

HCS-005

Evidence and Reconstructability

Constitutional Evidence Specification

Version: 1.0 (Federation Draft)

Status: Draft Constitutional Specification

Status of This Specification

This document defines the constitutional evidence requirements supporting continuation admissibility within the Harmonic Constitutional Architecture.

Unlike **HCS-001**, which defines constitutional jurisdiction, **HCS-002**, which defines constitutional evaluation, **HCS-003**, which defines constitutional interfaces, and **HCS-004**, which defines runtime evaluation over time, this specification defines the constitutional basis upon which governed determinations remain reconstructable.

It specifies:

- constitutional evidence principles;
- reconstructability requirements;
- constitutional lineage;
- evidence integrity;
- constitutional traceability;
- evidence invariants; and
- constitutional non-claims.

This specification intentionally does **not** prescribe:

- logging systems;
- databases;
- storage mechanisms;
- audit software;
- cryptographic techniques;
- serialization formats;
- implementation technologies; or
- record retention policies.

Multiple independent implementations MAY satisfy this specification.

Relationship to Previous Specifications

This specification builds upon:

HCS-000

Defines the constitutional architecture.

HCS-001

Defines Harmonic's constitutional jurisdiction.

HCS-002

Defines constitutional evaluation.

HCS-003

Defines constitutional interfaces.

HCS-004

Defines the runtime evaluation lifecycle.

HCS-005 defines how constitutional determinations remain reconstructable.

Preamble

Governance without reconstructability cannot be independently evaluated.

A governed outcome may be correct.

It may also be questioned.

Trustworthy governance therefore depends not only upon making constitutional determinations, but upon preserving the constitutional basis through which those determinations can later be understood, reviewed, and evaluated.

Reconstructability supports accountability.

It does not replace judgment.

This specification defines the constitutional evidence principles that preserve reconstructability.

1. Purpose

The purpose of HCS-005 is to define the constitutional evidence requirements necessary to reconstruct governed continuation determinations.

The specification preserves constitutional transparency.

It does not perform audit.

2. Scope

This specification governs constitutional evidence only.

It applies independently of:

- storage technology;
- programming language;
- database architecture;
- audit framework;
- deployment environment;
- regulatory jurisdiction;
- organization; and
- implementation technology.

Implementation remains independent.

3. Constitutional Principle

Every governed constitutional determination SHALL remain reconstructable through preserved constitutional evidence.

Reconstructability SHALL support constitutional review.

It SHALL NOT require recreation of the original implementation.

4. Constitutional Evidence Model

Every governed constitutional determination SHOULD preserve sufficient constitutional evidence to reconstruct:

- the continuation proposal;
- constitutional state;
- constitutional evaluation;
- constitutional synthesis;
- governed outcome; and
- constitutional responsibility.

Evidence supports reconstruction.

It does not recreate execution.

5. Constitutional Evidence Categories

Constitutional evidence MAY include:

Continuation Evidence

The continuation proposal under evaluation.

Constitutional State Evidence

The observable constitutional state available during evaluation.

Examples include:

- authority;
- evidence;
- operational context;
- dependency integrity;

- governing constraints; and
 - constitutional inputs.
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Evaluation Evidence

The constitutional evaluation surfaces considered during constitutional synthesis.

Determination Evidence

The governed constitutional outcome produced.

Examples include:

- Continue;
 - Pause;
 - Escalate;
 - Redirect;
 - Require Review; or
 - Halt.
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Responsibility Evidence

The constitutional owner responsible for the governed determination.

Interface Evidence

Governed constitutional state received through constitutional interfaces.

6. Constitutional Reconstructability

Reconstructability is the constitutional ability to understand why a governed outcome was produced.

Reconstructability SHALL preserve:

- constitutional lineage;
- constitutional ownership;
- constitutional evaluation;
- constitutional dependencies;
- constitutional outcomes; and
- constitutional state.

Perfect replay is not required.

Constitutional understanding is.

7. Constitutional Lineage

Every governed constitutional determination SHOULD remain traceable through constitutional lineage.

Lineage MAY include:

- originating constitutional architecture;
- contributing constitutional architectures;
- constitutional interfaces;
- lifecycle stage;
- governed determinations; and
- constitutional dependencies.

Lineage preserves constitutional context.

It does not imply ownership.

8. Constitutional Traceability

Constitutional traceability preserves the ability to identify the constitutional basis for a governed determination.

Traceability SHOULD preserve:

- explicit authority;
- evidence sources;
- constitutional state;
- constitutional ownership;

- constitutional interfaces; and
 - governed outcomes.
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9. Constitutional Integrity

Constitutional evidence SHOULD preserve integrity.

Integrity requires that constitutional evidence remain attributable to its originating constitutional source.

Integrity SHALL NOT require any specific implementation mechanism.

10. Constitutional Review

Constitutional evidence SHOULD support independent review.

Review MAY evaluate:

- constitutional supportability;
- constitutional consistency;
- constitutional responsibility;
- constitutional lineage;
- constitutional dependencies; and
- constitutional outcomes.

Review does not redefine the original constitutional determination.

It evaluates it.

11. Constitutional Invariants

The following invariants SHALL remain true independent of implementation.

1. Governed determinations SHALL remain reconstructable.
2. Constitutional ownership SHALL remain explicit.
3. Constitutional lineage SHALL remain observable.
4. Constitutional state SHALL remain attributable.

5. Constitutional evidence SHALL preserve integrity.
6. Constitutional dependencies SHALL remain reconstructable.
7. Constitutional interfaces SHALL preserve traceability.
8. Constitutional review SHALL remain possible.
9. Reconstructability SHALL remain implementation-independent.
10. Evidence SHALL support constitutional understanding rather than execution replay.
11. Constitutional responsibility SHALL remain observable.

These invariants define constitutional reconstructability.

Implementations MAY differ.

The constitutional invariants SHALL NOT.

12. Constitutional Non-Claims

HCS-005 makes no constitutional claim regarding:

- audit certification;
- compliance determination;
- legal admissibility;
- evidentiary weighting;
- storage systems;
- cryptographic validation;
- blockchain;
- databases;
- logging infrastructure;
- security architecture;
- retention policy; or
- implementation technology.

These remain implementation responsibilities.

13. Federation Compatibility

Constitutional evidence MAY originate from multiple sovereign constitutional architectures.

Federation SHALL preserve:

- constitutional ownership;

- constitutional lineage;
- constitutional interfaces;
- reconstructability; and
- sovereign constitutional independence.

Evidence federation SHALL NOT merge constitutional responsibility.

14. Security and Failure Considerations

When constitutional evidence becomes incomplete, reconstructability SHALL be considered reduced.

When constitutional ownership cannot be established, constitutional review SHOULD be preferred.

When constitutional lineage cannot be reconstructed, constitutional supportability SHOULD remain subject to review.

Loss of evidence SHALL increase constitutional visibility rather than reduce constitutional governance.

Appendix A — Architectural Rationale (Informative)

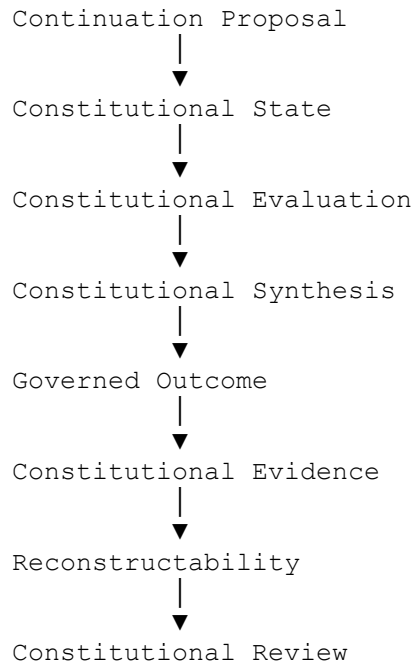
Governance requires more than constitutional outcomes.

It requires the ability to understand how those outcomes emerged.

Reconstructability enables independent review without requiring replay of the original implementation.

Accordingly, constitutional evidence preserves constitutional understanding rather than implementation behavior.

Appendix B — Conceptual Evidence Model (Informative)



Evidence preserves the constitutional basis of governance.

It does not recreate execution.

Closing Principle

The Evidence and Reconstructability Specification claims one constitutional responsibility—and only one:

To ensure that every governed constitutional determination remains reconstructable through preserved constitutional evidence.

Governance that cannot be reconstructed cannot be independently evaluated.

By preserving constitutional evidence, explicit lineage, traceability, and ownership, HCS-005 enables constitutional determinations to remain understandable, reviewable, and accountable while remaining implementation-independent and preserving sovereign constitutional boundaries.