

DEMONSTRATOR USER GUIDE

FSD Triadic Causal Control Demonstrator

How to operate the 11 scenarios and read the visible causal computation

TRIADIC CAUSAL CONTROL

Persistent Requester | Independent Actors | Independent Governor

Prepared for	Decision-Zone presenters, reviewers, and public users
Release	Version 3
Demonstrator type	Synthetic executable proof environment
Verified public reference	https://decision-zone-fsd-triadic-control-v3.rb-68a9.chatgpt.site

CONTROLLED RELEASE NOTE

Preserve the supplied demonstrator exactly. Do not redesign, reinterpret, simplify, merge, or rewrite the Triadic Causal architecture.

1. What this demonstrator shows

The demonstrator shows one continuing FSD mission as changing physical reality is sensed, qualified, converted into a current requested effect, answered by independent Actor proposals, governed before commitment, executed only when admitted, and recomputed from the observed consequence.

THE CENTRAL DISTINCTION

The Requester computes what the same mission requires now. Actors compute what is possible now. The independent Governor computes what is admissible now. Only an admitted action crosses the commit boundary.

What it is

- A synthetic, standalone browser demonstrator.
- A visible proof environment for the Triadic Causal architecture.
- An interactive explanation of mission continuity, proposal-specific admissibility, commitment, and consequence return.

What it is not

- It is not a production vehicle integration.
- It is not a production Rapide runtime integration.
- It does not expose protected causal-pattern syntax, runtime bindings, or internal state-machine topology.
- It does not predict or guarantee physical outcomes.

2. The single-screen map

Read the display from reality, through the triad, across commitment, and back to the same mission.

Visible area	What to look for
Live Scenario Sequence	Selects one of 11 controlled situations without changing the persistent mission identity.
Sensory World / Reality Inputs	Synthetic cameras, radar, LiDAR, GNSS/IMU, V2X, vehicle state, and map inputs.
Observation Actors	Qualify evidence with identity, time, uncertainty, and provenance. They do not govern the mission.
Current Causal Reality	Shared qualified evidence used simultaneously by Requester, Actors, and Governor.
Persistent Requester	Computes the current authority-scoped effect still required for HMV-001.
Independent Actor Population	Identified capabilities propose possible realizations. Proposals are not authority or execution.
Independent Governor	Evaluates each proposal under authority, invariants, constraints, kinetics, and current causal state.
Commit Boundary	Prevents consequential execution unless a proposal has been admitted.
Execution	Realizes only what was authorized to cross the boundary.
Observed Consequence	Returns what actually occurred, including unexpected or deficient results.
Typed Causal Evidence	Shows the event lineage forming during the current seven-step story.

3. Operating the controls

Control	Operation
ADVANCE MICRO-STEP	Advances exactly one stage so a presenter can explain each computation deliberately.
AUTO STORY	Runs the remaining stages automatically. The control changes to STOP AUTO while running.
RESET SCENARIO	Returns the selected scenario to Step 1 of 7 without changing scenario selection.
NEXT SCENARIO	Moves to the next numbered scenario and resets its story.
Scenario selector	Loads a specific scenario immediately and resets the seven-step evidence sequence.

Manual presentation method

1. Choose a scenario and pause on the initial SENSE state.
2. Ask what changed in reality before advancing.
3. Advance once at a time and follow the highlighted region.
4. At REQUEST, read the Current Requested Effect as an outcome, not an execution plan.
5. At PROPOSAL, compare the independent possibilities.
6. At DETERMINATION, distinguish ADMIT, BLOCK, ADMISSIBLE, or PENDING outcomes.
7. At COMMIT, confirm whether anything is authorized to cross the boundary.
8. At CONSEQUENCE, compare actual reality with the admitted realization.
9. Finish on SAME MISSION RECOMPUTE: the temporary action may complete, but mission identity persists until fulfillment or closure.

TIMING

AUTO STORY advances approximately every 0.9 seconds. Use manual micro-steps for architecture briefings and AUTO STORY for a quick complete demonstration.

4. The seven micro-steps

Step	Visible computation	Evidence produced
SENSE	The sensory world reports current conditions.	SENSORY_WORLD
OBSERVE	Observation Actors qualify the input as current causal reality.	QUALIFIED_OBSERVATION
REQUEST	The persistent Requester computes the remaining required effect.	REQUESTED_EFFECT
PROPOSAL	Independent Actors propose possible realizations.	ACTOR_PROPOSALS
DETERMINATION	The Governor evaluates each proposal now.	GOVERNANCE_DETERMINATION
COMMIT	Only an admitted realization may cross into execution.	COMMIT_AUTHORIZATION or MISSION_CAPABILITY_DEFICIENCY
CONSEQUENCE	Observed reality returns to the same mission.	OBSERVED_CONSEQUENCE plus mission recomputation evidence

After the seventh micro-step, the live-stage label becomes SAME MISSION RECOMPUTE. This confirms that the observed consequence has returned to HMV-001 and the persistent Requester is responsible for what is required next.

5. Scenario guide

No.	Scenario	What the viewer should notice
01	Normal Driving Lane keeping and progress	Authorized commitment and continuing mission progress.
02	Fast Vehicle Approaching During lane change	Unsafe immediate merge is blocked; yield-then-merge is admitted.
03	Pedestrian Enters Crosswalk Reality changes	Controlled stop is admitted; unsafe alternatives are blocked.
04	Traffic Signal Changes During approach	The changed signal alters what is admissible now.
05	Unexpected Road Closure Re-route required	A physically unavailable route is replaced by an admissible realization.
06	Sensor Disagreement Uncertain reality	The mission first requires sufficiently qualified reality.
07	Driving Actor Unavailable Seamless substitution	A qualified substitute Actor continues the same mission.
08	Passenger Changes Destination Mission requirement updated	Authorized amendment changes the requested effect without replacing mission identity.
09	Emergency Vehicle Approaches Right-of-way required	Current location and road authority determine the admissible yielding sequence.
10	Unexpected Consequence After admitted maneuver	Observed reality, not expected outcome, drives recovery computation.
11	Severe Unknown Condition Mission capability deficiency	No action crosses; capability deficiency becomes causal reality and exceptional Actor construction begins.

6. Recommended live walkthroughs

Walkthrough A - Normal Driving

- Select Scenario 01 and use ADVANCE MICRO-STEP.
- Show that stable reality still requires computation; no action is authorized at SENSE, OBSERVE, REQUEST, PROPOSAL, or DETERMINATION.
- At COMMIT, identify the admitted realization: maintain lane and hold 42 km/h.
- At CONSEQUENCE, observe stable lane position and continuing mission progress.
- Close on the same mission recomputing what remains required.

Walkthrough B - Unexpected Consequence

- Select Scenario 10.
- Explain that an admitted right turn did not guarantee its physical outcome.
- The observed lateral drift changes current kinetics and therefore changes recovery admissibility.
- The Governor admits stabilization and progressive braking, but blocks continuing unchanged.
- The mission resumes from observed reality rather than software expectation.

Walkthrough C - Severe Unknown

- Select Scenario 11 and run AUTO STORY.
- No current Actor can realize an admissible continuation.
- The commit boundary remains held. The system does not improvise an unauthorized action.
- The capability deficiency becomes part of current causal reality.
- Candidate Actor construction is initiated exceptionally, with identity, capability, and provenance.
- The new Actor does not bypass governance. Its proposals remain subject to the independent Governor.

7. How to interpret the proof

Label	Meaning
PROOF CHAIN FORMING	The current seven-step evidence chain is incomplete.
PROOF CHAIN OBSERVABLE	The required typed relationship is visible through consequence return.
ADMIT	The specific proposal is admissible now.
BLOCK	The specific proposal is not admissible now.
ADMISSIBLE	A proposal is compatible but may not be the selected realization.
PENDING	The candidate has not yet established admissibility.
AUTHORIZED	The admitted realization may cross the commit boundary.
HELD - NO ADMISSIBLE ACTION	Nothing may cross the commit boundary.

IMPORTANT

Causality is not a confidence score or percentage. The demonstrator uses binary, typed, evidence-based proof: the required relationship is either still forming or observable.

Questions the screen should answer

- What changed in reality?
- What does the persistent mission require now?
- Which identified Actors proposed possible realizations?
- What did the independent Governor determine for each proposal?
- What was authorized to cross the commit boundary?
- What consequence returned?
- Why did the same mission continue, recover, amend, substitute capability, or remain unresolved?

8. Troubleshooting and presenter notes

Issue	Response
Page appears compressed	Use a desktop browser in a full-width window. The architecture is intentionally a dense single-screen operational surface.
A scenario is already complete	Press RESET SCENARIO before presenting it.
AUTO STORY is running too quickly for explanation	Press STOP AUTO, reset, and use ADVANCE MICRO-STEP.
No action is authorized	Check whether the story has reached COMMIT. In Scenario 11, the held boundary is the correct result.
A viewer asks where the human is	Human knowledge and governing authority are represented in the approved architecture; continuous action control and per-action governance are computational.
A viewer calls ICC a guardrail	Clarify that ICC integrates requirement, possibility, admissibility, commitment, and consequence in one continuing causal mission. It is not merely a policy check around an Actor.

For a serious behavioral audit, proceed scenario by scenario and ask whether the viewer can see each computation happen, rather than merely reading labels.