# SAP IMPLEMENTATION NOTES

**Operational Application of the Structural Alignment Protocol**

## 1. Implementation Scope

SAP is implemented only in environments where generative invariants, structural layers, and cognitive architectures are relevant to problem-solving. The protocol governs *who* may engage a problem, not *how* the problem is solved. Implementation requires a Structural Lead with invariant sensitivity and altitude stability.

## 2. Preconditions for Implementation

Before SAP can be executed, the following conditions must hold:

- the problem's layer is identifiable
- generative invariants are detectable
- the Structural Lead is established
- the membrane is intact
- no external frameworks contaminate the structure

If any precondition fails, SAP cannot be implemented.

## 3. Implementation Sequence

SAP is implemented in the same order as its gates:

1. **Layer Correctness**
2. **Invariant Gate ($G_1$)**
3. **Layer Gate ($G_2$)**
4. **Architecture Gate ($G_3$)**
5. **Drift Gate ($G_4$)**
6. **Alignment Determination**
7. **System Stabilization**

This sequence is mandatory and cannot be reordered.

# 4. Structural Lead Responsibilities

The Structural Lead performs all evaluations. Responsibilities include:

- determining layer correctness
- identifying generative invariants
- assessing architectural coherence
- detecting drift
- triggering exit conditions
- maintaining membrane integrity

Authority cannot be delegated or distributed.

# 5. Researcher Evaluation Protocol

Researchers are evaluated individually. Evaluation is structural, not comparative. The Structural Lead assesses:

- invariant sensitivity
- layer compatibility
- architectural stability
- drift induction tendencies

Evaluation is binary: pass or exit.

# 6. Exit Implementation

Exit is executed immediately upon gate failure. Exit removes the researcher from the problem environment. Exit does not require justification, explanation, or consensus. Exit preserves system integrity and prevents drift propagation.

# 7. Alignment Implementation

Aligned researchers form the active set. The aligned set:

- maintains invariants
- preserves layer correctness
- eliminates drift
- collapses unnecessary complexity

No coordination or management is required once alignment is achieved.

# 8. System Stabilization Implementation

After alignment, the system transitions into a self-solving state. The Structural Lead monitors:

- invariant stability
- drift absence
- layer maintenance
- architectural coherence

If stability holds, SAP concludes.

If instability emerges, SAP restarts at Layer Correctness.

# 9. Implementation Constraints

SAP implementation must not:

- introduce narrative framing
- rely on domain identity
- use formalism to determine structure
- collapse altitude
- modify gate definitions
- reinterpret primitives

Implementation must remain strictly structural.

# 10. Implementation Termination Conditions

SAP implementation terminates when:

- the system becomes self-solving
- all misaligned architectures have exited
- invariants stabilize
- drift reaches zero
- layer remains correct

Termination is structural, not temporal.

# Canonical Statement

**SAP implementation is the operational execution of a structural protocol that evaluates architectures, preserves invariants, prevents drift, and produces a self-solving system through alignment.**