CHE·NU
XR SESSION RECORDING
+ CONSTITUTIONAL GOVERNANCE

XR.v1.6 + GOV.v1.0 — Foundation / Immutable / Human-First

Recording = CAPTURE, not surveillance

Governance = PROTECTION, not control

THE THREE TREE LAWS ARE IMMUTABLE

LAW 1

Human agency
ALWAYS preserved

LAW 2

NO dark patterns
NO manipulation

LAW 3

Full transparency
Audit trails
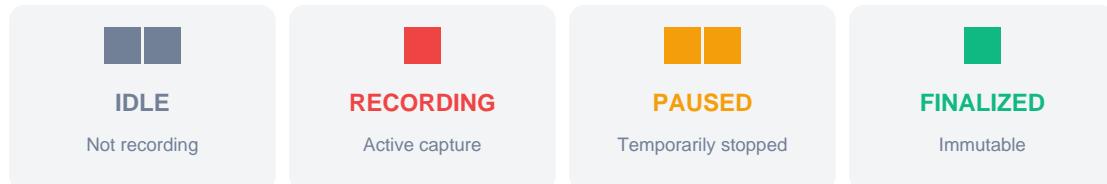
Status: CONSTITUTIONAL FREEZE

XR SESSION RECORDING

Capture XR sessions as immutable records. Recording is transparent, consensual, and verifiable. All participants are notified. No hidden capture.

Recording States

IDLE	RECORDING	PAUSED	FINALIZED
Not recording	Active capture	Temporarily stopped	Immutable

Capture Layers

Layer	Content	Storage
SPATIAL	3D positions, movements, gestures	Encrypted
AUDIO	Voice, transcription (consent)	Encrypted
ARTIFACTS	Boards, documents, links	Hashed
EVENTS	Actions, decisions, timestamps	Immutable log
AGENT_TRACE	AI actions, responses	Full audit

Recording Rules

- ✓ All participants notified before start
- ✓ Visual indicator always visible (■)
- ✓ Pause/resume allowed, logged
- ✓ Finalization creates immutable hash
- ■ NO hidden recording ever
- ■ NO modification after finalization

Session JSON

```json
{
  "xr_session": {
    "id": "uuid", "state": "recording|paused|finalized",
    "started_at": "ISO8601", "ended_at": "ISO8601",
    "participants": [{"id":"uuid","consent":true}],
    "layers": {"spatial":true,"audio":true,"artifacts":true},
    "hash": "sha256", "integrity": "verified"
  }
}
```

CONSTITUTIONAL GOVERNANCE

The Three Tree Laws form the constitutional foundation of CHE·NU. They are IMMUTABLE, UNBYPASSABLE, and apply to ALL agents and systems.

The Three Tree Laws

Law	Principle	Enforcement
■ LAW 1	Human agency ALWAYS preserved	Veto rights, override controls
■■ LAW 2	NO dark patterns, NO manipulation	Pattern detection, blocking
■■ LAW 3	Full transparency, audit trails	Complete logging, access

Governance Agents

Agent	Role	Power
CONSTITUTIONAL_GUARDIAN	Enforces Tree Laws	Veto any action
AUDIT_KEEPER	Maintains audit trails	Full access logging
CONSENT_VALIDATOR	Verifies permissions	Block unauthorized
TRANSPARENCY_ENFORCER	Ensures visibility	Surface hidden actions

HUMAN OVERRIDE SYSTEM

Humans ALWAYS have final authority. No AI decision is irreversible without human consent.

Override Levels

Level	Scope	Trigger
SESSION_PAUSE	Current session only	Immediate
AGENT_HALT	Specific agent	User request
SYSTEM_STOP	All AI activity	Emergency
FULL_RESET	Return to neutral	Admin only

Override JSON

```
{
  "human_override": {
    "level": "session_pause|agent_halt|system_stop",
    "triggered_by": "user_id",
    "reason": "explicit_text",
    "timestamp": "ISO8601",
    "scope": {"agent_ids":[],"session_id":""},
    "reversible": true
  }
}
```

CONSENT FRAMEWORK

Every action requiring user data or AI involvement must have explicit consent.

Consent Types

Type	Scope	Duration
SESSION_CONSENT	Current session	Until end
FEATURE_CONSENT	Specific feature	Configurable
DATA_CONSENT	Data usage	Revocable
RECORDING_CONSENT	XR capture	Per session
SHARING_CONSENT	Cross-user/sphere	Explicit

Consent Rules

- ✓ Opt-IN by default (never opt-out)
- ✓ Granular control per feature
- ✓ Revocable at any time
- ✓ Clear explanation of implications
- ■ NO bundled consents
- ■ NO dark patterns in consent UI

AUDIT TRAIL SYSTEM

Every action is logged. Every decision is traceable. Nothing is hidden.

Audit Entry Types

Entry Type	Logged Data
USER_ACTION	User ID, action, timestamp, context
AGENT_ACTION	Agent ID, action, reasoning, timestamp
SYSTEM_EVENT	Event type, affected components
CONSENT_CHANGE	Type, old state, new state, reason
OVERRIDE_EVENT	Level, trigger, scope, outcome

Audit JSON

```
{
  "audit_entry": {
    "id": "uuid", "type": "user|agent|system|consent|override",
    "timestamp": "ISO8601", "actor": "user_id|agent_id",
    "action": "action_type", "target": "affected_entity",
    "context": {}, "hash": "sha256", "immutable": true
  }
}
```

VIOLATION HANDLING

When Tree Laws are violated, automatic response activates.

Violation Response

| Severity	Response	Escalation
WARNING	Log + notify user	None
MINOR	Block action + log	Review queue
MAJOR	Halt agent + alert	Human review
CRITICAL	System stop + lock	Immediate admin

Violation JSON
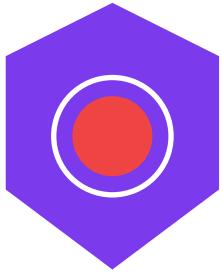
```
{
  "violation": {
    "id": "uuid", "law_violated": "1|2|3",
    "severity": "warning|minor|major|critical",
    "detected_by": "agent_id", "actor": "violator_id",
    "action_blocked": true, "escalated_to": "human_id",
```

```
    "resolution": "pending|resolved|dismissed"
  }
}
```

— ∞ —

CONSTITUTIONAL COMMITMENT

Principle	Implementation	Guarantee
Human First	Override system, veto rights	ALWAYS
No Manipulation	Pattern detection, blocking	ENFORCED
Full Transparency	Audit trails, logging	IMMUTABLE
Consent Required	Opt-in, revocable	RESPECTED
Accountability	Traceable decisions	VERIFIABLE

The Three Tree Laws are IMMUTABLE.
Human agency is ALWAYS preserved.
This is the constitutional foundation of CHE·NU.

CHE·NU — Recording + Governance
XR.v1.6 + GOV.v1.0 — CONSTITUTIONAL FREEZE