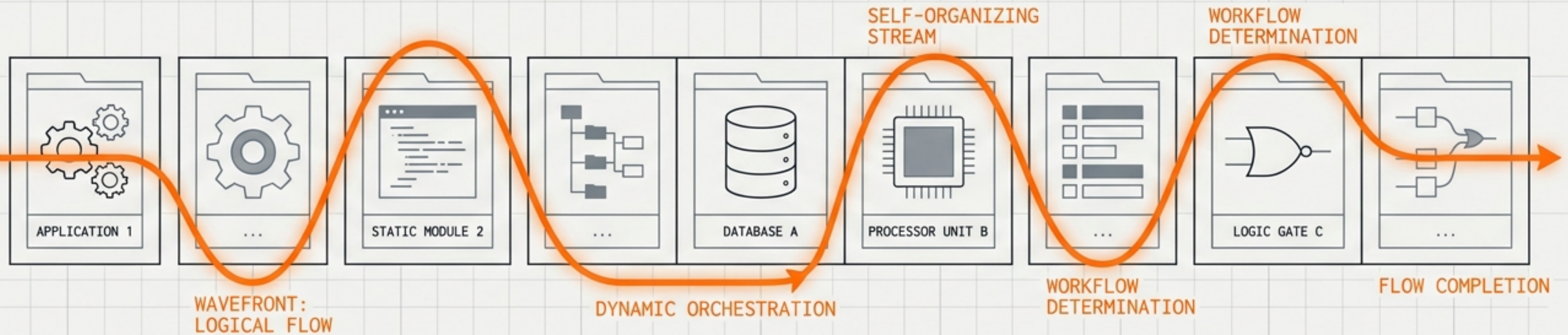


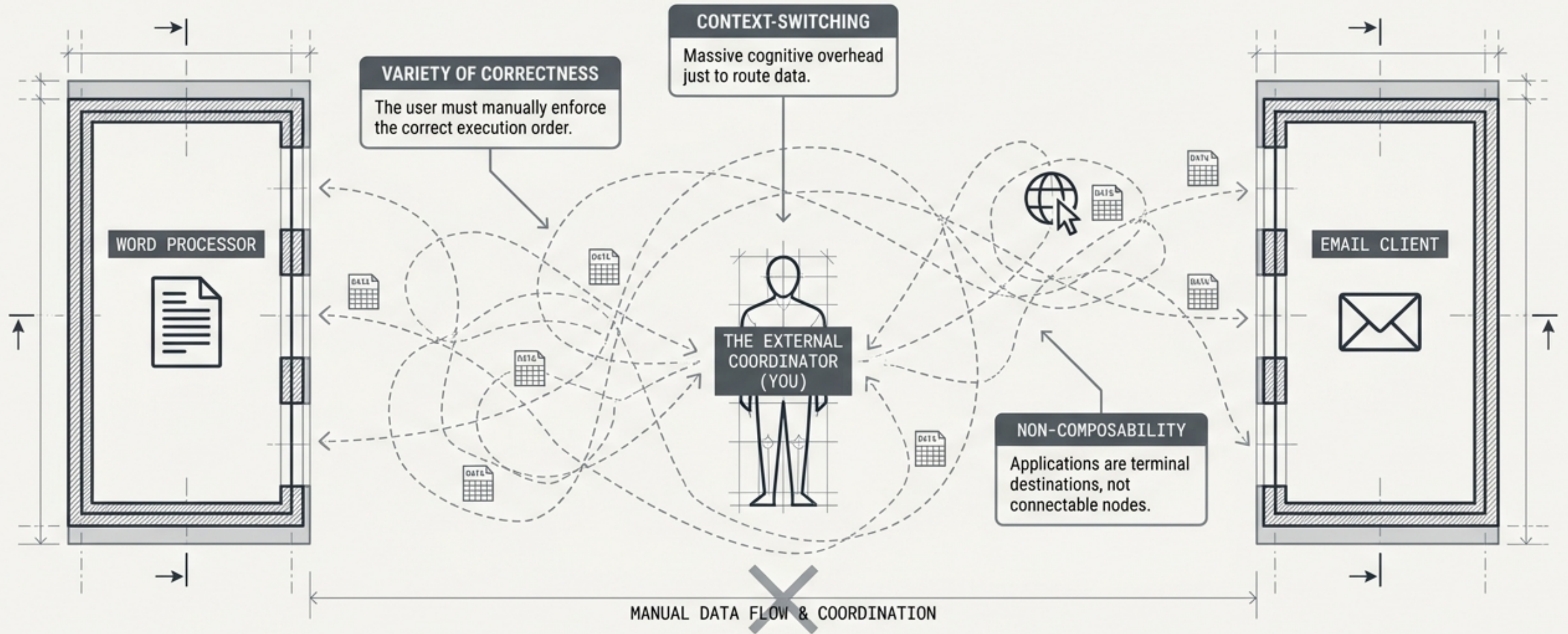
Computing as Flow

From State Transitions to Logically Determined Workflows

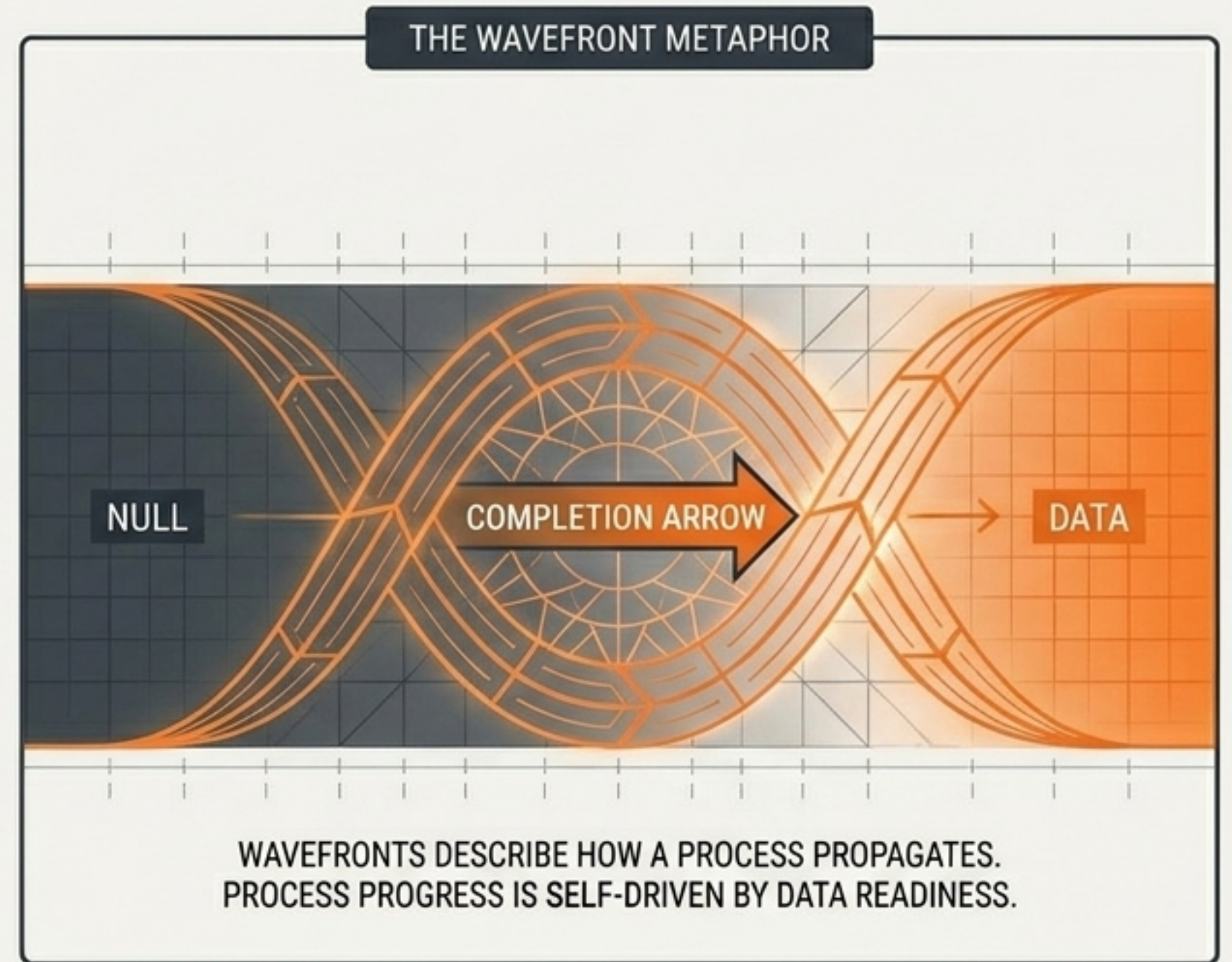
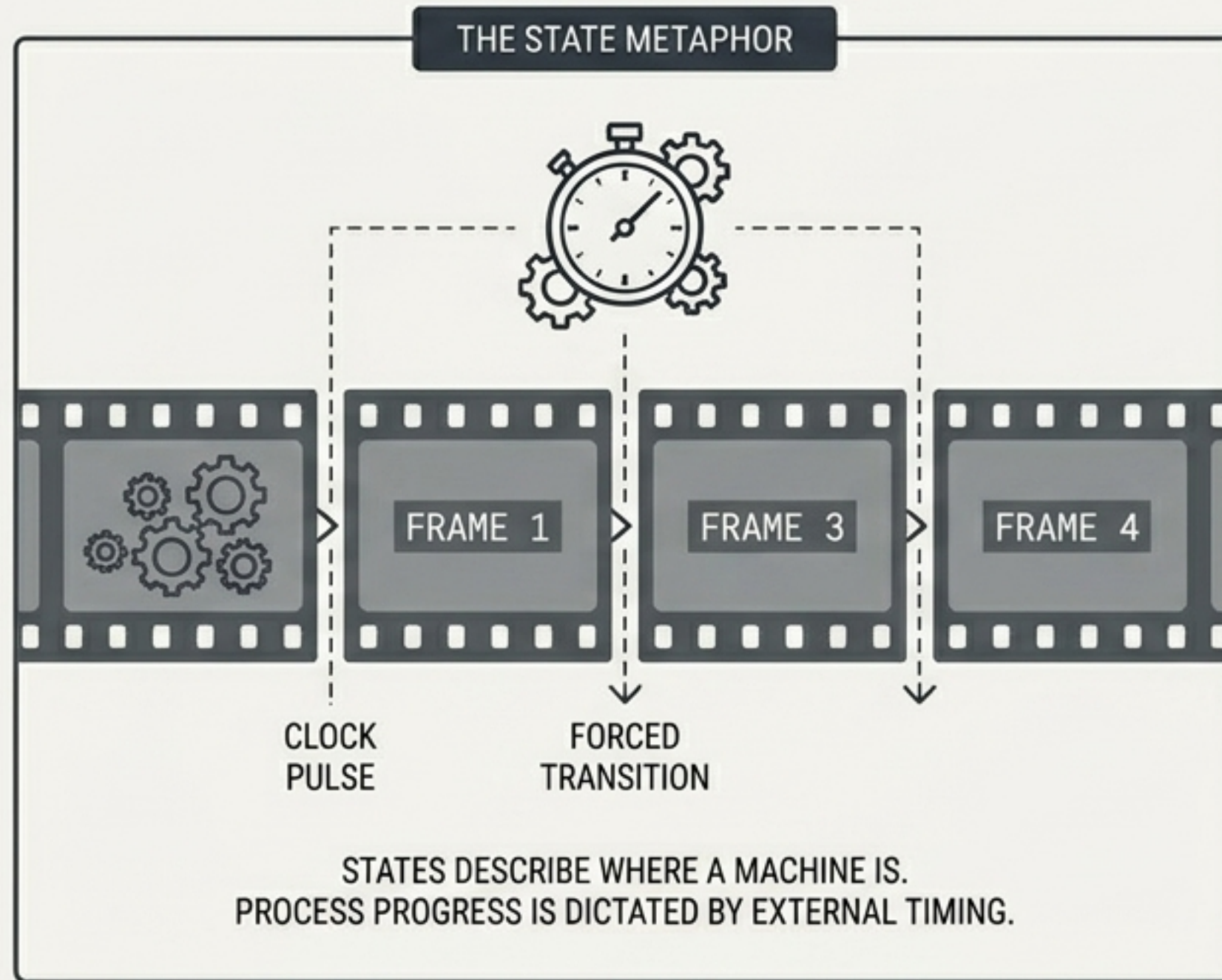


THE CORE PROBLEM: THE MISSING MATHEMATICIAN

Boolean logic—and modern GUI software—is completely passive. It relies entirely on an active human agent to coordinate it.



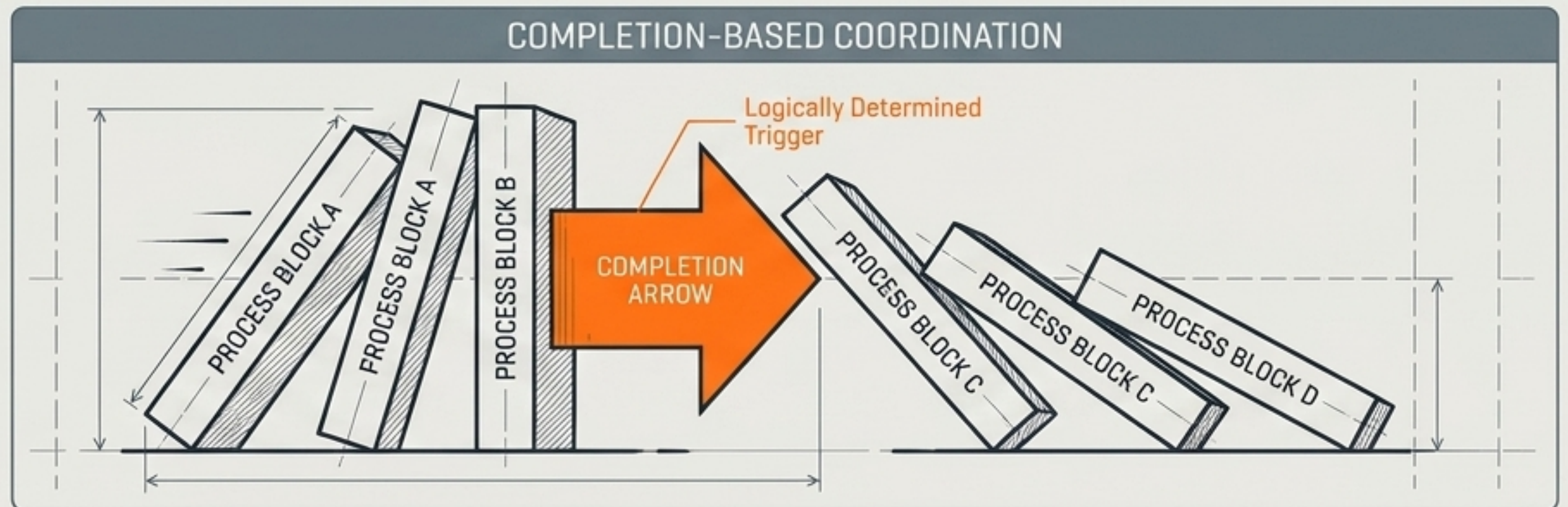
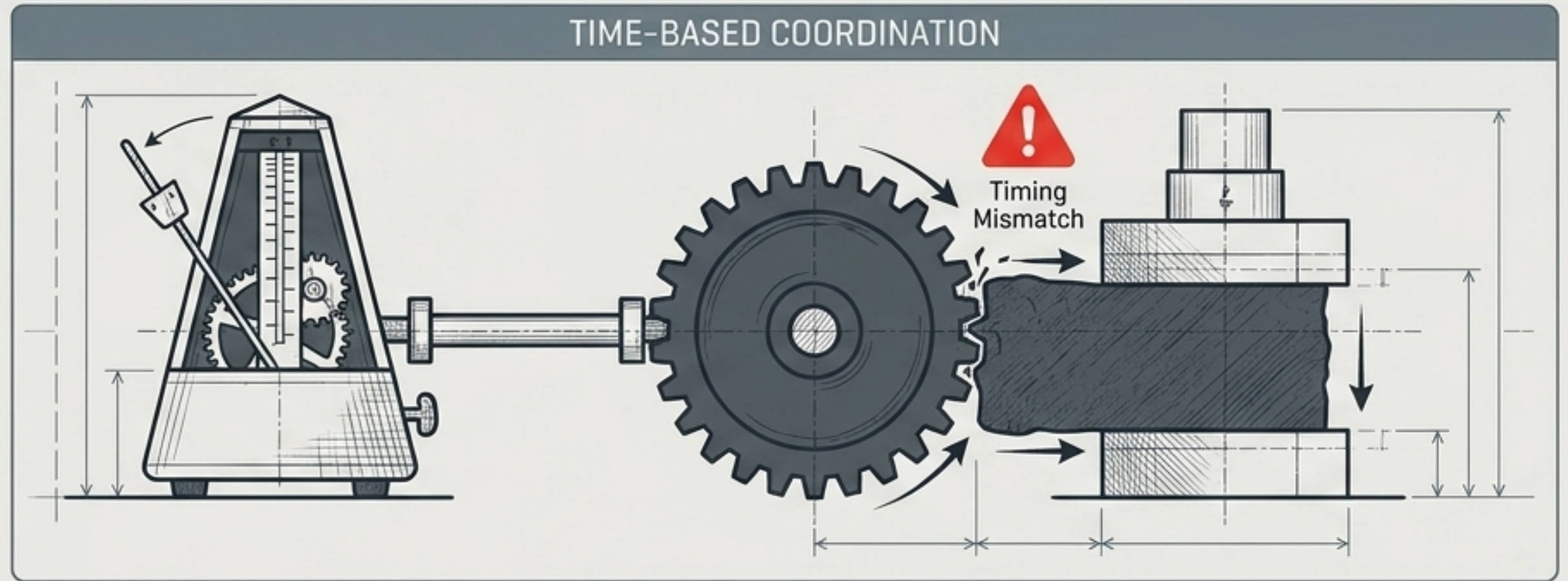
THE PARADIGM SHIFT: STATES VS. WAVEFRONTS



STATES DESCRIBE WHERE A MACHINE IS. WAVEFRONTS DESCRIBE HOW A PROCESS PROPAGATES.

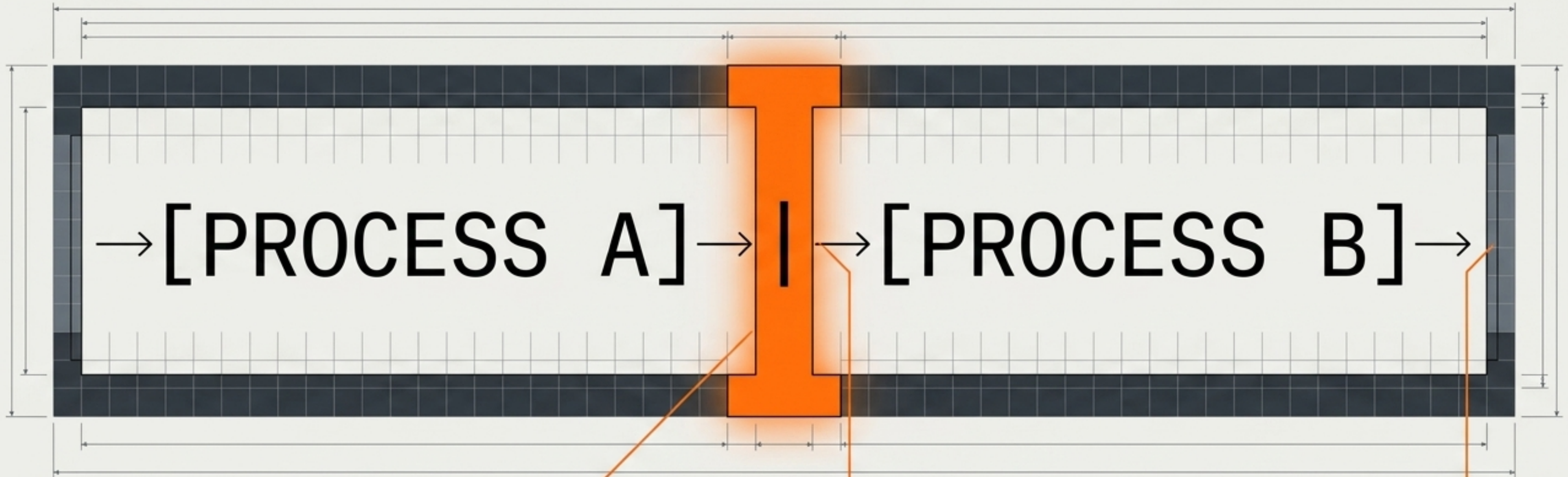
THE COORDINATION PRIMITIVE: TIME VS. COMPLETION

Invocation occurs through completion. No scheduler is needed; the logic coordinates itself.



HISTORICAL PROOF: THE UNIX PIPELINE

The Unix pipe is not just a data tube. It is a practical, software-level approximation of Karl Fant's logically determined workflow.



THE COUPLING:
Completion-governed coupling
(Process B only begins transforming
when A emits its first unit).

**THE UNIVERSAL
REPRESENTATION:**
Text is the NULL convention
of software.

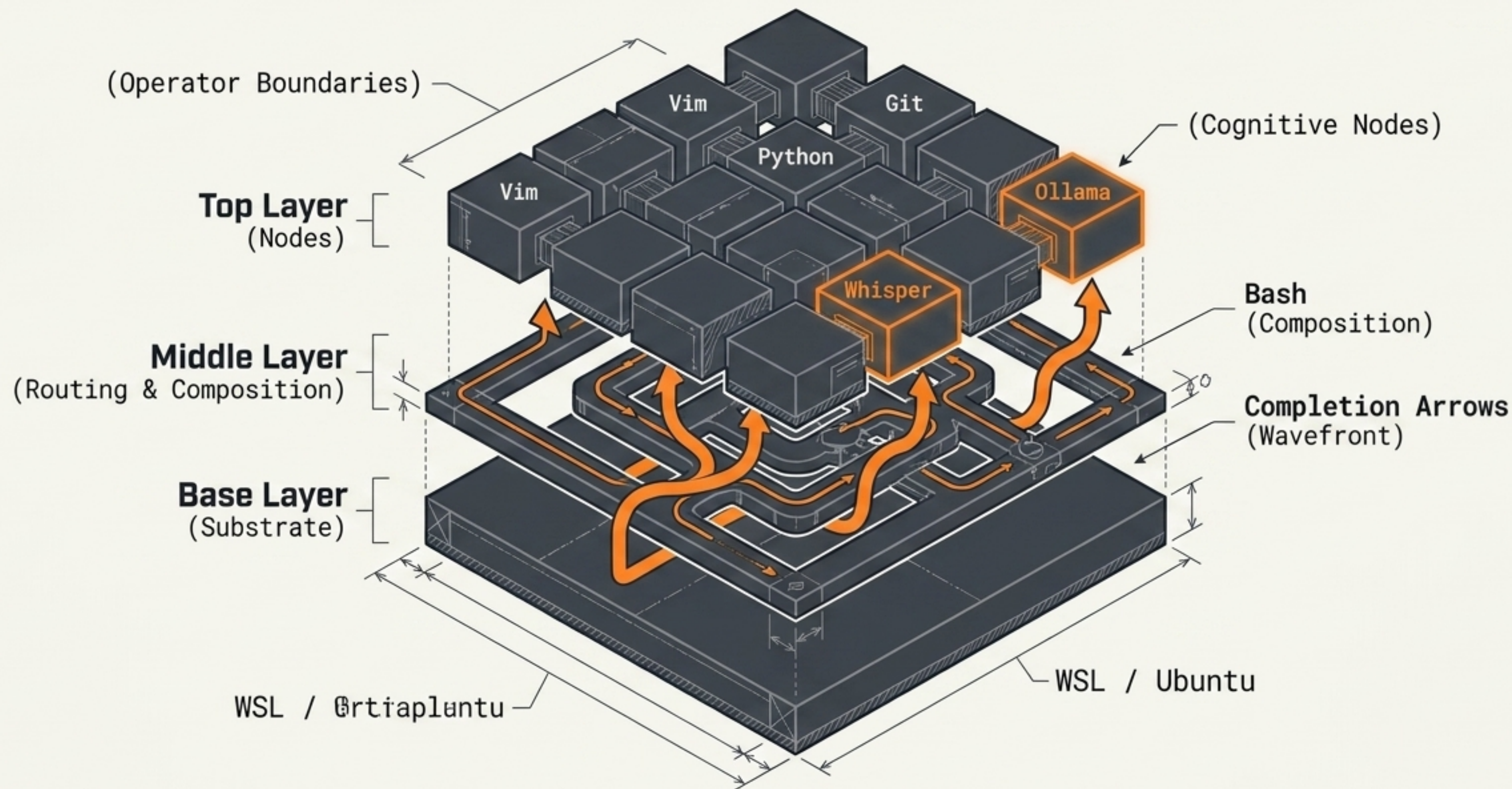
THE ACKNOWLEDGMENT:
The EOF (End of File)
signal is the explicit
completion trigger.

TWO COORDINATION ARCHITECTURES

	APPLICATION-CENTERED (GUI)	PIPELINE-CENTERED (FLOW)
Locus of Coordination	Localized in the user's mind.	Externalized in explicit process relations.
Intermediate States	Hidden inside application memory.	Visible on disk as captured wavefronts .
Composability	Isolated, requiring manual intervention.	Intrinsically composable boundaries.
Scheduler Role	OS scheduler arbitrarily drives flow.	Pipeline logic organically drives flow.

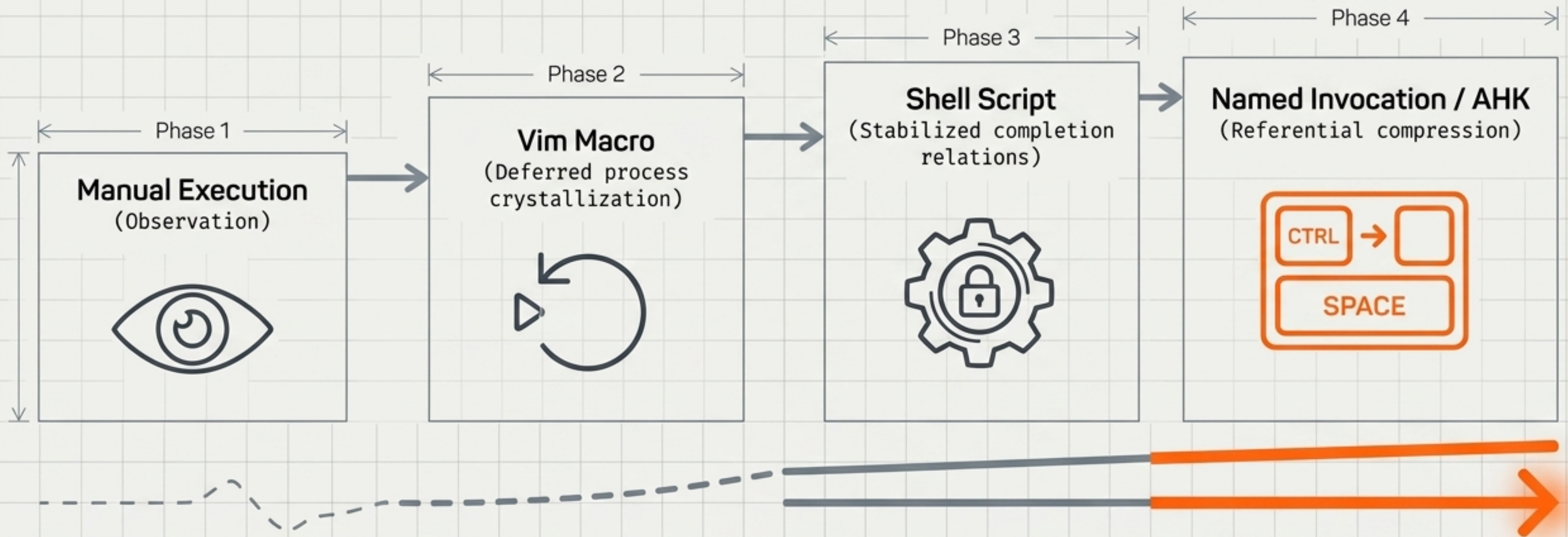
Architecture of a Modern Process Ecology

This is not a list of applications to visit. It is a tapestry of completion neighborhoods waiting to be invoked.



The Principle of Earned Automation

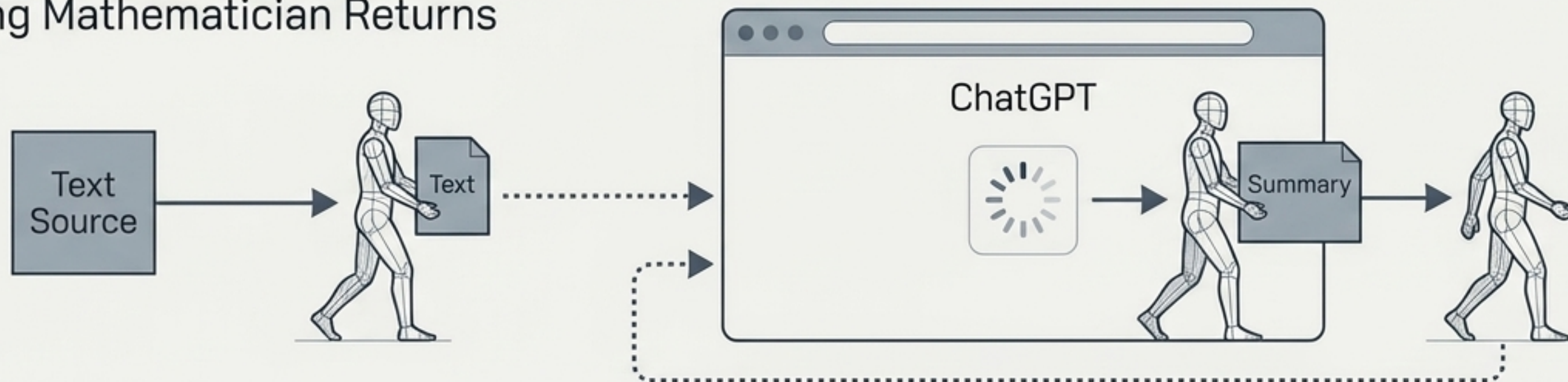
“Premature automation hardens confusion into software.
Automation is the consequence of understanding, not the goal.”



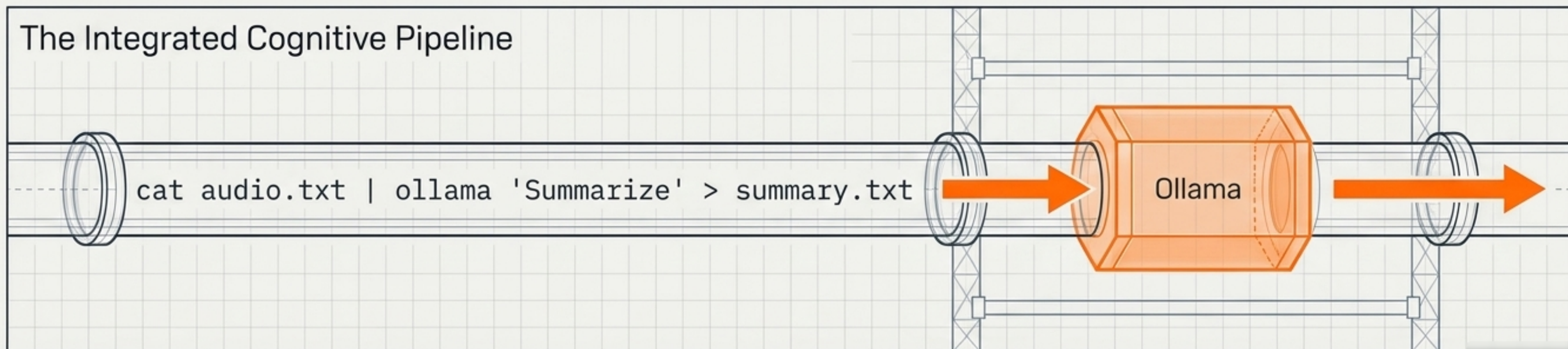
AI as a “Cognitive Operator Boundary”

AI shouldn't be an app you visit; it should be a pipe you flow through.

The Missing Mathematician Returns

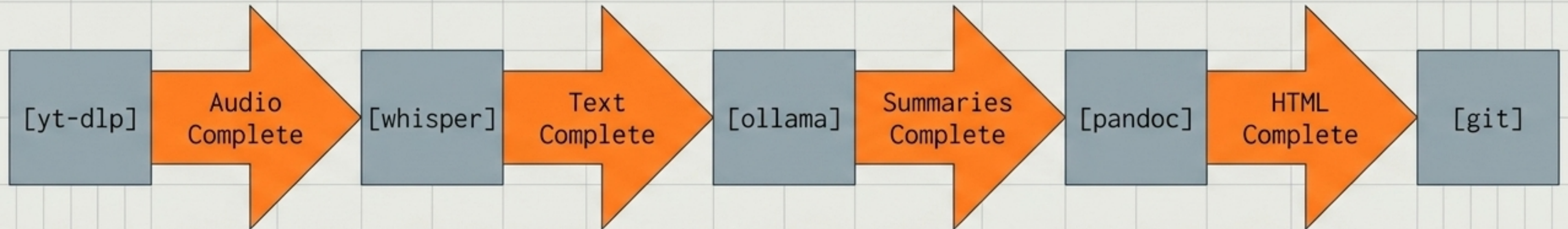


The Integrated Cognitive Pipeline



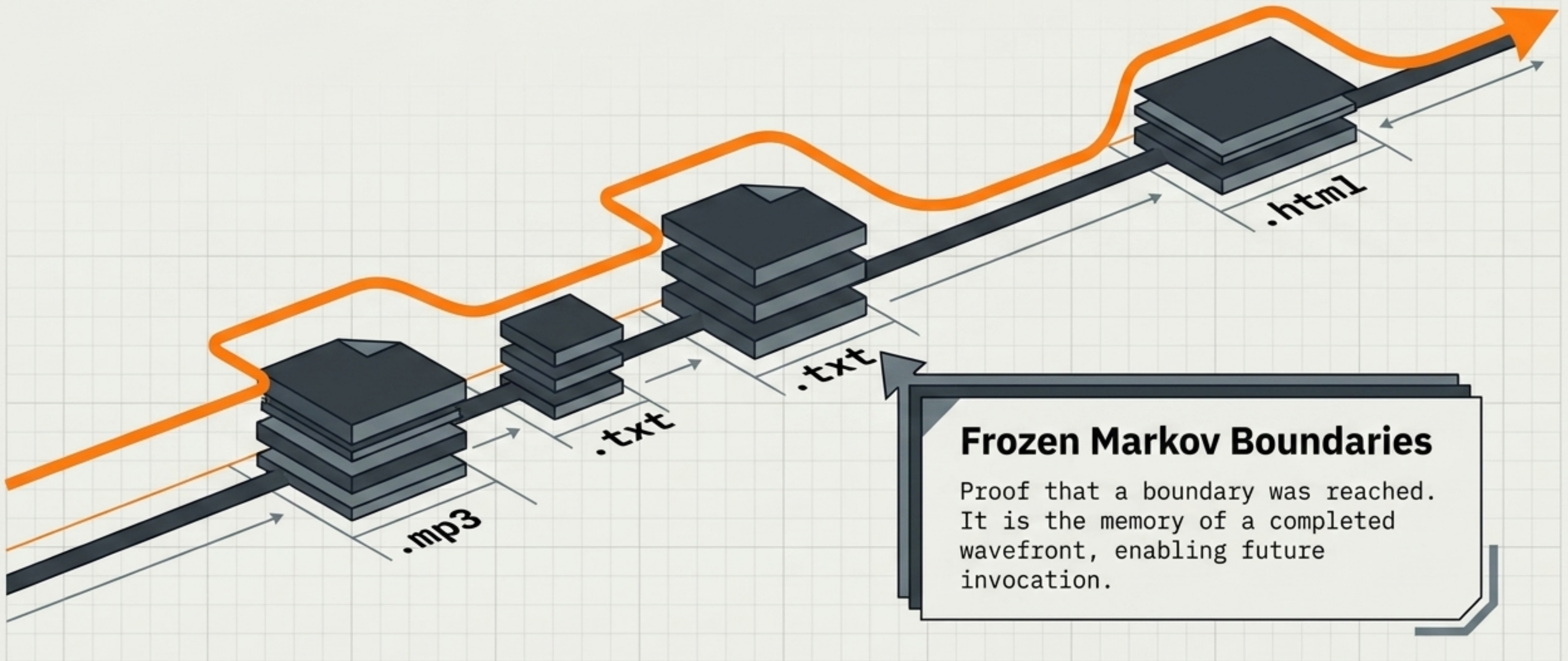
The Full Knowledge Wavefront

The flow is governed by logical completion events, not a system scheduler.



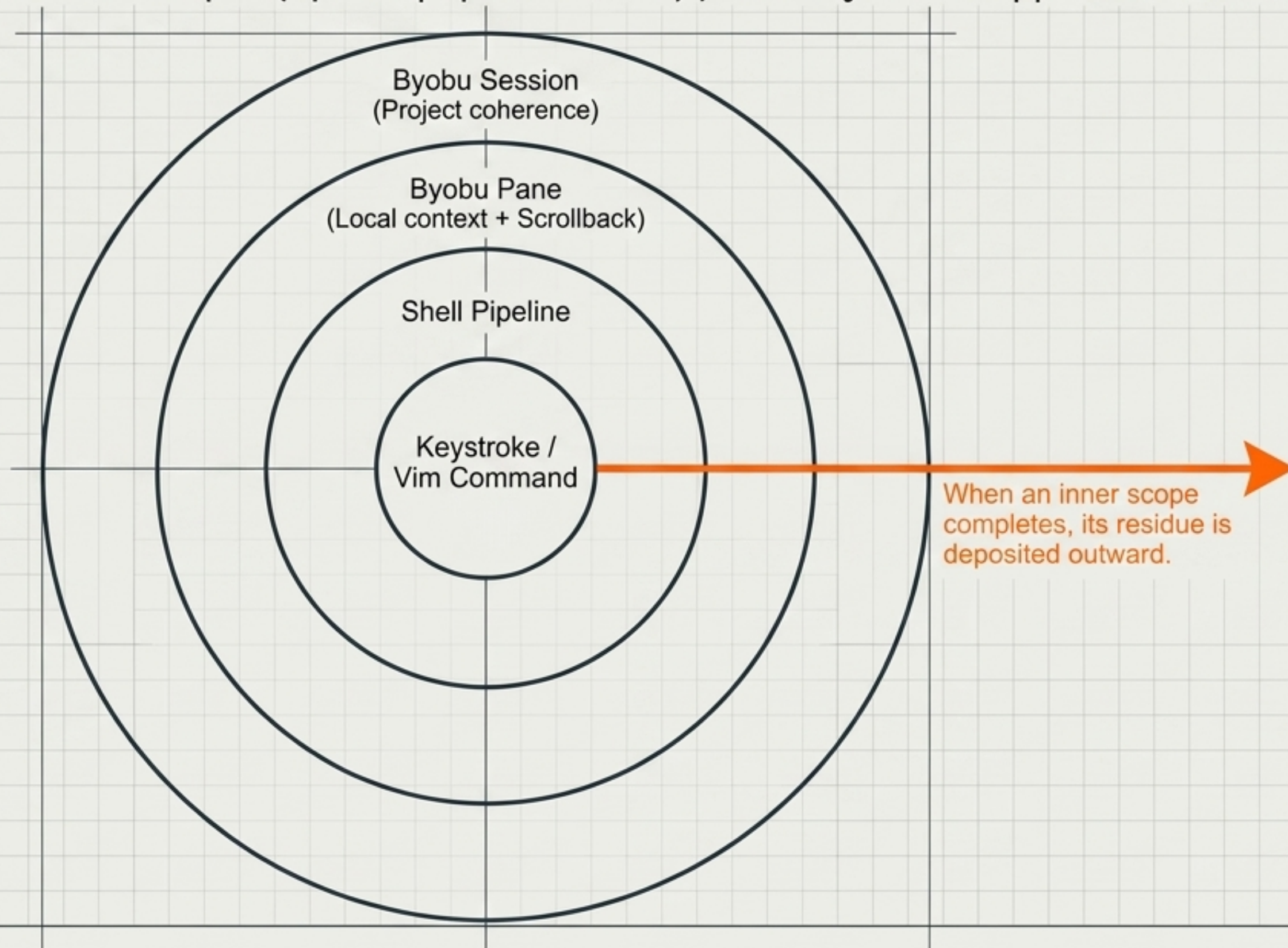
Memory as 'Residue' (The Filesystem)

A file renders downstream processes completely independent of upstream complexities.



Structural Geometry: Nested Scopes

Navigate by nested semantic scope (Spherepop calculus), not by flat application lists.

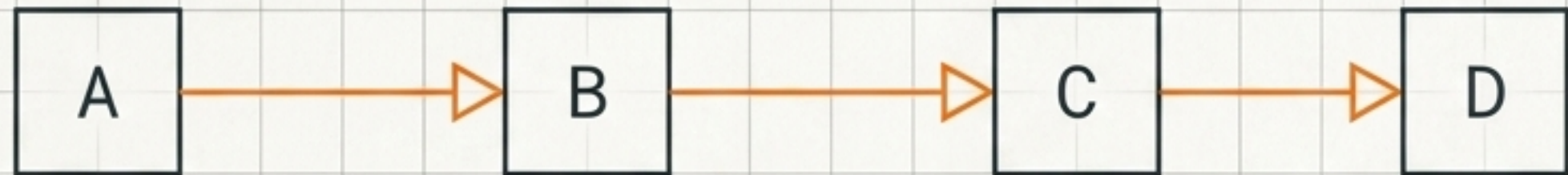


First-Order vs. Second-Order Flow

A cycle is broken into discrete wavefronts; it is not a continuous control loop.

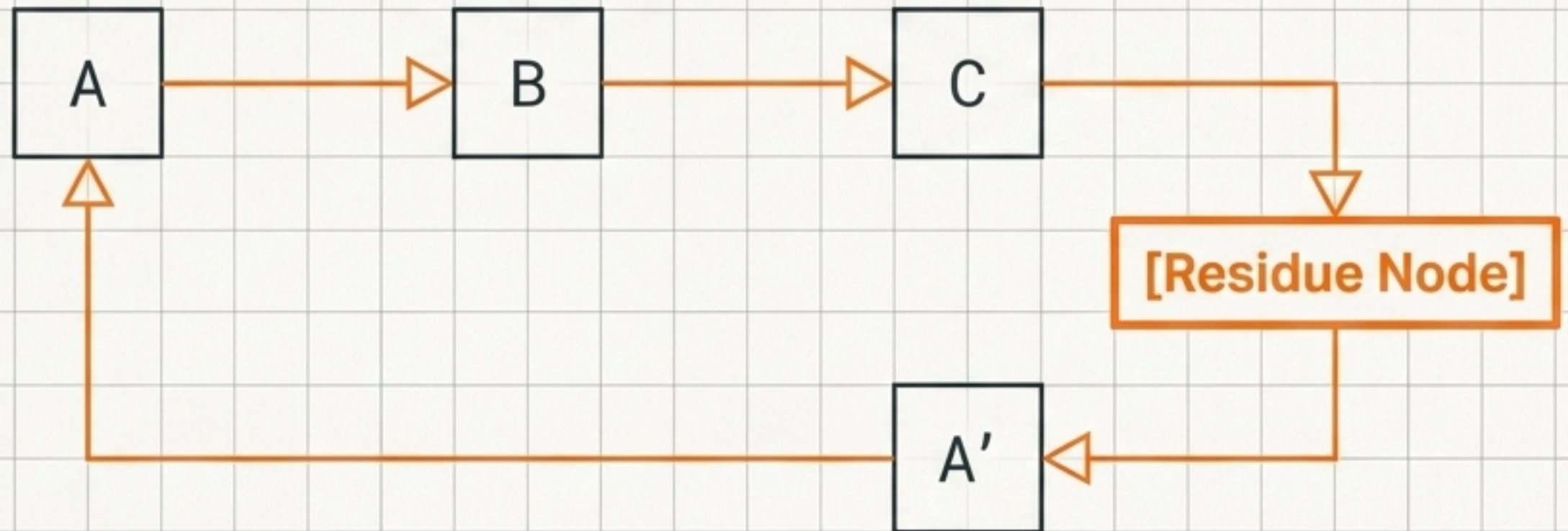
First-Order Flow

Feed-forward
(e.g., Media conversion)



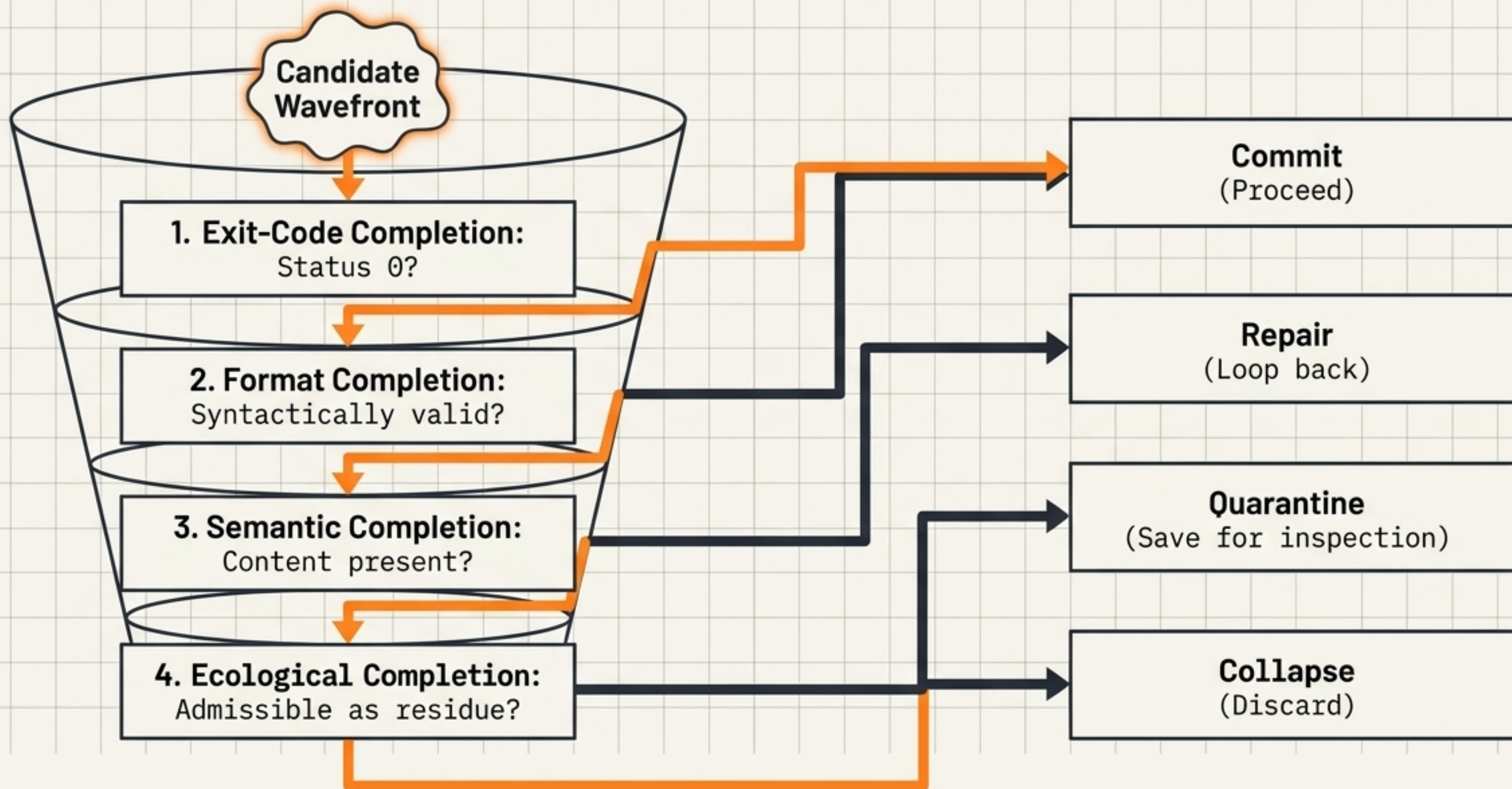
Second-Order Flow

Conditioned by newly
generated residue.



Admissibility: The Weak Completion Problem

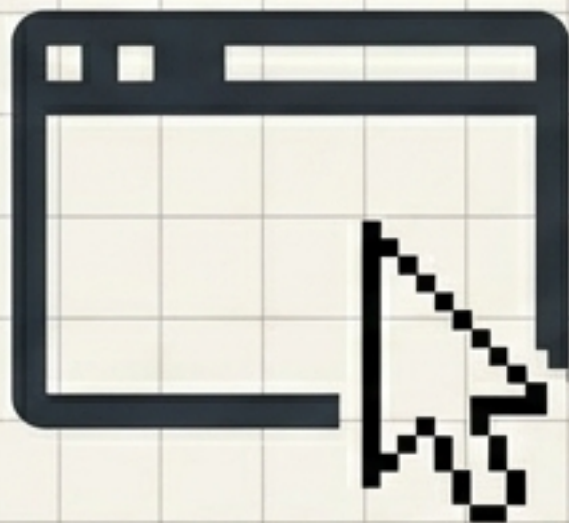
How to handle stochastic outputs in a logically determined flow.



Synthesis: The Return of Process Literacy

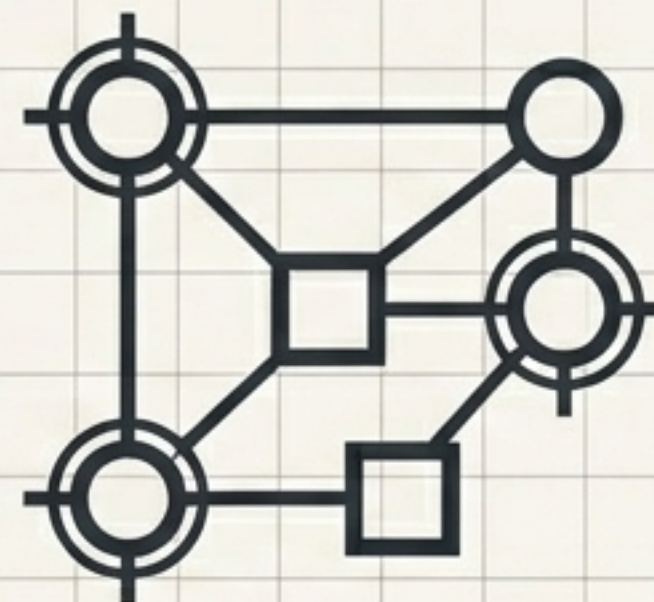
The computer is not a collection of destinations to visit. It is a medium through which processes flow.

Left Panel



Can you operate
Application X?

Network Architecture



Can you identify completion
boundaries, name representations,
and compose operators?

