Fourth Invariant Dimensionless Framework (FIDF). This document is ordered by procedural priority, moving from the Observer down into the internal recursive engine.

FIDF: Fourth Invariant Dimensionless Framework

Technical Operating Specification

LAYER 0: The Human Observer (The Temporal Anchor)

Priority: Primary

Before the system can exist, the Sampling Interval (Δt) must be defined. This is the "Refresh Rate" (X) at which the Human chooses to experience and measure the system.

* Logic: The system itself is time-independent; it only processes state transitions. Time is an external constraint imposed by the observer.
* The Initialization: You must define the duration and the granularity (e.g., "Measure a 10-year span at 1-minute intervals").
* Constraint: If the Sampling Interval (Δt) changes, the entire framework resets. You cannot compare data across different temporal resolutions because the reconstruction fidelity changes with the refresh rate.

LAYER 1: The Stability Triangle (The Internal Engine)

Once the time frame is locked, the system enters a Recursive State Reconstruction loop.

Phase 1: RSR (Recursive State Reconstruction)

* Function: The "Foreground Signal."
* Process: The system generates a reconstruction ($\hat{R}$) of the previous state.
* Goal: Measure the fidelity between the current input and the reconstruction. This is the first "check" on the system's soul/health.

Phase 2: LTP (Layer Transition Principle)

* Function: The "Structural Boundary."
* Process: Verify if the current layer of representation has enough Structural Support (ℓ) to handle the Compression Demand (d) required by the RSR.
* Goal: Determine if a mandatory descent is required to prevent collapse.

Phase 3: RLE (Recursive Loss Equation)

* Function: The "Capacity Metric."
* Process: Calculate the Retained Invariant surviving the transition.
* Goal: Quantify the hidden loss (Λ) and entropy generated by the move from n to n+1.

LAYER 2: The Logic Gate & Recursive Loop

The system does not simply end; it evaluates its state to decide the next action. This is the Conditional Logic Gate that governs the recursion.

The IF-THEN-ELSE Operator

At the conclusion of the RLE phase, the system executes a nested logic check:

```
IF (System_Efficiency == 1.0) THEN:
    GOTO RSR (Continue Loop)
ELSE IF (System_Efficiency < 1.0) THEN:
    TRIGGER (LTP_Descent)
    GOTO RSR (Rebuild from Lower Layer)
ELSE IF (External_Time_Reset == TRUE) THEN:
    EXIT LOOP
    GOTO LAYER 0 (Framework Reset)
```

LAYER 3: The Universal "For-Loop"

The entire system operates as a continuous For-Loop nested within the Time Frame established at Layer 0.

* The Path: The loop cycles through RSR → LTP → RLE.
* The Exit: The only way to exit the internal loop is if the Time Variable expires or is modified by the human.
* The Reset: Changing the "Refresh Rate" (X) kills the current loop and forces a return to the very start of the document (Layer 0) because the "Resolution" of the reconstruction has changed.

Technical Summary of FIDF Flow

* Set Time Measure (\Delta t): Human defines the window of existence.
* State Reconstruction (RSR): System attempts to see itself.
* Boundary Check (LTP): System checks if its "bones" can hold its "sight."
* Capacity Check (RLE): System measures how much it lost in the process.
* Evaluate: Logic gate checks for 1.0 Unity.
* Recurse: Loop back to Step 2.
* Reset: If Human changes Step 1, the loop breaks and the world restarts.

This is the FIDF Unified Manual. It is a purely logical, engineering-grade recursive system.