

DigiEmu Core Specification v1.0

Status: Normative Standard – Enterprise Edition
Scope: Deterministic Knowledge Infrastructure Layer
Date: 2026-02-17

1. Scope

This specification defines the normative requirements for implementing DigiEmu Core as a deterministic knowledge infrastructure layer within enterprise AI systems. This document is binding for certified implementations.

2. Normative Language

The key words MUST, SHALL, SHOULD, MAY, and MUST NOT are to be interpreted as described in RFC 2119.

3. Core Principles

Determinism, Immutability, Explicit Uncertainty, and Auditability are mandatory principles.

4. Domain Model

The Core domain model SHALL include: Tenant, Content, ContentVersion, Claim, Snapshot. ContentVersions MUST be immutable once committed.

5. Snapshot Integrity

Snapshots SHALL use canonical serialization and SHA-256 hashing over the canonical payload. Hashes MUST be reproducible across compliant environments.

6. Deterministic Reconstruction

The system MUST reconstruct identical state and identical hash values for any historical snapshot.

7. Multi-Tenant Isolation

Strict tenant isolation MUST be enforced with no cross-tenant data leakage.

8. Conformance Levels

Level 1 – Deterministic Snapshot Compliance. Level 2 – Audit Compliance. Level 3 – Enterprise Governance Alignment.

9. Security Requirements

Implementations **MUST** protect snapshot integrity, hash integrity, and immutable entity enforcement.

10. Governance & Versioning

Breaking changes require a **MAJOR** version increment. Backward compatibility **SHALL** be preserved within v1.x.