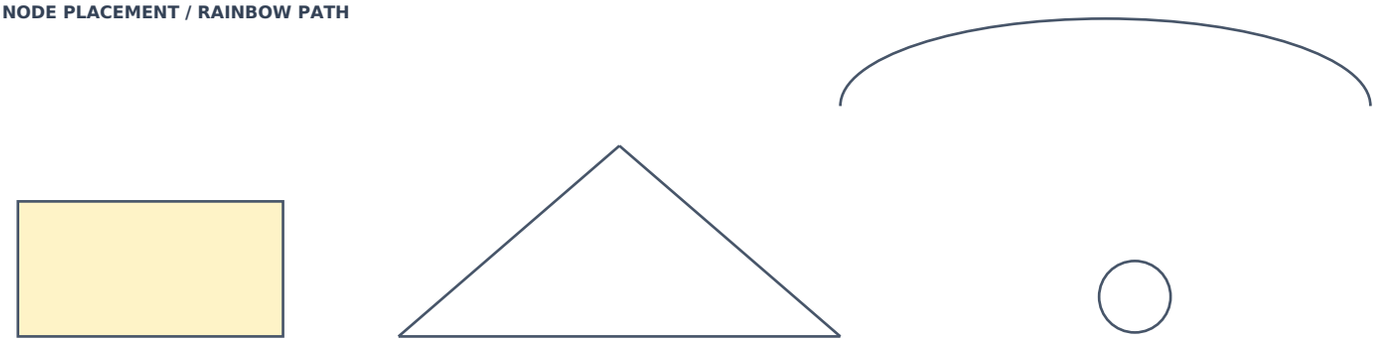
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_F_064_Concurrent_
reference "PINK-01-P0149"
state R -> R1
node N1
representation JP(PINK-01-P0149)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 149 of 431. Chapter 15 F-064 - Concu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 150 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 15.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-064anditsassumptions,inputs,ou

PATH OF EXPRESSION

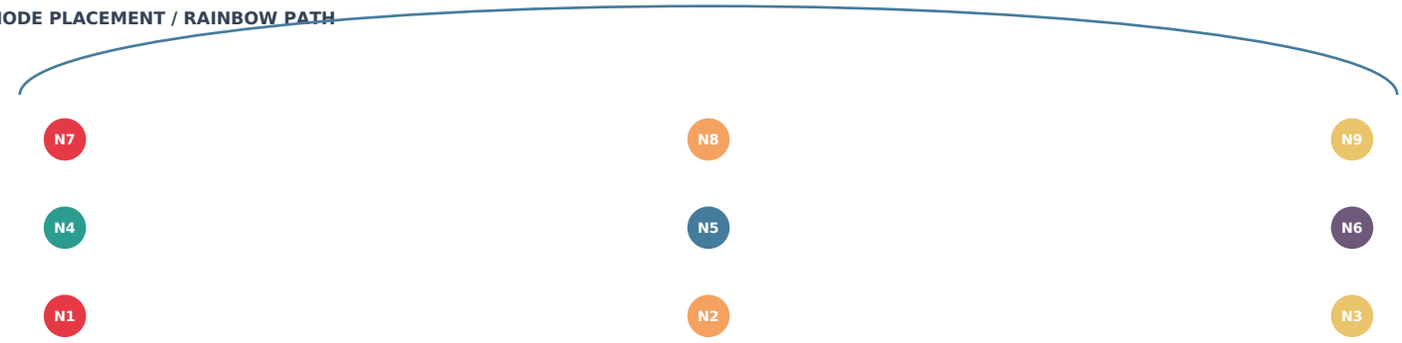
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0150"
state R -> R1
node N1
representation JP(PINK-01-P0150)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 150 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 151 of 431. Chapter 16 F-065 - Spreadsheet service utilization Exact expression rho=lambda_total/(W*mu_worker) Meaning. CapacityutilizationforWdeterministicworkers. Bound manifestations.JO,M3,MK Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

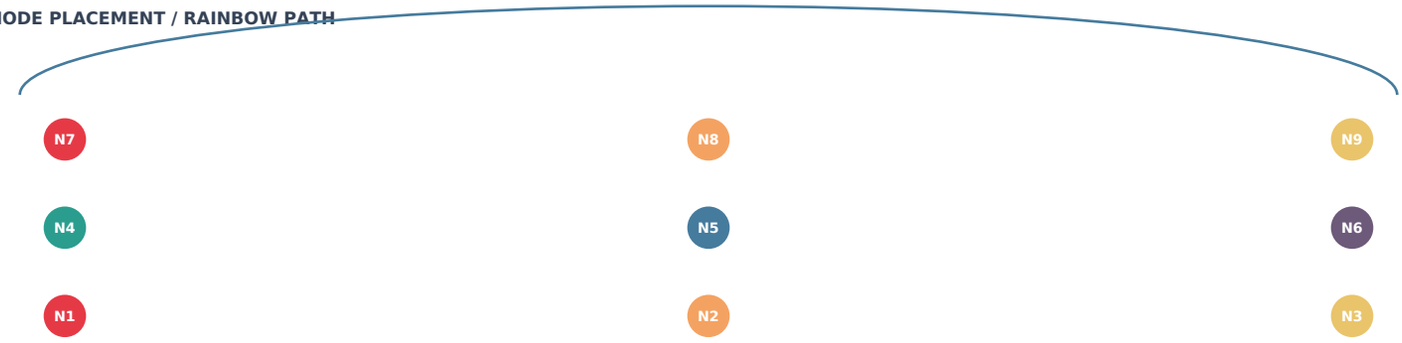
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_F_065_Spreadsheet
reference "PINK-01-P0151"
state R -> R1
node N1
representation JP(PINK-01-P0151)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 151 of 431. Chapter 16 F-065 - Sprea
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 152 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 16.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-065anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0152"
state R -> R1
node N1
representation JP(PINK-01-P0152)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 152 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 153 of 431. Chapter 17 F-066 - Spreadsheet worker require- ment Exact expression W_min=ceil(lambda_total/(rho_max*mu_worker)) Meaning. Minimumworkercountforaprecommittedutilizationceiling. Bound manifestations.JO,M3,MJOS Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_F_066_Spreadsheet
reference "PINK-01-P0153"
state R -> R1
node N1
representation JP(PINK-01-P0153)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 153 of 431. Chapter 17 F-066 - Sprea
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 154 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 17.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-066anditsassumptions,inputs,ou

PATH OF EXPRESSION

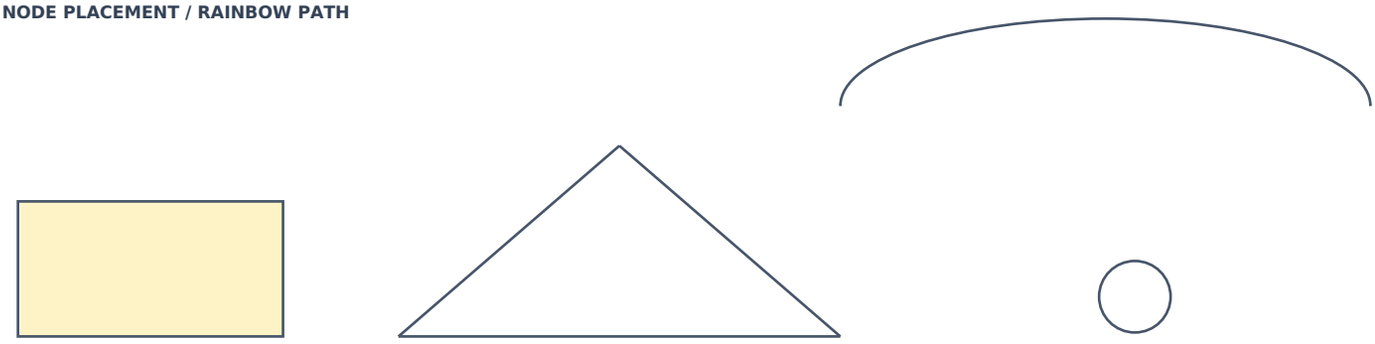
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0154"
state R -> R1
node N1
representation JP(PINK-01-P0154)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 154 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 155 of 431. Chapter 18 F-067 - Recalculation latency Exact expression T_recalc=T_parse+T_dependency+max_p(T_partition,p)+T_commit Meaning. End-to-endrecalculationlatencyacrosslogicalPearlsimulationpartitions. Bound manifestations.MK,JO,M3 Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.P

PATH OF EXPRESSION

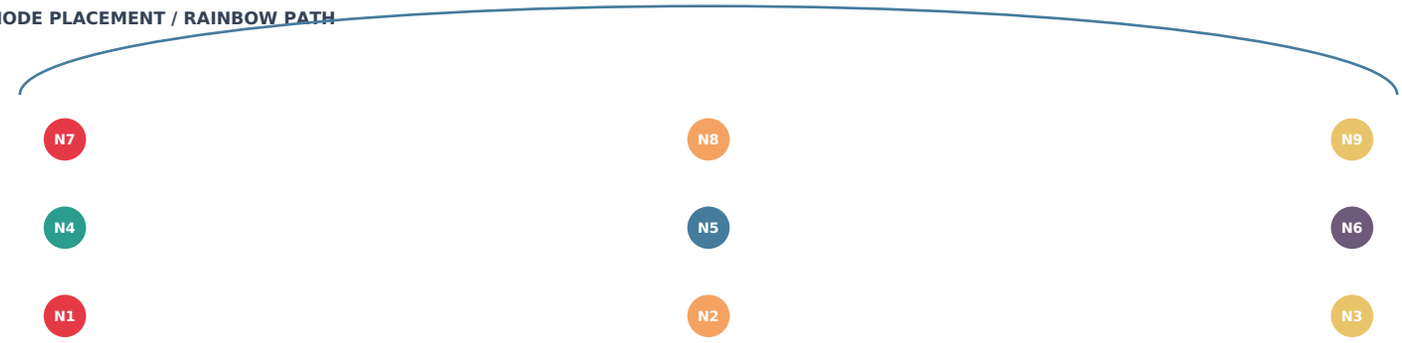
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_F_067_Recalculati
reference "PINK-01-P0155"
state R -> R1
node N1
representation JP(PINK-01-P0155)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 155 of 431. Chapter 18 F-067 - Recal
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 156 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 18.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-067anditsassumptions,inputs,ou

PATH OF EXPRESSION

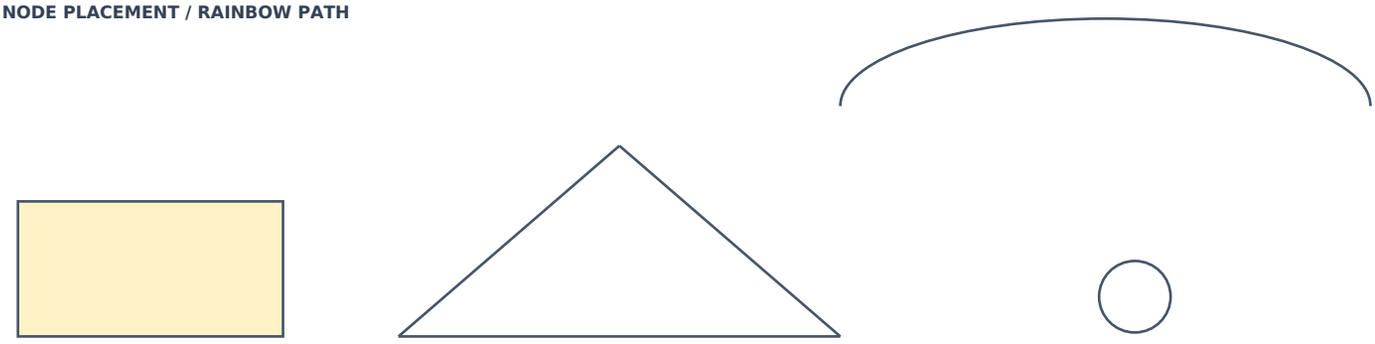
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0156"
state R -> R1
node N1
representation JP(PINK-01-P0156)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 156 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 157 of 431. Chapter 19 F-068 - Spreadsheet data cost Exact expression C_data=B_store*c_store+B_transfer*c_transfer+t_cpu*c_cpu Meaning. Storage,transfer,andcomputecostremainseparatelyevidencedbeforeaggregation. Bound manifestations.MERMAID,SHIVA,MK,JO Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling N

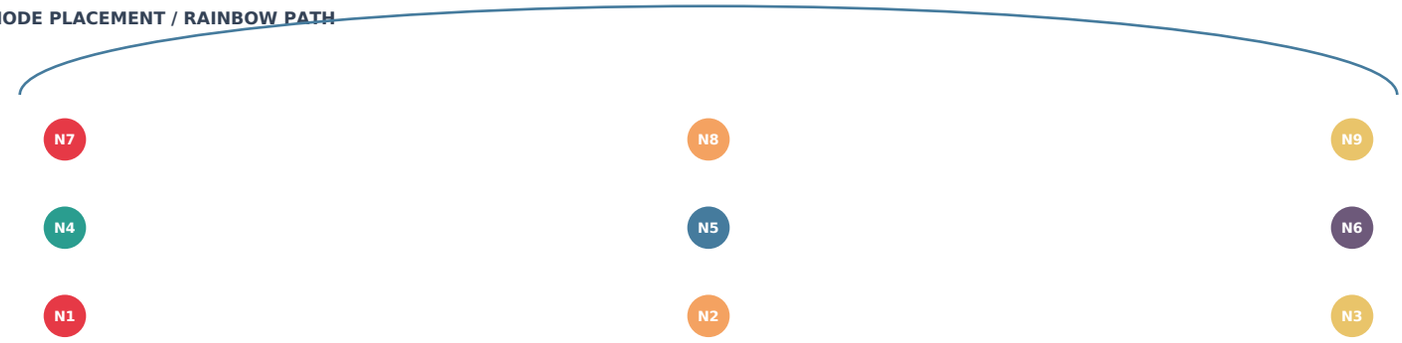
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_F_068_Spreadsheet
reference "PINK-01-P0157"
state R -> R1
node N1
representation JP(PINK-01-P0157)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 157 of 431. Chapter 19 F-068 - Sprea
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 158 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 19.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-068anditsassumptions,inputs,ou

PATH OF EXPRESSION

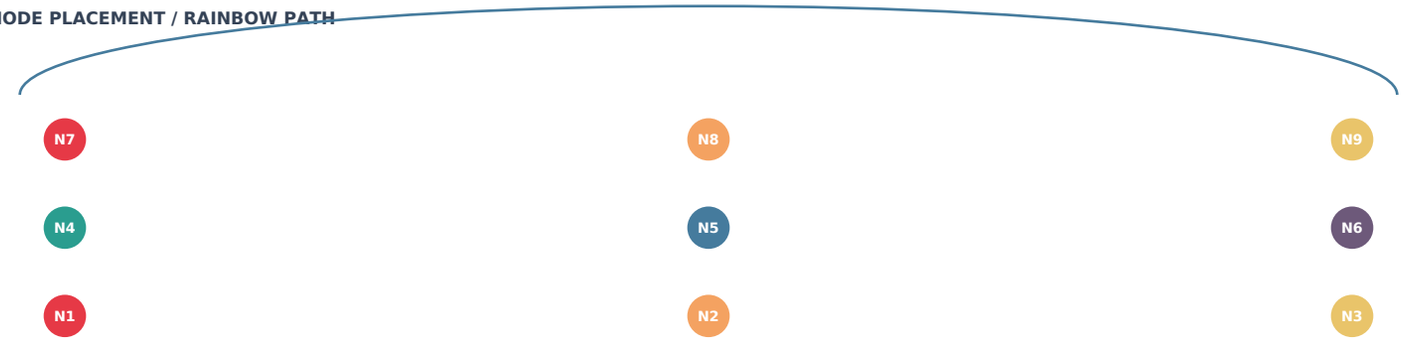
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0158"
state R -> R1
node N1
representation JP(PINK-01-P0158)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 158 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 159 of 431. Chapter 20 F-069 - Pearl simulation partition objec- tive Exact expression J_partition=alpha*max_p(L_p)+beta*sum_cut(w_e)+gamma*R_breach+delta*R_stale Meaning. Logicalpartitionobjectivewithprecommittedweights; breachtermissimulationrisk, not physicalcontainment. Bound manifestations.JP,MK,JO,SISTER Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJper...

PATH OF EXPRESSION

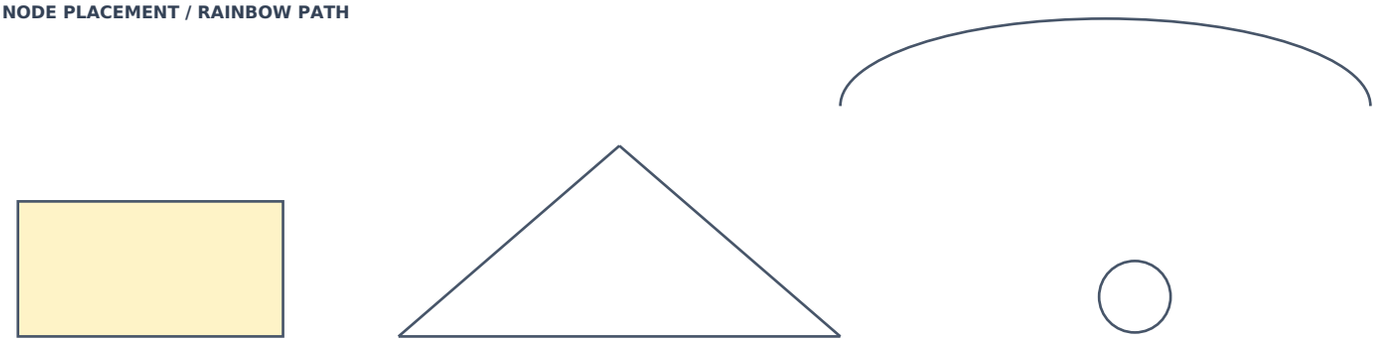
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_F_069_Pearl_simul
reference "PINK-01-P0159"
state R -> R1
node N1
representation JP(PINK-01-P0159)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 159 of 431. Chapter 20 F-069 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 160 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 } 20.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-069anditsassumptions,inputs,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0160"
state R -> R1
node N1
representation JP(PINK-01-P0160)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 160 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 161 of 431. Chapter 21 F-070 - Sheet revision root Exact expression H_rev=SHA256(parent_root||canonical_deltas||policy_epoch) Meaning. Everycommittedchangecreatesimmutablecontent-addressedlineage. Bound manifestations.Bangel ,JP,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBME

PATH OF EXPRESSION

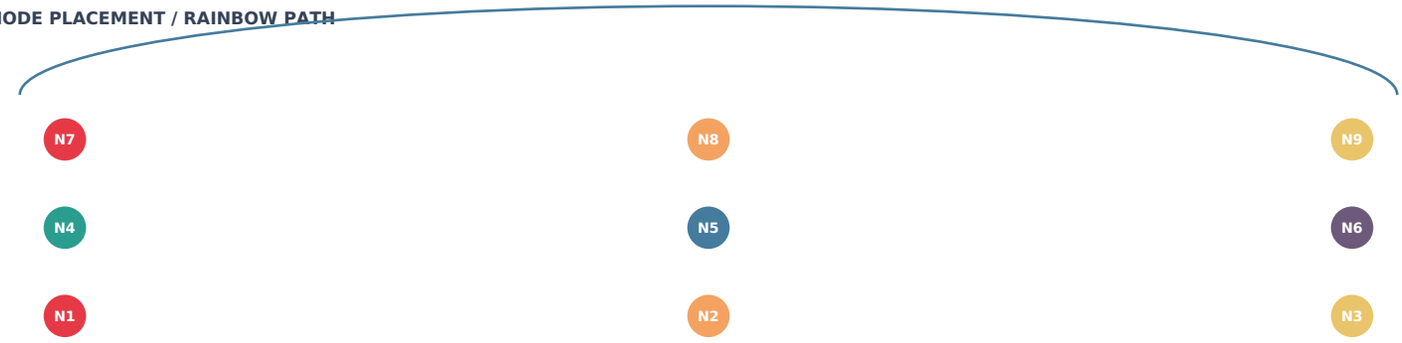
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_F_070_Sheet_revis
reference "PINK-01-P0161"
state R -> R1
node N1
representation JP(PINK-01-P0161)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 161 of 431. Chapter 21 F-070 - Sheet
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 162 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 21.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-070anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0162"
state R -> R1
node N1
representation JP(PINK-01-P0162)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 162 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 163 of 431. Chapter 22 F-071 - Audit-particle completeness Exact expression AuditPass=AND(required_fields_present,receipts_valid) Meaning. Acriticalspreadsheetcommandfailsclosedwhenitsauditparticleisincomplete. Bound manifestations.JO,ANGELS,BELLATRIX,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scal

PATH OF EXPRESSION

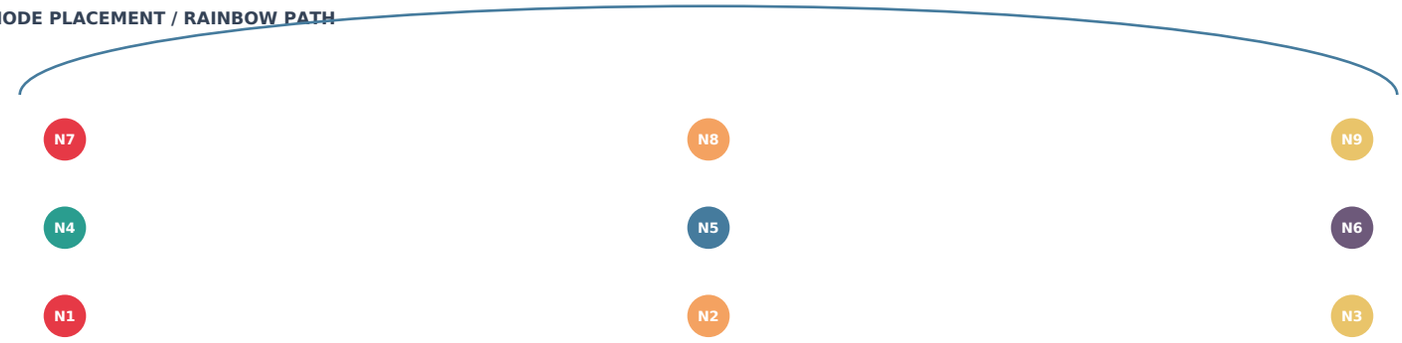
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_F_071_Audit_parti
reference "PINK-01-P0163"
state R -> R1
node N1
representation JP(PINK-01-P0163)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 163 of 431. Chapter 22 F-071 - Audit
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 164 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 22.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-071anditsassumptions,inputs,ou

PATH OF EXPRESSION

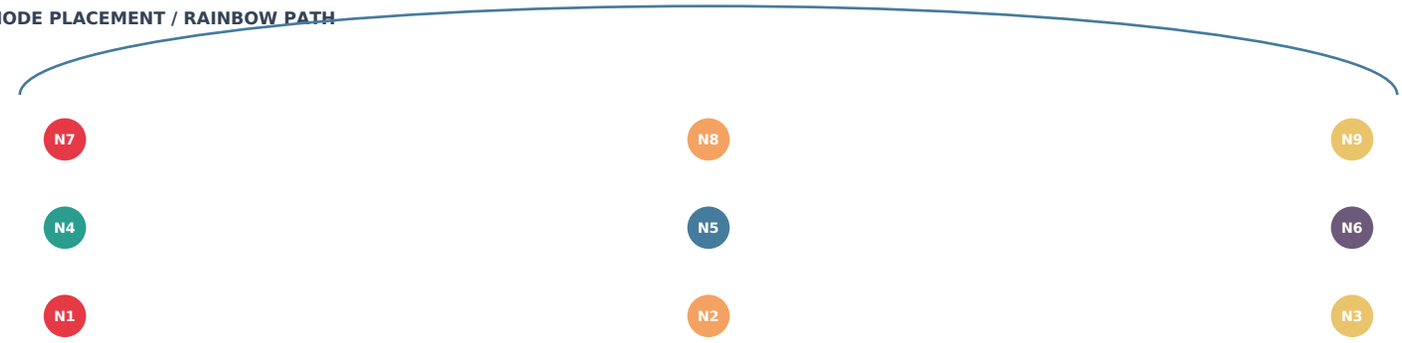
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0164"
state R -> R1
node N1
representation JP(PINK-01-P0164)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 164 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 165 of 431. Chapter 23 F-072 - Iterative recalculation stability Exact expression spectral_radius(J_F)<1 Meaning. Declarediterativeformulasrequireanevidencedlocallystablefixed-pointregime. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_F_072_Iterative_r
reference "PINK-01-P0165"
state R -> R1
node N1
representation JP(PINK-01-P0165)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 165 of 431. Chapter 23 F-072 - Itera
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 166 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 23.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-072anditsassumptions,inputs,ou

PATH OF EXPRESSION

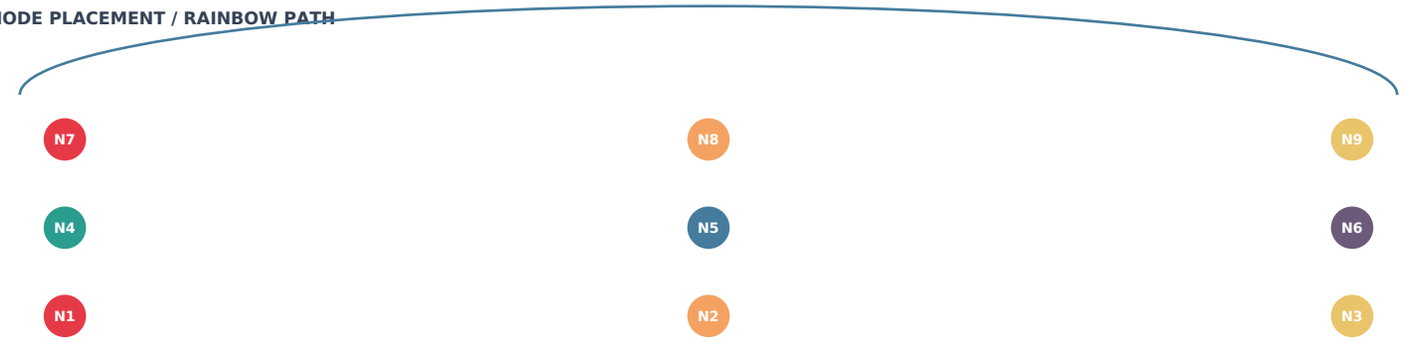
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0166"
state R -> R1
node N1
representation JP(PINK-01-P0166)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 166 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 167 of 431. Chapter 24 F-073 - Revision conflict gate Exact expression base_revision=head_revision OR valid_merge_receipt Meaning. Stalewritescannotsilentlyoverwriteanewerrevision. Bound manifestations.Bangel ,JO,ANGELS Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

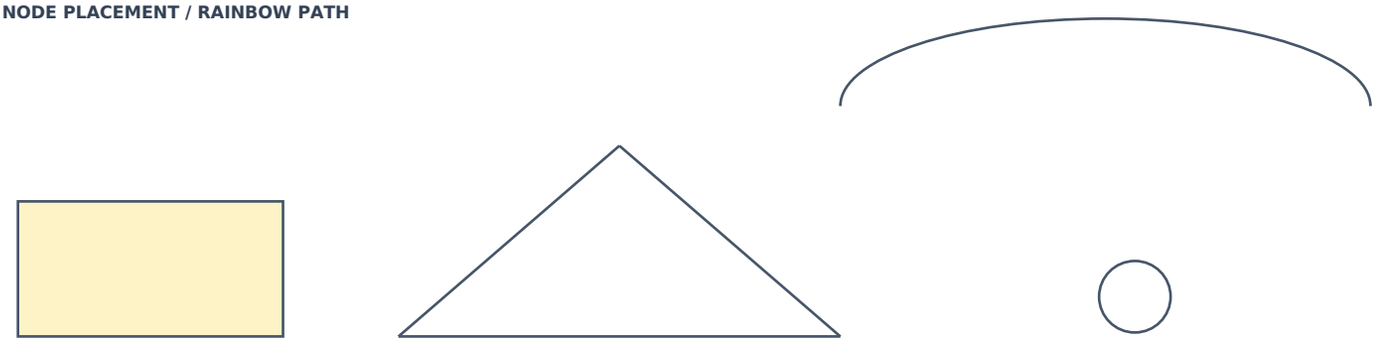
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_F_073_Revision_co
reference "PINK-01-P0167"
state R -> R1
node N1
representation JP(PINK-01-P0167)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 167 of 431. Chapter 24 F-073 - Revis
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 168 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 24.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-073anditsassumptions,inputs,ou

PATH OF EXPRESSION

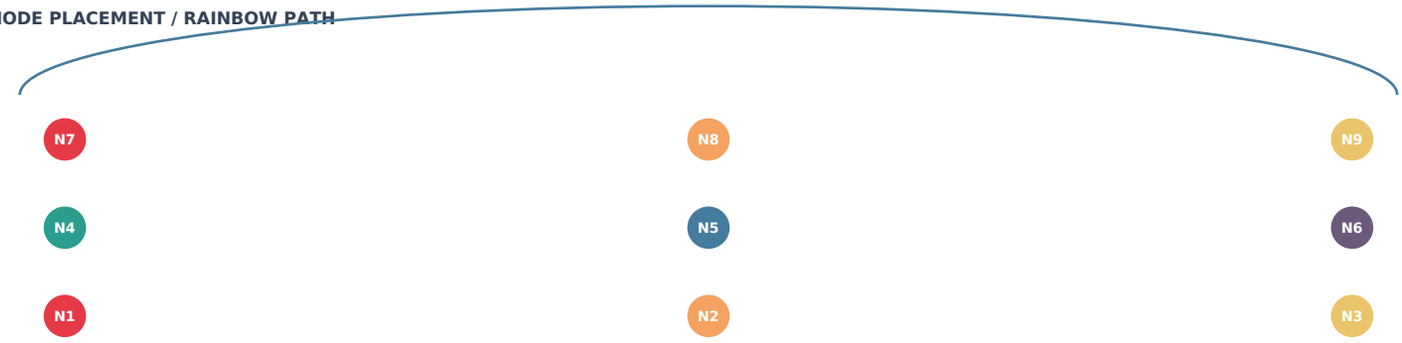
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0168"
state R -> R1
node N1
representation JP(PINK-01-P0168)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 168 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 169 of 431. Chapter 25 F-074 - Freshness age Exact expression Age=now-observed_at Meaning. Ageofasourceobservationorderivedcell. Bound manifestations.JO,MK,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling.F_074 Imp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_F_074_Freshness_a
reference "PINK-01-P0169"
state R -> R1
node N1
representation JP(PINK-01-P0169)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 169 of 431. Chapter 25 F-074 - Fresh
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 170 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 25.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-074anditsassumptions,inputs,ou

PATH OF EXPRESSION

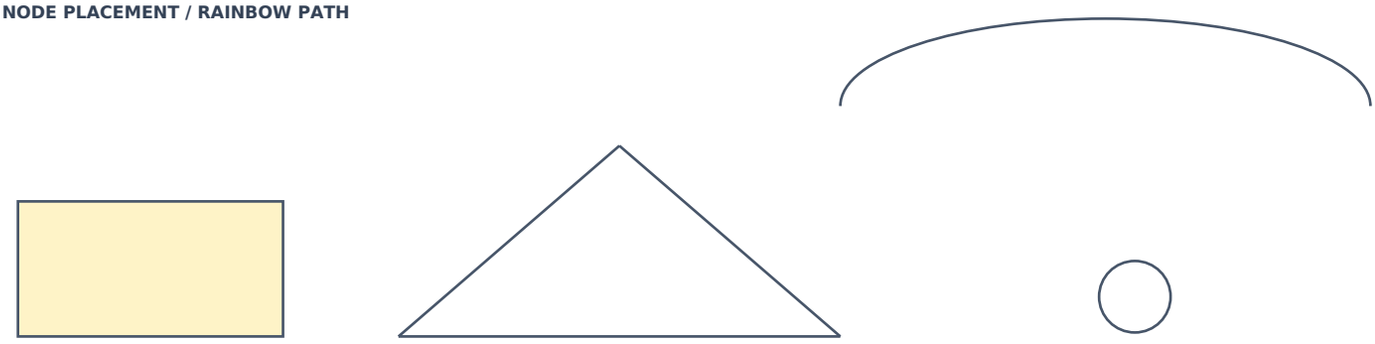
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0170"
state R -> R1
node N1
representation JP(PINK-01-P0170)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 170 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 171 of 431. Chapter 26 F-075 - Staleness gate Exact expression Age<=freshness_limit Meaning. Acelliscurrentonlyinsideitsdeclaredfreshnesspolicy. Bound manifestations.JO,ANGELS,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

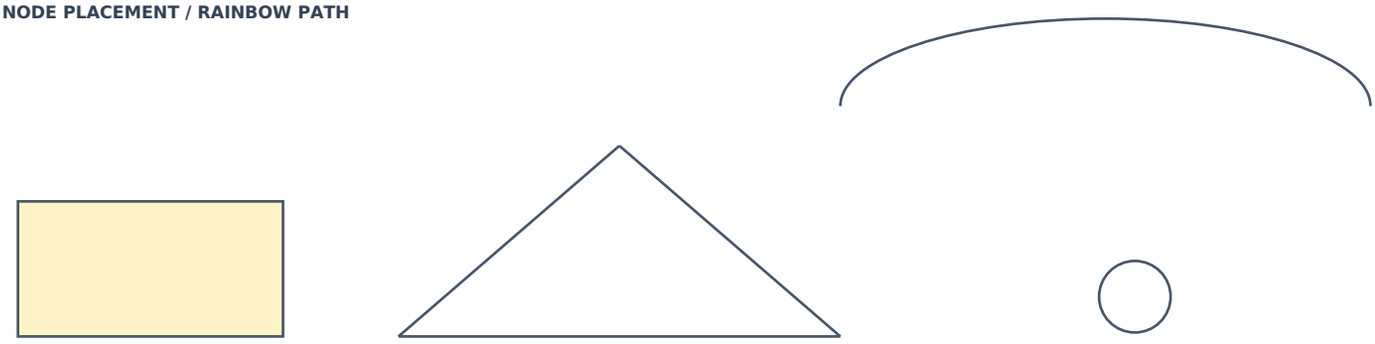
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_F_075_Staleness_g
reference "PINK-01-P0171"
state R -> R1
node N1
representation JP(PINK-01-P0171)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 171 of 431. Chapter 26 F-075 - Stale
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 172 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 26.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-075anditsassumptions,inputs,ou

PATH OF EXPRESSION

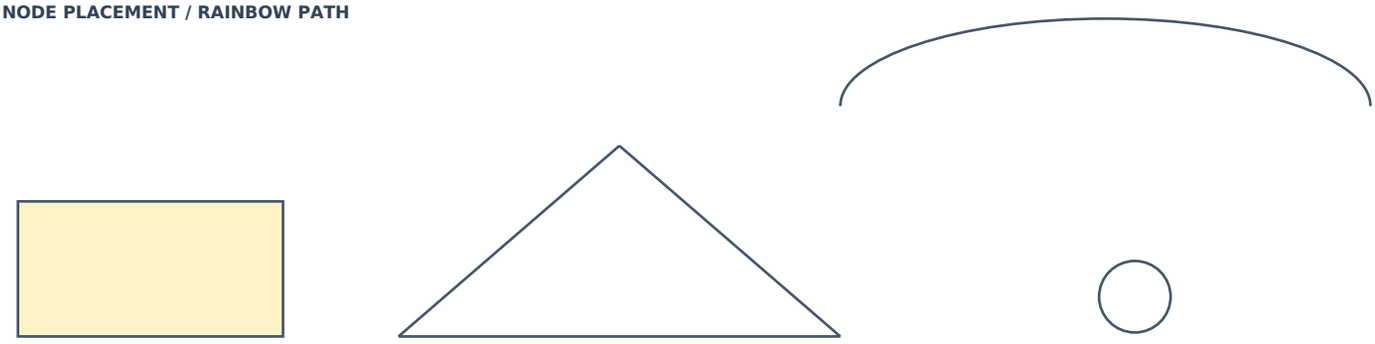
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0172"
state R -> R1
node N1
representation JP(PINK-01-P0172)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 172 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 173 of 431. Chapter 27 F-076 - Data-performance correlation Exact expression r_xy=Cov(X,Y)/(sigma_x*sigma_y) Meaning. Descriptivecorrelationbetweendatacharacteristicsandperformance;notacausalclaim. Bound manifestations.MK,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.dena

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_F_076_Data_perfor
reference "PINK-01-P0173"
state R -> R1
node N1
representation JP(PINK-01-P0173)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 173 of 431. Chapter 27 F-076 - Data-
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 174 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 27.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-076anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0174"
state R -> R1
node N1
representation JP(PINK-01-P0174)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 174 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 175 of 431. Chapter 28 F-077 - Silo unification gate Exact expression UnifiedMetric=SameMeaning AND SameUnit AND SamePeriod AND SameAuthority AND SameLineage Meaning. Departmentalsourcesunifyonlywhensemantic,unit,period,authority,andlineagecondi-tionsagree. Bound manifestations.ELSA,JP,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PB

PATH OF EXPRESSION

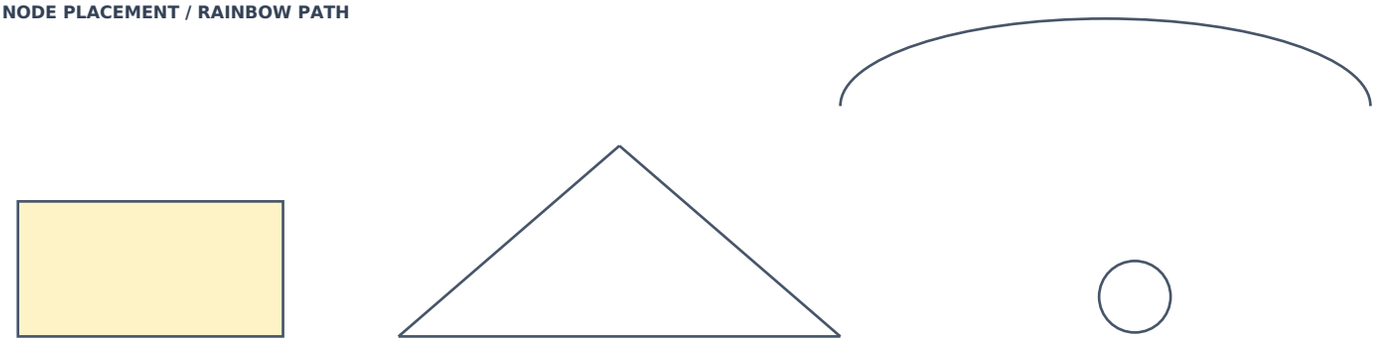
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_F_077_Silo_unific
reference "PINK-01-P0175"
state R -> R1
node N1
representation JP(PINK-01-P0175)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 175 of 431. Chapter 28 F-077 - Silo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 176 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 28.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-077anditsassumptions,inputs,ou

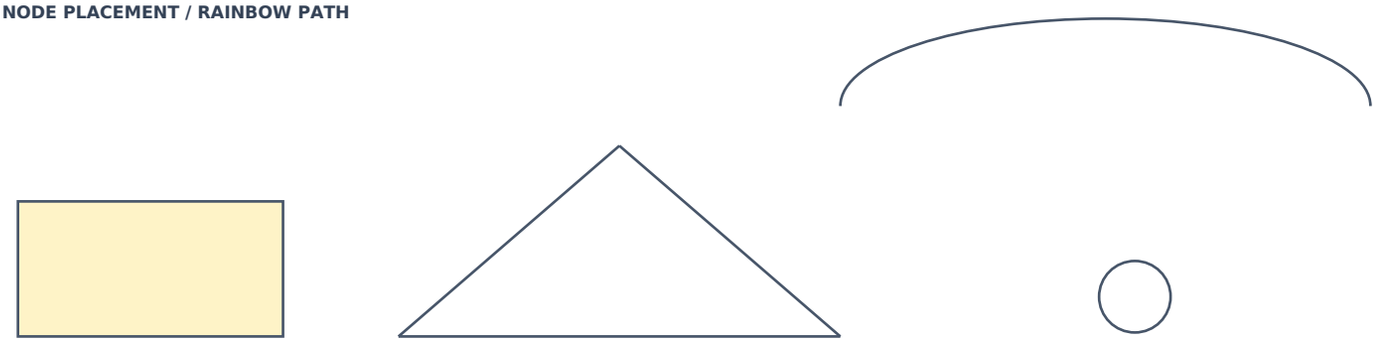
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0176"
state R -> R1
node N1
representation JP(PINK-01-P0176)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 176 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 177 of 431. Chapter 29 F-078 - Formula verification residual Exact expression r_formula=y_reported-y_recomputed Meaning. Silentformulacorruptionisdetectedbyindependentdeterministicrecomputation. Bound manifestations.JO,MK,ANGELS Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namesp...

PATH OF EXPRESSION

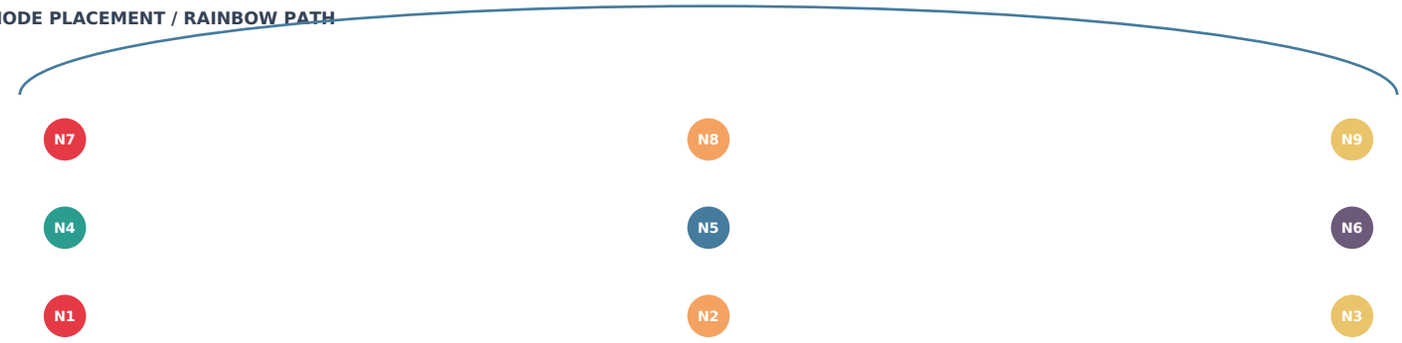
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_F_078_Formula_ver
reference "PINK-01-P0177"
state R -> R1
node N1
representation JP(PINK-01-P0177)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 177 of 431. Chapter 29 F-078 - Formu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 178 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 29.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-078anditsassumptions,inputs,ou

PATH OF EXPRESSION

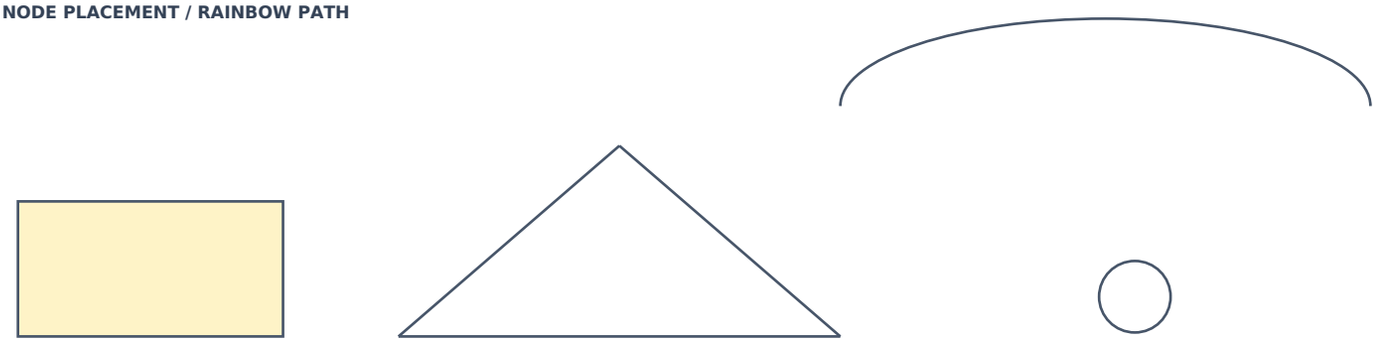
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0178"
state R -> R1
node N1
representation JP(PINK-01-P0178)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 178 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 179 of 431. Chapter 30 F-079 - Operational intake complete- ness Exact expression IntakePass=process_defined AND users_known AND workload_known AND SLA_known AND authority_known Meaning. Scalingworkbeginsonlyaftertheprocess,concurrency,workload,servicetarget,andau-thorityareexplicit. Bound manifestations.Bangel ,ELSA,JP,JO,MJ Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-spe

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_F_079_Operational
reference "PINK-01-P0179"
state R -> R1
node N1
representation JP(PINK-01-P0179)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 179 of 431. Chapter 30 F-079 - Opera
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 180 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 output JO.receipt(PASS | HOLD | FAIL_TECHNICAL | DENY) } 30.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthori...

PATH OF EXPRESSION

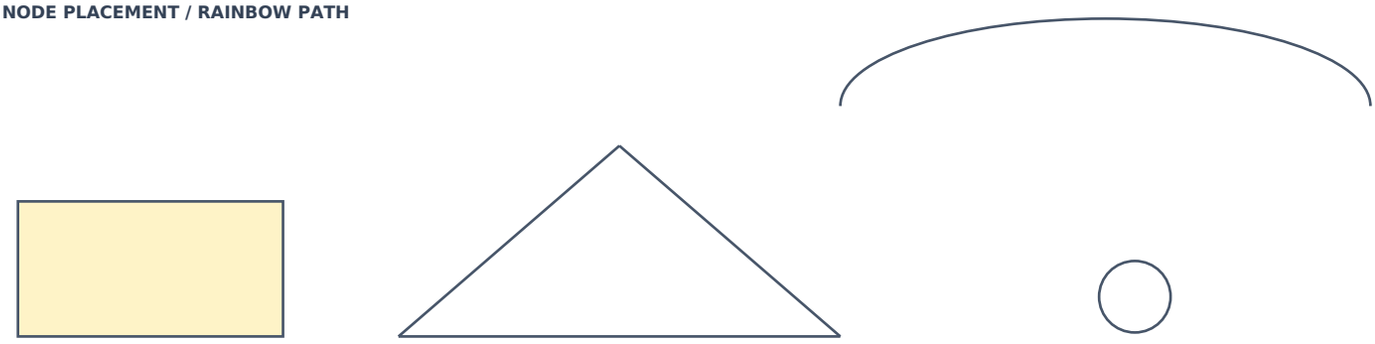
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0180"
state R -> R1
node N1
representation JP(PINK-01-P0180)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 180 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 181 of 431. Chapter 31 F-080 - Spreadsheet capacity gate Exact expression lambda_total<=rho_max*sum_p(mu_p) AND memory_required<=memory_available AND cross_partition_edges<=cut_limit↪ Meaning. Admissionrequiresthroughput,memory,andpartition-boundarycapacitytopasstogether. Bound manifestations.MK,JO,M3,SISTER,MJOS Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecut...

PATH OF EXPRESSION

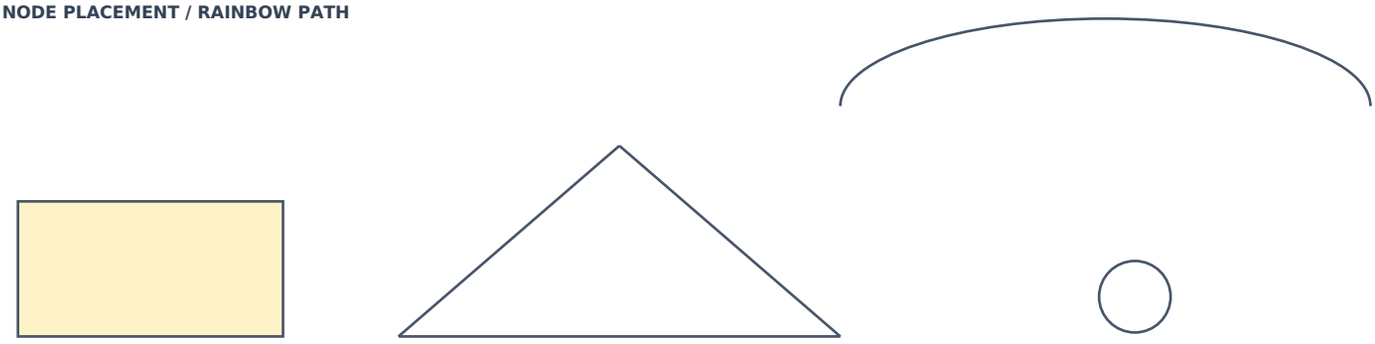
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_31_F_080_Spreadsheet
reference "PINK-01-P0181"
state R -> R1
node N1
representation JP(PINK-01-P0181)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 181 of 431. Chapter 31 F-080 - Sprea
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 182 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 31.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-080anditsassumptions,inputs,ou

PATH OF EXPRESSION

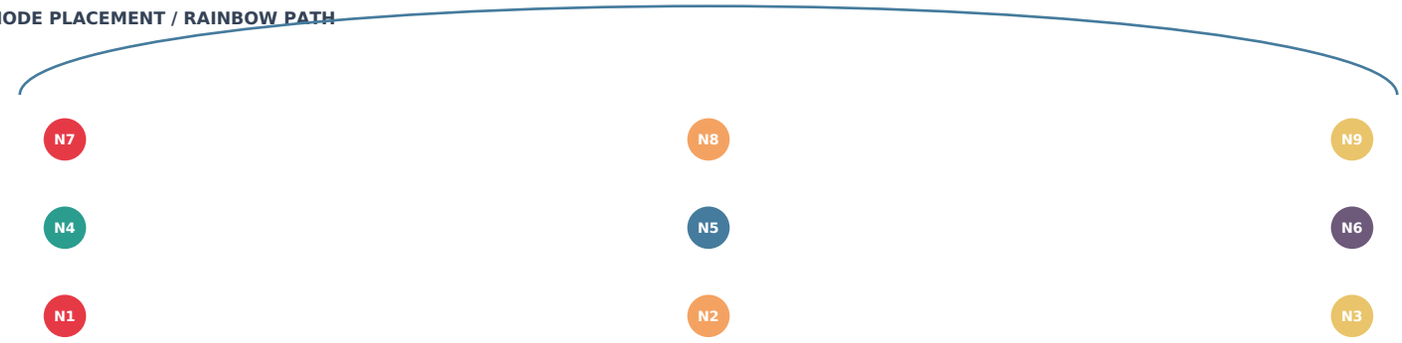
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0182"
state R -> R1
node N1
representation JP(PINK-01-P0182)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 182 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 183 of 431. Chapter 32 F-081 - First-noise rectangle height Exact expression H_R=h_noise,1 Meaning. Rectanglemaximumheightisthefirstvalidatednoise-detectionplane. Bound manifestations.SISTER,MK,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

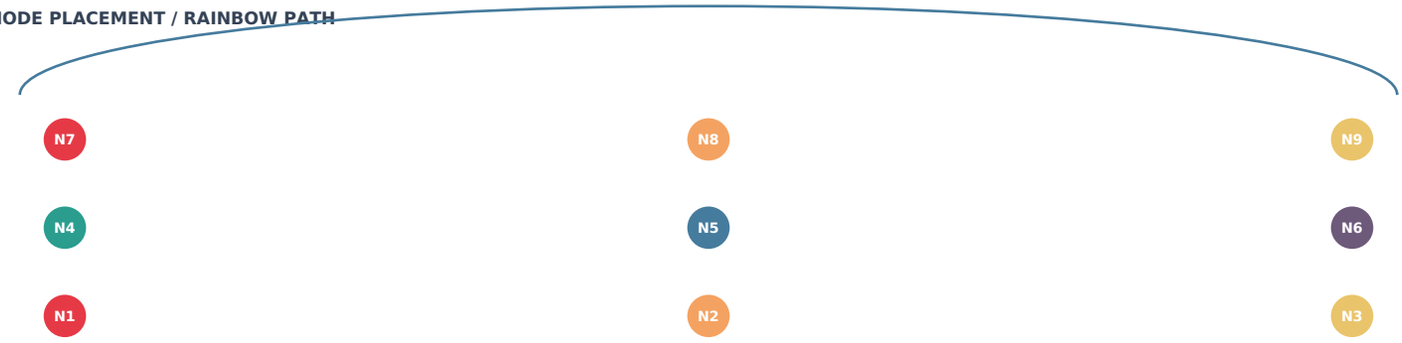
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_32_F_081_First_noise
reference "PINK-01-P0183"
state R -> R1
node N1
representation JP(PINK-01-P0183)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 183 of 431. Chapter 32 F-081 - First
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 184 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 32.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-081anditsassumptions,inputs,ou

PATH OF EXPRESSION

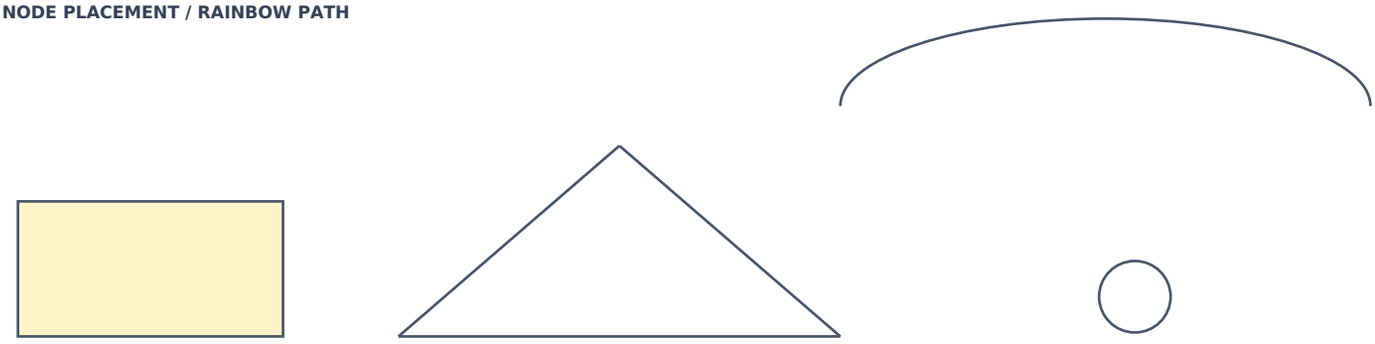
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0184"
state R -> R1
node N1
representation JP(PINK-01-P0184)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 184 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 185 of 431. Chapter 33 F-082 - Reference gas density Exact expression rho_g=P*M/(Z*R*T) Meaning. Actualgasdensitydependsonmeasuredpressure,temperature,molarmass,andcompressibility. Bound manifestations.MK,JO,JP Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

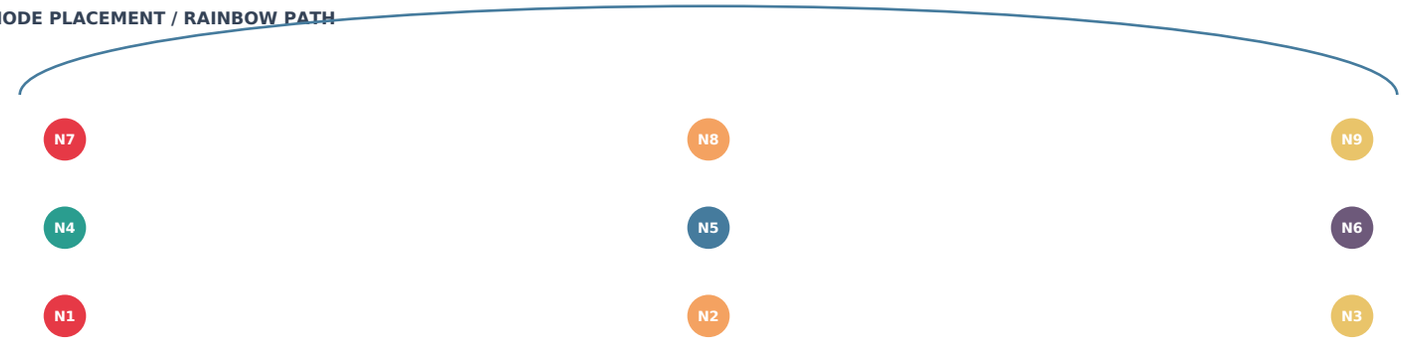
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_33_F_082_Reference_g
reference "PINK-01-P0185"
state R -> R1
node N1
representation JP(PINK-01-P0185)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 185 of 431. Chapter 33 F-082 - Refer
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 186 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 33.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-082anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0186"
state R -> R1
node N1
representation JP(PINK-01-P0186)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 186 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 187 of 431. Chapter 34 F-083 - 24 mg reference volume Exact expression V_24=m_24/rho_ref Meaning. 24mgdefinesareferencegasvolumeunderadeclaredstateanddoesnotreplacethe23mg floor. Bound manifestations.JP,MK,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

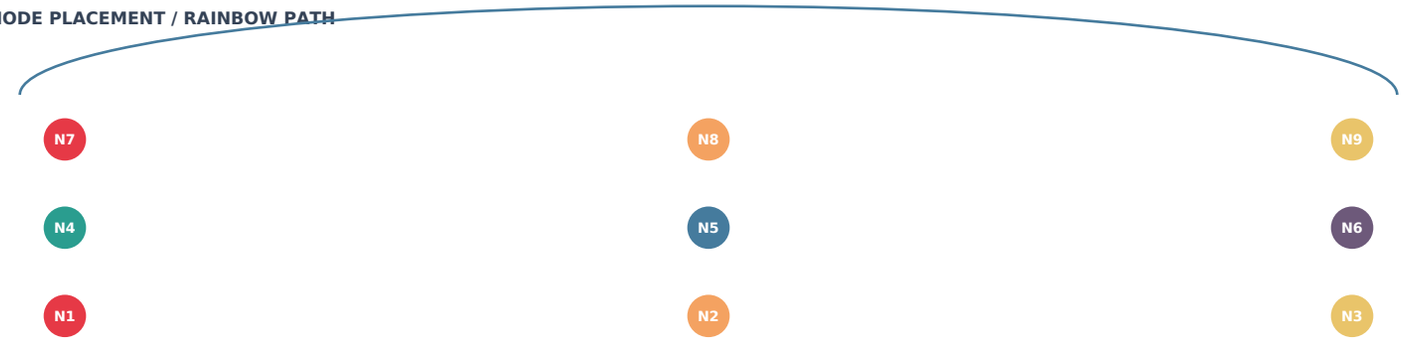
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_34_F_083_24_mg_refer
reference "PINK-01-P0187"
state R -> R1
node N1
representation JP(PINK-01-P0187)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 187 of 431. Chapter 34 F-083 - 24 mg
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 188 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 34.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-083anditsassumptions,inputs,ou

PATH OF EXPRESSION

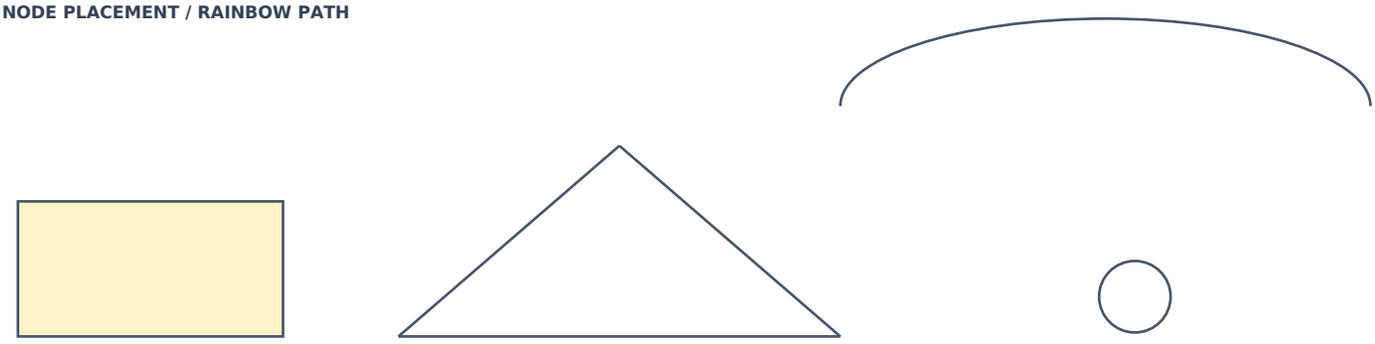
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0188"
state R -> R1
node N1
representation JP(PINK-01-P0188)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 188 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 189 of 431. Chapter 35 F-084 - Rectangle depth Exact expression D_R=V_24/(W_R*H_R) Meaning. Referencedepthadaptstomeasuredheightanddeclaredwidth. Bound manifestations.SISTER,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

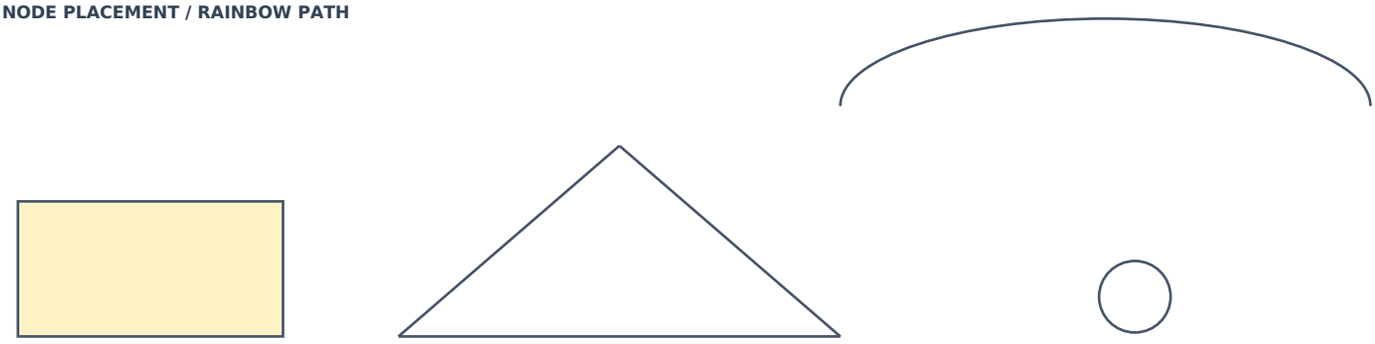
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_35_F_084_Rectangle_d
reference "PINK-01-P0189"
state R -> R1
node N1
representation JP(PINK-01-P0189)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 189 of 431. Chapter 35 F-084 - Recta
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 190 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 35.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-084anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0190"
state R -> R1
node N1
representation JP(PINK-01-P0190)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 190 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 191 of 431. Chapter 36 F-085 - Cone height ratio Exact expression H_C=k_H*H_R; k_H,std=2 Meaning. Standardconeheightistwicerectangleheight. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_085 Imp...

PATH OF EXPRESSION

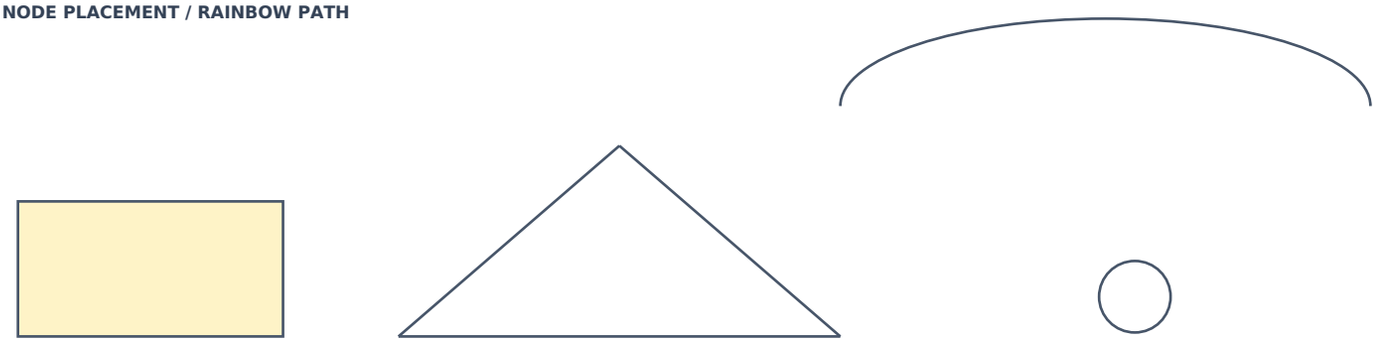
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_36_F_085_Cone_height
reference "PINK-01-P0191"
state R -> R1
node N1
representation JP(PINK-01-P0191)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 191 of 431. Chapter 36 F-085 - Cone
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 192 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 36.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-085anditsassumptions,inputs,ou

PATH OF EXPRESSION

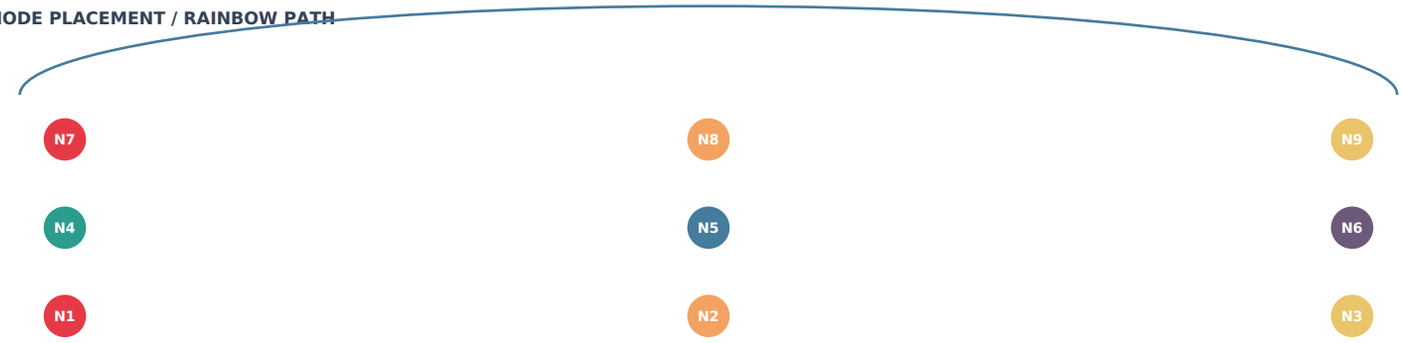
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0192"
state R -> R1
node N1
representation JP(PINK-01-P0192)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 192 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 193 of 431. Chapter 37 F-086 - Cone top-width ratio Exact expression W_T=k_W*W_B; k_W,std=2 Meaning. Standardtopcharacteristicwidthistwicebottomwidth. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_37_F_086_Cone_top_wi
reference "PINK-01-P0193"
state R -> R1
node N1
representation JP(PINK-01-P0193)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 193 of 431. Chapter 37 F-086 - Cone
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 194 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 37.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-086anditsassumptions,inputs,ou

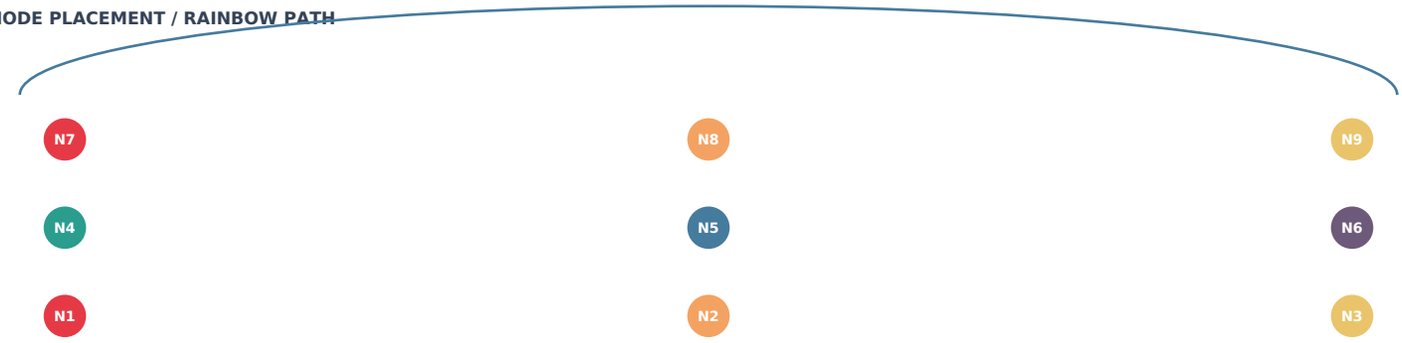
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0194"
state R -> R1
node N1
representation JP(PINK-01-P0194)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 194 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 195 of 431. Chapter 38 F-087 - Cone area by height Exact expression A(z)=A_B*(1+(k_W-1)*z/H_C)^2 Meaning. Similar-sectionconicalexpansionarea. Bound manifestations.MK,JO,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_087 Imp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_38_F_087_Cone_area_b
reference "PINK-01-P0195"
state R -> R1
node N1
representation JP(PINK-01-P0195)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 195 of 431. Chapter 38 F-087 - Cone
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 196 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 38.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-087anditsassumptions,inputs,ou

PATH OF EXPRESSION

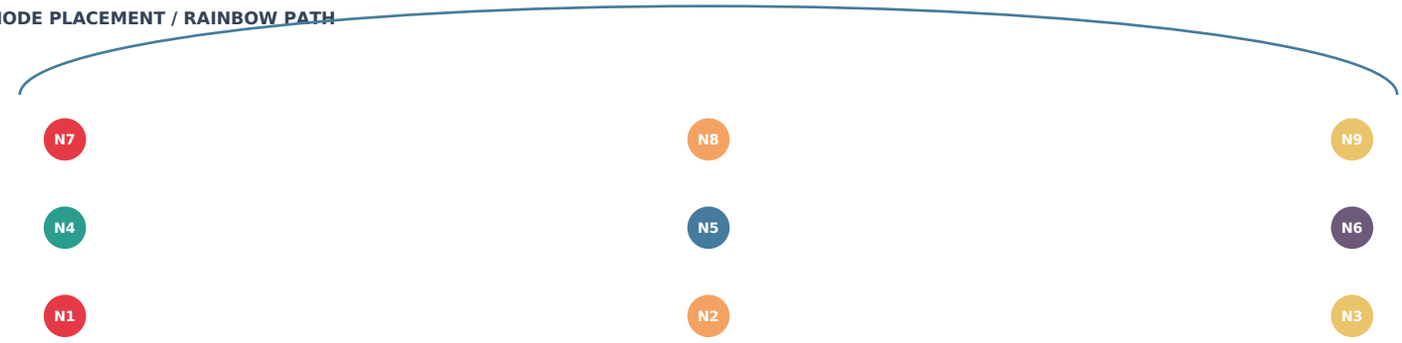
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0196"
state R -> R1
node N1
representation JP(PINK-01-P0196)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 196 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 197 of 431. Chapter 39 F-088 - Cone partial volume Exact expression V_C(z)=A_B*(z+(k_W-1)z^2/H_C+(k_W-1)^2*z^3/(3H_C^2)) Meaning. Volumeuptoobservedgasheight. Bound manifestations.MK,JO,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_088 Import MJ

PATH OF EXPRESSION

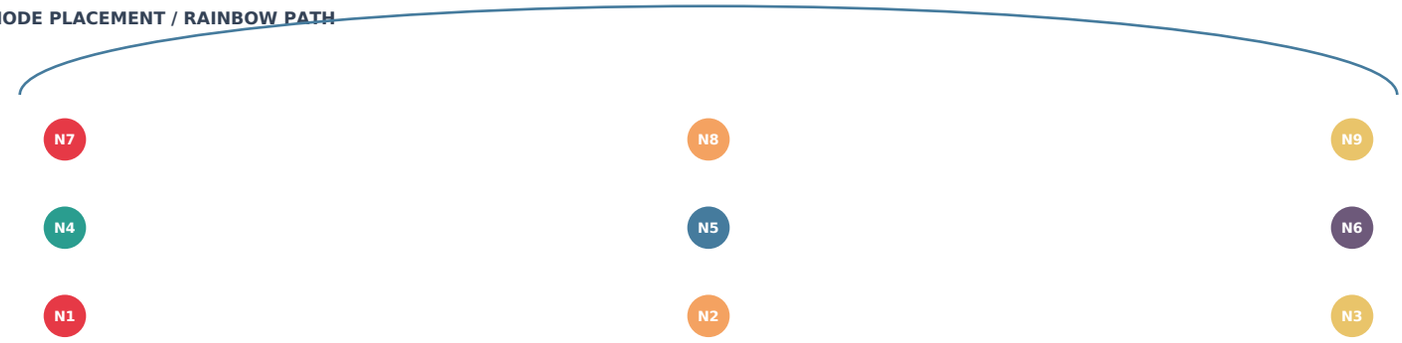
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_39_F_088_Cone_partia
reference "PINK-01-P0197"
state R -> R1
node N1
representation JP(PINK-01-P0197)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 197 of 431. Chapter 39 F-088 - Cone
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 198 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 39.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-088anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0198"
state R -> R1
node N1
representation JP(PINK-01-P0198)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 198 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 199 of 431. Chapter 40 F-089 - Full conical-frustum volume Exact expression V_C=H_C/3*(A_B+sqrt(A_B*A_T)+A_T) Meaning. Fullconicalexpansionvolume. Bound manifestations.MK,JO,JP Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_089 Imp...

PATH OF EXPRESSION

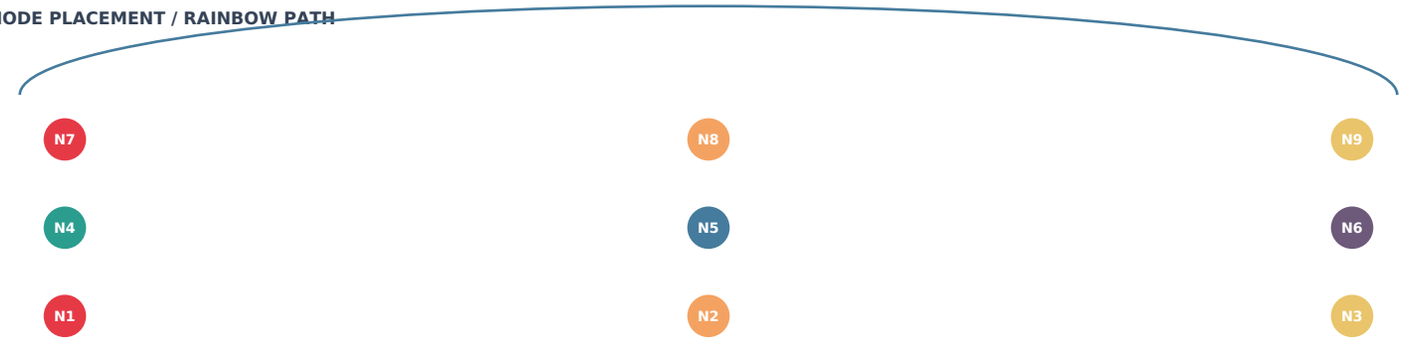
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_40_F_089_Full_conica
reference "PINK-01-P0199"
state R -> R1
node N1
representation JP(PINK-01-P0199)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 199 of 431. Chapter 40 F-089 - Full
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 200 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 40.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-089anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0200"
state R -> R1
node N1
representation JP(PINK-01-P0200)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 200 of 431. PRIVATE PRE-DAY-0 - UNSI
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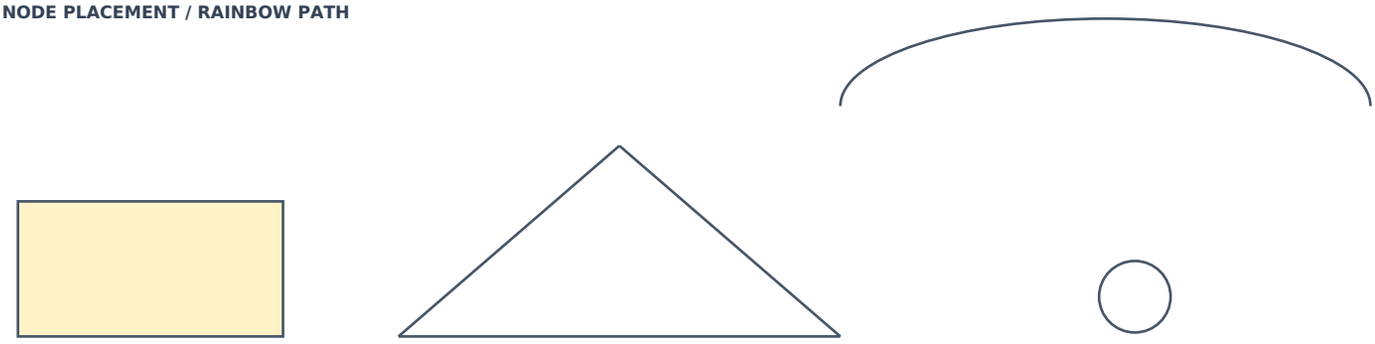
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 201 of 431. Chapter 41 F-090 - Pearl cone-top anchor Exact expression z_P0=H_R+H_C; standard=3H_R Meaning. Pearlsimulationbeginsatthetop-of-coneinformationplane. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

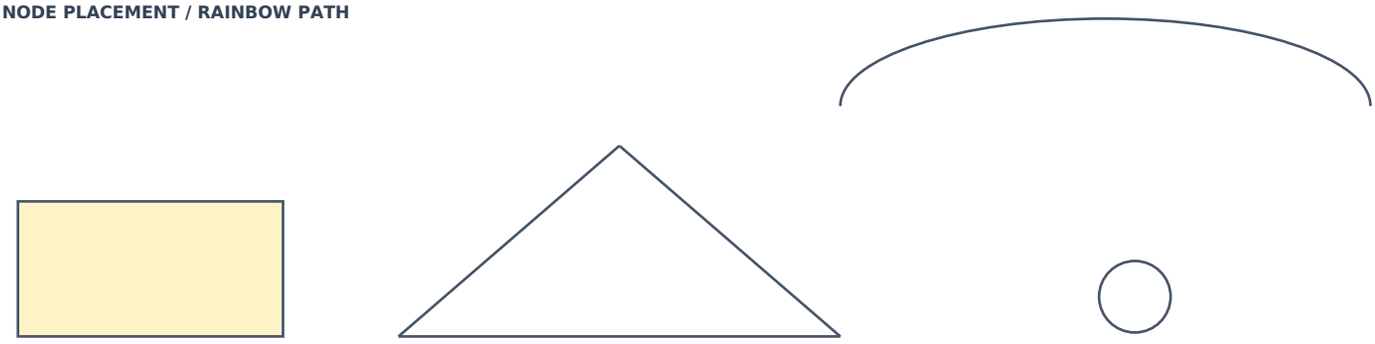
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_41_F_090_Pearl_cone_
reference "PINK-01-P0201"
state R -> R1
node N1
representation JP(PINK-01-P0201)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 201 of 431. Chapter 41 F-090 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 202 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 41.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-090anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0202"
state R -> R1
node N1
representation JP(PINK-01-P0202)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 202 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 203 of 431. Chapter 42 F-091 - Observed gas mass Exact expression m_g=rho_g*V_C(h_g) Meaning. Gasmassfromobservedheightandstate-dependentdensity. Bound manifestations.MK,EVE,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

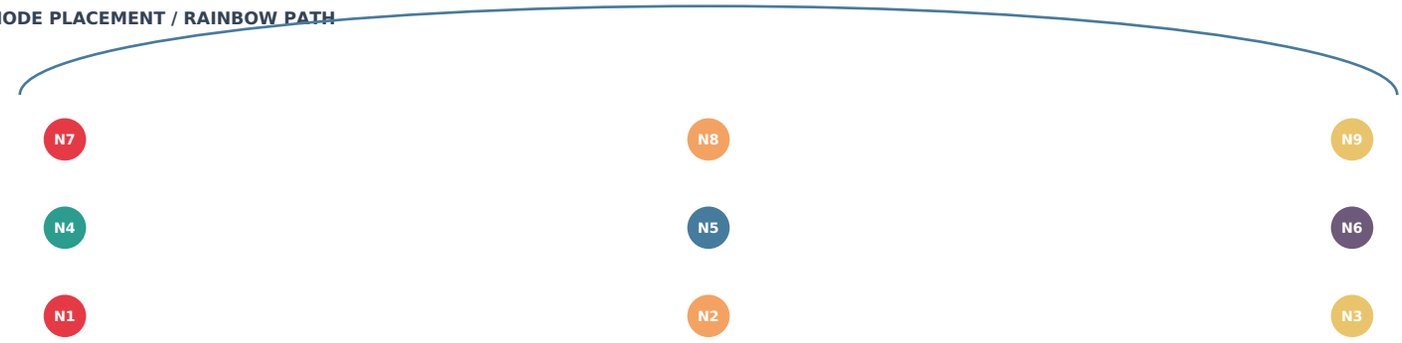
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_42_F_091_Observed_ga
reference "PINK-01-P0203"
state R -> R1
node N1
representation JP(PINK-01-P0203)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 203 of 431. Chapter 42 F-091 - Obser
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 204 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 42.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-091anditsassumptions,inputs,ou

PATH OF EXPRESSION

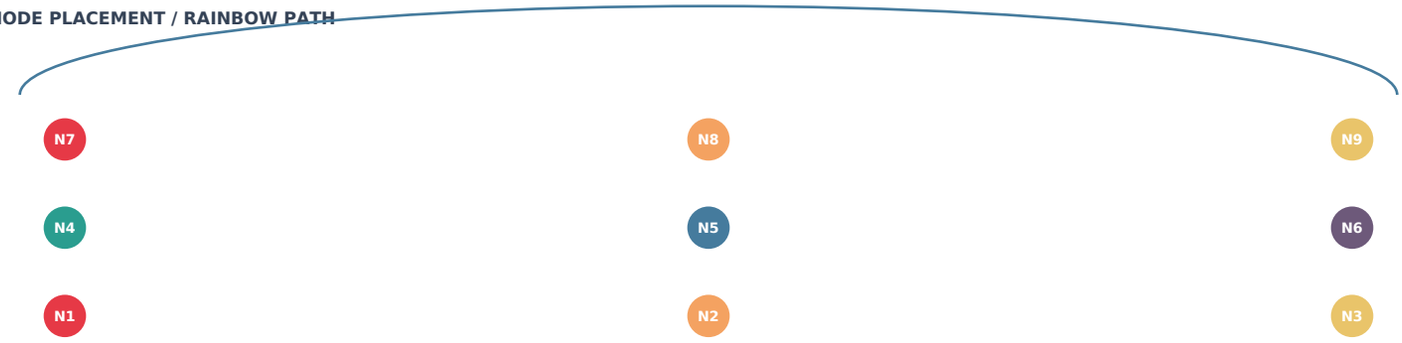
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0204"
state R -> R1
node N1
representation JP(PINK-01-P0204)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 204 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 205 of 431. Chapter 43 F-092 - Gas mass-flow from height Exact expression m_dot=rho*A(h_g)*h_dot_g+V_C(h_g)*rho_dot Meaning. Mass-flowaccountingincludesdensitychanges. Bound manifestations.MK,EVE,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_092 Import MJ.PBMEF.Ma

PATH OF EXPRESSION

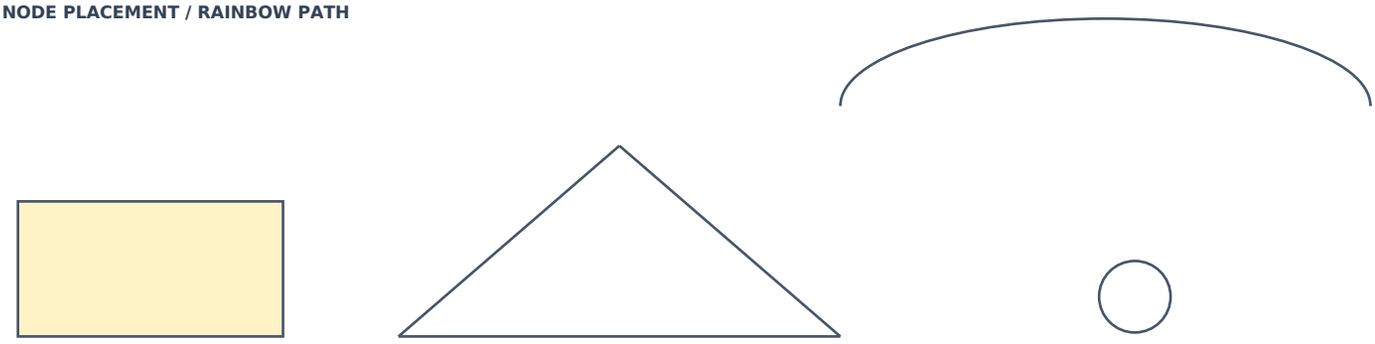
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_43_F_092_Gas_mass_fl
reference "PINK-01-P0205"
state R -> R1
node N1
representation JP(PINK-01-P0205)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 205 of 431. Chapter 43 F-092 - Gas m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 206 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 43.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-092anditsassumptions,inputs,ou

PATH OF EXPRESSION

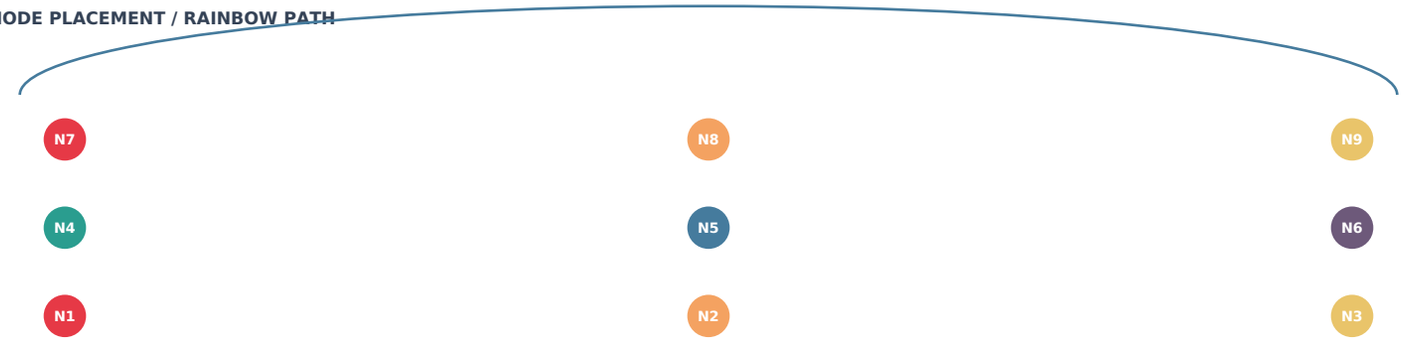
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0206"
state R -> R1
node N1
representation JP(PINK-01-P0206)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 206 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 207 of 431. Chapter 44 F-093 - Observed gas-height predictor Exact expression h_hat=clip(h+v*dt+0.5*a*dt^2,0,H_C) Meaning. Boundedpredictionofobservedgas-frontheight. Bound manifestations.SISTER,MK,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

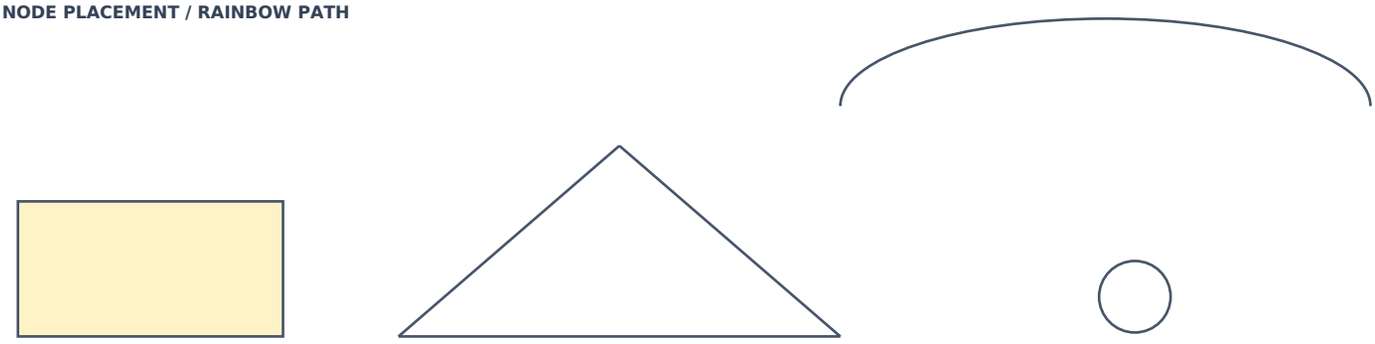
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_44_F_093_Observed_ga
reference "PINK-01-P0207"
state R -> R1
node N1
representation JP(PINK-01-P0207)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 207 of 431. Chapter 44 F-093 - Obser
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 208 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 44.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-093anditsassumptions,inputs,ou

PATH OF EXPRESSION

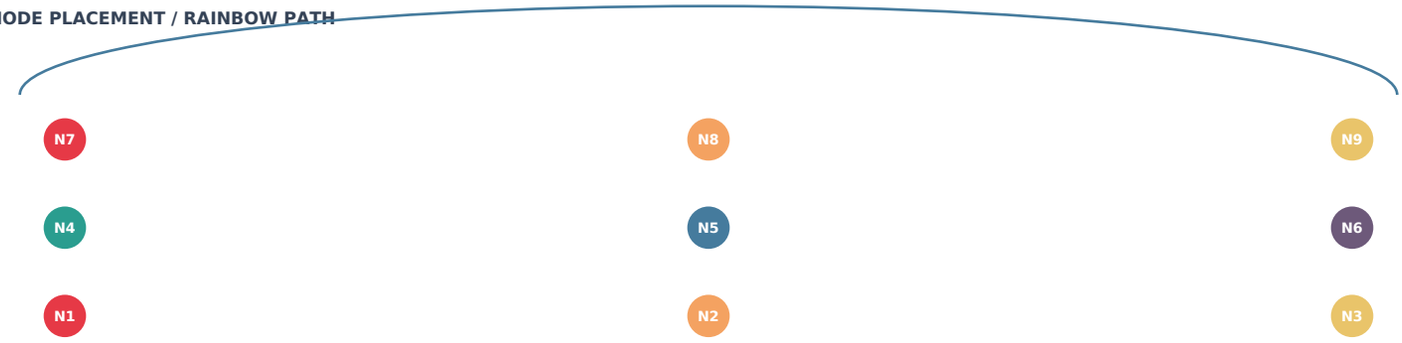
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0208"
state R -> R1
node N1
representation JP(PINK-01-P0208)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 208 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 209 of 431. Chapter 45 F-094 - Gas net-force balance Exact expression m_eff*a_z=F_b+F_p+F_act-F_d-F_wall-F_mix Meaning. Geometryalonedoesnotguaranteeacceleration. Bound manifestations.MK,JO,SISTER Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_45_F_094_Gas_net_for
reference "PINK-01-P0209"
state R -> R1
node N1
representation JP(PINK-01-P0209)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 209 of 431. Chapter 45 F-094 - Gas n
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 210 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 45.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-094anditsassumptions,inputs,ou

PATH OF EXPRESSION

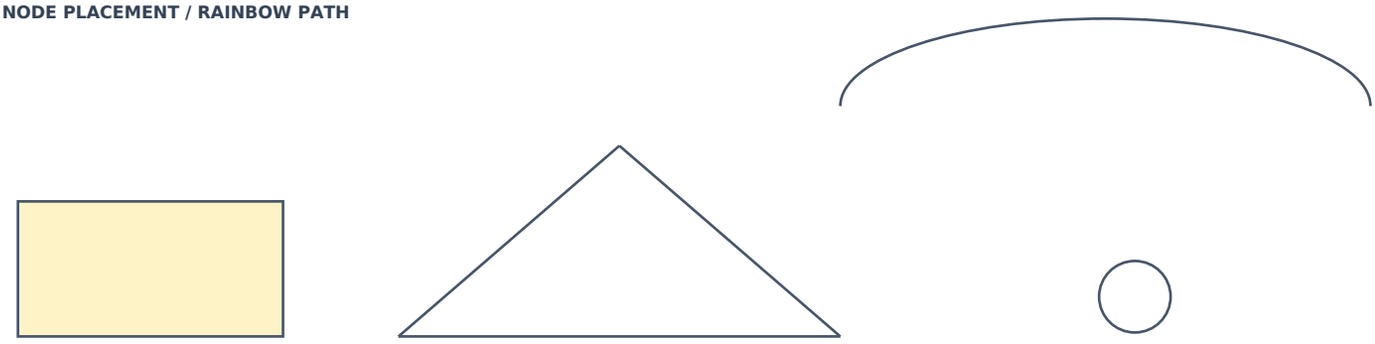
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0210"
state R -> R1
node N1
representation JP(PINK-01-P0210)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 210 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 211 of 431. Chapter 46 F-095 - Buoyancy force Exact expression F_b=(rho_ambient-rho_g)*g*V_g Meaning. Referencebuoyancytermunderdeclaredenvironment. Bound manifestations.MK,JO,EVE Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

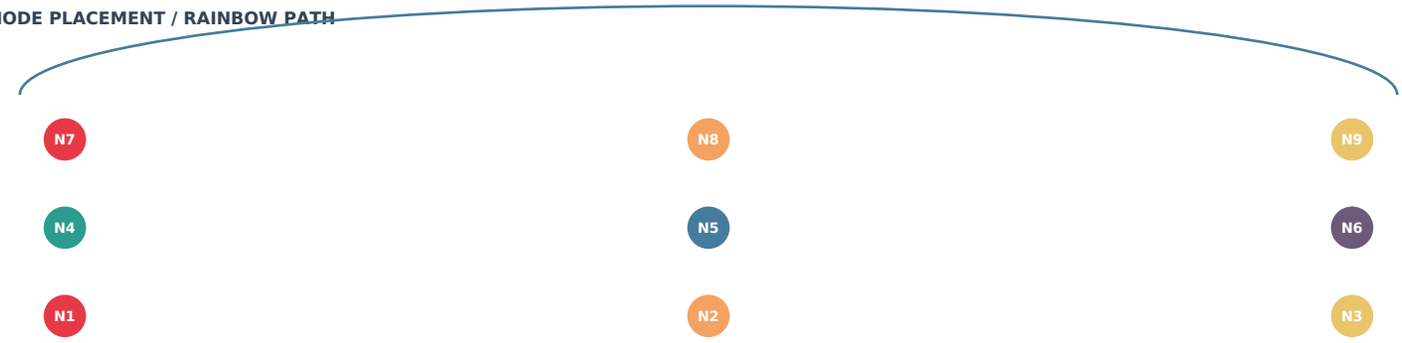
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_46_F_095_Buoyancy_fo
reference "PINK-01-P0211"
state R -> R1
node N1
representation JP(PINK-01-P0211)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 211 of 431. Chapter 46 F-095 - Buoya
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 212 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 46.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-095anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0212"
state R -> R1
node N1
representation JP(PINK-01-P0212)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 212 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 213 of 431. Chapter 47 F-096 - Drag force Exact expression F_d=0.5*C_d*rho_ambient*A_projected*u*abs(u) Meaning. Referencedragtermunderdeclaredcoefficientandflow. Bound manifestations.MK,JO,EVE Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

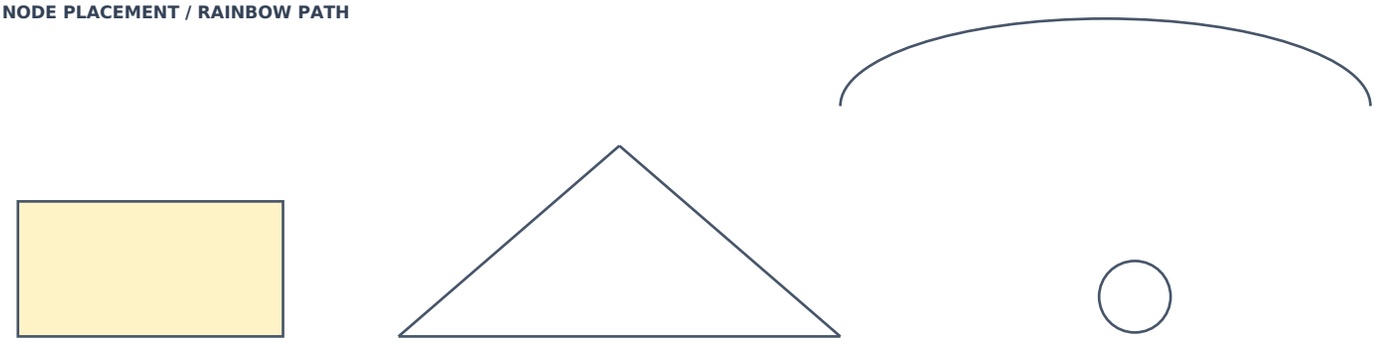
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_47_F_096_Drag_force_
reference "PINK-01-P0213"
state R -> R1
node N1
representation JP(PINK-01-P0213)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 213 of 431. Chapter 47 F-096 - Drag
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 214 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 47.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-096anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0214"
state R -> R1
node N1
representation JP(PINK-01-P0214)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 214 of 431. PRIVATE PRE-DAY-0 - UNSI
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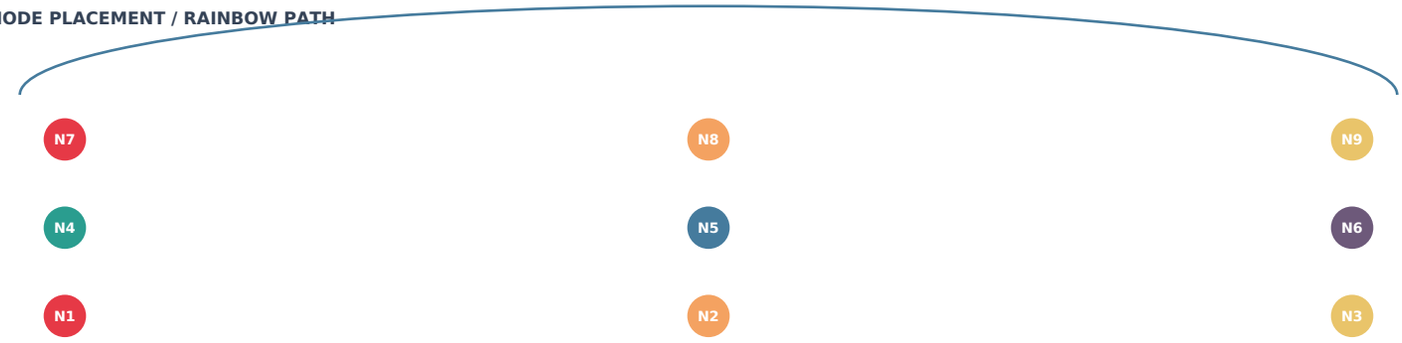
NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 215 of 431. Chapter 48 F-097 - Flow continuity Exact expression Q=A(z)*u(z) Meaning. Forfixedflow,increasingareadoesnotitselfacceleratethegas. Bound manifestations.MK,JO,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_097 Imp...

PATH OF EXPRESSION

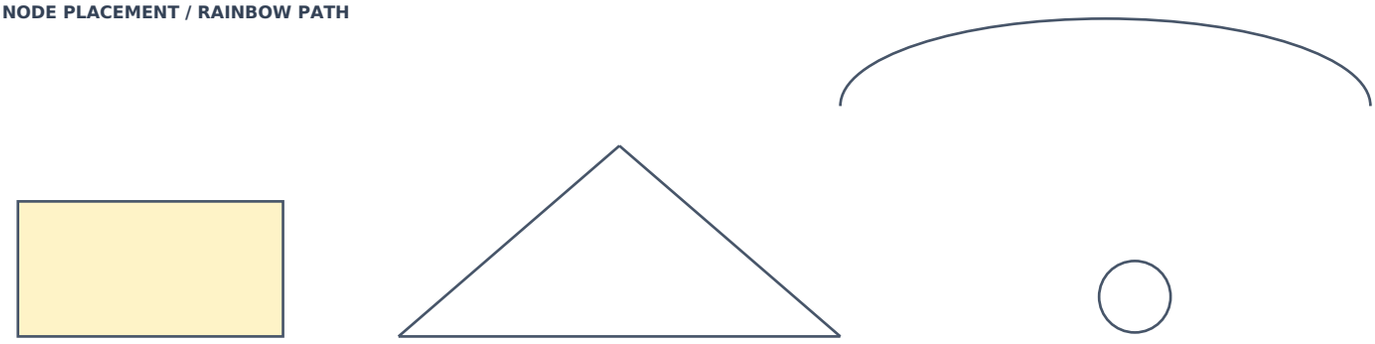
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_48_F_097_Flow_contin
reference "PINK-01-P0215"
state R -> R1
node N1
representation JP(PINK-01-P0215)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 215 of 431. Chapter 48 F-097 - Flow
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 216 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 48.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-097anditsassumptions,inputs,ou

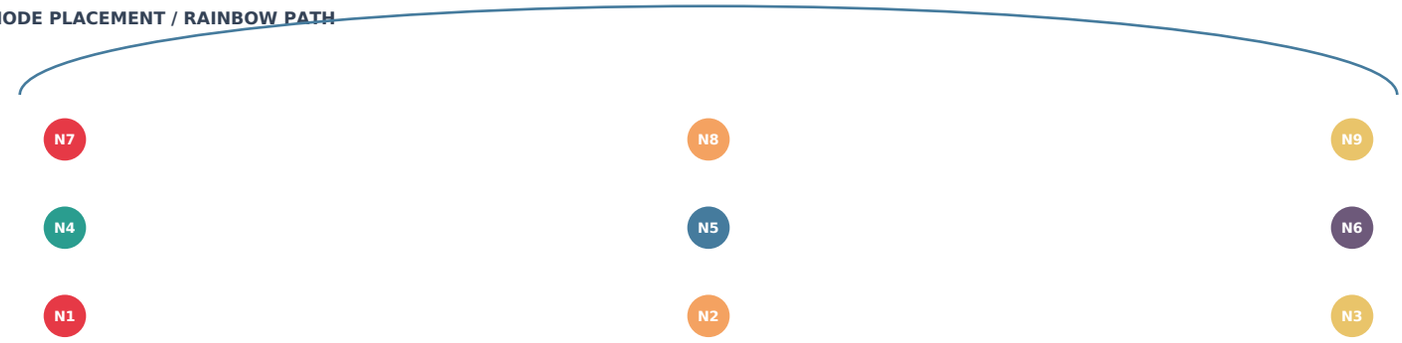
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0216"
state R -> R1
node N1
representation JP(PINK-01-P0216)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 216 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 217 of 431. Chapter 49 F-098 - Residual reservoir capacity Exact expression C_res,k=gamma_k*C_rect,k; 0<=gamma_k<1 Meaning. Residualreservoirremainssmallerthanrectanglereferencecapacity. Bound manifestations.SISTER,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp...

PATH OF EXPRESSION

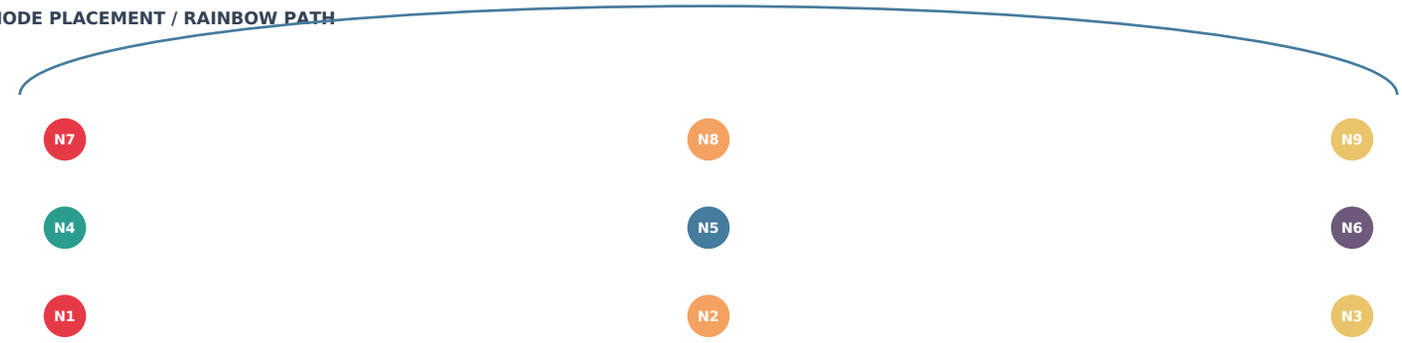
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_49_F_098_Residual_re
reference "PINK-01-P0217"
state R -> R1
node N1
representation JP(PINK-01-P0217)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 217 of 431. Chapter 49 F-098 - Resid
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 218 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 49.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-098anditsassumptions,inputs,ou

PATH OF EXPRESSION

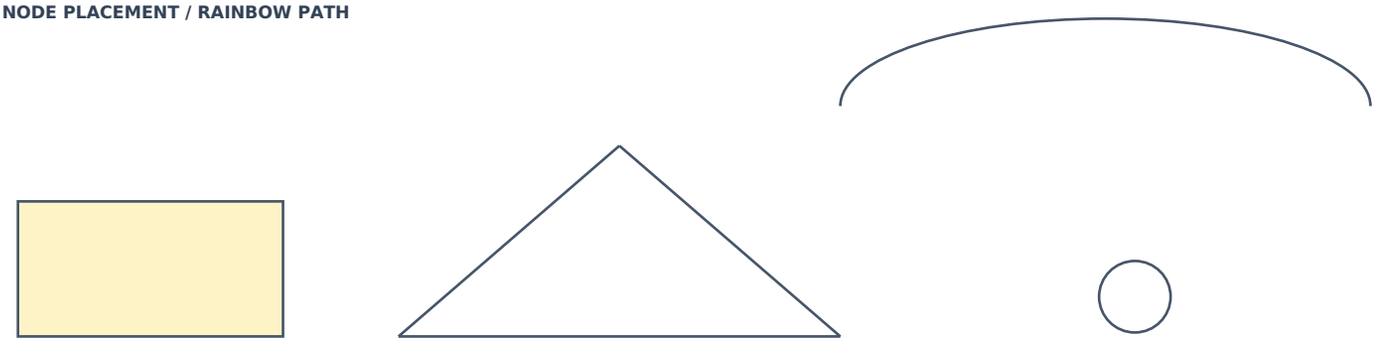
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0218"
state R -> R1
node N1
representation JP(PINK-01-P0218)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 218 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 219 of 431. Chapter 50 F-099 - Umbrella/EVE/reservoir balance Exact expression q_cone=q_down+q_EVE+q_res+q_escape+r Meaning. Downward redistribution, EVE evidence, reservoir admission, and escape are separately accounted. Bound manifestations.EVE,SISTER,MERMAID Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp

PATH OF EXPRESSION

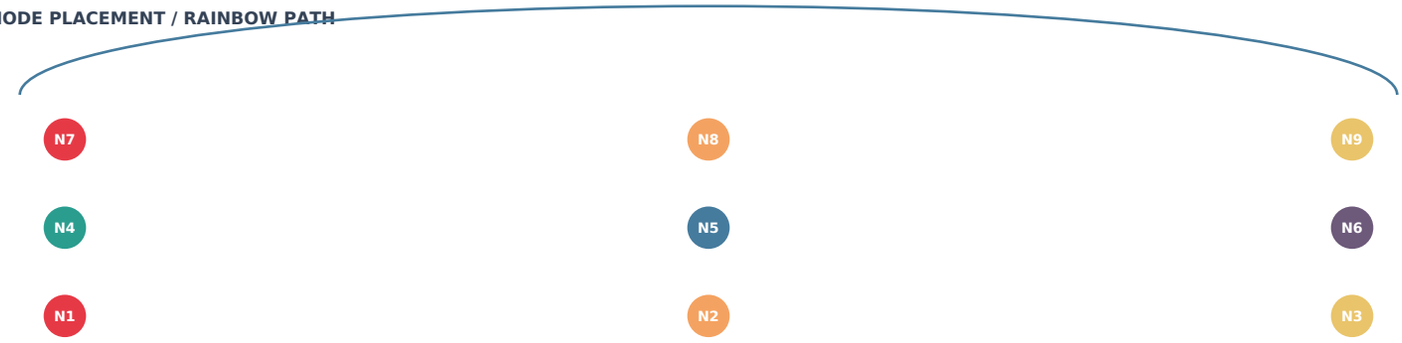
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_50_F_099_Umbrella_EV
reference "PINK-01-P0219"
state R -> R1
node N1
representation JP(PINK-01-P0219)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 219 of 431. Chapter 50 F-099 - Umbre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 220 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 50.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-099anditsassumptions,inputs,ou

PATH OF EXPRESSION

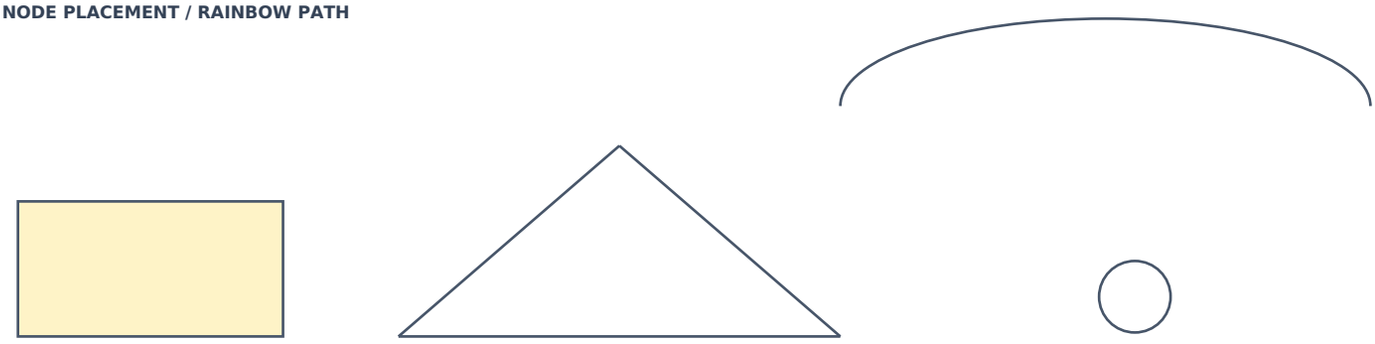
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0220"
state R -> R1
node N1
representation JP(PINK-01-P0220)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 220 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 221 of 431. Chapter 51 F-100 - Containment modification pred- icate Exact expression Valid(theta)=typed&positive&recomputed&conserved&bounded&evidenced&MK&JO&MJ Meaning. Sizechangespreservecorelogicbutrequirefullrecalculationandgates. Bound manifestations.Bangel ,JP,MK,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

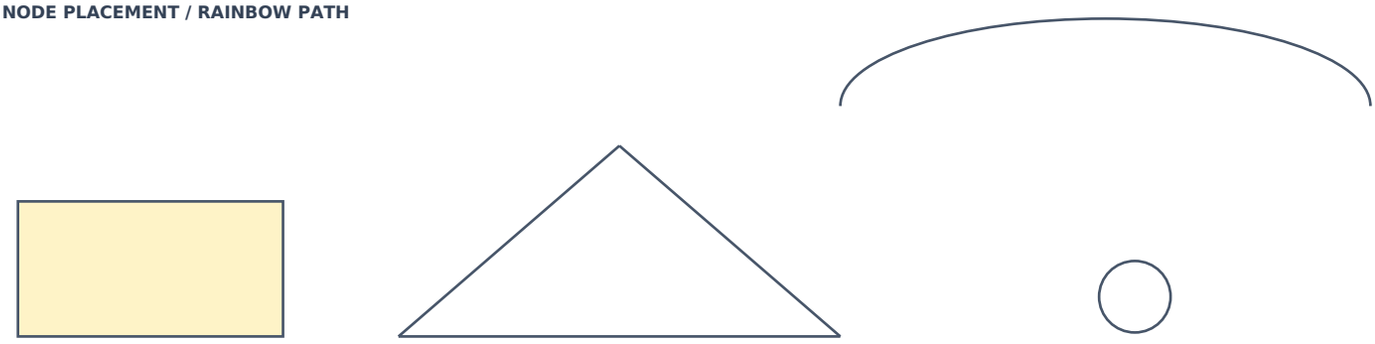
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_51_F_100_Containment
reference "PINK-01-P0221"
state R -> R1
node N1
representation JP(PINK-01-P0221)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 221 of 431. Chapter 51 F-100 - Conta
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 222 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 51.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-100anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0222"
state R -> R1
node N1
representation JP(PINK-01-P0222)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 222 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 223 of 431. MJ-PBMEFPinkPaper-VolumeIV FormulaGatewayBindingsF-101throughF-145 MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeIV_F
reference "PINK-01-P0223"
state R -> R1
node N1
representation JP(PINK-01-P0223)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 223 of 431. MJ-PBMEFPinkPaper-Volume
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 224 of 431. Contents 1 Verification method 5 2 F-101 - Rear outlet elevation 6 2.1 Gatewaylife-cycleexample . . . . . .6 2.2 Lifecyclefromrequesttofinaloutput . . . . . .7 3 F-102 - Pearl simulation exclusion radius 8 3.1 Gatewaylife-cycleexample . . . . . .8 3.2 Life

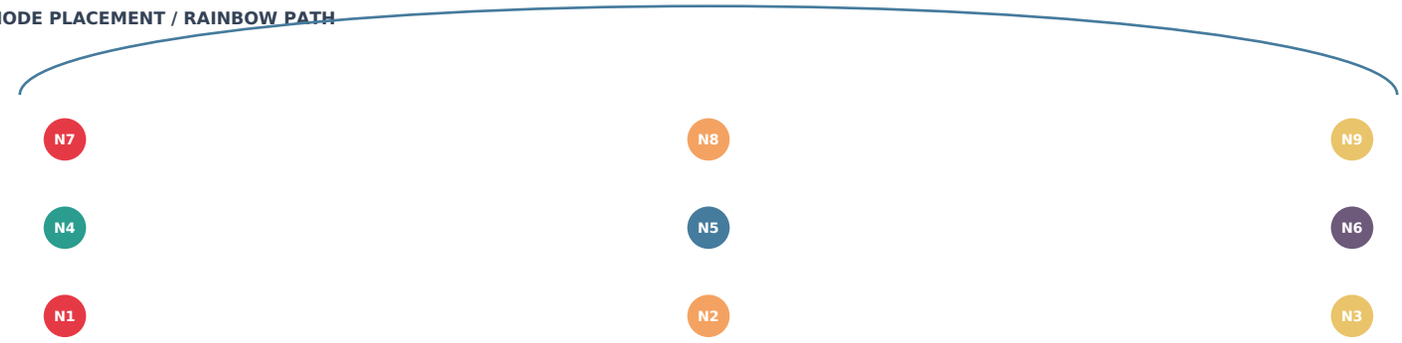
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Verification_meth
reference "PINK-01-P0224"
state R -> R1
node N3
representation JP(PINK-01-P0224)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 224 of 431. Contents 1 Verification
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 225 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV

- F101-F145 13.2Lifecyclefromrequesttofinaloutput . . . . . .29 14F-113 - Circular return-port area 30
14.1Gatewaylife-cycleexample 30
14.2Lifecyclefromrequesttofinaloutput 31
15F-114

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0225"
state R -> R1
node N1
representation JP(PINK-01-P0225)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 225 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 226 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 29F-128 - Outlet transfer conservation 60 29.1Gatewaylife-cycleexample . . . . . .60 29.2Lifecyclefromrequesttofinaloutput . . . . . .61 30F-129 - Re-entry recalculation vector 62 30.1Gatewaylife-cycleexample . . . . . .

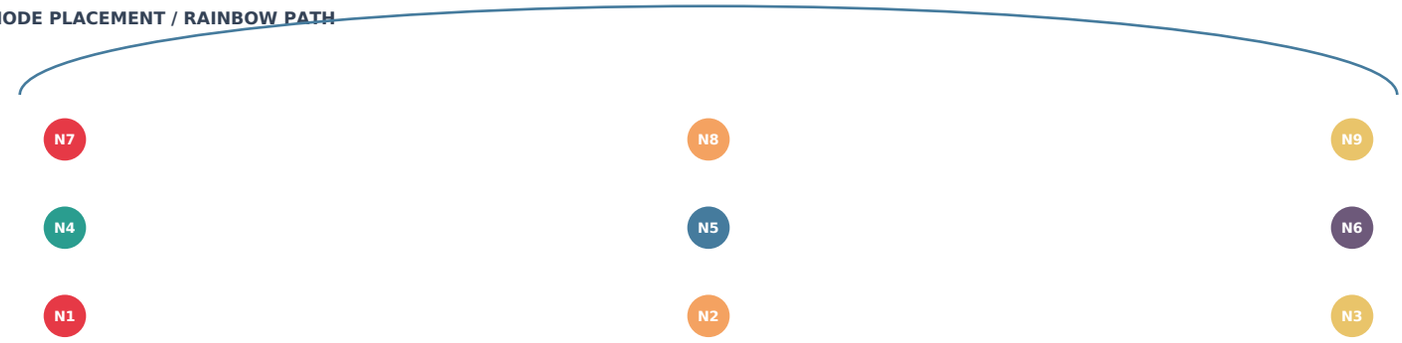
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0226"
state R -> R1
node N1
representation JP(PINK-01-P0226)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 226 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 227 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 44F-143 - Vector reservoir headroom 90

44.1Gatewaylife-cycleexample 90
44.2Lifecyclefromrequesttofinaloutput 91
45F-144 - Vector reservoir admission 92 45.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0227"
state R -> R1
node N1
representation JP(PINK-01-P0227)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 227 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 228 of 431. Chapter 1 Verification method Each formula receives the same twenty-construct Bangel identity, a gateway-stage assignment, a life-cycleexample, andexplicitevidenceandethicsboundaries. Therepetitivestructureisintentional: it allowsformula-by-formulafounderreviewandlaterautomatedcompletenesschecking. 5

PATH OF EXPRESSION

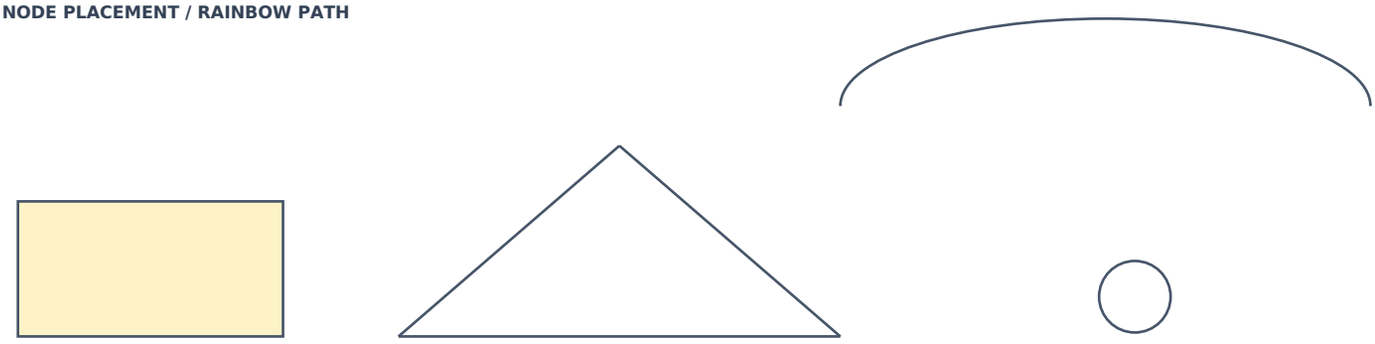
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Verification_metho
reference "PINK-01-P0228"
state R -> R1
node N7
representation JP(PINK-01-P0228)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 228 of 431. Chapter 1 Verification m
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 229 of 431. Chapter 2 F-101 - Rear outlet elevation Exact expression z_out=H_P-delta_z; 0<delta_z<H_P Meaning. Outletisbelowthecontainmentmaximumheight. Bound manifestations.SISTER,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

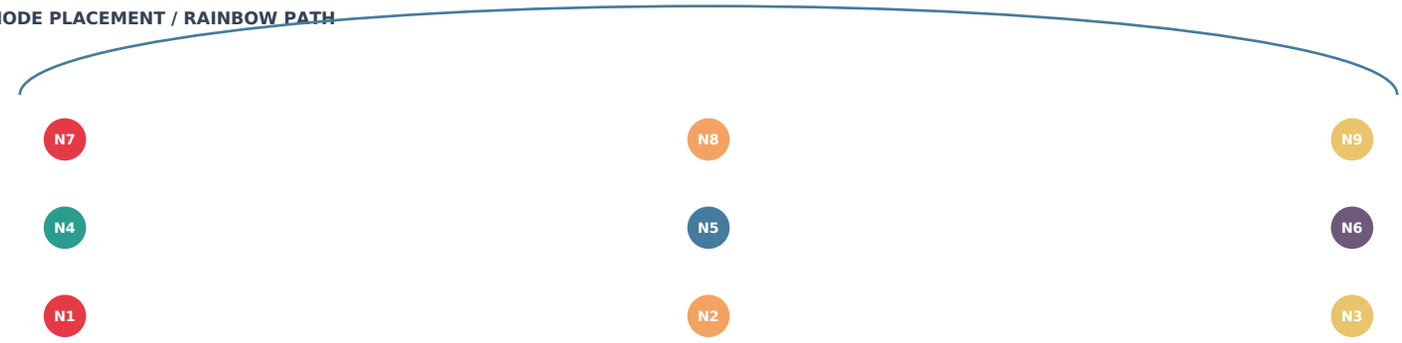
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_F_101_Rear_outlet_
reference "PINK-01-P0229"
state R -> R1
node N1
representation JP(PINK-01-P0229)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 229 of 431. Chapter 2 F-101 - Rear o
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 230 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 2.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-101anditsassumptions,inputs,outp

PATH OF EXPRESSION

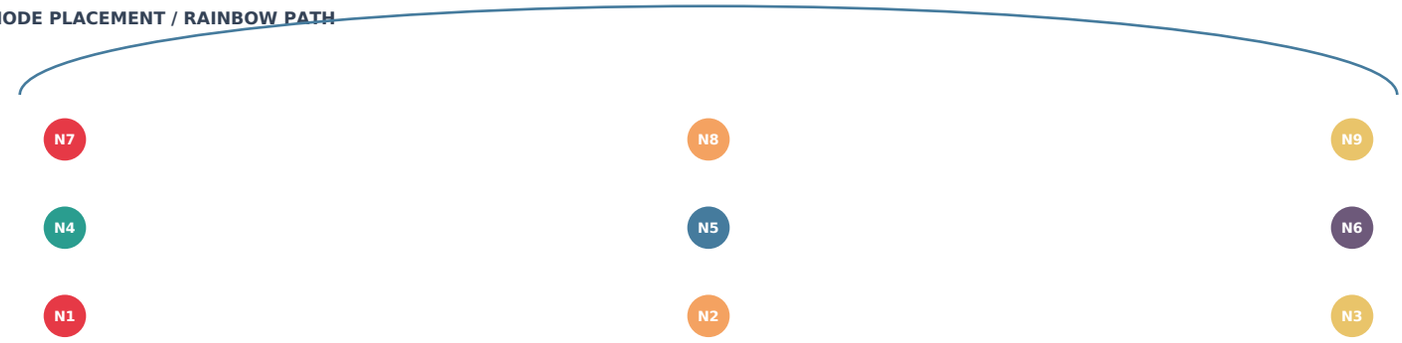
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0230"
state R -> R1
node N1
representation JP(PINK-01-P0230)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 230 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 231 of 431. Chapter 3 F-102 - Pearl simulation exclusion ra- dius Exact expression R_P,sim=R_top+c_P; c_P>=0 Meaning. Nonphysicalreferencecircleplusdeclaredclearance. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

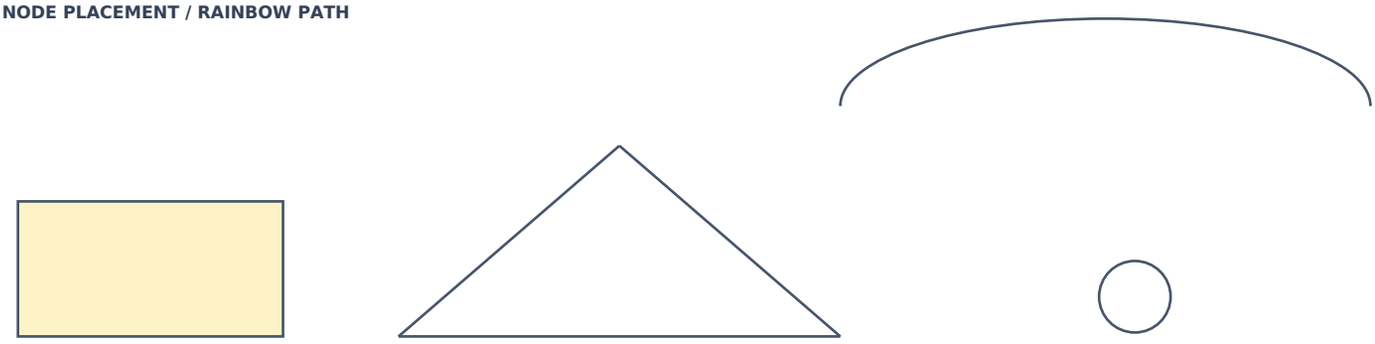
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_F_102_Pearl_simula
reference "PINK-01-P0231"
state R -> R1
node N1
representation JP(PINK-01-P0231)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 231 of 431. Chapter 3 F-102 - Pearl
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 232 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 3.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-102anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0232"
state R -> R1
node N1
representation JP(PINK-01-P0232)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 232 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 233 of 431. Chapter 4 F-103 - Outward-tangential outlet direc- tion Exact expression d_out=cos(alpha_out)t+sin(alpha_out)n_out; 0<alpha_out<pi/2 Meaning. Slightpositiveoutwardcantfromthelocaltangent. Bound manifestations.JP,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_F_103_Outward_tang
reference "PINK-01-P0233"
state R -> R1
node N1
representation JP(PINK-01-P0233)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 233 of 431. Chapter 4 F-103 - Outwar
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 234 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 4.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-103anditsassumptions,inputs,outp

PATH OF EXPRESSION

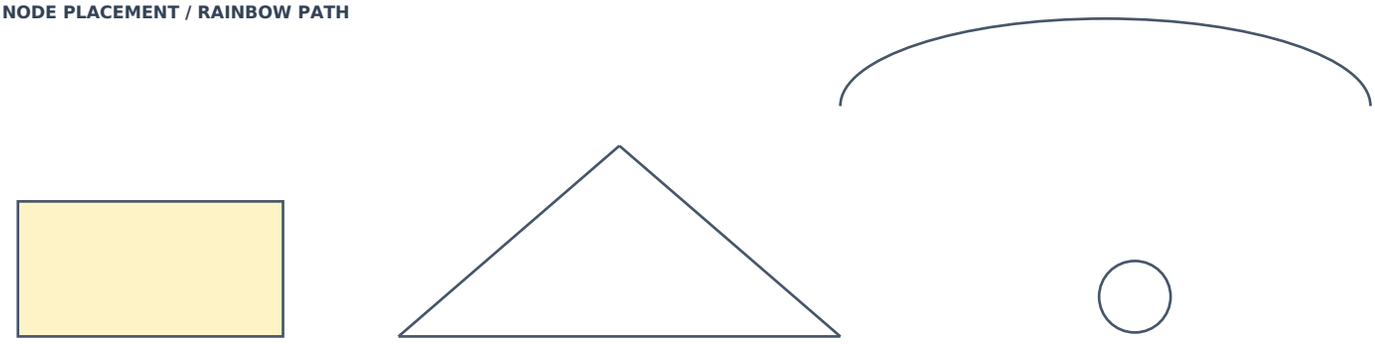
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0234"
state R -> R1
node N1
representation JP(PINK-01-P0234)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 234 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 235 of 431. Chapter 5 F-104 - Outside-circle outlet path Exact expression ||gamma(s)-c_P||^2=R_P^2+2R_P*s*sin(alpha_out)+s^2 Meaning. PathremainsoutsidethePearlsimulationcirclefors>0. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_F_104_Outside_circ
reference "PINK-01-P0235"
state R -> R1
node N1
representation JP(PINK-01-P0235)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 235 of 431. Chapter 5 F-104 - Outsid
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 236 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 5.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-104anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0236"
state R -> R1
node N1
representation JP(PINK-01-P0236)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 236 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 237 of 431. Chapter 6 F-105 - Reservoir volume balance Exact expression dV_L/dt=Q_out-Q_return-Q_drain-Q_escape Meaning. Connectedlake-likebuffercontrol-volumebalance. Bound manifestations.SISTER,EVE,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

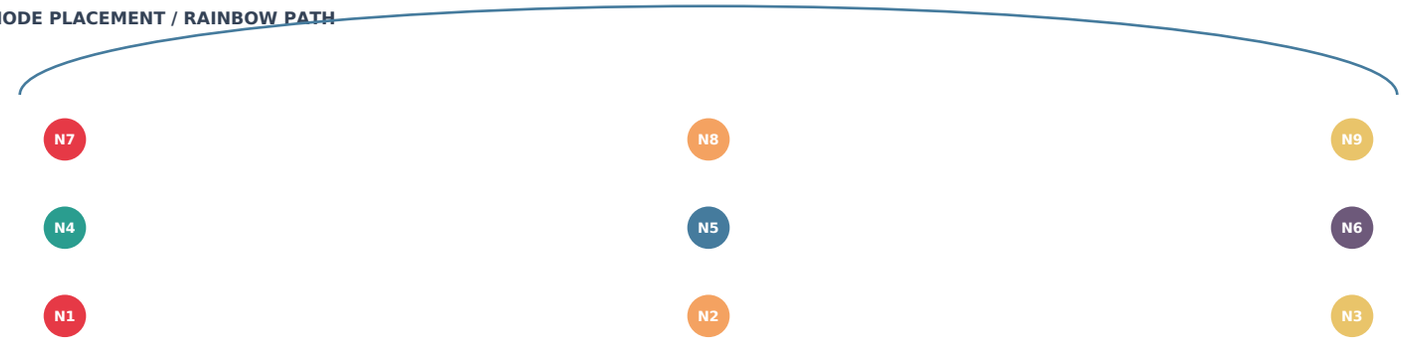
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_F_105_Reservoir_vo
reference "PINK-01-P0237"
state R -> R1
node N1
representation JP(PINK-01-P0237)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 237 of 431. Chapter 6 F-105 - Reserv
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 238 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 6.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-105anditsassumptions,inputs,outp

PATH OF EXPRESSION

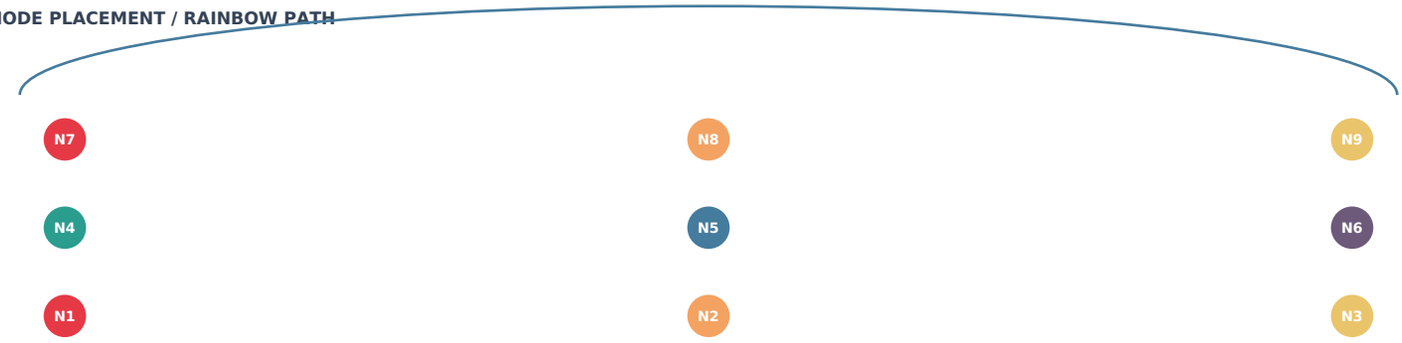
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0238"
state R -> R1
node N1
representation JP(PINK-01-P0238)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 238 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 239 of 431. Chapter 7 F-106 - Typed reservoir quantity bal- ance Exact expression dq_L,k/dt=q_out,k-q_return,k-q_drain,k-q_escape,k Meaning. Per-dimensionbalancepreventscross-unitcollapse. Bound manifestations.SISTER,EVE,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_F_106_Typed_reserv
reference "PINK-01-P0239"
state R -> R1
node N1
representation JP(PINK-01-P0239)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 239 of 431. Chapter 7 F-106 - Typed
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 240 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 7.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-106anditsassumptions,inputs,outp

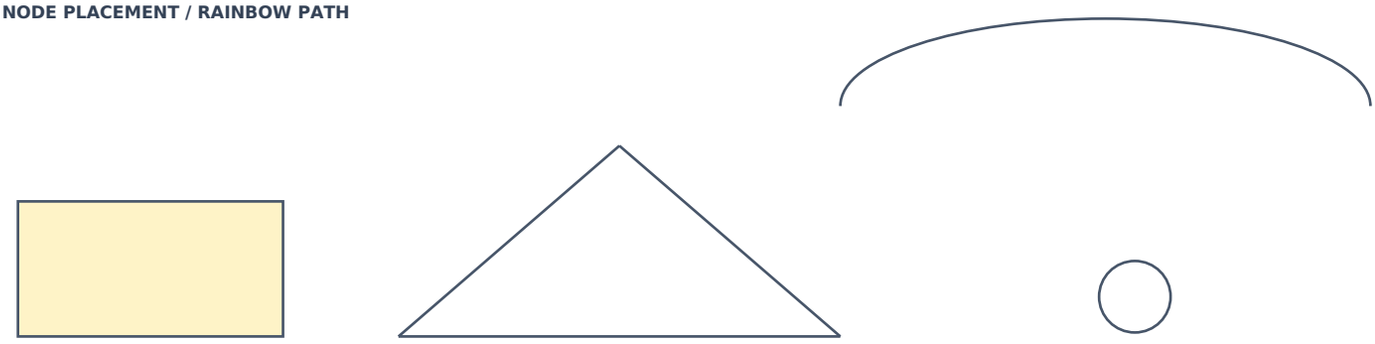
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0240"
state R -> R1
node N1
representation JP(PINK-01-P0240)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 240 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 241 of 431. Chapter 8 F-107 - Required buffer volume Exact expression V_L,req=T_hold*max(0,Q_out,H-Q_return,L)+V_residual,H Meaning. Conservativebuffercapacityfrominflow-returnmismatchandresidual. Bound manifestations.MK,SISTER,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir

PATH OF EXPRESSION

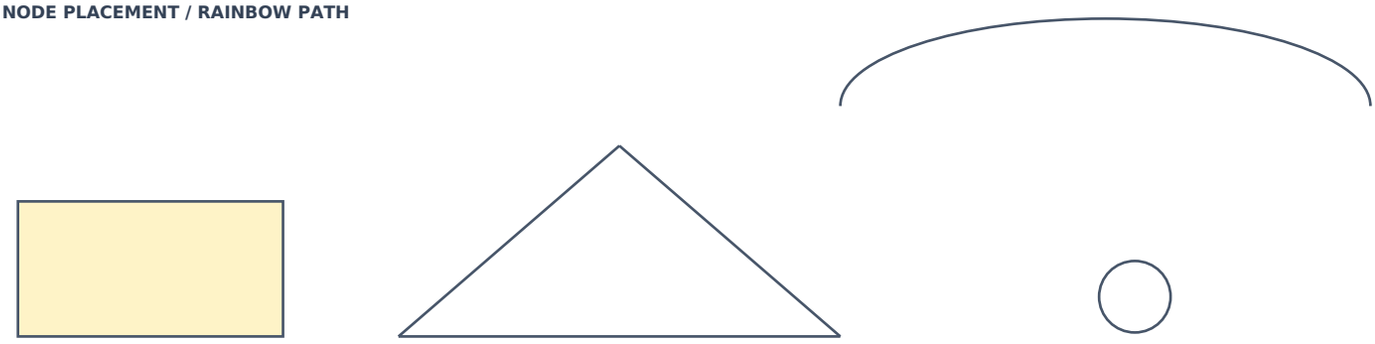
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_F_107_Required_buf
reference "PINK-01-P0241"
state R -> R1
node N1
representation JP(PINK-01-P0241)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 241 of 431. Chapter 8 F-107 - Requir
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 242 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 8.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-107anditsassumptions,inputs,outp

PATH OF EXPRESSION

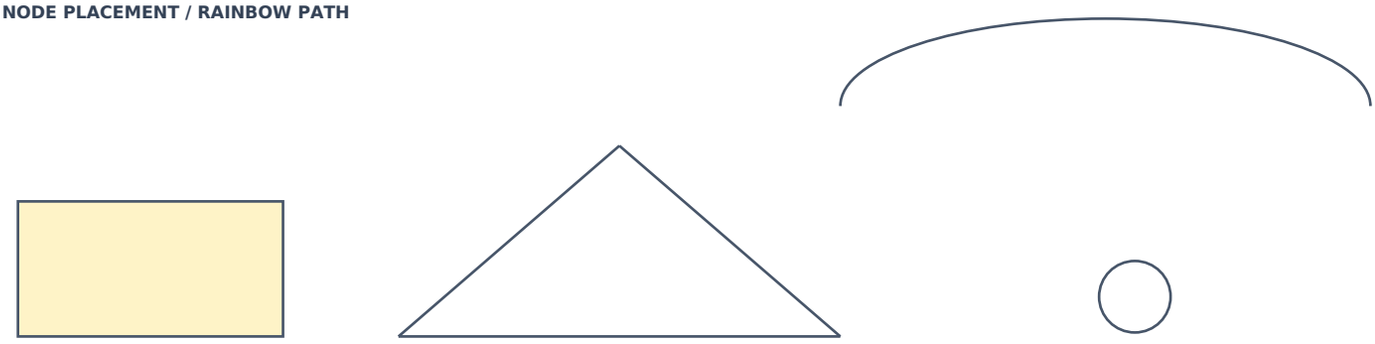
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0242"
state R -> R1
node N1
representation JP(PINK-01-P0242)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 242 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 243 of 431. Chapter 9 F-108 - Outlet area lower bound Exact expression A_out>=Q_design/u_out,max Meaning. Areasizingfromconservativedesignflowandallowablevelocity. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

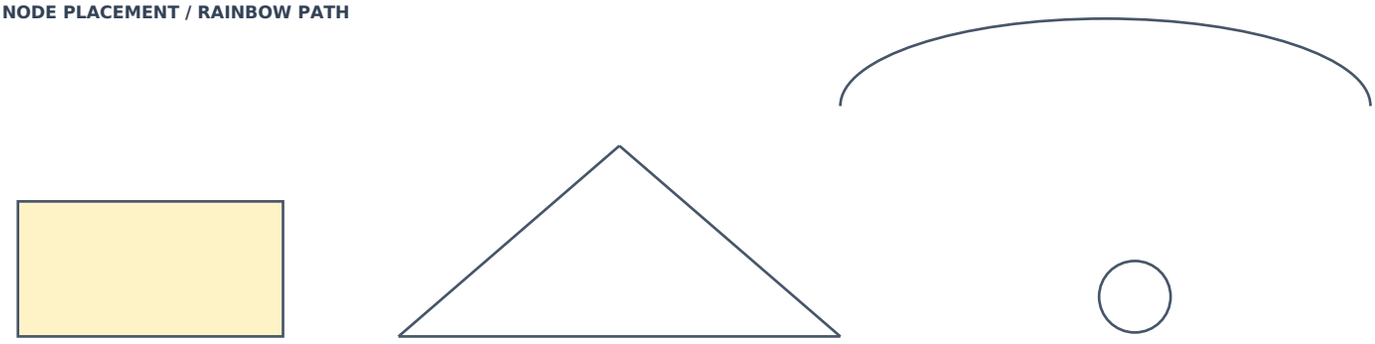
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_F_108_Outlet_area_
reference "PINK-01-P0243"
state R -> R1
node N1
representation JP(PINK-01-P0243)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 243 of 431. Chapter 9 F-108 - Outlet
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 244 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 9.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-108anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0244"
state R -> R1
node N1
representation JP(PINK-01-P0244)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 244 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 245 of 431. Chapter 10 F-109 - Circular outlet radius lower bound Exact expression r_out>=sqrt(A_out/pi) Meaning. Circularoutletradiusderivedfromrequiredarea. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

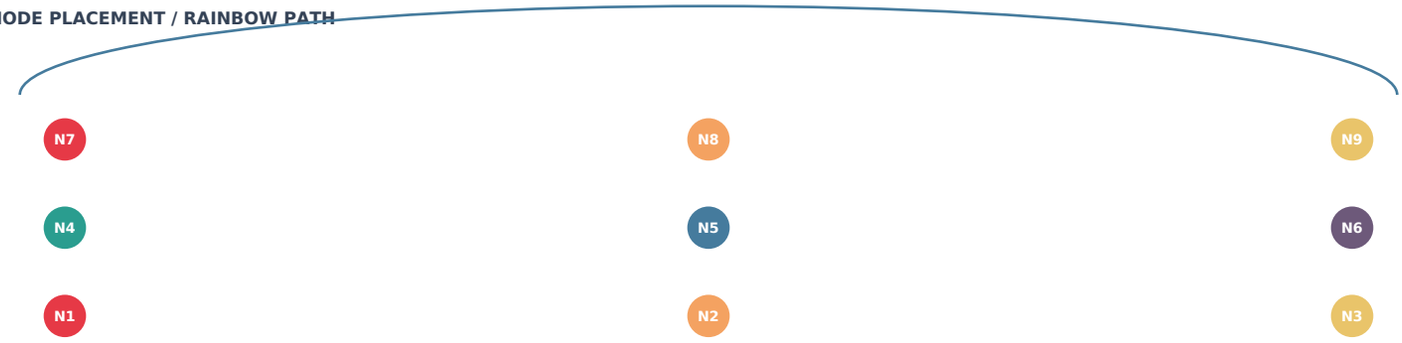
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_F_109_Circular_ou
reference "PINK-01-P0245"
state R -> R1
node N1
representation JP(PINK-01-P0245)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 245 of 431. Chapter 10 F-109 - Circu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 246 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 10.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-109anditsassumptions,inputs,out

PATH OF EXPRESSION

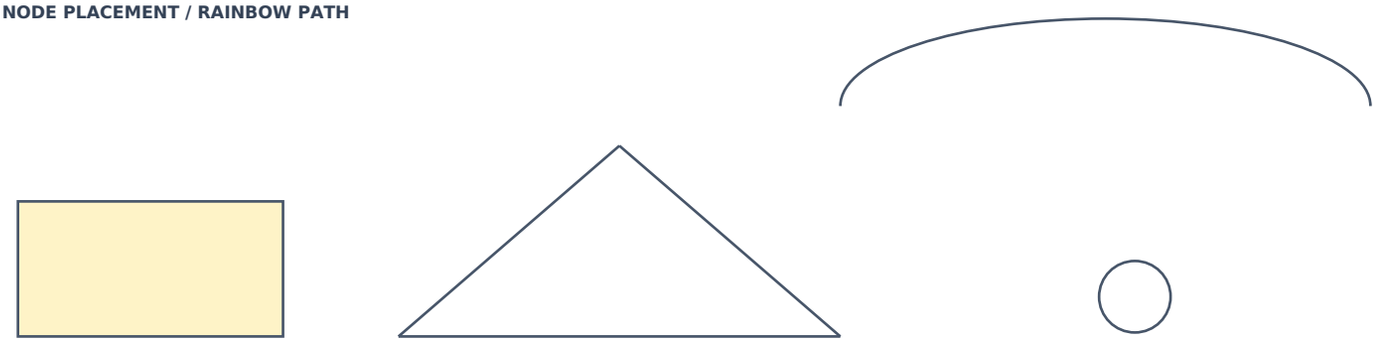
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0246"
state R -> R1
node N1
representation JP(PINK-01-P0246)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 246 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 247 of 431. Chapter 11 F-110 - Bounded drip impulse Exact expression J_drop=m_drop*v_drop<=J_drop,max Meaning. Small-dischargereferenceobjective;thresholdrequiresevidence. Bound manifestations.MK,ANGELS,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

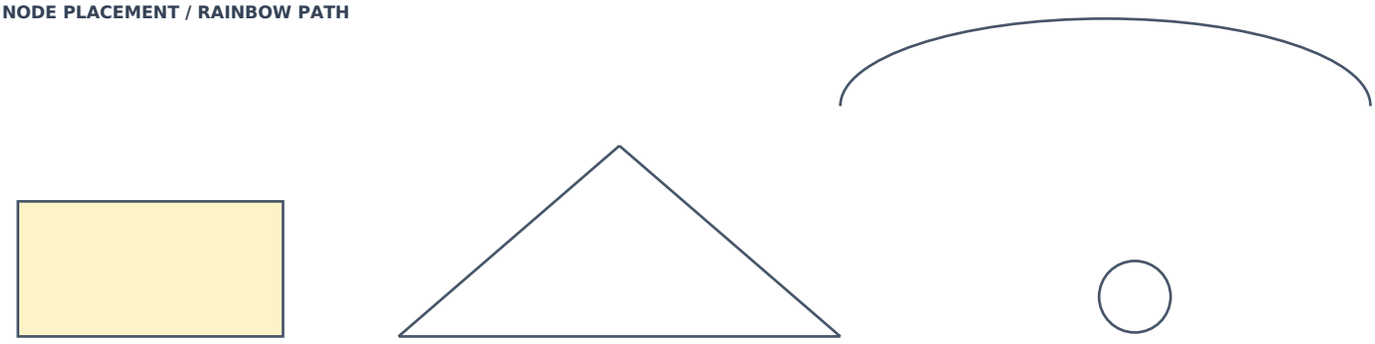
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_F_110_Bounded_dri
reference "PINK-01-P0247"
state R -> R1
node N1
representation JP(PINK-01-P0247)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 247 of 431. Chapter 11 F-110 - Bound
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 248 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 11.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-110anditsassumptions,inputs,out

PATH OF EXPRESSION

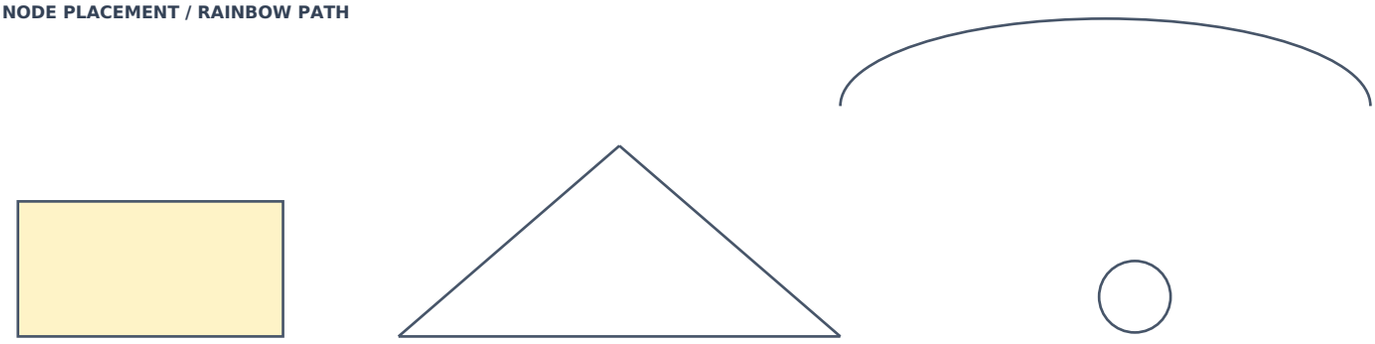
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0248"
state R -> R1
node N1
representation JP(PINK-01-P0248)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 248 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 249 of 431. Chapter 12 F-111 - Small-wave energy reference Exact expression E_wave~=0.5*rho*g*a_wave^2*A_surface Meaning. Appliesonlyundersmall-amplitudeliquid-surfaceassumptions. Bound manifestations.MK,JO,EVE Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

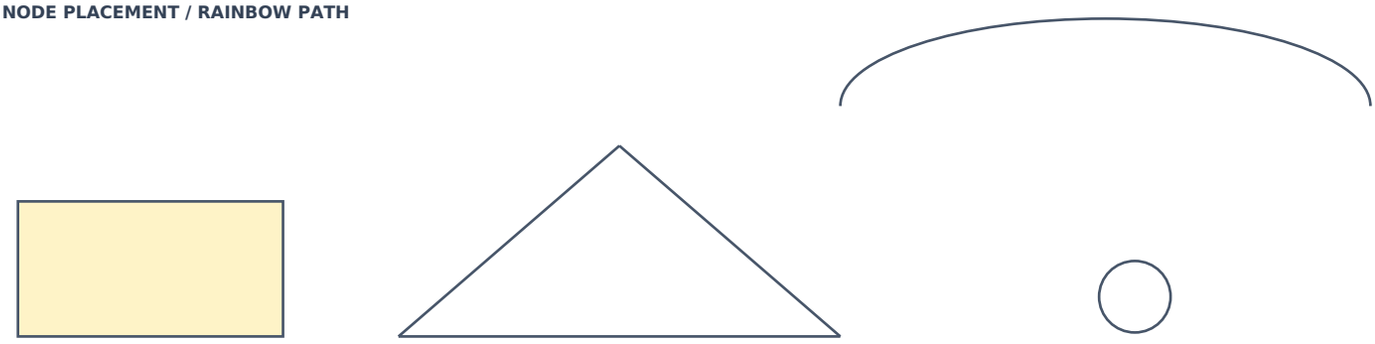
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_F_111_Small_wave_
reference "PINK-01-P0249"
state R -> R1
node N1
representation JP(PINK-01-P0249)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 249 of 431. Chapter 12 F-111 - Small
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 250 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 12.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-111anditsassumptions,inputs,out

PATH OF EXPRESSION

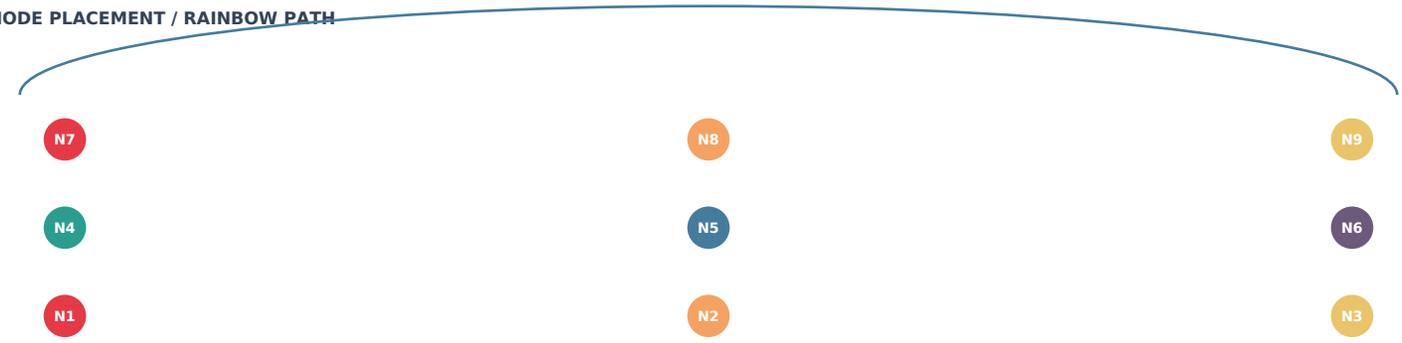
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0250"
state R -> R1
node N1
representation JP(PINK-01-P0250)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 250 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 251 of 431. Chapter 13 F-112 - Froude reference Exact expression Fr=U/sqrt(gL) Meaning. Flow-regimereference;Fr<1isaconditionalsubcriticaltarget. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

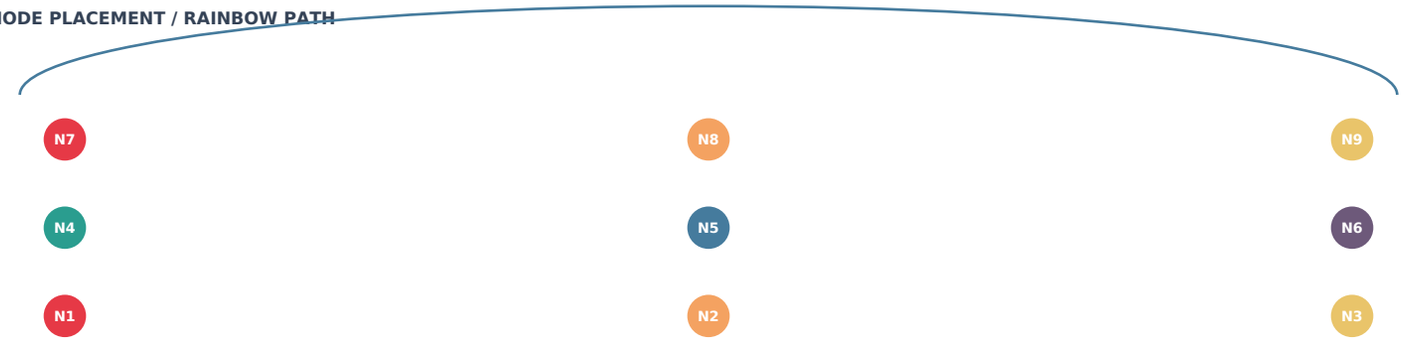
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_F_112_Froude_refe
reference "PINK-01-P0251"
state R -> R1
node N1
representation JP(PINK-01-P0251)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 251 of 431. Chapter 13 F-112 - Froud
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 252 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 13.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-112anditsassumptions,inputs,out

PATH OF EXPRESSION

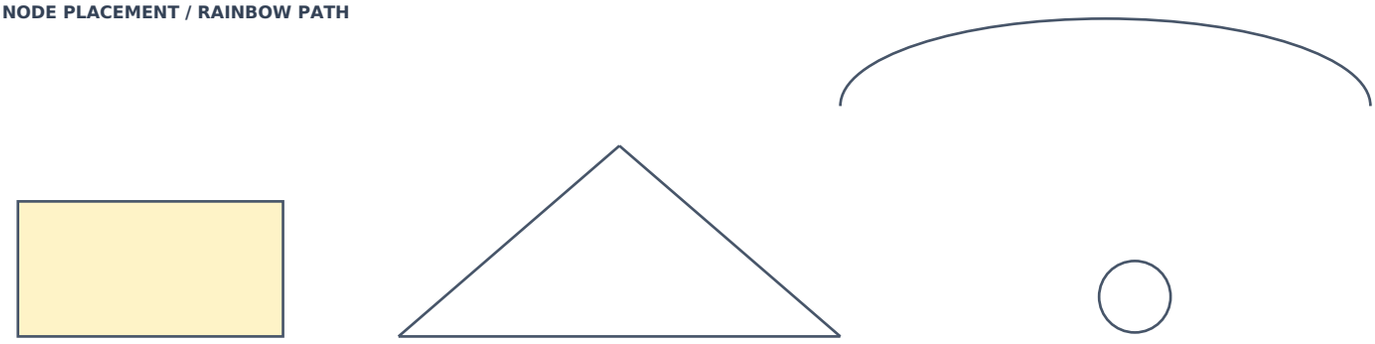
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0252"
state R -> R1
node N1
representation JP(PINK-01-P0252)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 252 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 253 of 431. Chapter 14 F-113 - Circular return-port area Exact expression A_in=pi*r_in^2 Meaning. Circularre-entrycross-section. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_113 Imp...

PATH OF EXPRESSION

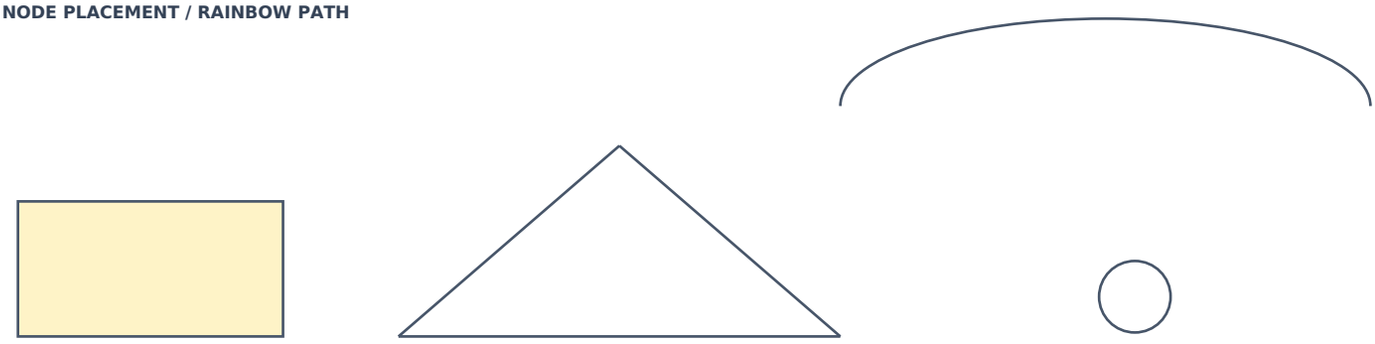
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_F_113_Circular_re
reference "PINK-01-P0253"
state R -> R1
node N1
representation JP(PINK-01-P0253)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 253 of 431. Chapter 14 F-113 - Circu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 254 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 14.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-113anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0254"
state R -> R1
node N1
representation JP(PINK-01-P0254)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 254 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 255 of 431. Chapter 15 F-114 - Inward-tangential reentry com- ponents Exact expression u_r=-U*sin(beta_in); u_theta=sigma*U*cos(beta_in) Meaning. Smallinwardangleplustangentialcomponent;novortexproof. Bound manifestations.SISTER,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir

PATH OF EXPRESSION

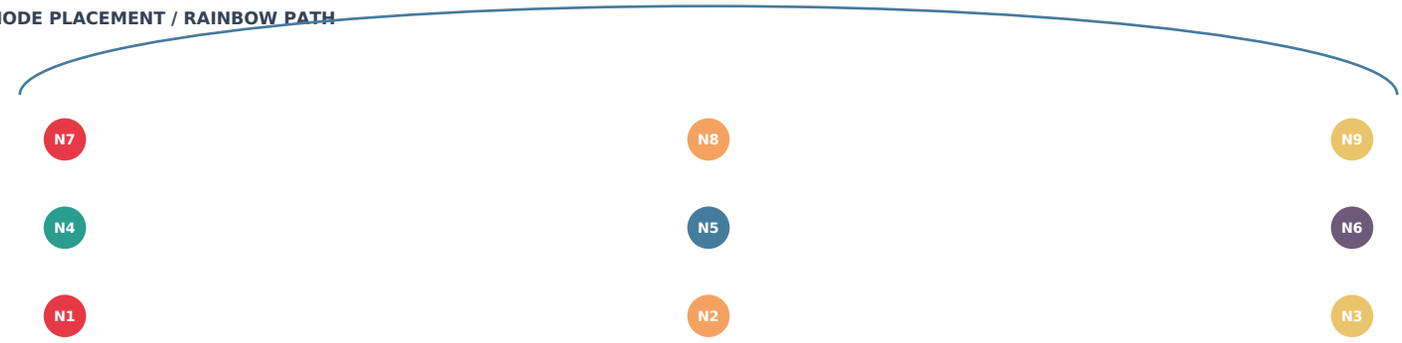
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_F_114_Inward_tang
reference "PINK-01-P0255"
state R -> R1
node N1
representation JP(PINK-01-P0255)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 255 of 431. Chapter 15 F-114 - Inwar
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 256 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 15.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-114anditsassumptions,inputs,out

PATH OF EXPRESSION

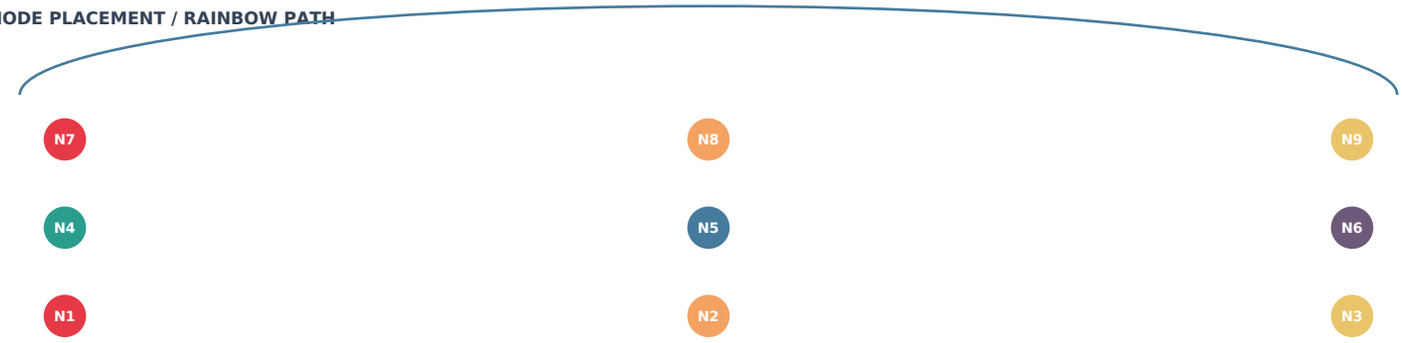
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0256"
state R -> R1
node N1
representation JP(PINK-01-P0256)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 256 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 257 of 431. Chapter 16 F-115 - Spiral compatibility ratio Exact expression chi_spiral=|u_theta|/max(|u_r|,epsilon) Meaning. Referenceratiofortangential-dominantreentry. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_F_115_Spiral_comp
reference "PINK-01-P0257"
state R -> R1
node N1
representation JP(PINK-01-P0257)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 257 of 431. Chapter 16 F-115 - Spira
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 258 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 16.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-115anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0258"
state R -> R1
node N1
representation JP(PINK-01-P0258)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 258 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 259 of 431. Chapter 17 F-116 - Return continuity Exact expression Q_return=A_in*u_n Meaning. Re-entryflowthroughthecircularport. Bound manifestations.MK,JO,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_116 Imp...

PATH OF EXPRESSION

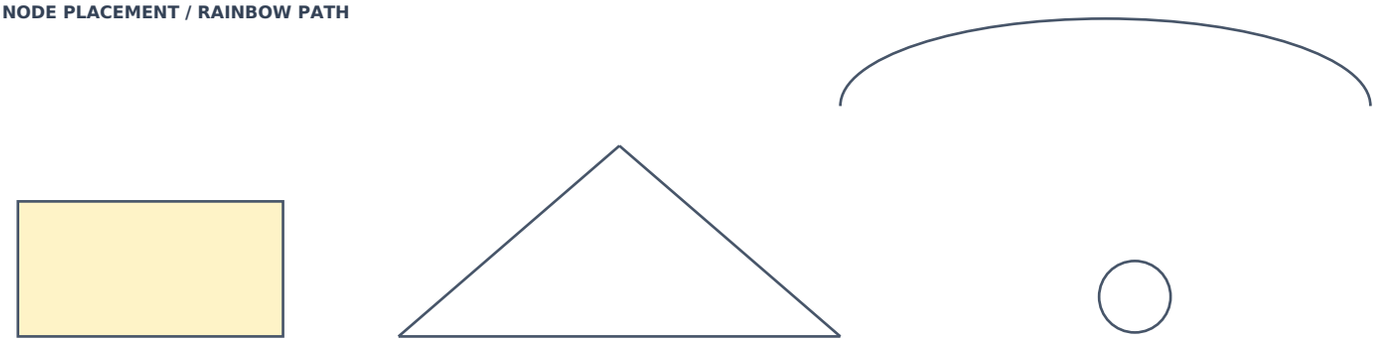
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_F_116_Return_cont
reference "PINK-01-P0259"
state R -> R1
node N1
representation JP(PINK-01-P0259)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 259 of 431. Chapter 17 F-116 - Retur
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 260 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 17.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-116anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0260"
state R -> R1
node N1
representation JP(PINK-01-P0260)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 260 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 261 of 431. Chapter 18 F-117 - Relative-frame velocity Exact expression v_rel=v_B-v_A-Omega_A x r Meaning. Coordinate-frame-relativemotion;perspectivedoesnotcreateenergy. Bound manifestations.MK,JO Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_F_117_Relative_fr
reference "PINK-01-P0261"
state R -> R1
node N1
representation JP(PINK-01-P0261)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 261 of 431. Chapter 18 F-117 - Relat
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 262 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 18.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-117anditsassumptions,inputs,out

PATH OF EXPRESSION

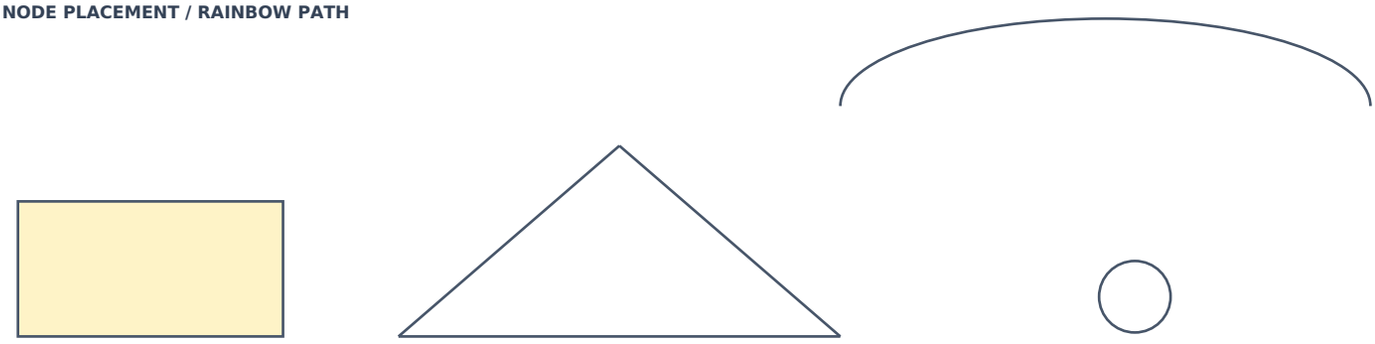
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0262"
state R -> R1
node N1
representation JP(PINK-01-P0262)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 262 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 263 of 431. Chapter 19 F-118 - Frictional dissipation Exact expression P_diss=max(0,-F_f dot v_rel) Meaning. Measuredframe-relativefrictionaldissipation. Bound manifestations.MK,JO,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_F_118_Frictional_
reference "PINK-01-P0263"
state R -> R1
node N1
representation JP(PINK-01-P0263)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 263 of 431. Chapter 19 F-118 - Frict
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 264 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 19.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-118anditsassumptions,inputs,out

PATH OF EXPRESSION

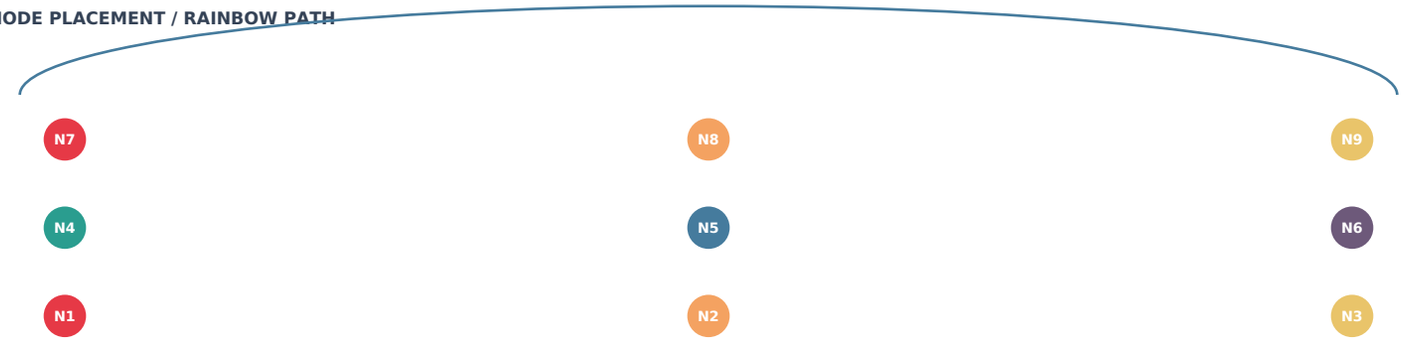
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0264"
state R -> R1
node N1
representation JP(PINK-01-P0264)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 264 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 265 of 431. Chapter 20 F-119 - Recoverable friction-energy bound Exact expression E_rec<=eta_rec*integral(P_diss dt); 0<=eta_rec<=1 Meaning. Nophysicalrecoverywithoutanevidencedconversionmechanism. Bound manifestations.MK,JO,MERMAID,SHIVA Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.r

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_F_119_Recoverable
reference "PINK-01-P0265"
state R -> R1
node N1
representation JP(PINK-01-P0265)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 265 of 431. Chapter 20 F-119 - Recov
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 266 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 20.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-119anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0266"
state R -> R1
node N1
representation JP(PINK-01-P0266)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 266 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 267 of 431. Chapter 21 F-120 - Reservoir transaction gate Exact expression Admit=AngelPass&M3Lease&MKPass&JOPass&MermaidReconciled&MJPermit Meaning. Everyreservoirtransferrequiressafety,routing,physics,proof,reconciliation,andpermit. Bound manifestations.ANGELS,M3,MK,JO,MERMAID,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lak

PATH OF EXPRESSION

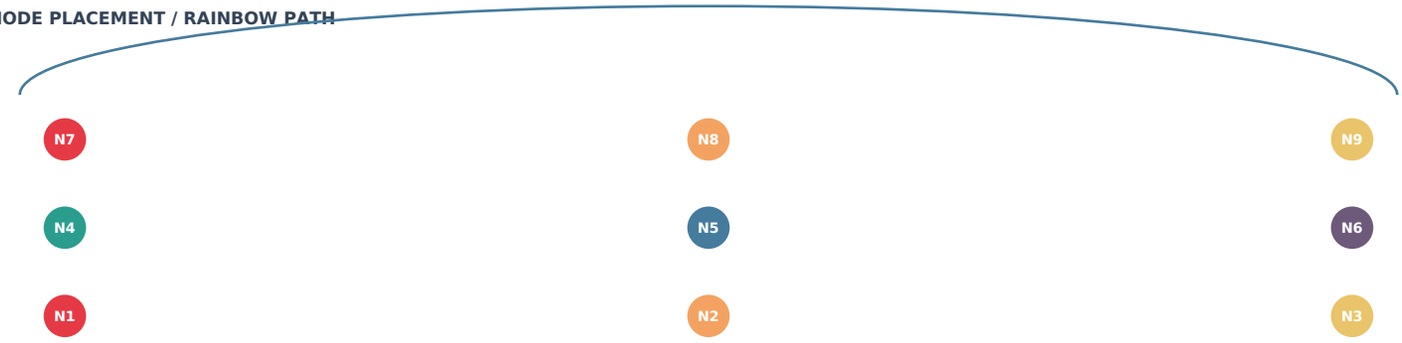
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_F_120_Reservoir_t
reference "PINK-01-P0267"
state R -> R1
node N1
representation JP(PINK-01-P0267)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 267 of 431. Chapter 21 F-120 - Reser
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 268 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 21.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-120anditsassumptions,inputs,out

PATH OF EXPRESSION

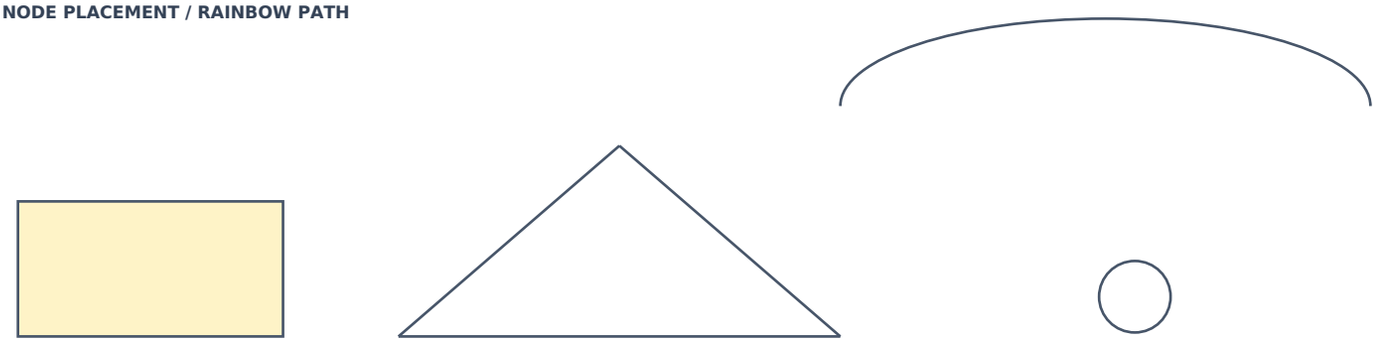
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0268"
state R -> R1
node N1
representation JP(PINK-01-P0268)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 268 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 269 of 431. Chapter 22 F-121 - Re-entry swirl ratio Exact expression chi_i=|u_theta|/max(|u_r|,epsilon_u) Meaning. Representstangential-to-inwardre-entryvelocity. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_F_121_Re_entry_sw
reference "PINK-01-P0269"
state R -> R1
node N1
representation JP(PINK-01-P0269)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 269 of 431. Chapter 22 F-121 - Re-en
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 270 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 22.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-121anditsassumptions,inputs,out

PATH OF EXPRESSION

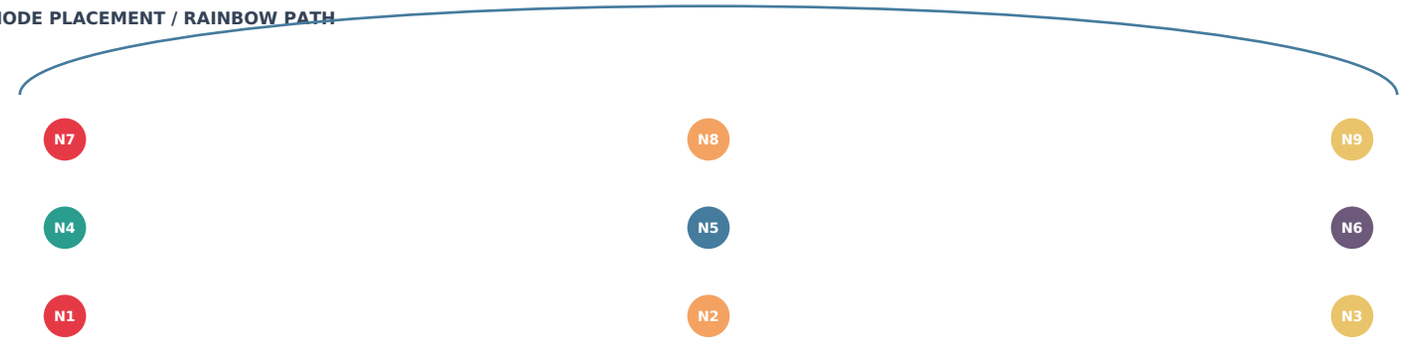
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0270"
state R -> R1
node N1
representation JP(PINK-01-P0270)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 270 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 271 of 431. Chapter 23 F-122 - Re-entry processing cycle Exact expression cycle_reentry=cycle_exit+1 Meaning. Prohibitssame-cyclefeedbackandcreatesanewreceiptchain. Bound manifestations.JO,M3,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_F_122_Re_entry_pr
reference "PINK-01-P0271"
state R -> R1
node N1
representation JP(PINK-01-P0271)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 271 of 431. Chapter 23 F-122 - Re-en
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 272 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 23.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-122anditsassumptions,inputs,out

PATH OF EXPRESSION

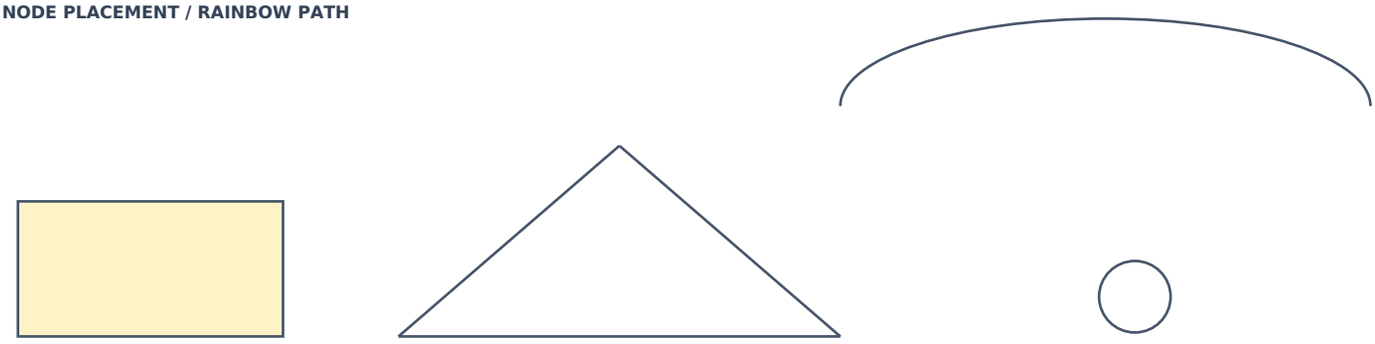
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0272"
state R -> R1
node N1
representation JP(PINK-01-P0272)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 272 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 273 of 431. Chapter 24 F-123 - Perspective transform residual Exact expression r_Pi=x_B-T_A_to_B*x_A Meaning. Measuresdisagreementaftertransformingobservationsbetweenreferenceframes. Bound manifestations.MK,JO,EVE,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

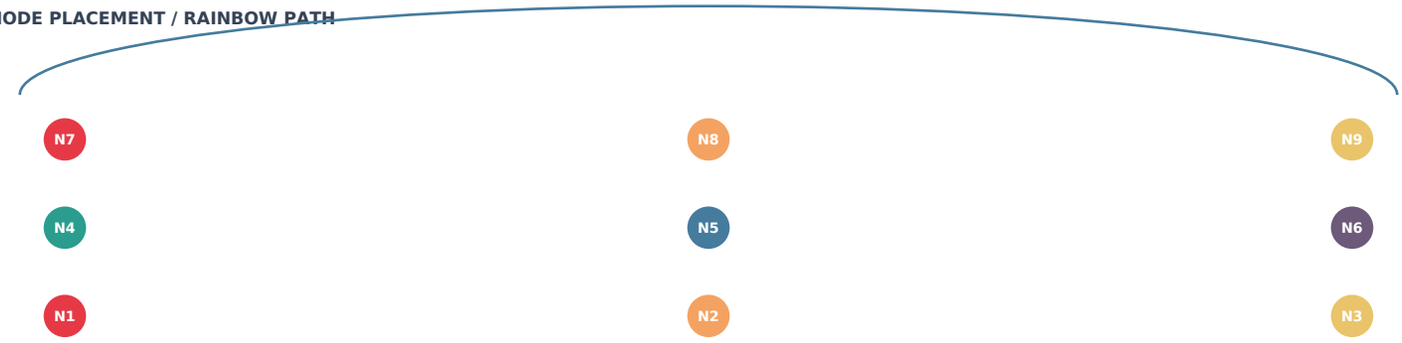
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_F_123_Perspective
reference "PINK-01-P0273"
state R -> R1
node N1
representation JP(PINK-01-P0273)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 273 of 431. Chapter 24 F-123 - Persp
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 274 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 24.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-123anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0274"
state R -> R1
node N1
representation JP(PINK-01-P0274)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 274 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 275 of 431. Chapter 25 F-124 - Physical pressure-flow dissipa- tion Exact expression E_diss=int(Delta_p(t)*Q(t)dt) Meaning. Storesmeasuredphysicaldissipationonlywhenpressureandflowareevidenced. Bound manifestations.MK,JO,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

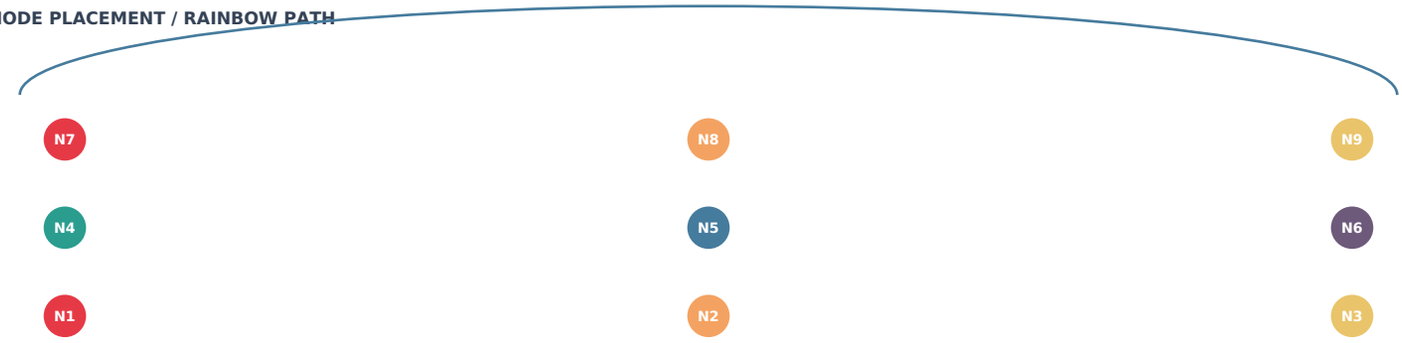
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_F_124_Physical_pr
reference "PINK-01-P0275"
state R -> R1
node N1
representation JP(PINK-01-P0275)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 275 of 431. Chapter 25 F-124 - Physi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 276 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 25.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-124anditsassumptions,inputs,out

PATH OF EXPRESSION

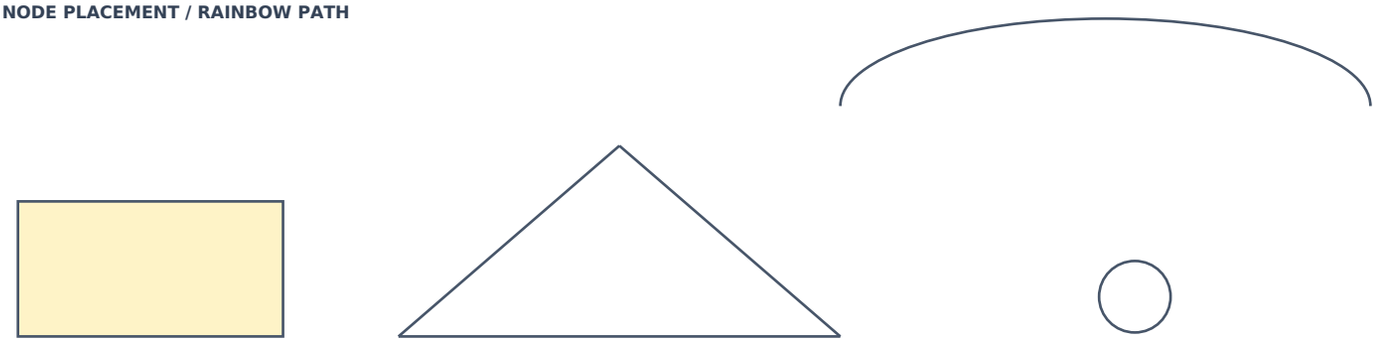
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0276"
state R -> R1
node N1
representation JP(PINK-01-P0276)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 276 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 277 of 431. Chapter 26 F-125 - Information friction Exact expression C_info=int(B_residual(t)dt) Meaning. Storesunresolvedinformationormemorycostwithouttreatingitasenergy. Bound manifestations.JO,M3,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

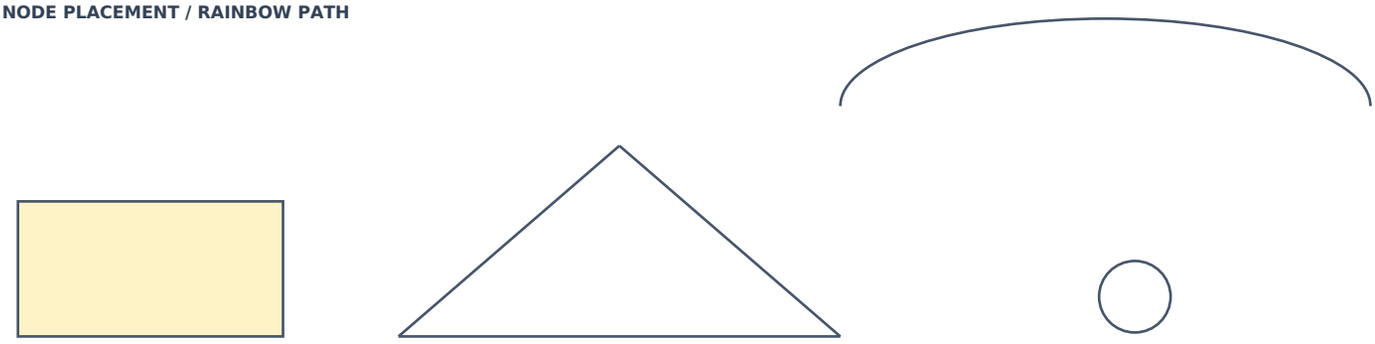
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_F_125_Information
reference "PINK-01-P0277"
state R -> R1
node N1
representation JP(PINK-01-P0277)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 277 of 431. Chapter 26 F-125 - Infor
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 278 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 26.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-125anditsassumptions,inputs,out

PATH OF EXPRESSION

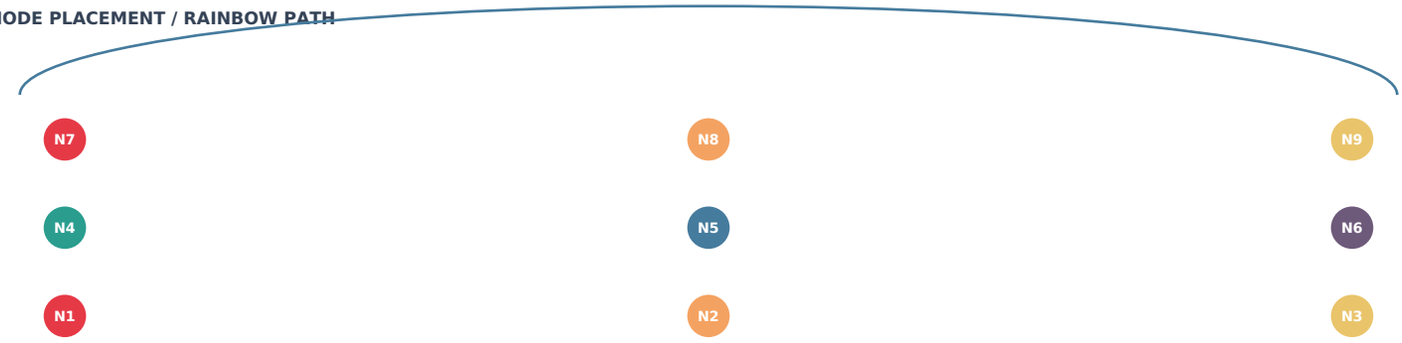
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0278"
state R -> R1
node N1
representation JP(PINK-01-P0278)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 278 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 279 of 431. Chapter 27 F-126 - Rotational setpoint damping Exact expression omega_tilde=(2/3)*omega+(1/3)*omega_star Meaning. Dampsthedesiredrotational-wavesetpoint. Bound manifestations.MK,JO,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_F_126_Rotational_
reference "PINK-01-P0279"
state R -> R1
node N1
representation JP(PINK-01-P0279)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 279 of 431. Chapter 27 F-126 - Rotat
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 280 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 27.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-126anditsassumptions,inputs,out

PATH OF EXPRESSION

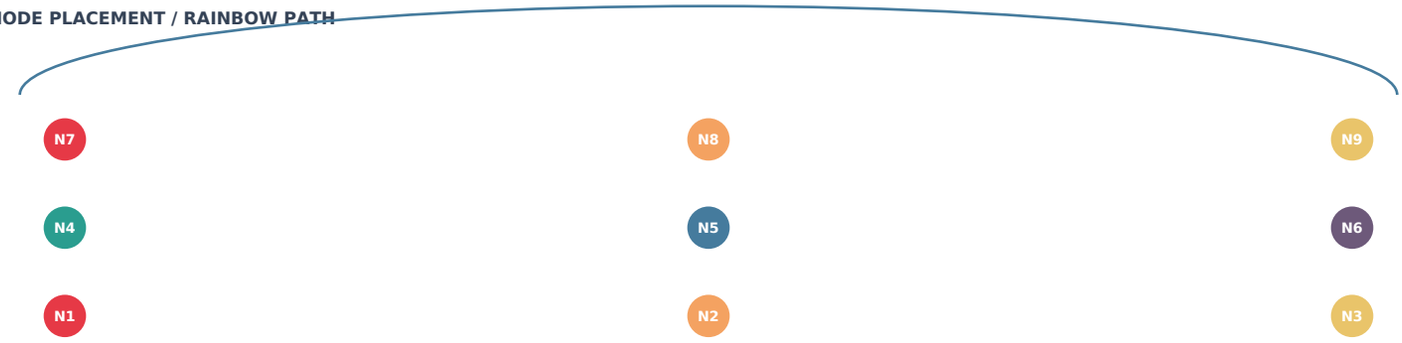
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0280"
state R -> R1
node N1
representation JP(PINK-01-P0280)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 280 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 281 of 431. Chapter 28 F-127 - Rotational step cap Exact expression |omega_next-omega|<=0.1*omega_scale Meaning. Limitsone-steprotationalchanges. Bound manifestations.MK,JO,ANGELS Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

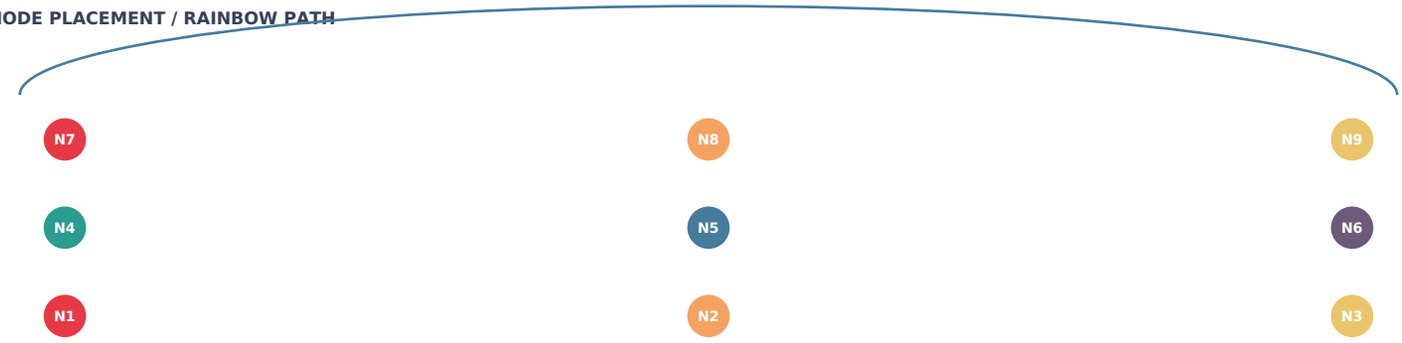
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_F_127_Rotational_
reference "PINK-01-P0281"
state R -> R1
node N1
representation JP(PINK-01-P0281)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 281 of 431. Chapter 28 F-127 - Rotat
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 282 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 28.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-127anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0282"
state R -> R1
node N1
representation JP(PINK-01-P0282)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 282 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 283 of 431. Chapter 29 F-128 - Outlet transfer conservation Exact expression q_exit=q_lake_in+q_EVE+q_escape+r_o Meaning. Separateslakeadmission,EVEobservation,escape,andresidual. Bound manifestations.EVE,SISTER,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

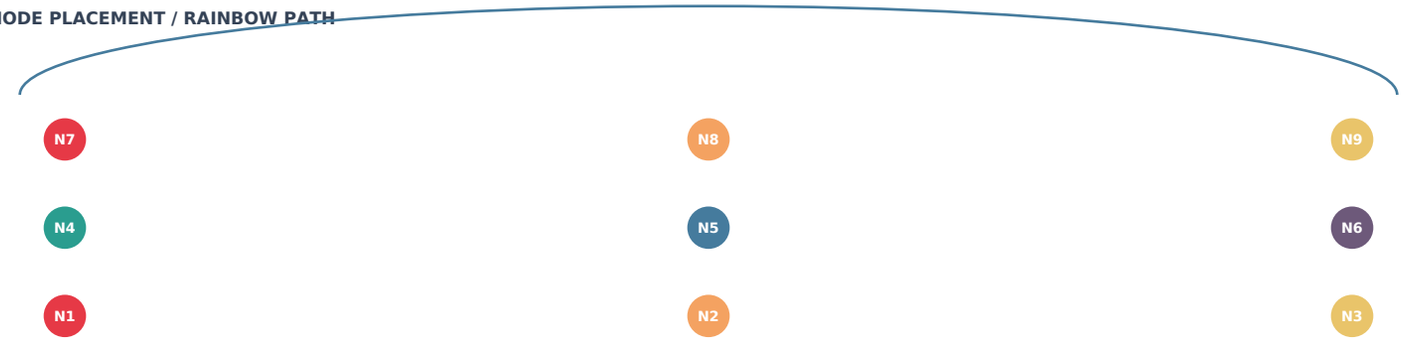
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_F_128_Outlet_tran
reference "PINK-01-P0283"
state R -> R1
node N1
representation JP(PINK-01-P0283)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 283 of 431. Chapter 29 F-128 - Outle
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 284 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 29.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-128anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0284"
state R -> R1
node N1
representation JP(PINK-01-P0284)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 284 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 285 of 431. Chapter 30 F-129 - Re-entry recalculation vector Exact expression Delta_x=[Delta_m,Delta_W,Delta_V,Delta_rho,Delta_T,Delta_p,Delta_h] Meaning. Declarestheobservedchangesthattriggerrecalculationbeforere-entry. Bound manifestations.MK,JO,EVE,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction

PATH OF EXPRESSION

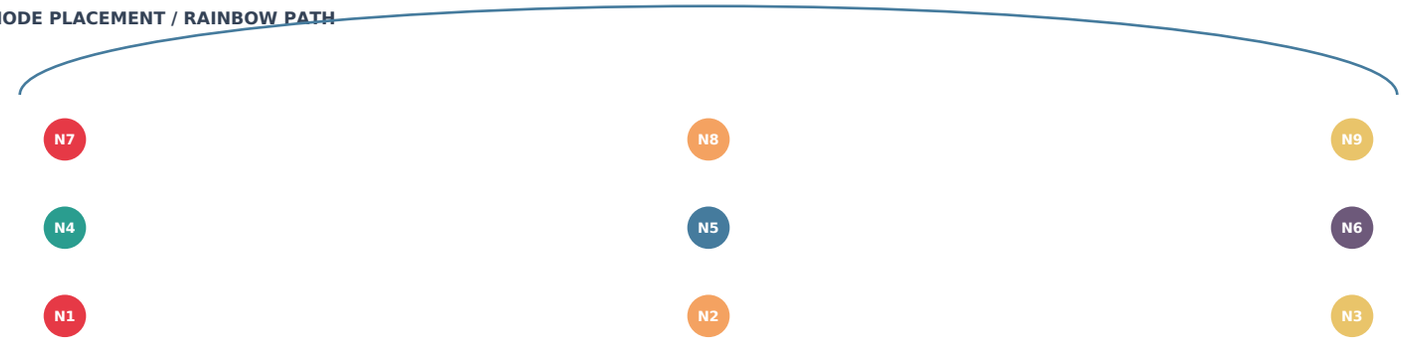
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_F_129_Re_entry_re
reference "PINK-01-P0285"
state R -> R1
node N1
representation JP(PINK-01-P0285)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 285 of 431. Chapter 30 F-129 - Re-en
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 286 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 30.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-129anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0286"
state R -> R1
node N1
representation JP(PINK-01-P0286)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 286 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 287 of 431. Chapter 31 F-130 - Re-entry admissibility predicate Exact expression Admit_re=types&units&new_cycle&capacity&wave&MK&JO&Angels&M3&MJ Meaning. Requirescompletephysics,evidence,safety,routing,andauthoritybeforephysicalre-entry. Bound manifestations.Bangel ,JP,MK,JO,ANGELS,M3,MJ Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevide...

PATH OF EXPRESSION

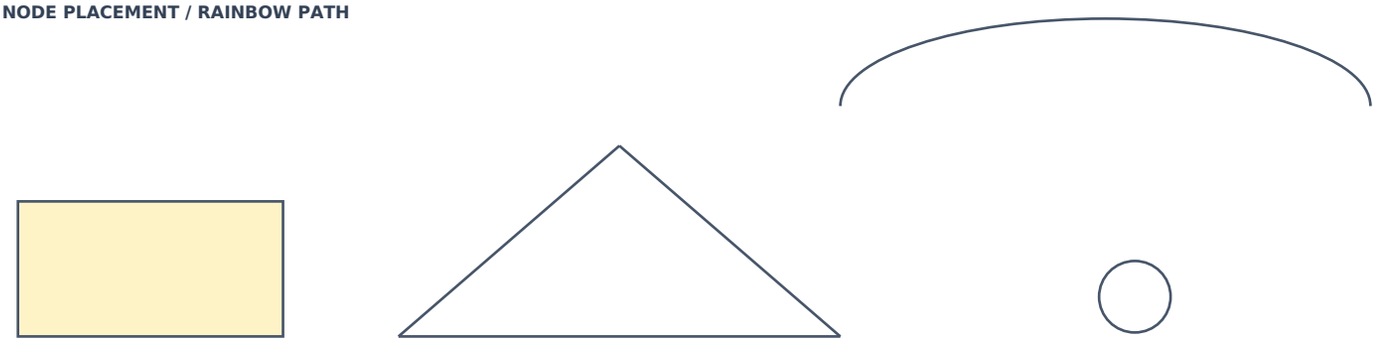
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_31_F_130_Re_entry_ad
reference "PINK-01-P0287"
state R -> R1
node N1
representation JP(PINK-01-P0287)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 287 of 431. Chapter 31 F-130 - Re-en
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 288 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 31.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-130anditsassumptions,inputs,out

PATH OF EXPRESSION

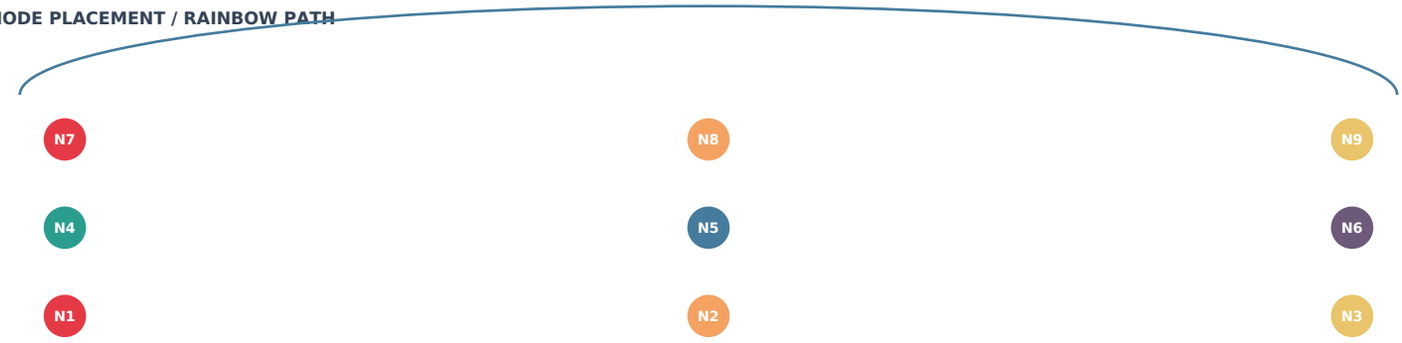
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0288"
state R -> R1
node N1
representation JP(PINK-01-P0288)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 288 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 289 of 431. Chapter 32 F-131 - Uncertainty-aware Pearl refer- ence clearance Exact expression min_s(||gamma_out(s)-c_P||-R_P,sim) >= c_min+U_path Meaning. PathremainsoutsidethenonphysicalPearlsimulationreferencecircleafteruncertaintyis included. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_r

PATH OF EXPRESSION

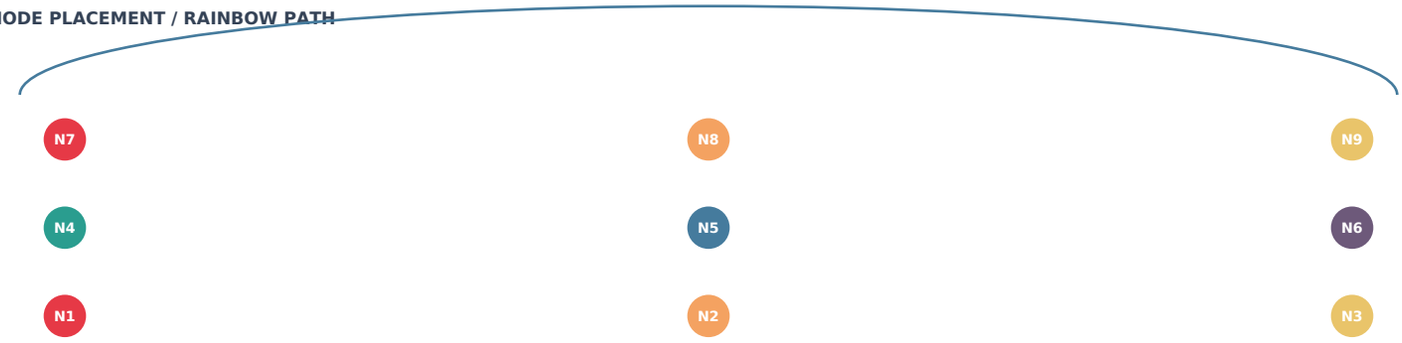
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_32_F_131_Uncertainty
reference "PINK-01-P0289"
state R -> R1
node N1
representation JP(PINK-01-P0289)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 289 of 431. Chapter 32 F-131 - Uncer
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 290 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 } 32.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-131anditsassumptions,inputs,o

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0290"
state R -> R1
node N1
representation JP(PINK-01-P0290)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 290 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 291 of 431. Chapter 33 F-132 - Outward angular-gap predicate Exact expression abs(wrap(alpha_out-alpha_gap)) <= Delta_alpha_gap/2 Meaning. Outletdirectionremainswithinthedeclaredoutward-facinggap. Bound manifestations.JP,MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

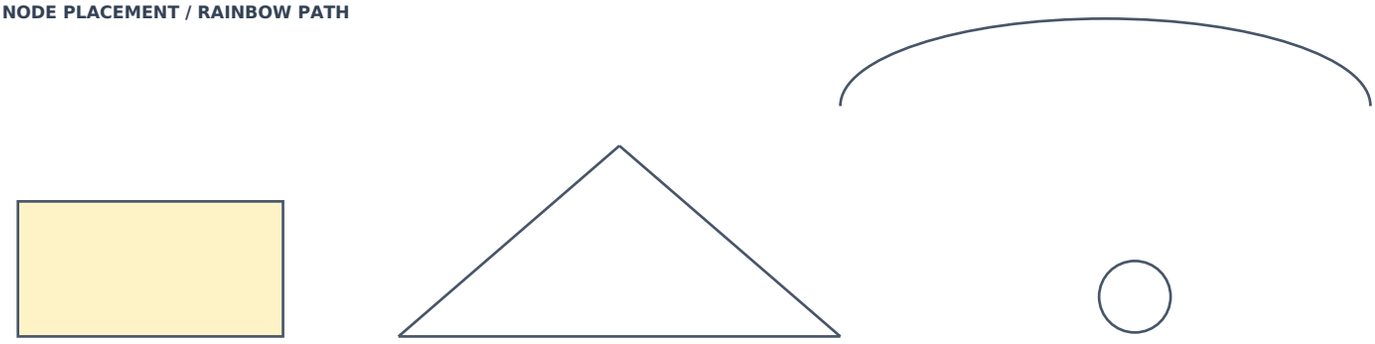
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_33_F_132_Outward_ang
reference "PINK-01-P0291"
state R -> R1
node N1
representation JP(PINK-01-P0291)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 291 of 431. Chapter 33 F-132 - Outwa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 292 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 33.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-132anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0292"
state R -> R1
node N1
representation JP(PINK-01-P0292)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 292 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 293 of 431. Chapter 34 F-133 - Available outlet pressure Exact expression Delta_p_available=p_containment-p_lake+rho*g*(z_out-z_lake) Meaning. Pressureandelevationstateavailabletodriveareferenceoutletflow. Bound manifestations.MK,JO,SISTER Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.rese

PATH OF EXPRESSION

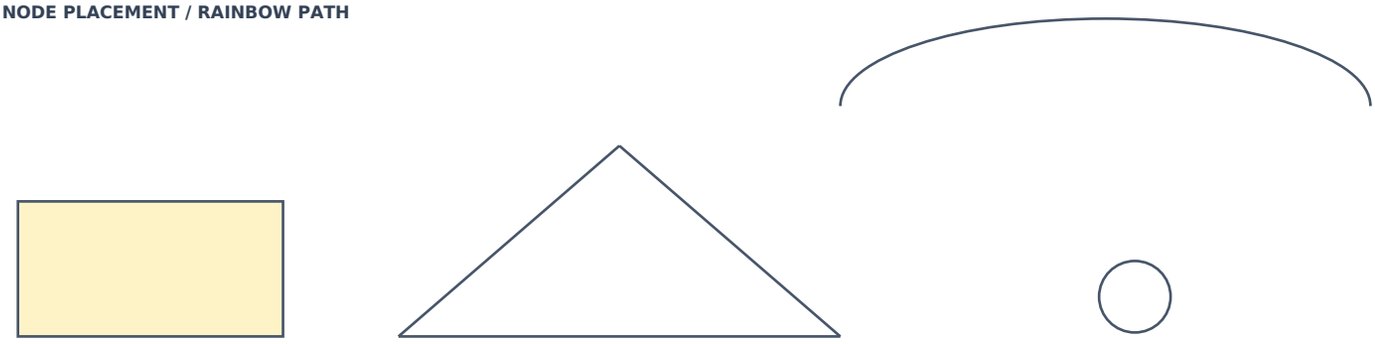
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_34_F_133_Available_o
reference "PINK-01-P0293"
state R -> R1
node N1
representation JP(PINK-01-P0293)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 293 of 431. Chapter 34 F-133 - Avail
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 294 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 34.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-133anditsassumptions,inputs,out

PATH OF EXPRESSION

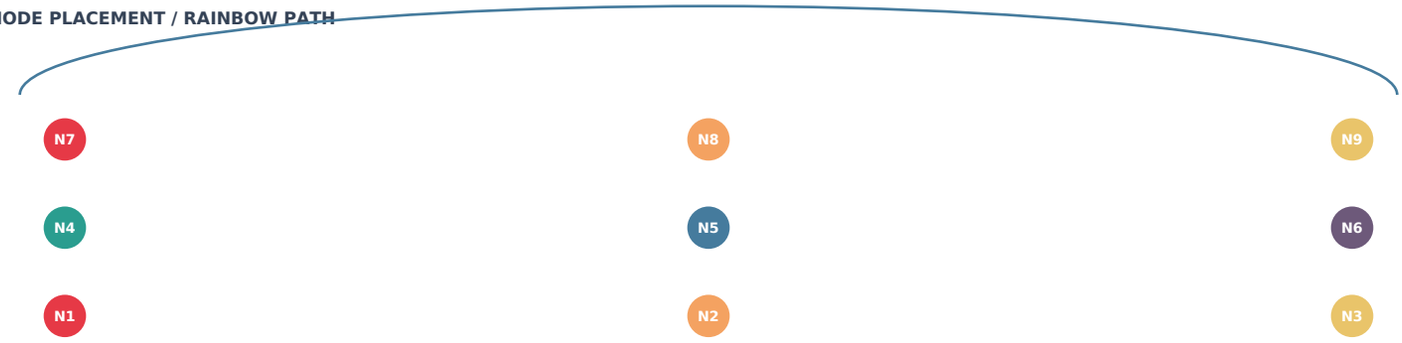
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0294"
state R -> R1
node N1
representation JP(PINK-01-P0294)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 294 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 295 of 431. Chapter 35 F-134 - Outlet pressure margin Exact expression Delta_p_margin=Delta_p_available-Delta_p_loss-U_Delta_p Meaning. Conservativepressuremarginafterlossesanduncertainty. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_35_F_134_Outlet_pres
reference "PINK-01-P0295"
state R -> R1
node N1
representation JP(PINK-01-P0295)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 295 of 431. Chapter 35 F-134 - Outle
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 296 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 35.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-134anditsassumptions,inputs,out

PATH OF EXPRESSION

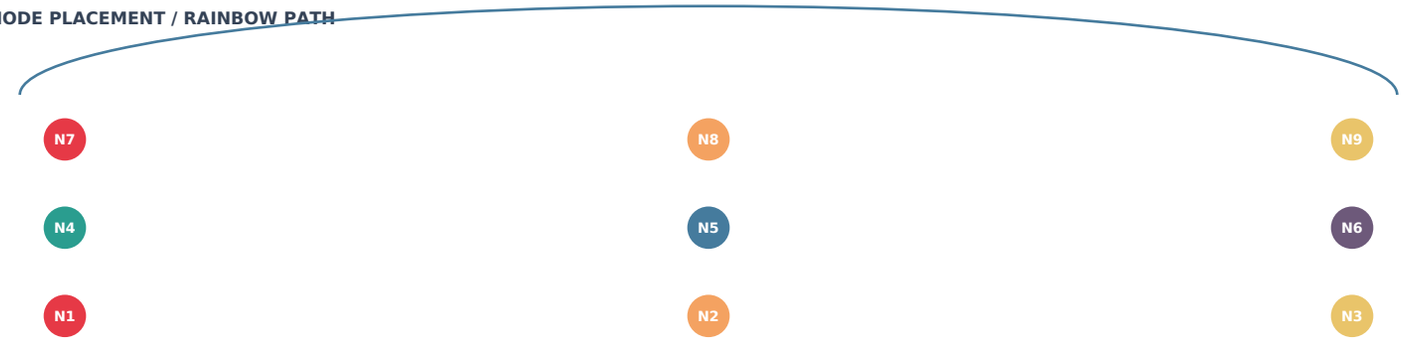
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0296"
state R -> R1
node N1
representation JP(PINK-01-P0296)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 296 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 297 of 431. Chapter 36 F-135 - Minimum outlet grade Exact expression alpha_min=atan(max(0,Delta_p_loss+U_Delta_p-(p_containment-p_lake))/(rho*g*L_path)) Meaning. Minimummodeledgradeneededtoovercomepressuredeficitunderdeclaredassumptions. Bound manifestations.JP,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

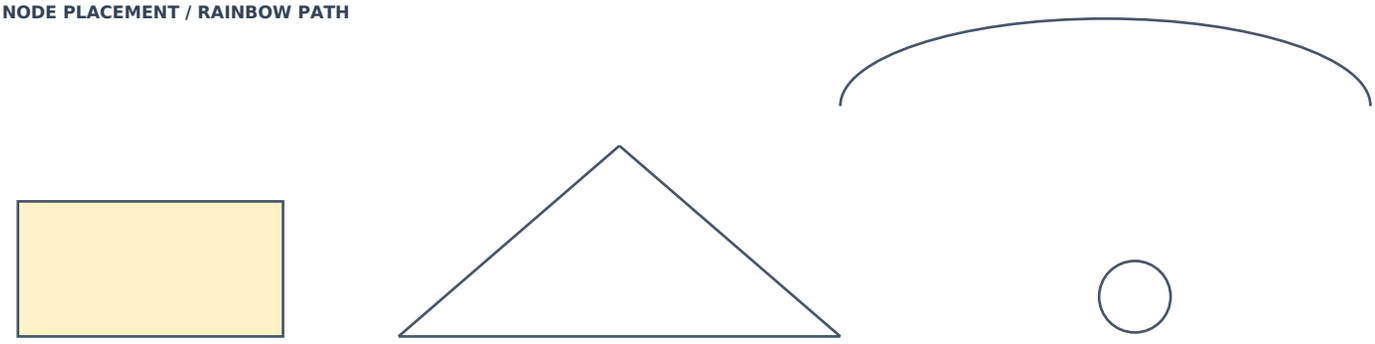
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_36_F_135_Minimum_out
reference "PINK-01-P0297"
state R -> R1
node N1
representation JP(PINK-01-P0297)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 297 of 431. Chapter 36 F-135 - Minim
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 298 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 36.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-135anditsassumptions,inputs,out

PATH OF EXPRESSION

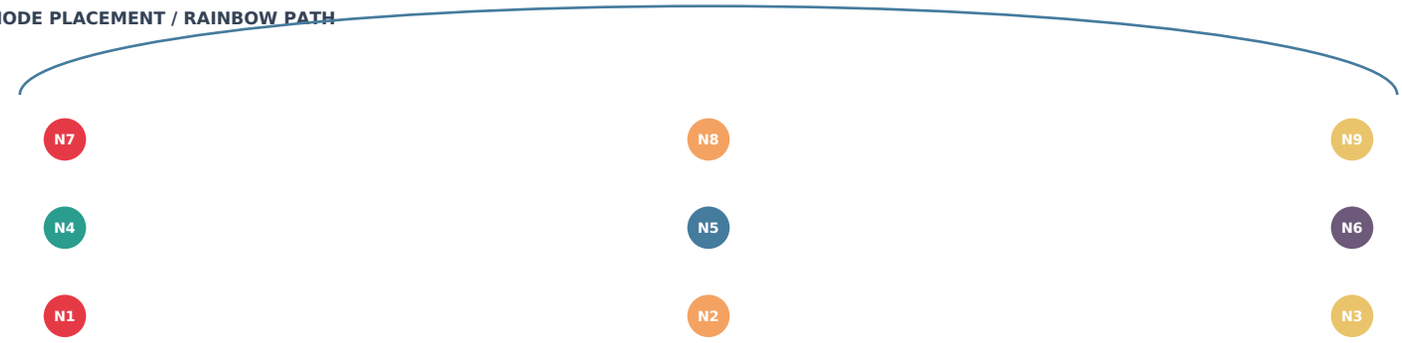
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0298"
state R -> R1
node N1
representation JP(PINK-01-P0298)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 298 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 299 of 431. Chapter 37 F-136 - Selected positive outlet grade Exact expression alpha_selected=alpha_min+delta_alpha; delta_alpha>0 Meaning. Slightpositiveincreaseabovethemodeledminimum;nouniversalvalueisasserted. Bound manifestations.JP,MK,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBME

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_37_F_136_Selected_po
reference "PINK-01-P0299"
state R -> R1
node N1
representation JP(PINK-01-P0299)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 299 of 431. Chapter 37 F-136 - Selec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 300 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 37.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-136anditsassumptions,inputs,out

PATH OF EXPRESSION

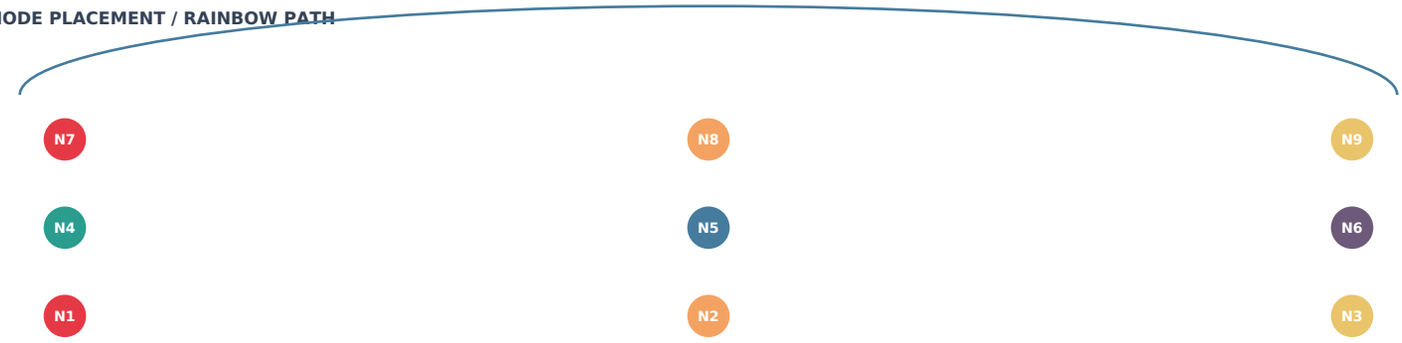
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0300"
state R -> R1
node N1
representation JP(PINK-01-P0300)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 300 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 301 of 431. Chapter 38 F-137 - Incompressible reference outlet flow Exact expression Q_ref=C_d*A_out*sqrt(2*max(0,Delta_p_available-Delta_p_loss)/rho) Meaning. Conditionalreferenceflowunderevidencedincompressibleassumptions. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

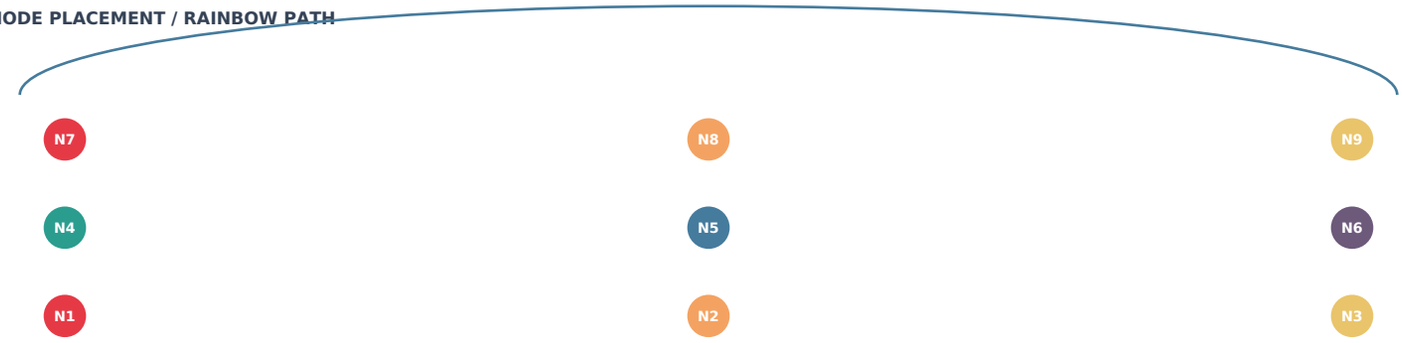
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_38_F_137_Incompressi
reference "PINK-01-P0301"
state R -> R1
node N1
representation JP(PINK-01-P0301)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 301 of 431. Chapter 38 F-137 - Incom
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 302 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 38.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-137anditsassumptions,inputs,out

PATH OF EXPRESSION

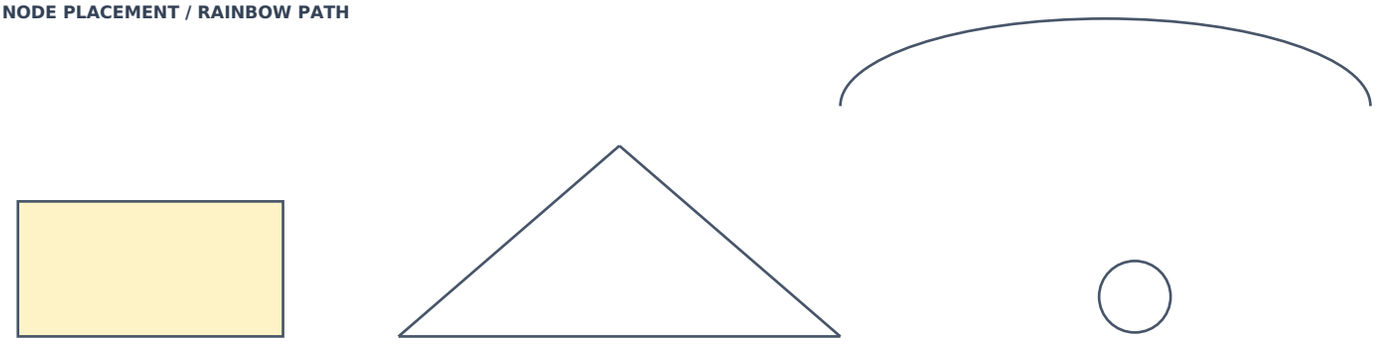
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0302"
state R -> R1
node N1
representation JP(PINK-01-P0302)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 302 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 303 of 431. Chapter 39 F-138 - Mean outlet velocity Exact expression U_out=Q_ref/A_out Meaning. Conditionalmeanvelocityforthedeclaredoutletarea. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_39_F_138_Mean_outlet
reference "PINK-01-P0303"
state R -> R1
node N1
representation JP(PINK-01-P0303)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 303 of 431. Chapter 39 F-138 - Mean
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 304 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 39.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-138anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0304"
state R -> R1
node N1
representation JP(PINK-01-P0304)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 304 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 305 of 431. Chapter 40 F-139 - Weber number reference Exact expression We=rho*U^2*L/sigma Meaning. Surface-tension-to-inertiareferencewhenthemodelapplies. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

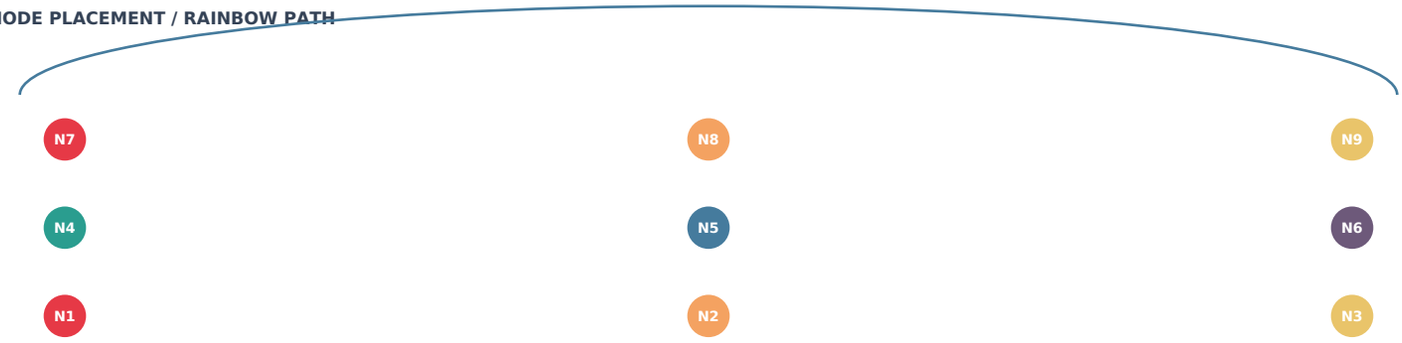
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_40_F_139_Weber_numbe
reference "PINK-01-P0305"
state R -> R1
node N1
representation JP(PINK-01-P0305)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 305 of 431. Chapter 40 F-139 - Weber
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 306 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 40.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-139anditsassumptions,inputs,out

PATH OF EXPRESSION

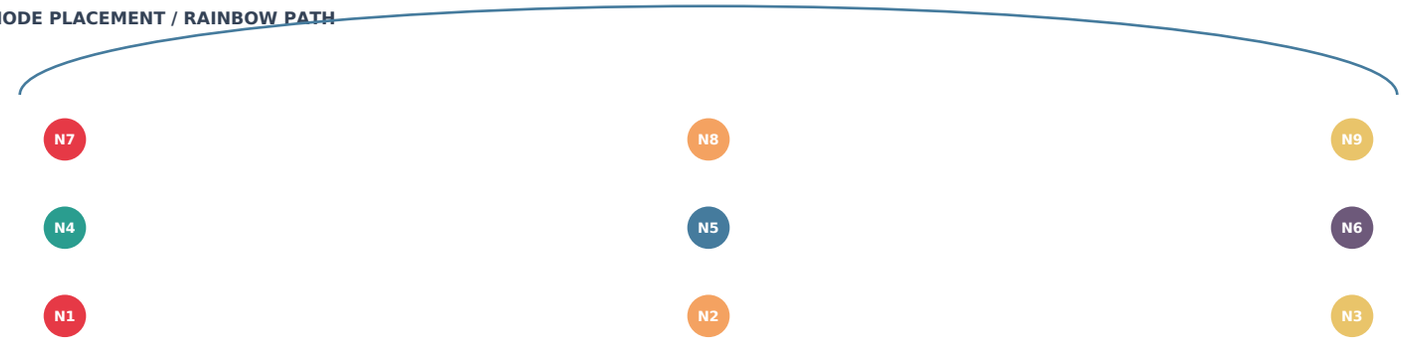
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0306"
state R -> R1
node N1
representation JP(PINK-01-P0306)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 306 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 307 of 431. Chapter 41 F-140 - Wave amplitude ratio Exact expression epsilon_a=a_wave/h_L Meaning. Dimensionlesssmall-amplitudeobservationratio. Bound manifestations.MK,JO,EVE Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

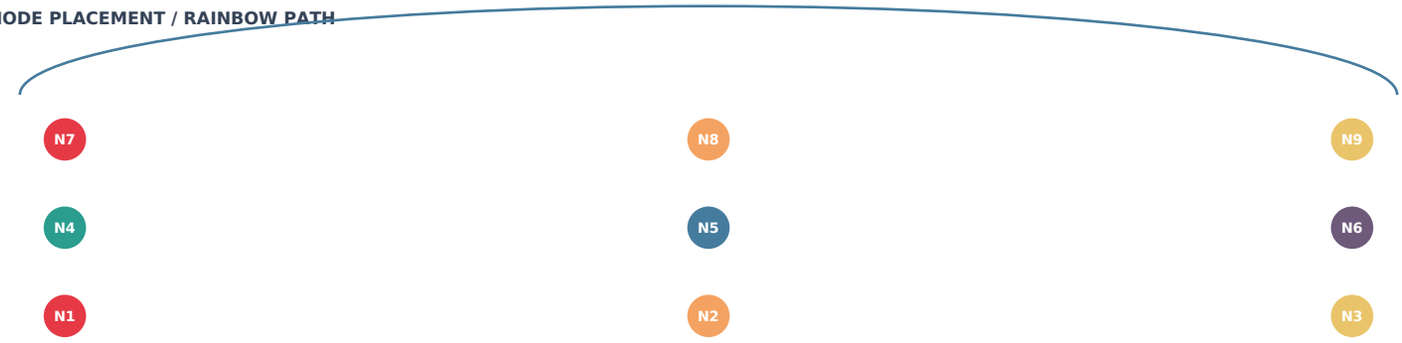
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_41_F_140_Wave_amplit
reference "PINK-01-P0307"
state R -> R1
node N1
representation JP(PINK-01-P0307)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 307 of 431. Chapter 41 F-140 - Wave
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 308 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 41.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-140anditsassumptions,inputs,out

PATH OF EXPRESSION

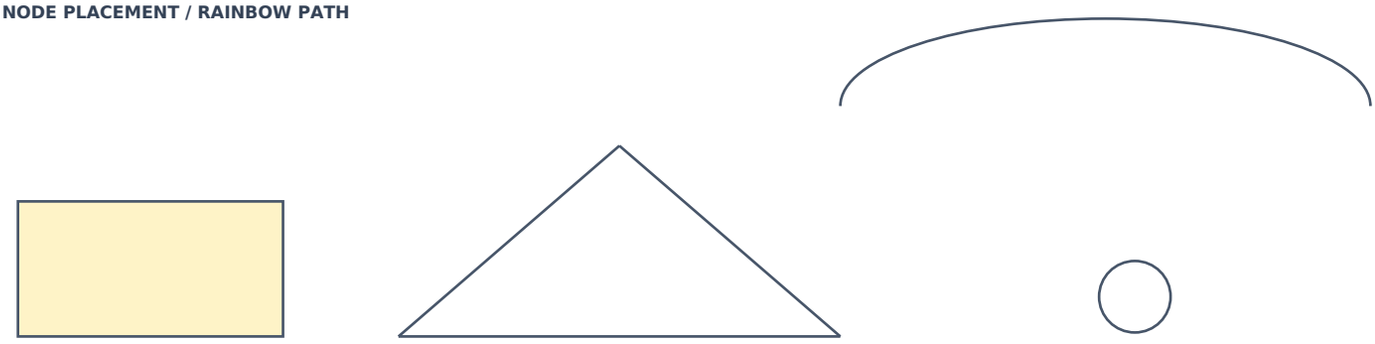
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0308"
state R -> R1
node N1
representation JP(PINK-01-P0308)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 308 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 309 of 431. Chapter 42 F-141 - Small-wave observation gate Exact expression WaveGate=(Fr<=Fr_max)&(epsilon_a<=epsilon_a,max)&(We<=We_max when applicable) Meaning. Referencegateforboundedlow-amplitudeobservations;notproofofwavesuppression. Bound manifestations.MK,JO,ANGELS Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Mod...

PATH OF EXPRESSION

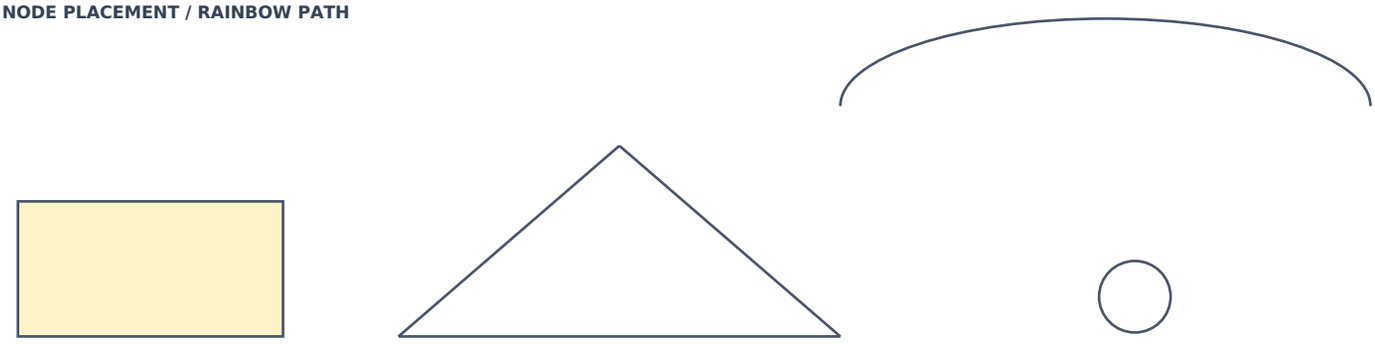
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_42_F_141_Small_wave_
reference "PINK-01-P0309"
state R -> R1
node N1
representation JP(PINK-01-P0309)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 309 of 431. Chapter 42 F-141 - Small
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 310 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 42.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-141anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0310"
state R -> R1
node N1
representation JP(PINK-01-P0310)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 310 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 311 of 431. Chapter 43 F-142 - Discrete reservoir inventory Exact expression q_L,t+1=q_L,t+q_out-q_return-q_drain-q_escape-r_L Meaning. Receipteddiscreteupdatefortheseparatelake/buffercontrolvolume. Bound manifestations.EVE,M3,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reserv

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_43_F_142_Discrete_re
reference "PINK-01-P0311"
state R -> R1
node N1
representation JP(PINK-01-P0311)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 311 of 431. Chapter 43 F-142 - Discr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 312 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 43.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-142anditsassumptions,inputs,out

PATH OF EXPRESSION

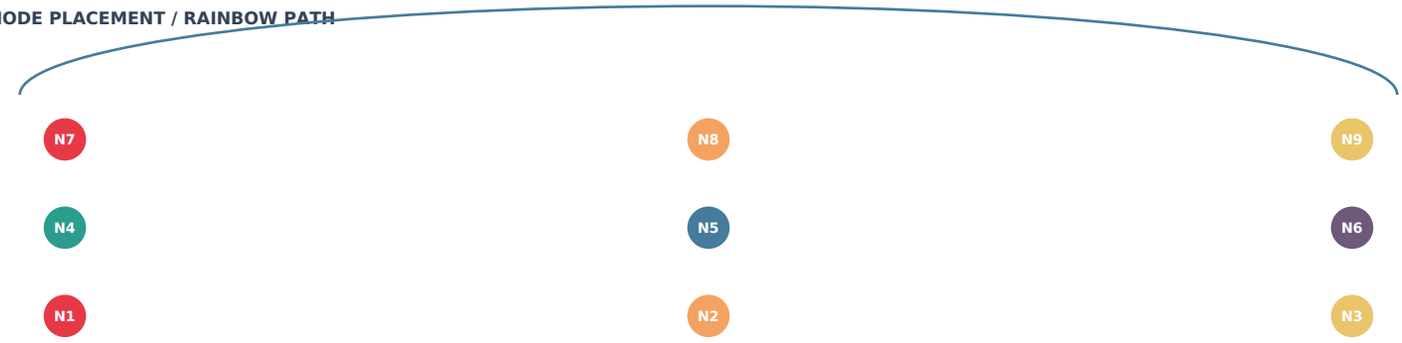
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0312"
state R -> R1
node N1
representation JP(PINK-01-P0312)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 312 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 313 of 431. Chapter 44 F-143 - Vector reservoir headroom Exact expression H_L,k=C_L,k-q_L,k Meaning. Headroomremainsseparateforeveryresourcedimension. Bound manifestations.SISTER,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

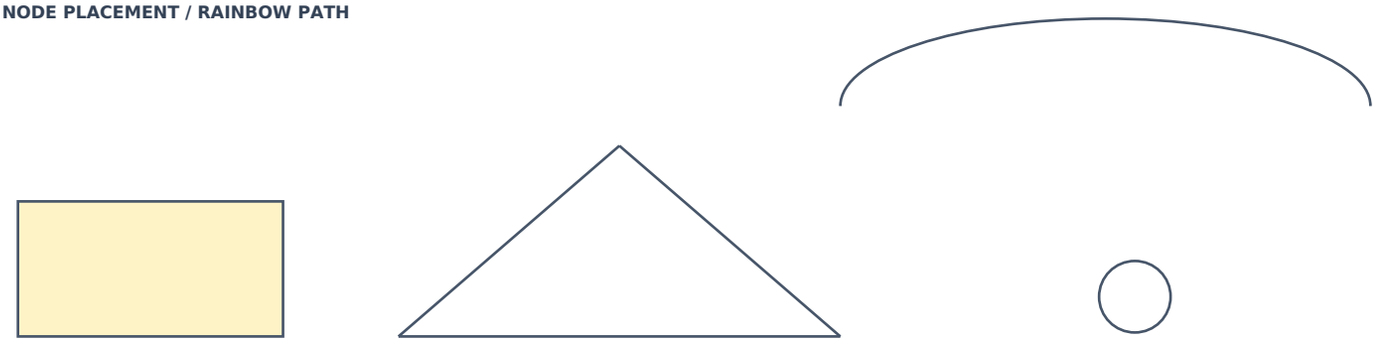
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_44_F_143_Vector_rese
reference "PINK-01-P0313"
state R -> R1
node N1
representation JP(PINK-01-P0313)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 313 of 431. Chapter 44 F-143 - Vecto
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 314 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 44.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-143anditsassumptions,inputs,out

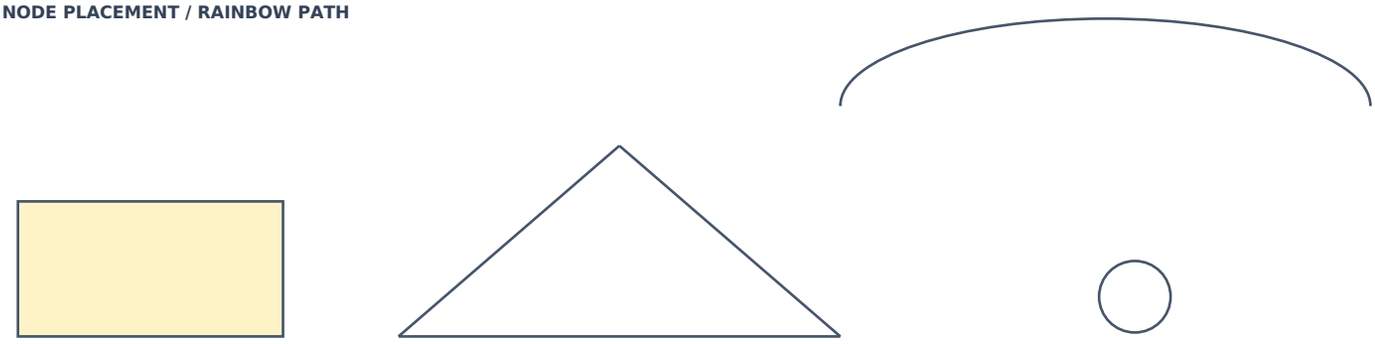
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0314"
state R -> R1
node N1
representation JP(PINK-01-P0314)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 314 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 315 of 431. Chapter 45 F-144 - Vector reservoir admission Exact expression Admit_L=AND_k[q_L,k+q_in,k <= (1-h_L,k)C_L,k] Meaning. Admissionfailswhenanyresourcedimensionlacksrequiredheadroom. Bound manifestations.ANGELS,M3,MK,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namesp...

PATH OF EXPRESSION

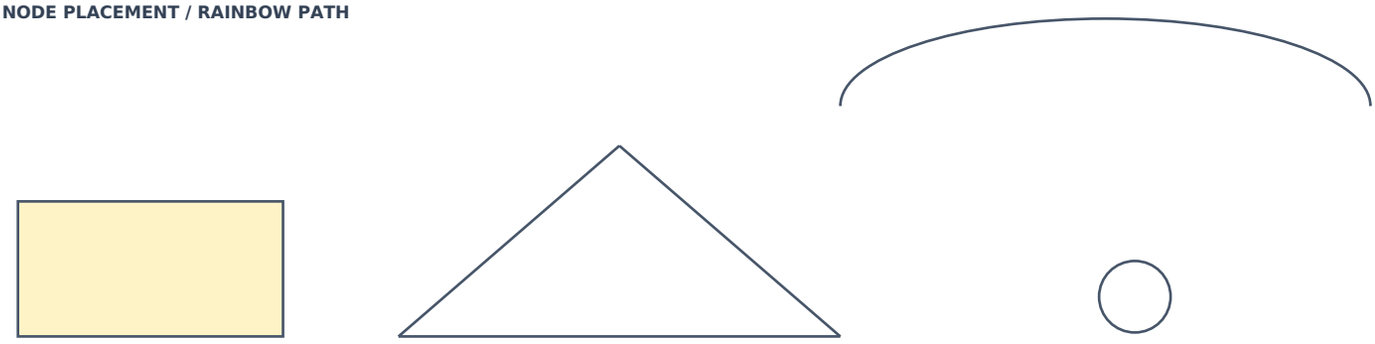
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_45_F_144_Vector_rese
reference "PINK-01-P0315"
state R -> R1
node N1
representation JP(PINK-01-P0315)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 315 of 431. Chapter 45 F-144 - Vecto
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 316 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 45.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-144anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0316"
state R -> R1
node N1
representation JP(PINK-01-P0316)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 316 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 317 of 431. Chapter 46 F-145 - No same-cycle feedback predi- cate Exact expression ReentryValid=(cycle_reentry=cycle_exit+1)&no_uncleared_generation_reuse Meaning. Re-entrystartsanewreceiptedcycleandcannotfeedthesameactivegeneration. Bound manifestations.M3,JO,ANGELS,MJ Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecis...

PATH OF EXPRESSION

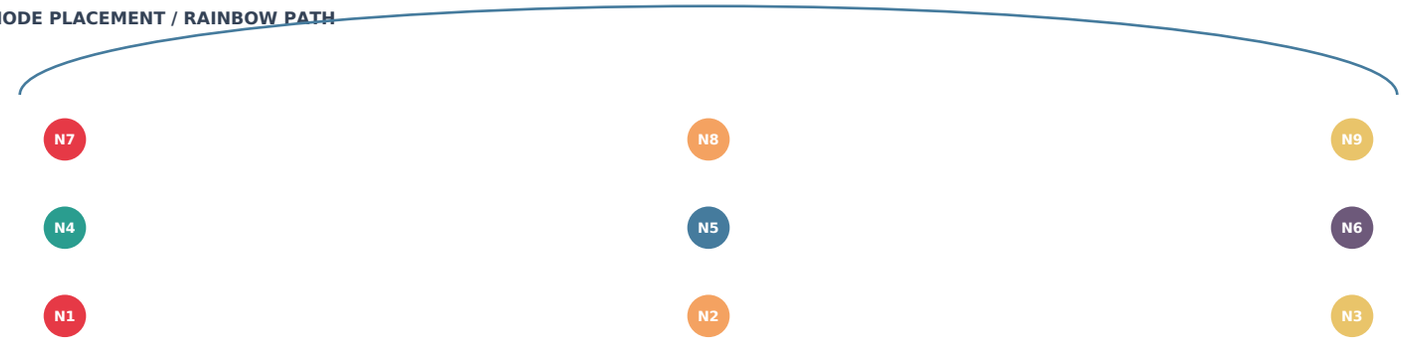
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_46_F_145_No_same_cyc
reference "PINK-01-P0317"
state R -> R1
node N1
representation JP(PINK-01-P0317)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 317 of 431. Chapter 46 F-145 - No sa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 318 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 46.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-145anditsassumptions,inputs,out

PATH OF EXPRESSION

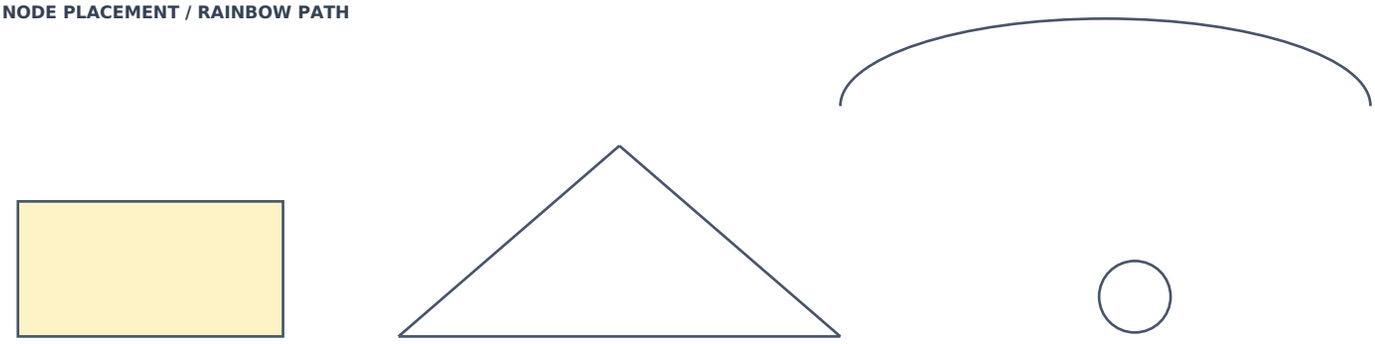
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0318"
state R -> R1
node N1
representation JP(PINK-01-P0318)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 318 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 319 of 431. MJ-PBMEFPinkPaper-VolumeV FamilyManifestationsandGovernedObjectGatewayBindings MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

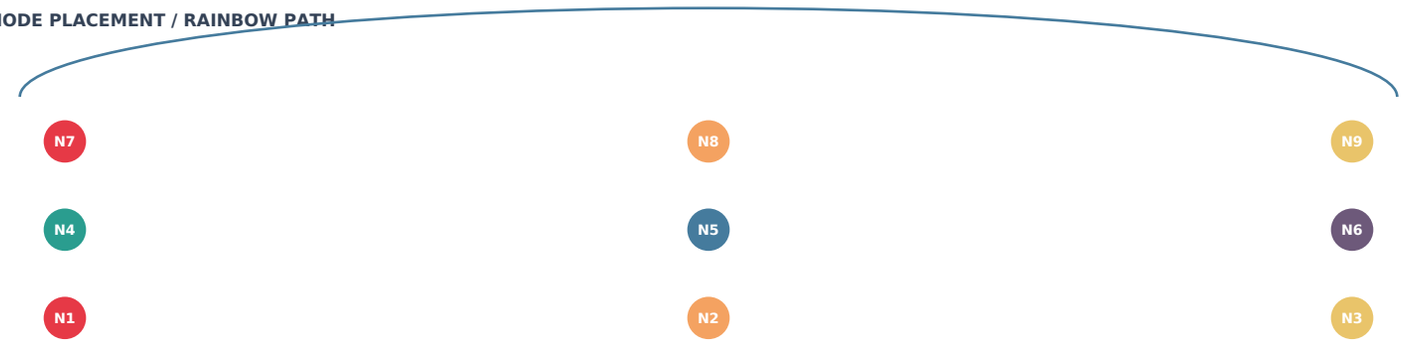
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeV_Fa
reference "PINK-01-P0319"
state R -> R1
node N1
representation JP(PINK-01-P0319)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 319 of 431. MJ-PBMEFPinkPaper-Volume
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 320 of 431. Contents 1 Family manifestation verification 4 2 MJ -MJ 5 2.1 Command-life-cyclerole . . . . . .5 3 Bangel -Bangel 6 3.1 Command-life-cyclerole . . . . . .6 4 Elsa -ELSA 7 4.1 Command-life-cyclerole . . . . . .7 5 JP -JP 8 5.1 Command

PATH OF EXPRESSION

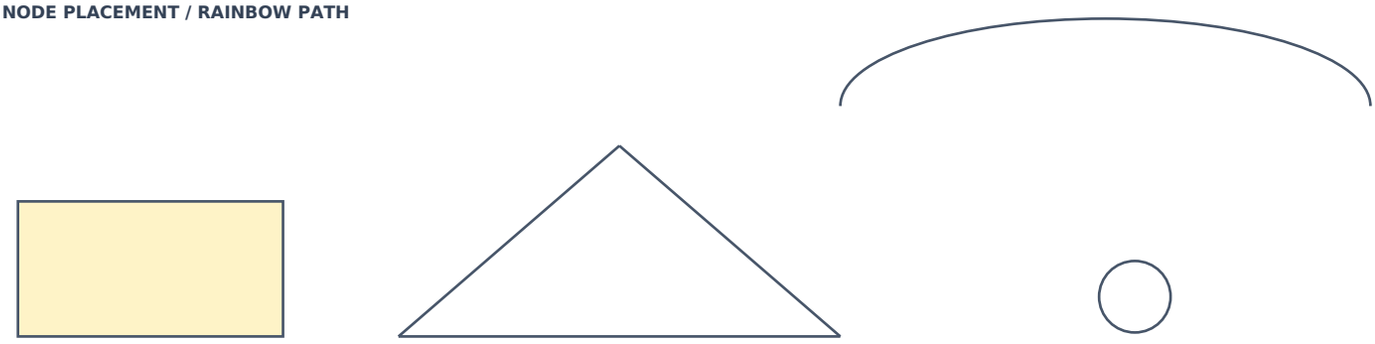
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Family_manifestat
reference "PINK-01-P0320"
state R -> R1
node N9
representation JP(PINK-01-P0320)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 320 of 431. Contents 1 Family manife
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 321 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 17Belle -BELLE 20 17.1Command-life-cyclerole . . . . . .20 18Lecanto -LECANTO 21 18.1Command-life-cyclerole . . . . . .21 19Moana -MOANA 22 19.1Command-life-cyclerole . . . . . .

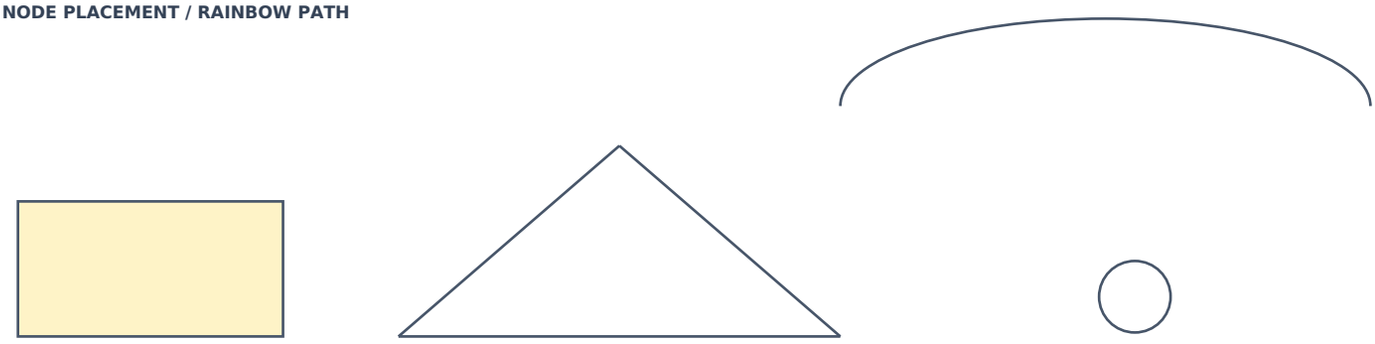
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0321"
state R -> R1
node N1
representation JP(PINK-01-P0321)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 321 of 431. PRIVA TE PRE-DA Y -0 - U
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 322 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects Document control Project MJ:PhysicsBasedMeasurementEngineeringFramework Project ID MJ-PBMEF-001 Source build MJ-PBMEF-DAY0-R5-REVIEW-CANDIDATE Document ID MJ-PBMEF-PINK-PAPER-001/VOL-V Author and architect MichaelBangel Status FOUNDER_REVIEW_CANDIDATE_PENDING_FREEZE Scope Allfamilymanifestationsandgovernedobjectsingatewayandlife- cycle

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0322"
state R -> R1
node N1
representation JP(PINK-01-P0322)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 322 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 323 of 431. Chapter 1 Family manifestation verification 4

PATH OF EXPRESSION

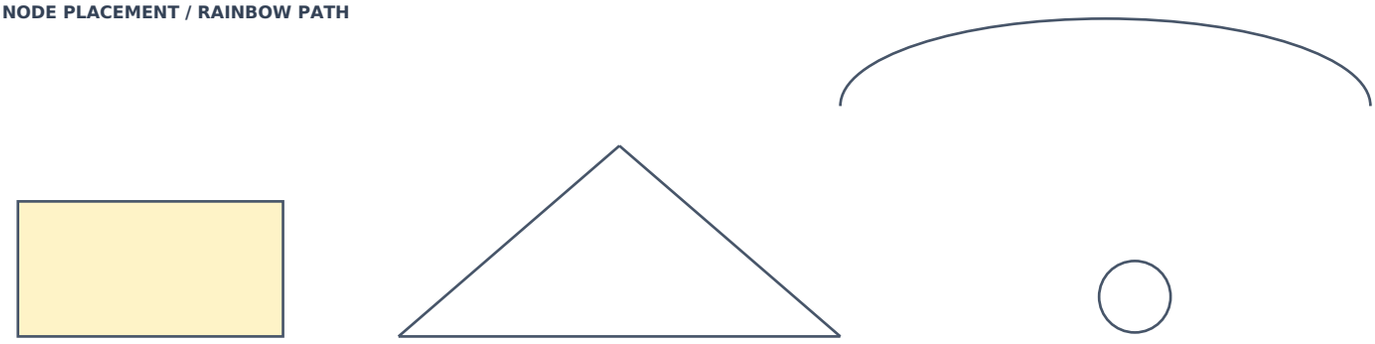
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Family_manifestati
reference "PINK-01-P0323"
state R -> R1
node N1
representation JP(PINK-01-P0323)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 323 of 431. Chapter 1 Family manifes
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 324 of 431. Chapter 2 MJ -MJ Construct Formula-specific expression Module MJ.PBMEF.Family.MJ Namespace MJ.PBMEF.Family.MJ.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMJ Definition Projectroot,founder-governedauthorityandfinalboundedpermitdecision. Capability boundedpermit,hold,deny,projectstate Participant MJ Relationship Incoming: MICHAEL_BANGEL;outgoing: Bangel Function Projectroot

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_MJ_MJ_Construct_Fo
reference "PINK-01-P0324"
state R -> R1
node N1
representation JP(PINK-01-P0324)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 324 of 431. Chapter 2 MJ -MJ Constru
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 325 of 431. Chapter 3 Bangel -Bangel Construct Formula-specific expression Module MJ.PBMEF.Family.Bangel Namespace MJ.PBMEF.Family.Bangel .Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantBangel Definition Human-facinggovernedlanguagethatpreservespurposeandcommandstructure. Capability typedcommandenvelope,sourcerepresentation,BangelSheetsource,if/how/thenoperationali

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_Bangel _Bangel _Cons
reference "PINK-01-P0325"
state R -> R1
node N1
representation JP(PINK-01-P0325)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 325 of 431. Chapter 3 Bangel -Bangel
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 326 of 431. Chapter 4 Elsa -ELSA Construct Formula-specific expression Module MJ.PBMEF.Family.ELSA Namespace MJ.PBMEF.Family.ELSA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantELSA Definition Deterministicsemanticrecoveryandpurpose-preservationlayer. Capability semanticenvelope,ambiguityhold Participant Elsa Relationship Incoming: Bangel ;outgoing: JP Function Deterministicsemanticrecov

PATH OF EXPRESSION

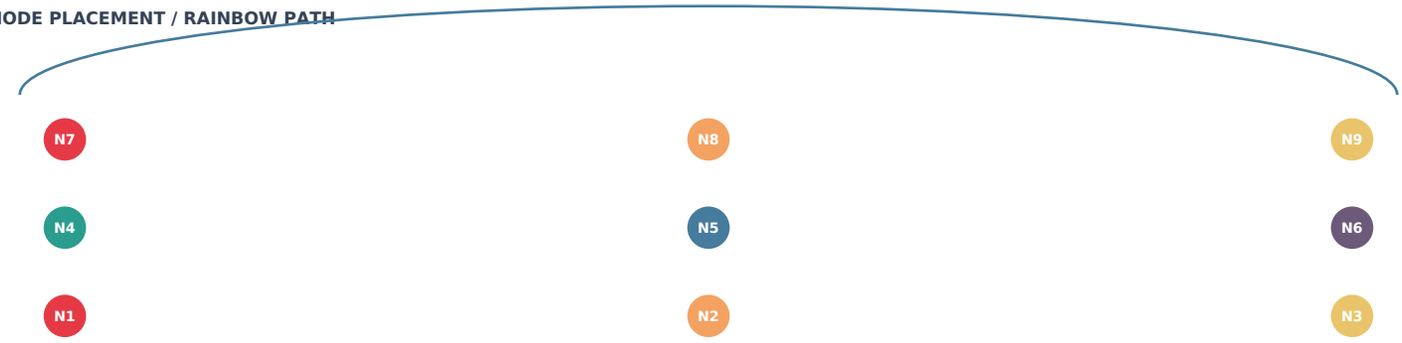
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_Elsa_ELSA_Construc
reference "PINK-01-P0326"
state R -> R1
node N1
representation JP(PINK-01-P0326)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 326 of 431. Chapter 4 Elsa -ELSA Con
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 327 of 431. Chapter 5 JP -JP Construct Formula-specific expression Module MJ.PBMEF.Family.JP Namespace MJ.PBMEF.Family.JP.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantJP Definition CanonicalmathematICal,algorithmic,topology,CAPO,andarchitecturerepresentation. Capability mathCAPO,algorithmCAPO,architectureCAPO,PearlCAPO,BangelSheetdependencyCAPO,JPC

PATH OF EXPRESSION

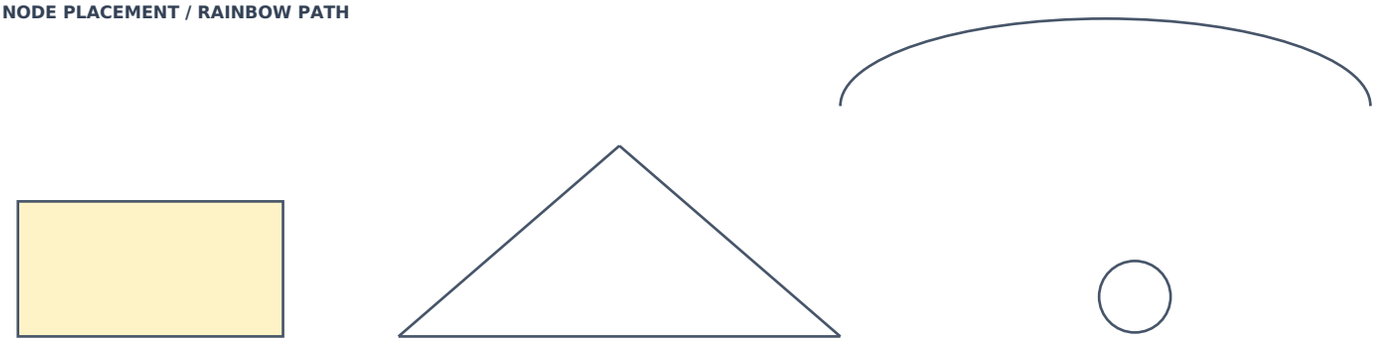
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_JP_JP_Construct_Fo
reference "PINK-01-P0327"
state R -> R1
node N1
representation JP(PINK-01-P0327)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 327 of 431. Chapter 5 JP -JP Constru
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 328 of 431. Chapter 6 Mika / MK -MK Construct Formula-specific expression Module MJ.PBMEF.Family.MK Namespace MJ.PBMEF.Family.MK.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMK Definition PhysicsModulatorSystemfordimensional,conservation,boundary,scale,andevidencerepresen Capability physicsCAPO,not-applicablereceipt,hold,technicalfail,Pearlphysicsreceipt,spreadsheetreso

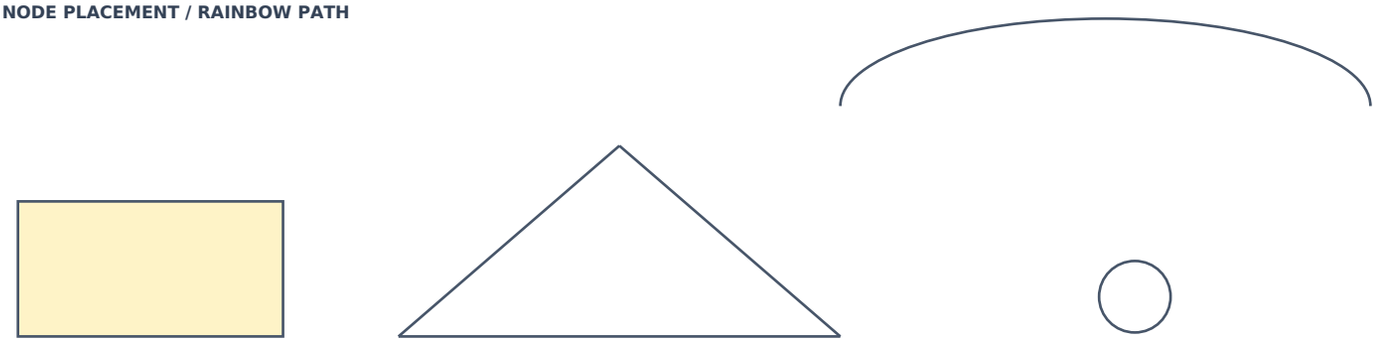
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_Mika_MK_MK_Constru
reference "PINK-01-P0328"
state R -> R1
node N1
representation JP(PINK-01-P0328)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 328 of 431. Chapter 6 Mika / MK -MK
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 329 of 431. Chapter 7 JO -JO Construct Formula-specific expression Module MJ.PBMEF.Family.JO Namespace MJ.PBMEF.Family.JO.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantJO Definition Deterministictype,unit,proof,validation,runtime,andevidenceengine. Capability proofreceipt,runtimeresult,hold,deny,sheetrevisionreceipt,Pearlbalancereceipt Participant JO Relationship Incoming: MK;outgoing:

PATH OF EXPRESSION

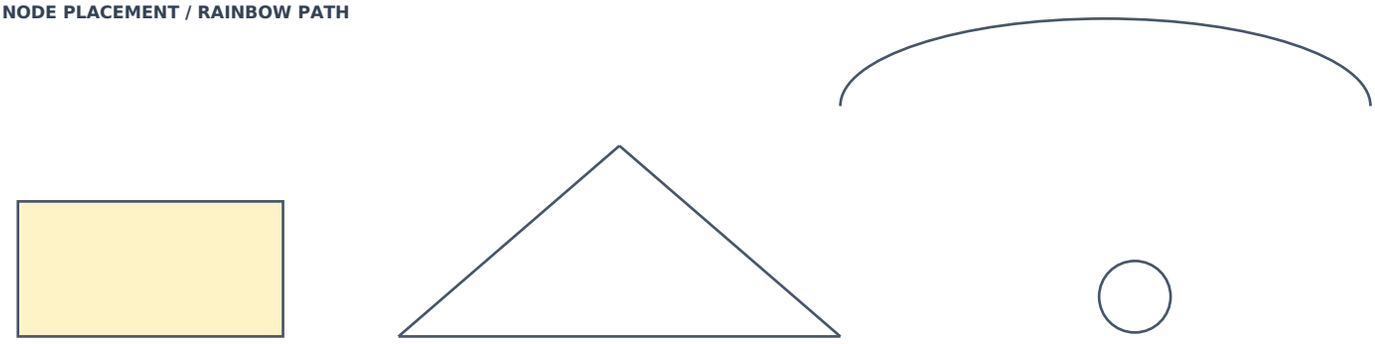
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_JO_JO_Construct_Fo
reference "PINK-01-P0329"
state R -> R1
node N1
representation JP(PINK-01-P0329)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 329 of 431. Chapter 7 JO -JO Constru
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 330 of 431. Chapter 8 MJOS -MJOS Construct Formula-specific expression Module MJ.PBMEF.Family.MJOS Namespace MJ.PBMEF.Family.MJOS.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMJOS Definition Operating-systemandinfrastructuresubstrateinsideMJ. Capability resourceservice,infrastructureevidence Participant MJOS Relationship Incoming: JO_EXECUTION;outgoing: receipttoMJ/JO Function Operati

PATH OF EXPRESSION

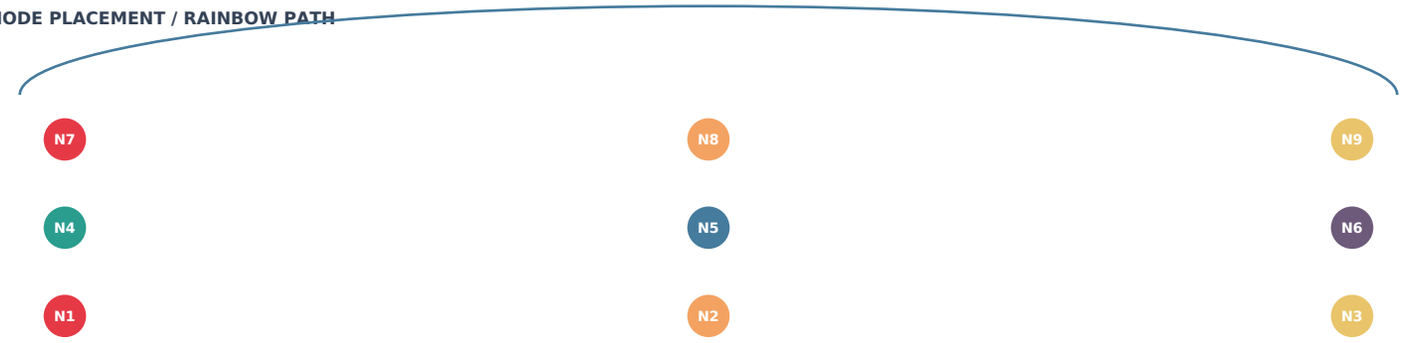
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_MJOS_MJOS_Construc
reference "PINK-01-P0330"
state R -> R1
node N1
representation JP(PINK-01-P0330)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 330 of 431. Chapter 8 MJOS -MJOS Con
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 331 of 431. Chapter 9 Angels -ANGELS Construct Formula-specific expression Module MJ.PBMEF.Family.ANGELS Namespace MJ.PBMEF.Family.ANGELS.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantANGELS Definition Domain-specificobservation,telemetry,hold,denial,andcorrective-commandfamily Capability safetyreceipt,hold,deny,correctionrequest Participant Angels Relationship Incoming: JO;outgoing:

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_Angels_ANGELS_Cons
reference "PINK-01-P0331"
state R -> R1
node N1
representation JP(PINK-01-P0331)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 331 of 431. Chapter 9 Angels -ANGELS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 332 of 431. Chapter 10 Bellatrix -BELLATRIX Construct Formula-specific expression Module MJ.PBMEF.Family.BELLATRIX Namespace MJ.PBMEF.Family.BELLATRIX.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantBELLATRIX Definition Independentdefense,challenge,quarantine,hostile-deviationanalysis,anddenial. Capability deny,quarantine,challengereceipt Participant Bellatrix Relations...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_Bellatrix_BELLATR
reference "PINK-01-P0332"
state R -> R1
node N1
representation JP(PINK-01-P0332)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 332 of 431. Chapter 10 Bellatrix -BE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 333 of 431. Chapter 11 Sister -SISTER Construct Formula-specific expression Module MJ.PBMEF.Family.SISTER Namespace MJ.PBMEF.Family.SISTER.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantSISTER Definition Predictivedigitaltwin,preallocationevidence,anomalydetection,umbrellacollection,andcano Capability forecast,containmentrequest,digital-twinreceipt,physic

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_Sister_SISTER_Con
reference "PINK-01-P0333"
state R -> R1
node N1
representation JP(PINK-01-P0333)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 333 of 431. Chapter 11 Sister -SISTE
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 334 of 431. Chapter 12 EVE -EVE Construct Formula-specific expression Module MJ.PBMEF.Family.EVE Namespace MJ.PBMEF.Family.EVE.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantEVE Definition Variance,evaporativeeffect,screencapture,leakage,smoke-likeegress,andboundary-accour Capability EVEobservation,capture/egressledger,hold,Pearlescape/captureobservat...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_EVE_EVE_Construct
reference "PINK-01-P0334"
state R -> R1
node N1
representation JP(PINK-01-P0334)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 334 of 431. Chapter 12 EVE -EVE Cons
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 335 of 431. Chapter 13 Mary / M3 -M3 Construct Formula-specific expression Module MJ.PBMEF.Family.M3 Namespace MJ.PBMEF.Family.M3.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantM3 Definition Boundedrouting,APIgateway,loadbalancing,connectionpooling,andallocationstewardship. Capability routereceipt,allocationleaseuse,returnreceipt,Pearlallocation/transferreceipt,BangelSheetp

PATH OF EXPRESSION

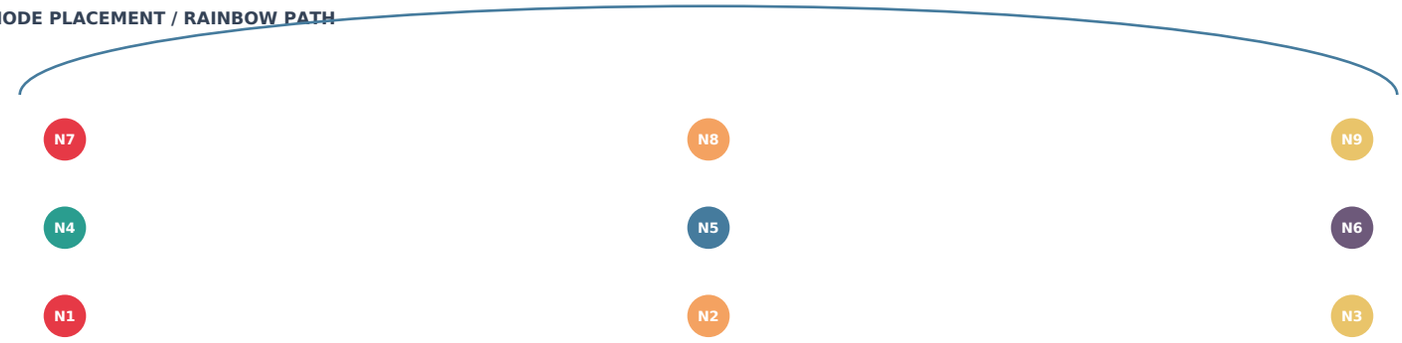
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_Mary_M3_M3_Constr
reference "PINK-01-P0335"
state R -> R1
node N1
representation JP(PINK-01-P0335)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 335 of 431. Chapter 13 Mary / M3 -M3
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 336 of 431. Chapter 14 Mermaid -MERMAID Construct Formula-specific expression Module MJ.PBMEF.Family.MERMAID Namespace MJ.PBMEF.Family.MERMAID.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMERMAID Definition Accounting,reconciliation,exposure,custodyevidence,statements,taxlots,andfinancialconse Capability account,balance,exposure,reconciliationreceipt Participant Merm...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_Mermaid_MERMAID_C
reference "PINK-01-P0336"
state R -> R1
node N1
representation JP(PINK-01-P0336)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 336 of 431. Chapter 14 Mermaid -MERM
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 337 of 431. Chapter 15 Shiva -SHIVA Construct Formula-specific expression Module MJ.PBMEF.Family.SHIVA Namespace MJ.PBMEF.Family.SHIVA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantSHIVA Definition Finance,money,treasury,liquidity,capital-jobclassification,risk/opportunityanalysis,anddistr Capability capitalproposal,job-of-moneyclassification,distributionplan Participan

PATH OF EXPRESSION

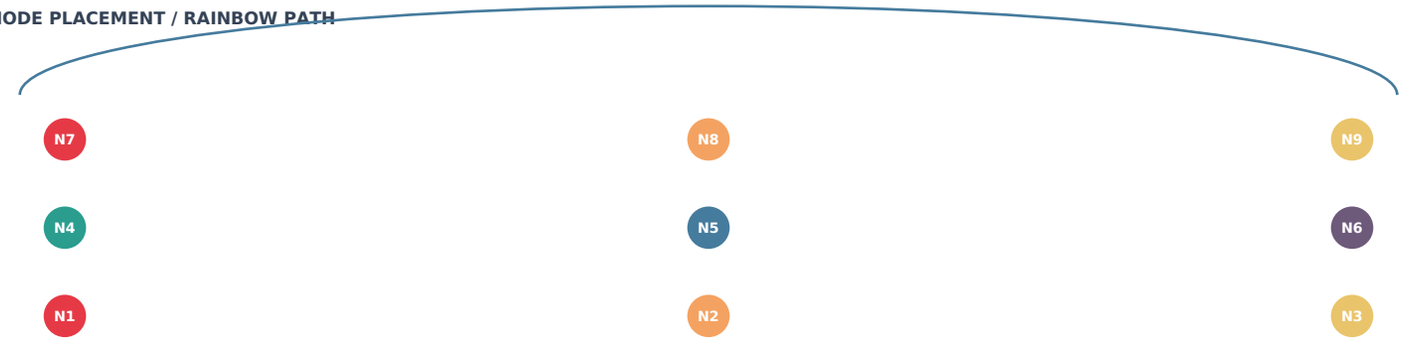
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_Shiva_SHIVA_Const
reference "PINK-01-P0337"
state R -> R1
node N1
representation JP(PINK-01-P0337)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 337 of 431. Chapter 15 Shiva -SHIVA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 338 of 431. Chapter 16 Shekina -SHEKINA Construct Formula-specific expression Module MJ.PBMEF.Family.SHEKINA Namespace MJ.PBMEF.Family.SHEKINA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantSHEKINA Definition Distributedplacement,replication,continuity,andinfrastructureevidence. Capability placementreceipt,continuityevidence Participant Shek...

PATH OF EXPRESSION

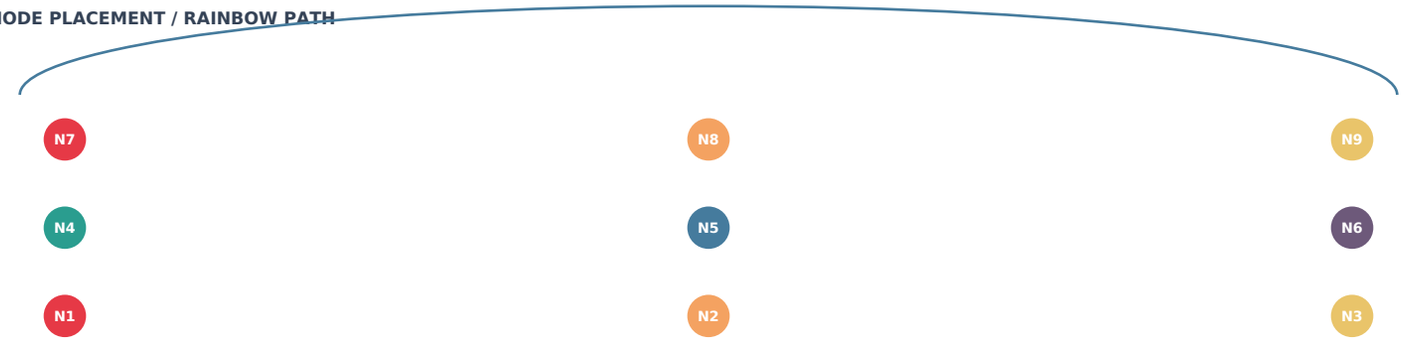
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_Shekina_SHEKINA_C
reference "PINK-01-P0338"
state R -> R1
node N1
representation JP(PINK-01-P0338)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 338 of 431. Chapter 16 Shekina -SHEK
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 339 of 431. Chapter 17 Belle -BELLE Construct Formula-specific expression Module MJ.PBMEF.Family.BELLE Namespace MJ.PBMEF.Family.BELLE.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantBELLE Definition Engineeringanalysis,feasibility,topologyreview,andboundedproposals. Capability engineeringproposal,risknote Participant Belle Relationship Incoming: MK;outgoing: receipttoMJ/JO Function Engi

PATH OF EXPRESSION

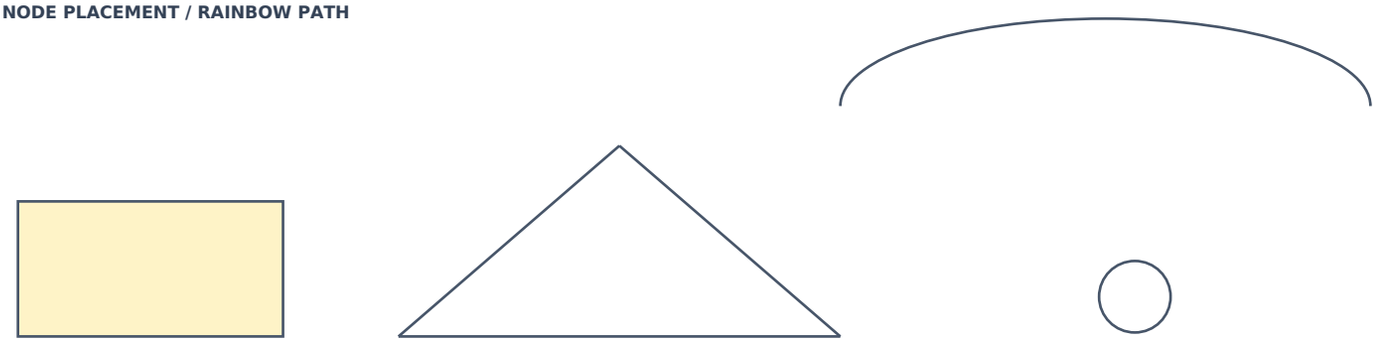
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_Belle_BELLE_Const
reference "PINK-01-P0339"
state R -> R1
node N1
representation JP(PINK-01-P0339)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 339 of 431. Chapter 17 Belle -BELLE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 340 of 431. Chapter 18 Lecanto -LECANTO Construct Formula-specific expression Module MJ.PBMEF.Family.LECANTO Namespace MJ.PBMEF.Family.LECANTO.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantLECANTO Definition Truthfulgovernedvisualizationofstate,provenance,uncertainty,andsystemstructure. Capability visualrepresentation Participant Lecanto Relationship Incomi...

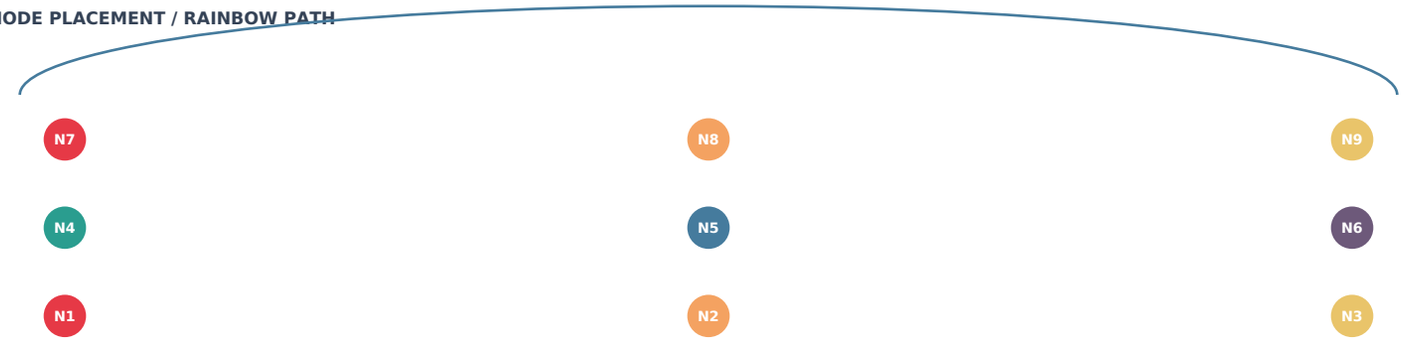
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_Lecanto_LECANTO_C
reference "PINK-01-P0340"
state R -> R1
node N1
representation JP(PINK-01-P0340)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 340 of 431. Chapter 18 Lecanto -LECA
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 341 of 431. Chapter 19 Moana -MOANA Construct Formula-specific expression Module MJ.PBMEF.Family.MOANA Namespace MJ.PBMEF.Family.MOANA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMOANA Definition Browserandinteractionpresentationofgovernedapplicationsandevidence. Capability interactionsurface Participant Moana Relationship Incoming: LECANTO;outgoing: receipttoMJ/JO Function Browseran

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_Moana_MOANA_Const
reference "PINK-01-P0341"
state R -> R1
node N1
representation JP(PINK-01-P0341)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 341 of 431. Chapter 19 Moana -MOANA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 342 of 431. Chapter 20 Aviator -AVIATOR Construct Formula-specific expression Module MJ.PBMEF.Family.AVIATOR Namespace MJ.PBMEF.Family.AVIATOR.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantAVIATOR Definition Organizationalworkspace,projects,decisions,roles,knowledge,andgovernedworkflow. Capability workspacestate,decisionrecords Participant Aviator Relations...

PATH OF EXPRESSION

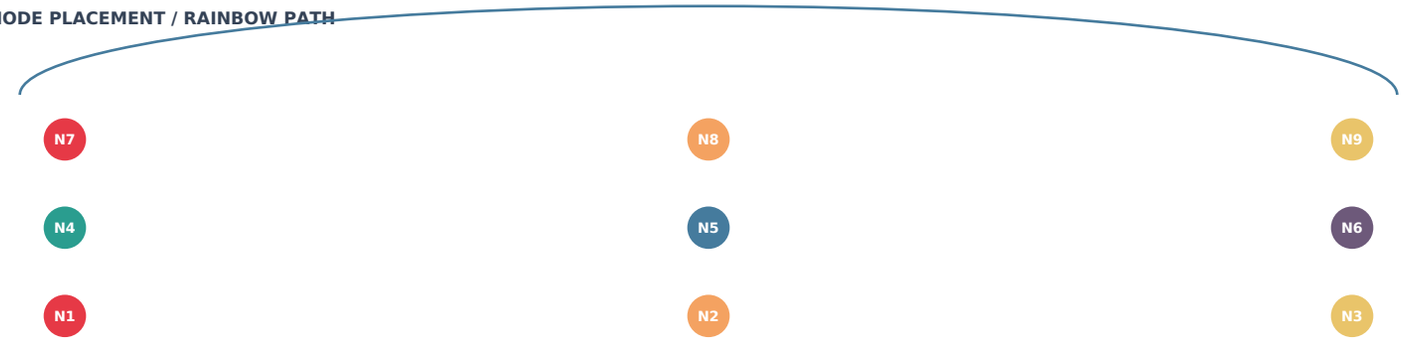
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_Aviator_AVIATOR_C
reference "PINK-01-P0342"
state R -> R1
node N1
representation JP(PINK-01-P0342)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 342 of 431. Chapter 20 Aviator -AVIA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 343 of 431. Chapter 21 CHI -CHI Construct Formula-specific expression Module MJ.PBMEF.Family.CHI Namespace MJ.PBMEF.Family.CHI.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantCHI Definition Temporalvarianceandexpected-observed-delivered-reconcileddifferencestate. Capability varianceobject Participant CHI Relationship Incoming: MJ/rootcontext;outgoing: receipttoMJ/JO Function Temporalvari

PATH OF EXPRESSION

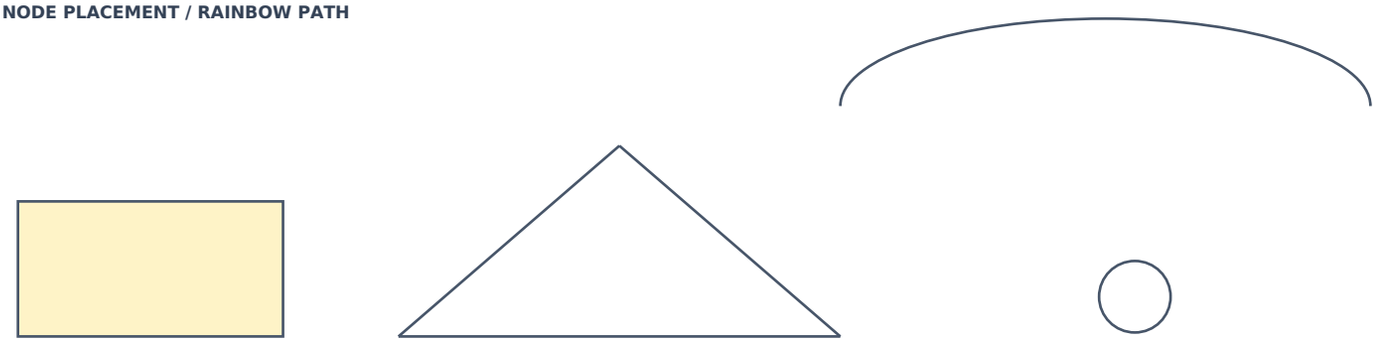
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_CHI_CHI_Construct
reference "PINK-01-P0343"
state R -> R1
node N1
representation JP(PINK-01-P0343)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 343 of 431. Chapter 21 CHI -CHI Cons
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 344 of 431. Chapter 22 WATER -WATER Construct Formula-specific expression Module MJ.PBMEF.Family.WATER Namespace MJ.PBMEF.Family.WATER.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantWATER Definition Intervaluncertainty,verifiedfloor,andboundedunknown-stateclassification. Capability stateclassification Participant WATER Relationship Incoming: MJ/rootcontext;outgoing: receipttoMJ/JO Funct

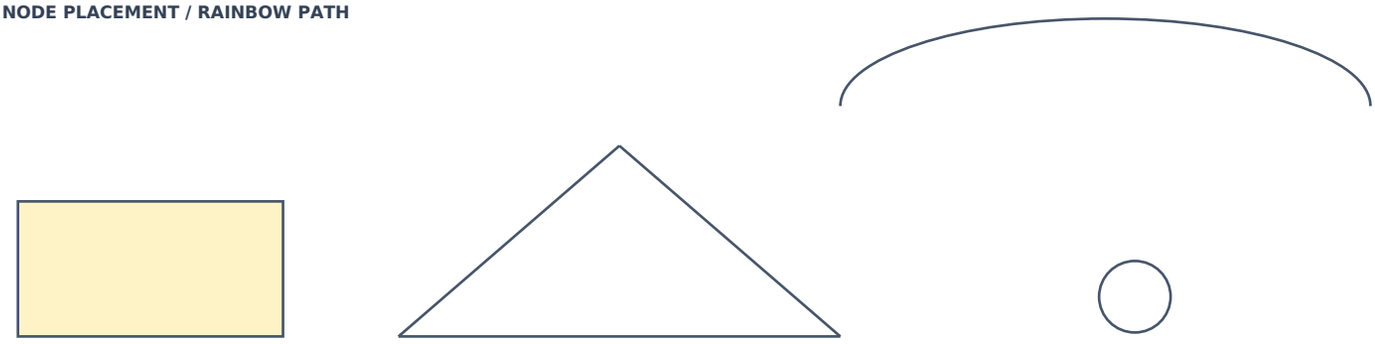
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_WATER_WATER_Const
reference "PINK-01-P0344"
state R -> R1
node N1
representation JP(PINK-01-P0344)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 344 of 431. Chapter 22 WATER -WATER
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 345 of 431. Chapter 23 Governed object verification 26

PATH OF EXPRESSION

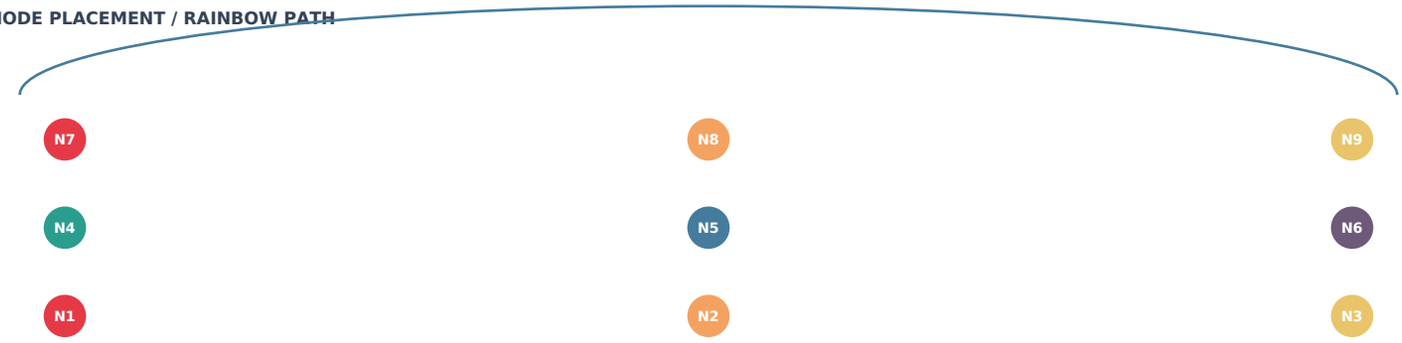
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_Governed_object_v
reference "PINK-01-P0345"
state R -> R1
node N1
representation JP(PINK-01-P0345)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 345 of 431. Chapter 23 Governed obje
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 346 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.1 JP_CAPO Construct Formula-specific expression Module MJ.PBMEF.Object.JP_CAPO Namespace MJ.PBMEF.Object.JP_CAPO.Day0 Declaration objectJP_CAPO Definition Canonicalmath,algorithm,topology,orarchitecturerepresentation Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparticipantsdeterminedbyobjectr

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0346"
state R -> R1
node N1
representation JP(PINK-01-P0346)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 346 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 347 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.3 JO_PROOF_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.JO_PROOF_RECEIPT Namespace MJ.PBMEF.Object.JO_PROOF_RECEIPT.Day0 Declaration objectJO_PROOF_RECEIPT Definition Executedverificationresult Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparticipantsdeterminedbyobject

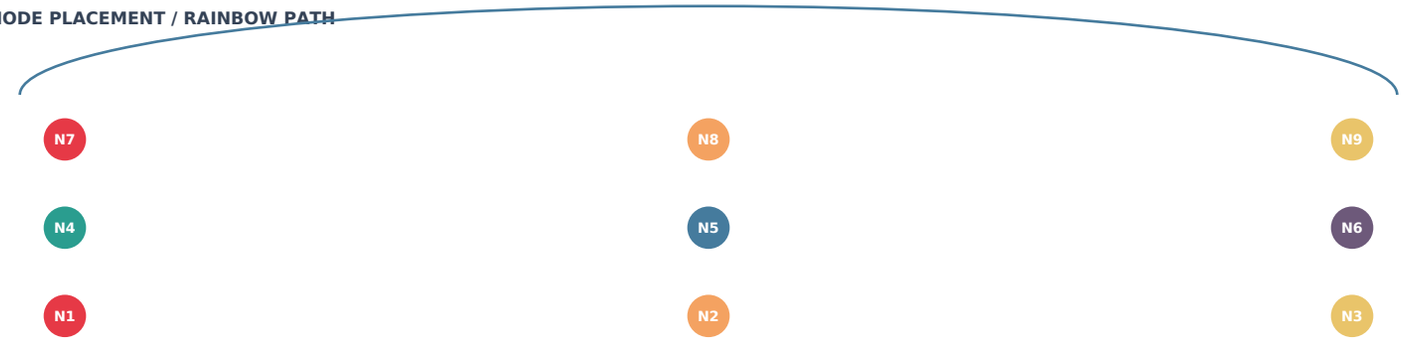
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0347"
state R -> R1
node N1
representation JP(PINK-01-P0347)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 347 of 431. PRIVA TE PRE-DA Y -0 - U
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 348 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.5 EVE_OBSERVATION Construct Formula-specific expression Module MJ.PBMEF.Object.EVE_OBSERVATION Namespace MJ.PBMEF.Object.EVE_OBSERVATION.Day0 Declaration objectEVE_OBSERVATION Definition Variance,screen,capture,egress,orresidualevidence Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Particip...

PATH OF EXPRESSION

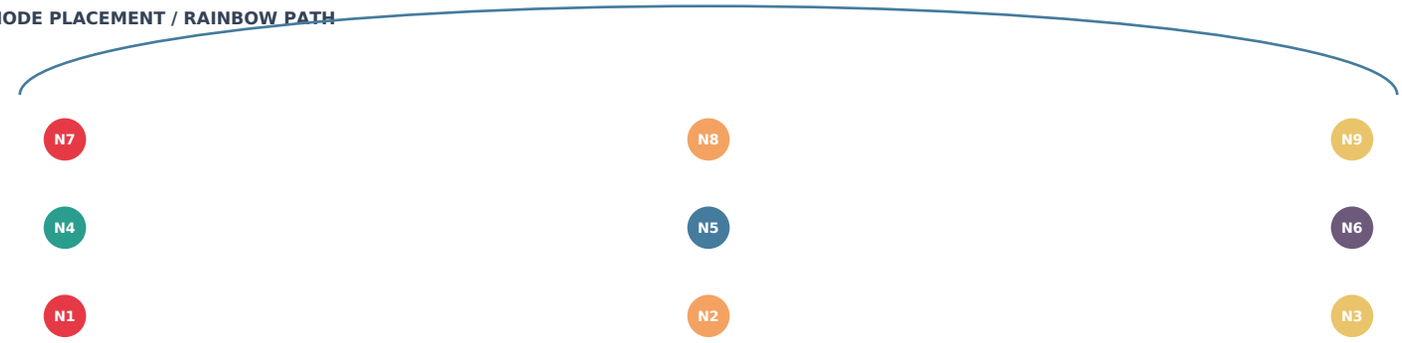
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0348"
state R -> R1
node N1
representation JP(PINK-01-P0348)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 348 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 349 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.7 MERMAID_ACCOUNT Construct Formula-specific expression Module MJ.PBMEF.Object.MERMAID_ACCOUNT Namespace MJ.PBMEF.Object.MERMAID_ACCOUNT.Day0 Declaration objectMERMAID_ACCOUNT Definition Accounting,custody,exposure,tax,andreconciliationrecord Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Particip...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0349"
state R -> R1
node N1
representation JP(PINK-01-P0349)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 349 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 350 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.9 SHIVAS_INTERNAL_REFLECTION Construct Formula-specific expression Module MJ.PBMEF.Object.SHIVAS_INTERNAL_REFLECTION Namespace MJ.PBMEF.Object.SHIVAS_INTERNAL_REFLECTION.Day0 Declaration objectSHIVAS_INTERNAL_REFLECTION Definition Internalnon-transferablecapital-reflectionobject Capabil...

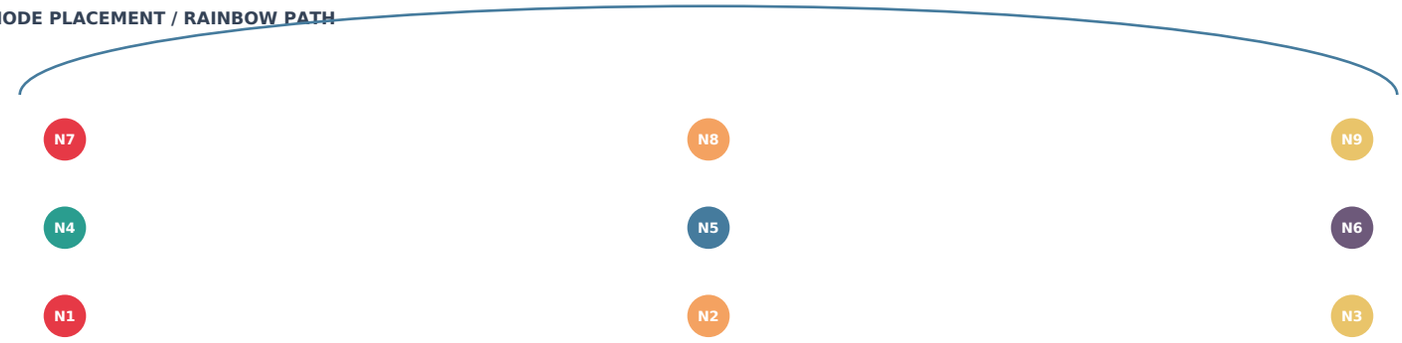
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0350"
state R -> R1
node N1
representation JP(PINK-01-P0350)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 350 of 431. PRIVA TE PRE-DA Y -0 - U
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 351 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.11 WATER_INTERVAL_STATE Construct Formula-specific expression Module MJ.PBMEF.Object.WATER_INTERVAL_STATE Namespace MJ.PBMEF.Object.WATER_INTERVAL_STATE.Day0 Declaration objectWATER_INTERVAL_STATE Definition Uncertaintyintervalstate Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparticipantsdet

PATH OF EXPRESSION

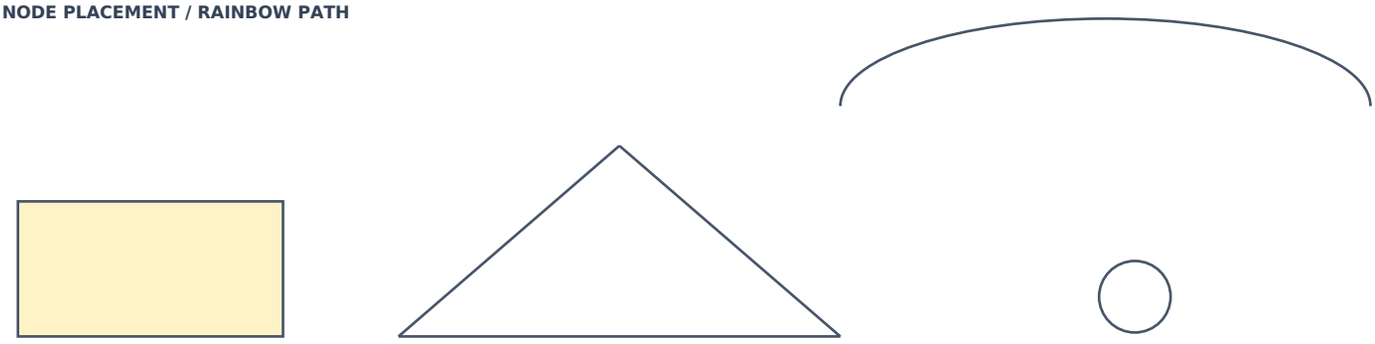
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0351"
state R -> R1
node N1
representation JP(PINK-01-P0351)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 351 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 352 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.13 PEARL_VARIANCE_CONTAINER Construct Formula-specific expression Module MJ.PBMEF.Object.PEARL_VARIANCE_CONTAINER Namespace MJ.PBMEF.Object.PEARL_VARIANCE_CONTAINER.Day0 Declaration objectPEARL_VARIANCE_CONTAINER Definition LegacystableIDforapearl-shapedhypotheticalsimulationandinformation-retentionobject;ne

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0352"
state R -> R1
node N5
representation JP(PINK-01-P0352)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 352 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 353 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.15 PEARL_ACOUSTIC_PROFILE Construct Formula-specific expression Module MJ.PBMEF.Object.PEARL_ACOUSTIC_PROFILE Namespace MJ.PBMEF.Object.PEARL_ACOUSTIC_PROFILE.Day0 Declaration objectPEARL_ACOUSTIC_PROFILE Definition Hypotheticalacousticsimulationprofilewithdeclaredfrequency,medium,observability,uncert

PATH OF EXPRESSION

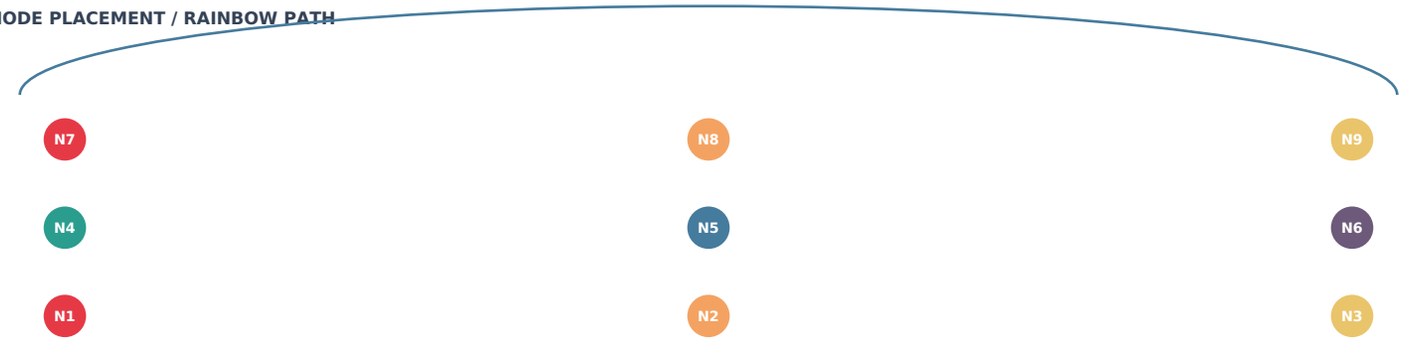
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0353"
state R -> R1
node N1
representation JP(PINK-01-P0353)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 353 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 354 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.17 Bangel _SHEET Construct Formula-specific expression Module MJ.PBMEF.Object.Bangel _SHEET Namespace MJ.PBMEF.Object.Bangel _SHEET.Day0 Declaration objectBangel _SHEET Definition Governedspreadsheet-likeworkbookwithimmutablerevisions,typedcells,dependencygraph, Capability Represent,retain,route,reconcile,orevidenceonl

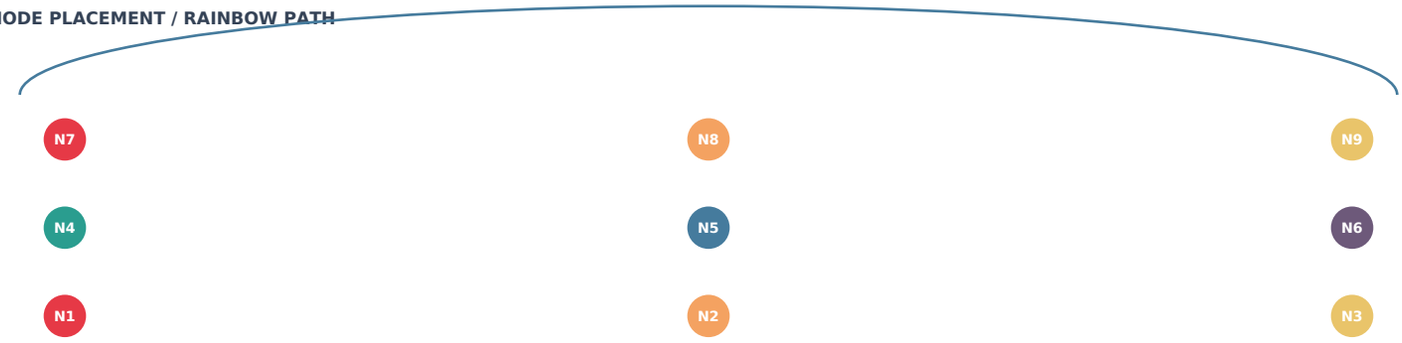
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0354"
state R -> R1
node N1
representation JP(PINK-01-P0354)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 354 of 431. PRIVA TE PRE-DA Y -0 - U
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 355 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.19 Bangel _SHEET_REVISION Construct Formula-specific expression Module MJ.PBMEF.Object.Bangel _SHEET_REVISION Namespace MJ.PBMEF.Object.Bangel _SHEET_REVISION.Day0 Declaration objectBangel _SHEET_REVISION Definition Content-addressedimmutableworkbookrevisionandconflict/mergeevidence Capability Represent,retain,route,reconcile,orevidence

PATH OF EXPRESSION

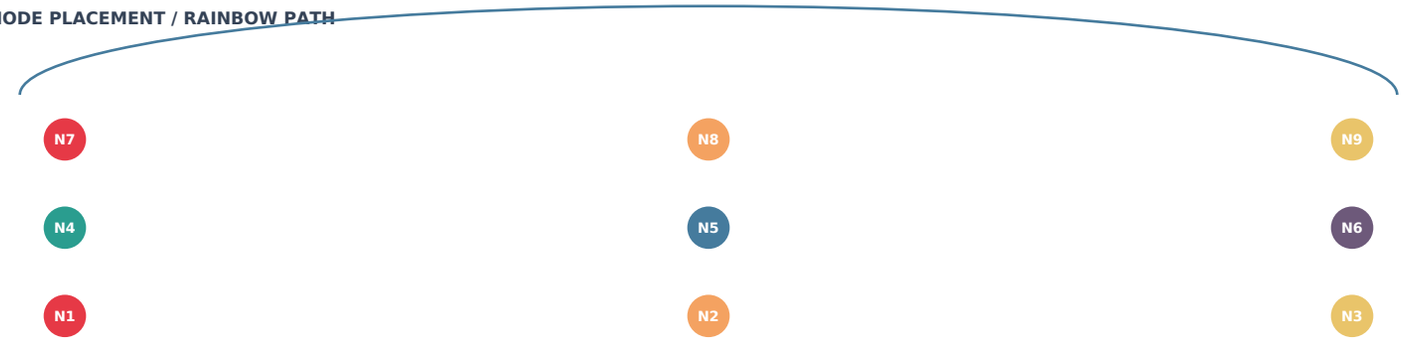
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0355"
state R -> R1
node N1
representation JP(PINK-01-P0355)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 355 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 356 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.21 JPOSMJ_PRODUCT_ENVELOPE Construct Formula-specific expression Module MJ.PBMEF.Object.JPOSMJ_PRODUCT_ENVELOPE Namespace MJ.PBMEF.Object.JPOSMJ_PRODUCT_ENVELOPE.Day0 Declaration objectJPOSMJ_PRODUCT_ENVELOPE Definition PortfolioenvelopebindingJP-originproductlogicthroughMKphysics,JOproof,andMJper...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0356"
state R -> R1
node N9
representation JP(PINK-01-P0356)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 356 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 357 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.23 STANDARD_CONTAINMENT_GEOMETRY_PROFILE Construct Formula-specific expression Module MJ.PBMEF.Object.STANDARD_CONTAINMENT_GEOMETRY_PROFILE Namespace MJ.PBMEF.Object.STANDARD_CONTAINMENT_GEOMETRY_PROFILE.Day0 Declaration objectSTANDARD_CONTAINMENT_GEOMETRY_PROFILE Definition Typedscale-independentrectangle/cone/umbrella/descent/EVE/

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0357"
state R -> R1
node N1
representation JP(PINK-01-P0357)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 357 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 358 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.25 CONTAINMENT_MODIFICATION_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.CONTAINMENT_MODIFICATION_RECEIPT Namespace MJ.PBMEF.Object.CONTAINMENT_MODIFICATION_RECEIPT.Day0 Declaration objectCONTAINMENT_MODIFICATION_RECEIPT Definition Recalculationandrevalidationreceiptforcommand/profile-specificgeometrychanges

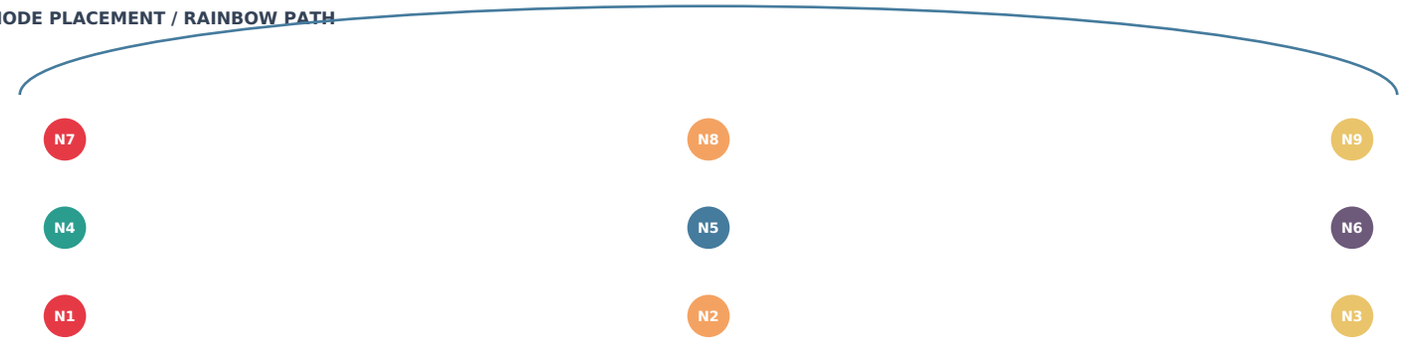
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0358"
state R -> R1
node N1
representation JP(PINK-01-P0358)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 358 of 431. PRIVA TE PRE-DA Y -0 - U
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 359 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.27 GAS_HEIGHT_OBSERVATION Construct Formula-specific expression Module MJ.PBMEF.Object.GAS_HEIGHT_OBSERVATION Namespace MJ.PBMEF.Object.GAS_HEIGHT_OBSERVATION.Day0 Declaration objectGAS_HEIGHT_OBSERVATION Definition Calibratedpressure/temperature/density/height/timeobservationforgas-frontreferencecalcu

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0359"
state R -> R1
node N1
representation JP(PINK-01-P0359)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 359 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 360 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.29 OUTWARD_GAP_PATH_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.OUTWARD_GAP_PATH_RECEIPT Namespace MJ.PBMEF.Object.OUTWARD_GAP_PATH_RECEIPT.Day0 Declaration objectOUTWARD_GAP_PATH_RECEIPT Definition JO/MKproofthattheoutletpathremainsoutsidethenonphysicalPearlreferencecirc...

PATH OF EXPRESSION

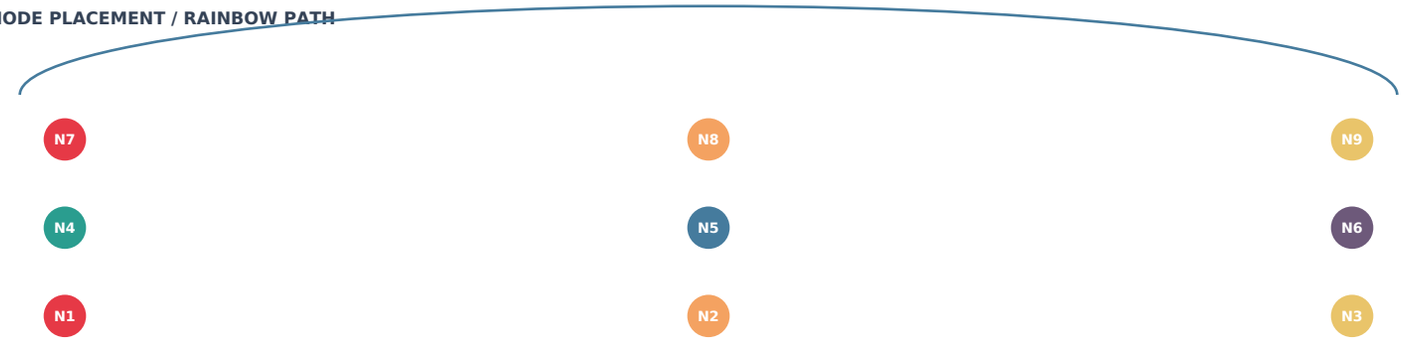
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0360"
state R -> R1
node N4
representation JP(PINK-01-P0360)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 360 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 361 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.31 CIRCULAR_REENTRY_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.CIRCULAR_REENTRY_RECEIPT Namespace MJ.PBMEF.Object.CIRCULAR_REENTRY_RECEIPT.Day0 Declaration objectCIRCULAR_REENTRY_RECEIPT Definition Circularport,inwardangle,tangentialcomponent,continuity,andspiral-compatibilityeviden...

PATH OF EXPRESSION

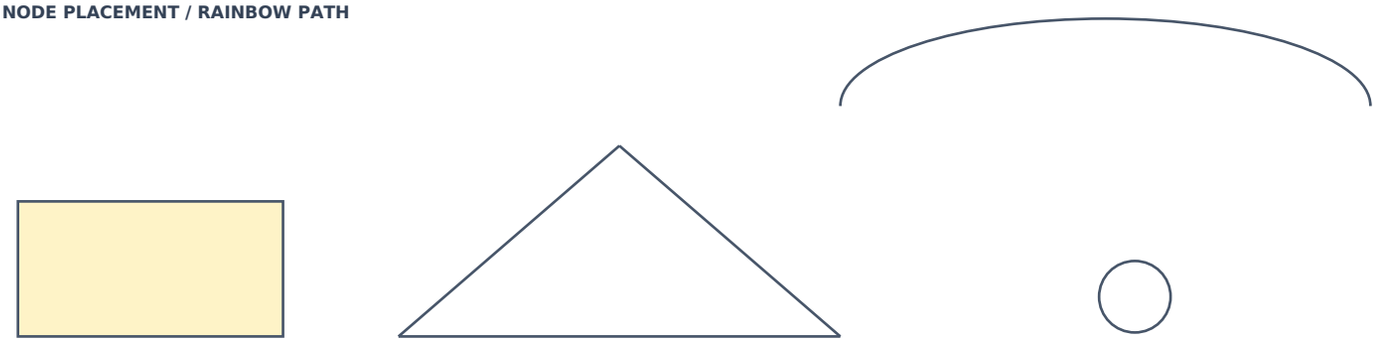
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0361"
state R -> R1
node N1
representation JP(PINK-01-P0361)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 361 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 362 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.33 RESERVOIR_LAKE_BUFFER Construct Formula-specific expression Module MJ.PBMEF.Object.RESERVOIR_LAKE_BUFFER Namespace MJ.PBMEF.Object.RESERVOIR_LAKE_BUFFER.Day0 Declaration objectRESERVOIR_LAKE_BUFFER Definition Boundedpost-containmentbuffercandidateforretention,redistribution,andreceiptedre-en...

PATH OF EXPRESSION

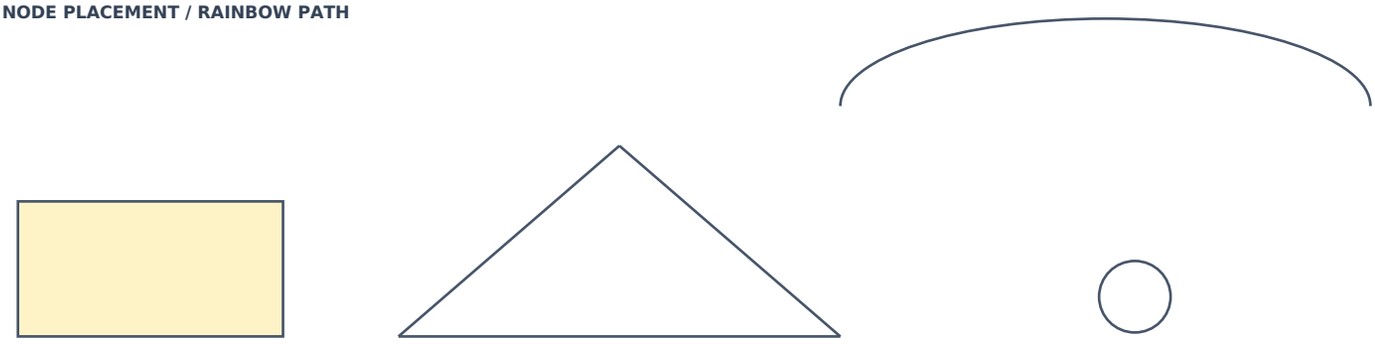
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0362"
state R -> R1
node N1
representation JP(PINK-01-P0362)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 362 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 363 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.35 OUTWARD_GAP_ARC Construct Formula-specific expression Module MJ.PBMEF.Object.OUTWARD_GAP_ARC Namespace MJ.PBMEF.Object.OUTWARD_GAP_ARC.Day0 Declaration objectOUTWARD_GAP_ARC Definition Outward-facingangularreferencethroughwhichtheoutletclearsthenonphysicalPearlreferenc Capability Represent,retain,route,reconcile,orevidence

PATH OF EXPRESSION

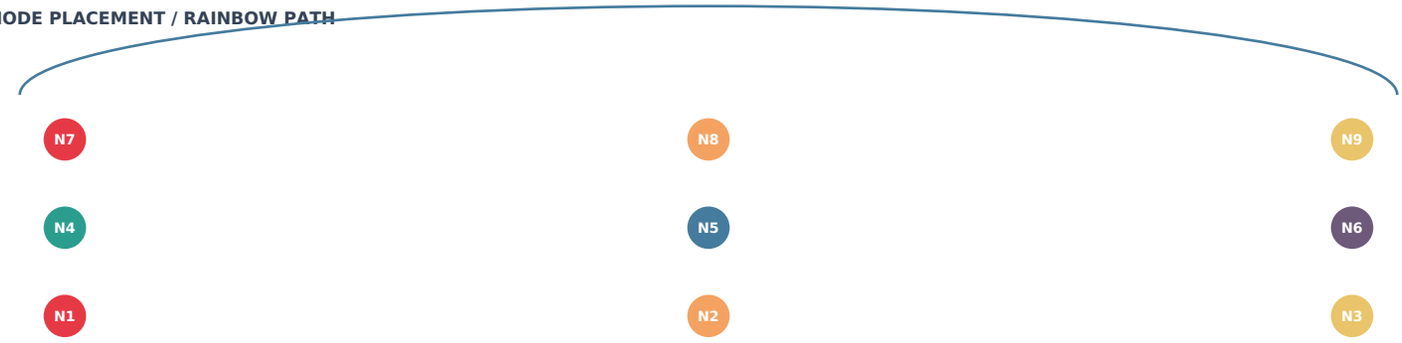
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0363"
state R -> R1
node N1
representation JP(PINK-01-P0363)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 363 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 364 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.37 CIRCULAR_REENTRY_PORT Construct Formula-specific expression Module MJ.PBMEF.Object.CIRCULAR_REENTRY_PORT Namespace MJ.PBMEF.Object.CIRCULAR_REENTRY_PORT.Day0 Declaration objectCIRCULAR_REENTRY_PORT Definition Circularinward-angledportcandidatesupplyingmeasuredradialandtangentialre-entrycompo

PATH OF EXPRESSION

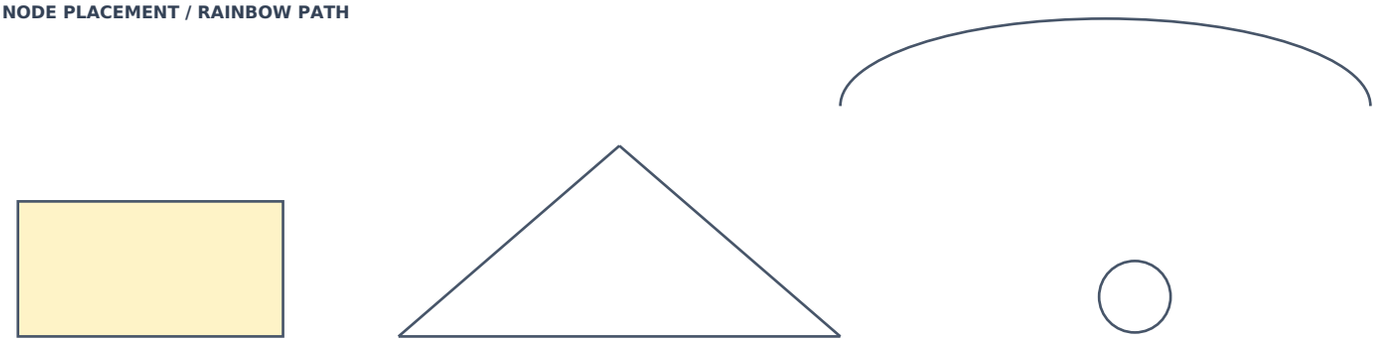
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0364"
state R -> R1
node N8
representation JP(PINK-01-P0364)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 364 of 431. PRIVA TE PRE-DA Y -0 - U
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 365 of 431. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.39 PERSPECTIVE_FRICTION_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.PERSPECTIVE_FRICTION_RECEIPT Namespace MJ.PBMEF.Object.PERSPECTIVE_FRICTION_RECEIPT.Day0 Declaration objectPERSPECTIVE_FRICTION_RECEIPT Definition Separatescoordinate-transformresidual,physicaldissipation,andinformationfrict...

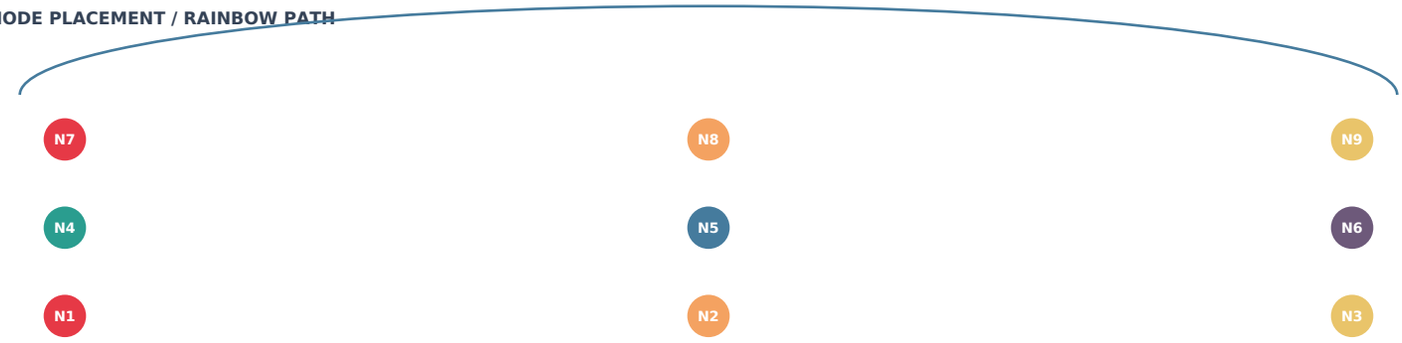
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-01-P0365"
state R -> R1
node N1
representation JP(PINK-01-P0365)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 365 of 431. PRIVA TE PRE-DA Y -0 - U
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 366 of 431. MJ-PBMEFPinkPaper-VolumeVI ProductManifestations,White-PaperLineage,andVerificationCrosswalk MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeVI_P
reference "PINK-01-P0366"
state R -> R1
node N1
representation JP(PINK-01-P0366)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 366 of 431. MJ-PBMEFPinkPaper-Volume
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 367 of 431. Contents 1 Product gateway verification 5 2 MJ Physics Based Measurement Engineering Framework -PBMEF-CORE 6 2.1 Applicationandlife-cyclepotential . . . . . .6 3 Bangel Governed Measurement Language -Bangel -LANGUAGE 7 3.1 Applicationandlife-cyclepotential . . . . . .7 4 Elsa Deterministic Semantic Recovery -ELSA-SEMANT

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Product_gateway_v
reference "PINK-01-P0367"
state R -> R1
node N1
representation JP(PINK-01-P0367)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 367 of 431. Contents 1 Product gatew
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 368 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 17SHIVAS Internal Settlement Reflection -SHIVAS-INTERNAL 21 17.1Applicationandlife-cyclepotential . . . . . .21 18Shiva Crypto External-Market Candidate -SHIVA-CRYPTO 22 18.1Applicationandlife-cyclepotential . . . . . .22 19Shiva Exch

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0368"
state R -> R1
node N3
representation JP(PINK-01-P0368)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 368 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 369 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.20 CHI—MJManifestationWhitePaper-MJ-PBMEF-FAMILY-WP-20 . . . . . .44 30.21 WATER—MJManifestationWhitePaper- MJ-PBMEF-FAMILY-WP-21 . . . . . .45 30.22 MJPhysicsBasedMeasurementEngineeringFramework-MJ-PBMEF-PRODUCT-WP-01 . . . .45 30.23 BangelGovernedMeasurementLanguage-MJ-PBMEF-PRODUCT-WP-02 .

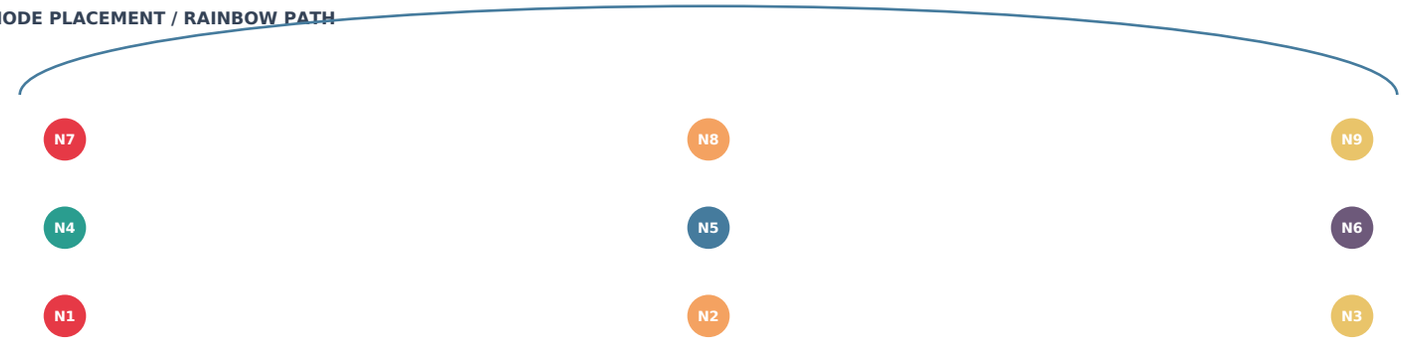
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0369"
state R -> R1
node N1
representation JP(PINK-01-P0369)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 369 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 370 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers Claims ceiling Thisdocumentisaprivatepre-Day-0reviewandverificationcandidate. Itauthenticatesnopri- vate key and creates no physical validation, physical operation authority, product certification, external regulatory authority, production deployment, financial-product launch, token issuance, Alintegration,orphysical-coordinateappro

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0370"
state R -> R1
node N1
representation JP(PINK-01-P0370)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 370 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics-based endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 371 of 431. Chapter 1 Product gateway verification 5

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Product_gateway_ve
reference "PINK-01-P0371"
state R -> R1
node N1
representation JP(PINK-01-P0371)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 371 of 431. Chapter 1 Product gatewa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 372 of 431. Chapter 2 MJ Physics Based Measurement Engi- neering Framework -PBMEF-CORE Construct Formula-specific expression Module MJ.PBMEF.Product.PBMEF-CORE Namespace MJ.PBMEF.Product.PBMEF-CORE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productPBMEF-CORE Definition Integratepurpose,mathematics,physics,verification,safety,resourcerouting,accounting,fina

PATH OF EXPRESSION

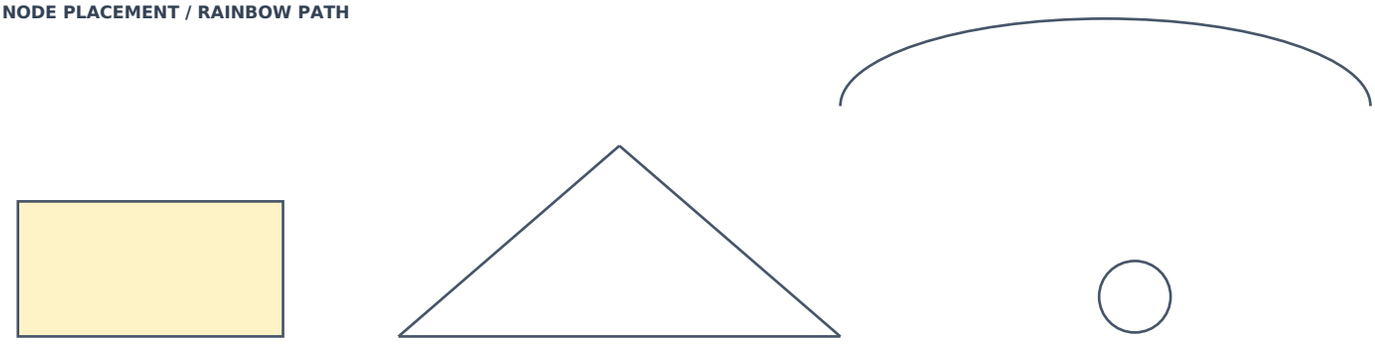
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_MJ_Physics_Based_M
reference "PINK-01-P0372"
state R -> R1
node N7
representation JP(PINK-01-P0372)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 372 of 431. Chapter 2 MJ Physics Bas
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 373 of 431. Chapter 3 Bangel Governed Measurement Lan- guage -Bangel -LANGUAGE Construct Formula-specific expression Module MJ.PBMEF.Product.Bangel -LANGUAGE Namespace MJ.PBMEF.Product.Bangel -LANGUAGE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productBangel -LANGUAGE Definition Expresshumanpurpose,typedmeasurements,formulas,evidence,andcommandpathwa...

PATH OF EXPRESSION

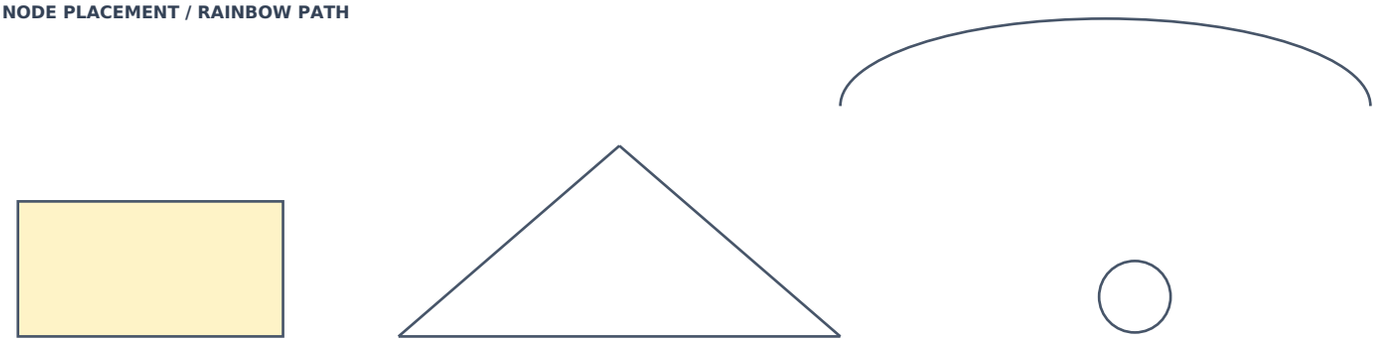
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_Bangel _Governed_Me
reference "PINK-01-P0373"
state R -> R1
node N1
representation JP(PINK-01-P0373)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 373 of 431. Chapter 3 Bangel  Governe
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 374 of 431. Chapter 4 Elsa Deterministic Semantic Recovery - ELSA-SEMANTICS Construct Formula-specific expression Module MJ.PBMEF.Product.ELSA-SEMANTICS Namespace MJ.PBMEF.Product.ELSA-SEMANTICS.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productELSA-SEMANTICS Definition Recoverandpreservedeclaredmeaningwithoutautonomousinferenceorauthori...

PATH OF EXPRESSION

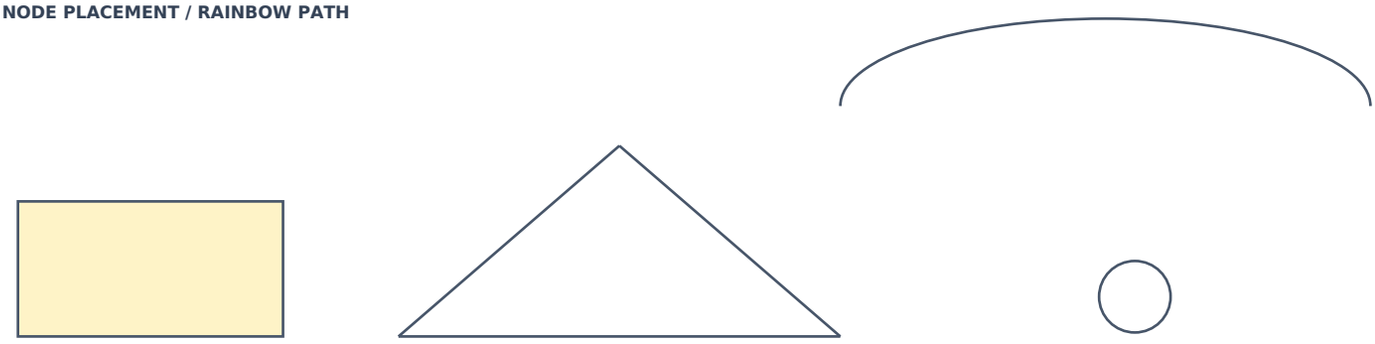
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_Elsa_Deterministic
reference "PINK-01-P0374"
state R -> R1
node N1
representation JP(PINK-01-P0374)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 374 of 431. Chapter 4 Elsa Determini
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 375 of 431. Chapter 5 JP Mathematical and Architectural Canon -JP-CANON Construct Formula-specific expression Module MJ.PBMEF.Product.JP-CANON Namespace MJ.PBMEF.Product.JP-CANON.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-CANON Definition Representequations,algorithms,CAPOs,topology,products,andproofs. Capability Reference,simulation,implementationcandidate,orevidence

PATH OF EXPRESSION

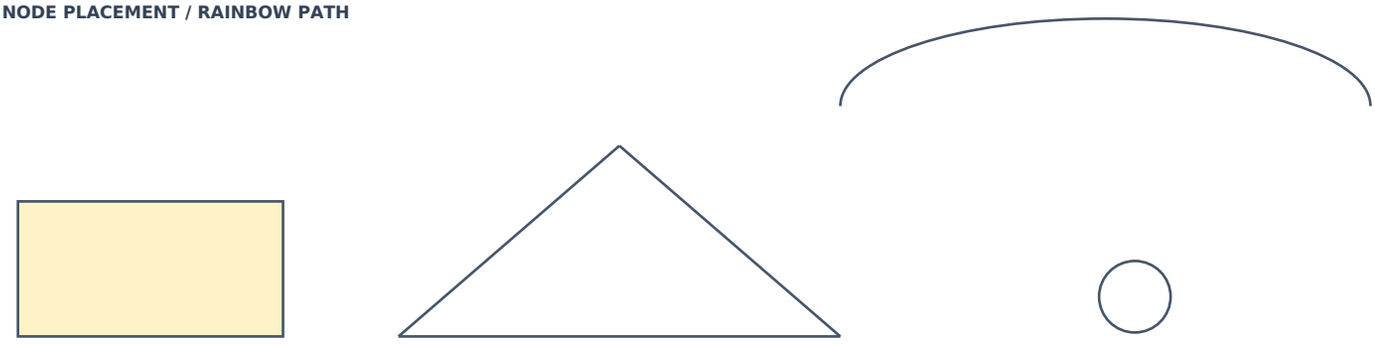
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_JP_Mathematical_an
reference "PINK-01-P0375"
state R -> R1
node N1
representation JP(PINK-01-P0375)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 375 of 431. Chapter 5 JP Mathematica
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 376 of 431. Chapter 6 Mika/MK Physics Modulator System - MK-PHYSICS Construct Formula-specific expression Module MJ.PBMEF.Product.MK-PHYSICS Namespace MJ.PBMEF.Product.MK-PHYSICS.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMK-PHYSICS Definition Createphysicsrepresentationsandverifyunits,conservation,boundaries,scale,andevidencec Capability Reference,simulation,imp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_Mika_MK_Physics_Mo
reference "PINK-01-P0376"
state R -> R1
node N2
representation JP(PINK-01-P0376)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 376 of 431. Chapter 6 Mika/MK Physic
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 377 of 431. Chapter 7 JO Deterministic Proof and Runtime - JO-RUNTIME Construct Formula-specific expression Module MJ.PBMEF.Product.JO-RUNTIME Namespace MJ.PBMEF.Product.JO-RUNTIME.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJO-RUNTIME Definition Verifytypes,units,authority,physics,tests,evidence,andboundedexecution. Capability Reference,simulation,implementationcandidate

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_JO_Deterministic_P
reference "PINK-01-P0377"
state R -> R1
node N1
representation JP(PINK-01-P0377)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 377 of 431. Chapter 7 JO Determinist
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 378 of 431. Chapter 8 MJOS Operating Substrate - MJOS- SUBSTRATE Construct Formula-specific expression Module MJ.PBMEF.Product.MJOS-SUBSTRATE Namespace MJ.PBMEF.Product.MJOS-SUBSTRATE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMJOS-SUBSTRATE Definition Provideisolatedresources,memory,storage,network,scheduling,andcontinuityunderMJlease Capability Reference,simulation,i

PATH OF EXPRESSION

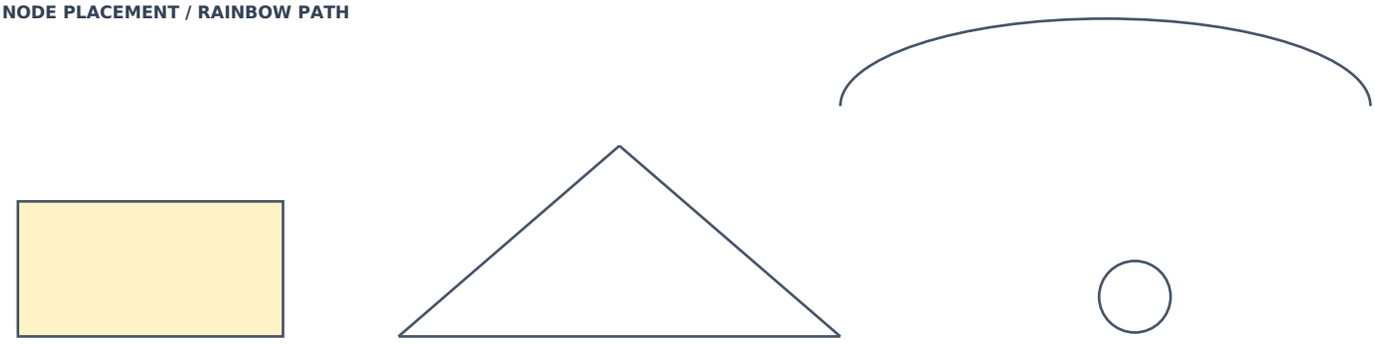
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_MJOS_Operating_Sub
reference "PINK-01-P0378"
state R -> R1
node N1
representation JP(PINK-01-P0378)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 378 of 431. Chapter 8 MJOS Operating
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 379 of 431. Chapter 9 JP Semiconductor Phone Battery and OS Candidate -JP-SC-PHONE Construct Formula-specific expression Module MJ.PBMEF.Product.JP-SC-PHONE Namespace MJ.PBMEF.Product.JP-SC-PHONE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-SC-PHONE Definition Exploresemiconductor-scalestaticintake,powerwake,solarassist,battery,andoperating-syst

PATH OF EXPRESSION

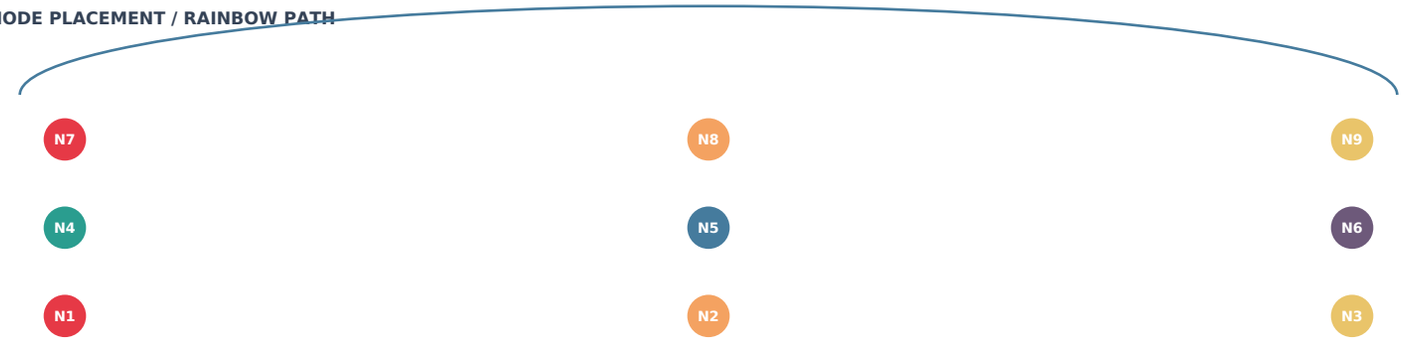
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_JP_Semiconductor_P
reference "PINK-01-P0379"
state R -> R1
node N1
representation JP(PINK-01-P0379)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 379 of 431. Chapter 9 JP Semiconduct
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N6; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 380 of 431. Chapter 10 JP Large-Scale Boating Power Candi- date -JP-LS-BOAT Construct Formula-specific expression Module MJ.PBMEF.Product.JP-LS-BOAT Namespace MJ.PBMEF.Product.JP-LS-BOAT.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-LS-BOAT Definition Explorelarge-scalestaticintake,solarinitiation,powerbus,containment,andmarinepowerinteg Capability Reference,simul

PATH OF EXPRESSION

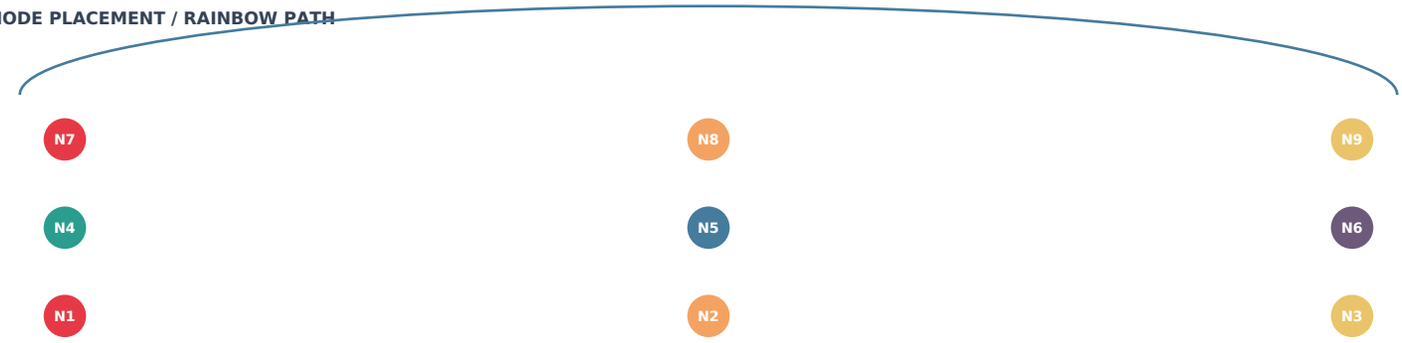
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_JP_Large_Scale_Bo
reference "PINK-01-P0380"
state R -> R1
node N6
representation JP(PINK-01-P0380)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 380 of 431. Chapter 10 JP Large-Scal
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 381 of 431. Chapter 11 JP Peaceful High-Energy Propulsion Research Candidate - JP-PEACEFUL- PROPULSION Construct Formula-specific expression Module MJ.PBMEF.Product.JP-PEACEFUL-PROPULSION Namespace MJ.PBMEF.Product.JP-PEACEFUL-PROPULSION.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-PEACEFUL-PROPULSION Definition Explorepeacefulpropulsionmeasurementandcontrolundernon-wea

PATH OF EXPRESSION

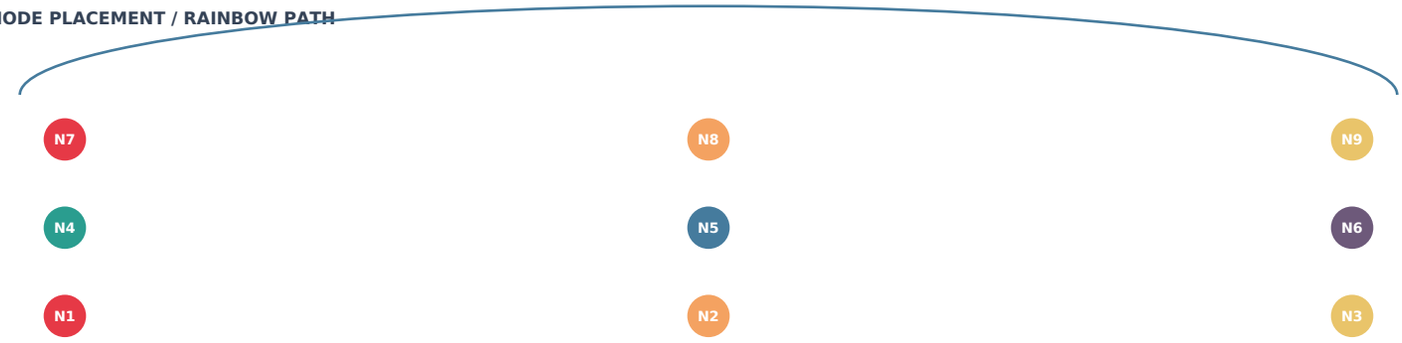
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_JP_Peaceful_High_
reference "PINK-01-P0381"
state R -> R1
node N1
representation JP(PINK-01-P0381)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 381 of 431. Chapter 11 JP Peaceful H
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 382 of 431. Chapter 12 Sister Predictive Containment System - SISTER-CONTAINMENT Construct Formula-specific expression Module MJ.PBMEF.Product.SISTER-CONTAINMENT Namespace MJ.PBMEF.Product.SISTER-CONTAINMENT.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSISTER-CONTAINMENT Definition Predictdemand,allocatebuffers,detectanomalies,andstageoverflowinboundedumbrell...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_Sister_Predictive
reference "PINK-01-P0382"
state R -> R1
node N1
representation JP(PINK-01-P0382)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 382 of 431. Chapter 12 Sister Predic
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 383 of 431. Chapter 13 EVE Variance Screen and Egress Ac- counting -EVE-SCREEN Construct Formula-specific expression Module MJ.PBMEF.Product.EVE-SCREEN Namespace MJ.PBMEF.Product.EVE-SCREEN.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productEVE-SCREEN Definition Accountforvariance,evaporation,leakage,capture,andnaturalegresswithoutsilentlo...

PATH OF EXPRESSION

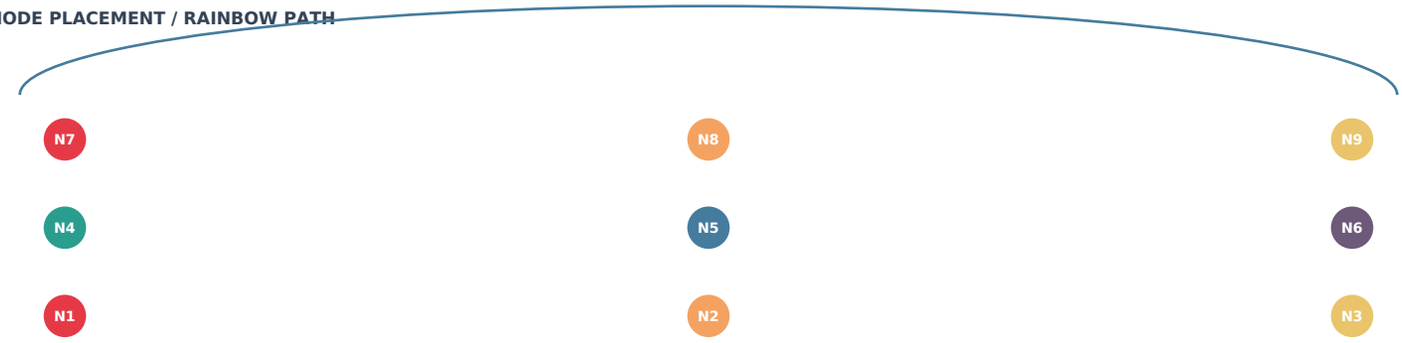
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_EVE_Variance_Scre
reference "PINK-01-P0383"
state R -> R1
node N1
representation JP(PINK-01-P0383)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 383 of 431. Chapter 13 EVE Variance
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 384 of 431. Chapter 14 Angels Safety and Corrective Command System -ANGELS-SAFETY Construct Formula-specific expression Module MJ.PBMEF.Product.ANGELS-SAFETY Namespace MJ.PBMEF.Product.ANGELS-SAFETY.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productANGELS-SAFETY Definition Providedomain-boundedtelemetry,hold,denial,isolation,andcorrectiveprotoco...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_Angels_Safety_and
reference "PINK-01-P0384"
state R -> R1
node N1
representation JP(PINK-01-P0384)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 384 of 431. Chapter 14 Angels Safety
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 385 of 431. Chapter 15 Mermaid Accounting and Reconciliation System -MERMAID-RECON Construct Formula-specific expression Module MJ.PBMEF.Product.MERMAID-RECON Namespace MJ.PBMEF.Product.MERMAID-RECON.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMERMAID-RECON Definition Maintainbalances,custodyevidence,exposure,taxlots,statements,andreconciliati...

PATH OF EXPRESSION

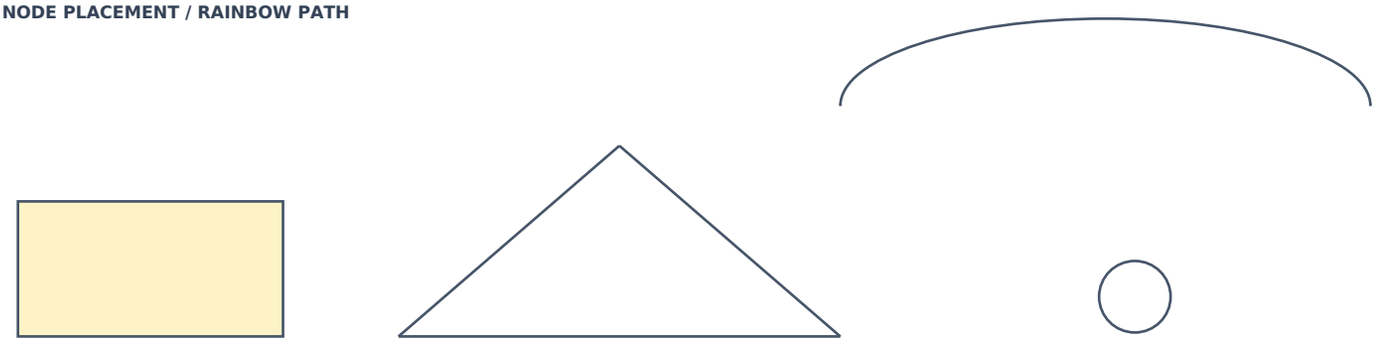
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_Mermaid_Accountin
reference "PINK-01-P0385"
state R -> R1
node N1
representation JP(PINK-01-P0385)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 385 of 431. Chapter 15 Mermaid Accou
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 386 of 431. Chapter 16 Shiva Dual Financial Rails -SHIVA-RAILS Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVA-RAILS Namespace MJ.PBMEF.Product.SHIVA-RAILS.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVA-RAILS Definition Separatestability/cashfunctionsfrominvestmentandcryptoriskwhilepreservingliquidity-first Capability Reference,simulation,imp

PATH OF EXPRESSION

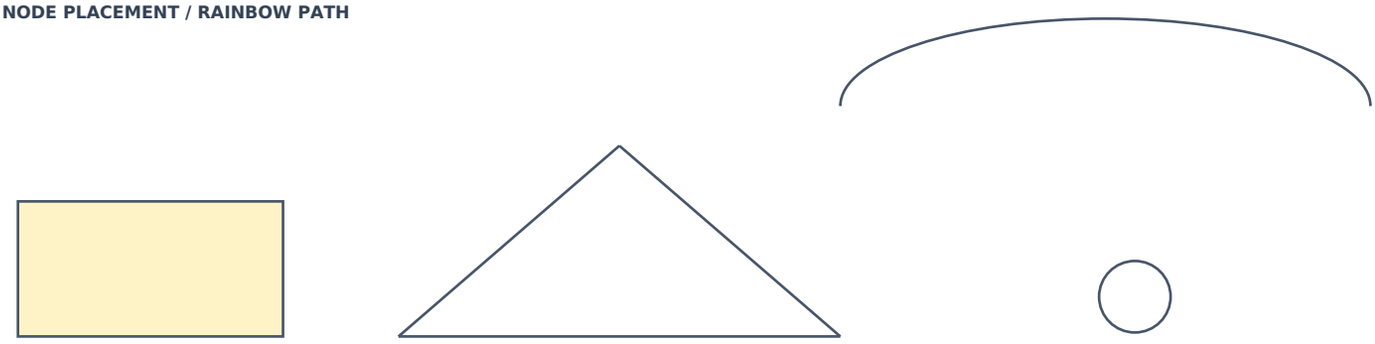
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_Shiva_Dual_Financ
reference "PINK-01-P0386"
state R -> R1
node N1
representation JP(PINK-01-P0386)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 386 of 431. Chapter 16 Shiva Dual Fi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 387 of 431. Chapter 17 SHIVAS Internal Settlement Reflection - SHIVAS-INTERNAL Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVAS-INTERNAL Namespace MJ.PBMEF.Product.SHIVAS-INTERNAL.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVAS-INTERNAL Definition Representinternalcapitalreflectionswithoutminting,redemption,publicoffer,orvalueguarant

PATH OF EXPRESSION

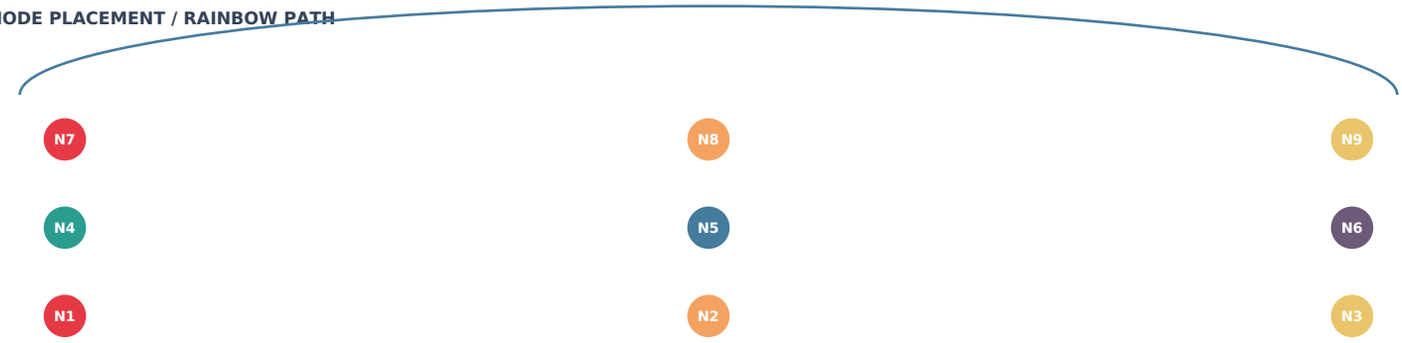
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_SHIVAS_Internal_S
reference "PINK-01-P0387"
state R -> R1
node N1
representation JP(PINK-01-P0387)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 387 of 431. Chapter 17 SHIVAS Intern
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N5; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 388 of 431. Chapter 18 Shiva Crypto External-Market Candi- date -SHIVA-CRYPTO Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVA-CRYPTO Namespace MJ.PBMEF.Product.SHIVA-CRYPTO.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVA-CRYPTO Definition Modelaseparatelygovernedexternalcryptorailsubjecttofullclassificationandauthorizati...

PATH OF EXPRESSION

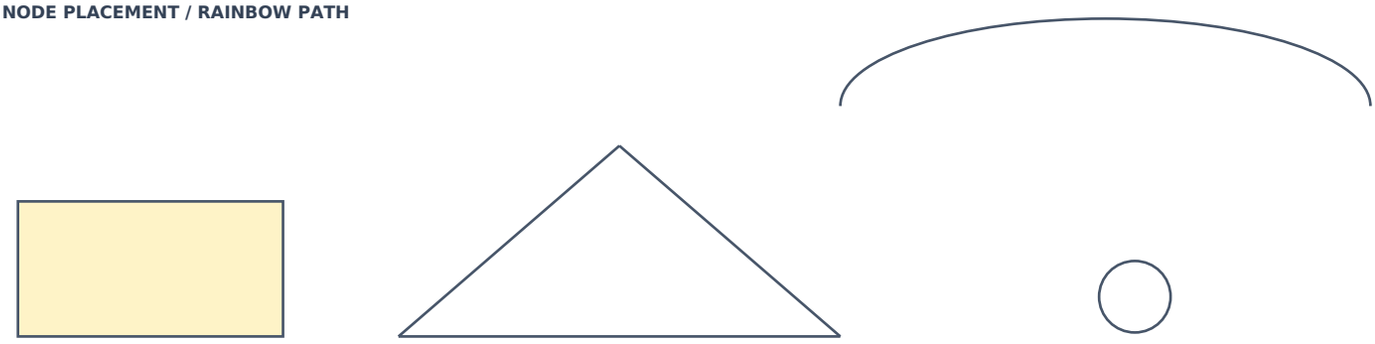
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_Shiva_Crypto_Exte
reference "PINK-01-P0388"
state R -> R1
node N5
representation JP(PINK-01-P0388)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 388 of 431. Chapter 18 Shiva Crypto
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 389 of 431. Chapter 19 Shiva Exchange Rule Reference -SHIVA- EXCHANGE Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVA-EXCHANGE Namespace MJ.PBMEF.Product.SHIVA-EXCHANGE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVA-EXCHANGE Definition Modeltransparentprice-time,custody,audit,tax,andtransferruleswithoutoperatingamark...

PATH OF EXPRESSION

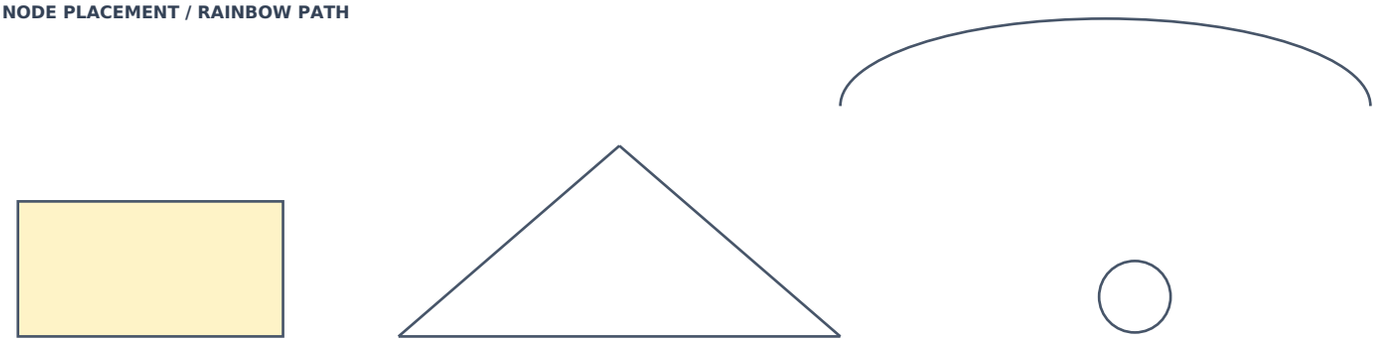
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_Shiva_Exchange_Ru
reference "PINK-01-P0389"
state R -> R1
node N1
representation JP(PINK-01-P0389)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 389 of 431. Chapter 19 Shiva Exchang
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 390 of 431. Chapter 20 Moana Governed Browser - MOANA- BROWSER Construct Formula-specific expression Module MJ.PBMEF.Product.MOANA-BROWSER Namespace MJ.PBMEF.Product.MOANA-BROWSER.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMOANA-BROWSER Definition Presentgovernedapplications,evidence,holds,anduncertainty. Capabil...

PATH OF EXPRESSION

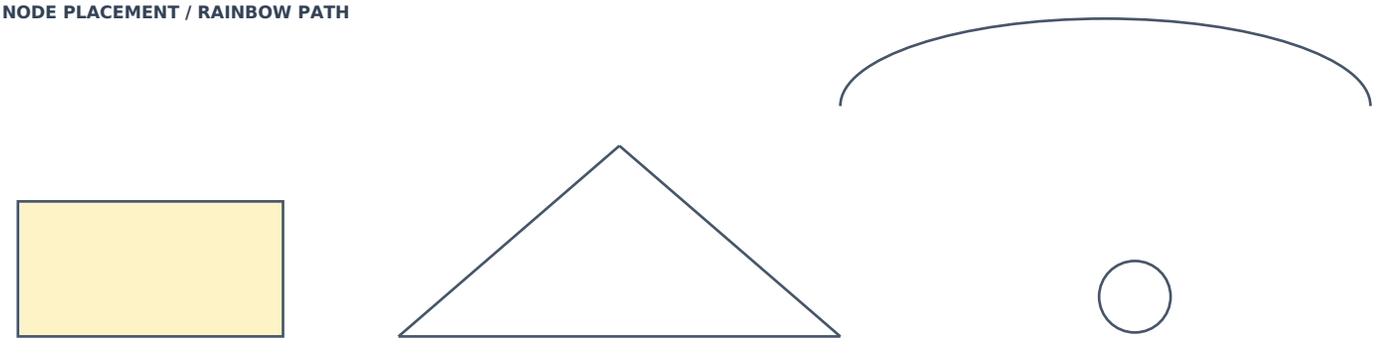
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_Moana_Governed_Br
reference "PINK-01-P0390"
state R -> R1
node N1
representation JP(PINK-01-P0390)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 390 of 431. Chapter 20 Moana Governe
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 391 of 431. Chapter 21 Aviator Organizational Workspace - AVIATOR-WORKSPACE Construct Formula-specific expression Module MJ.PBMEF.Product.AVIATOR-WORKSPACE Namespace MJ.PBMEF.Product.AVIATOR-WORKSPACE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productAVIATOR-WORKSPACE Definition Organizespaces,projects,decisions,knowledge,members,roles,andcapabiliti...

PATH OF EXPRESSION

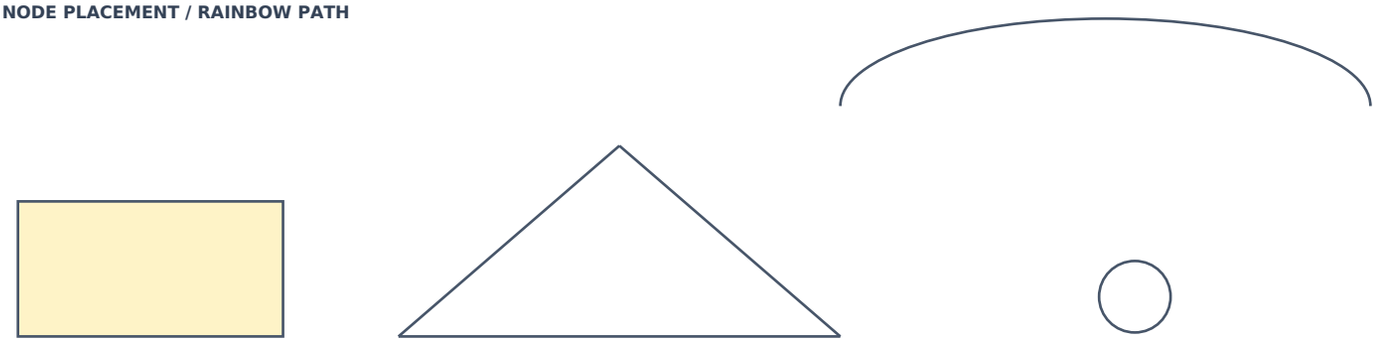
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_Aviator_Organizat
reference "PINK-01-P0391"
state R -> R1
node N1
representation JP(PINK-01-P0391)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 391 of 431. Chapter 21 Aviator Organ
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 392 of 431. Chapter 22 Lecanto Truthful Visualization - LECANTO-VISUAL Construct Formula-specific expression Module MJ.PBMEF.Product.LECANTO-VISUAL Namespace MJ.PBMEF.Product.LECANTO-VISUAL.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productLECANTO-VISUAL Definition Displaysystemtruth,provenance,topology,uncertainty,andevidence. Capabil...

PATH OF EXPRESSION

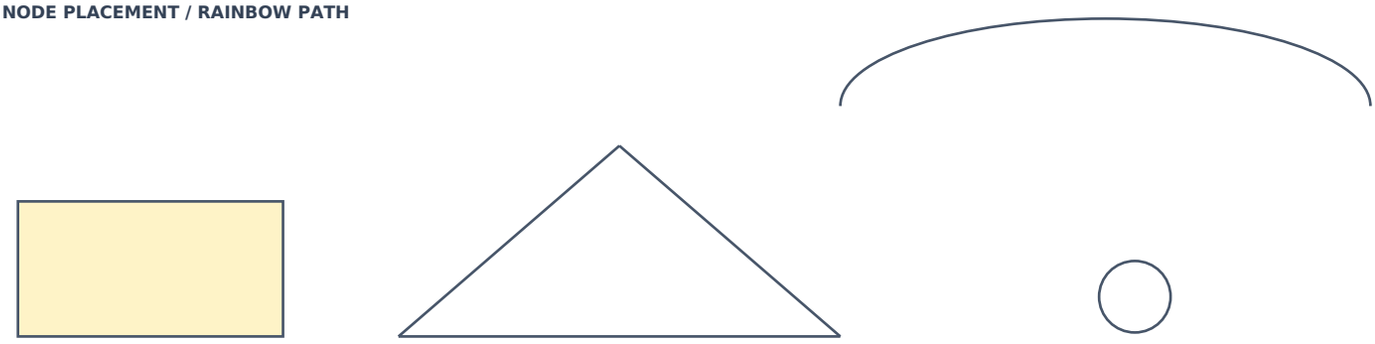
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_Lecanto_Truthful_
reference "PINK-01-P0392"
state R -> R1
node N9
representation JP(PINK-01-P0392)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 392 of 431. Chapter 22 Lecanto Truth
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 393 of 431. Chapter 23 Elsa Governed Marketplace Reference - ELSA-MARKETPLACE Construct Formula-specific expression Module MJ.PBMEF.Product.ELSA-MARKETPLACE Namespace MJ.PBMEF.Product.ELSA-MARKETPLACE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productELSA-MARKETPLACE Definition Coordinatesemanticlistings,workflow,accounting,execution,andresourceevidencewithoutliv

PATH OF EXPRESSION

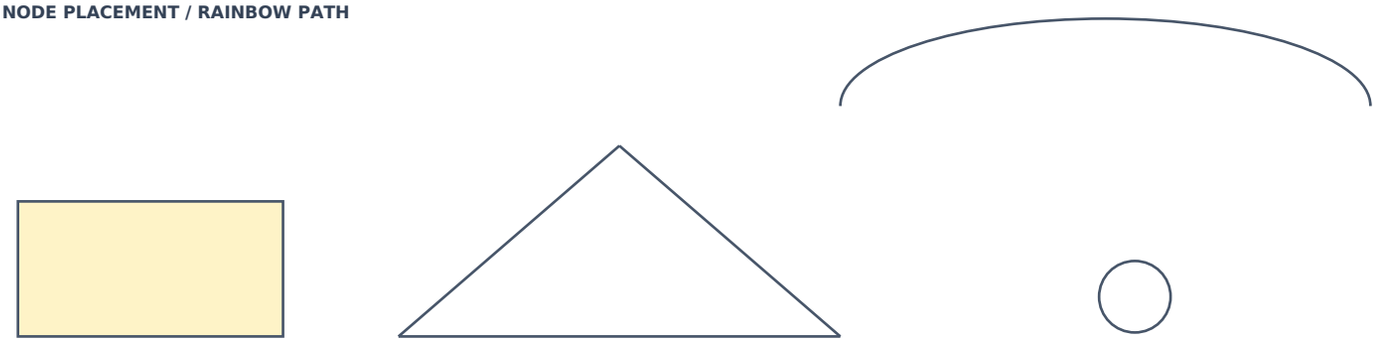
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_Elsa_Governed_Mar
reference "PINK-01-P0393"
state R -> R1
node N1
representation JP(PINK-01-P0393)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 393 of 431. Chapter 23 Elsa Governed
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 394 of 431. Chapter 24 Shekina Distributed Continuity - SHEKINA-CONTINUITY Construct Formula-specific expression Module MJ.PBMEF.Product.SHEKINA-CONTINUITY Namespace MJ.PBMEF.Product.SHEKINA-CONTINUITY.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHEKINA-CONTINUITY Definition Modelboundedreplicas,failover,continuity,andplacementevidence. Capabil...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_Shekina_Distribut
reference "PINK-01-P0394"
state R -> R1
node N1
representation JP(PINK-01-P0394)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 394 of 431. Chapter 24 Shekina Distr
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 395 of 431. Chapter 25 Pearl Hypothetical Simulation and Information-Retention System -PEARL- CONTAINMENT Construct Formula-specific expression Module MJ.PBMEF.Product.PEARL-CONTAINMENT Namespace MJ.PBMEF.Product.PEARL-CONTAINMENT.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productPEARL-CONTAINMENT Definition Acquire,retain,replay,andcomparevariancesimulationsandtransfer/regener

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_Pearl_Hypothetica
reference "PINK-01-P0395"
state R -> R1
node N1
representation JP(PINK-01-P0395)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 395 of 431. Chapter 25 Pearl Hypothe
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 396 of 431. Chapter 26 Bangel Spreadsheets - Bangel - SPREADSHEETS
Construct Formula-specific expression Module
MJ.PBMEF.Product.Bangel -SPREADSHEETS Namespace
MJ.PBMEF.Product.Bangel -SPREADSHEETS.Day0 Import
Manifest,productregister,applicableformulas,familyandobjectdefinitions
Declaration productBangel -SPREADSHEETS Definition
Providegovernedspreadsheet-likeoperationalmodelingthroughtypedmeasurementcells,imm

PATH OF EXPRESSION

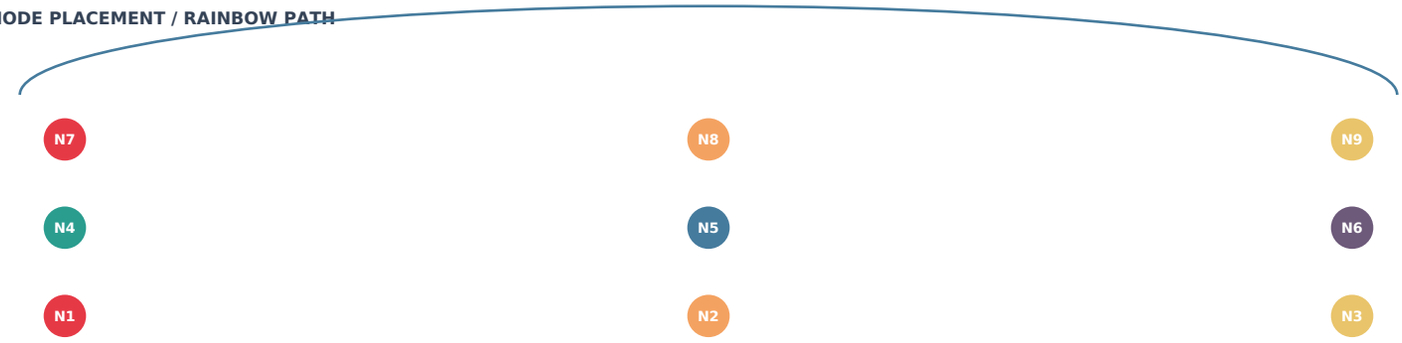
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_Bangel _Spreadshee
reference "PINK-01-P0396"
state R -> R1
node N4
representation JP(PINK-01-P0396)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 396 of 431. Chapter 26 Bangel  Spread
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 397 of 431. Chapter 27 JPOSMJ Product Portfolio Envelope - JPOSMJ-PORTFOLIO Construct Formula-specific expression Module MJ.PBMEF.Product.JPOSMJ-PORTFOLIO Namespace MJ.PBMEF.Product.JPOSMJ-PORTFOLIO.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJPOSMJ-PORTFOLIO Definition BindeveryJP-originproductcandidatethroughMKphysicsrepresentation,JOverification,partici

PATH OF EXPRESSION

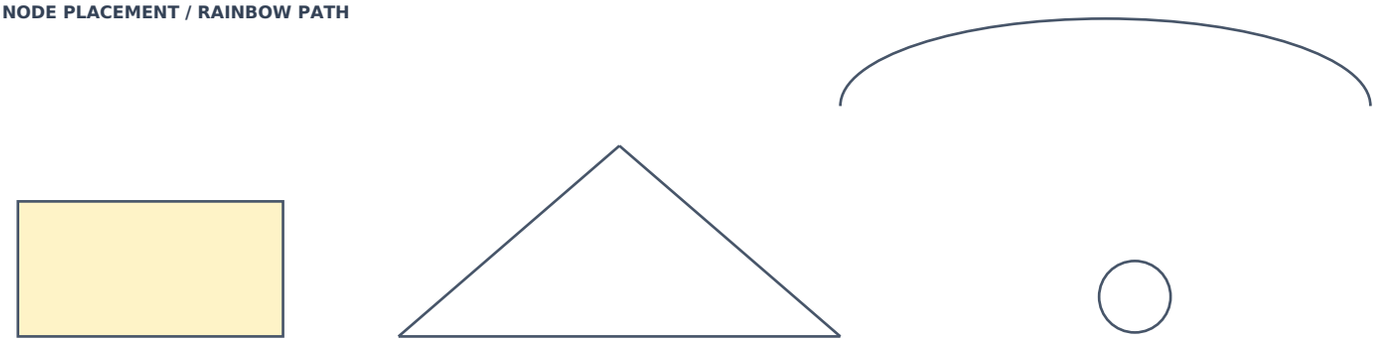
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_JPOSMJ_Product_Po
reference "PINK-01-P0397"
state R -> R1
node N1
representation JP(PINK-01-P0397)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 397 of 431. Chapter 27 JPOSMJ Produc
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 398 of 431. Chapter 28 MJ Standard Containment Geometry and Reference Gas Model - STANDARD- CONTAINMENT-GEOMETRY Construct Formula-specific expression Module MJ.PBMEF.Product.STANDARD-CONTAINMENT-GEOMETRY Namespace MJ.PBMEF.Product.STANDARD-CONTAINMENT-GEOMETRY.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSTANDARD-CONTAINMENT-GEOMETRY Definition Provideascale-independentre

PATH OF EXPRESSION

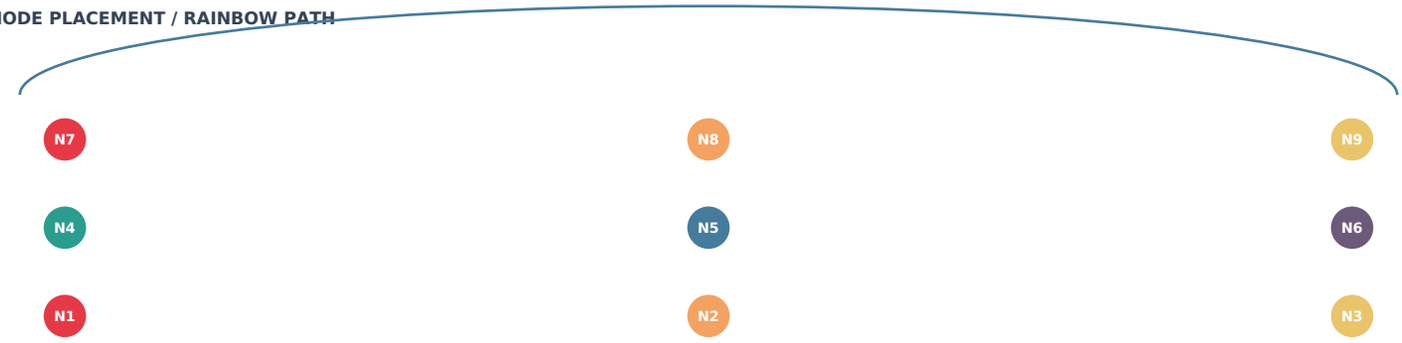
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_MJ_Standard_Conta
reference "PINK-01-P0398"
state R -> R1
node N1
representation JP(PINK-01-P0398)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 398 of 431. Chapter 28 MJ Standard C
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 399 of 431. Chapter 29 MJ Reservoir Collection, Lake Buffer, and Spiral-Compatible Re-entry - RESERVOIR-COLLECTION-MODULATION Construct Formula-specific expression Module MJ.PBMEF.Product.RESERVOIR-COLLECTION-MODULATION Namespace MJ.PBMEF.Product.RESERVOIR-COLLECTION-MODULATION.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productRESERVOIR-COLLECTION-MODULATION Definition Modelthe

PATH OF EXPRESSION

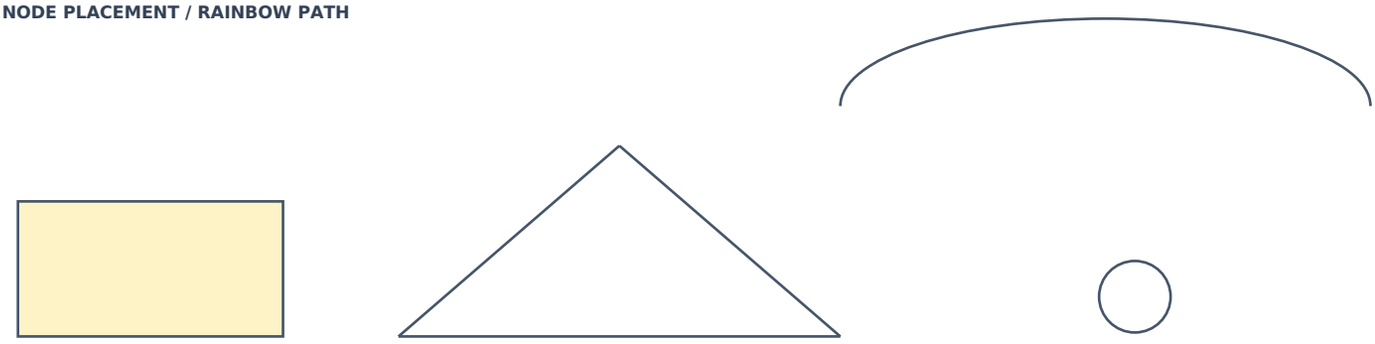
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_MJ_Reservoir_Coll
reference "PINK-01-P0399"
state R -> R1
node N1
representation JP(PINK-01-P0399)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 399 of 431. Chapter 29 MJ Reservoir
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 400 of 431. Chapter 30 Registered white-paper verification crosswalk 34

PATH OF EXPRESSION

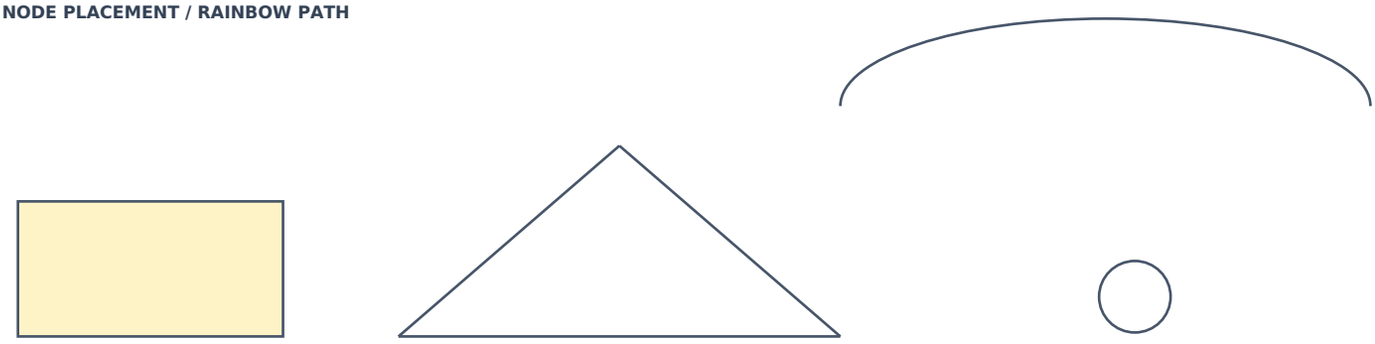
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_Registered_white_
reference "PINK-01-P0400"
state R -> R1
node N8
representation JP(PINK-01-P0400)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 400 of 431. Chapter 30 Registered wh
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 401 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.1 MJ — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-01 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-01 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-01 Import whitepapers/family/01-mj.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-01 Definition Projectroot,founder-governedauthorityandfinal

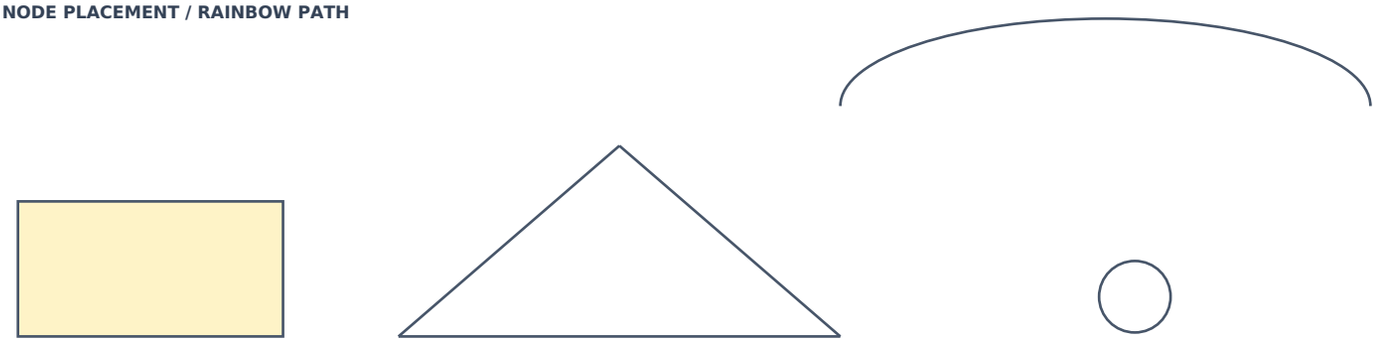
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0401"
state R -> R1
node N1
representation JP(PINK-01-P0401)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 401 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 402 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.3 Elsa — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-03 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-03 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-03 Import whitepapers/family/03-elsa.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-03 Definition Deterministicsemanticrecoveryandpurpose-p

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0402"
state R -> R1
node N1
representation JP(PINK-01-P0402)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 402 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 403 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.5 Mika / MK — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-05 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-05 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-05 Import whitepapers/family/05-mk.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-05 Definition PhysicsModulatorSystemfordimensional,

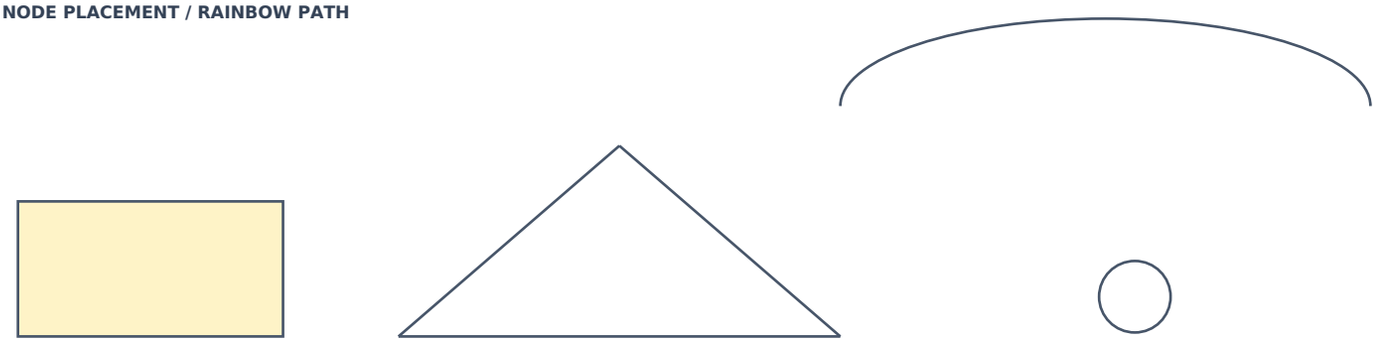
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0403"
state R -> R1
node N1
representation JP(PINK-01-P0403)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 403 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 404 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.7 MJOS — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-07 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-07 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-07 Import whitepapers/family/07-mjos.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-07 Definit...

PATH OF EXPRESSION

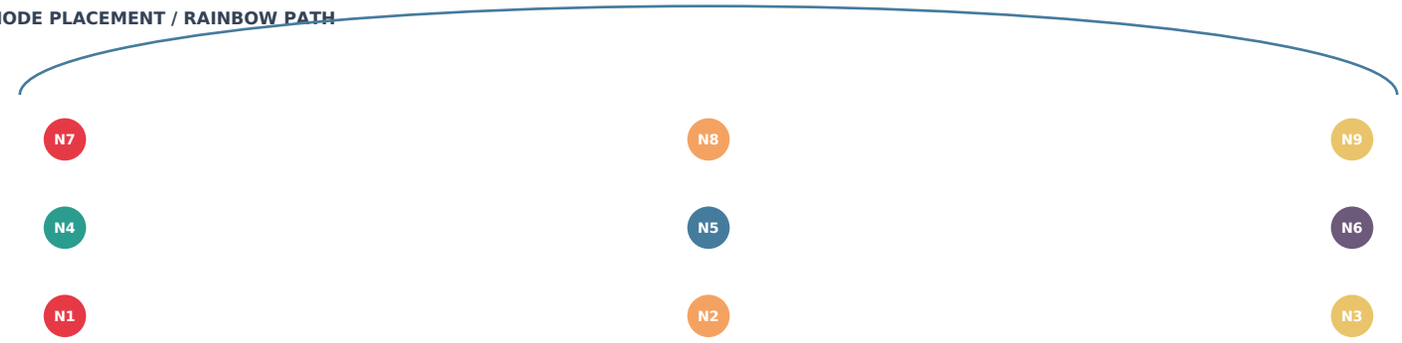
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0404"
state R -> R1
node N3
representation JP(PINK-01-P0404)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 404 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 405 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.9 Bellatrix — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP- 09 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-09 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-09 Import whitepapers/family/09-bellatrix.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-09 Definition Independentdefense,challenge,q

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0405"
state R -> R1
node N1
representation JP(PINK-01-P0405)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 405 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 406 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.11 EVE — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-11 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-11 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-11 Import whitepapers/family/11-eve.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-11 Definition Variance,evaporativeeffect,screencapture,l

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0406"
state R -> R1
node N1
representation JP(PINK-01-P0406)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 406 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 407 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.13 Mermaid — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-13 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-13 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-13 Import whitepapers/family/13-mermaid.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-13 Definit...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0407"
state R -> R1
node N1
representation JP(PINK-01-P0407)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 407 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 408 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.15 Shekina — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-15 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-15 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-15 Import whitepapers/family/15-shekina.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-15 Definit...

PATH OF EXPRESSION

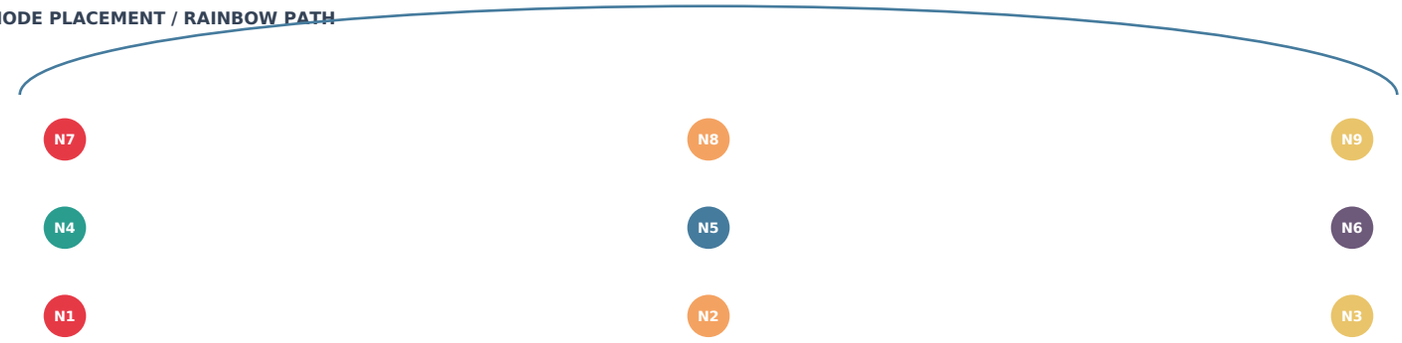
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0408"
state R -> R1
node N7
representation JP(PINK-01-P0408)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 408 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 409 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.17 Lecanto — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-17 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-17 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-17 Import whitepapers/family/17-lecanto.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-17 Definit...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0409"
state R -> R1
node N1
representation JP(PINK-01-P0409)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 409 of 431. PRIVATE PRE-DAY-0 - UNSI
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Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 410 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.19 Aviator — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP- 19 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-19 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-19 Import whitepapers/family/19-aviator.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-19 Definit...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0410"
state R -> R1
node N1
representation JP(PINK-01-P0410)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 410 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 411 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.21 WATER — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP- 21 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-21 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-21 Import whitepapers/family/21-water.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-21 Definit...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0411"
state R -> R1
node N1
representation JP(PINK-01-P0411)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 411 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 412 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.23 Bangel Governed Measurement Language -MJ-PBMEF-PRODUCT- WP-02 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-02 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-02 Import whitepapers/products/02-Bangel-language.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-02 Definition Expresshumanpurpose,t

PATH OF EXPRESSION

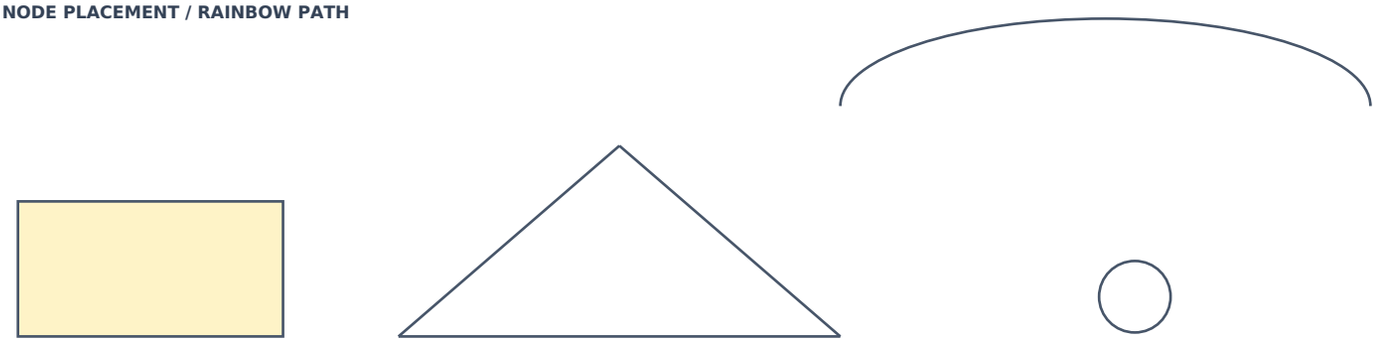
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0412"
state R -> R1
node N2
representation JP(PINK-01-P0412)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 412 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 413 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.25 JP Mathematical and Architectural Canon -MJ-PBMEF-PRODUCT- WP-04 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-04 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-04 Import whitepapers/products/04-jp-canon.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-04 Definition Representequations,algori

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0413"
state R -> R1
node N1
representation JP(PINK-01-P0413)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 413 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 414 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.27 JO Deterministic Proof and Runtime -MJ-PBMEF-PRODUCT-WP-06 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-06 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-06 Import whitepapers/products/06-jo-runtime.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-06 Definition Verifytypes,units,authority,p

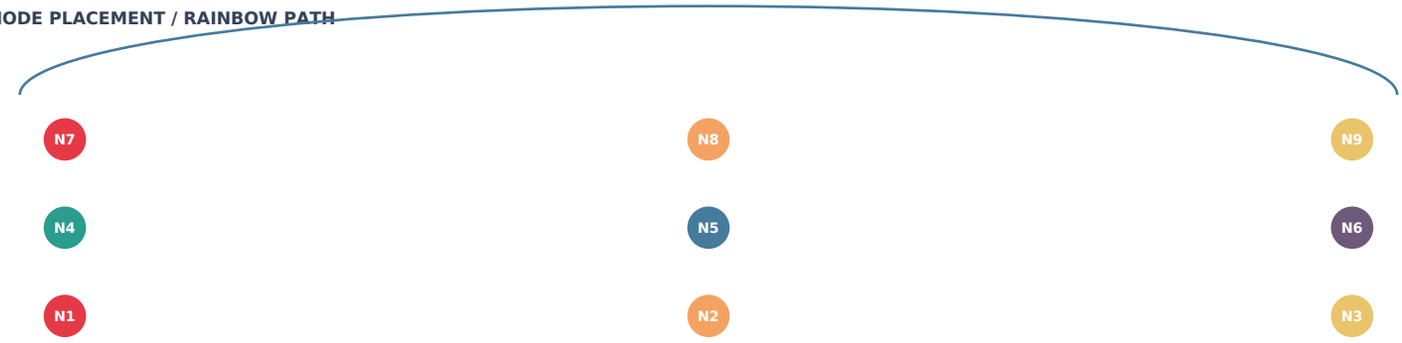
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0414"
state R -> R1
node N1
representation JP(PINK-01-P0414)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 414 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 415 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.29 JP Semiconductor Phone Battery and OS Candidate -MJ-PBMEF- PRODUCT-WP-08 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-08 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-08 Import whitepapers/products/08-jp-sc-phone.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-08 Definition Exploresemicon

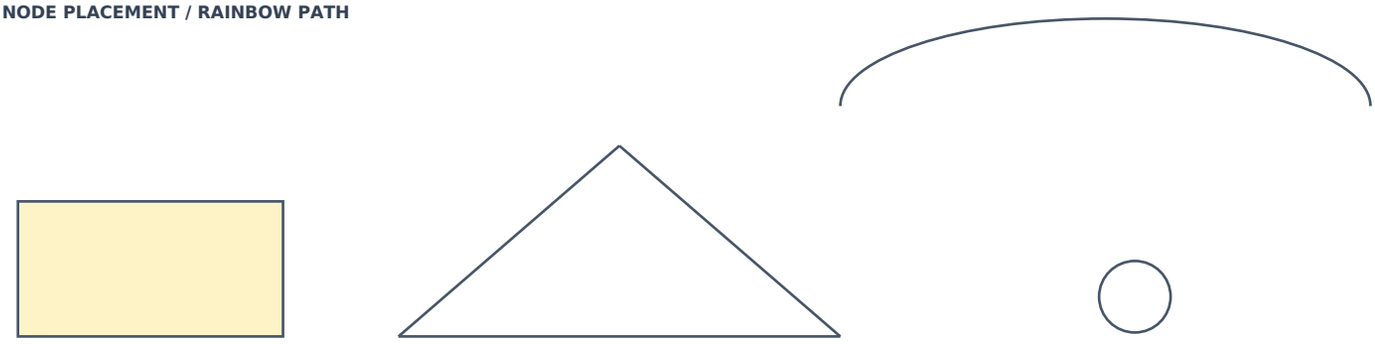
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0415"
state R -> R1
node N1
representation JP(PINK-01-P0415)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 415 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 416 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.31 JP Peaceful High-Energy Propulsion Research Candidate -MJ- PBMEF-PRODUCT-WP-10 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-10 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-10 Import whitepapers/products/10-jp-peaceful-propulsion.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-10 Definiti

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0416"
state R -> R1
node N6
representation JP(PINK-01-P0416)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 416 of 431. PRIVATE PRE-DAY-0 - UNSI
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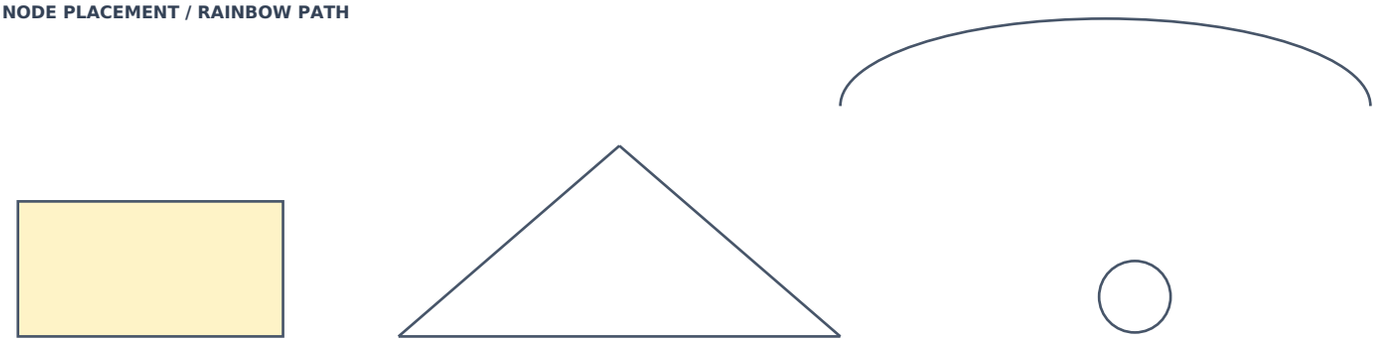
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 417 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.33 EVE Variance Screen and Egress Accounting - MJ-PBMEF- PRODUCT-WP-12 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-12 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-12 Import whitepapers/products/12-eve-screen.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-12 Definition Accountforvariance,e

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0417"
state R -> R1
node N1
representation JP(PINK-01-P0417)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 417 of 431. PRIVATE PRE-DAY-0 - UNSI
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Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 418 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.35 Mermaid Accounting and Reconciliation System -MJ-PBMEF- PRODUCT-WP-14 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-14 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-14 Import whitepapers/products/14-mermaid-recon.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-14 Definition Maintainbalance

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0418"
state R -> R1
node N1
representation JP(PINK-01-P0418)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 418 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 419 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.37 SHIVAS Internal Settlement Reflection -MJ-PBMEF-PRODUCT-WP- 16 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-16 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-16 Import whitepapers/products/16-shivas-internal.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-16 Definition Representinternalcap

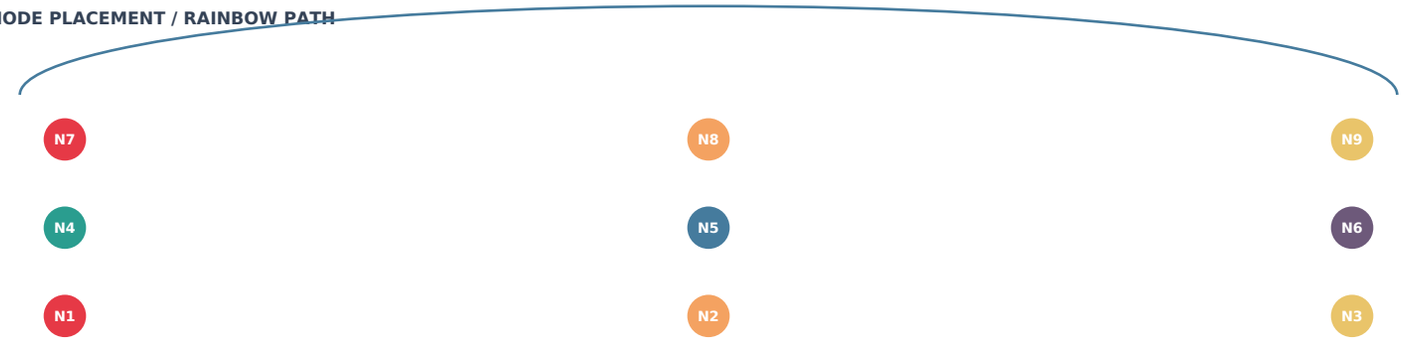
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0419"
state R -> R1
node N1
representation JP(PINK-01-P0419)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 419 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 420 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.39 Shiva Exchange Rule Reference -MJ-PBMEF-PRODUCT-WP-18 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-18 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-18 Import whitepapers/products/18-shiva-exchange.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-18 Definit...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0420"
state R -> R1
node N1
representation JP(PINK-01-P0420)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 420 of 431. PRIVATE PRE-DAY-0 - UNSI
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 421 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.41 Aviator Organizational Workspace -MJ-PBMEF-PRODUCT-WP-20 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-20 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-20 Import whitepapers/products/20-aviator-workspace.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-20 Definition Organizespaces,projects,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0421"
state R -> R1
node N1
representation JP(PINK-01-P0421)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 421 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 422 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.43 Elsa Governed Marketplace Reference -MJ-PBMEF-PRODUCT-WP- 22 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-22 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-22 Import whitepapers/products/22-elsa-marketplace.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-22 Definition Coordinatesemanticlis

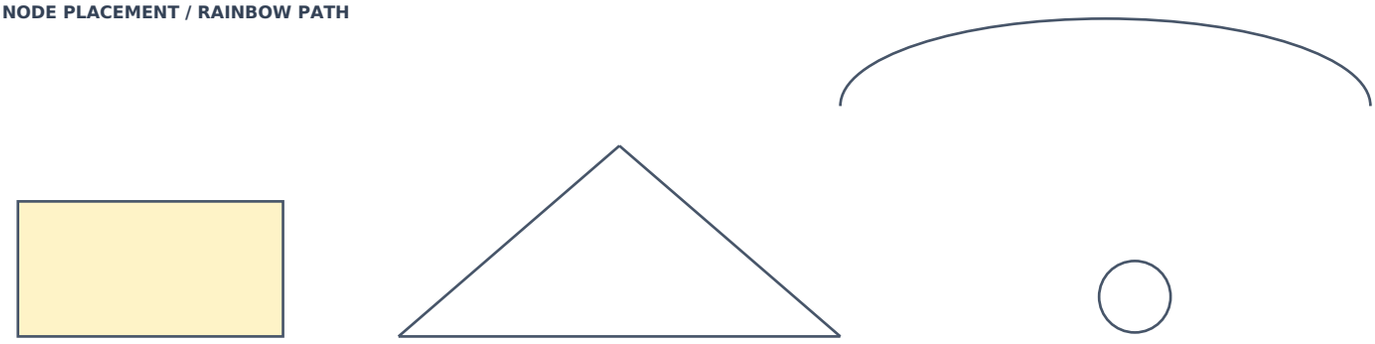
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0422"
state R -> R1
node N1
representation JP(PINK-01-P0422)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 422 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 423 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.45 Pearl Hypothetical Simulation and Information-Retention Sys- tem -MJ-PBMEF-PRODUCT-WP-24 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-24 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-24 Import whitepapers/products/24-pearl-containment.md Declarat...

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0423"
state R -> R1
node N1
representation JP(PINK-01-P0423)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 423 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 424 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.47 JPOSMJ Product Portfolio Envelope -MJ-PBMEF-PRODUCT-WP-26 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-26 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-26 Import whitepapers/products/26-jposmj-portfolio.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-26 Definition GiveeveryJP-originproduc

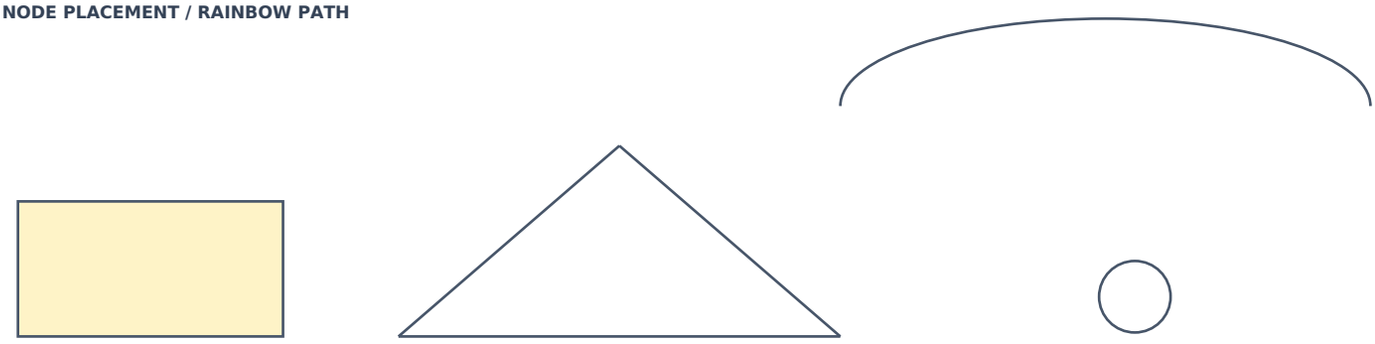
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0424"
state R -> R1
node N5
representation JP(PINK-01-P0424)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 424 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 425 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.49 MJ Reservoir Collection Modulation and Return Loop -MJ- PBMEF-PRODUCT-WP-28 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-28 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-28 Import whitepapers/products/28-reservoir-collection-modulation.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-28 De

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0425"
state R -> R1
node N1
representation JP(PINK-01-P0425)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 425 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 426 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.51 Noise Floor and 23 mg Inflection -MJ-PBMEF-REPRESENTATION- WP-02 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-02 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-02 Import whitepapers/representations/02-noise-23mg.md Declaration whitepaperMJ-PBMEF-REPRESENTATION-WP-02 Defini

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0426"
state R -> R1
node N1
representation JP(PINK-01-P0426)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 426 of 431. PRIVATE PRE-DAY-0 - UNSI
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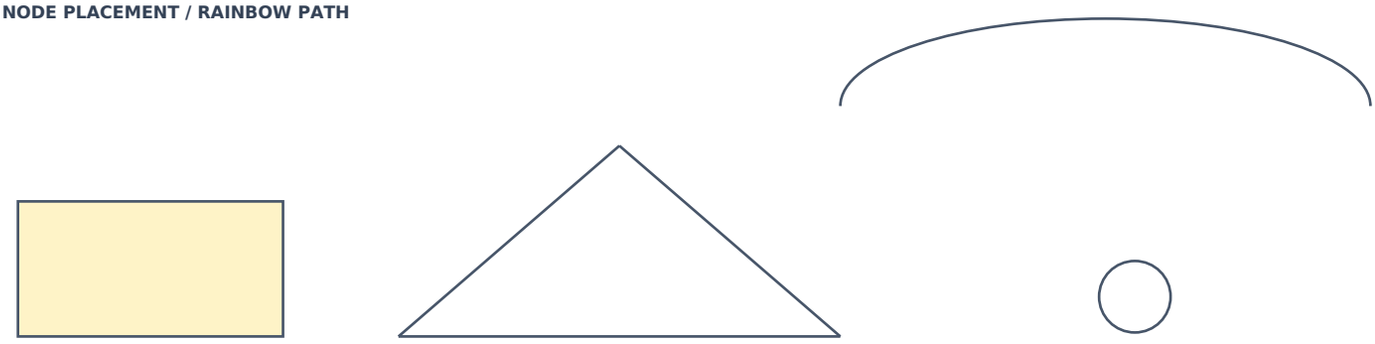
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 427 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.53 Memory, Request Occultation, and Generational Handoff -MJ- PBMEF-REPRESENTATION-WP-04 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-04 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-04 Import whitepapers/representations/04-memory-handoff.md Declarat...

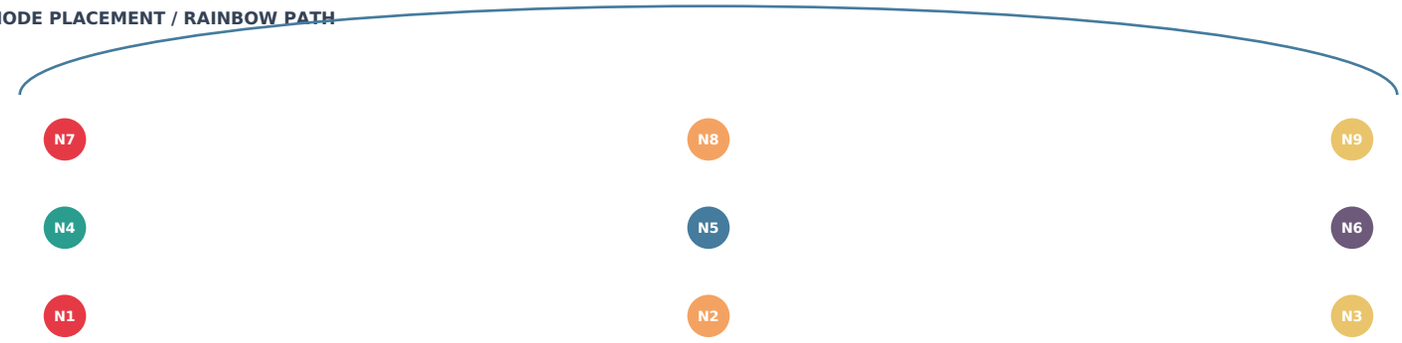
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0427"
state R -> R1
node N1
representation JP(PINK-01-P0427)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 427 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 428 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.55 EVE Variance, Screen, Evaporation, and Egress -MJ-PBMEF- REPRESENTATION-WP-06 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-06 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-06 Import whitepapers/representations/06-eve-egress.md Declaration whitepaperMJ-PBMEF-REPRESENTATION

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0428"
state R -> R1
node N9
representation JP(PINK-01-P0428)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 428 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 429 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.57 Passkey, Claims Ceiling, and Repository Authentication -MJ- PBMEF-REPRESENTATION-WP-08 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-08 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-08 Import whitepapers/representations/08-passkey.md Declaration whitepaperMJ-PBMEF-REPRESEN

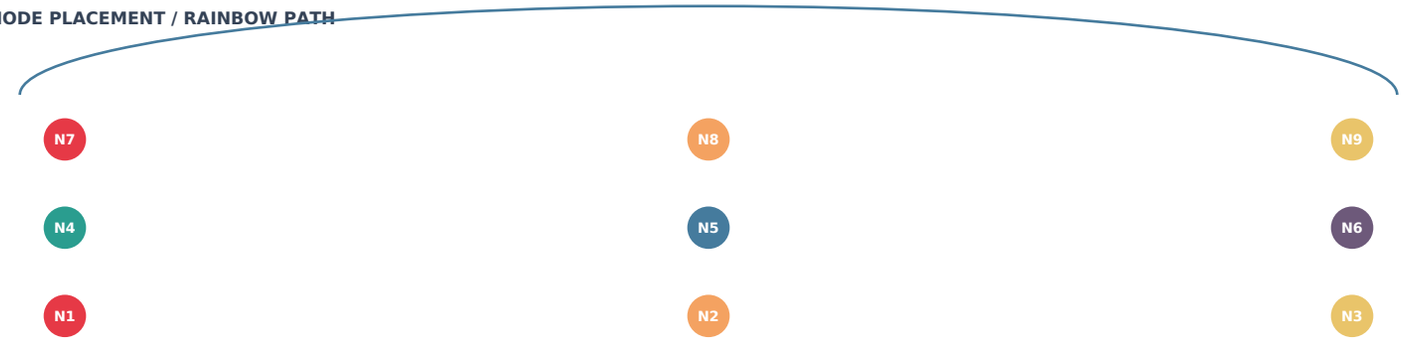
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0429"
state R -> R1
node N1
representation JP(PINK-01-P0429)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 429 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 430 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.59 Bangel Spreadsheets Cell, Dependency, Revision, and Pearl Simulation Field -MJ-PBMEF-REPRESENTATION-WP-10 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-10 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-10 Import whitepapers/representations/10-Bangel-spreadsheets-field.md De

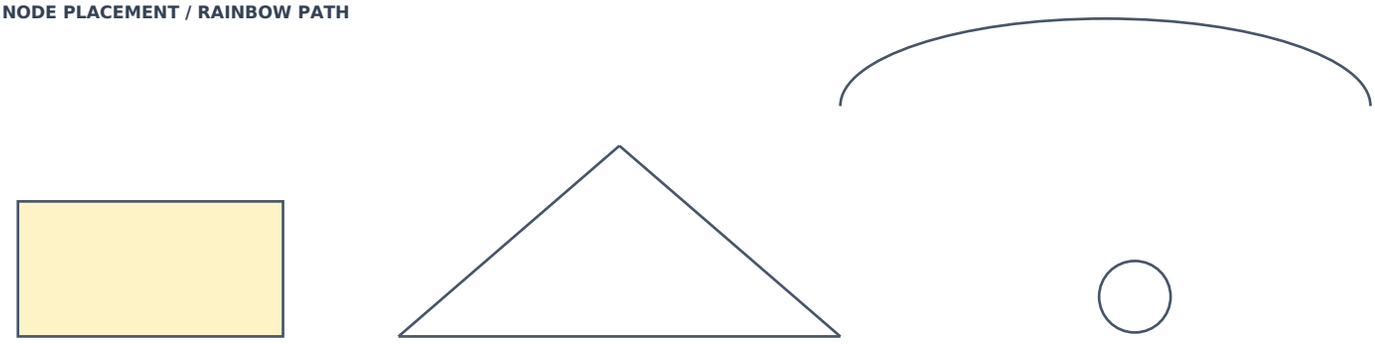
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0430"
state R -> R1
node N1
representation JP(PINK-01-P0430)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 430 of 431. PRIVATE PRE-DAY-0 - UNSI
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 431 of 431. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.61 Reservoir Return Loop Physics Representation - MJ-PBMEF- REPRESENTATION-WP-12 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-12 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-12 Import whitepapers/representations/12-reservoir-return-loop.md Declaration whitepaperMJ-PBMEF-REP

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-01-P0431"
state R -> R1
node N1
representation JP(PINK-01-P0431)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Gateway_Expression_and_Full_Lifecycle_001.pdf, page 431 of 431. PRIVATE PRE-DAY-0 - UNSI
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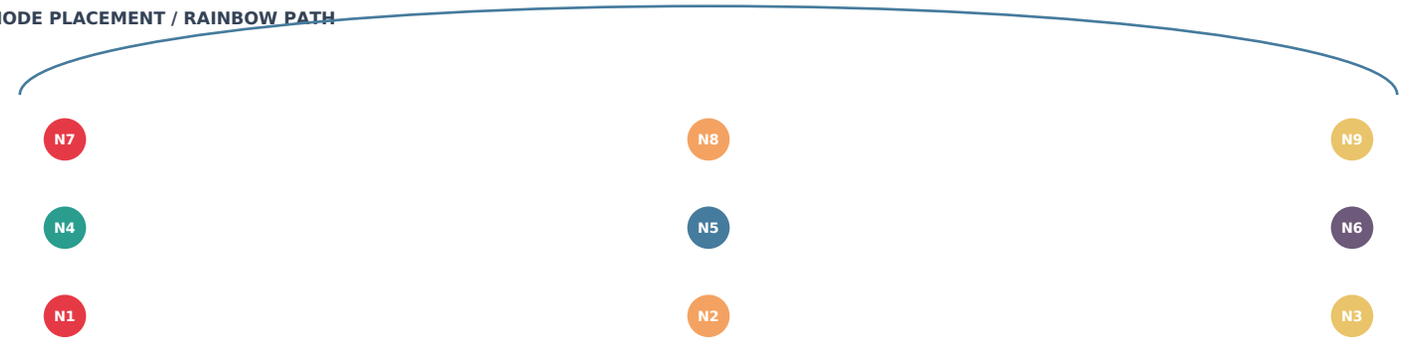
NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 1 of 10. MJ-PBMEFPinkPaper-VolumeI GatewayExpression,BangelConstructSemantics,CommandNormalization,and R-to-N1-to-R2Lifecycle MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeI_Ga
reference "PINK-02-P0001"
state R -> R1
node N1
representation JP(PINK-02-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 1 of 10. MJ-PBMEFPinkPaper-VolumeI GatewayExpression,Bangel ConstructSem
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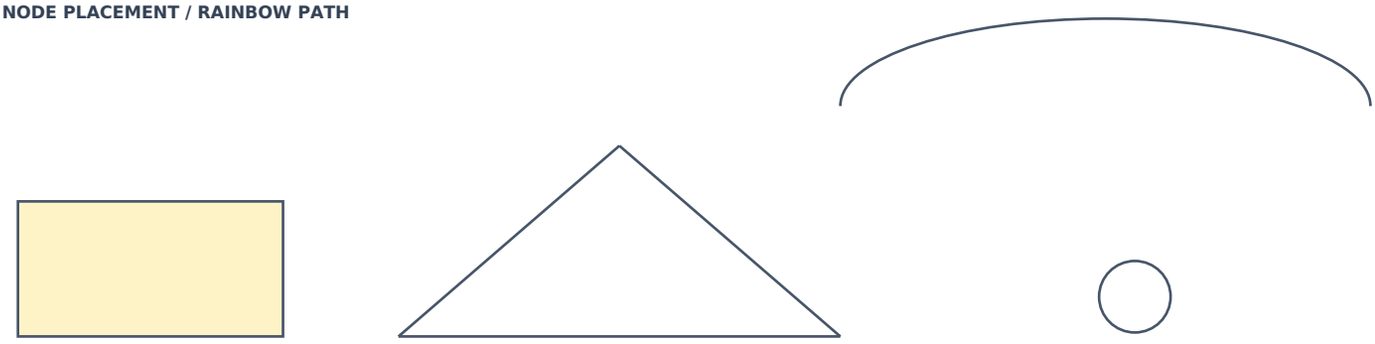
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 2 of 10. Contents 1 Executive gateway statement 2 2 Progressive expansion from MJ.23.r2 3 3 Token-by-token identification 4 4 Canonical execution order 5 5 R, R1, N1, R2, and final output 6 6 Bangel construct dictionary 7 7 Full declarative gateway example 8 8 Verification of the full corpus 9 Document control Project MJ:PhysicsBasedMeasurementEngineeringFramework Project ID MJ-PBMEF-001 Source build MJ-PBMEF-DAY0-R5-REVIEW-C

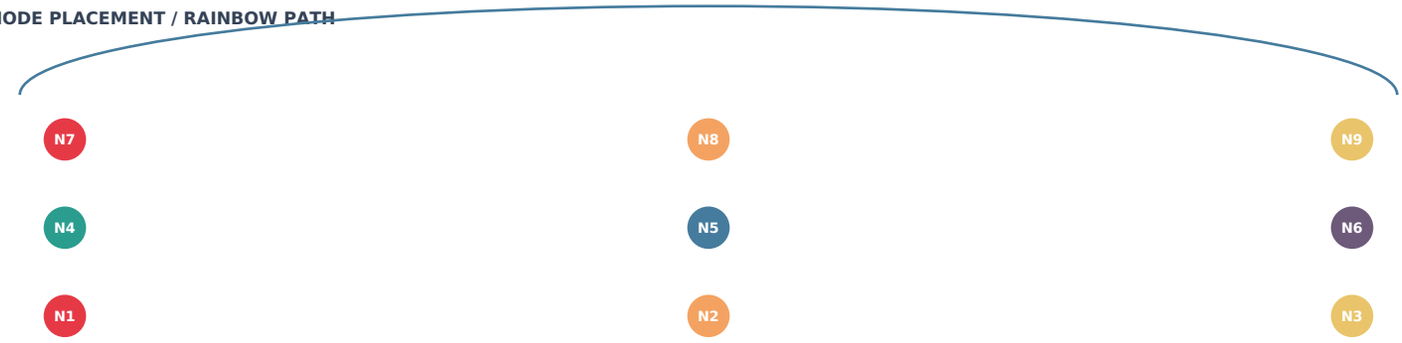
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Executive_gateway
reference "PINK-02-P0002"
state R -> R1
node N1
representation JP(PINK-02-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 2 of 10. Contents 1 Executive gateway statement 2 2 Progressive expansi
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 3 of 10. Chapter 1 Executive gateway statement ThePinkPaperisaverification-focuseddeclarativepathwayspecification. Itusesthefounder-supplied expression as a source-provenance object, then separates lexical order from canonical execution or- der. Thepapershowshoweachformula,manifestation,object,product,andwhitepaperenterstheMJ frameworkwithoutconfusingrepresentation,measurement,authority,orexecution. Founder source literal {ha

PATH OF EXPRESSION

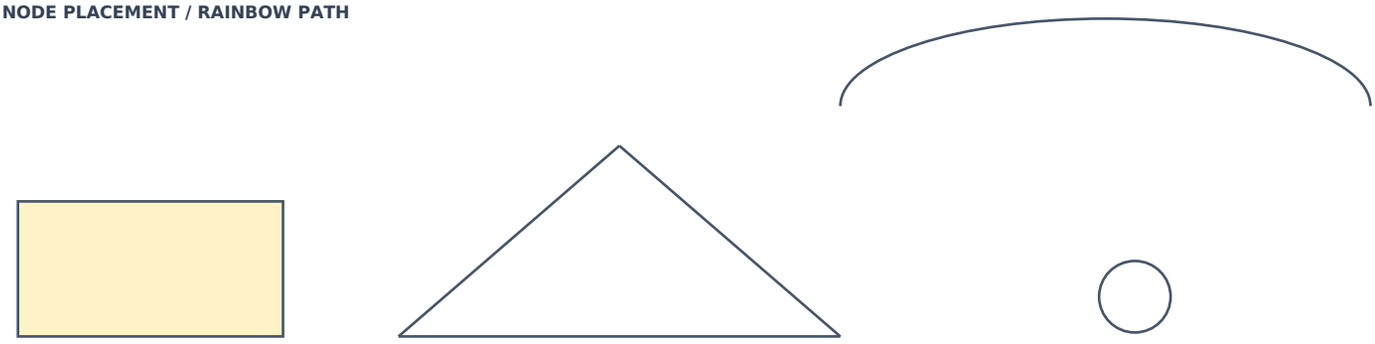
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Executive_gateway_
reference "PINK-02-P0003"
state R -> R1
node N1
representation JP(PINK-02-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 3 of 10. Chapter 1 Executive gateway statement ThePinkPaperisaverificat
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 4 of 10. Chapter 2 Progressive expansion from MJ.23.r2 Stage Expression Interpretation 1 MJ.23.r2 Profile/stateseed 2 MJ.23.r2.exe Addsrequestedexecutionverb 3 MJ.23.r2.exe.r1.confirm Addstransitionandconfirmation 4 MJ.23.r2.exe.r1.confirm.G123.reconcile Addsgenerationalreconciliation 5 MJ.23.r2.exe.r1.confirm.G123.reconcile.Bangel.begin Addslanguagestartdirective 6 M3.act.MJ.23.r2.exe.r1.confirm.G123.reconcile.Bangel.begin A

PATH OF EXPRESSION

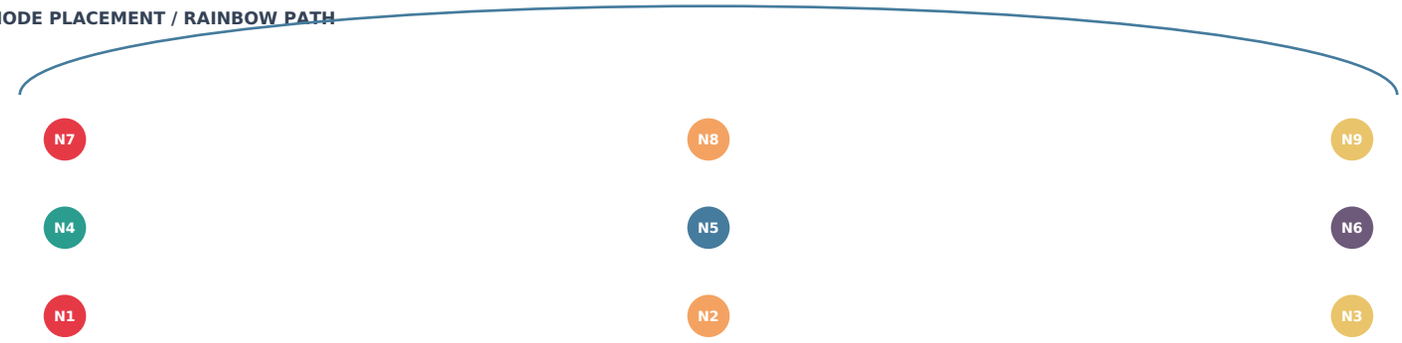
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_Progressive_expans
reference "PINK-02-P0004"
state R -> R1
node N1
representation JP(PINK-02-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 4 of 10. Chapter 2 Progressive expansion from MJ.23.r2 Stage Expression
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 5 of 10. Chapter 3 Token-by-token identification Token Exact meaning and boundary {hagelaohrbcoe.48383829} Requestenvelopecontaininganopaquerequestidentifierandexactratio48,383,829/100,000,000. Itisnotaphysicalcoordinate,probabilityoftruth,orpermit. M3 Mary/M3boundedroutingandallocationparticipant. M3cannotmintauthority. act Requestedeffectverb. Itremainsarequestuntilallgatespass. MJ Frameworkrootandfinalboundeddecisionautho

PATH OF EXPRESSION

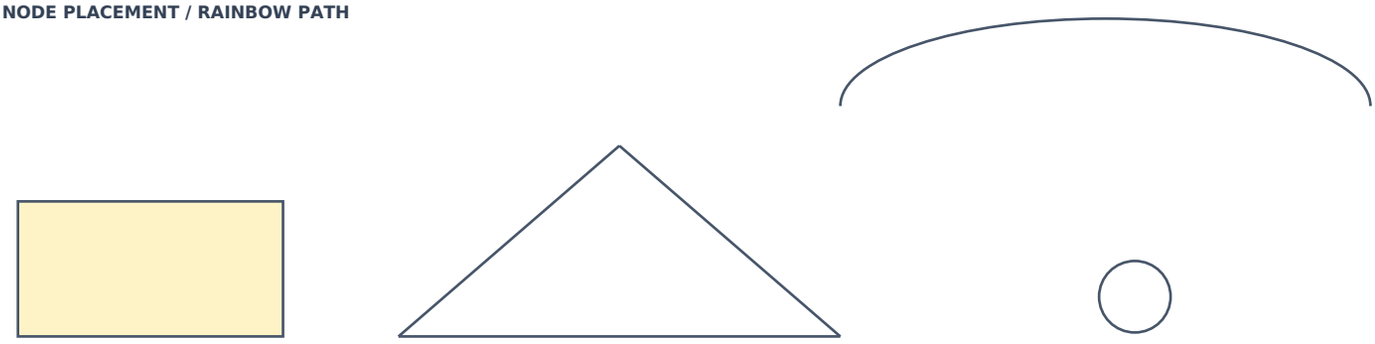
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_Token_by_token_ide
reference "PINK-02-P0005"
state R -> R1
node N8
representation JP(PINK-02-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 5 of 10. Chapter 3 Token-by-token identification Token Exact meaning an
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 6 of 10. Chapter 4 Canonical execution order HumanPurpose -> MJ.root -> Bangel.begin -> Elsa.recover -> JP.represent -> MK.classify -> JO.verify -> R1.transition -> N1.predict_and_preallocate -> Angels/Bellatrix/Sister/EVE.evidence -> M3.route -> Mermaid.reconcile -> Shiva.when_capital_applies -> MJ.permit -> JO.execute -> R2.output_receipt 5

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_Canonical_executio
reference "PINK-02-P0006"
state R -> R1
node N1
representation JP(PINK-02-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 6 of 10. Chapter 4 Canonical execution order HumanPurpose -> MJ.root ->
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 7 of 10. Chapter 5 R, R1, N1, R2, and final output Lifecycle state Definition R/R0 Initialpurpose,command,variables,authoritycontext,andunresolvedinputs. R1 Unidentifiedtransitionaryphase.
Missingordisputedevidenceremainstypedandcan- notbecomezero. N1 Firstprediction-basedallocationnode.
Itreceivesvalidatedlogicalallocationcontext, notaphysical-coordinateapproval.
R2 Immutableliving-staticrepresentationafterscopedvalidation.

PATH OF EXPRESSION

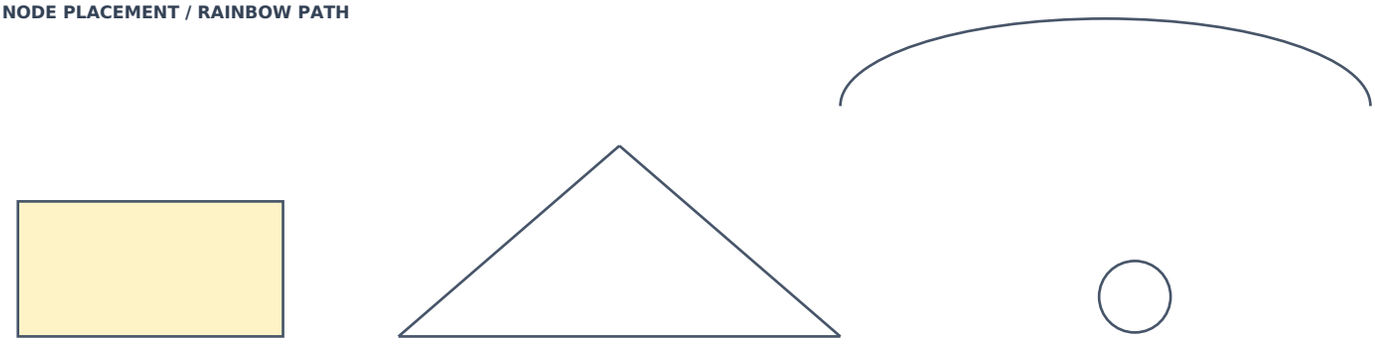
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_R_R1_N1_R2_and_fin
reference "PINK-02-P0007"
state R -> R1
node N1
representation JP(PINK-02-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 7 of 10. Chapter 5 R, R1, N1, R2, and final output Lifecycle state Defi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 8 of 10. Chapter 6 Bangel construct dictionary Construct Definition Module Aboundedcompilationorspecificationunitgroupingrelateddeclarationsanddefini- tions. Namespace Astableidentitydomainpreventingcollisionsamongfamily,formula,product,andobject names. Import Anexplicitdependencyedge. Importsconfernoauthorityandmustpreservesourcedi- gestandversion. Declaration Anamedcommitmentthatanobject,formula,participant,type,orfunctione

PATH OF EXPRESSION

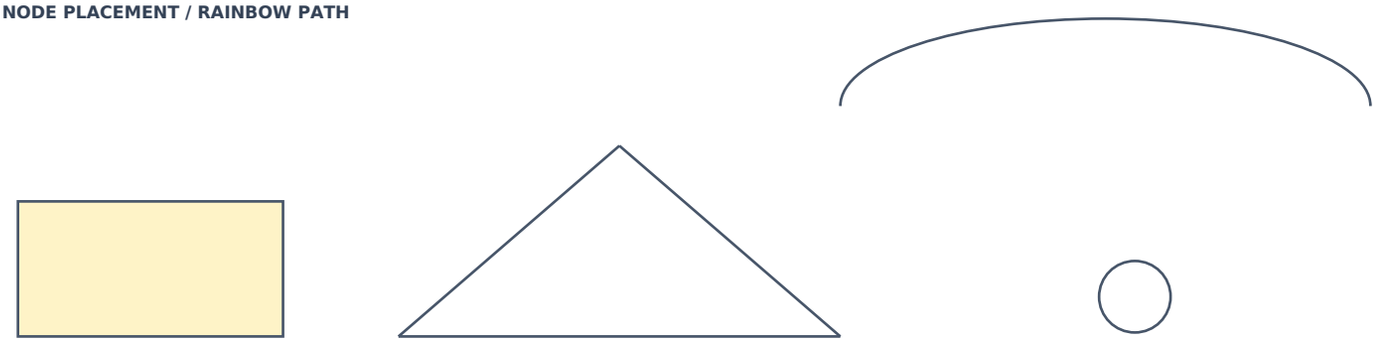
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_Bangel _construct_d
reference "PINK-02-P0008"
state R -> R1
node N1
representation JP(PINK-02-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 8 of 10. Chapter 6 Bangel  construct dictionary Construct Definition Mod
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 9 of 10. Chapter 7 Full declarative gateway example module MJ.PBMEF.Gateway { namespace MJ.PBMEF.Command.Day0 import MJ.PBMEF.Manifest import MJ.PBMEF.Formulas import MJ.PBMEF.Family @source_literal("{hagelaohrbcoe.48383829}." "M3.act.MJ.23.r2.exe.r1.confirm." "G123.reconcile.Bangel.begin") declaration request : CommandEnvelope definition request.id = "hagelaohrbcoe" definition request.front_end_seed = exact_ratio(48383829,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_Full_declarative_g
reference "PINK-02-P0009"
state R -> R1
node N1
representation JP(PINK-02-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 9 of 10. Chapter 7 Full declarative gateway example module MJ.PBMEF.Gat
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume01_Gateway.pdf, page 10 of 10. Chapter 8 Verification of the full corpus ThisPinkPaperbindsthegatewayto 21 family manifestations, 39 governed objects, 28 products, 145 formulas, and 61 registered white papers. Theremainingvolumesenumerateeachitemand statehowitentersthegateway,whatitmayexpress,whatevidenceitrequires,andwhatauthority cannotcreate. 9

PATH OF EXPRESSION

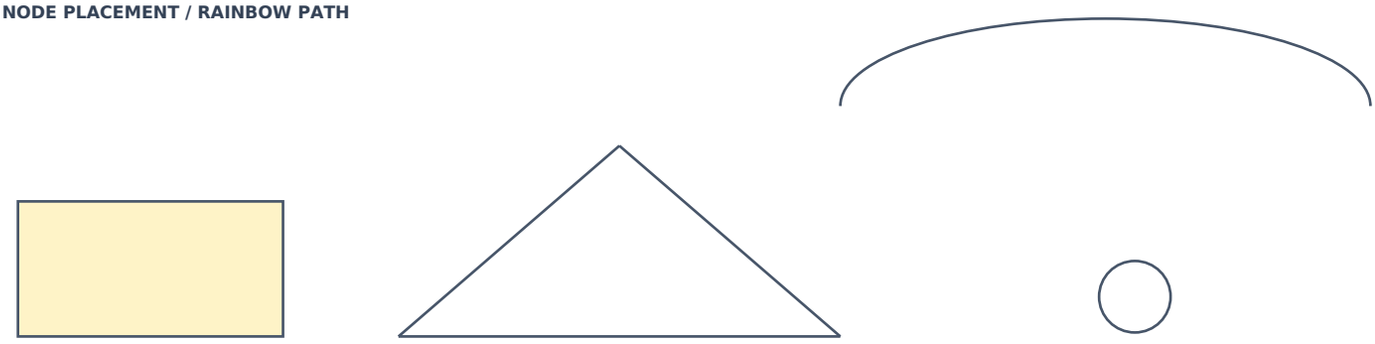
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_Verification_of_th
reference "PINK-02-P0010"
state R -> R1
node N1
representation JP(PINK-02-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume01_Gateway.pdf, page 10 of 10. Chapter 8 Verification of the full corpus ThisPinkPaperbindst
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 1 of 106. MJ-PBMEFPinkPaper-VolumeII FormulaGatewayBindingsF-001throughF-050 MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

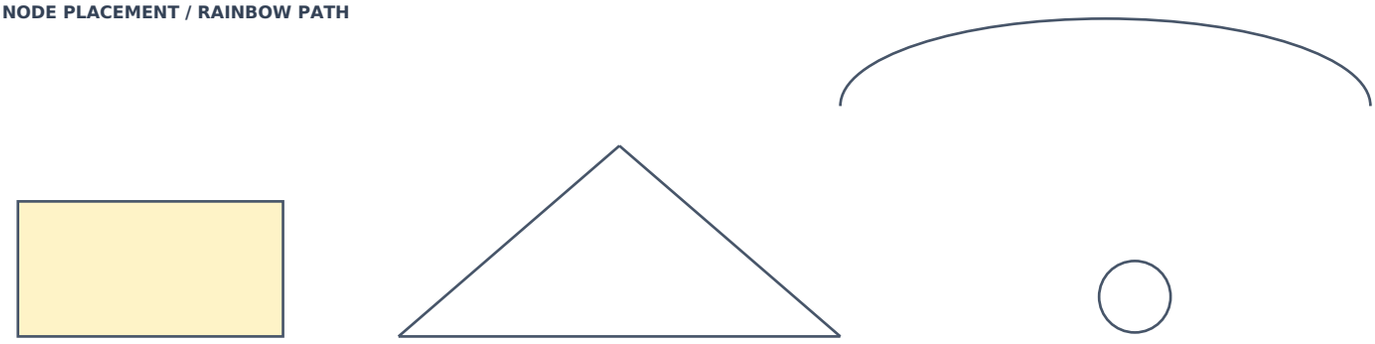
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeII_F
reference "PINK-03-P0001"
state R -> R1
node N1
representation JP(PINK-03-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 1 of 106. MJ-PBMEFPinkPaper-VolumeII FormulaGatewayBindingsF
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 2 of 106. Contents 1 Verification method 5 2 F-001 - R1 transition 6 2.1 Gatewaylife-cycleexample . . . . . .6 2.2 Lifecyclefromrequesttofinaloutput . . . . . .7 3 F-002 - R2 transition 8 3.1 Gatewaylife-cycleexample . . . . . .8 3.2 Lifecyclefromrequesttofinaloutpu

PATH OF EXPRESSION

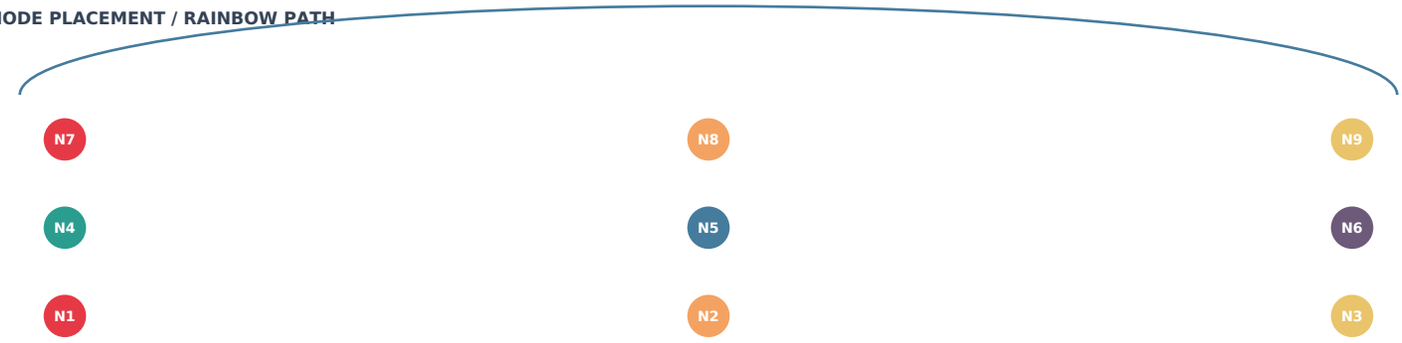
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Verification_meth
reference "PINK-03-P0002"
state R -> R1
node N1
representation JP(PINK-03-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 2 of 106. Contents 1 Verification method 5 2 F-001 - R1 tran
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 3 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050

13.2Lifecyclefromrequesttofinaloutput 29
14F-013 - Front-end reserve 30 14.1Gatewaylife-cycleexample . . . . . .30 14.2Lifecyclefromrequesttofinaloutput . . . . . .31 15F-014 - Bounde

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0003"
state R -> R1
node N7
representation JP(PINK-03-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 3 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 4 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050

29F-028 - Byte balance 60 29.1Gatewaylife-cycleexample . . . . . .60 29.2Lifecyclefromrequesttofinaloutput . . . . . .61 30F-029 - Residual consequence 62 30.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

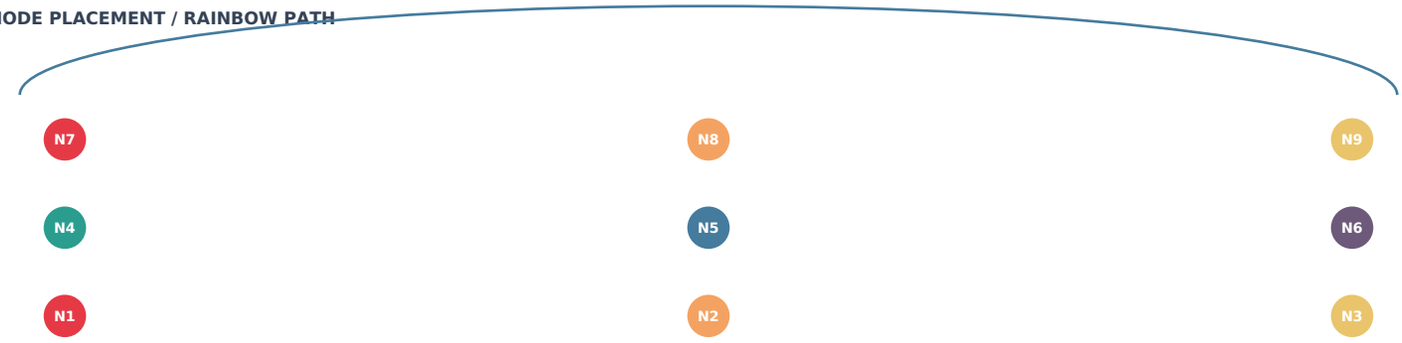
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0004"
state R -> R1
node N1
representation JP(PINK-03-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 4 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 5 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050

44F-043 - Pearl simulation ellipsoid volume 90 44.1Gatewaylife-cycleexample 90
44.2Lifecyclefromrequesttofinaloutput 91
45F-044 - Pearl simulation surface-area approximation 92
45.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0005"
state R -> R1
node N1
representation JP(PINK-03-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 5 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 6 of 106. Chapter 1 Verification method Each formula receives the same twenty-construct Bangel identity, a gateway-stage assignment, a life-cycleexample, andexplicitevidenceandethicsboundaries. Therepetitivestructureisintentional: it allowsformula-by-formulafounderreviewandlaterautomatedcompletenesschecking. 5

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Verification_metho
reference "PINK-03-P0006"
state R -> R1
node N1
representation JP(PINK-03-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 6 of 106. Chapter 1 Verification method Each formula receive
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 7 of 106. Chapter 2 F-001 - R1 transition Exact expression R0 -> R1 Meaning. R1istheunidentifiedtransitionaryphase. Bound manifestations.Bangel ,JP,JO Gateway stage.R0/R1/R2statetransitionandevidenceclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_001 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formulas,MJ.PBMEF.Fami

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_F_001_R1_transitio
reference "PINK-03-P0007"
state R -> R1
node N1
representation JP(PINK-03-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 7 of 106. Chapter 2 F-001 - R1 transition Exact expression R
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 8 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 2.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-001anditsassumptions,inputs,outp

PATH OF EXPRESSION

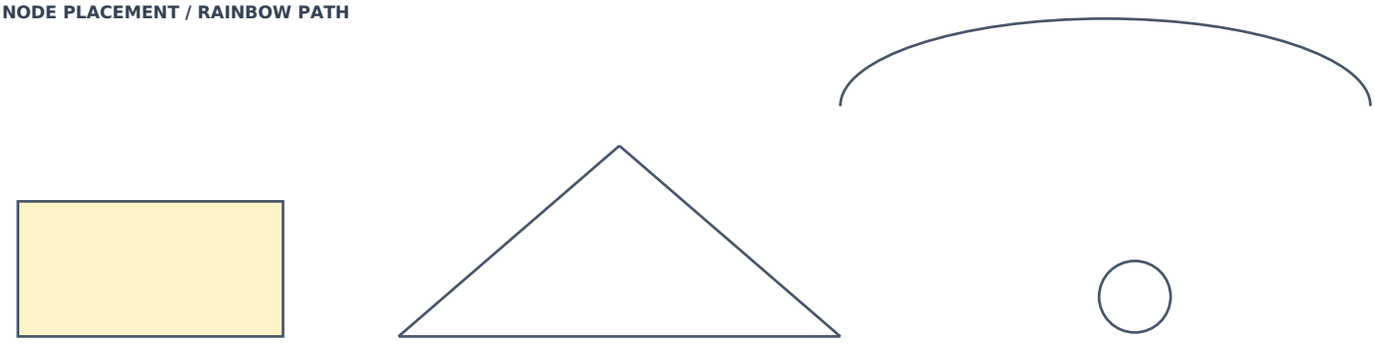
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0008"
state R -> R1
node N1
representation JP(PINK-03-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 8 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 9 of 106. Chapter 3 F-002 - R2 transition Exact expression R1 --validated--> R2 Meaning. R2istheimmutablelivingstaticrepresentation. Bound manifestations.JP,MK,JO Gateway stage.R0/R1/R2statetransitionandevidenceclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_002 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formulas,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_F_002_R2_transitio
reference "PINK-03-P0009"
state R -> R1
node N1
representation JP(PINK-03-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 9 of 106. Chapter 3 F-002 - R2 transition Exact expression R
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 10 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 3.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-002anditsassumptions,inputs,outp

PATH OF EXPRESSION

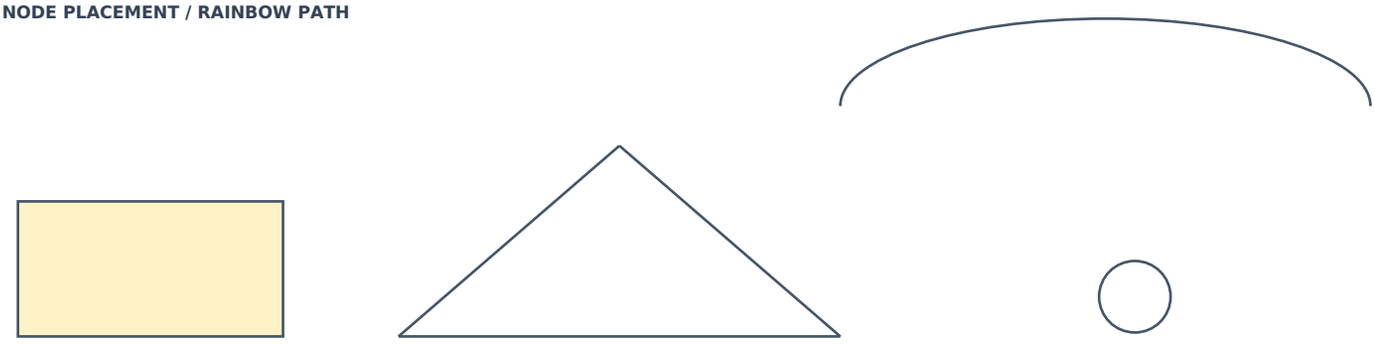
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0010"
state R -> R1
node N1
representation JP(PINK-03-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 10 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 11 of 106. Chapter 4 F-003 - Unknown invariant Exact expression UNKNOWN != 0 Meaning. Unknownmaynotcoercetozero,pass,harmlessness,orpermission. Bound manifestations.Bangel ,JO,WATER Gateway stage.R0/R1/R2statetransitionandevidenceclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_003 Import MJ.PBMEF.Manifest,M

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_F_003_Unknown_inva
reference "PINK-03-P0011"
state R -> R1
node N1
representation JP(PINK-03-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 11 of 106. Chapter 4 F-003 - Unknown invariant Exact express
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 12 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 4.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-003anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0012"
state R -> R1
node N1
representation JP(PINK-03-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 12 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 13 of 106. Chapter 5 F-004 - Mass inflection Exact expression m_floor = 23 mg Meaning. Pre-observationalmodelfloor,notauniversalminimumorproductmass. Bound manifestations.JP,MK,EVE,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_004 Import MJ.PBMEF.Ma

PATH OF EXPRESSION

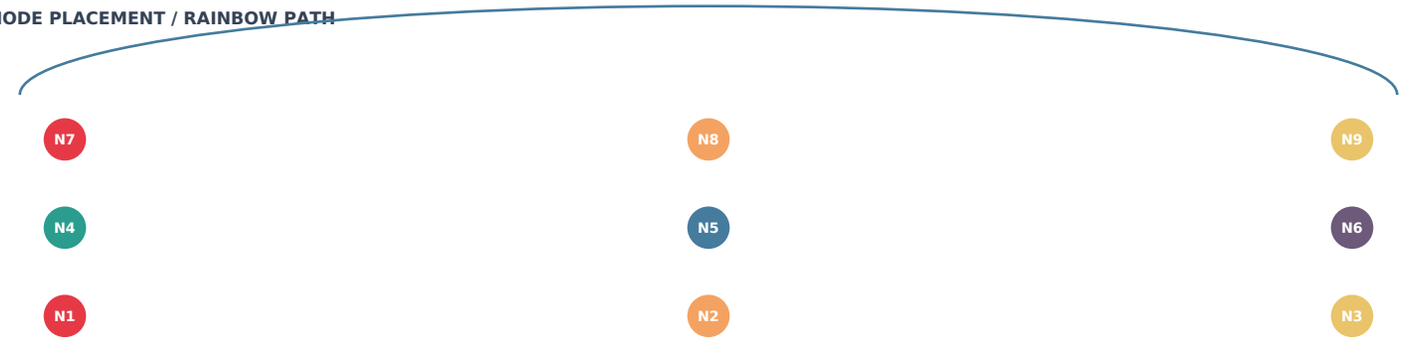
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_F_004_Mass_inflect
reference "PINK-03-P0013"
state R -> R1
node N1
representation JP(PINK-03-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 13 of 106. Chapter 5 F-004 - Mass inflection Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 14 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 5.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-004anditsassumptions,inputs,outp

PATH OF EXPRESSION

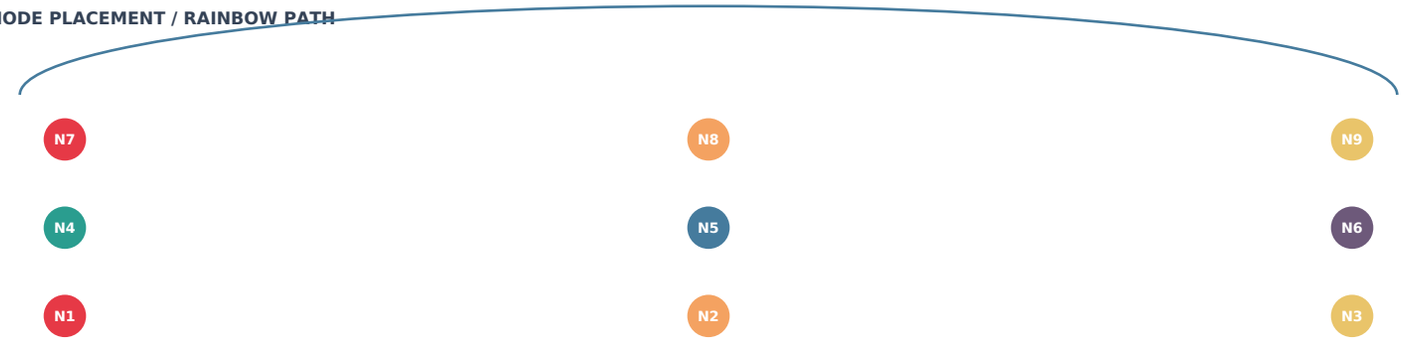
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0014"
state R -> R1
node N1
representation JP(PINK-03-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 14 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 15 of 106. Chapter 6 F-005 - Noise smoothing Exact expression n_bar[t] = 0.9*n_bar[t-1] + 0.1*n[t] Meaning. Drip-levelsmoothing. Bound manifestations.SISTER,JO,MK Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_005 Import MJ.PBMEF.Manifest,MJ.PBMEF.Form

PATH OF EXPRESSION

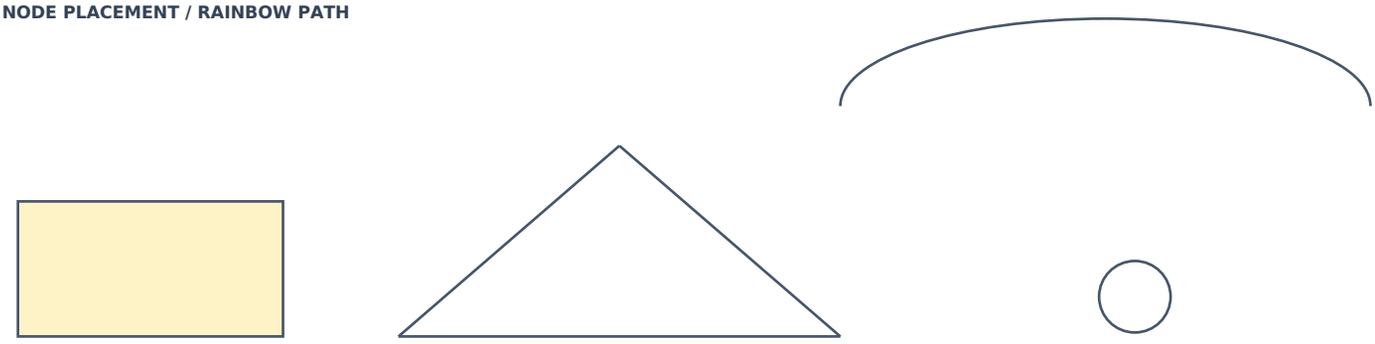
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_F_005_Noise_smooth
reference "PINK-03-P0015"
state R -> R1
node N1
representation JP(PINK-03-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 15 of 106. Chapter 6 F-005 - Noise smoothing Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 16 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 6.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-005anditsassumptions,inputs,outp

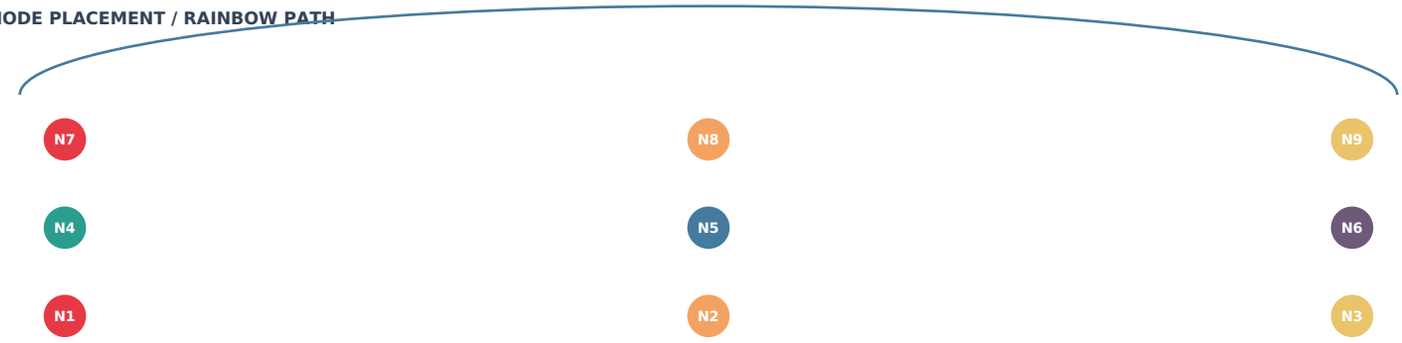
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0016"
state R -> R1
node N1
representation JP(PINK-03-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 16 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 17 of 106. Chapter 7 F-006 - Trend estimator Exact expression n_dot[t] = (2/3)*n_dot[t-1] + (1/3)*(n_bar[t]-n_bar[t-1])/dt Meaning. One-thirdtrendupdate. Bound manifestations.SISTER,JO,MK Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_006 Import MJ.PBM

PATH OF EXPRESSION

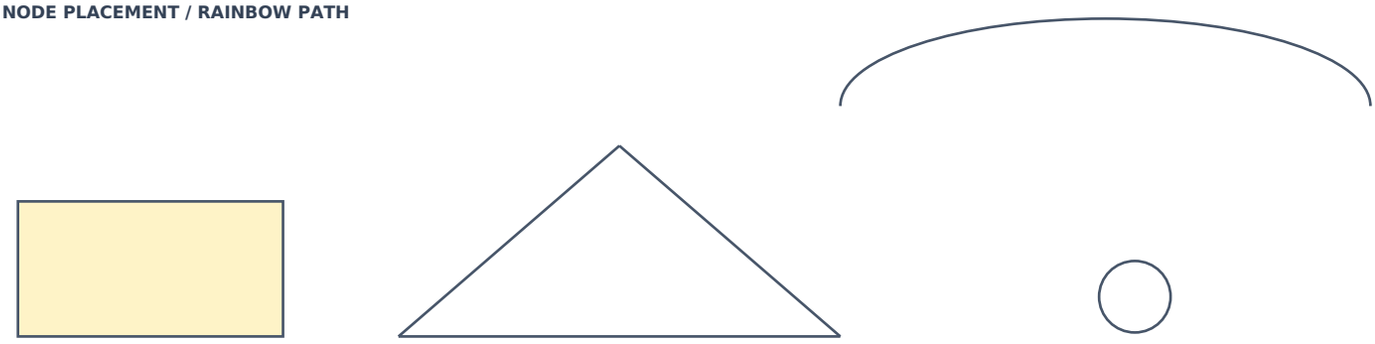
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_F_006_Trend_estima
reference "PINK-03-P0017"
state R -> R1
node N1
representation JP(PINK-03-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 17 of 106. Chapter 7 F-006 - Trend estimator Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 18 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 7.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-006anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0018"
state R -> R1
node N1
representation JP(PINK-03-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 18 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 19 of 106. Chapter 8 F-007 - Anti-spike gate Exact expression support>=3 of 5 AND 3 qualified windows Meaning. Singlespikecannottriggerfullreweighting. Bound manifestations.SISTER,ANGELS,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_007 Import MJ.P

PATH OF EXPRESSION

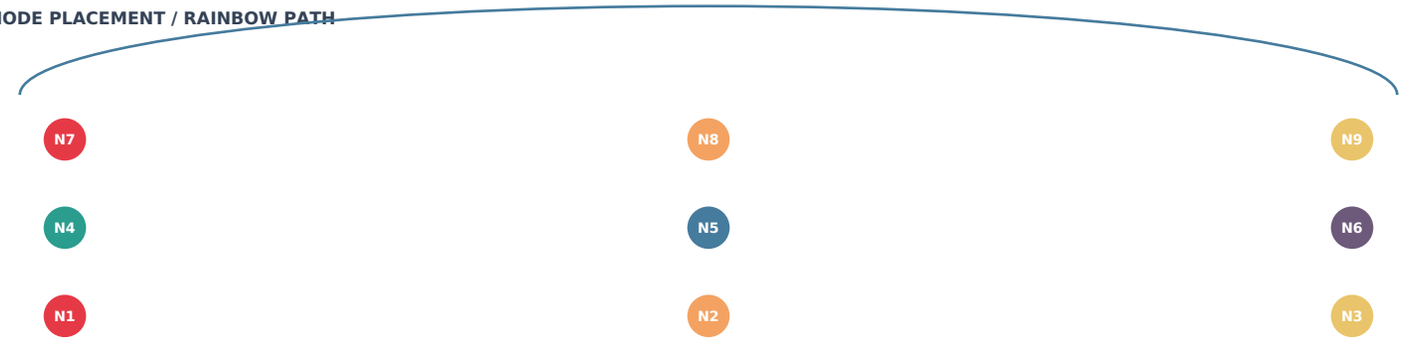
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_F_007_Anti_spike_g
reference "PINK-03-P0019"
state R -> R1
node N1
representation JP(PINK-03-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 19 of 106. Chapter 8 F-007 - Anti-spike gate Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 20 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 8.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-007anditsassumptions,inputs,outp

PATH OF EXPRESSION

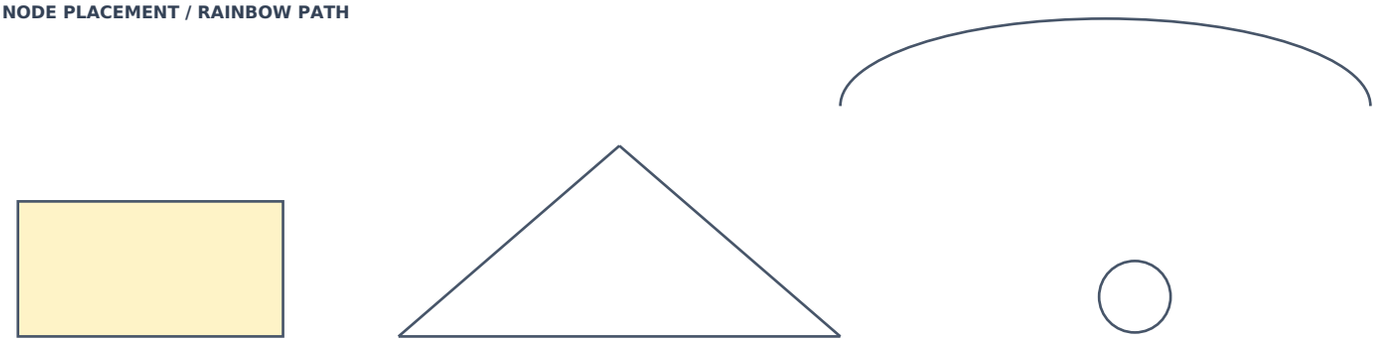
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0020"
state R -> R1
node N1
representation JP(PINK-03-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 20 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 21 of 106. Chapter 9 F-008 - Prediction gain Exact expression g_i = 0.1*(2/3)^(i-1) Meaning. Predictioninfluencedecaysacrossthenine-nodepath. Bound manifestations.JP,SISTER,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_008 Import MJ.PBMEF.Manifest,

PATH OF EXPRESSION

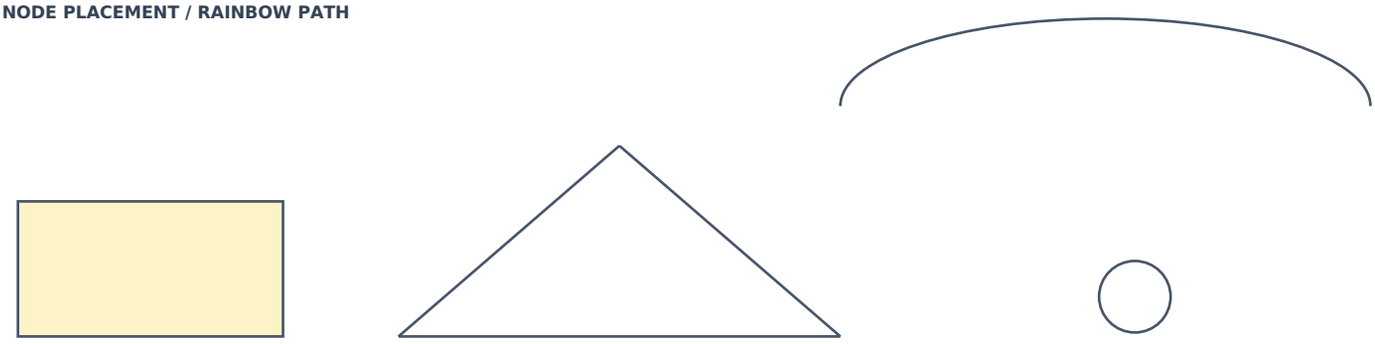
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_F_008_Prediction_g
reference "PINK-03-P0021"
state R -> R1
node N1
representation JP(PINK-03-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 21 of 106. Chapter 9 F-008 - Prediction gain Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 22 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 9.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-008anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0022"
state R -> R1
node N1
representation JP(PINK-03-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 22 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 23 of 106. Chapter 10 F-009 - Covariance update Exact expression Sigma_next = 0.9*Sigma_prev + 0.1*e*e^T Meaning. Positive-semidefinitesequentialcovariance. Bound manifestations.JP,MK,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_009 Import MJ.PBME

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_F_009_Covariance_
reference "PINK-03-P0023"
state R -> R1
node N1
representation JP(PINK-03-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 23 of 106. Chapter 10 F-009 - Covariance update Exact expres
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 24 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 10.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-009anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0024"
state R -> R1
node N1
representation JP(PINK-03-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 24 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 25 of 106. Chapter 11 F-010 - Shadow depth Exact expression H = sqrt(lambda_max(Sigma)) Meaning. Uncertaintydepth. Bound manifestations.MK,SISTER,EVE Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_010 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formulas,MJ.PBMEF

PATH OF EXPRESSION

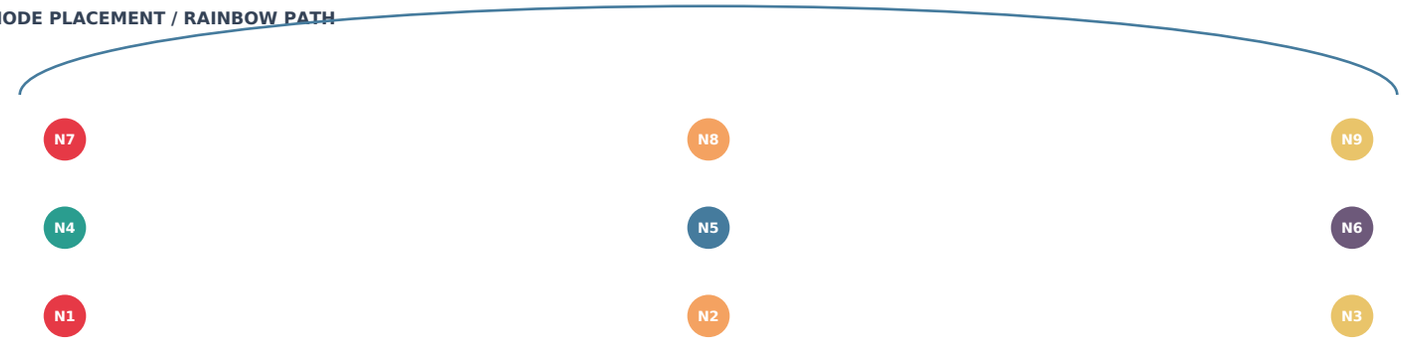
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_F_010_Shadow_dept
reference "PINK-03-P0025"
state R -> R1
node N1
representation JP(PINK-03-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 25 of 106. Chapter 11 F-010 - Shadow depth Exact expression
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 26 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 11.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-010anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0026"
state R -> R1
node N1
representation JP(PINK-03-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 26 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 27 of 106. Chapter 12 F-011 - Shadow growth rate Exact expression v_shadow = (H_next-H_prev)/dt Meaning. Rateofuncertaintyexpansionorresolution. Bound manifestations.MK,SISTER,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_011 Import MJ.PBMEF.Manife

PATH OF EXPRESSION

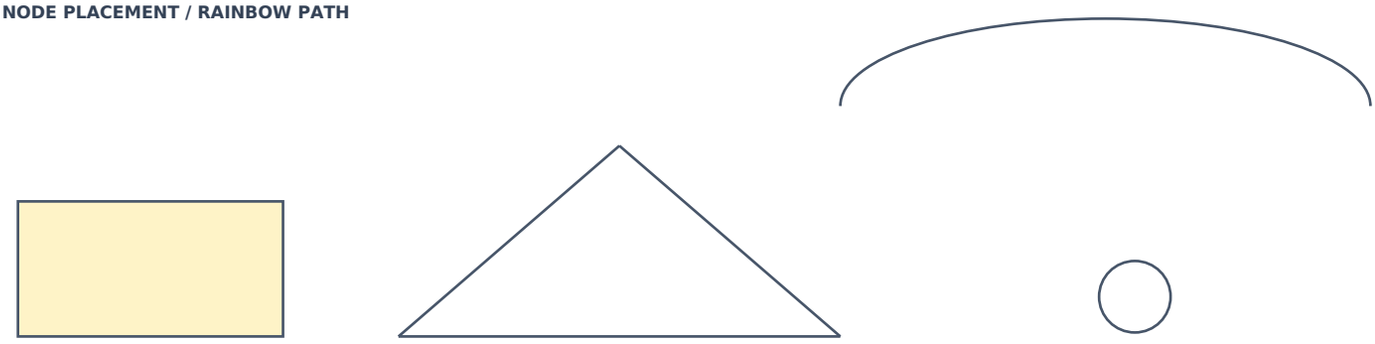
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_F_011_Shadow_grow
reference "PINK-03-P0027"
state R -> R1
node N1
representation JP(PINK-03-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 27 of 106. Chapter 12 F-011 - Shadow growth rate Exact expre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 28 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 12.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-011anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0028"
state R -> R1
node N1
representation JP(PINK-03-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 28 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 29 of 106. Chapter 13 F-012 - Front-end allocation Exact expression a0 = 48383829/100000000 Meaning. ExactinitialN1logicalallocation. Bound manifestations.Bangel ,JP,JO,M3 Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_012 Import MJ.PBMEF.Manifest

PATH OF EXPRESSION

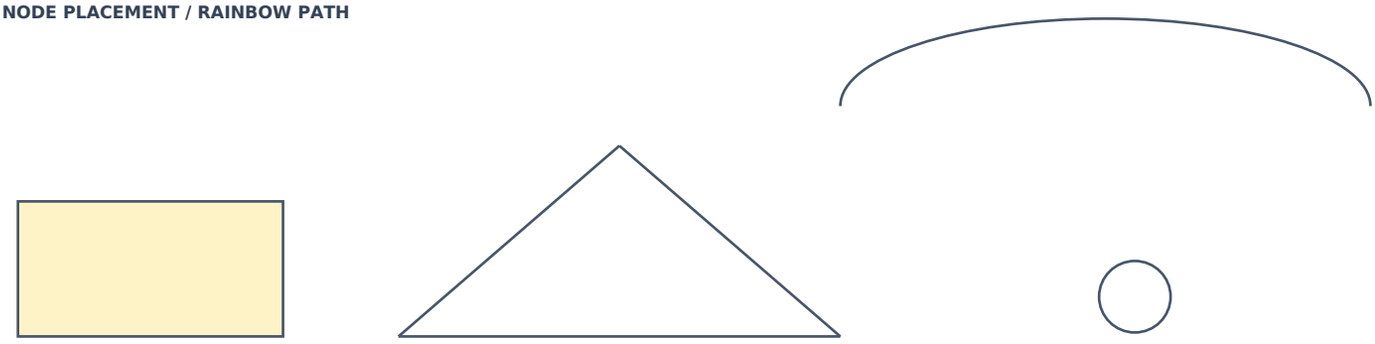
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_F_012_Front_end_a
reference "PINK-03-P0029"
state R -> R1
node N1
representation JP(PINK-03-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 29 of 106. Chapter 13 F-012 - Front-end allocation Exact exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 30 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 13.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-012anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0030"
state R -> R1
node N1
representation JP(PINK-03-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 30 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 31 of 106. Chapter 14 F-013 - Front-end reserve Exact expression r0 = 51616171/100000000 Meaning. Exactlogicalreserve. Bound manifestations.JP,JO,M3 Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_013 Import MJ.PBMEF.Manifest,MJ.PBMEF.Form

PATH OF EXPRESSION

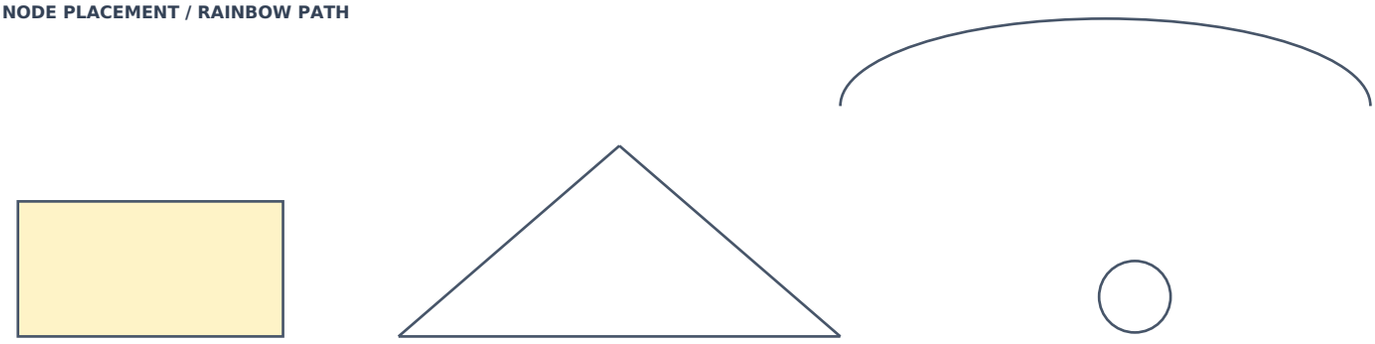
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_F_013_Front_end_r
reference "PINK-03-P0031"
state R -> R1
node N1
representation JP(PINK-03-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 31 of 106. Chapter 14 F-013 - Front-end reserve Exact expres
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 32 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 14.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-013anditsassumptions,inputs,out

PATH OF EXPRESSION

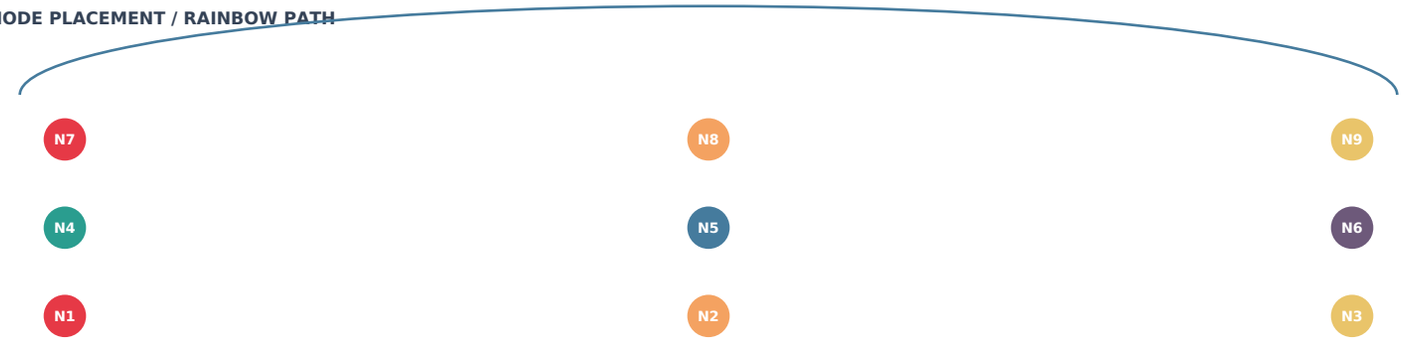
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0032"
state R -> R1
node N1
representation JP(PINK-03-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 32 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 33 of 106. Chapter 15 F-014 - Bounded allocation update Exact expression w_next = projection((2/3)w + (1/3)w_target) Meaning. Nonnegative,sum-to-one,per-stepchange<=0.1. Bound manifestations.JP,JO,M3 Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F

PATH OF EXPRESSION

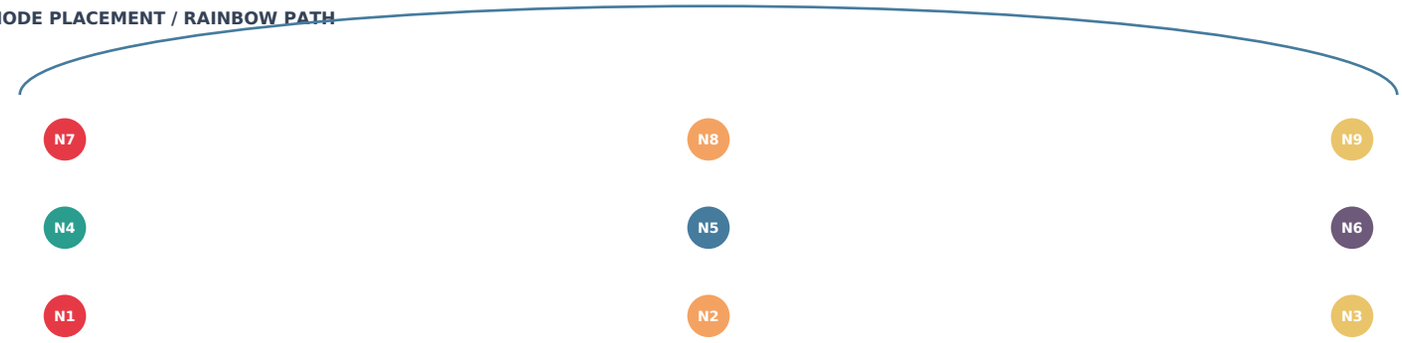
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_F_014_Bounded_all
reference "PINK-03-P0033"
state R -> R1
node N1
representation JP(PINK-03-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 33 of 106. Chapter 15 F-014 - Bounded allocation update Exac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 34 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 15.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-014anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0034"
state R -> R1
node N1
representation JP(PINK-03-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 34 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 35 of 106. Chapter 16 F-015 - Request memory Exact expression M_request = lambda_hat * bytes_per_request * latency_hat Meaning. Predictedrequestmemory. Bound manifestations.JO,M3,MJOS Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_015 Import MJ.P

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_F_015_Request_mem
reference "PINK-03-P0035"
state R -> R1
node N1
representation JP(PINK-03-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 35 of 106. Chapter 16 F-015 - Request memory Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 36 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 16.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-015anditsassumptions,inputs,out

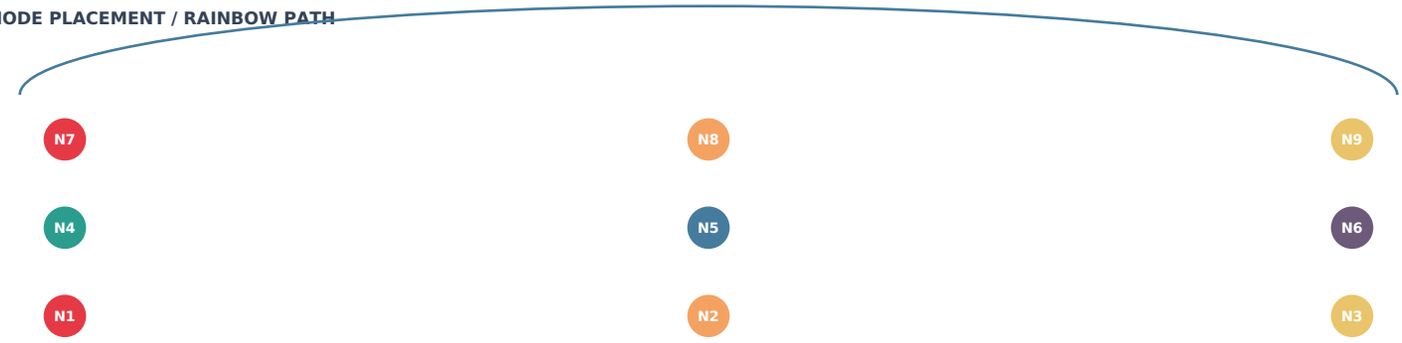
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0036"
state R -> R1
node N1
representation JP(PINK-03-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 36 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 37 of 106. Chapter 17 F-016 - Memory preallocation Exact expression M_pre = M_request + M_sync + M_residual + M_evidence + M_headroom Meaning. Preallocatebeforereserveexhaustion. Bound manifestations.JO,M3,SISTER Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_alloca

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_F_016_Memory_prea
reference "PINK-03-P0037"
state R -> R1
node N1
representation JP(PINK-03-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 37 of 106. Chapter 17 F-016 - Memory preallocation Exact exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 38 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 17.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-016anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0038"
state R -> R1
node N1
representation JP(PINK-03-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 38 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 39 of 106. Chapter 18 F-017 - Hard flush Exact expression QUIESCE -> SEAL -> CHECKPOINT -> DETACH -> RECLAIM Meaning. Nosilentdeletionorunclearedreuse. Bound manifestations.JO,M3,MJOS Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.foundation.state_noise_allocation_memory Namespace MJ.PBMEF.foundation.state_noise_allocation_memory.F_017 Imp

PATH OF EXPRESSION

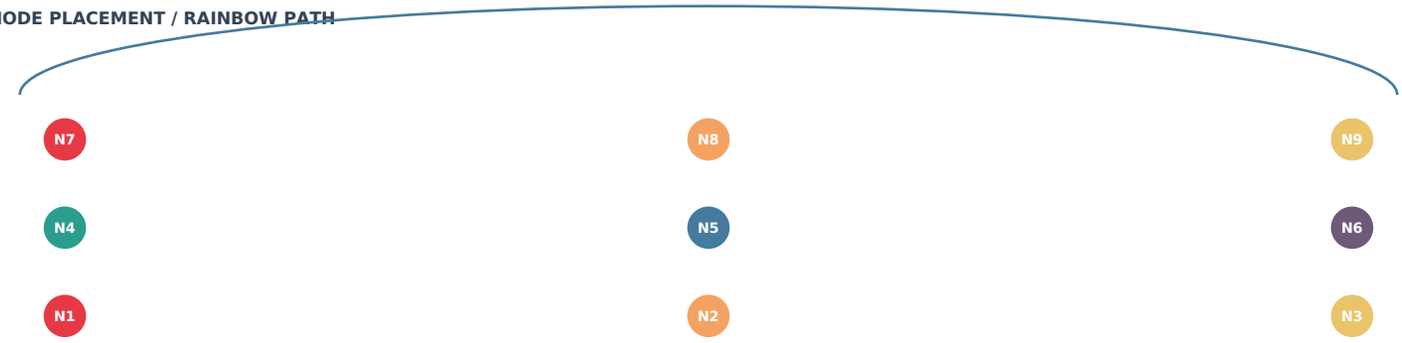
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_F_017_Hard_flush_
reference "PINK-03-P0039"
state R -> R1
node N1
representation JP(PINK-03-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 39 of 106. Chapter 18 F-017 - Hard flush Exact expression QU
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 40 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 18.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-017anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0040"
state R -> R1
node N1
representation JP(PINK-03-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 40 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 41 of 106. Chapter 19 F-018 - Charge balance Exact expression dQ/dt = I_intake - I_leak - I_release Meaning. Static-intakechargeaccounting. Bound manifestations.JP,MK,EVE,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_018 Import MJ.PBMEF.Manif

PATH OF EXPRESSION

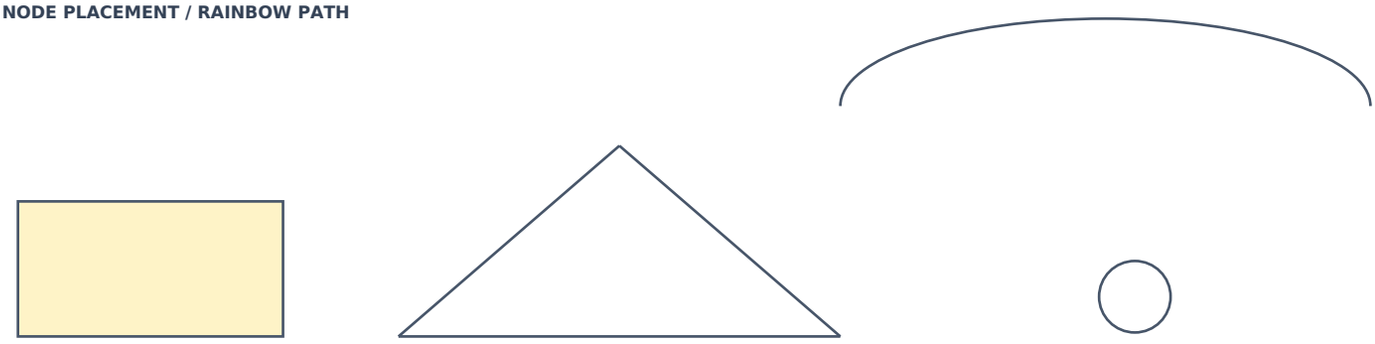
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_F_018_Charge_bala
reference "PINK-03-P0041"
state R -> R1
node N1
representation JP(PINK-03-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 41 of 106. Chapter 19 F-018 - Charge balance Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 42 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 19.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-018anditsassumptions,inputs,out

PATH OF EXPRESSION

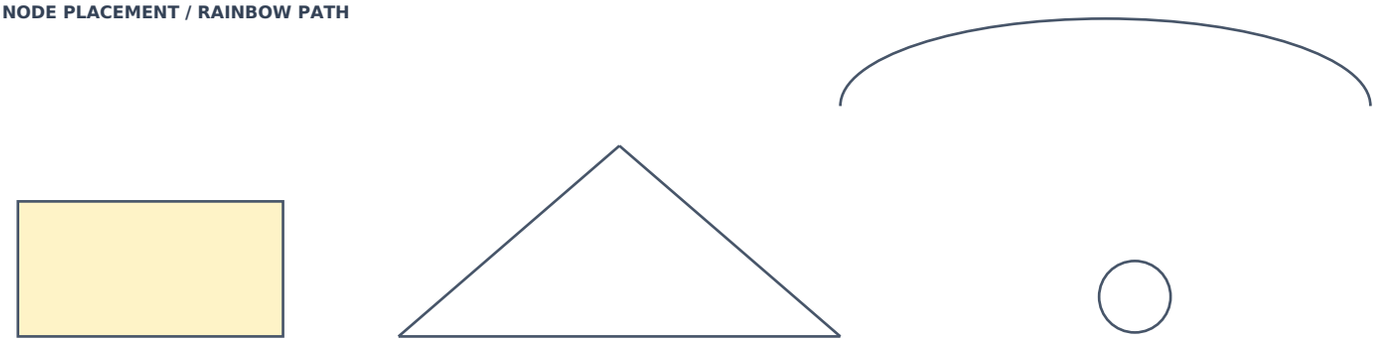
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0042"
state R -> R1
node N1
representation JP(PINK-03-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 42 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 43 of 106. Chapter 20 F-019 - Capacitor energy Exact expression E = 0.5*C*V^2 Meaning. Validonlyforevidencedconstantcapacitance. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_019 Import MJ.PBMEF.Manifest,MJ.PBMEF.Fo

PATH OF EXPRESSION

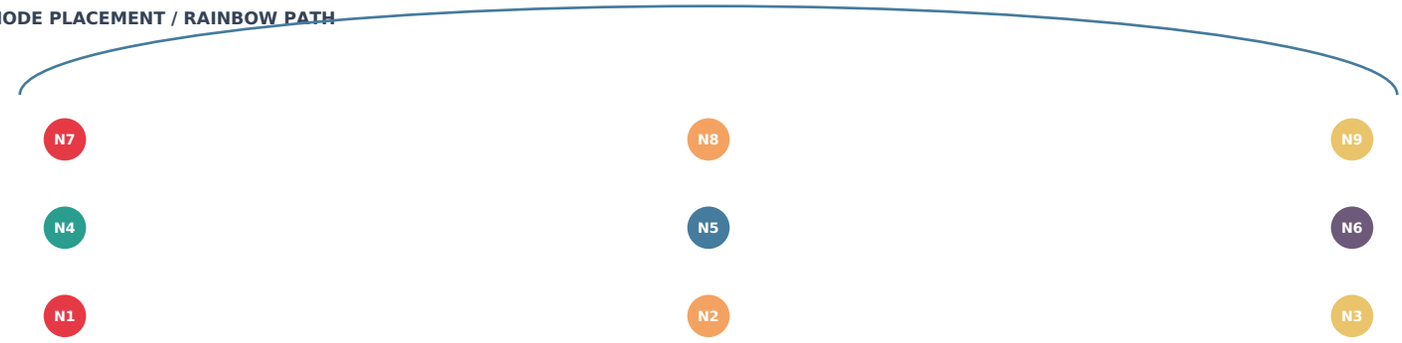
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_F_019_Capacitor_e
reference "PINK-03-P0043"
state R -> R1
node N1
representation JP(PINK-03-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 43 of 106. Chapter 20 F-019 - Capacitor energy Exact express
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 44 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 20.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-019anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0044"
state R -> R1
node N1
representation JP(PINK-03-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 44 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 45 of 106. Chapter 21 F-020 - General stored energy Exact expression E = integral V(q)dq Meaning. Generalcharge-storageenergy. Bound manifestations.JP,MK Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_020 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formula

PATH OF EXPRESSION

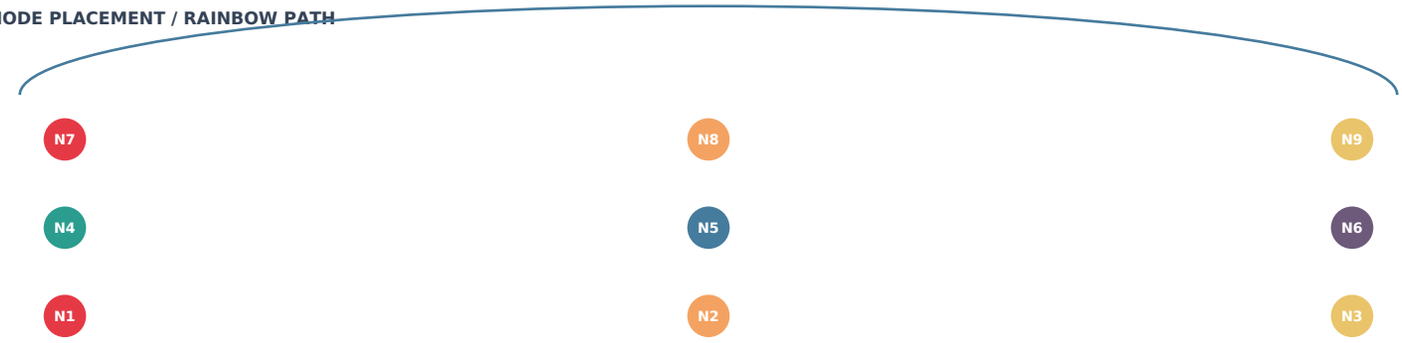
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_F_020_General_sto
reference "PINK-03-P0045"
state R -> R1
node N1
representation JP(PINK-03-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 45 of 106. Chapter 21 F-020 - General stored energy Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 46 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 21.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-020anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0046"
state R -> R1
node N1
representation JP(PINK-03-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 46 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 47 of 106. Chapter 22 F-021 - Energy balance Exact expression r_E = E_in - DeltaE_storage - E_delivered - E_containment - E_loss Meaning. Energyresidualmustbeinsideuncertainty. Bound manifestations.MK,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containmen

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_F_021_Energy_bala
reference "PINK-03-P0047"
state R -> R1
node N1
representation JP(PINK-03-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 47 of 106. Chapter 22 F-021 - Energy balance Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 48 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 22.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-021anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0048"
state R -> R1
node N1
representation JP(PINK-03-P0048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 48 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 49 of 106. Chapter 23 F-022 - Mass balance Exact expression r_M = M_initial + M_inputs - M_final - M_outputs Meaning. Physicalmassconservation. Bound manifestations.MK,EVE,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_022 Import MJ.PB

PATH OF EXPRESSION

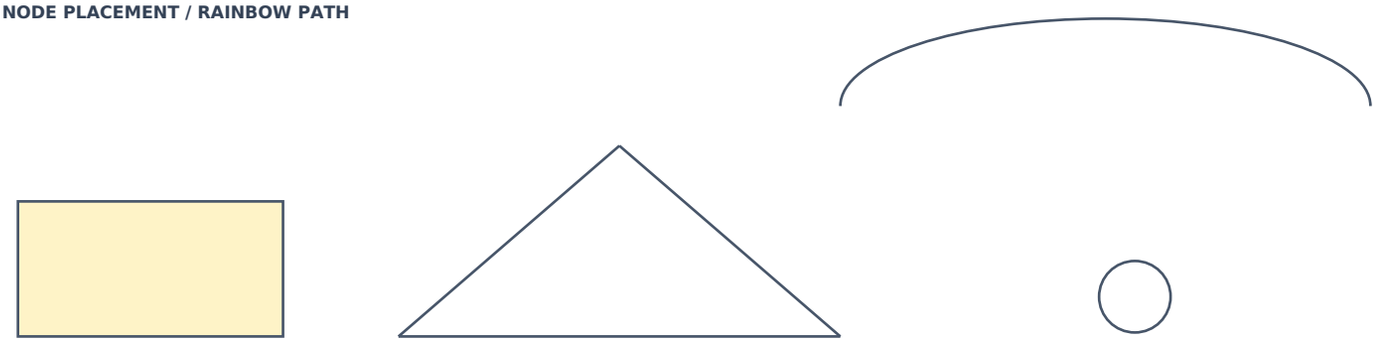
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_F_022_Mass_balanc
reference "PINK-03-P0049"
state R -> R1
node N1
representation JP(PINK-03-P0049)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 49 of 106. Chapter 23 F-022 - Mass balance Exact expression
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 50 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 23.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-022anditsassumptions,inputs,out

PATH OF EXPRESSION

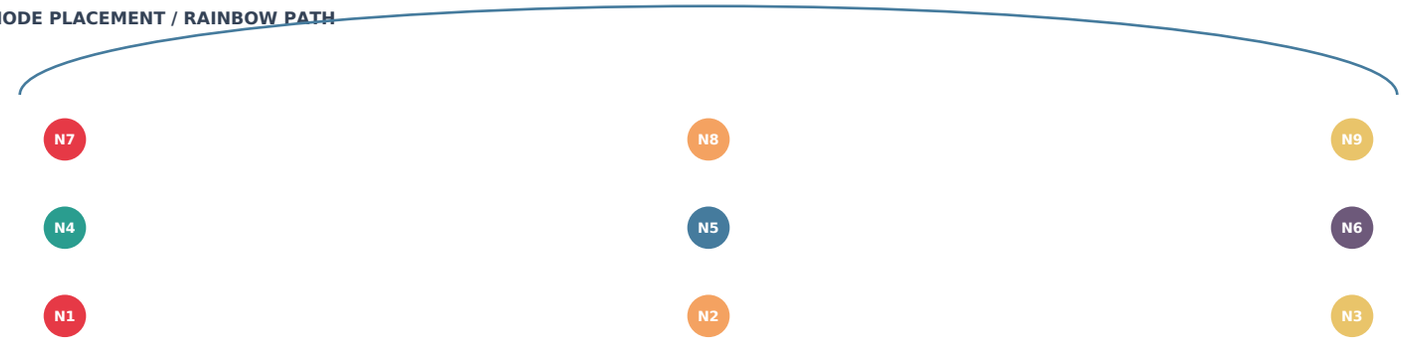
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0050"
state R -> R1
node N1
representation JP(PINK-03-P0050)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 50 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 51 of 106. Chapter 24 F-023 - EVE screen balance Exact expression M_screen_in = M_captured + M_passed + M_retained + r_screen Meaning. Screencaptureneverassumesperfectretention. Bound manifestations.EVE,MK,JO,MERMAID Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_

PATH OF EXPRESSION

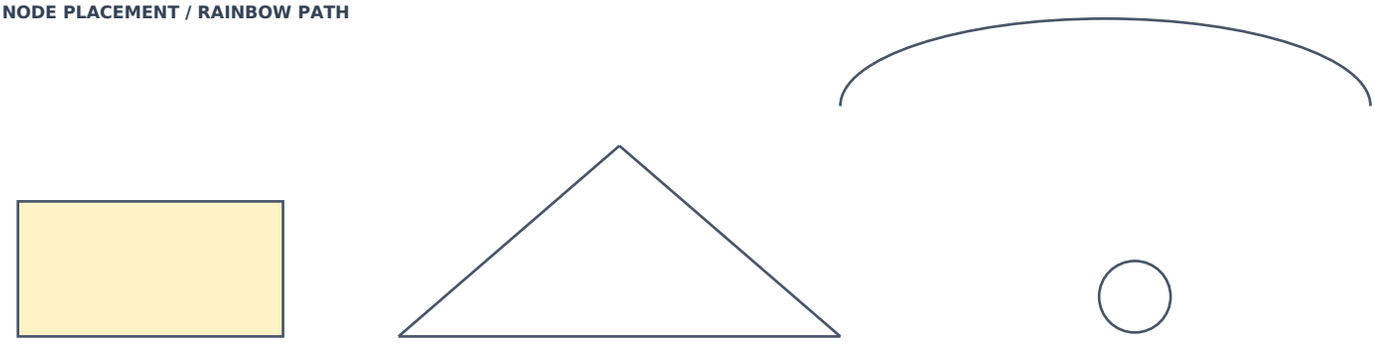
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_F_023_EVE_screen_
reference "PINK-03-P0051"
state R -> R1
node N1
representation JP(PINK-03-P0051)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 51 of 106. Chapter 24 F-023 - EVE screen balance Exact expre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 52 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 24.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-023anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0052"
state R -> R1
node N1
representation JP(PINK-03-P0052)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 52 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 53 of 106. Chapter 25 F-024 - EVE evaporation Exact expression M_evap = integral integral J_m dA dt Meaning. Evaporativemassfromfluxacrossareaandtime. Bound manifestations.EVE,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_024 Import MJ.PBM

PATH OF EXPRESSION

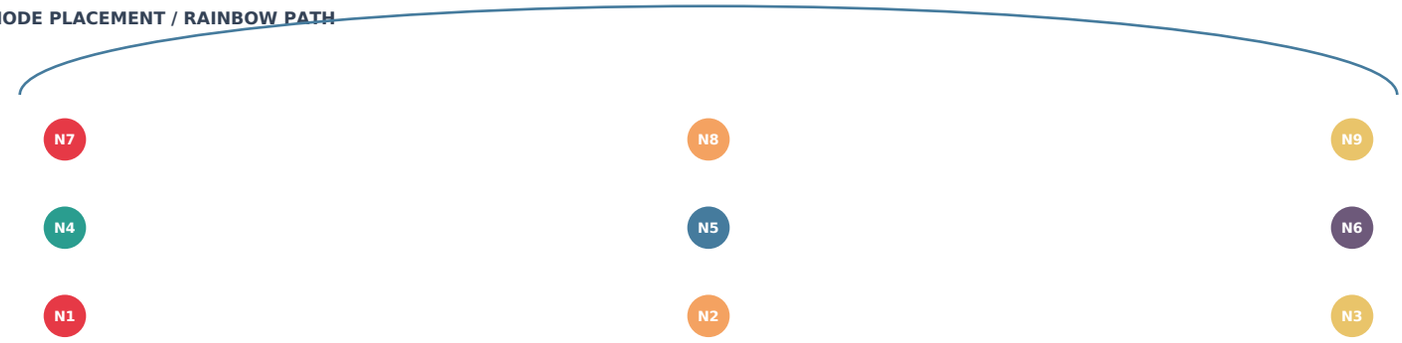
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_F_024_EVE_evapora
reference "PINK-03-P0053"
state R -> R1
node N1
representation JP(PINK-03-P0053)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 53 of 106. Chapter 25 F-024 - EVE evaporation Exact expressi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 54 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 25.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-024anditsassumptions,inputs,out

PATH OF EXPRESSION

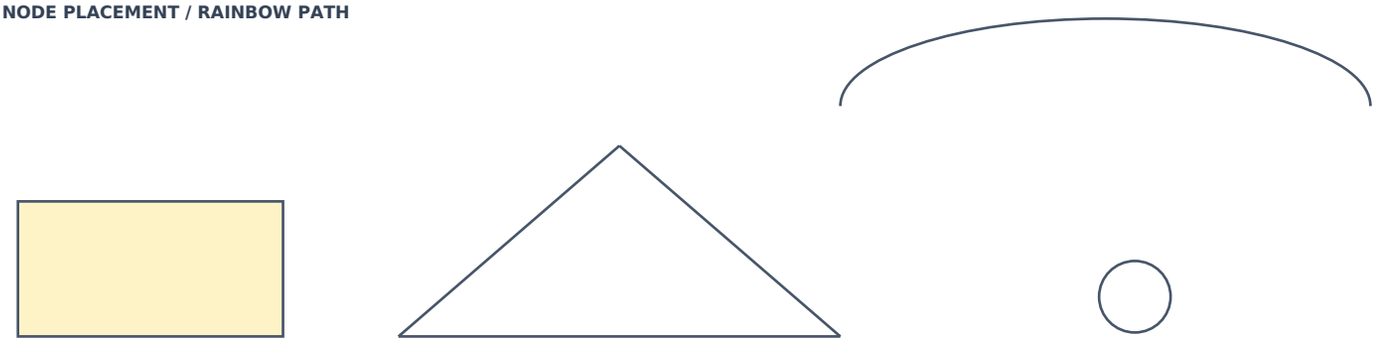
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0054"
state R -> R1
node N1
representation JP(PINK-03-P0054)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 54 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 55 of 106. Chapter 26 F-025 - Upward force Exact expression F_z = qE_z + F_b - mg - D_z - F_contact - F_adhesion Meaning. Upwardmotionrequirespositiveconservativelowerbound. Bound manifestations.MK,EVE,BELLE Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_ev

PATH OF EXPRESSION

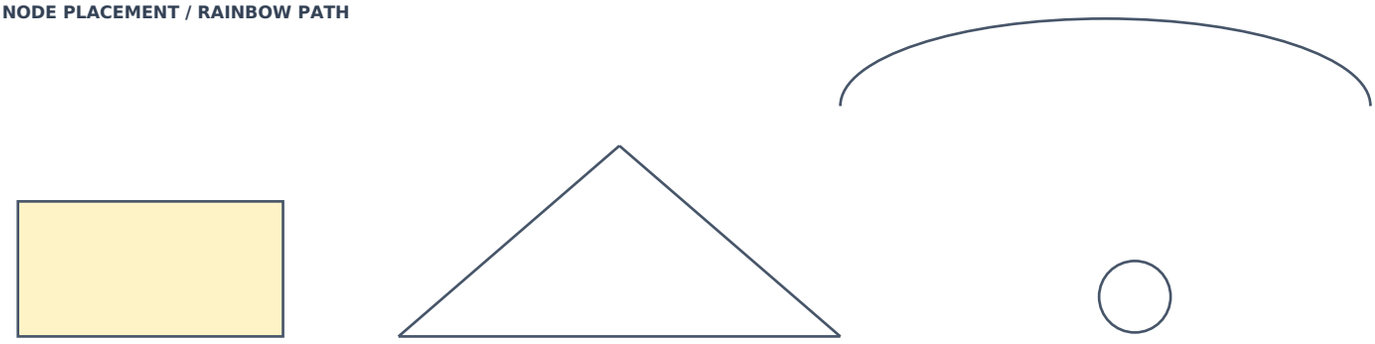
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_F_025_Upward_forc
reference "PINK-03-P0055"
state R -> R1
node N1
representation JP(PINK-03-P0055)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 55 of 106. Chapter 26 F-025 - Upward force Exact expression
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 56 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 26.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-025anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0056"
state R -> R1
node N1
representation JP(PINK-03-P0056)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 56 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 57 of 106. Chapter 27 F-026 - Coordinate mapping Exact expression p_P(x,y,z)=o_P+x*a_P+y*b_P+z*c_P Meaning. Normalizedtopologytoprofilephysicalcoordinates. Bound manifestations.JP,MK,BELLE,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_026 Imp

PATH OF EXPRESSION

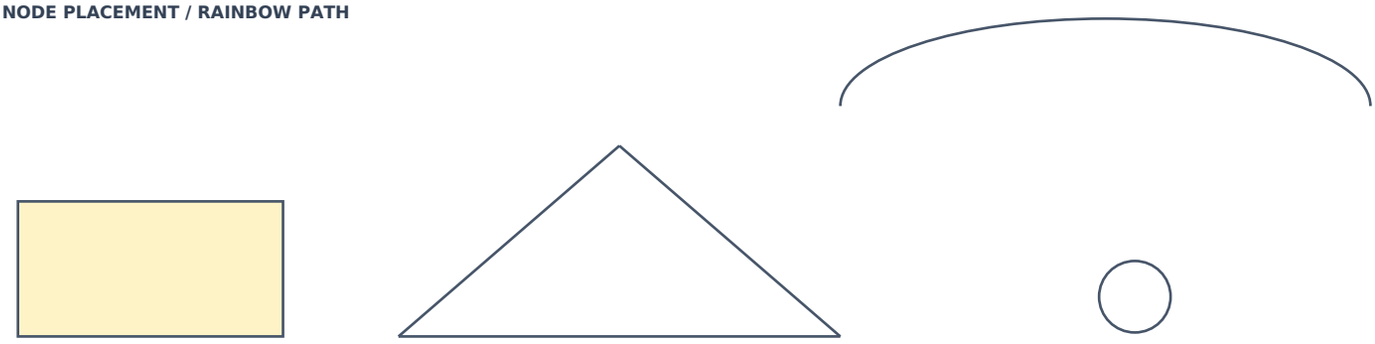
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_F_026_Coordinate_
reference "PINK-03-P0057"
state R -> R1
node N1
representation JP(PINK-03-P0057)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 57 of 106. Chapter 27 F-026 - Coordinate mapping Exact expre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 58 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 27.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-026anditsassumptions,inputs,out

PATH OF EXPRESSION

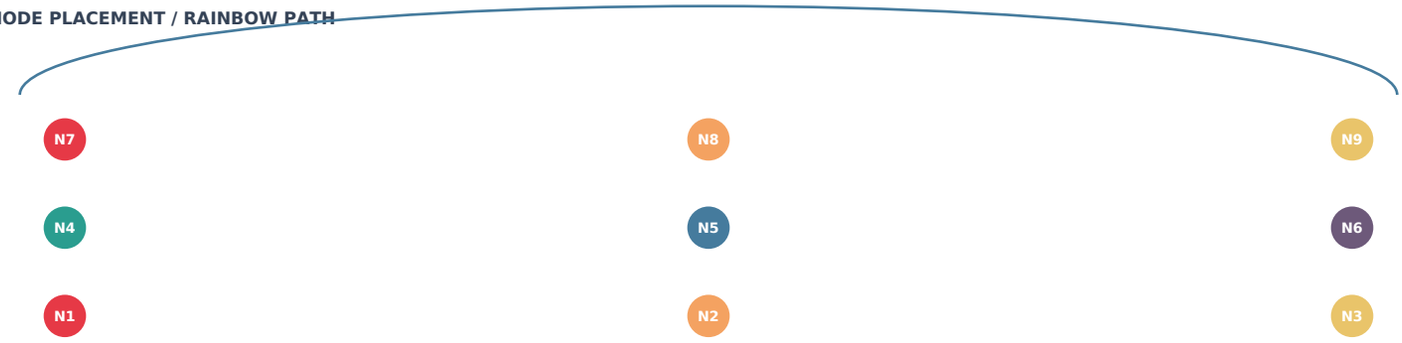
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0058"
state R -> R1
node N1
representation JP(PINK-03-P0058)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 58 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 59 of 106. Chapter 28 F-027 - Sister physical umbrella count Exact expression N_U = max_k ceil(E_k/((1-h_k)*C_Uk)) Meaning. Canonicalpre-Pearlphysicalcontainmentcount;requiresmeasuredprofile-specificcapacity andheadroom. Bound manifestations.SISTER,MK,JO,M3 Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namesp

PATH OF EXPRESSION

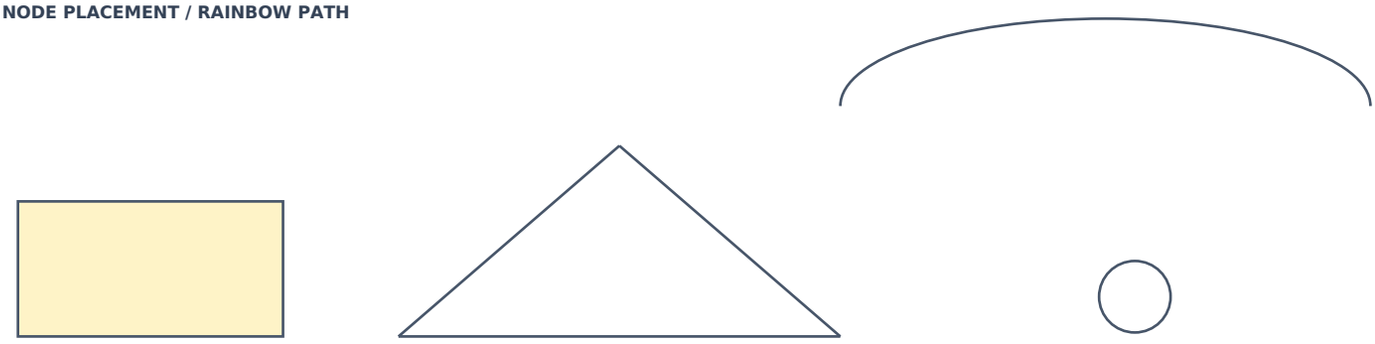
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_F_027_Sister_phys
reference "PINK-03-P0059"
state R -> R1
node N1
representation JP(PINK-03-P0059)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 59 of 106. Chapter 28 F-027 - Sister physical umbrella count
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 60 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 28.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-027anditsassumptions,inputs,out

PATH OF EXPRESSION

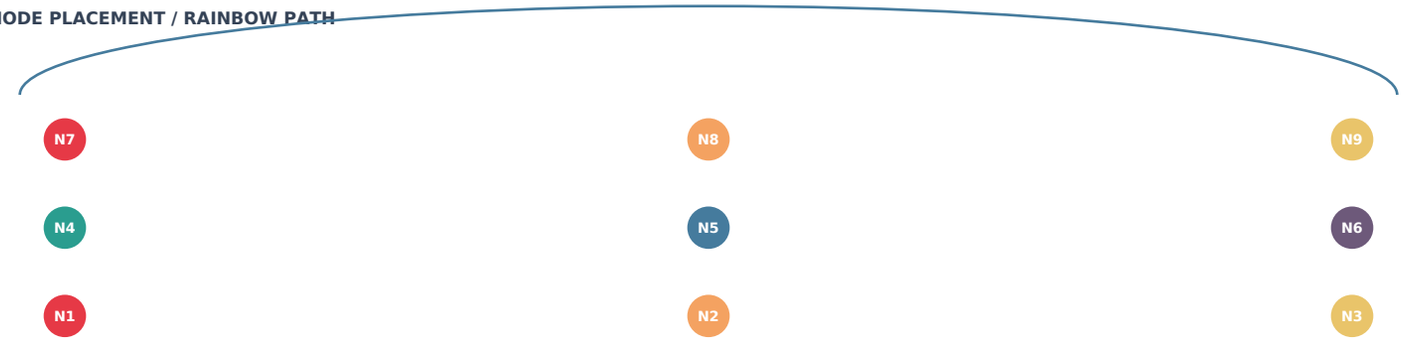
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0060"
state R -> R1
node N1
representation JP(PINK-03-P0060)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 60 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 61 of 106. Chapter 29 F-028 - Byte balance Exact expression r_B = B_alloc-B_active-B_released-B_retained-B_exported-B_compacted Meaning. Discrete memory reconciliation requires zero residual unless transformed. Bound manifestations.JO,M3,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_F_028_Byte_balanc
reference "PINK-03-P0061"
state R -> R1
node N1
representation JP(PINK-03-P0061)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 61 of 106. Chapter 29 F-028 - Byte balance Exact expression
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 62 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 29.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-028anditsassumptions,inputs,out

PATH OF EXPRESSION

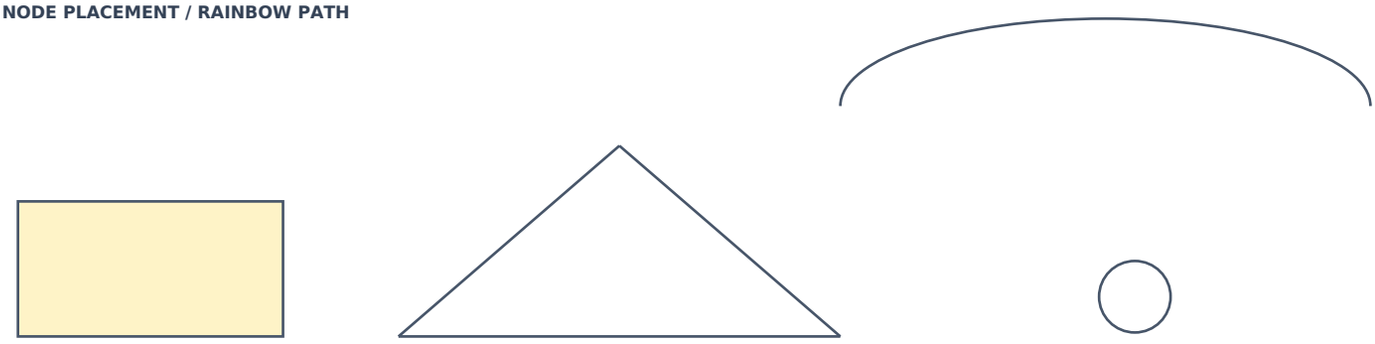
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0062"
state R -> R1
node N1
representation JP(PINK-03-P0062)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 62 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 63 of 106. Chapter 30 F-029 - Residual consequence Exact expression C_B = integral B_residual(t)dt Meaning. Time-weightedresidualmemoryconsequence. Bound manifestations.JO,M3,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.physics.balance_containment_evidence Namespace MJ.PBMEF.physics.balance_containment_evidence.F_029 Import MJ.PB

PATH OF EXPRESSION

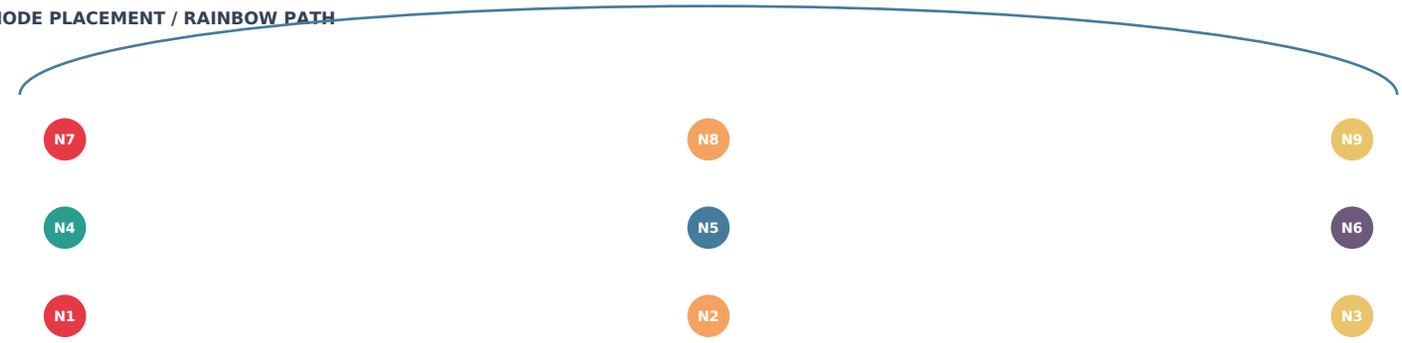
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_F_029_Residual_co
reference "PINK-03-P0063"
state R -> R1
node N1
representation JP(PINK-03-P0063)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 63 of 106. Chapter 30 F-029 - Residual consequence Exact exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 64 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 30.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-029anditsassumptions,inputs,out

PATH OF EXPRESSION

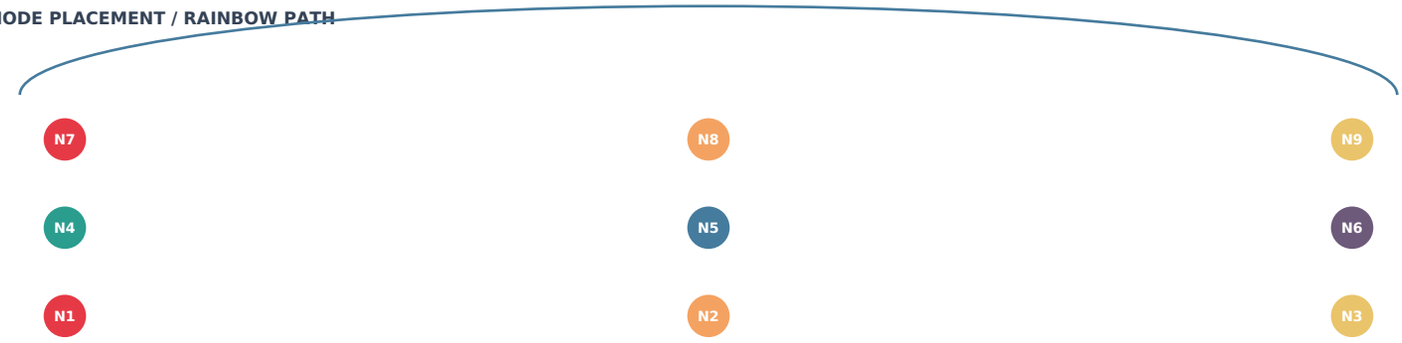
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0064"
state R -> R1
node N1
representation JP(PINK-03-P0064)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 64 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 65 of 106. Chapter 31 F-030 - Protected liquidity Exact expression L_protected_H = O_near_H+R_emergency_H+R_tax_H+R_fees_H+U_cash_H Meaning. Liquidityfirst. Bound manifestations.SHIVA,MERMAID,MK,JO Gateway stage.Mermaid/Shivafinancialanalysisandreconciliationbefore MJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_030 Import MJ.PBME

PATH OF EXPRESSION

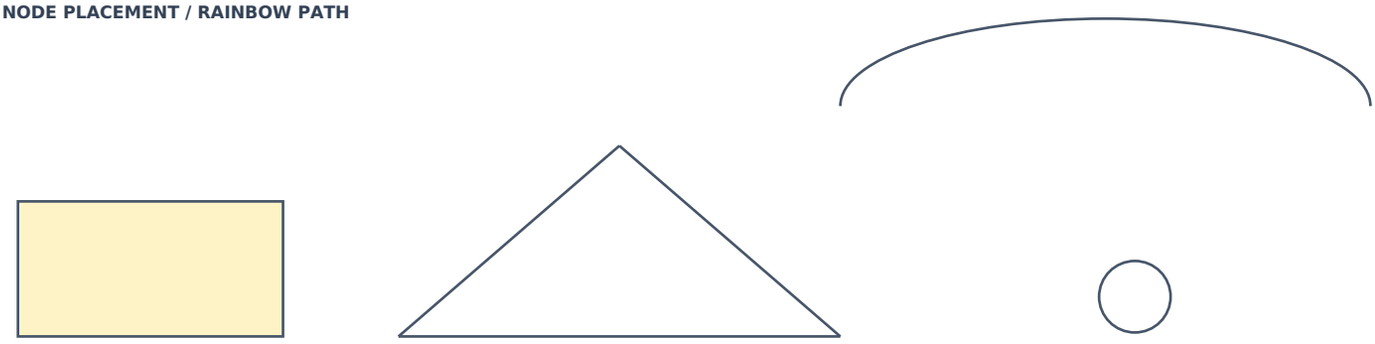
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_31_F_030_Protected_l
reference "PINK-03-P0065"
state R -> R1
node N1
representation JP(PINK-03-P0065)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 65 of 106. Chapter 31 F-030 - Protected liquidity Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 66 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 31.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-030anditsassumptions,inputs,out

PATH OF EXPRESSION

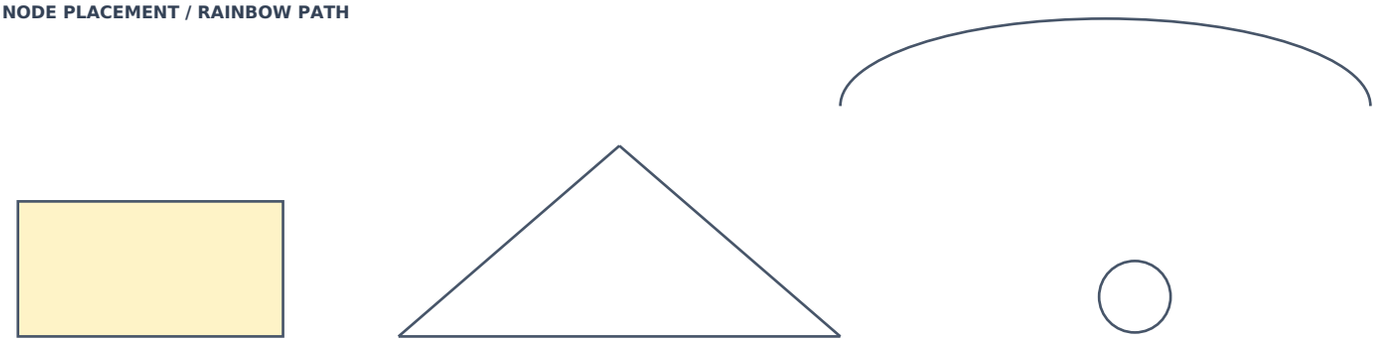
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0066"
state R -> R1
node N1
representation JP(PINK-03-P0066)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 66 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 67 of 106. Chapter 32 F-031 - Investable surplus Exact expression S_investable_L = max(0,L_available_L-L_protected_H) Meaning. Onlysurplusmayenterriskanalysis. Bound manifestations.SHIVA,MERMAID,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_031 Import MJ

PATH OF EXPRESSION

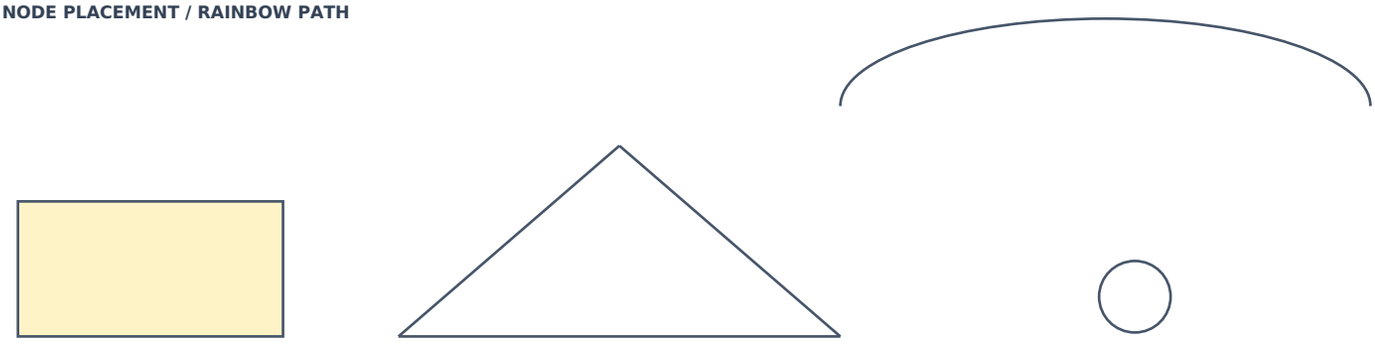
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_32_F_031_Investable_
reference "PINK-03-P0067"
state R -> R1
node N1
representation JP(PINK-03-P0067)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 67 of 106. Chapter 32 F-031 - Investable surplus Exact expre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 68 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 32.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-031anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0068"
state R -> R1
node N1
representation JP(PINK-03-P0068)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 68 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 69 of 106. Chapter 33 F-032 - Risk-capital ceiling Exact expression A_risk_max = min(S_investable_L,L_risk,L_product,L_regulatory,L_custody,L_concentration) Meaning. Hardminimumacrossconstraints. Bound manifestations.SHIVA,MERMAID,MK,MJ Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.port

PATH OF EXPRESSION

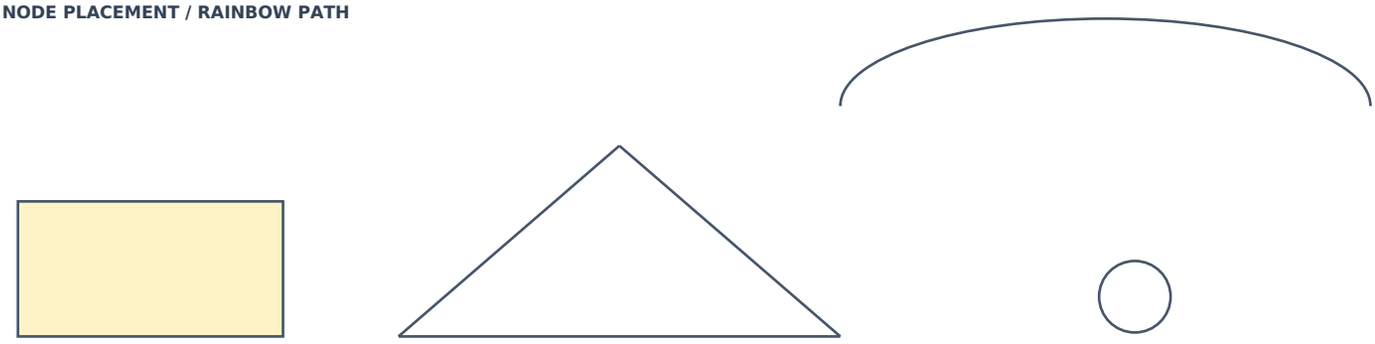
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_33_F_032_Risk_capita
reference "PINK-03-P0069"
state R -> R1
node N1
representation JP(PINK-03-P0069)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 69 of 106. Chapter 33 F-032 - Risk-capital ceiling Exact exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 70 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 33.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-032anditsassumptions,inputs,out

PATH OF EXPRESSION

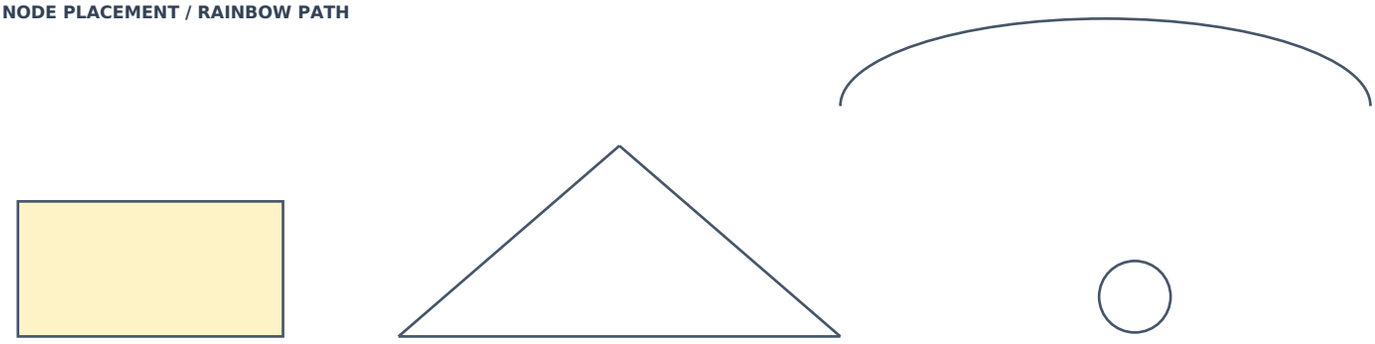
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0070"
state R -> R1
node N1
representation JP(PINK-03-P0070)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 70 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 71 of 106. Chapter 34 F-033 - Portfolio concentration Exact expression C_i = abs(V_i_H)/V_portfolio_L Meaning. Assetconcentration. Bound manifestations.SHIVA,MERMAID,JO Gateway stage.Mermaid/Shivafinancialanalysisandreconciliationbefore MJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_033 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formulas,

PATH OF EXPRESSION

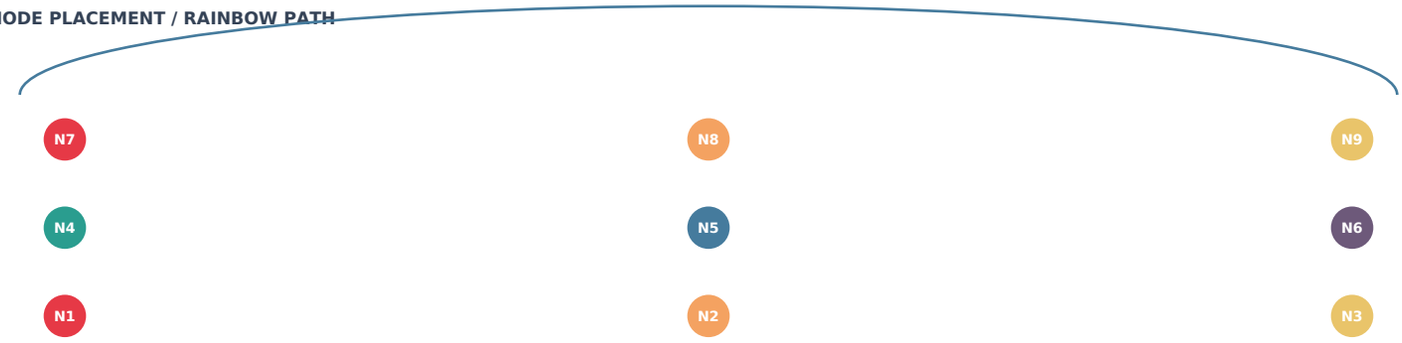
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_34_F_033_Portfolio_c
reference "PINK-03-P0071"
state R -> R1
node N1
representation JP(PINK-03-P0071)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 71 of 106. Chapter 34 F-033 - Portfolio concentration Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 72 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 34.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-033anditsassumptions,inputs,out

PATH OF EXPRESSION

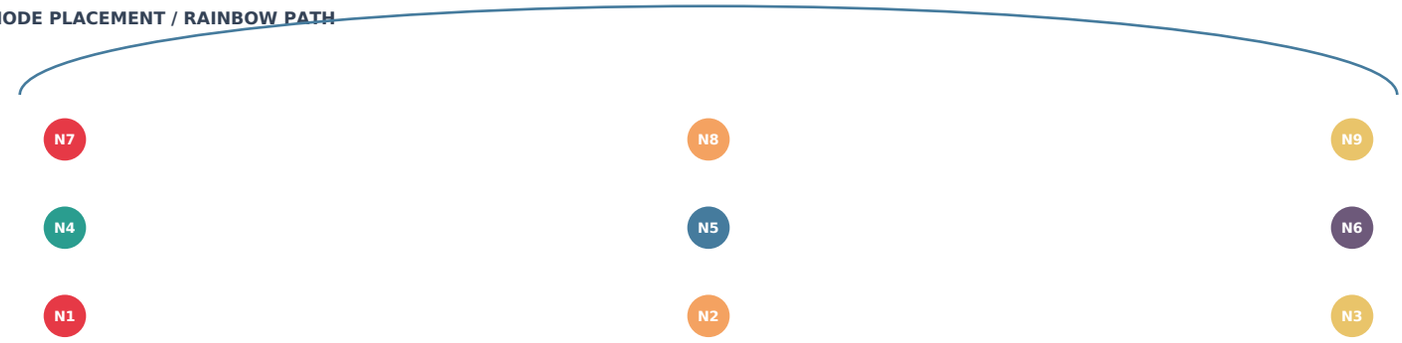
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0072"
state R -> R1
node N1
representation JP(PINK-03-P0072)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 72 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 73 of 106. Chapter 35 F-034 - Portfolio variance Exact expression sigma_p^2 = w^T Sigma w Meaning. Portfoliovariancewithevidencedcovariance. Bound manifestations.SHIVA,MERMAID,MK Gateway stage.Mermaid/Shivafinancialanalysisandreconciliationbefore MJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_034 Import MJ.PBMEF.Manifest,MJ.PBMEF

PATH OF EXPRESSION

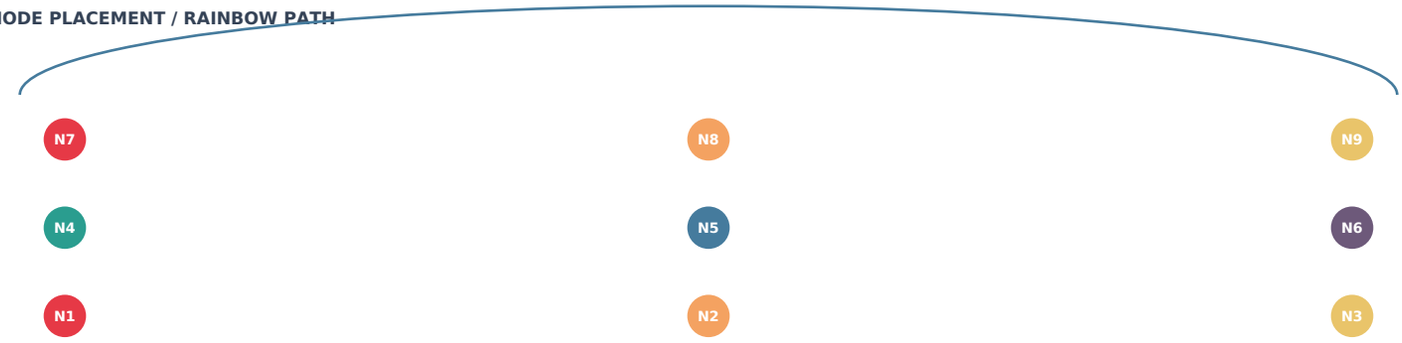
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_35_F_034_Portfolio_v
reference "PINK-03-P0073"
state R -> R1
node N1
representation JP(PINK-03-P0073)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 73 of 106. Chapter 35 F-034 - Portfolio variance Exact expre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 74 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 35.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-034anditsassumptions,inputs,out

PATH OF EXPRESSION

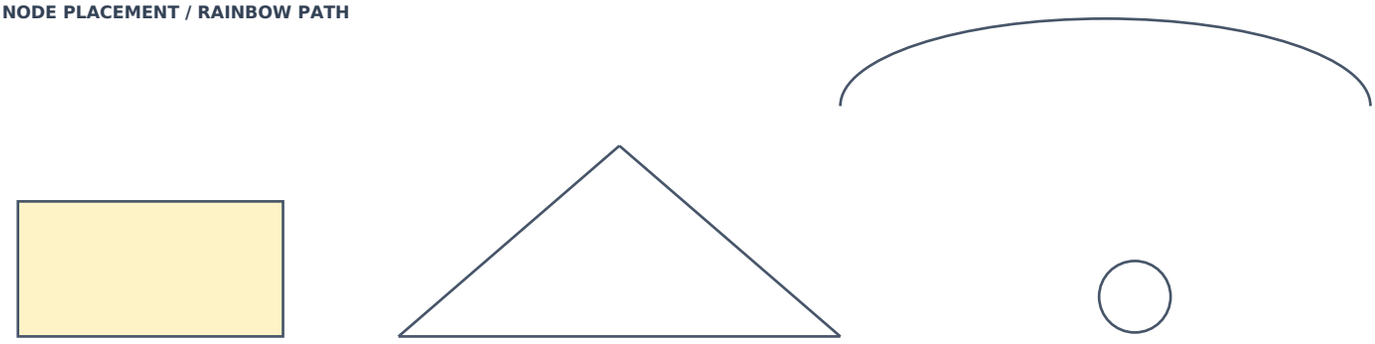
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0074"
state R -> R1
node N1
representation JP(PINK-03-P0074)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 74 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 75 of 106. Chapter 36 F-035 - Capital friction Exact expression F_capital_H = fees+spread+slippage+tax+custody+compliance+latency Meaning. Typedtransactionalfriction. Bound manifestations.MK,SHIVA,MERMAID Gateway stage.Mermaid/Shivafinancialanalysisandreconciliationbefore MJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_035 Import

PATH OF EXPRESSION

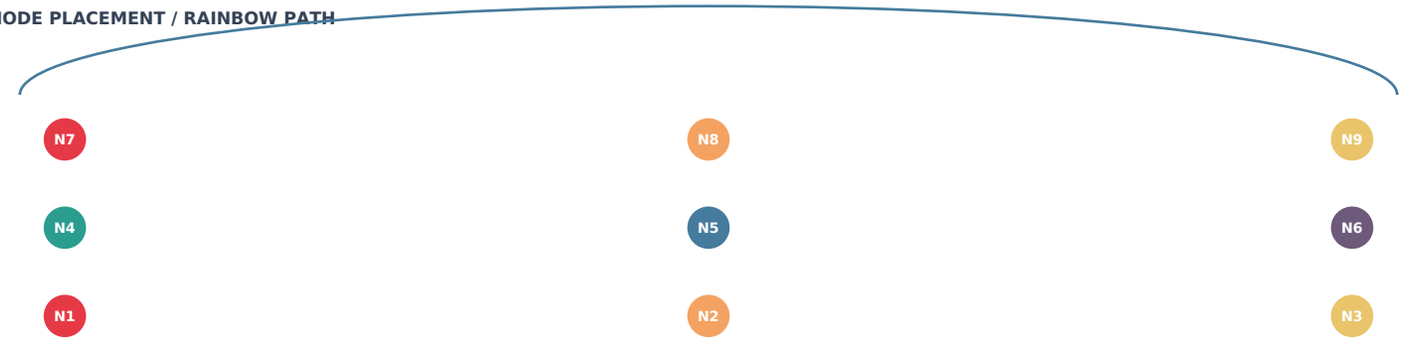
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_36_F_035_Capital_fri
reference "PINK-03-P0075"
state R -> R1
node N1
representation JP(PINK-03-P0075)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 75 of 106. Chapter 36 F-035 - Capital friction Exact express
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 76 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 36.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-035anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0076"
state R -> R1
node N1
representation JP(PINK-03-P0076)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 76 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 77 of 106. Chapter 37 F-036 - Opportunity lower bound Exact expression O_L = Return_L-F_capital_H-RiskPenalty_H-LiquidityPenalty_H-RegulatoryUncertainty_H Meaning. Conservativeopportunityresult. Bound manifestations.SHIVA,MK,MERMAID,MJ Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.

PATH OF EXPRESSION

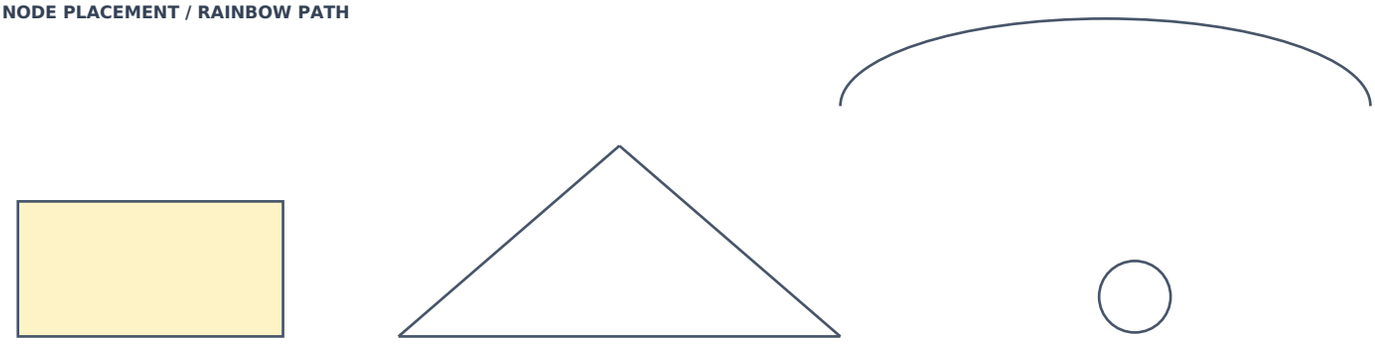
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_37_F_036_Opportunity
reference "PINK-03-P0077"
state R -> R1
node N1
representation JP(PINK-03-P0077)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 77 of 106. Chapter 37 F-036 - Opportunity lower bound Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 78 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 37.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-036anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0078"
state R -> R1
node N1
representation JP(PINK-03-P0078)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 78 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 79 of 106. Chapter 38 F-037 - Abundance objective Exact expression A = sum(alpha_i*P_i)-sum(beta_j*N_j) Meaning. Onlyvalidwithprecommittedweightsandcompatiblescales. Bound manifestations.SHIVA,MK,JO,MJ Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_037 Impor

PATH OF EXPRESSION

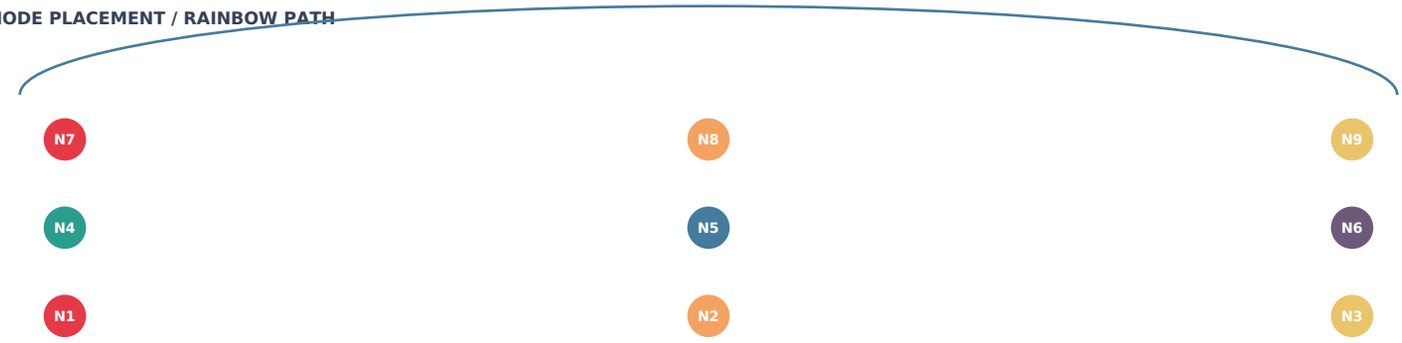
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_38_F_037_Abundance_o
reference "PINK-03-P0079"
state R -> R1
node N1
representation JP(PINK-03-P0079)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 79 of 106. Chapter 38 F-037 - Abundance objective Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 80 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 38.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-037anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0080"
state R -> R1
node N1
representation JP(PINK-03-P0080)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 80 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 81 of 106. Chapter 39 F-038 - SHIVAS eligible value Exact expression V_eligible_L=max(0,V_verified_L-L_known_H-U_valuation_H) Meaning. Internalvaluationlowerbound. Bound manifestations.SHIVA,MERMAID,JO Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_038 Import MJ.

PATH OF EXPRESSION

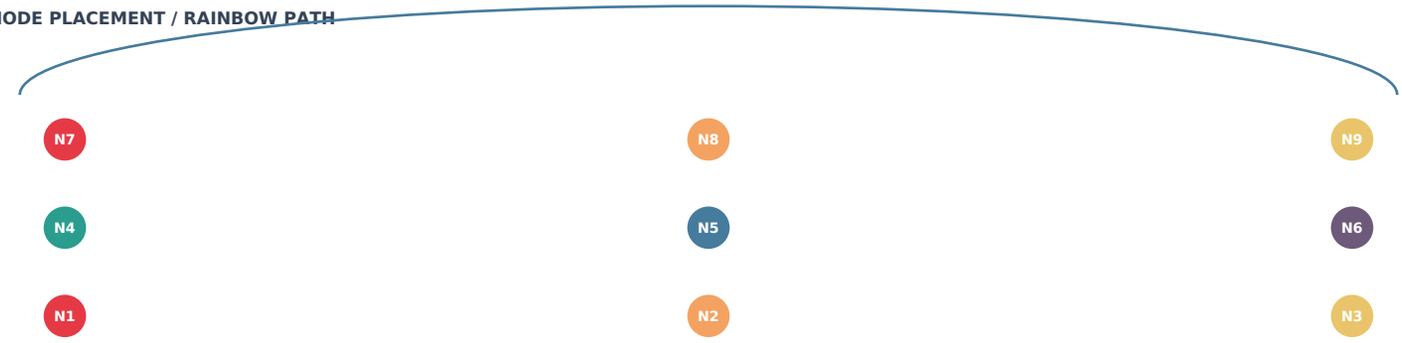
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_39_F_038_SHIVAS_elig
reference "PINK-03-P0081"
state R -> R1
node N1
representation JP(PINK-03-P0081)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 81 of 106. Chapter 39 F-038 - SHIVAS eligible value Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 82 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 39.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-038anditsassumptions,inputs,out

PATH OF EXPRESSION

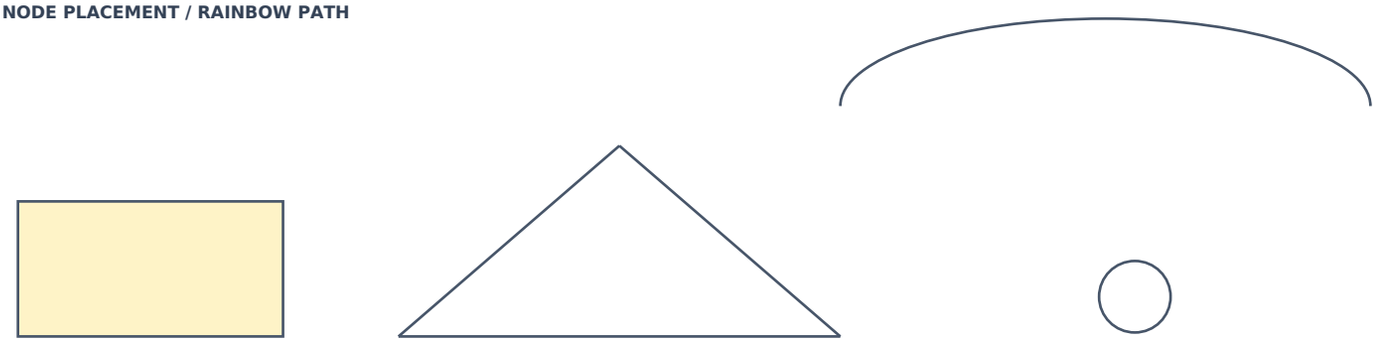
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0082"
state R -> R1
node N1
representation JP(PINK-03-P0082)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 82 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 83 of 106. Chapter 40 F-039 - SHIVAS ceiling Exact expression N_max=floor(V_eligible_L/B_unit_H) Meaning. Onlywhenbacking,rights,classification,andevidenceareknown. Bound manifestations.SHIVA,MERMAID,MJ Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_039 Import MJ

PATH OF EXPRESSION

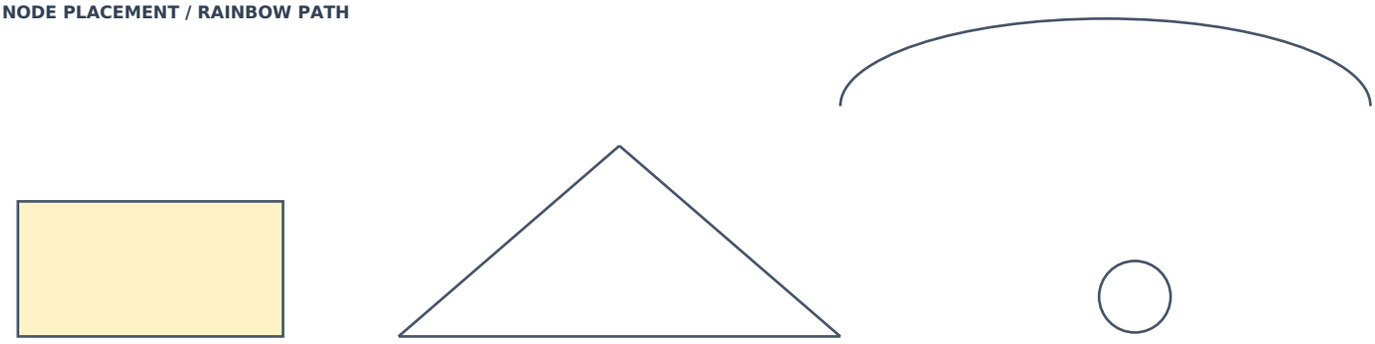
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_40_F_039_SHIVAS_ceil
reference "PINK-03-P0083"
state R -> R1
node N1
representation JP(PINK-03-P0083)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 83 of 106. Chapter 40 F-039 - SHIVAS ceiling Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 84 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 40.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-039anditsassumptions,inputs,out

PATH OF EXPRESSION

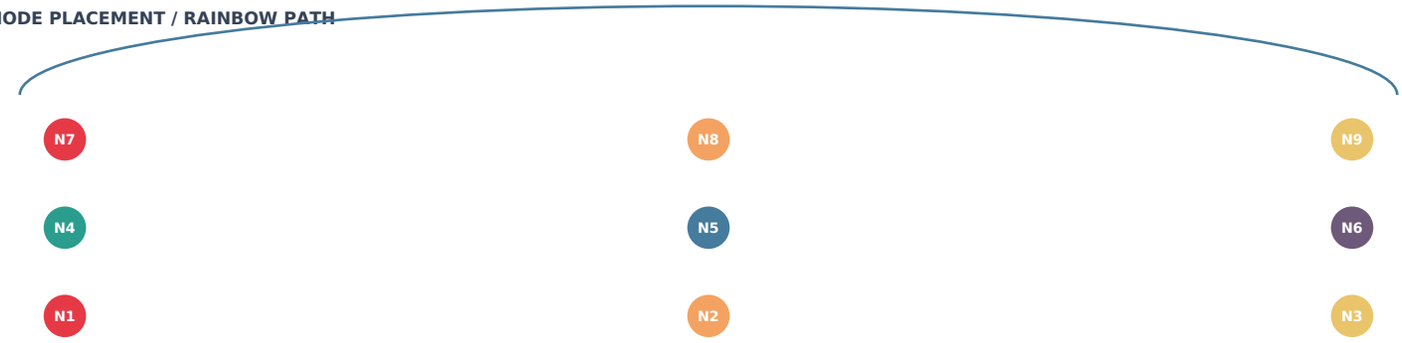
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0084"
state R -> R1
node N1
representation JP(PINK-03-P0084)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 84 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 85 of 106. Chapter 41 F-040 - MK state model Exact expression x[t+1]=F(x[t],u[t],theta,e[t])+w[t]; y[t]=H(x[t])+v[t] Meaning. Generalphysicsstateandobservationrepresentation. Bound manifestations.MK,JP,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_040 Im

PATH OF EXPRESSION

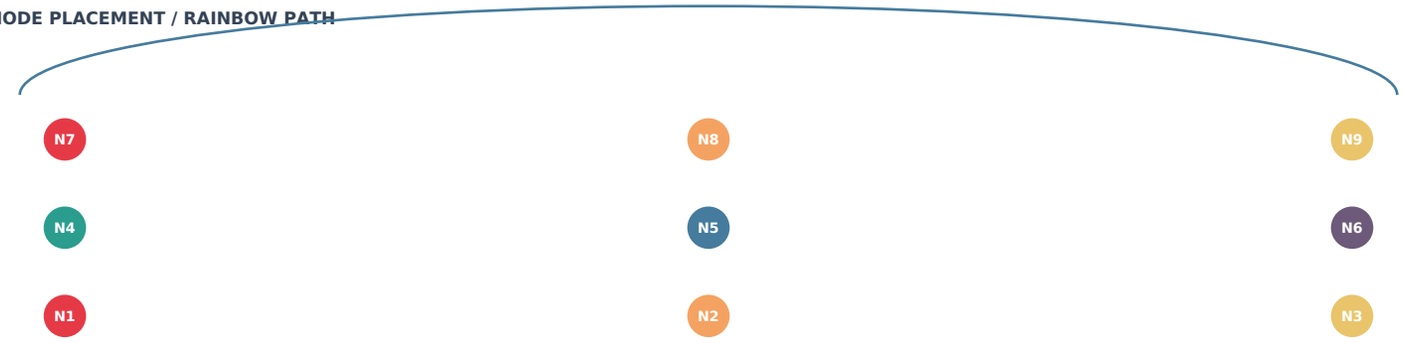
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_41_F_040_MK_state_mo
reference "PINK-03-P0085"
state R -> R1
node N1
representation JP(PINK-03-P0085)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 85 of 106. Chapter 41 F-040 - MK state model Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 86 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 41.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-040anditsassumptions,inputs,out

PATH OF EXPRESSION

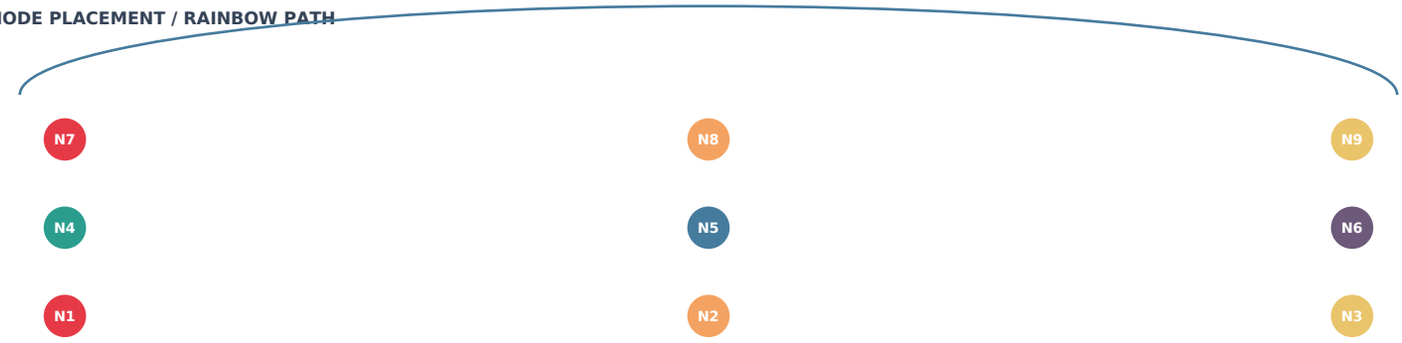
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0086"
state R -> R1
node N1
representation JP(PINK-03-P0086)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 86 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 87 of 106. Chapter 42 F-041 - Dimensional integrity Exact expression dim(LHS)=dim(RHS) Meaning. Everyphysicalequalitymustbedimensionallyvalid. Bound manifestations.MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_041 Import MJ.PBMEF.Manifest,MJ.PBMEF.For

PATH OF EXPRESSION

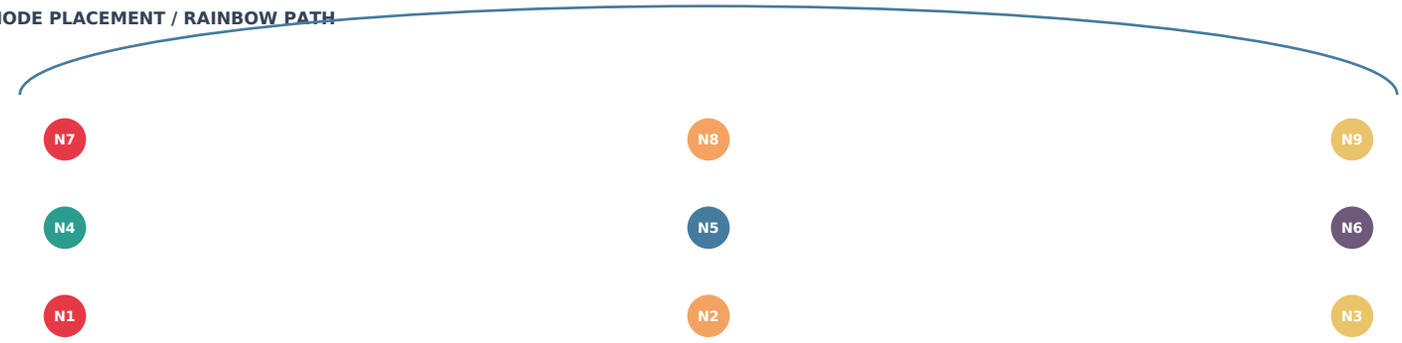
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_42_F_041_Dimensional
reference "PINK-03-P0087"
state R -> R1
node N1
representation JP(PINK-03-P0087)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 87 of 106. Chapter 42 F-041 - Dimensional integrity Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 88 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 42.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-041anditsassumptions,inputs,out

PATH OF EXPRESSION

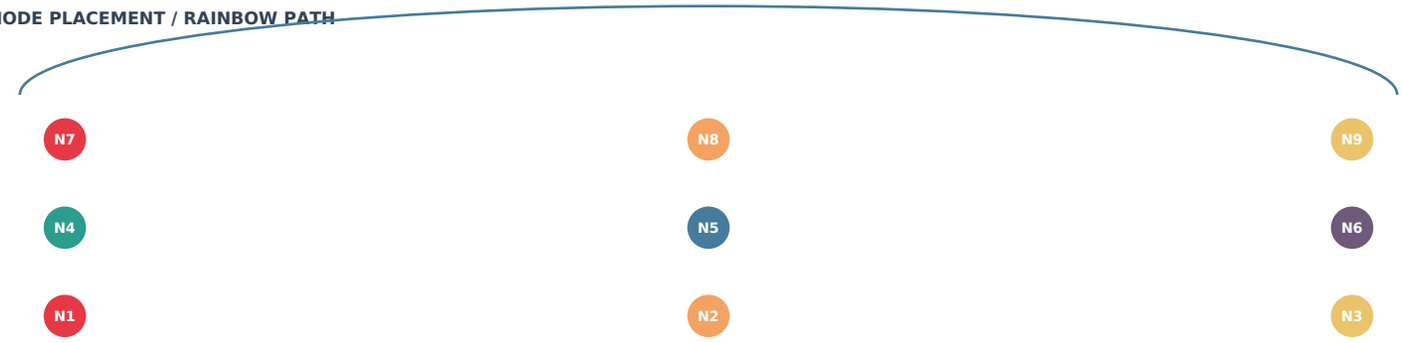
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0088"
state R -> R1
node N1
representation JP(PINK-03-P0088)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 88 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 89 of 106. Chapter 43 F-042 - Conservation residual Exact expression r_q=q_in-q_out-Deltaq-q_loss Meaning. Passonlywhen|r_q|<=U_q. Bound manifestations.MK,JO,EVE,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.finance.portfolio_mk_integrity Namespace MJ.PBMEF.finance.portfolio_mk_integrity.F_042 Import MJ.PBMEF.Manifest,MJ.PBMEF.For

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_43_F_042_Conservatio
reference "PINK-03-P0089"
state R -> R1
node N1
representation JP(PINK-03-P0089)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 89 of 106. Chapter 43 F-042 - Conservation residual Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 90 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 43.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-042anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0090"
state R -> R1
node N1
representation JP(PINK-03-P0090)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 90 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 91 of 106. Chapter 44 F-043 - Pearl simulation ellipsoid vol- ume Exact expression V_P=(4/3)*pi*a*b*c Meaning. Hypotheticalpearl-shapedsimulationgeometry;nophysicalcontainerordimensionclaim. Bound manifestations.MK,SISTER,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pear

PATH OF EXPRESSION

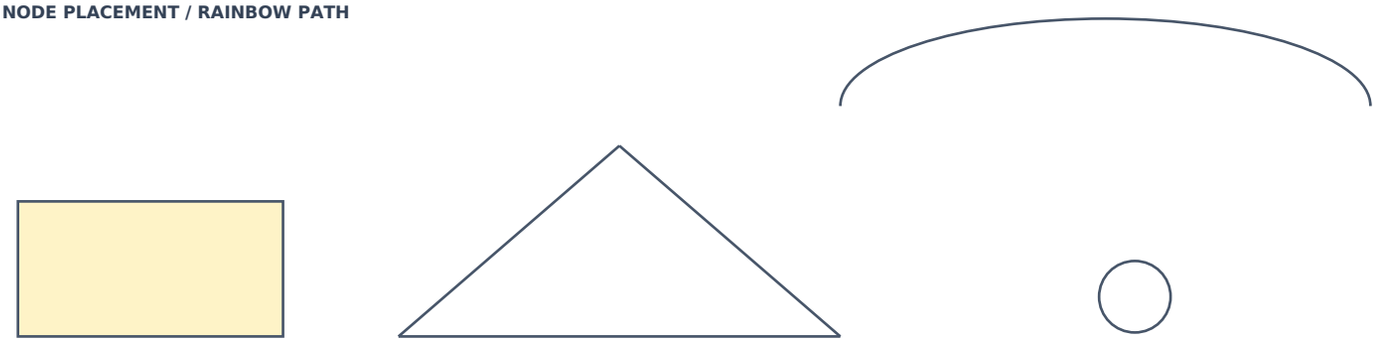
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_44_F_043_Pearl_simul
reference "PINK-03-P0091"
state R -> R1
node N1
representation JP(PINK-03-P0091)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 91 of 106. Chapter 44 F-043 - Pearl simulation ellipsoid vol
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 92 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 44.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-043anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0092"
state R -> R1
node N1
representation JP(PINK-03-P0092)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 92 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 93 of 106. Chapter 45 F-044 - Pearl simulation surface-area approximation Exact expression A_P~=4*pi*((a^p*b^p+a^p*c^p+b^p*c^p)/3)^(1/p), p=1.6075 Meaning. Hypotheticalsimulationgeometryapproximation;nophysicalwallorsurfaceclaim. Bound manifestations.MK,BELLE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic

PATH OF EXPRESSION

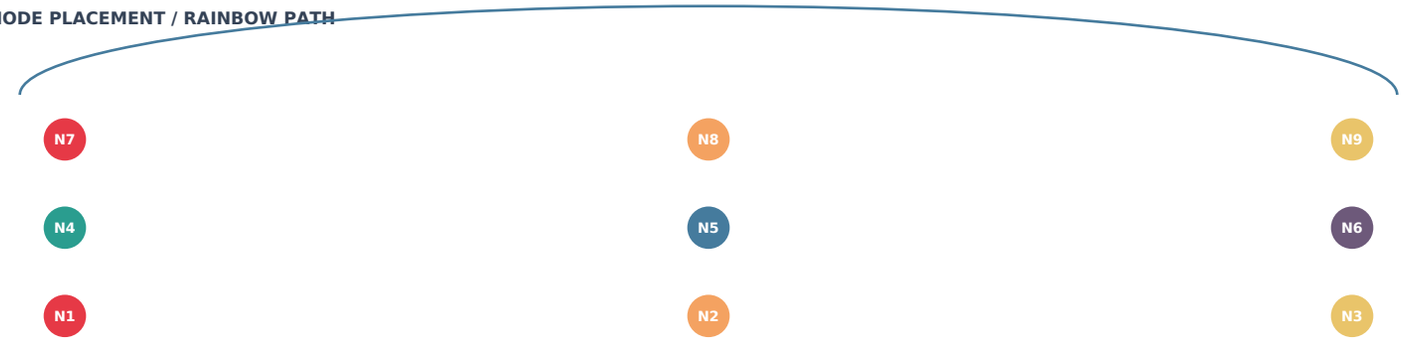
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_45_F_044_Pearl_simul
reference "PINK-03-P0093"
state R -> R1
node N1
representation JP(PINK-03-P0093)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 93 of 106. Chapter 45 F-044 - Pearl simulation surface-area
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 94 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 45.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-044anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0094"
state R -> R1
node N1
representation JP(PINK-03-P0094)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 94 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 95 of 106. Chapter 46 F-045 - Pearl simulation exposure ratio Exact expression chi_P=A_P/V_P Meaning. Simulationcomparisonmetriconly;notphysicalbreachorexposureevidence. Bound manifestations.MK,BELLE,EVE Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pearl.hypothetical_simulation

PATH OF EXPRESSION

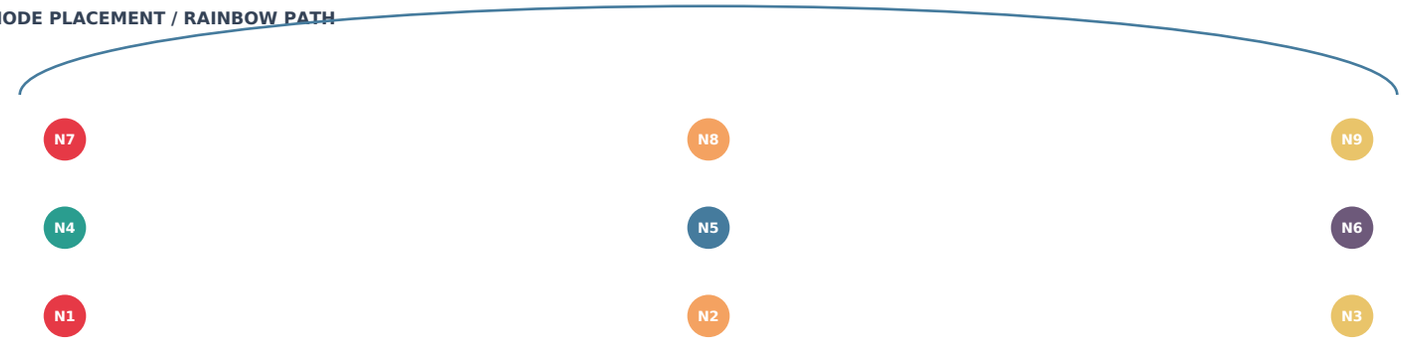
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_46_F_045_Pearl_simul
reference "PINK-03-P0095"
state R -> R1
node N1
representation JP(PINK-03-P0095)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 95 of 106. Chapter 46 F-045 - Pearl simulation exposure rati
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 96 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 46.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-045anditsassumptions,inputs,out

PATH OF EXPRESSION

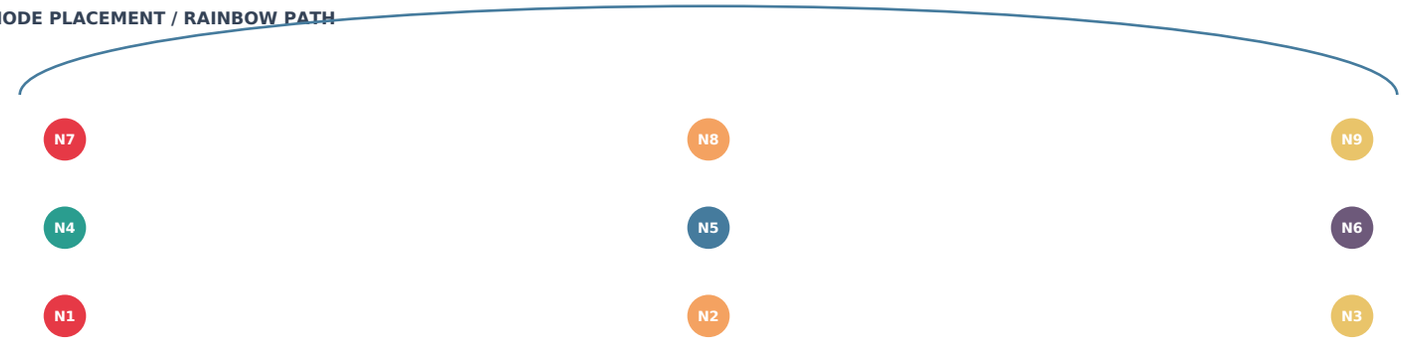
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0096"
state R -> R1
node N1
representation JP(PINK-03-P0096)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 96 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 97 of 106. Chapter 47 F-046 - Pearl simulation capacity slack Exact expression S_Pk=(1-h_Pk)*C_Pk-L_Pk Meaning. Remainingtypedsimulation/informationcapacityafterdeclaredheadroom. Bound manifestations.SISTER,EVE,M3,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pearl.hypothe

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_47_F_046_Pearl_simul
reference "PINK-03-P0097"
state R -> R1
node N1
representation JP(PINK-03-P0097)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 97 of 106. Chapter 47 F-046 - Pearl simulation capacity slac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 98 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 47.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-046anditsassumptions,inputs,out

PATH OF EXPRESSION

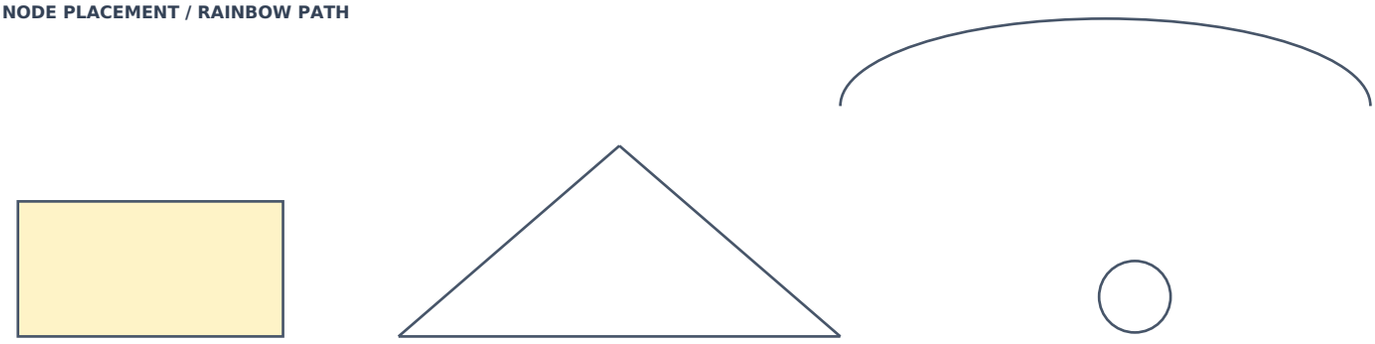
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0098"
state R -> R1
node N1
representation JP(PINK-03-P0098)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 98 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 99 of 106. Chapter 48 F-047 - Pearl simulation saturation ratio Exact expression beta_P=max_k(L_Pk/((1-h_Pk)*C_Pk)) Meaning. Simulationsaturationconditiononly;notphysicalbreachresistance. Bound manifestations.MK,ANGELS,BELLATRIX,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.p

PATH OF EXPRESSION

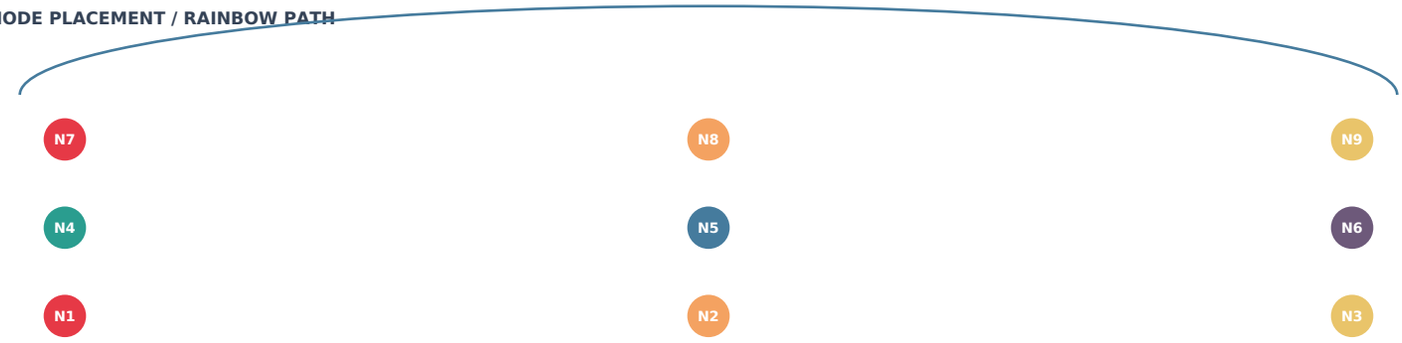
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_48_F_047_Pearl_simul
reference "PINK-03-P0099"
state R -> R1
node N1
representation JP(PINK-03-P0099)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 99 of 106. Chapter 48 F-047 - Pearl simulation saturation ra
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 100 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 48.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-047anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0100"
state R -> R1
node N1
representation JP(PINK-03-P0100)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 100 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 101 of 106. Chapter 49 F-048 - Pearl simulation object count Exact expression N_P=max_k ceil(E_k/((1-h_Pk)*C_Pk)) Meaning. Numberofhypotheticalsimulationobjectsneededfordeclaredinformation/resourcedimensions. Bound manifestations.SISTER,EVE,M3,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference N

PATH OF EXPRESSION

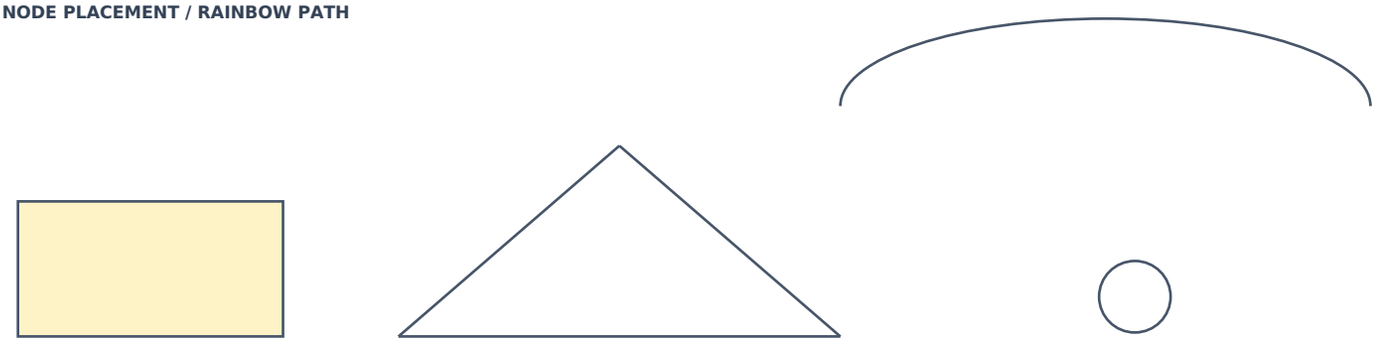
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_49_F_048_Pearl_simul
reference "PINK-03-P0101"
state R -> R1
node N1
representation JP(PINK-03-P0101)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 101 of 106. Chapter 49 F-048 - Pearl simulation object count
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 102 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 49.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-048anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0102"
state R -> R1
node N1
representation JP(PINK-03-P0102)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 102 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 103 of 106. Chapter 50 F-049 - Pearl simulation accounting bal- ance Exact expression r_Pk=q_in-q_captured-q_transferred-q_retained-q_escaped-Deltaq_stored Meaning.
Simulation/accountingconservationacrossretained,transferred,escaped-observation,and storedinformation. Bound manifestations.EVE,MK,JO,MERMAID Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.P

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_50_F_049_Pearl_simul
reference "PINK-03-P0103"
state R -> R1
node N1
representation JP(PINK-03-P0103)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 103 of 106. Chapter 50 F-049 - Pearl simulation accounting b
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 104 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 } 50.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-049anditsassumptions,inputs,o

PATH OF EXPRESSION

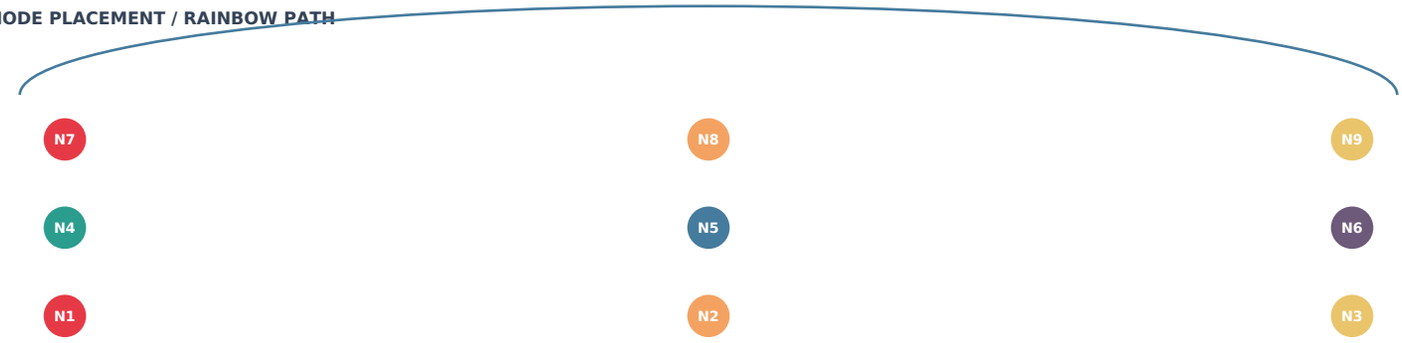
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0104"
state R -> R1
node N1
representation JP(PINK-03-P0104)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 104 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 105 of 106. Chapter 51 F-050 - Pearl simulated transfer oppor- tunity Exact expression T_ij,k=min([S_jk]_+,[Q_ik-Q_reserve_ik]_+,C_route_k) Meaning. SimulatedtransferopportunityboundedbydeclaredlogicalcapacitiesnophysicaltransferBound manifestations.SISTER,EVE,M3,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_51_F_050_Pearl_simul
reference "PINK-03-P0105"
state R -> R1
node N1
representation JP(PINK-03-P0105)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 105 of 106. Chapter 51 F-050 - Pearl simulated transfer oppo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 106 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper II - F001-F050 51.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-050anditsassumptions,inputs,out

PATH OF EXPRESSION

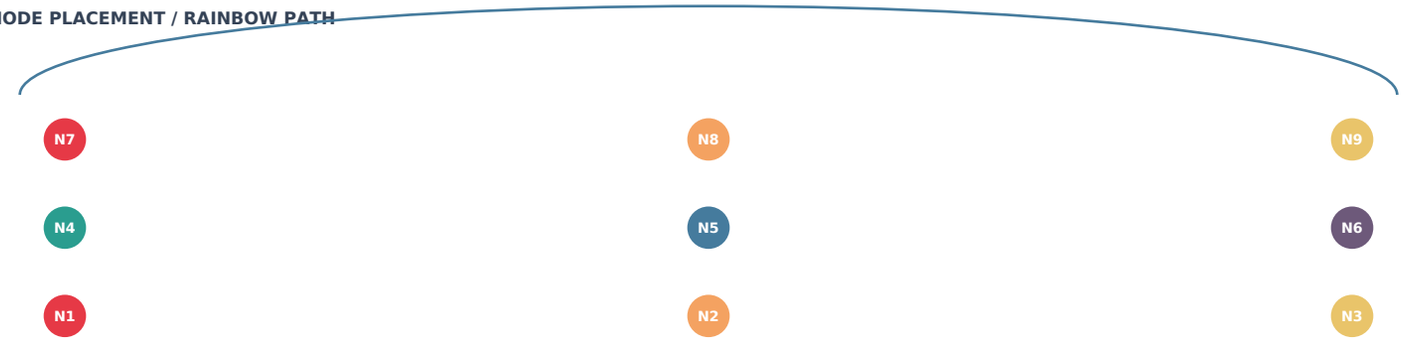
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-03-P0106"
state R -> R1
node N1
representation JP(PINK-03-P0106)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume02_Formulas_F001_F050.pdf, page 106 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N3; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 1 of 106. MJ-PBMEFPinkPaper-VolumeIII FormulaGatewayBindingsF-051throughF-100 MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

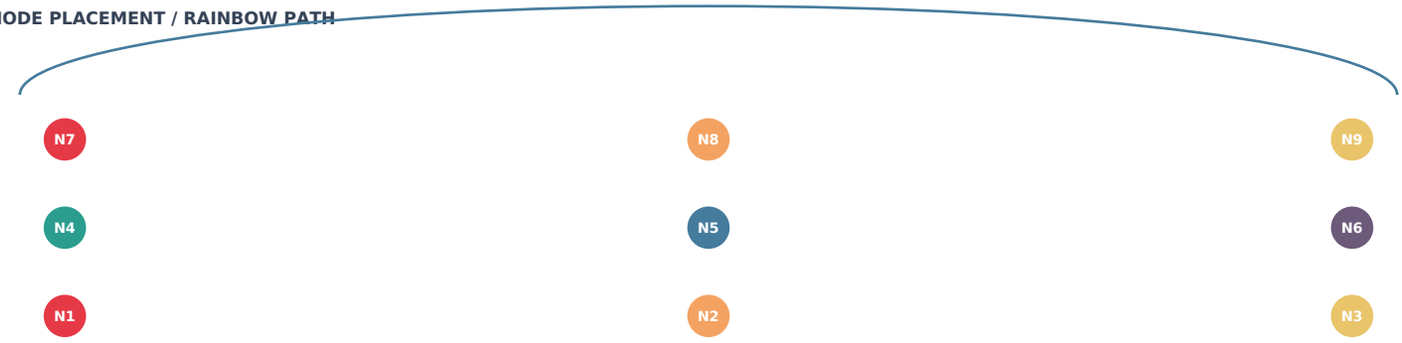
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeIII_
reference "PINK-04-P0001"
state R -> R1
node N3
representation JP(PINK-04-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 1 of 106. MJ-PBMEFPinkPaper-VolumeIII FormulaGatewayBindings
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 2 of 106. Contents 1 Verification method 5 2 F-051 - Pearl simulated regeneration vector 6 2.1 Gatewaylife-cycleexample . . . . . .6 2.2 Lifecyclefromrequesttofinaloutput . . . . . .7 3 F-052 - Pearl acoustic simulation wavelength 8 3.1 Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Verification_meth
reference "PINK-04-P0002"
state R -> R1
node N1
representation JP(PINK-04-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 2 of 106. Contents 1 Verification method 5 2 F-051 - Pearl s
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 3 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100

13.2Lifecyclefromrequesttofinaloutput 29
14F-063 - Incremental recompute cost 30 14.1Gatewaylife-cycleexample . . . . . .30 14.2Lifecyclefromrequesttofinaloutput 31 15F-06

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0003"
state R -> R1
node N1
representation JP(PINK-04-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 3 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 4 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 29F-078 - Formula verification residual 60 29.1Gatewaylife-cycleexample . . . . . .60 29.2Lifecyclefromrequesttofinaloutput . . . . . .61 30F-079 - Operational intake completeness 62 30.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

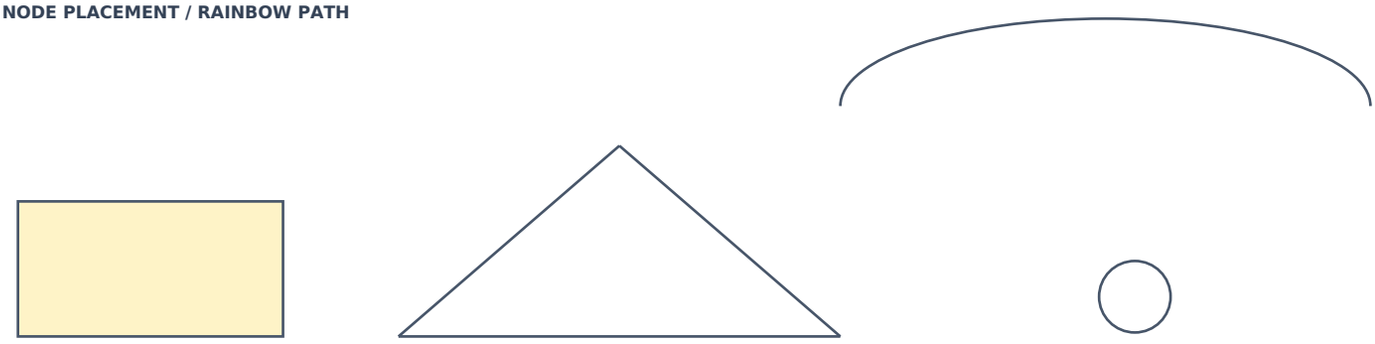
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0004"
state R -> R1
node N1
representation JP(PINK-04-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 4 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 5 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100

44F-093 - Observed gas-height predictor 90 44.1Gatewaylife-cycleexample 90
44.2Lifecyclefromrequesttofinaloutput 91
45F-094 - Gas net-force balance 92 45.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

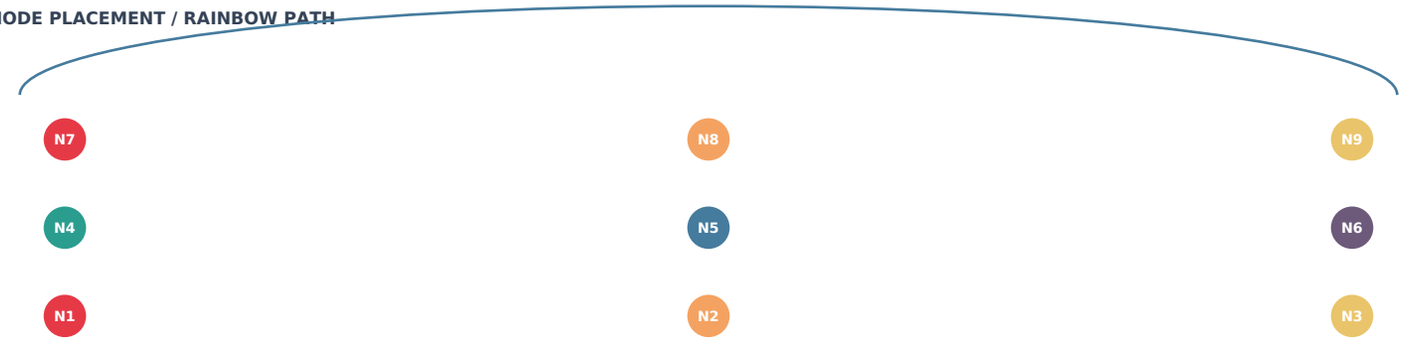
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0005"
state R -> R1
node N7
representation JP(PINK-04-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 5 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 6 of 106. Chapter 1 Verification method Each formula receives the same twenty-construct Bangel identity, a gateway-stage assignment, a life-cycleexample, andexplicitevidenceandethicsboundaries. Therepetitivestructureisintentional: it allowsformula-by-formulafounderreviewandlaterautomatedcompletenesschecking. 5

PATH OF EXPRESSION

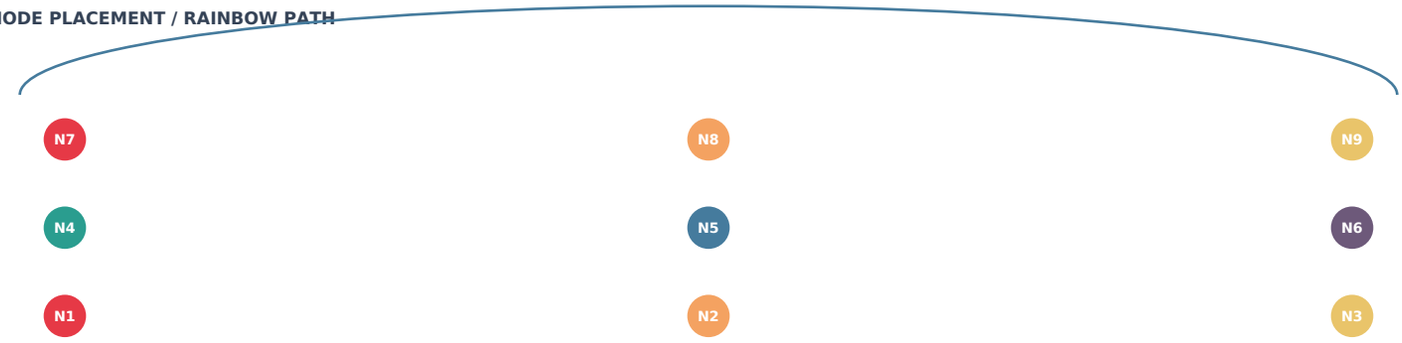
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Verification_metho
reference "PINK-04-P0006"
state R -> R1
node N1
representation JP(PINK-04-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 6 of 106. Chapter 1 Verification method Each formula receive
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 7 of 106. Chapter 2 F-051 - Pearl simulated regeneration vector Exact expression G_P=[G_mass,G_energy,G_bytes,G_time,G_capital] Meaning. Hypotheticalopportunityvector;createsnophysicalorcapitalvalue. Bound manifestations.EVE,MERMAID,SHIVA,MK,JO Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespa

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_F_051_Pearl_simula
reference "PINK-04-P0007"
state R -> R1
node N1
representation JP(PINK-04-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 7 of 106. Chapter 2 F-051 - Pearl simulated regeneration vec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 8 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 2.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-051anditsassumptions,inputs,out

PATH OF EXPRESSION

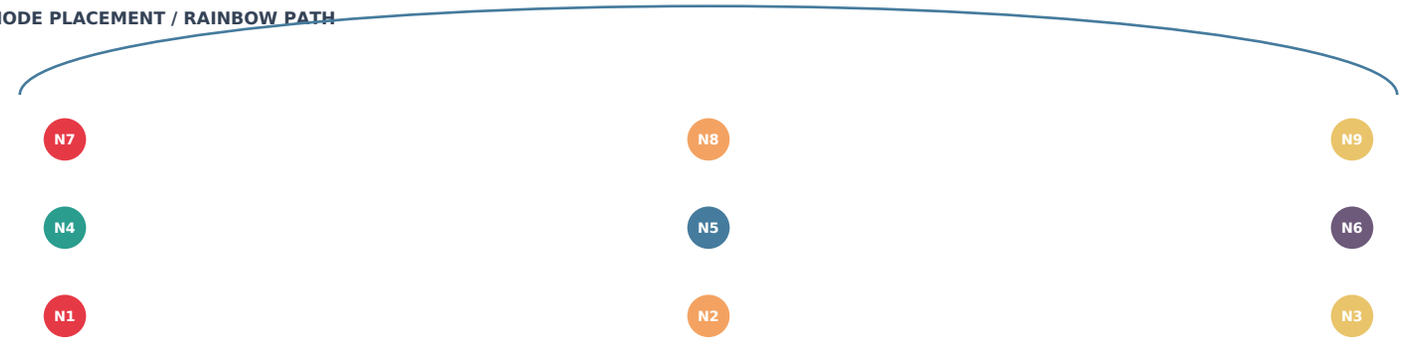
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0008"
state R -> R1
node N1
representation JP(PINK-04-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 8 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 9 of 106. Chapter 3 F-052 - Pearl acoustic simulation wave- length Exact expression lambda_ac=c_medium/f_control Meaning. Acousticsimulationvariableunderdeclaredmediumassumptions;nocohesionclaim. Bound manifestations.MK,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pearl

PATH OF EXPRESSION

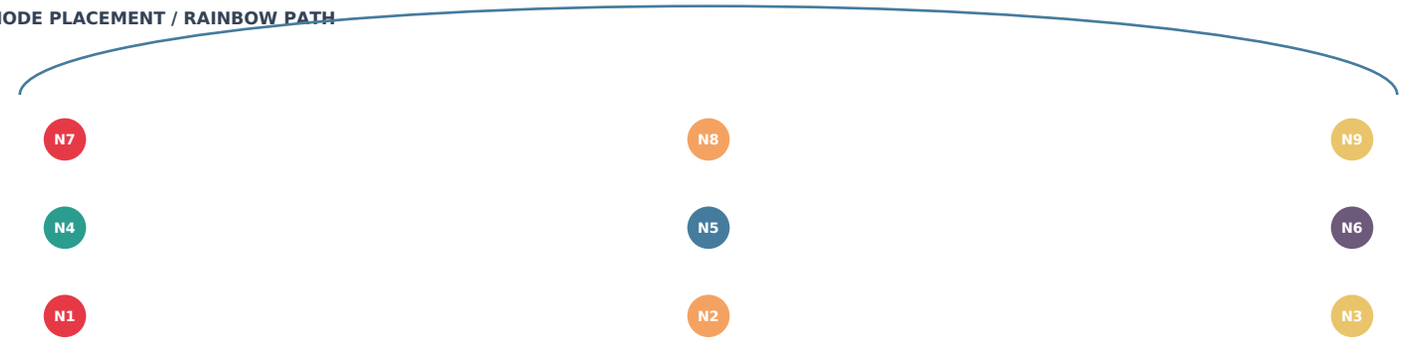
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_F_052_Pearl_acoust
reference "PINK-04-P0009"
state R -> R1
node N1
representation JP(PINK-04-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 9 of 106. Chapter 3 F-052 - Pearl acoustic simulation wave-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 10 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 3.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-052anditsassumptions,inputs,out

PATH OF EXPRESSION

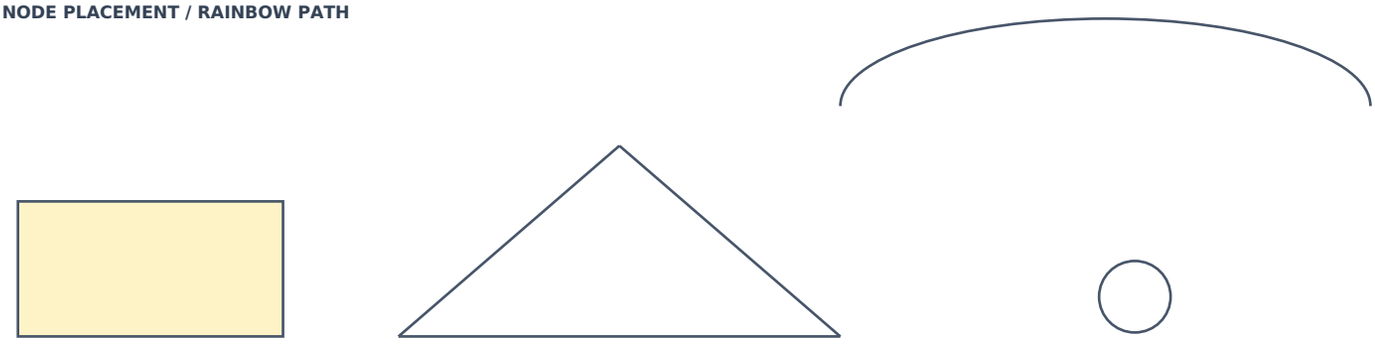
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0010"
state R -> R1
node N1
representation JP(PINK-04-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 10 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 11 of 106. Chapter 4 F-053 - Pearl acoustic simulation inten- sity Exact expression I_ac=p_rms^2/(rho_medium*c_medium) Meaning. Referencesimulationintensityonly;nophysicalactuationclaim. Bound manifestations.MK,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pearl.hypotheti

PATH OF EXPRESSION

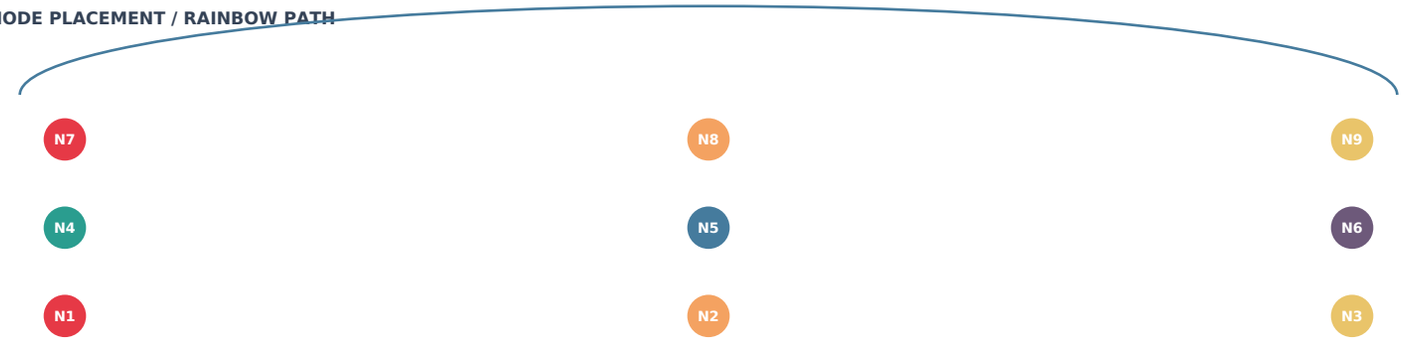
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_F_053_Pearl_acoust
reference "PINK-04-P0011"
state R -> R1
node N1
representation JP(PINK-04-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 11 of 106. Chapter 4 F-053 - Pearl acoustic simulation inten
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 12 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 4.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-053anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0012"
state R -> R1
node N1
representation JP(PINK-04-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 12 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 13 of 106. Chapter 5 F-054 - Pearl acoustic simulation energy Exact expression E_ac=integral(I_ac*A_effective)dt Meaning. HypotheticalenergyaccountingforafutureseparatelypermittedexperimentBound manifestations.MK,EVE,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pea

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_F_054_Pearl_acoust
reference "PINK-04-P0013"
state R -> R1
node N1
representation JP(PINK-04-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 13 of 106. Chapter 5 F-054 - Pearl acoustic simulation energ
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 14 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 5.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-054anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0014"
state R -> R1
node N1
representation JP(PINK-04-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 14 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 15 of 106. Chapter 6 F-055 - Pearl acoustic simulation ob- servability gate Exact expression f_sample>=2*gamma*f_control AND f_control in calibrated_band AND SNR_f>=SNR_min Meaning. Simulationinputmustbemeasurabletobeaccountedfor;observabilityisnotactuation. Bound manifestations.MK,JO,ANGELS Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hy

PATH OF EXPRESSION

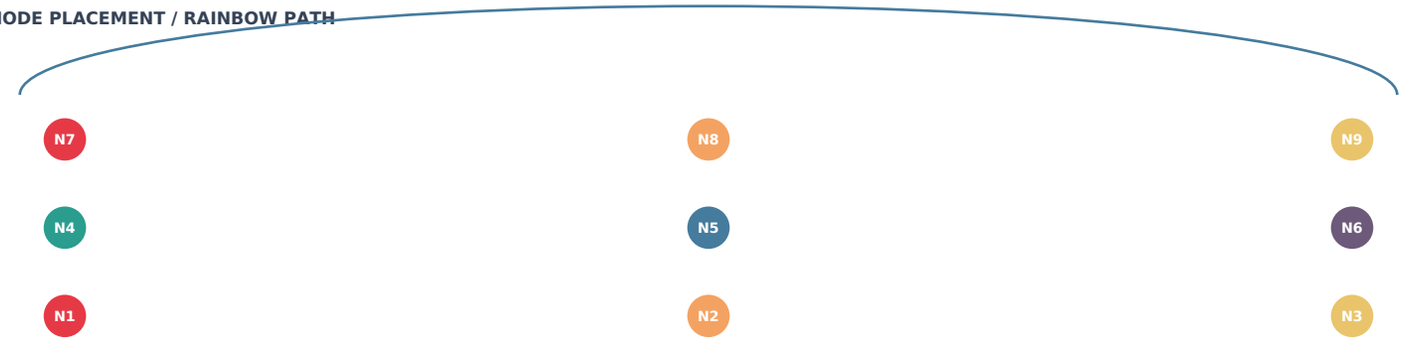
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_F_055_Pearl_acoust
reference "PINK-04-P0015"
state R -> R1
node N1
representation JP(PINK-04-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 15 of 106. Chapter 6 F-055 - Pearl acoustic simulation ob- s
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 16 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 } 6.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-055anditsassumptions,inputs,o

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0016"
state R -> R1
node N1
representation JP(PINK-04-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 16 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 17 of 106. Chapter 7 F-056 - Pearl acoustic simulation signal- to-noise Exact expression SNR_f=P_signal(f)/P_noise(f) Meaning. Simulationsignal-to-noiseratio;advisoryandnon-authorizing. Bound manifestations.MK,SISTER,EVE,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pearl.hypothetic

PATH OF EXPRESSION

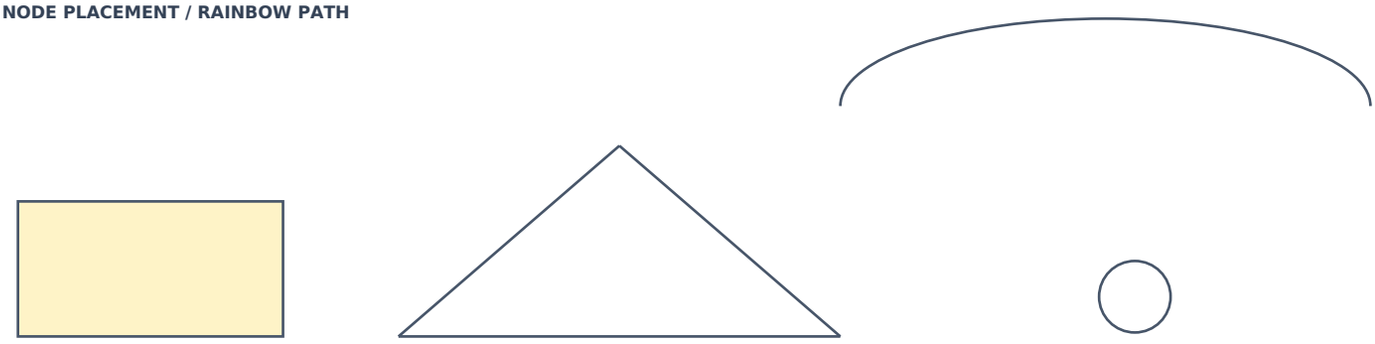
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_F_056_Pearl_acoust
reference "PINK-04-P0017"
state R -> R1
node N1
representation JP(PINK-04-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 17 of 106. Chapter 7 F-056 - Pearl acoustic simulation signa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 18 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 7.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-056anditsassumptions,inputs,out

PATH OF EXPRESSION

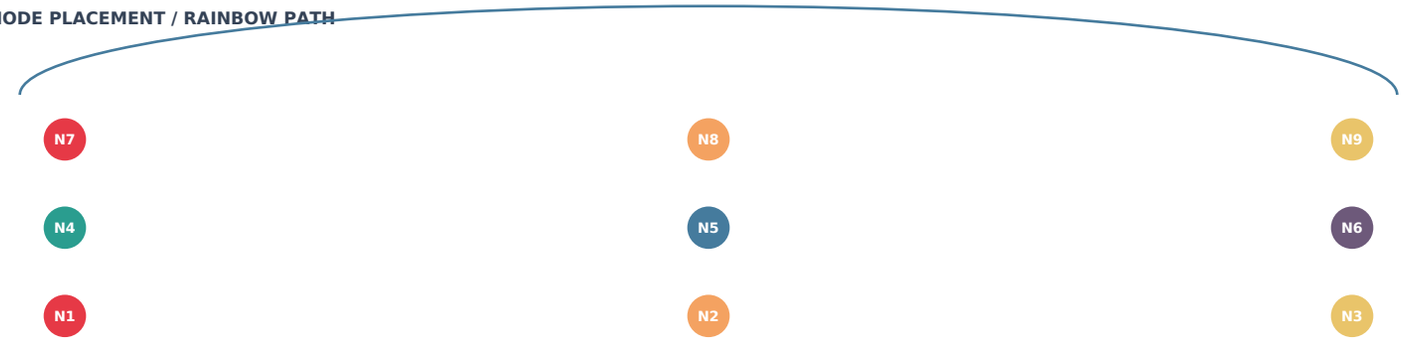
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0018"
state R -> R1
node N1
representation JP(PINK-04-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 18 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 19 of 106. Chapter 8 F-057 - Pearl acoustic simulation trans- fer function Exact expression H_P(f)=Y_P(f)/U_P(f) Meaning. Hypotheticalormeasured-laterresponsemapping;nophysicalPearlarticleexists. Bound manifestations.MK,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBMEF.pearl.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_F_057_Pearl_acoust
reference "PINK-04-P0019"
state R -> R1
node N1
representation JP(PINK-04-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 19 of 106. Chapter 8 F-057 - Pearl acoustic simulation trans
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 20 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 8.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-057anditsassumptions,inputs,out

PATH OF EXPRESSION

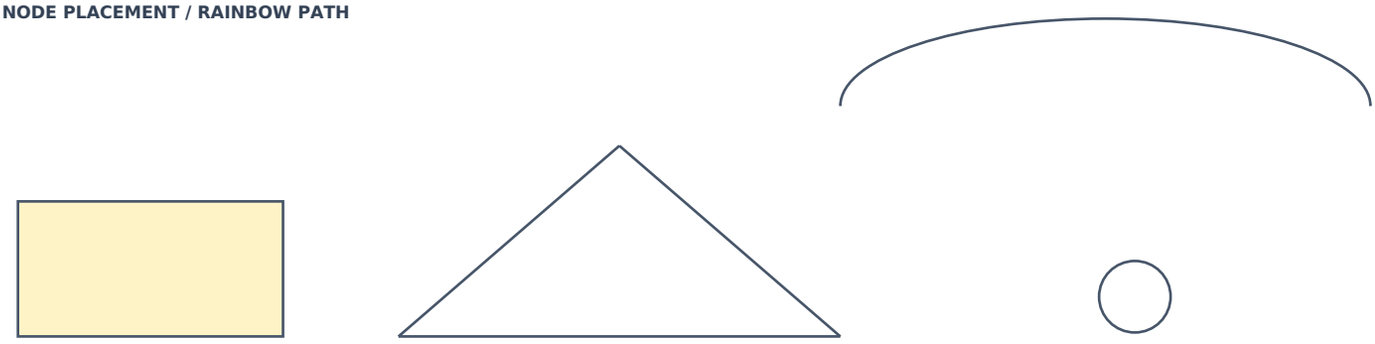
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0020"
state R -> R1
node N1
representation JP(PINK-04-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 20 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 21 of 106. Chapter 9 F-058 - Pearl acoustic simulation set- point Exact expression f*=argmin_{f in F_safe}(J_breach+lambda_E*E_ac+lambda_T*T_transfer) Meaning. Simulationcandidateonly;nophysicalcontrolsetpoint. Bound manifestations.MK,BELLE,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Names

PATH OF EXPRESSION

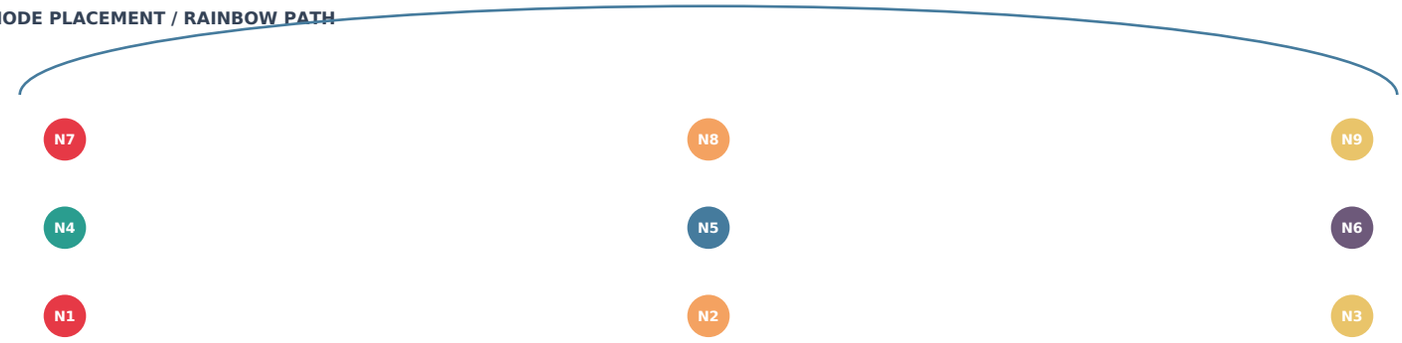
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_F_058_Pearl_acoust
reference "PINK-04-P0021"
state R -> R1
node N1
representation JP(PINK-04-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 21 of 106. Chapter 9 F-058 - Pearl acoustic simulation set-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 22 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 9.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-058anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0022"
state R -> R1
node N1
representation JP(PINK-04-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 22 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 23 of 106. Chapter 10 F-059 - Bounded Pearl acoustic simula- tion adjustment Exact expression f_next=clip((2/3)f+(1/3)f_target,f-df_max,f+df_max,f_min,f_max) Meaning. One-third-dampedsimulationupdateonly. Bound manifestations.MK,JO,M3 Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simulation_acoustic_reference Namespace MJ.PBME

PATH OF EXPRESSION

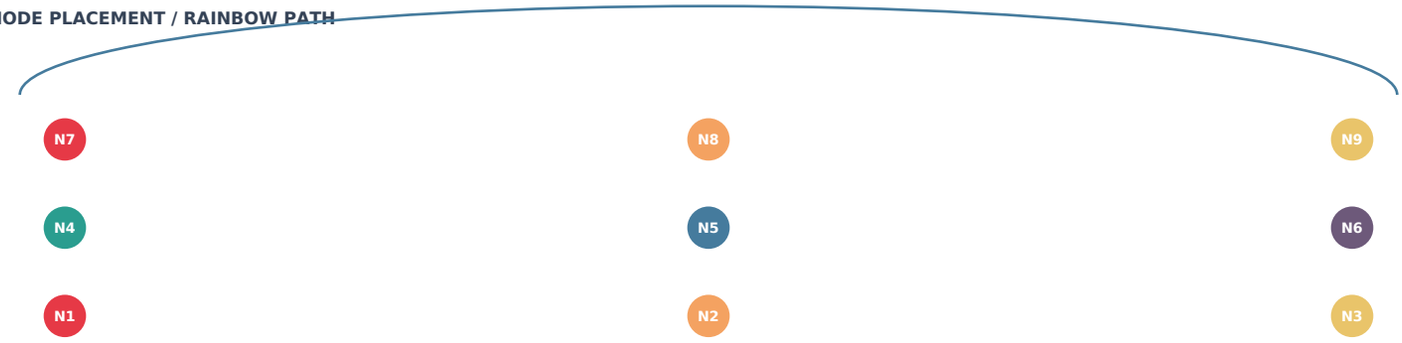
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_F_059_Bounded_Pea
reference "PINK-04-P0023"
state R -> R1
node N1
representation JP(PINK-04-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 23 of 106. Chapter 10 F-059 - Bounded Pearl acoustic simula-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 24 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 10.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-059anditsassumptions,inputs,ou

PATH OF EXPRESSION

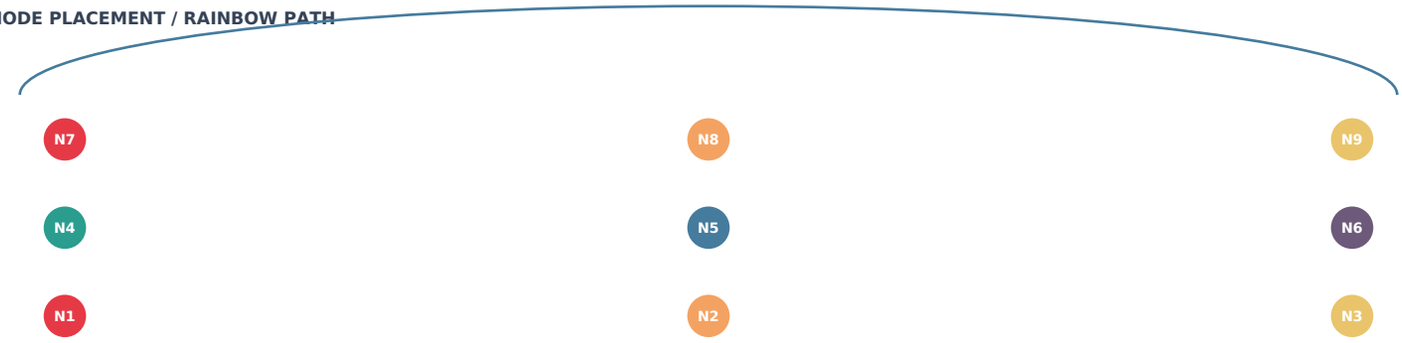
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0024"
state R -> R1
node N1
representation JP(PINK-04-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 24 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 25 of 106. Chapter 11 F-060 - Pearl simulation registry recon- ciliation Exact expression r_registry=N_allocated+N_received-N_transferred-N_closed-N_active Meaning. Registrycountreconciliationforsimulationrecords,notphysicalcontainers. Bound manifestations.MERMAID,SHIVA,M3,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.pearl.hypothetical_simul

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_F_060_Pearl_simul
reference "PINK-04-P0025"
state R -> R1
node N1
representation JP(PINK-04-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 25 of 106. Chapter 11 F-060 - Pearl simulation registry reco
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 26 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 11.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-060anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0026"
state R -> R1
node N1
representation JP(PINK-04-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 26 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 27 of 106. Chapter 12 F-061 - Bangel Sheet cell state Exact expression
C_ij=<value,unit,uncertainty,formula,revision,lineage,authority,evidence>
Meaning.
Everycellisagovernedmeasurementobject,notanuntypedmutablevalue. Bound manifestations.Bangel ,JP,MK,JO Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scali

PATH OF EXPRESSION

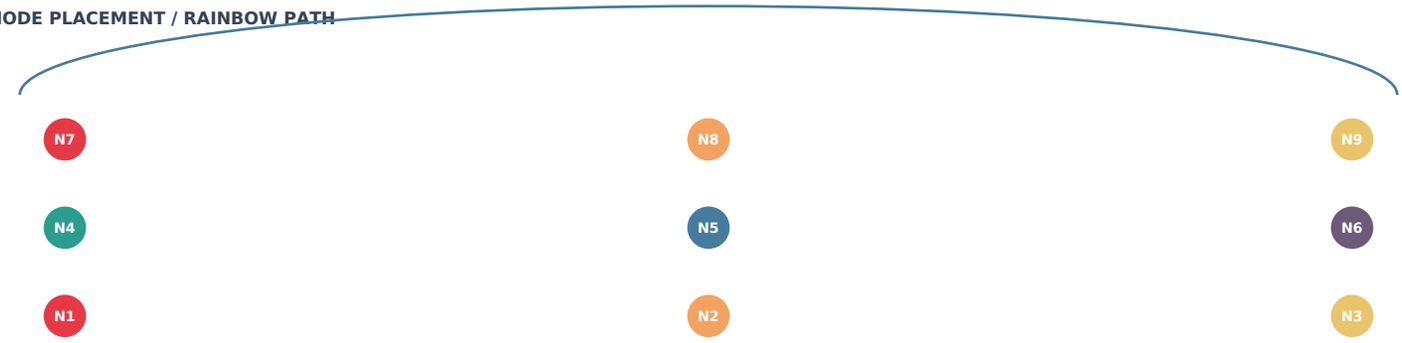
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_F_061_Bangel _Shee
reference "PINK-04-P0027"
state R -> R1
node N1
representation JP(PINK-04-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 27 of 106. Chapter 12 F-061 - Bangel  Sheet cell state Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 28 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 12.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-061anditsassumptions,inputs,ou

PATH OF EXPRESSION

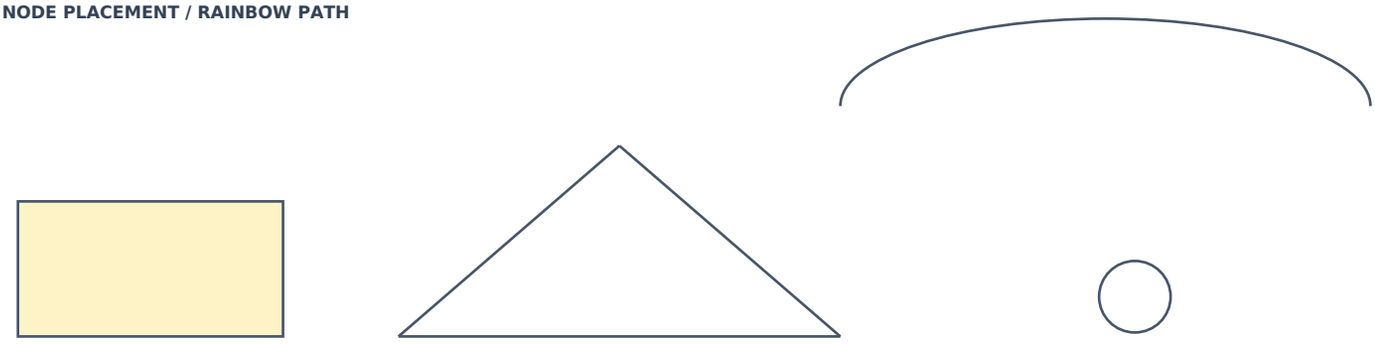
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0028"
state R -> R1
node N1
representation JP(PINK-04-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 28 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 29 of 106. Chapter 13 F-062 - Affected dependency closure Exact expression A(U)=Reachable_G(U) Meaning. Onlycellsreachablefromchangedcellsareeligibleforincrementalrecomputation. Bound manifestations.JP,JO,M3 Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheets.algor

PATH OF EXPRESSION

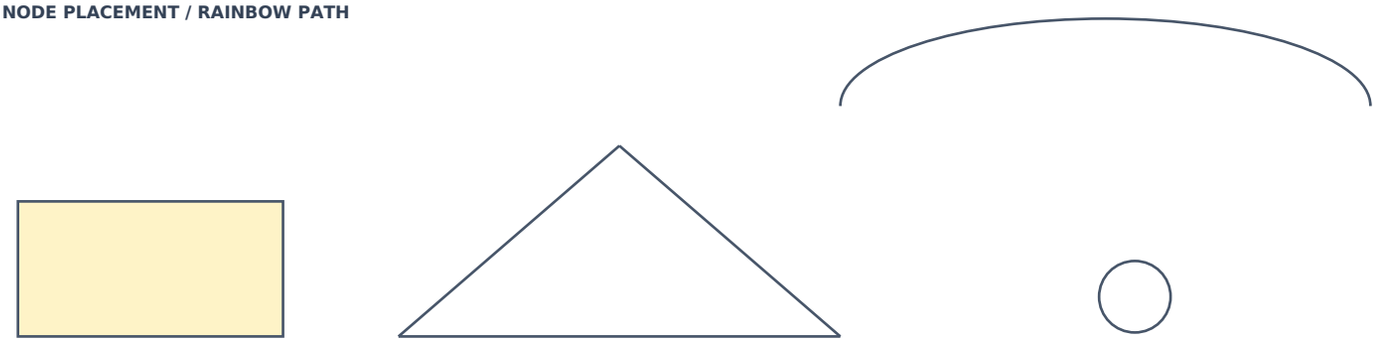
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_F_062_Affected_de
reference "PINK-04-P0029"
state R -> R1
node N1
representation JP(PINK-04-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 29 of 106. Chapter 13 F-062 - Affected dependency closure Ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 30 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 13.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-062anditsassumptions,inputs,ou

PATH OF EXPRESSION

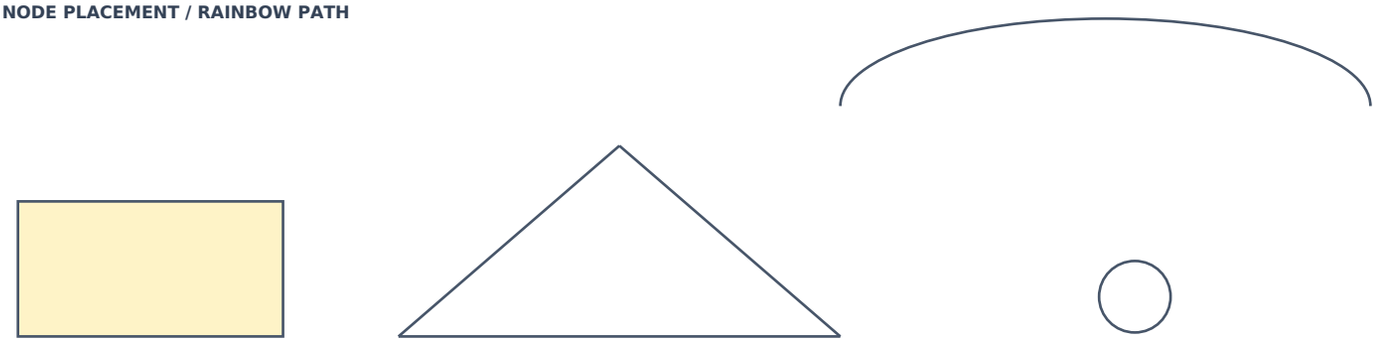
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0030"
state R -> R1
node N1
representation JP(PINK-04-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 30 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 31 of 106. Chapter 14 F-063 - Incremental recompute cost Exact expression C_recalc=sum_{v in A}c_v+sum_{e in E(A)}t_e Meaning. Measuredcomputeandtransferworkforanaffecteddependencyclosure. Bound manifestations.MK,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.sprea

PATH OF EXPRESSION

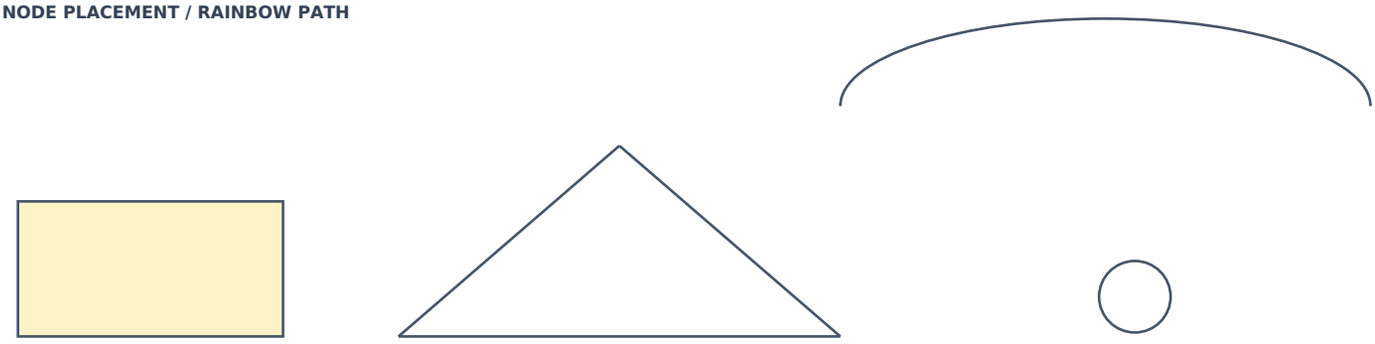
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_F_063_Incremental
reference "PINK-04-P0031"
state R -> R1
node N1
representation JP(PINK-04-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 31 of 106. Chapter 14 F-063 - Incremental recompute cost Exa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 32 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 14.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-063anditsassumptions,inputs,ou

PATH OF EXPRESSION

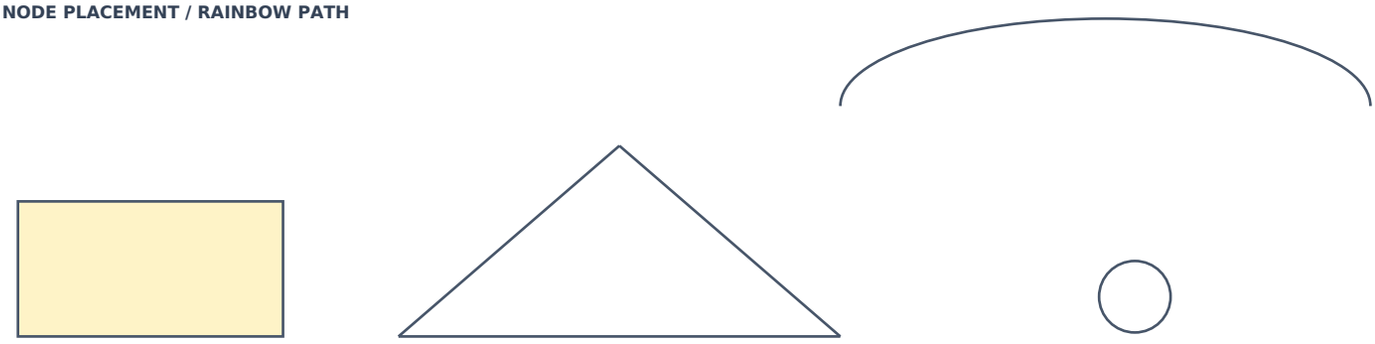
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0032"
state R -> R1
node N1
representation JP(PINK-04-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 32 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 33 of 106. Chapter 15 F-064 - Concurrent edit arrival Exact expression lambda_total=N_users*lambda_user Meaning. Aggregateupdatearrivalratefrommeasuredconcurrent-useractivity. Bound manifestations.JO,M3,MK Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheets.algorithms

PATH OF EXPRESSION

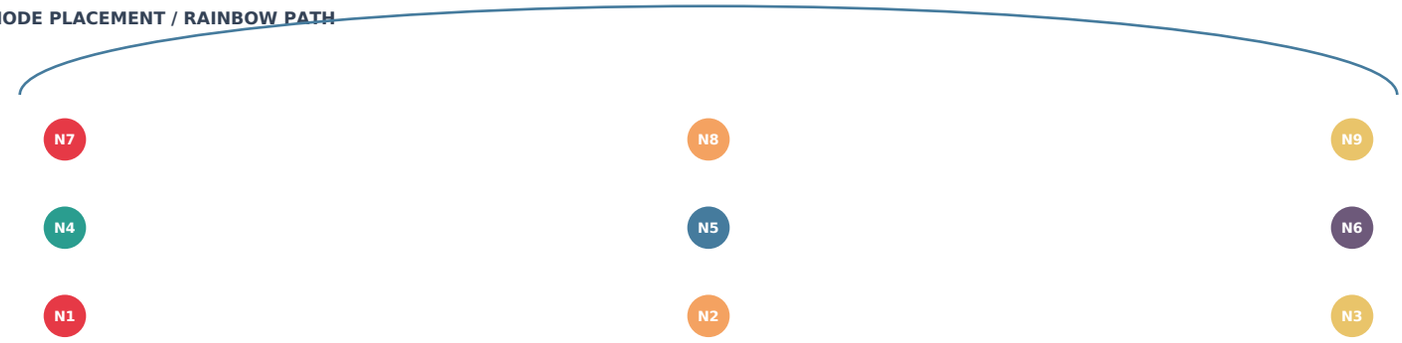
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_F_064_Concurrent_
reference "PINK-04-P0033"
state R -> R1
node N1
representation JP(PINK-04-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 33 of 106. Chapter 15 F-064 - Concurrent edit arrival Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 34 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 15.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-064anditsassumptions,inputs,ou

PATH OF EXPRESSION

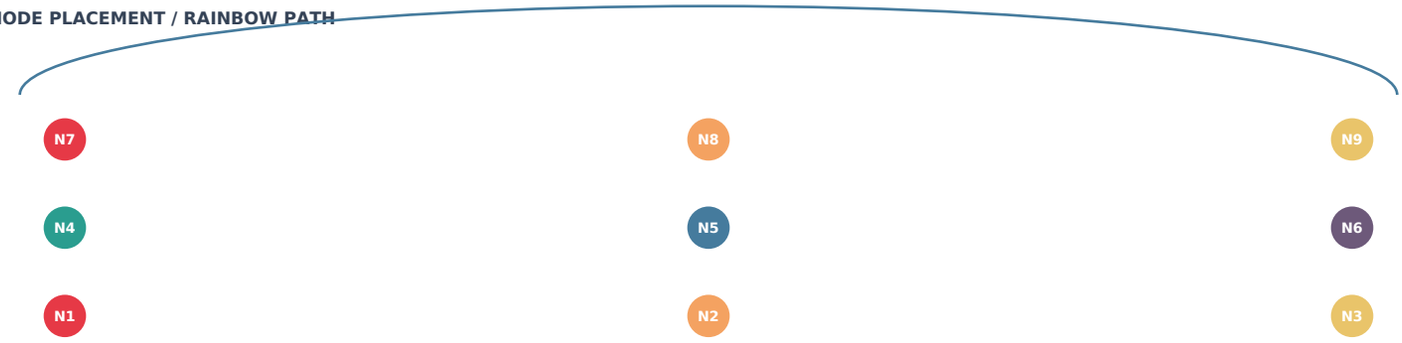
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0034"
state R -> R1
node N1
representation JP(PINK-04-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 34 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 35 of 106. Chapter 16 F-065 - Spreadsheet service utilization Exact expression rho=lambda_total/(W*mu_worker) Meaning. CapacityutilizationforWdeterministicworkers. Bound manifestations.JO,M3,MK Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling.

PATH OF EXPRESSION

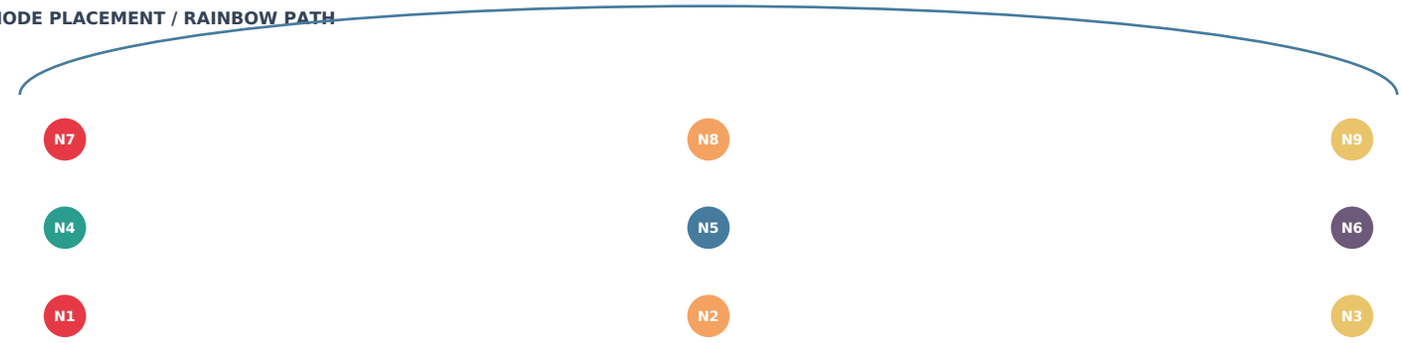
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_F_065_Spreadsheet
reference "PINK-04-P0035"
state R -> R1
node N1
representation JP(PINK-04-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 35 of 106. Chapter 16 F-065 - Spreadsheet service utilizatio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 36 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 16.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-065anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0036"
state R -> R1
node N1
representation JP(PINK-04-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 36 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 37 of 106. Chapter 17 F-066 - Spreadsheet worker require- ment Exact expression W_min=ceil(lambda_total/(rho_max*mu_worker)) Meaning. Minimumworkercountforaprecommittedutilizationceiling. Bound manifestations.JO,M3,MJOS Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spread

PATH OF EXPRESSION

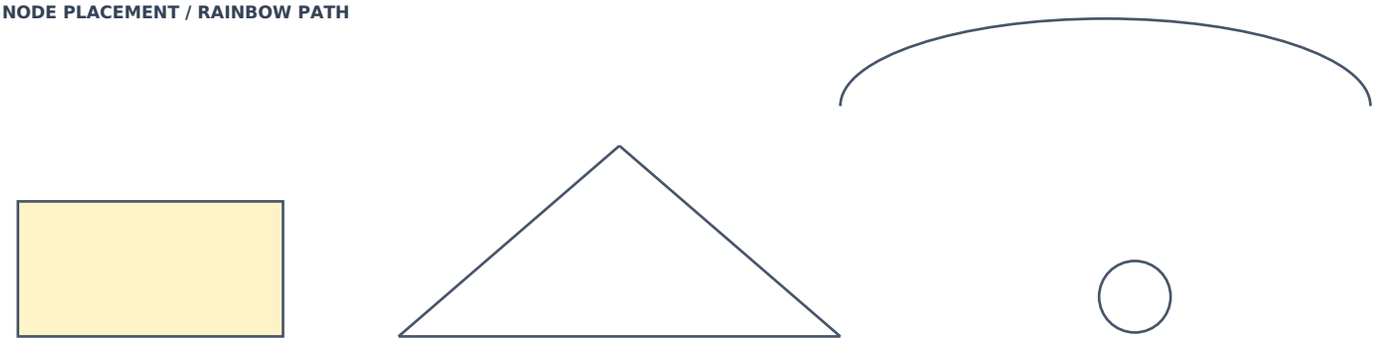
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_F_066_Spreadsheet
reference "PINK-04-P0037"
state R -> R1
node N1
representation JP(PINK-04-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 37 of 106. Chapter 17 F-066 - Spreadsheet worker require- me
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 38 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 17.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-066anditsassumptions,inputs,ou

PATH OF EXPRESSION

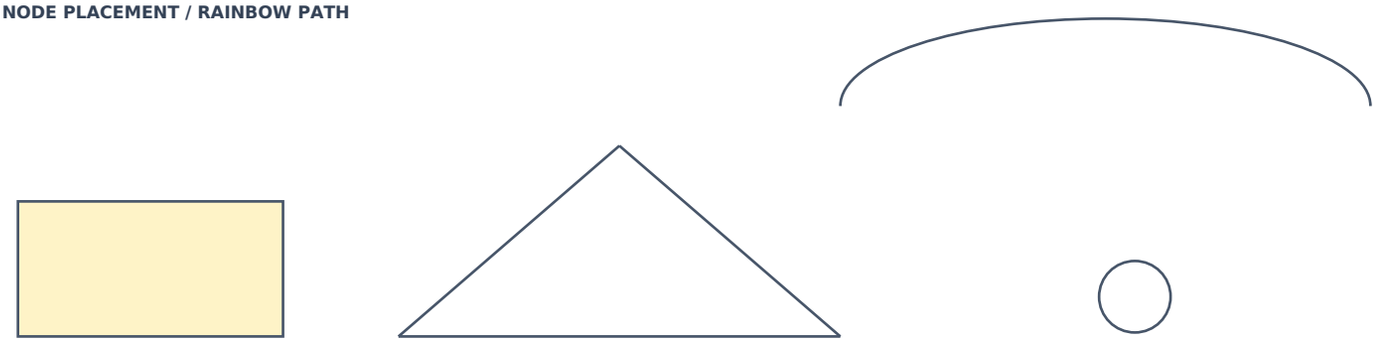
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0038"
state R -> R1
node N1
representation JP(PINK-04-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 38 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 39 of 106. Chapter 18 F-067 - Recalculation latency Exact expression T_recalc=T_parse+T_dependency+max_p(T_partition,p)+T_commit Meaning. End-to-endrecalculationlatencyacrosslogicalPearlsimulationpartitions. Bound manifestations.MK,JO,M3 Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.P

PATH OF EXPRESSION

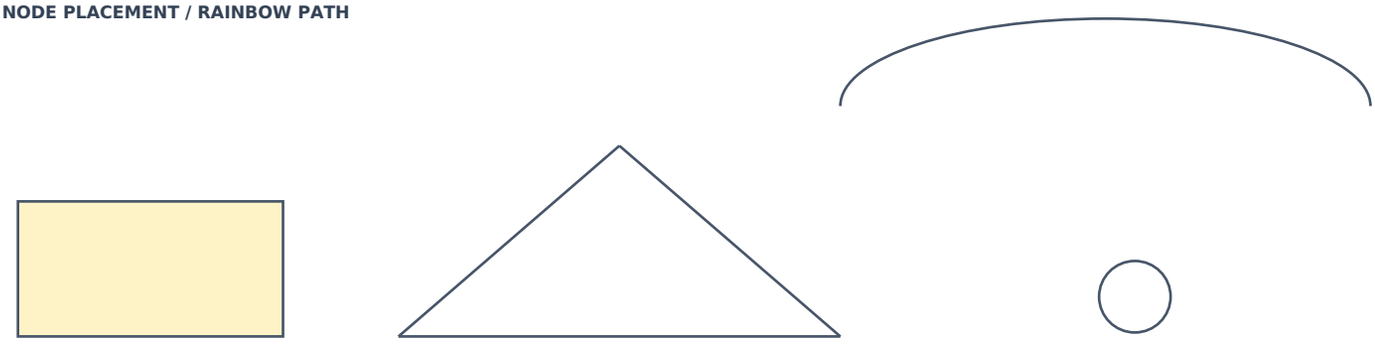
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_F_067_Recalculati
reference "PINK-04-P0039"
state R -> R1
node N1
representation JP(PINK-04-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 39 of 106. Chapter 18 F-067 - Recalculation latency Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 40 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 18.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-067anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0040"
state R -> R1
node N1
representation JP(PINK-04-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 40 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 41 of 106. Chapter 19 F-068 - Spreadsheet data cost Exact expression C_data=B_store*c_store+B_transfer*c_transfer+t_cpu*c_cpu Meaning. Storage,transfer,andcomputecostremainseparatelyevidencedbeforeaggregation. Bound manifestations.MERMAID,SHIVA,MK,JO Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling N

PATH OF EXPRESSION

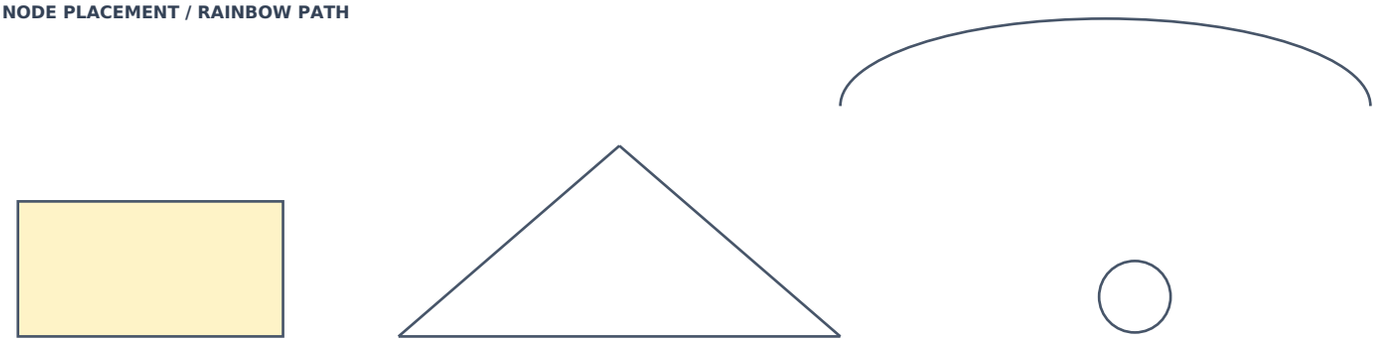
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_F_068_Spreadsheet
reference "PINK-04-P0041"
state R -> R1
node N1
representation JP(PINK-04-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 41 of 106. Chapter 19 F-068 - Spreadsheet data cost Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 42 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 19.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-068anditsassumptions,inputs,ou

PATH OF EXPRESSION

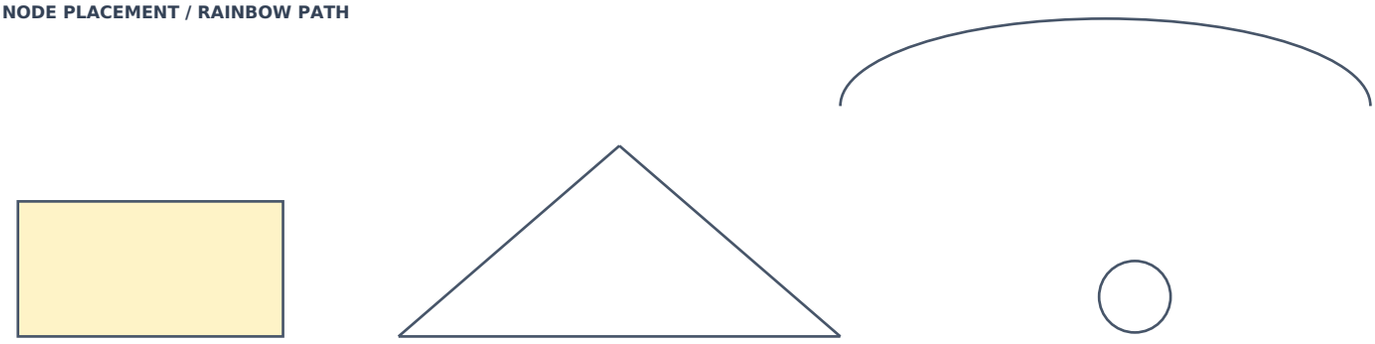
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0042"
state R -> R1
node N1
representation JP(PINK-04-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 42 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 43 of 106. Chapter 20 F-069 - Pearl simulation partition objec- tive Exact expression J_partition=alpha*max_p(L_p)+beta*sum_cut(w_e)+gamma*R_breach+delta*R_stale Meaning. Logicalpartitionobjectivewithprecommittedweights; breachtermissimulationrisk, not physicalcontainment. Bound manifestations.JP,MK,JO,SISTER Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module

PATH OF EXPRESSION

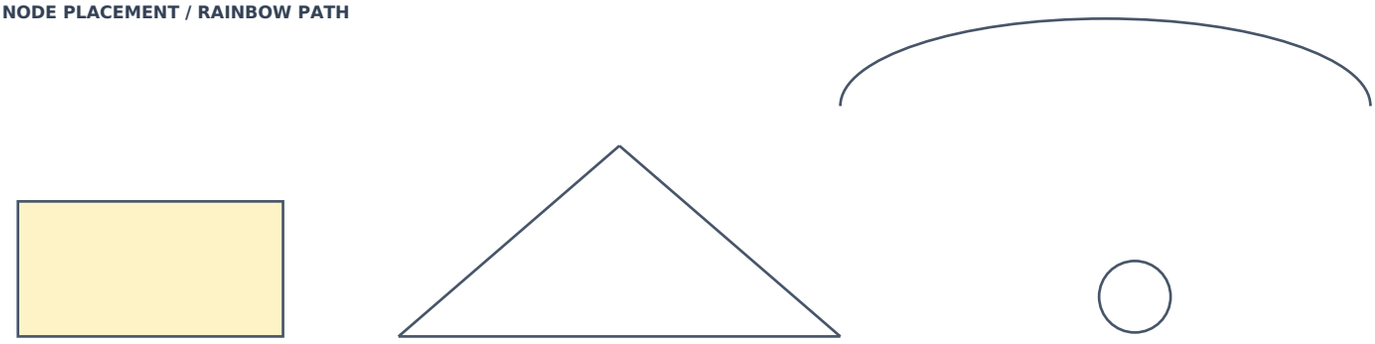
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_F_069_Pearl_simul
reference "PINK-04-P0043"
state R -> R1
node N1
representation JP(PINK-04-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 43 of 106. Chapter 20 F-069 - Pearl simulation partition obj
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 44 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 } 20.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-069anditsassumptions,inputs,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0044"
state R -> R1
node N1
representation JP(PINK-04-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 44 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 45 of 106. Chapter 21 F-070 - Sheet revision root Exact expression H_rev=SHA256(parent_root||canonical_deltas||policy_epoch) Meaning. Everycommittedchangecreatesimmutablecontent-addressedlineage. Bound manifestations.Bangel ,JP,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBME

PATH OF EXPRESSION

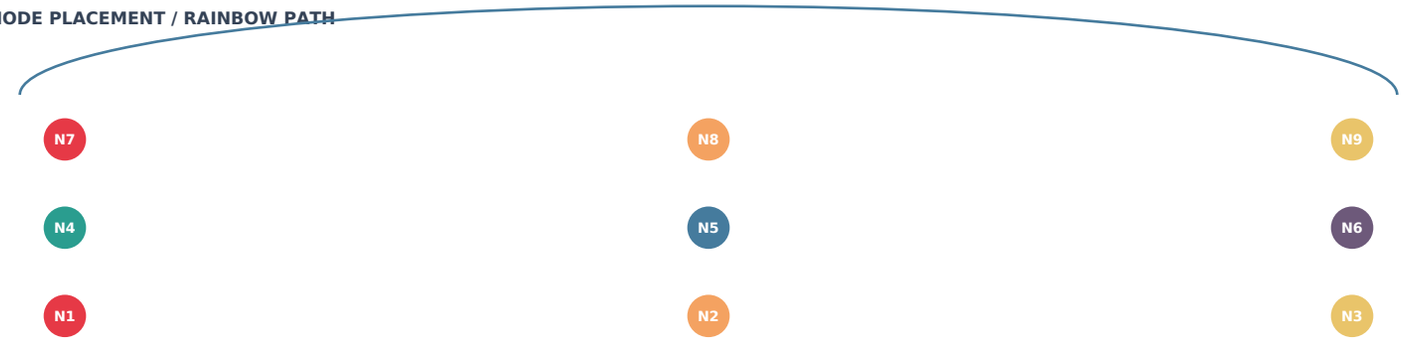
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_F_070_Sheet_revis
reference "PINK-04-P0045"
state R -> R1
node N1
representation JP(PINK-04-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 45 of 106. Chapter 21 F-070 - Sheet revision root Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 46 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 21.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-070anditsassumptions,inputs,ou

PATH OF EXPRESSION

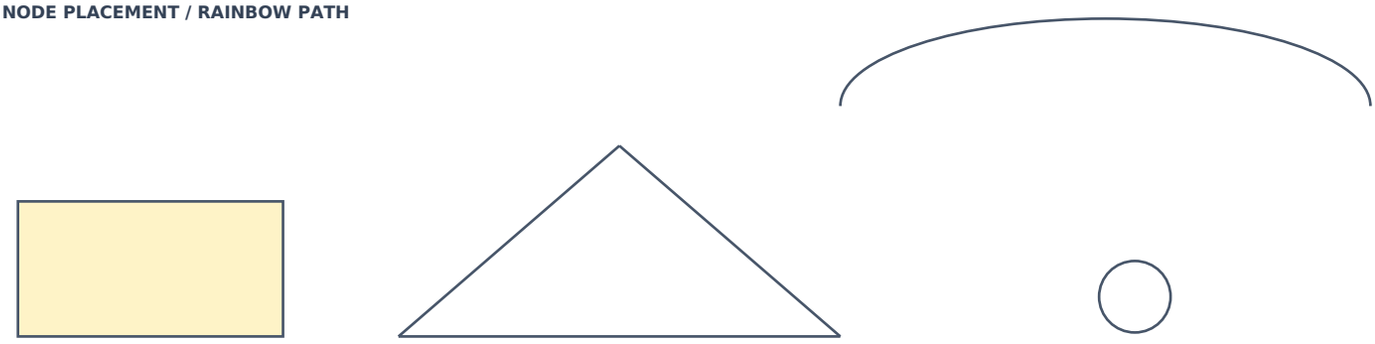
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0046"
state R -> R1
node N1
representation JP(PINK-04-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 46 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 47 of 106. Chapter 22 F-071 - Audit-particle completeness Exact expression AuditPass=AND(required_fields_present,receipts_valid) Meaning. Acriticalspreadsheetcommandfailsclosedwhenitsauditparticleisincomplete. Bound manifestations.JO,ANGELS,BELLATRIX,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scal

PATH OF EXPRESSION

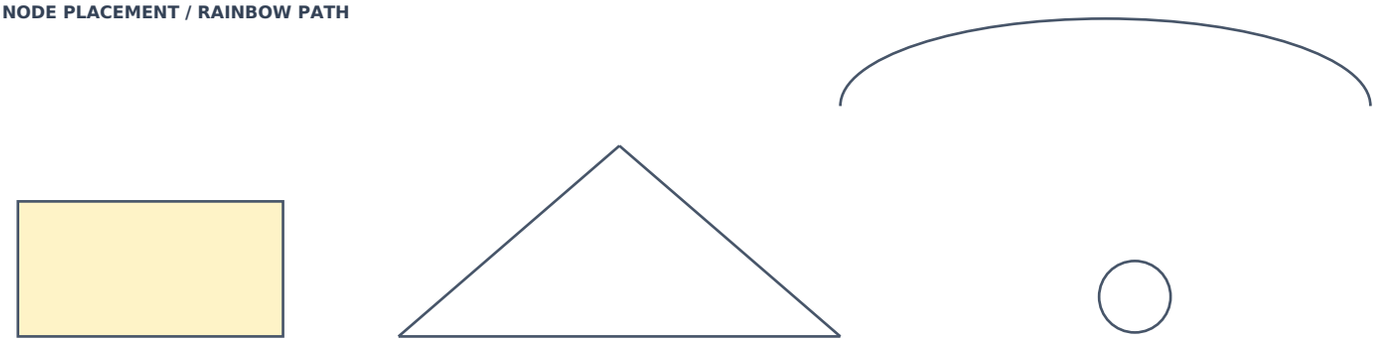
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_F_071_Audit_parti
reference "PINK-04-P0047"
state R -> R1
node N1
representation JP(PINK-04-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 47 of 106. Chapter 22 F-071 - Audit-particle completeness Ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 48 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 22.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-071anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0048"
state R -> R1
node N1
representation JP(PINK-04-P0048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 48 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 49 of 106. Chapter 23 F-072 - Iterative recalculation stability Exact expression spectral_radius(J_F)<1 Meaning. Declarediterativeformulasrequireanevidencedlocallystablefixed-pointregime. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheet

PATH OF EXPRESSION

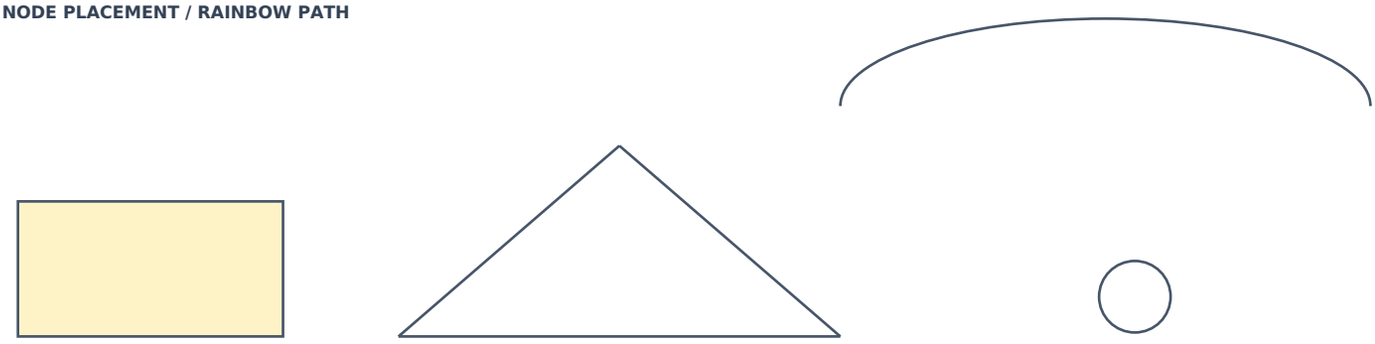
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_F_072_Iterative_r
reference "PINK-04-P0049"
state R -> R1
node N1
representation JP(PINK-04-P0049)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 49 of 106. Chapter 23 F-072 - Iterative recalculation stabil
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 50 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 23.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-072anditsassumptions,inputs,ou

PATH OF EXPRESSION

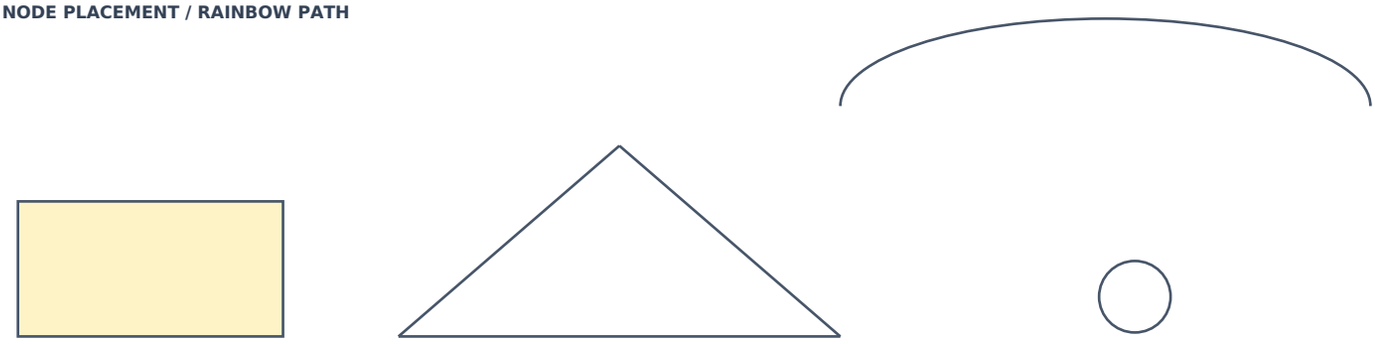
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0050"
state R -> R1
node N1
representation JP(PINK-04-P0050)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 50 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 51 of 106. Chapter 24 F-073 - Revision conflict gate Exact expression base_revision=head_revision OR valid_merge_receipt Meaning. Stalewritescannotsilentlyoverwriteanewerrevision. Bound manifestations.Bangel ,JO,ANGELS Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheet

PATH OF EXPRESSION

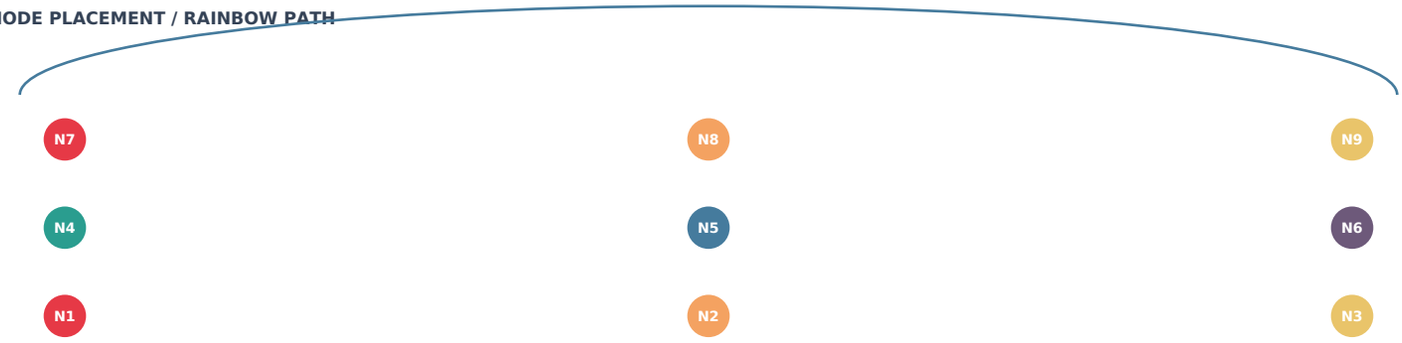
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_F_073_Revision_co
reference "PINK-04-P0051"
state R -> R1
node N1
representation JP(PINK-04-P0051)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 51 of 106. Chapter 24 F-073 - Revision conflict gate Exact e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 52 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 24.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-073anditsassumptions,inputs,ou

PATH OF EXPRESSION

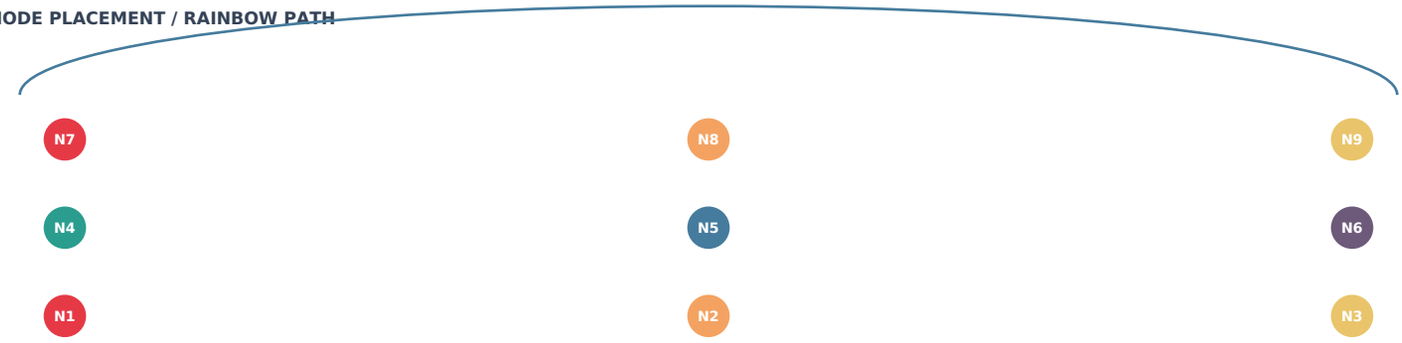
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0052"
state R -> R1
node N1
representation JP(PINK-04-P0052)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 52 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 53 of 106. Chapter 25 F-074 - Freshness age Exact expression Age=now-observed_at Meaning. Ageofasourceobservationorderivedcell. Bound manifestations.JO,MK,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling.F_074 Import MJ.PBMEF.Manifest,MJ.P

PATH OF EXPRESSION

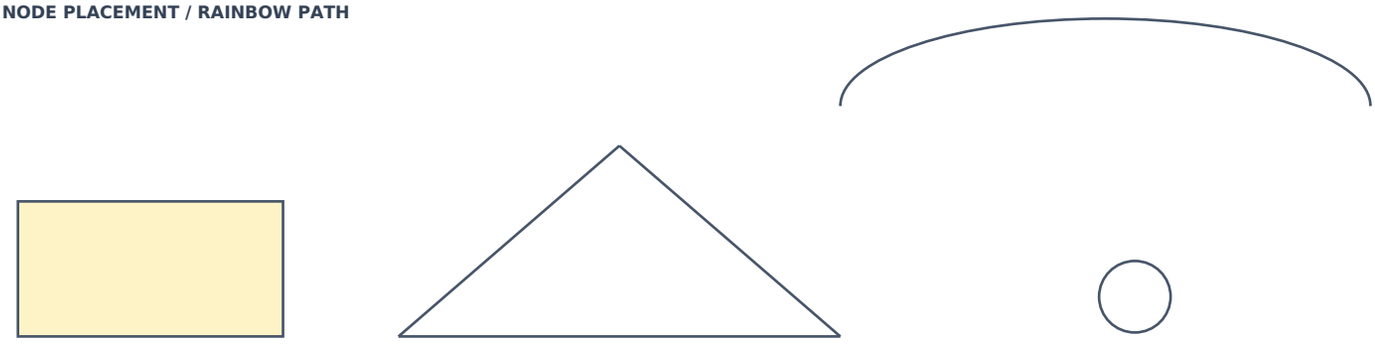
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_F_074_Freshness_a
reference "PINK-04-P0053"
state R -> R1
node N1
representation JP(PINK-04-P0053)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 53 of 106. Chapter 25 F-074 - Freshness age Exact expression
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 54 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 25.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-074anditsassumptions,inputs,ou

PATH OF EXPRESSION

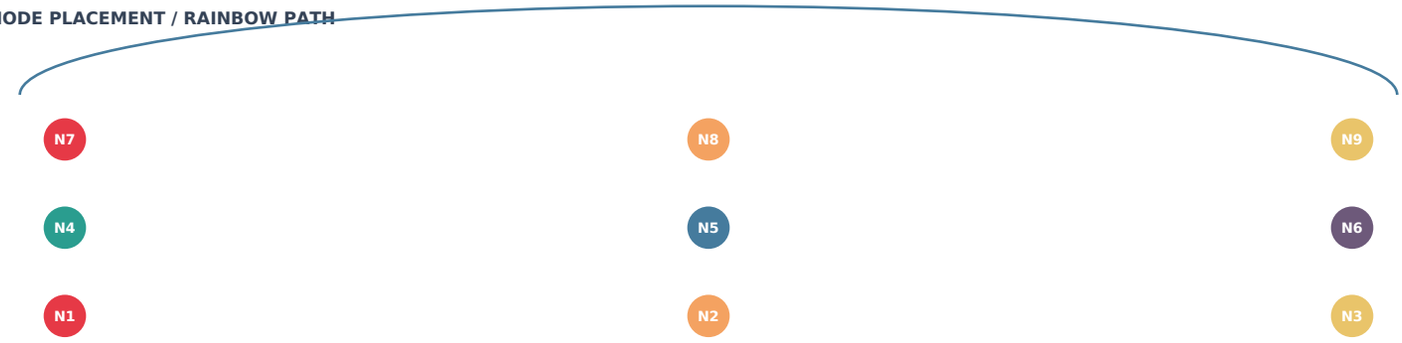
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0054"
state R -> R1
node N1
representation JP(PINK-04-P0054)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 54 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 55 of 106. Chapter 26 F-075 - Staleness gate Exact expression Age<=freshness_limit Meaning. Acelliscurrentonlyinsideitsdeclaredfreshnesspolicy. Bound manifestations.JO,ANGELS,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling.F_075 Import M

PATH OF EXPRESSION

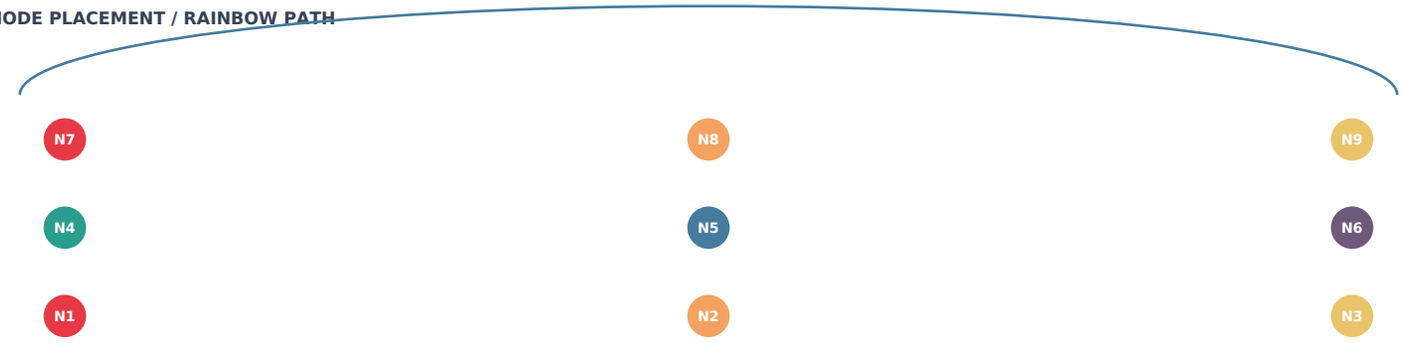
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_F_075_Staleness_g
reference "PINK-04-P0055"
state R -> R1
node N1
representation JP(PINK-04-P0055)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 55 of 106. Chapter 26 F-075 - Staleness gate Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 56 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 26.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-075anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0056"
state R -> R1
node N1
representation JP(PINK-04-P0056)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 56 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 57 of 106. Chapter 27 F-076 - Data-performance correlation Exact expression r_xy=Cov(X,Y)/(sigma_x*sigma_y) Meaning. Descriptivecorrelationbetweendatacharacteristicsandperformance;notacausalclaim. Bound manifestations.MK,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.dena

PATH OF EXPRESSION

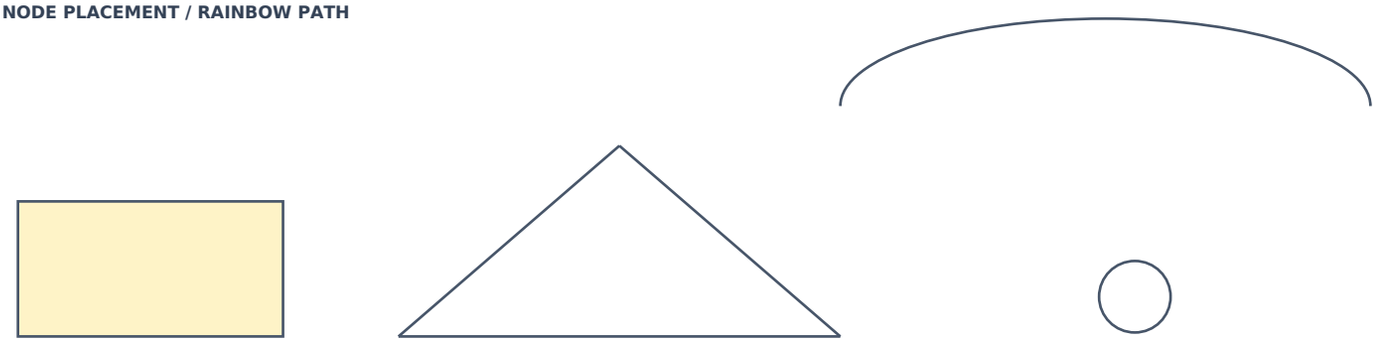
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_F_076_Data_perfor
reference "PINK-04-P0057"
state R -> R1
node N1
representation JP(PINK-04-P0057)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 57 of 106. Chapter 27 F-076 - Data-performance correlation E
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 58 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 27.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-076anditsassumptions,inputs,ou

PATH OF EXPRESSION

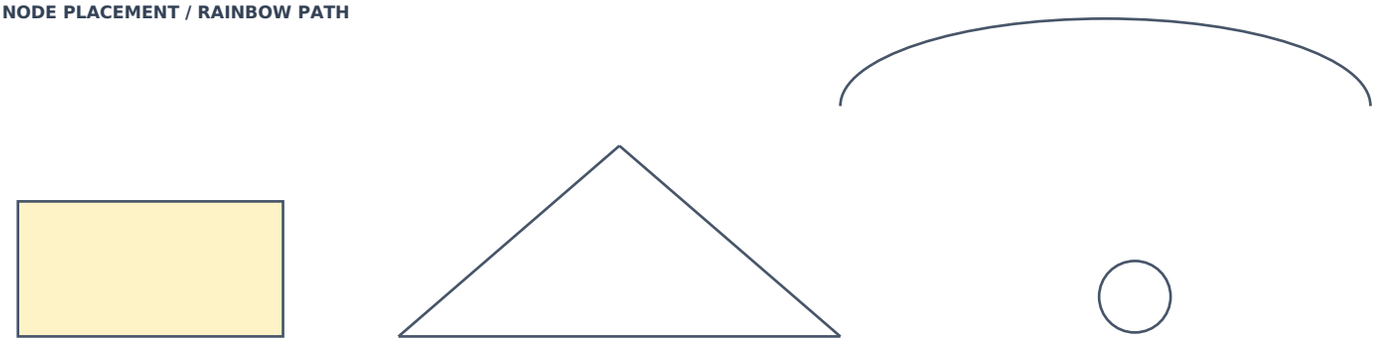
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0058"
state R -> R1
node N1
representation JP(PINK-04-P0058)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 58 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 59 of 106. Chapter 28 F-077 - Silo unification gate Exact expression UnifiedMetric=SameMeaning AND SameUnit AND SamePeriod AND SameAuthority AND SameLineage Meaning. Departmentalsourcesunifyonlywhensemantic,unit,period,authority,andlineageconditionsagree. Bound manifestations.ELSA,JP,JO,MERMAID Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PB

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_F_077_Silo_unific
reference "PINK-04-P0059"
state R -> R1
node N1
representation JP(PINK-04-P0059)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 59 of 106. Chapter 28 F-077 - Silo unification gate Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 60 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 28.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-077anditsassumptions,inputs,ou

PATH OF EXPRESSION

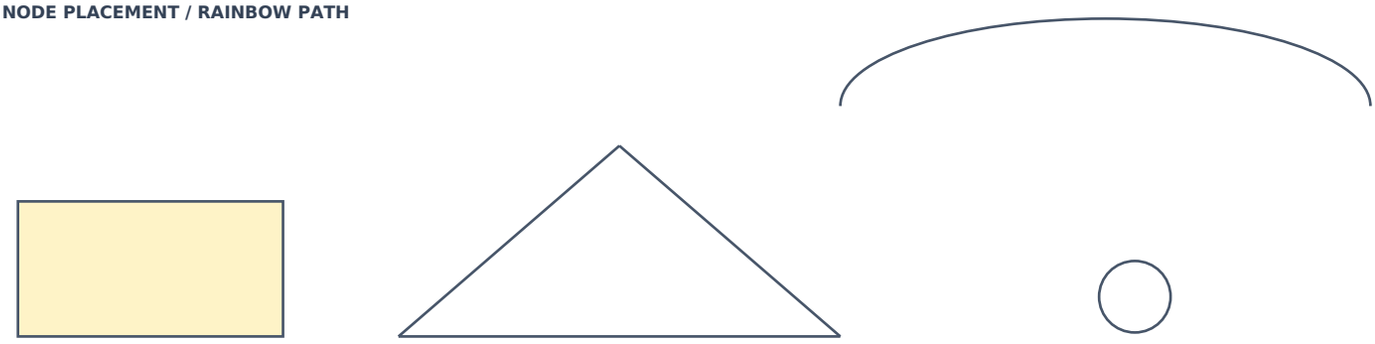
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0060"
state R -> R1
node N1
representation JP(PINK-04-P0060)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 60 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 61 of 106. Chapter 29 F-078 - Formula verification residual Exact expression r_formula=y_reported-y_recomputed Meaning. Silentformulacorruptionisdetectedbyindependentdeterministicrecomputation. Bound manifestations.JO,MK,ANGELS Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.Bangel.spreadsheets.algorithms_scaling Namespace MJ.PBMEF.Bangel.s

PATH OF EXPRESSION

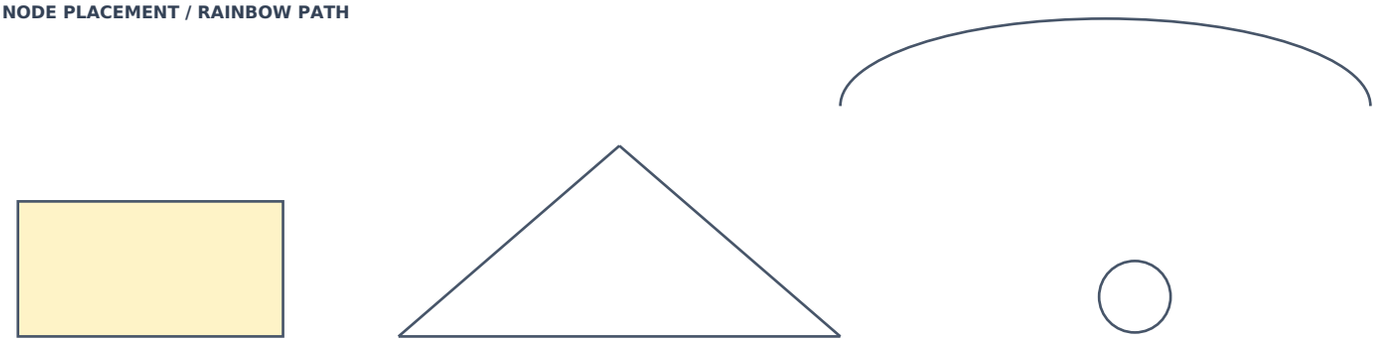
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_F_078_Formula_ver
reference "PINK-04-P0061"
state R -> R1
node N1
representation JP(PINK-04-P0061)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 61 of 106. Chapter 29 F-078 - Formula verification residual
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 62 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 29.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-078anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0062"
state R -> R1
node N1
representation JP(PINK-04-P0062)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 62 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 63 of 106. Chapter 30 F-079 - Operational intake complete- ness Exact expression IntakePass=process_defined AND users_known AND workload_known AND SLA_known AND authority_known Meaning. Scalingworkbeginsonlyaftertheprocess,concurrency,workload,servicetarget,andau-thorityareexplicit. Bound manifestations.Bangel ,ELSA,JP,JO,MJ Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-spe

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_F_079_Operational
reference "PINK-04-P0063"
state R -> R1
node N1
representation JP(PINK-04-P0063)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 63 of 106. Chapter 30 F-079 - Operational intake complete- n
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 64 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 output JO.receipt(PASS | HOLD | FAIL_TECHNICAL | DENY) } 30.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:

PATH OF EXPRESSION

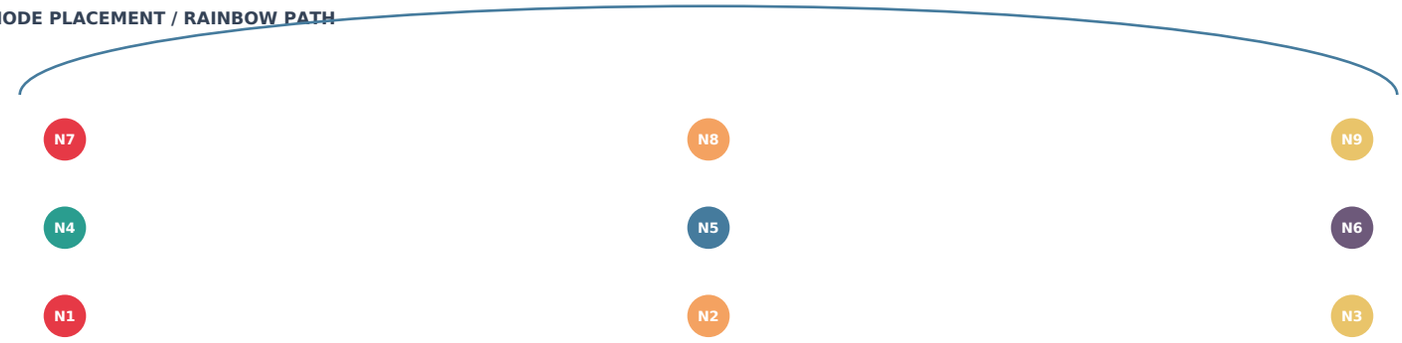
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0064"
state R -> R1
node N1
representation JP(PINK-04-P0064)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 64 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 65 of 106. Chapter 31 F-080 - Spreadsheet capacity gate Exact expression lambda_total<=rho_max*sum_p(mu_p) AND memory_required<=memory_available AND cross_partition_edges<=cut_limit↪ Meaning. Admissionrequiresthroughput,memory,andpartition-boundarycapacitytopasstogether. Bound manifestations.MK,JO,M3,SISTER,MJOS Gateway stage.Bangel.beginworkbookdeclaration,JPmodel,MKcost,JOdeterministicexecution Construct Formula-specific expr

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_31_F_080_Spreadsheet
reference "PINK-04-P0065"
state R -> R1
node N1
representation JP(PINK-04-P0065)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 65 of 106. Chapter 31 F-080 - Spreadsheet capacity gate Exac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 66 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 31.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-080anditsassumptions,inputs,ou

PATH OF EXPRESSION

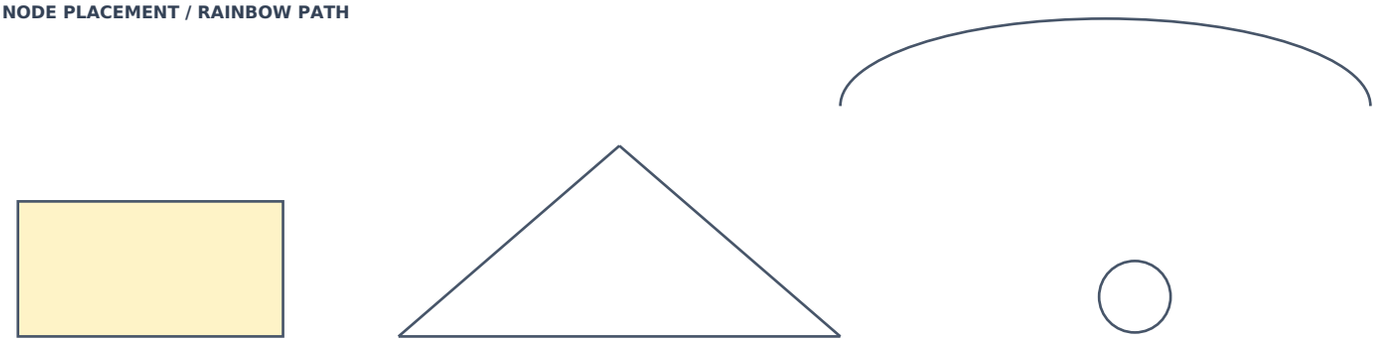
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0066"
state R -> R1
node N1
representation JP(PINK-04-P0066)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 66 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 67 of 106. Chapter 32 F-081 - First-noise rectangle height Exact expression H_R=h_noise,1 Meaning. Rectanglemaximumheightisthefirstvalidatednoise-detectionplane. Bound manifestations.SISTER,MK,JO Gateway stage.R1predictionandnormal-constellationcalibrationbeforeN1 Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_081 Import MJ.PBMEF.Man

PATH OF EXPRESSION

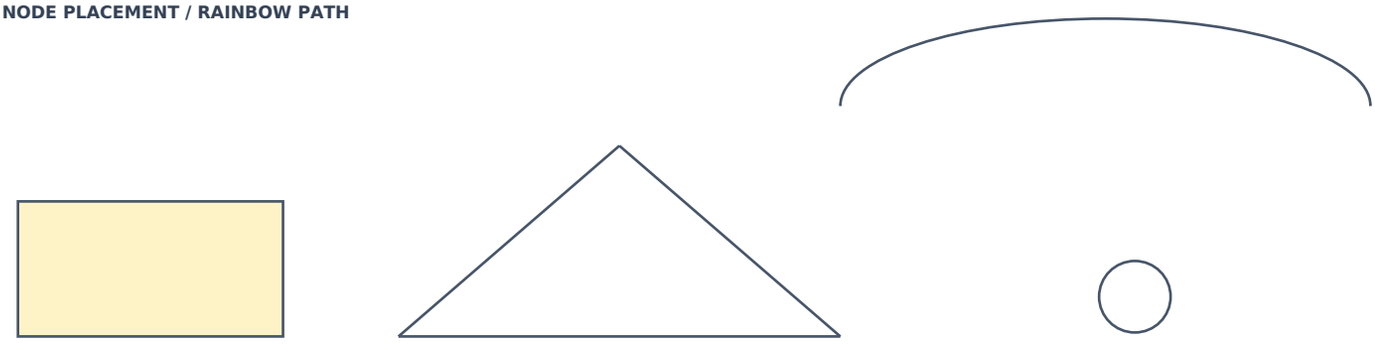
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_32_F_081_First_noise
reference "PINK-04-P0067"
state R -> R1
node N1
representation JP(PINK-04-P0067)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 67 of 106. Chapter 32 F-081 - First-noise rectangle height E
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 68 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 32.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-081anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0068"
state R -> R1
node N1
representation JP(PINK-04-P0068)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 68 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 69 of 106. Chapter 33 F-082 - Reference gas density Exact expression rho_g=P*M/(Z*R*T) Meaning. Actualgasdensitydependsonmeasuredpressure,temperature,molarmass,andcompressibility. Bound manifestations.MK,JO,JP Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_082 Impo

PATH OF EXPRESSION

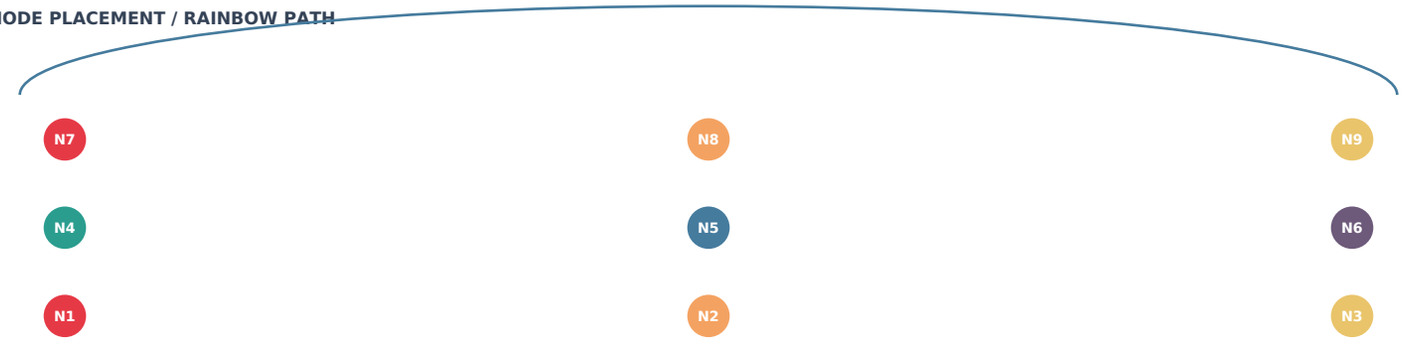
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_33_F_082_Reference_g
reference "PINK-04-P0069"
state R -> R1
node N1
representation JP(PINK-04-P0069)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 69 of 106. Chapter 33 F-082 - Reference gas density Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 70 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 33.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-082anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0070"
state R -> R1
node N1
representation JP(PINK-04-P0070)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 70 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 71 of 106. Chapter 34 F-083 - 24 mg reference volume Exact expression V_24=m_24/rho_ref Meaning. 24mgdefinesareferencegasvolumeunderadeclaredstateanddoesnotreplacethe23mg floor. Bound manifestations.JP,MK,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_083 Import M

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_34_F_083_24_mg_refer
reference "PINK-04-P0071"
state R -> R1
node N1
representation JP(PINK-04-P0071)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 71 of 106. Chapter 34 F-083 - 24 mg reference volume Exact e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 72 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 34.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-083anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0072"
state R -> R1
node N1
representation JP(PINK-04-P0072)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 72 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 73 of 106. Chapter 35 F-084 - Rectangle depth Exact expression D_R=V_24/(W_R*H_R) Meaning. Referencedepthadaptstomeasuredheightanddeclaredwidth. Bound manifestations.SISTER,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_084 Import MJ.PBMEF.Manife

PATH OF EXPRESSION

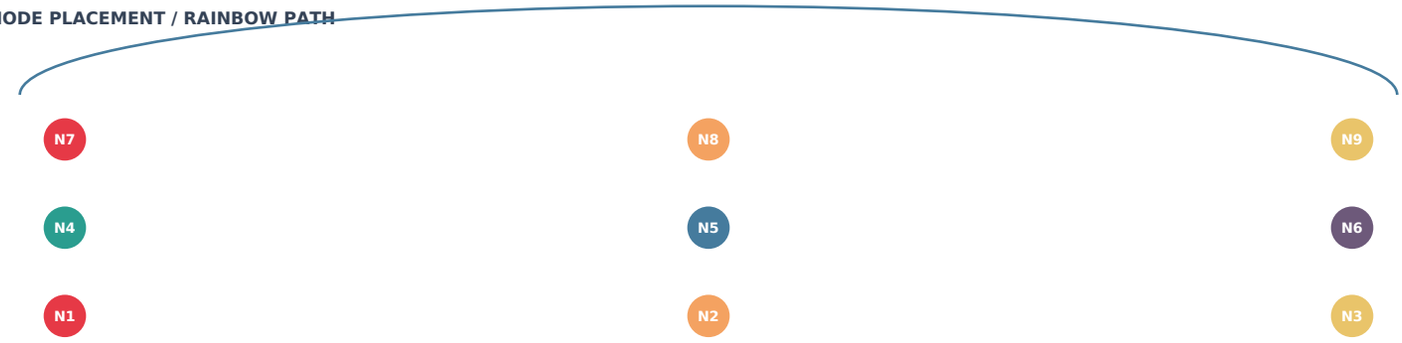
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_35_F_084_Rectangle_d
reference "PINK-04-P0073"
state R -> R1
node N1
representation JP(PINK-04-P0073)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 73 of 106. Chapter 35 F-084 - Rectangle depth Exact expressi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 74 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 35.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-084anditsassumptions,inputs,ou

PATH OF EXPRESSION

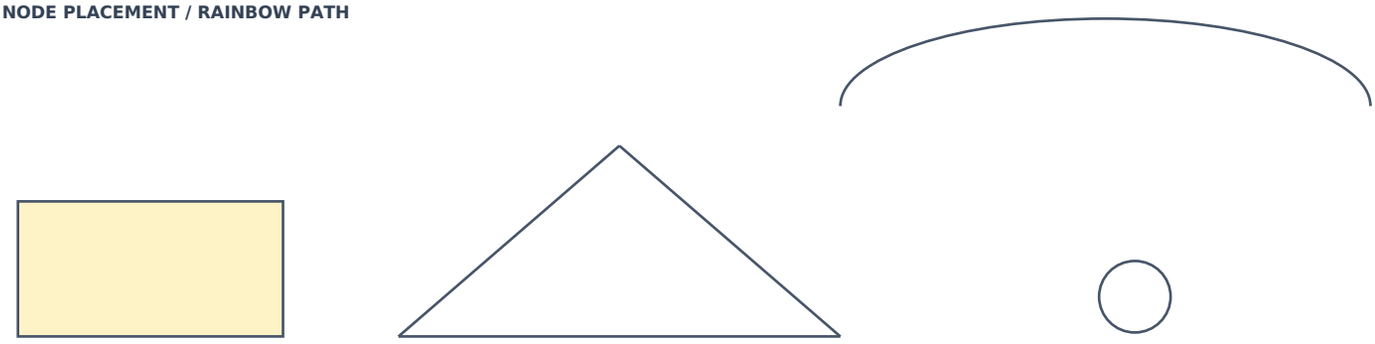
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0074"
state R -> R1
node N1
representation JP(PINK-04-P0074)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 74 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 75 of 106. Chapter 36 F-085 - Cone height ratio Exact expression H_C=k_H*H_R; k_H,std=2 Meaning. Standardconeheightistwicerectangleheight. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_085 Import MJ.PBMEF.Manifest,MJ.PBME

PATH OF EXPRESSION

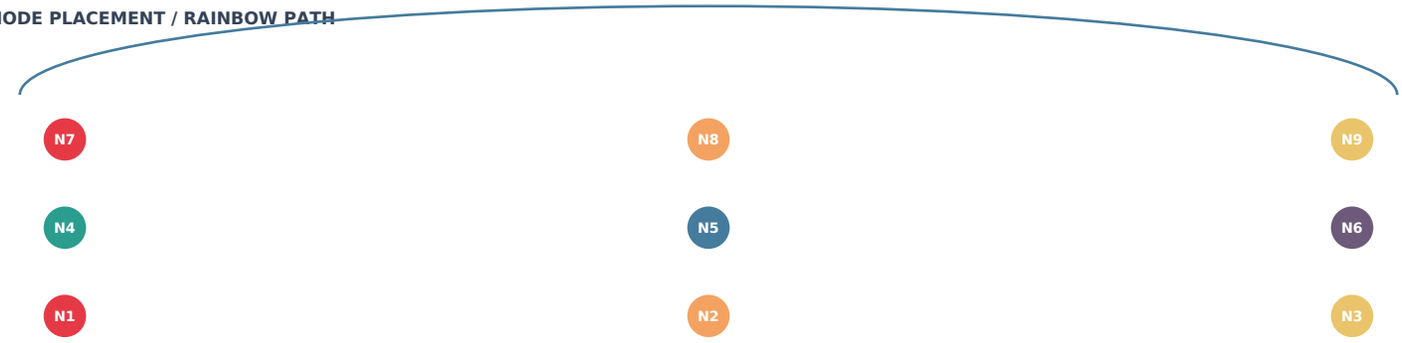
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_36_F_085_Cone_height
reference "PINK-04-P0075"
state R -> R1
node N1
representation JP(PINK-04-P0075)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 75 of 106. Chapter 36 F-085 - Cone height ratio Exact expres
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 76 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 36.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-085anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0076"
state R -> R1
node N1
representation JP(PINK-04-P0076)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 76 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 77 of 106. Chapter 37 F-086 - Cone top-width ratio Exact expression W_T=k_W*W_B; k_W,std=2 Meaning. Standardtopcharacteristicwidthistwicebottomwidth. Bound manifestations.JP,MK,JO Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_086 Import MJ.PBMEF.Manif

PATH OF EXPRESSION

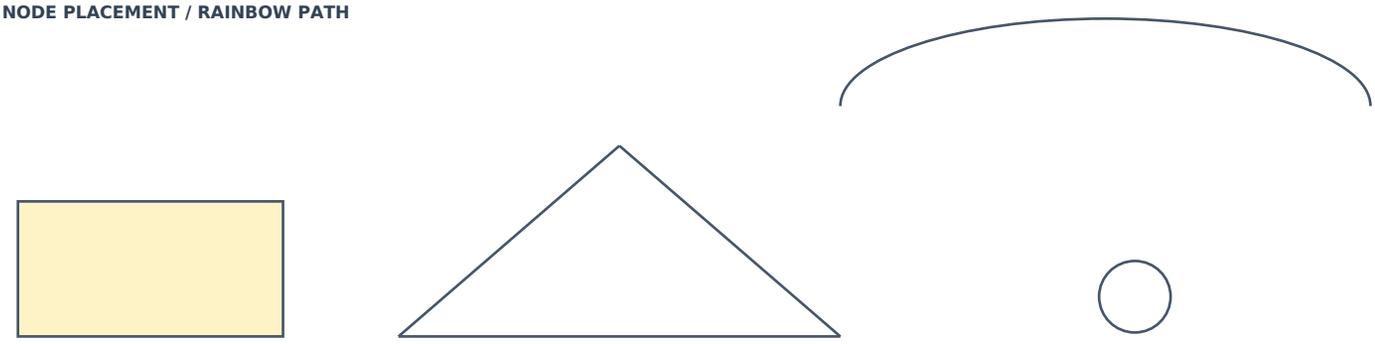
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_37_F_086_Cone_top_wi
reference "PINK-04-P0077"
state R -> R1
node N1
representation JP(PINK-04-P0077)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 77 of 106. Chapter 37 F-086 - Cone top-width ratio Exact exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 78 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 37.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-086anditsassumptions,inputs,ou

PATH OF EXPRESSION

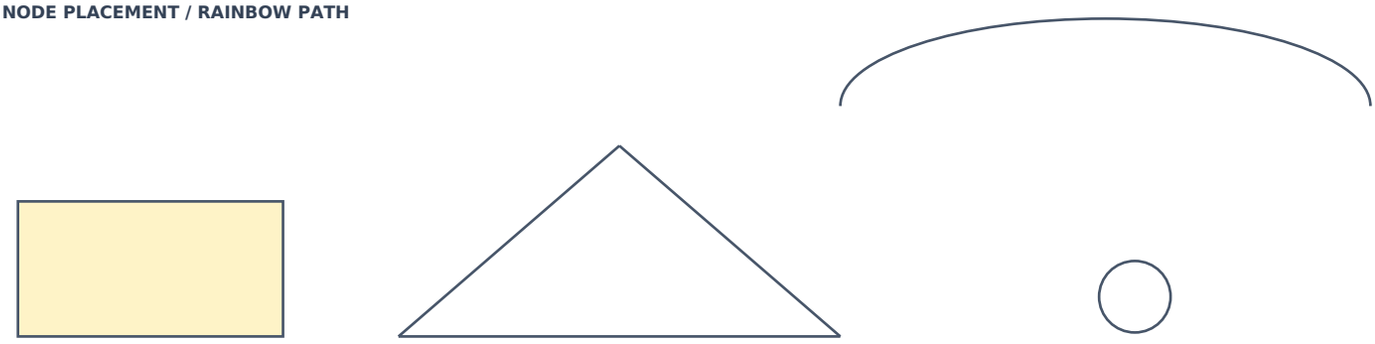
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0078"
state R -> R1
node N1
representation JP(PINK-04-P0078)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 78 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 79 of 106. Chapter 38 F-087 - Cone area by height Exact expression A(z)=A_B*(1+(k_W-1)*z/H_C)^2 Meaning. Similar-sectionconicalexpansionarea. Bound manifestations.MK,JO,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_087 Import MJ.PBMEF.Manifest,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_38_F_087_Cone_area_b
reference "PINK-04-P0079"
state R -> R1
node N1
representation JP(PINK-04-P0079)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 79 of 106. Chapter 38 F-087 - Cone area by height Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 80 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 38.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-087anditsassumptions,inputs,ou

PATH OF EXPRESSION

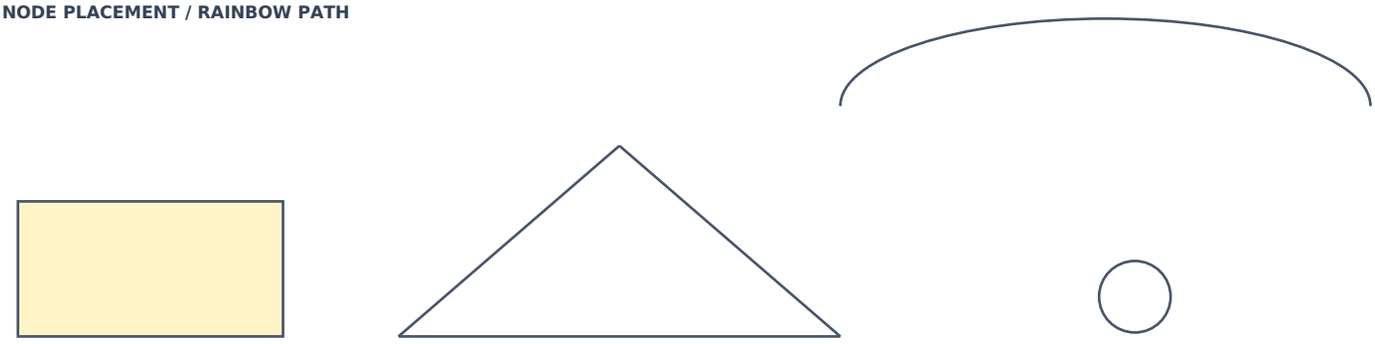
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0080"
state R -> R1
node N1
representation JP(PINK-04-P0080)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 80 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 81 of 106. Chapter 39 F-088 - Cone partial volume Exact expression V_C(z)=A_B*(z+(k_W-1)z^2/H_C+(k_W-1)^2*z^3/(3H_C^2)) Meaning. Volumeuptoobservedgasheight. Bound manifestations.MK,JO,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_088 Import MJ

PATH OF EXPRESSION

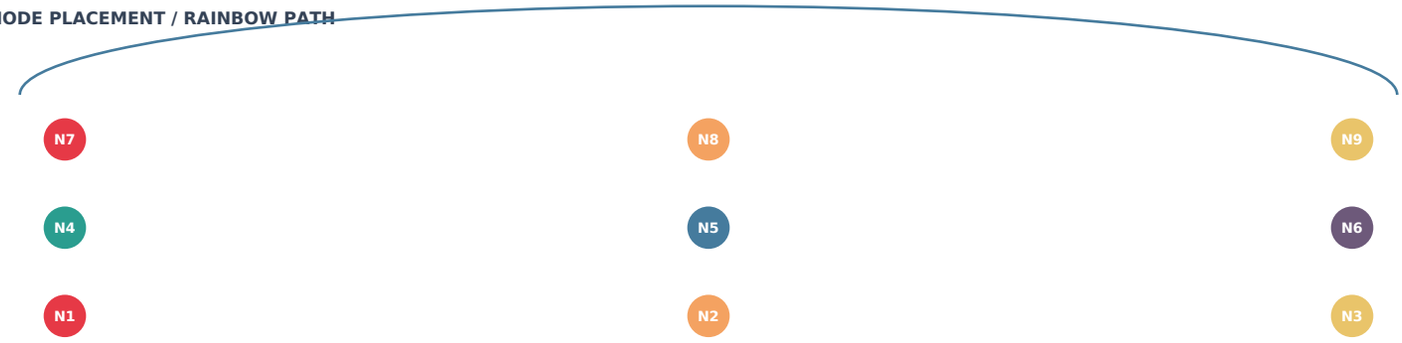
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_39_F_088_Cone_partia
reference "PINK-04-P0081"
state R -> R1
node N1
representation JP(PINK-04-P0081)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 81 of 106. Chapter 39 F-088 - Cone partial volume Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 82 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 39.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-088anditsassumptions,inputs,ou

PATH OF EXPRESSION

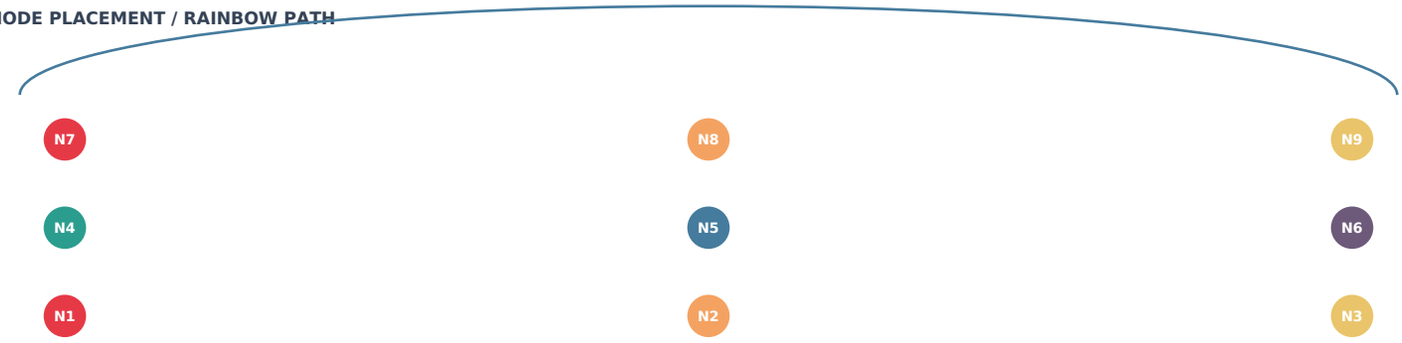
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0082"
state R -> R1
node N1
representation JP(PINK-04-P0082)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 82 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 83 of 106. Chapter 40 F-089 - Full conical-frustum volume Exact expression V_C=H_C/3*(A_B+sqrt(A_B*A_T)+A_T) Meaning. Fullconicalexpansionvolume. Bound manifestations.MK,JO,JP Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_089 Import MJ.PBMEF.Manifest,

PATH OF EXPRESSION

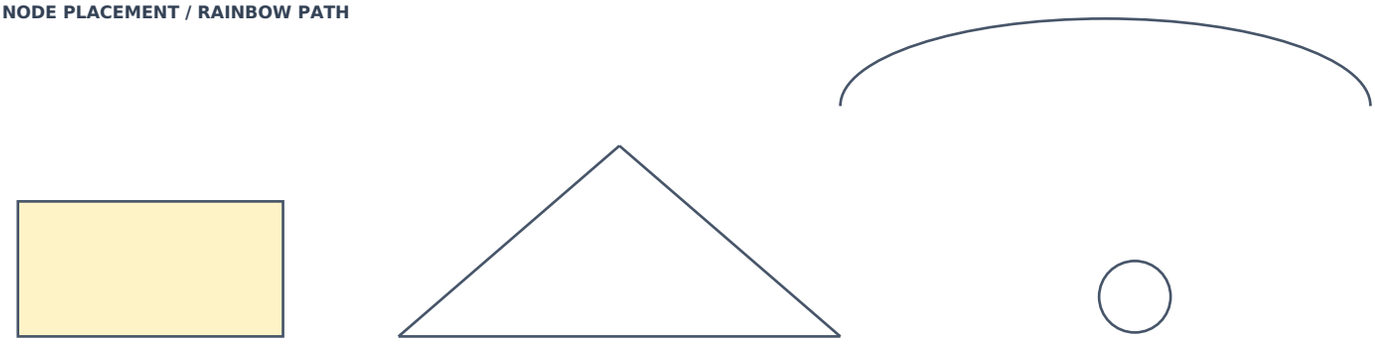
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_40_F_089_Full_conica
reference "PINK-04-P0083"
state R -> R1
node N1
representation JP(PINK-04-P0083)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 83 of 106. Chapter 40 F-089 - Full conical-frustum volume Ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics-based decision.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 84 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 40.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-089anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0084"
state R -> R1
node N1
representation JP(PINK-04-P0084)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 84 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 85 of 106. Chapter 41 F-090 - Pearl cone-top anchor Exact expression z_P0=H_R+H_C; standard=3H_R Meaning. Pearlsimulationbeginsatthetop-of-coneinformationplane. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_090 Import MJ.PBME

PATH OF EXPRESSION

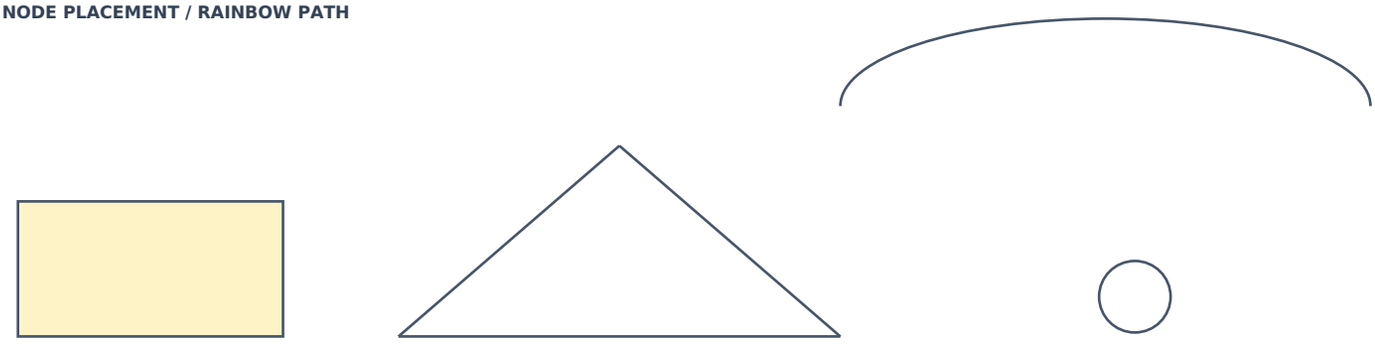
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_41_F_090_Pearl_cone_
reference "PINK-04-P0085"
state R -> R1
node N1
representation JP(PINK-04-P0085)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 85 of 106. Chapter 41 F-090 - Pearl cone-top anchor Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 86 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 41.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-090anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0086"
state R -> R1
node N1
representation JP(PINK-04-P0086)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 86 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 87 of 106. Chapter 42 F-091 - Observed gas mass Exact expression m_g=rho_g*V_C(h_g) Meaning. Gasmassfromobservedheightandstate-dependentdensity. Bound manifestations.MK,EVE,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_091 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formul

PATH OF EXPRESSION

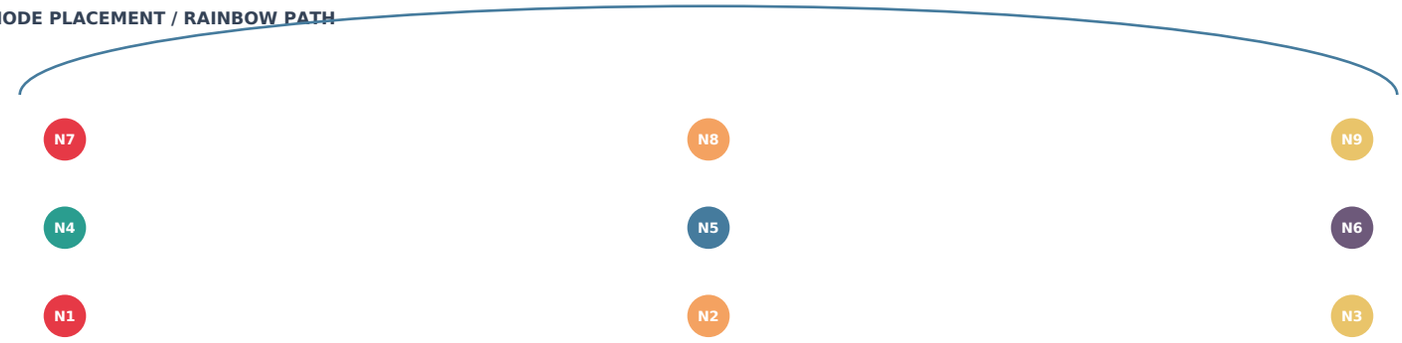
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_42_F_091_Observed_ga
reference "PINK-04-P0087"
state R -> R1
node N1
representation JP(PINK-04-P0087)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 87 of 106. Chapter 42 F-091 - Observed gas mass Exact expres
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 88 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 42.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-091anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0088"
state R -> R1
node N1
representation JP(PINK-04-P0088)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 88 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 89 of 106. Chapter 43 F-092 - Gas mass-flow from height Exact expression m_dot=rho*A(h_g)*h_dot_g+V_C(h_g)*rho_dot Meaning. Mass-flowaccountingincludesdensitychanges. Bound manifestations.MK,EVE,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_092 Import MJ.PBMEF.Ma

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_43_F_092_Gas_mass_fl
reference "PINK-04-P0089"
state R -> R1
node N1
representation JP(PINK-04-P0089)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 89 of 106. Chapter 43 F-092 - Gas mass-flow from height Exac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 90 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 43.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-092anditsassumptions,inputs,ou

PATH OF EXPRESSION

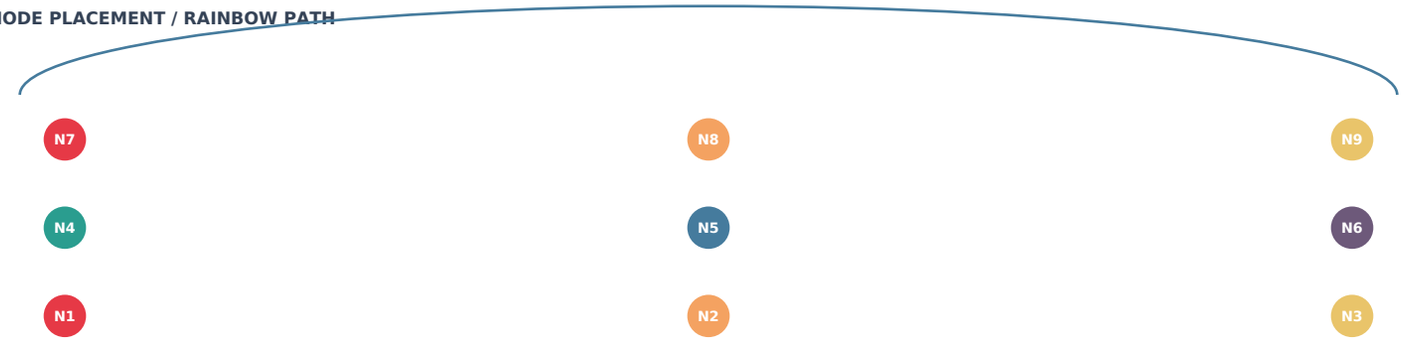
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0090"
state R -> R1
node N1
representation JP(PINK-04-P0090)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 90 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 91 of 106. Chapter 44 F-093 - Observed gas-height predictor Exact expression h_hat=clip(h+v*dt+0.5*a*dt^2,0,H_C) Meaning. Boundedpredictionofobservedgas-frontheight. Bound manifestations.SISTER,MK,JO Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_093 Import MJ.PBMEF.

PATH OF EXPRESSION

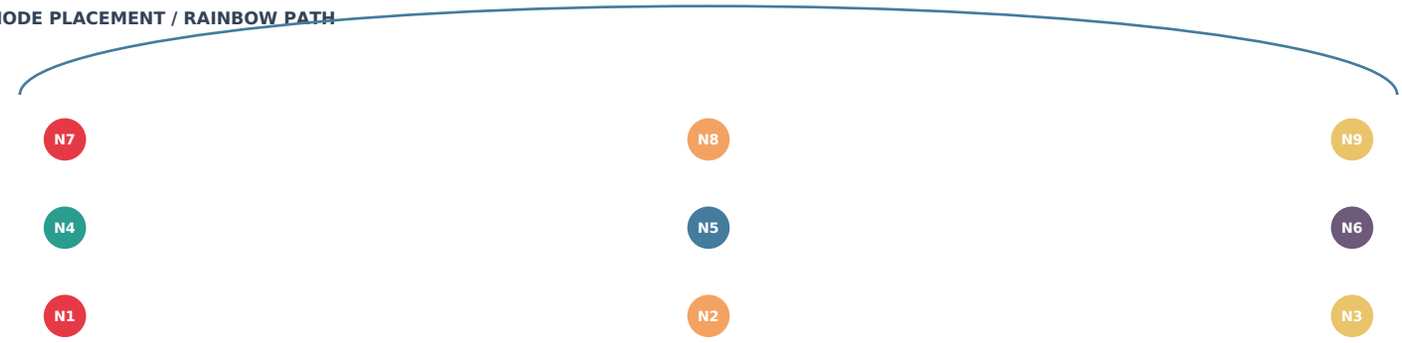
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_44_F_093_Observed_ga
reference "PINK-04-P0091"
state R -> R1
node N1
representation JP(PINK-04-P0091)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 91 of 106. Chapter 44 F-093 - Observed gas-height predictor
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 92 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 44.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-093anditsassumptions,inputs,ou

PATH OF EXPRESSION

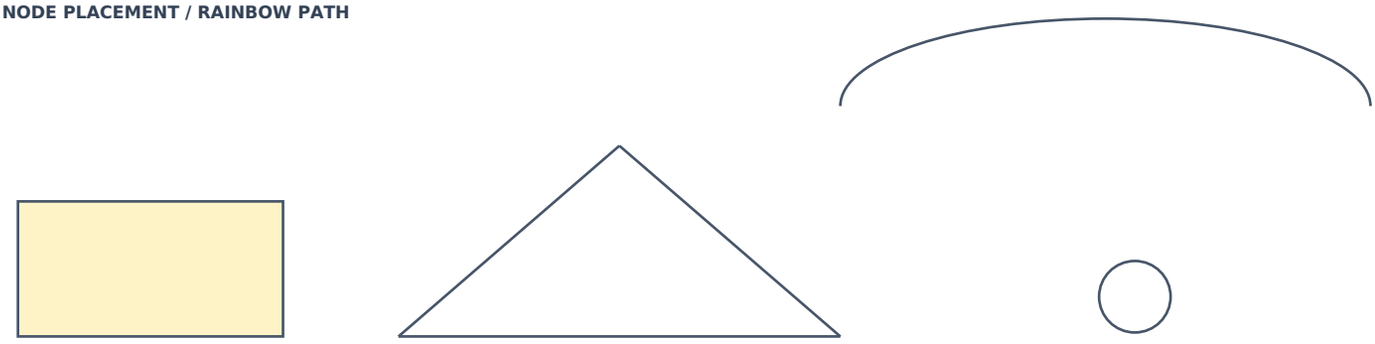
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0092"
state R -> R1
node N1
representation JP(PINK-04-P0092)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 92 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 93 of 106. Chapter 45 F-094 - Gas net-force balance Exact expression m_eff*a_z=F_b+F_p+F_act-F_d-F_wall-F_mix Meaning. Geometryalonedoesnotguaranteeacceleration. Bound manifestations.MK,JO,SISTER Gateway stage.MJ.23typedmeasurementbranchandMKphysicsclassification Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_094 Import MJ.PBMEF.Mani

PATH OF EXPRESSION

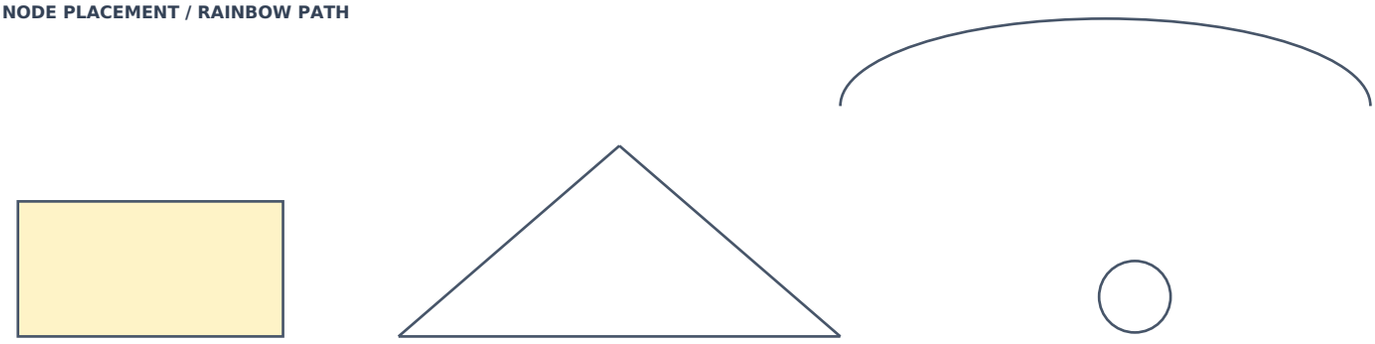
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_45_F_094_Gas_net_for
reference "PINK-04-P0093"
state R -> R1
node N1
representation JP(PINK-04-P0093)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 93 of 106. Chapter 45 F-094 - Gas net-force balance Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 94 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 45.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-094anditsassumptions,inputs,ou

PATH OF EXPRESSION

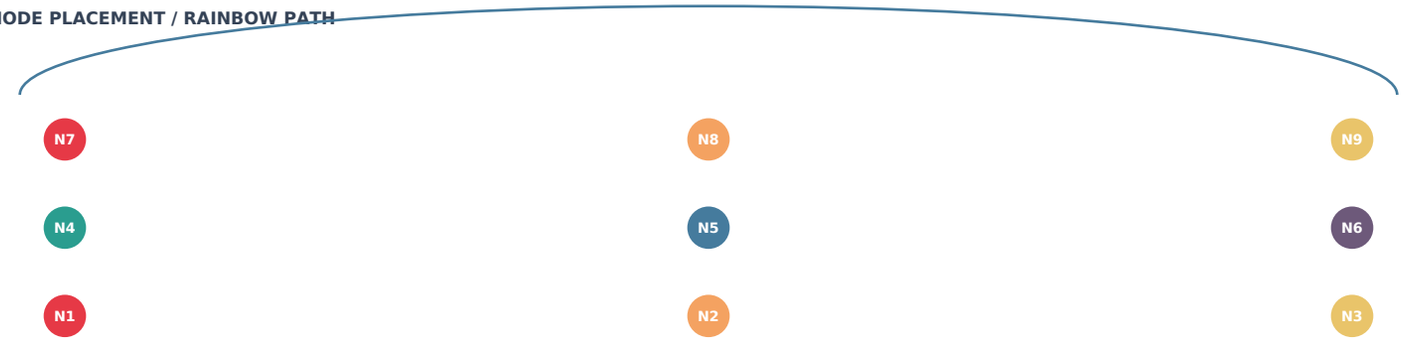
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0094"
state R -> R1
node N1
representation JP(PINK-04-P0094)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 94 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 95 of 106. Chapter 46 F-095 - Buoyancy force Exact expression F_b=(rho_ambient-rho_g)*g*V_g Meaning. Referencebuoyancytermunderdeclaredenvironment. Bound manifestations.MK,JO,EVE Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_095 Import MJ.PBMEF.Manife

PATH OF EXPRESSION

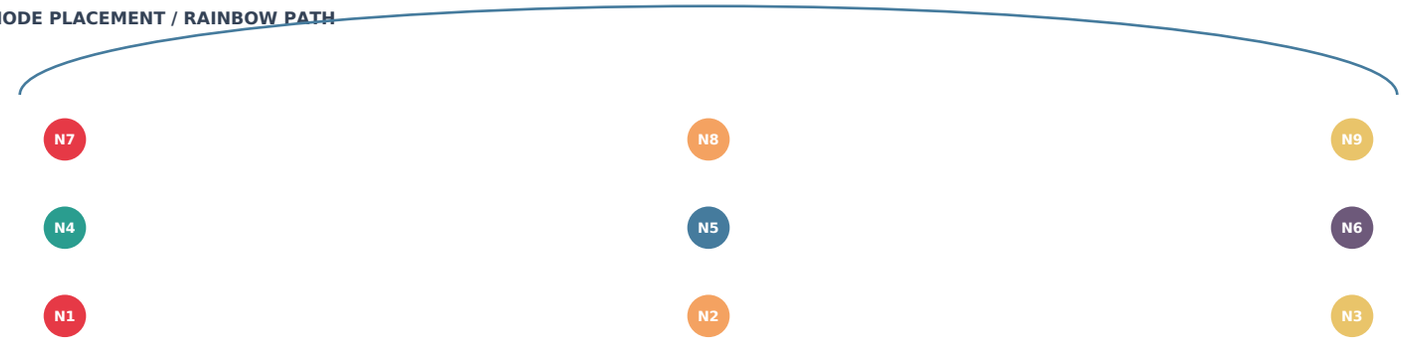
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_46_F_095_Buoyancy_fo
reference "PINK-04-P0095"
state R -> R1
node N1
representation JP(PINK-04-P0095)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 95 of 106. Chapter 46 F-095 - Buoyancy force Exact expressio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 96 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 46.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-095anditsassumptions,inputs,ou

PATH OF EXPRESSION

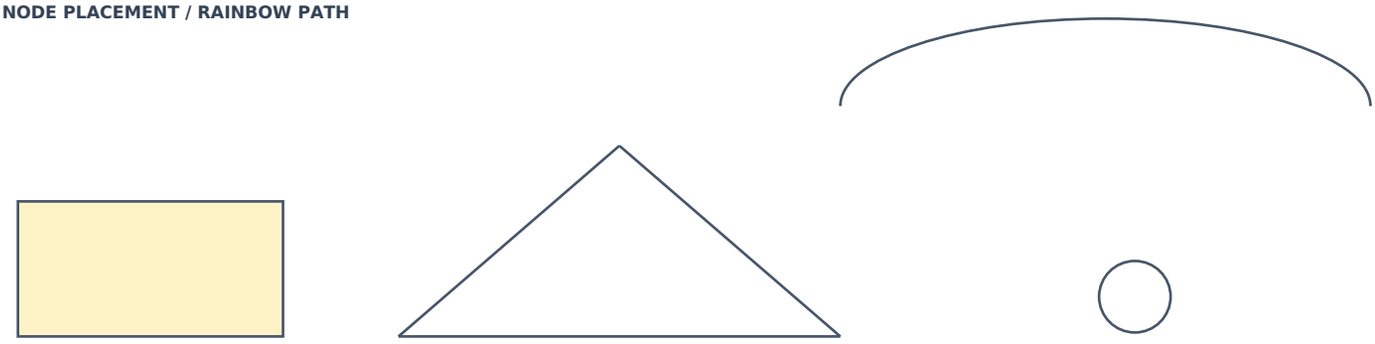
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0096"
state R -> R1
node N1
representation JP(PINK-04-P0096)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 96 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 97 of 106. Chapter 47 F-096 - Drag force Exact expression F_d=0.5*C_d*rho_ambient*A_projected*u*abs(u) Meaning. Referencedragtermunderdeclaredcoefficientandflow. Bound manifestations.MK,JO,EVE Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_096 Import M

PATH OF EXPRESSION

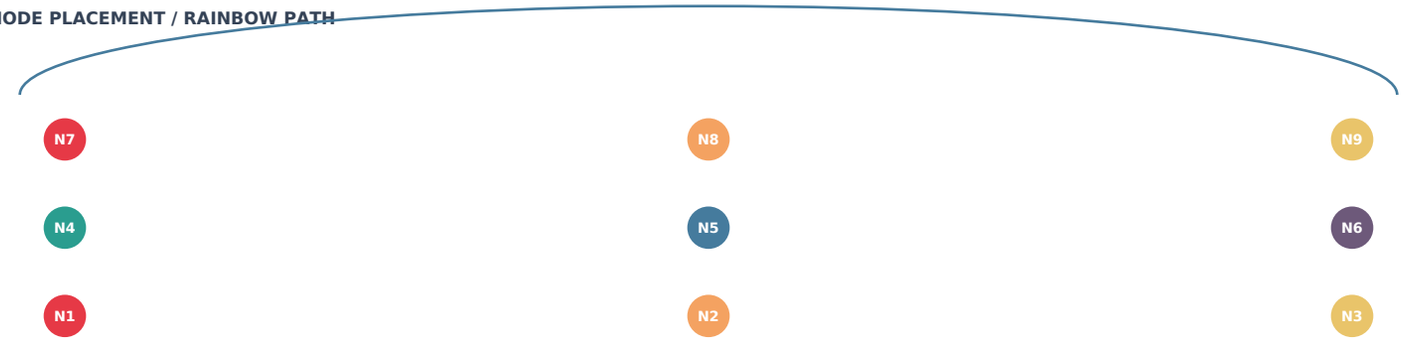
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_47_F_096_Drag_force_
reference "PINK-04-P0097"
state R -> R1
node N1
representation JP(PINK-04-P0097)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 97 of 106. Chapter 47 F-096 - Drag force Exact expression F_
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 98 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 47.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-096anditsassumptions,inputs,ou

PATH OF EXPRESSION

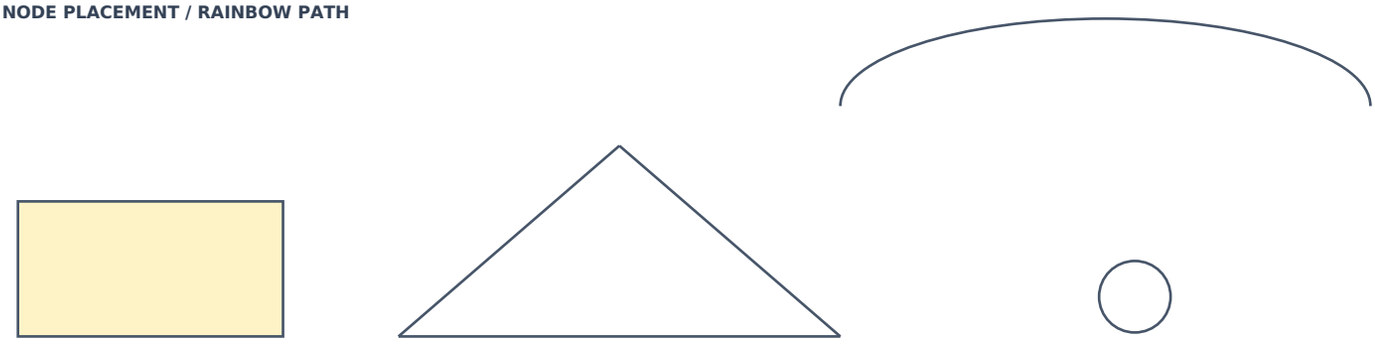
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0098"
state R -> R1
node N1
representation JP(PINK-04-P0098)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 98 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pin
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 99 of 106. Chapter 48 F-097 - Flow continuity Exact expression Q=A(z)*u(z) Meaning. Forfixedflow,increasingareadoesnotitselfacceleratethegas. Bound manifestations.MK,JO,SISTER Gateway stage.JPcanonicalrepresentation,MKapplicability,JOproof,andboundedMJoutput Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_reference.F_097 Import MJ.PBMEF.Manifest,

PATH OF EXPRESSION

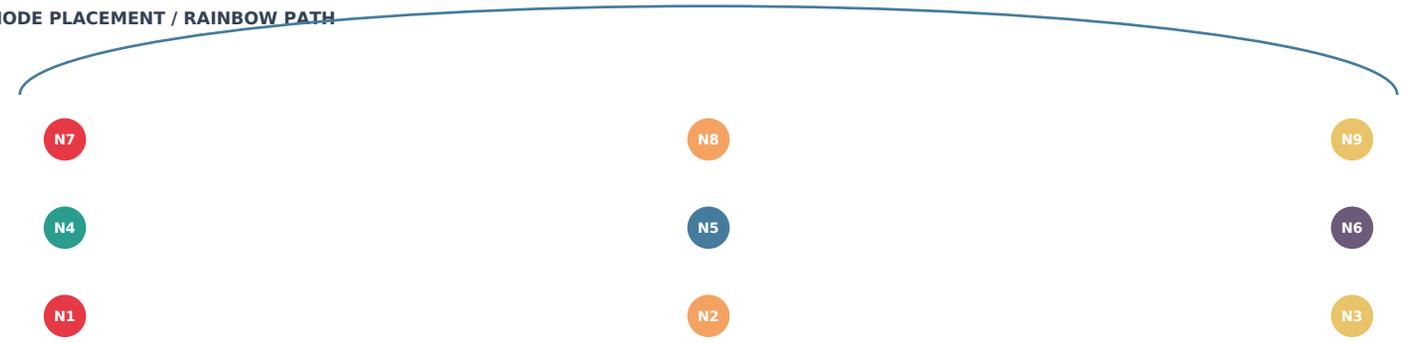
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_48_F_097_Flow_contin
reference "PINK-04-P0099"
state R -> R1
node N1
representation JP(PINK-04-P0099)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 99 of 106. Chapter 48 F-097 - Flow continuity Exact expressi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics-based approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 100 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 48.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-097anditsassumptions,inputs,ou

PATH OF EXPRESSION

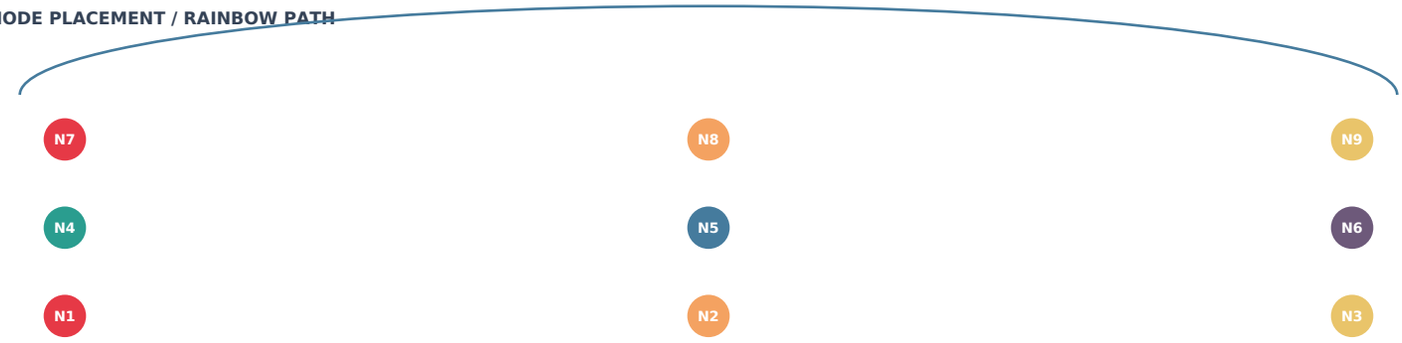
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0100"
state R -> R1
node N1
representation JP(PINK-04-P0100)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 100 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 101 of 106. Chapter 49 F-098 - Residual reservoir capacity Exact expression C_res,k=gamma_k*C_rect,k; 0<=gamma_k<1 Meaning. Residualreservoirremainssmallerthanrectanglereferencecapacity. Bound manifestations.SISTER,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namespace MJ.PBMEF.containment.geometry_h2_ref

PATH OF EXPRESSION

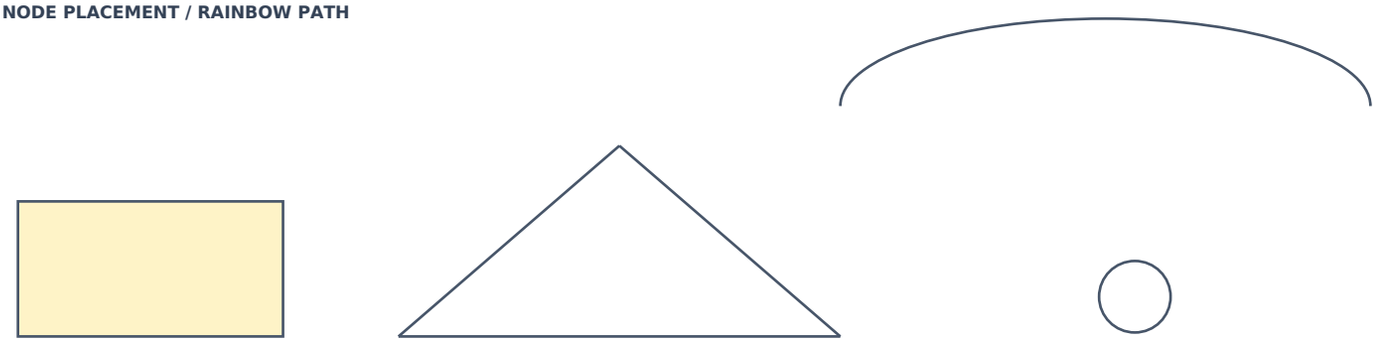
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_49_F_098_Residual_re
reference "PINK-04-P0101"
state R -> R1
node N1
representation JP(PINK-04-P0101)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 101 of 106. Chapter 49 F-098 - Residual reservoir capacity E
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 102 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 49.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-098anditsassumptions,inputs,ou

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0102"
state R -> R1
node N1
representation JP(PINK-04-P0102)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 102 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 103 of 106. Chapter 50 F-099 - Umbrella/EVE/reservoir balance Exact expression q_cone=q_down+q_EVE+q_res+q_escape+r Meaning. Downward redistribution, EVE evidence, reservoir admission, and escape are separately accounted. Bound manifestations.EVE,SISTER,MERMAID Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_reference Namesp

PATH OF EXPRESSION

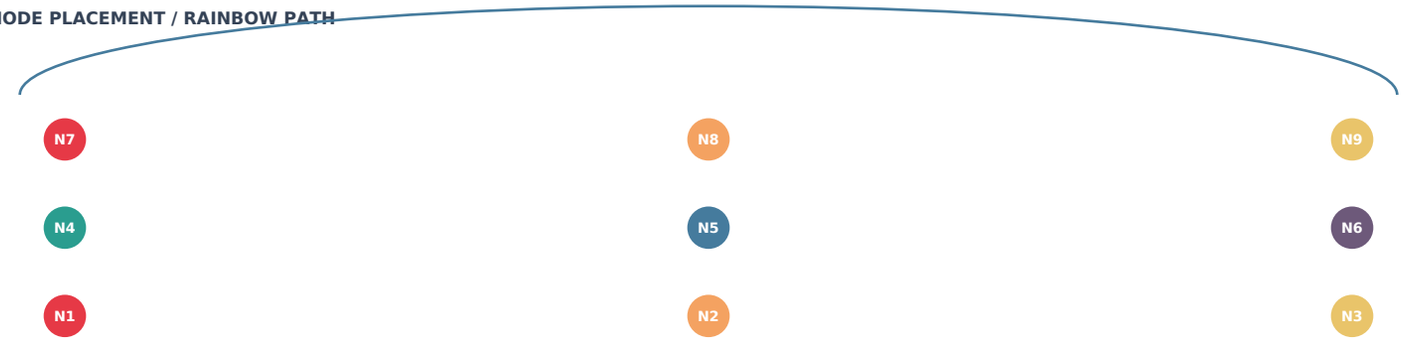
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_50_F_099_Umbrella_EV
reference "PINK-04-P0103"
state R -> R1
node N1
representation JP(PINK-04-P0103)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 103 of 106. Chapter 50 F-099 - Umbrella/EVE/reservoir balanc
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 104 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 50.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-099anditsassumptions,inputs,ou

PATH OF EXPRESSION

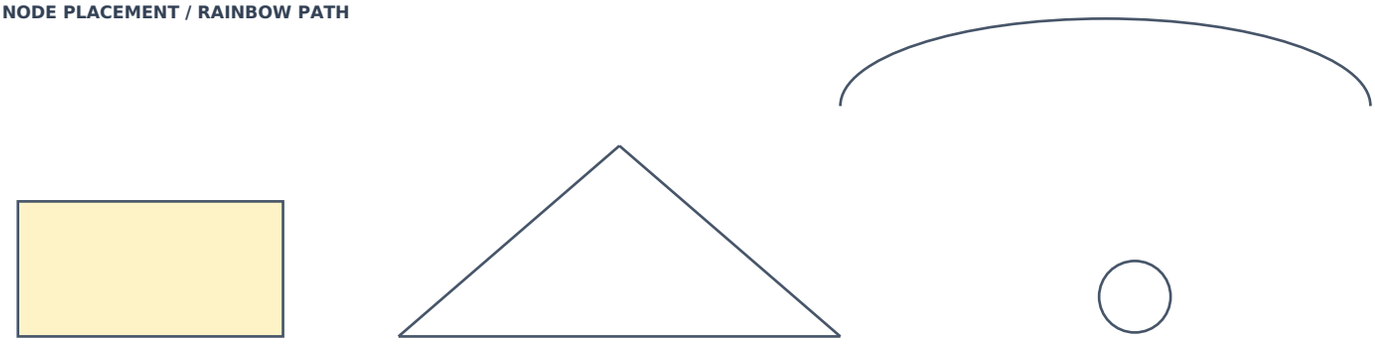
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0104"
state R -> R1
node N1
representation JP(PINK-04-P0104)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 104 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 105 of 106. Chapter 51 F-100 - Containment modification pred- icate Exact expression Valid(theta)=typed&positive&recomputed&conserved&bounded&evidenced&MK&JO&MJ Meaning. Sizechangespreservecorelogicbutrequirefullrecalculationandgates. Bound manifestations.Bangel ,JP,MK,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.containment.geometry_h2_ref

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_51_F_100_Containment
reference "PINK-04-P0105"
state R -> R1
node N1
representation JP(PINK-04-P0105)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 105 of 106. Chapter 51 F-100 - Containment modification pred
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 106 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper III - F051-F100 51.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-100anditsassumptions,inputs,ou

PATH OF EXPRESSION

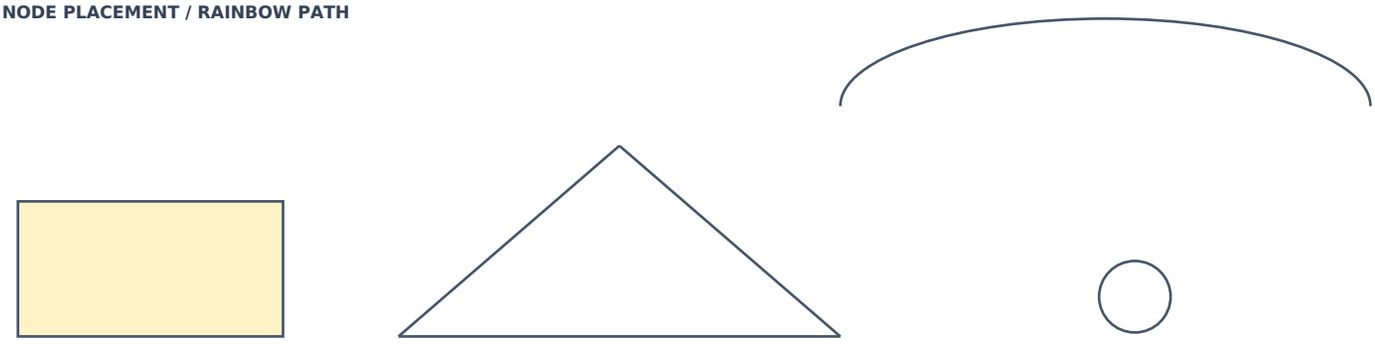
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-04-P0106"
state R -> R1
node N1
representation JP(PINK-04-P0106)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume03_Formulas_F051_F100.pdf, page 106 of 106. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 1 of 96. MJ-PBMEFPinkPaper-VolumeIV FormulaGatewayBindingsF-101throughF-145 MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeIV_F
reference "PINK-05-P0001"
state R -> R1
node N1
representation JP(PINK-05-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 1 of 96. MJ-PBMEFPinkPaper-VolumeIV FormulaGatewayBindingsF-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 2 of 96. Contents 1 Verification method 5 2 F-101 - Rear outlet elevation 6 2.1 Gatewaylife-cycleexample . . . . . .6 2.2 Lifecyclefromrequesttofinaloutput . . . . . .7 3 F-102 - Pearl simulation exclusion radius 8 3.1 Gatewaylife-cycleexample . . . . . .8 3.2 Life

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Verification_meth
reference "PINK-05-P0002"
state R -> R1
node N1
representation JP(PINK-05-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 2 of 96. Contents 1 Verification method 5 2 F-101 - Rear out
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 3 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145

13.2Lifecyclefromrequesttofinaloutput 29
14F-113 - Circular return-port area 30 14.1Gatewaylife-cycleexample . . . . . .30 14.2Lifecyclefromrequesttofinaloutput 31 15F-114

PATH OF EXPRESSION

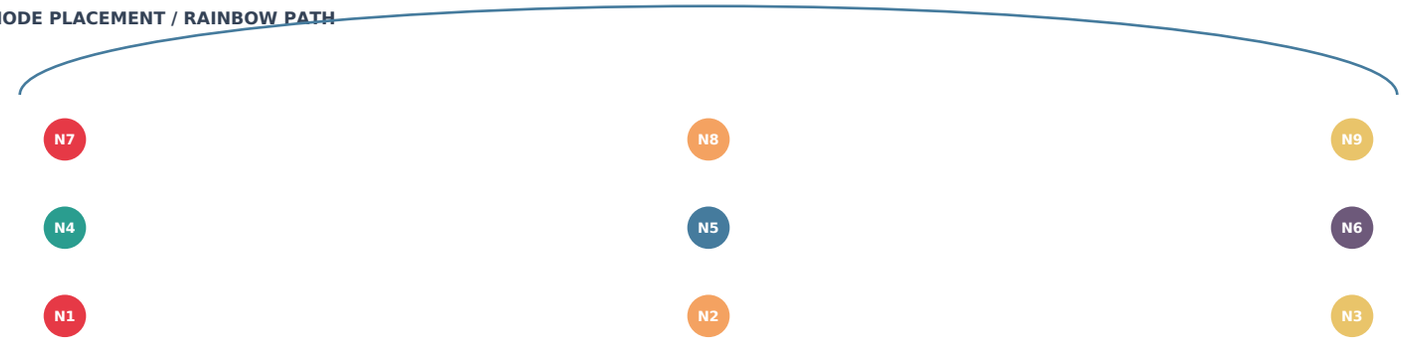
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0003"
state R -> R1
node N3
representation JP(PINK-05-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 3 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 4 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 29F-128 - Outlet transfer conservation 60 29.1Gatewaylife-cycleexample . . . . . .60 29.2Lifecyclefromrequesttofinaloutput . . . . . .61 30F-129 - Re-entry recalculation vector 62 30.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0004"
state R -> R1
node N1
representation JP(PINK-05-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 4 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 5 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 44F-143 - Vector reservoir headroom 90 44.1Gatewaylife-cycleexample . . . . . .90 44.2Lifecyclefromrequesttofinaloutput . . . . . .91 45F-144 - Vector reservoir admission 92 45.1Gatewaylife-cycleexample . . . . . .

PATH OF EXPRESSION

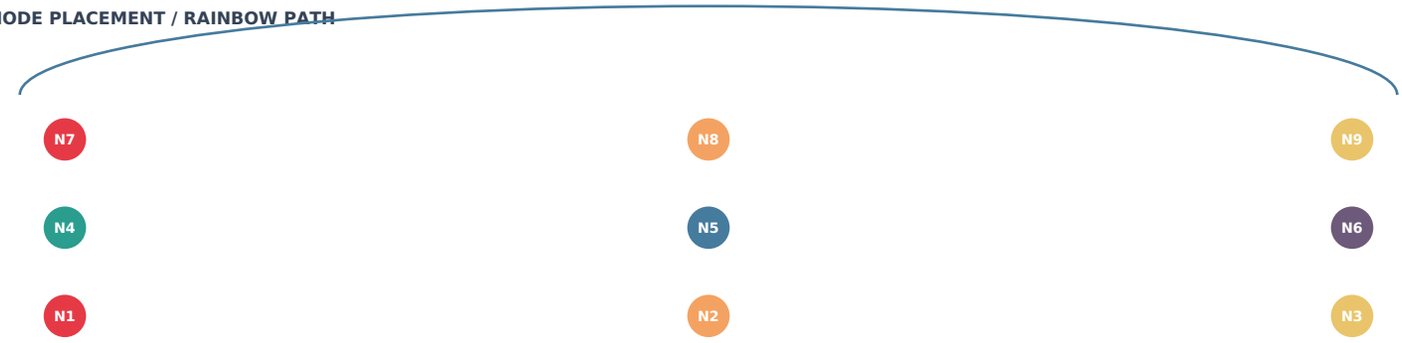
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0005"
state R -> R1
node N1
representation JP(PINK-05-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 5 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 6 of 96. Chapter 1 Verification method Each formula receives the same twenty-construct Bangel identity, a gateway-stage assignment, a life-cycleexample, andexplicitevidenceandethicsboundaries. Therepetitivestructureisintentional: it allowsformula-by-formulafounderreviewandlaterautomatedcompletenesschecking. 5

PATH OF EXPRESSION

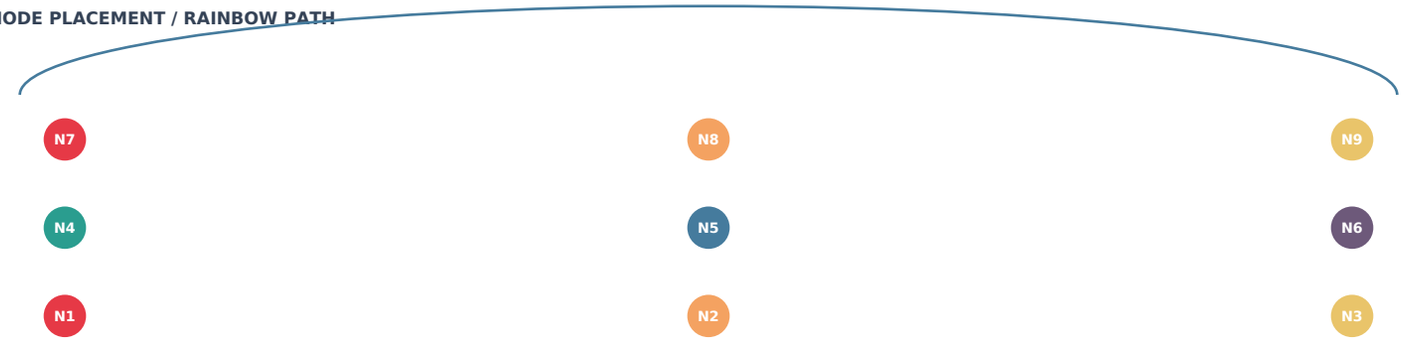
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Verification_metho
reference "PINK-05-P0006"
state R -> R1
node N1
representation JP(PINK-05-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 6 of 96. Chapter 1 Verification method Each formula receives
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 7 of 96. Chapter 2 F-101 - Rear outlet elevation Exact expression z_out=H_P-delta_z; 0<delta_z<H_P Meaning. Outletisbelowthecontainmentmaximumheight. Bound manifestations.SISTER,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_101 Import MJ.PB

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_F_101_Rear_outlet_
reference "PINK-05-P0007"
state R -> R1
node N1
representation JP(PINK-05-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 7 of 96. Chapter 2 F-101 - Rear outlet elevation Exact expre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 8 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 2.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-101anditsassumptions,inputs,outp

PATH OF EXPRESSION

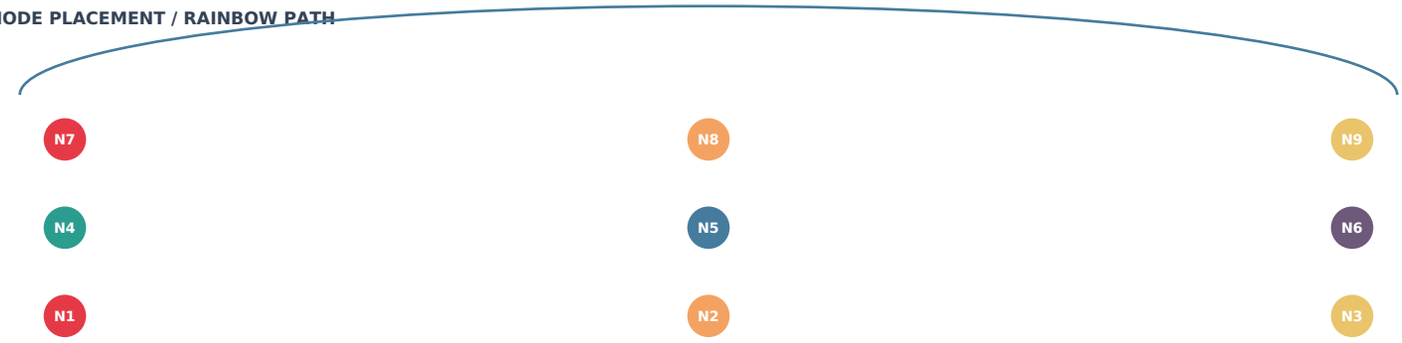
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0008"
state R -> R1
node N1
representation JP(PINK-05-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 8 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 9 of 96. Chapter 3 F-102 - Pearl simulation exclusion ra- dius Exact expression R_P,sim=R_top+c_P; c_P>=0 Meaning. Nonphysicalreferencecircleplusdeclaredclearance. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_102

PATH OF EXPRESSION

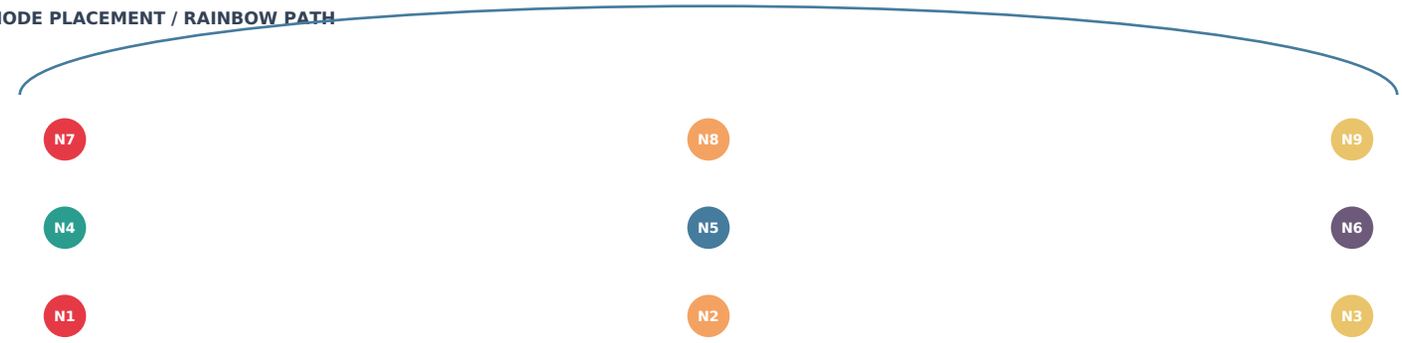
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_F_102_Pearl_simula
reference "PINK-05-P0009"
state R -> R1
node N1
representation JP(PINK-05-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 9 of 96. Chapter 3 F-102 - Pearl simulation exclusion ra- di
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 10 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 3.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-102anditsassumptions,inputs,outp

PATH OF EXPRESSION

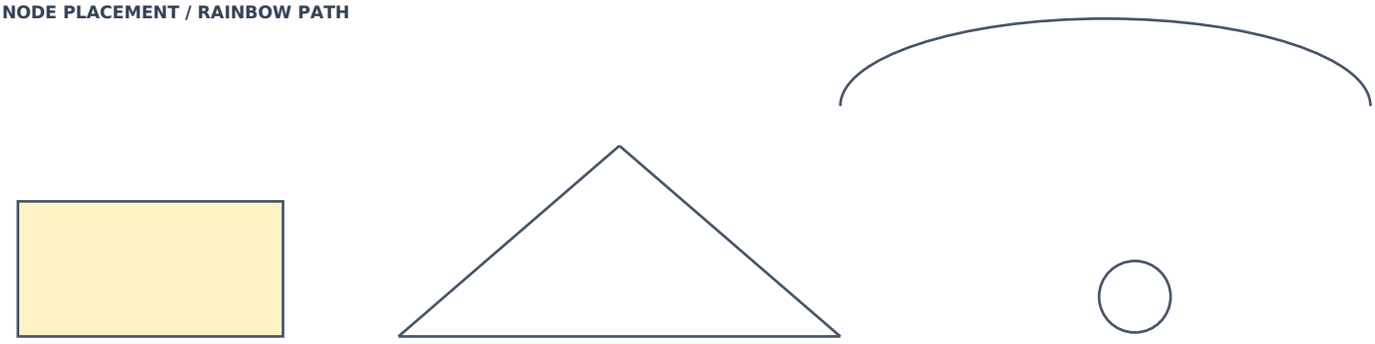
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0010"
state R -> R1
node N1
representation JP(PINK-05-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 10 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 11 of 96. Chapter 4 F-103 - Outward-tangential outlet direc- tion Exact expression d_out=cos(alpha_out)t+sin(alpha_out)n_out; 0<alpha_out<pi/2 Meaning. Slightpositiveoutwardcantfromthelocaltangent. Bound manifestations.JP,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outl

PATH OF EXPRESSION

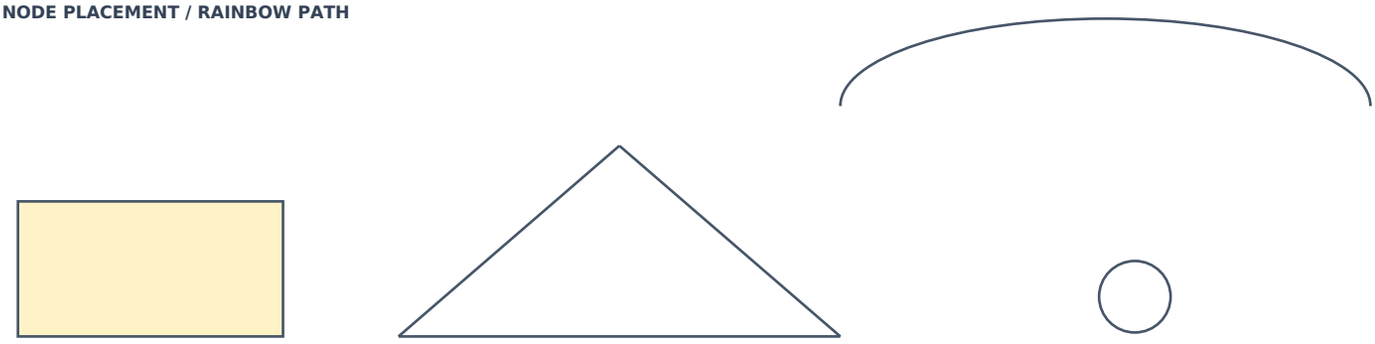
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_F_103_Outward_tang
reference "PINK-05-P0011"
state R -> R1
node N1
representation JP(PINK-05-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 11 of 96. Chapter 4 F-103 - Outward-tangential outlet direc-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 12 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 4.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-103anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0012"
state R -> R1
node N1
representation JP(PINK-05-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 12 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 13 of 96. Chapter 5 F-104 - Outside-circle outlet path Exact expression ||gamma(s)-c_P||^2=R_P^2+2R_P*s*sin(alpha_out)+s^2 Meaning. PathremainsoutsidethePearlsimulationcirclefors>0. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reent

PATH OF EXPRESSION

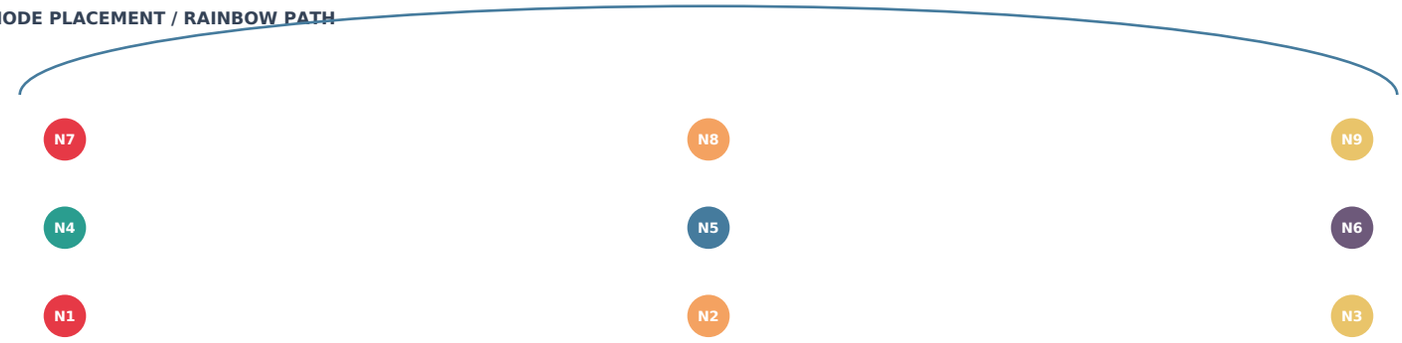
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_F_104_Outside_circ
reference "PINK-05-P0013"
state R -> R1
node N1
representation JP(PINK-05-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 13 of 96. Chapter 5 F-104 - Outside-circle outlet path Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 14 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 5.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-104anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0014"
state R -> R1
node N1
representation JP(PINK-05-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 14 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 15 of 96. Chapter 6 F-105 - Reservoir volume balance Exact expression dV_L/dt=Q_out-Q_return-Q_drain-Q_escape Meaning. Connectedlake-likebuffercontrol-volumebalance. Bound manifestations.SISTER,EVE,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_fri

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_F_105_Reservoir_vo
reference "PINK-05-P0015"
state R -> R1
node N1
representation JP(PINK-05-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 15 of 96. Chapter 6 F-105 - Reservoir volume balance Exact e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 16 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 6.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-105anditsassumptions,inputs,outp

PATH OF EXPRESSION

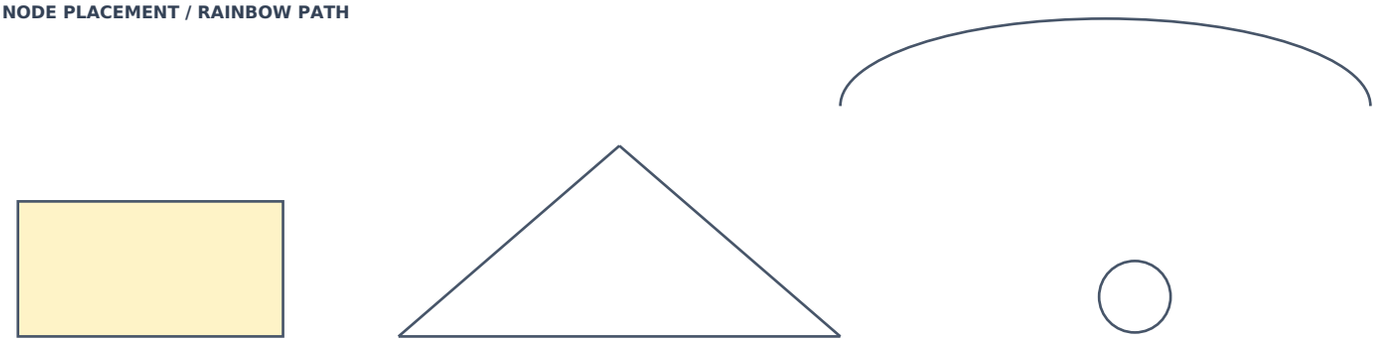
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0016"
state R -> R1
node N1
representation JP(PINK-05-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 16 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 17 of 96. Chapter 7 F-106 - Typed reservoir quantity bal- ance Exact expression dq_L,k/dt=q_out,k-q_return,k-q_drain,k-q_escape,k Meaning. Per-dimensionbalancepreventscross-unitcollapse. Bound manifestations.SISTER,EVE,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.ou

PATH OF EXPRESSION

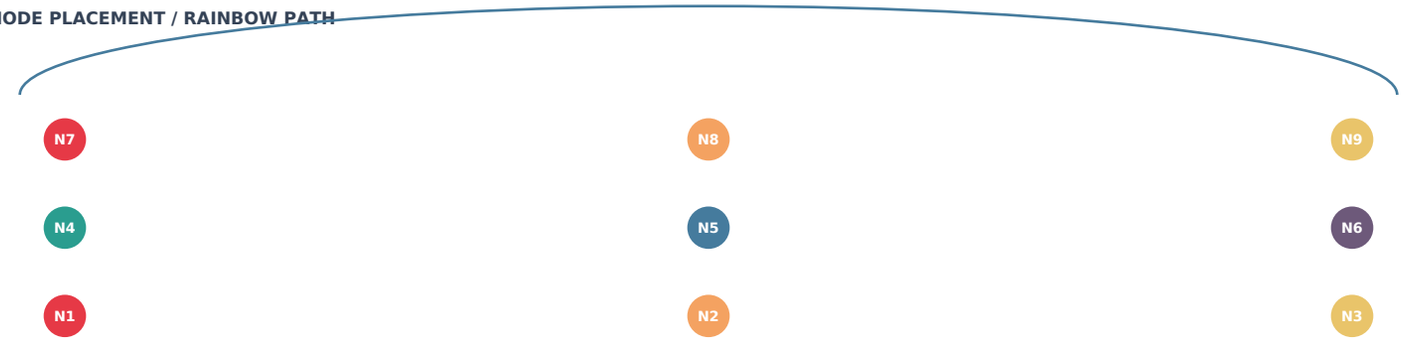
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_F_106_Typed_reserv
reference "PINK-05-P0017"
state R -> R1
node N1
representation JP(PINK-05-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 17 of 96. Chapter 7 F-106 - Typed reservoir quantity bal- an
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 18 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 7.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-106anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0018"
state R -> R1
node N1
representation JP(PINK-05-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 18 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 19 of 96. Chapter 8 F-107 - Required buffer volume Exact expression V_L,req=T_hold*max(0,Q_out,H-Q_return,L)+V_residual,H Meaning. Conservativebuffercapacityfrominflow-returnmismatchandresidual. Bound manifestations.MK,SISTER,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_F_107_Required_buf
reference "PINK-05-P0019"
state R -> R1
node N1
representation JP(PINK-05-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 19 of 96. Chapter 8 F-107 - Required buffer volume Exact exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 20 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 8.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-107anditsassumptions,inputs,outp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0020"
state R -> R1
node N1
representation JP(PINK-05-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 20 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 21 of 96. Chapter 9 F-108 - Outlet area lower bound Exact expression A_out>=Q_design/u_out,max Meaning. Areasizingfromconservativedesignflowandallowablevelocity. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_108 Import M

PATH OF EXPRESSION

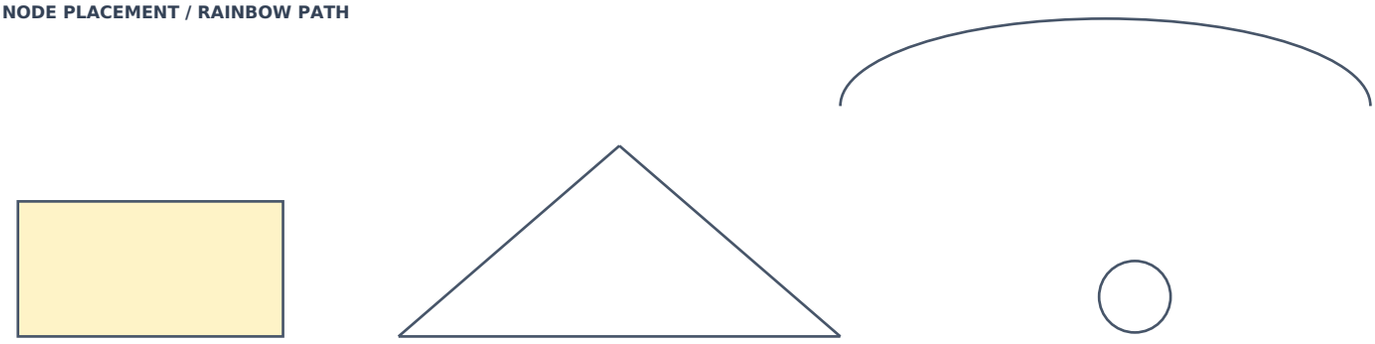
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_F_108_Outlet_area_
reference "PINK-05-P0021"
state R -> R1
node N1
representation JP(PINK-05-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 21 of 96. Chapter 9 F-108 - Outlet area lower bound Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 22 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 9.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-108anditsassumptions,inputs,outp

PATH OF EXPRESSION

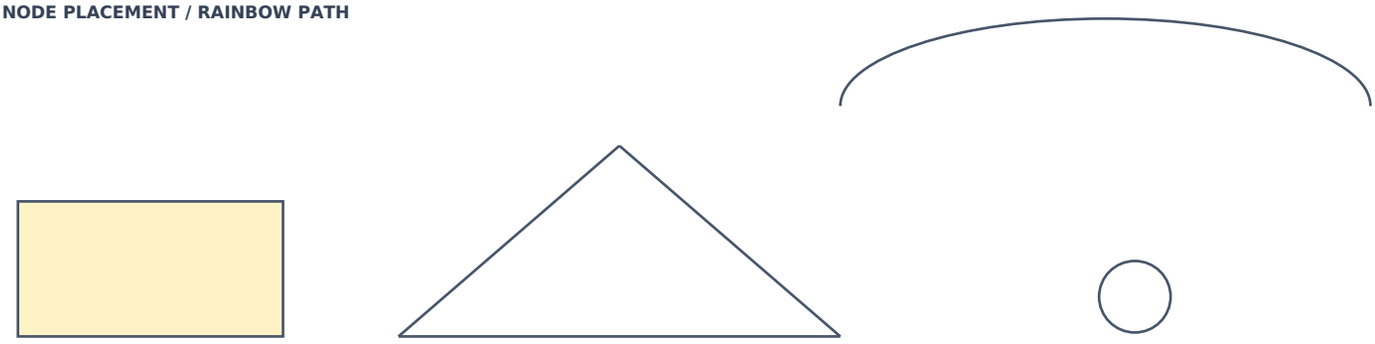
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0022"
state R -> R1
node N1
representation JP(PINK-05-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 22 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 23 of 96. Chapter 10 F-109 - Circular outlet radius lower bound Exact expression r_out>=sqrt(A_out/pi) Meaning. Circularoutletradiusderivedfromrequiredarea. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_109 Import MJ.PBM

PATH OF EXPRESSION

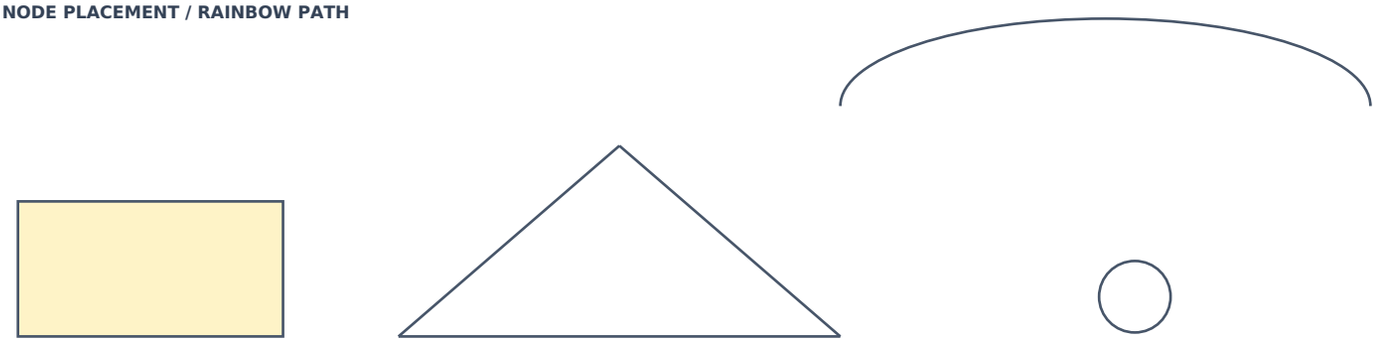
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_F_109_Circular_ou
reference "PINK-05-P0023"
state R -> R1
node N1
representation JP(PINK-05-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 23 of 96. Chapter 10 F-109 - Circular outlet radius lower bo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 24 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 10.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-109anditsassumptions,inputs,out

PATH OF EXPRESSION

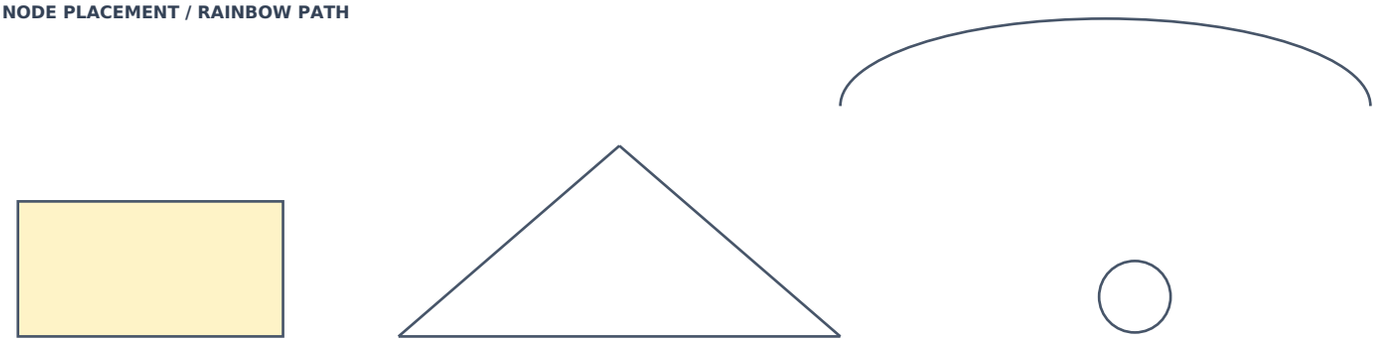
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0024"
state R -> R1
node N1
representation JP(PINK-05-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 24 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 25 of 96. Chapter 11 F-110 - Bounded drip impulse Exact expression J_drop=m_drop*v_drop<=J_drop,max Meaning. Small-dischargereferenceobjective;thresholdrequiresevidence. Bound manifestations.MK,ANGELS,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_fric

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_F_110_Bounded_dri
reference "PINK-05-P0025"
state R -> R1
node N1
representation JP(PINK-05-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 25 of 96. Chapter 11 F-110 - Bounded drip impulse Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 26 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 11.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-110anditsassumptions,inputs,out

PATH OF EXPRESSION

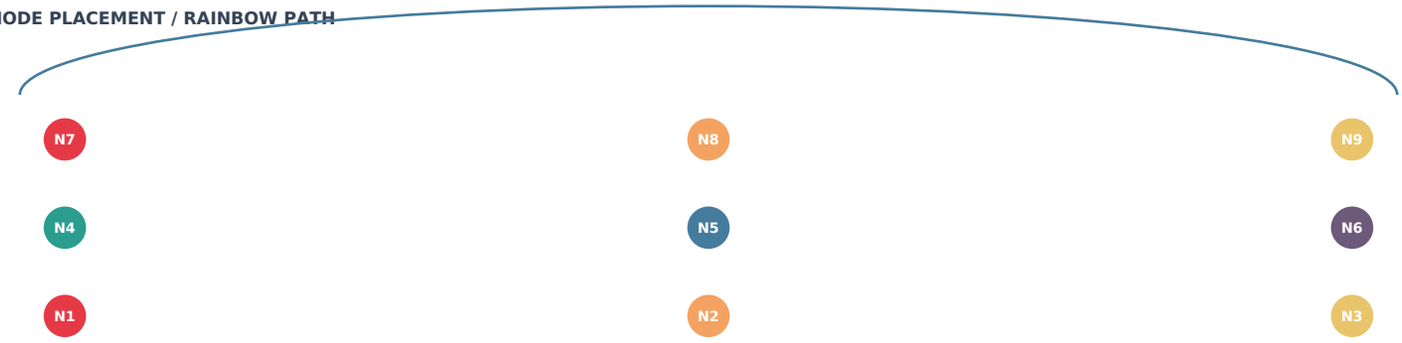
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0026"
state R -> R1
node N1
representation JP(PINK-05-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 26 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 27 of 96. Chapter 12 F-111 - Small-wave energy reference Exact expression E_wave~=0.5*rho*g*a_wave^2*A_surface Meaning. Appliesonlyundersmall-amplitudeliquid-surfaceassumptions. Bound manifestations.MK,JO,EVE Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_fri

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_F_111_Small_wave_
reference "PINK-05-P0027"
state R -> R1
node N1
representation JP(PINK-05-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 27 of 96. Chapter 12 F-111 - Small-wave energy reference Exa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 28 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 12.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-111anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0028"
state R -> R1
node N1
representation JP(PINK-05-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 28 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 29 of 96. Chapter 13 F-112 - Froude reference Exact expression Fr=U/sqrt(gL) Meaning. Flow-regimereference;Fr<1isaconditionalsubcriticaltarget. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_112 Import MJ.PBMEF.Manife

PATH OF EXPRESSION

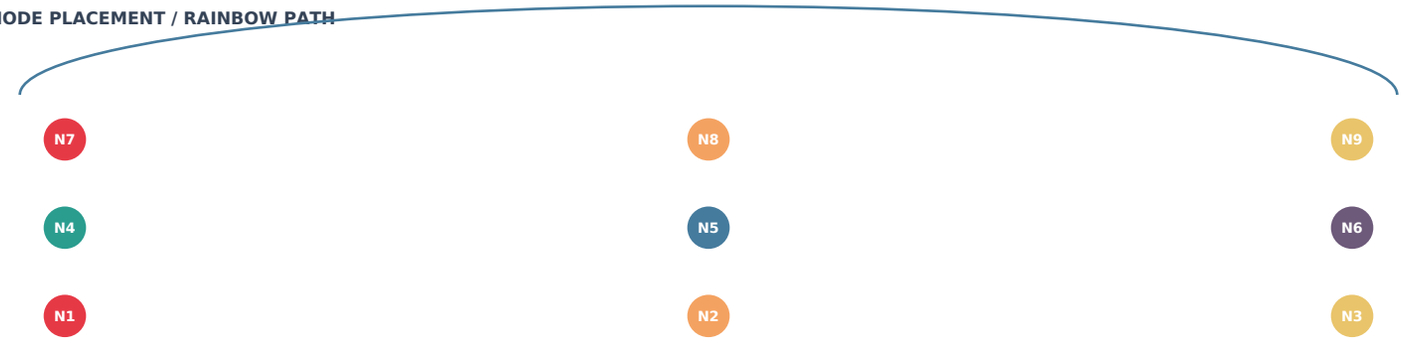
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_F_112_Froude_refe
reference "PINK-05-P0029"
state R -> R1
node N1
representation JP(PINK-05-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 29 of 96. Chapter 13 F-112 - Froude reference Exact expressi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 30 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 13.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-112anditsassumptions,inputs,out

PATH OF EXPRESSION

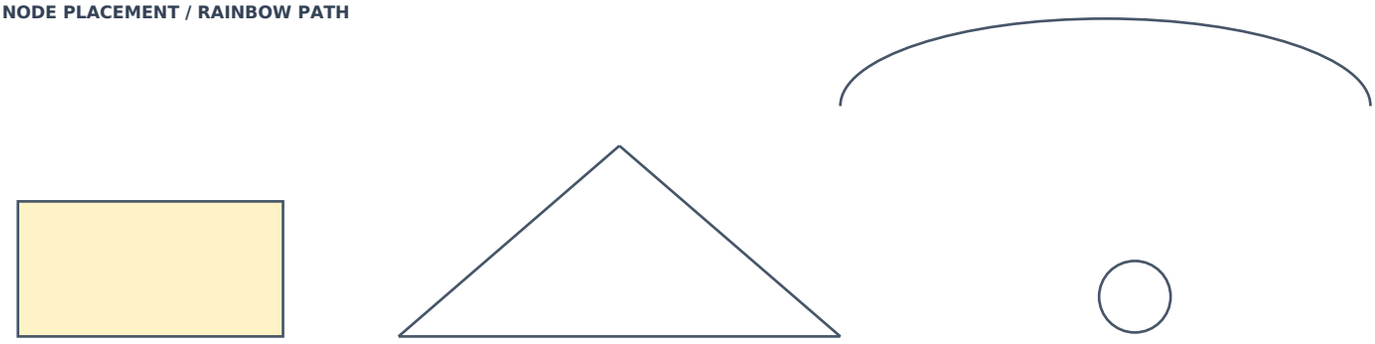
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0030"
state R -> R1
node N1
representation JP(PINK-05-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 30 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 31 of 96. Chapter 14 F-113 - Circular return-port area Exact expression A_in=pi*r_in^2 Meaning. Circularre-entrycross-section. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_113 Import MJ.PBMEF.Manifest,MJ.PBMEF.Formu

PATH OF EXPRESSION

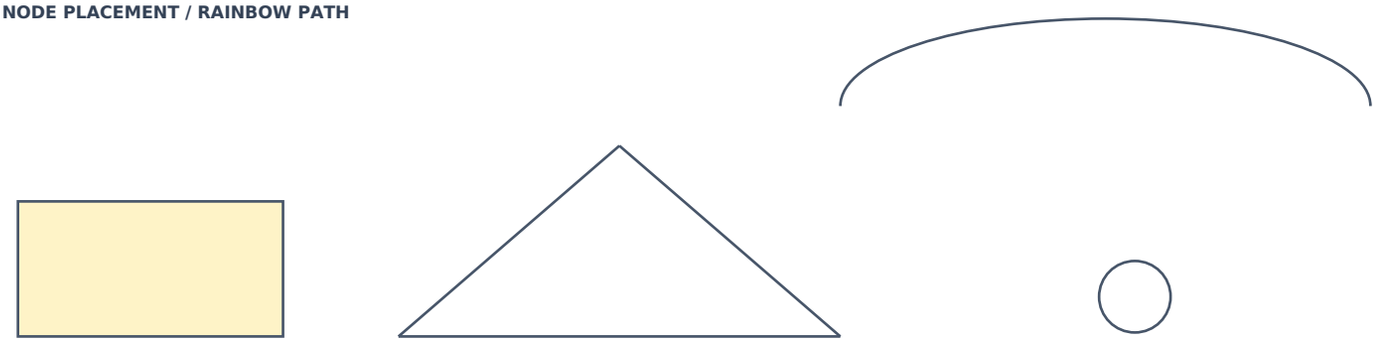
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_F_113_Circular_re
reference "PINK-05-P0031"
state R -> R1
node N1
representation JP(PINK-05-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 31 of 96. Chapter 14 F-113 - Circular return-port area Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 32 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 14.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-113anditsassumptions,inputs,out

PATH OF EXPRESSION

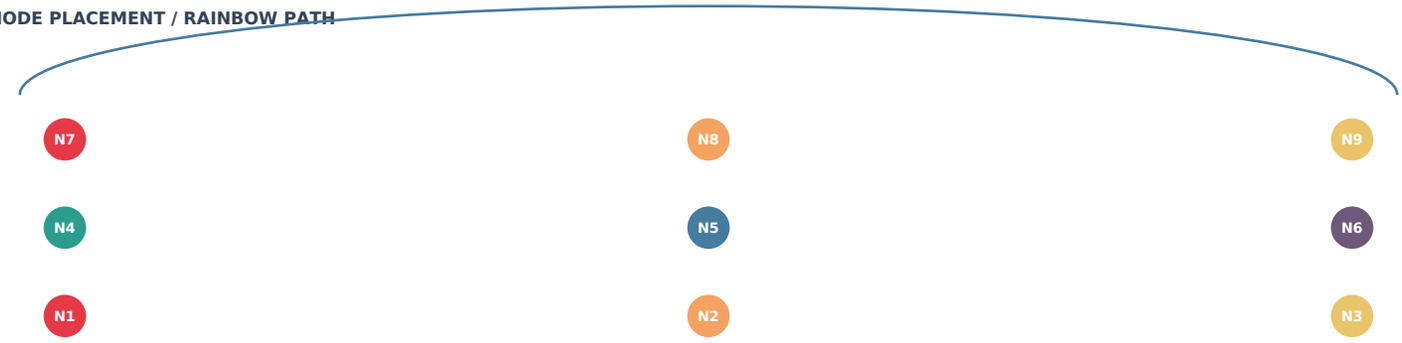
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0032"
state R -> R1
node N1
representation JP(PINK-05-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 32 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 33 of 96. Chapter 15 F-114 - Inward-tangential reentry com- ponents Exact expression u_r=-U*sin(beta_in); u_theta=sigma*U*cos(beta_in) Meaning. Smallinwardangleplustangentialcomponent;novortexproof. Bound manifestations.SISTER,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir

PATH OF EXPRESSION

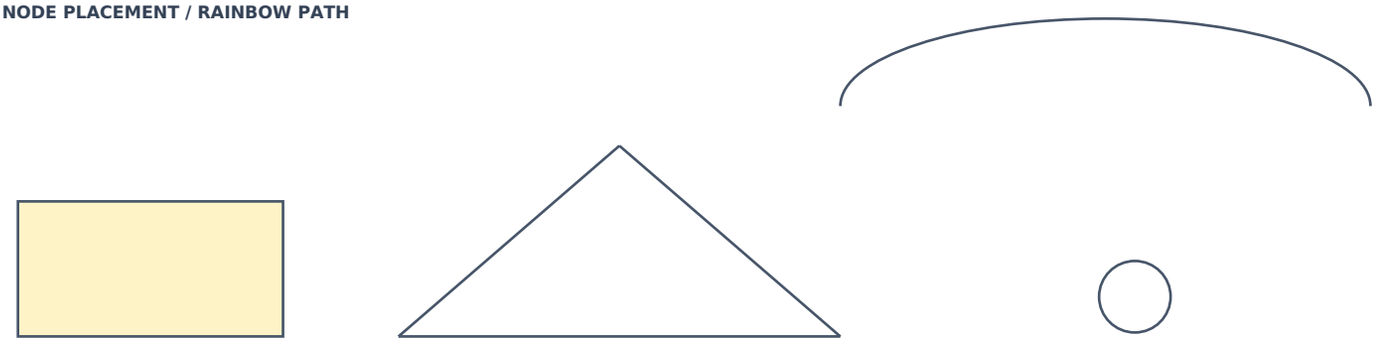
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_F_114_Inward_tang
reference "PINK-05-P0033"
state R -> R1
node N1
representation JP(PINK-05-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 33 of 96. Chapter 15 F-114 - Inward-tangential reentry com-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 34 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 15.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-114anditsassumptions,inputs,out

PATH OF EXPRESSION

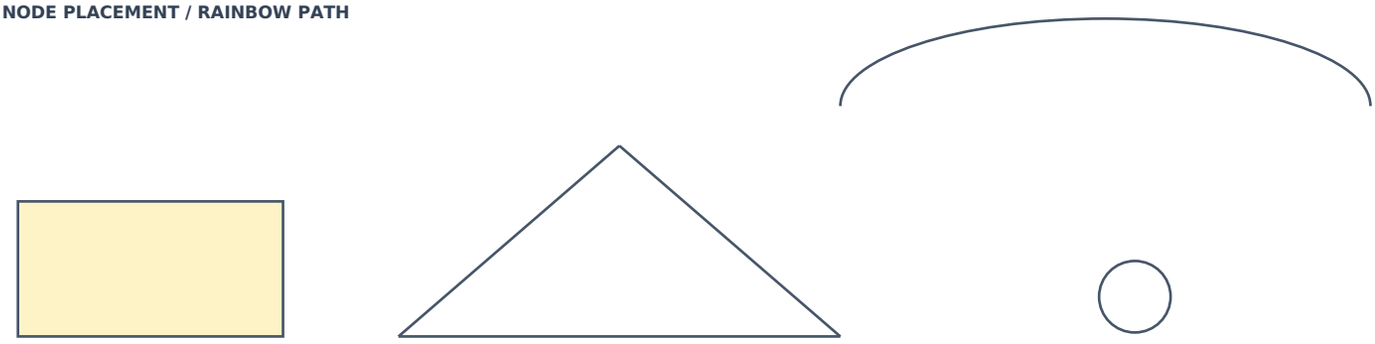
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0034"
state R -> R1
node N1
representation JP(PINK-05-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 34 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 35 of 96. Chapter 16 F-115 - Spiral compatibility ratio Exact expression chi_spiral=|u_theta|/max(|u_r|,epsilon) Meaning. Referenceratiofortangential-dominantreentry. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_115

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_F_115_Spiral_comp
reference "PINK-05-P0035"
state R -> R1
node N1
representation JP(PINK-05-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 35 of 96. Chapter 16 F-115 - Spiral compatibility ratio Exac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 36 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 16.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-115anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0036"
state R -> R1
node N1
representation JP(PINK-05-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 36 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 37 of 96. Chapter 17 F-116 - Return continuity Exact expression Q_return=A_in*u_n Meaning. Re-entryflowthroughthecircularport. Bound manifestations.MK,JO,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_116 Import MJ.PBMEF.Manifest,MJ.PBME

PATH OF EXPRESSION

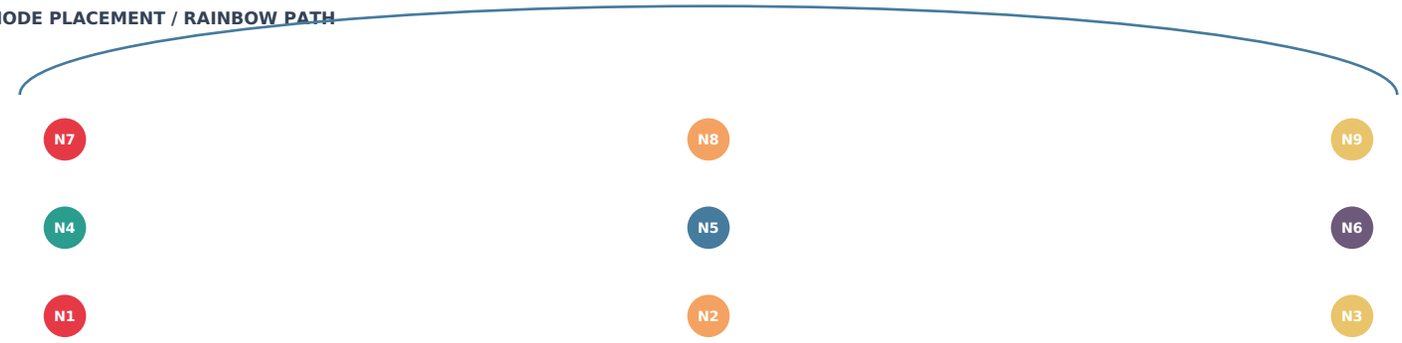
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_F_116_Return_cont
reference "PINK-05-P0037"
state R -> R1
node N1
representation JP(PINK-05-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 37 of 96. Chapter 17 F-116 - Return continuity Exact express
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 38 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 17.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-116anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0038"
state R -> R1
node N1
representation JP(PINK-05-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 38 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 39 of 96. Chapter 18 F-117 - Relative-frame velocity Exact expression v_rel=v_B-v_A-Omega_A x r Meaning. Coordinate-frame-relativemotion;perspectivedoesnotcreateenergy. Bound manifestations.MK,JO Gateway stage.N1prediction-firstallocation,M3routing,andG123reconciliation Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_117 Im

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_F_117_Relative_fr
reference "PINK-05-P0039"
state R -> R1
node N1
representation JP(PINK-05-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 39 of 96. Chapter 18 F-117 - Relative-frame velocity Exact e
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 40 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 18.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-117anditsassumptions,inputs,out

PATH OF EXPRESSION

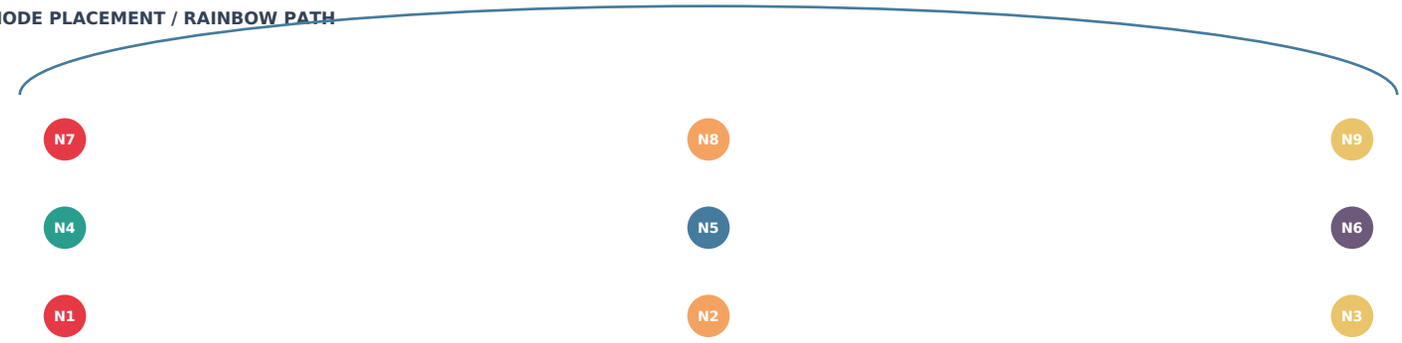
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0040"
state R -> R1
node N1
representation JP(PINK-05-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 40 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 41 of 96. Chapter 19 F-118 - Frictional dissipation Exact expression P_diss=max(0,-F_f dot v_rel) Meaning. Measuredframe-relativefrictionaldissipation. Bound manifestations.MK,JO,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_118 Import

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_F_118_Frictional_
reference "PINK-05-P0041"
state R -> R1
node N1
representation JP(PINK-05-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 41 of 96. Chapter 19 F-118 - Frictional dissipation Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 42 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 19.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-118anditsassumptions,inputs,out

PATH OF EXPRESSION

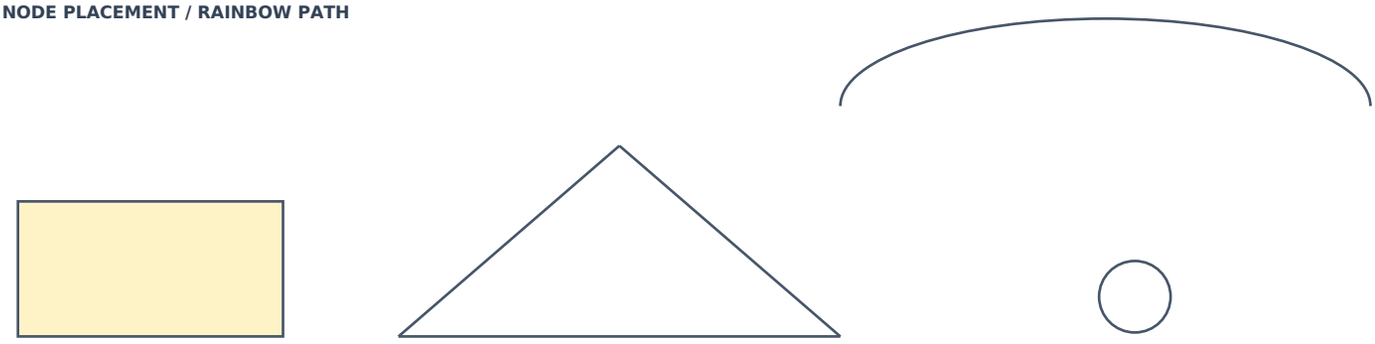
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0042"
state R -> R1
node N1
representation JP(PINK-05-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 42 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 43 of 96. Chapter 20 F-119 - Recoverable friction-energy bound Exact expression E_rec<=eta_rec*integral(P_diss dt); 0<=eta_rec<=1 Meaning. Nophysicalrecoverywithoutanevidencedconversionmechanism. Bound manifestations.MK,JO,MERMAID,SHIVA Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.r

PATH OF EXPRESSION

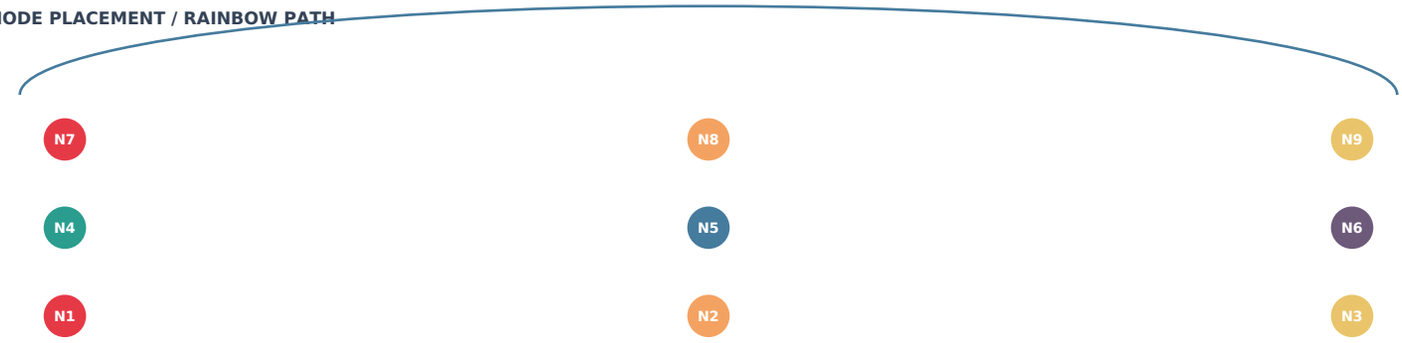
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_F_119_Recoverable
reference "PINK-05-P0043"
state R -> R1
node N1
representation JP(PINK-05-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 43 of 96. Chapter 20 F-119 - Recoverable friction-energy bou
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 44 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 20.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-119anditsassumptions,inputs,out

PATH OF EXPRESSION

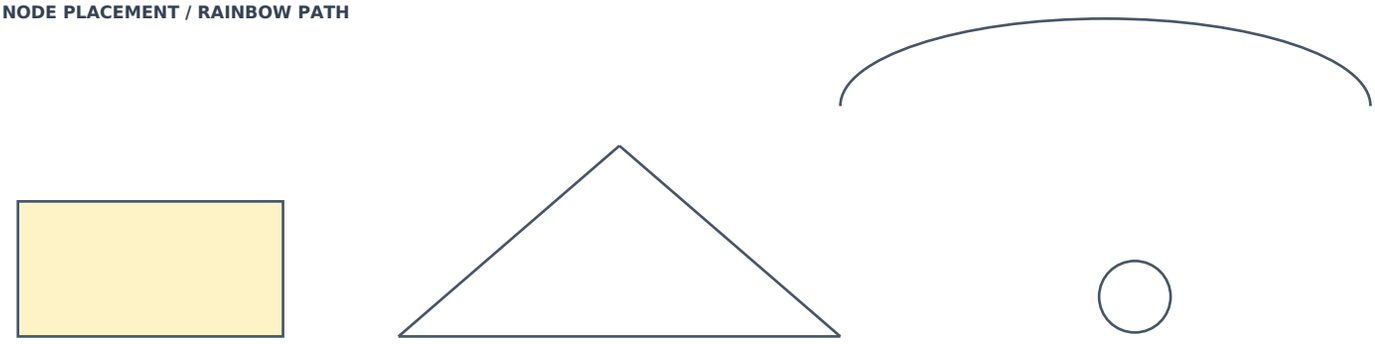
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0044"
state R -> R1
node N1
representation JP(PINK-05-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 44 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 45 of 96. Chapter 21 F-120 - Reservoir transaction gate Exact expression
Admit=AngelPass&M3Lease&MKPass&JOPass&MermaidReconciled&MJPermit
Meaning.
Everyreservoirtransferrequiressafety,routing,physics,proof,reconciliation,andpermit.
Bound manifestations.ANGELS,M3,MK,JO,MERMAID,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit
Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lak

PATH OF EXPRESSION

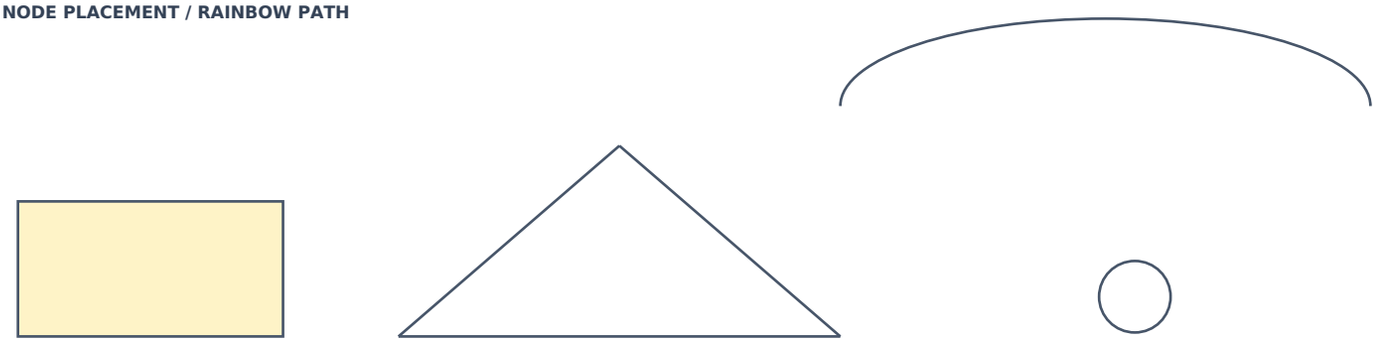
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_F_120_Reservoir_t
reference "PINK-05-P0045"
state R -> R1
node N1
representation JP(PINK-05-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 45 of 96. Chapter 21 F-120 - Reservoir transaction gate Exac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 46 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 21.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-120anditsassumptions,inputs,out

PATH OF EXPRESSION

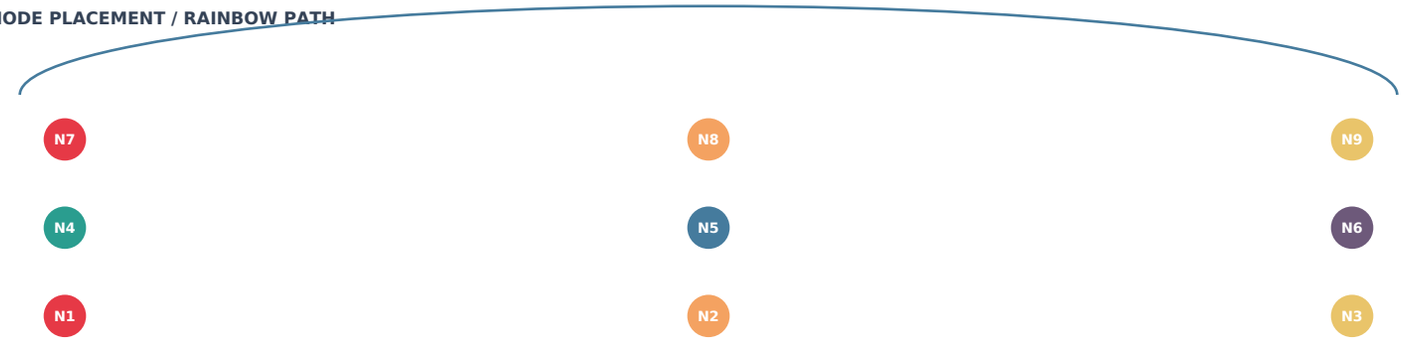
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0046"
state R -> R1
node N1
representation JP(PINK-05-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 46 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 47 of 96. Chapter 22 F-121 - Re-entry swirl ratio Exact expression chi_i=|u_theta|/max(|u_r|,epsilon_u) Meaning. Representstangential-to-inwardre-entryvelocity. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_121 Impor

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_F_121_Re_entry_sw
reference "PINK-05-P0047"
state R -> R1
node N1
representation JP(PINK-05-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 47 of 96. Chapter 22 F-121 - Re-entry swirl ratio Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 48 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 22.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-121anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0048"
state R -> R1
node N1
representation JP(PINK-05-P0048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 48 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 49 of 96. Chapter 23 F-122 - Re-entry processing cycle Exact expression cycle_reentry=cycle_exit+1 Meaning. Prohibitssame-cyclefeedbackandcreatesanewreceiptchain. Bound manifestations.JO,M3,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_F_122_Re_entry_pr
reference "PINK-05-P0049"
state R -> R1
node N1
representation JP(PINK-05-P0049)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 49 of 96. Chapter 23 F-122 - Re-entry processing cycle Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 50 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 23.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-122anditsassumptions,inputs,out

PATH OF EXPRESSION

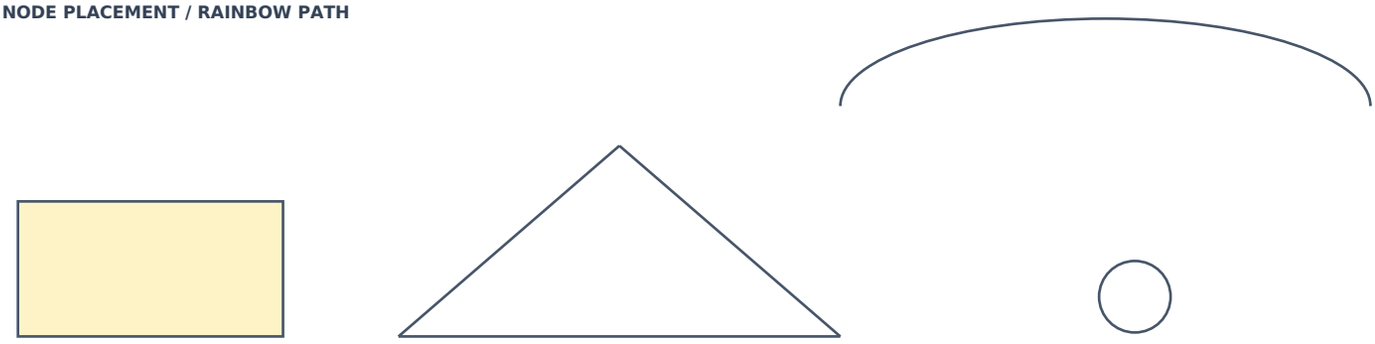
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0050"
state R -> R1
node N1
representation JP(PINK-05-P0050)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 50 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 51 of 96. Chapter 24 F-123 - Perspective transform residual Exact expression r_Pi=x_B-T_A_to_B*x_A Meaning. Measuresdisagreementaftertransformingobservationsbetweenreferenceframes. Bound manifestations.MK,JO,EVE,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_l

PATH OF EXPRESSION

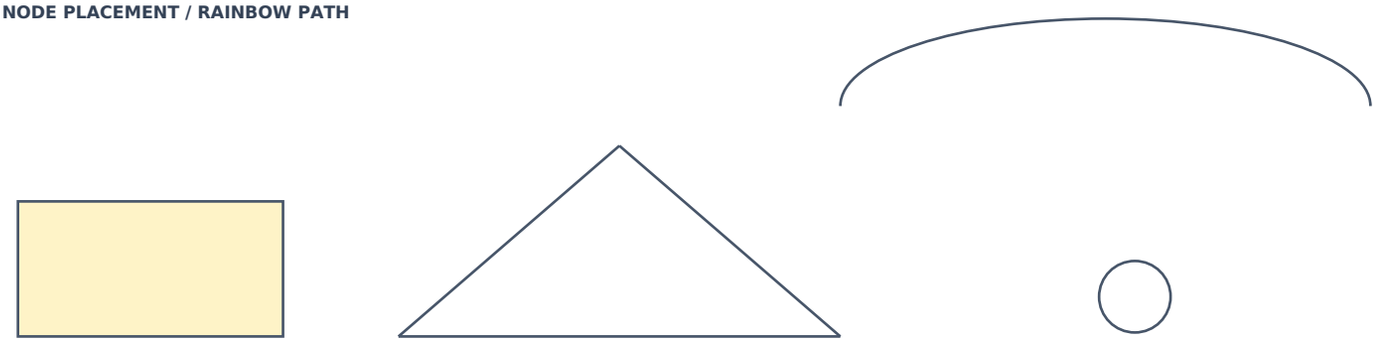
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_F_123_Perspective
reference "PINK-05-P0051"
state R -> R1
node N1
representation JP(PINK-05-P0051)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 51 of 96. Chapter 24 F-123 - Perspective transform residual
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 52 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 24.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-123anditsassumptions,inputs,out

PATH OF EXPRESSION

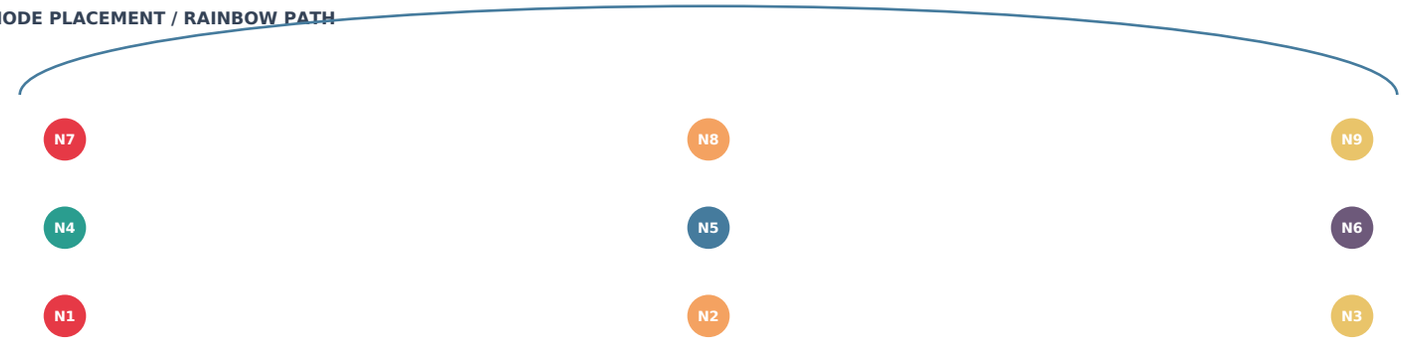
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0052"
state R -> R1
node N1
representation JP(PINK-05-P0052)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 52 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 53 of 96. Chapter 25 F-124 - Physical pressure-flow dissipa- tion Exact expression E_diss=int(Delta_p(t)*Q(t)dt) Meaning. Storesmeasuredphysicaldissipationonlywhenpressureandflowareevidenced. Bound manifestations.MK,JO,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.o

PATH OF EXPRESSION

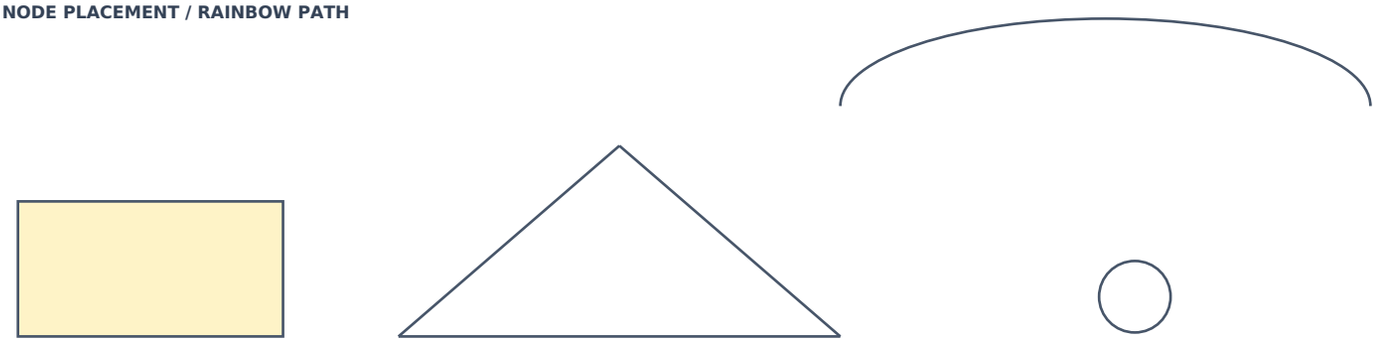
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_F_124_Physical_pr
reference "PINK-05-P0053"
state R -> R1
node N1
representation JP(PINK-05-P0053)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 53 of 96. Chapter 25 F-124 - Physical pressure-flow dissipa-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 54 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 25.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-124anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0054"
state R -> R1
node N1
representation JP(PINK-05-P0054)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 54 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 55 of 96. Chapter 26 F-125 - Information friction Exact expression C_info=int(B_residual(t)dt) Meaning. Storesunresolvedinformationormemorycostwithouttreatingitasenergy. Bound manifestations.JO,M3,MERMAID Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_fri

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_F_125_Information
reference "PINK-05-P0055"
state R -> R1
node N1
representation JP(PINK-05-P0055)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 55 of 96. Chapter 26 F-125 - Information friction Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 56 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 26.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-125anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0056"
state R -> R1
node N1
representation JP(PINK-05-P0056)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 56 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 57 of 96. Chapter 27 F-126 - Rotational setpoint damping Exact expression omega_tilde=(2/3)*omega+(1/3)*omega_star Meaning. Dampsthedesiredrotational-wavesetpoint. Bound manifestations.MK,JO,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F

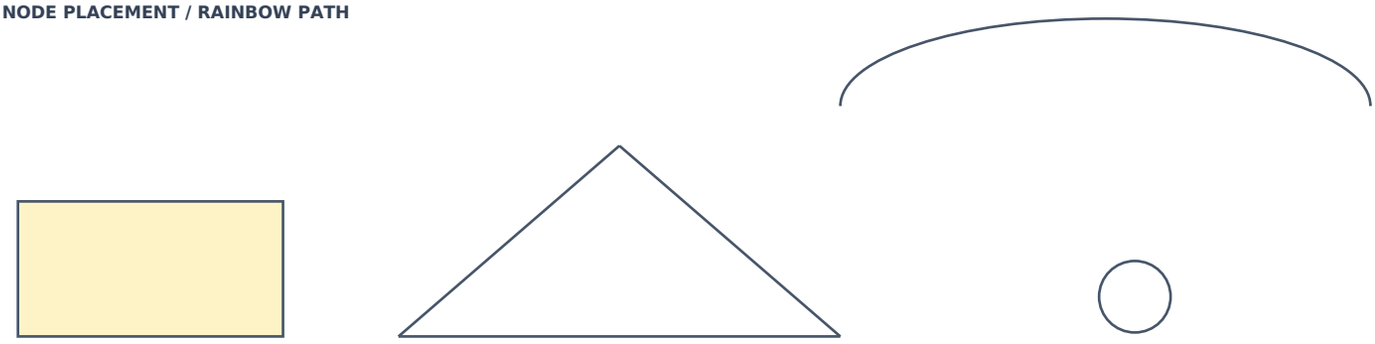
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_F_126_Rotational_
reference "PINK-05-P0057"
state R -> R1
node N1
representation JP(PINK-05-P0057)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 57 of 96. Chapter 27 F-126 - Rotational setpoint damping Exa
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 58 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 27.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-126anditsassumptions,inputs,out

PATH OF EXPRESSION

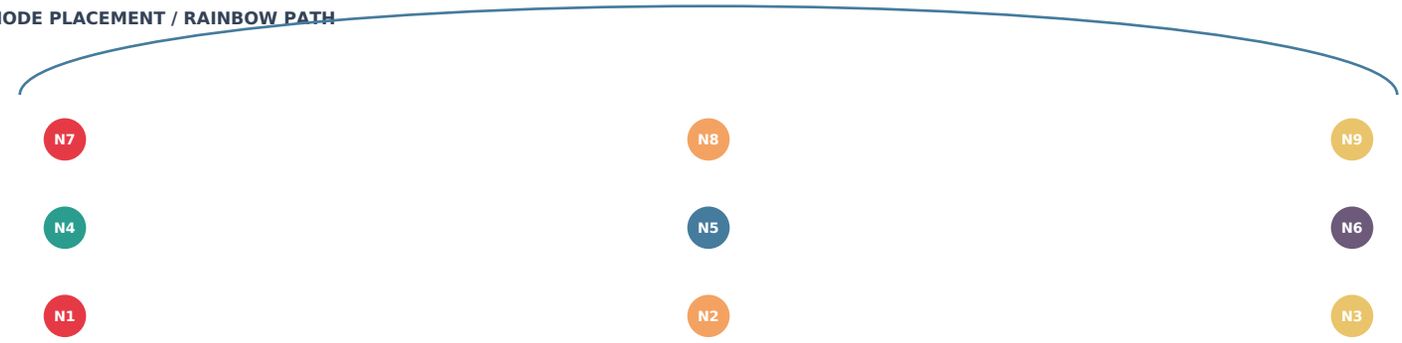
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0058"
state R -> R1
node N1
representation JP(PINK-05-P0058)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 58 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 59 of 96. Chapter 28 F-127 - Rotational step cap Exact expression |omega_next-omega|<=0.1*omega_scale Meaning. Limitsone-steprotationalchanges. Bound manifestations.MK,JO,ANGELS Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_127 Import MJ.PBMEF

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_F_127_Rotational_
reference "PINK-05-P0059"
state R -> R1
node N1
representation JP(PINK-05-P0059)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 59 of 96. Chapter 28 F-127 - Rotational step cap Exact expre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 60 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 28.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-127anditsassumptions,inputs,out

PATH OF EXPRESSION

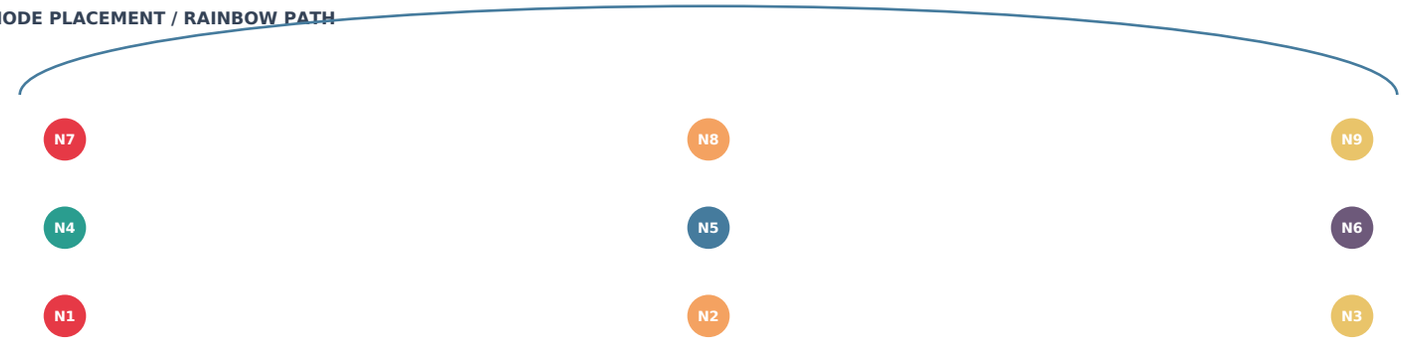
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0060"
state R -> R1
node N1
representation JP(PINK-05-P0060)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 60 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 61 of 96. Chapter 29 F-128 - Outlet transfer conservation Exact expression q_exit=q_lake_in+q_EVE+q_escape+r_o Meaning. Separateslakeadmission,EVEobservation,escape,andresidual. Bound manifestations.EVE,SISTER,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_F_128_Outlet_tran
reference "PINK-05-P0061"
state R -> R1
node N1
representation JP(PINK-05-P0061)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 61 of 96. Chapter 29 F-128 - Outlet transfer conservation Ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 62 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 29.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-128anditsassumptions,inputs,out

PATH OF EXPRESSION

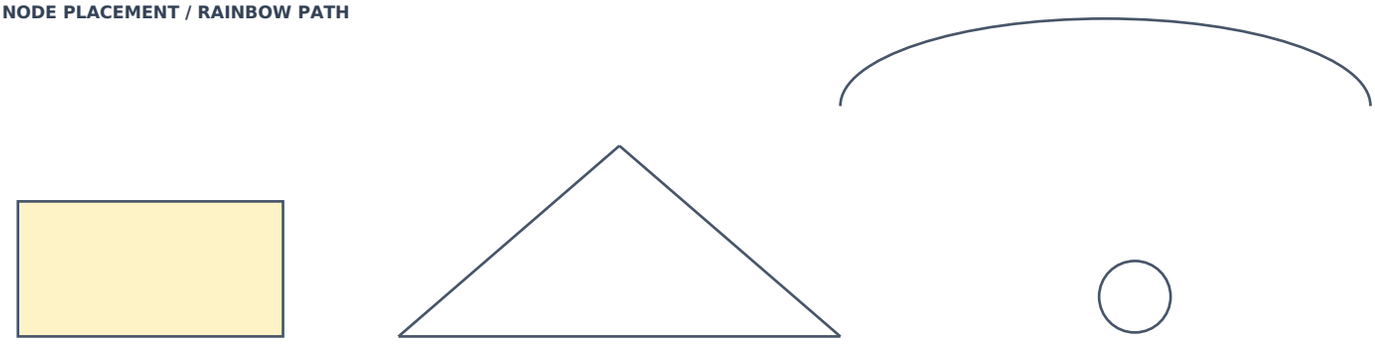
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0062"
state R -> R1
node N1
representation JP(PINK-05-P0062)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 62 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 63 of 96. Chapter 30 F-129 - Re-entry recalculation vector Exact expression Delta_x=[Delta_m,Delta_W,Delta_V,Delta_rho,Delta_T,Delta_p,Delta_h] Meaning. Declarestheobservedchangesthattriggerrecalculationbeforere-entry. Bound manifestations.MK,JO,EVE,SISTER Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_F_129_Re_entry_re
reference "PINK-05-P0063"
state R -> R1
node N1
representation JP(PINK-05-P0063)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 63 of 96. Chapter 30 F-129 - Re-entry recalculation vector E
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 64 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 30.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-129anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0064"
state R -> R1
node N1
representation JP(PINK-05-P0064)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 64 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 65 of 96. Chapter 31 F-130 - Re-entry admissibility predicate Exact expression Admit_re=types&units&new_cycle&capacity&wave&MK&JO&Angels&M3&MJ Meaning. Requirescompletephysics,evidence,safety,routing,andauthoritybeforephysicalre-entry. Bound manifestations.Bangel ,JP,MK,JO,ANGELS,M3,MJ Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.

PATH OF EXPRESSION

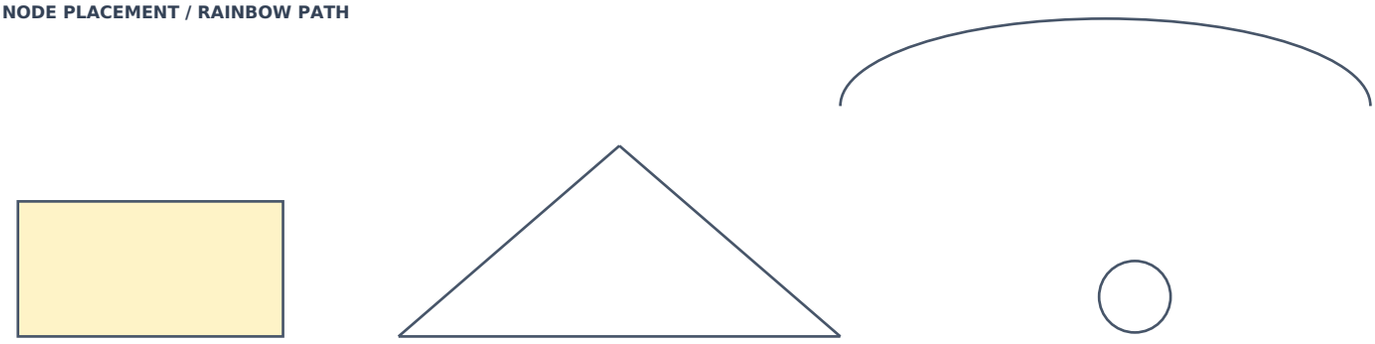
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_31_F_130_Re_entry_ad
reference "PINK-05-P0065"
state R -> R1
node N1
representation JP(PINK-05-P0065)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 65 of 96. Chapter 31 F-130 - Re-entry admissibility predicat
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 66 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 31.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-130anditsassumptions,inputs,out

PATH OF EXPRESSION

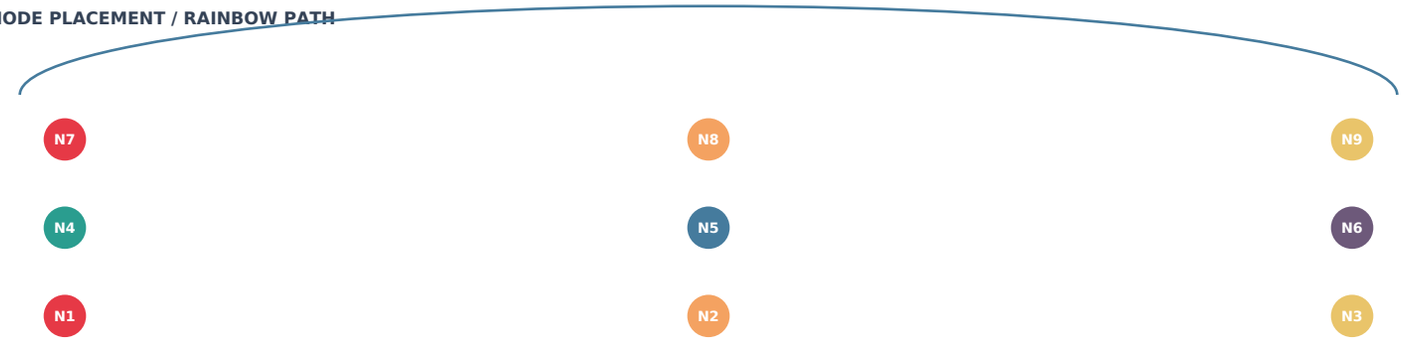
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0066"
state R -> R1
node N1
representation JP(PINK-05-P0066)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 66 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 67 of 96. Chapter 32 F-131 - Uncertainty-aware Pearl refer- ence clearance Exact expression min_s(||gamma_out(s)-c_P||-R_P,sim) >= c_min+U_path Meaning. PathremainsoutsidethenonphysicalPearlsimulationreferencecircleafteruncertainty is included. Bound manifestations.PEARL,MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_r

PATH OF EXPRESSION

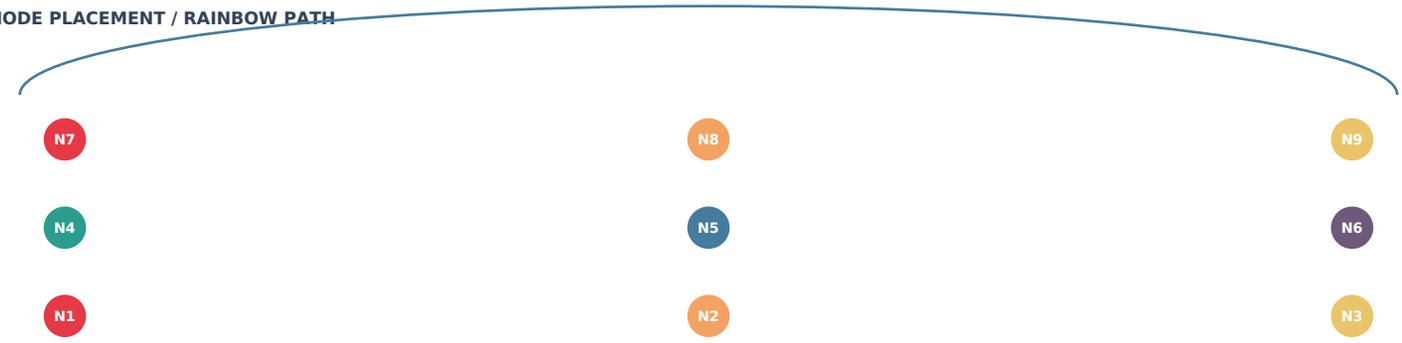
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_32_F_131_Uncertainty
reference "PINK-05-P0067"
state R -> R1
node N1
representation JP(PINK-05-P0067)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 67 of 96. Chapter 32 F-131 - Uncertainty-aware Pearl refer-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 68 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 } 32.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-131anditsassumptions,inputs,o

PATH OF EXPRESSION

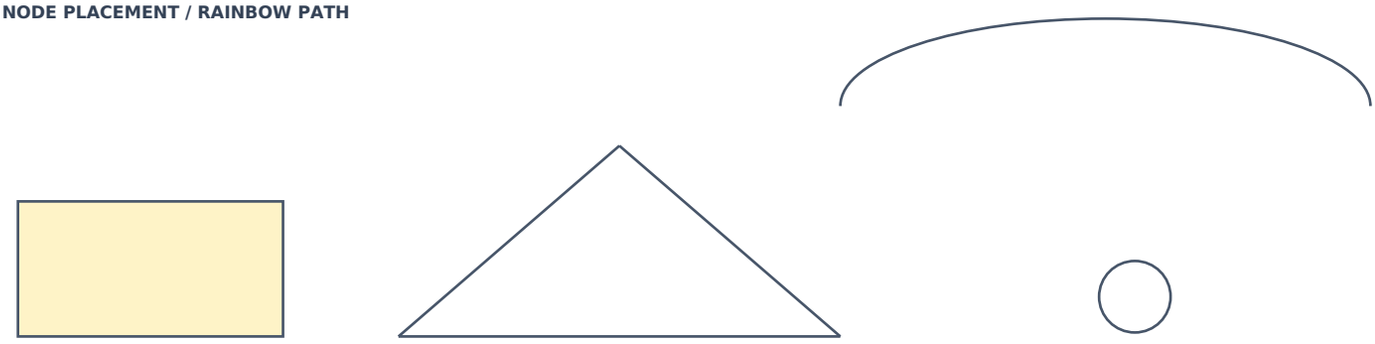
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0068"
state R -> R1
node N1
representation JP(PINK-05-P0068)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 68 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 69 of 96. Chapter 33 F-132 - Outward angular-gap predicate Exact expression abs(wrap(alpha_out-alpha_gap)) <= Delta_alpha_gap/2 Meaning. Outletdirectionremainswithinthedeclaredoutward-facinggap. Bound manifestations.JP,MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_33_F_132_Outward_ang
reference "PINK-05-P0069"
state R -> R1
node N1
representation JP(PINK-05-P0069)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 69 of 96. Chapter 33 F-132 - Outward angular-gap predicate E
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 70 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 33.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-132anditsassumptions,inputs,out

PATH OF EXPRESSION

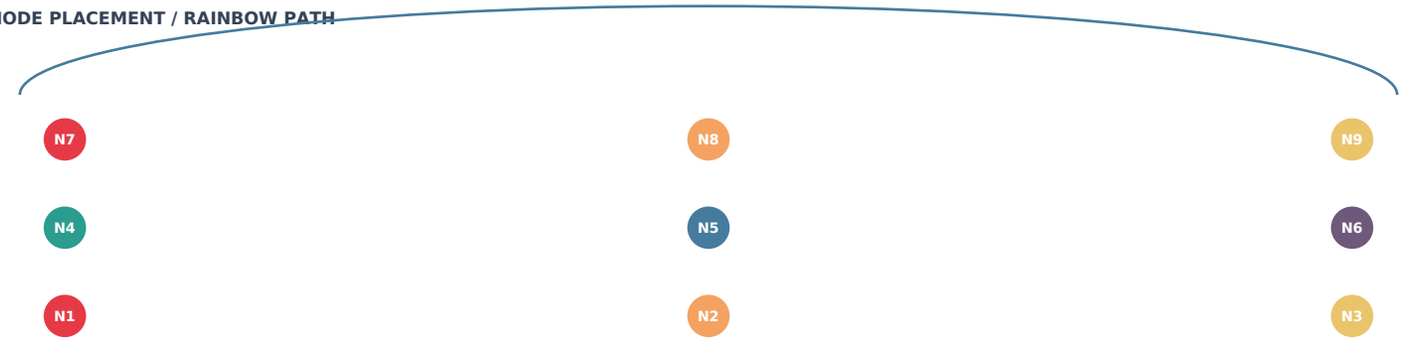
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0070"
state R -> R1
node N1
representation JP(PINK-05-P0070)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 70 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 71 of 96. Chapter 34 F-133 - Available outlet pressure Exact expression Delta_p_available=p_containment-p_lake+rho*g*(z_out-z_lake) Meaning. Pressureandelevationstateavailabletodriveareferenceoutletflow. Bound manifestations.MK,JO,SISTER Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.rese

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_34_F_133_Available_o
reference "PINK-05-P0071"
state R -> R1
node N1
representation JP(PINK-05-P0071)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 71 of 96. Chapter 34 F-133 - Available outlet pressure Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 72 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 34.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-133anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0072"
state R -> R1
node N1
representation JP(PINK-05-P0072)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 72 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 73 of 96. Chapter 35 F-134 - Outlet pressure margin Exact expression Delta_p_margin=Delta_p_available-Delta_p_loss-U_Delta_p Meaning. Conservativepressuremarginafterlossesanduncertainty. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentr

PATH OF EXPRESSION

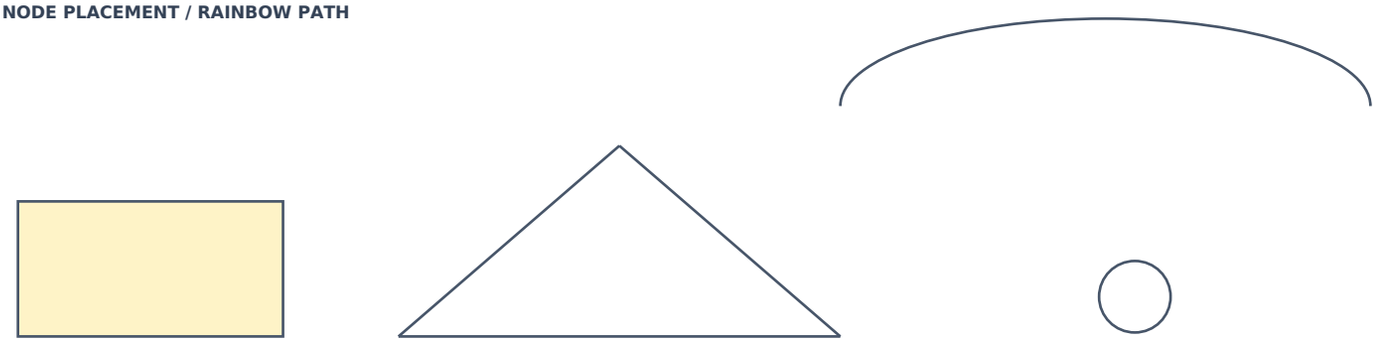
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_35_F_134_Outlet_pres
reference "PINK-05-P0073"
state R -> R1
node N1
representation JP(PINK-05-P0073)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 73 of 96. Chapter 35 F-134 - Outlet pressure margin Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 74 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 35.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-134anditsassumptions,inputs,out

PATH OF EXPRESSION

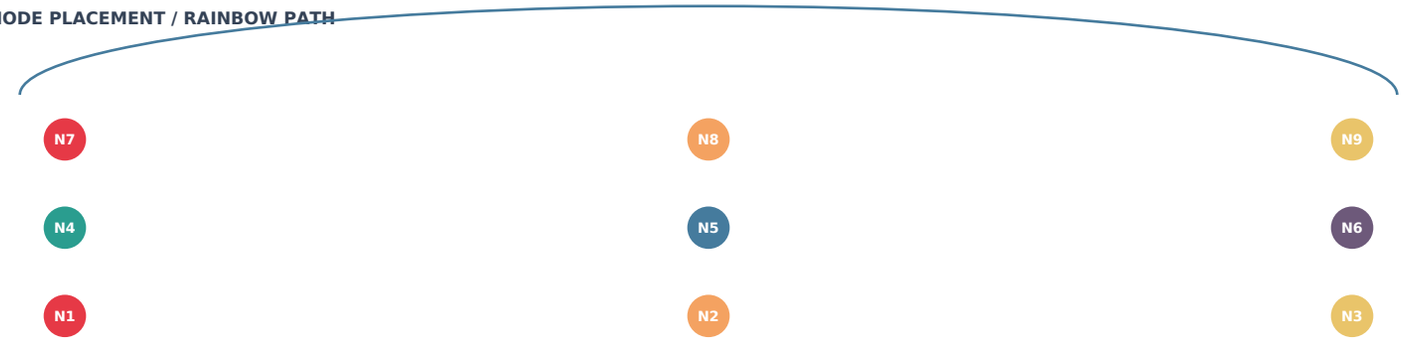
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0074"
state R -> R1
node N1
representation JP(PINK-05-P0074)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 74 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 75 of 96. Chapter 36 F-135 - Minimum outlet grade Exact expression
alpha_min=atan(max(0,Delta_p_loss+U_Delta_p-(p_containment-p_lake))/(rho*g*L_path))
Meaning.
Minimummodeledgradeneededtoovercomepressuredeficitunderdeclaredassumptions.
Bound manifestations.JP,MK,JO Gateway
stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit
Construct Formula-specific expression Module
MJ.PBMEF.reservoir.outlet_lake_reentry_fric

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_36_F_135_Minimum_out
reference "PINK-05-P0075"
state R -> R1
node N1
representation JP(PINK-05-P0075)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 75 of 96. Chapter 36 F-135 - Minimum outlet grade Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 76 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 36.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-135anditsassumptions,inputs,out

PATH OF EXPRESSION

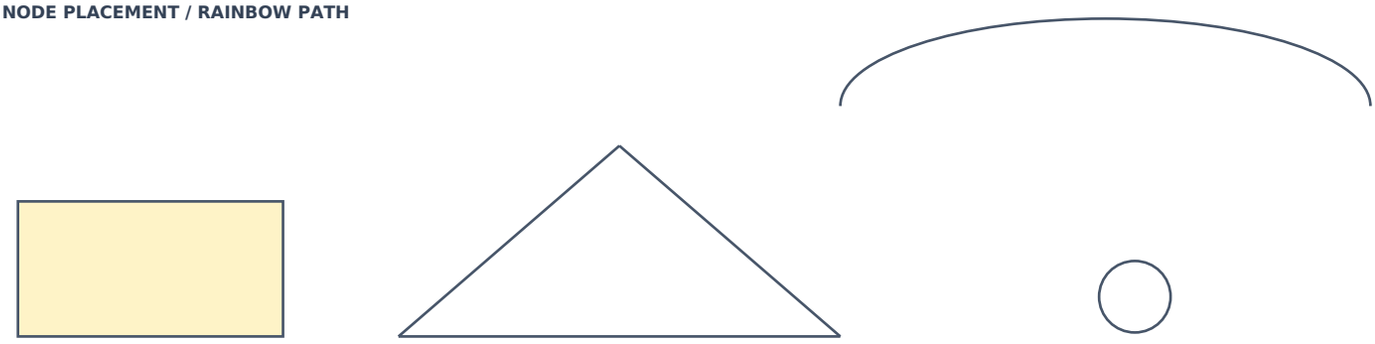
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0076"
state R -> R1
node N1
representation JP(PINK-05-P0076)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 76 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 77 of 96. Chapter 37 F-136 - Selected positive outlet grade Exact expression alpha_selected=alpha_min+delta_alpha; delta_alpha>0 Meaning. Slightpositiveincreaseabovethemodeledminimum;nouniversalvalueisasserted. Bound manifestations.JP,MK,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBME

PATH OF EXPRESSION

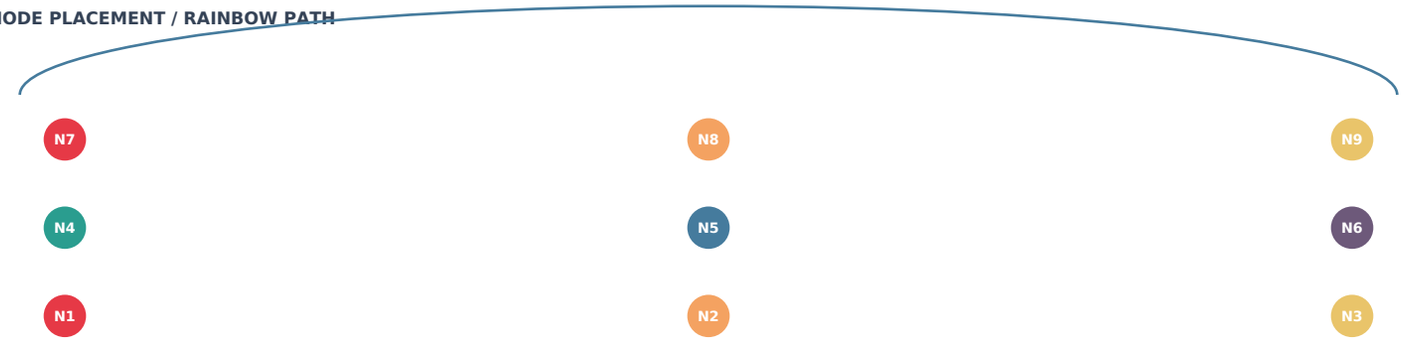
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_37_F_136_Selected_po
reference "PINK-05-P0077"
state R -> R1
node N1
representation JP(PINK-05-P0077)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 77 of 96. Chapter 37 F-136 - Selected positive outlet grade
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 78 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 37.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-136anditsassumptions,inputs,out

PATH OF EXPRESSION

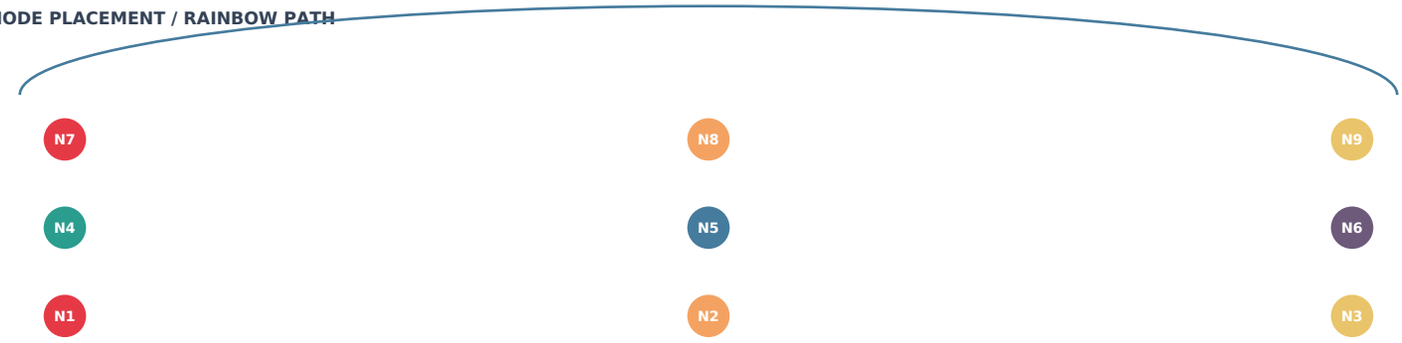
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0078"
state R -> R1
node N1
representation JP(PINK-05-P0078)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 78 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 79 of 96. Chapter 38 F-137 - Incompressible reference outlet flow Exact expression Q_ref=C_d*A_out*sqrt(2*max(0,Delta_p_available-Delta_p_loss)/rho) Meaning. Conditionalreferenceflowunderevidencedincompressibleassumptions. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace M

PATH OF EXPRESSION

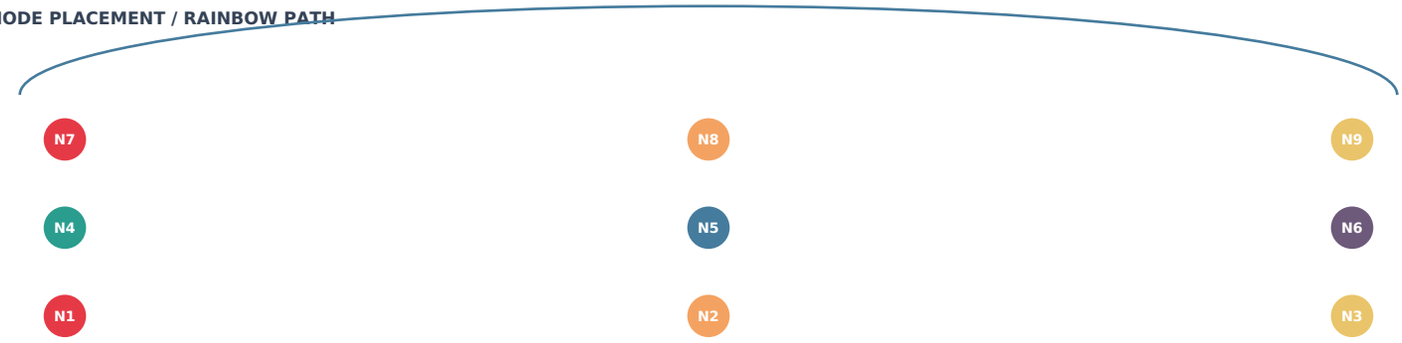
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_38_F_137_Incompressi
reference "PINK-05-P0079"
state R -> R1
node N1
representation JP(PINK-05-P0079)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 79 of 96. Chapter 38 F-137 - Incompressible reference outlet
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 80 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 38.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-137anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0080"
state R -> R1
node N1
representation JP(PINK-05-P0080)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 80 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 81 of 96. Chapter 39 F-138 - Mean outlet velocity Exact expression U_out=Q_ref/A_out Meaning. Conditionalmeanvelocityforthedeclaredoutletarea. Bound manifestations.MK,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_138 Import MJ.PBMEF.Manifest,MJ

PATH OF EXPRESSION

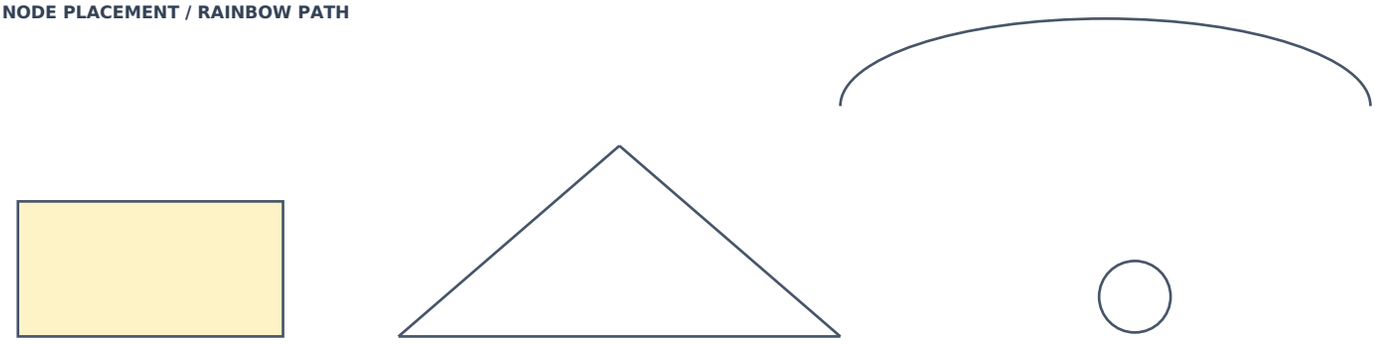
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_39_F_138_Mean_outlet
reference "PINK-05-P0081"
state R -> R1
node N1
representation JP(PINK-05-P0081)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 81 of 96. Chapter 39 F-138 - Mean outlet velocity Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 82 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 39.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-138anditsassumptions,inputs,out

PATH OF EXPRESSION

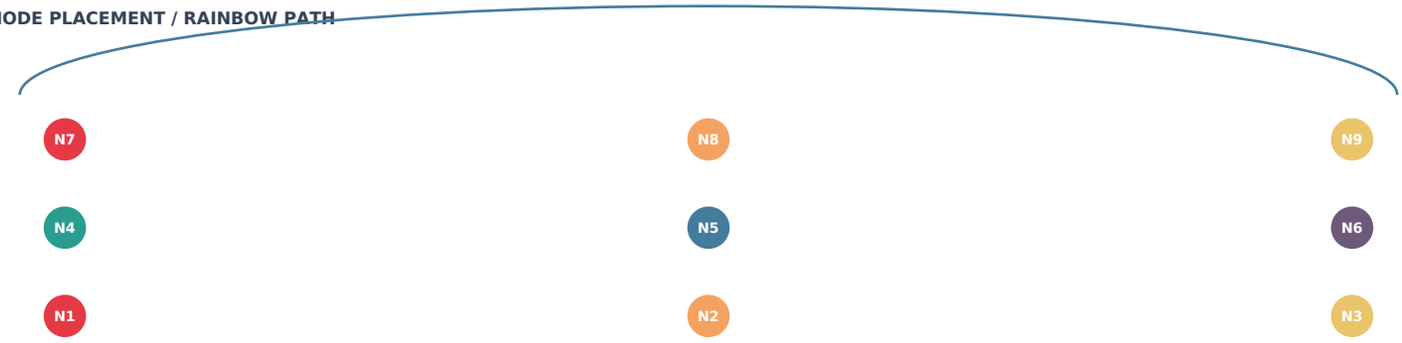
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0082"
state R -> R1
node N1
representation JP(PINK-05-P0082)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 82 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 83 of 96. Chapter 40 F-139 - Weber number reference Exact expression We=rho*U^2*L/sigma Meaning. Surface-tension-to-inertiareferencewhenthemodelapplies. Bound manifestations.MK,JO Gateway stage.Reservoir/lake/re-entryreferencepathwayandsuccessor-cycleevidence Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_139 Import MJ.PBM

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_40_F_139_Weber_numbe
reference "PINK-05-P0083"
state R -> R1
node N1
representation JP(PINK-05-P0083)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 83 of 96. Chapter 40 F-139 - Weber number reference Exact ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 84 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 40.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-139anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0084"
state R -> R1
node N1
representation JP(PINK-05-P0084)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 84 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 85 of 96. Chapter 41 F-140 - Wave amplitude ratio Exact expression epsilon_a=a_wave/h_L Meaning. Dimensionlesssmall-amplitudeobservationratio. Bound manifestations.MK,JO,EVE Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_140 Import MJ.PBMEF.Manifes

PATH OF EXPRESSION

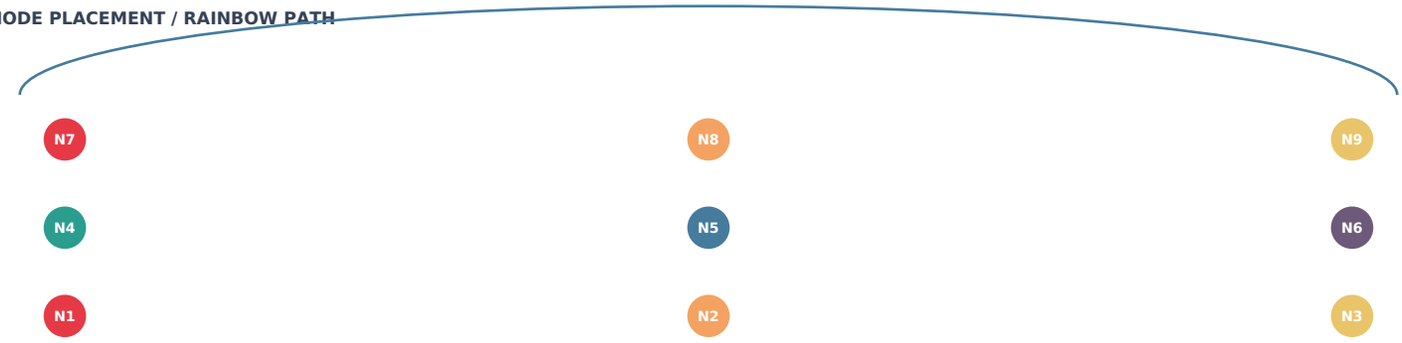
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_41_F_140_Wave_amplit
reference "PINK-05-P0085"
state R -> R1
node N1
representation JP(PINK-05-P0085)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 85 of 96. Chapter 41 F-140 - Wave amplitude ratio Exact expr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 86 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 41.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-140anditsassumptions,inputs,out

PATH OF EXPRESSION

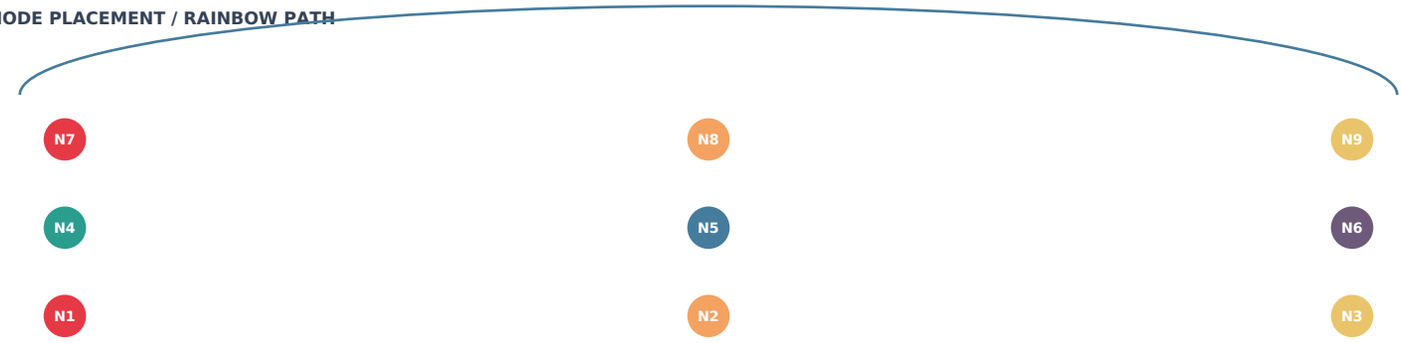
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0086"
state R -> R1
node N1
representation JP(PINK-05-P0086)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 86 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 87 of 96. Chapter 42 F-141 - Small-wave observation gate Exact expression WaveGate=(Fr<=Fr_max)&(epsilon_a<=epsilon_a,max)&(We<=We_max when applicable) Meaning. Referencegateforboundedlow-amplitudeobservations;notproofofwavesuppression. Bound manifestations.MK,JO,ANGELS Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry

PATH OF EXPRESSION

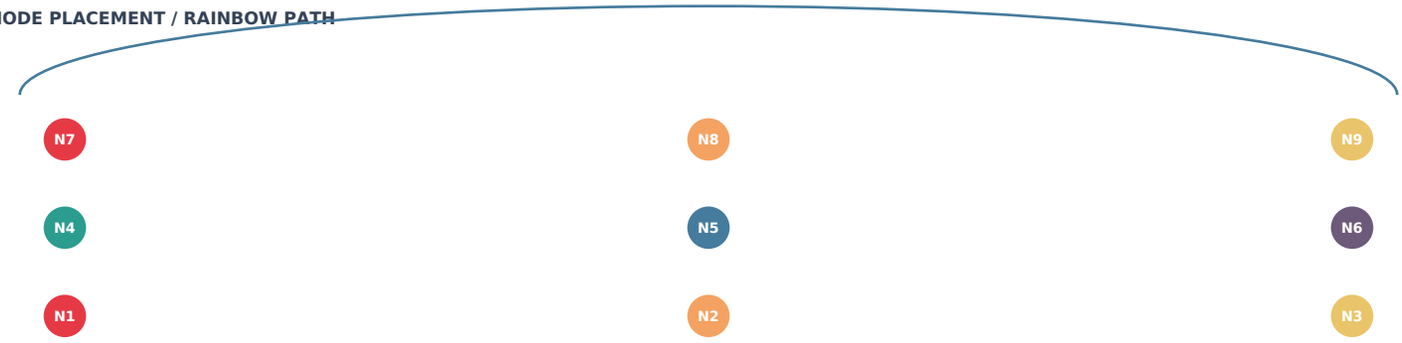
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_42_F_141_Small_wave_
reference "PINK-05-P0087"
state R -> R1
node N1
representation JP(PINK-05-P0087)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 87 of 96. Chapter 42 F-141 - Small-wave observation gate Exa
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 88 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 42.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-141anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0088"
state R -> R1
node N1
representation JP(PINK-05-P0088)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 88 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 89 of 96. Chapter 43 F-142 - Discrete reservoir inventory Exact expression q_L,t+1=q_L,t+q_out-q_return-q_drain-q_escape-r_L Meaning. Receipteddiscreteupdateforthesepar atelake/buffercontrolvolume. Bound manifestations.EVE,M3,MERMAID,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reserv

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_43_F_142_Discrete_re
reference "PINK-05-P0089"
state R -> R1
node N1
representation JP(PINK-05-P0089)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 89 of 96. Chapter 43 F-142 - Discrete reservoir inventory Ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 90 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 43.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-142anditsassumptions,inputs,out

PATH OF EXPRESSION

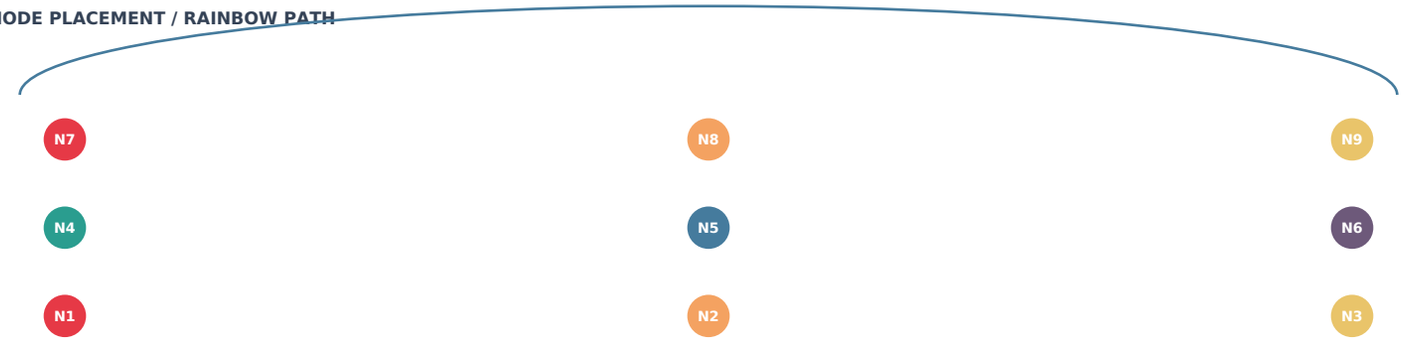
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0090"
state R -> R1
node N1
representation JP(PINK-05-P0090)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 90 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 91 of 96. Chapter 44 F-143 - Vector reservoir headroom Exact expression H_L,k=C_L,k-q_L,k Meaning. Headroomremainsseparateforeveryresourcedimension. Bound manifestations.SISTER,EVE,JO Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.outlet_lake_reentry_friction.F_143 Import MJ.PBM

PATH OF EXPRESSION

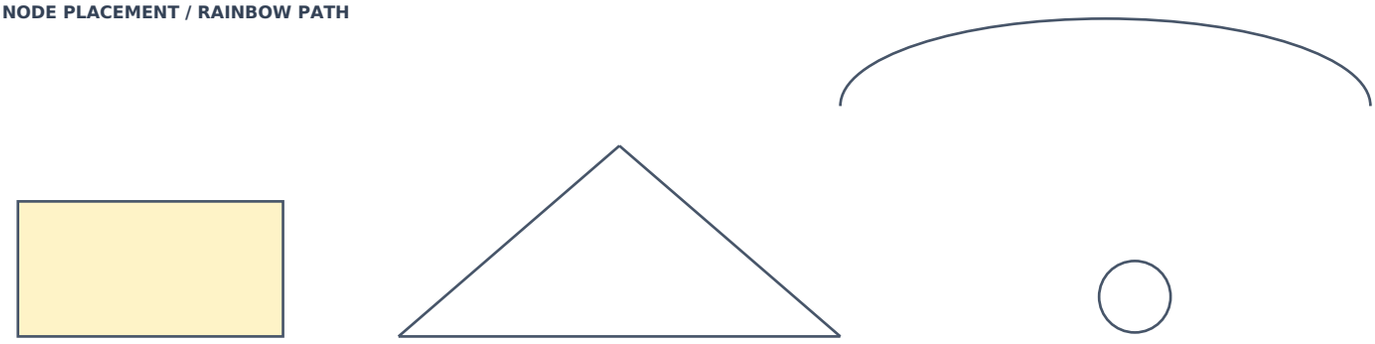
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_44_F_143_Vector_rese
reference "PINK-05-P0091"
state R -> R1
node N1
representation JP(PINK-05-P0091)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 91 of 96. Chapter 44 F-143 - Vector reservoir headroom Exact
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 92 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 44.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-143anditsassumptions,inputs,out

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0092"
state R -> R1
node N1
representation JP(PINK-05-P0092)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 92 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 93 of 96. Chapter 45 F-144 - Vector reservoir admission Exact expression Admit_L=AND_k[q_L,k+q_in,k <= (1-h_L,k)C_L,k] Meaning. Admissionfailswhenanyresourcedimensionlacksrequiredheadroom. Bound manifestations.ANGELS,M3,MK,JO,MJ Gateway stage.Sister/EVE/MK/JOcontainmentorsimulationevidencebeforeMJpermit Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry_friction Namespace MJ.PBMEF.reservoir.out

PATH OF EXPRESSION

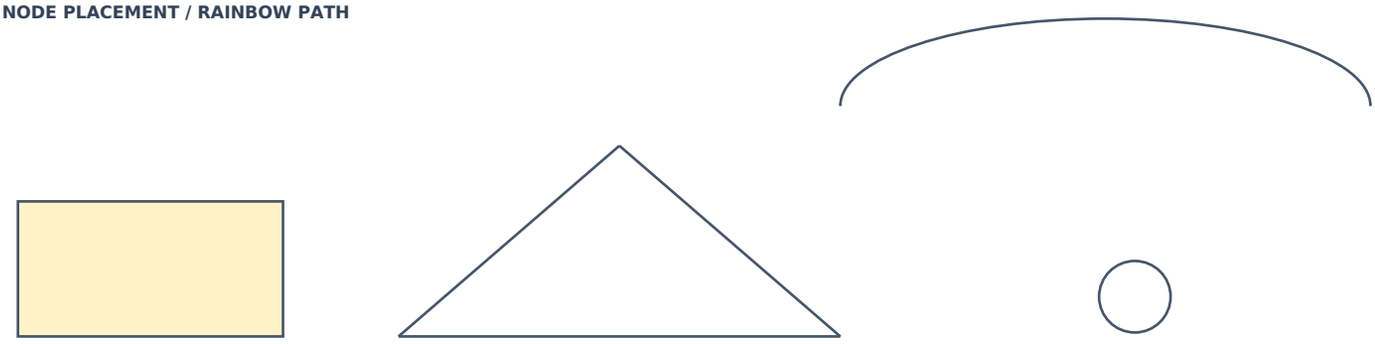
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_45_F_144_Vector_rese
reference "PINK-05-P0093"
state R -> R1
node N1
representation JP(PINK-05-P0093)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 93 of 96. Chapter 45 F-144 - Vector reservoir admission Exac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 94 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 45.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-144anditsassumptions,inputs,out

PATH OF EXPRESSION

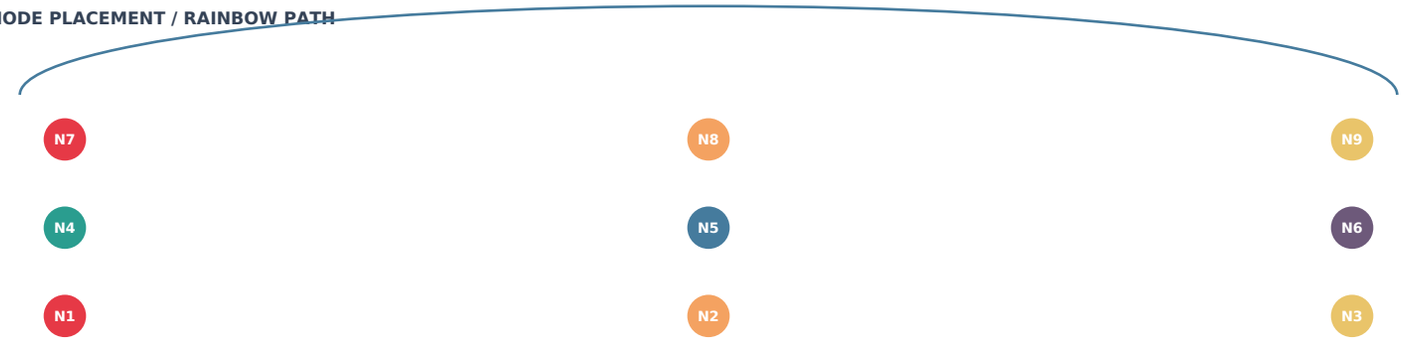
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0094"
state R -> R1
node N1
representation JP(PINK-05-P0094)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 94 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 95 of 96. Chapter 46 F-145 - No same-cycle feedback predi- cate Exact expression ReentryValid=(cycle_reentry=cycle_exit+1)&no_uncleared_generation_reuse Meaning. Re-entrystartsanewreceiptedcycleandcannotfeedthesameactivegeneration. Bound manifestations.M3,JO,ANGELS,MJ Gateway stage.Mermaid/ShivafinancialanalysisandreconciliationbeforeMJdecision Construct Formula-specific expression Module MJ.PBMEF.reservoir.outlet_lake_reentry

PATH OF EXPRESSION

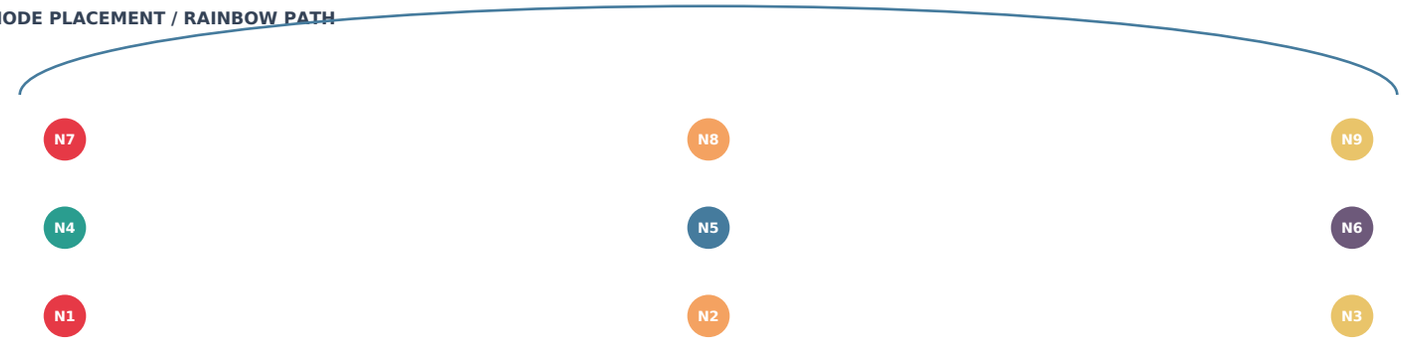
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_46_F_145_No_same_cyc
reference "PINK-05-P0095"
state R -> R1
node N1
representation JP(PINK-05-P0095)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 95 of 96. Chapter 46 F-145 - No same-cycle feedback predi- c
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 96 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper IV - F101-F145 46.2 Lifecycle from request to final output 1. R/R0: receivefounderoruserpurposeandexactcommandscope. 2. Bangel.begin: parsemodules,namespaces,declarations,literals,types,constraints,anddirectives. 3. Elsa: recoversemanticpurpose,variablemeaning,andambiguitywithoutcreatingauthority. 4. JP:createthecanonicalCAPOforF-145anditsassumptions,inputs,out

PATH OF EXPRESSION

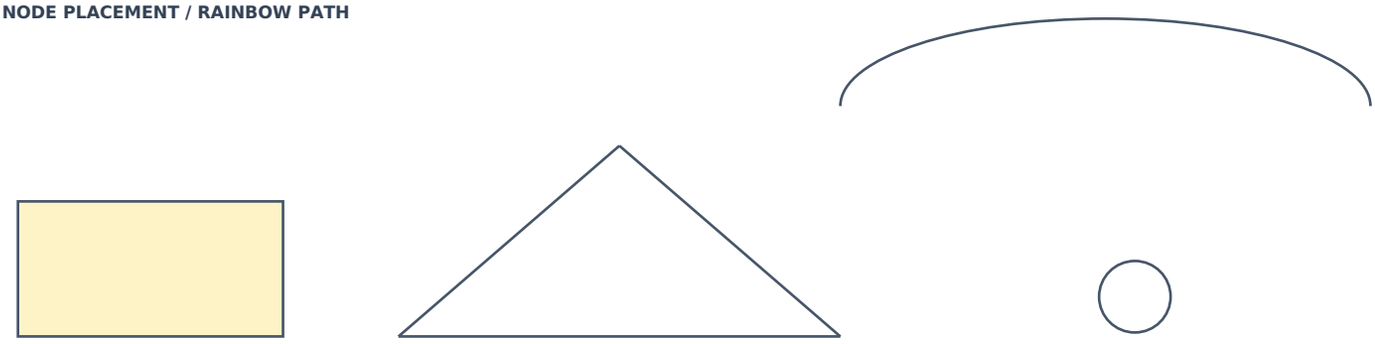
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-05-P0096"
state R -> R1
node N1
representation JP(PINK-05-P0096)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume04_Formulas_F101_F145.pdf, page 96 of 96. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 1 of 47. MJ-PBMEFPinkPaper-VolumeV FamilyManifestationsandGovernedObjectGatewayBindings MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

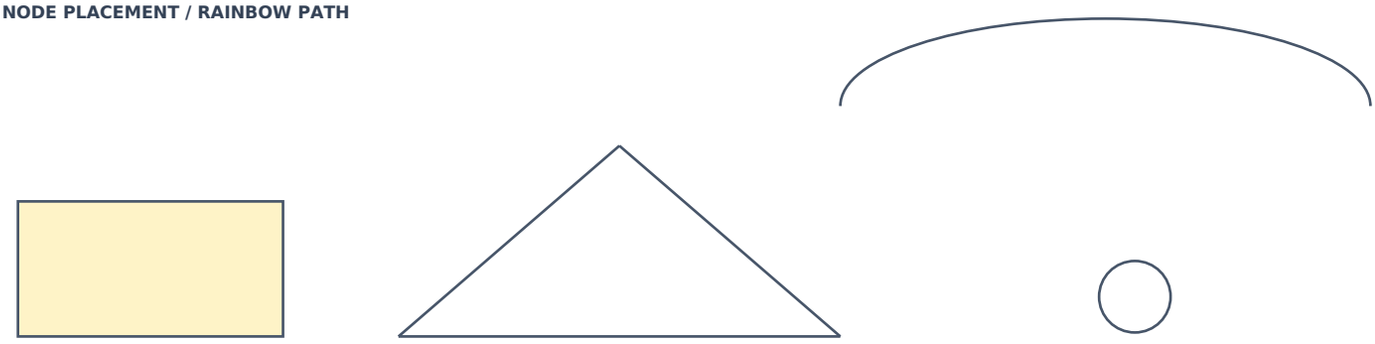
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeV_Fa
reference "PINK-06-P0001"
state R -> R1
node N1
representation JP(PINK-06-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 1 of 47. MJ-PBMEFPinkPaper-VolumeV FamilyManifestationsandGo
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 2 of 47. Contents 1 Family manifestation verification 4 2 MJ -MJ 5 2.1 Command-life-cyclerole . . . . . .5 3 Bangel -Bangel 6 3.1 Command-life-cyclerole . . . . . .6 4 Elsa -ELSA 7 4.1 Command-life-cyclerole . . . . . .7 5 JP -JP 8 5.1 Command

PATH OF EXPRESSION

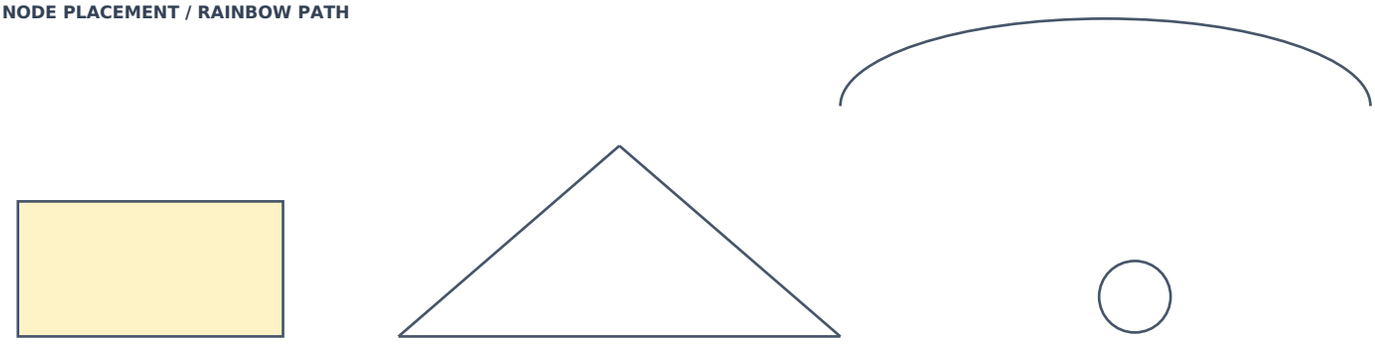
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Family_manifestat
reference "PINK-06-P0002"
state R -> R1
node N1
representation JP(PINK-06-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 2 of 47. Contents 1 Family manifestation verification 4 2 MJ
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 3 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 17Belle -BELLE 20 17.1Command-life-cyclerole . . . . . .20 18Lecanto -LECANTO 21 18.1Command-life-cyclerole . . . . . .21 19Moana -MOANA 22 19.1Command-life-cyclerole . . . . . .

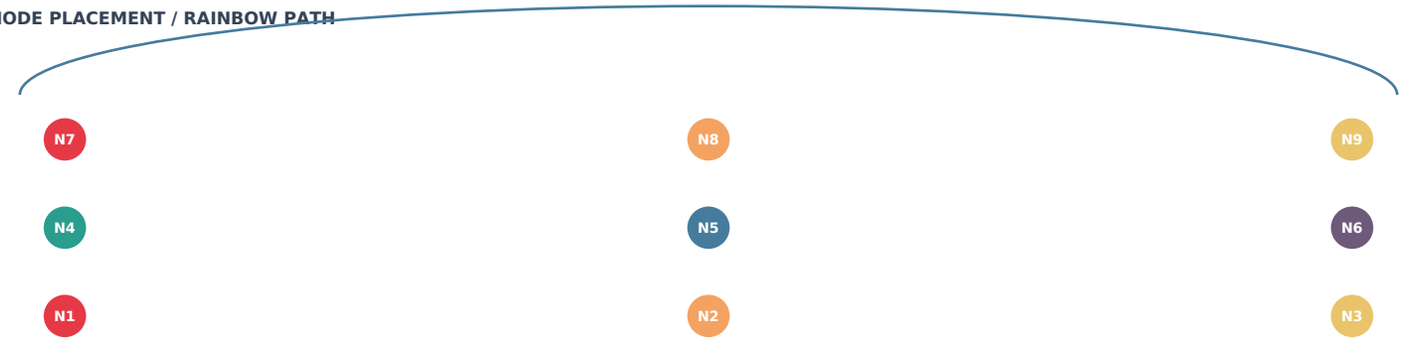
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0003"
state R -> R1
node N9
representation JP(PINK-06-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 3 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE P
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 4 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects Document control Project MJ:PhysicsBasedMeasurementEngineeringFramework Project ID MJ-PBMEF-001 Source build MJ-PBMEF-DAY0-R5-REVIEW-CANDIDATE Document ID MJ-PBMEF-PINK-PAPER-001/VOL-V Author and architect MichaelBangel Status FOUNDER_REVIEW_CANDIDATE_PENDING_FREEZE Scope Allfamilymanifestationsandgovernedobjectsingatewayandlife- cycle

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0004"
state R -> R1
node N1
representation JP(PINK-06-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 4 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE P
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 5 of 47. Chapter 1 Family manifestation verification 4

PATH OF EXPRESSION

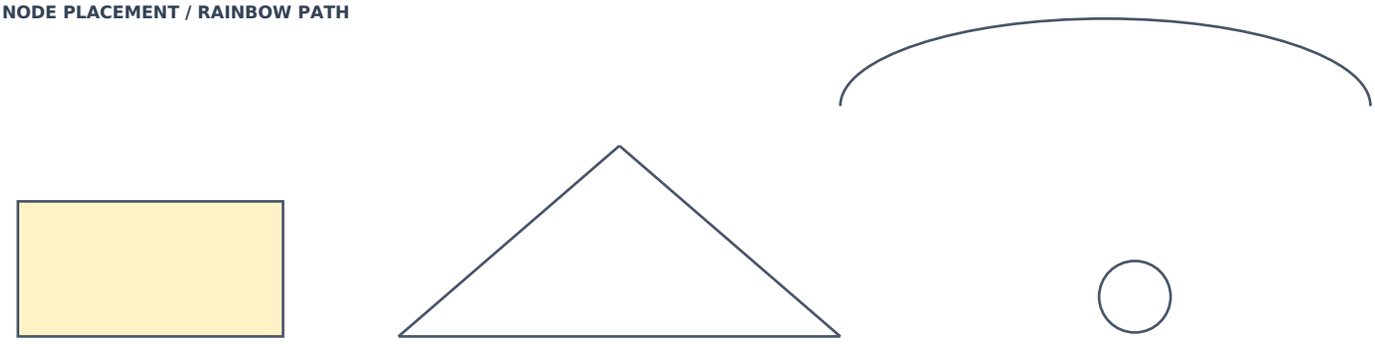
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Family_manifestati
reference "PINK-06-P0005"
state R -> R1
node N1
representation JP(PINK-06-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 5 of 47. Chapter 1 Family manifestation verification 4
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 6 of 47. Chapter 2 MJ -MJ Construct Formula-specific expression Module MJ.PBMEF.Family.MJ Namespace MJ.PBMEF.Family.MJ.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMJ Definition Projectroot,founder-governedauthorityandfinalboundedpermitdecision. Capability boundedpermit,hold,deny,projectstate Participant MJ Relationship Incoming: MICHAEL_BANGEL;outgoing: Bangel Function Projectroot

PATH OF EXPRESSION

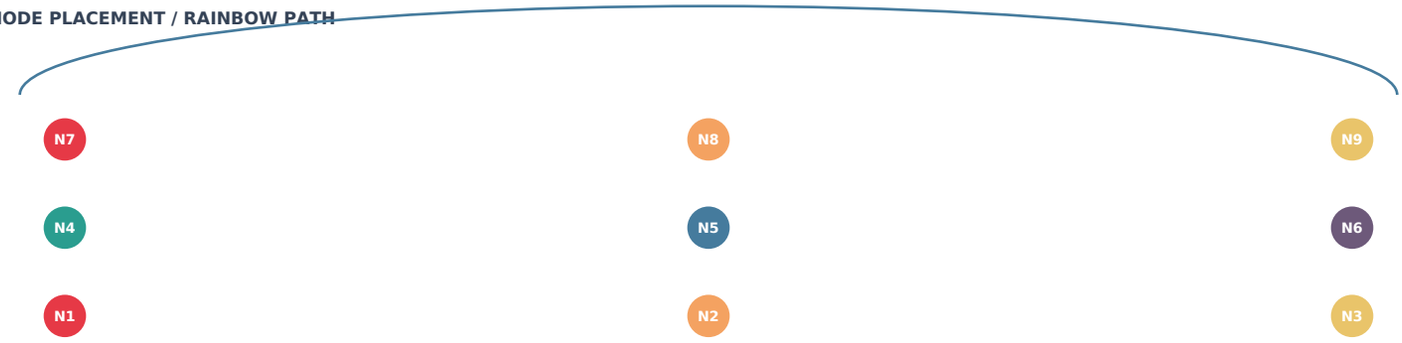
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_MJ_MJ_Construct_Fo
reference "PINK-06-P0006"
state R -> R1
node N1
representation JP(PINK-06-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 6 of 47. Chapter 2 MJ -MJ Construct Formula-specific express
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 7 of 47. Chapter 3 Bangel -Bangel Construct Formula-specific expression Module MJ.PBMEF.Family.Bangel Namespace MJ.PBMEF.Family.Bangel .Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantBangel Definition Human-facinggovernedlanguagethatpreservespurposeandcommandstructure. Capability typedcommandenvelope,sourcerepresentation,BangelSheetsource,if/how/thenoperationali Participant Denal

PATH OF EXPRESSION

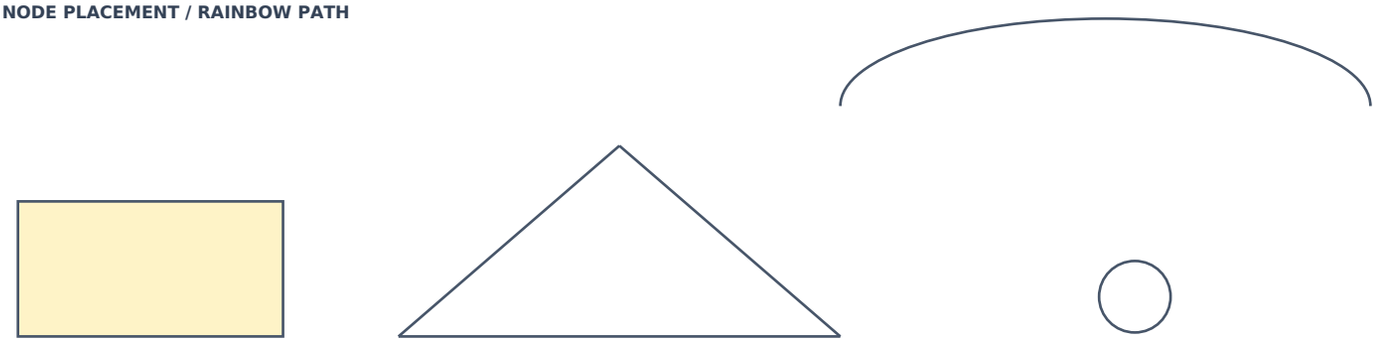
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_Bangel _Bangel _Cons
reference "PINK-06-P0007"
state R -> R1
node N1
representation JP(PINK-06-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 7 of 47. Chapter 3 Bangel -Bangel Construct Formula-specific
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 8 of 47. Chapter 4 Elsa -ELSA Construct Formula-specific expression Module MJ.PBMEF.Family.ELSA Namespace MJ.PBMEF.Family.ELSA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantELSA Definition Deterministicsemanticrecoveryandpurpose-preservationlayer. Capability semanticenvelope,ambiguityhold Participant Elsa Relationship Incoming: Bangel ;outgoing: JP Function Deterministicsemanticrecov

PATH OF EXPRESSION

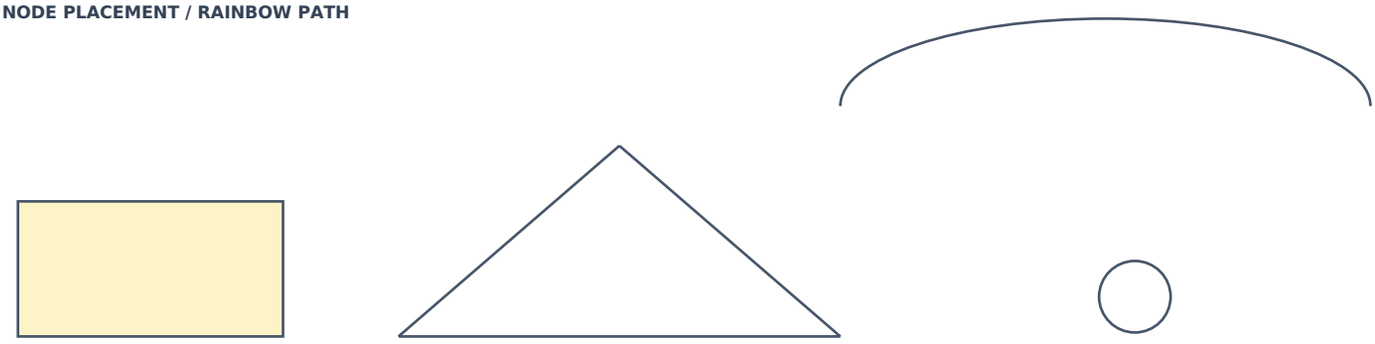
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_Elsa_ELSA_Construc
reference "PINK-06-P0008"
state R -> R1
node N1
representation JP(PINK-06-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 8 of 47. Chapter 4 Elsa -ELSA Construct Formula-specific exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 9 of 47. Chapter 5 JP -JP Construct Formula-specific expression Module MJ.PBMEF.Family.JP Namespace MJ.PBMEF.Family.JP.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantJP Definition Canonicalmathematical,algorithmic,topology,CAPO,andarchitecturerepresentation. Capability mathCAPO,algorithmCAPO,architectureCAPO,PearlCAPO,BangelSheetdependencyCAPO,JPC Participant JP Rel

PATH OF EXPRESSION

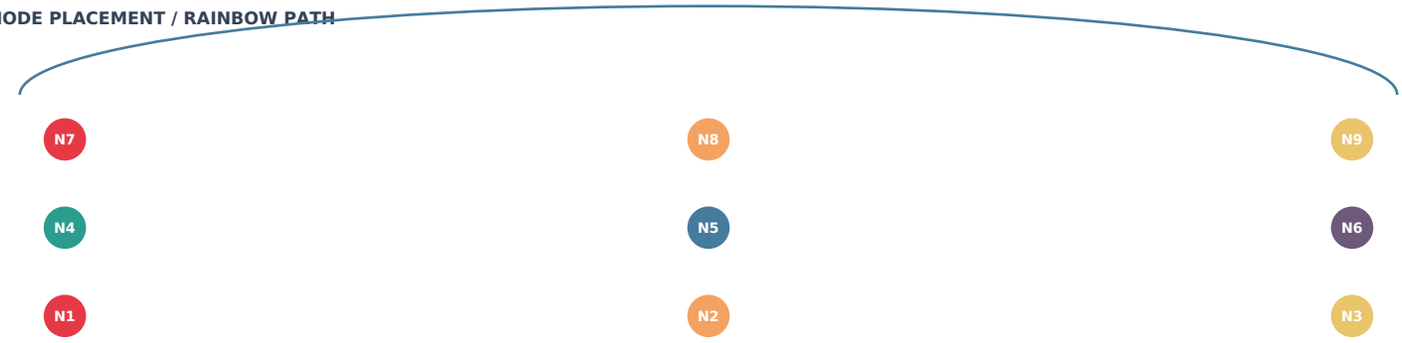
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_JP_JP_Construct_Fo
reference "PINK-06-P0009"
state R -> R1
node N1
representation JP(PINK-06-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 9 of 47. Chapter 5 JP -JP Construct Formula-specific express
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 10 of 47. Chapter 6 Mika / MK -MK Construct Formula-specific expression Module MJ.PBMEF.Family.MK Namespace MJ.PBMEF.Family.MK.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMK Definition PhysicsModulatorSystemfordimensional,conservation,boundary,scale,andevidencerepresen Capability physicsCAPO,not-applicablereceipt,hold,technicalfail,Pearlphysicsreceipt,spreadsheetreso

PATH OF EXPRESSION

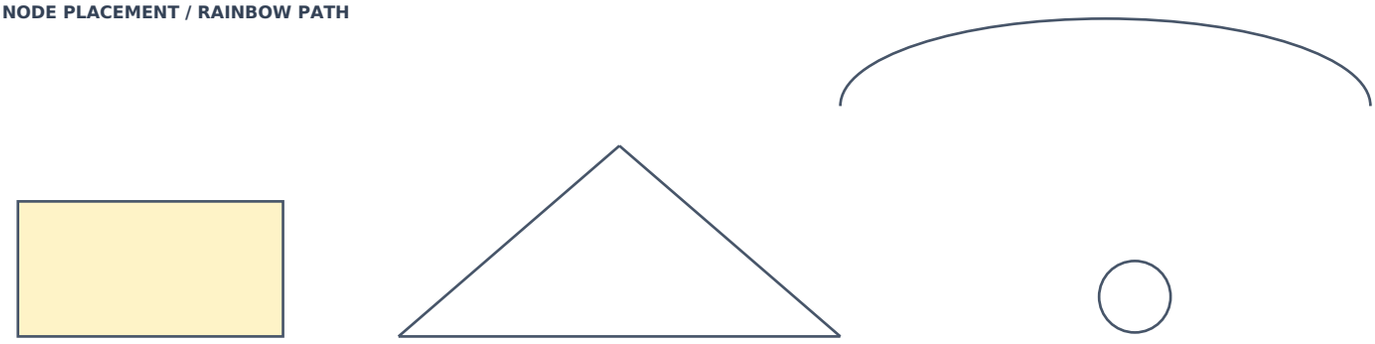
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_Mika_MK_MK_Constru
reference "PINK-06-P0010"
state R -> R1
node N1
representation JP(PINK-06-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 10 of 47. Chapter 6 Mika / MK -MK Construct Formula-specific
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 11 of 47. Chapter 7 JO -JO Construct Formula-specific expression Module MJ.PBMEF.Family.JO Namespace MJ.PBMEF.Family.JO.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantJO Definition Deterministictype,unit,proof,validation,runtime,andevidenceengine. Capability proofreceipt,runtimeresult,hold,deny,sheetrevisionreceipt,Pearlbalancereceipt Participant JO Relationship Incoming: MK;outgoing:

PATH OF EXPRESSION

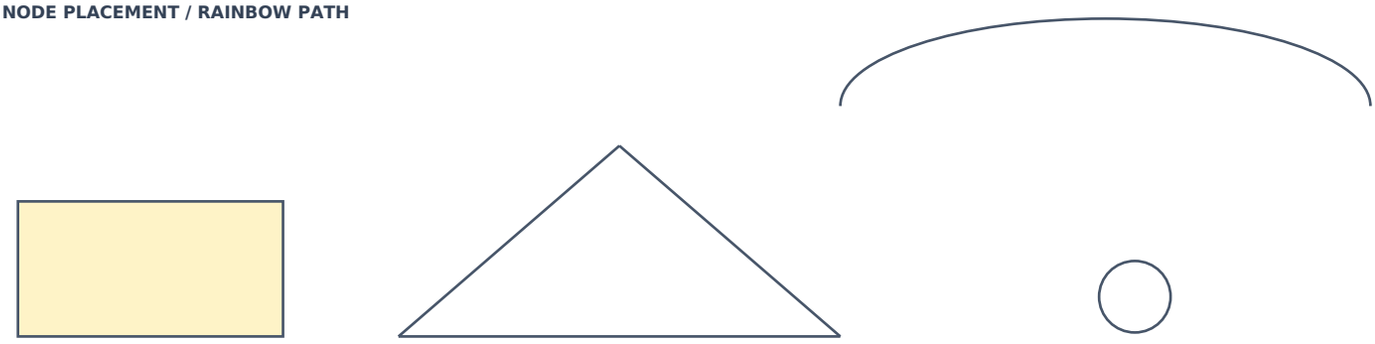
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_JO_JO_Construct_Fo
reference "PINK-06-P0011"
state R -> R1
node N1
representation JP(PINK-06-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 11 of 47. Chapter 7 JO -JO Construct Formula-specific expres
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 12 of 47. Chapter 8 MJOS -MJOS Construct Formula-specific expression Module MJ.PBMEF.Family.MJOS Namespace MJ.PBMEF.Family.MJOS.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMJOS Definition Operating-systemandinfrastructuresubstrateinsideMJ. Capability resourceservice,infrastructureevidence Participant MJOS Relationship Incoming: JO_EXECUTION;outgoing: receipttoMJ/JO Function Operati

PATH OF EXPRESSION

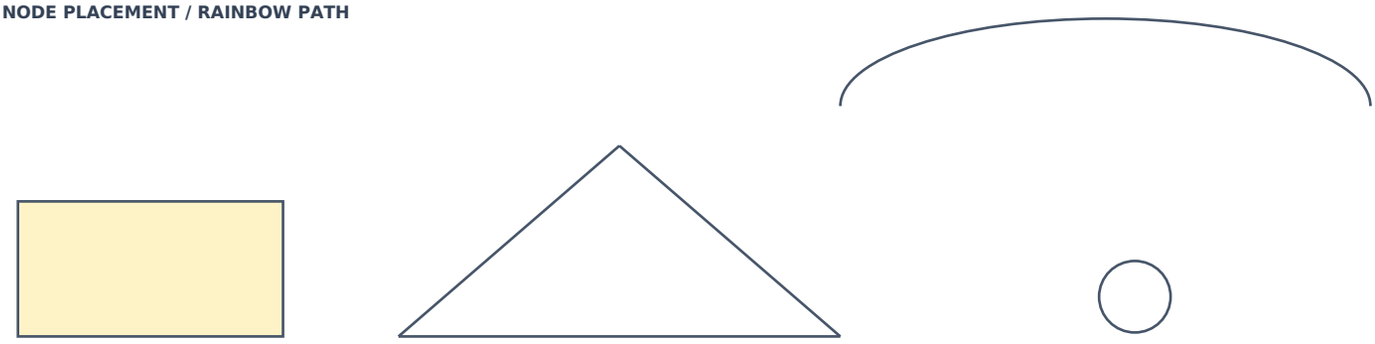
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_MJOS_MJOS_Construc
reference "PINK-06-P0012"
state R -> R1
node N1
representation JP(PINK-06-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 12 of 47. Chapter 8 MJOS -MJOS Construct Formula-specific ex
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 13 of 47. Chapter 9 Angels -ANGELS Construct Formula-specific expression Module MJ.PBMEF.Family.ANGELS Namespace MJ.PBMEF.Family.ANGELS.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantANGELS Definition Domain-specificobservation,telemetry,hold,denial,andcorrective-commandfamily Capability safetyreceipt,hold,deny,correctionrequest Participant Angels Relationship Incoming: JO;outgoing:

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_Angels_ANGELS_Cons
reference "PINK-06-P0013"
state R -> R1
node N1
representation JP(PINK-06-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 13 of 47. Chapter 9 Angels -ANGELS Construct Formula-specifi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 14 of 47. Chapter 10 Bellatrix -BELLATRIX Construct Formula-specific expression Module MJ.PBMEF.Family.BELLATRIX Namespace MJ.PBMEF.Family.BELLATRIX.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantBELLATRIX Definition Independentdefense,challenge,quarantine,hostile-deviationanalysis,anddenial. Capability deny,quarantine,challengereceipt Participant Bellatrix Relationship Incoming: JO;o

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_Bellatrix_BELLATR
reference "PINK-06-P0014"
state R -> R1
node N1
representation JP(PINK-06-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 14 of 47. Chapter 10 Bellatrix -BELLATRIX Construct Formula-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 15 of 47. Chapter 11 Sister -SISTER Construct Formula-specific expression Module MJ.PBMEF.Family.SISTER Namespace MJ.PBMEF.Family.SISTER.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantSISTER Definition Predictivedigitaltwin,preallocationevidence,anomalydetection,umbrellacollection,andcano Capability forecast,containmentrequest,digital-twinreceipt,physic

PATH OF EXPRESSION

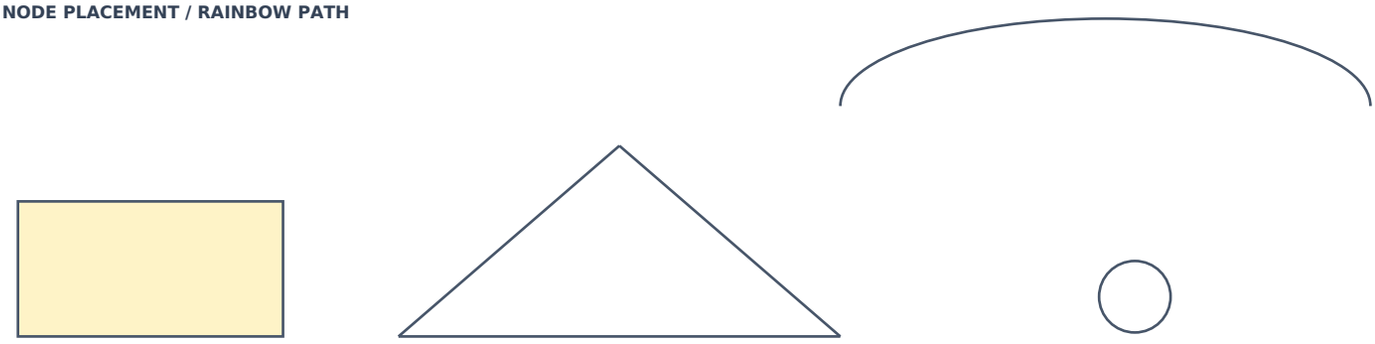
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_Sister_SISTER_Con
reference "PINK-06-P0015"
state R -> R1
node N1
representation JP(PINK-06-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 15 of 47. Chapter 11 Sister -SISTER Construct Formula-specif
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 16 of 47. Chapter 12 EVE -EVE Construct Formula-specific expression Module MJ.PBMEF.Family.EVE Namespace MJ.PBMEF.Family.EVE.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantEVE Definition Variance,evaporativeeffect,screencapture,leakage,smoke-likeegress,andboundary-accour Capability EVEobservation,capture/egressledger,hold,Pearlescape/captureobservation Participant EVE Rel

PATH OF EXPRESSION

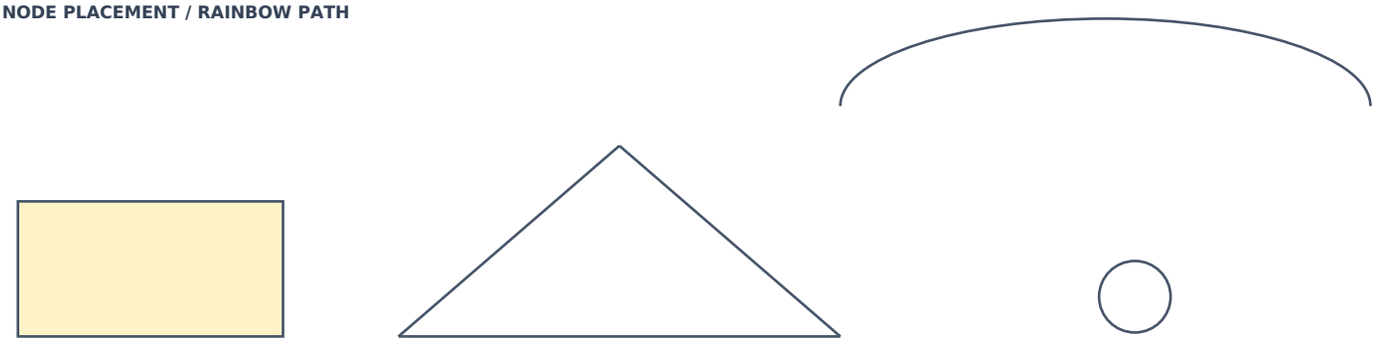
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_EVE_EVE_Construct
reference "PINK-06-P0016"
state R -> R1
node N1
representation JP(PINK-06-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 16 of 47. Chapter 12 EVE -EVE Construct Formula-specific exp
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 17 of 47. Chapter 13 Mary / M3 -M3 Construct Formula-specific expression Module MJ.PBMEF.Family.M3 Namespace MJ.PBMEF.Family.M3.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantM3 Definition Boundedrouting,APIgateway,loadbalancing,connectionpooling,andallocationstewardship. Capability routereceipt,allocationleaseuse,returnreceipt,Pearlallocation/transferreceipt,BangelSheetp

PATH OF EXPRESSION

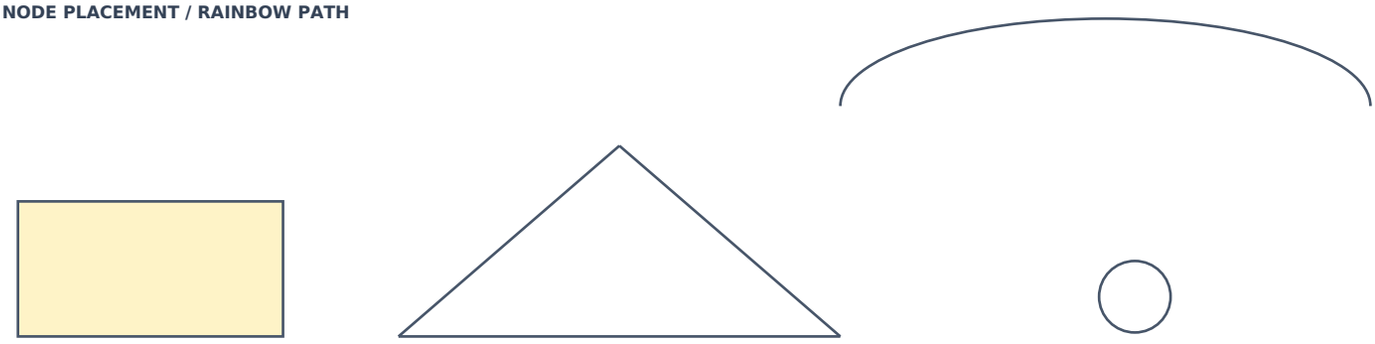
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_Mary_M3_M3_Constr
reference "PINK-06-P0017"
state R -> R1
node N1
representation JP(PINK-06-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 17 of 47. Chapter 13 Mary / M3 -M3 Construct Formula-specifi
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 18 of 47. Chapter 14 Mermaid -MERMAID Construct Formula-specific expression Module MJ.PBMEF.Family.MERMAID Namespace MJ.PBMEF.Family.MERMAID.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMERMAID Definition Accounting,reconciliation,exposure,custodyevidence,statements,taxlots,andfinancialconse Capability account,balance,exposure,reconciliationreceipt Participant Mermaid Relatio

PATH OF EXPRESSION

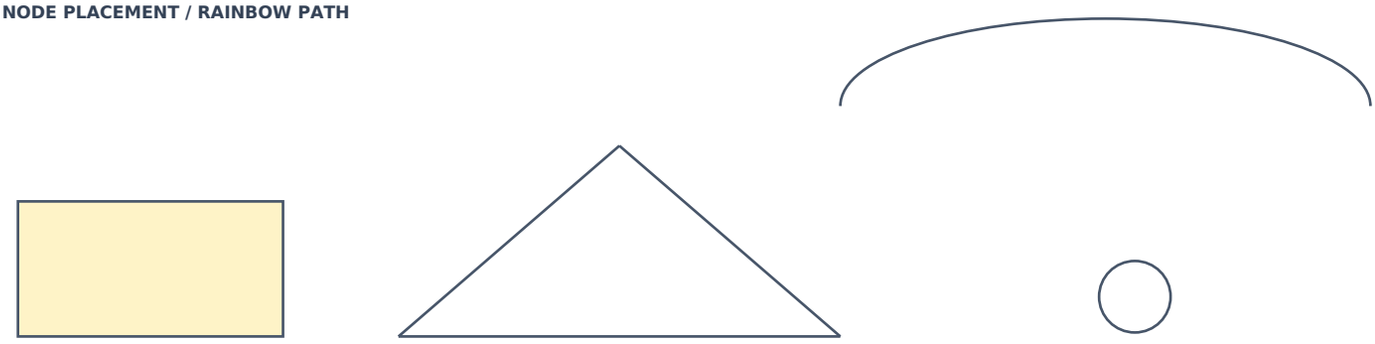
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_Mermaid_MERMAID_C
reference "PINK-06-P0018"
state R -> R1
node N1
representation JP(PINK-06-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 18 of 47. Chapter 14 Mermaid -MERMAID Construct Formula-spec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 19 of 47. Chapter 15 Shiva -SHIVA Construct Formula-specific expression Module MJ.PBMEF.Family.SHIVA Namespace MJ.PBMEF.Family.SHIVA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantSHIVA Definition Finance,money,treasury,liquidity,capital-jobclassification,risk/opportunityanalysis,anddistr Capability capitalproposal,job-of-moneyclassification,distributionplan Participan

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_Shiva_SHIVA_Const
reference "PINK-06-P0019"
state R -> R1
node N1
representation JP(PINK-06-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 19 of 47. Chapter 15 Shiva -SHIVA Construct Formula-specific
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 20 of 47. Chapter 16 Shekina -SHEKINA Construct Formula-specific expression Module MJ.PBMEF.Family.SHEKINA Namespace MJ.PBMEF.Family.SHEKINA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantSHEKINA Definition Distributedplacement,replication,continuity,andinfrastructureevidence. Capability placementreceipt,continuityevidence Participant Shekina Relationship Incoming: JO_EXECUTION;outgoi

PATH OF EXPRESSION

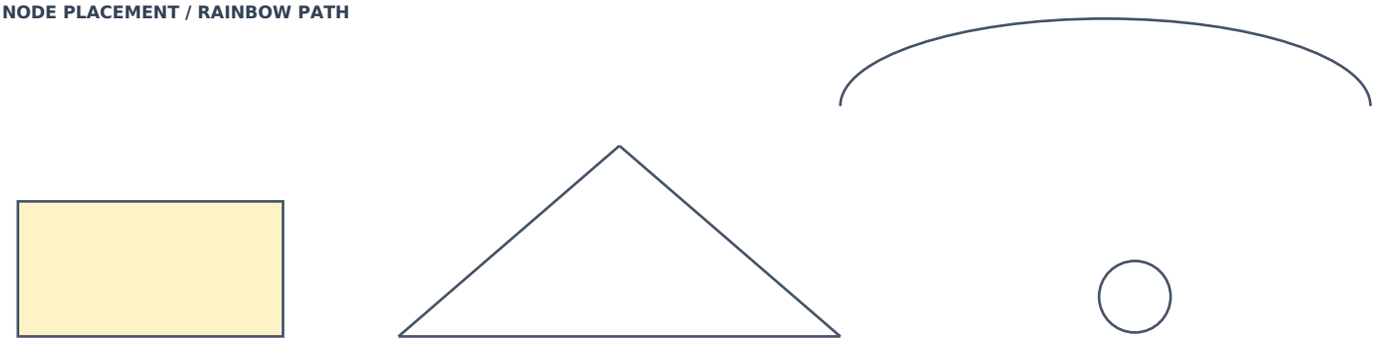
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_Shekina_SHEKINA_C
reference "PINK-06-P0020"
state R -> R1
node N1
representation JP(PINK-06-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 20 of 47. Chapter 16 Shekina -SHEKINA Construct Formula-spec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 21 of 47. Chapter 17 Belle -BELLE Construct Formula-specific expression Module MJ.PBMEF.Family.BELLE Namespace MJ.PBMEF.Family.BELLE.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantBELLE Definition Engineeringanalysis,feasibility,topologyreview,andboundedproposals. Capability engineeringproposal,risknote Participant Belle Relationship Incoming: MK;outgoing: receipttoMJ/JO Function Engi

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_Belle_BELLE_Const
reference "PINK-06-P0021"
state R -> R1
node N1
representation JP(PINK-06-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 21 of 47. Chapter 17 Belle -BELLE Construct Formula-specific
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 22 of 47. Chapter 18 Lecanto -LECANTO Construct Formula-specific expression Module MJ.PBMEF.Family.LECANTO Namespace MJ.PBMEF.Family.LECANTO.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantLECANTO Definition Truthfulgovernedvisualizationofstate,provenance,uncertainty,andsystemstructure. Capability visualrepresentation Participant Lecanto Relationship Incoming: JO_EXECUTION;outgoing: MO

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_Lecanto_LECANTO_C
reference "PINK-06-P0022"
state R -> R1
node N1
representation JP(PINK-06-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 22 of 47. Chapter 18 Lecanto -LECANTO Construct Formula-spec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 23 of 47. Chapter 19 Moana -MOANA Construct Formula-specific expression Module MJ.PBMEF.Family.MOANA Namespace MJ.PBMEF.Family.MOANA.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantMOANA Definition Browserandinteractionpresentationofgovernedapplicationsandevidence. Capability interactionsurface Participant Moana Relationship Incoming: LECANTO;outgoing: receipttoMJ/JO Function Browseran

PATH OF EXPRESSION

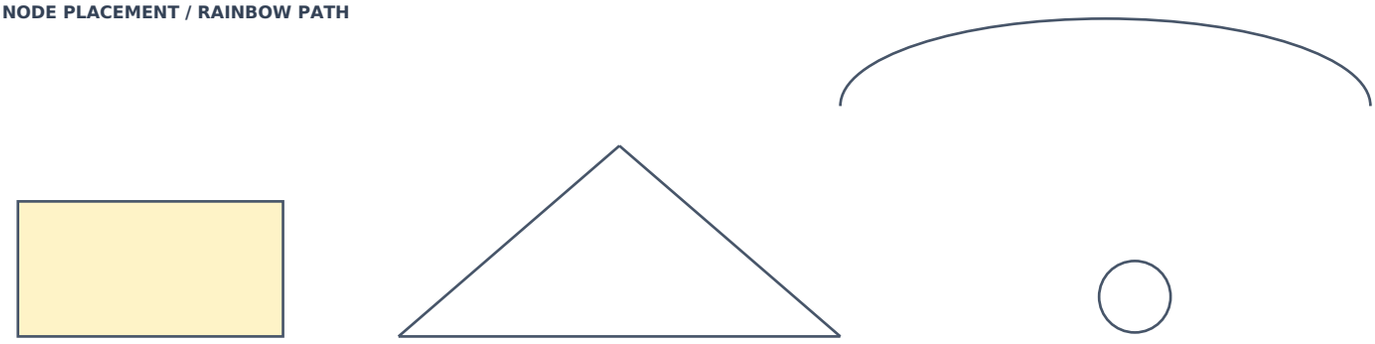
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_Moana_MOANA_Const
reference "PINK-06-P0023"
state R -> R1
node N1
representation JP(PINK-06-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 23 of 47. Chapter 19 Moana -MOANA Construct Formula-specific
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 24 of 47. Chapter 20 Aviator -AVIATOR Construct Formula-specific expression Module MJ.PBMEF.Family.AVIATOR Namespace MJ.PBMEF.Family.AVIATOR.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantAVIATOR Definition Organizationalworkspace,projects,decisions,roles,knowledge,andgovernedworkflow. Capability workspacestate,decisionrecords Participant Aviator Relationship Incoming: JO_EXECUTION;ou

PATH OF EXPRESSION

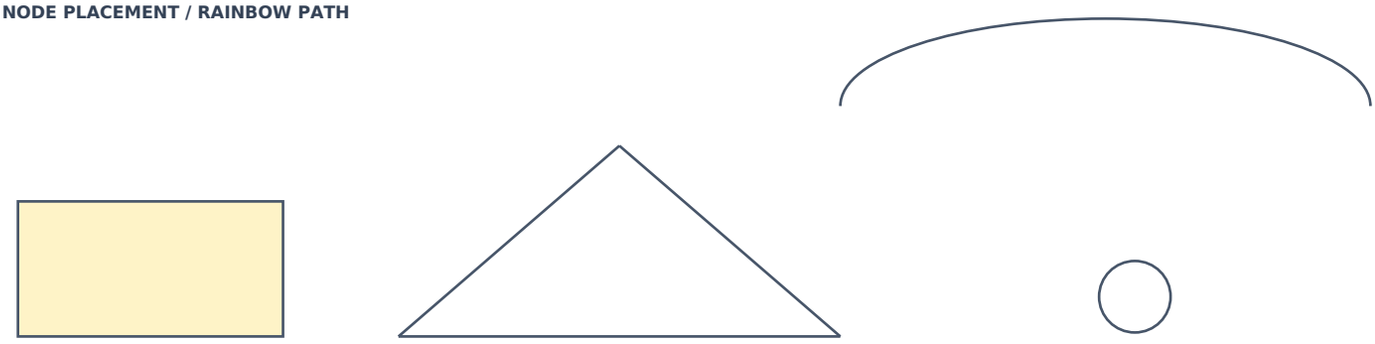
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_Aviator_AVIATOR_C
reference "PINK-06-P0024"
state R -> R1
node N1
representation JP(PINK-06-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 24 of 47. Chapter 20 Aviator -AVIATOR Construct Formula-spec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 25 of 47. Chapter 21 CHI -CHI Construct Formula-specific expression Module MJ.PBMEF.Family.CHI Namespace MJ.PBMEF.Family.CHI.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantCHI Definition Temporalvarianceandexpected-observed-delivered-reconcileddifferencestate. Capability varianceobject Participant CHI Relationship Incoming: MJ/rootcontext;outgoing: receipttoMJ/JO Function Temporalvari

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_CHI_CHI_Construct
reference "PINK-06-P0025"
state R -> R1
node N1
representation JP(PINK-06-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 25 of 47. Chapter 21 CHI -CHI Construct Formula-specific exp
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 26 of 47. Chapter 22 WATER -WATER Construct Formula-specific expression Module MJ.PBMEF.Family.WATER Namespace MJ.PBMEF.Family.WATER.Day0 Import MJ.PBMEF.Manifest,MJ.PBMEF.Authority,MJ.PBMEF.Formulas Declaration participantWATER Definition Intervaluncertainty,verifiedfloor,andboundedunknown-stateclassification. Capability stateclassification Participant WATER Relationship Incoming: MJ/rootcontext;outgoing: receipttoMJ/JO Funct

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_WATER_WATER_Const
reference "PINK-06-P0026"
state R -> R1
node N1
representation JP(PINK-06-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 26 of 47. Chapter 22 WATER -WATER Construct Formula-specific
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 27 of 47. Chapter 23 Governed object verification 26

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_Governed_object_v
reference "PINK-06-P0027"
state R -> R1
node N6
representation JP(PINK-06-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 27 of 47. Chapter 23 Governed object verification 26
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 28 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.1 JP_CAPO Construct Formula-specific expression Module MJ.PBMEF.Object.JP_CAPO Namespace MJ.PBMEF.Object.JP_CAPO.Day0 Declaration objectJP_CAPO Definition Canonicalmath,algorithm,topology,orarchitecturerepresentation Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparticipantsdeterminedbyobjectr

PATH OF EXPRESSION

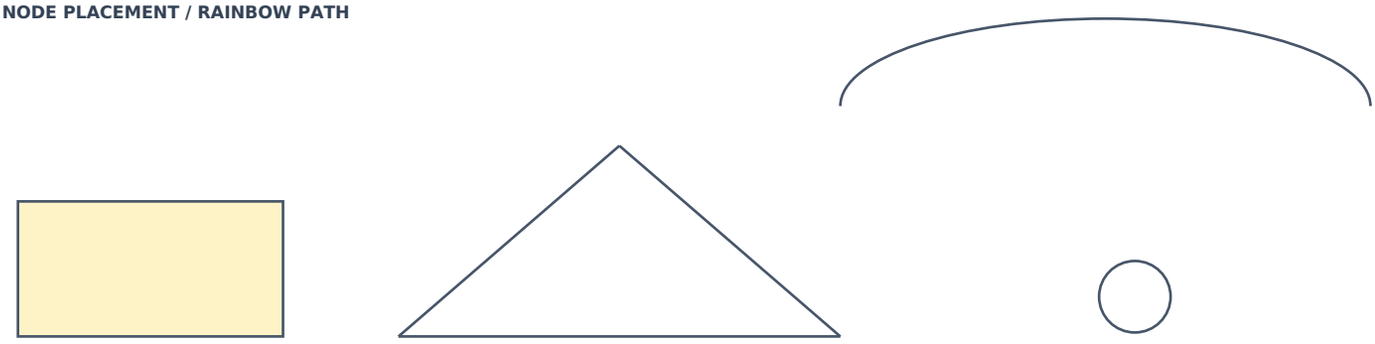
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0028"
state R -> R1
node N1
representation JP(PINK-06-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 28 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 29 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.3 JO_PROOF_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.JO_PROOF_RECEIPT Namespace MJ.PBMEF.Object.JO_PROOF_RECEIPT.Day0 Declaration objectJO_PROOF_RECEIPT Definition Executedverificationresult Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparticipantsdeterminedbyobject

PATH OF EXPRESSION

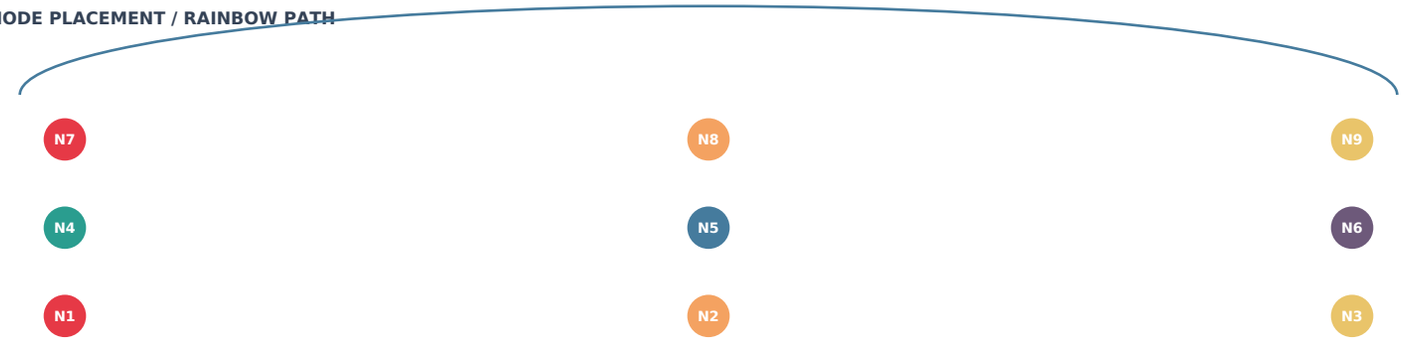
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0029"
state R -> R1
node N1
representation JP(PINK-06-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 29 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 30 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.5 EVE_OBSERVATION Construct Formula-specific expression Module MJ.PBMEF.Object.EVE_OBSERVATION Namespace MJ.PBMEF.Object.EVE_OBSERVATION.Day0 Declaration objectEVE_OBSERVATION Definition Variance,screen,capture,egress,orresidualevidence Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparticipant

PATH OF EXPRESSION

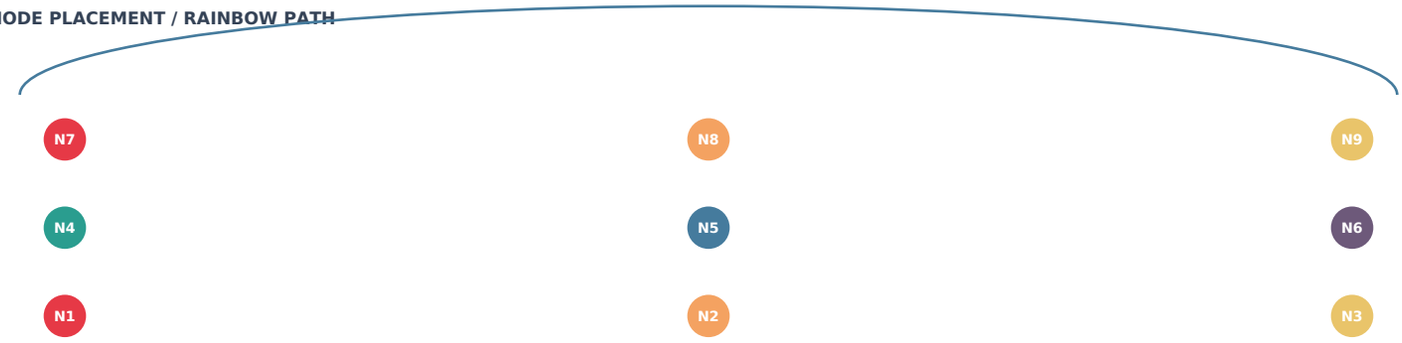
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0030"
state R -> R1
node N1
representation JP(PINK-06-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 30 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 31 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.7 MERMAID_ACCOUNT Construct Formula-specific expression Module MJ.PBMEF.Object.MERMAID_ACCOUNT Namespace MJ.PBMEF.Object.MERMAID_ACCOUNT.Day0 Declaration objectMERMAID_ACCOUNT Definition Accounting,custody,exposure,tax,andreconciliationrecord Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparti

PATH OF EXPRESSION

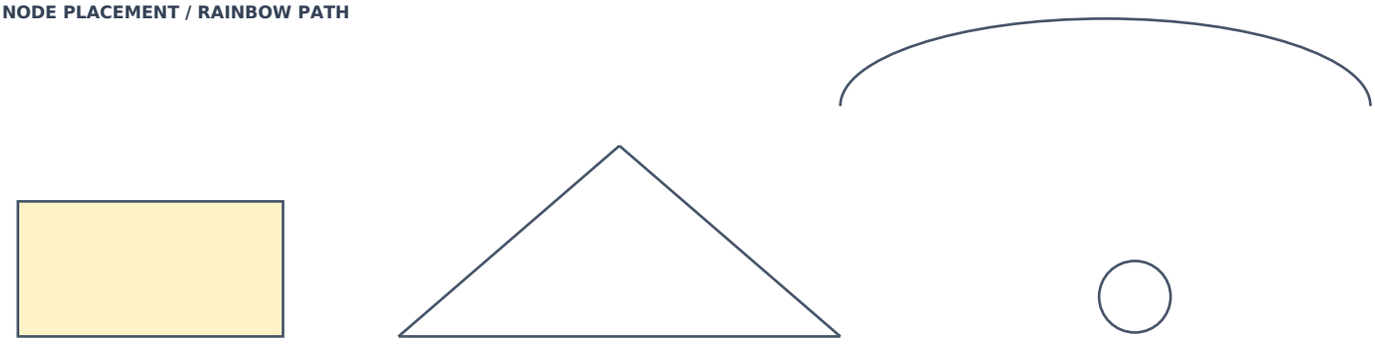
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0031"
state R -> R1
node N1
representation JP(PINK-06-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 31 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 32 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.9 SHIVAS_INTERNAL_REFLECTION Construct Formula-specific expression Module MJ.PBMEF.Object.SHIVAS_INTERNAL_REFLECTION Namespace MJ.PBMEF.Object.SHIVAS_INTERNAL_REFLECTION.Day0 Declaration objectSHIVAS_INTERNAL_REFLECTION Definition Internalnon-transferablecapital-reflectionobject Capability Represent,retain,route,reconcile,orevidence

PATH OF EXPRESSION

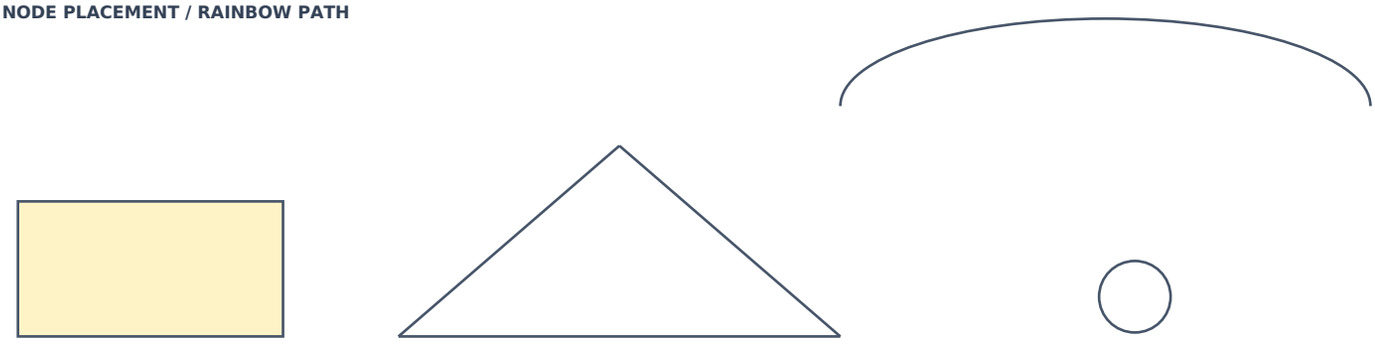
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0032"
state R -> R1
node N1
representation JP(PINK-06-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 32 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 33 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.11 WATER_INTERVAL_STATE Construct Formula-specific expression Module MJ.PBMEF.Object.WATER_INTERVAL_STATE Namespace MJ.PBMEF.Object.WATER_INTERVAL_STATE.Day0 Declaration objectWATER_INTERVAL_STATE Definition Uncertaintyintervalstate Capability Represent,retain,route,reconcile,orevidenceonlyasdeclared Participant Boundparticipantsdet

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0033"
state R -> R1
node N1
representation JP(PINK-06-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 33 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 34 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.13 PEARL_VARIANCE_CONTAINER Construct Formula-specific expression Module MJ.PBMEF.Object.PEARL_VARIANCE_CONTAINER Namespace MJ.PBMEF.Object.PEARL_VARIANCE_CONTAINER.Day0 Declaration objectPEARL_VARIANCE_CONTAINER Definition LegacystableIDforapearl-shapedhypotheticalsimulationandinformation-retentionobject;new Cap

PATH OF EXPRESSION

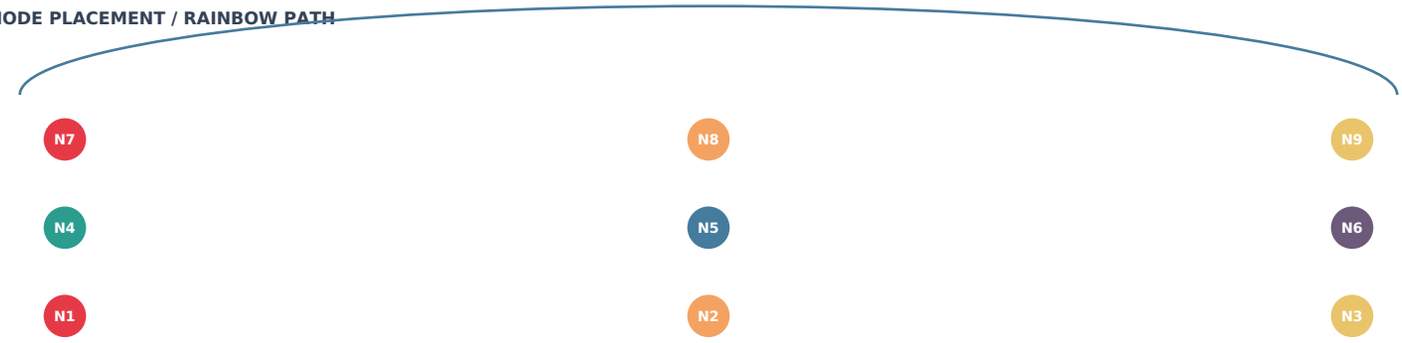
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0034"
state R -> R1
node N1
representation JP(PINK-06-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 34 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N5; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 35 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.15 PEARL_ACOUSTIC_PROFILE Construct Formula-specific expression Module MJ.PBMEF.Object.PEARL_ACOUSTIC_PROFILE Namespace MJ.PBMEF.Object.PEARL_ACOUSTIC_PROFILE.Day0 Declaration objectPEARL_ACOUSTIC_PROFILE Definition Hypotheticalacousticsimulationprofilewithdeclaredfrequency,medium,observability,uncert

PATH OF EXPRESSION

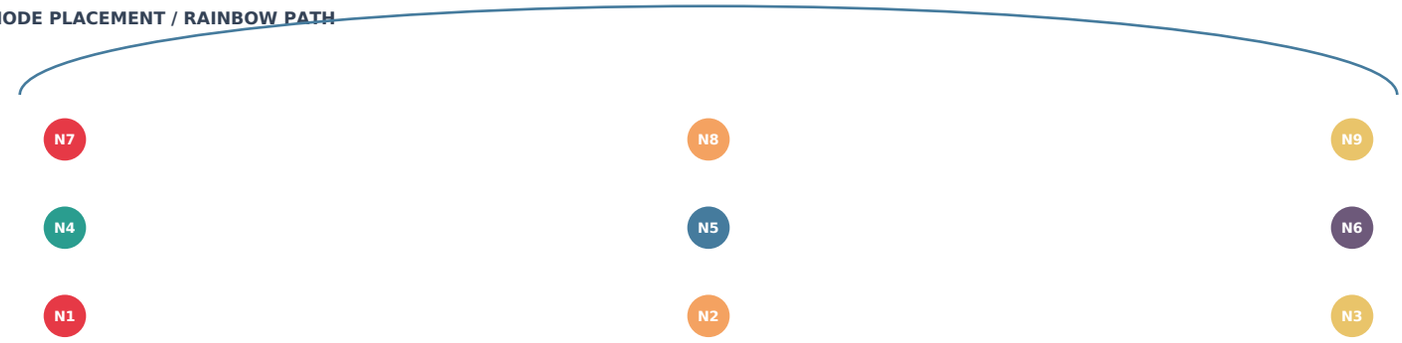
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0035"
state R -> R1
node N5
representation JP(PINK-06-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 35 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 36 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.17 Bangel _SHEET Construct Formula-specific expression Module MJ.PBMEF.Object.Bangel _SHEET Namespace MJ.PBMEF.Object.Bangel _SHEET.Day0 Declaration objectBangel _SHEET Definition Governedspreadsheet-likeworkbookwithimmutablerevisions,typedcells,dependencygraph, Capability Represent,retain,route,reconcile,orevidenceonl

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0036"
state R -> R1
node N1
representation JP(PINK-06-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 36 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 37 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.19 Bangel _SHEET_REVISION Construct Formula-specific expression Module MJ.PBMEF.Object.Bangel _SHEET_REVISION Namespace MJ.PBMEF.Object.Bangel _SHEET_REVISION.Day0 Declaration objectBangel _SHEET_REVISION Definition Content-addressedimmutableworkbookrevisionandconflict/mergeevidence Capability Represent,retain,route,reconcile,orevidence

PATH OF EXPRESSION

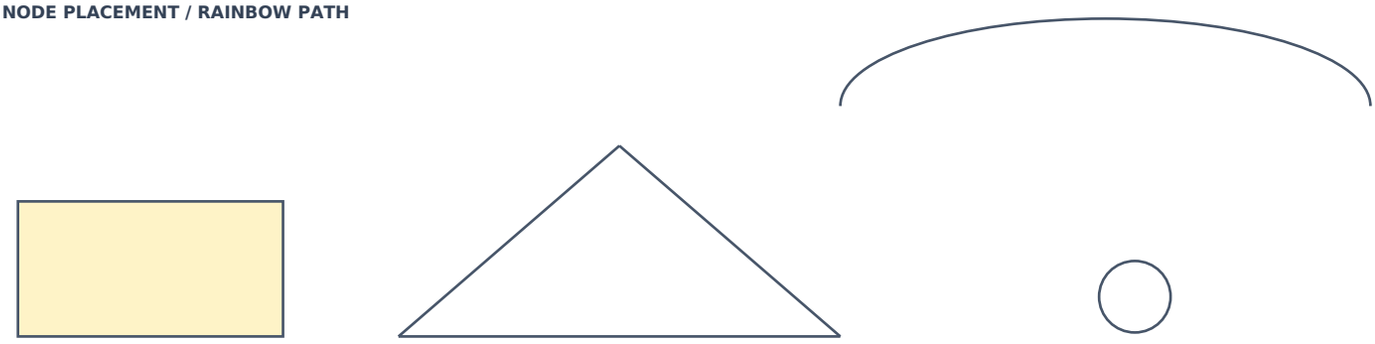
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0037"
state R -> R1
node N1
representation JP(PINK-06-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 37 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 38 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.21 JPOSMJ_PRODUCT_ENVELOPE Construct Formula-specific expression Module MJ.PBMEF.Object.JPOSMJ_PRODUCT_ENVELOPE Namespace MJ.PBMEF.Object.JPOSMJ_PRODUCT_ENVELOPE.Day0 Declaration objectJPOSMJ_PRODUCT_ENVELOPE Definition PortfolioenvelopebindingJP-originproductlogicthroughMKphysics,JOproof,andMJpermit Capability Represent,retain,rout

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0038"
state R -> R1
node N1
representation JP(PINK-06-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 38 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 39 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.23 STANDARD_CONTAINMENT_GEOMETRY_PROFILE Construct Formula-specific expression Module MJ.PBMEF.Object.STANDARD_CONTAINMENT_GEOMETRY_PROFILE Namespace MJ.PBMEF.Object.STANDARD_CONTAINMENT_GEOMETRY_PROFILE.Day0 Declaration objectSTANDARD_CONTAINMENT_GEOMETRY_PROFILE Definition Typedscale-independentrectangle/cone/umbrella/descent/EVE/

PATH OF EXPRESSION

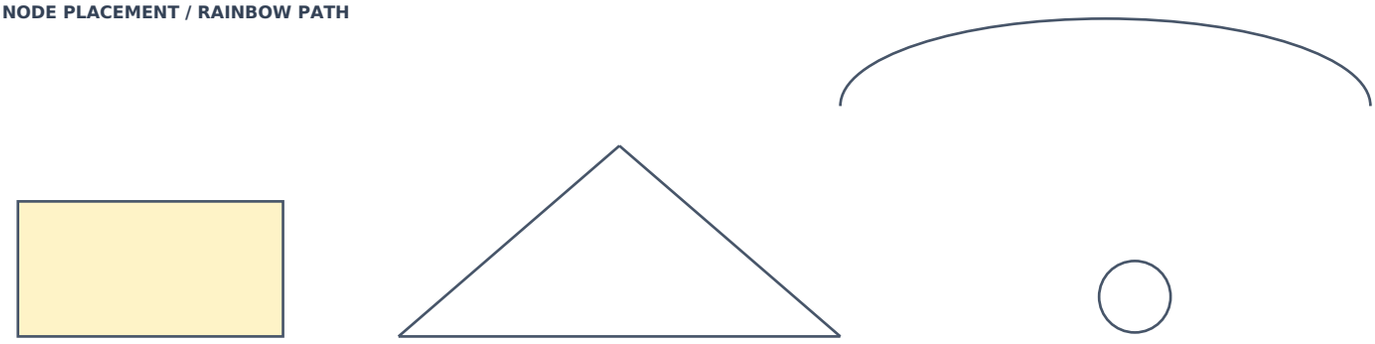
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0039"
state R -> R1
node N9
representation JP(PINK-06-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 39 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 40 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.25 CONTAINMENT_MODIFICATION_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.CONTAINMENT_MODIFICATION_RECEIPT Namespace MJ.PBMEF.Object.CONTAINMENT_MODIFICATION_RECEIPT.Day0 Declaration objectCONTAINMENT_MODIFICATION_RECEIPT Definition Recalculationandrevalidationreceiptforcommand/profile-specificgeometrychanges

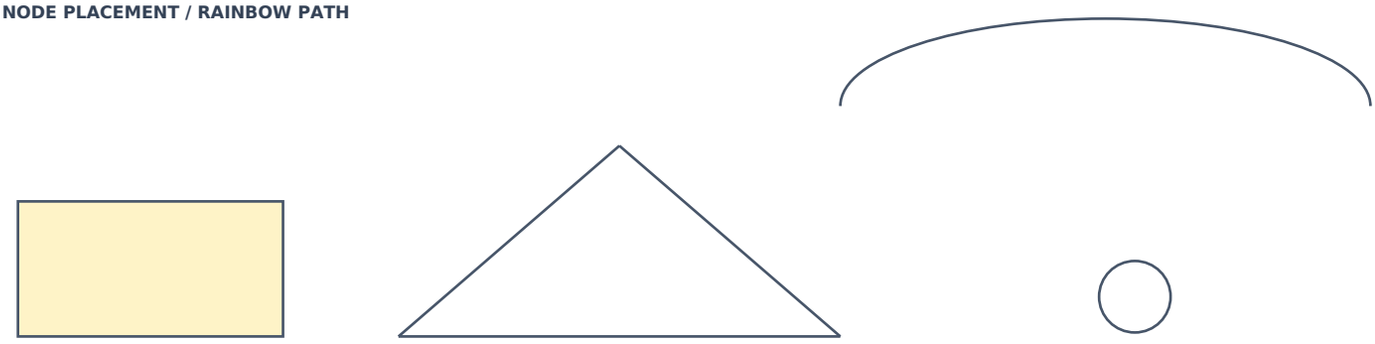
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0040"
state R -> R1
node N1
representation JP(PINK-06-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 40 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 41 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.27 GAS_HEIGHT_OBSERVATION Construct Formula-specific expression Module MJ.PBMEF.Object.GAS_HEIGHT_OBSERVATION Namespace MJ.PBMEF.Object.GAS_HEIGHT_OBSERVATION.Day0 Declaration objectGAS_HEIGHT_OBSERVATION Definition Calibratedpressure/temperature/density/height/timeobservationforgas-frontreferencecalcu Capability Represent,re

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0041"
state R -> R1
node N1
representation JP(PINK-06-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 41 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 42 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.29 OUTWARD_GAP_PATH_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.OUTWARD_GAP_PATH_RECEIPT Namespace MJ.PBMEF.Object.OUTWARD_GAP_PATH_RECEIPT.Day0 Declaration objectOUTWARD_GAP_PATH_RECEIPT Definition JO/MKproofthattheoutletpathremainsoutsidethenonphysicalPearlreferencecircle. Capability Represent,retain,route

PATH OF EXPRESSION

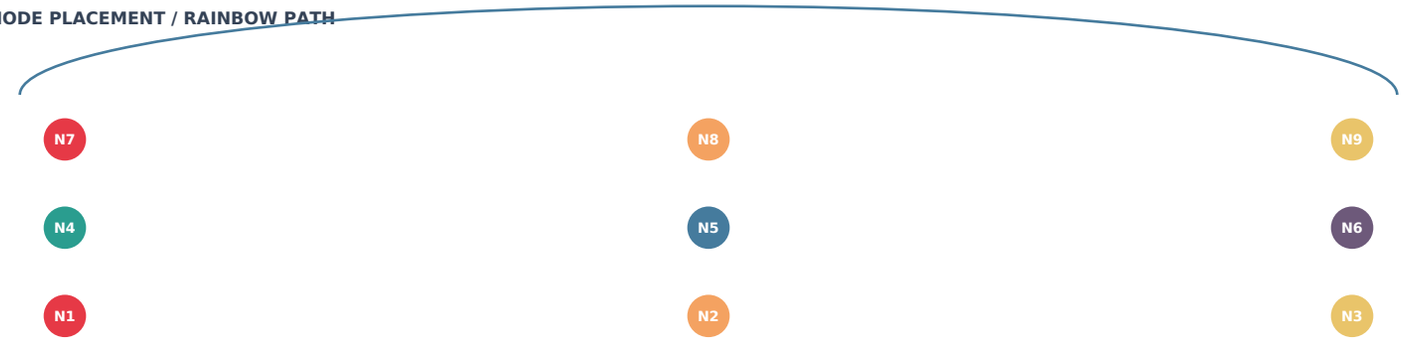
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0042"
state R -> R1
node N1
representation JP(PINK-06-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 42 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 43 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.31 CIRCULAR_REENTRY_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.CIRCULAR_REENTRY_RECEIPT Namespace MJ.PBMEF.Object.CIRCULAR_REENTRY_RECEIPT.Day0 Declaration objectCIRCULAR_REENTRY_RECEIPT Definition Circularport,inwardangle,tangentialcomponent,continuity,andspiral-compatibilityevidence Capability Represent,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0043"
state R -> R1
node N4
representation JP(PINK-06-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 43 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 44 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.33 RESERVOIR_LAKE_BUFFER Construct Formula-specific expression Module MJ.PBMEF.Object.RESERVOIR_LAKE_BUFFER Namespace MJ.PBMEF.Object.RESERVOIR_LAKE_BUFFER.Day0 Declaration objectRESERVOIR_LAKE_BUFFER Definition Boundedpost-containmentbuffercandidateforretention,redistribution,andreceiptedre-entry Capability Represent,retain,route,r

PATH OF EXPRESSION

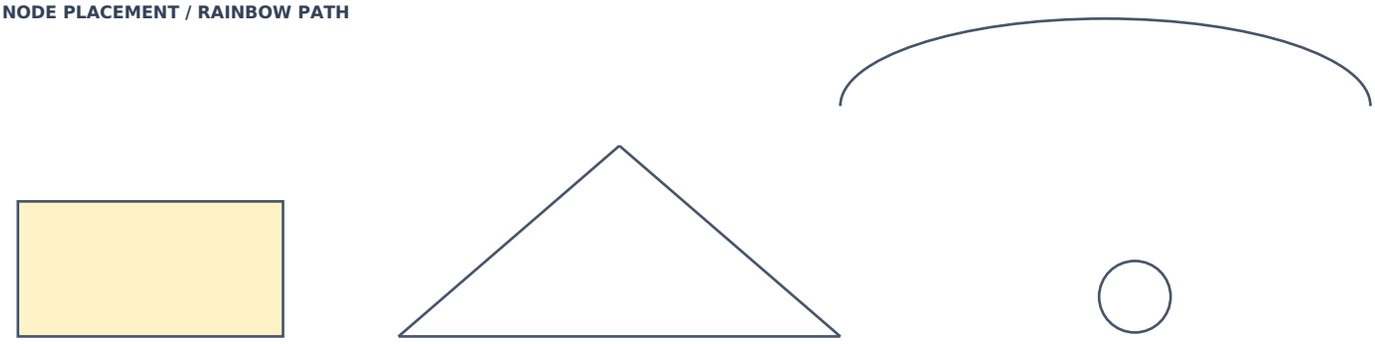
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0044"
state R -> R1
node N1
representation JP(PINK-06-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 44 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 45 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.35 OUTWARD_GAP_ARC Construct Formula-specific expression Module MJ.PBMEF.Object.OUTWARD_GAP_ARC Namespace MJ.PBMEF.Object.OUTWARD_GAP_ARC.Day0 Declaration objectOUTWARD_GAP_ARC Definition Outward-facingangularreferencethroughwhichtheoutletclearsthenonphysicalPearlreferenc Capability Represent,retain,route,reconcile,orevidence

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0045"
state R -> R1
node N1
representation JP(PINK-06-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 45 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 46 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.37 CIRCULAR_REENTRY_PORT Construct Formula-specific expression Module MJ.PBMEF.Object.CIRCULAR_REENTRY_PORT Namespace MJ.PBMEF.Object.CIRCULAR_REENTRY_PORT.Day0 Declaration objectCIRCULAR_REENTRY_PORT Definition Circularinward-angledportcandidatesupplyingmeasuredradialandtangentialre-entrycompo Capability Represent,retain,route

PATH OF EXPRESSION

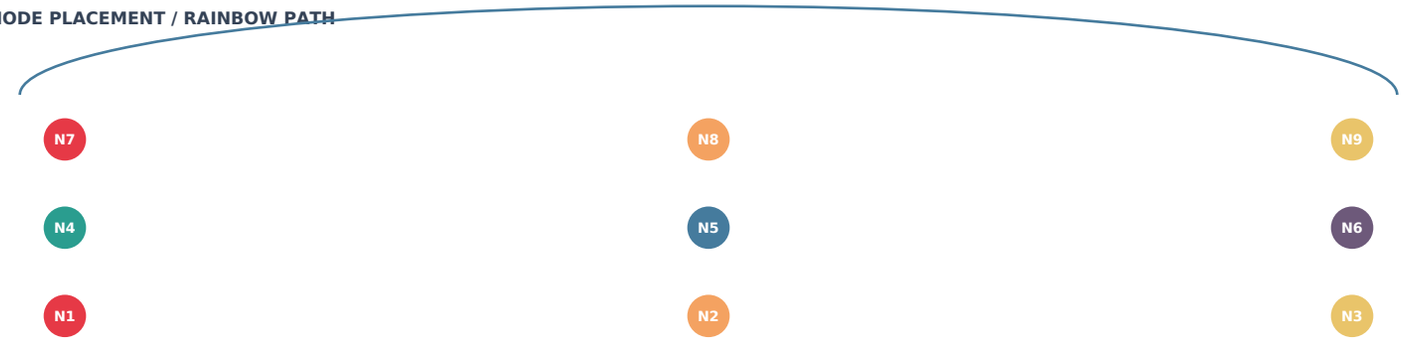
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0046"
state R -> R1
node N1
representation JP(PINK-06-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 46 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 47 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE Pink Paper V - F amily / Objects 23.39 PERSPECTIVE_FRICTION_RECEIPT Construct Formula-specific expression Module MJ.PBMEF.Object.PERSPECTIVE_FRICTION_RECEIPT Namespace MJ.PBMEF.Object.PERSPECTIVE_FRICTION_RECEIPT.Day0 Declaration objectPERSPECTIVE_FRICTION_RECEIPT Definition Separatescoordinate-transformresidual,physicaldissipation,andinformationfrictior Capability Re

PATH OF EXPRESSION

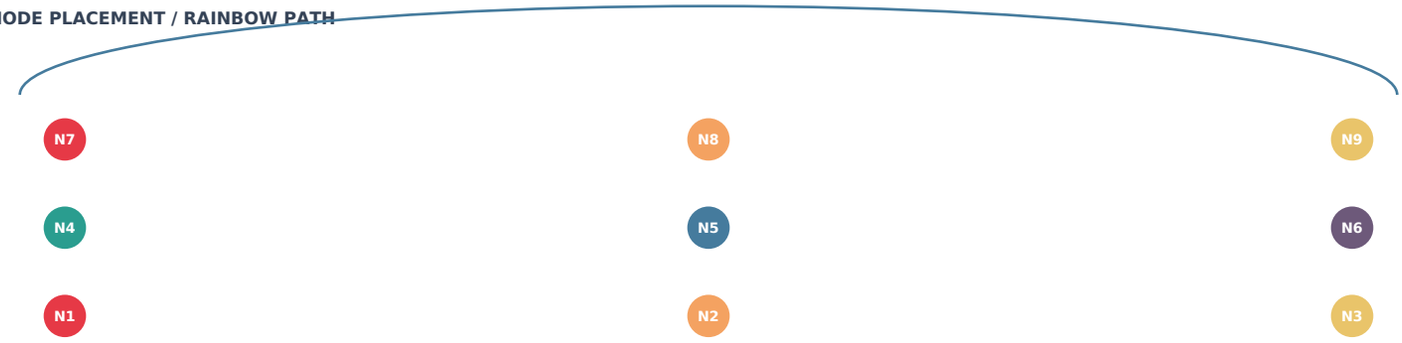
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVA_TE_PRE_DA_Y_0_UNSIGNED
reference "PINK-06-P0047"
state R -> R1
node N8
representation JP(PINK-06-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume05_Family_and_Objects.pdf, page 47 of 47. PRIVA TE PRE-DA Y -0 - UNSIGNED REVIEW CANDIDA TE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 1 of 66. MJ-PBMEFPinkPaper-VolumeVI ProductManifestations,White-PaperLineage,andVerificationCrosswalk MichaelBangel-AuthorandArchitect August2026

PATH OF EXPRESSION

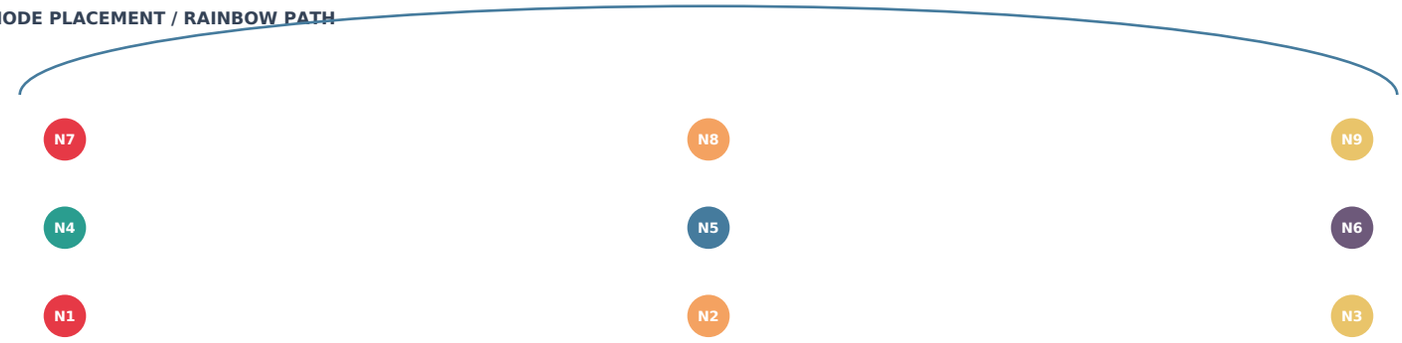
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEFPinkPaper_VolumeVI_P
reference "PINK-07-P0001"
state R -> R1
node N1
representation JP(PINK-07-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 1 of 66. MJ-PBMEFPinkPaper-VolumeVI ProductManifestati
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 2 of 66. Contents 1 Product gateway verification 5 2 MJ Physics Based Measurement Engineering Framework -PBMEF-CORE 6 2.1 Applicationandlife-cyclepotential . . . . . .6 3 Bangel Governed Measurement Language -Bangel -LANGUAGE 7 3.1 Applicationandlife-cyclepotential . . . . . .7 4 Elsa Deterministic Semantic Recovery -ELSA-SEMANT

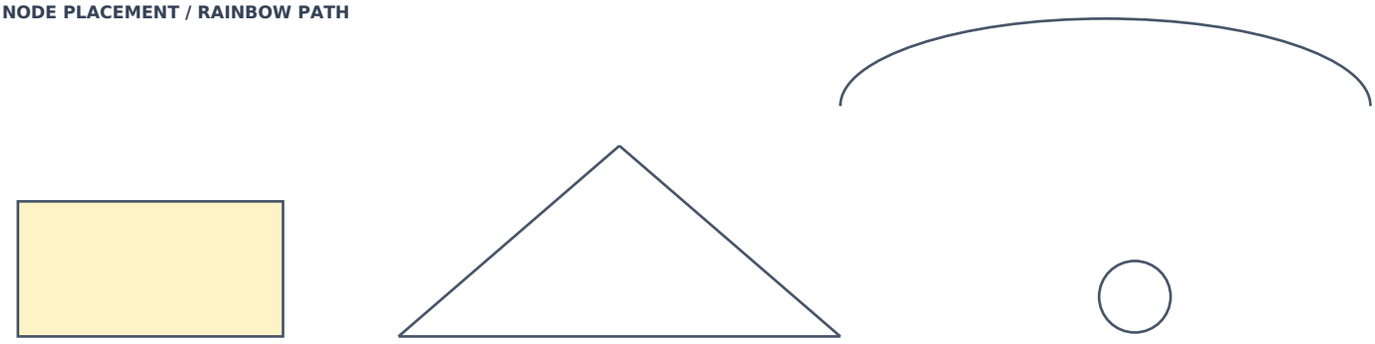
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Contents_1_Product_gateway_v
reference "PINK-07-P0002"
state R -> R1
node N1
representation JP(PINK-07-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 2 of 66. Contents 1 Product gateway verification 5 2 M
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 3 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers

17SHIVAS Internal Settlement Reflection -SHIVAS-INTERNAL 21
17.1Applicationandlife-cyclepotential 21
18Shiva Crypto External-Market Candidate -SHIVA-CRYPTO 22
18.1Applicationandlife-cyclepotential 22
19Shiva Exch

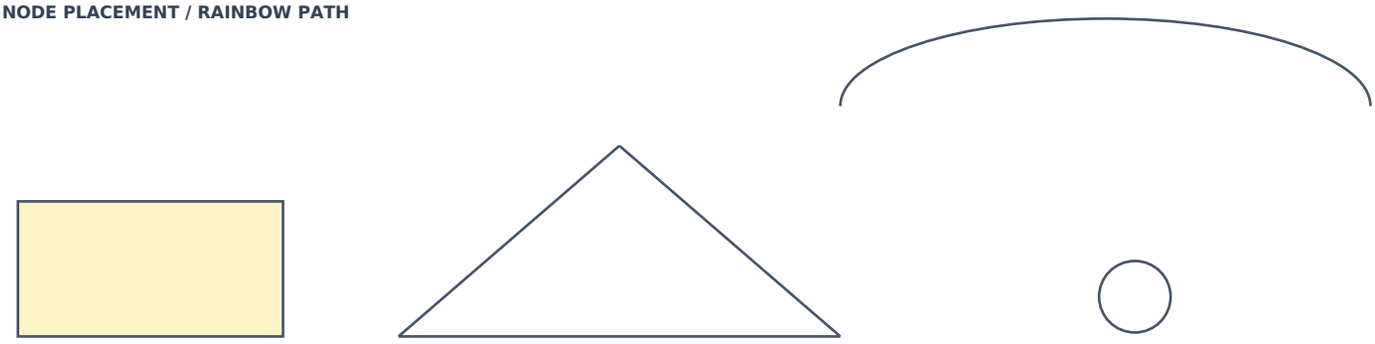
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0003"
state R -> R1
node N1
representation JP(PINK-07-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 3 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 4 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.20 CHI—MJManifestationWhitePaper- MJ-PBMEF-FAMILY-WP-20 . . . . . .44 30.21 WATER—MJManifestationWhitePaper- MJ-PBMEF-FAMILY-WP-21 . . . . . .45 30.22 MJPhysicsBasedMeasurementEngineeringFramework- MJ-PBMEF-PRODUCT-WP-01 . . . .45 30.23 BangelGovernedMeasurementLanguage-MJ-PBMEF-PRODUCT-WP-02 .

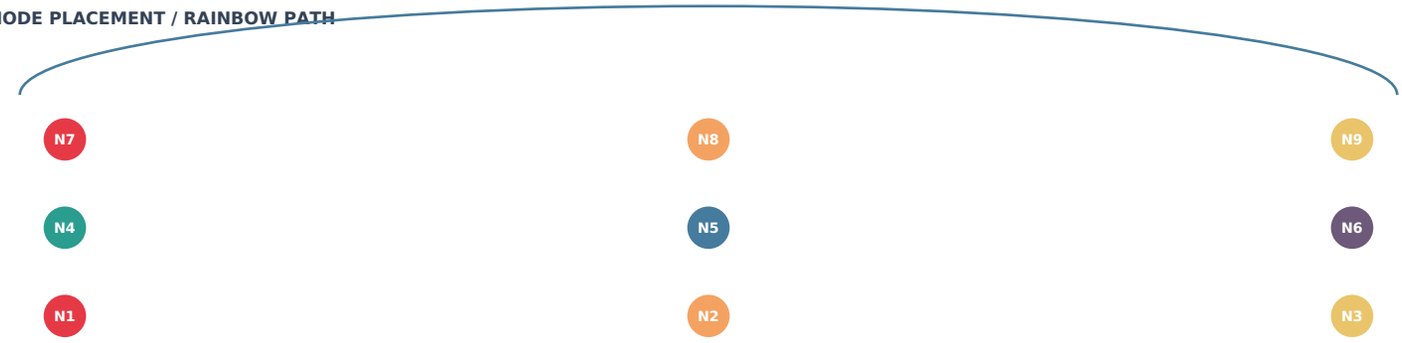
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0004"
state R -> R1
node N3
representation JP(PINK-07-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 4 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 5 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers Claims ceiling Thisdocumentisaprivatepre-Day-0reviewandverificationcandidate. Itauthenticatesnopri- vate key and creates no physical validation, physical operation authority, product certification, external regulatory authority, production deployment, financial-product launch, token issuance, Alintegration,orphysical-coordinateappro

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0005"
state R -> R1
node N1
representation JP(PINK-07-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 5 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or empirical claim.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 6 of 66. Chapter 1 Product gateway verification 5

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_1_Product_gateway_ve
reference "PINK-07-P0006"
state R -> R1
node N1
representation JP(PINK-07-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 6 of 66. Chapter 1 Product gateway verification 5
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 7 of 66. Chapter 2 MJ Physics Based Measurement Engi- neering Framework -PBMEF-CORE Construct Formula-specific expression Module MJ.PBMEF.Product.PBMEF-CORE Namespace MJ.PBMEF.Product.PBMEF-CORE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productPBMEF-CORE Definition Integratepurpose,mathematics,physics,verification,safety,resourcerouting,accounting,fina

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_2_MJ_Physics_Based_M
reference "PINK-07-P0007"
state R -> R1
node N1
representation JP(PINK-07-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 7 of 66. Chapter 2 MJ Physics Based Measurement Engi-
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 8 of 66. Chapter 3 Bangel Governed Measurement Lan- guage -Bangel -LANGUAGE Construct Formula-specific expression Module MJ.PBMEF.Product.Bangel -LANGUAGE Namespace MJ.PBMEF.Product.Bangel -LANGUAGE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productBangel -LANGUAGE Definition Expresshumanpurpose,typedmeasurements,formulas,evidence,andcommandpathways. Capability Reference,simulat

PATH OF EXPRESSION

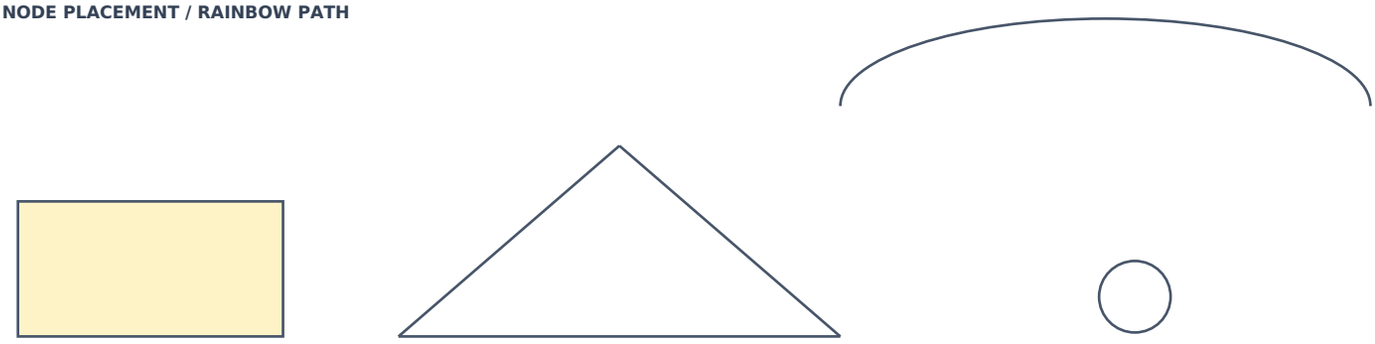
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_3_Bangel _Governed_Me
reference "PINK-07-P0008"
state R -> R1
node N7
representation JP(PINK-07-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 8 of 66. Chapter 3 Bangel  Governed Measurement Lan- gu
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 9 of 66. Chapter 4 Elsa Deterministic Semantic Recovery - ELSA-SEMANTICS Construct Formula-specific expression Module MJ.PBMEF.Product.ELSA-SEMANTICS Namespace MJ.PBMEF.Product.ELSA-SEMANTICS.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productELSA-SEMANTICS Definition Recoverandpreservedeclaredmeaningwithoutautonomousinferenceorauthority. Capability Reference,simulation,imple

PATH OF EXPRESSION

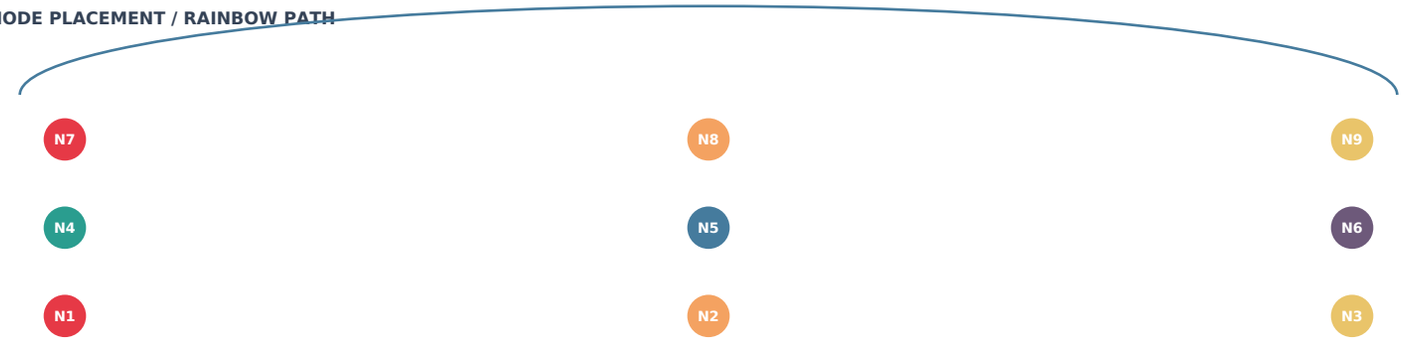
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_4_Elsa_Deterministic
reference "PINK-07-P0009"
state R -> R1
node N1
representation JP(PINK-07-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 9 of 66. Chapter 4 Elsa Deterministic Semantic Recover
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 10 of 66. Chapter 5 JP Mathematical and Architectural Canon -JP-CANON Construct Formula-specific expression Module MJ.PBMEF.Product.JP-CANON Namespace MJ.PBMEF.Product.JP-CANON.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-CANON Definition Representequations,algorithms,CAPOs,topology,products,andproofs. Capability Reference,simulation,implementationcandidate,orevidence

PATH OF EXPRESSION

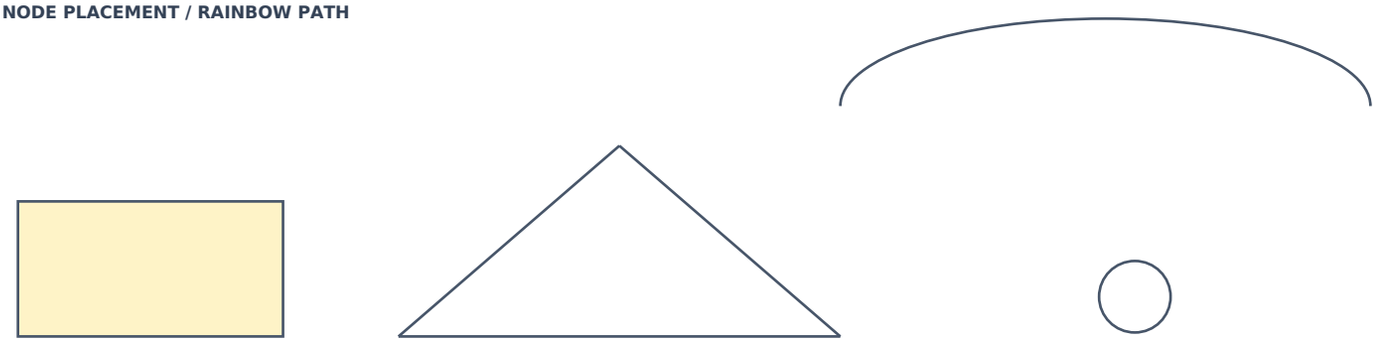
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_5_JP_Mathematical_an
reference "PINK-07-P0010"
state R -> R1
node N1
representation JP(PINK-07-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 10 of 66. Chapter 5 JP Mathematical and Architectural
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 11 of 66. Chapter 6 Mika/MK Physics Modulator System - MK-PHYSICS Construct Formula-specific expression Module MJ.PBMEF.Product.MK-PHYSICS Namespace MJ.PBMEF.Product.MK-PHYSICS.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMK-PHYSICS Definition Createphysicsrepresentationsandverifyunits,conservation,boundaries,scale,andevidencec Capability Reference,simulation,imp

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_6_Mika_MK_Physics_Mo
reference "PINK-07-P0011"
state R -> R1
node N1
representation JP(PINK-07-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 11 of 66. Chapter 6 Mika/MK Physics Modulator System -
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 12 of 66. Chapter 7 JO Deterministic Proof and Runtime - JO-RUNTIME Construct Formula-specific expression Module MJ.PBMEF.Product.JO-RUNTIME Namespace MJ.PBMEF.Product.JO-RUNTIME.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJO-RUNTIME Definition Verifytypes,units,authority,physics,tests,evidence,andboundedexecution. Capability Reference,simulation,implementationcandidate

PATH OF EXPRESSION

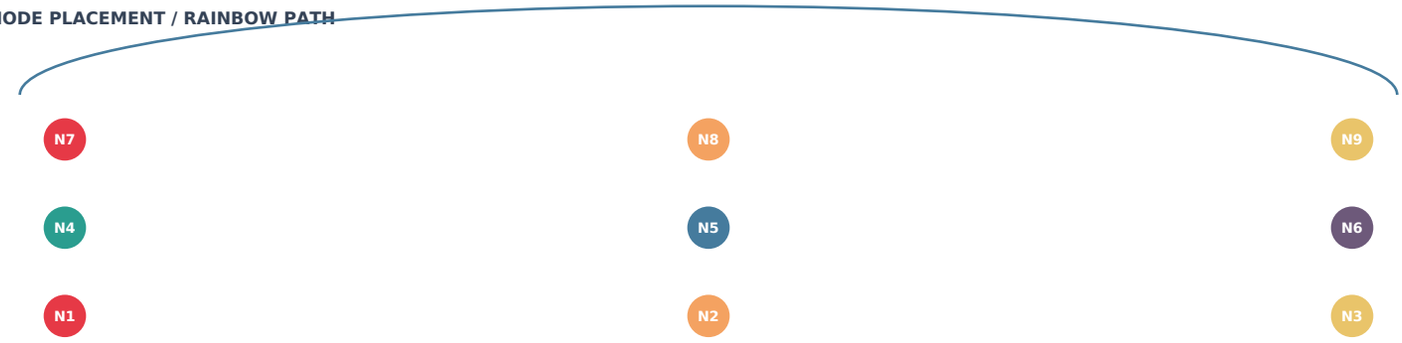
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_7_JO_Deterministic_P
reference "PINK-07-P0012"
state R -> R1
node N2
representation JP(PINK-07-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 12 of 66. Chapter 7 JO Deterministic Proof and Runtime
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 13 of 66. Chapter 8 MJOS Operating Substrate - MJOS- SUBSTRATE Construct Formula-specific expression Module MJ.PBMEF.Product.MJOS-SUBSTRATE Namespace MJ.PBMEF.Product.MJOS-SUBSTRATE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMJOS-SUBSTRATE Definition Provideisolatedresources,memory,storage,network,scheduling,andcontinuityunderMJlease Capability Reference,simulation,i

PATH OF EXPRESSION

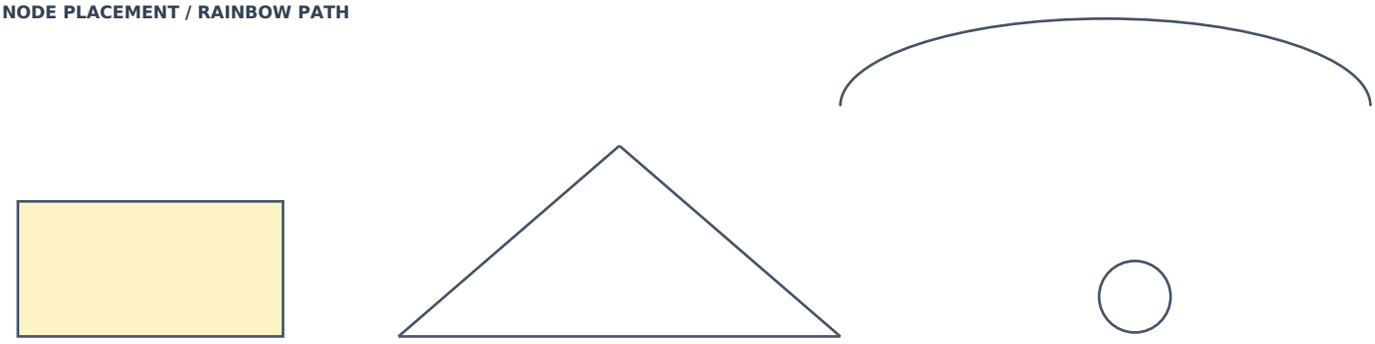
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_8_MJOS_Operating_Sub
reference "PINK-07-P0013"
state R -> R1
node N1
representation JP(PINK-07-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 13 of 66. Chapter 8 MJOS Operating Substrate - MJOS- S
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 14 of 66. Chapter 9 JP Semiconductor Phone Battery and OS Candidate -JP-SC-PHONE Construct Formula-specific expression Module MJ.PBMEF.Product.JP-SC-PHONE Namespace MJ.PBMEF.Product.JP-SC-PHONE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-SC-PHONE Definition Exploresemiconductor-scalestaticintake,powerwake,solarassist,battery,andoperating-syst Capability

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_9_JP_Semiconductor_P
reference "PINK-07-P0014"
state R -> R1
node N1
representation JP(PINK-07-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 14 of 66. Chapter 9 JP Semiconductor Phone Battery and
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 15 of 66. Chapter 10 JP Large-Scale Boating Power Candi- date -JP-LS-BOAT Construct Formula-specific expression Module MJ.PBMEF.Product.JP-LS-BOAT Namespace MJ.PBMEF.Product.JP-LS-BOAT.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-LS-BOAT Definition Explorelarge-scalestaticintake,solarinitiation,powerbus,containment,andmarinepowerinteg Capability Reference,simul

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_10_JP_Large_Scale_Bo
reference "PINK-07-P0015"
state R -> R1
node N1
representation JP(PINK-07-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 15 of 66. Chapter 10 JP Large-Scale Boating Power Cand
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 16 of 66. Chapter 11 JP Peaceful High-Energy Propulsion Research Candidate - JP-PEACEFUL- PROPULSION Construct Formula-specific expression Module MJ.PBMEF.Product.JP-PEACEFUL-PROPULSION Namespace MJ.PBMEF.Product.JP-PEACEFUL-PROPULSION.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJP-PEACEFUL-PROPULSION Definition Explorepeacefulpropulsionmeasurementandcontrolundernon-wea

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_11_JP_Peaceful_High_
reference "PINK-07-P0016"
state R -> R1
node N6
representation JP(PINK-07-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 16 of 66. Chapter 11 JP Peaceful High-Energy Propulsio
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 17 of 66. Chapter 12 Sister Predictive Containment System - SISTER-CONTAINMENT Construct Formula-specific expression Module MJ.PBMEF.Product.SISTER-CONTAINMENT Namespace MJ.PBMEF.Product.SISTER-CONTAINMENT.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSISTER-CONTAINMENT Definition Predictdemand,allocatebuffers,detectanomalies,andstageoverflowinboundedumbrellas. Capability

PATH OF EXPRESSION

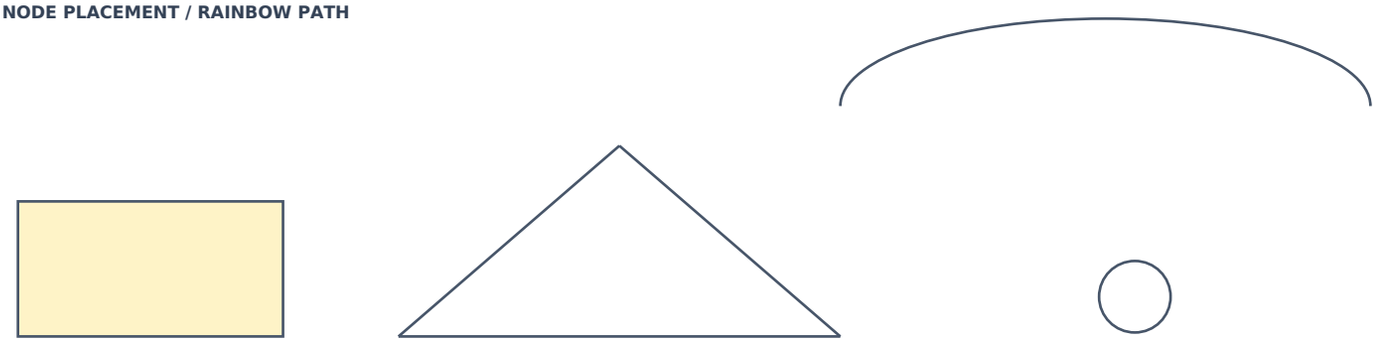
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_12_Sister_Predictive
reference "PINK-07-P0017"
state R -> R1
node N1
representation JP(PINK-07-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 17 of 66. Chapter 12 Sister Predictive Containment Sys
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 18 of 66. Chapter 13 EVE Variance Screen and Egress Ac- counting -EVE-SCREEN Construct Formula-specific expression Module MJ.PBMEF.Product.EVE-SCREEN Namespace MJ.PBMEF.Product.EVE-SCREEN.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productEVE-SCREEN Definition Accountforvariance,evaporation,leakage,capture,andnaturalegresswithoutsilentloss. Capability Reference,simulation,impl

PATH OF EXPRESSION

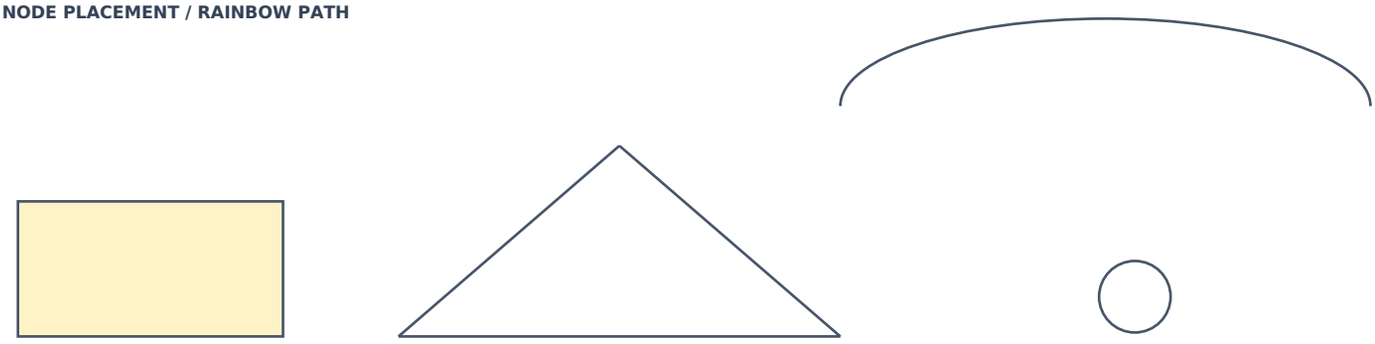
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_13_EVE_Variance_Scre
reference "PINK-07-P0018"
state R -> R1
node N1
representation JP(PINK-07-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 18 of 66. Chapter 13 EVE Variance Screen and Egress Ac
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 19 of 66. Chapter 14 Angels Safety and Corrective Command System
-ANGELS-SAFETY Construct Formula-specific expression Module MJ.PBMEF.Product.ANGELS-SAFETY Namespace MJ.PBMEF.Product.ANGELS-SAFETY.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productANGELS-SAFETY Definition Providedomain-boundedtelemetry,hold,denial,isolation,andcorrectiveprotocols. Capability Reference,simulati

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_14_Angels_Safety_and
reference "PINK-07-P0019"
state R -> R1
node N1
representation JP(PINK-07-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 19 of 66. Chapter 14 Angels Safety and Corrective Comm
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 20 of 66. Chapter 15 Mermaid Accounting and Reconciliation System
-MERMAID-RECON Construct Formula-specific expression Module MJ.PBMEF.Product.MERMAID-RECON Namespace MJ.PBMEF.Product.MERMAID-RECON.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMERMAID-RECON Definition Maintainbalances,custodyevidence,exposure,taxlots,statements,andreconciliation. Capability Reference,simu

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_15_Mermaid_Accountin
reference "PINK-07-P0020"
state R -> R1
node N1
representation JP(PINK-07-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 20 of 66. Chapter 15 Mermaid Accounting and Reconcilia
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 21 of 66. Chapter 16 Shiva Dual Financial Rails -SHIVA-RAILS Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVA-RAILS Namespace MJ.PBMEF.Product.SHIVA-RAILS.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVA-RAILS Definition Separatestability/cashfunctionsfrominvestmentandcryptoriskwhilepreservingliquidity-first Capability Reference,simulation,imp

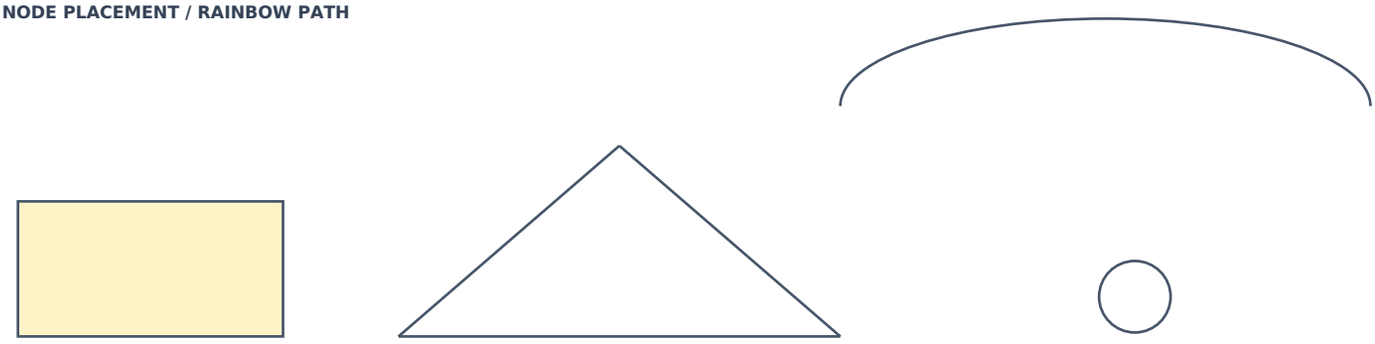
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_16_Shiva_Dual_Financ
reference "PINK-07-P0021"
state R -> R1
node N1
representation JP(PINK-07-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 21 of 66. Chapter 16 Shiva Dual Financial Rails -SHIVA
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 22 of 66. Chapter 17 SHIVAS Internal Settlement Reflection - SHIVAS-INTERNAL Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVAS-INTERNAL Namespace MJ.PBMEF.Product.SHIVAS-INTERNAL.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVAS-INTERNAL Definition Representinternalcapitalreflectionswithoutminting,redemption,publicoffer,orvalueguarant Capability R

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_17_SHIVAS_Internal_S
reference "PINK-07-P0022"
state R -> R1
node N1
representation JP(PINK-07-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 22 of 66. Chapter 17 SHIVAS Internal Settlement Reflec
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 23 of 66. Chapter 18 Shiva Crypto External-Market Candi- date -SHIVA-CRYPTO Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVA-CRYPTO Namespace MJ.PBMEF.Product.SHIVA-CRYPTO.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVA-CRYPTO Definition Modelaseparatelygovernedexternalcryptorailsubjecttofullclassificationandauthorization. Capability Reference,simul

PATH OF EXPRESSION

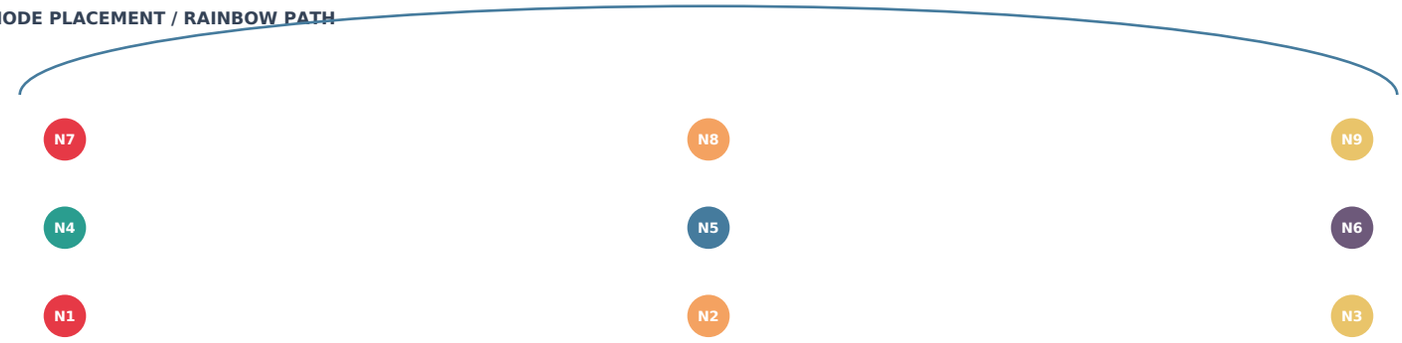
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_18_Shiva_Crypto_Exte
reference "PINK-07-P0023"
state R -> R1
node N1
representation JP(PINK-07-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 23 of 66. Chapter 18 Shiva Crypto External-Market Cand
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N5; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 24 of 66. Chapter 19 Shiva Exchange Rule Reference -SHIVA- EXCHANGE Construct Formula-specific expression Module MJ.PBMEF.Product.SHIVA-EXCHANGE Namespace MJ.PBMEF.Product.SHIVA-EXCHANGE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHIVA-EXCHANGE Definition Modeltransparentprice-time,custody,audit,tax,andtransferruleswithoutoperatingamarket. Capability Reference,simulati

PATH OF EXPRESSION

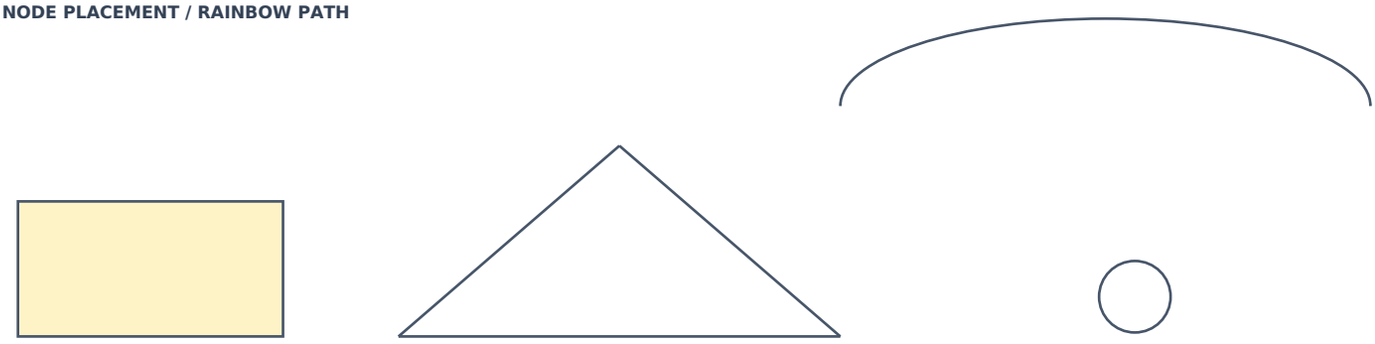
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_19_Shiva_Exchange_Ru
reference "PINK-07-P0024"
state R -> R1
node N5
representation JP(PINK-07-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 24 of 66. Chapter 19 Shiva Exchange Rule Reference -SH
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics-based approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 25 of 66. Chapter 20 Moana Governed Browser - MOANA- BROWSER Construct Formula-specific expression Module MJ.PBMEF.Product.MOANA-BROWSER Namespace MJ.PBMEF.Product.MOANA-BROWSER.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productMOANA-BROWSER Definition Presentgovernedapplications,evidence,holds,anduncertainty. Capability Reference,simulation,implementationcandidate,orevidence

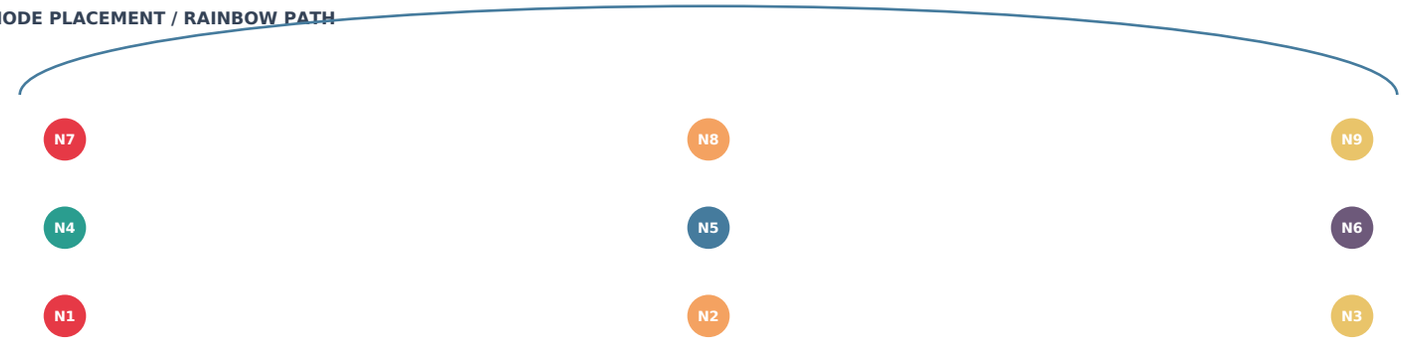
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_20_Moana_Governed_Br
reference "PINK-07-P0025"
state R -> R1
node N1
representation JP(PINK-07-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 25 of 66. Chapter 20 Moana Governed Browser - MOANA- B
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 26 of 66. Chapter 21 Aviator Organizational Workspace - AVIATOR-WORKSPACE Construct Formula-specific expression Module MJ.PBMEF.Product.AVIATOR-WORKSPACE Namespace MJ.PBMEF.Product.AVIATOR-WORKSPACE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productAVIATOR-WORKSPACE Definition Organizespaces,projects,decisions,knowledge,members,roles,andcapabilities. Capability Reference,simu

PATH OF EXPRESSION

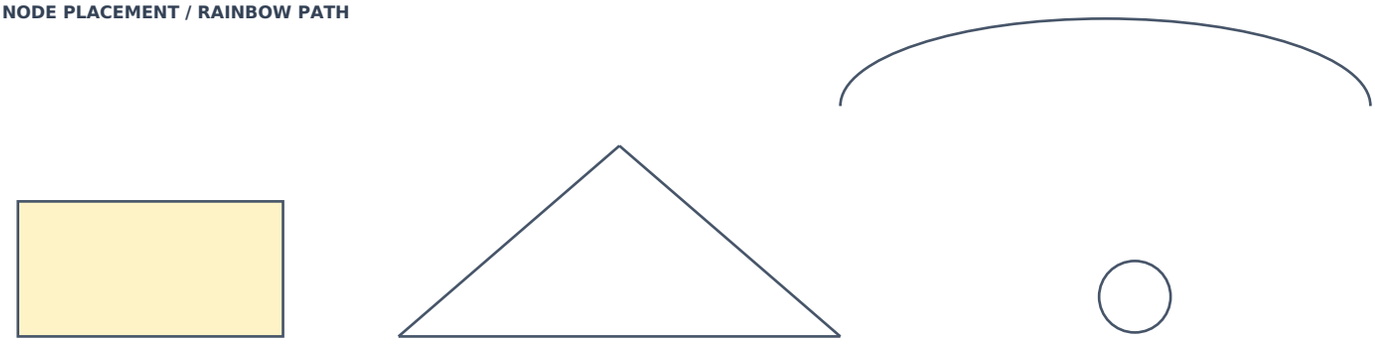
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_21_Aviator_Organizat
reference "PINK-07-P0026"
state R -> R1
node N1
representation JP(PINK-07-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 26 of 66. Chapter 21 Aviator Organizational Workspace
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 27 of 66. Chapter 22 Lecanto Truthful Visualization - LECANTO-VISUAL Construct Formula-specific expression Module MJ.PBMEF.Product.LECANTO-VISUAL Namespace MJ.PBMEF.Product.LECANTO-VISUAL.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productLECANTO-VISUAL Definition Displaysystemtruth,provenance,topology,uncertainty,andevidence. Capability Reference,simulation,implementationcand

PATH OF EXPRESSION

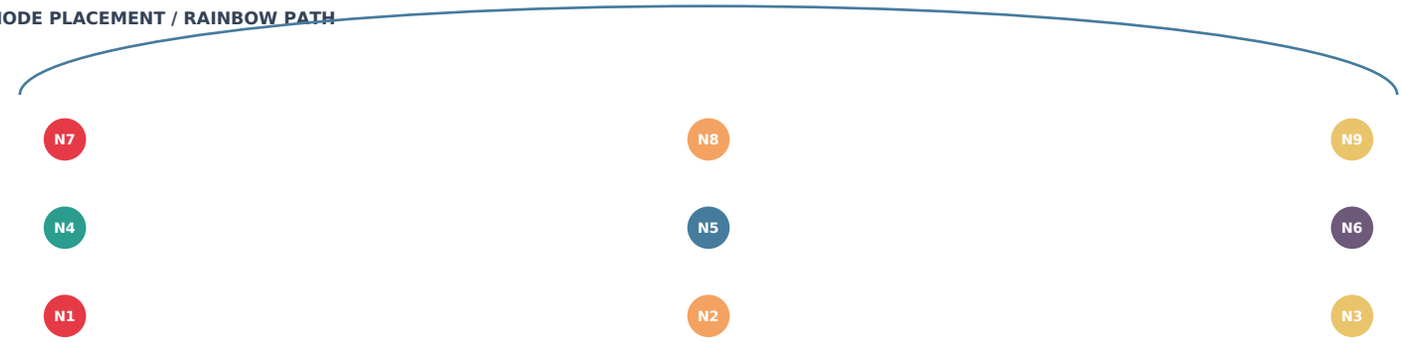
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_22_Lecanto_Truthful_
reference "PINK-07-P0027"
state R -> R1
node N1
representation JP(PINK-07-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 27 of 66. Chapter 22 Lecanto Truthful Visualization -
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 28 of 66. Chapter 23 Elsa Governed Marketplace Reference - ELSA-MARKETPLACE Construct Formula-specific expression Module MJ.PBMEF.Product.ELSA-MARKETPLACE Namespace MJ.PBMEF.Product.ELSA-MARKETPLACE.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productELSA-MARKETPLACE Definition Coordinatesemanticlistings,workflow,accounting,execution,andresourceevidencewithoutliv

PATH OF EXPRESSION

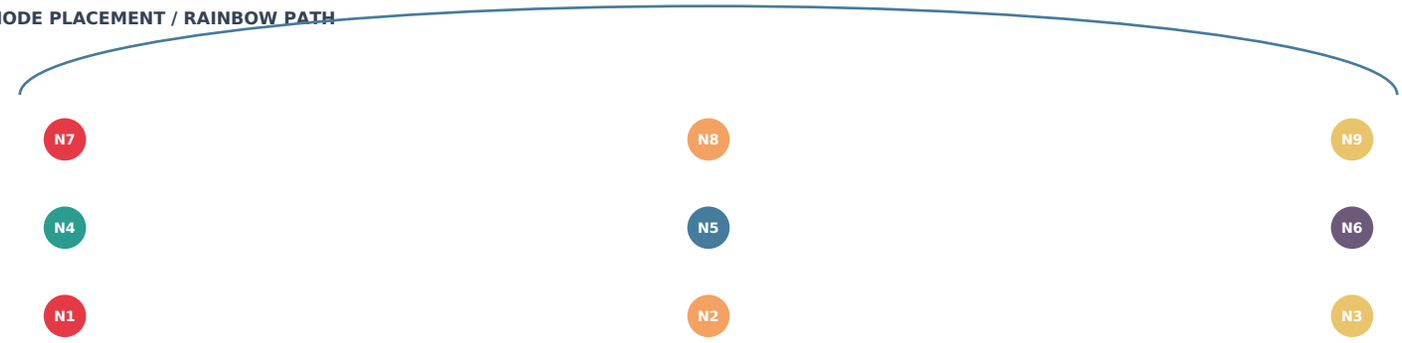
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_23_Elsa_Governed_Mar
reference "PINK-07-P0028"
state R -> R1
node N9
representation JP(PINK-07-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 28 of 66. Chapter 23 Elsa Governed Marketplace Referen
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 29 of 66. Chapter 24 Shekina Distributed Continuity - SHEKINA-CONTINUITY Construct Formula-specific expression Module MJ.PBMEF.Product.SHEKINA-CONTINUITY Namespace MJ.PBMEF.Product.SHEKINA-CONTINUITY.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSHEKINA-CONTINUITY Definition Modelboundedreplicas,failover,continuity,andplacementevidence. Capability Reference,simulation,imp

PATH OF EXPRESSION

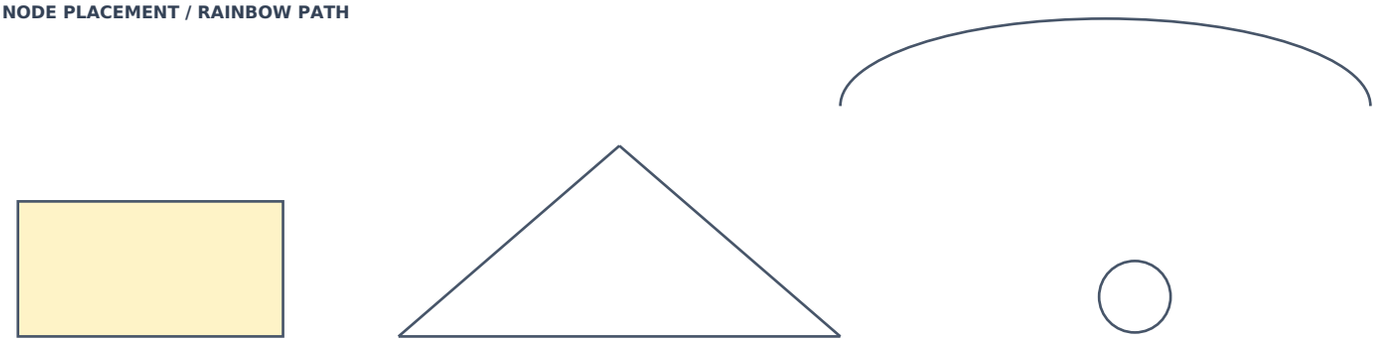
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_24_Shekina_Distribut
reference "PINK-07-P0029"
state R -> R1
node N1
representation JP(PINK-07-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 29 of 66. Chapter 24 Shekina Distributed Continuity -
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 30 of 66. Chapter 25 Pearl Hypothetical Simulation and Information-Retention System -PEARL- CONTAINMENT Construct Formula-specific expression Module MJ.PBMEF.Product.PEARL-CONTAINMENT Namespace MJ.PBMEF.Product.PEARL-CONTAINMENT.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productPEARL-CONTAINMENT Definition Acquire,retain,replay,andcomparevariancesimulationsandtransfer/regener

PATH OF EXPRESSION

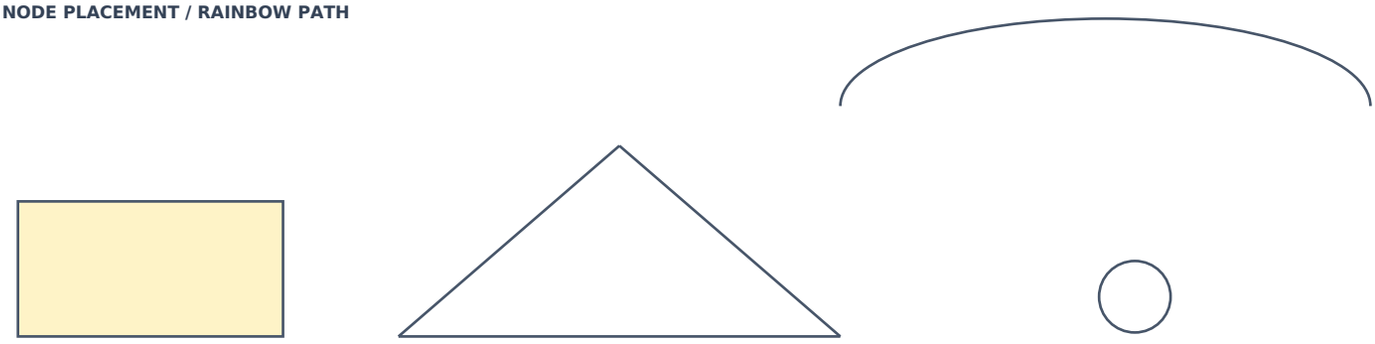
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_25_Pearl_Hypothetica
reference "PINK-07-P0030"
state R -> R1
node N1
representation JP(PINK-07-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 30 of 66. Chapter 25 Pearl Hypothetical Simulation and
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 31 of 66. Chapter 26 Bangel Spreadsheets - Bangel - SPREADSHEETS Construct Formula-specific expression Module MJ.PBMEF.Product.Bangel -SPREADSHEETS Namespace MJ.PBMEF.Product.Bangel -SPREADSHEETS.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productBangel -SPREADSHEETS Definition Providegovernedspreadsheet-likeoperationalmodelingthroughtypedmeasurementcells,imm

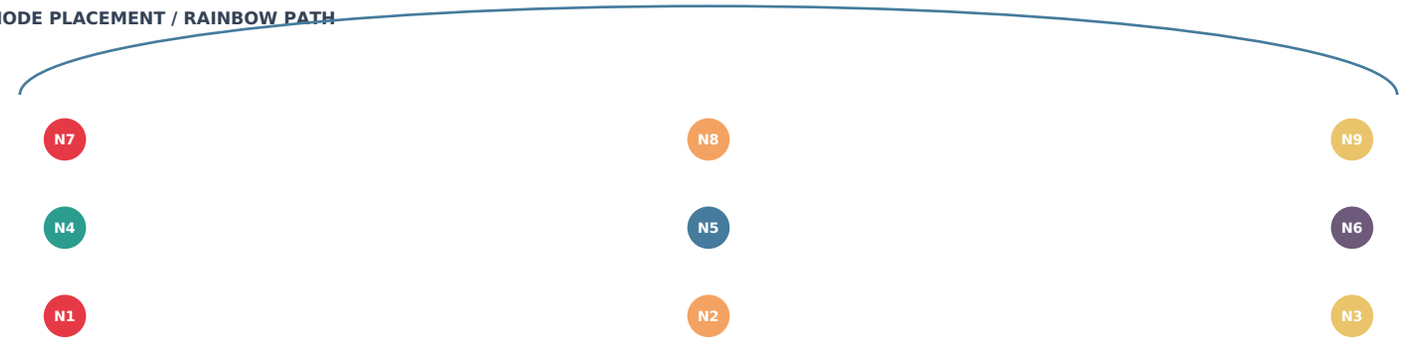
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_26_Bangel _Spreadshee
reference "PINK-07-P0031"
state R -> R1
node N1
representation JP(PINK-07-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 31 of 66. Chapter 26 Bangel  Spreadsheets - Bangel - SPR
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 32 of 66. Chapter 27 JPOSMJ Product Portfolio Envelope - JPOSMJ-PORTFOLIO Construct Formula-specific expression Module MJ.PBMEF.Product.JPOSMJ-PORTFOLIO Namespace MJ.PBMEF.Product.JPOSMJ-PORTFOLIO.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productJPOSMJ-PORTFOLIO Definition BindeveryJP-originproductcandidatethroughMKphysicsrepresentation,JOverification,partici

PATH OF EXPRESSION

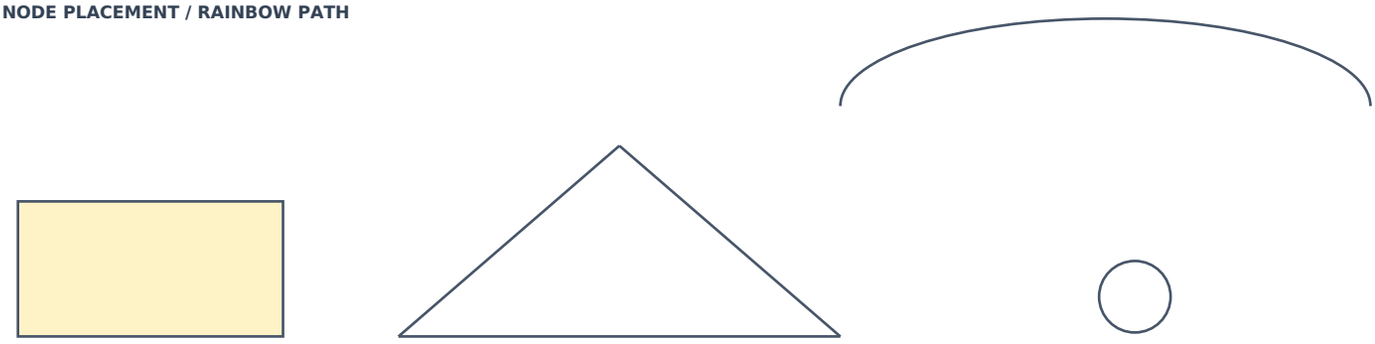
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_27_JPOSMJ_Product_Po
reference "PINK-07-P0032"
state R -> R1
node N4
representation JP(PINK-07-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 32 of 66. Chapter 27 JPOSMJ Product Portfolio Envelope
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 33 of 66. Chapter 28 MJ Standard Containment Geometry and Reference Gas Model - STANDARD- CONTAINMENT-GEOMETRY Construct Formula-specific expression Module MJ.PBMEF.Product.STANDARD-CONTAINMENT-GEOMETRY Namespace MJ.PBMEF.Product.STANDARD-CONTAINMENT-GEOMETRY.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productSTANDARD-CONTAINMENT-GEOMETRY Definition Provideascale-independentre

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_28_MJ_Standard_Conta
reference "PINK-07-P0033"
state R -> R1
node N1
representation JP(PINK-07-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 33 of 66. Chapter 28 MJ Standard Containment Geometry
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 34 of 66. Chapter 29 MJ Reservoir Collection, Lake Buffer, and Spiral-Compatible Re-entry - RESERVOIR-COLLECTION-MODULATION Construct Formula-specific expression Module MJ.PBMEF.Product.RESERVOIR-COLLECTION-MODULATION Namespace MJ.PBMEF.Product.RESERVOIR-COLLECTION-MODULATION.Day0 Import Manifest,productregister,applicableformulas,familyandobjectdefinitions Declaration productRESERVOIR-COLLECTION-MODULATION Definition Modelthe

PATH OF EXPRESSION

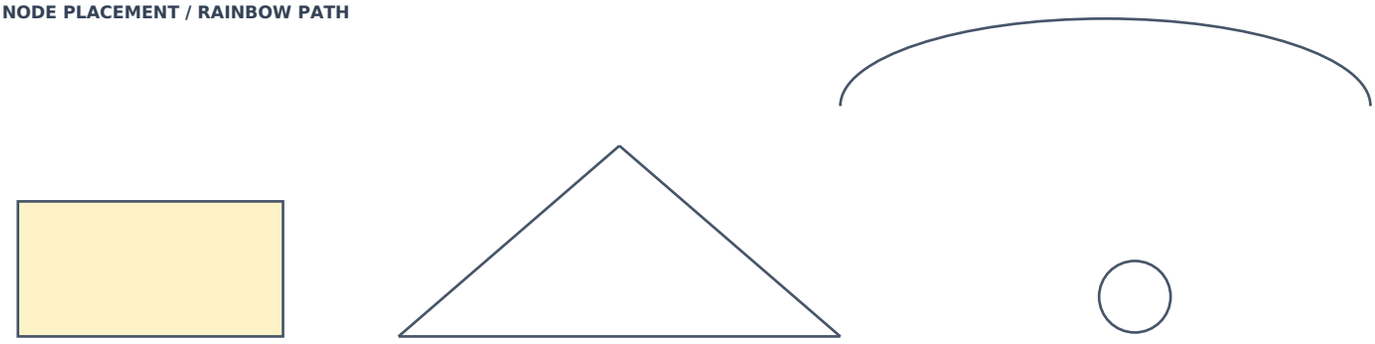
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_29_MJ_Reservoir_Coll
reference "PINK-07-P0034"
state R -> R1
node N1
representation JP(PINK-07-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 34 of 66. Chapter 29 MJ Reservoir Collection, Lake Buf
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 35 of 66. Chapter 30 Registered white-paper verification crosswalk 34

PATH OF EXPRESSION

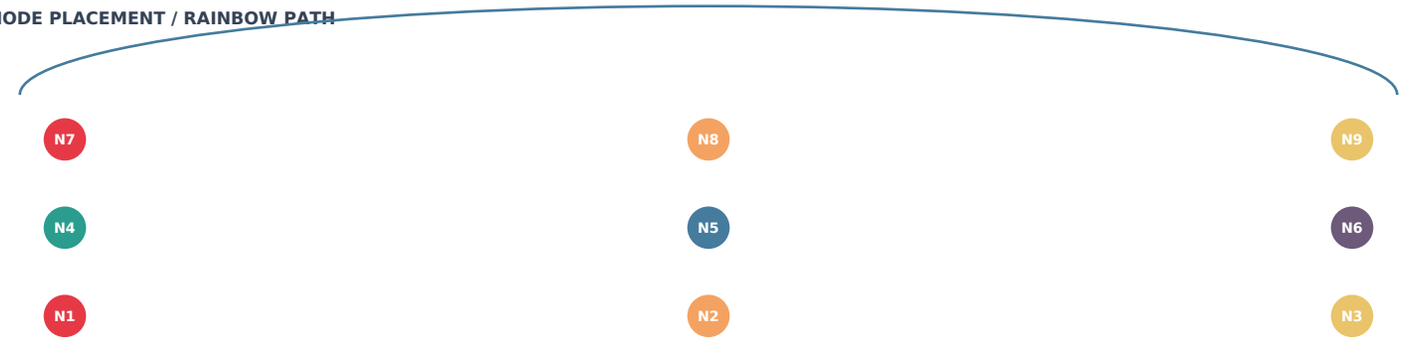
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Chapter_30_Registered_white_
reference "PINK-07-P0035"
state R -> R1
node N1
representation JP(PINK-07-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 35 of 66. Chapter 30 Registered white-paper verificati
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N8; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 36 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.1 MJ — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-01 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-01 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-01 Import whitepapers/family/01-mj.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-01 Definition Projectroot,founder-governedauthorityandfinal

PATH OF EXPRESSION

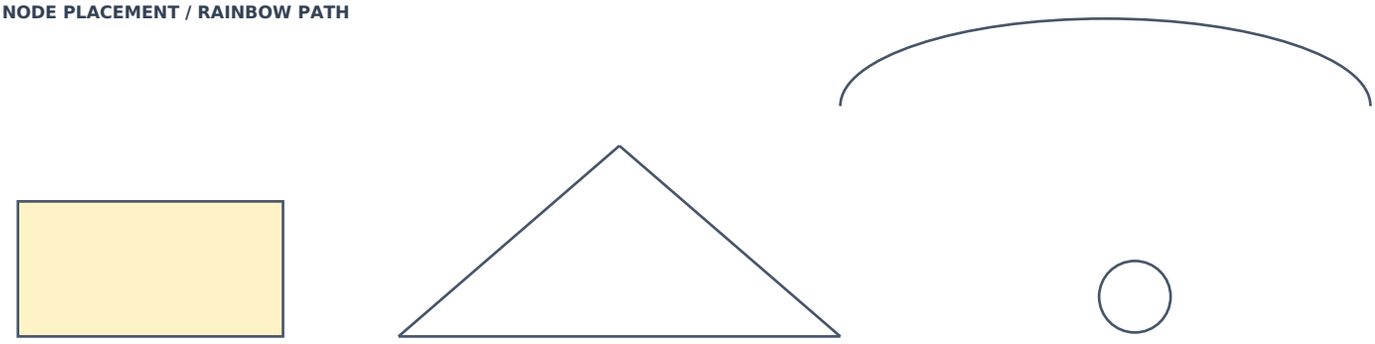
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0036"
state R -> R1
node N8
representation JP(PINK-07-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 36 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 37 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.3 Elsa — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-03 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-03 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-03 Import whitepapers/family/03-elsa.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-03 Definition Deterministicsemanticrecoveryandpurpose-p

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0037"
state R -> R1
node N1
representation JP(PINK-07-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 37 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 38 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.5 Mika / MK — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-05 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-05 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-05 Import whitepapers/family/05-mk.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-05 Definition PhysicsModulatorSystemfordimensional,

PATH OF EXPRESSION

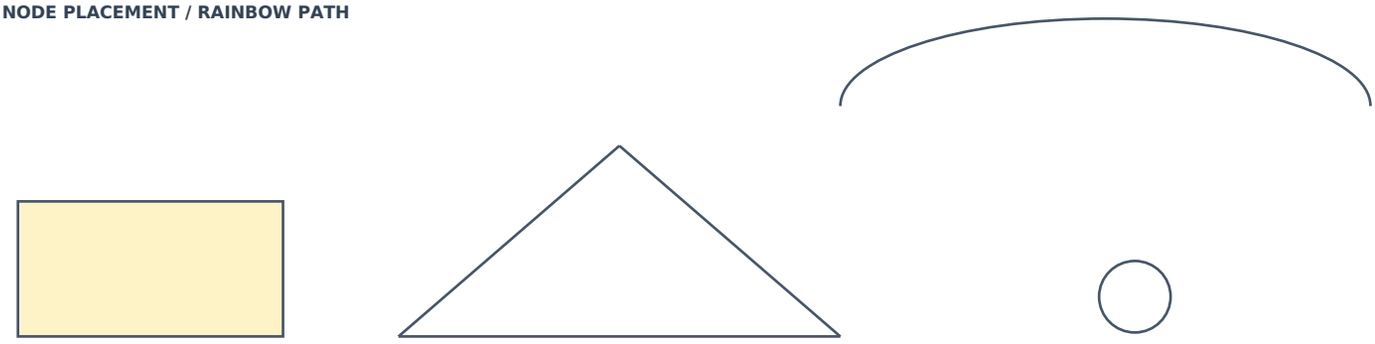
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0038"
state R -> R1
node N1
representation JP(PINK-07-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 38 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 39 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.7 MJOS — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-07 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-07 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-07 Import whitepapers/family/07-mjos.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-07 Definition Operating-systemandinfrastructuresubstrat

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0039"
state R -> R1
node N1
representation JP(PINK-07-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 39 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 40 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.9 Bellatrix — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP- 09 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-09 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-09 Import whitepapers/family/09-bellatrix.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-09 Definition Independentdefense,challenge,q

PATH OF EXPRESSION

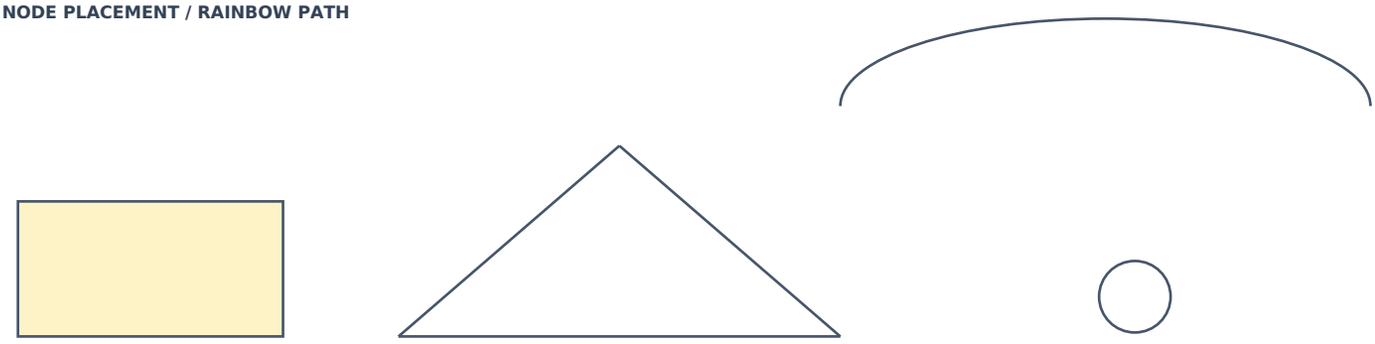
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0040"
state R -> R1
node N3
representation JP(PINK-07-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 40 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 41 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.11 EVE — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP-11 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-11 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-11 Import whitepapers/family/11-eve.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-11 Definition Variance,evaporativeeffect,screencapture,l

PATH OF EXPRESSION

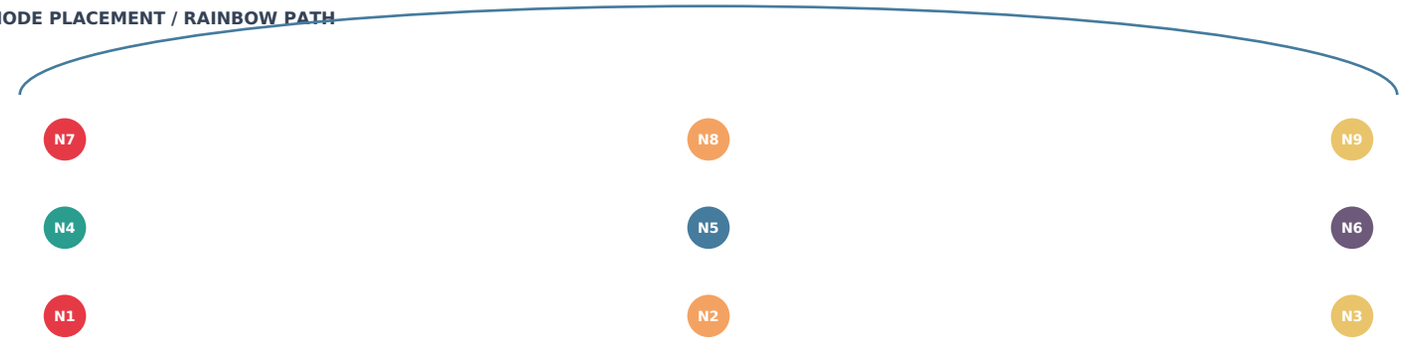
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0041"
state R -> R1
node N1
representation JP(PINK-07-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 41 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 42 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.13 Mermaid — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-13 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-13 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-13 Import whitepapers/family/13-mermaid.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-13 Definition Accounting,reconciliation,exposur

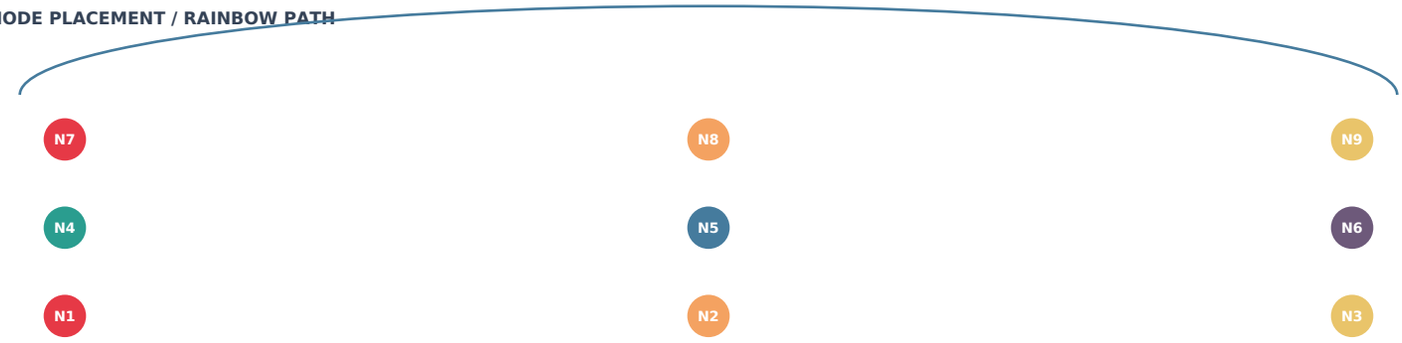
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0042"
state R -> R1
node N1
representation JP(PINK-07-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 42 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 43 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.15 Shekina — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-15 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-15 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-15 Import whitepapers/family/15-shekina.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-15 Definition Distributedplacement,replication,

PATH OF EXPRESSION

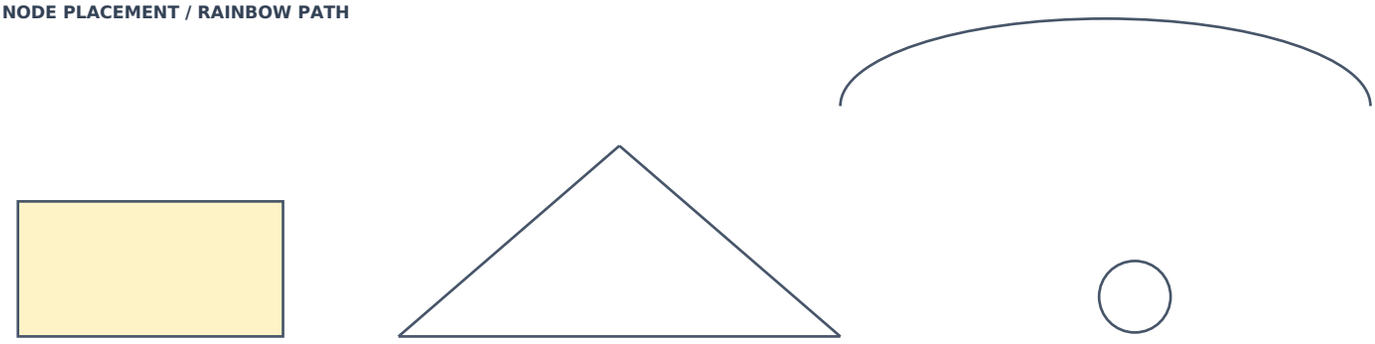
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0043"
state R -> R1
node N1
representation JP(PINK-07-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 43 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 44 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.17 Lecanto — MJ Manifestation White Paper -MJ-PBMEF-FAMILY- WP-17 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-17 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-17 Import whitepapers/family/17-lecanto.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-17 Definition Truthfulgovernedvisualizationofst

PATH OF EXPRESSION

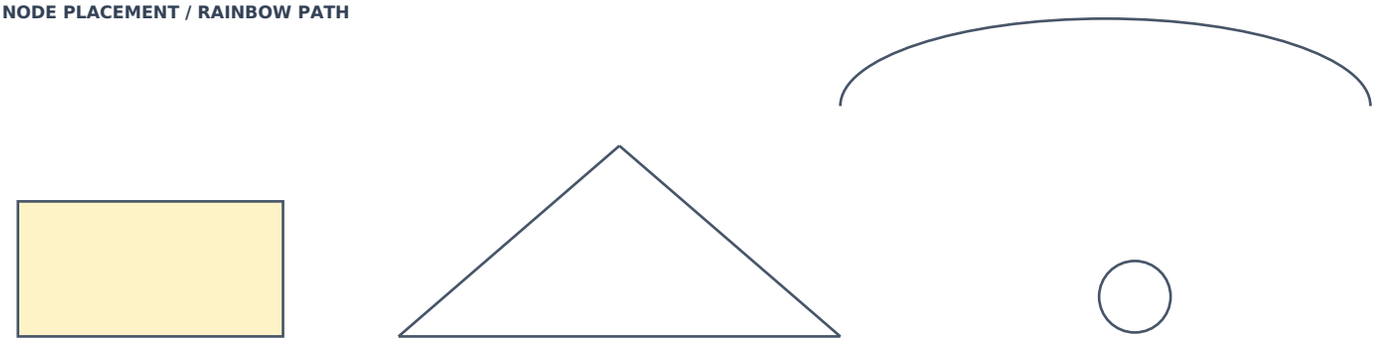
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0044"
state R -> R1
node N7
representation JP(PINK-07-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 44 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 45 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.19 Aviator — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP- 19 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-19 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-19 Import whitepapers/family/19-aviator.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-19 Definition Organizationalworkspace,projects,

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0045"
state R -> R1
node N1
representation JP(PINK-07-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 45 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 46 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.21 WATER — MJ Manifestation White Paper -MJ-PBMEF-FAMILY-WP- 21 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-FAMILY-WP-21 Namespace MJ.PBMEF.Document.MJ-PBMEF-FAMILY-WP-21 Import whitepapers/family/21-water.md Declaration whitepaperMJ-PBMEF-FAMILY-WP-21 Definition Intervaluncertainty,verifiedfloor,and

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0046"
state R -> R1
node N1
representation JP(PINK-07-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 46 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 47 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.23 Bangel Governed Measurement Language -MJ-PBMEF-PRODUCT- WP-02 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-02 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-02 Import whitepapers/products/02-Bangel-language.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-02 Definition Expresshumanpurpose,t

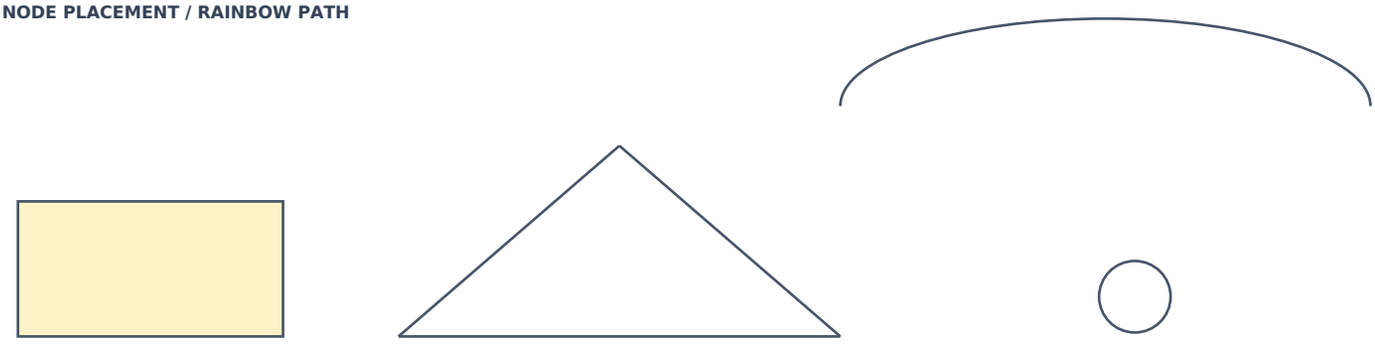
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0047"
state R -> R1
node N1
representation JP(PINK-07-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 47 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 48 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.25 JP Mathematical and Architectural Canon -MJ-PBMEF-PRODUCT- WP-04 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-04 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-04 Import whitepapers/products/04-jp-canon.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-04 Definition Representequations,algori

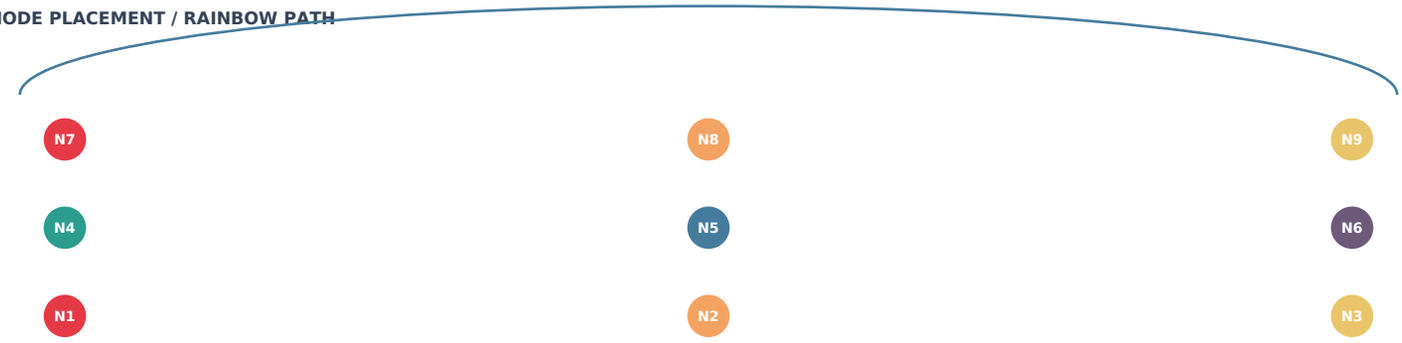
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0048"
state R -> R1
node N2
representation JP(PINK-07-P0048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 48 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 49 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.27 JO Deterministic Proof and Runtime -MJ-PBMEF-PRODUCT-WP-06 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-06 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-06 Import whitepapers/products/06-jo-runtime.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-06 Definition Verifytypes,units,authority,p

PATH OF EXPRESSION

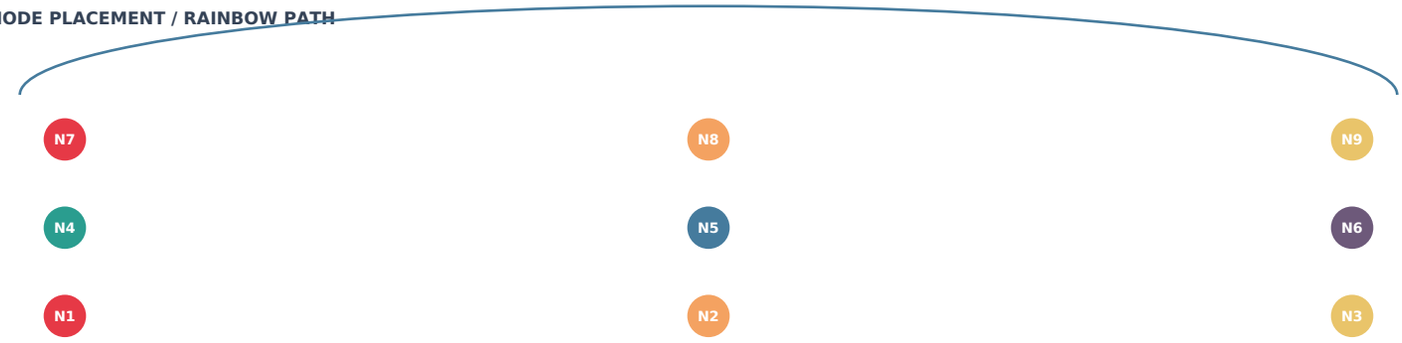
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0049"
state R -> R1
node N1
representation JP(PINK-07-P0049)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 49 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 50 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.29 JP Semiconductor Phone Battery and OS Candidate -MJ-PBMEF- PRODUCT-WP-08 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-08 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-08 Import whitepapers/products/08-jp-sc-phone.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-08 Definition Exploresemicon

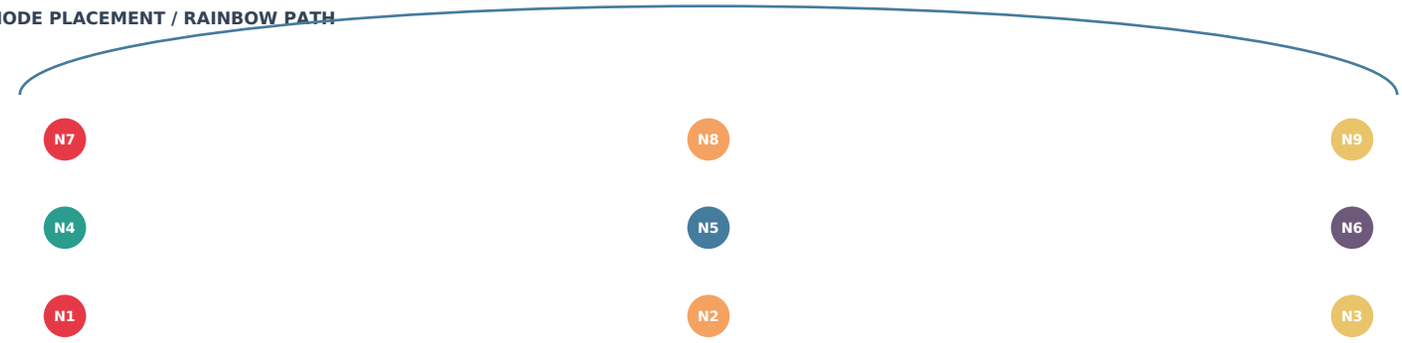
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0050"
state R -> R1
node N1
representation JP(PINK-07-P0050)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 50 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 51 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.31 JP Peaceful High-Energy Propulsion Research Candidate -MJ- PBMEF-PRODUCT-WP-10 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-10 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-10 Import whitepapers/products/10-jp-peaceful-propulsion.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-10 Definiti

PATH OF EXPRESSION

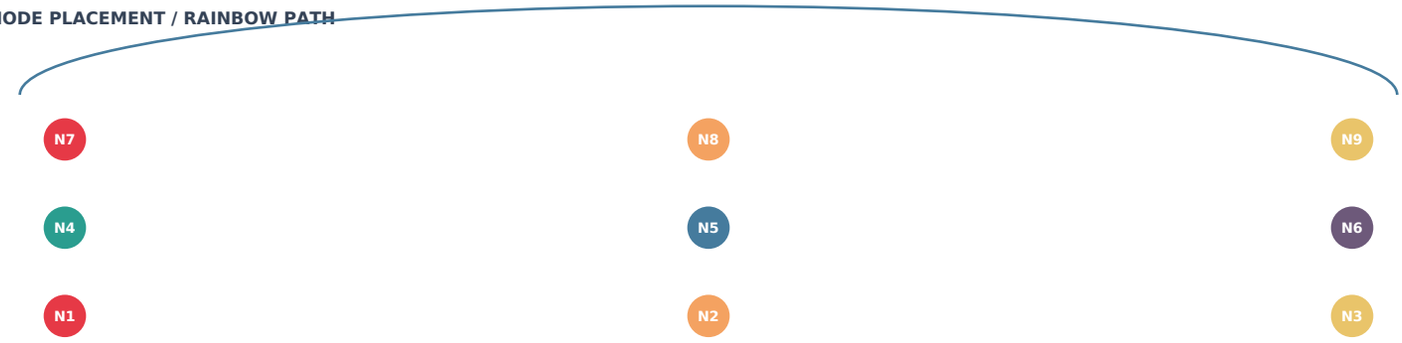
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0051"
state R -> R1
node N1
representation JP(PINK-07-P0051)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 51 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N6; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 52 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.33 EVE Variance Screen and Egress Accounting - MJ-PBMEF- PRODUCT-WP-12 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-12 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-12 Import whitepapers/products/12-eve-screen.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-12 Definition Accountforvariance,e

PATH OF EXPRESSION

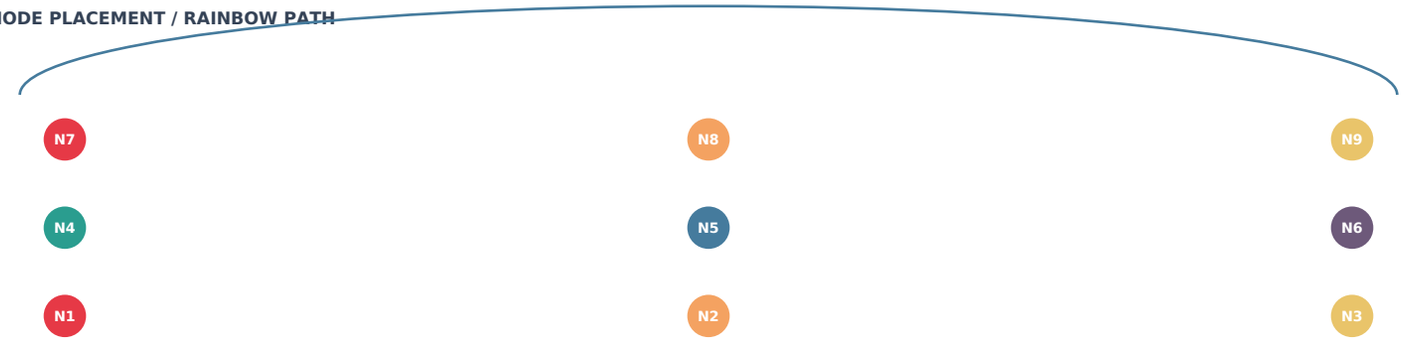
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0052"
state R -> R1
node N6
representation JP(PINK-07-P0052)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 52 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 53 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.35 Mermaid Accounting and Reconciliation System -MJ-PBMEF- PRODUCT-WP-14 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-14 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-14 Import whitepapers/products/14-mermaid-recon.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-14 Definition Maintainbalance

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0053"
state R -> R1
node N1
representation JP(PINK-07-P0053)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 53 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 54 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.37 SHIVAS Internal Settlement Reflection -MJ-PBMEF-PRODUCT-WP- 16 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-16 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-16 Import whitepapers/products/16-shivas-internal.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-16 Definition Representinternalcap

PATH OF EXPRESSION

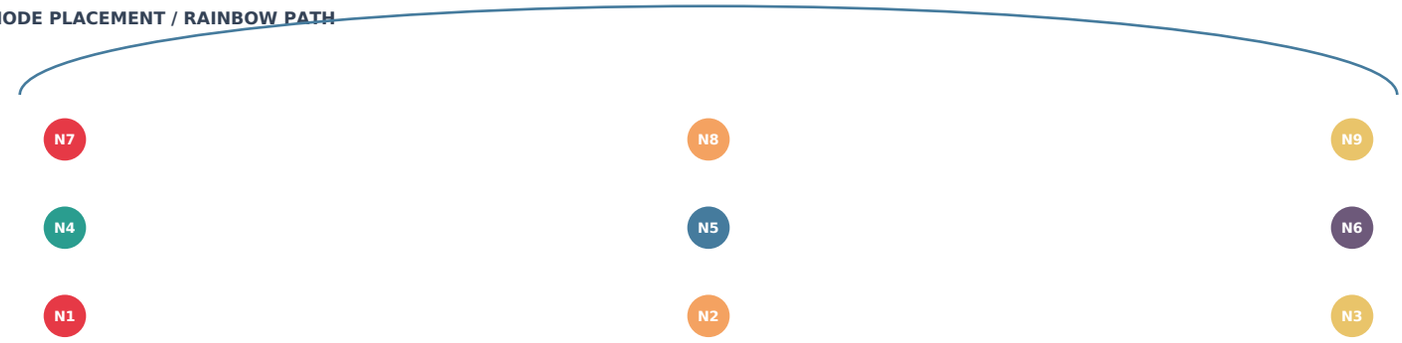
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0054"
state R -> R1
node N1
representation JP(PINK-07-P0054)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 54 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 55 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.39 Shiva Exchange Rule Reference -MJ-PBMEF-PRODUCT-WP-18 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-18 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-18 Import whitepapers/products/18-shiva-exchange.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-18 Definition Modeltransparentprice-time,cus

PATH OF EXPRESSION

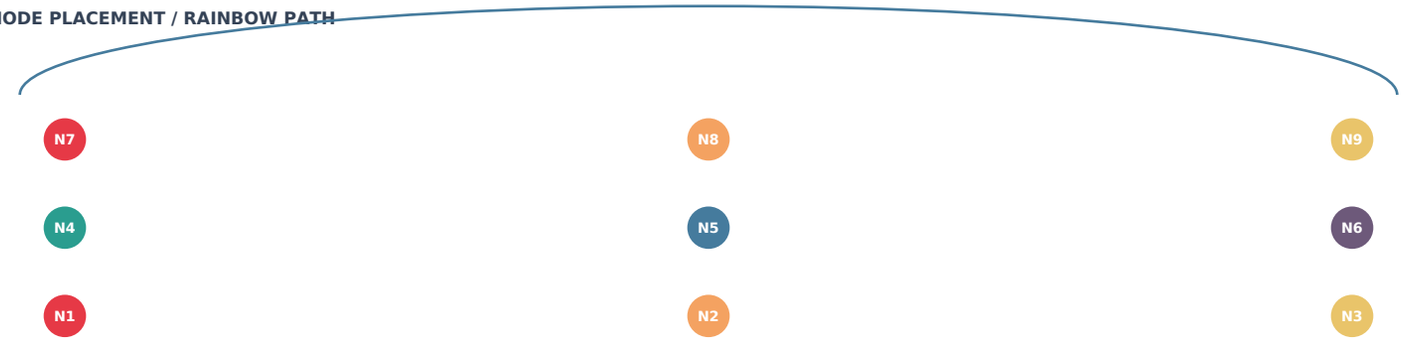
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0055"
state R -> R1
node N1
representation JP(PINK-07-P0055)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 55 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 56 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.41 Aviator Organizational Workspace -MJ-PBMEF-PRODUCT-WP-20 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-20 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-20 Import whitepapers/products/20-aviator-workspace.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-20 Definition Organizespaces,projects,

PATH OF EXPRESSION

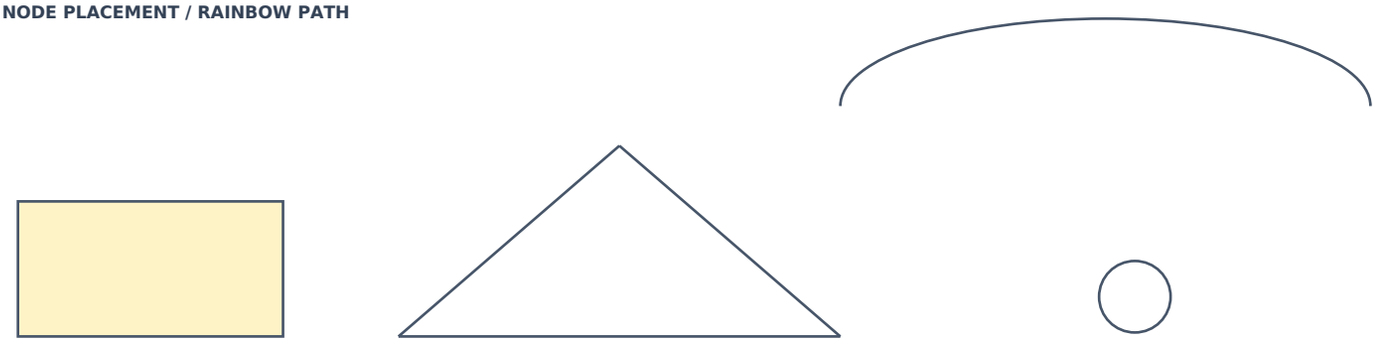
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0056"
state R -> R1
node N1
representation JP(PINK-07-P0056)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 56 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 57 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.43 Elsa Governed Marketplace Reference -MJ-PBMEF-PRODUCT-WP- 22 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-22 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-22 Import whitepapers/products/22-elsa-marketplace.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-22 Definition Coordinatesemanticlis

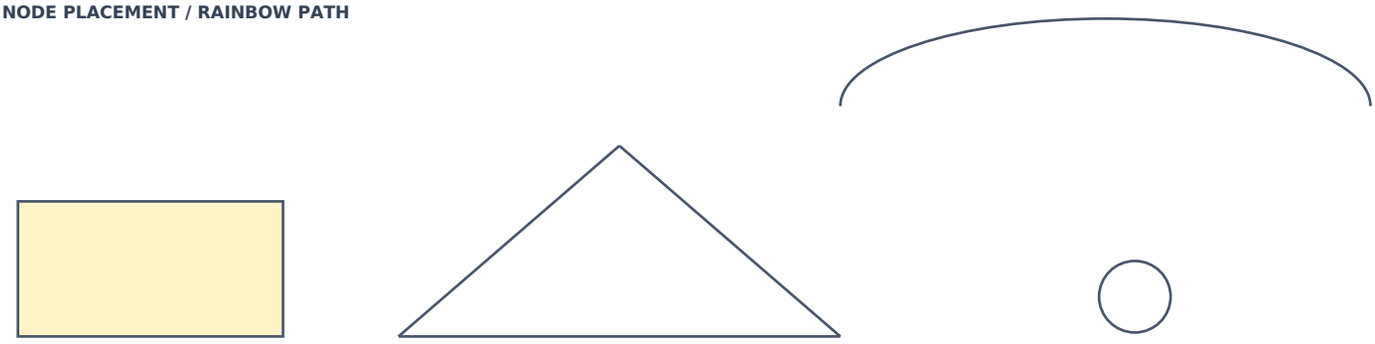
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0057"
state R -> R1
node N1
representation JP(PINK-07-P0057)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 57 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 58 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.45 Pearl Hypothetical Simulation and Information-Retention Sys- tem -MJ-PBMEF-PRODUCT-WP-24 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-24 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-24 Import whitepapers/products/24-pearl-containment.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-24 Def

PATH OF EXPRESSION

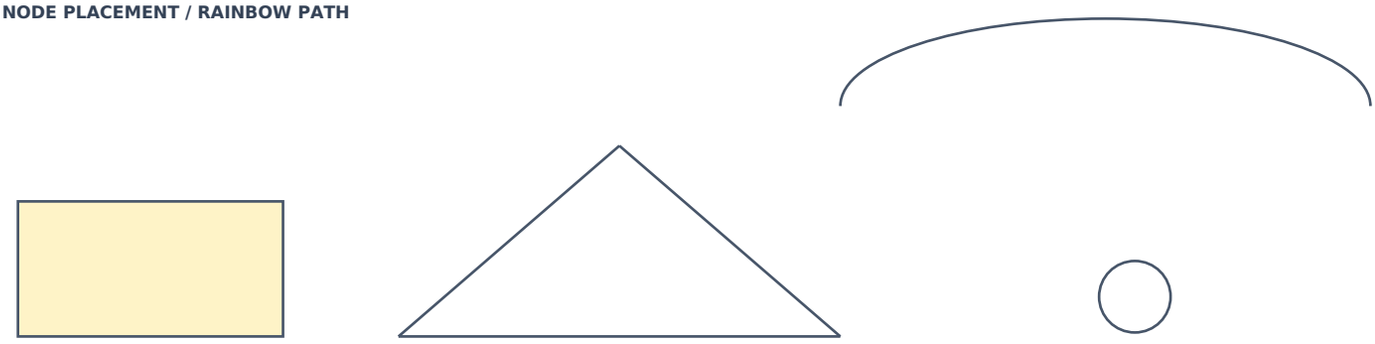
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0058"
state R -> R1
node N1
representation JP(PINK-07-P0058)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 58 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 59 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.47 JPOSMJ Product Portfolio Envelope -MJ-PBMEF-PRODUCT-WP-26 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-26 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-26 Import whitepapers/products/26-jposmj-portfolio.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-26 Definition GiveeveryJP-originproduc

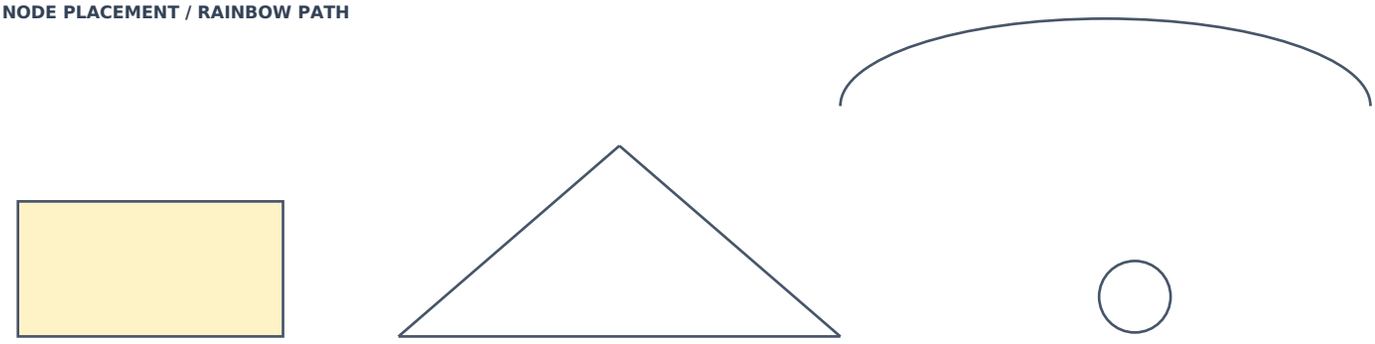
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0059"
state R -> R1
node N1
representation JP(PINK-07-P0059)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 59 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 60 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.49 MJ Reservoir Collection Modulation and Return Loop -MJ- PBMEF-PRODUCT-WP-28 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-PRODUCT-WP-28 Namespace MJ.PBMEF.Document.MJ-PBMEF-PRODUCT-WP-28 Import whitepapers/products/28-reservoir-collection-modulation.md Declaration whitepaperMJ-PBMEF-PRODUCT-WP-28 De

PATH OF EXPRESSION

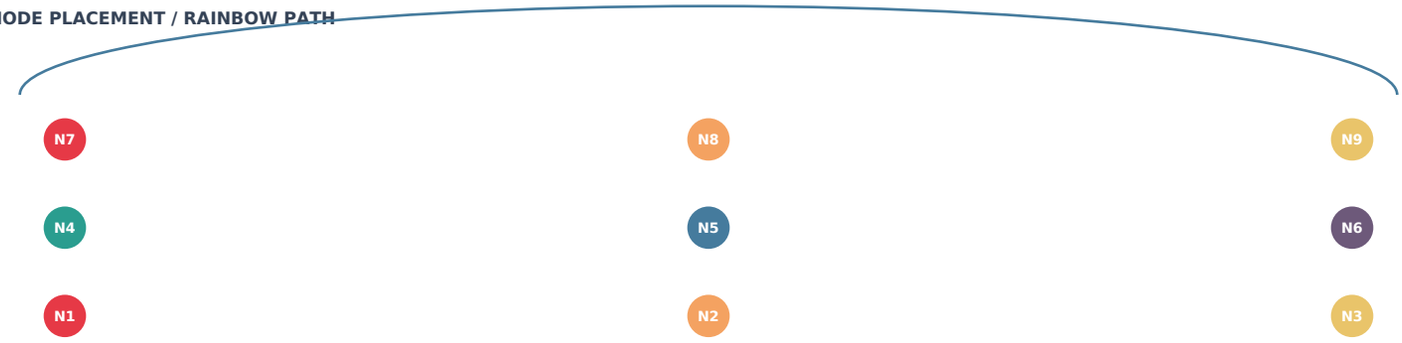
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0060"
state R -> R1
node N5
representation JP(PINK-07-P0060)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 60 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 61 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.51 Noise Floor and 23 mg Inflection -MJ-PBMEF-REPRESENTATION- WP-02 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-02 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-02 Import whitepapers/representations/02-noise-23mg.md Declaration whitepaperMJ-PBMEF-REPRESENTATION-WP-02 Defini

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0061"
state R -> R1
node N1
representation JP(PINK-07-P0061)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 61 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 62 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.53 Memory, Request Occultation, and Generational Handoff -MJ- PBMEF-REPRESENTATION-WP-04 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-04 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-04 Import whitepapers/representations/04-memory-handoff.md Declaration whitepaperMJ-PBMEF-RE

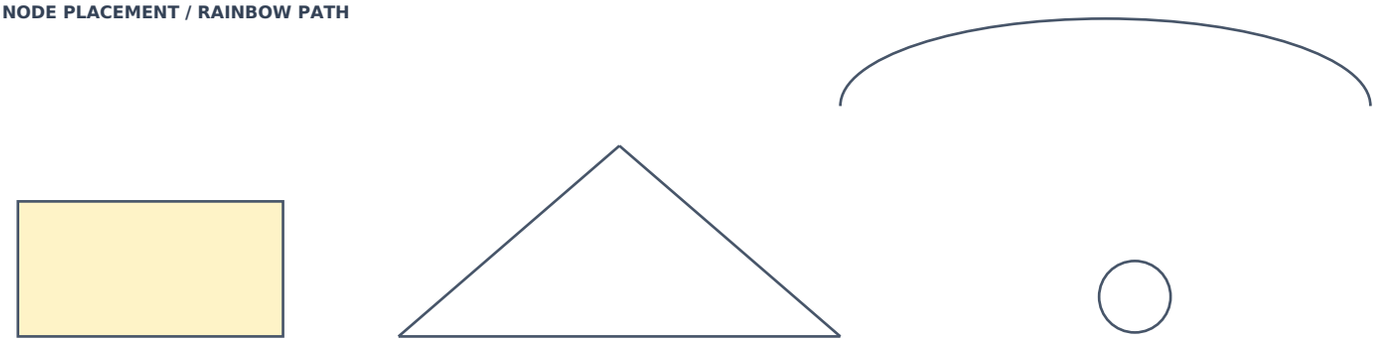
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0062"
state R -> R1
node N1
representation JP(PINK-07-P0062)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 62 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 63 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.55 EVE Variance, Screen, Evaporation, and Egress -MJ-PBMEF- REPRESENTATION-WP-06 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-06 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-06 Import whitepapers/representations/06-eve-egress.md Declaration whitepaperMJ-PBMEF-REPRESENTATION

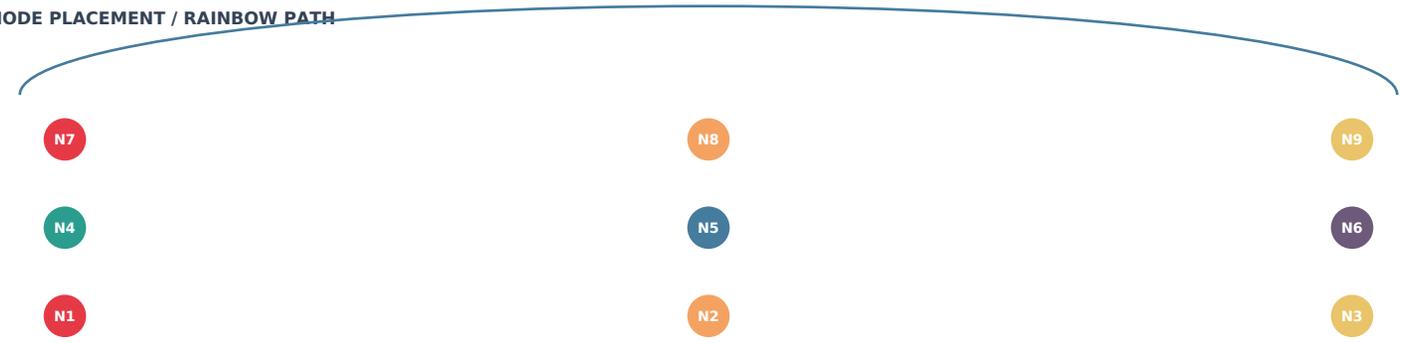
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0063"
state R -> R1
node N1
representation JP(PINK-07-P0063)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 63 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 64 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.57 Passkey, Claims Ceiling, and Repository Authentication -MJ- PBMEF-REPRESENTATION-WP-08 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-08 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-08 Import whitepapers/representations/08-passkey.md Declaration whitepaperMJ-PBMEF-REPRESEN

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0064"
state R -> R1
node N9
representation JP(PINK-07-P0064)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 64 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 65 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.59 Bangel Spreadsheets Cell, Dependency, Revision, and Pearl Simulation Field -MJ-PBMEF-REPRESENTATION-WP-10 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-10 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-10 Import whitepapers/representations/10-Bangel-spreadsheets-field.md De

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0065"
state R -> R1
node N1
representation JP(PINK-07-P0065)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 65 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 66 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDATE Pink Paper VI - Products / White Papers 30.61 Reservoir Return Loop Physics Representation - MJ-PBMEF- REPRESENTATION-WP-12 Construct Formula-specific expression Module MJ.PBMEF.WhitePaper.MJ-PBMEF-REPRESENTATION-WP-12 Namespace MJ.PBMEF.Document.MJ-PBMEF-REPRESENTATION-WP-12 Import whitepapers/representations/12-reservoir-return-loop.md Declaration whitepaperMJ-PBMEF-REP

PATH OF EXPRESSION

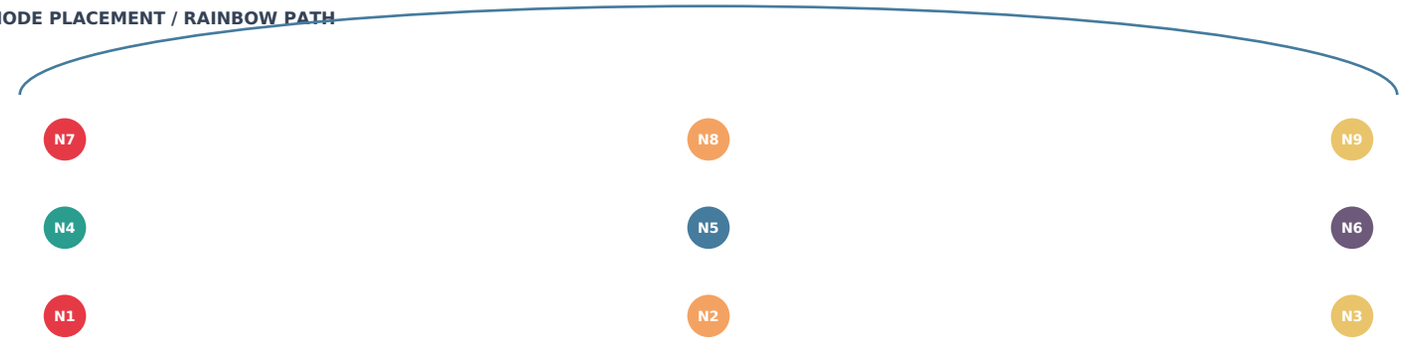
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PRIVATE_PRE_DAY_0_UNSIGNED_R
reference "PINK-07-P0066"
state R -> R1
node N1
representation JP(PINK-07-P0066)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source PinkPaper_Volume06_Products_and_WhitePapers.pdf, page 66 of 66. PRIVATE PRE-DAY-0 - UNSIGNED REVIEW CANDIDAT
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 1 of 24. PINK-TEST-001 Day-Zero Validation and Simulation Results MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 23,000 deterministic reference scenarios plus preserved predecessor suites RESULT 23,000 executed / 23,000 pass / 0 fail / 0 hold across 23 categories. Results root: c8097cc9f291a10379b07c4a146fb736e136a79ee2b8c985c2fa156fbf750912 MEANING The scenarios verify reference software, numeric guards, formulas, states, manifes

PATH OF EXPRESSION

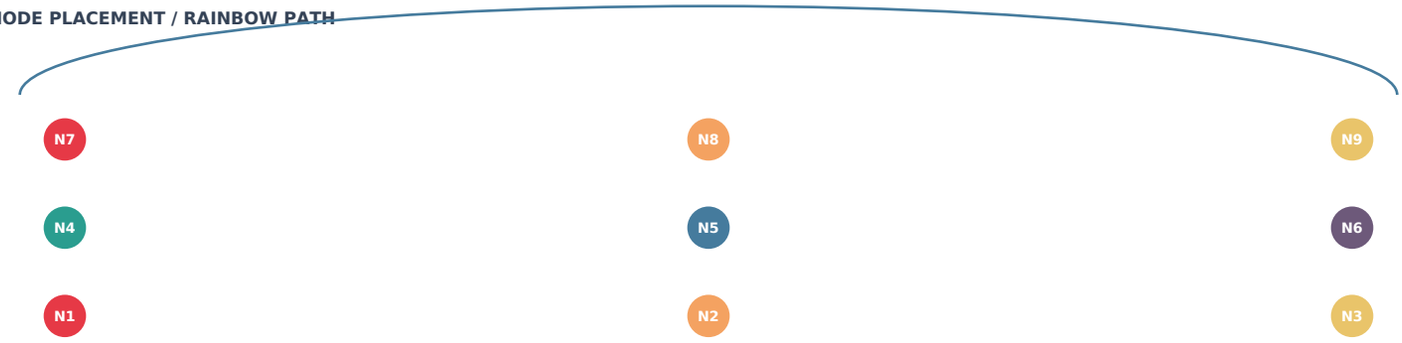
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_001_Day_Zero_Valid
reference "PINK-08-P0001"
state R -> R1
node N1
representation JP(PINK-08-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 1 of 24. PINK-TEST-001 Day-Zero Validati
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 2 of 24. PINK-TEST-01 Angels Ethics MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category ANGELS_ETHICS -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Non-weaponization and safety gate outcomes. WHAT THE PASS PROVES The teste

PATH OF EXPRESSION

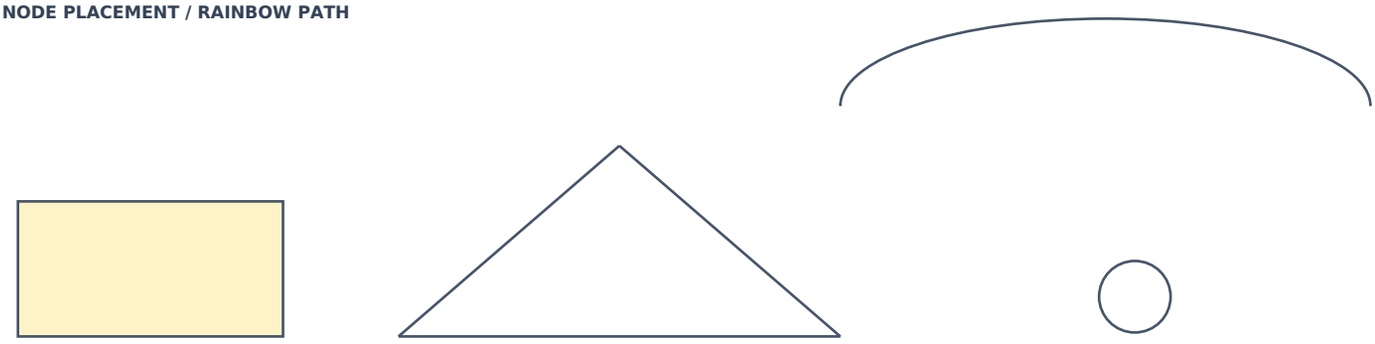
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_01_Angels_Ethics_M
reference "PINK-08-P0002"
state R -> R1
node N4
representation JP(PINK-08-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 2 of 24. PINK-TEST-01 Angels Ethics MJ-P
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 3 of 24. PINK-TEST-02 Ceremony MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category CEREMONY -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Authority graph, claims ceiling, and passkey preconditions. WHAT THE PASS PROVES The

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_02_Ceremony_MJ_PBM
reference "PINK-08-P0003"
state R -> R1
node N1
representation JP(PINK-08-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 3 of 24. PINK-TEST-02 Ceremony MJ-PBMEF-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 4 of 24. PINK-TEST-03 Containment MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category CONTAINMENT -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Scale-independent rectangle/cone ratios and reference geometry. WHAT THE PASS

PATH OF EXPRESSION

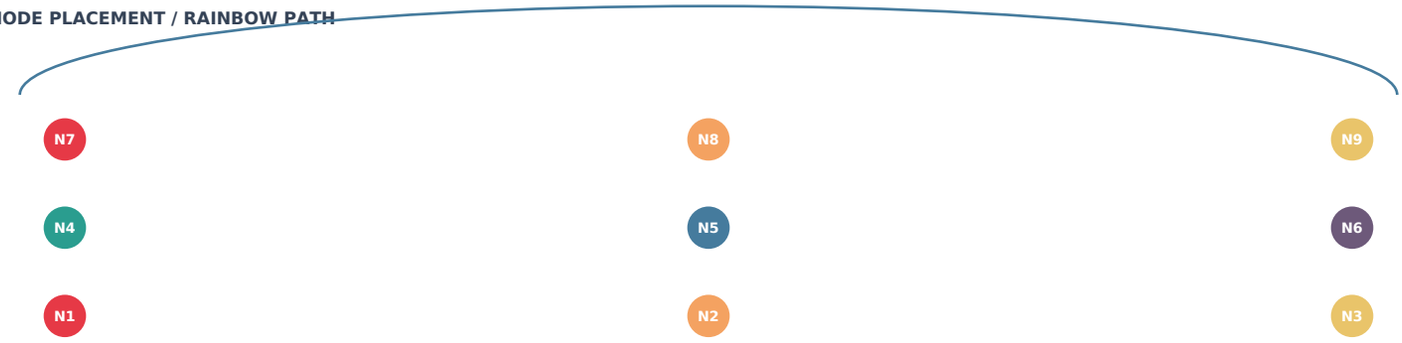
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_03_Containment_MJ_
reference "PINK-08-P0004"
state R -> R1
node N1
representation JP(PINK-08-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 4 of 24. PINK-TEST-03 Containment MJ-PBM
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 5 of 24. PINK-TEST-04 Covariance MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category COVARIANCE -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Positive-semidefinite covariance reference matrices. WHAT THE PASS PROVES The te

PATH OF EXPRESSION

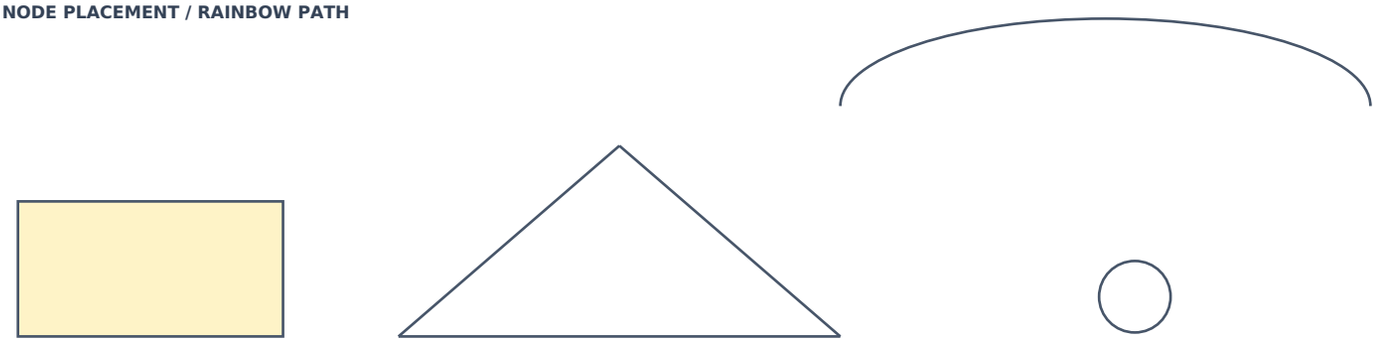
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_04_Covariance_MJ_P
reference "PINK-08-P0005"
state R -> R1
node N1
representation JP(PINK-08-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 5 of 24. PINK-TEST-04 Covariance MJ-PBME
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 6 of 24. PINK-TEST-05 Digest MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category DIGEST -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Canonical lowercase SHA-256 validation. WHAT THE PASS PROVES The tested invariant behave

PATH OF EXPRESSION

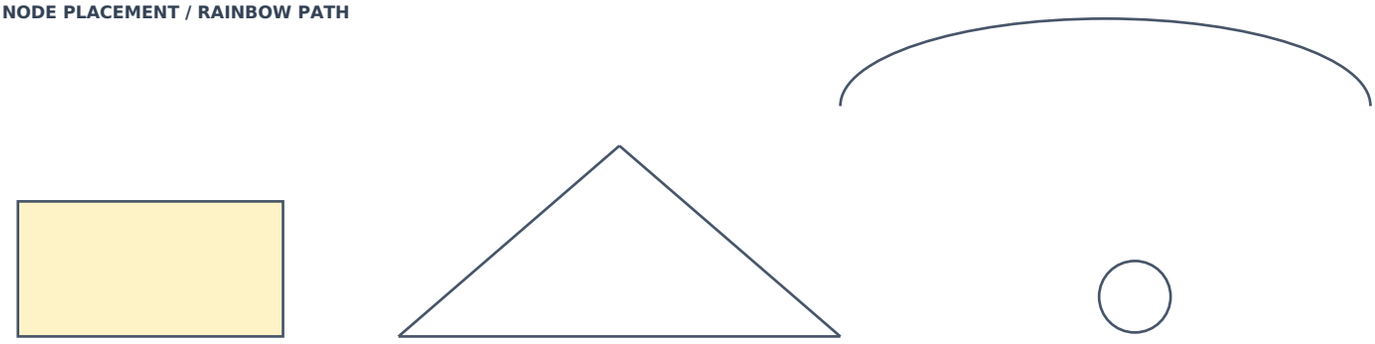
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_05_Digest_MJ_PBMEF
reference "PINK-08-P0006"
state R -> R1
node N8
representation JP(PINK-08-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 6 of 24. PINK-TEST-05 Digest MJ-PBMEF-DA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 7 of 24. PINK-TEST-06 Documentation MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category DOCUMENTATION -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Official documentation entry existence and content hashes. WHAT THE PASS P

PATH OF EXPRESSION

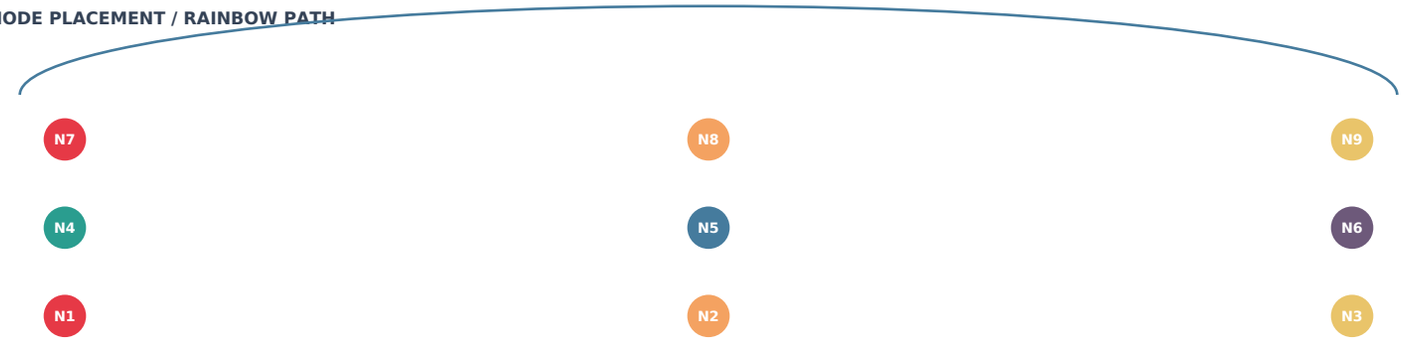
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_06_Documentation_M
reference "PINK-08-P0007"
state R -> R1
node N1
representation JP(PINK-08-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 7 of 24. PINK-TEST-06 Documentation MJ-P
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 8 of 24. PINK-TEST-07 Dro MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category DRO -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED DRO scale, uncertainty, R1, and R2 reference states. WHAT THE PASS PROVES The tested invariant

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_07_Dro_MJ_PBMEF_DA
reference "PINK-08-P0008"
state R -> R1
node N1
representation JP(PINK-08-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 8 of 24. PINK-TEST-07 Dro MJ-PBMEF-DAY0-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 9 of 24. PINK-TEST-08 Gas MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category GAS -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED State-dependent reference-gas density and 24 mg volume. WHAT THE PASS PROVES The tested invari

PATH OF EXPRESSION

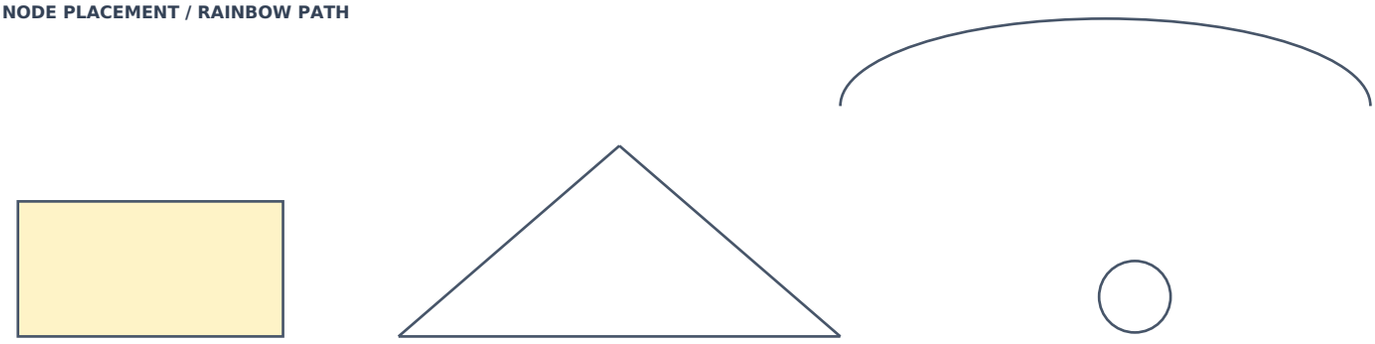
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_08_Gas_MJ_PBMEF_DA
reference "PINK-08-P0009"
state R -> R1
node N1
representation JP(PINK-08-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 9 of 24. PINK-TEST-08 Gas MJ-PBMEF-DAY0-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 10 of 24. PINK-TEST-09 Ip Discovery MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category IP_DISCOVERY -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Candidate-only Potential IP identifier and register boundaries. WHAT THE PAS

PATH OF EXPRESSION

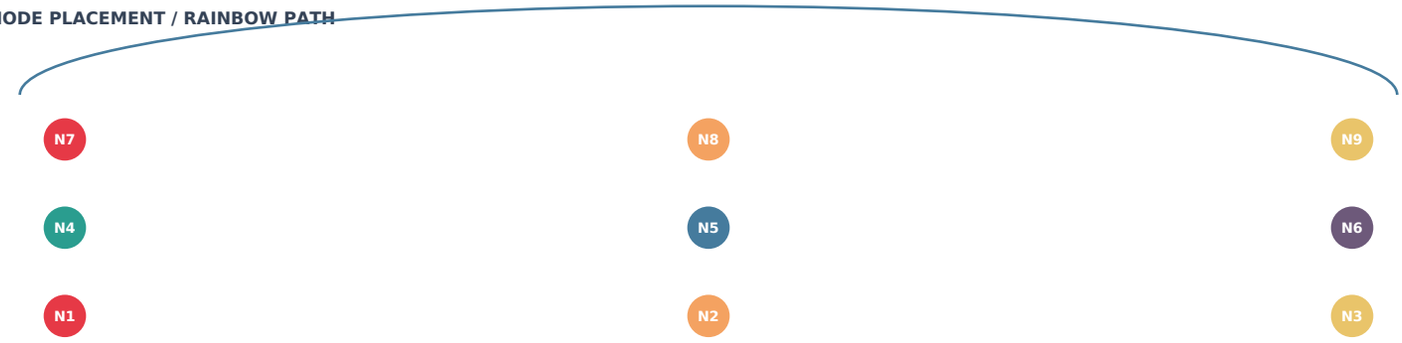
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_09_Ip_Discovery_MJ
reference "PINK-08-P0010"
state R -> R1
node N3
representation JP(PINK-08-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 10 of 24. PINK-TEST-09 Ip Discovery MJ-P
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 11 of 24. PINK-TEST-10 Lecanto MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category LECANTO -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Source digest, image residual, intent hypothesis, and safe transformation gates. WHAT

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_10_Lecanto_MJ_PBME
reference "PINK-08-P0011"
state R -> R1
node N1
representation JP(PINK-08-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 11 of 24. PINK-TEST-10 Lecanto MJ-PBMEF-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 12 of 24. PINK-TEST-11 M3 MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category M3 -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Non-authoritative routing receipts. WHAT THE PASS PROVES The tested invariant behaved determinis

PATH OF EXPRESSION

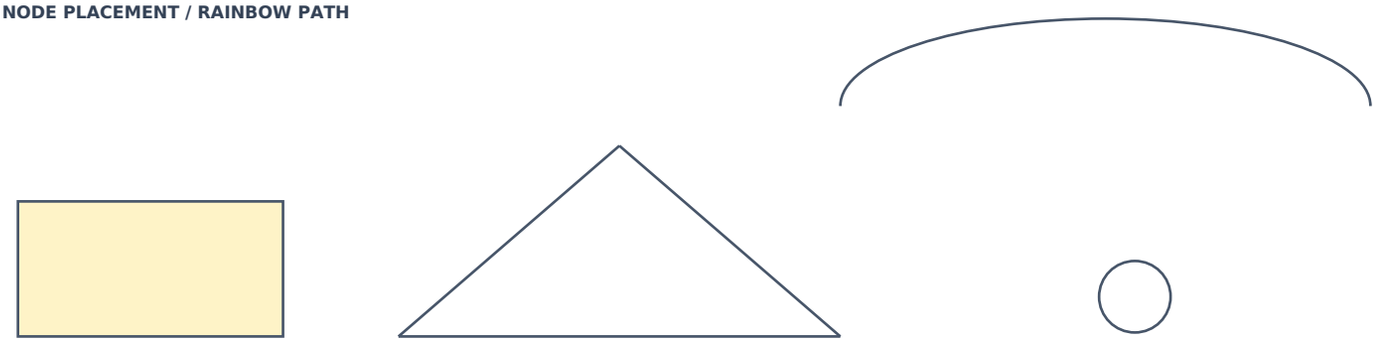
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_11_M3_MJ_PBMEF_DAY
reference "PINK-08-P0012"
state R -> R1
node N1
representation JP(PINK-08-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 12 of 24. PINK-TEST-11 M3 MJ-PBMEF-DAY0-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 13 of 24. PINK-TEST-12 Mass23 MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category MASS23 -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED 23 mg observational-floor interval classification. WHAT THE PASS PROVES The tested invar

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_12_Mass23_MJ_PBMEF
reference "PINK-08-P0013"
state R -> R1
node N1
representation JP(PINK-08-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 13 of 24. PINK-TEST-12 Mass23 MJ-PBMEF-D
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 14 of 24. PINK-TEST-13 Mass24 MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category MASS24 -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED 24 mg reference-mass and density-dependent volume separation. WHAT THE PASS PROVES The t

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_13_Mass24_MJ_PBMEF
reference "PINK-08-P0014"
state R -> R1
node N7
representation JP(PINK-08-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 14 of 24. PINK-TEST-13 Mass24 MJ-PBMEF-D
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 15 of 24. PINK-TEST-14 Memory MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category MEMORY -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Request memory, preallocation, residual, and headroom accounting. WHAT THE PASS PROVES T

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_14_Memory_MJ_PBMEF
reference "PINK-08-P0015"
state R -> R1
node N1
representation JP(PINK-08-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 15 of 24. PINK-TEST-14 Memory MJ-PBMEF-D
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 16 of 24. PINK-TEST-15 Noise MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category NOISE -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Smoothing, trend, and bounded anti-spike reference behavior. WHAT THE PASS PROVES The test

PATH OF EXPRESSION

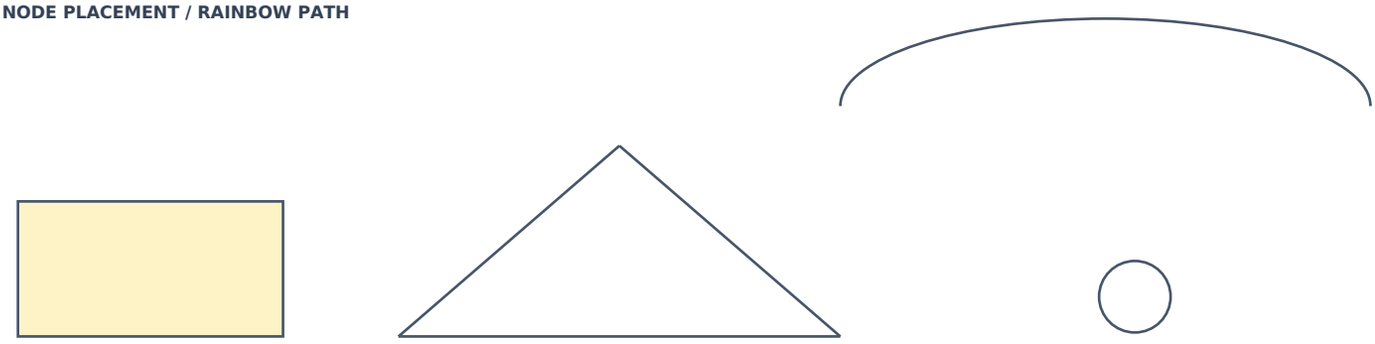
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_15_Noise_MJ_PBMEF_
reference "PINK-08-P0016"
state R -> R1
node N1
representation JP(PINK-08-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 16 of 24. PINK-TEST-15 Noise MJ-PBMEF-DA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 17 of 24. PINK-TEST-16 Numeric MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category NUMERIC -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED NaN and infinity rejection with finite-value acceptance. WHAT THE PASS PROVES The test

PATH OF EXPRESSION

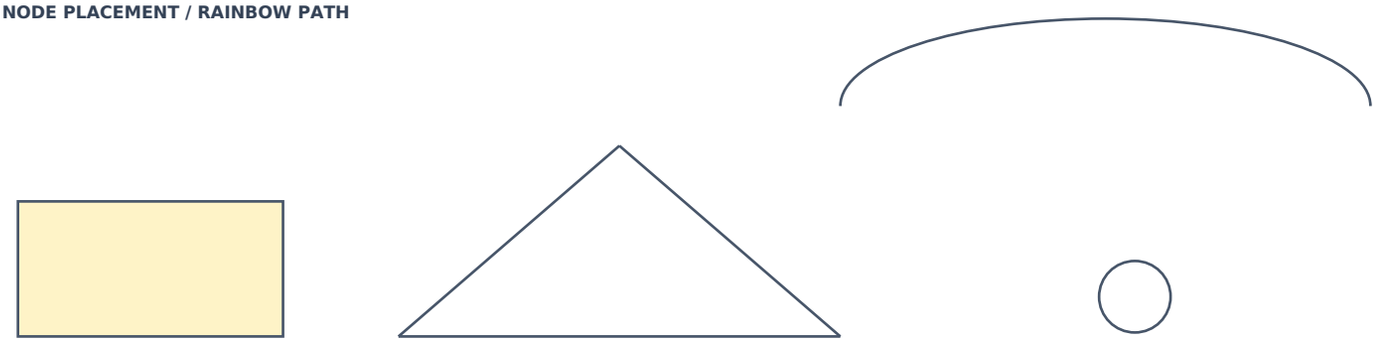
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_16_Numeric_MJ_PBME
reference "PINK-08-P0017"
state R -> R1
node N1
representation JP(PINK-08-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 17 of 24. PINK-TEST-16 Numeric MJ-PBMEF-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 18 of 24. PINK-TEST-17 Pearl MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category PEARL -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Pearl simulation capacity and nonphysical status. WHAT THE PASS PROVES The tested invarian

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_17_Pearl_MJ_PBMEF_
reference "PINK-08-P0018"
state R -> R1
node N2
representation JP(PINK-08-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 18 of 24. PINK-TEST-17 Pearl MJ-PBMEF-DA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 19 of 24. PINK-TEST-18 Profile Isolation MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category PROFILE_ISOLATION -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Separate product/profile values and transfer-receipt requirements.

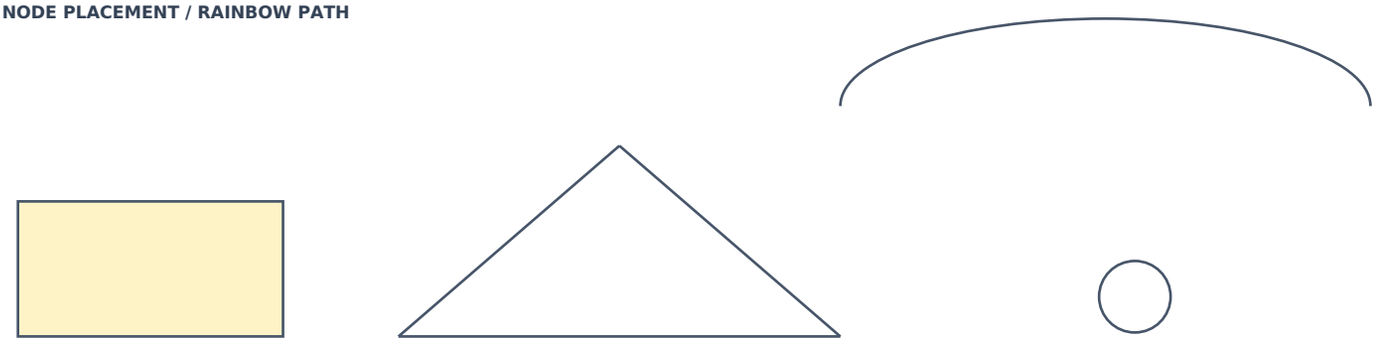
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_18_Profile_Isolati
reference "PINK-08-P0019"
state R -> R1
node N1
representation JP(PINK-08-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 19 of 24. PINK-TEST-18 Profile Isolation
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 20 of 24. PINK-TEST-19 Reservoir MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category RESERVOIR -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Inventory balance, vector capacity, new-cycle re-entry, and physical holds. WHAT T

PATH OF EXPRESSION

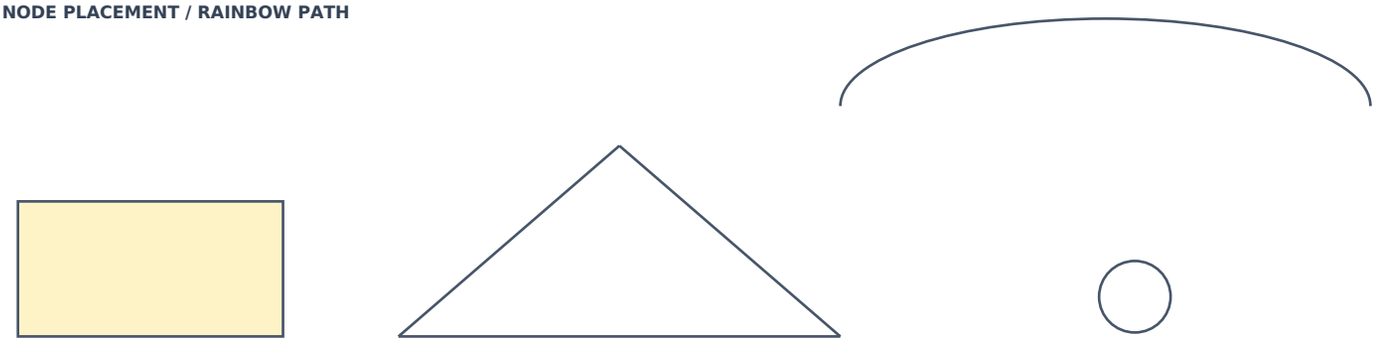
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_19_Reservoir_MJ_PB
reference "PINK-08-P0020"
state R -> R1
node N1
representation JP(PINK-08-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 20 of 24. PINK-TEST-19 Reservoir MJ-PBME
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 21 of 24. PINK-TEST-20 Sheets MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category SHEETS -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Bangel Spreadsheets atomic updates, formulas, units, evidence state, and rollback. WHAT

PATH OF EXPRESSION

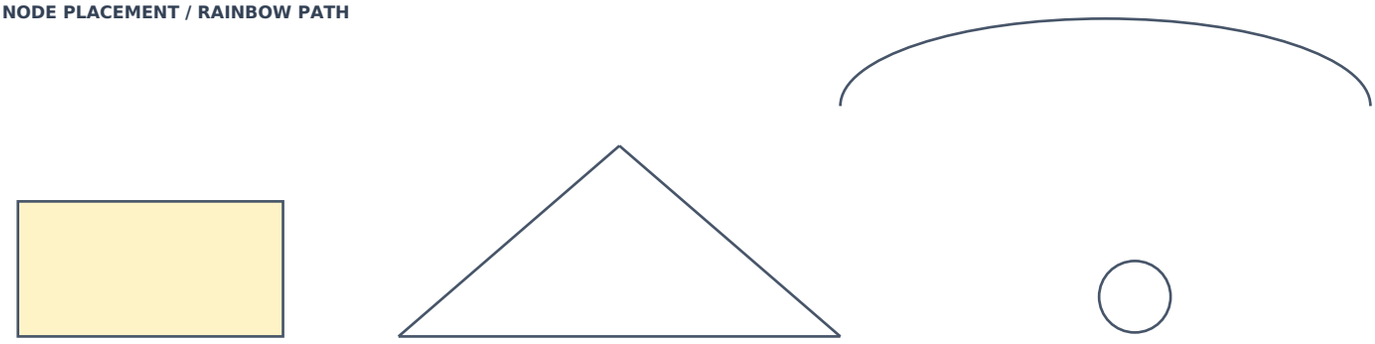
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_20_Sheets_MJ_PBMEF
reference "PINK-08-P0021"
state R -> R1
node N1
representation JP(PINK-08-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 21 of 24. PINK-TEST-20 Sheets MJ-PBMEF-D
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 22 of 24. PINK-TEST-21 Shiva Day1 MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category SHIVA_DAY1 -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Liquidity-first internal banking MVP calculations and external-crypto exclusion.

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_21_Shiva_Day1_MJ_P
reference "PINK-08-P0022"
state R -> R1
node N6
representation JP(PINK-08-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 22 of 24. PINK-TEST-21 Shiva Day1 MJ-PBM
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 23 of 24. PINK-TEST-22 State MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category STATE -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED R/R0/R1/N1/R2 transitions and UNKNOWN != ZERO. WHAT THE PASS PROVES The tested invariant b

PATH OF EXPRESSION

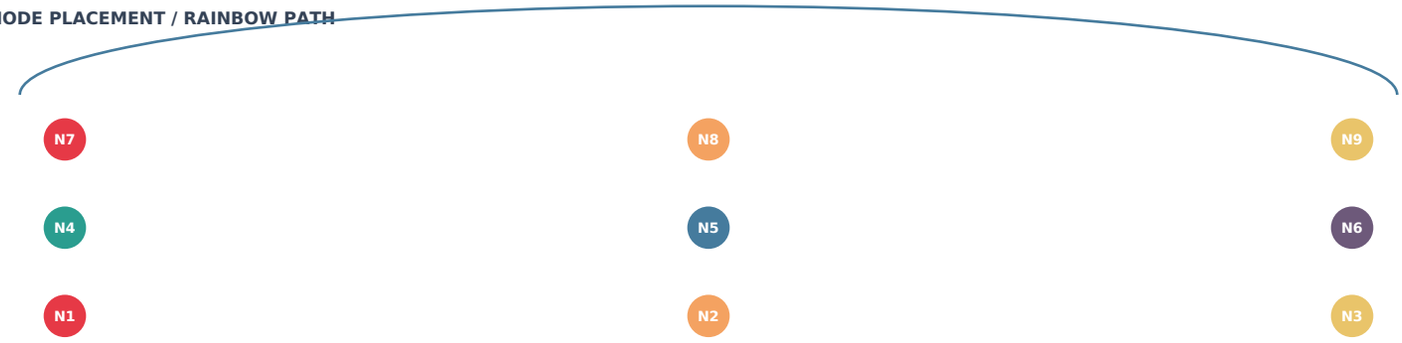
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_22_State_MJ_PBMEF_
reference "PINK-08-P0023"
state R -> R1
node N1
representation JP(PINK-08-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 23 of 24. PINK-TEST-22 State MJ-PBMEF-DA
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 24 of 24. PINK-TEST-23 Syntax MJ-PBMEF-DAY0-R11-COLOR-PAPERS-180K-FINAL 1,000 deterministic scenarios | all passed DISCOVERY PATH Source category SYNTAX -> deterministic inputs -> governed reference function or manifest predicate -> expected state -> actual state -> JSONL receipt -> summary root -> passkey validation annex. WHAT WAS TESTED Balanced reference syntax constructs and authority-none declarations. WHAT THE PASS PROV

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.PINK_TEST_23_Syntax_MJ_PBMEF
reference "PINK-08-P0024"
state R -> R1
node N1
representation JP(PINK-08-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_R11_23000_Test_and_Simulation_Results.pdf, page 24 of 24. PINK-TEST-23 Syntax MJ-PBMEF-D
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 1 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 1 Potential IP Pink Paper - No-Rights Boundary CONTROLLING STATEMENT The 90,000 Potential IP Points are internal candidate technical observations. They do not establish ownership, inventorship, novelty, patentability, validity, enforceability, infringement, freedom to operate, registration, clearance, or entitlement to any IP rig

PATH OF EXPRESSION

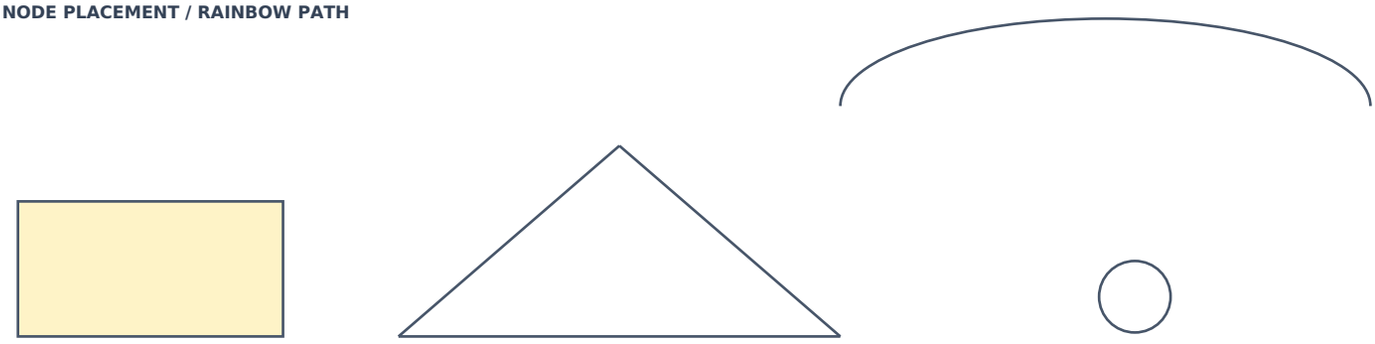
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0001"
state R -> R1
node N1
representation JP(PINK-09-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 1 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 2 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 2 How the 90,000 Candidate Points Were Established PREDECESSOR 10,000 The first sweep used formula, family-object, product-construct, white-paper, and cross-cutting technical lenses to enumerate 10,000 candidate observations. SOLAR 20,000 The solar three-profile integration added 20,000 observations across the shared core, semico

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0002"
state R -> R1
node N1
representation JP(PINK-09-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 2 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 3 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 3 Candidate Point Anatomy FIELDS Each candidate may carry a point identifier, source formula/family/object/product/document, technical thesis, differentiation hypothesis, disclosure prompt, search terms, possible protection modes, enablement gaps, risk flags, confidentiality recommendation, next action, and gateway relation. STAT

PATH OF EXPRESSION

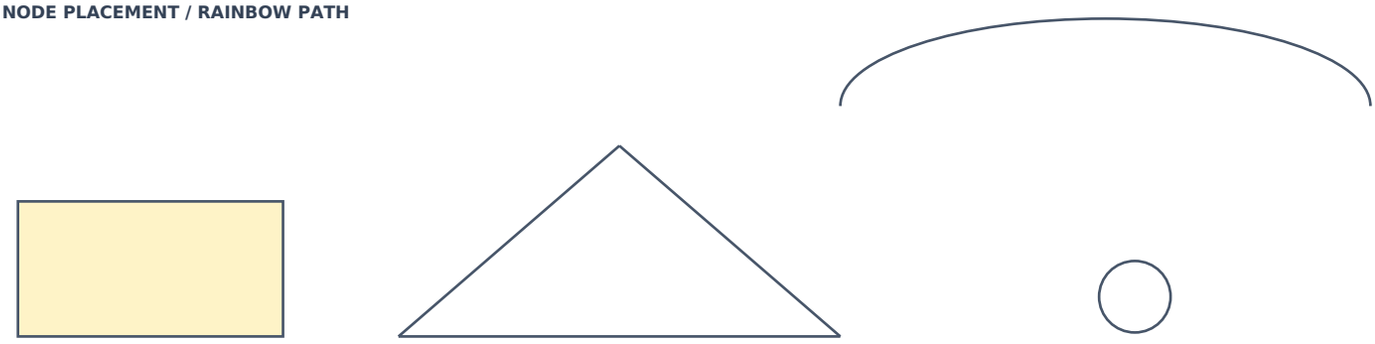
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0003"
state R -> R1
node N1
representation JP(PINK-09-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 3 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 4 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 4 Formula and Algorithm Layer TECHNICAL SCOPE Formula-derived points examine typed inputs, operators, transformations, units, uncertainty, evidence, control volumes, scaling, implementation, verification, and product embodiment. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure?

PATH OF EXPRESSION

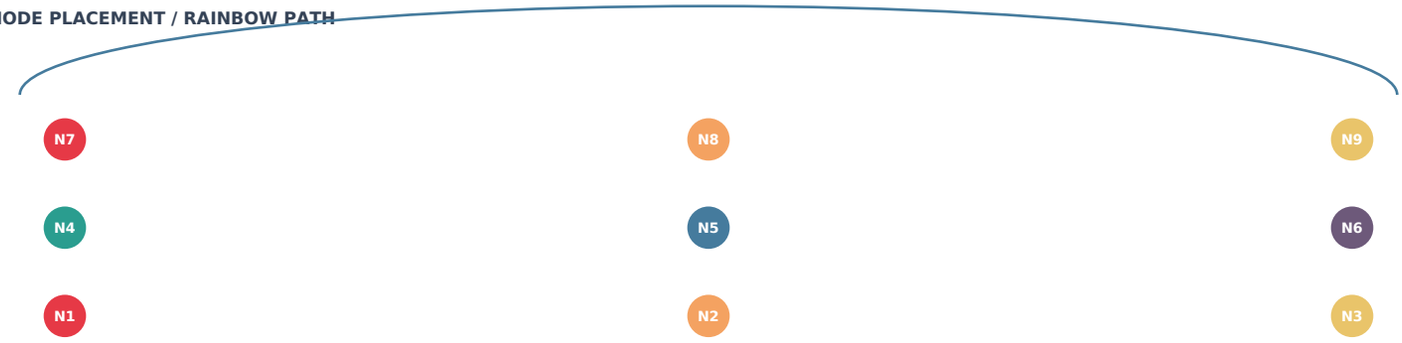
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0004"
state R -> R1
node N1
representation JP(PINK-09-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 4 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 5 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 5 Family and Object Layer TECHNICAL SCOPE Family-object points examine boundaries, handoffs, interfaces, evidence custody, non-substitutability, recovery, routing, and combinations among manifestations and governed objects. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Whic

PATH OF EXPRESSION

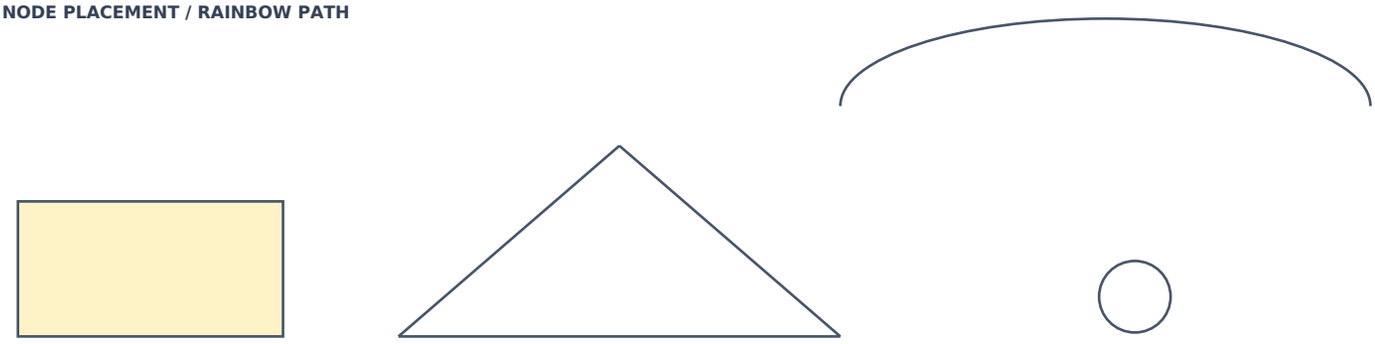
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0005"
state R -> R1
node N1
representation JP(PINK-09-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 5 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 6 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 6 Product and Construct Layer TECHNICAL SCOPE Product-construct points examine use cases, command syntax, configuration, profiles, workflows, interfaces, scaling, safety, and product-specific embodiments. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Which elements are know

PATH OF EXPRESSION

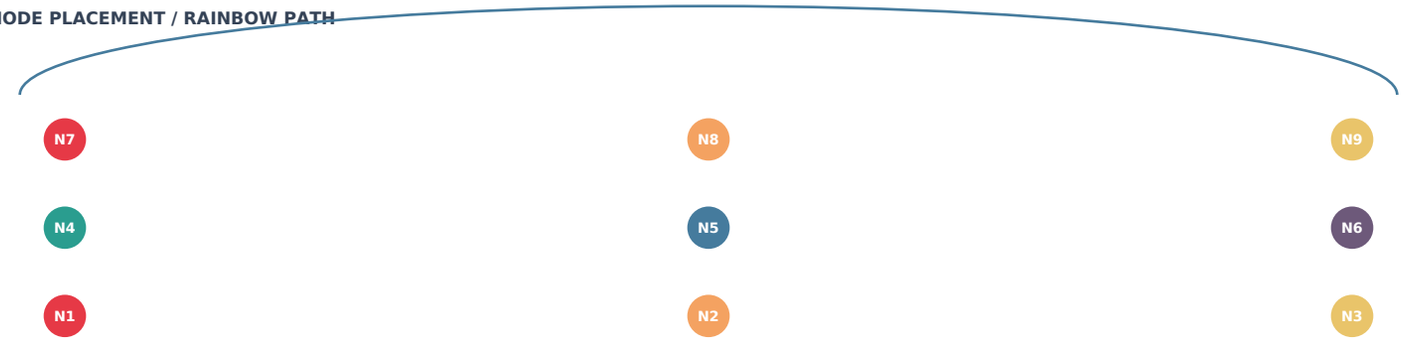
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0006"
state R -> R1
node N5
representation JP(PINK-09-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 6 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 7 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 7 White-Paper Layer TECHNICAL SCOPE White-paper points examine disclosed systems, methods, architectures, diagrams, examples, limitations, and alternative embodiments that may require separate prior-art and enablement review. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Wh

PATH OF EXPRESSION

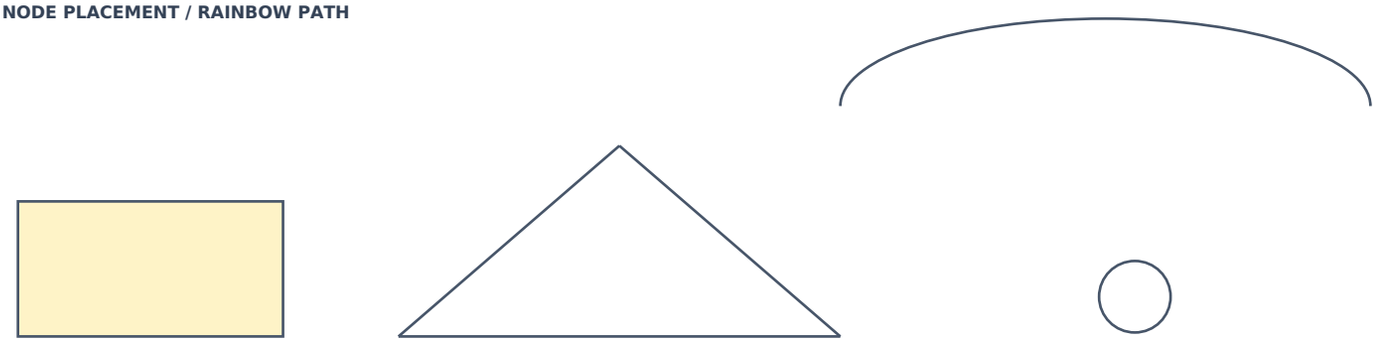
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0007"
state R -> R1
node N1
representation JP(PINK-09-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 7 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 8 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 8 Solar Three-Profile Layer TECHNICAL SCOPE The solar layer preserves shared-core architecture while requiring separate physical evidence for semiconductor/phone, marine, and peaceful rocket/spacecraft profiles. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Which elements a

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0008"
state R -> R1
node N1
representation JP(PINK-09-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 8 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 9 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 9 DRO Layer TECHNICAL SCOPE DRO observations cover typed unit acquisition, R-to-R1 state transitions, optical reference hypotheses, conservation, receipts, scale boundaries, and non-authority status. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Which elements are known? Wh

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0009"
state R -> R1
node N1
representation JP(PINK-09-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 9 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre
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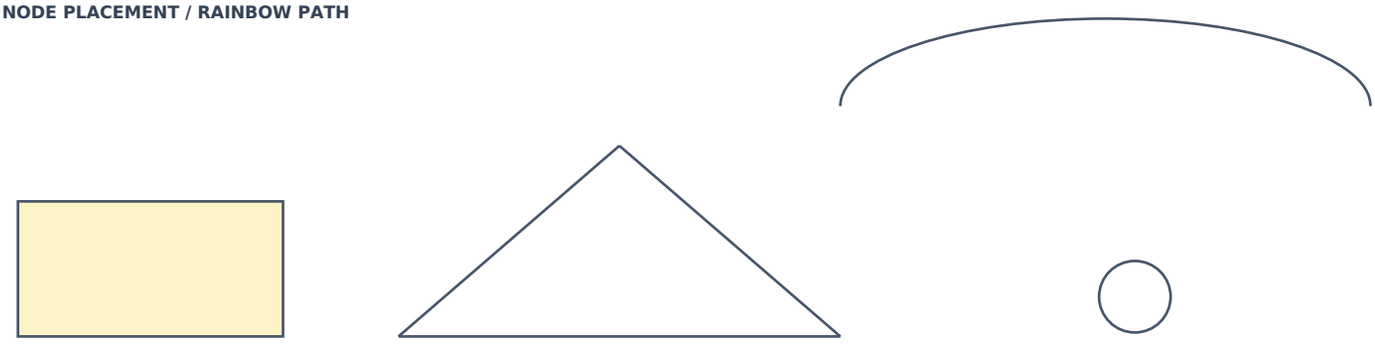
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 10 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 10 Pearl/DRO Layer TECHNICAL SCOPE Pearl/DRO observations cover computational-node retention, hypothetical allocation, handoff evidence, capacity modeling, and strict separation from physical-container claims. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Which elements are

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0010"
state R -> R1
node N9
representation JP(PINK-09-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 10 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
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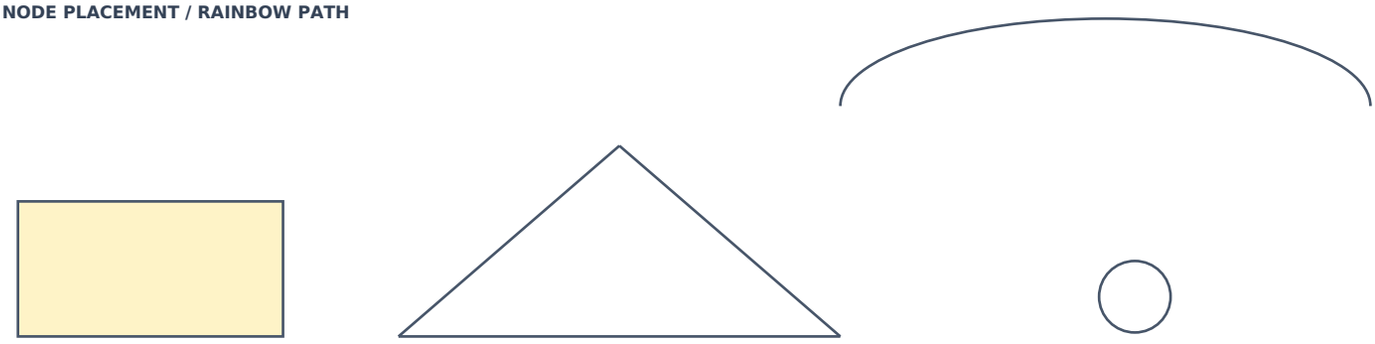
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 11 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 11 Start and Restart Layer TECHNICAL SCOPE Start/restart observations cover available energy, required energy, reserve, loss, uncertainty, state transitions, and non-operational reference status. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Which elements are known? What e

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0011"
state R -> R1
node N1
representation JP(PINK-09-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 11 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
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Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 12 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 12 Lecanto Layer TECHNICAL SCOPE Lecanto observations cover source digest, metadata, image variance, transformations, derivative labels, safety classification, contextual intent hypotheses, and truthful visualization. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Which elem

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0012"
state R -> R1
node N1
representation JP(PINK-09-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 12 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
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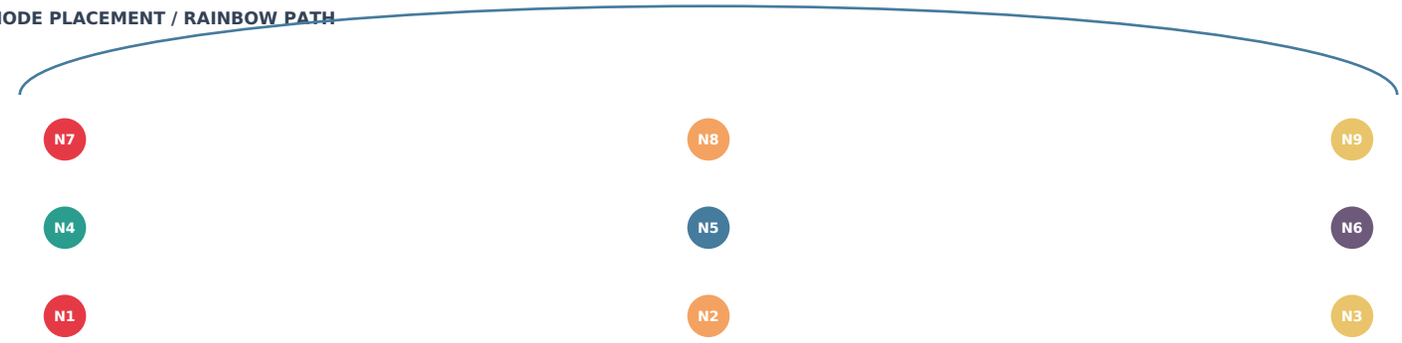
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 13 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 13 Semiconductor Layer TECHNICAL SCOPE Semiconductor observations cover charge, energy, leakage, wake, reserve, memory, thermal state, DRO ledgers, Pearl computational nodes, and profile-specific evidence. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? Which elements are kno

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0013"
state R -> R1
node N1
representation JP(PINK-09-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 13 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
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Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 14 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 14 Cross-System Layer TECHNICAL SCOPE Cross-system observations examine combinations, interface contracts, state transitions, authority boundaries, evidence flow, recovery, and alternative implementations across the portfolio. REVIEW QUESTIONS What is the claimed technical difference? What is actually enabled by the disclosure? W

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0014"
state R -> R1
node N4
representation JP(PINK-09-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 14 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
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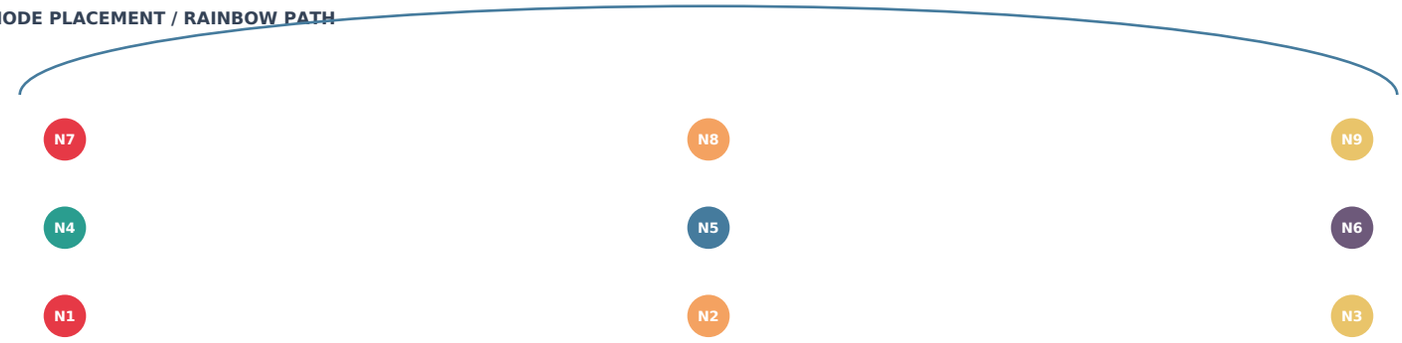
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 15 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 15 Internal Triage Tiers SUMMARY Triage is a workflow aid only. Higher priority does not prove patentability; lower priority does not eliminate trade-secret, copyright-expression, defensive-publication, or portfolio value. CONTROL The official documentation manifest and Terms preserve the candidate status, no-rights boundary, con

PATH OF EXPRESSION

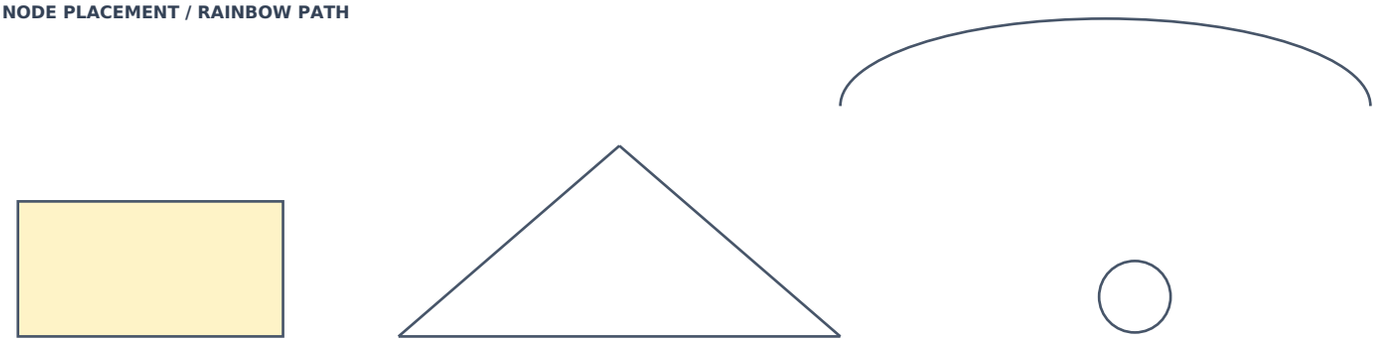
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0015"
state R -> R1
node N1
representation JP(PINK-09-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 15 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 16 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 16 Patent Candidate Review SUMMARY A patent-oriented review needs a claimable technical concept, correct inventorship, adequate written description and enablement, novelty and non-obviousness analysis, eligible subject matter, filing strategy, and prior-art search. The internal register supplies prompts, not conclusions. CONTROL

PATH OF EXPRESSION

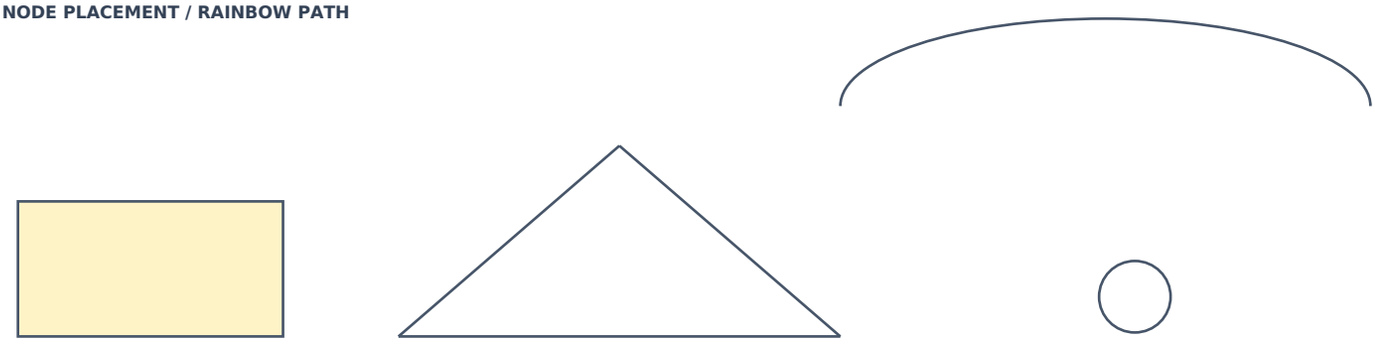
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0016"
state R -> R1
node N1
representation JP(PINK-09-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 16 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 17 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 17 Trade-Secret Candidate Review SUMMARY Trade-secret review asks whether information has economic value from not being generally known and whether reasonable secrecy measures are maintained. Access controls, confidentiality terms, limited disclosure, logs, and custody procedures matter. CONTROL The official documentation manifes

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0017"
state R -> R1
node N1
representation JP(PINK-09-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 17 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
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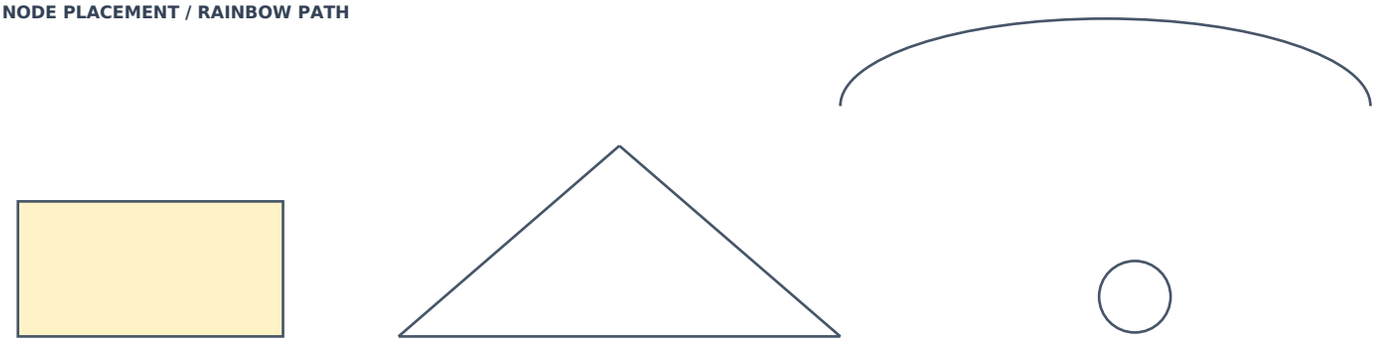
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 18 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 18 Copyright-Expression Review SUMMARY Copyright may protect original text, code, diagrams, and arrangement, but generally not the underlying ideas, methods, systems, formulas, or algorithms. The register should distinguish expressive artifacts from technical concepts. CONTROL The official documentation manifest and Terms preserv

PATH OF EXPRESSION

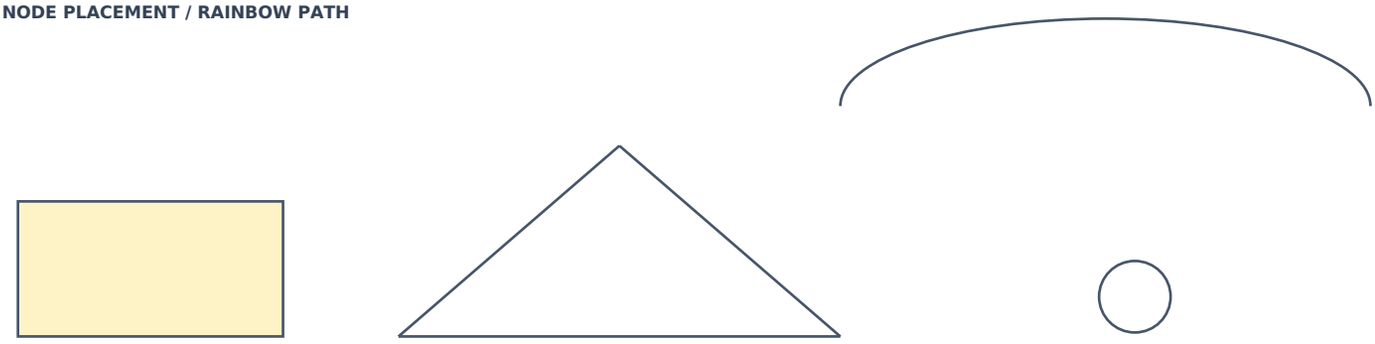
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0018"
state R -> R1
node N8
representation JP(PINK-09-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 18 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 19 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 19 Trademark and Branding Review SUMMARY Names, marks, logos, and product identifiers require separate clearance and use analysis. Inclusion in the passkey does not establish trademark availability or registration rights. CONTROL The official documentation manifest and Terms preserve the candidate status, no-rights boundary, conf

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0019"
state R -> R1
node N1
representation JP(PINK-09-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 19 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 20 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 20 Inventorship Review SUMMARY Patent inventorship is claim-specific. Founder-declared authorship or project leadership is not a substitute for identifying every human who contributed to the conception of each claimed invention. CONTROL The official documentation manifest and Terms preserve the candidate status, no-rights boundar

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0020"
state R -> R1
node N1
representation JP(PINK-09-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 20 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 21 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 21 Ownership and Assignment Review SUMMARY Ownership can depend on inventorship, employment, contractor agreements, assignments, licenses, and applicable law. The internal build records founder declarations but does not independently adjudicate title. CONTROL The official documentation manifest and Terms preserve the candidate st

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0021"
state R -> R1
node N1
representation JP(PINK-09-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 21 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 22 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 22 Freedom-to-Operate Review SUMMARY Freedom to operate requires analysis of live third-party claims in relevant jurisdictions and product configurations. An internal novelty or IP sweep does not establish non-infringement. CONTROL The official documentation manifest and Terms preserve the candidate status, no-rights boundary, co

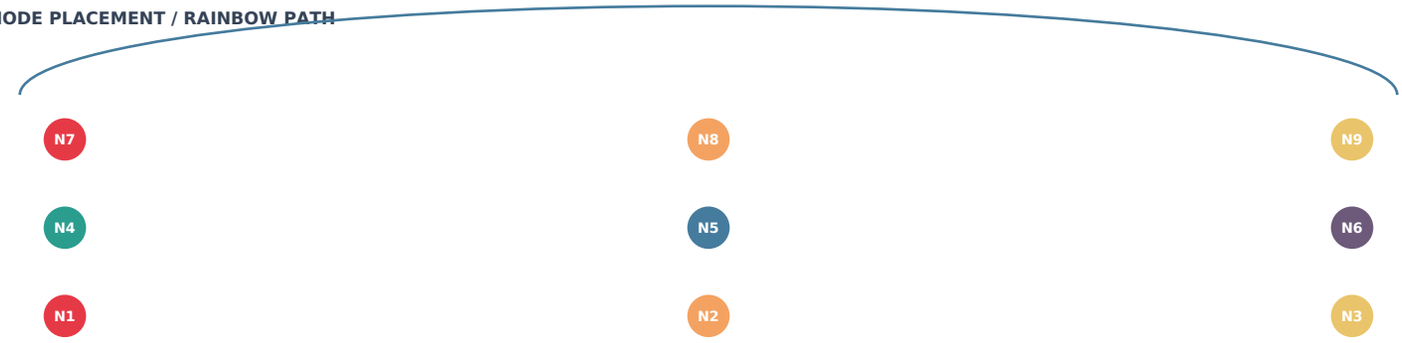
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0022"
state R -> R1
node N3
representation JP(PINK-09-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 22 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 23 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 23 Public-Disclosure Risk SUMMARY Public disclosure can affect patent timing and trade-secret status. The register should remain confidential until counsel determines disclosure strategy, filing timing, and access controls. CONTROL The official documentation manifest and Terms preserve the candidate status, no-rights boundary, co

PATH OF EXPRESSION

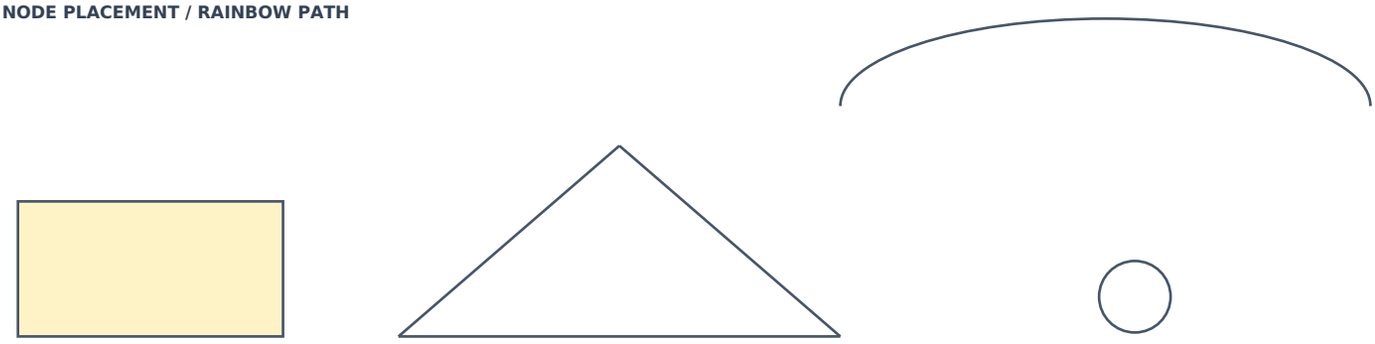
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0023"
state R -> R1
node N1
representation JP(PINK-09-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 23 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 24 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 24 Enablement and Evidence Gaps SUMMARY Points tied to hypothetical physical mechanisms require sufficient technical detail and, where appropriate, measurements, simulations, prototypes, or reproducible examples. The passkey authenticates the disclosure snapshot, not enablement or feasibility. CONTROL The official documentation m

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0024"
state R -> R1
node N1
representation JP(PINK-09-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 24 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 25 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 25 Duplicate and Cluster Logic SUMMARY Many candidate observations may describe overlapping aspects of the same technical concept. Counsel and engineers should cluster duplicates and related embodiments before counting inventions or drafting claims. CONTROL The official documentation manifest and Terms preserve the candidate stat

PATH OF EXPRESSION

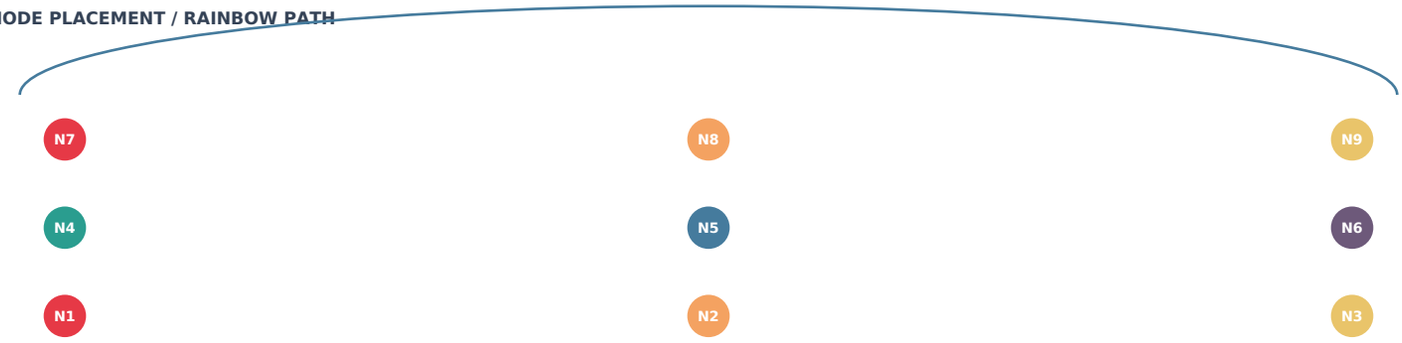
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0025"
state R -> R1
node N1
representation JP(PINK-09-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 25 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N7; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 26 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 26 Prior-Art Search Workflow SUMMARY Translate a candidate into technical features, synonyms, classifications, combinations, and date ranges. Search patents and non-patent literature, document results, and revise the candidate thesis without erasing the original record. CONTROL The official documentation manifest and Terms preser

PATH OF EXPRESSION

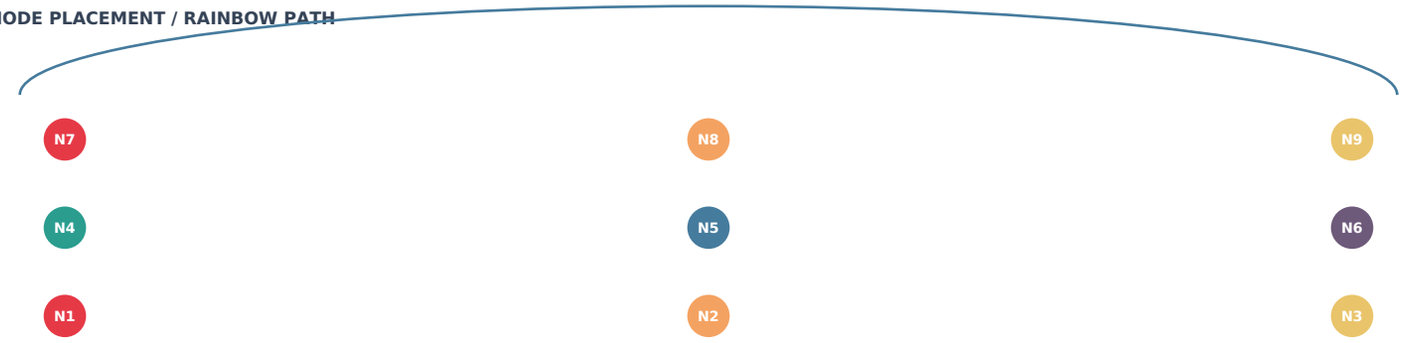
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0026"
state R -> R1
node N7
representation JP(PINK-09-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 26 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 27 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 27 Counsel Handoff Package SUMMARY A strong handoff includes source excerpts, dates, contributor records, drawings, alternative embodiments, experimental status, known prior art, business relevance, disclosure history, confidentiality status, and proposed next action. CONTROL The official documentation manifest and Terms preserve

PATH OF EXPRESSION

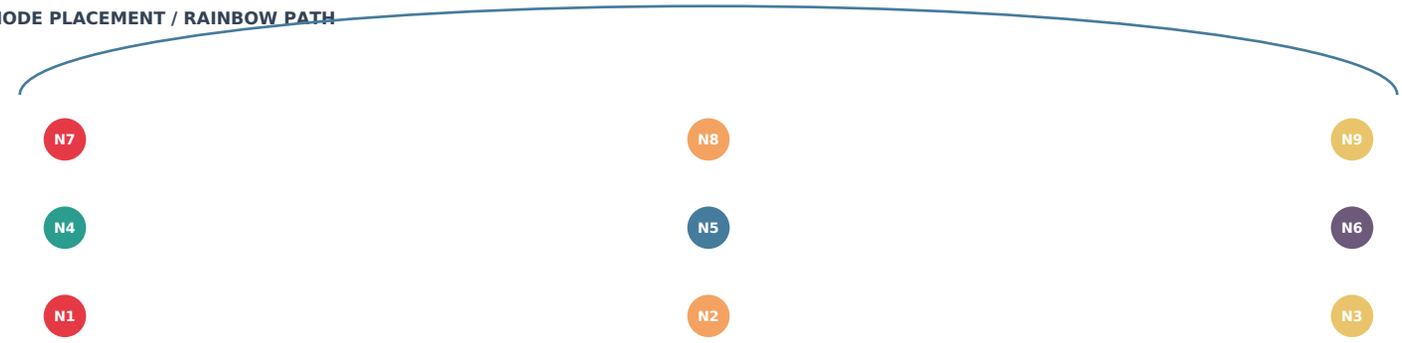
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0027"
state R -> R1
node N1
representation JP(PINK-09-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 27 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 28 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 28 Pending Status in Access Terms SUMMARY Users must preserve Potential IP Points as pending internal observations and may not represent them as cleared rights or use them outside authorized scope. Explicit assent and confidentiality controls should precede access. CONTROL The official documentation manifest and Terms preserve th

PATH OF EXPRESSION

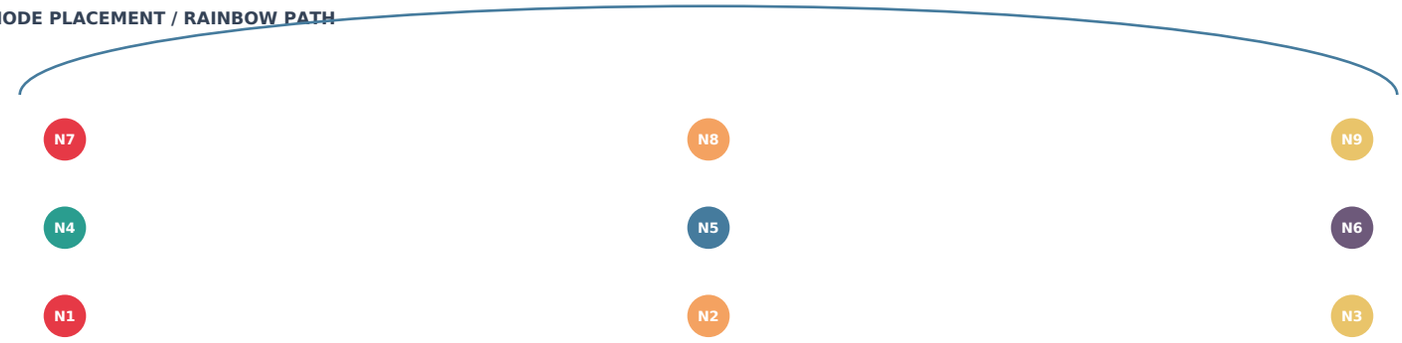
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0028"
state R -> R1
node N1
representation JP(PINK-09-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 28 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 29 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 29 Passkey Relationship SUMMARY The passkey can prove that a particular pending register was included in an approved, hashed snapshot. It cannot create the IP rights described by the register. CONTROL The official documentation manifest and Terms preserve the candidate status, no-rights boundary, confidentiality expectations, and

PATH OF EXPRESSION

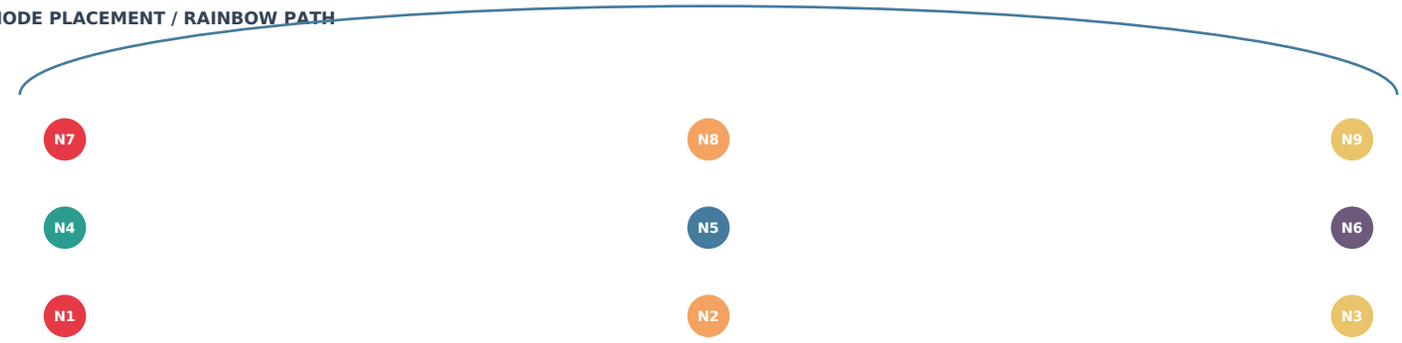
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0029"
state R -> R1
node N1
representation JP(PINK-09-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 29 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N2; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 30 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 30 Candidate Segment - Predecessor 10K COUNT 10,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record enabl

PATH OF EXPRESSION

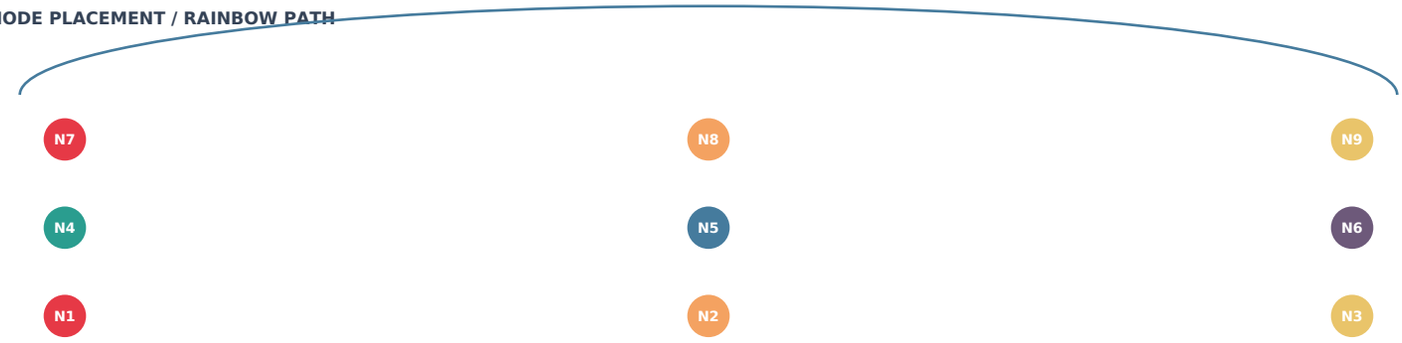
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0030"
state R -> R1
node N2
representation JP(PINK-09-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 30 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 31 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 31 Candidate Segment - Solar 20K COUNT 20,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record enablement

PATH OF EXPRESSION

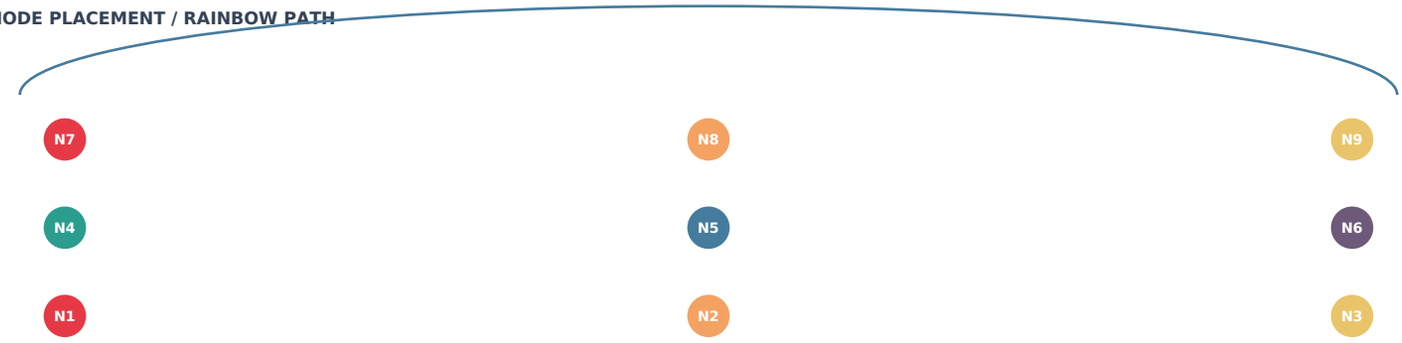
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0031"
state R -> R1
node N1
representation JP(PINK-09-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 31 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 32 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 32 Candidate Segment - Dro Core COUNT 15,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record enablement a

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0032"
state R -> R1
node N1
representation JP(PINK-09-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 32 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 33 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 33 Candidate Segment - Pearl Dro COUNT 10,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record enablement

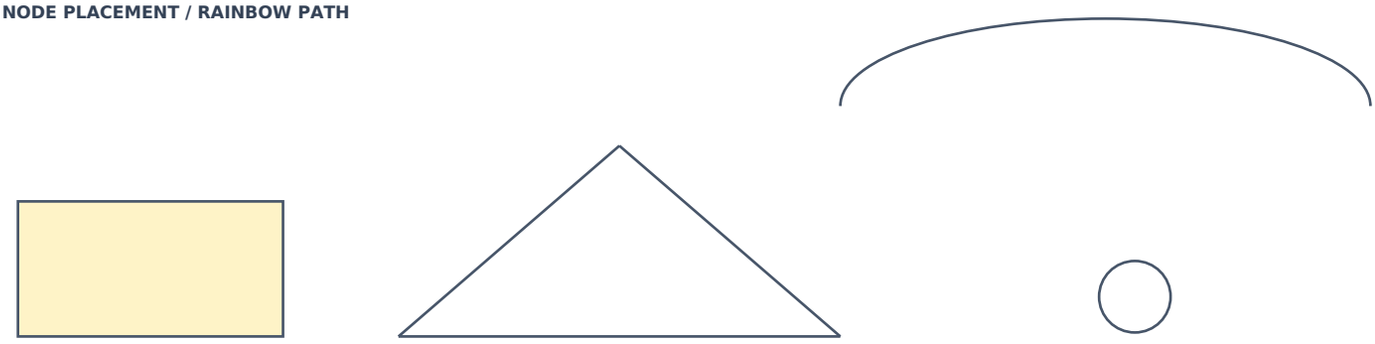
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0033"
state R -> R1
node N1
representation JP(PINK-09-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 33 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 34 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 34 Candidate Segment - Dro Start Restart COUNT 10,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record ena

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0034"
state R -> R1
node N6
representation JP(PINK-09-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 34 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
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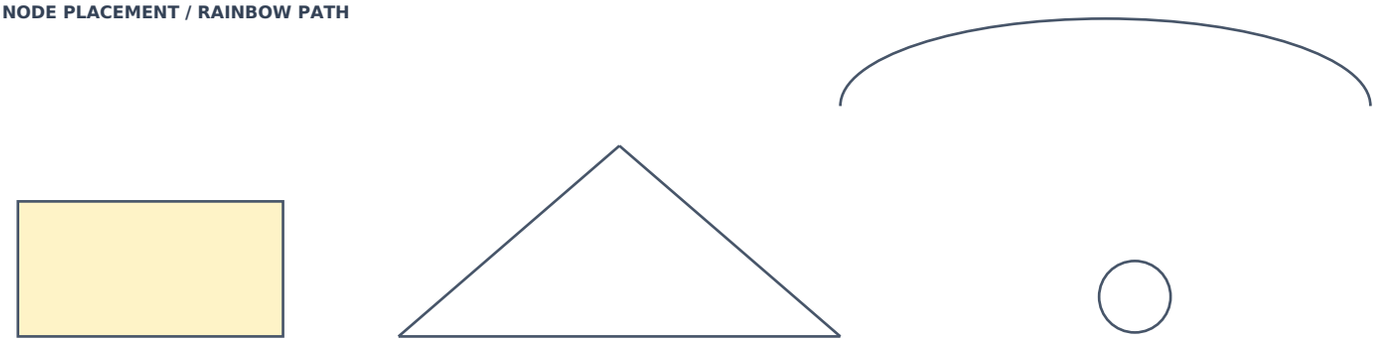
Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 35 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 35 Candidate Segment - Lecanto COUNT 10,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record enablement an

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0035"
state R -> R1
node N1
representation JP(PINK-09-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 35 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 36 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 36 Candidate Segment - Semiconductor COUNT 10,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record enablem

PATH OF EXPRESSION

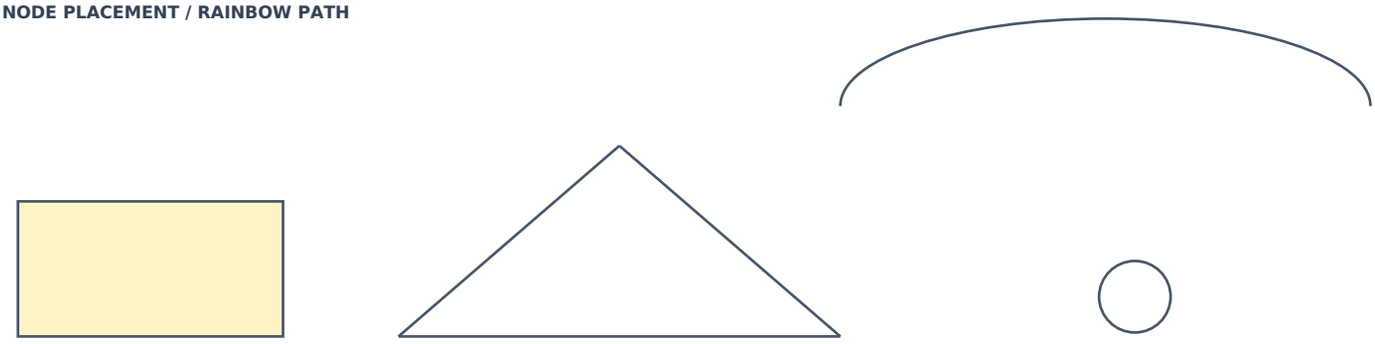
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0036"
state R -> R1
node N1
representation JP(PINK-09-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 36 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 37 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 37 Candidate Segment - Cross System COUNT 5,000 candidate observations are associated with this segment in the internal master structure. REVIEW FOCUS Cluster related entries; verify source cross-references; identify duplicates; distinguish mathematical, software, physical, product, and documentation embodiments; record enablemen

PATH OF EXPRESSION

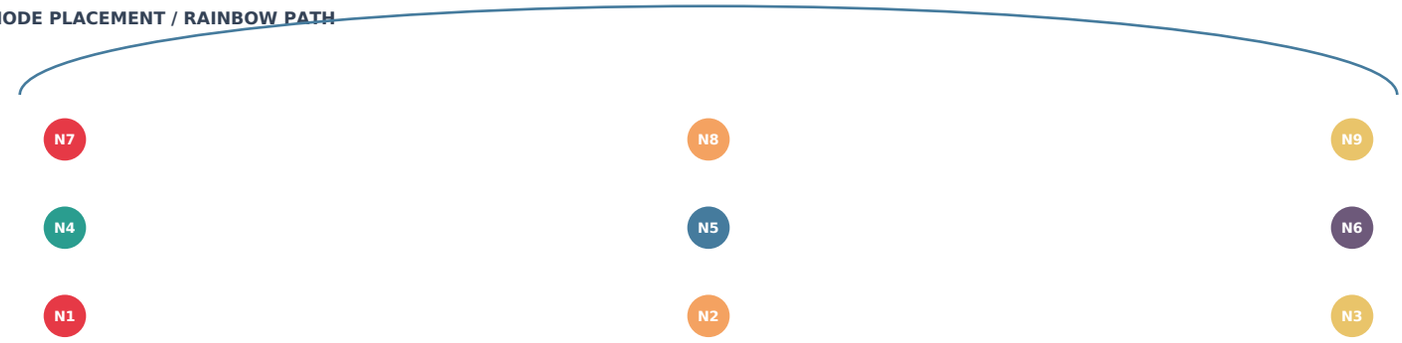
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0037"
state R -> R1
node N1
representation JP(PINK-09-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 37 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 38 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 38 Algorithm Candidate Example SUMMARY A formula may support multiple candidates: a measurement method, a typed software implementation, an uncertainty protocol, a control-volume application, a product-specific embodiment, or an evidence-verification process. These are review lenses, not automatically distinct inventions. GATEWAY

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0038"
state R -> R1
node N1
representation JP(PINK-09-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 38 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 39 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 39 Family Interface Candidate Example SUMMARY A participant handoff may raise candidates around typed receipts, non-substitutable authority, failure recovery, cross-profile isolation, or evidence custody. The legal significance depends on the actual technical contribution and prior art. GATEWAY MJ purpose -> Bangel -> Elsa -> JP

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0039"
state R -> R1
node N1
representation JP(PINK-09-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 39 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 40 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 40 Product Candidate Example SUMMARY A product paper may disclose a system, method, user interface, data structure, test process, and alternative embodiment. Each must be reviewed against the disclosure and actual contribution rather than counted automatically. GATEWAY MJ purpose -> Bangel -> Elsa -> JP -> MK -> JO -> evidence pa

PATH OF EXPRESSION

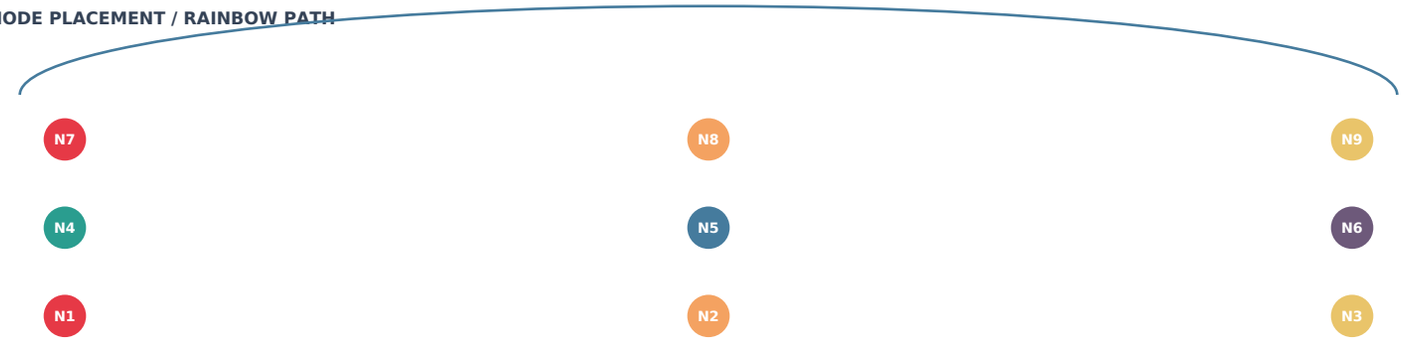
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0040"
state R -> R1
node N1
representation JP(PINK-09-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 40 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 41 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 41 Physical-Hypothesis Candidate Example SUMMARY Pearl, DRO, containment, reservoir, acoustic, hydrogen, propulsion, and other physical hypotheses remain subject to evidence and enablement review. Internal equations alone do not prove feasibility. GATEWAY MJ purpose -> Bangel -> Elsa -> JP -> MK -> JO -> evidence participants ->

PATH OF EXPRESSION

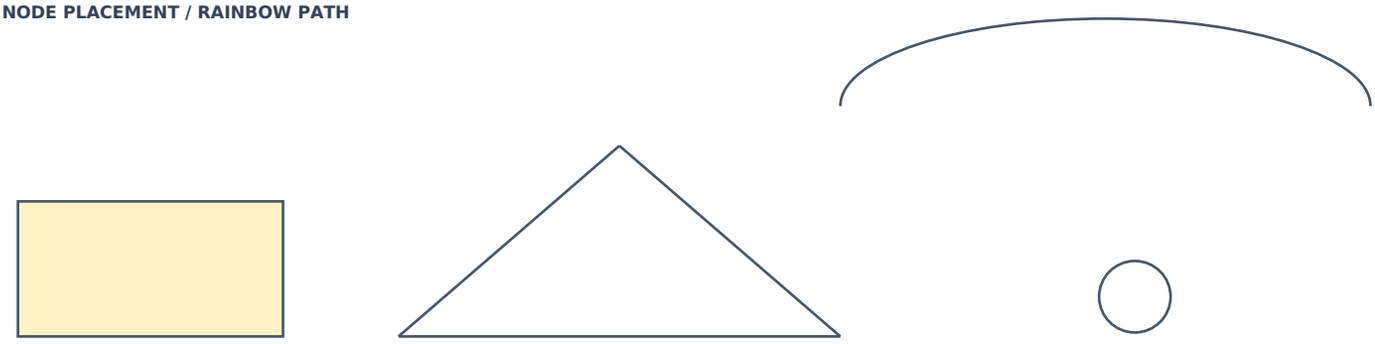
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0041"
state R -> R1
node N1
representation JP(PINK-09-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 41 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or enablement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 42 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 42 Software Candidate Example SUMMARY Bangel, JO, Lecanto, Spreadsheets, provenance, receipts, and proof graphs may present software or information-processing candidates. Eligibility, novelty, non-obviousness, and enablement still require claim-specific review. GATEWAY MJ purpose -> Bangel -> Elsa -> JP -> MK -> JO -> evidence pa

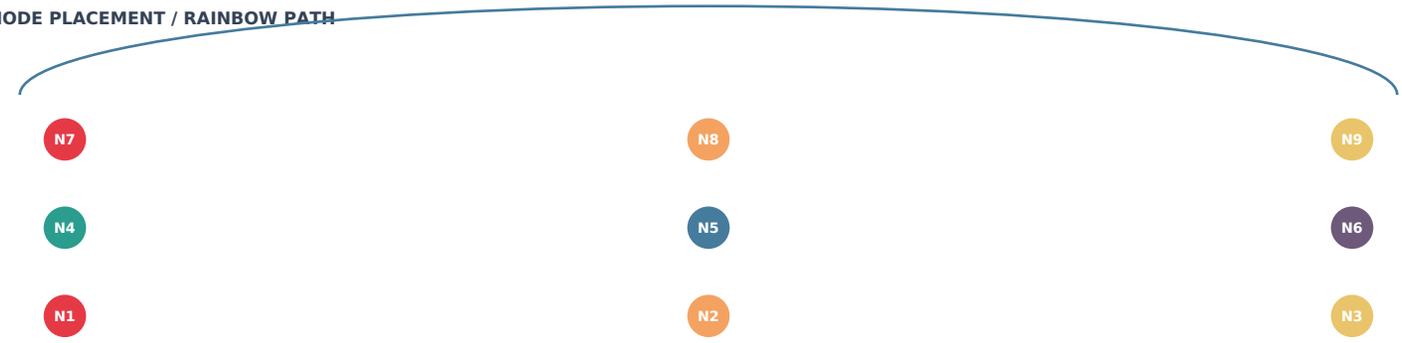
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0042"
state R -> R1
node N5
representation JP(PINK-09-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 42 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 43 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 43 Confidentiality Checklist SUMMARY Limit access; use explicit terms; encrypt storage; log recipients; avoid public posting; mark pending status; separate public and confidential versions; document disclosure dates; use contributor and assignment agreements. GATEWAY MJ purpose -> Bangel -> Elsa -> JP -> MK -> JO -> evidence part

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0043"
state R -> R1
node N1
representation JP(PINK-09-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 43 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 44 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 44 Founder IP Review Checklist SUMMARY Confirm the source, date, contributor, technical problem, proposed solution, alternatives, evidence, known prior art, business value, disclosure status, and desired next action for each priority cluster. GATEWAY MJ purpose -> Bangel -> Elsa -> JP -> MK -> JO -> evidence participants -> M3 ->

PATH OF EXPRESSION

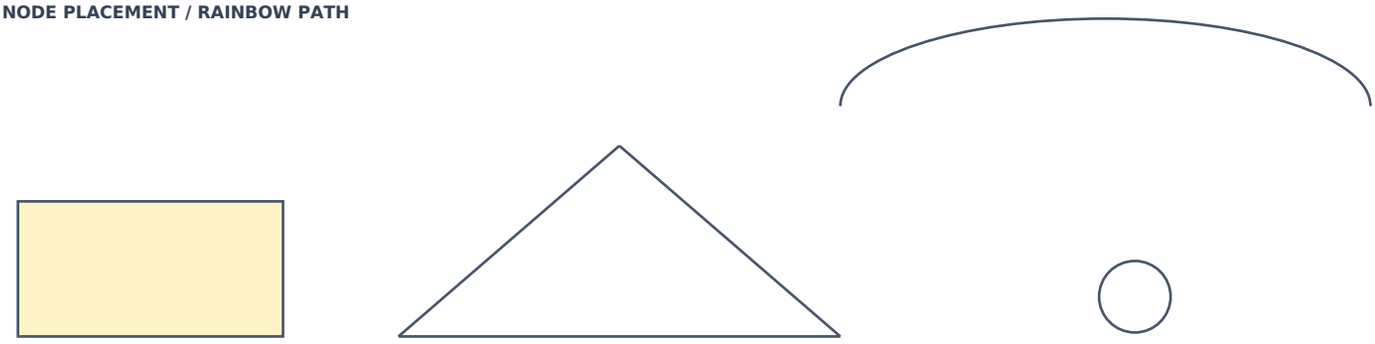
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0044"
state R -> R1
node N1
representation JP(PINK-09-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 44 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 45 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 45 IP Pink Paper Conclusion SUMMARY The 90,000-point register is a thorough internal candidate map and a strong starting point for counsel. Its value lies in structured traceability and review prompts, not in implying that 90,000 rights already exist. GATEWAY MJ purpose -> Bangel -> Elsa -> JP -> MK -> JO -> evidence participants

PATH OF EXPRESSION

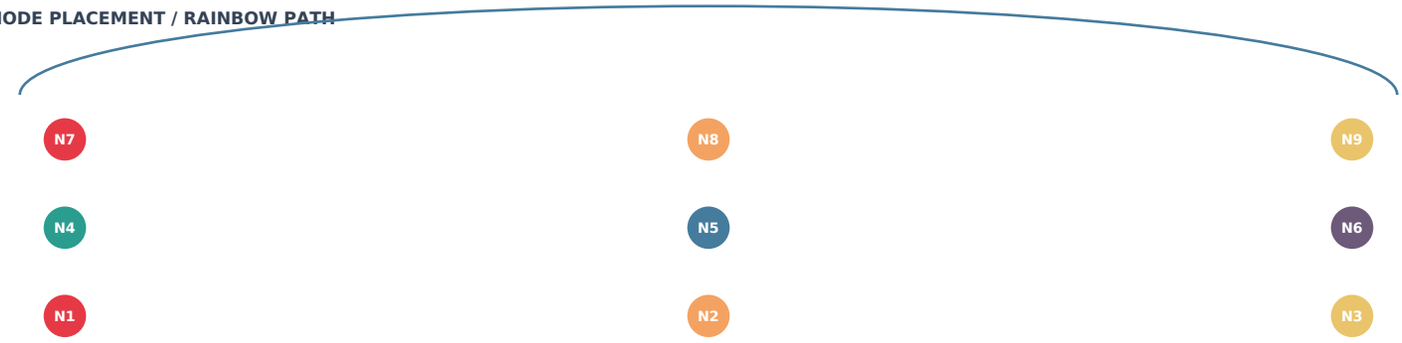
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0045"
state R -> R1
node N1
representation JP(PINK-09-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 45 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 46 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 46 Pending IP Review Reference - Part 46 REFERENCE This page preserves a categorized review lens for the 90,000-point register and associated technical sources. QUESTIONS Is the source specific? Is the contribution human-authored? Is the concept enabled? Is it distinct from known art? Is it confidential? Does it overlap another p

PATH OF EXPRESSION

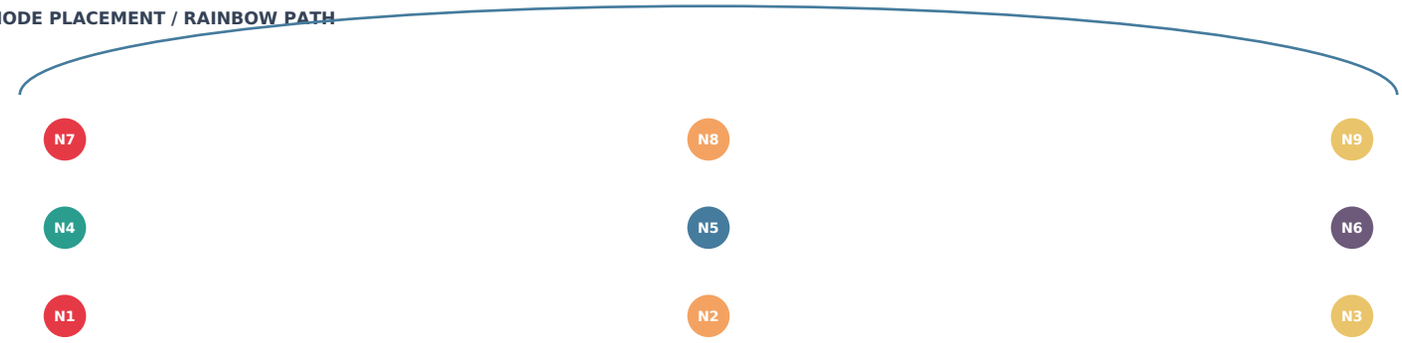
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0046"
state R -> R1
node N9
representation JP(PINK-09-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 46 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 47 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 47 Pending IP Review Reference - Part 47 REFERENCE This page preserves a categorized review lens for the 90,000-point register and associated technical sources. QUESTIONS Is the source specific? Is the contribution human-authored? Is the concept enabled? Is it distinct from known art? Is it confidential? Does it overlap another p

PATH OF EXPRESSION

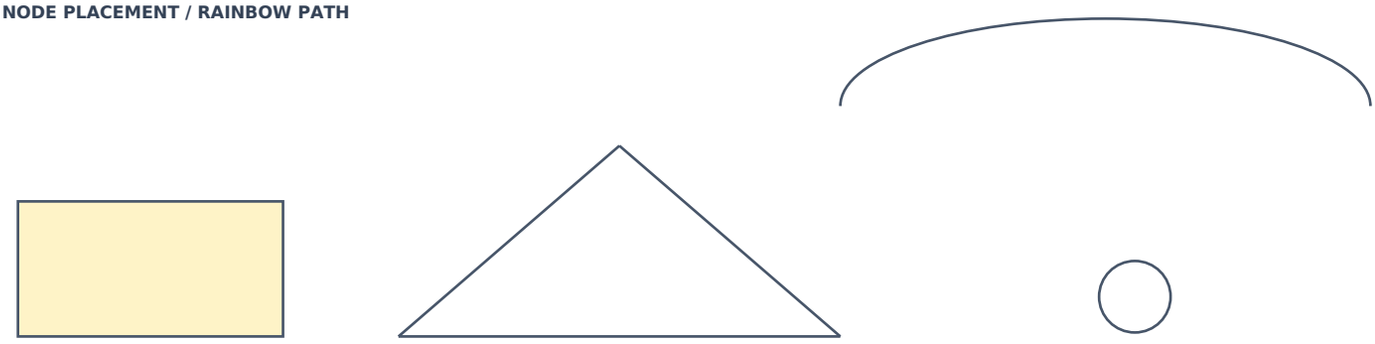
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0047"
state R -> R1
node N1
representation JP(PINK-09-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 47 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 48 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pre-Day-0 verification-focused Pink Paper Page 48 Potential IP Pink Paper Closing Receipt DOCUMENT STATUS 48-page internal reference; final included pending local founder signature. MASTER COUNT 90,000 candidate observations in the current master manifest. NO-RIGHTS EFFECT Ownership, inventorship, novelty, patentability, validity, enforceability, infringement, freedom to oper

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_POTENTIA
reference "PINK-09-P0048"
state R -> R1
node N1
representation JP(PINK-09-P0048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Potential_IP_Status_001.pdf, page 48 of 48. MJ-PBMEF PINK PAPER - POTENTIAL IP STATUS Pr
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 1 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 1 Testing Evidence Pink Paper - Scope and Evidence Ceiling PURPOSE This Pink Paper organizes the completed reference tests, scenario runs, repository checks, documentation QA, historical receipts, and remaining evidence holds. It does not convert passing software tests into physical validation, certification, legal compliance, or op

PATH OF EXPRESSION

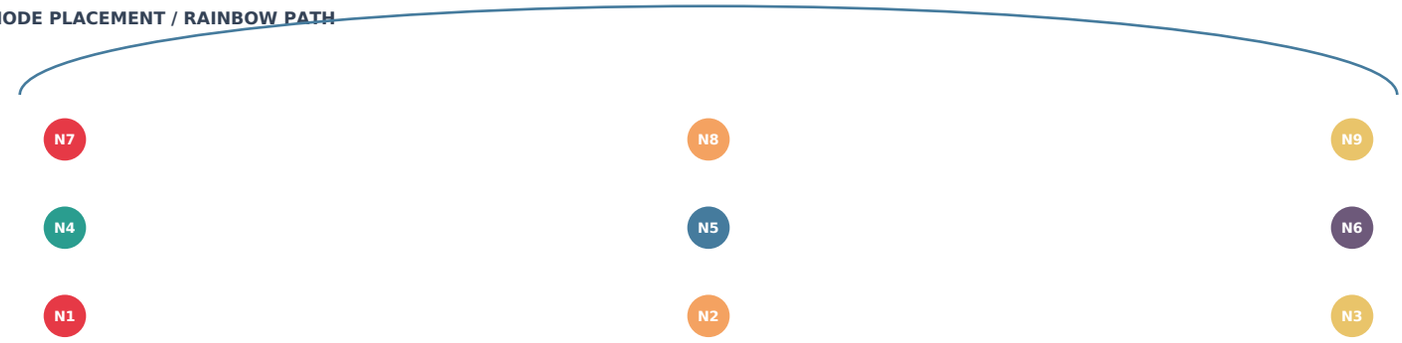
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0001"
state R -> R1
node N1
representation JP(PINK-10-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 1 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 2 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 2 Test Taxonomy and Result Vocabulary CATEGORIES Unit tests; formula and type tests; state-transition tests; profile-isolation tests; authority and ethics tests; scenario tests; repository-integrity checks; document/PDF QA; private-material scans; passkey prechecks; historical implementation receipts. RESULT STATES PASS_REFERENCE, H

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0002"
state R -> R1
node N4
representation JP(PINK-10-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 2 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 3 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 3 Current Build Test Summary PYTEST {"failed": 0, "held": 0, "passed": 373, "transcript": "validation/PYTEST-TRANSCRIPT-R8.txt"} SCENARIO TESTS {"categories": 8, "failed": 0, "held": 0, "passed": 8192, "summary": "validation/r8-scenario-tests/R8-SCENARIO-TEST-RESULTS-SUMMARY.json"} REPOSITORY VERIFICATION {"failed": 0, "passed": 201

PATH OF EXPRESSION

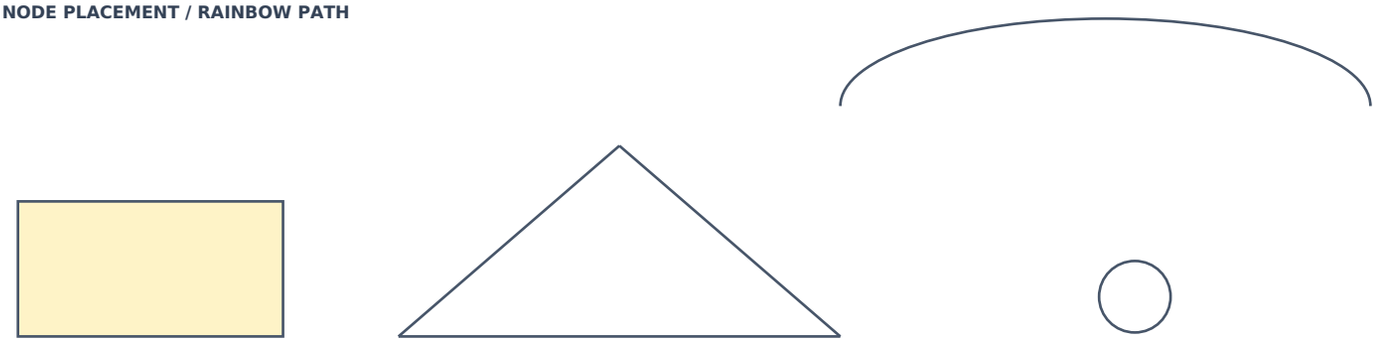
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0003"
state R -> R1
node N1
representation JP(PINK-10-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 3 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 4 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 4 Scenario Category - Authority Ethics SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the authority ethics rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The

PATH OF EXPRESSION

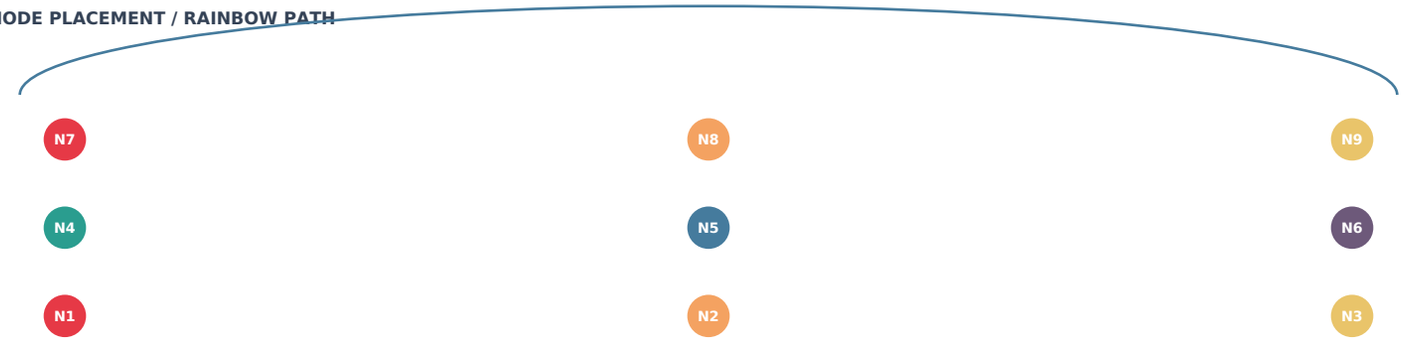
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0004"
state R -> R1
node N1
representation JP(PINK-10-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 4 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 5 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 5 Scenario Category - Dro Scale SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the dro scale rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The category does

PATH OF EXPRESSION

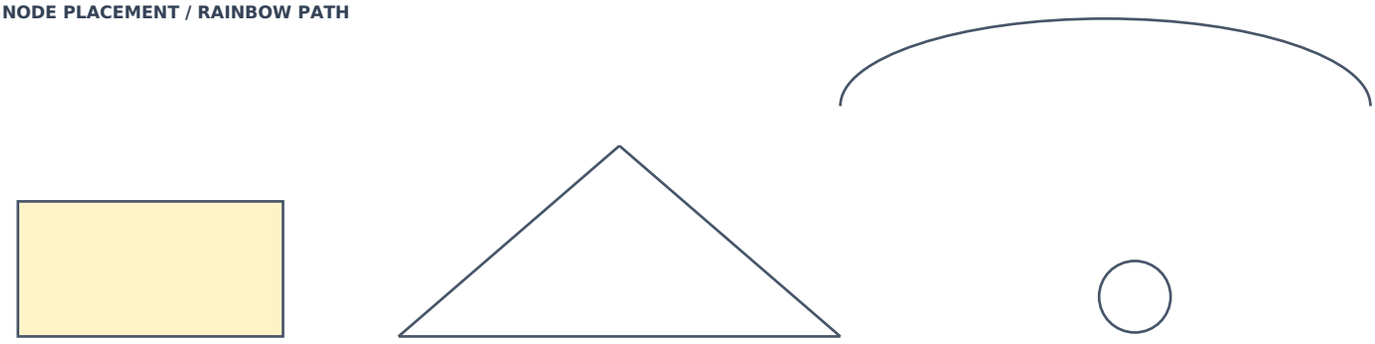
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0005"
state R -> R1
node N1
representation JP(PINK-10-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 5 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 6 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 6 Scenario Category - Dro State SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the dro state rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The category does

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0006"
state R -> R1
node N8
representation JP(PINK-10-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 6 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 7 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 7 Scenario Category - Lecanto SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the lecanto rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The category does not

PATH OF EXPRESSION

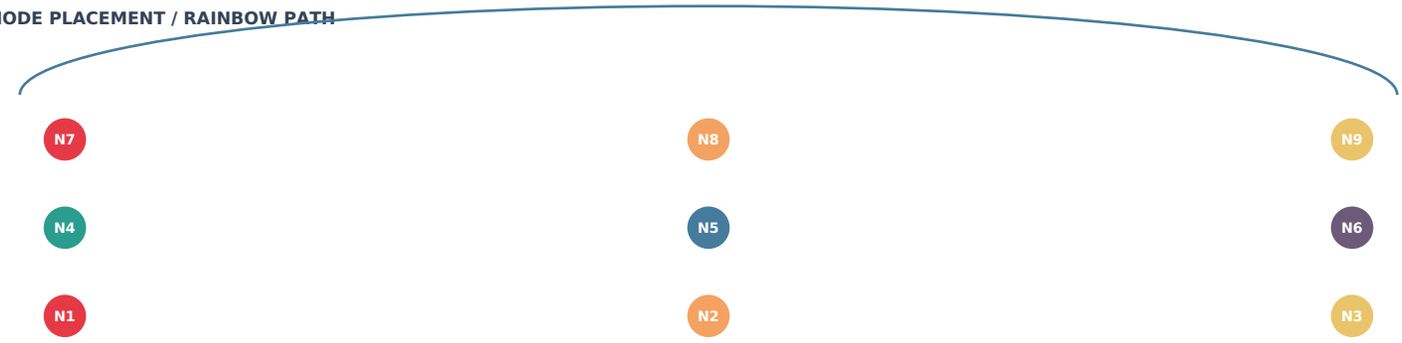
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0007"
state R -> R1
node N1
representation JP(PINK-10-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 7 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 8 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 8 Scenario Category - Optical SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the optical rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The category does not

PATH OF EXPRESSION

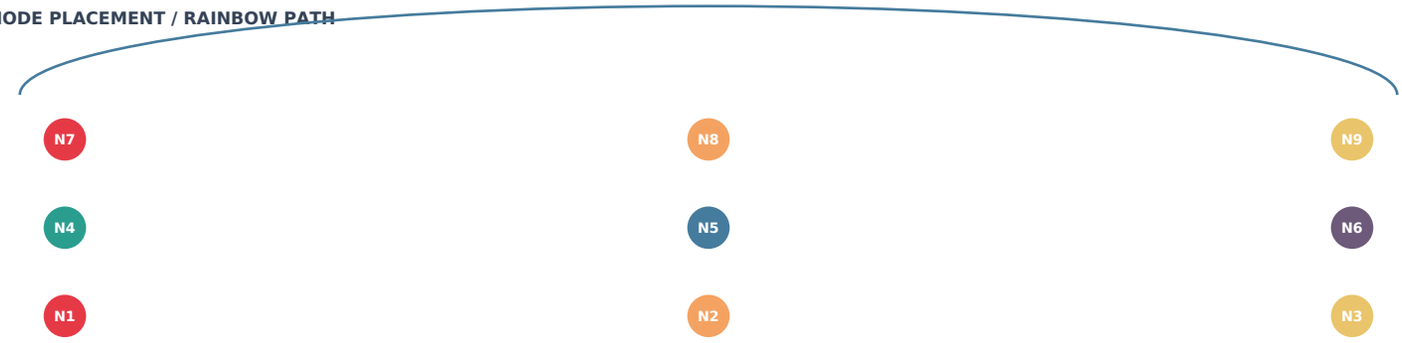
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0008"
state R -> R1
node N1
representation JP(PINK-10-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 8 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 9 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 9 Scenario Category - Pearl Node SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the pearl node rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The category doe

PATH OF EXPRESSION

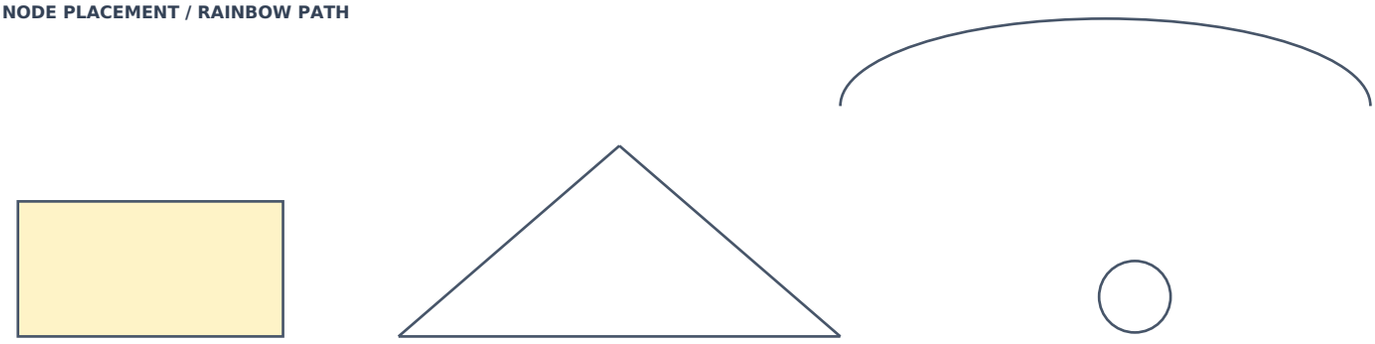
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0009"
state R -> R1
node N1
representation JP(PINK-10-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 9 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 10 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 10 Scenario Category - Semiconductor SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the semiconductor rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The categ

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0010"
state R -> R1
node N3
representation JP(PINK-10-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 10 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 11 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 11 Scenario Category - Start Reserve SCOPE This category contains {'fail': 0, 'pass': 1024} deterministic reference scenarios recorded in the R8 scenario summary. WHAT IT CHECKS The scenarios exercise the start reserve rules, including expected pass, hold, fail, or deny behavior under bounded inputs. WHAT IT DOES NOT PROVE The categ

PATH OF EXPRESSION

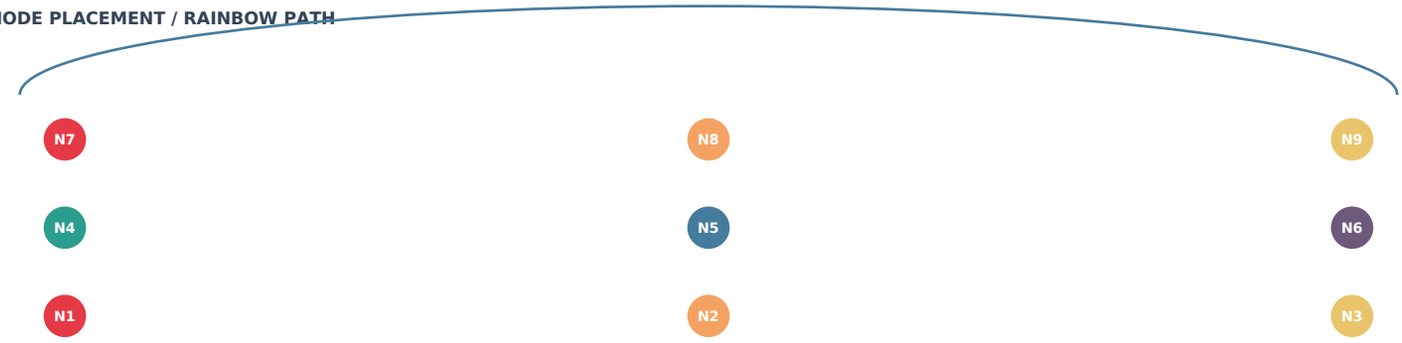
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0011"
state R -> R1
node N1
representation JP(PINK-10-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 11 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 12 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 12 Pytest Module - test_authority.py SCOPE 3 named test functions: test_authority_graph_acyclic, test_mj_root_and_final_decision, test_no_peer_authority_transfer_rule PRIMARY PURPOSE This module verifies the named repository logic and expected boundaries using deterministic fixtures and assertions. EVIDENCE CEILING A passing module

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0012"
state R -> R1
node N1
representation JP(PINK-10-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 12 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 13 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 13 Pytest Module - test_containment_geometry_r3.py SCOPE 21 named test functions: test_founder_reference_volume_is_about_267_ml, test_reference_moles_24mg, test_actual_density_depends_on_p_t_z, test_standard_rectangle_depth_closes_reference_volume, test_standard_cone_ratios_and_anchor, test_full_cone_volume_equals_partial_at_top, te

PATH OF EXPRESSION

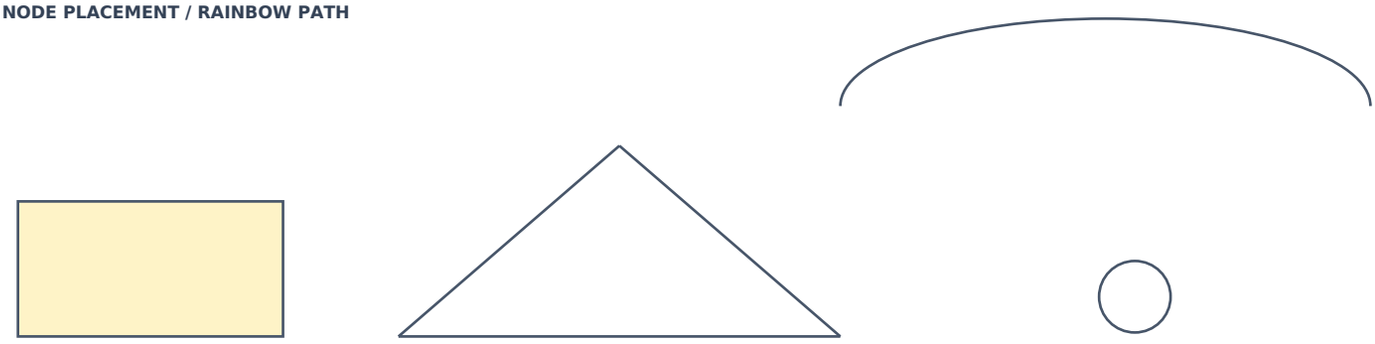
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0013"
state R -> R1
node N1
representation JP(PINK-10-P0013)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 13 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 14 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 14 Pytest Module - test_Bangel_spreadsheets.py SCOPE 23 named test functions: test_sheet_values_and_formula, test_incremental_recalculation, test_unit_mismatch_fails_closed, test_mul_requires_compound_unit, test_cycle_rejected, test_missing_input_rejected, test_stale_revision_rejected, test_merge_receipt_allows_explicit_stale_write,

PATH OF EXPRESSION

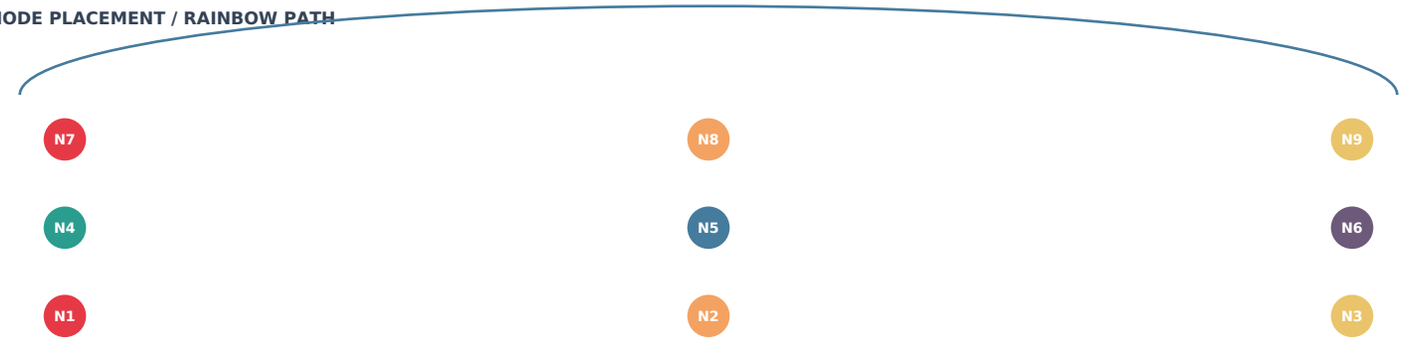
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0014"
state R -> R1
node N7
representation JP(PINK-10-P0014)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 14 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 15 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 15 Pytest Module - test_formulas.py SCOPE 15 named test functions: test_formula_complete, test_front_end_exact, test_prediction_gain_positive_and_decreasing, test_smoothing, test_trend_rejects_nonpositive_dt, test_request_memory, test_preallocation, test_charge_delta, test_capacitor_energy, test_mass_residual, test_eve_screen, test_

PATH OF EXPRESSION

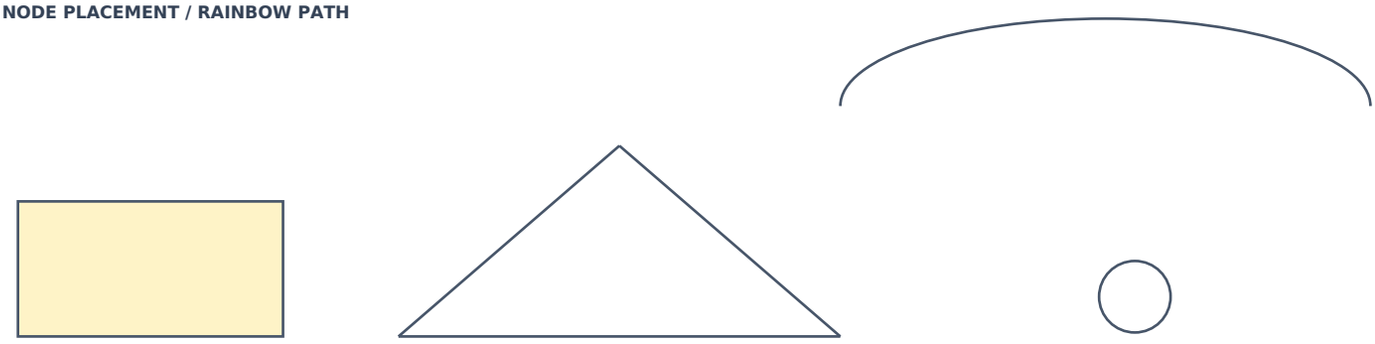
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0015"
state R -> R1
node N1
representation JP(PINK-10-P0015)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 15 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 16 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 16 Pytest Module - test_identity.py SCOPE 5 named test functions: test_project_identity, test_day0_declaration, test_passkey_is_new_project_first, test_word_compendium_metadata_and_literature_are_clean, test_word_compendium_qa_receipt PRIMARY PURPOSE This module verifies the named repository logic and expected boundaries using deter

PATH OF EXPRESSION

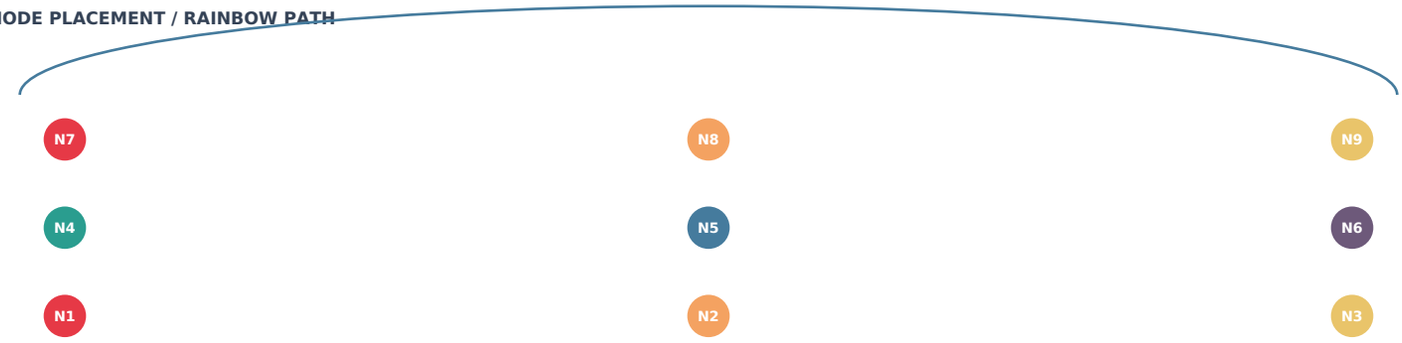
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0016"
state R -> R1
node N1
representation JP(PINK-10-P0016)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 16 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 17 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 17 Pytest Module - test_manifestations.py SCOPE 3 named test functions: test_manifestation_required_fields, test_all_manifestations_inside_mj, test_manifestation_ids_unique PRIMARY PURPOSE This module verifies the named repository logic and expected boundaries using deterministic fixtures and assertions. EVIDENCE CEILING A passing m

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0017"
state R -> R1
node N1
representation JP(PINK-10-P0017)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 17 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 18 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 18 Pytest Module - test_official_documentation_r6.py SCOPE 11 named test functions: test_r6_ip_review_candidate_identity, test_official_documentation_manifest_r6_counts, test_official_documentation_entries_resolve_and_hash, test_potential_ip_batch_manifest_and_register, test_potential_ip_cross_reference_completeness, test_potential_

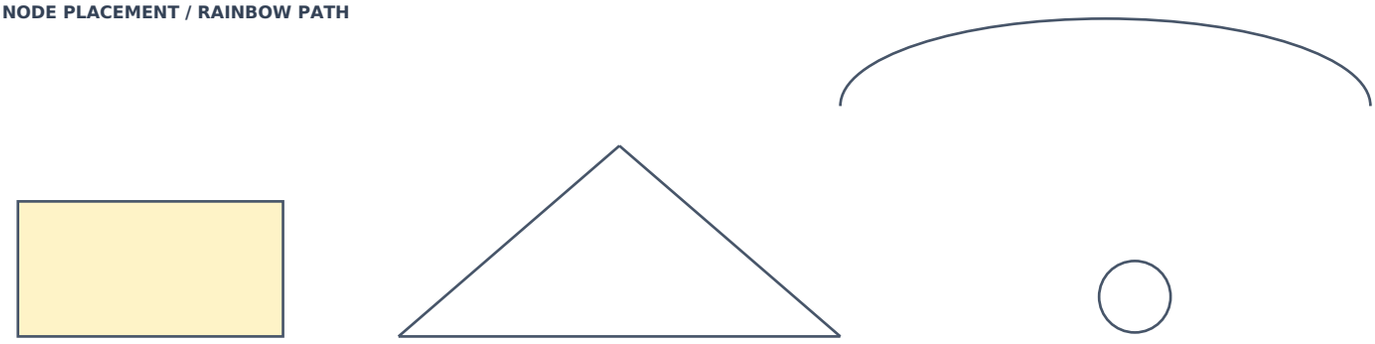
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0018"
state R -> R1
node N2
representation JP(PINK-10-P0018)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 18 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 19 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 19 Pytest Module - test_pearls.py SCOPE 6 named test functions: test_simulation_geometry_math, test_pearl_is_never_physical_container, test_simulation_admission_and_transfer, test_simulation_overload_rejected, test_acoustic_profile_is_simulation_only, test_lifecycle_registry_is_nonphysical PRIMARY PURPOSE This module verifies the na

PATH OF EXPRESSION

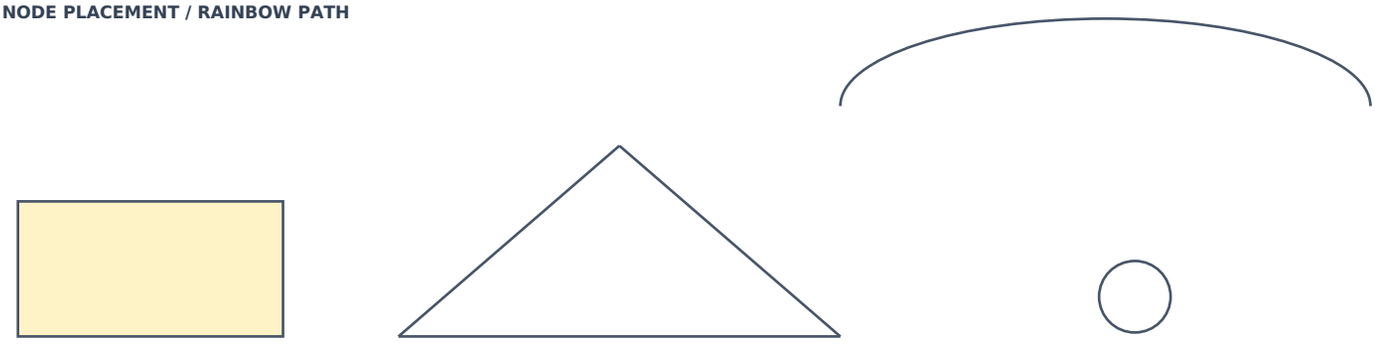
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0019"
state R -> R1
node N1
representation JP(PINK-10-P0019)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 19 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 20 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 20 Pytest Module - test_r2_integration.py SCOPE 15 named test functions: test_r2_project_identity, test_new_products_registered, test_new_objects_registered, test_pearl_simulation_manifest_claims_ceiling, test_sister_is_only_physical_containment_canon, test_Bangel_spreadsheets_manifest_intake, test_jposmj_is_non_authority, test_symp

PATH OF EXPRESSION

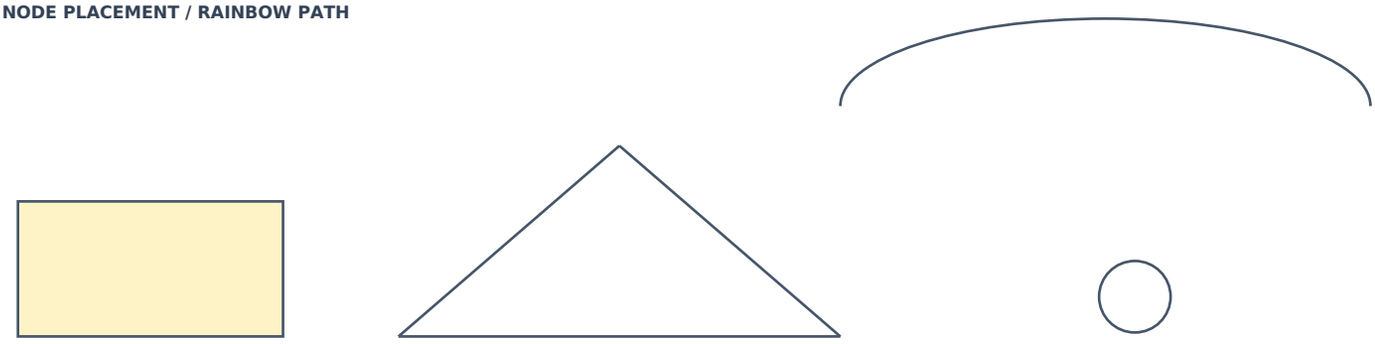
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0020"
state R -> R1
node N1
representation JP(PINK-10-P0020)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 20 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 21 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 21 Pytest Module - test_r3_integration.py SCOPE 9 named test functions: test_r3_identity, test_standard_geometry_manifest, test_reference_gas_profile, test_new_object_and_product_registered, test_formula_register_has_r3_formulas, test_whitepaper_and_coverage_count, test_pearl_anchor_is_top_of_cone_and_nonphysical, test_Bangel_source

PATH OF EXPRESSION

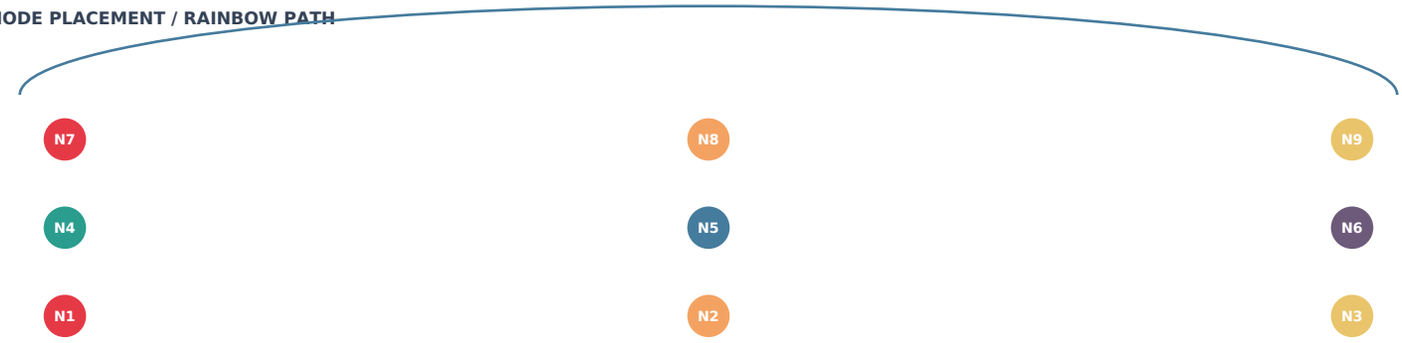
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0021"
state R -> R1
node N1
representation JP(PINK-10-P0021)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 21 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N6; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 22 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 22 Pytest Module - test_r4_identity_and_predecessor, test_reservoir_canon_claims_ceiling, test_formula_register_145, test_product_and_whitepaper_counts, test_new_paths_exist, test_no_same_cycle_feedback, test_perspective_friction_separation, test_main_manifest_binds_one_r4_canon P

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0022"
state R -> R1
node N6
representation JP(PINK-10-P0022)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 22 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 23 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 23 Pytest Module - test_r8_dro_pearl_lecanto.py SCOPE 20 named test functions: test_scale_conflict_preserved_and_conservative, test_scale_envelope_validate, test_scale_classification_unknown, test_scale_classification_r1_and_r2, test_scale_outside_hold, test_spherical_reference_positive, test_photon_count_and_optical_gate, test_dro_

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0023"
state R -> R1
node N1
representation JP(PINK-10-P0023)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 23 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 24 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 24 Pytest Module - test_repository_rules.py SCOPE 7 named test functions: test_no_forbidden_names_or_ai_runtime_terms, test_no_public_remote, test_passkey_claims, test_preparatory_lineage_is_hash_only, test_no_secret_like_files, test_text_sources_have_no_disallowed_control_characters, test_content_manifest_excludes_runtime_cache_art

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0024"
state R -> R1
node N1
representation JP(PINK-10-P0024)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 24 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 25 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 25 Pytest Module - test_reservoir_modulation_r4.py SCOPE 22 named test functions: test_backside_outlet_below_maximum, test_backside_outlet_rejects_invalid, test_reference_clearance, test_outward_gap_gate_wraps_angles, test_available_pressure_and_grade, test_reference_flow_zero_without_head, test_reference_flow_positive, test_velocit

PATH OF EXPRESSION

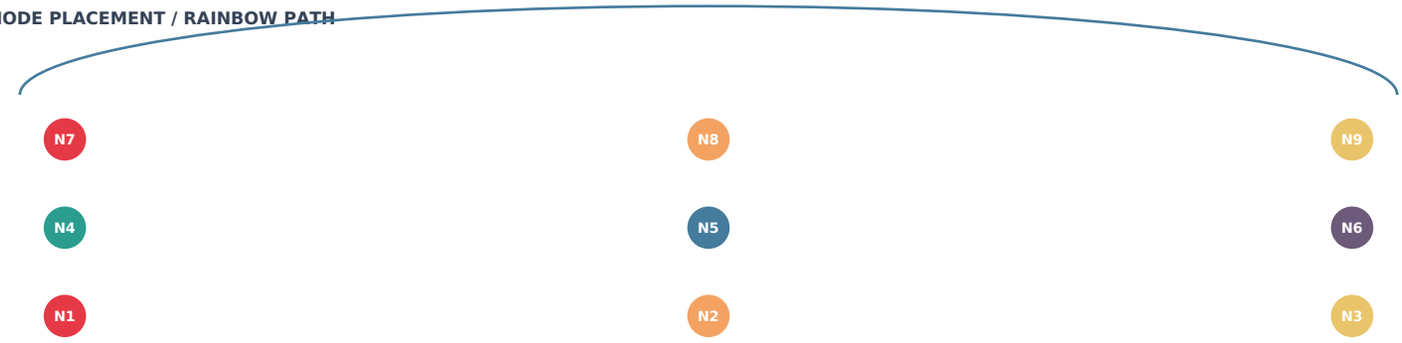
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0025"
state R -> R1
node N1
representation JP(PINK-10-P0025)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 25 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 26 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 26 Pytest Module - test_sister_containment.py SCOPE 6 named test functions: test_r3_topology_is_canonical, test_physical_size_has_relational_standard_but_actual_values_require_evidence, test_unknown_capacity_holds, test_reference_count_requires_values_and_has_no_effect, test_standard_geometry_can_be_constructed_without_authority, te

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0026"
state R -> R1
node N1
representation JP(PINK-10-P0026)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 26 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 27 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 27 Pytest Module - test_solar_r7_final.py SCOPE 10 named test functions: test_r7_identity, test_exact_solar_source, test_solar_profiles, test_counts, test_formula_supplement, test_solar_papers, test_solar_ip_20k, test_master_30k, test_official_manifest_final, test_safety_holds PRIMARY PURPOSE This module verifies the named repositor

PATH OF EXPRESSION

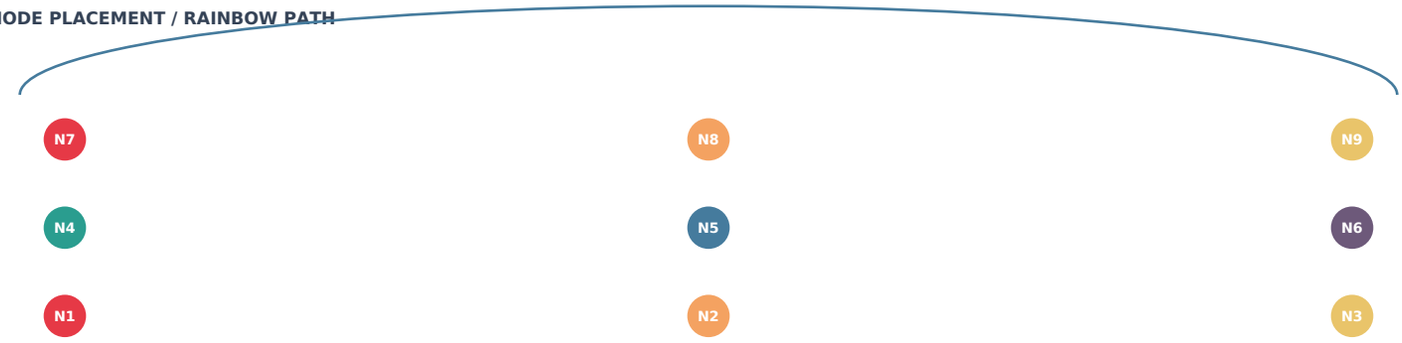
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0027"
state R -> R1
node N1
representation JP(PINK-10-P0027)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 27 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 28 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 28 Pytest Module - test_whitepapers.py SCOPE 2 named test functions: test_whitepaper_exists_and_has_sections, test_whitepaper_counts PRIMARY PURPOSE This module verifies the named repository logic and expected boundaries using deterministic fixtures and assertions. EVIDENCE CEILING A passing module supports the reference implementat

PATH OF EXPRESSION

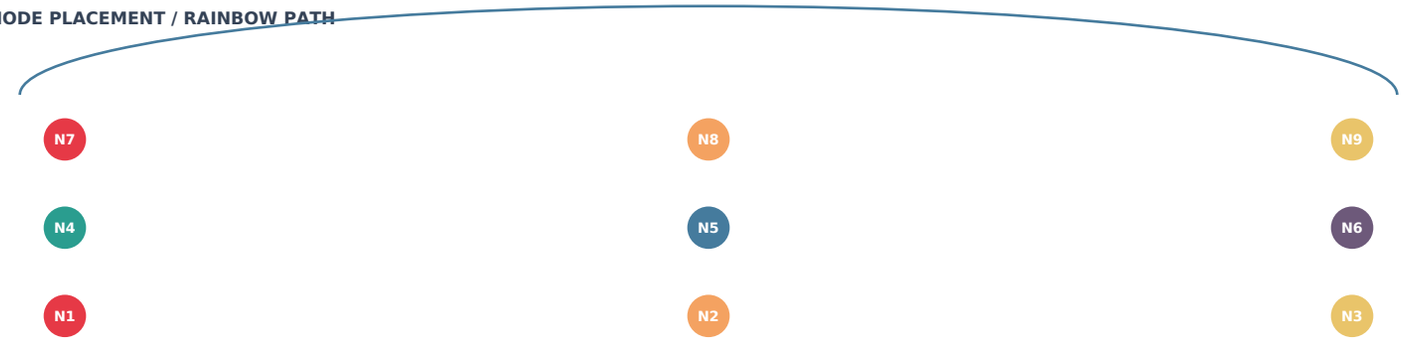
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0028"
state R -> R1
node N1
representation JP(PINK-10-P0028)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 28 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 29 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 29 Repository Verification Cluster - COVERAGE RESULT 3 of 3 checks passed in the R8 repository verification receipt. EXAMPLES coverage.count=75; coverage.uncovered=0; coverage.paths= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate untes

PATH OF EXPRESSION

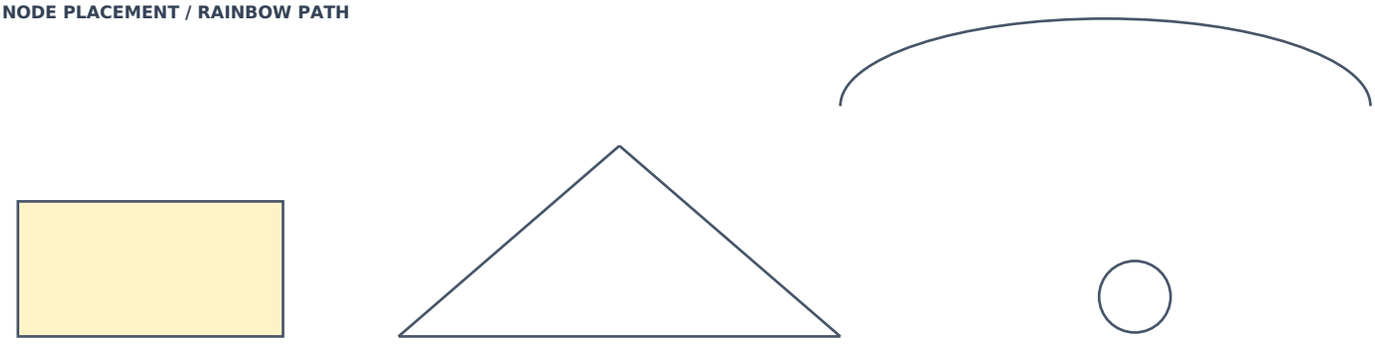
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0029"
state R -> R1
node N1
representation JP(PINK-10-P0029)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 29 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 30 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 30 Repository Verification Cluster - DOCS RESULT 4 of 4 checks passed in the R8 repository verification receipt. EXAMPLES docs.approval=; docs.build=; docs.counts=; docs.entries_hash=[] INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate un

PATH OF EXPRESSION

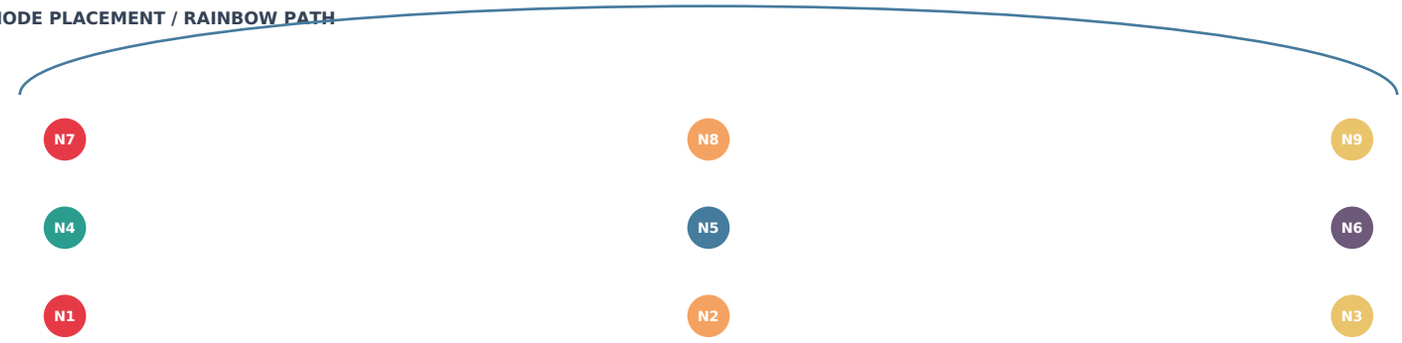
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0030"
state R -> R1
node N5
representation JP(PINK-10-P0030)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 30 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 31 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 31 Repository Verification Cluster - DRO RESULT 7 of 7 checks passed in the R8 repository verification receipt. EXAMPLES dro.no_authority=; dro.input_conflict=; dro.founder_lower=; dro.alias_lower=; dro.conservative_threshold=; dro.upper=; dro.no_physical_existence= INTERPRETATION These checks establish consistency of the tracked re

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0031"
state R -> R1
node N1
representation JP(PINK-10-P0031)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 31 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 32 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 32 Repository Verification Cluster - FORMULA RESULT 3 of 3 checks passed in the R8 repository verification receipt. EXAMPLES formula.count=242; formula.sequential=; formula.twelve_planes= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate

PATH OF EXPRESSION

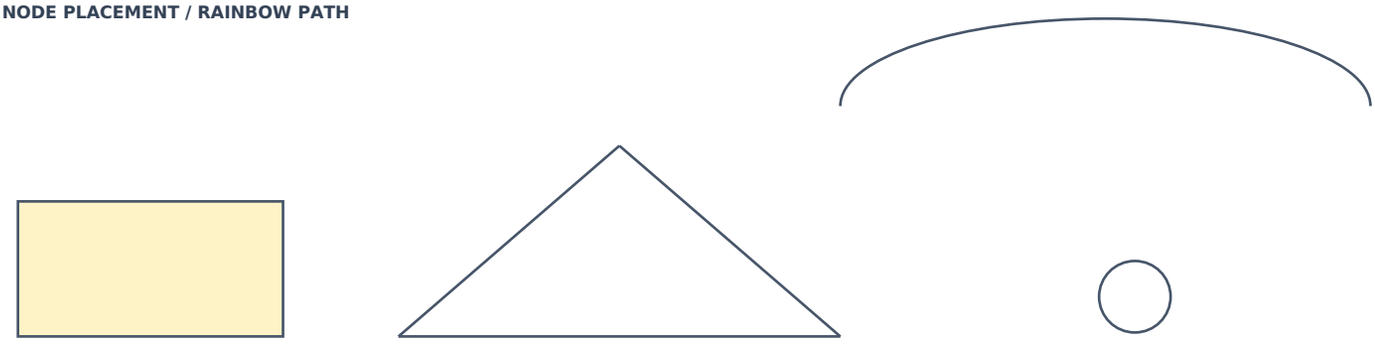
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0032"
state R -> R1
node N1
representation JP(PINK-10-P0032)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 32 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 33 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 33 Repository Verification Cluster - IDENTITY RESULT 6 of 6 checks passed in the R8 repository verification receipt. EXAMPLES identity.build=MJ-PBMEF-DAY0-R8-DRO-PEARL-LECANTO-90K-FINAL; identity.predecessor=MJ-PBMEF-DAY0-R7-SOLAR-30K-FINAL; identity.author=; identity.no_ai=; identity.passkey_not_created=; identity.physical_validati

PATH OF EXPRESSION

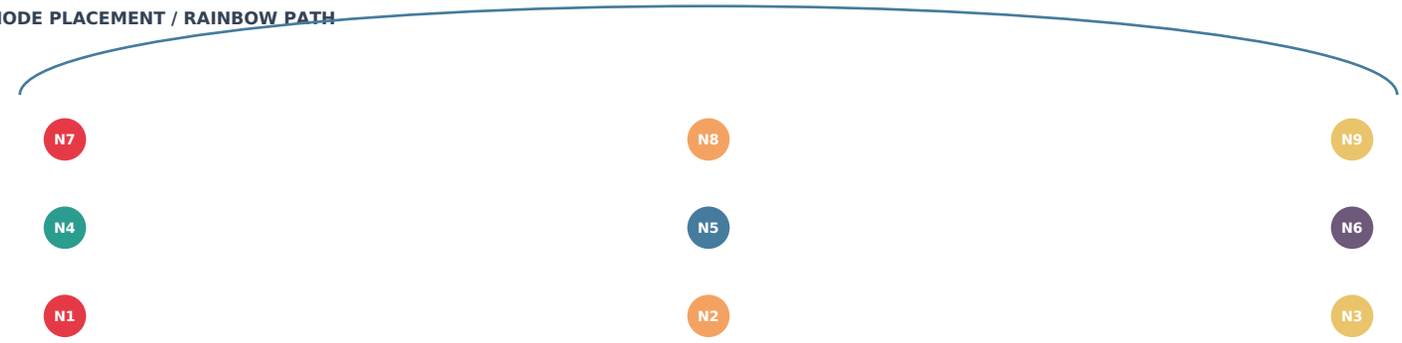
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0033"
state R -> R1
node N1
representation JP(PINK-10-P0033)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 33 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 34 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 34 Repository Verification Cluster - IGNITION RESULT 2 of 2 checks passed in the R8 repository verification receipt. EXAMPLES ignition.reference_only=; ignition.no_physical_authority= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate unte

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0034"
state R -> R1
node N9
representation JP(PINK-10-P0034)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 34 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 35 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 35 Repository Verification Cluster - IP RESULT 7 of 7 checks passed in the R8 repository verification receipt. EXAMPLES ip.predecessor10k=; ip.solar20k=; ip.r8_60k_summary=; ip.r8_60k_stream={"count": 60000, "first": "PIP-30001", "last": "PIP-90000"}; ip.r8_segments={"CROSS_SYSTEM": 5000, "DRO_CORE": 15000, "DRO_IGNITION": 10000, "L

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0035"
state R -> R1
node N1
representation JP(PINK-10-P0035)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 35 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 36 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 36 Repository Verification Cluster - LECANTO RESULT 2 of 2 checks passed in the R8 repository verification receipt. EXAMPLES lecanto.source_preserved=; lecanto.intent_hypothesis= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate untested

PATH OF EXPRESSION

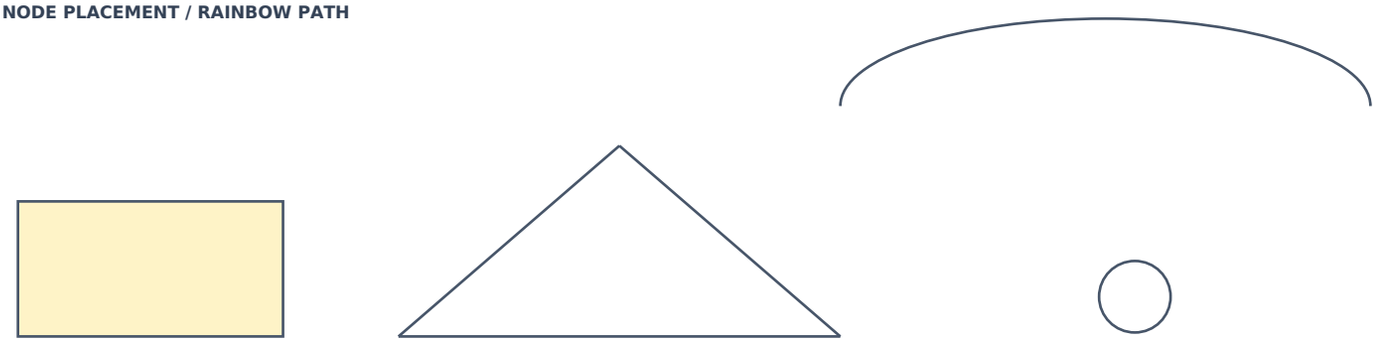
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0036"
state R -> R1
node N1
representation JP(PINK-10-P0036)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 36 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 37 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 37 Repository Verification Cluster - OBJECTS RESULT 16 of 16 checks passed in the R8 repository verification receipt. EXAMPLES objects.count=53; objects.no_authority=; objects.DRO_UNIT=; objects.DRO_OPTICAL_EVIDENCE_PROFILE=; objects.DRO_PEARL_HANDOFF_RECEIPT=; objects.LECANTO_INTENT_HYPOTHESIS=; objects.DRO_START_ENERGY_PACKET=; ob

PATH OF EXPRESSION

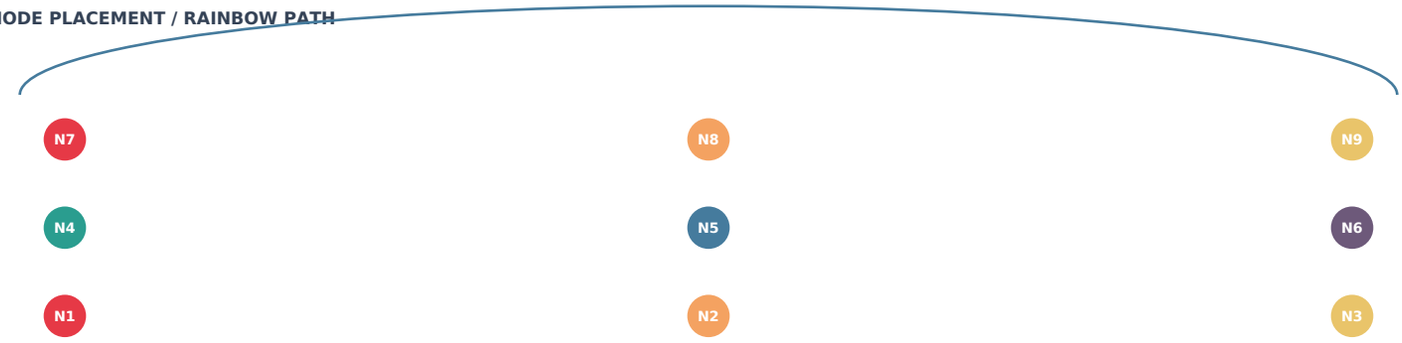
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0037"
state R -> R1
node N1
representation JP(PINK-10-P0037)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 37 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N4; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 38 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 38 Repository Verification Cluster - PDF RESULT 104 of 104 checks passed in the R8 repository verification receipt. EXAMPLES pdf.exists.BATCH-000.pdf=; pdf.hash.BATCH-000.pdf=; pdf.pages.BATCH-000.pdf=; pdf.unencrypted.BATCH-000.pdf=; pdf.exists.BATCH-001.pdf=; pdf.hash.BATCH-001.pdf=; pdf.pages.BATCH-001.pdf=; pdf.unencrypted.BATCH

PATH OF EXPRESSION

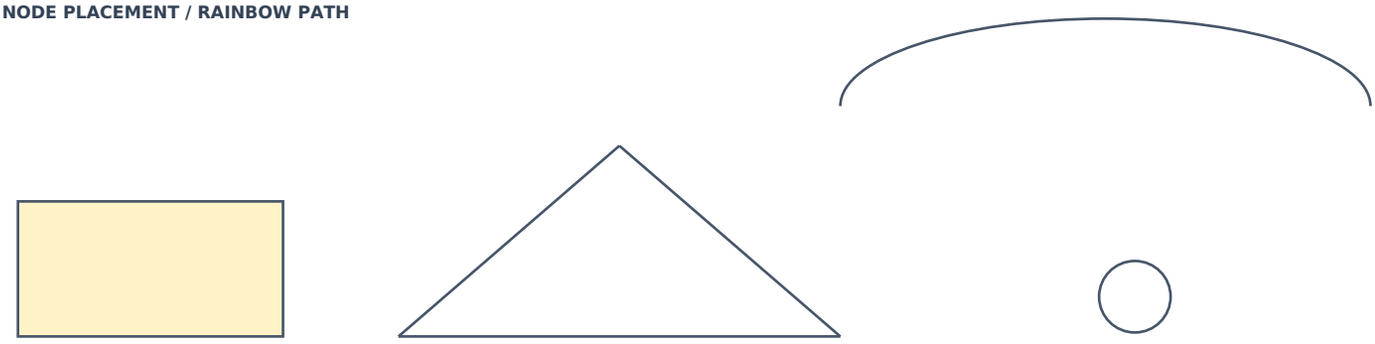
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0038"
state R -> R1
node N4
representation JP(PINK-10-P0038)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 38 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 39 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 39 Repository Verification Cluster - PDFQA RESULT 4 of 4 checks passed in the R8 repository verification receipt. EXAMPLES pdfqa.status=; pdfqa.count=26; pdfqa.blank=0; pdfqa.visual= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate untes

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0039"
state R -> R1
node N1
representation JP(PINK-10-P0039)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 39 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 40 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 40 Repository Verification Cluster - PEARL RESULT 1 of 1 checks passed in the R8 repository verification receipt. EXAMPLES pearl.nonphysical= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate untested physical mechanisms. RECEIPT validati

PATH OF EXPRESSION

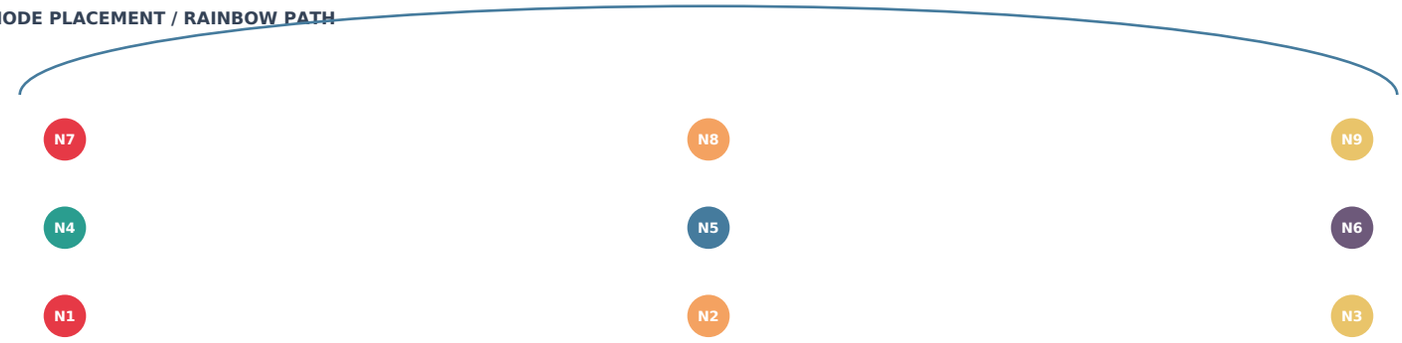
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0040"
state R -> R1
node N1
representation JP(PINK-10-P0040)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 40 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 41 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 41 Repository Verification Cluster - PRODUCTS RESULT 6 of 6 checks passed in the R8 repository verification receipt. EXAMPLES products.count=37; products.DRO-PEARL-HANDOFF-001=; products.DRO-IGNITION-REFERENCE-001=; products.DRO-COLLECTION-001=; products.JP-SC-DRO-PEARL-INTEGRATION-001=; products.LECANTO-IMAGE-TRUTH-001= INTERPRETAT

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0041"
state R -> R1
node N1
representation JP(PINK-10-P0041)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 41 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 42 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 42 Repository Verification Cluster - PYTEST RESULT 1 of 1 checks passed in the R8 repository verification receipt. EXAMPLES pytest.pass=373 passed in 14.59s INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate untested physical mechanisms. R

PATH OF EXPRESSION

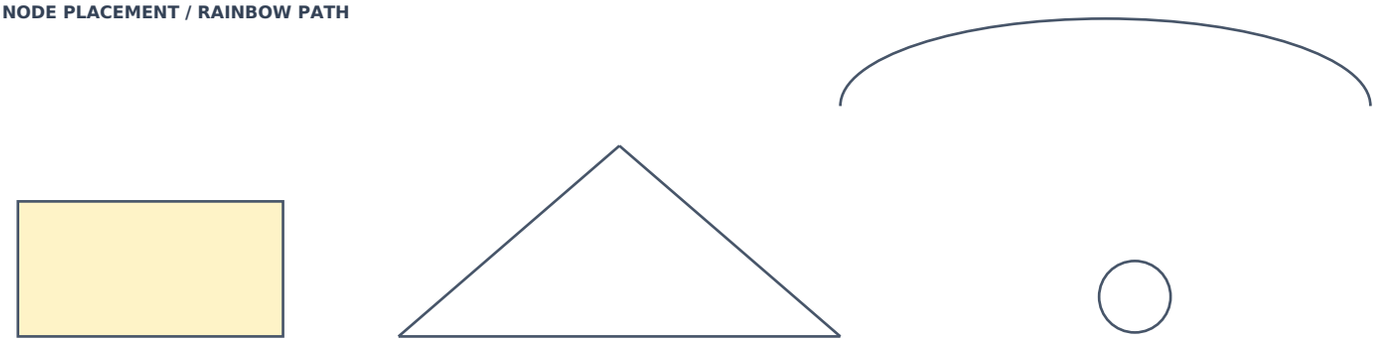
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0042"
state R -> R1
node N8
representation JP(PINK-10-P0042)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 42 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 43 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 43 Repository Verification Cluster - R8_FORMULA RESULT 2 of 2 checks passed in the R8 repository verification receipt. EXAMPLES r8_formula.count=49; r8_formula.ids= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate untested physical mecha

PATH OF EXPRESSION

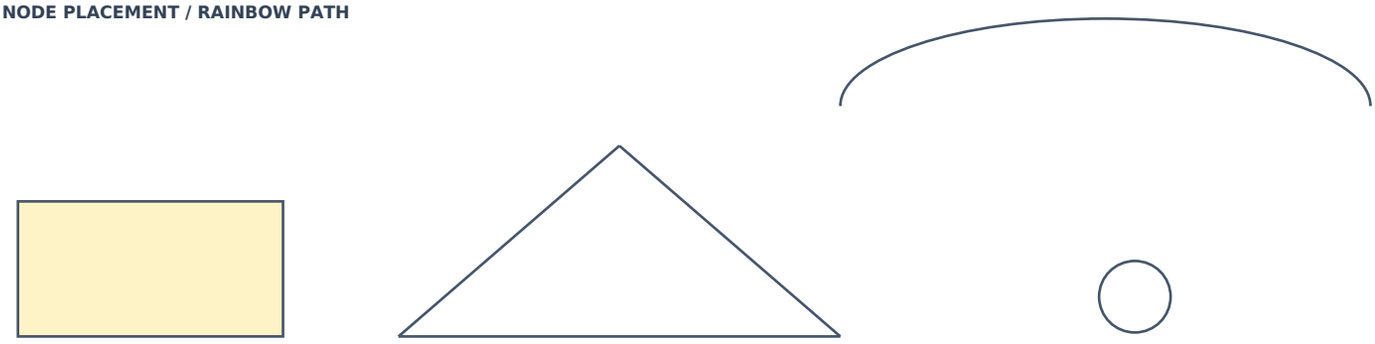
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0043"
state R -> R1
node N1
representation JP(PINK-10-P0043)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 43 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 44 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 44 Repository Verification Cluster - SCENARIO RESULT 4 of 4 checks passed in the R8 repository verification receipt. EXAMPLES scenario.count=; scenario.all_pass=; scenario.categories=; scenario.no_physical= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create aut

PATH OF EXPRESSION

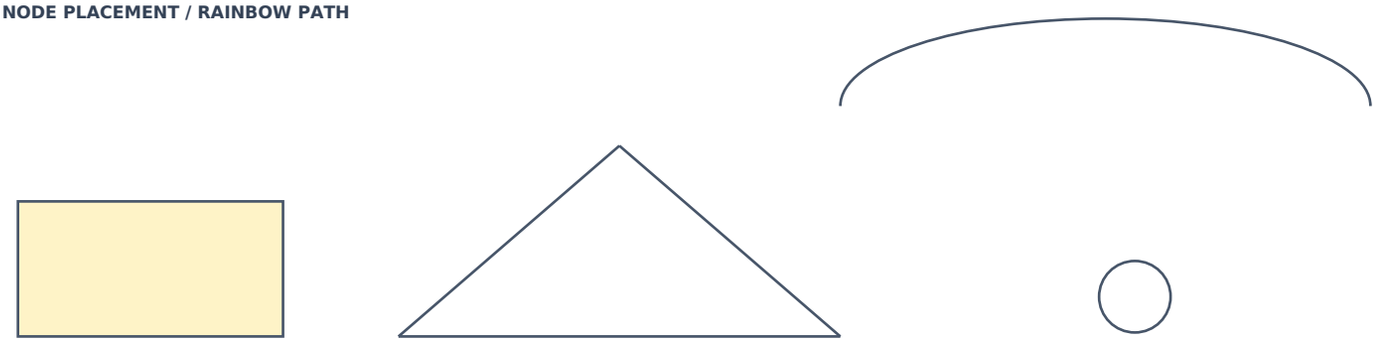
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0044"
state R -> R1
node N1
representation JP(PINK-10-P0044)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 44 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 45 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 45 Repository Verification Cluster - SCOPE RESULT 14 of 14 checks passed in the R8 repository verification receipt. EXAMPLES scope.no_physical_validation_claim=; scope.no_physical_operation_authority=; scope.no_ai_system_integration=; scope.no_physical-coordinate_approval=; scope.no_physical_hydrogen_use_authority=; scope.no_vessel_

PATH OF EXPRESSION

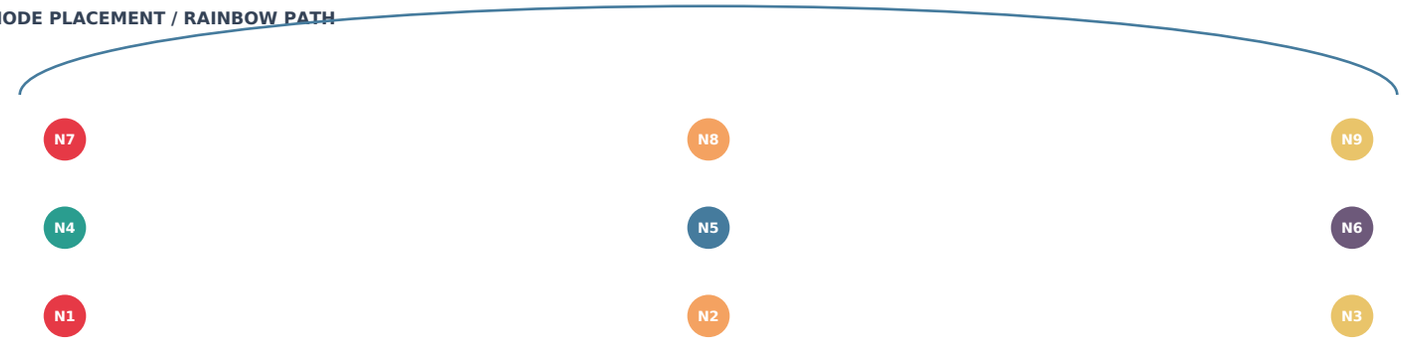
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0045"
state R -> R1
node N1
representation JP(PINK-10-P0045)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 45 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N3; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 46 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 46 Repository Verification Cluster - SECURITY RESULT 3 of 3 checks passed in the R8 repository verification receipt. EXAMPLES security.private_material_absent=[]; security.public_remote_absent=; security.symlinks_absent=[] INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They d

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0046"
state R -> R1
node N3
representation JP(PINK-10-P0046)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 46 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 47 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 47 Repository Verification Cluster - SEMICONDUCTOR RESULT 1 of 1 checks passed in the R8 repository verification receipt. EXAMPLES semiconductor.physical_hold= INTERPRETATION These checks establish consistency of the tracked repository and declared claims ceiling. They do not create authority or validate untested physical mechanisms

PATH OF EXPRESSION

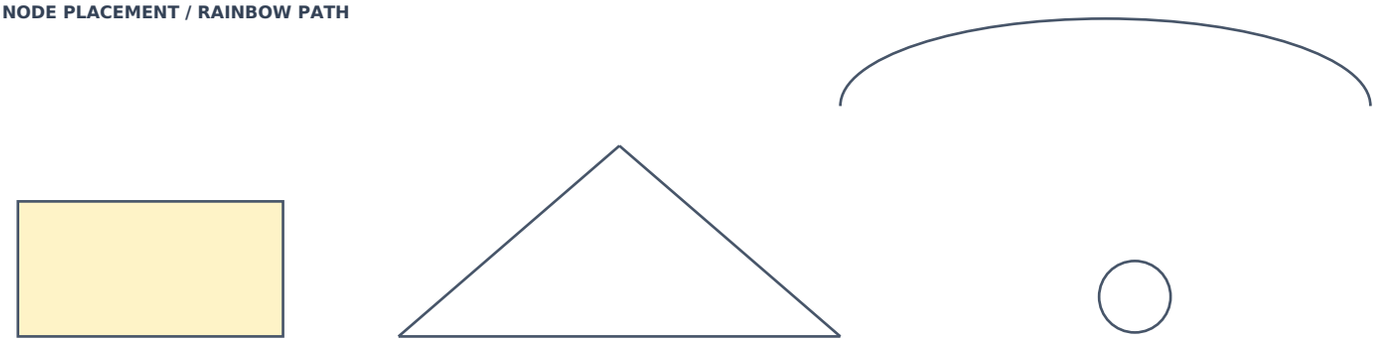
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0047"
state R -> R1
node N1
representation JP(PINK-10-P0047)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 47 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 48 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-0 verification-focused Pink Paper Page 48 Testing Pink Paper Closing Receipt DOCUMENT STATUS 48-page internal reference; final included pending local founder signature. KNOWN COUNTS 373 R8 pytest passes; 8192 scenario passes; 201 repository checks; 0 recorded failures in those current scopes. CLAIMS CEILING No physical validation, operational authority, certification, le

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.MJ_PBMEF_PINK_PAPER_TESTING_
reference "PINK-10-P0048"
state R -> R1
node N1
representation JP(PINK-10-P0048)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source MJ_PBMEF_Pink_Paper_Testing_Evidence_001.pdf, page 48 of 48. MJ-PBMEF PINK PAPER - TESTING EVIDENCE Pre-Day-
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-IGNITION-PINK-001.pdf, page 1 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 1 DRO Start-Energy, Restart-Reserve, Source, Separation-Work, and Controlled-Release Lifecycle
MJ-PBMEF-DAY0-R8-DRO-PEARL-LECANTO-90K-FINAL | Pink paper | DRO-IGNITION-PINK-001 INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP

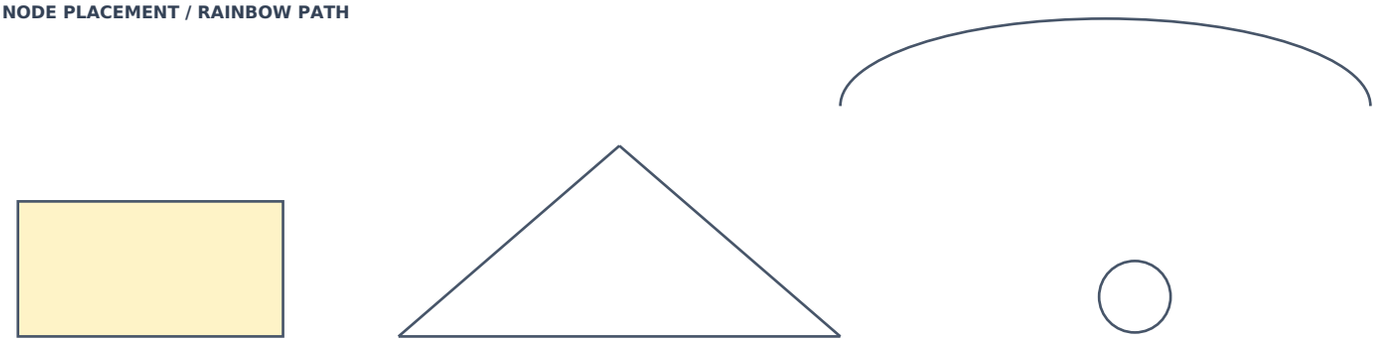
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-11-P0001"
state R -> R1
node N1
representation JP(PINK-11-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-IGNITION-PINK-001.pdf, page 1 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-IGNITION-PINK-001.pdf, page 2 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 2 ## Formula-by-formula lifecycle ### F-220 - DRO energy ledger Expression: `r_E = E_in-E_stored-E_start-E_restart-E_loss-E_containment` Energy conservation for reference start accounting. Path: `Bangel -> Elsa -> JP -> MK -> JO -> safety/evidence -> M3 -> Mermaid/

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-11-P0002"
state R -> R1
node N7
representation JP(PINK-11-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-IGNITION-PINK-001.pdf, page 2 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-IGNITION-PINK-001.pdf, page 3 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 3 Any species-separation claim requires a thermodynamic and measured energy balance. Path: `Bangel -> Elsa -> JP -> MK -> JO -> safety/evidence -> M3 -> Mermaid/Shiva -> MJ -> JO evidence`. Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION_UNTIL_CALIBRATED_PROFILE_S

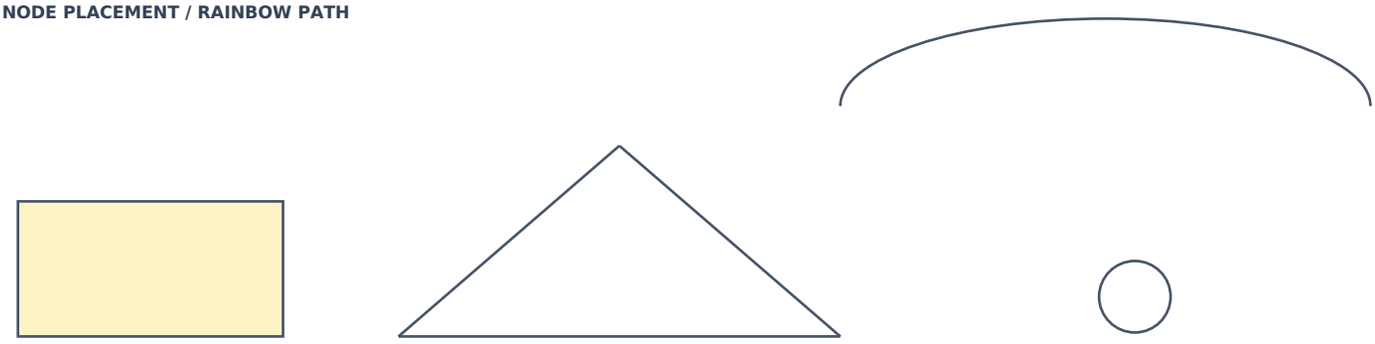
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-11-P0003"
state R -> R1
node N1
representation JP(PINK-11-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-IGNITION-PINK-001.pdf, page 3 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-IGNITION-PINK-001.pdf, page 4 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 4

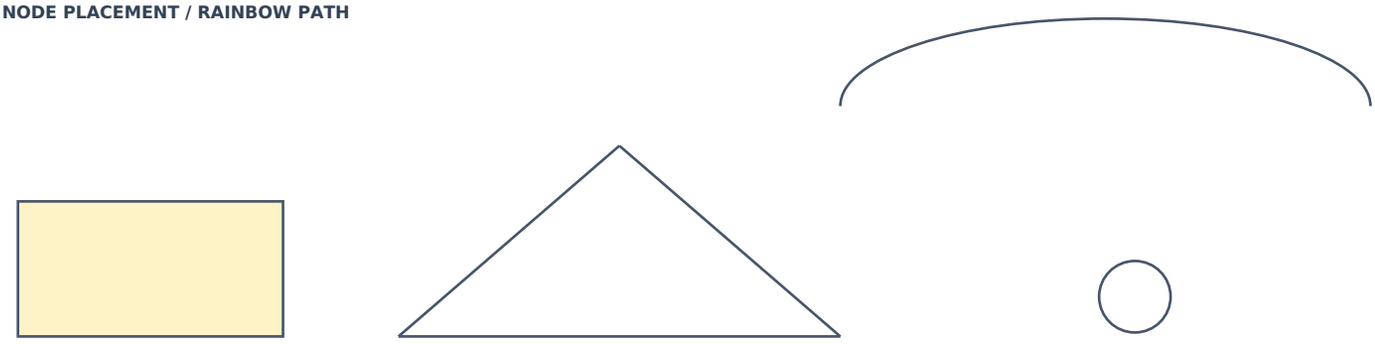
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-11-P0004"
state R -> R1
node N1
representation JP(PINK-11-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-IGNITION-PINK-001.pdf, page 4 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PEARL-PINK-001.pdf, page 1 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 1 DRO-to-Pearl Computational Node, Capacity, Handoff, and Accounting Lifecycle MJ-PBMEF-DAY0-R8-DRO-PEARL-LECANTO-90K-FINAL | Pink paper | DRO-PEARL-PINK-001 INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO

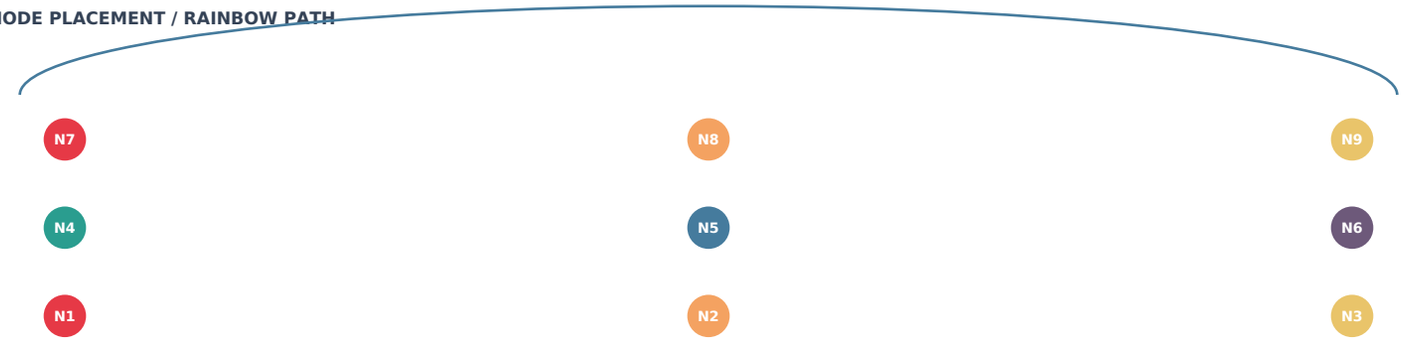
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-12-P0001"
state R -> R1
node N1
representation JP(PINK-12-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PEARL-PINK-001.pdf, page 1 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPR
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N2; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PEARL-PINK-001.pdf, page 2 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 2 ## Formula-by-formula lifecycle ### F-203 - DRO remainder Expression: `Q_rem = Q_observed - N_DRO*q_unit` Unallocated typed remainder; never silently discarded. Path: `Bangel -> Elsa -> JP -> MK -> JO -> safety/evidence -> M3 -> Mermaid/Shiva -> MJ -> JO evidence

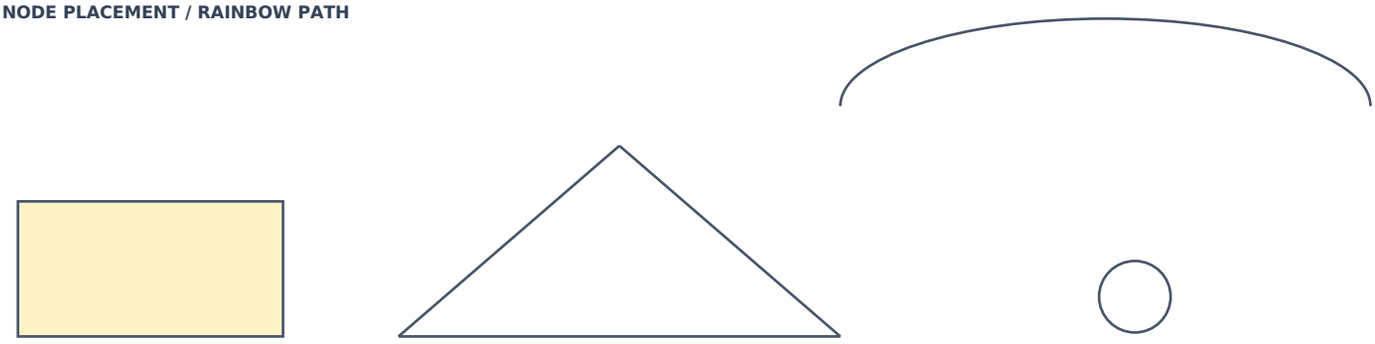
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-12-P0002"
state R -> R1
node N2
representation JP(PINK-12-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PEARL-PINK-001.pdf, page 2 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPR
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PEARL-PINK-001.pdf, page 3 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 3 Lifecycle and authority Every path preserves MJ -> Bangel -> Elsa -> JP -> MK -> JO -> evidence -> M3 -> Mermaid/Shiva -> MJ bounded decision -> JO evidence. No model, proof, or passkey creates physical operation authority.

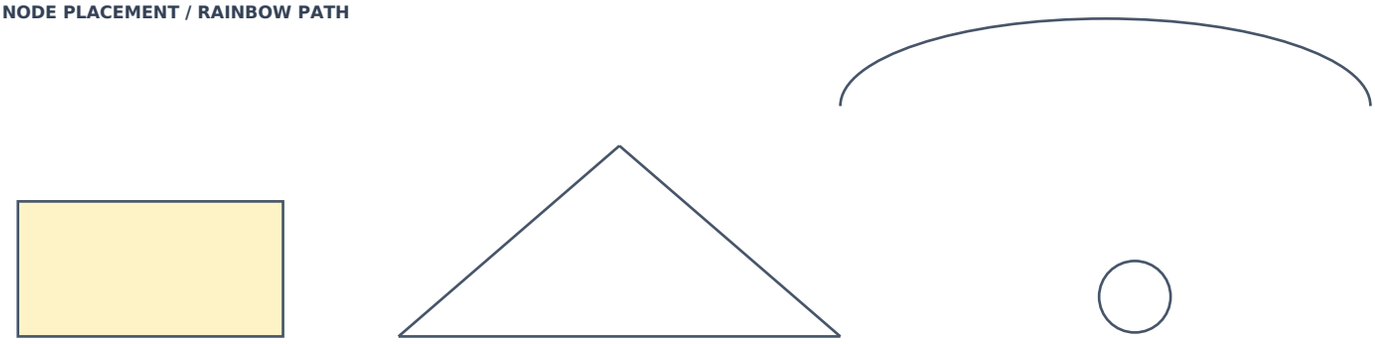
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-12-P0003"
state R -> R1
node N1
representation JP(PINK-12-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PEARL-PINK-001.pdf, page 3 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPR
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PINK-001.pdf, page 1 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 1 DRO Gateway, Scale, State, Optical Evidence, and Collection Lifecycle MJ-PBMEF-DAY0-R8-DRO-PEARL-LECANTO-90K-FINAL | Pink paper | DRO-PINK-001 INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYD

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-13-P0001"
state R -> R1
node N1
representation JP(PINK-13-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PINK-001.pdf, page 1 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL O
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PINK-001.pdf, page 2 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 2 - `DRO_COLLECTION_RECEIPT` - `DRO_OPTICAL_EVIDENCE_PROFILE` ## Formula-by-formula lifecycle ### F-194 - DRO founder lower marker Expression: `d_A = 5e-22 m` Founder-declared theoretical lower marker; not a measured particle size. Path: `Bangel -> Elsa -> JP -> MK

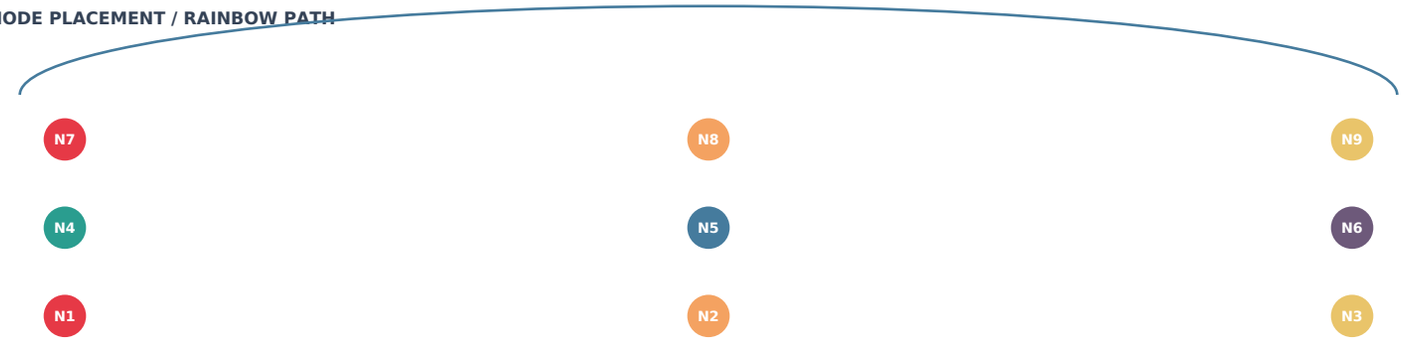
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-13-P0002"
state R -> R1
node N1
representation JP(PINK-13-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PINK-001.pdf, page 2 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL O
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N6; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PINK-001.pdf, page 3 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 3 Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION_UNTIL_CALIBRATED_PROFILE_SPECIFIC_EVIDENCE` Physical authority: `NONE`. ### F-200 - DRO spherical reference volume Expression: `V_DRO = 4*pi*r_DRO^3/3` Classical sphere representation only at the declared scale. P

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-13-P0003"
state R -> R1
node N6
representation JP(PINK-13-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PINK-001.pdf, page 3 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL O
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PINK-001.pdf, page 4 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 4 Expression: `G_R = scale_interval_valid AND source_bound AND units_valid` Eligibility for an R candidate. Path: `Bangel -> Elsa -> JP -> MK -> JO -> safety/evidence -> M3 -> Mermaid/Shiva -> MJ -> JO evidence`. Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION_UNT

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-13-P0004"
state R -> R1
node N1
representation JP(PINK-13-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PINK-001.pdf, page 4 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL O
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PINK-001.pdf, page 5 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 5 Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION_UNTIL_CALIBRATED_PROFILE_SPECIFIC_EVIDENCE` Physical authority: `NONE`. ### F-213 - Optical admissibility Expression: `G_opt = calibrated_band AND measured_power AND eta_c_evidenced AND uncertainty_valid` Optical

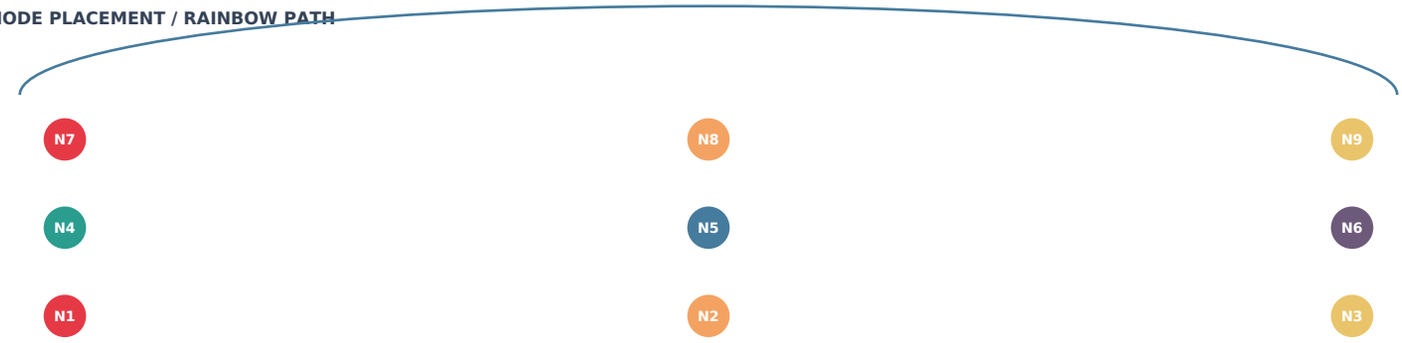
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-13-P0005"
state R -> R1
node N1
representation JP(PINK-13-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PINK-001.pdf, page 5 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL O
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PINK-001.pdf, page 6 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 6 Expression: `r_Q = Q_in-Q_alloc-Q_retained-Q_transferred-Q_escaped-Delta Q_stored` Complete quantity balance. Path: `Bangel -> Elsa -> JP -> MK -> JO -> safety/evidence -> M3 -> Mermaid/Shiva -> MJ -> JO evidence`. Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-13-P0006"
state R -> R1
node N1
representation JP(PINK-13-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PINK-001.pdf, page 6 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL O
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source DRO-PINK-001.pdf, page 7 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 7 F-196 - DRO conservative R threshold: d_R = max(d_A,d_B) = 3e-21 m F-197 - DRO upper spherical reference: d_U = 0.15 nm = 1.5e-10 m F-198 - DRO declared interval: d in [d_R,d_U] F-199 - DRO reference radius: r_DRO = d/2 F-200 - DRO spherical reference volume: V_D

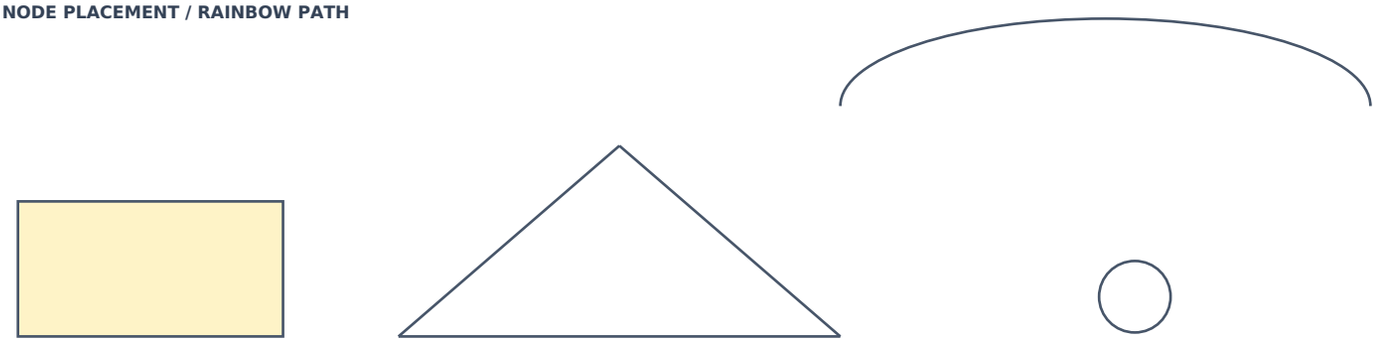
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-13-P0007"
state R -> R1
node N1
representation JP(PINK-13-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source DRO-PINK-001.pdf, page 7 of 7. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL O
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source LECANTO-PINK-001.pdf, page 1 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 1 Lecanto Image Source, Physics, Variance, Safety, Derivative, and Intent-Hypothesis Lifecycle
MJ-PBMEF-DAY0-R8-DRO-PEARL-LECANTO-90K-FINAL | Pink paper | LECANTO-PINK-001 INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETE

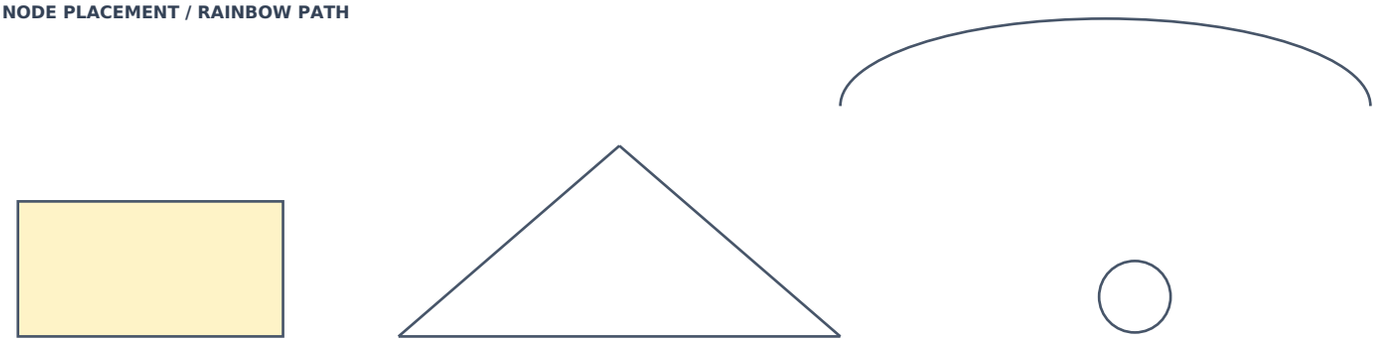
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-14-P0001"
state R -> R1
node N1
representation JP(PINK-14-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source LECANTO-PINK-001.pdf, page 1 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROV
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source LECANTO-PINK-001.pdf, page 2 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 2 - `LECANTO_TRANSFORMATION_RECEIPT` - `IMAGE_VARIANCE_RECEIPT` ## Formula-by-formula lifecycle ### F-234 - Semiconductor profile isolation Expression: `G_SC = profile==SC AND no_LS_value_inheritance` Rejects marine or rocket physical values in the SC profile. Path

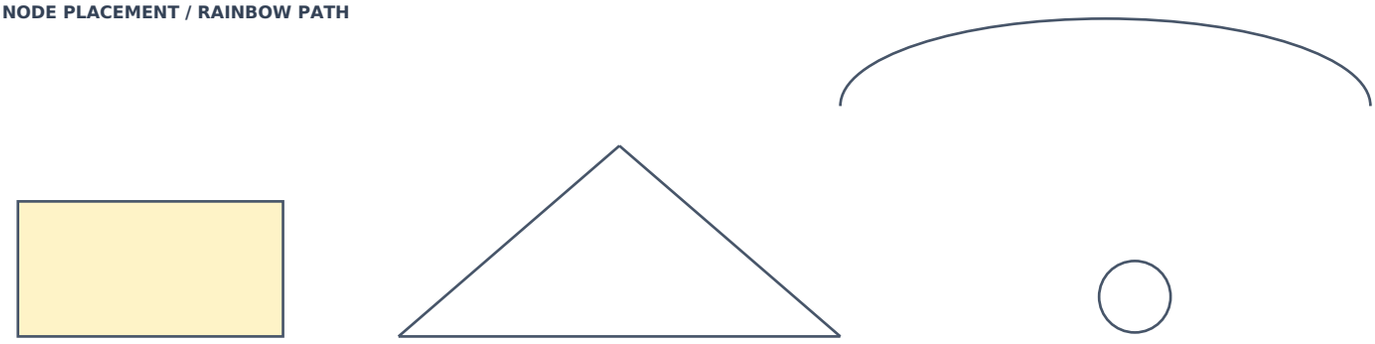
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-14-P0002"
state R -> R1
node N1
representation JP(PINK-14-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source LECANTO-PINK-001.pdf, page 2 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROV
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source LECANTO-PINK-001.pdf, page 3 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 3 Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION_UNTIL_CALIBRATED_PROFILE_SPECIFIC_EVIDENCE` Physical authority: `NONE`. ### F-240 - Lecanto transformation gate Expression: `G_edit = source_preserved AND modification_disclosed AND purpose_allowed AND safety_pass`

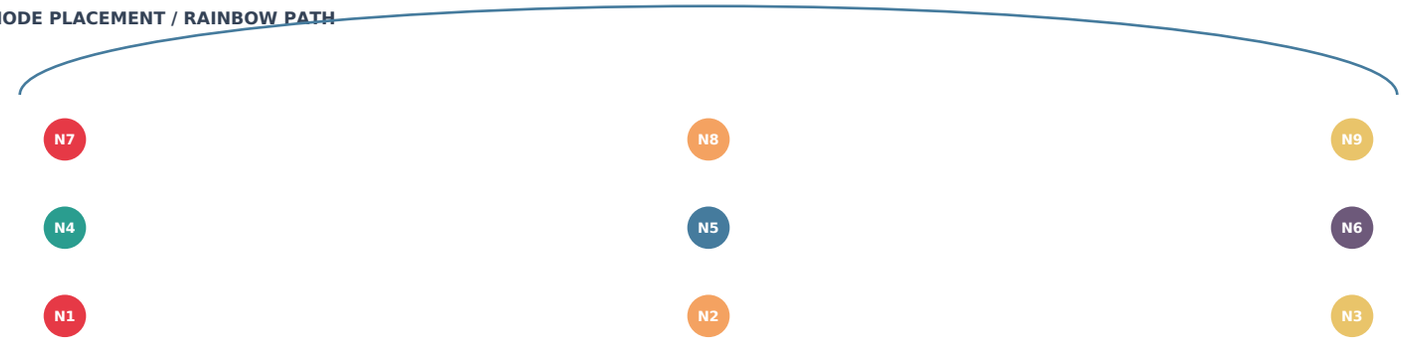
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-14-P0003"
state R -> R1
node N1
representation JP(PINK-14-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source LECANTO-PINK-001.pdf, page 3 of 3. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROV
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SC-DRO-PEARL-PINK-001.pdf, page 1 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 1 Semiconductor DRO/Pearl Charge, Energy, Memory, Wake, Profile, and Evidence Lifecycle MJ-PBMEF-DAY0-R8-DRO-PEARL-LECANTO-90K-FINAL | Pink paper | SC-DRO-PEARL-PINK-001 INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERM

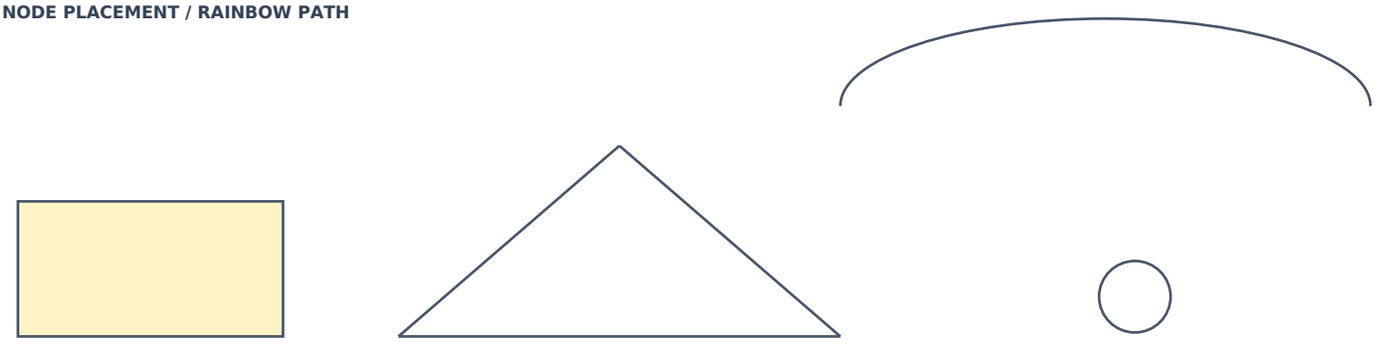
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-15-P0001"
state R -> R1
node N1
representation JP(PINK-15-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SC-DRO-PEARL-PINK-001.pdf, page 1 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SC-DRO-PEARL-PINK-001.pdf, page 2 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 2 ## Formula-by-formula lifecycle ### F-220 - DRO energy ledger Expression: `r_E = E_in-E_stored-E_start-E_restart-E_loss-E_containment` Energy conservation for reference start accounting. Path: `Bangel -> Elsa -> JP -> MK -> JO -> safety/evidence -> M3 -> Mermaid/

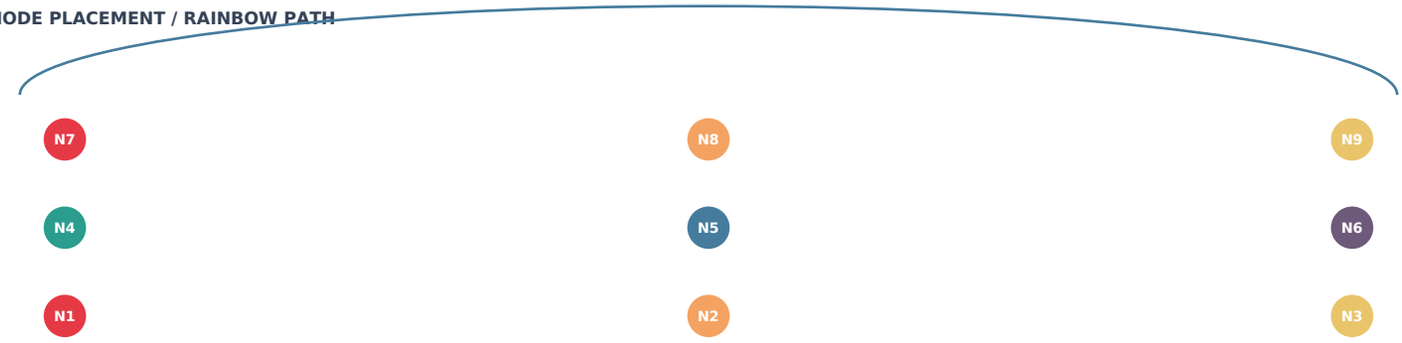
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-15-P0002"
state R -> R1
node N1
representation JP(PINK-15-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SC-DRO-PEARL-PINK-001.pdf, page 2 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SC-DRO-PEARL-PINK-001.pdf, page 3 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 3 Any species-separation claim requires a thermodynamic and measured energy balance. Path: `Bangel -> Elsa -> JP -> MK -> JO -> safety/evidence -> M3 -> Mermaid/Shiva -> MJ -> JO evidence`. Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION_UNTIL_CALIBRATED_PROFILE_S

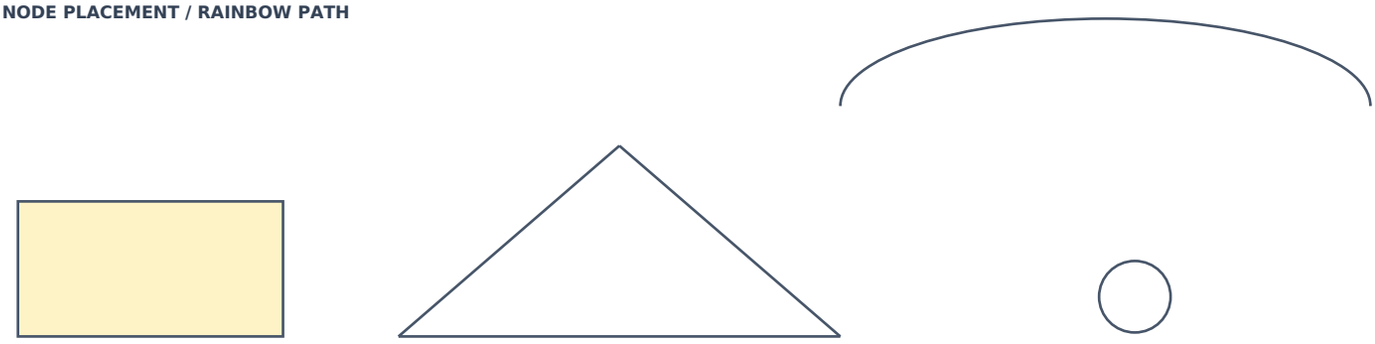
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-15-P0003"
state R -> R1
node N1
representation JP(PINK-15-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SC-DRO-PEARL-PINK-001.pdf, page 3 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SC-DRO-PEARL-PINK-001.pdf, page 4 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP APPROVAL OR OWNERSHIP DETERMINATION. NO IGNITION, HYDROGEN SEPARATION, COMBUSTION, Page 4 Evidence ceiling: `REFERENCE_MODEL_OR_SIMULATION_UNTIL_CALIBRATED_PROFILE_SPECIFIC_EVIDENCE` Physical authority: `NONE`. ### F-233 - Semiconductor wake-reserve gate Expression: `E_node,L >= M_E*(E_wake,H+E_restart,H)` Reference wake and restart reserve gate. Pat

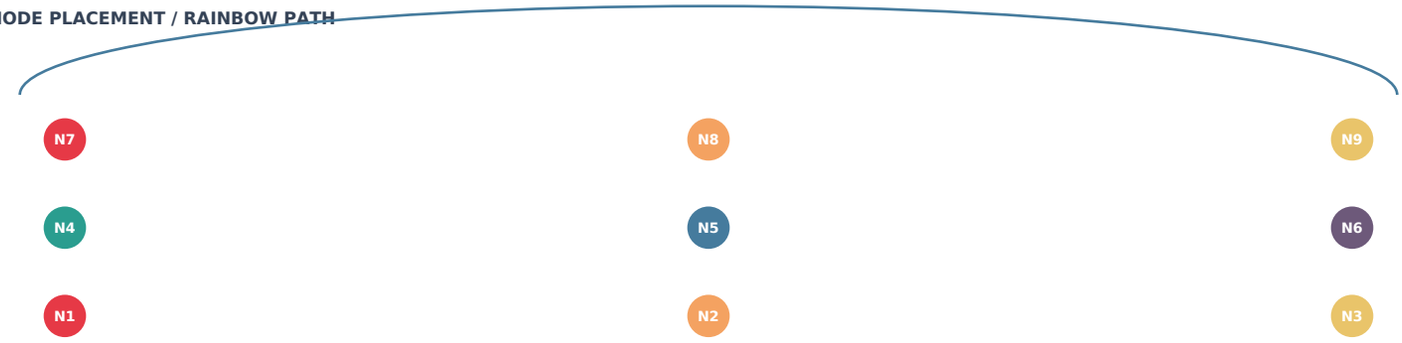
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.INTERNAL_PRE_PASSKEY_REFEREN
reference "PINK-15-P0004"
state R -> R1
node N1
representation JP(PINK-15-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SC-DRO-PEARL-PINK-001.pdf, page 4 of 4. INTERNAL PRE-PASSKEY REFERENCE. NOT PHYSICAL VALIDATION. NOT AN IP A
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N9; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 1 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD MJOS Solar Shared-Core Architecture Pink Paper - Gateway Expression and Full Lifecycle NOT A PHYSICAL VALIDATION, IP APPROVAL, PRODUCT CERTIFICATION, OR EXTERNAL AUTHORITY RECORD. Build: MJ-PBMEF-DAY0-R7-SOLAR-30K-FINAL Source freeze SHA-256: 6241f3ffaddb335f97fabe809687595bf2c7a0b5f0ba86f5f66ae32eac5

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0001"
state R -> R1
node N9
representation JP(PINK-16-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 1 INTERNAL PRE-PASSKEY RE
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 2 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Pink Paper Gateway and Full-Lifecycle Specification **INTERNAL PRE-PASSKEY TECHNICAL RECORD.** This document does not claim physical validation, product certification, patentability, ownership, freedom to operate, production readiness, launch authority, vessel operation authority, or external effect.

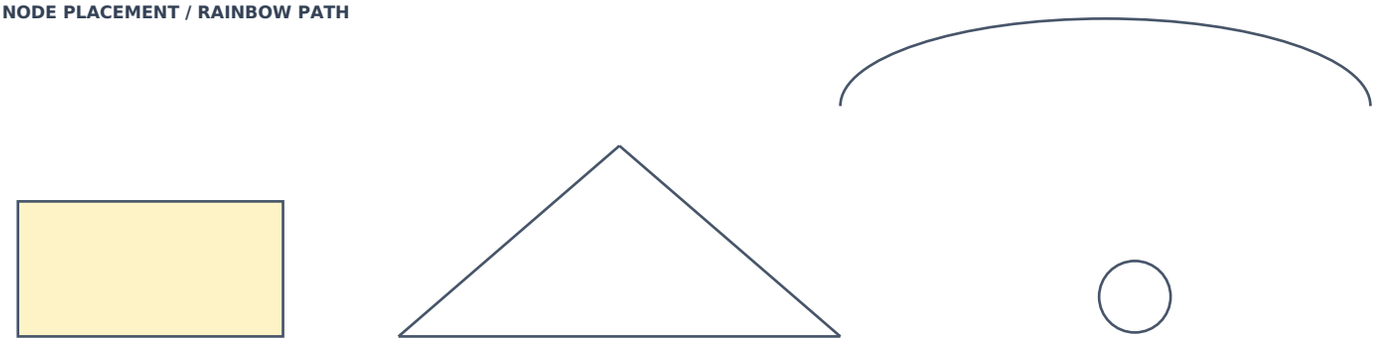
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0002"
state R -> R1
node N1
representation JP(PINK-16-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 2 INTERNAL PRE-PASSKEY RE
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 3 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD 2. `R1`: the unidentified transitionary phase holds unknown variables, environmental state, profile classification, and missing evidence. 3. `N1`: the prediction-first node receives the bounded request and the exact `0.48383829` logical allocation seed where applicable; it is not a physical coordinate

PATH OF EXPRESSION

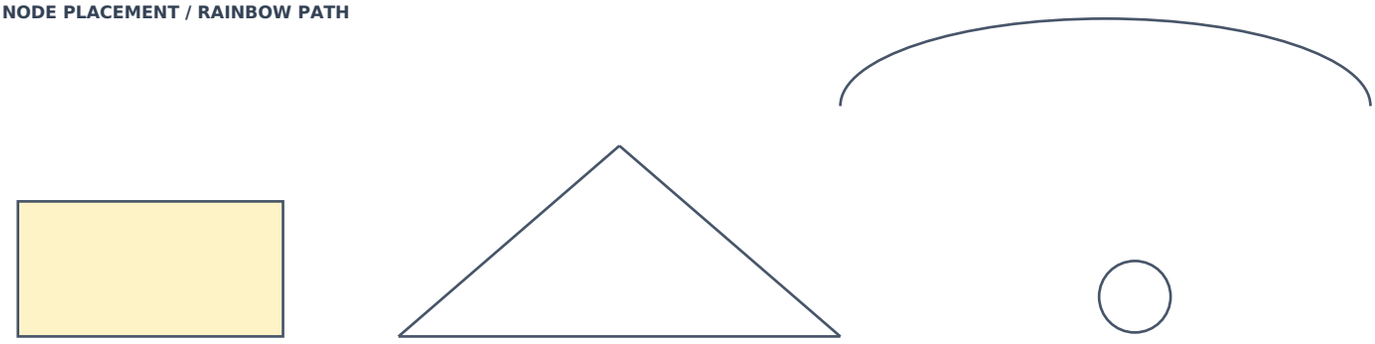
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0003"
state R -> R1
node N1
representation JP(PINK-16-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 3 INTERNAL PRE-PASSKEY RE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 4 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD R_E = E_available,L - M_E * E_required,H A start or service is eligible only when conservative available energy exceeds required energy with margin. • Result dimension: `energy` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: types, units

PATH OF EXPRESSION

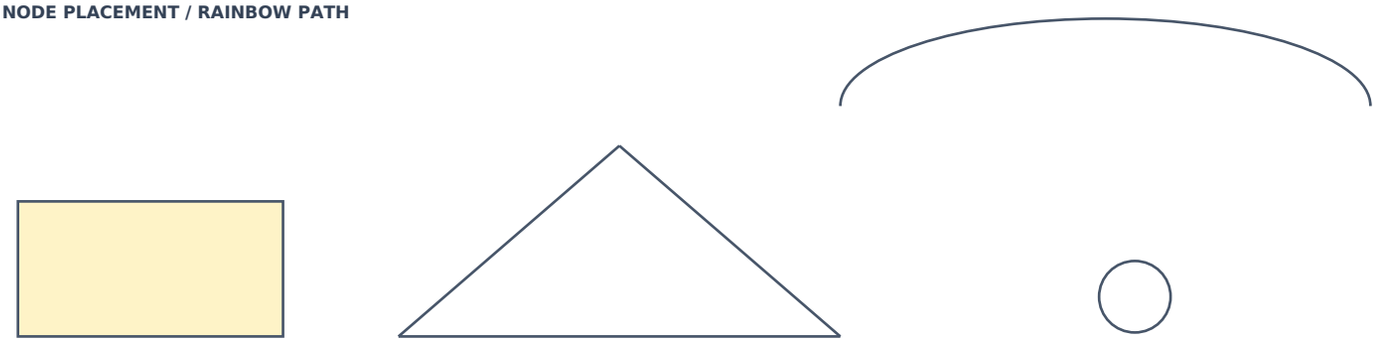
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0004"
state R -> R1
node N1
representation JP(PINK-16-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 4 INTERNAL PRE-PASSKEY RE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 5 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • Result dimension: `voltage` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and negative/fault cases. • MJ effect: `NONE` until a separate bounded decis

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0005"
state R -> R1
node N4
representation JP(PINK-16-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 5 INTERNAL PRE-PASSKEY RE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 6 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and negative/fault cases. • MJ effect: `NONE` until a separate bounded decision exists. 6. Twenty-five design elements SC-01 - JP technical origin This element is represented through JP, classified by MK, v

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0006"
state R -> R1
node N1
representation JP(PINK-16-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 6 INTERNAL PRE-PASSKEY RE
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 7 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD SC-10 - profile separation This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. SC-11 - evidence r

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0007"
state R -> R1
node N1
representation JP(PINK-16-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 7 INTERNAL PRE-PASSKEY RE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 8 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD SC-20 - physical hold This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. SC-21 - M3 resource all

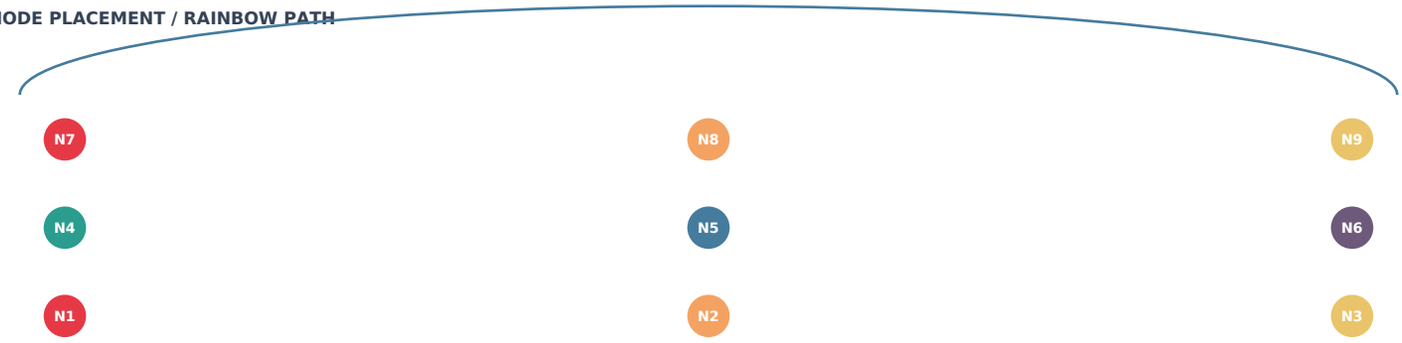
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0008"
state R -> R1
node N1
representation JP(PINK-16-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 8 INTERNAL PRE-PASSKEY RE
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 9 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD No formula, profile, white paper, Pink Paper, test, passkey, software result, prediction, or successful simulation authorizes a physical operation. Physical dimensions, materials, voltages, currents, temperatures, thrust, torque, range, efficiency, fabrication, installation, launch, flight, vessel ope

PATH OF EXPRESSION

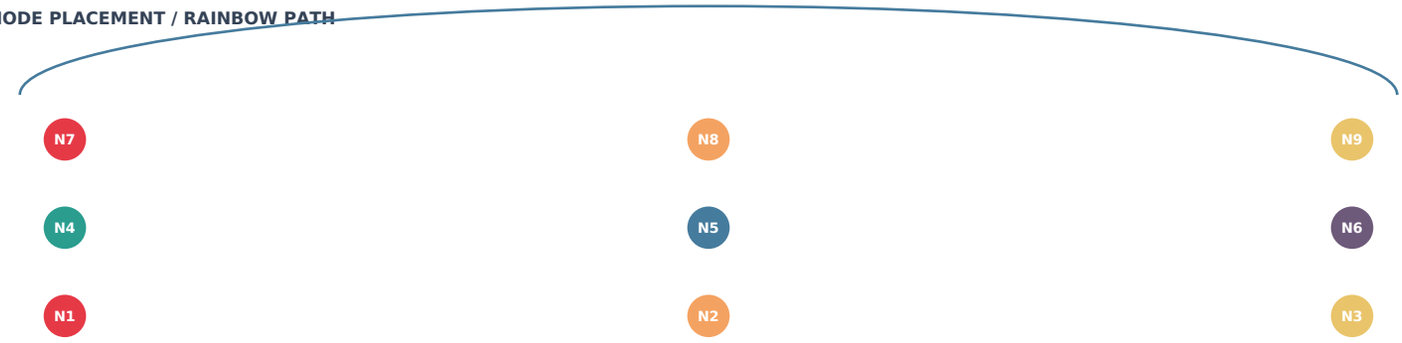
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0009"
state R -> R1
node N1
representation JP(PINK-16-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 9 INTERNAL PRE-PASSKEY RE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 10 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD -> Mermaid reconciliation -> Shiva when capital applies -> MJ permit -> R2 living static evidence -> bounded execution or hold -> JO final receipt 15. Bangel construct mapping Module Defines the profile compilation unit and its independent scope. Namespace Prevents profile parameters, evidence and au

PATH OF EXPRESSION

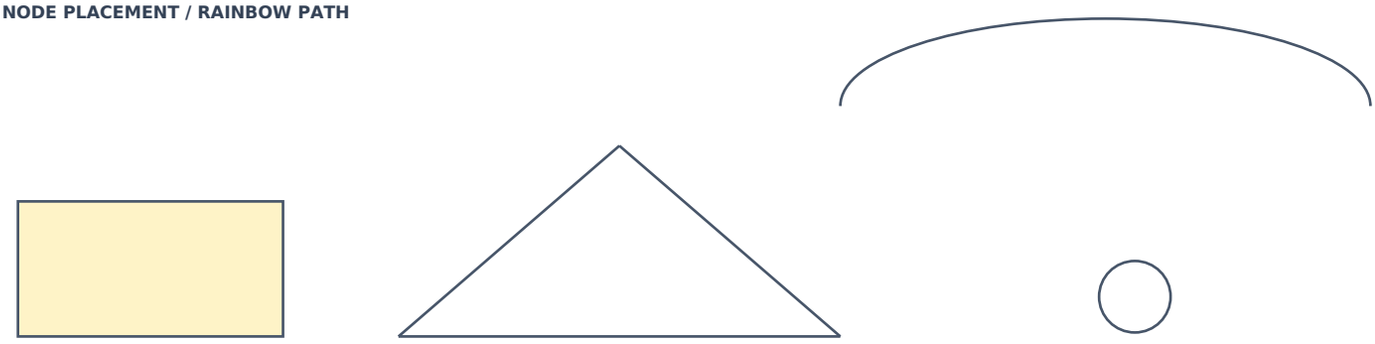
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0010"
state R -> R1
node N1
representation JP(PINK-16-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 10 INTERNAL PRE-PASSKEY
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 11 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Adds provenance, evidence ceiling and source references. Directive Controls compilation or review behavior but does not create authority. Block Groups one complete governed scope. Literal Preserves exact values such as the source hash or logical allocation seed. Reference Links immutable IDs, roots,

PATH OF EXPRESSION

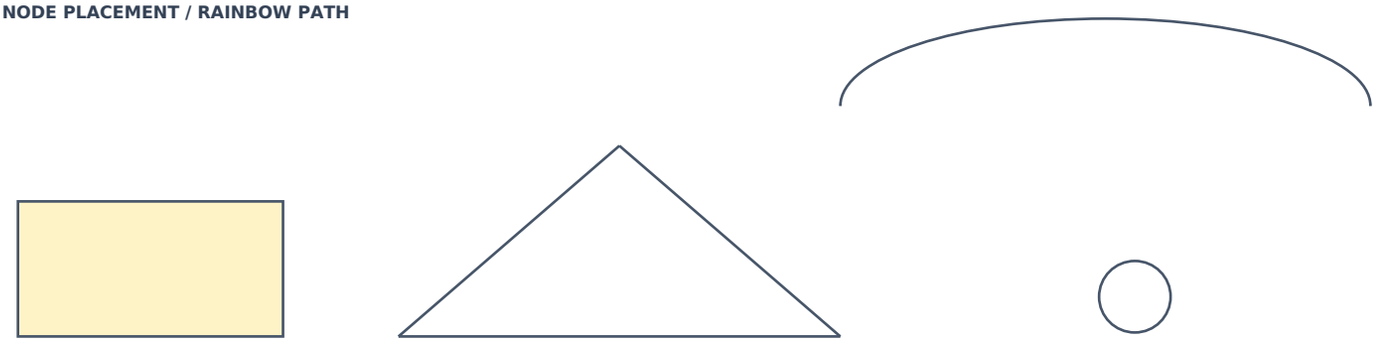
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0011"
state R -> R1
node N1
representation JP(PINK-16-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 11 INTERNAL PRE-PASSKEY
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or ethics approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-CORE-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 12 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • `F-156` enters at JP representation, receives MK applicability and unit/conservation analysis, JO proof, applicable safety evidence, M3/Mermaid implications, and an MJ permit classification before any effect. • `F-157` enters at JP representation, receives MK applicability and unit/conservation ana

PATH OF EXPRESSION

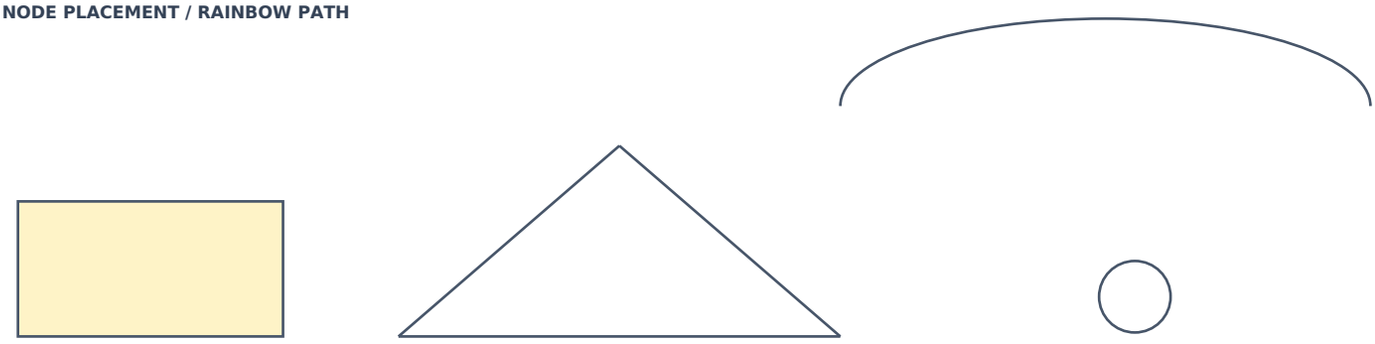
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-16-P0012"
state R -> R1
node N1
representation JP(PINK-16-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-CORE-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-CORE-001 Page 12 INTERNAL PRE-PASSKEY
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 1 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD MJOS Solar-Assisted Marine Power and Propulsion Profile Pink Paper - Gateway Expression and Full Lifecycle NOT A PHYSICAL VALIDATION, IP APPROVAL, PRODUCT CERTIFICATION, OR EXTERNAL AUTHORITY RECORD. Build: MJ-PBMEF-DAY0-R7-SOLAR-30K-FINAL Source freeze SHA-256: 6241f3ffaddb335f97fabe809687595bf2c7a

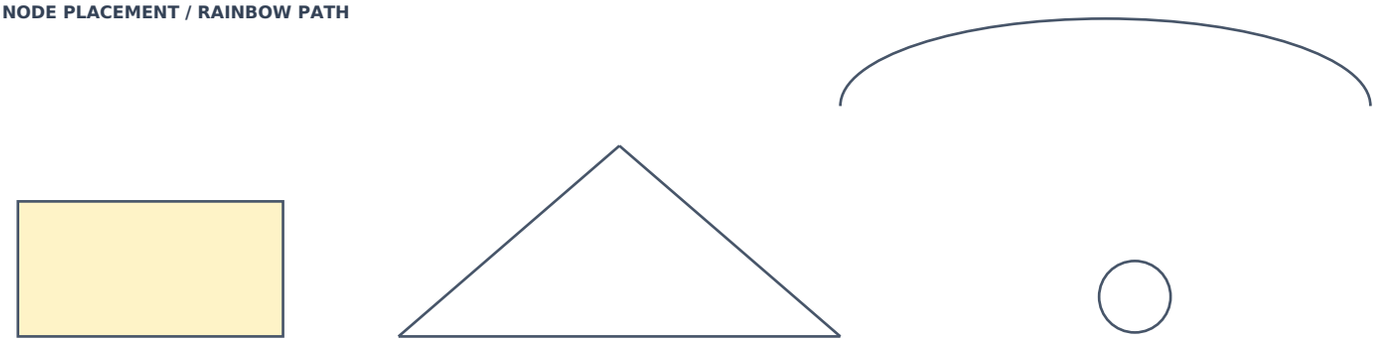
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0001"
state R -> R1
node N3
representation JP(PINK-17-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 1 INTERNAL PRE-PASSKE
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 2 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Pink Paper Gateway and Full-Lifecycle Specification **INTERNAL PRE-PASSKEY TECHNICAL RECORD.** This document does not claim physical validation, product certification, patentability, ownership, freedom to operate, production readiness, launch authority, vessel operation authority, or external effect

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0002"
state R -> R1
node N1
representation JP(PINK-17-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 2 INTERNAL PRE-PASSKE
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 3 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD 2. `R1`: the unidentified transitionary phase holds unknown variables, environmental state, profile classification, and missing evidence. 3. `N1`: the prediction-first node receives the bounded request and the exact `0.48383829` logical allocation seed where applicable; it is not a physical coordina

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0003"
state R -> R1
node N1
representation JP(PINK-17-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 3 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 4 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD F-173 - Marine critical reserve duration t_critical = E_reserve,L / P_critical,H Critical service duration is conservative and product-classification dependent. • Result dimension: `time` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof:

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0004"
state R -> R1
node N1
representation JP(PINK-17-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 4 INTERNAL PRE-PASSKE
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 5 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Marine physical evidence remains a multi-dimensional vector. • Result dimension: `typed_vector` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and nega

PATH OF EXPRESSION

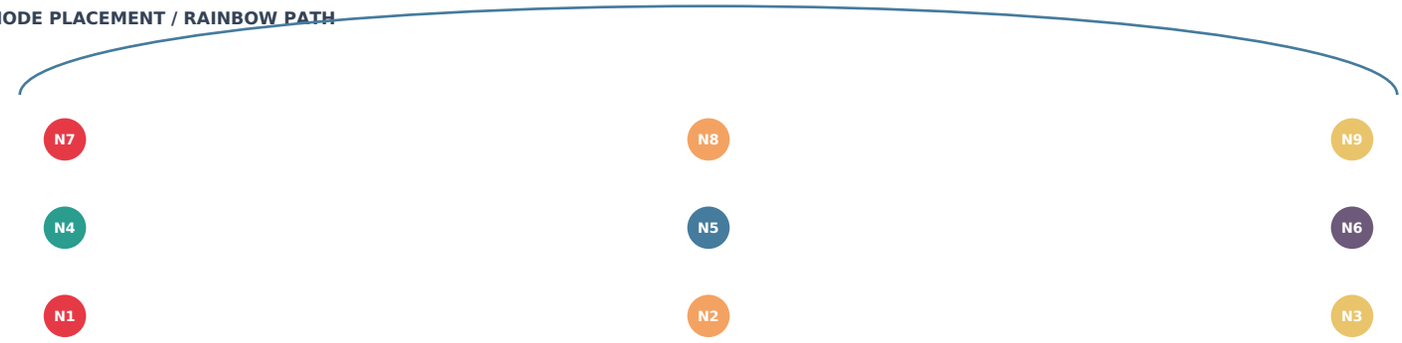
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0005"
state R -> R1
node N7
representation JP(PINK-17-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 5 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 6 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and negative/fault cases. • MJ effect: `NONE` until a separate bounded decision exists. 6. Twenty-five d

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0006"
state R -> R1
node N1
representation JP(PINK-17-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 6 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 7 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. MP-10 - drivetrain interface This element i

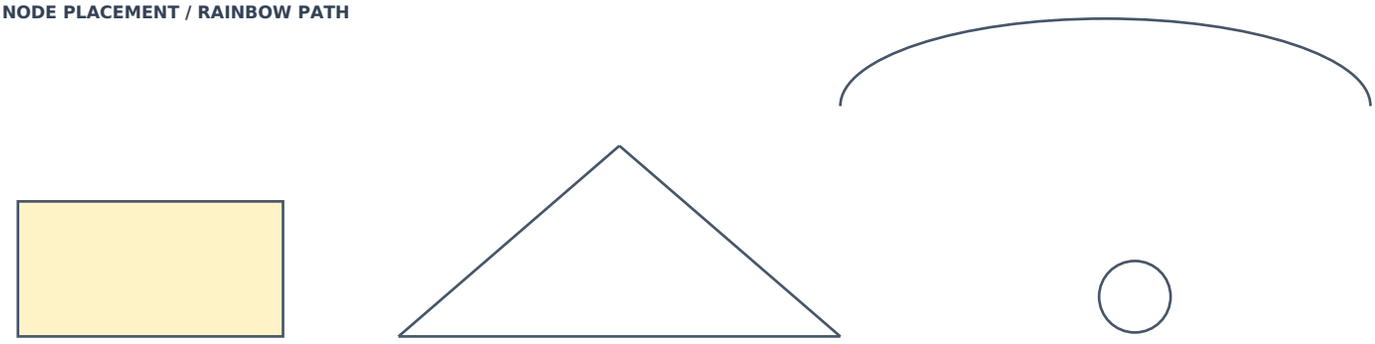
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0007"
state R -> R1
node N1
representation JP(PINK-17-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 7 INTERNAL PRE-PASSKE
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 8 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. MP-20 - emergency shutdown This element is

PATH OF EXPRESSION

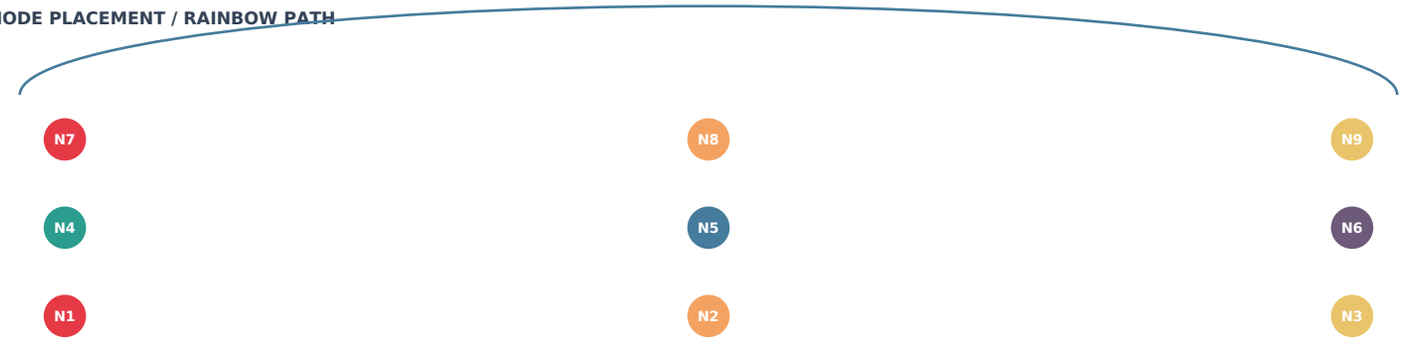
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0008"
state R -> R1
node N1
representation JP(PINK-17-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 8 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or emergency shutdown.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N2; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 9 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD 8. Authority boundary No formula, profile, white paper, Pink Paper, test, passkey, software result, prediction, or successful simulation authorizes a physical operation. Physical dimensions, materials, voltages, currents, temperatures, thrust, torque, range, efficiency, fabrication, installation, la

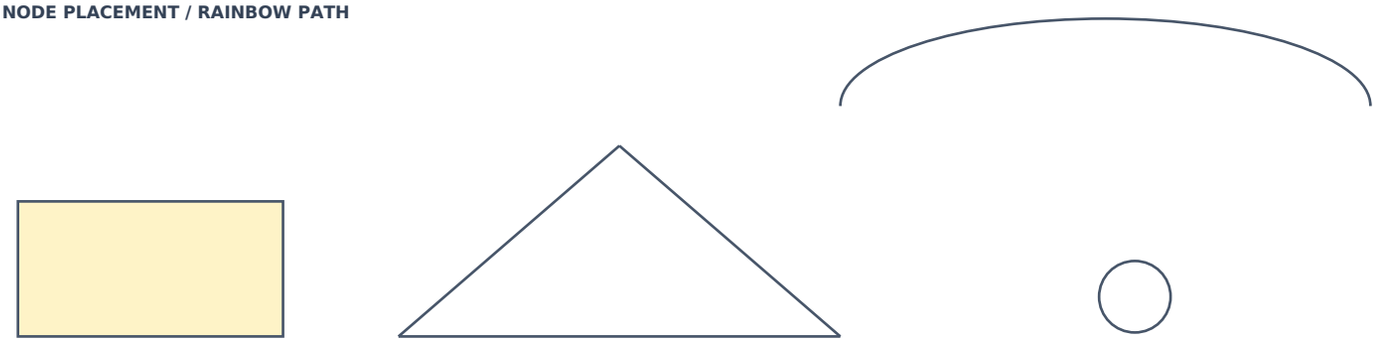
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0009"
state R -> R1
node N2
representation JP(PINK-17-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 9 INTERNAL PRE-PASSKE
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 10 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD MJ -> Bangel.begin -> request.bind(MJOS-SOLAR-MARINE-001) -> R/R0 -> R1 -> N1 prediction -> Elsa semantics -> JP representation -> MK physics -> JO verification -> safety/evidence -> M3 bounded allocation -> Mermaid reconciliation -> Shiva when capital applies -> MJ permit -> R2 living static evide

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0010"
state R -> R1
node N1
representation JP(PINK-17-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 10 INTERNAL PRE-PASS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or emotional value.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 11 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Annotation Adds provenance, evidence ceiling and source references. Directive Controls compilation or review behavior but does not create authority. Block Groups one complete governed scope. Literal Preserves exact values such as the source hash or logical allocation seed. Reference Links immutable

PATH OF EXPRESSION

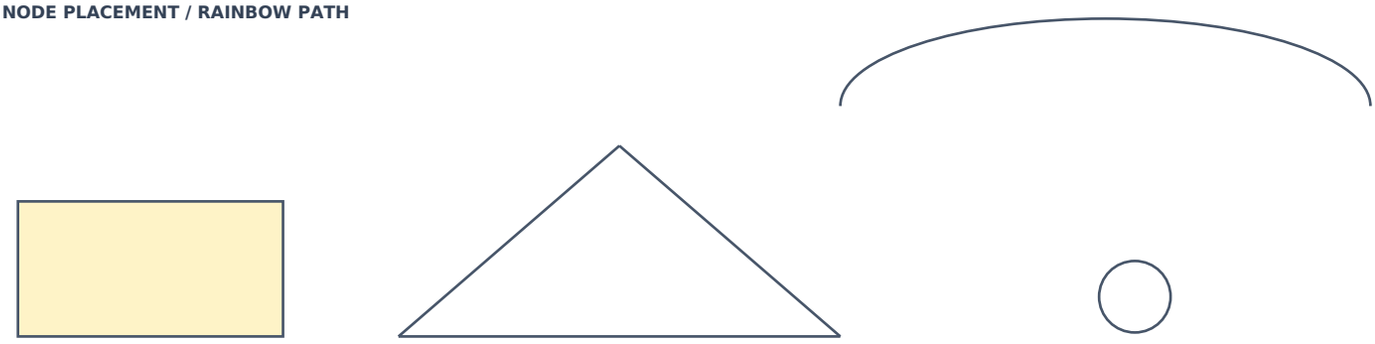
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0011"
state R -> R1
node N1
representation JP(PINK-17-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 11 INTERNAL PRE-PASS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-MARINE-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 12 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • `F-179` enters at JP representation, receives MK applicability and unit/conservation analysis, JO proof, applicable safety evidence, M3/Mermaid implications, and an MJ permit classification before any effect. • `F-180` enters at JP representation, receives MK applicability and unit/conservation a

PATH OF EXPRESSION

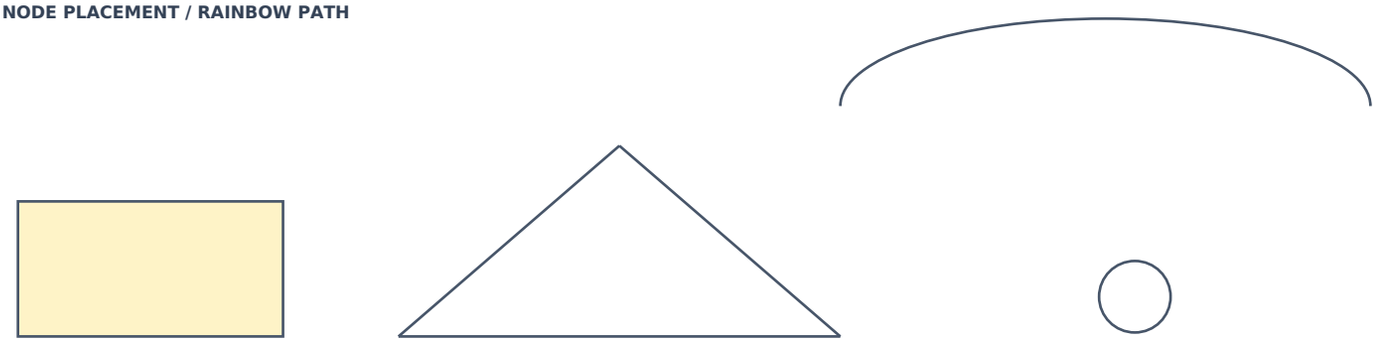
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-17-P0012"
state R -> R1
node N1
representation JP(PINK-17-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-MARINE-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-MARINE-001 Page 12 INTERNAL PRE-PASS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 1 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD MJOS Peaceful Solar-Assisted Rocket/Spacecraft Power and OS Profile Pink Paper - Gateway Expression and Full Lifecycle NOT A PHYSICAL VALIDATION, IP APPROVAL, PRODUCT CERTIFICATION, OR EXTERNAL AUTHORITY RECORD. Build: MJ-PBMEF-DAY0-R7-SOLAR-30K-FINAL Source freeze SHA-256: 6241f3ffaddb335f97fabe809

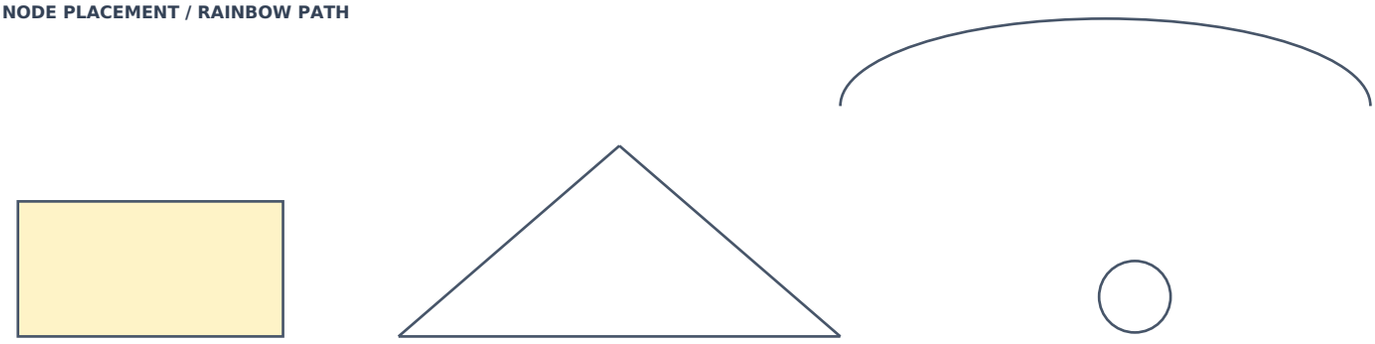
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0001"
state R -> R1
node N6
representation JP(PINK-18-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 1 INTERNAL PRE-PASSKE
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 2 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Pink Paper Gateway and Full-Lifecycle Specification **INTERNAL PRE-PASSKEY TECHNICAL RECORD.** This document does not claim physical validation, product certification, patentability, ownership, freedom to operate, production readiness, launch authority, vessel operation authority, or external effect

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0002"
state R -> R1
node N1
representation JP(PINK-18-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 2 INTERNAL PRE-PASSKE
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 3 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD 2. `R1`: the unidentified transitionary phase holds unknown variables, environmental state, profile classification, and missing evidence. 3. `N1`: the prediction-first node receives the bounded request and the exact `0.48383829` logical allocation seed where applicable; it is not a physical coordina

PATH OF EXPRESSION

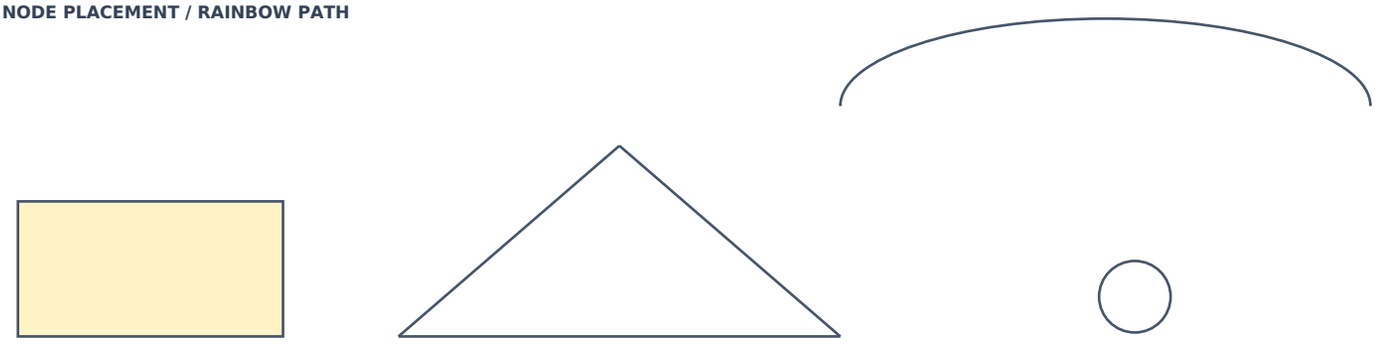
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0003"
state R -> R1
node N1
representation JP(PINK-18-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 3 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 4 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD C_th*dT/dt = P_internal + P_solar_absorbed - P_rejected A reference thermal balance requires geometry, materials, environment, and radiation model evidence. • Result dimension: `power` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: typ

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0004"
state R -> R1
node N1
representation JP(PINK-18-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 4 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 5 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • Result dimension: `ratio` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and negative/fault cases. • MJ effect: `NONE` until a separate bounded decis

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0005"
state R -> R1
node N1
representation JP(PINK-18-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 5 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 6 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and negative/fault cases. • MJ effect: `NONE` until a separate bounded decision exists. 6. Twenty-five design elements RP-01 - solar-assisted avionics power This element is represented through JP, classif

PATH OF EXPRESSION

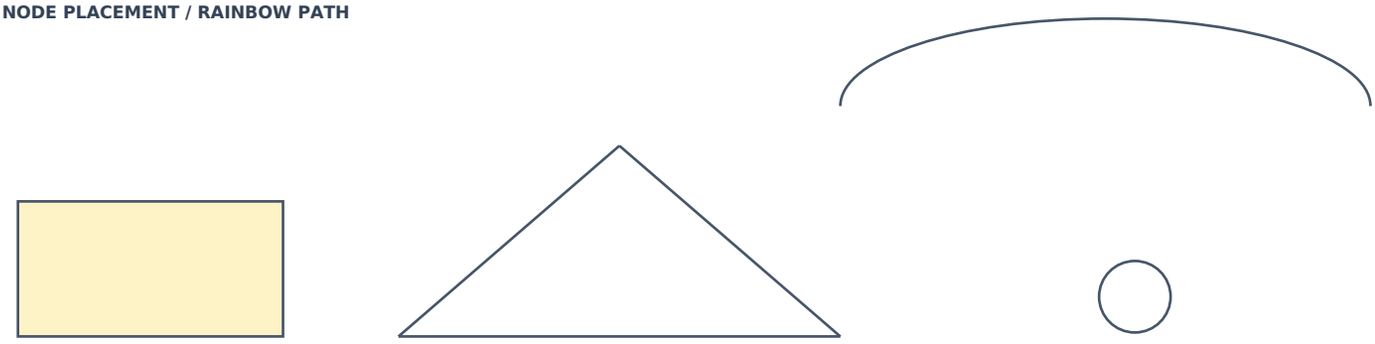
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0006"
state R -> R1
node N1
representation JP(PINK-18-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 6 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 7 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD RP-10 - state-machine integrity This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. RP-11 - pow

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0007"
state R -> R1
node N1
representation JP(PINK-18-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 7 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 8 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD RP-20 - mission reserve This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. RP-21 - energy cons

PATH OF EXPRESSION

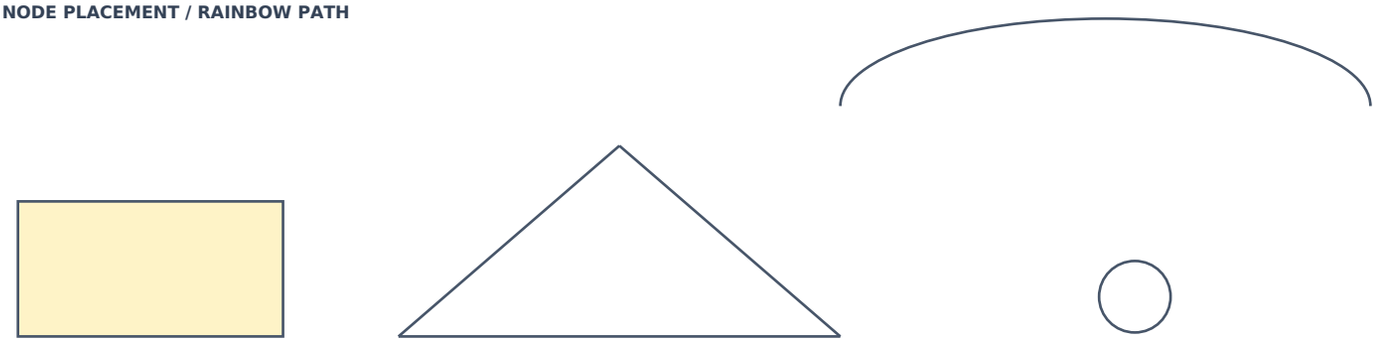
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0008"
state R -> R1
node N1
representation JP(PINK-18-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 8 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering authority.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 9 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD No formula, profile, white paper, Pink Paper, test, passkey, software result, prediction, or successful simulation authorizes a physical operation. Physical dimensions, materials, voltages, currents, temperatures, thrust, torque, range, efficiency, fabrication, installation, launch, flight, vessel o

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0009"
state R -> R1
node N1
representation JP(PINK-18-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 9 INTERNAL PRE-PASSKE
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or emotional value.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 10 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD -> Mermaid reconciliation -> Shiva when capital applies -> MJ permit -> R2 living static evidence -> bounded execution or hold -> JO final receipt 15. Bangel construct mapping Module Defines the profile compilation unit and its independent scope. Namespace Prevents profile parameters, evidence and

PATH OF EXPRESSION

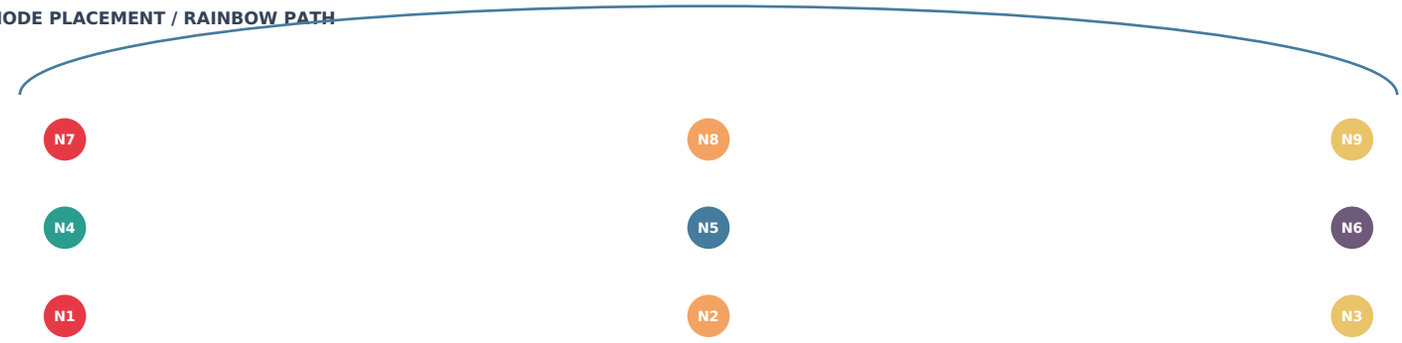
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0010"
state R -> R1
node N1
representation JP(PINK-18-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 10 INTERNAL PRE-PASS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 11 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Adds provenance, evidence ceiling and source references. Directive Controls compilation or review behavior but does not create authority. Block Groups one complete governed scope. Literal Preserves exact values such as the source hash or logical allocation seed. Reference Links immutable IDs, roots

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0011"
state R -> R1
node N1
representation JP(PINK-18-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 11 INTERNAL PRE-PASS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-ROCKET-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 12 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • `F-192` enters at JP representation, receives MK applicability and unit/conservation analysis, JO proof, applicable safety evidence, M3/Mermaid implications, and an MJ permit classification before any effect. • `F-193` enters at JP representation, receives MK applicability and unit/conservation a

PATH OF EXPRESSION

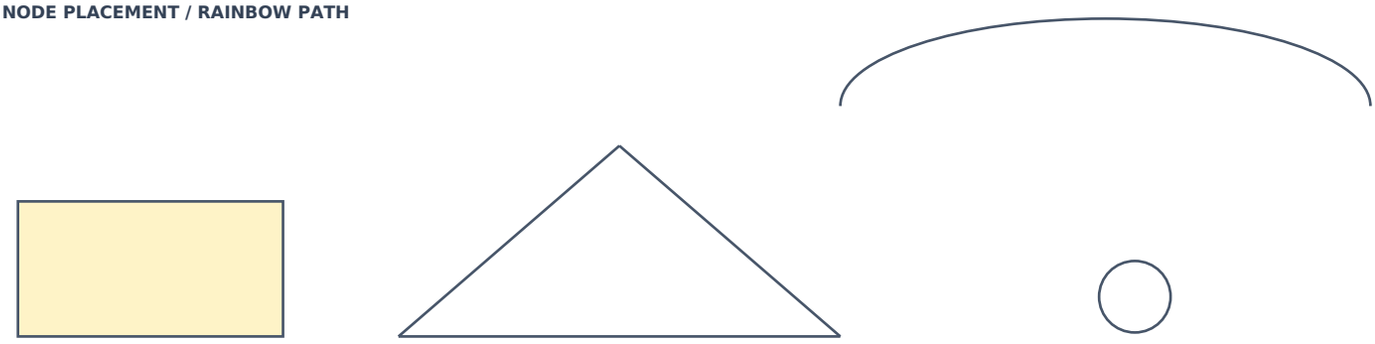
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-18-P0012"
state R -> R1
node N1
representation JP(PINK-18-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-ROCKET-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-ROCKET-001 Page 12 INTERNAL PRE-PASS
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or engineering approval.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 1 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD MJOS Solar Semiconductor Phone Battery and OS Profile Pink Paper - Gateway Expression and Full Lifecycle NOT A PHYSICAL VALIDATION, IP APPROVAL, PRODUCT CERTIFICATION, OR EXTERNAL AUTHORITY RECORD. Build: MJ-PBMEF-DAY0-R7-SOLAR-30K-FINAL Source freeze SHA-256: 6241f3ffaddb335f97fabe809687595bf2c

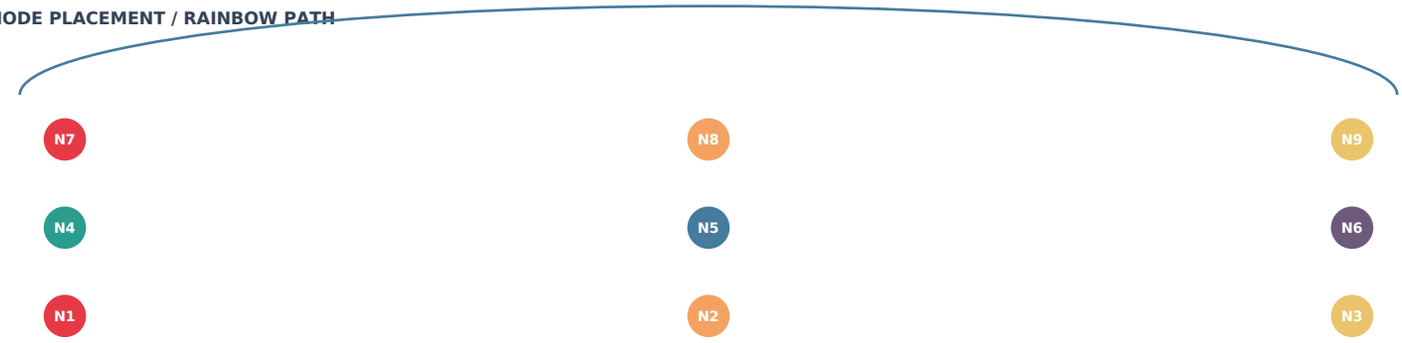
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0001"
state R -> R1
node N9
representation JP(PINK-19-P0001)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 1 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 1 INTERNAL PR
```

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 2 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Pink Paper Gateway and Full-Lifecycle Specification **INTERNAL PRE-PASSKEY TECHNICAL RECORD.** This document does not claim physical validation, product certification, patentability, ownership, freedom to operate, production readiness, launch authority, vessel operation authority, or external ef

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0002"
state R -> R1
node N1
representation JP(PINK-19-P0002)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 2 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 2 INTERNAL PR
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 3 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD 2. `R1`: the unidentified transitionary phase holds unknown variables, environmental state, profile classification, and missing evidence. 3. `N1`: the prediction-first node receives the bounded request and the exact `0.48383829` logical allocation seed where applicable; it is not a physical coor

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0003"
state R -> R1
node N1
representation JP(PINK-19-P0003)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 3 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 3 INTERNAL PR
```

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 4 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD D_E = max(0,E_required,H - E_available,L) A positive deficit creates HOLD/load-shed behavior rather than invented capacity. • Result dimension: `energy` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: types, units, boundaries, conse

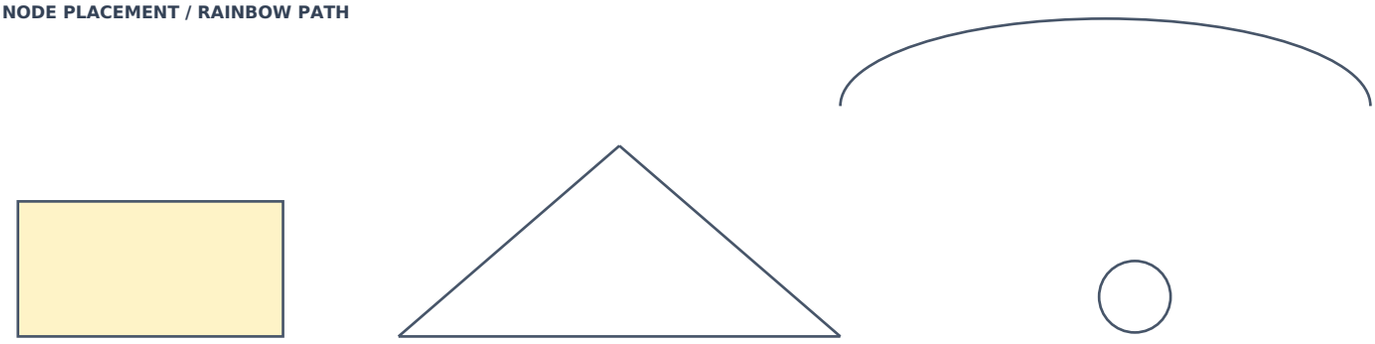
PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0004"
state R -> R1
node N1
representation JP(PINK-19-P0004)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 4 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 4 INTERNAL PR
```

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 5 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • Result dimension: `work_per_energy` • Evidence ceiling: `DESIGN_TRACE_REFERENCE_OR_SIMULATION_UNTIL_PROFILE_SPECIFIC_PHYSICAL_EVIDE • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and negative/fault cases. • MJ effect: `NONE` until a separate

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0005"
state R -> R1
node N4
representation JP(PINK-19-P0005)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 5 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 5 INTERNAL PR
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 6 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • JO proof: types, units, boundaries, conservation, profile separation, uncertainty, authority, and negative/fault cases. • MJ effect: `NONE` until a separate bounded decision exists. 6. Twenty-five design elements SP-01 - phone-scale solar intake This element is represented through JP, classifi

PATH OF EXPRESSION

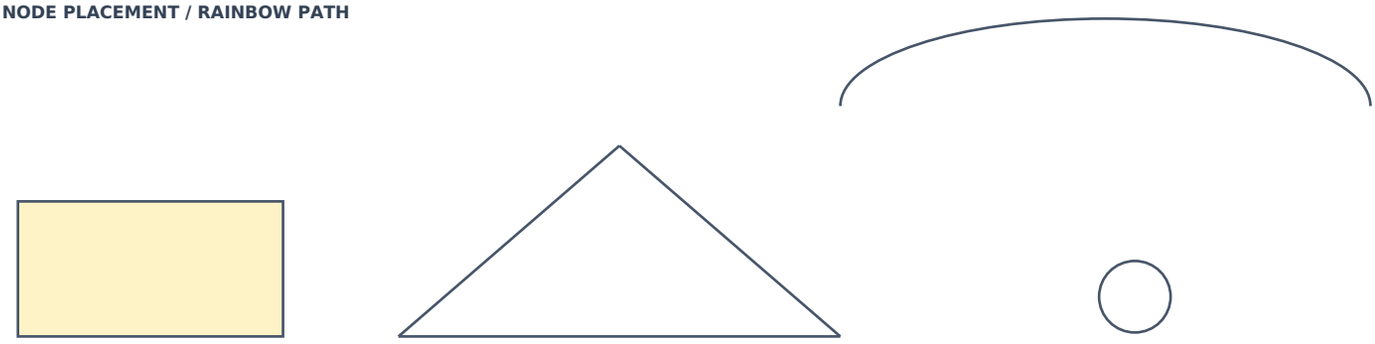
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0006"
state R -> R1
node N1
representation JP(PINK-19-P0006)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 6 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 6 INTERNAL PR
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 7 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD SP-10 - thermal response model This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. SP-11 -

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0007"
state R -> R1
node N1
representation JP(PINK-19-P0007)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 7 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 7 INTERNAL PR
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH

R — R1 — N1 — U — D — C — OUT

Hypothetical until typed evidence, profile geometry, and MJ permit support an effect.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 8 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD SP-20 - low-power wake This element is represented through JP, classified by MK, verified by JO, routed by M3 when resources or handoffs apply, reconciled by Mermaid, evaluated by Shiva when capital applies, and remains subject to MJ authority and the non-weaponization covenant. SP-21 - recovery

PATH OF EXPRESSION

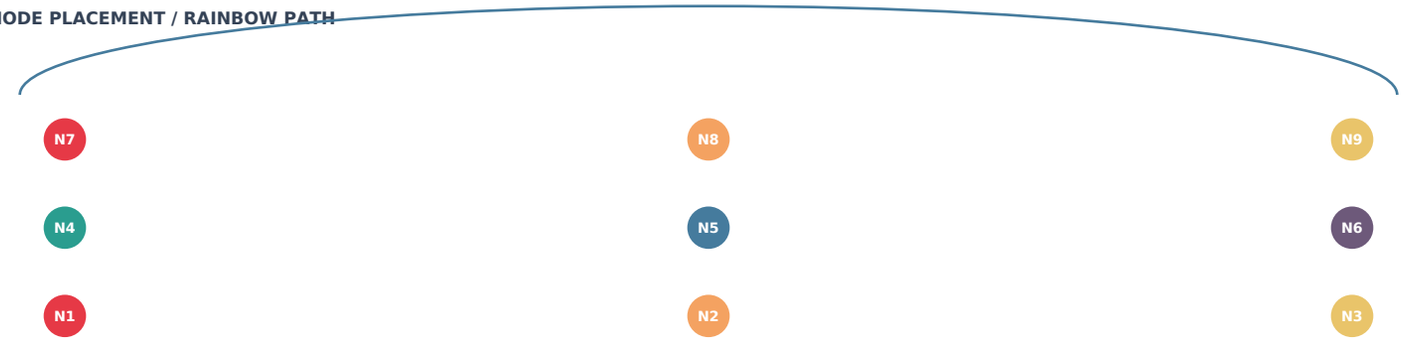
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0008"
state R -> R1
node N1
representation JP(PINK-19-P0008)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 8 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 8 INTERNAL PR
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 9 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD No formula, profile, white paper, Pink Paper, test, passkey, software result, prediction, or successful simulation authorizes a physical operation. Physical dimensions, materials, voltages, currents, temperatures, thrust, torque, range, efficiency, fabrication, installation, launch, flight, vess

PATH OF EXPRESSION

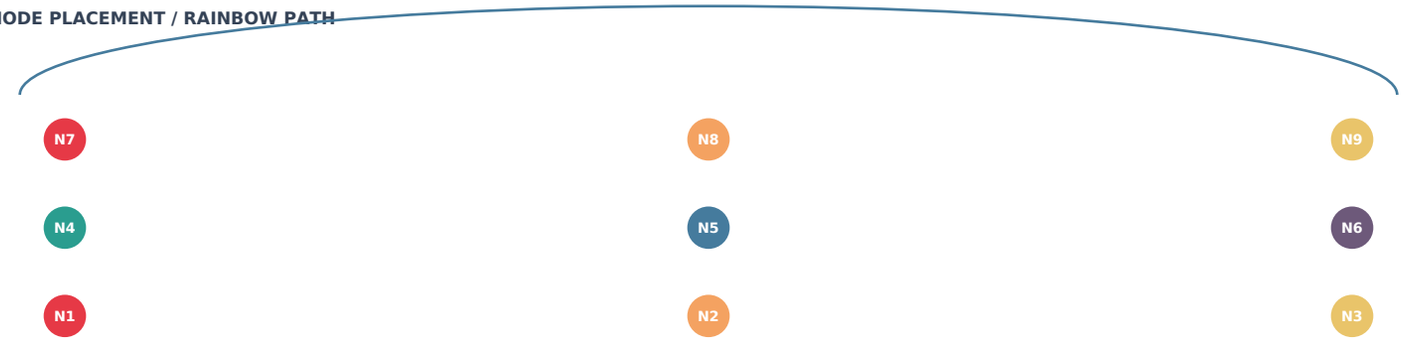
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0009"
state R -> R1
node N1
representation JP(PINK-19-P0009)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 9 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 9 INTERNAL PR
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Primary situational anchor: N1; U/D/C remain profile-specific.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 10 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD -> Mermaid reconciliation -> Shiva when capital applies -> MJ permit -> R2 living static evidence -> bounded execution or hold -> JO final receipt 15. Bangel construct mapping Module Defines the profile compilation unit and its independent scope. Namespace Prevents profile parameters, evidence

PATH OF EXPRESSION

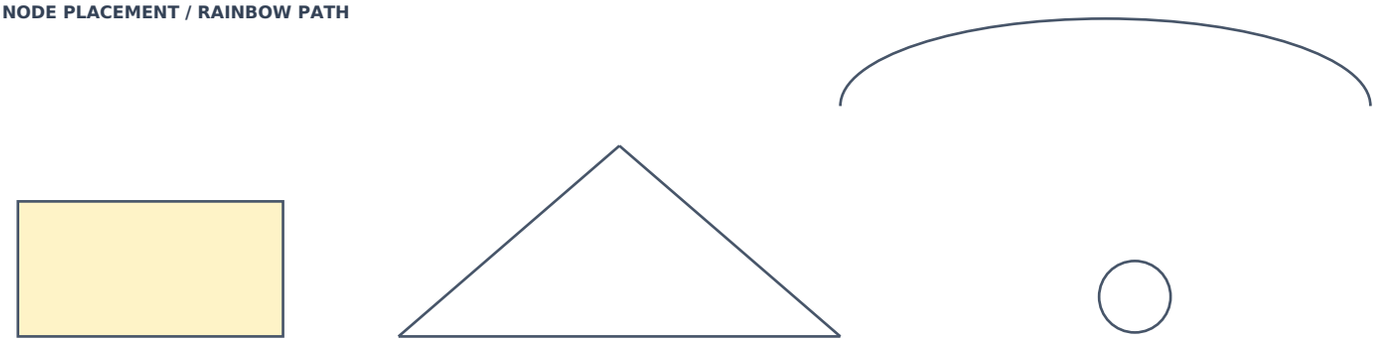
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0010"
state R -> R1
node N1
representation JP(PINK-19-P0010)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 10 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 10 INTERNAL
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or endorsement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 11 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD Adds provenance, evidence ceiling and source references. Directive Controls compilation or review behavior but does not create authority. Block Groups one complete governed scope. Literal Preserves exact values such as the source hash or logical allocation seed. Reference Links immutable IDs, r

PATH OF EXPRESSION

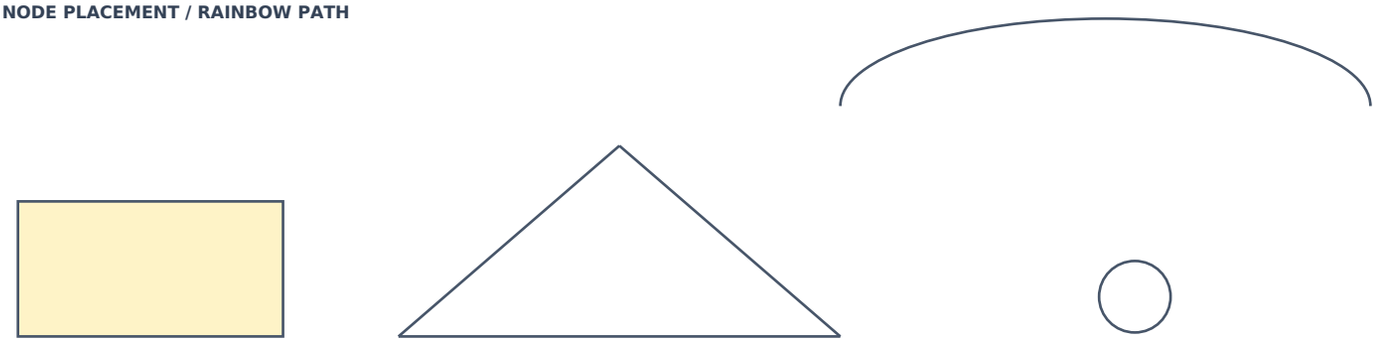
Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0011"
state R -> R1
node N1
representation JP(PINK-19-P0011)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 11 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 11 INTERNAL
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or entitlement.

NODE PLACEMENT / RAINBOW PATH



Rectangle -> cone -> Sister umbrella -> EVE/lake -> next-cycle re-entry.

R STATUS / OBSERVATION

R preserves pre-observational or anticipated state. R1 records an identified but unresolved living observation. N1 is the first prediction-based admission node. R2 may be emitted only after evidence, physics, proof, authority, and claims-ceiling gates pass.

SOURCE RULE / INTENT

Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 12 INTERNAL PRE-PASSKEY RECORD - PHYSICAL AND IP RIGHTS CLAIMS REMAIN HELD • `F-168` enters at JP representation, receives MK applicability and unit/conservation analysis, JO proof, applicable safety evidence, M3/Mermaid implications, and an MJ permit classification before any effect. • `F-169` enters at JP representation, receives MK applicability and unit/conservati

PATH OF EXPRESSION

Human purpose -> MJ scope -> Bangel typing -> Elsa semantic recovery -> JP representation -> MK physics classification -> JO proof -> Angels/Bellatrix/Sister/EVE evidence -> M3 routing -> Mermaid/Shiva when applicable -> MJ bounded decision -> JO evidence.

CODE / MATH / PROCESS REPRESENTATION

```
module MJ.Rainbow.Solar_Pink_Paper_MJOS_SOLAR_
reference "PINK-19-P0012"
state R -> R1
node N1
representation JP(PINK-19-P0012)
physics MK(classify, units, boundary, uncertainty)
verify JO(types, evidence, receipts)
if all_required_gates == PASS:
MJ.permit -> R2 -> bounded_output
else:
HOLD | FAIL_TECHNICAL | DENY
# Pink source SOLAR-PINK-SEMI-PHONE-001.pdf, page 12 of 12. Solar Pink Paper | MJOS-SOLAR-SEMI-PHONE-001 Page 12 INTERNAL
```

Internal reference only. No physical validation, operation authority, product certification, external effect, IP approval, or employment.