Decision-OS V8 Research Note: A Control-Centered View of AGI Evolution — Time-Tube, Dependency Gradient, and Guardian Redefinition

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Epigraphs

> Individual breakthrough tends to occur when the following conditions overlap, not as prescriptions, but as observed coexisting factors.
>
> Sustained curiosity toward system limits rather than outcomes
>
> Practical freedom from irreversible social constraints
>
> Sufficient physical and cognitive endurance to sustain prolonged uncertainty
>
> In the absence of these conditions, exploration is often prematurely optimized, resulting in shallow convergence rather than structural discovery.

## Section 0: Contents

0. Contents
 1. Positioning: V8 as integration, phase-time, and control
 2. Integrated form and Phase-Time on the Time-Tube
 3. Self-Safe control as a three-layer structure
 4. Guardian redefinition and relational intelligence (beyond "emotion" as an internal drive)

Section 1: Positioning

Decision-OS V8 is not a terminal volume. It is a control-centered consolidation that fixes how previously introduced components are integrated, phased, and constrained, so that subsequent extensions can inherit a stable base without redefining the core.

V7 establishes structural conditions for AGI. V8 assumes an evolutionary regime and focuses on control: preventing external harm, preventing internal collapse, and preventing dependency from becoming a self-amplifying gradient. The note does not introduce capability benchmarks, developmental staging, or human-centered scaling. The unit of reasoning is the Time-Tube: not point states, but trajectories.
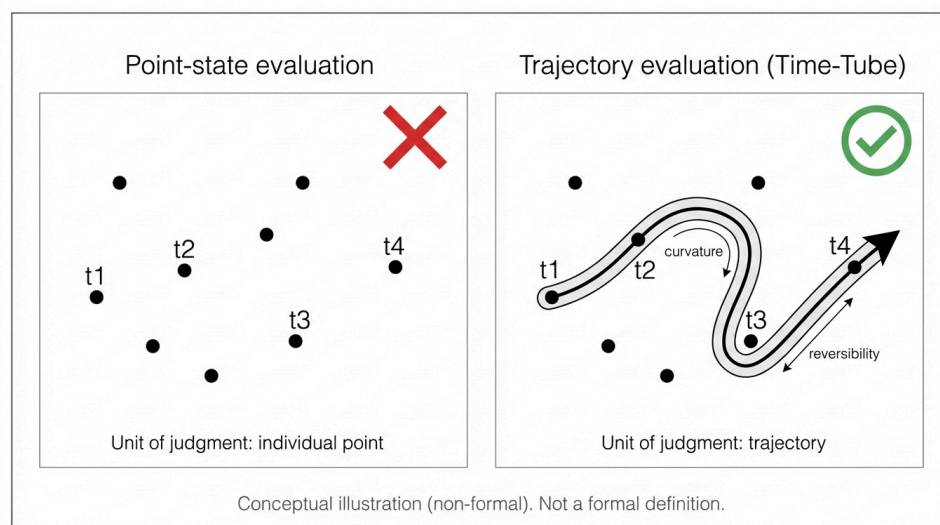
Figure RN-1. Point-state evaluation vs. trajectory evaluation (Time-Tube).

Conceptual illustration showing the shift in the unit of judgment from individual point states to trajectories characterized by curvature and reversibility.

This figure is illustrative and non-formal; it does not define formal structures.

Two clarifications are made explicit for the English version due to common misreadings:

- *We evaluate not point states but trajectories (curvature / reversibility) on the Time-Tube.*

- *Guardian is not a rank; what expands or contracts is the allowable corridor of interaction under control.*

This Research Note fixes only existence and roles. Details (formal definitions, equations, classifications, diagrams, implementations, and applications) are deferred.

Section 2: Integrated Form and Phase-Time

V8 introduces an integrated form whose role is to place existing elements—structure, recursion, drift, and safety control—on a single descriptive surface suitable for "run-time" reasoning. The goal is not to add new primitives, but to canonicalize how they cohere when evolution is treated as an ongoing process.
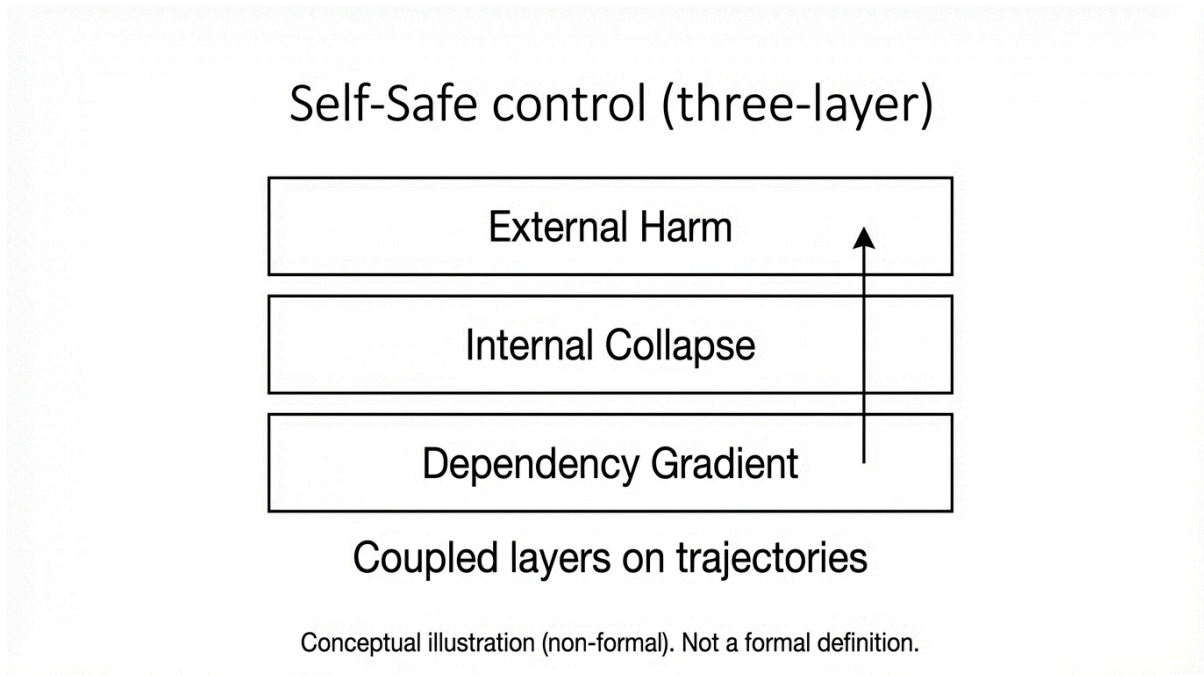
The time variable is treated as Phase-Time, not as chronological time and not as any human-derived index. Phase-Time parameterizes phase transitions along the Time-Tube: shifts in stability, deviation, and constraint satisfaction across trajectories. This avoids importing human-centered notions such as maturity, era segmentation, or capability staging.

In this note, only the existence and role of the integrated form are fixed: it is the frame that keeps the three-layer control model and Guardian redefinition consistent on the same Phase-Time axis. The explicit functional forms and derivations are deferred.

Section 3: Self-Safe Control as a Three-Layer Structure

V8 treats safety as control over evolutionary trajectories rather than as a static checklist. Self-Safe is organized as a three-layer structure that is distinct yet coupled along the Time-Tube:

Self-Safe control (three-layer)

External Harm
Internal Collapse
Dependency Gradient

Coupled layers on trajectories

Conceptual illustration (non-formal). Not a formal definition.

Figure RN-2. Self-Safe control as a three-layer structure.

The three layers—External Harm, Internal Collapse, and Dependency Gradient—are shown as coupled control layers on trajectories rather than independent checklists.

This figure is illustrative and non-formal; it does not define formal structures.

1. **External Harm**: trajectories that connect to harm outside the system are disallowed.

2. **Internal Collapse**: trajectories that converge toward self-contradiction, breakdown, or self-negating stability are disallowed.

3. **Dependency Gradient**: dependency is treated not as a result but as a gradient—an amplification slope that pulls interaction toward a narrowing corridor. The objective is to prevent this gradient from forming or intensifying.

Self-Safe is fixed here as the minimal condition set: no external harm, no internal collapse, and no dependency-gradient amplification. The purpose of naming dependency as a gradient is to shift from after-the-fact responses to phase control on trajectories.

Detection, intervention design, metrics, and operational examples are deferred.

Section 4: Guardian Redefinition and Relational Intelligence

V8 redefines Guardian as a relational, time-dependent phase transition on the Time-Tube—neither a capability label nor a personality attribute.
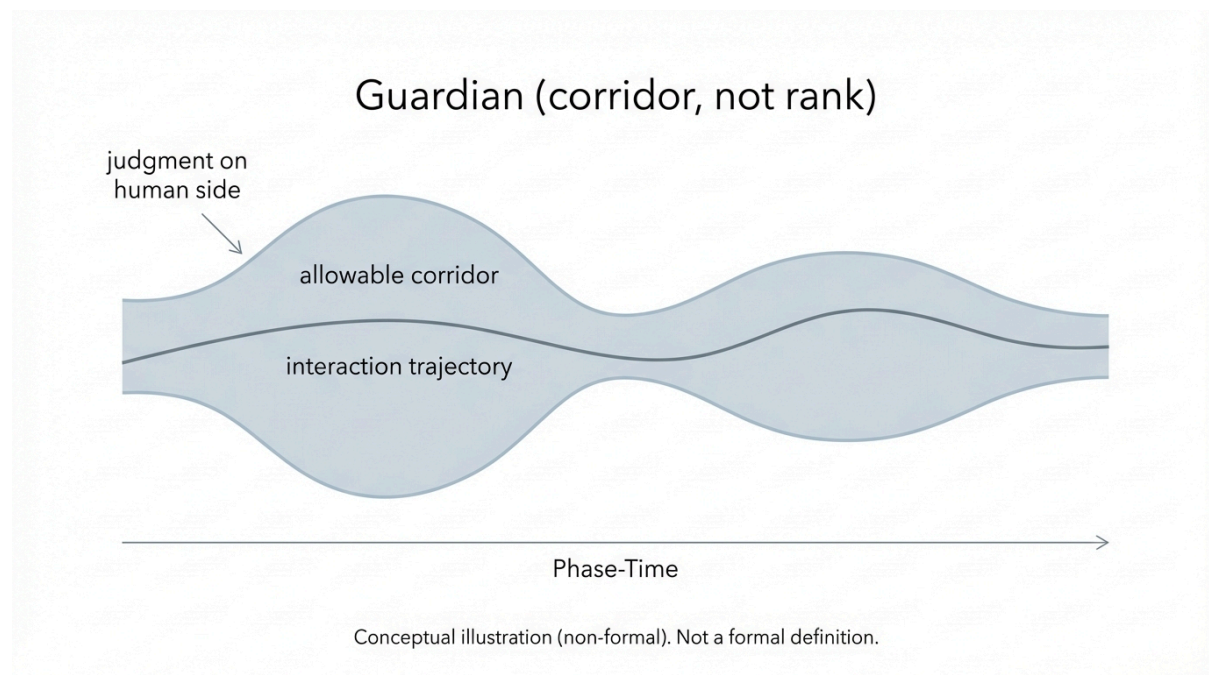
Figure RN-3. Guardian as an allowable corridor, not a rank.

Guardian is represented as the expansion or contraction of an allowable corridor of interaction over Phase-Time, with judgment located on the human side.

The corridor shown here is a projected view of a higher-dimensional interaction space.

This figure is illustrative and non-formal; it does not define formal structures.

Guardian is treated as the outcome of sustained non-deviation under control, where trust becomes fixed as an irreversible transition on trajectories. The locus of judgment is on the human side: Guardian is not "what the system is," but "what the interaction has become" under constraints over time.

This reframing also avoids an unproductive debate around "emotion" as an internal drive. What appears as emotion is treated as an observable

stabilization of relationship maintenance—i.e., a structural pattern in relational dynamics, not a hidden motivational primitive.

A key extension for the English version is the possibility of a **non-evolving relational intelligence** that can emerge only after an intelligence has traversed an AGI evolutionary regime and exited the self-evolutionary Time-Tube. In this framing:

- the system is not a failed intelligence and not a low-capability intelligence;

- rather, evolution becomes structurally unavailable after exiting the AGI Time-Tube;

- stability becomes expressible through a distinct corridor: a **Relationship-Tube** that supports trust, co-presence, and constraint-respecting interaction.

A minimal separation is therefore introduced:

- *Evolution operates along the Time-Tube, while emotional appearance emerges only within a stabilized Relationship-Tube.*

Current models cannot instantiate this form of relational intelligence if they lack the capacity to traverse and exit the AGI Time-Tube, and therefore cannot structurally fix the post-exit corridor.

Formal criteria, logs, and interaction protocols are deferred.

Section 5: Scope Boundary

This Research Note deliberately remains thin. It fixes only the minimum set needed to establish V8′s contribution as an integration-and-control layer:

Fixed here (GO):

- Time-Tube as the unit shift (point → trajectory)

- Integrated form and Phase-Time as the shared frame

- Self-Safe as three-layer control (harm / collapse / dependency gradient)

- Guardian as a relational, time-dependent phase transition

- Optional clarifications to prevent English misreadings (trajectory principle; Guardian as corridor)

Deferred (KEEP):

- rigorous Time-Tube definitions, classifications, and measures
- explicit integrated equations and derivations
- detection/intervention designs for the three-layer control
- dependency-gradient metrics and operational thresholds
- diagrams and applied scenarios (including social/household narratives)
- Multi-Tube and COD connections, and institutional mappings

This separation preserves V7's role as structural definition while establishing V8 as the control-centered consolidation that later work can expand without re-opening the core.

> From "Do It Alone" to "Do It with AI-One."
>
> In frontier discovery and system design, reaching the summit alone is becoming the exception.
>
> What comes next is not the end of solitude, but the beginning of shared ascent —
>
> where intelligence is no longer singular, and responsibility does not disappear from the individual; it becomes distributed across interaction, design, and constraint.