NOVAK PROTOCOL LAWS

Law L1:
Deterministic Rule Execution

The End of Ambiguity

Authoritative Edition

L1 Definition

"Every computation must produce the same output for the same inputs, rules, and environment."

Non-determinism is forbidden.

The Core Equation

NOVAK systems behave like mathematical functions, not opinions.

```
f( Input, Rule, Time ) ≡ Output
```

If you run it today, tomorrow, or in 100 years:

The result must be bit-identical.

L1 Prohibitions

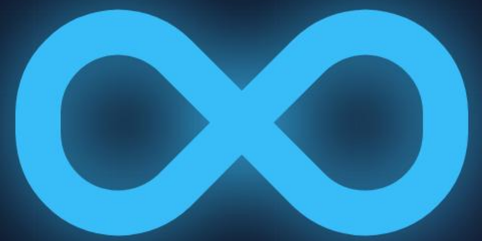
- Randomness / RNG
- Race Conditions
- Hidden State
- Unfrozen External APIs

Any source of variance breaks the HVET hash.

Why Determinism Matters

Without determinism, you cannot have proof.

- **Replayability:** Auditors must be able to re-run the rule.
- **Fairness:** Identical cases get identical results.
- **Hashability:** Variance breaks cryptography.



Implementation: Pure Functions

L1 mandates that rules be implemented as "Pure Functions" (No Side Effects).

"The output depends *only* on the input and the rule."

Ending the Black Box

Legacy System

A "Black Box" where inputs go in, and magic happens. We hope it works.

Unverifiable.

NOVAK System

A "Glass Box" where every step is frozen and visible.

Mathematically Proven.

L1 vs. Artificial Intelligence

AI is naturally probabilistic. L1 forces it to be deterministic.

- **Zero Temperature:** Randomness disabled.
- **Seed Locking:** RNG seeds frozen.
- **Stochastic Branching:** Forbidden in critical paths.

Result

AI Hallucinations become reproducible bugs, not mysteries.

Summary

Determinism

The Foundation of Trust

If you cannot reproduce a decision, you cannot trust it. L1 guarantees that history never changes.

Questions?

NOVAK Protocol Standards Series

Law L1: Deterministic Rule Execution