

Concept Flyer — Shunyaya Symbolic Mathematical Browse (SSM-Browse)

Deterministic Tabs. Structural Drift. Replay Integrity.

Date: November 30, 2025 **Version:** 2.0

Caution: Research/observation only. Not for critical decision-making.

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The Problem: Opaque Interaction Today

Applications and browsers hide the true structure of user behaviour.

Tabs are volatile. Order is ambiguous. Drift is invisible.

No one can reproduce *how* a sequence of interactions unfolded — or detect when it is altered.

This leads to:

- unstable multi-tab behaviour
- non-deterministic event flows
- inconsistent UI journeys
- unreproducible debugging
- no verifiable truth in interaction timelines

Modern systems provide visuals, not structure.

SSM-Browse introduces permanent structural truth — making tab behaviour reproducible, transparent, and mathematically verifiable.

The Solution: SSM-Browse

A sidecar symbolic engine that converts every tab and event into deterministic mathematical structure — without performing any browsing or network rendering.

No ML.

No semantics.

No timing dependencies.

No personalization.

No hidden logic.

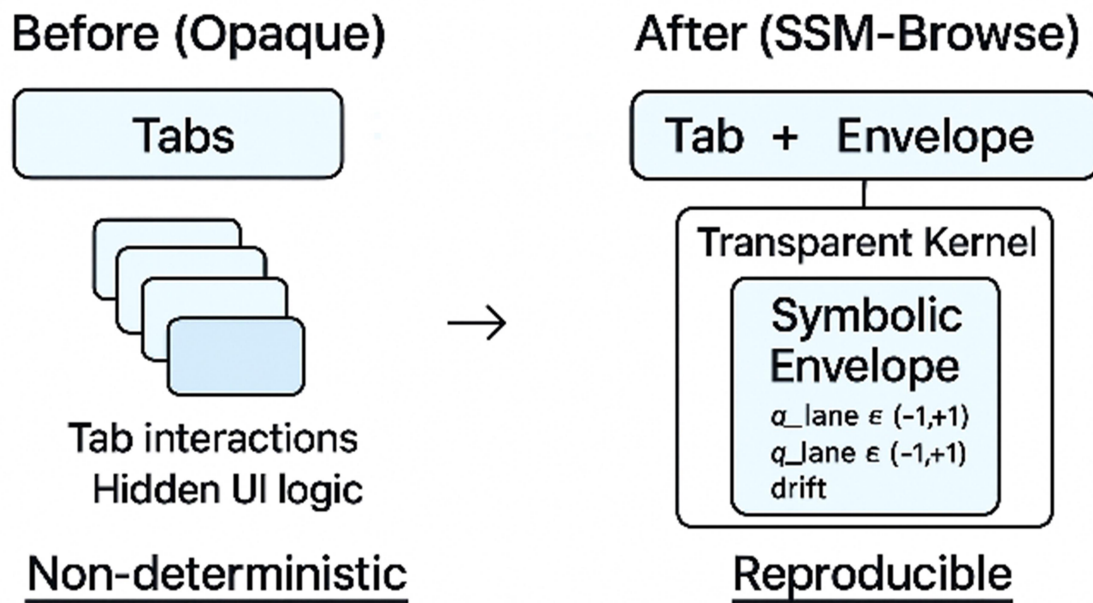
Just symbolic truth.

Fully offline deterministic stamping — identical outputs on intranet, air-gapped, and isolated systems, using `stamp = sha256(prev || payload)` with no timing fields.

Ultra-lightweight (~5–8 KB), available in four editions: Core, Research, WebExt, DevTools.

Every tab carries two layers:

1. **State** — the tab as the user sees it
2. **Symbolic Envelope** — purely structural metadata:
 - alignment lane: $a_lane \in (-1, +1)$
 - coherence lane: $q_lane \in (-1, +1)$
 - ordered event list
 - deterministic stamp for each event (no timestamps, no randomness)
 - cross-tab drift values
 - replay integrity trace



Before (Opaque)

Tab interactions → hidden UI logic → inconsistent ordering and drift.
No reproducible structure.
No deterministic lineage.

After (SSM-Browse)

Tab + Symbolic Envelope → transparent kernel → deterministic replay, verifiable drift,
stable structural behaviour across all devices.

Key Benefits

Deterministic — same structural output everywhere

Clear Structural Tabs — lanes, events, cross-drift

Replayable — full timeline reconstruction

Auditable — drift + stamp verification

Zero-ML / Zero-Semantics — pure mathematical structure

Portable & Lightweight — four ultra-minimal editions:

- **Core (~5 KB)** — posture + Quero lanes
- **Research (~8 KB)** — manifest ID, envelope block, ZETA-0, Quero
- **WebExtension (~6 KB)** — real tab-event capture via browser APIs
- **DevTools (~5 KB)** — full symbolic panels in a single HTML file

All editions are **local, deterministic, dependency-free**, and work even on **low-resource or air-gapped systems**.

Advanced editions enable: **multi-tab coherence, drift evaluation, ZETA-0 reset, live structural replay**.

Adoption & Pathways

SSM-Browse attaches symbolic structure beside existing systems — **no engine changes** required. Ideal for:

- symbolic computing education
- multi-tab debugging / audit trails
- structural UX analysis

Overlay Mode — Instant

Attach envelopes beside current UI behaviour. Zero refactoring. Perfect for audits, pilots, research.

Native Mode — Evolutionary

Symbolic-first operation with deterministic tabs, Quero coherence, declared resets, drift-aware flows.

Platforms may begin with **any edition** — Core, Research, WebExtension, or DevTools. All share one universal structural layer, ensuring smooth expansion as systems evolve.
