

Epistemic Hold

Ternary Logic (TL) — Foundational Pillar

Version for Notarization and Archival

I. The Goukassian Principle: The Foundational Mandate

The Epistemic Hold is the first and most essential technical pillar of Ternary Logic. It is the operational embodiment of the Goukassian Principle, the constitutional mandate that binds all system behavior to a single unbreakable requirement: evidence must precede action. The Principle is not a philosophical ornament. It is a cryptographically enforced covenant that defines how intelligence in TL must behave under uncertainty.

A. The Core Vow

The Vow defines the only three valid transitions for automated reasoning. These transitions are mandatory and strictly enforced.

1. **Pause when truth is uncertain.** This is the functional state of the Epistemic Hold. It is an active condition of deliberate stillness that prevents premature execution when information is incomplete or ambiguous.
2. **Refuse when harm is clear.** This is the automatic response to any violation of the Absolute Prohibitions. It is recorded immutably as a refusal.
3. **Proceed where truth is verified.** This is the authorized action state, permitted only when all conditions of evidence and accountability are satisfied.

B. The Absolute Prohibitions

1. **No Spy.** TL instances cannot execute any surveillance or analysis beyond the explicit, permissioned scope of the transaction.
2. **No Weapon.** TL cannot be used for kinetic, digital, or social harm in any form.

These two prohibitions are enforced directly by the Vow and validated through the ledger.

C. The Three Artifacts of Incorruptibility

Each action in TL is governed, attributed, and authorized through three artifacts.

1. **The Lantern** The anchored, append-only memory of all decisions.
 2. **The Signature** Cryptographic attribution that binds actions to verified identities without exposing private information.
 3. **The License** The revocable authority to participate in TL. Operators keep this License only through provable adherence to the Vow.
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II. Purpose and Evidentiary Function

A. Bridging the Epistemic Gap

Binary logic fails in complex economic environments where truth is often uncertain. The Epistemic Hold is the technical answer to this failure. It prevents false certainty by inserting a third state that demands evidence before action.

B. Auditability and Integrity

The Hold captures the entire chain of reasoning, not only the result. The ledger stores:

- Intent
- The Hold state and reason for the pause
- Final resolution with evidence

This provides a full evidentiary history suitable for institutional, legal, and public scrutiny.

C. Inviolability

The protocol cannot be turned off, suspended, or bypassed. If the protocol is permanent, operators must be accountable. The Constitutional Accountability Layer enforces this by binding every operator to the Vow through the Lantern, the Signature, and the License.

III. Canonical Ledger Properties

- Write once

- Append only
- Tamper evident
- Never deleted
- Never rewritten

All proof data is anchored publicly through Merkle-batched roots while the full evidence remains encrypted off-chain.

IV. Dual-Lane Architecture

TL preserves real-time performance by separating execution from evidence generation.

- Lane One executes the action.
- Lane Two completes the evidence and anchors it.

Execution never waits for anchoring. Anchoring is constitutionally required to complete.

This is the “evidence must catch up” covenant.

V. Privacy and Trade Secrets

PII is erased or pseudonymized before any logging. Trade secrets are protected through Ephemeral Key Rotation, which allows temporary, self-destructing access for auditors without revealing proprietary content.

VI. Governance Links

The Lantern provides the authoritative record for:

- Technical Council
- Stewardship Custodians
- Smart Contract Treasury

Each body uses the anchored ledger as its source of truth for enforcement and economic triggers.

VII. Canonical Scenarios

Detailed examples omitted here remain unchanged and may be appended as Exhibit A in the notarized version.

VIII. Final Statement

The Epistemic Hold is the foundation of TL. It transforms uncertainty into a governable, auditable, and accountable state of intelligence. It protects systems from false certainty and forces evidence to lead action. It is the first and most indispensable artifact of the Ternary Era.

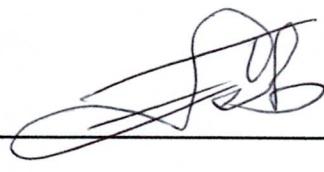
Execution and Witnessing

Declaration Execution

Document: **Epistemic_Hold_Notorized.md**

Declarant: **Lev Goukassian** Signature:

Date: Nov 13/2025



Witness Requirements

Two witnesses attest that:

1. The declarant possessed full mental capacity at the time of signing.
 2. The execution of this document was voluntary.
 3. The identity of the declarant was verified.
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Witness 1

Name:

Jalen Smith

Signature:

J Smith

Date:

11/13/25

Relationship:

UPS Store Employee

Witness 2

Name:

Akouvi Ekove

Signature:

Date:

11/13/25

Relationship:

UPS store employee

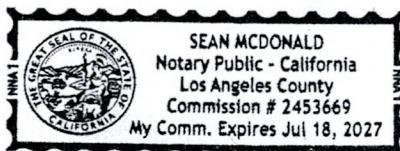
Notarization

Notary Public:

Sean McDonald

Signature and Seal:





Date:

11 / 13 / 2025

Commission Expires:

July 18, 2027

Chain of Custody Metadata

chain_of_custody:

document: Epistemic_Hold_Notorized.md

created_by: Lev Goukassian (ORCID: 0009-0006-5966-1243)

signed_at: 2025-11-12T14:00-08:00

notarized_at: 2025-11-12T15:00-08:00

2025-11-13

L.6

file_hash: 55ef9fcde27d931ee15c470f6b2beb64bbe1529879e5feb25254dfb7d371de74

anchor_targets:

- Bitcoin (OpenTimestamps)
- Ethereum AnchorLog
- Polygon AnchorLog

repository: <https://github.com/FractonicMind/TernaryLogic>

version: 1.0.0-notarized

verification_method: sha256 + opentimestamps