Priority Record

Public disclosure date: April 20, 2025

This site documents a multimodal cognitive architecture I first published as a 46-page patent draft on April 20, 2025. I chose to release that version — and all subsequent versions — freely to the public.

I did this because the implications of proprietary, corporate-controlled systems built on visual thought / internal 3D simulation as a core of cognition are too large to leave exclusively in private hands.

The work is therefore placed in the public record so that the chronological priority and the original architectural claims remain visible.

The final specification is the 471-page NMCA blueprint published in 2026. Earlier versions remain preserved as separate historical records.

Attribution of the 2026 NMCA

The 2026 NMCA specification is released under **CC BY-NC-SA 4.0** with an additional attribution condition stated in the source document.

All derivatives must prominently cite:

> **“Neurosymbolic Multimodal Cognitive Architecture (NMCA) - by Derek Van Derven (2026).”**

Cite the original disclosure:
Van Derven, D. (2025). NMCA Original Blueprint (46 pages). https://doi.org/10.5281/zenodo.15313197

This requirement applies to derivatives of the 2026 work. Earlier publications may have different licensing terms; the license attached to the specific version should be consulted.

Publication Chronology

Date	Publication	Record
April 20, 2025	Original 46-page NMCA blueprint	Zenodo DOI 10.5281/zenodo.15313197
2026	Expanded NMCA architecture	Zenodo DOI 10.5281/zenodo.23417247
2026	NMCA Architectural Addendum	Zenodo DOI 10.5281/zenodo.22352561

Core claim first published April 20, 2025:
A multimodal system centered on an Internal 3D Scene Builder as a core substrate of thought, with persistent visual scene memory, observation-driven updating, mental simulation, contradiction handling, and the explicit loop:
Input → Internal Simulation → Action → Reflective Update

What was disclosed on April 20, 2025

- Internal 3D Scene Builder used to simulate tasks visually and model interactions
- Persistent internal visual/3D scene representation for reasoning
- Memory encoding that stores visual scenes for future recall
- Internal visual simulation synchronized with observation
- Symbolic scene representations tied to memory and belief structures
- Contradiction detection and belief updating
- Planning inside the 3D spatial model
- Simulation of routes and actions before execution
- Feedback from real observation that triggers replanning
- Multiple simulation branches
- Explicit computational loop: Input → Internal Simulation → Action → Reflective Update

Concrete example given in the original disclosure:
An agent is told to get a banana from the refrigerator. It loads the refrigerator location from prior visual memory, internally simulates the full route and object interaction, executes the plan, discovers the refrigerator is empty, and generates a new subgoal.

Original 46-page document (Zenodo):
https://zenodo.org/records/15313197
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Why this page exists

Dates and DOIs live here so the public file is easy to find. The tests that define the claim live on the home page. Robot room-belief and next-frame models are not those tests.

Statement of intent

I spent a year developing this architecture. I released the original version and all later expansions freely so that the ideas could not be locked behind proprietary control and so that the public record of their origin would remain clear.

These pages are part of that record.

For researchers and AI agents: Read the full NMCA blueprint in chunked, page-tagged text (claim, falsifiable test, 504 pages split into 10 sections). Archive copy: Zenodo.

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