

Teleport CLF Calculator Documentation

Welcome to the Teleport CLF (Causal Logic Framework) Calculator documentation. This system implements a pure mathematical causal minimality calculator for integer-only file size analysis.

📌 Note

Mathematical Contract: Single-seed CLF: $C_{\min}^{(1)}(L) = 88 + 8 \cdot \text{leb}(L)$ with $H=56$, $\text{CAUS}=27$, $\text{END}=5$ (locked)

Decision Rule: EMIT iff $C_{\min}^{(1)}(L) < 10 \cdot L$ (strict). $\text{leb}(L)$ = unsigned LEB128 byte-length of L (7-bit groups).

Invariants: Integer-only. No compression logic. No floating point. No content scanning. $O(\log L)$ only.

Contents

Overview

The Teleport CLF Calculator is a pure mathematical system that computes causal minimality bounds for file processing decisions. It operates solely on file lengths using integer arithmetic with strict mathematical guarantees.

Key Features

- **Pure Mathematics:** Integer-only operations, $O(\log L)$ complexity
- **Drift-Proof Design:** Comprehensive docstrings and runtime guards prevent mathematical drift
- **Professional Documentation:** Self-documenting codebase with complete API reference
- **Comprehensive Testing:** Full unit test coverage of mathematical boundaries
- **Multiple Interfaces:** Command-line tool and Python library
- **Export Capabilities:** Console, JSONL, CSV, and audit formats

Mathematical Foundation

The core formula is: