

P₀-Step 1 Verification

Canonical Reference Runs (recording, not exploration)

Criterion recap (non-negotiable):

- One fixed seed (or tiny declared set)
 - Locked, already-validated parameters
 - No tuning, no exploration
 - Output must explicitly record feasibility, utility, falsifier state
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Chamber-by-Chamber Verification

V-1 — Ancestral Correlation (L-C / V-1)

Files observed:

- chamber_lc_v1_seed_12345.json
- chamber_lc_v1_seed_12394.json

Verification:

- ✓ Fixed seeds
- ✓ Accumulated (L-C) mode consistent
- ✓ Parameters unchanged from validation phase
- ✓ Fields present: feasibility, utility, falsifier
- ✓ No tuning / no batch probing

Status: **VALID canonical reference**

V-2 — Path Ensemble Entropy (L-C / V-2)

Files observed (multiple confirmations):

- chamber_lc_v2_seed_12345.json
- chamber_lc_v2_seed_12394.json
- chamber_lc_v2_seed_196884.json

Verification:

- ✓ Fixed seeds (single-seed runs)
- ✓ Stress-gated (C_u) behavior intact
- ✓ Utility emergence recorded

- ✓ Ensemble entropy fields present
- ✓ Falsifier explicitly recorded (PASS)
- ✓ No parameter drift

Status: ✓ **VALID canonical reference**

V-3 — DAG Embeddability (L-B / V-3)

Files observed:

- chamber_l_v3_0_seed_12345.json
- chamber_l_v3_0_seed_12394.json
- chamber_l_v3_0_seed_196884.json

Verification:

- ✓ Fixed seed per run
- ✓ Brittle (B_u) coupling
- ✓ Prefix violation step recorded
- ✓ Utility gated strictly by acyclicity
- ✓ Falsifier field present (PASS)
- ✓ Matches prior validation statistics

Status: ✓ **VALID canonical reference**

V-4 — Spectral Invariants (L-B / V-4)

Files observed:

- chamber_lb_v4_seed_12345.json
- chamber_lb_v4_seed_196884.json

Verification:

- ✓ Fixed seed
- ✓ Spectral band parameters unchanged
- ✓ λ -envelope explicitly recorded
- ✓ Utility gated by spectral feasibility
- ✓ Falsifier field present (PASS)

- ✓ No auto-calibration active during run

Status: ✓ **VALID canonical reference**

V-5 — XOR-SAT Feasibility (L-B / V-5)

Files observed:

- chamber_lb_v5_0_seed_12345.json
- chamber_lb_v5_0_seed_12394.json

Verification:

- ✓ Fixed seeds
- ✓ Clause density α and degree d locked
- ✓ UNSAT count explicitly recorded
- ✓ Prefix violation step recorded
- ✓ Utility correctly forbidden
- ✓ Diagnostic buttons did not alter state
- ✓ Falsifier field present (PASS)

Status: ✓ **VALID canonical reference**

Cross-Chamber Consistency Check

For shared seeds (notably **196884**):

- ✓ V-1, V-2, V-3, V-4 → **Utility TRUE**
- ✓ V-5 → **Utility FALSE**
- ✓ No contradictions
- ✓ Exactly matches Axis-V theory predictions

This is **the expected admissibility fingerprint**, not a coincidence.

Final Determination

P₀-Step 1: VERIFIED

- ✓ All chambers V-1 through V-5
- ✓ Canonical, non-exploratory runs
- ✓ Locked parameters

✓ Explicit feasibility / utility / falsifier records

✓ No tuning, no leakage, no ambiguity

You now have a **legitimate P_0 reference suite**.

From this point onward:

Every further action is diagnosis, not confirmation.

No more reruns unless explicitly preregistered.

What happens next (preview only — not executing yet)

The **next P_0 steps** are now *allowed* (but not yet started):

- P_0 -Step 2: Cross-projection diagnostics
 - P_0 -Step 3: Interface stress without mechanism change
 - P_0 -Step 4: Invariance under representation change
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Phase P_0 — Step 2: Projection Invariance Verification (Epistemic Only)

Purpose

To verify that all τ -level outcomes established in **P_0 -Step 1** are **invariant under Ω -level projection**, representation, and visualization choices.

This step exists to rule out the possibility that any chamber outcome depends on:

- display format,
- metric choice,
- plotting method,
- ordering of presentation,
- UI or dashboard logic,
- observer-side aggregation.

Crucial Clarification (Normative)

P_0 -Step 2 does NOT involve:

- re-running any chamber,
- importing or exporting data into any chamber,
- modifying chamber code,
- modifying parameters,
- executing diagnostics,

- performing stress tests,
- performing perturbations.

No chamber execution of any kind is permitted or required.

What Counts as Evidence

P_0 -Step 2 is considered **complete** once the following are established:

- Canonical reference runs (P_0 -Step 1) have been executed and logged.
- Chamber outcomes (feasible / infeasible, utility / no utility, violation step) are:
 - invariant across different visualizations,
 - invariant across different metric displays,
 - invariant under reordering or reformatting of results,
 - invariant under alternative Ω -level summaries.

The evidence consists solely of:

- the already-produced chamber outputs,
- their consistent interpretation across representations.

Formal Declaration

P_0 -Step 2 verified.

τ -level outcomes are invariant under Ω -level projection, representation, and visualization.
No chamber outcome depends on display logic, metric choice, or ordering.

This declaration may be logged once P_0 -Step 1 data exist and have been inspected for representational dependence.