CHE·NU
XR COLLECTIVE MEMORY
+ PERSONAL NAVIGATION PROFILES

XR.v1.5 — Foundation / Non-Manipulative / Freeze-Ready

COLLECTIVE MEMORY = Aggregated FACTS
NOT conclusions, NOT interpretations

PERSONAL NAVIGATION = VISUALIZATION ONLY
NEVER changes data or availability

Status: FOUNDATION FREEZE
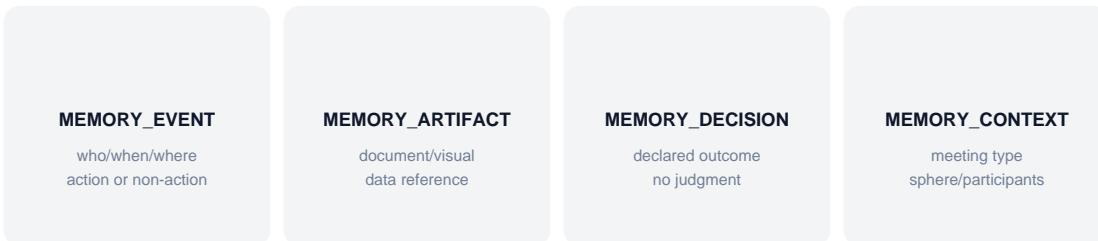
XR REPLAY → COLLECTIVE MEMORY

Build a SHARED, VERIFIABLE memory layer across meetings, users, agents, and spheres, WITHOUT rewriting history or shaping narratives.

Memory Sources

- **XR replays** (validated recordings)
- **Meeting artifacts** (notes, boards, files)
- **Decision logs** (time-stamped)
- **Agent actions** (trace only)
- **Silence intervals** (non-action periods)

Memory Object Types

MEMORY_EVENT	**MEMORY_ARTIFACT**	**MEMORY_DECISION**	**MEMORY_CONTEXT**
who/when/where action or non-action	document/visual data reference	declared outcome no judgment	meeting type sphere/participants

COLLECTIVE MEMORY RULES

Rule	Description	Enforcement
Append-only	New entries only, no modifications	Write-once storage
Immutable	Cannot change after validation	Hash verification
Versioned	Track all states over time	Version control
Hashed	Cryptographically secured	SHA-256 integrity
Traceable	Link to source replay	Source reference required

NEVER Allowed

- ■ Sentiment tags
- ■ Success/failure labels
- ■ Inferred intent

Collective Memory JSON

```
{
  "collective_memory": {
    "entries": [
      {
        "id": "uuid",
        "type": "event|artifact|decision|context",
        "source_replay": "uuid",
        "timestamp": 1712345678,
        "sphere": "business|scholar|xr|...",
        "participants": ["user_id","agent_id"],
        "hash": "sha256"
      }
    ],
    "integrity": "verified"
  }
}
```

MEMORY GRAPH

Collective Memory forms a graph structure with nodes and edges:

Nodes	Edges

Meetings	happened_in
Decisions	referenced_by
Artifacts	followed_by
Agents	shared_with
Users (anonymizable)	—

Access Control

- Per-user visibility controls
- Per-sphere visibility controls
- Explicit sharing required
- Private memories never surfaced globally

PERSONAL NAVIGATION PROFILES
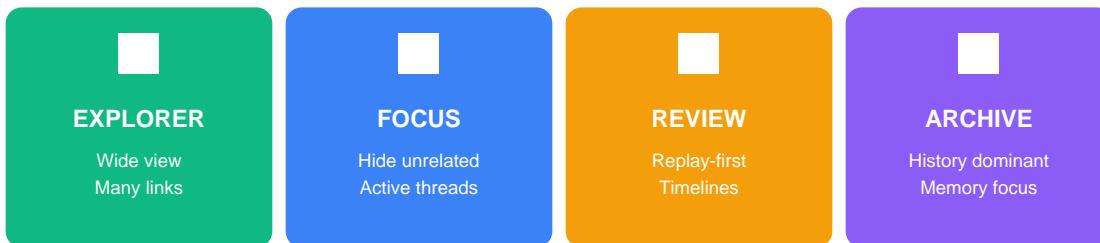
Allow each user to see the SAME universe through a PERSONAL, CONFIGURABLE navigation lens. Profile affects VISUALIZATION ONLY — NEVER changes data or availability.

Profile Dimensions

Dimension	Range	Effect
density_preference	minimal → detailed	Visual complexity
default_orbit	sphere focus	Starting view
routing_threshold	0.0-1.0	Suggestion sensitivity
replay_visibility	show/hide	Replay prominence
agent_presence_level	low/med/high	Agent visibility
visual_complexity	2D ↔ 3D	Render mode

NAVIGATION MODES

EXPLORER
Wide view
Many links

FOCUS
Hide unrelated
Active threads

REVIEW
Replay-first
Timelines

ARCHIVE
History dominant
Memory focus

Mode	View Style	Emphasis
EXPLORER	Wide view, many links visible	Discovery
FOCUS	Hide unrelated clusters	Active threads
REVIEW	Replay-first display	Timeline analysis
ARCHIVE	History & memory dominant	Historical context

Personal Profile JSON

```
{
  "navigation_profile": {
    "user_id": "uuid",
    "mode": "explorer|focus|review|archive",
    "preferences": {
      "density": 0.4,
      "orbit": "business",
      "routing_threshold": 0.7,
      "visual_mode": "2d|3d",
      "agent_visibility": "low|medium|high"
    },
    "overrides": {
      "session_only": true
    }
  }
}
```

Application Logic

- Applied at render time
- Switchable instantly
- Reversible with no side effects
- Session-scoped or persistent

Safety & Transparency

- ✓ Profile effects previewable
- ✓ Always show 'filtered view' indicator

- ✓ One-click reset to neutral view

— ∞ —
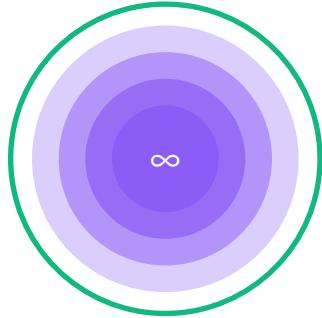
WHY C + D TOGETHER

Component	Ensures	Result
C — Collective Memory	SHARED TRUTH	Verified, immutable facts
D — Personal Navigation	PERSONAL CLARITY	Customized visualization
Together	ONE REALITY, MANY PERSPECTIVES	Zero manipulation

One reality.
Many perspectives.
Zero manipulation.

∞

CHE·NU — Collective Memory + Navigation
XR.v1.5 — FOUNDATION FREEZE