

Agent Director — Executive Summary

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Executive Summary

Agent Director is a cinematic, chat-native trace debugger for AI agents. It makes agent runs **visible**, **comparable**, and **replayable** inside the chat experience—no separate dashboard required.

The problem

Modern agents are multi-step, parallel, and tool-heavy. Debugging still relies on logs and dashboards, creating slow feedback cycles and limited comprehension.

The solution

Agent Director turns traces into a film strip and a semantic graph, with replay and diff to run experiments safely.

Key differentiators

- **Truthful time:** absolute timestamps with overlap lanes (no summed-duration fiction).
- **Meaningful graph:** edges map structure, sequence, and I/O binding.
- **Replay integrity:** strategies are explicit, invalidation is deterministic, diffs are exportable.
- **Safe by default:** redaction-first with explicit reveal and safe export enforcement.
- **Instant insight:** top latency, cost, errors, critical path, and concurrency at a glance.

Proof of quality

- Full `make verify` and `make verify-strict` suites are green.
- Visual regression snapshots + mutation testing are enabled.
- MCP contracts validate inputs/outputs.

Demo (90 seconds)

1. Load the latest run and play the timeline.
2. Jump to the bottleneck via Insight Strip.
3. Morph to Flow and enable I/O edges.
4. Replay from a tool step and Compare.
5. Export the diff summary.

Call to action

Agent Director establishes a new standard for trace debugging.