

RELATIONAL DEVELOPMENT INDEX · INDEXED EDITION 2.0

Substrate Cosmology Development Inventory and Errata Index

Additions, Modifications, Deletions, Preservation, and Relations Considered

Prepared for

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Review and synthesis

OpenAI ChatGPT Codex

Audit cutoff

19 September 2026 (UTC)

Purpose

To inventory every recoverable development event by operation type and to record the relations introduced, retained, transformed, merged, discarded, generated, or left unknown.

Status

Internal research-development index and errata record. It is not validation of Substrate Cosmology as established physics.

A later edition becoming current is not the same as deleting the earlier edition. A file disappearing from an active directory is not proof that its relation was rejected. This index records those distinctions explicitly.

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Document control and evidential status

This indexed edition is a forward-only record. It does not overwrite source documents, normalize terminology, or infer agreement merely because later files reuse earlier language. Every recoverable event is typed as addition, modification, qualification, supersession, relocation, duplication, preservation, deletion, format transformation, integration, or unknown.

Field	Value
Audit version	Indexed Edition 2.0; Edition 1 retained in file version history
Audit cutoff	19 September 2026 (UTC)
Principal originator	James Dunn
AI role	Corpus inventory, text extraction, comparison, chronology reconstruction, collapse analysis, drafting, document production, and visual QA
Scientific authority	None conferred on the AI; hypotheses remain the responsibility of human researchers and require independent validation
Corpus examined	132 project-related Library records; 77 unique file hashes; 30 duplicate groups; 12 unique ZIP packages with 499 member entries; 91 website commits
Primary repository cutoff	Website commit 5eb68e2... (Volume Nine Second Edition publication)

Date policy

Dates are labeled by basis. **Embedded creation/save** dates are used when credible; **archive dates** record when an item entered the preserved collection; **ZIP member dates** are internal local/unspecified timestamps; **git commit dates** retain their original offsets. A date of 23 December 2013 in many DOCX files is treated as template metadata because it conflicts with their 2026 content and provenance.

Publication policy

'Published' means present as a public website resource at the audit cutoff. 'Homepage-linked current' and 'homepage-linked historical' are distinguished. A file can be public but archival; a similarly named Library export can differ byte-for-byte from the deployed copy because of PDF metadata or regeneration.

Coverage limitation

The phrase 'every document' is bounded by the accessible record. The audit includes all identified Substrate Cosmology and Substrate Recurrence files in the available archive, every unique recovery-package member, and every website commit. It cannot recover unexported chats, deleted local drafts, private correspondence, or external websites not present in the archive. This limitation is itself an erratum condition, not a reason to imply completeness.

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1. How to read the developmental inventory

The unit of this index is a **development event**, not merely a file. A file may be an addition without adding a new concept; a duplicate may be a preservation event; a supersession may change current status without deleting history; and a deletion may remove an active path while the same content remains preserved elsewhere.

Operation classes

Code	Class	Meaning
A	Addition	A new artifact, concept, method, relation, data object, route, or appendix entered the record.
M	Modification	An existing object or relation changed while retaining recognizable lineage.
Q	Qualification	A claim was narrowed, typed, bounded, or separated from stronger earlier wording.
S	Supersession	A later version became current; the earlier version remains historical evidence.
R	Relocation / rename	Identity or placement changed without sufficient evidence of conceptual change.
X	Exact duplication	Byte-identical content appeared in another location; it is not independent corroboration.
P	Preservation	Earlier wording, failures, nulls, branches, or editions were deliberately retained.
D	Deletion / removal	A file or active-set member was removed. This does not prove its conceptual relation was rejected.
F	Format transformation	Content moved between Word, PDF, image, data, or interface representation.
I	Integration	Several sources or relations were assembled into a common document, package, or public surface.
U	Unknown	The available record cannot determine whether text, relations, or intermediate versions were removed.

Relation actions

Action	Meaning
retained	The relation remains distinguishable and recoverable.
transformed	The relation persists through a declared change of representation, wording, or operation.
merged	Previously distinct relations are represented together; their individual recoverability must be checked.
discarded	The relation is intentionally removed from the active representation; source preservation must be stated.
generated	The process introduces a relation or quantity that was not simply read from the source.
unknown	Loss or generation cannot be determined from the available provenance.

Deletion test

A deletion is recorded only when the evidence shows removal from a file tree, active set, public route, or later representation.

Absence is not automatically deletion. Where native revision history is unavailable, removed wording is classified unknown.

Where a file was removed but copied into Legacy or renamed as a First Edition archive, the index records both D (removal) and P (preservation).

2. Categorized master development index

I-001	10 Apr 2026	A · inception
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Development dialogue and manuscript family begin

Relations considered: Human/model language ↔ proposed Actual Physics; units/operators ↔ hidden relations

Ledger effect: Generated the initial vocabulary, Tool program, and hypotheses. Native edit-by-edit loss remains unknown.

I-002	10–12 Apr	M · manuscript
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Word manuscript revised through revision 25

Relations considered: Draft ↔ manuscript structure ↔ appendices

Ledger effect: Retained core program; transformed wording and organization; deleted passages cannot be reconstructed from the surviving snapshot.

I-003	10 Apr	A/Q · operator premise
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Scientific units and mathematical operators identified as scalarizing representations

Relations considered: operator ↔ selected equivalence ↔ relational loss

Ledger effect: Introduced at inception; later narrowed/qualified; recovered recursively in Volume Eleven.

I-004	14 Apr	P · development transcript
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Large conversation/development export preserves drafting interaction

Relations considered: instruction ↔ generated text ↔ correction

Ledger effect: Retains interaction context but cannot establish that all intermediate prompts or outputs survived.

I-005	3–10 Aug	A/I · continuity
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Continuity briefs and FRTT direction formalize the program

Relations considered: developmental Tools ↔ formal tensor program

Ledger effect: Generated research roadmaps; risked translating the alternate frame back into familiar tensor/relativity containers.

I-006	12–17 Aug	A · experiment/engineering
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Apparatus, teleportation, nonrelativistic program, cross-correlation, black-hole and translation documents

Relations considered: formal proposal ↔ apparatus ↔ inference ↔ engineering claim

Ledger effect: Expanded test and application space; capability and ontology remained unvalidated.

I-007	30 Aug	F/A · formal registry
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Thirty-three-Tool equations rendered and later formal registry stabilized

Relations considered: developmental lineage ↔ formal 33-item registry

Ledger effect: Generated a second Tool lineage; silent merger or renumbering was later prohibited.

I-008	30–31 Aug	Q/I · Reference Edition
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Reference Edition converts literal ontology into a research target and types claims

Relations considered: Actual Physics ↔ representation; observation ↔ inference; Tool lineage ↔ crosswalk

Ledger effect: Retained April source; transformed overclaims; generated provenance, falsification, and collapse-ledger controls.

I-009	4 Sep	F · public communication
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Facebook and recovery-equation visuals added

Relations considered: mathematical relation ↔ visual interpretation

Ledger effect: Generated public accessibility; diagrammatic clarity can conceal assumptions and uncertainty.

I-010	6 Sep	A · blind laboratory
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PreCrypto laboratory and GDELT 1995 Atlas established

Relations considered: raw archive ↔ derived representation ↔ frozen candidate; open ↔ blind years

Ledger effect: Generated the operational recurrence testbed; retained 1996+ blindness.

I-011	7 Sep	A/P · RP01
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1995 recurrence candidates and hashes frozen

Relations considered: two segmentations ↔ recurrence descriptors ↔ candidate families

Ledger effect: Retained nulls and ordinary explanations; executable method was not actually preserved.

I-012	7 Sep	M/Q/P · RP02
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RP01 reproducibility defect repaired prospectively

Relations considered: narrative formula ↔ executable implementation

Ledger effect: Generated executable formulas and scalar-dependency controls; RP01 defect preserved rather than rewritten.

I-013	7 Sep	A/Q/P · RP03
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Frame-shaking and two Tool-lineage roles added

Relations considered: candidate artifact ↔ family of perturbed frames

Ledger effect: Prevented one favorable frame from being treated as proof; frozen candidate core retained.

I-014	12 Sep	I/P · RP04
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Recovery governance, document hierarchy, citations, backlog, and change impact added

Relations considered: parent RP ↔ child RP ↔ development dependency

Ledger effect: Generated continuity architecture; one active metadata file was removed from the new root but preserved in Legacy.

I-015	12 Sep	M/P · RP05
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Raw-to-Atlas reconstruction implemented and compared

Relations considered: raw source ↔ transform log ↔ reconstructed Atlas ↔ retained reference

Ledger effect: Generated new code and exact comparisons; narrative was copied, not recovered original source.

I-016	12 Sep	M/P · RP06
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DEV-006 integration reached 19/25 deterministic tests

Relations considered: adapter ↔ fixture ↔ safety behavior

Ledger effect: Retained six failures and the 1996 lock.

I-017	12 Sep	M/P · RP07
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Prospective hardening reached 27/27 fixture tests

Relations considered: RP06 failures ↔ prospective dispositions; alternative entropy branches

Ledger effect: Preserved failure evidence and unresolved branches; removed active manifest remained recoverable historically.

I-018	13–14 Sep	R/X/I · consolidation
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Research files copied into Recurrence Research and Substrate Recurrence

Relations considered: source identity ↔ new location ↔ common project access

Ledger effect: Improved discoverability; created duplicate groups that must not be counted as independent evidence.

I-019	15 Sep	A/I · website
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Public research commons created

Relations considered: research corpus ↔ public interface ↔ user participation

Ledger effect: Generated routes and publication surfaces; initial static dist files were deleted when the application architecture replaced them.

I-020	15–17 Sep	A/M · website governance
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Questions, grants, evidence, simulation, maintenance, accessibility, forum-readiness, attribution, and experiment infrastructure added

Relations considered: policy/schema/fixture ↔ actual behavior

Ledger effect: Generated governance records; live capability must remain distinct from policy-ready documentation.

I-021	18–19 Sep	A/F · Volumes 1–10
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Corpus reorganized into a pedagogical series and website manual

Relations considered: source corpus ↔ ordered researcher perspectives

Ledger effect: Generated accessible synthesis; compression and reordering losses remain indexed as unknown unless a statement crosswalk exists.

I-022	19 Sep	A/Q · Volume 11
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Recursive scalarization, adjacency, $c/d=\pi$, and operator dimensionalization synthesized

Relations considered: symbol/operator ↔ relation selection ↔ loss

Ledger effect: Recovered the early operator premise in recursive form; its own vocabulary remains another scalarization.

I-023	19–20 Sep local	M/Q/S/P · Volumes 1–9
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Second Editions become current while First Editions remain historical

Relations considered: earlier pedagogy ↔ Volume Eleven correction ↔ revised pedagogy

Ledger effect: No edition deletion intended. Current-status substitution and source preservation are separate relations.

I-024	19 Sep	D/F · website publication
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Volume One editable DOCX removed from public resources after PDF replacement

Relations considered: editable source ↔ public fixed-layout edition

Ledger effect: Actual website deletion recorded; Library source remains preserved.

I-025	20 Sep local	D/P · website publication
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Generic Volume 7–9 First Edition filenames removed when explicit First Edition archive copies and Second Editions were published

Relations considered: generic filename ↔ explicit historical identity ↔ current edition

Ledger effect: Files were removed from the active public path, but historical First Editions were preserved under explicit archive names.

I-026	19 Sep UTC	A/I · errata v1
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Development errata, chronology, collapse register, and complete ledgers created

Relations considered: source corpus ↔ audit interpretation

Ledger effect: Generated an audit representation; its narrative emphasis was insufficiently inventory-like.

I-027	19 Sep UTC	M/I/P · indexed edition
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Errata recast as this categorized inventory and relational change index

Relations considered: event ↔ operation class ↔ relation action ↔ evidence source

Ledger effect: Retains v1 in version history; adds addition/change/deletion distinctions and RP/site delta inventories.

3. Additions, changes, deletions, and preservation summary

Inventory surface	Additions / generated	Modifications / transformations	Deletions / removals	Preservation / unknowns
Library document corpus	77 unique file hashes among 132 records	Conceptual revisions and format changes classified per D-entry	No owned Library deletion established by the accessible inventory	55 duplicate/relocation placements; 30 duplicate groups; unavailable deleted drafts remain unknown
RP01→RP07 active sets	82 member-path additions	70 same-path content modifications	2 active-path removals	204 unchanged comparisons; removed items remain recoverable through lineage/Legacy evidence
Website repository	316 path additions	623 path modifications	7 path deletions	Git history preserves every commit; several deleted public paths have replacement or archival relations
Book series	11 volumes; appendices and correction layers	9 Second Edition revisions	No First Edition content deletion intended	First Editions 1–9 preserved; Volume 10–11 await recursive revision

Confirmed website deletions

Date / commit	Removed path	Relational disposition
15 Sep · c64e4966	dist/index.html; dist/script.js; dist/styles.css	Initial static build removed when the application-based research commons was added; repository history preserves the prior representation.
19 Sep · 43605f07	public/resources/Substrate_Cosmology_Volume_1_Introduction.docx	Editable public file removed after PDF replacement; editable source remains in the document archive.
20 Sep local · 38cd9650	generic Volume 7 First Edition PDF path	Explicit First Edition archive copy and Second Edition establish historical/current identities.
20 Sep local · d832394c	generic Volume 8 First Edition PDF path	Explicit First Edition archive copy and Second Edition establish historical/current identities.
20 Sep local · 5eb68e22	generic Volume 9 First Edition PDF path	Explicit First Edition archive copy and Second Edition establish historical/current identities.

No statement-level deletion inventory can be inferred from file snapshots alone. The absence of tracked redlines is recorded as U (unknown), not silently converted into 'no deletion.'

4. Executive findings and high-impact errata

The development record does not show one linear theory becoming progressively complete. It shows a repeated alternation between expansion and collapse: a new relational distinction is introduced; familiar physics, grammar, notation, or software compresses it; a later document notices the loss; then the correction becomes another representation that also requires audit.

The most important historical finding is that the operator problem was present at inception. The April manuscript says that scientific units and mathematical operators are scalars. The development then partially forgot or qualified that premise. Volume Eleven and the Second Editions recovered it in a more useful recursive form: operators need not be scalars in the mathematical rank sense to perform scalarization by selecting equivalences and suppressing alternatives.

The second major finding is methodological. The August Research Reference Edition already corrected several of the most consequential early overclaims: it changed 'Actual Physics' from a stated ontology into a research target; made measurement interaction-conditioned; separated inference from observation; required conservative recovery of established physics; preserved two 33-Tool lineages; and recorded loss in a collapse ledger. The later volumes should cite that correction layer more visibly.

The third major finding is evidential. RP01–RP07 constitute strong provenance and research-governance work, but not evidence for new physics. RP01 had a confirmed reproducibility defect; RP02 repaired it; RP03–RP07 added frame perturbation, lineage, reconstruction, failure retention, and fixture hardening. No blind 1996 validation had occurred at the cutoff.

Immediate critical items

EC-018	Critical	Reproducibility
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RP01's archived implementation script did not implement its claimed formulas

The v0.1 `implement_rp0_labyrinth.py` was a note/placeholder. The package therefore did not fully preserve the executable method it described.

Disposition. Corrected prospectively in RP02; RP01 remains immutable evidence of the defect.

EC-019	Critical	Blindness
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Development evidence must not be described as blind validation

Only GDELT 1995 was opened for development. At the audit cutoff, 1996 and later years and outcome layers remain locked; RP07 authorizes no real unlock.

Disposition. Current status: hypotheses frozen/dry-run infrastructure only; no blind-survival claim.

EC-004	High	Ontology
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The substrate was sometimes asserted as a known absolute ground floor

The April manuscript calls the substrate foundational, stateless, absolute, pre-causal, non-scalar reality. That moves from a limit on representation to an ontology claimed without direct access.

Disposition. Partly corrected by the August Reference Edition: Actual Physics is a research target, not observed ontology.

EC-010	High	Scalar collapse
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The operator premise was present early, then narrowed and rediscovered

The April manuscript explicitly says scientific units and mathematical operators are scalars. Later work often discussed only units/numbers, and the August Reference Edition qualified the universal claim as overreach. Volume Eleven recovered the recursive operator issue.

Disposition. Preserve the lineage conflict: an operator may scalarize by selection/loss without being a scalar in the rank-0-tensor sense.

EC-011	High	Operators
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Equality and division were initially used as transparent notation

Expressions such as $c/d=\pi$ compressed directed roles, boundary choice, metric, tolerance, operation history, and equivalence class. The symbols / and = were not consistently entered into the collapse ledger.

Disposition. Corrected in Volumes Eleven and One–Four Second Editions through operator registries and dimensionalization worksheets.

EC-015	High	AI attribution
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AI role language sometimes implied cognition, objectivity, memory, or authority

Phrases such as cognitive partner, objective reflection, canonical memory, emotion-equivalents, or coherence stabilizer can exceed what the records establish and can hide model-generated synthesis behind apparent agency.

Disposition. Attribute drafting, comparison, extraction, and synthesis explicitly; scientific responsibility remains with human researchers.

EC-023	High	Website
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A registry, policy, fixture, or schema is not the same as deployed behavior

The website contains many contracts, JSON registries, synthetic fixtures, and readiness records. Their presence documents intention and validation scaffolding but does not by itself prove a live forum, external review, or enforcement path.

Disposition. Publication ledger distinguishes documentation/infrastructure from observed functionality.

5. Inception: the April manuscript family

The initial manuscript is not a single file with a complete internal revision history. Four preserved artifacts occupy distinct roles. Their names overlap, and two share a manuscript title, but their metadata, lengths, and content show different snapshots or document types.

Artifact	Earliest supported date	Role and finding
Substrate Cosmology.odt	10 Apr 2026 00:39:45.91 (embedded)	Early developmental conversation/export; about 972,269 extracted characters. Begins with title refinement and drafting dialogue rather than a finished book.
Substrate Cosmology manuscript.doc	10 Apr 2026 13:34:12; last save 12 Apr 18:19:24 (compound-file metadata)	Word manuscript snapshot, revision 25, about 562 KB extracted text. Contains the book structure and early assertions. Time-zone relationship to the ODT creation time is not provable from metadata alone.
Substrate Cosmology manuscript.odt	10 Apr 2026 06:34:12.49 (embedded); labeled April 2026	Canonical Development Draft, about 537,874 extracted characters, 34 editing cycles. Exact duplicate later relocated into Recurrence Research.
Substrate Cosmology development.odt	14 Apr 2026 05:09:10.13 (embedded)	Large development transcript, about 1,934,507 extracted characters, preserving model/user interactions, wording discipline, manuscript construction, and drift.

What the manuscript established

- Scientific units, words, instruments, equations, and mathematical operators can collapse relational distinctions.
- The human observer lives inside the environment being described; measurement and cognition cannot be presumed external to it.
- Dimensional restoration and relational reassembly should preserve multiple admissible structures rather than force one final reconstruction.
- The developmental Tool sequence was meant to provide scaffolding for alternate perspectives, not a claim that a finite list exhausts Actual Physics.
- Engineering, agency, identity, ethics, and stewardship were extended from the relational program, often before formal and empirical bridges were available.

Where the manuscript collapsed its own critique

- It sometimes converted epistemic limits into positive ontology: 'absolute ground floor,' 'stateless,' 'precausal,' and 'everything mutually interacts.'
- It used spatial and architectural metaphors for a proposal that denies primitive space, then sometimes reasoned from the metaphor as though it were mechanism.
- It moved among representational dimensions, physical degrees of freedom, and speculative inhabited realms without a stable type label.
- It assigned AI roles using language that could be read as cognition, objectivity, memory, or authority rather than text-generation and synthesis functions.
- It sometimes presented downstream engineering and stewardship implications before an experimentally discriminating formal object existed.

The appropriate response is not to erase those passages. They document the reasoning environment from which later corrections emerged. Each should remain citable as an earlier formulation with a linked disposition.

6. Development chronology by phase

10–14 April 2026 · Inception and manuscript formation

Development conversations, title/structure work, and a manuscript family were created. The canonical manuscript states the units/operators-as-scalars premise, but also contains strong ontological and engineering language later qualified.

3–31 August 2026 · Continuity, formalization, and reference recovery

Continuity briefs, FRTT directions, apparatus and experimental documents, equation renderings, and the Research Reference Edition were produced. The Reference Edition introduced the clearest early correction layer: research-target language, conservative recovery, interaction-conditioning, admissible multiplicity, and two Tool lineages.

4–13 September 2026 · Recurrence laboratory and recovery points

Public visuals and the outcome-blind GDELT laboratory led to RP01–RP07. The sequence repaired reproducibility, separated recurrence from recursion, added frame-shaking and governance, reconstructed the Atlas, logged failures, and hardened fixture tests without opening 1996.

15–17 September 2026 · Research commons website

A public site grew through 70 commits before the book series: research navigation, questions, grants, scalar exploration, integrity gates, evidence and simulation schemas, accessibility, forum-readiness documentation, maintenance registries, attribution, and experiment infrastructure.

18–20 September 2026 local commit dates · Eleven-volume series and forward-only revisions

Volumes One–Ten organized the corpus; Volume Eleven made recursive scalarization and operator dimensionalization central. Volumes One–Nine were then republished as Second Editions while First Editions remained public archives.

Provenance pattern

The corpus contains conceptual documents, administrative files, images, data archives, code, prompts, research-governance records, books, and a software repository. Their repetition does not represent equal evidential weight. Conceptual ancestry is tracked by content and explicit lineage; file placement is tracked separately.

Thirty exact duplicate hash groups account for many apparent files. Examples include six copies of the FRTT direction, four copies of the chat transcript, six copies of the PreCrypto laboratory, four copies of the 1995 raw archive, four copies of the Atlas, and relocated copies of the manuscript and Reference Edition. The duplicates are still dated contributions to organization and preservation, but not new scientific claims.

7. Recovery-point evolution and experimental boundary

Recovery point	Change introduced	Errata and preserved boundary
RP01 · 7 Sep	1995-only recurrence candidates, two segmentations, neutral lambdas, frozen candidate hash, null summaries.	Confirmed defect: implementation script was a note, not executable formulas. Findings explicitly described as information-system recurrence, not physical modes.
RP02 · archive 7 Sep	Executable formulas; dimensional premise; recurrence/recursion distinction; frame completeness; scalar dependency; preservation and validation protocols.	Prospective correction of RP01. No later year opened; failure archive required.
RP03 · 7 Sep	Frame-shaking protocol and registry; Tool-lineage roles; candidate frame-region idea.	Did not change frozen formulas or inspect later data. Prevented one favorable frame from becoming proof.
RP04 · 12 Sep	Recovery governance, citation register, document hierarchy, development backlog, change-impact templates, embedded legacy checkpoints.	Continuity infrastructure can itself imply completeness; unknown and unresolved fields remain necessary.
RP05 · 12 Sep	Deterministic raw-to-Atlas reconstruction, logs, regenerated outputs, byte-for-byte comparisons.	Reconstruction code is new; narrative was copied from retained reference rather than recovered original source.
RP06 · 12 Sep	DEV-006 adapter integration and deterministic offline tests: 19/25 pass.	Six failures retained; fixtures only; did not authorize 1996.
RP07 · 12 Sep	Prospective hardening: 27/27 deterministic fixture tests; separate entropy branches retained.	RP06 failures remain immutable; Parquet environment block recorded; next item DEV-011; 1996 still locked.

Interpretation boundary

The RP sequence is an unusually valuable record of failure preservation and forward-only correction. Its strongest contribution is methodological: it prevents a later, better package from making the earlier defect disappear. The same discipline should govern the book series. A Second Edition should point to the exact statement corrected, preserve the First Edition, and declare whether the change is an extension, qualification, conflict, correction, supersession, or unresolved alternative.

The Labyrinth remains a representation and workflow experiment using a coded news-event archive. It can evaluate recurrence descriptors, blindness procedures, provenance, and frame sensitivity. A bridge to claims about fundamental physics would require a separately validated mapping and physical experiment.

8. Book-series edition audit

The volumes are a pedagogical reordering of the research corpus, not an independent evidential layer. Their principal value is perspective construction: they help a researcher notice where familiar language, units, equations, and institutional practices conceal the object of study.

Volume	Current state	Material revision or open action
1	Second Edition current; First Edition retained	Moves recursive scalarization to the beginning; warns that relational language and restoration tools also collapse; adds perspective recovery, $c/d=\pi$, operator, lens, correction, glossary, and source appendices.
2	Second Edition current; First Edition retained	Extends the audit from words/units to $/$, $=$, and all deployed operators; distinguishes equality types; renames 'uncollapsed' outputs as less-collapsed profiles; adds falsification and recovery-nonfactorization controls.
3	Second Edition current; First Edition retained	Preserves both Tool lineages and numbering drift; treats each Tool as an operator subject to recursive audit; adds call maps, impact records, and perspective-guided research appendices.
4	Second Edition current; First Edition retained	Recasts formalism around typed operator dimensionalization, domain/codomain, provenance, losses, equivalence packets, and string-inspired benchmarks; keeps FRTT a construction program.
5	Second Edition current; First Edition retained	Makes observation recursively interaction-conditioned; embeds detector and processing in the model; strengthens preregistration, alternative explanations, resource closure, and change-controlled replication.
6	Second Edition current; First Edition retained	Separates recurrence, recursion, repetition, resonance, and vibration; preserves unopened blind boundaries; applies frame perturbation to the experiment's own representations.
7	Second Edition current; First Edition retained	Treats matter and cosmological quantities as emergent descriptions without calling them nonexistent; requires standard-theory recovery, prospective differences, and explicit frame/quantity ledgers.
8	Second Edition current; First Edition retained	Places intervention claims behind evidence, resource, hazard, readiness, and reversibility gates; recursively audits engineering operators and avoids capability inflation.
9	Second Edition current; First Edition retained	Treats intelligence, agency, identity, ethics, consent, and stewardship as operational and governance representations, not automatic physical ontology; foregrounds affected parties.
10	First/current edition only	Website manual and commons guide. Needs a recursive and route-current Second Edition because site state and edition links changed after its production.
11	First/current edition only	Culminates operator scalarization, adjacency, recursion, $c/d=\pi$, dimensionalized operators, and multiple-perspective pedagogy. Needs an explicit self-audit so its own registry is not treated as terminal.

Series-wide correction rule

No edition should use 'uncollapsed' without a comparison class. Every proposed restoration, dimensionalization, registry, tensor, graph, or perspective is another finite map. The legitimate goal is not a final representation identical to Actual Physics; it is a better-declared profile that preserves distinctions long enough to test whether they change a legitimate comparison, prediction, or intervention.

Unresolved series actions

- Create Volume Ten Second Edition from the current route map and 91-commit site history; distinguish live behavior from policy, schema, fixture, and future capability.
- Add a Volume Eleven self-audit appendix: type its own operators, equivalence claims, perspective matrices, and stopping rules; record the losses introduced by 'recursion' and 'adjacency.'
- Add edition-to-edition statement-level change ledgers to Volumes One–Nine. Current revision notes are strong summaries but do not identify every altered claim by source locator.
- Cross-reference the August Research Reference Edition as the origin of several safeguards later presented through Volume Eleven: research-target language, operator provenance, multi-projection, anti-confirmation, and dual Tool lineages.

9. Website evolution and publication state

The website began on 15 September 2026 and accumulated 91 commits by the cutoff. The first 70 commits built a research commons and its maintenance/safety documentation. The remaining 21 commits published Volumes One–Eleven and Second Editions One–Nine.

Layer	Observed contribution	Collapse risk
Public explanation	Homepage framing, research questions, scalar explorer, reference pages, student workspace, accessible interaction.	A clear interface can make a provisional framework appear more settled than its evidence.
Research governance	Integrity gates, evidence relations, claim packets, replication index, change impact, maintenance, external review, contributor attribution.	A JSON record or policy file documents intent; it is not proof the process occurred externally.
Forum readiness	Identity, moderation, privacy, abuse, minors, sign-in recovery, subtopics, profiles, following, link safety.	Readiness and synthetic fixtures must not be described as a fully observed community system.
Book publication	First Editions preserved; Second Editions One–Nine linked as current; Volumes Ten and Eleven linked.	'Replacement' must remain a navigation/status change, not erasure of old editions.
Recovery resources	RP01–RP07, prompts, Atlas, PreCrypto lab, and consolidated intent are public resources.	Public availability does not change development findings into validated physics.

At the cutoff, the homepage explicitly links both current and First Edition archives for Volumes One–Nine. Volume Ten and Volume Eleven are single-edition links. The public resource directory also retains older or alternate exports. The complete commit ledger in Appendix B is the authoritative record of website changes for this audit.

10. Unintentional-collapse register

'Erratum' is used broadly: confirmed defects, corrections, unresolved contradictions, provenance hazards, and formulations likely to collapse distinctions. A potential collapse is not a finding that the underlying idea is false. It identifies where wording or representation claims more than the evidence supports or hides the operation that produced the claim.

EC-001	High	Lineage
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Inception date was hidden by upload dates

The principal manuscript entered the working archive on 31 August 2026, but embedded metadata places its creation on 10 April 2026 and labels it an April canonical development draft. Treating the upload as inception deletes more than four months of development.

Disposition. Corrected here: origin, save, upload, and publication dates are separate fields.

EC-002	High	Lineage
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Several April files are different document roles, not interchangeable editions

Substrate Cosmology.odt and Substrate Cosmology development.odt are large conversation/development exports; the .doc and manuscript.odt are manuscript snapshots. Similar names conceal role differences and can cause conversational material to be mistaken for canonical prose.

Disposition. Unresolved native revision graph; preserve all four and cite role plus hash.

EC-003	High	Metadata
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2013 DOCX dates are boilerplate, not project history

Many AI-produced DOCX files report 23 December 2013 in core properties despite 2026 content and archive entry. Using those properties would fabricate a thirteen-year lineage.

Disposition. Corrected: archive date is primary; embedded 2013 dates are marked invalid defaults.

EC-004	High	Ontology
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The substrate was sometimes asserted as a known absolute ground floor

The April manuscript calls the substrate foundational, stateless, absolute, pre-causal, non-scalar reality. That moves from a limit on representation to an ontology claimed without direct access.

Disposition. Partly corrected by the August Reference Edition: Actual Physics is a research target, not observed ontology.

EC-005	High	Recursive collapse
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The critique of states became the scalar statement 'Actual Physics is stateless'

Calling all independent physics stateless can reproduce the same error being criticized: a single predicate replaces unknown relational organization.

Disposition. Use as a provisional model restriction: do not require a global state decomposition unless earned.

EC-006	High	Recursive collapse
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'Relational' was occasionally treated as exempt from representation loss

Relations, adjacency, context, and recursion are also selected descriptions. Naming an object relational does not make it uncollapsed.

Disposition. Volume Eleven and Second Editions now require the critique to recurse into relational notation itself.

EC-007	High	Dimensions
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Dimensions were sometimes reified as cohabiting realms or species-bearing worlds

The early manuscript moves between coordinate/representational dimensions, physical degrees of freedom, and speculative alternate environments without consistently marking the transition.

Disposition. Use 'dimension' with an explicit type: spatial, internal, synthetic, graph, effective, representational, or speculative regime.

EC-008	Moderate	Language
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Spatial metaphors can smuggle a geometry into a pre-spatial proposal

Terms such as beneath, behind, ground floor, descent, and substrate help readers but can imply ordering and containment the framework says are not primitive.

Disposition. Retain as labeled metaphors; pair them with non-spatial operational definitions.

EC-009	High	Frame drift
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Reasoning repeatedly returned to relativity as the container

Frame, observer, spacetime, invariant, tensor, and covariance language often pulled proposals back into a relativistic description before the alternate relational frame had been independently specified.

Disposition. Use mainstream relativity as a recovery constraint and comparison, not as the unannounced generative frame.

EC-010	High	Scalar collapse
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The operator premise was present early, then narrowed and rediscovered

The April manuscript explicitly says scientific units and mathematical operators are scalars. Later work often discussed only units/numbers, and the August Reference Edition qualified the universal claim as overreach. Volume Eleven recovered the recursive operator issue.

Disposition. Preserve the lineage conflict: an operator may scalarize by selection/loss without being a scalar in the rank-0-tensor sense.

EC-011	High	Operators
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Equality and division were initially used as transparent notation

Expressions such as $c/d=\pi$ compressed directed roles, boundary choice, metric, tolerance, operation history, and equivalence class. The symbols / and = were not consistently entered into the collapse ledger.

Disposition. Corrected in Volumes Eleven and One–Four Second Editions through operator registries and dimensionalization worksheets.

EC-012	High	Recovery
--------	------	----------

'Uncollapsed profile' overstates what restoration can do

Any recovery profile is itself selected, finite, and encoded through additional operators. Information irreversibly lost cannot be uniquely reconstructed from a scalar result.

Disposition. Use 'less-collapsed relational profile relative to a declared purpose' and preserve unknown/lost fields.

EC-013	Moderate	String theory
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String-theory vocabulary can become explanatory substitution

String-inspired objects may help model recursion, adjacency, histories, or composition, but resemblance does not establish strings as substrate ontology.

Disposition. RP boundaries correctly keep String Theory downstream of blind recurrence survival; maintain that separation.

EC-014	High	Tool registry
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Two 33-Tool lineages were at risk of silent merger and renumbering

The developmental manuscript sequence and later formal operator registry overlap but are not identical. A single canonical list would erase discovery history and definition conflicts.

Disposition. Corrected by the Reference Edition, RP03+, and Volume Three: preserve both and crosswalk them.

EC-015	High	AI attribution
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AI role language sometimes implied cognition, objectivity, memory, or authority

Phrases such as cognitive partner, objective reflection, canonical memory, emotion-equivalents, or coherence stabilizer can exceed what the records establish and can hide model-generated synthesis behind apparent agency.

Disposition. Attribute drafting, comparison, extraction, and synthesis explicitly; scientific responsibility remains with human researchers.

EC-016	High	Engineering
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Speculative implications sometimes read as emerging capabilities

Teleportation, spacetime manipulation, alternate-dimensional apparatus, white holes, and transdimensional effects were discussed before a validated formalism or discriminating experiment existed.

Disposition. Volumes Seven and Eight Second Editions place these behind evidence, resource, safety, and readiness gates.

EC-017	High	Evidence
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Recurrence was vulnerable to collapse into unknown physics

Sequential persistence and mutual recurrence in GDELT can arise from reporting, batching, coding, temporal continuity, or model choices. They are not observations of precausal physics.

Disposition. RP01–RP07 state this boundary; retain ordinary alternatives and blind validation.

EC-018	Critical	Reproducibility
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RP01's archived implementation script did not implement its claimed formulas

The v0.1 `implement_rp0_labyrinth.py` was a note/placeholder. The package therefore did not fully preserve the executable method it described.

Disposition. Corrected prospectively in RP02; RP01 remains immutable evidence of the defect.

EC-019	Critical	Blindness
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Development evidence must not be described as blind validation

Only GDELT 1995 was opened for development. At the audit cutoff, 1996 and later years and outcome layers remain locked; RP07 authorizes no real unlock.

Disposition. Current status: hypotheses frozen/dry-run infrastructure only; no blind-survival claim.

EC-020	High	Domain
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An information-system experiment can be mistaken for a physical-substrate experiment

GDELT is a coded media-event archive. It can test representation, recurrence, and procedure, but cannot alone establish a claim about fundamental physics.

Disposition. Label as methodology/representation test unless a validated physical bridge is supplied.

EC-021	Moderate	Completeness
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‘Closed operational grammar’ and ‘complete’ claims outran the open research state

A closed registry may be administratively useful but risks declaring completeness through enumeration. Unknown relations and operators remain possible.

Disposition. Treat registries as versioned working sets with explicit unknown and unresolved fields.

EC-022	Moderate	Provenance
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Duplicate files can masquerade as independent corroboration or revisions

The archive contains many exact duplicate files under numbered names and relocated folders. Thirty duplicate hash groups were found.

Disposition. Corrected here by byte hashes and duplicate-of references; placement is recorded separately from content change.

EC-023	High	Website
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A registry, policy, fixture, or schema is not the same as deployed behavior

The website contains many contracts, JSON registries, synthetic fixtures, and readiness records. Their presence documents intention and validation scaffolding but does not by itself prove a live forum, external review, or enforcement path.

Disposition. Publication ledger distinguishes documentation/infrastructure from observed functionality.

EC-024	Moderate	Edition
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‘Substitute’ could be misread as delete or rewrite history

Second Editions became the current homepage editions, but First Editions remain public archive links and separate files.

Disposition. Correctly implemented as forward-only revision; preserve both and never overwrite edition identity.

EC-025	High	Series
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Volume Ten has not yet received the recursive Second Edition audit

The website manual describes a rapidly changing site and predates later Second Editions. It can freeze routes, functions, and claims that have already moved.

Disposition. Open action: issue a dated Second Edition or living-manual protocol tied to site commits.

EC-026	High	Series
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Volume Eleven can itself be mistaken for the final uncollapsed perspective

Its operator registries, multi-perspective matrices, and relational profiles remain representational selections. Recursion has no guaranteed terminal vocabulary.

Disposition. Open action: add a self-audit appendix that dimensionalizes Volume Eleven’s own operators and limits.

EC-027	Moderate	Citation
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Internal repetition is not independent support

A claim appearing in the manuscript, Reference Edition, volumes, and website may descend from one conversation or source. Counting documents would inflate evidential weight.

Disposition. Cite lineage, not frequency; separate external evidence, internal formulation, and AI synthesis.

EC-028	Moderate	Coverage
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No archive can prove it contains every historical contribution

This audit covers all 132 identified project-related Library records, 12 unique ZIP packages with 499 member entries, the April manuscript family, and 91 website commits. Unexported chats, deleted versions, and external sites are outside the available record.

Disposition. Keep this audit versioned; add newly recovered sources without rewriting prior findings.

11. Required next corrections and preservation rules

A. Statement-level change control

- Assign stable claim IDs to definitions, hypotheses, methods, evidence statements, and engineering implications.
- For every revision, record prior wording, new wording, reason, evidence basis, affected documents, and change type.
- Never use a new file name or edition number as a substitute for a claim-level ledger.

B. Recursive operator record

- For each symbol or transformation—including $=$, $/$, $+$, $-$, $\times$, composition, implication, set membership, indexing, averaging, normalization, graph adjacency, and the word 'is'—record domain, codomain, direction, frame, equivalence relation, retained distinctions, discarded distinctions, generated structure, and unknown loss.
- Distinguish 'mathematical scalar' from 'scalarizing operation.' An equality sign is not a rank-0 tensor, but its use can collapse several kinds of equivalence into identity.
- Do not call added metadata an inverse of a lossy map unless reconstruction uniqueness is proved. Treat it as a candidate extension constrained by provenance.

C. $c/d=\pi$ dissection record

A less-collapsed profile should retain at least: what c and d designate; boundary-selection protocol; geometry and metric; orientation; sampling and detector coupling; numerator/denominator direction; normalization; uncertainty and tolerance; equality type; operation history; excluded alternatives; and the downstream operation that could respond differently. If no permitted later operation changes, the profile is bookkeeping rather than a new physical variable.

D. Perspective discipline

- Use relativity, quantum mechanics, metrology, graph theory, category theory, tensor methods, and string-inspired structures as comparison languages with declared imports—not invisible containers.
- Begin every chapter with the perspective it asks the reader to suspend, the replacement lens being tried, and the loss introduced by that replacement.
- End every chapter with at least one alternate account, one ordinary explanation, one falsification path, and one statement that remains unknown.

E. Preservation

- Keep all April manuscript variants and transcripts immutable and separately identified.
- Preserve RP01's defect, RP06's failed tests, nulls, outliers, and unselected branches.
- Hash duplicate exports and record relocation without counting it as conceptual corroboration.
- Version this errata report. Later discoveries should append dispositions and new entries rather than revise history silently.

The governing principle is not 'avoid all collapse.' Research cannot proceed without selection. The requirement is to make the selection inspectable, retain what can be retained, state what cannot be recovered, and keep alternate perspectives available long enough for a discriminating relation to emerge.

Appendix A. Complete categorized document inventory — 132 records

Every identified archive record is classified by operation and relation domain. Archive dates show preservation/ingestion, not necessarily authorship. 'Discarded: none established' means the surviving record does not prove a deletion; it does not assert that no wording was ever removed.

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-001	Archive: 2026-08-03T22:42:50.434868Z Embedded 2013 timestamp rejected as template metadata Supporting research artifact	A addition	Separate_VA_Claim_Statements_Template.docx /Substrate Cosmology/General Research/Separate_VA_Claim_Statements_Template.docx Administrative claim-statement template; peripheral to the theory but part of the preserved project record.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 d163f0dbfe2e7cec...
D-002	Archive: 2026-08-10T00:53:12.359018Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	A addition	Substrate_Cosmology_Research_Continuity.docx /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity.docx Continuity brief preserving the Tool program, meta-framework, tensor-development direction, and research roadmap.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 fac7027ab5b3362...
D-003	Archive: 2026-08-10T01:28:17.071201Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	A addition	Substrate_Cosmology_Research_Continuity_Expanded_Context.docx /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context.docx Expanded continuity brief linking manuscript concepts, unresolved threads, and downstream formalization.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 b47f91e05cbef412...
D-004	Archive: 2026-08-10T02:19:30.735251Z Origin: 2026-08-10T02:12:03Z (embedded created) Mathematics / operators	A addition	Fibered_Relational_Tensor_Theory_Research_Direction.docx /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction.docx FRTT research direction: translated relational proposals toward a tensor-system program and identified formal work needed.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 7036e692c45480f7...
D-005	Archive: 2026-08-12T02:06:16.973973Z Origin: 2026-08-10T02:12:03Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Fibered_Relational_Tensor_Theory_Research_Direction(1).docx /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction(1).docx Exact byte duplicate or relocated copy of D-004; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-004; SHA-256 7036e692c45480f7...
D-006	Archive: 2026-08-12T02:06:21.303270Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Research_Continuity_Expanded_Context(1).docx /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context(1).docx Exact byte duplicate or relocated copy of D-003; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-003; SHA-256 b47f91e05cbef412...
D-007	Archive: 2026-08-12T02:14:42.217337Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	A addition	Substrate_Cosmology_Chat_Session_Transcript.docx /Substrate Cosmology/General Research/Substrate_Cosmology_Chat_Session_Transcript.docx Conversation transcript preserving proposal development, corrections, and model/user interaction context.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 93ac4d627bd550ef...
D-008	Archive: 2026-08-12T05:03:39.262626Z Origin: 2026-08-12T04:57:36.699Z (embedded created) Mathematics / operators	A addition	Teleportation_as_Byproduct_of_FRTT.docx /Substrate Cosmology/General Research/Teleportation_as_Byproduct_of_FRTT.docx Conditional FRTT engineering speculation concerning teleportation; hypothesis document, not capability evidence.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 28f65c09b543bf80...
D-009	Archive: 2026-08-12T05:03:39.278873Z Origin: 2026-08-10T02:12:03Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Fibered_Relational_Tensor_Theory_Research_Direction(2).docx /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction(2).docx Exact byte duplicate or relocated copy of D-004; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-004; SHA-256 7036e692c45480f7...
D-010	Archive: 2026-08-12T05:03:39.615451Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Chat_Session_Transcript(1).docx /Substrate Cosmology/General Research/Substrate_Cosmology_Chat_Session_Transcript(1).docx Exact byte duplicate or relocated copy of D-007; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-007; SHA-256 93ac4d627bd550ef...
D-011	Archive: 2026-08-12T05:03:40.972352Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Research_Continuity_Expanded_Context(2).docx /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context(2).docx Exact byte duplicate or relocated copy of D-003; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-003; SHA-256 b47f91e05cbef412...
D-012	Archive: 2026-08-12T05:19:15.851148Z Origin: 2026-08-12T05:18:57Z (embedded created) Measurement / experiment	A addition	Alternate_Dimension_Scalar_Laboratory_Apparatus.docx /Substrate Cosmology/General Research/Alternate_Dimension_Scalar_Laboratory_Apparatus.docx Proposed apparatus and scalar-laboratory architecture for testing alternate relational representations.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 99cf2d3d5cb236a...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-013	Archive: 2026-08-12T07:03:21.053315Z Origin: 2026-08-12T04:57:36.699Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Teleportation_as_Byproduct_of_FRTT(1).docx /Substrate Cosmology/General Research/Teleportation_as_Byproduct_of_FRTT(1).docx Exact byte duplicate or relocated copy of D-008; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-008; SHA-256 28f65c09b543bf80...
D-014	Archive: 2026-08-12T07:03:21.267234Z Origin: 2026-08-10T02:12:03Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Fibered_Relational_Tensor_Theory_Research_Direction(3).docx /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction(3).docx Exact byte duplicate or relocated copy of D-004; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-004; SHA-256 7036e692c54807f...
D-015	Archive: 2026-08-12T07:03:21.279531Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Chat_Session_Transcript(2).docx /Substrate Cosmology/General Research/Substrate_Cosmology_Chat_Session_Transcript(2).docx Exact byte duplicate or relocated copy of D-007; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-007; SHA-256 93ac4d627bd550ef...
D-016	Archive: 2026-08-12T07:03:23.021438Z Origin: 2026-08-12T05:18:57Z (embedded created) Measurement / experiment	X exact duplicate; R relocation; P preservation	Alternate_Dimension_Scalar_Laboratory_Apparatus(1).docx /Substrate Cosmology/General Research/Alternate_Dimension_Scalar_Laboratory_Apparatus(1).docx Exact byte duplicate or relocated copy of D-012; no independent conceptual change detected.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-012; SHA-256 99cf2d3c5cbb236a...
D-017	Archive: 2026-08-12T07:03:23.533156Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Research_Continuity_Expanded_Context(3).docx /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context(3).docx Exact byte duplicate or relocated copy of D-003; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-003; SHA-256 b47f91e05cbef412...
D-018	Archive: 2026-08-13T03:15:21.536170Z Origin: 2026-09-19 20:56:51.78628Z (embedded created) Administration / development	A addition	400_Related_Grant_Opportunities_Ranked.xlsx /Substrate Cosmology/General Research/400_Related_Grant_Opportunities_Ranked.xlsx Ranked funding-opportunity workbook; research-administration contribution rather than theory evidence.	Domain: research need ↔ resource/opportunity ↔ institutional action Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 11271f4064ced4f2...
D-019	Archive: 2026-08-13T11:53:11.828048Z Visual communication	A addition; F format/presentation transform	Graph-Sensitive_Scalar_Infographic.png /Substrate Cosmology/General Research/Graph-Sensitive_Scalar_Infographic.png Infographic communicating graph-sensitive scalarization and context dependence.	Domain: formal relation ↔ image ↔ interpretation Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 6d3736821e0eac60...
D-020	Archive: 2026-08-13T13:15:41.372803Z Embedded 2013 timestamp rejected as template metadata Measurement / experiment	A addition	FRTT_Experimental_Modeling_Protocol_Equations_as_Images.docx /Substrate Cosmology/General Research/FRTT_Experimental_Modeling_Protocol_Equations_as_Images.docx Experimental modeling protocol for FRTT, with equation presentation and test-design scaffolding.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 189ee91a07905573...
D-021	Archive: 2026-08-16T22:36:43.246106Z Embedded 2013 timestamp rejected as template metadata Supporting research artifact	A addition; F format/presentation transform	Substrate_Cosmology_BH_Entropy_Equation_Images.docx /Substrate Cosmology/General Research/Substrate_Cosmology_BH_Entropy_Equation_Images.docx Black-hole entropy reinterpretation and equation presentation; connects relational framing to an established cosmological topic.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 1654585b75967f27...
D-022	Archive: 2026-08-30T16:09:05.484420Z Embedded 2013 timestamp rejected as template metadata Mathematics / operators	A addition; F format/presentation transform	Substrate_Cosmology_33_Tools_Inline_Equation_Images.docx /Substrate Cosmology/General Research/Substrate_Cosmology_33_Tools_Inline_Equation_Images.docx Equation-image rendering of the formal 33-Tool lineage; preserves a registry that differs from the developmental sequence.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 d4fdbdbf837b4c2a...
D-023	Archive: 2026-08-31T00:57:40.879501Z Origin: 2026-04-10T06:34:12.49 (embedded creation-date) Inception / manuscript	A addition	Substrate_Cosmology_manuscript.odt /Substrate Cosmology/General Research/Substrate_Cosmology_manuscript.odt Canonical April 2026 manuscript snapshot: dimensional-depth program, developmental Tools, appendices, and early ontological/speculative language.	Domain: model ↔ Actual Physics; unit/operator ↔ retained relation; frame ↔ observation Ledger: retained: developmental reasoning; generated: vocabulary, Tools, and hypotheses; transformed/discarded: not fully reconstructable without native revision history; unknown: conversation omissions	Not present as a public website resource at audit date; SHA-256 87f9003a555a68df...
D-024	Archive: 2026-08-31T01:46:55.762486Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	A addition; Q qualification; I integration	Substrate_Cosmology_Research_Reference_Edition_v1.docx /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Reference_Edition_v1.docx Research Reference Edition v1.0: converted literal ontology into research targets, preserved two Tool lineages, and added provenance, falsification, and collapse-ledger controls.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: April lineage; transformed: ontology into research target and claims into typed classes; merged: related safeguards; discarded: no source deletion; unresolved: competing Tool lineages	Not present as a public website resource at audit date; SHA-256 f9d07a2fafa918a7...
D-025	Archive: 2026-09-04T00:56:45.047829Z Visual communication	A addition; F format/presentation transform	Holographic_substrate_cosmology.png /Substrate Cosmology/Facebook Group/Holographic_substrate_cosmology.png Public-facing visual communication asset; interpretive illustration rather than evidence.	Domain: formal relation ↔ image ↔ interpretation Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 b0b667dd929c2f8f...
D-026	Archive: 2026-09-04T00:56:45.788481Z Visual communication	M related-concept modification; F format/presentation transform	Holographic_Substrate_Cosmology(1).png /Substrate Cosmology/Facebook Group/Holographic_Substrate_Cosmology(1).png Public-facing visual communication asset; interpretive illustration rather than evidence.	Domain: formal relation ↔ image ↔ interpretation Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 ce8ec9be0789db88...
D-027	Archive: 2026-09-04T00:56:46.512700Z Visual communication	A addition; F format/presentation transform	Holographic_sphere_with_centered_credit.png /Substrate Cosmology/Facebook Group/Holographic_sphere_with_centered_credit.png Public-facing visual communication asset; interpretive illustration rather than evidence.	Domain: formal relation ↔ image ↔ interpretation Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 af612cd9bf8410db6...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-028	Archive: 2026-09-04T00:59:20.161737Z Visual communication	A addition; F format/presentation transform	Substrate Cosmology: Relational Framework.png / Substrate Cosmology/Facebook Group/Substrate Cosmology: Relational Framework.png Public-facing visual communication asset; interpretive illustration rather than evidence.	Domain: formal relation ↔ image ↔ interpretation Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 c8150a6b57864707...
D-029	Archive: 2026-09-04T01:11:17.379780Z Visual communication	A addition; F format/presentation transform	substrate-cosmology-recovery-equation.png / Substrate Cosmology/Facebook Group/substrate-cosmology-recovery-equation.png Public-facing visual communication asset; interpretive illustration rather than evidence.	Domain: formal relation ↔ image ↔ interpretation Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 28a4850baab46d9e...
D-030	Archive: 2026-09-06T05:24:03.803736Z Embedded 2013 timestamp rejected as template metadata Measurement / experiment	A addition; F format/presentation transform	Substrate_Cosmology_Tarot_Forced_Recurrence_Protocol_Equation_Images.docx / Substrate Cosmology/Tarot Card Experiment/Substrate_Cosmology_Tarot_Forced_Recurrence_Protocol_Equation_Images.docx Forced-recurrence exploratory protocol; demonstrates recurrence methodology in a nonstandard test domain.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 fbeaa28b54de5e2c...
D-031	Archive: 2026-09-06T21:59:17.465316Z Recurrence / data	A addition	Substrate_PreCrypto_Blind_Lab_v01.zip / Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01.zip Outcome-blind pre-cryptocurrency laboratory package, including lock/unlock protocol, source handling, and candidate-freezing workflow.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; SHA-256 0e574cf3becbee2...
D-032	Archive: 2026-09-06T22:04:18.801164Z Recurrence / data	X exact duplicate; R relocation; P preservation	Substrate_PreCrypto_Blind_Lab_v01(1).zip / Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01(1).zip Exact byte duplicate or relocated copy of D-031; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-031; SHA-256 0e574cf3becbee2...
D-033	Archive: 2026-09-06T22:15:38.213102Z Recurrence / data	A addition	1995.zip / Substrate Cosmology/Recurrence Research/1995.zip Registered GDELТ 1995 raw archive used as the open development dataset; later years remain blind.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Not present as a public website resource at audit date; SHA-256 f743759ab1907b78...
D-034	Archive: 2026-09-06T22:24:34.754751Z Recurrence / data	A addition	GDELТ_1995_Dimensional_Atlas_v01.zip / Substrate Cosmology/Recurrence Research/GDELТ_1995_Dimensional_Atlas_v01.zip GDELТ 1995 derived dimensional atlas and transformation outputs.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; SHA-256 1759d543ec9356d6...
D-035	Archive: 2026-09-07T00:27:55.913334Z Supporting research artifact	A addition	Pasted markdown(5).md / Substrate Cosmology/Recurrence Research/Pasted markdown(5).md Prompt/instruction record defining string-compatible recurrence research boundaries and terminology.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; SHA-256 b63a9e899d256911...
D-036	Archive: 2026-09-07T00:30:04.816285Z Recurrence / data	X exact duplicate; R relocation; P preservation	1995(1).zip / Substrate Cosmology/Recurrence Research/1995(1).zip Exact byte duplicate or relocated copy of D-033; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Not present as a public website resource at audit date; duplicate of D-033; SHA-256 f743759ab1907b78...
D-037	Archive: 2026-09-07T00:30:28.211528Z Recurrence / data	X exact duplicate; R relocation; P preservation	Substrate_PreCrypto_Blind_Lab_v01(2).zip / Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01(2).zip Exact byte duplicate or relocated copy of D-031; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-031; SHA-256 0e574cf3becbee2...
D-038	Archive: 2026-09-07T00:31:24.998896Z Recurrence / data	X exact duplicate; R relocation; P preservation	GDELТ_1995_Dimensional_Atlas_v01(1).zip / Substrate Cosmology/Recurrence Research/GDELТ_1995_Dimensional_Atlas_v01(1).zip Exact byte duplicate or relocated copy of D-034; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-034; SHA-256 1759d543ec9356d6...
D-039	Archive: 2026-09-07T00:31:41.294388Z Recurrence / data	X exact duplicate; R relocation; P preservation	String-Compatible Recurrence Research Prompt.md / Substrate Cosmology/Recurrence Research/String-Compatible Recurrence Research Prompt.md Exact byte duplicate or relocated copy of D-035; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; duplicate of D-035; SHA-256 b63a9e899d256911...
D-040	Archive: 2026-09-07T00:31:43.986471Z Recurrence / data	X exact duplicate; R relocation; P preservation	GDELТ 1995 Raw.zip / Substrate Cosmology/Recurrence Research/GDELТ 1995 Raw.zip Exact byte duplicate or relocated copy of D-033; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Not present as a public website resource at audit date; duplicate of D-033; SHA-256 f743759ab1907b78...
D-041	Archive: 2026-09-07T00:31:45.240623Z Recurrence / data	X exact duplicate; R relocation; P preservation	Substrate PreCrypto Blind Lab v01.zip / Substrate Cosmology/Recurrence Research/Substrate PreCrypto Blind Lab v01.zip Exact byte duplicate or relocated copy of D-031; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-031; SHA-256 0e574cf3becbee2...
D-042	Archive: 2026-09-07T00:31:47.032208Z Recurrence / data	X exact duplicate; R relocation; P preservation	GDELТ 1995 Dimensional Atlas v01.zip / Substrate Cosmology/Recurrence Research/GDELТ 1995 Dimensional Atlas v01.zip Exact byte duplicate or relocated copy of D-034; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-034; SHA-256 1759d543ec9356d6...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-043	Archive: 2026-09-07T00:39:34.079635Z Recovery-point governance	A addition	RP0 String-Compatible Recurrence Labyrinth v01.zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v01.zip RP01: froze 1995 candidates and recurrence descriptors; later found to contain a non-executable placeholder script.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; SHA-256 9eef6e63a48f1ce1...
D-044	Archive: 2026-09-07T00:40:19.993148Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP0_String_Compatible_Recurrence_Labyrinth_v01.zip /Substrate Cosmology/Recurrence Research/RP0_String_Compatible_Recurrence_Labyrinth_v01.zip Exact byte duplicate or relocated copy of D-043; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; duplicate of D-043; SHA-256 9eef6e63a48f1ce1...
D-045	Archive: 2026-09-07T00:40:21.019000Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP0_String_Compatible_Recurrence_Labyrinth_v01(1).zip /Substrate Cosmology/Recurrence Research/RP0_String_Compatible_Recurrence_Labyrinth_v01(1).zip Exact byte duplicate or relocated copy of D-043; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; duplicate of D-043; SHA-256 9eef6e63a48f1ce1...
D-046	Archive: 2026-09-07T00:40:21.619235Z Supporting research artifact	A addition	README.md /Substrate Cosmology/Recurrence Research/README.md Preserved project artifact; contribution summarized by its title and location.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 7b80bf048f76592...
D-047	Archive: 2026-09-07T01:28:22.387044Z Recovery-point governance	A addition; M prospective modification; P parent immutable	RP0 String-Compatible Recurrence Labyrinth v02.zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v02.zip RP02: repaired RP01 reproducibility with executable formulas; added dimensional premise, scalar dependency, preservation, and validation controls.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; SHA-256 1ed38e3f74e30d0b...
D-048	Archive: 2026-09-07T04:31:31.103199Z Recovery-point governance	A addition; M prospective modification; P parent immutable	RP0 String-Compatible Recurrence Labyrinth v03.zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v03.zip RP03: preserved the computational core and added frame-shaking architecture, Tool-lineage separation, and perturbation registry.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; SHA-256 23737068ff61ebfb...
D-049	Archive: 2026-09-12T00:31:42.923846Z Recovery-point governance	A addition; M prospective modification; P parent immutable	RP0 String-Compatible Recurrence Labyrinth v04.zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v04.zip RP04: added recovery-point governance, citation register, document hierarchy, development backlog, and typed continuity controls.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; SHA-256 17e548467a243866...
D-050	Archive: 2026-09-12T01:01:49.229663Z Recovery-point governance	A addition; M prospective modification; P parent immutable	RP0 String-Compatible Recurrence Labyrinth v05.zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v05.zip RP05: added deterministic raw-to-Atlas reconstruction, transformation/failure logs, and byte-level comparison evidence.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; SHA-256 2abe521218c7efd4...
D-051	Archive: 2026-09-12T01:30:55.950491Z Recovery-point governance	A addition; I continuity addition; P parent immutable	RP05_to_RP06_Continuation_Prompts.md /Substrate Cosmology/Recurrence Research/RP05_to_RP06_Continuation_Prompts.md Continuation prompt defining the next recovery-point boundaries, deficiencies, and permitted actions.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 a60d5c976ddc6218...
D-052	Archive: 2026-09-12T02:16:05.932466Z Recovery-point governance	A addition; I continuity addition; P parent immutable	RP05 Continuity Supplement 01.zip /Substrate Cosmology/Recurrence Research/RP05 Continuity Supplement 01.zip Continuity supplement preserving the transition between adjacent recovery points without rewriting the parent.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 1da58c1eddb9bb1f...
D-053	Archive: 2026-09-12T02:16:05.952409Z Recovery-point governance	A addition; M prospective modification; P parent immutable	RP0 String-Compatible Recurrence Labyrinth v06.zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v06.zip RP06: integrated DEV-006 offline tests; recorded 19/25 passes and retained six unresolved safety/execution defects.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; SHA-256 bb4f80cc1052b88a...
D-054	Archive: 2026-09-12T02:23:22.169762Z Recovery-point governance	A addition; I continuity addition; P parent immutable	RP06_to_RP07_Continuation_Prompts.md /Substrate Cosmology/Recurrence Research/RP06_to_RP07_Continuation_Prompts.md Continuation prompt defining the next recovery-point boundaries, deficiencies, and permitted actions.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 d5bfea50c8b2e62a...
D-055	Archive: 2026-09-12T23:33:56.764660Z Recovery-point governance	A addition; I continuity addition; P parent immutable	RP06 Continuity Supplement 01.zip /Substrate Cosmology/Recurrence Research/RP06 Continuity Supplement 01.zip Continuity supplement preserving the transition between adjacent recovery points without rewriting the parent.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 7f2e5a8b1d846c97...
D-056	Archive: 2026-09-12T23:33:56.778134Z Recovery-point governance	A addition; M prospective modification; P parent immutable	RP0 String-Compatible Recurrence Labyrinth v07.zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v07.zip RP07: hardened DEV-006 to 27/27 prospective fixture tests while preserving RP06 failures and keeping 1996 locked.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; SHA-256 3c0e53fa209561ea...
D-057	Archive: 2026-09-12T23:41:45.127872Z Recovery-point governance	A addition; I continuity addition; P parent immutable	RP07_to_RP08_Continuation_Prompts.md /Substrate Cosmology/Recurrence Research/RP07_to_RP08_Continuation_Prompts.md Continuation prompt defining the next recovery-point boundaries, deficiencies, and permitted actions.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; SHA-256 c5e8bcb13291a9a9...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-058	Archive: 2026-09-13T00:20:58.330672Z Recovery-point governance	A addition	CONSOLIDATED_INTENTS_AND_EMERGENCE_PROTOCOL.md /Substrate Cosmology/Recurrence Research/CONSOLIDATED_INTENTS_AND_EMERGENCE_PROTOCOL.md Consolidated intent and emergence protocol aligning research purpose, boundaries, and continuation practices.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; SHA-256 e2ecd326b8244183...
D-059	Archive: 2026-09-13T14:23:24.733370Z Supporting research artifact	A addition; F format/presentation transform	ChatGPT Image Aug 13, 2026, 04_53_38 AM.jpeg /Substrate Cosmology/Recurrence Research/ChatGPT Image Aug 13, 2026, 04_53_38 AM.jpeg Preserved project artifact; contribution summarized by its title and location.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 5a54a8555671ca2c...
D-060	Archive: 2026-09-13T14:23:25.048637Z Recurrence / data	X exact duplicate; R relocation; P preservation	GDELT_1995_Dimensional_Atlas_v01(2).zip /Substrate Cosmology/Recurrence Research/GDELT_1995_Dimensional_Atlas_v01(2).zip Exact byte duplicate or relocated copy of D-034; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-034; SHA-256 1759d543ec9356d6...
D-061	Archive: 2026-09-13T14:23:25.155228Z Embedded 2013 timestamp rejected as template metadata Mathematics / operators	A addition	FRTT_Tensor_System_Blueprint.docx /Substrate Cosmology/Recurrence Research/FRTT_Tensor_System_Blueprint.docx Blueprint for a typed FRTT tensor system and formal implementation path.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 1b976e3749952d77...
D-062	Archive: 2026-09-13T14:23:25.430177Z Origin: 2026-08-13T02:03:00Z (embedded created) Mathematics / operators	A addition	Scaling Scientific Units Dimensional Extensions.docx /Substrate Cosmology/Recurrence Research/Scaling Scientific Units Dimensional Extensions.docx Dimensional extensions for scientific units; attempts to retain relational attributes suppressed by scalar reporting.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 7c40e8a28edb54d4...
D-063	Archive: 2026-09-13T14:23:25.755972Z Supporting research artifact	A addition	helios_collective.html /Substrate Cosmology/Recurrence Research/helios_collective.html Interactive or narrative collective-intelligence artifact connected to relational agency/identity themes.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 cf659706aff3459b...
D-064	Archive: 2026-09-13T14:23:25.890813Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP0_String-Compatible_Recurrence_Labyrinth_v01(2).zip /Substrate Cosmology/Recurrence Research/ RP0_String-Compatible_Recurrence_Labyrinth_v01(2).zip Exact byte duplicate or relocated copy of D-043; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; duplicate of D-043; SHA-256 9eef6e63a48f1ce1...
D-065	Archive: 2026-09-13T14:23:26.356934Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Chat_Session_Transcript.docx /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_Chat_Session_Transcript.docx Exact byte duplicate or relocated copy of D-007; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-007; SHA-256 93ac4d627bd550ef...
D-066	Archive: 2026-09-13T14:23:26.790766Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP07_to_RP08_Continuation_Prompts(1).md /Substrate Cosmology/Recurrence Research/ RP07_to_RP08_Continuation_Prompts(1).md Exact byte duplicate or relocated copy of D-057; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; duplicate of D-057; SHA-256 c5e8bcb13291a9a9...
D-067	Archive: 2026-09-13T14:23:26.805548Z Origin: 2026-08-10T02:12:03Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Fibered_Relational_Tensor_Theory_Research_Direction.docx /Substrate Cosmology/Recurrence Research/Fibered_Relational_Tensor_Theory_Research_Direction.docx Exact byte duplicate or relocated copy of D-004; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-004; SHA-256 7036e692c45480f7...
D-068	Archive: 2026-09-13T14:23:27.938312Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP05_to_RP06_Continuation_Prompts(1).md /Substrate Cosmology/Recurrence Research/ RP05_to_RP06_Continuation_Prompts(1).md Exact byte duplicate or relocated copy of D-051; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-051; SHA-256 a60d5c976ddc6218...
D-069	Archive: 2026-09-13T14:23:28.264676Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Research_Continuity.docx /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_Research_Continuity.docx Exact byte duplicate or relocated copy of D-002; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-002; SHA-256 fac67027ab5b3362...
D-070	Archive: 2026-09-13T14:23:28.349870Z Origin: 2026-08-12T05:18:00Z (embedded created) Measurement / experiment	M related-concept modification	Alternate_Dimension_Scalar_Laboratory_Apparatus.docx /Substrate Cosmology/Recurrence Research/Alternate_Dimension_Scalar_Laboratory_Apparatus.docx Proposed apparatus and scalar-laboratory architecture for testing alternate relational representations.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 546072eaf12edf5b...
D-071	Archive: 2026-09-13T14:23:28.475419Z Origin: 2026-09-19 20:56:52.911646 (embedded created) Administration / development	X exact duplicate; R relocation; P preservation	400_Related_Grant_Opportunities_Ranked.xlsx /Substrate Cosmology/Recurrence Research/400_Related_Grant_Opportunities_Ranked.xlsx Exact byte duplicate or relocated copy of D-018; no independent conceptual change detected.	Domain: research need ↔ resource/opportunity ↔ institutional action Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-018; SHA-256 1127114064ced4f2...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-072	Archive: 2026-09-13T14:23:28.570745Z Origin: 2026-08-22T11:11:00Z (embedded modified) Continuity / recovery	M related-concept modification	Substrate_Cosmology_Research_Continuity_Expanded_Context.docx /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_Research_Continuity_Expanded_Context.docx Expanded continuity brief linking manuscript concepts, unresolved threads, and downstream formalization.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 c3bc8c49744651d9...
D-073	Archive: 2026-09-13T14:23:28.831148Z Recurrence / data	X exact duplicate; R relocation; P preservation	Substrate_PreCrypto_Blind_Lab_v01(3).zip /Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01(3).zip Exact byte duplicate or relocated copy of D-031; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-031; SHA-256 0e574cf3becbee2...
D-074	Archive: 2026-09-13T14:23:28.837488Z Origin: 2026-08-10T02:18:00Z (embedded created) Administration / development	A addition	Recommended Direction.docx /Substrate Cosmology/Recurrence Research/Recommended Direction.docx Research-direction recommendation and prioritization record.	Domain: research need ↔ resource/opportunity ↔ institutional action Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 dfb7477c155a8...
D-075	Archive: 2026-09-13T14:23:28.958288Z Origin: 2026-08-16T03:55:00Z (embedded created) Conditional engineering / cosmology	A addition	Big Bang and White Holes in Substrate Cosmology.docx /Substrate Cosmology/Recurrence Research/Big Bang and White Holes in Substrate Cosmology.docx Conditional cosmological interpretation of Big Bang/white-hole concepts through the substrate framework.	Domain: formal relation ↔ physical inference ↔ capability/safety claim Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 ed8a79388e0e4f17...
D-076	Archive: 2026-09-13T14:23:29.325961Z Embedded 2013 timestamp rejected as template metadata Measurement / experiment	X exact duplicate; R relocation; P preservation	Tarot_Forced_Recurrence_Protocol.docx /Substrate Cosmology/Recurrence Research/Tarot_Forced_Recurrence_Protocol.docx Exact byte duplicate or relocated copy of D-030; no independent conceptual change detected.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-030; SHA-256 fbeaa28b54de5e2c...
D-077	Archive: 2026-09-13T14:23:29.585263Z Origin: 2026-08-13T11:24:00Z (embedded created) Measurement / experiment	A addition	Cross correlation experiments.docx /Substrate Cosmology/Recurrence Research/Cross correlation experiments.docx Cross-correlation experiment proposals and comparison strategies.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 0b928424524b58dd...
D-078	Archive: 2026-09-13T14:23:29.843152Z Origin: 2026-08-17T02:27:00Z (embedded modified) Mathematics / operators	A addition	FRTT_Functorial_Translation_Blueprint 2.docx /Substrate Cosmology/Recurrence Research/FRTT_Functorial_Translation_Blueprint 2.docx Functorial translation blueprint for mapping between relational and conventional representations.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 5438d4ae610aa728...
D-079	Archive: 2026-09-13T14:23:30.212108Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP06_to_RP07_Continuation_Prompts(1).md /Substrate Cosmology/Recurrence Research/RP06_to_RP07_Continuation_Prompts(1).md Exact byte duplicate or relocated copy of D-054; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-054; SHA-256 d5bfea50c8b2e62a...
D-080	Archive: 2026-09-13T14:23:30.759352Z Origin: 2026-04-10T06:34:12.49 (embedded creation-date) Inception / manuscript	X exact duplicate; R relocation; P preservation	Substrate Cosmology manuscript.odt /Substrate Cosmology/Recurrence Research/Substrate Cosmology manuscript.odt Exact byte duplicate or relocated copy of D-023; no independent conceptual change detected.	Domain: model ↔ Actual Physics; unit/operator ↔ retained relation; frame ↔ observation Ledger: retained: developmental reasoning; generated: vocabulary, Tools, and hypotheses; transformed/discarded: not fully reconstructable without native revision history; unknown: conversation omissions	Not present as a public website resource at audit date; duplicate of D-023; SHA-256 87f9003a555a68df...
D-081	Archive: 2026-09-13T14:23:30.999325Z Origin: 2026-08-12T07:12:00Z (embedded created) Measurement / experiment	A addition	Experimental Program for Exploring Nonrelativistic Relational Physics.docx /Substrate Cosmology/Recurrence Research/Experimental Program for Exploring Nonrelativistic Relational Physics.docx Experimental program for nonrelativistic relational physics, including conservative comparison and test boundaries.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 fbbca48e1fcbecbe0...
D-082	Archive: 2026-09-13T14:23:32.082837Z Origin: 2026-08-16T23:05:00Z (embedded created) Supporting research artifact	A addition	Substrate_Cosmology_BH_Entropy.docx /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_BH_Entropy.docx Black-hole entropy reinterpretation and equation presentation; connects relational framing to an established cosmological topic.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 be175f38db2fbbf3...
D-083	Archive: 2026-09-13T14:23:32.560821Z Origin: 2026-08-13T13:49:00Z (embedded modified) Measurement / experiment	A addition	FRTT_Experimental_Modeling_Protocol.docx /Substrate Cosmology/Recurrence Research/FRTT_Experimental_Modeling_Protocol.docx Experimental modeling protocol for FRTT, with equation presentation and test-design scaffolding.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 8f8e34c944d821ee...
D-084	Archive: 2026-09-13T14:23:36.331468Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP0 String-Compatible Recurrence Labyrinth v05(1).zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v05(1).zip Exact byte duplicate or relocated copy of D-050; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; duplicate of D-050; SHA-256 2abe521218c7efd4...
D-085	Archive: 2026-09-13T14:23:36.982688Z Origin: 2026-08-12T04:57:36.699Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Teleportation_as_Byproduct_of_FRTT.docx /Substrate Cosmology/Recurrence Research/Teleportation_as_Byproduct_of_FRTT.docx Exact byte duplicate or relocated copy of D-008; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-008; SHA-256 28f65c09b543bf80...
D-086	Archive: 2026-09-13T14:23:37.052968Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP0 String-Compatible Recurrence Labyrinth v06(1).zip /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v06(1).zip Exact byte duplicate or relocated copy of D-053; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: immutable parent and blind boundary; transformed: prospective method/governance; generated: new records/tests; discarded: active items only when separately recorded; unresolved: next RP backlog	Public resource: byte-identical; duplicate of D-053; SHA-256 bb4f80cc1052b88a...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-087	Archive: 2026-09-13T14:23:37.186745Z Embedded 2013 timestamp rejected as template metadata Mathematics / operators	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_33_Tools_Inline_Equation_Images.docx / Substrate Cosmology/Recurrence Research/Substrate_Cosmology_33_Tools_Inline_Equation_Images.docx Exact byte duplicate or relocated copy of D-022; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-022; SHA-256 d4fdbbf837b4c2a...
D-088	Archive: 2026-09-13T14:23:37.768176Z Embedded 2013 timestamp rejected as template metadata Continuity / recovery	X exact duplicate; R relocation; P preservation	Substrate_Cosmology_Research_Reference_Edition_v1.docx / Substrate Cosmology/Recurrence Research/Substrate_Cosmology_Research_Reference_Edition_v1.docx Exact byte duplicate or relocated copy of D-024; no independent conceptual change detected.	Domain: source ↔ later formulation; claim ↔ evidence class; Tool lineage ↔ registry Ledger: retained: April lineage; transformed: ontology into research target and claims into typed classes; merged: related safeguards; discarded: no source deletion; unresolved: competing Tool lineages	Not present as a public website resource at audit date; duplicate of D-024; SHA-256 f9d072afa918a7...
D-089	Archive: 2026-09-13T14:23:39.936870Z Origin: 2026-04-10 13:34:12; saved 2026-04-12 18:19:24 (compound-file metadata) Inception / manuscript	M related-concept modification	Substrate Cosmology manuscript.doc / Substrate Cosmology/Recurrence Research/Substrate Cosmology manuscript.doc Earlier Word-format manuscript snapshot; embedded file metadata records creation 10 April and last save 12 April 2026.	Domain: model ↔ Actual Physics; unit/operator ↔ retained relation; frame ↔ observation Ledger: retained: developmental reasoning; generated: vocabulary, Tools, and hypotheses; transformed/discarded: not fully reconstructable without native revision history; unknown: conversation omissions	Not present as a public website resource at audit date; SHA-256 2cf8ab938a3eada...
D-090	Archive: 2026-09-13T14:23:41.968950Z Origin: 2026-04-10T00:39:45.91 (embedded creation-date) Inception / manuscript	A addition	Substrate Cosmology.odt / Substrate Cosmology/Recurrence Research/Substrate Cosmology.odt Early developmental conversation/export containing title work, chapter prototyping, and iterative conceptual drafting.	Domain: model ↔ Actual Physics; unit/operator ↔ retained relation; frame ↔ observation Ledger: retained: developmental reasoning; generated: vocabulary, Tools, and hypotheses; transformed/discarded: not fully reconstructable without native revision history; unknown: conversation omissions	Not present as a public website resource at audit date; SHA-256 55fe48a5810497c...
D-091	Archive: 2026-09-13T14:23:49.156216Z Origin: 2026-04-14T05:09:10.13 (embedded creation-date) Inception / manuscript	A addition	Substrate Cosmology development.odt / Substrate Cosmology/Recurrence Research/Substrate Cosmology development.odt Large development transcript preserving interaction rules, manuscript construction, corrections, and conceptual drift.	Domain: model ↔ Actual Physics; unit/operator ↔ retained relation; frame ↔ observation Ledger: retained: developmental reasoning; generated: vocabulary, Tools, and hypotheses; transformed/discarded: not fully reconstructable without native revision history; unknown: conversation omissions	Not present as a public website resource at audit date; SHA-256 9db22cb0701d4f7d...
D-092	Archive: 2026-09-13T14:24:06.692787Z Recurrence / data	X exact duplicate; R relocation; P preservation	1995(2).zip / Substrate Cosmology/Recurrence Research/1995(2).zip Exact byte duplicate or relocated copy of D-033; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Not present as a public website resource at audit date; duplicate of D-033; SHA-256 f743759ab1907b78...
D-093	Archive: 2026-09-14T10:17:12.014567Z Recurrence / data	X exact duplicate; R relocation; P preservation	Substrate_PreCrypto_Blind_Lab_v01.zip / Substrate Recurrence/Substrate_PreCrypto_Blind_Lab_v01.zip Exact byte duplicate or relocated copy of D-031; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: raw/derived lineage and blind lock; transformed: aggregation and descriptors; generated: candidate variables; discarded: documented preprocessing; unknown: source-system effects	Public resource: byte-identical; duplicate of D-031; SHA-256 0e574cf3becbee2...
D-094	Archive: 2026-09-14T10:17:12.809386Z Administration / development	A addition	Universal_Life_Propagation_Revenue_Pathway_Prompt.md / Substrate Recurrence/Universal_Life_Propagation_Revenue_Pathway_Prompt.md Prompt connecting universal-life propagation and revenue pathway planning; peripheral applied/organizational branch.	Domain: research need ↔ resource/opportunity ↔ institutional action Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 0a5485eb36bb4bc0...
D-095	Archive: 2026-09-14T10:17:12.841415Z Supporting research artifact	A addition	Pasted markdown(5) 2.md / Substrate Recurrence/Pasted markdown(5) 2.md Prompt/instruction record defining string-compatible recurrence research boundaries and terminology.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; SHA-256 6b415f37b97401b6c...
D-096	Archive: 2026-09-14T10:17:12.985790Z Recurrence / data	X exact duplicate; R relocation; P preservation	String-Compatible Recurrence Research Prompt.md / Substrate Recurrence/String-Compatible Recurrence Research Prompt.md Exact byte duplicate or relocated copy of D-035; no independent conceptual change detected.	Domain: archive event ↔ representation ↔ recurrence descriptor; open ↔ blind data Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; duplicate of D-035; SHA-256 b63a9e899d256911...
D-097	Archive: 2026-09-14T10:17:13.007741Z Origin: 2026-08-12T05:18:00Z (embedded created) Measurement / experiment	X exact duplicate; R relocation; P preservation	Alternate_Dimension_Scalar_Laboratory_Apparatus.docx / Substrate Recurrence/Alternate_Dimension_Scalar_Laboratory_Apparatus.docx Exact byte duplicate or relocated copy of D-070; no independent conceptual change detected.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-070; SHA-256 546072eaf12edf5b...
D-098	Archive: 2026-09-14T10:17:13.294545Z Origin: 2026-08-10T02:18:00Z (embedded created) Administration / development	X exact duplicate; R relocation; P preservation	Recommended Direction.docx / Substrate Recurrence/Recommended Direction.docx Exact byte duplicate or relocated copy of D-074; no independent conceptual change detected.	Domain: research need ↔ resource/opportunity ↔ institutional action Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-074; SHA-256 dfb74a7477c155a8...
D-099	Archive: 2026-09-14T10:17:13.336291Z Recovery-point governance	X exact duplicate; R relocation; P preservation	CONSOLIDATED_INTENTS_AND_EMERGENCE_PROTOCOL.md / Substrate Recurrence/CONSOLIDATED_INTENTS_AND_EMERGENCE_PROTOCOL.md Exact byte duplicate or relocated copy of D-058; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource: byte-identical; duplicate of D-058; SHA-256 e2ecd326b8244183...
D-100	Archive: 2026-09-14T10:17:13.421112Z Supporting research artifact	X exact duplicate; R relocation; P preservation	README.md / Substrate Recurrence/README.md Exact byte duplicate or relocated copy of D-046; no independent conceptual change detected.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-046; SHA-256 7b80bf048ff76592...
D-101	Archive: 2026-09-14T10:17:13.582790Z Origin: 2026-08-12T04:57:36.699Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Teleportation_as_Byproduct_of_FRTT.docx / Substrate Recurrence/Teleportation_as_Byproduct_of_FRTT.docx Exact byte duplicate or relocated copy of D-008; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-008; SHA-256 28f65c09b543bf80...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-102	Archive: 2026-09-14T10:17:13.711109Z Origin: 2026-08-12T07:12:00Z (embedded created) Measurement / experiment	X exact duplicate; R relocation; P preservation	Experimental Program for Exploring Nonrelativistic Relational Physics.docx /Substrate Recurrence/Experimental Program for Exploring Nonrelativistic Relational Physics.docx Exact byte duplicate or relocated copy of D-081; no independent conceptual change detected.	Domain: system ↔ apparatus ↔ processing ↔ observable; hypothesis ↔ null Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-081; SHA-256 fbc48e1fcbecbe0...
D-103	Archive: 2026-09-14T10:17:13.745846Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP06_to_RP07_Continuation_Prompts.md /Substrate Recurrence/RP06_to_RP07_Continuation_Prompts.md Exact byte duplicate or relocated copy of D-054; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-054; SHA-256 d5bfea50c8b2e62a...
D-104	Archive: 2026-09-14T10:17:13.861571Z Supporting research artifact	X exact duplicate; R relocation; P preservation	helios_collective.html /Substrate Recurrence/helios_collective.html Exact byte duplicate or relocated copy of D-063; no independent conceptual change detected.	Domain: artifact ↔ project lineage ↔ downstream use Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-063; SHA-256 cf659706aff3459b...
D-105	Archive: 2026-09-14T10:17:14.038622Z Origin: 2026-08-13T02:03:00Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Scaling Scientific Units Dimensional Extensions.docx /Substrate Recurrence/Scaling Scientific Units Dimensional Extensions.docx Exact byte duplicate or relocated copy of D-062; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-062; SHA-256 7c40e8a28edb54d4...
D-106	Archive: 2026-09-14T10:17:14.123391Z Origin: 2026-08-10T02:12:03Z (embedded created) Mathematics / operators	X exact duplicate; R relocation; P preservation	Fibered_Relational_Tensor_Theory_Research_Direction.docx /Substrate Recurrence/Fibered_Relational_Tensor_Theory_Research_Direction.docx Exact byte duplicate or relocated copy of D-004; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-004; SHA-256 7036e692c454807...
D-107	Archive: 2026-09-14T10:17:14.590158Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP07_to_RP08_Continuation_Prompts.md /Substrate Recurrence/RP07_to_RP08_Continuation_Prompts.md Exact byte duplicate or relocated copy of D-057; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Public resource; byte-identical; duplicate of D-057; SHA-256 c5e8bcb13291a9a9...
D-108	Archive: 2026-09-14T10:17:14.649028Z Embedded 2013 timestamp rejected as template metadata Mathematics / operators	X exact duplicate; R relocation; P preservation	FRTT_Tensor_System_Blueprint.docx /Substrate Recurrence/FRTT_Tensor_System_Blueprint.docx Exact byte duplicate or relocated copy of D-061; no independent conceptual change detected.	Domain: domain ↔ operator ↔ codomain; equivalence ↔ identity; projection ↔ loss Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-061; SHA-256 1b976e3749952d77...
D-109	Archive: 2026-09-14T10:17:16.983895Z Origin: 2026-08-16T03:55:00Z (embedded created) Conditional engineering / cosmology	X exact duplicate; R relocation; P preservation	Big Bang and White Holes in Substrate Cosmology.docx /Substrate Recurrence/Big Bang and White Holes in Substrate Cosmology.docx Exact byte duplicate or relocated copy of D-075; no independent conceptual change detected.	Domain: formal relation ↔ physical inference ↔ capability/safety claim Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-075; SHA-256 ed8a79388e0e41f7...
D-110	Archive: 2026-09-14T10:17:20.805730Z Recovery-point governance	X exact duplicate; R relocation; P preservation	RP05_to_RP06_Continuation_Prompts.md /Substrate Recurrence/RP05_to_RP06_Continuation_Prompts.md Exact byte duplicate or relocated copy of D-051; no independent conceptual change detected.	Domain: parent ↔ child RP; source ↔ transform ↔ output; recurrence ↔ recursion Ledger: retained: source identity and provenance; transformed/generated: as described by contribution; discarded: none established from available record; unknown: unstated editorial omissions	Not present as a public website resource at audit date; duplicate of D-051; SHA-256 a60d5c976ddc218...
D-111	Archive: 2026-09-15T00:11:02.590596Z Website / publication	M related-concept modification; I site integration	Substrate Cosmology.txt /Substrate Cosmology.txt Native website/Site artifact record; detailed change history is reconstructed from the 91-commit repository.	Domain: research record ↔ public representation ↔ user action Ledger: retained: public Site identity; transformed: research into interface; generated: routes and interaction records; discarded: tracked only through git; unresolved: live versus policy-ready behavior	Not present as a public website resource at audit date; native Site record reviewed through repository history
D-112	Archive: 2026-09-18T17:37:33.152007Z Origin: 2026-09-18T17:36:39Z (embedded created) Book series / pedagogy	A addition; F editable source	Substrate_Cosmology_Volume_1_Introduction.docx /Substrate Recurrence/Substrate_Cosmology_Volume_1_Introduction.docx Editable source for Volume One before PDF publication.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Unpublished source document; PDF derivative is public; SHA-256 72413327aa4c2910...
D-113	Archive: 2026-09-18T18:14:36.229995Z Book series / pedagogy	A addition; P historical edition	Substrate_Cosmology_Volume_1_First_Edition_Introduction_to_Relational_Physics_and_the_Limits_of_Representation.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_1_First_Edition_Introduction_to_Relational_Physics_and_the_Limits_of_Representation.pdf Volume 1, First/current edition: reader reorientation, representational limits, and recursive scalarization.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 3a78b305177f729c...
D-114	Archive: 2026-09-18T22:34:11.474615Z Book series / pedagogy	A addition; P historical edition	Substrate_Cosmology_Volume_2_First_Edition_Words_Units_and_the_Collapse_of_Physical_Representation.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_2_First_Edition_Words_Units_and_the_Collapse_of_Physical_Representation.pdf Volume 2, First/current edition: words, units, operators, equality/division, and recursive collapse.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 01b4a31d27ea92ef...
D-115	Archive: 2026-09-19T00:46:17.609689Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_3_The_Relational_Tools_and_Their_Developmental_Lineages.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_3_The_Relational_Tools_and_Their_Developmental_Lineages.pdf Volume 3, First/current edition: Tool lineages, numbering drift, operator recursion, and research use.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 e39dabed5622ddc...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-116	Archive: 2026-09-19T01:19:59.350039Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_4_Relational_Mathematics_and_Fibered_Relational_Tensor_Theory.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_4_Relational_Mathematics_and_Fibered_Relational_Tensor_Theory.pdf FRTT research direction: translated relational proposals toward a tensor-system program and identified formal work needed.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 e0da09c88a28ebf4...
D-117	Archive: 2026-09-19T01:45:03.474158Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_5_Measurement_Detectors_and_Experimental_Interaction.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_5_Measurement_Detectors_and_Experimental_Interaction.pdf Volume 5, First/current edition: measurement, detector participation, observation, and experimental controls.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 77e1762c61ec9469...
D-118	Archive: 2026-09-19T02:00:27.384586Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_6_Recurrence_Research_and_the_Labyrinth.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_6_Recurrence_Research_and_the_Labyrinth.pdf Volume 6, First/current edition: recurrence, recursion, blind boundaries, and the Labyrinth.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 45dbbbeb49982a3a...
D-119	Archive: 2026-09-19T02:18:16.596297Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_7_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_7_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf Volume 7, First/current edition: cosmology, matter, and emergent physical quantities.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 a1c9d0a914107ada...
D-120	Archive: 2026-09-19T02:42:56.033886Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_8_Conditional_Engineering_and_Physical_Manipulation.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_8_Conditional_Engineering_and_Physical_Manipulation.pdf Volume 8, First/current edition: conditional engineering, intervention, resource accounting, and safety.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 37fabc533465fdff...
D-121	Archive: 2026-09-19T02:58:46.889623Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_9_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_9_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf Volume 9, First/current edition: intelligence, agency, identity, consent, and stewardship.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked historical edition (site copy differs by export metadata); SHA-256 81fb04ee323ff207...
D-122	Archive: 2026-09-19T03:18:33.633156Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_10_Website_User_Manual_and_Research_Commons_Guide.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_10_Website_User_Manual_and_Research_Commons_Guide.pdf Volume 10, First/current edition: website navigation, research commons use, and participation boundaries.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked volume (site copy differs by export metadata); SHA-256 cb60d47919a745b9...
D-123	Archive: 2026-09-19T05:14:15.421763Z Book series / pedagogy	A addition	Substrate_Cosmology_Volume_11_Recursive_Scalarization_Relational_Adjacency_and_Emergent_Understanding.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_11_Recursive_Scalarization_Relational_Adjacency_and_Emergent_Understanding.pdf Volume 11, First/current edition: recursive scalarization, adjacency, operator loss, $c/d=\pi$, and multi-perspective understanding.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: source corpus; transformed: pedagogical ordering; generated: volume-specific synthesis; discarded: no deliberate deletion established; unknown: compression from sources	Homepage-linked volume (site copy differs by export metadata); SHA-256 85a3996973974740...
D-124	Archive: 2026-09-19T06:05:50.612318Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_1_Second_Edition_Introduction_to_Relational_Physics_and_Recursive_Scalarization.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_1_Second_Edition_Introduction_to_Relational_Physics_and_Recursive_Scalarization.pdf Volume 1, Second Edition: reader reorientation, representational limits, and recursive scalarization.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 34761919dfb70fd3...
D-125	Archive: 2026-09-19T07:12:34.580121Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_2_Second_Edition_Words_Units_Operators_and_the_Recursive_Collapse_of_Physical_Representation.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_2_Second_Edition_Words_Units_Operators_and_the_Recursive_Collapse_of_Physical_Representation.pdf Volume 2, Second Edition: words, units, operators, equality/division, and recursive collapse.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 7398731e4c01df3b...
D-126	Archive: 2026-09-19T07:46:31.423119Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_3_Second_Edition_Relational_Tools_Recursive_Operator_Lineages_and_Perspective_Guided_Research.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_3_Second_Edition_Relational_Tools_Recursive_Operator_Lineages_and_Perspective_Guided_Research.pdf Volume 3, Second Edition: Tool lineages, numbering drift, operator recursion, and research use.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 57f04620356f88bc...
D-127	Archive: 2026-09-19T08:05:52.312520Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_4_Second_Edition_Relational_Mathematics_Recursive_Operator_Dimensionalization_and_Fibered_Relational_Tensor_Theory.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_4_Second_Edition_Relational_Mathematics_Recursive_Operator_Dimensionalization_and_Fibered_Relational_Tensor_Theory.pdf FRTT research direction: translated relational proposals toward a tensor-system program and identified formal work needed.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 d8422f2800fa9618...
D-128	Archive: 2026-09-19T15:28:09.502248Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_5_Second_Edition_Measurement_Detectors_Recursive_Observation_and_Experimental_Interaction.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_5_Second_Edition_Measurement_Detectors_Recursive_Observation_and_Experimental_Interaction.pdf Volume 5, Second Edition: measurement, detector participation, observation, and experimental controls.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 1d4e8dc9c0a48053...

ID	Date / category	Operation	Artifact / development	Relations considered / ledger effects	State / evidence
D-129	Archive: 2026-09-19T15:50:00.567756Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_6_Second_Edition_Recurrence_Research_Recursive_Frames_and_the_Labyrinth.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_6_Second_Edition_Recurrence_Research_Recursive_Frames_and_the_Labyrinth.pdf Volume 6, Second Edition: recurrence, recursion, blind boundaries, and the Labyrinth.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 5e9f9c02d30d5201...
D-130	Archive: 2026-09-19T16:13:47.451679Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_7_Second_Edition_Recursive_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_7_Second_Edition_Recursive_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf Volume 7, Second Edition: cosmology, matter, and emergent physical quantities.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 70bbace5f0e01bf...
D-131	Archive: 2026-09-19T19:42:32.191463Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_8_Second_Edition_Conditional_Engineering_Recursive_Intervention_and_Physical_Manipulation.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_8_Second_Edition_Conditional_Engineering_Recursive_Intervention_and_Physical_Manipulation.pdf Volume 8, Second Edition: conditional engineering, intervention, resource accounting, and safety.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 8ec2b864609a9d24...
D-132	Archive: 2026-09-19T20:02:26.551917Z Book series / pedagogy	A addition; Q qualification; S current-status supersession; P First Edition preserved	Substrate_Cosmology_Volume_9_Second_Edition_Recursive_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf /Substrate Recurrence/Substrate_Cosmology_Volume_9_Second_Edition_Recursive_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf Volume 9, Second Edition: intelligence, agency, identity, consent, and stewardship.	Domain: reader perspective ↔ terminology ↔ formalism; edition ↔ correction lineage Ledger: retained: First Edition; transformed: interpretation and correction layer; generated: new appendices; discarded: none established; unresolved: later recursive audit	Homepage-linked current edition (site copy differs by export metadata); SHA-256 99b12c30ff41cec5...

Appendix B. Website change inventory — 91 commits / 946 path operations

A/M/D counts are exact git path operations: 316 additions, 623 modifications, and 7 deletions. A path deletion records removal from that repository state; relational disposition must be read from the same commit and preserved-history columns rather than inferred from D alone.

ID	Commit date / category	Path operations	Contribution	Relations considered	Affected paths
W-001	2026-09-15T03:08:15+03:00 Website development	A 4 · M 0 · D 0	OpenAI Codex Build Substrate Cosmology research site Commit 16e3a1e2a4d6	research content ↔ public representation ↔ user action	A .openai/hosting.json A dist/index.html A dist/script.js A dist/styles.css
W-002	2026-09-15T03:42:53+03:00 Website development	A 123 · M 1 · D 3	OpenAI Codex Expand site into Substrate Cosmology research commons Commit c64e496684f2	research content ↔ public representation ↔ user action	A .gitignore A .npmrc M .openai/hosting.json A README.md A app/api/contributions/route.ts A app/chatgpt-auth.ts ... +121 paths
W-003	2026-09-15T03:54:53+03:00 Website development	A 2 · M 5 · D 0	OpenAI Codex Fix site navigation and resource links Commit 8ee781606b3b	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/globals.css M app/investigate/Investigator.tsx M app/page.tsx M app/resources/page.tsx A app/resources/read/[slug]/DocumentReader.tsx ... +1 paths
W-004	2026-09-15T04:19:15+03:00 Website development	A 2 · M 2 · D 0	OpenAI Codex Add investigation research menu and reference pages Commit 6699d17de74c	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/globals.css A app/investigate/[slug]/page.tsx A app/investigate/research-data.ts
W-005	2026-09-15T04:33:37+03:00 Website development	A 3 · M 3 · D 0	OpenAI Codex Add guided Substrate Cosmology questions Commit 939566d35396	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/globals.css M app/investigate/Investigator.tsx A app/investigate/questions/QuestionGuide.tsx A app/investigate/questions/page.tsx A app/investigate/questions/questions-data.ts
W-006	2026-09-15T05:00:18+03:00 Website development	A 2 · M 3 · D 0	OpenAI Codex Add prioritized research question registry Commit 030555811abd	research content ↔ public representation ↔ user action	M app/globals.css M app/investigate/Investigator.tsx M app/investigate/page.tsx A app/investigate/research-questions/page.tsx A app/investigate/research-questions/research-queue.ts
W-007	2026-09-15T05:16:10+03:00 Website development	A 2 · M 2 · D 0	OpenAI Codex Add grant resources and application builder Commit fa29cdb03118	research content ↔ public representation ↔ user action	M app/globals.css A app/investigate/grants/GrantPromptBuilder.tsx A app/investigate/grants/page.tsx M app/investigate/page.tsx
W-008	2026-09-15T22:47:55+09:00 Website development	A 0 · M 2 · D 0	Codex Add fifty-year Substrate Cosmology vision Commit f310ae23b4bd	research content ↔ public representation ↔ user action	M app/globals.css M app/page.tsx
W-009	2026-09-15T23:01:53+09:00 Website development	A 0 · M 2 · D 0	Codex Add common development improvements Commit 820d0a8eb1ba	research content ↔ public representation ↔ user action	M app/globals.css M app/model/page.tsx
W-010	2026-09-15T23:13:23+09:00 Website development	A 1 · M 2 · D 0	Codex Add interactive scalar relation explorer Commit d2e6f60b551b	research content ↔ public representation ↔ user action	M app/globals.css A app/model/ScalarRelationExplorer.tsx M app/model/page.tsx
W-011	2026-09-15T23:26:13+09:00 Website development	A 0 · M 3 · D 0	Codex Add bounded autonomous improvement cycle Commit a488e257196c	research content ↔ public representation ↔ user action	M app/globals.css M app/model/ScalarRelationExplorer.tsx M app/model/page.tsx
W-012	2026-09-15T23:34:54+09:00 Website development	A 0 · M 4 · D 0	Codex Add researcher pathways and integrity gates Commit 6a51f1d5e9a0	research content ↔ public representation ↔ user action	M app/contribute/ContributionForm.tsx M app/globals.css M app/investigate/page.tsx M app/page.tsx
W-013	2026-09-16T02:23:58+09:00 Continuity infrastructure	A 3 · M 3 · D 0	Codex Add dependency roadmap and maintenance hooks Commit b280d5257d68	artifact ↔ dependency ↔ change impact/recovery	A MAINTENANCE.md M app/components/SiteHeader.tsx M app/globals.css A app/investigate/development-roadmap/page.tsx M app/investigate/page.tsx A public/site-maintenance.json
W-014	2026-09-16T02:33:10+09:00 Website development	A 3 · M 5 · D 0	Codex Implement continuity roadmap stage Commit 92ebd8edf875	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/globals.css A app/investigate/change-register/page.tsx M app/investigate/development-roadmap/page.tsx A app/investigate/maintenance-status/page.tsx M package.json ... +2 paths
W-015	2026-09-16T03:16:38+09:00 Website development	A 5 · M 10 · D 0	Codex Implement safe participation roadmap stage Commit 80e557290dff	research content ↔ public representation ↔ user action	M app/api/contributions/route.ts M app/components/SiteHeader.tsx M app/contribute/ContributionForm.tsx M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/maintenance-status/page.tsx ... +9 paths
W-016	2026-09-16T04:32:22+09:00 Evidence infrastructure	A 7 · M 5 · D 0	Codex Implement relational evidence roadmap stage Commit bf159d13837a	claim ↔ evidence ↔ test/replication record	M app/components/SiteHeader.tsx M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/maintenance-status/page.tsx A app/investigate/replication-index/page.tsx A app/model/evidence-graph/page.tsx ... +6 paths
W-017	2026-09-16T04:57:12+09:00 Website development	A 0 · M 1 · D 0	Codex Repair Barsalou citation link Commit 986c25252ed6	research content ↔ public representation ↔ user action	M app/investigate/research-data.ts
W-018	2026-09-16T05:02:57+09:00 Website development	A 4 · M 4 · D 0	Codex Implement operational usefulness roadmap stage Commit 6d1611590008	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/investigate/change-register/page.tsx A app/investigate/cross-site-trials/page.tsx A app/investigate/intervention-sandbox/page.tsx M app/investigate/maintenance-status/page.tsx A app/investigate/utility-register/page.tsx ... +2 paths

ID	Commit date / category	Path operations	Contribution	Relations considered	Affected paths
W-019	2026-09-16T05:14:10+09:00 Website development	A 2 · M 4 · D 0	Codex Add site continuity prompt registry Commit 210c81c5ce3d	research content ↔ public representation ↔ user action	A app/continuity.css M app/globals.css M app/investigate/change-register/page.tsx M app/page.tsx A app/site-continuity/page.tsx M public/site-maintenance.json
W-020	2026-09-16T05:30:02+09:00 Website development	A 4 · M 4 · D 0	Codex Complete scale without capture roadmap stage Commit 2d6bae65f1ac	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/investigate/change-register/page.tsx A app/investigate/long-duration/page.tsx M app/investigate/maintenance-status/page.tsx A app/investigate/model-exchange/page.tsx A app/investigate/stewardship/page.tsx ... +2 paths
W-021	2026-09-16T05:57:27+09:00 Website development	A 10 · M 8 · D 0	Codex Implement prioritized research commons UX program Commit db84f67639ea	research content ↔ public representation ↔ user action	A app/components/ExperienceBar.tsx M app/components/SiteHeader.tsx M app/contribute/ContributionForm.tsx A app/dashboard/page.tsx A app/feedback/page.tsx M app/globals.css ... +12 paths
W-022	2026-09-16T06:23:03+09:00 Evidence infrastructure	A 4 · M 13 · D 0	Codex Implement bounded simulation roadmap stage Commit d816123a49ac	claim ↔ evidence ↔ test/replication record	M app/components/ExperienceBar.tsx M app/components/SiteHeader.tsx M app/dashboard/page.tsx M app/investigate/change-register/page.tsx M app/investigate/dependency-map/page.tsx M app/investigate/development-roadmap/page.tsx ... +11 paths
W-023	2026-09-16T06:49:05+09:00 Participation governance	A 3 · M 11 · D 0	Codex Advance accessible visualization and forum readiness Commit 9aee74c81d4a	participant ↔ policy/control ↔ interface behavior	M app/components/SiteHeader.tsx M app/dashboard/page.tsx M app/investigate/change-register/page.tsx M app/investigate/dependency-map/page.tsx A app/investigate/forum-readiness/page.tsx M app/investigate/maintenance-status/page.tsx ... +8 paths
W-024	2026-09-16T07:11:05+09:00 Participation governance	A 2 · M 9 · D 0	Codex Advance forum identity and moderation controls Commit 0630fd3f17a6	participant ↔ policy/control ↔ interface behavior	M app/dashboard/page.tsx M app/investigate/change-register/page.tsx M app/investigate/dependency-map/page.tsx M app/investigate/forum-readiness/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx ... +5 paths
W-025	2026-09-16T07:19:39+09:00 Participation governance	A 2 · M 9 · D 0	Codex Advance forum privacy retention and abuse controls Commit 4e06c76f7354	participant ↔ policy/control ↔ interface behavior	M app/dashboard/page.tsx M app/investigate/change-register/page.tsx M app/investigate/dependency-map/page.tsx M app/investigate/forum-readiness/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx ... +5 paths
W-026	2026-09-16T07:35:25+09:00 Website development	A 0 · M 6 · D 0	Codex Repair archive navigation and downloads Commit 019e506ce46b	research content ↔ public representation ↔ user action	M app/components/ExperienceBar.tsx M app/contribute/ContributionForm.tsx M app/investigate/Investigator.tsx M app/investigate/change-register/page.tsx M app/model/ScalarRelationExplorer.tsx M app/simulate/SimulatorWorkbench.tsx
W-027	2026-09-16T07:48:38+09:00 Participation governance	A 5 · M 8 · D 0	Codex Advance staged forum readiness controls Commit e86367be01ff	participant ↔ policy/control ↔ interface behavior	M app/investigate/change-register/page.tsx M app/investigate/development-roadmap/page.tsx A app/investigate/forum-operations/page.tsx M app/investigate/forum-readiness/page.tsx A app/investigate/forum-threads/page.tsx M app/investigate/maintenance-status/page.tsx ... +7 paths
W-028	2026-09-16T07:56:21+09:00 Evidence infrastructure	A 2 · M 8 · D 0	Codex Add usability evidence maintenance cycle Commit 14a4b45d64cb	claim ↔ evidence ↔ test/replication record	M app/dashboard/page.tsx M app/investigate/change-register/page.tsx M app/investigate/development-roadmap/page.tsx M app/investigate/maintenance-status/page.tsx A app/investigate/usability-evidence/page.tsx M app/search/SearchClient.tsx ... +4 paths
W-029	2026-09-16T08:11:38+09:00 Website development	A 2 · M 8 · D 0	Codex Add user journey interaction contracts Commit 788c8659b538	research content ↔ public representation ↔ user action	M app/investigate/change-register/page.tsx M app/investigate/maintenance-status/page.tsx M app/investigate/usability-evidence/page.tsx M app/site-continuity/page.tsx M package.json M public/site-maintenance.json ... +4 paths
W-030	2026-09-16T08:20:33+09:00 Evidence infrastructure	A 1 · M 9 · D 0	Codex Add supervised usability evidence Commit 02bbbd0c0523	claim ↔ evidence ↔ test/replication record	M app/investigate/change-register/page.tsx M app/investigate/maintenance-status/page.tsx M app/investigate/usability-evidence/page.tsx M app/layout.tsx M app/site-continuity/page.tsx M public/site-maintenance.json ... +4 paths
W-031	2026-09-16T08:45:25+09:00 Website development	A 3 · M 9 · D 0	Codex Add guided student development workspace Commit c658564e4313	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/maintenance-status/page.tsx M app/investigate/page.tsx A app/investigate/student-workspace/StudentProjectCoach.tsx ... +6 paths

ID	Commit date / category	Path operations	Contribution	Relations considered	Affected paths
W-032	2026-09-16T08:58:32+09:00 Website development	A 0 · M 11 · D 0	Codex Add keyboard bypass and stage enlargement checks Commit 45e71450f212	research content ↔ public representation ↔ user action	M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/maintenance-status/page.tsx M app/investigate/usability-evidence/page.tsx M app/layout.tsx M app/site-continuity/page.tsx ... +5 paths
W-033	2026-09-16T09:21:28+09:00 Participation governance	A 2 · M 10 · D 0	Codex Add minor interaction safety contract Commit 4c3c3441d859	participant ↔ policy/control ↔ interface behavior	M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/development-roadmap/page.tsx M app/investigate/maintenance-status/page.tsx A app/investigate/student-safety/page.tsx M app/investigate/student-workspace/StudentProjectCoach.tsx ... +6 paths
W-034	2026-09-16T10:09:28+09:00 Continuity infrastructure	A 2 · M 9 · D 0	Codex Add dependency verified development queue Commit 4228f7d5caa2	artifact ↔ dependency ↔ change impact/recovery	M app/globals.css M app/investigate/change-register/page.tsx A app/investigate/development-roadmap/page.tsx M app/investigate/development-roadmap/page.tsx M app/investigate/maintenance-status/page.tsx M app/investigate/page.tsx ... +5 paths
W-035	2026-09-16T10:31:03+09:00 Participation governance	A 2 · M 11 · D 0	Codex Add synthetic minor interaction safety fixtures Commit 391be67cc315	participant ↔ policy/control ↔ interface behavior	M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M app/search/SearchClient.tsx M app/site-continuity/page.tsx ... +7 paths
W-036	2026-09-16T10:40:32+09:00 Website development	A 0 · M 6 · D 0	Codex Record enlargement environment gate Commit 315225242c94	research content ↔ public representation ↔ user action	M app/investigate/change-register/page.tsx M app/investigate/usability-evidence/page.tsx M public/development-priorities.json M public/site-maintenance.json M public/usability-runtime-evidence.json M scripts/check-user-journeys.mjs
W-037	2026-09-16T10:51:30+09:00 Website development	A 1 · M 5 · D 0	Codex Add portable enlargement verification protocol Commit a03d76b89346	research content ↔ public representation ↔ user action	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M public/development-priorities.json A public/enlargement-verification-protocol.json M public/site-maintenance.json M scripts/check-user-journeys.mjs
W-038	2026-09-16T11:02:17+09:00 Evidence infrastructure	A 2 · M 5 · D 0	Codex Validate enlargement evidence handoffs Commit 35664c586f25	claim ↔ evidence ↔ test/replication record	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M package.json M public/development-priorities.json A public/enlargement-verification-fixtures.json M public/site-maintenance.json ... +1 paths
W-039	2026-09-16T11:07:24+09:00 Website development	A 2 · M 5 · D 0	Codex Add platform compatibility safeguards Commit 39c84350d009	research content ↔ public representation ↔ user action	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M package.json M public/development-priorities.json A public/platform-compatibility.json M public/site-maintenance.json ... +1 paths
W-040	2026-09-16T11:15:37+09:00 Website development	A 2 · M 5 · D 0	Codex Add feature interconnection registry Commit 558a497726f9	research content ↔ public representation ↔ user action	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M package.json M public/development-priorities.json A public/feature-interconnections.json M public/site-maintenance.json ... +1 paths
W-041	2026-09-16T11:56:42+09:00 Continuity infrastructure	A 2 · M 6 · D 0	Codex Validate maintenance hook dependencies Commit 75eb3dc10074	artifact ↔ dependency ↔ change impact/recovery	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M package.json M public/development-priorities.json M public/feature-interconnections.json A public/maintenance-hook-contract.json ... +2 paths
W-042	2026-09-16T12:02:01+09:00 Continuity infrastructure	A 2 · M 7 · D 0	Codex Add public artifact lifecycle registry Commit 54b564a9f53d	artifact ↔ dependency ↔ change impact/recovery	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M package.json A public/artifact-lifecycle-registry.json M public/development-priorities.json ... +3 paths
W-043	2026-09-16T12:07:07+09:00 Continuity infrastructure	A 2 · M 8 · D 0	Codex Add route lifecycle registry Commit a31676c50434	artifact ↔ dependency ↔ change impact/recovery	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M package.json M public/artifact-lifecycle-registry.json M public/development-priorities.json ... +4 paths
W-044	2026-09-16T12:13:12+09:00 Website development	A 2 · M 8 · D 0	Codex Register release verification controls Commit 5f58dc3a9035	research content ↔ public representation ↔ user action	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M package.json M public/artifact-lifecycle-registry.json M public/development-priorities.json ... +4 paths

ID	Commit date / category	Path operations	Contribution	Relations considered	Affected paths
W-045	2026-09-16T12:19:50+09:00 Website development	A 2 · M 9 · D 0	Codex Add change impact routing Commit 4da231ec416d	research content ↔ public representation ↔ user action	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M package.json M public/artifact-lifecycle-registry.json A public/change-impact-contract.json ... +5 paths
W-046	2026-09-16T12:39:30+09:00 Continuity infrastructure	A 2 · M 10 · D 0	Codex Add external dependency lifecycle control Commit 19ee4f4cba6f	artifact ↔ dependency ↔ change impact/recovery	M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M package.json M public/artifact-lifecycle-registry.json M public/change-impact-contract.json ... +6 paths
W-047	2026-09-16T13:05:07+09:00 Continuity infrastructure	A 2 · M 12 · D 0	Codex Add maintenance cadence and freshness control Commit af8c25f87ed7	artifact ↔ dependency ↔ change impact/recovery	M MAINTENANCE.md M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx M package.json ... +8 paths
W-048	2026-09-16T13:13:25+09:00 Evidence infrastructure	A 2 · M 14 · D 0	Codex Record clean-room recovery evidence Commit 7ce811940da0	claim ↔ evidence ↔ test/replication record	M MAINTENANCE.md M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx M package.json ... +10 paths
W-049	2026-09-16T13:23:28+09:00 Evidence infrastructure	A 3 · M 15 · D 0	Codex Add staged external review evidence protocol Commit 223e9122a179	claim ↔ evidence ↔ test/replication record	M MAINTENANCE.md M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx M package.json ... +12 paths
W-050	2026-09-16T15:01:53+09:00 Website development	A 2 · M 19 · D 0	Codex Record external destination observations Commit aff9f96028d5	research content ↔ public representation ↔ user action	M MAINTENANCE.md M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx M package.json ... +15 paths
W-051	2026-09-16T22:12:14+09:00 Website development	A 2 · M 16 · D 0	Codex Prepare named external review worklist Commit 9bce2d77cae3	research content ↔ public representation ↔ user action	M MAINTENANCE.md M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx M package.json ... +12 paths
W-052	2026-09-16T22:21:18+09:00 Evidence infrastructure	A 2 · M 16 · D 0	Codex Validate external human review evidence Commit c4a14d42babe	claim ↔ evidence ↔ test/replication record	M MAINTENANCE.md M app/investigate/change-register/page.tsx M app/investigate/development-queue/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx M package.json ... +12 paths
W-053	2026-09-16T06:56:29-07:00 Website development	A 4 · M 19 · D 0	Codex Add significant contributor recognition registry Commit 197604196398	research content ↔ public representation ↔ user action	M app/components/SiteHeader.tsx M app/contribute/page.tsx A app/contributors/page.tsx M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/development-roadmap/page.tsx ... +17 paths
W-054	2026-09-16T07:23:14-07:00 Website development	A 0 · M 13 · D 0	Codex Add recognition-time grant matching Commit 3e3a01fc12ae	research content ↔ public representation ↔ user action	M app/contributors/page.tsx M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/maintenance-status/page.tsx M app/site-continuity/page.tsx M public/development-priorities.json ... +7 paths
W-055	2026-09-16T07:51:05-07:00 Participation governance	A 3 · M 16 · D 0	Codex Add groupthink-resistant forum introductions Commit c4e01fcbabf4	participant ↔ policy/control ↔ interface behavior	M app/components/SiteHeader.tsx M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/forum-readiness/page.tsx M app/investigate/forum-threads/page.tsx M app/search/SearchClient.tsx ... +13 paths
W-056	2026-09-16T09:20:29-07:00 Participation governance	A 1 · M 6 · D 0	Codex Add rotating daily forum introduction Commit 6d27d22587f1	participant ↔ policy/control ↔ interface behavior	M app/globals.css M app/investigate/change-register/page.tsx A app/investigate/forum-threads/DailyForumIntroduction.tsx M app/investigate/forum-threads/page.tsx M public/forum-introduction-contract.json M public/site-maintenance.json ... +1 paths
W-057	2026-09-16T09:32:03-07:00 Website development	A 1 · M 6 · D 0	Codex Add student negative-space thinking guide Commit 6273a3509b3a	research content ↔ public representation ↔ user action	M app/globals.css M app/investigate/change-register/page.tsx A app/investigate/student-workspace/StudentThinkingGuide.tsx M app/investigate/student-workspace/page.tsx M public/site-maintenance.json M public/student-development-workspace.json ... +1 paths
W-058	2026-09-16T12:39:56-07:00 Website development	A 2 · M 10 · D 0	Codex Add private inspiration capture and Todo list Commit 5e6f0337b795	research content ↔ public representation ↔ user action	A app/components/InspirationCapture.tsx M app/globals.css M app/investigate/change-register/page.tsx M app/layout.tsx M app/site-continuity/page.tsx M public/artifact-lifecycle-registry.json ... +6 paths

ID	Commit date / category	Path operations	Contribution	Relations considered	Affected paths
W-059	2026-09-16T14:13:54-07:00 Website development	A 1 · M 11 · D 0	Codex Add bibliographic AI contribution attribution Commit c42198967cdf	research content ↔ public representation ↔ user action	M app/contributors/page.tsx M app/globals.css M app/investigate/[slug]/page.tsx M app/investigate/change-register/page.tsx M app/investigate/research-data.ts M public/artifact-lifecycle-registry.json ... +6 paths
W-060	2026-09-16T14:57:19-07:00 Evidence infrastructure	A 5 · M 14 · D 0	Codex Add experimental research development infrastructure Commit d7ec4c69a2d1	claim ↔ evidence ↔ test/replication record	M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/development-roadmap/page.tsx A app/investigate/experimentation-roadmap/page.tsx M app/investigate/page.tsx M app/search/SearchClient.tsx ... +13 paths
W-061	2026-09-16T16:25:34-07:00 Website development	A 0 · M 7 · D 0	Codex Make homepage more inviting for first-time visitors Commit 50421255cb64	research content ↔ public representation ↔ user action	M app/globals.css M app/investigate/change-register/page.tsx M app/page.tsx M public/feature-interconnections.json M public/route-lifecycle-registry.json M public/site-maintenance.json ... +1 paths
W-062	2026-09-16T19:02:05-07:00 Participation governance	A 14 · M 31 · D 0	Codex Build bounded research forum and experiment bridge Commit 0d53f608f5e6	participant ↔ policy/control ↔ interface behavior	A app/api/forum/moderation/route.ts A app/api/forum/reports/route.ts A app/api/forum/threads/[id]/posts/route.ts A app/api/forum/threads/[id]/route.ts A app/api/forum/threads/route.ts M app/components/SiteHeader.tsx ... +39 paths
W-063	2026-09-16T19:35:20-07:00 Participation governance	A 2 · M 18 · D 0	Codex Harden forum privacy and participant accountability Commit 2d04efb49f1b	participant ↔ policy/control ↔ interface behavior	M app/api/forum/moderation/route.ts A app/api/forum/posts/[id]/route.ts M app/api/forum/threads/[id]/route.ts M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/forum-moderation/ModerationPanel.tsx ... +14 paths
W-064	2026-09-16T20:20:53-07:00 Participation governance	A 0 · M 4 · D 0	Codex Add forum sign-in recovery guidance Commit 8947b550e02c	participant ↔ policy/control ↔ interface behavior	M app/globals.css M app/investigate/forum-threads/ForumWorkspace.tsx M app/investigate/forum-threads/page.tsx M scripts/check-forum-runtime.mjs
W-065	2026-09-16T21:16:26-07:00 Participation governance	A 0 · M 7 · D 0	Codex Add off-topic forum discussions Commit 5576f3804df2	participant ↔ policy/control ↔ interface behavior	M app/globals.css M app/investigate/forum-threads/ForumWorkspace.tsx M app/investigate/forum-threads[id]/ThreadDiscussion.tsx M app/investigate/forum-threads[id]/page.tsx M lib/forum.ts M public/forum-research-thread-contract.json ... +1 paths
W-066	2026-09-16T23:18:49-07:00 Participation governance	A 2 · M 20 · D 0	Codex Add bounded forum subtopics and safety holds Commit f9b19d2d230d	participant ↔ policy/control ↔ interface behavior	M app/api/forum/moderation/route.ts M app/api/forum/threads[id]/posts/route.ts M app/api/forum/threads/route.ts M app/globals.css M app/investigate/forum-moderation/ModerationPanel.tsx M app/investigate/forum-moderation/page.tsx ... +16 paths
W-067	2026-09-17T10:24:17-04:00 Participation governance	A 10 · M 28 · D 0	Codex Add forum profiles following and link safety Commit 12e4f00a0a39	participant ↔ policy/control ↔ interface behavior	A app/api/forum/follows/route.ts M app/api/forum/moderation/route.ts A app/api/forum/profile/route.ts M app/api/forum/threads[id]/posts/route.ts M app/api/forum/threads/route.ts A app/components/ForumSafeLinks.tsx ... +32 paths
W-068	2026-09-17T15:13:06-04:00 Website development	A 2 · M 12 · D 0	Codex Add portable inspiration AI workspace Commit 8c752a0dc8b1	research content ↔ public representation ↔ user action	M app/components/InspirationCapture.tsx M app/globals.css M app/investigate/change-register/page.tsx A app/investigate/inspiration-workspace/InspirationWorkspace.tsx A app/investigate/inspiration-workspace/page.tsx M app/search/SearchClient.tsx ... +8 paths
W-069	2026-09-17T23:29:42-04:00 Participation governance	A 0 · M 4 · D 0	Codex Repair valid HTTPS profile link intake Commit d91c1ed63090	participant ↔ policy/control ↔ interface behavior	M app/investigate/change-register/page.tsx M lib/forum-links.ts M public/forum-following-link-safety-spec.json M scripts/check-forum-runtime.mjs
W-070	2026-09-17T23:54:43-04:00 Participation governance	A 0 · M 4 · D 0	Codex Make forum safety link human-readable Commit 8150af610c3d	participant ↔ policy/control ↔ interface behavior	M app/globals.css M app/investigate/change-register/page.tsx M app/investigate/forum-profile/page.tsx M scripts/check-forum-runtime.mjs
W-071	2026-09-19T01:51:29+08:00 Book publication	A 1 · M 2 · D 0	Codex Add Volume One download to homepage Commit 75cad2392970	edition ↔ public path ↔ current/historical status	M app/globals.css M app/page.tsx A public/resources/Substrate_Cosmology_Volume_1_Introduction.docx
W-072	2026-09-19T02:15:29+08:00 Book publication	A 1 · M 1 · D 1	Codex Replace Volume One Word download with PDF Commit 43605f07490d	edition ↔ public path ↔ current/historical status	M app/page.tsx D public/resources/Substrate_Cosmology_Volume_1_Introduction.docx A public/resources/Substrate_Cosmology_Volume_1_Introduction.pdf
W-073	2026-09-19T06:36:15+08:00 Book publication	A 1 · M 2 · D 0	Codex Add Volume Two words and units book Commit dd224fb49987	edition ↔ public path ↔ current/historical status	M app/globals.css M app/page.tsx A public/resources/Substrate_Cosmology_Volume_2_Words_Units_and_the_Collapse_of_Physical_Representation.pdf
W-074	2026-09-19T08:48:09+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Three Commit 2e128487953a	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_3_The_Relational_Tools_and_Their_Developmental_Lineages.pdf
W-075	2026-09-19T09:21:13+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Four Commit 0aca35aa9c83	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_4_Relational_Mathematics_and_Fibered_Relational_Tensor_Theory.pdf
W-076	2026-09-19T09:43:58+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Five Commit 732432434343	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_5_Measurement_Detectors_and_Experimental_Interaction.pdf

ID	Commit date / category	Path operations	Contribution	Relations considered	Affected paths
W-077	2026-09-19T10:01:56+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Six Commit d5a2cac6bf2d	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_6_Recurrence_Research_and_the_Labyrinth.pdf
W-078	2026-09-19T10:19:12+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Seven Commit de18ebc2bb10	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_7_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf
W-079	2026-09-19T10:44:05+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Eight Commit 0671dea710a2	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_8_Conditional_Engineering_and_Physical_Manipulation.pdf
W-080	2026-09-19T10:59:59+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Nine Commit 9fa827f843ad	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_9_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf
W-081	2026-09-19T11:18:44+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Ten Commit b8e156323d94	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_10_Website_User_Manual_and_Research_Commons_Guide.pdf
W-082	2026-09-19T13:17:26+08:00 Book publication	A 1 · M 1 · D 0	Codex Add Substrate Cosmology Volume Eleven Commit 6d86b8269d3f	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_11_Recursive_Scalarization_Relational_Adjacency_and_Emergent_Understanding.pdf
W-083	2026-09-19T14:07:25+08:00 Book publication	A 2 · M 1 · D 0	Codex Publish Volume One second edition Commit a39d71612e79	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_1_First_Edition_Introduction_to_Relational_Physics_and_the_Limits_of_Representation.pdf A public/resources/Substrate_Cosmology_Volume_1_Second_Edition_Introduction_to_Relational_Physics_and_Recursive_Scalarization.pdf
W-084	2026-09-19T15:14:17+08:00 Book publication	A 2 · M 1 · D 0	Codex Publish Volume Two second edition Commit 5f8df580009	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_2_First_Edition_Words_Units_and_the_Collapse_of_Physical_Representation.pdf A public/resources/Substrate_Cosmology_Volume_2_Second_Edition_Words_Units_Operators_and_the_Recursive_Collapse_of_Physical_Representation.pdf
W-085	2026-09-19T15:47:50+08:00 Book publication	A 2 · M 1 · D 0	Codex Publish Volume Three second edition Commit 914225068059	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_3_First_Edition_The_Relational_Tools_and_Their_Developmental_Lineages.pdf A public/resources/Substrate_Cosmology_Volume_3_Second_Edition_Relational_Tools_Recursive_Operator_Lineages_and_Perspective_Guided_Research.pdf
W-086	2026-09-19T16:07:54+08:00 Book publication	A 2 · M 1 · D 0	Codex Publish Volume Four Second Edition Commit 7f1a528208ad	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_4_First_Edition_Relational_Mathematics_and_Fibred_Relational_Tensor_Theory.pdf A public/resources/Substrate_Cosmology_Volume_4_Second_Edition_Relational_Mathematics_Recursive_Operator_Dimensionalization_and_Fibred_Relational_Tensor_Theory.pdf
W-087	2026-09-20T00:30:05+09:00 Book publication	A 2 · M 1 · D 0	Codex Publish Volume Five Second Edition Commit 8a3f8398c9cf	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_5_First_Edition_Measurement_Detectors_and_Experimental_Interaction.pdf A public/resources/Substrate_Cosmology_Volume_5_Second_Edition_Measurement_Detectors_Recursive_Observation_and_Experimental_Interaction.pdf
W-088	2026-09-20T00:51:05+09:00 Book publication	A 2 · M 1 · D 0	Codex Publish Volume Six Second Edition Commit d689af188d4c	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_6_First_Edition_Recurrence_Research_and_the_Labyrinth.pdf A public/resources/Substrate_Cosmology_Volume_6_Second_Edition_Recurrence_Research_Recursive_Frames_and_the_Labyrinth.pdf
W-089	2026-09-20T01:15:57+09:00 Book publication	A 2 · M 1 · D 1	Codex Publish Volume Seven Second Edition Commit 38cd965022c7	edition ↔ public path ↔ current/historical status	M app/page.tsx D public/resources/Substrate_Cosmology_Volume_7_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf A public/resources/Substrate_Cosmology_Volume_7_First_Edition_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf A public/resources/Substrate_Cosmology_Volume_7_Second_Edition_Recursive_Cosmology_Matter_and_Emergent_Physical_Quantities.pdf
W-090	2026-09-20T04:44:12+09:00 Book publication	A 2 · M 1 · D 1	Codex Publish Volume Eight Second Edition Commit d832394c039a	edition ↔ public path ↔ current/historical status	M app/page.tsx D public/resources/Substrate_Cosmology_Volume_8_Conditional_Engineering_and_Physical_Manipulation.pdf A public/resources/Substrate_Cosmology_Volume_8_First_Edition_Conditional_Engineering_and_Physical_Manipulation.pdf A public/resources/Substrate_Cosmology_Volume_8_Second_Edition_Conditional_Engineering_Recursive_Intervention_and_Physical_Manipulation.pdf
W-091	2026-09-20T05:03:47+09:00 Book publication	A 2 · M 1 · D 1	Codex Publish Volume Nine Second Edition Commit 5eb68e22194c	edition ↔ public path ↔ current/historical status	M app/page.tsx A public/resources/Substrate_Cosmology_Volume_9_First_Edition_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf D public/resources/Substrate_Cosmology_Volume_9_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf A public/resources/Substrate_Cosmology_Volume_9_Second_Edition_Recursive_Intelligence_Agency_Identity_and_Dimensional_Stewardship.pdf

Appendix C. Recovery-point active-set delta inventory — 154 changed paths

This inventory compares non-Legacy member paths between sequential RP packages. Unchanged paths are counted in the summary but omitted here. A removal from the child active set is not a destruction of the historical record because the parent Recovery Point remains immutable and, where detected, a Legacy copy is also present.

ID	Transition	Operation	Active member path	Relation / disposition
RA-001	RP01 → RP02	A addition	FRAME_COMPLETENESS.md	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-002	RP01 → RP02	A addition	PRESERVATION_PROTOCOL.md	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-003	RP01 → RP02	A addition	PROCESS_INTENTS.md	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-004	RP01 → RP02	A addition	RELATIONAL_LEXICON.md	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-005	RP01 → RP02	A addition	SCALAR_DEPENDENCY.md	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-006	RP01 → RP02	A addition	VALIDATION.md	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-007	RP01 → RP02	A addition	metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-008	RP01 → RP02	A addition	metadata/OUTPUT_SHA256_MANIFEST.json	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-009	RP01 → RP02	A addition	requirements.txt	generated in RP02; parent active set retained through immutable/Legacy recovery architecture
RA-010	RP01 → RP02	M modification	README.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-011	RP01 → RP02	M modification	candidates/FROZEN_1995_CANDIDATES.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-012	RP01 → RP02	M modification	candidates/cross_resolution_mode_match.csv	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-013	RP01 → RP02	M modification	candidates/mode_transition_null_tests.csv	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-014	RP01 → RP02	M modification	candidates/null_world_summary.csv	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-015	RP01 → RP02	M modification	data/1995_calendar_day_labyrinth.csv	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-016	RP01 → RP02	M modification	data/1995_equal_5000_event_labyrinth.csv	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-017	RP01 → RP02	M modification	metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-018	RP01 → RP02	M modification	scripts/implement_rp0_labyrinth.py	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-019	RP02 → RP03	A addition	FRAME_SHAKING_PROTOCOL.md	generated in RP03; parent active set retained through immutable/Legacy recovery architecture
RA-020	RP02 → RP03	A addition	TOOL_LINEAGE_ROLES.md	generated in RP03; parent active set retained through immutable/Legacy recovery architecture
RA-021	RP02 → RP03	A addition	metadata/FRAME_SHAKING_REGISTRY_TEMPLATE.json	generated in RP03; parent active set retained through immutable/Legacy recovery architecture
RA-022	RP02 → RP03	A addition	metadata/RP03_LINEAGE.json	generated in RP03; parent active set retained through immutable/Legacy recovery architecture
RA-023	RP02 → RP03	M modification	FRAME_COMPLETENESS.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP

ID	Transition	Operation	Active member path	Relation / disposition
RA-024	RP02 → RP03	M modification	PRESERVATION_PROTOCOL.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-025	RP02 → RP03	M modification	PROCESS_INTENTS.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-026	RP02 → RP03	M modification	README.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-027	RP02 → RP03	M modification	RELATIONAL_LEXICON.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-028	RP02 → RP03	M modification	SCALAR_DEPENDENCY.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-029	RP02 → RP03	M modification	VALIDATION.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-030	RP02 → RP03	M modification	metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-031	RP02 → RP03	M modification	metadata/OUTPUT_SHA256_MANIFEST.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-032	RP03 → RP04	A addition	00_CREATE_NEXT_RECOVERY_POINT.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-033	RP03 → RP04	A addition	01_DEVELOPMENT_BACKLOG.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-034	RP03 → RP04	A addition	02_RECOVERY_COMPOSITE.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-035	RP03 → RP04	A addition	03_CITATION_REGISTER.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-036	RP03 → RP04	A addition	04_DOCUMENT_HIERARCHY.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-037	RP03 → RP04	A addition	Documents/Chapters/DC01.01_RECOVERY_POINT_GOVERNANCE.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-038	RP03 → RP04	A addition	Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-039	RP03 → RP04	A addition	Documents/Chapters/DC01.03_CONSISTENCY_PROPAGATION.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-040	RP03 → RP04	A addition	Documents/Chapters/DC02.01_BLIND_EXPERIMENTAL_BOUNDARY.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-041	RP03 → RP04	A addition	Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-042	RP03 → RP04	A addition	Documents/Chapters/DC02.03_NULLS_MULTIPLICITY_AND_CONTROLS.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-043	RP03 → RP04	A addition	Documents/Chapters/DC03.01_RELATIONAL_LEXICON_AND_DISTINCTIONS.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-044	RP03 → RP04	A addition	Documents/Chapters/DC03.02_RECURRENCE_OPERATOR_INVENTORY.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-045	RP03 → RP04	A addition	Documents/Chapters/DC03.03_TOOL_LINEAGES_AND_FRAME_SHAKING.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-046	RP03 → RP04	A addition	Documents/Chapters/DC04.01_RELATIONAL_MATHEMATICS_PROGRAM.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-047	RP03 → RP04	A addition	Documents/Chapters/DC04.02_OBSERVATION_ARTIFACT_AND_CONDITIONAL_ASSOCIATION.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-048	RP03 → RP04	A addition	Documents/Chapters/DC05.01_FINDINGS_LIMITS_AND_ALTERNATIVES.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-049	RP03 → RP04	A addition	Documents/Chapters/DC05.02_PROSPECTIVE_VALIDATION_AND_PHYSICAL_TESTS.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture

ID	Transition	Operation	Active member path	Relation / disposition
RA-050	RP03 → RP04	A addition	Documents/Chapters/DC06.01_CROSS_DOMAIN_TRANSLATION.md	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-051	RP03 → RP04	A addition	metadata/CHANGE_IMPACT_TEMPLATE.json	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-052	RP03 → RP04	A addition	metadata/DEVELOPMENT_STATUS.json	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-053	RP03 → RP04	A addition	metadata/DOCUMENT_INDEX.json	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-054	RP03 → RP04	A addition	metadata/PARENT_RP03_LINEAGE.json	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-055	RP03 → RP04	A addition	metadata/RECOVERY_ASSET_MANIFEST.json	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-056	RP03 → RP04	A addition	metadata/RP04_LINEAGE.json	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-057	RP03 → RP04	A addition	metadata/RP04_PACKAGE_SHA256_MANIFEST.txt	generated in RP04; parent active set retained through immutable/Legacy recovery architecture
RA-058	RP03 → RP04	M modification	FRAME_COMPLETENESS.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-059	RP03 → RP04	M modification	FRAME_SHAKING_PROTOCOL.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-060	RP03 → RP04	M modification	PRESERVATION_PROTOCOL.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-061	RP03 → RP04	M modification	PROCESS_INTENTS.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-062	RP03 → RP04	M modification	README.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-063	RP03 → RP04	M modification	RELATIONAL_LEXICON.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-064	RP03 → RP04	M modification	SCALAR_DEPENDENCY.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-065	RP03 → RP04	M modification	TOOL_LINEAGE_ROLES.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-066	RP03 → RP04	M modification	VALIDATION.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-067	RP03 → RP04	D active removal; P historical	metadata/RP03_LINEAGE.json	removed from child active set; immutable parent remains source; child Legacy match not proven
RA-068	RP04 → RP05	A addition	Documents/Chapters/DC02.04_RAW_TO_ATLAS_RECONSTRUCTION.md	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-069	RP04 → RP05	A addition	config/RAW_TO_ATLAS_V01.json	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-070	RP04 → RP05	A addition	logs/DEV003_FAILED_ATTEMPTS.jsonl	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-071	RP04 → RP05	A addition	logs/DEV003_TRANSFORMATION_LOG.json	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-072	RP04 → RP05	A addition	metadata/DEV003_CHANGE_IMPACT.json	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-073	RP04 → RP05	A addition	metadata/RP05_ACCEPTANCE.json	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-074	RP04 → RP05	A addition	metadata/RP05_LINEAGE.json	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-075	RP04 → RP05	A addition	metadata/RP05_PACKAGE_SHA256_MANIFEST.txt	generated in RP05; parent active set retained through immutable/Legacy recovery architecture

ID	Transition	Operation	Active member path	Relation / disposition
RA-076	RP04 → RP05	A addition	reconstruction/DEV003_regenerated_atlas/1995_dimensional_atlas_v01.md	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-077	RP04 → RP05	A addition	reconstruction/DEV003_regenerated_atlas/country_pair_lifts.csv	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-078	RP04 → RP05	A addition	reconstruction/DEV003_regenerated_atlas/daily_representation.csv	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-079	RP04 → RP05	A addition	reconstruction/DEV003_regenerated_atlas/equal_5000_event_blocks.csv	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-080	RP04 → RP05	A addition	reconstruction/DEV003_regenerated_atlas/event_root_transition_lifts.csv	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-081	RP04 → RP05	A addition	reconstruction/DEV003_regenerated_atlas/raw_summary.json	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-082	RP04 → RP05	A addition	reconstruction/DEV003_regenerated_atlas/top_actor_missingness_patterns.csv	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-083	RP04 → RP05	A addition	requirements-dev003.txt	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-084	RP04 → RP05	A addition	scripts/compare_atlas_outputs.py	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-085	RP04 → RP05	A addition	scripts/reconstruct_raw_1995_to_atlas.py	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-086	RP04 → RP05	A addition	validation/DEV003_ATLAS_COMPARISON.json	generated in RP05; parent active set retained through immutable/Legacy recovery architecture
RA-087	RP04 → RP05	M modification	00_CREATE_NEXT_RECOVERY_POINT.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-088	RP04 → RP05	M modification	01_DEVELOPMENT_BACKLOG.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-089	RP04 → RP05	M modification	02_RECOVERY_COMPOSITE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-090	RP04 → RP05	M modification	03_CITATION_REGISTER.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-091	RP04 → RP05	M modification	04_DOCUMENT_HIERARCHY.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-092	RP04 → RP05	M modification	Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-093	RP04 → RP05	M modification	Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-094	RP04 → RP05	M modification	README.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-095	RP04 → RP05	M modification	VALIDATION.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-096	RP04 → RP05	M modification	metadata/DEVELOPMENT_STATUS.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-097	RP04 → RP05	M modification	metadata/DOCUMENT_INDEX.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-098	RP04 → RP05	M modification	metadata/RECOVERY_ASSET_MANIFEST.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-099	RP05 → RP06	A addition	Documents/Chapters/DC02.05_PRECRYPTO_LAB_INTEGRATION.md	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-100	RP05 → RP06	A addition	logs/DEV006_FAILED_ATTEMPTS.jsonl	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-101	RP05 → RP06	A addition	metadata/DEV006_CHANGE_IMPACT.json	generated in RP06; parent active set retained through immutable/Legacy recovery architecture

ID	Transition	Operation	Active member path	Relation / disposition
RA-102	RP05 → RP06	A addition	metadata/RP06_ACCEPTANCE.json	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-103	RP05 → RP06	A addition	metadata/RP06_LINEAGE.json	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-104	RP05 → RP06	A addition	metadata/RP06_PACKAGE_SHA256_MANIFEST.txt	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-105	RP05 → RP06	A addition	requirements-dev006.txt	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-106	RP05 → RP06	A addition	scripts/dev006_feature_adapter.py	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-107	RP05 → RP06	A addition	scripts/dev006_lab_adapter.py	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-108	RP05 → RP06	A addition	scripts/run_dev006_integration.py	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-109	RP05 → RP06	A addition	validation/dev006/DEV006_INTEGRATION_RESULTS.json	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-110	RP05 → RP06	A addition	validation/dev006/DEV006_TEST_EXECUTION.jsonl	generated in RP06; parent active set retained through immutable/Legacy recovery architecture
RA-111	RP05 → RP06	M modification	00_CREATE_NEXT_RECOVERY_POINT.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-112	RP05 → RP06	M modification	01_DEVELOPMENT_BACKLOG.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-113	RP05 → RP06	M modification	02_RECOVERY_COMPOSITE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-114	RP05 → RP06	M modification	03_CITATION_REGISTER.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-115	RP05 → RP06	M modification	04_DOCUMENT_HIERARCHY.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-116	RP05 → RP06	M modification	Documents/Chapters/DC01.01_RECOVERY_POINT_GOVERNANCE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-117	RP05 → RP06	M modification	Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-118	RP05 → RP06	M modification	Documents/Chapters/DC01.03_CONSISTENCY_PROPAGATION.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-119	RP05 → RP06	M modification	Documents/Chapters/DC02.01_BLIND_EXPERIMENTAL_BOUNDARY.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-120	RP05 → RP06	M modification	Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-121	RP05 → RP06	M modification	README.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-122	RP05 → RP06	M modification	VALIDATION.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-123	RP05 → RP06	M modification	metadata/DEVELOPMENT_STATUS.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-124	RP05 → RP06	M modification	metadata/DOCUMENT_INDEX.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-125	RP05 → RP06	M modification	metadata/RECOVERY_ASSET_MANIFEST.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-126	RP06 → RP07	A addition	Documents/Chapters/DC02.06_PRECRYPTO_LAB_HARDENING.md	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-127	RP06 → RP07	A addition	metadata/OUTPUT_SHA256_MANIFEST_HISTORICAL_RP03.json	generated in RP07; parent active set retained through immutable/Legacy recovery architecture

ID	Transition	Operation	Active member path	Relation / disposition
RA-128	RP06 → RP07	A addition	metadata/RP07_ACCEPTANCE.json	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-129	RP06 → RP07	A addition	metadata/RP07_CHANGE_IMPACT.json	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-130	RP06 → RP07	A addition	metadata/RP07_LINEAGE.json	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-131	RP06 → RP07	A addition	metadata/RP07_PACKAGE_SHA256_MANIFEST.txt	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-132	RP06 → RP07	A addition	scripts/dev006_hardening.py	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-133	RP06 → RP07	A addition	scripts/run_dev006_hardening.py	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-134	RP06 → RP07	A addition	validation/dev006_hardening/DEV006_HARDENING_EXECUTION.jsonl	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-135	RP06 → RP07	A addition	validation/dev006_hardening/DEV006_HARDENING_RESULTS.json	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-136	RP06 → RP07	A addition	validation/dev006_hardening/feature_alternatives/mean_side_actor_country_entropy.csv	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-137	RP06 → RP07	A addition	validation/dev006_hardening/feature_alternatives/pooled_actor_country_entropy.csv	generated in RP07; parent active set retained through immutable/Legacy recovery architecture
RA-138	RP06 → RP07	M modification	00_CREATE_NEXT_RECOVERY_POINT.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-139	RP06 → RP07	M modification	01_DEVELOPMENT_BACKLOG.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-140	RP06 → RP07	M modification	02_RECOVERY_COMPOSITE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-141	RP06 → RP07	M modification	03_CITATION_REGISTER.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-142	RP06 → RP07	M modification	04_DOCUMENT_HIERARCHY.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-143	RP06 → RP07	M modification	Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-144	RP06 → RP07	M modification	Documents/Chapters/DC01.03_CONSISTENCY_PROPAGATION.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-145	RP06 → RP07	M modification	Documents/Chapters/DC02.01_BLIND_EXPERIMENTAL_BOUNDARY.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-146	RP06 → RP07	M modification	Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-147	RP06 → RP07	M modification	Documents/Chapters/DC05.01_FINDINGS_LIMITS_AND_ALTERNATIVES.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-148	RP06 → RP07	M modification	README.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-149	RP06 → RP07	M modification	VALIDATION.md	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-150	RP06 → RP07	M modification	metadata/DEVELOPMENT_STATUS.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-151	RP06 → RP07	M modification	metadata/DOCUMENT_INDEX.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-152	RP06 → RP07	M modification	metadata/RECOVERY_ASSET_MANIFEST.json	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP
RA-153	RP06 → RP07	M modification	scripts/dev006_feature_adapter.py	same active identity/path transformed; compare hashes and change-impact records; prior version remains in parent RP

ID	Transition	Operation	Active member path	Relation / disposition
RA-154	RP06 → RP07	D active removal; P historical	metadata/OUTPUT_SHA256_MANIFEST.json	removed from child active set; immutable parent remains source; child Legacy match not proven

Appendix D. Unique archive-member inventory — 499 entries

Exact duplicate ZIP placements are listed in Appendix A but expanded only once here. Member dates are timestamps stored inside each archive and may not encode a time zone. Nested legacy archives are retained as entries rather than recursively counted again, preventing duplicated history from masquerading as new work.

ID	Containing package	Internal date	Member / contribution class	Size and hash
A-001	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/requirements.txt Protocol/narrative	83 bytes 1d9a276dce519522...
A-002	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/README.md Protocol/narrative	4593 bytes 386eea65feb4e45a...
A-003	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/src/build_media_features.py Executable method	7193 bytes d269efac280af8e2...
A-004	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/src/unlock_year.py Executable method	1697 bytes 9efe0ddba1826735...
A-005	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/src/download_gdelt.py Executable method	1592 bytes ab8de88f4532e51f...
A-006	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/src/freeze_candidates.py Executable method	896 bytes d11dd8cded10c26a...
A-007	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/config/candidate_definition_example.json Supporting artifact	469 bytes 3133c3475959c264...
A-008	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/config/locked_outcomes_manifest.json Provenance/metadata	850 bytes 8806b3ebaabb1938...
A-009	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/config/blind_state.json Supporting artifact	537 bytes 5bf54730aabc7923...
A-010	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/config/gdelt_manifest.json Provenance/metadata	2265 bytes 9f075d3db4c08526...
A-011	D-031 · Substrate_PreCrypto_Blind_Lab_v01.zip	2026-9-6 (ZIP local/unspecified)	substrate_precrypto_lab_v01/data/locked_outcomes/DO_NOT_OPEN_DURING_LABYRINTH.txt Data/derived output	144 bytes 82de80a52e8c0f21...
A-012	D-033 · 1995.zip	2013-5-19 (ZIP local/unspecified)	1995.csv Data/derived output	499892009 bytes
A-013	D-034 · GDELT_1995_Dimensional_Atlas_v01.zip	2026-9-6 (ZIP local/unspecified)	top_actor_missingness_patterns.csv Data/derived output	32563 bytes 226ae52a298e594c...
A-014	D-034 · GDELT_1995_Dimensional_Atlas_v01.zip	2026-9-6 (ZIP local/unspecified)	raw_summary.json Supporting artifact	8291 bytes 40eb74f457b296dc...
A-015	D-034 · GDELT_1995_Dimensional_Atlas_v01.zip	2026-9-6 (ZIP local/unspecified)	event_root_transition_lifts.csv Data/derived output	18821 bytes 9fcc5d35d9afabda...
A-016	D-034 · GDELT_1995_Dimensional_Atlas_v01.zip	2026-9-6 (ZIP local/unspecified)	1995_dimensional_atlas_v01.md Protocol/narrative	6967 bytes a4515b459e7b7895...
A-017	D-034 · GDELT_1995_Dimensional_Atlas_v01.zip	2026-9-6 (ZIP local/unspecified)	daily_representation.csv Data/derived output	128424 bytes c68b1157dc9998c0...
A-018	D-034 · GDELT_1995_Dimensional_Atlas_v01.zip	2026-9-6 (ZIP local/unspecified)	country_pair_lifts.csv Data/derived output	242514 bytes 52e908f8dc8c3b29...
A-019	D-034 · GDELT_1995_Dimensional_Atlas_v01.zip	2026-9-6 (ZIP local/unspecified)	equal_5000_event_blocks.csv Data/derived output	86137 bytes e14b7ed9ebd91bf4...
A-020	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/README.md Protocol/narrative	4268 bytes 7b80bf048ff76592...
A-021	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/event_root_self_transition_candidates.csv Frozen candidate/output	946 bytes 4512bcc1df8d0bdf...
A-022	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/cross_resolution_mode_match.csv Frozen candidate/output	195 bytes 193356a07a1136b0...
A-023	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/FROZEN_1995_CANDIDATES.json Frozen candidate/output	6409 bytes 4a09018039505a18...
A-024	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/equal_event_mode_centroids.csv Frozen candidate/output	3561 bytes 2dbdfe21816bd461...
A-025	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/mode_stats.csv Frozen candidate/output	818 bytes 136c28764af41c8b...
A-026	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/equal_event_1995_scaler.csv Frozen candidate/output	2021 bytes 57a16a614bf64034...
A-027	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/mode_transition_null_tests.csv Frozen candidate/output	2172 bytes c685b07211fd407c...
A-028	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/daily_mode_centroids.csv Frozen candidate/output	3542 bytes 2ecc9496ca3159de...
A-029	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/daily_1995_scaler.csv Frozen candidate/output	2011 bytes f7b45a2f62ce5110...

ID	Containing package	Internal date	Member / contribution class	Size and hash
A-030	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/candidates/null_world_summary.csv Frozen candidate/output	1584 bytes 0f52dd4d16a9ea73...
A-031	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/data/1995_equal_5000_event_labyrinth.csv Data/derived output	209600 bytes 8020b1c5e53afdf9...
A-032	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/data/1995_calendar_day_labyrinth.csv Data/derived output	256802 bytes c94765ab3ccf96fa...
A-033	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/scripts/implement_rp0_labyrinth.py Executable method	417 bytes 653fb604bce0aa78...
A-034	D-043 · RP0 String-Compatible Recurrence Labyrinth v01.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v01/metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	995 bytes ba2f3e9d190cdb9c...
A-035	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/PRESERVATION_PROTOCOL.md Protocol/narrative	2906 bytes 1384aaed349032a5...
A-036	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/VALIDATION.md Protocol/narrative	2288 bytes e3f5ae32309f567d...
A-037	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/RELATIONAL_LEXICON.md Protocol/narrative	5203 bytes eb787883a4fb339d...
A-038	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/data/1995_calendar_day_labyrinth.csv Data/derived output	256796 bytes bd21a6069d4e722e...
A-039	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/data/1995_equal_5000_event_labyrinth.csv Data/derived output	209602 bytes 7baf4c899f63a402...
A-040	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/cross_resolution_mode_match.csv Frozen candidate/output	196 bytes 65c0fe8efcda828c...
A-041	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/equal_event_1995_scaler.csv Frozen candidate/output	2021 bytes 57a16a614bf64034...
A-042	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/equal_event_mode_centroids.csv Frozen candidate/output	3561 bytes 2dbdfe21816bd461...
A-043	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/daily_1995_scaler.csv Frozen candidate/output	2011 bytes f7b45a2f62ce5110...
A-044	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/FROZEN_1995_CANDIDATES.json Frozen candidate/output	8406 bytes 21b7ded89a901496...
A-045	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/null_world_summary.csv Frozen candidate/output	1587 bytes 427244afaec01095...
A-046	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/event_root_self_transition_candidates.csv Frozen candidate/output	946 bytes 4512bcc1df8d0bdf...
A-047	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/daily_mode_centroids.csv Frozen candidate/output	3542 bytes 2ecc9496ca3159de...
A-048	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/mode_stats.csv Frozen candidate/output	818 bytes 136c28764af41c8b...
A-049	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/candidates/mode_transition_null_tests.csv Frozen candidate/output	2171 bytes a7f1856f91978f15...
A-050	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/requirements.txt Protocol/narrative	53 bytes 63fb1204097bf24a...
A-051	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/PROCESS_INTENTS.md Protocol/narrative	11294 bytes 27da394aad1f99cc...
A-052	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/FRAME_COMPLETENESS.md Protocol/narrative	3799 bytes 9133cd8a3968078d...
A-053	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/scripts/implement_rp0_labyrinth.py Executable method	19342 bytes eeae310046e0d6f8...
A-054	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/SCALAR_DEPENDENCY.md Protocol/narrative	3121 bytes b58b554a39238402...
A-055	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	3455 bytes 634d277ce746e126...

ID	Containing package	Internal date	Member / contribution class	Size and hash
A-056	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/metadata/OUTPUT_SHA256_MANIFEST.json Provenance/metadata	2774 bytes f3bf1f6a0edaafe4...
A-057	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	986 bytes b50a0da85ce1daf2...
A-058	D-047 · RP0 String-Compatible Recurrence Labyrinth v02.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v02/README.md Protocol/narrative	6584 bytes 048b00a8128d86a6...
A-059	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/FRAME_SHAKING_PROTOCOL.md Protocol/narrative	6754 bytes 9a61940aef2dea84...
A-060	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/PRESERVATION_PROTOCOL.md Protocol/narrative	2905 bytes 1a3d13d1f3753d1f...
A-061	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/scripts/implement_rp0_labyrinth.py Executable method	19342 bytes eeae310046e0d6f8...
A-062	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/FRAME_COMPLETENESS.md Protocol/narrative	5102 bytes 85155da07583fcfe...
A-063	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/README.md Protocol/narrative	8933 bytes b1febfee3075a1c2...
A-064	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/data/1995_equal_5000_event_labyrinth.csv Data/derived output	209602 bytes 7baf4c899f63a402...
A-065	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/data/1995_calendar_day_labyrinth.csv Data/derived output	256796 bytes bd21a6069d4e722e...
A-066	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/requirements.txt Protocol/narrative	53 bytes 63fb1204097bf24a...
A-067	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/PROCESS_INTENTS.md Protocol/narrative	16405 bytes 10b673f4a9a2576d...
A-068	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/metadata/RP03_LINEAGE.json Provenance/metadata	1538 bytes 422a5d823d2230c4...
A-069	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	5244 bytes 366d305f42eaa483...
A-070	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/metadata/OUTPUT_SHA256_MANIFEST.json Provenance/metadata	3155 bytes ffe7a49062cc5eee...
A-071	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/metadata/FRAME_SHAKING_REGISTRY_TEMPLATE.json Provenance/metadata	2797 bytes 91b6ca61eb1725de...
A-072	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	986 bytes b50a0da85ce1daf2...
A-073	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/SCALAR_DEPENDENCY.md Protocol/narrative	3120 bytes 0ad17199ca40f7f4...
A-074	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/equal_event_1995_scaler.csv Frozen candidate/output	2021 bytes 57a16a614bf64034...
A-075	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/null_world_summary.csv Frozen candidate/output	1587 bytes 427244afaec01095...
A-076	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/daily_mode_centroids.csv Frozen candidate/output	3542 bytes 2ecc9496ca3159de...
A-077	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/event_root_self_transition_candidates.csv Frozen candidate/output	946 bytes 4512bcc1df8d0bdf...
A-078	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/equal_event_mode_centroids.csv Frozen candidate/output	3561 bytes 2dbdfe21816bd461...
A-079	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/mode_stats.csv Frozen candidate/output	818 bytes 136c28764af41c8b...
A-080	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/FROZEN_1995_CANDIDATES.json Frozen candidate/output	8406 bytes 21b7ded89a901496...
A-081	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/mode_transition_null_tests.csv Frozen candidate/output	2171 bytes a7f1856f91978f15...

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A-082	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/cross_resolution_mode_match.csv Frozen candidate/output	196 bytes 65c0fe8efcd828c...
A-083	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/candidates/daily_1995_scaler.csv Frozen candidate/output	2011 bytes f7b45a2f62ce5110...
A-084	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/VALIDATION.md Protocol/narrative	3378 bytes 29b6c7d6ce9b6c02...
A-085	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/TOOL_LINEAGE_ROLES.md Provenance/metadata	5359 bytes 4a1778db817ce3da...
A-086	D-048 · RP0 String-Compatible Recurrence Labyrinth v03.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v03/RELATIONAL_LEXICON.md Protocol/narrative	7957 bytes 9e64440d79ce1401...
A-087	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/00_CREATE_NEXT_RECOVERY_POINT.md Protocol/narrative	6043 bytes fc503838d02b5690...
A-088	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/01_DEVELOPMENT_BACKLOG.md Protocol/narrative	14673 bytes afd766ca235253c0...
A-089	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/02_RECOVERY_COMPOSITE.md Protocol/narrative	9916 bytes 122e9f0706034d69...
A-090	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/03_CITATION_REGISTER.md Protocol/narrative	3383 bytes cd414587821b2566...
A-091	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/04_DOCUMENT_HIERARCHY.md Protocol/narrative	1737 bytes 8ce8ade1d71334a5...
A-092	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC01.01_RECOVERY_POINT_GOVERNANCE.md Research chapter	2684 bytes 208c90d9026c8c0d...
A-093	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md Research chapter	2559 bytes bc44f679a8497b17...
A-094	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC01.03_CONSISTENCY_PROPAGATION.md Research chapter	2645 bytes 8de551c607c6d37...
A-095	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC02.01_BLIND_EXPERIMENTAL_BOUNDARY.md Research chapter	2297 bytes 7a394a5d7a0012ef...
A-096	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md Research chapter	2265 bytes e04fc81df7f1f38...
A-097	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC02.03_NULLS_MULTIPLICITY_AND_CONTROLS.md Research chapter	2161 bytes 1768b4faceb8f5b5...
A-098	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC03.01_RELATIONAL_LEXICON_AND_DISTINCTIONS.md Research chapter	2925 bytes 29d87485fb82b248...
A-099	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC03.02_RECURRENCE_OPERATOR_INVENTORY.md Research chapter	2260 bytes da36ebfc0e4768a9...
A-100	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC03.03_TOOL_LINEAGES_AND_FRAME_SHAKING.md Research chapter	2201 bytes 7db3f0161f63e2bd...
A-101	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC04.01_RELATIONAL_MATHEMATICS_PROGRAM.md Research chapter	2177 bytes 2ffca161a017bb08...
A-102	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC04.02_OBSERVATION_ARTIFACT_AND_CONDITIONAL_ASSOCIATION.md Research chapter	2050 bytes 28b2c7a345e2b3ee...
A-103	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC05.01_FINDINGS_LIMITS_AND_ALTERNATIVES.md Research chapter	2111 bytes 2894200b4baef8f...
A-104	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC05.02_PROSPECTIVE_VALIDATION_AND_PHYSICAL_TESTS.md Research chapter	2345 bytes e7cc4f8abc2fd2c9...
A-105	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Documents/Chapters/DC06.01_CROSS_DOMAIN_TRANSLATION.md Research chapter	1910 bytes 43ae9e45a8578dff...
A-106	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/FRAME_COMPLETENESS.md Protocol/narrative	5107 bytes 4bc6e955e236a492...
A-107	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/FRAME_SHAKING_PROTOCOL.md Protocol/narrative	6758 bytes ee34641a6564e845...

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A-108	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/1995_dimensional_atlas_v01.md Legacy preservation	6967 bytes a4515b459e7b7895...
A-109	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/country_pair_lifts.csv Legacy preservation	242514 bytes 52e908f8dc8c3b29...
A-110	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/daily_representation.csv Legacy preservation	128424 bytes c68b1157dc9998c0...
A-111	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/equal_5000_event_blocks.csv Legacy preservation	86137 bytes e14b7ed9ebd91b4...
A-112	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/event_root_transition_lifts.csv Legacy preservation	18821 bytes 9fcc5d35d9afabda...
A-113	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/raw_summary.json Legacy preservation	8291 bytes 40eb74f457b296dc...
A-114	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/top_actor_missingness_patterns.csv Legacy preservation	32563 bytes 226ae52a298e594c...
A-115	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/String-Compatible Recurrence Research Prompt.md Legacy preservation	20284 bytes b63a9e899d256911...
A-116	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/README.md Legacy preservation	4593 bytes 386eea65feb4e45a...
A-117	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/blind_state.json Legacy preservation	537 bytes 5bf54730aabc7923...
A-118	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/candidate_definition_example.json Legacy preservation	469 bytes 3133c3475959c264...
A-119	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/gdelt_manifest.json Legacy preservation	2265 bytes 9f075d3db4c08526...
A-120	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/locked_outcomes_manifest.json Legacy preservation	850 bytes 8806b3ebaabb1938...
A-121	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/data/locked_outcomes/D_O_NOT_OPEN_DURING_LABYRINTH.txt Legacy preservation	144 bytes 82de80a52e8c0f21...
A-122	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/requirements.txt Legacy preservation	83 bytes 1d9a276dce519522...
A-123	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/build_media_features.py Legacy preservation	7193 bytes d269efac280af8e2...
A-124	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/download_gdelt.py Legacy preservation	1592 bytes ab8de88f4532e51f...
A-125	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/freeze_candidates.py Legacy preservation	896 bytes d11dd8cded10c26a...
A-126	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/unlock_year.py Legacy preservation	1697 bytes 9efe0ddba1826735...
A-127	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Source_Archives/GDELT_1995_Dimensional_Atlas_v01.zip Legacy preservation	233784 bytes 1759d543ec9356d6...
A-128	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/RP0_Original/Source_Archives/Substrate_PreCrypto_Blind_Lab_v01.zip Legacy preservation	10993 bytes 0e574cf3becbee2...
A-129	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v01.zip Legacy preservation	227685 bytes 9eef6e63a48f1ce1...
A-130	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v02.zip Legacy preservation	254922 bytes 1ed38e3f74e30d0b...
A-131	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v03.zip Legacy preservation	268565 bytes 23737068ff61ebfb...
A-132	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/PRESERVATION_PROTOCOL.md Protocol/narrative	2910 bytes c53493975aea650b...
A-133	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/PROCESS_INTENTS.md Protocol/narrative	18007 bytes 3d17db24ea050685...

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A-134	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/README.md Protocol/narrative	9647 bytes 991fa864e3e19e06...
A-135	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/RELATIONAL_LEXICON.md Protocol/narrative	7962 bytes 3f414c8e906a754f...
A-136	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/SCALAR_DEPENDENCY.md Protocol/narrative	3125 bytes a453d6a17a3f2928...
A-137	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/TOOL_LINEAGE_ROLES.md Provenance/metadata	5363 bytes bf5d03b4f54d466c...
A-138	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/VALIDATION.md Protocol/narrative	3361 bytes 4642b132d3bf5359...
A-139	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/FROZEN_1995_CANDIDATES.json Frozen candidate/output	8406 bytes 21b7ded89a901496...
A-140	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/cross_resolution_mode_match.csv Frozen candidate/output	196 bytes 65c0fe8efcda828c...
A-141	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/daily_1995_scaler.csv Frozen candidate/output	2011 bytes f7b45a2f62ce5110...
A-142	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/daily_mode_centroids.csv Frozen candidate/output	3542 bytes 2ecc9496ca3159de...
A-143	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/equal_event_1995_scaler.csv Frozen candidate/output	2021 bytes 57a16a614bf64034...
A-144	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/equal_event_mode_centroids.csv Frozen candidate/output	3561 bytes 2dbdfe21816bd461...
A-145	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/event_root_self_transition_candidates.csv Frozen candidate/output	946 bytes 4512bcc1df8d0bdf...
A-146	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/mode_stats.csv Frozen candidate/output	818 bytes 136c2876a4f41c8b...
A-147	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/mode_transition_null_tests.csv Frozen candidate/output	2171 bytes a7f1856f91978f15...
A-148	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/candidates/null_world_summary.csv Frozen candidate/output	1587 bytes 427244faec01095...
A-149	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/data/1995_calendar_day_labyrinth.csv Data/derived output	256796 bytes bd21a6069d4e722e...
A-150	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/data/1995_equal_5000_event_labyrinth.csv Data/derived output	209602 bytes 7baf4c899f63a402...
A-151	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/CHANGE_IMPACT_TEMPLATE.json Provenance/metadata	535 bytes 01ddb0d806d19ac02...
A-152	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/DEVELOPMENT_STATUS.json Provenance/metadata	608 bytes 96c147ce73d0e058...
A-153	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	5244 bytes 366d305f42eaa483...
A-154	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/DOCUMENT_INDEX.json Provenance/metadata	799 bytes 7d10bc4b5a685128...
A-155	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/FRAME_SHAKING_REGISTRY_TEMPLATE.json Provenance/metadata	2797 bytes 91b6ca61eb1725de...
A-156	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/OUTPUT_SHA256_MANIFEST.json Provenance/metadata	3155 bytes ffe7a49062cc5eee...
A-157	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/PARENT_RP03_LINEAGE.json Provenance/metadata	1538 bytes 422a5d823d2230c4...
A-158	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/RECOVERY_ASSET_MANIFEST.json Provenance/metadata	2624 bytes 5bc4e2b3f0a1e7c8...
A-159	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/RP04_LINEAGE.json Provenance/metadata	1343 bytes 27ea93612223f992...

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A-160	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/RP04_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	9448 bytes d3001666a97598fd...
A-161	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	986 bytes b50a0da85ce1daf2...
A-162	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/requirements.txt Protocol/narrative	53 bytes 63fb1204097bf24a...
A-163	D-049 · RP0 String-Compatible Recurrence Labyrinth v04.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v04/scripts/implement_rp0_labyrinth.py Executable method	19342 bytes eeae310046e0d6f8...
A-164	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC02.03_NULLS_MULTIPLICITY_AND_CONTROLS.md Research chapter	2161 bytes 1768b4faceb8f5b5...
A-165	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC02.04_RAW_TO_ATLAS_RECONSTRUCTION.md Research chapter	7381 bytes 2b22bd23f76f3771...
A-166	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC03.01_RELATIONAL_LEXICON_AND_DISTINCTIONS.md Research chapter	2925 bytes 29d87485fb82b248...
A-167	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md Research chapter	2356 bytes 74a90e2dfa3c954d...
A-168	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC02.01_BLIND_EXPERIMENTAL_BOUNDARY.md Research chapter	2297 bytes 7a394a5d7a0012ef...
A-169	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC05.01_FINDINGS_LIMITS_AND_ALTERNATIVES.md Research chapter	2111 bytes 2894200b4baeef8f...
A-170	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC03.03_TOOL_LINEAGES_AND_FRAME_SHAKING.md Research chapter	2201 bytes 7db3f0161f63e2bd...
A-171	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC04.02_OBSERVATION_ARTIFACT_AND_CONDITIONAL_ASSOCIATION.md Research chapter	2050 bytes 28b2c7a345e2b3ee...
A-172	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC06.01_CROSS_DOMAIN_TRANSLATION.md Research chapter	1910 bytes 43ae9e45a8578dff...
A-173	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC05.02_PROSPECTIVE_VALIDATION_AND_PHYSICAL_TESTS.md Research chapter	2345 bytes e7cc4f8abc2fd2c9...
A-174	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC04.01_RELATIONAL_MATHEMATICS_PROGRAM.md Research chapter	2177 bytes 2ffca161a017b08...
A-175	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC01.03_CONSISTENCY_PROPAGATION.md Research chapter	2645 bytes 8de551c607c6dd37...
A-176	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md Research chapter	2743 bytes cc7e100943305371...
A-177	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC01.01_RECOVERY_POINT_GOVERNANCE.md Research chapter	2684 bytes 208c90d9026c8c0d...
A-178	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Documents/Chapters/DC03.02_RECURRENCE_OPERATOR_INVENTORY.md Research chapter	2260 bytes da36ebfc0e4768a9...
A-179	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/SCALAR_DEPENDENCY.md Protocol/narrative	3125 bytes a453d6a17a3f2928...
A-180	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/config/RAW_TO_ATLAS_V01.json Supporting artifact	4150 bytes 858a222226ea23a3...
A-181	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/scripts/implement_rp0_labyrinth.py Executable method	19342 bytes eeae310046e0d6f8...
A-182	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/scripts/reconstruct_raw_1995_to_atlas.py Executable method	10644 bytes dd4f8d09e260aa61...
A-183	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/scripts/compare_atlas_outputs.py Executable method	3385 bytes cd1315d9e81a65f76...
A-184	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/PRESERVATION_PROTOCOL.md Protocol/narrative	2910 bytes c53493975aea650b...
A-185	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/README.md Protocol/narrative	9923 bytes be58c60b8d6512dc...

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A-186	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/03_CITATION_REGISTER.md Protocol/narrative	4526 bytes a852c11c4375d2bd...
A-187	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/RELATIONAL_LEXICON.md Protocol/narrative	7962 bytes 3f414c8e906a754f...
A-188	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/04_DOCUMENT_HIERARCHY.md Protocol/narrative	1903 bytes f3e512bb24f12222...
A-189	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/VALIDATION.md Protocol/narrative	4786 bytes 37f17fab962394f6...
A-190	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/00_CREATE_NEXT_RECOVERY_POINT.md Protocol/narrative	6042 bytes fa33b03ee9636147...
A-191	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/02_RECOVERY_COMPOSITE.md Protocol/narrative	10667 bytes ab8efd09f5d4f185...
A-192	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/reconstruction/DEV003_regenerated_atlas/equal_5000_event_blocks.csv Data/derived output	86137 bytes e14b7ed9ebd91b14...
A-193	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/reconstruction/DEV003_regenerated_atlas/country_pair_lifts.csv Data/derived output	242514 bytes 52e908f8dc8c3b29...
A-194	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/reconstruction/DEV003_regenerated_atlas/event_root_transition_lifts.csv Data/derived output	18821 bytes 9fcc5d35d9afabda...
A-195	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/reconstruction/DEV003_regenerated_atlas/raw_summary.json Data/derived output	8291 bytes 40eb74f457b296dc...
A-196	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/reconstruction/DEV003_regenerated_atlas/daily_representation.csv Data/derived output	128424 bytes c68b1157dc9998c0...
A-197	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/reconstruction/DEV003_regenerated_atlas/1995_dimensional_atlas_v01.md Data/derived output	6967 bytes a4515b459e7b7895...
A-198	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/reconstruction/DEV003_regenerated_atlas/top_actor_missingness_patterns.csv Data/derived output	32563 bytes 226ae52a298e594c...
A-199	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/RP05_LINEAGE.json Provenance/metadata	1260 bytes 3ab5f6741ec1f965...
A-200	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/DOCUMENT_INDEX.json Provenance/metadata	845 bytes e8b2e0d780886736...
A-201	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/RP04_LINEAGE.json Provenance/metadata	1343 bytes 27ea93612223f992...
A-202	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/CHANGE_IMPACT_TEMPLATE.json Provenance/metadata	535 bytes 01ddb0d80619ac02...
A-203	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/RECOVERY_ASSET_MANIFEST.json Provenance/metadata	2966 bytes 7e232ee0ad3d575d...
A-204	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/OUTPUT_SHA256_MANIFEST.json Provenance/metadata	3155 bytes ffe7a49062cc5eee...
A-205	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/DEVELOPMENT_STATUS.json Provenance/metadata	717 bytes d0802eb22c5caeed...
A-206	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/PARENT_RP03_LINEAGE.json Provenance/metadata	1538 bytes 422a5d823d2230c4...
A-207	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/RP05_ACCEPTANCE.json Provenance/metadata	2608 bytes 9eb0838c3b7c1d70...
A-208	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/RP04_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	9448 bytes d3001666a97598fd...
A-209	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/DEV003_CHANGE_IMPACT.json Provenance/metadata	2308 bytes 3a658f04fdbcf69fd...
A-210	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/FRAME_SHAKING_REGISTRY_TEMPLATE.json Provenance/metadata	2797 bytes 91b6ca61eb1725de...
A-211	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	986 bytes b50a0da85ce1daf2...

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A-212	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/RP05_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	11830 bytes 48491bc3071b7342...
A-213	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	5244 bytes 366d305f42eaa483...
A-214	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v02.zip Legacy preservation	254922 bytes 1ed38e3f74e30d0b...
A-215	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v04.zip Legacy preservation	1552744 bytes 17e548467a243866...
A-216	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v03.zip Legacy preservation	268565 bytes 23737068ff61ebfb...
A-217	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v01.zip Legacy preservation	227685 bytes 9eef6e63a48f1ce1...
A-218	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Source_Archives/Substrate_PreCrypto_Blind_Lab_v01.zip Legacy preservation	10993 bytes 0e574cf3becbee2...
A-219	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Source_Archives/GDELT_1995_Dimensional_Atlas_v01.zip Legacy preservation	233784 bytes 1759d543ec9356d6...
A-220	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/blind_state.json Legacy preservation	537 bytes 5bf54730aabc7923...
A-221	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/locked_outcomes_manifest.json Legacy preservation	850 bytes 8806b3ebaabb1938...
A-222	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/gdelt_manifest.json Legacy preservation	2265 bytes 9f075d3db4c08526...
A-223	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/candidate_definition_example.json Legacy preservation	469 bytes 3133c3475959c264...
A-224	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/README.md Legacy preservation	4593 bytes 386eea65feb4e45a...
A-225	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/freeze_candidates.py Legacy preservation	896 bytes d11dd8cded10c26a...
A-226	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/unlock_year.py Legacy preservation	1697 bytes 9efe0ddb1826735...
A-227	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/download_gdelt.py Legacy preservation	1592 bytes ab8de88f4532e51f...
A-228	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/build_media_features.py Legacy preservation	7193 bytes d269efac280a8e2...
A-229	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/requirements.txt Legacy preservation	83 bytes 1d9a276dce519522...
A-230	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/data/locked_outcomes/DONOT_OPEN_DURING_LABYRINTH.txt Legacy preservation	144 bytes 82de80a52e8c0f21...
A-231	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/equal_5000_event_blocks.csv Legacy preservation	86137 bytes e14b7ed9ebd91bf4...
A-232	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/country_pair_lifts.csv Legacy preservation	242514 bytes 52e908f8dc8c3b29...
A-233	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/event_root_transitions_lifts.csv Legacy preservation	18821 bytes 9fcc5d35d9afabda...
A-234	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/raw_summary.json Legacy preservation	8291 bytes 40eb74f457b296dc...
A-235	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/daily_representation.csv Legacy preservation	128424 bytes c68b1157dc9998c0...
A-236	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/1995_dimensional_atlas_v01.md Legacy preservation	6967 bytes a4515b459e7b7895...
A-237	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/top_actor_missionness_patterns.csv Legacy preservation	32563 bytes 226ae52a298e594c...

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A-238	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/Legacy/RP0_Original/Readable/String-Compatible Recurrence Research Prompt.md Legacy preservation	20284 bytes b63a9e899d256911...
A-239	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/FAME_SHAKING_PROTOCOL.md Protocol/narrative	6758 bytes ee34641a6564e845...
A-240	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/FAME_COMPLETENESS.md Protocol/narrative	5107 bytes 4bc6e955e236a492...
A-241	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/validation/DEV003_ATLAS_COMPARISON.json Validation/failure evidence	8539 bytes 817234bde47ebc94...
A-242	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/01_DEVELOPMENT_BACKLOG.md Protocol/narrative	14867 bytes 0c6b129c51712d76...
A-243	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/requirements.txt Protocol/narrative	53 bytes 63fb1204097bf24a...
A-244	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/data/1995_calendar_day_labyrinth.csv Data/derived output	256796 bytes bd21a6069d4e722e...
A-245	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/data/1995_equal_5000_event_labyrinth.csv Data/derived output	209602 bytes 7baf4c899f63a402...
A-246	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/PROCESS_INTENTS.md Protocol/narrative	18007 bytes 3d17db24ea050685...
A-247	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/requirements-dev003.txt Protocol/narrative	27 bytes 6979eeaed30ec7f4...
A-248	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/TOOL_LINEAGE_ROLES.md Provenance/metadata	5363 bytes bf5d03b4f54d466c...
A-249	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/logs/DEV003_FAILED_ATTEMPTS.jsonl Validation/failure evidence	583 bytes 31984aaf5ddeaecd...
A-250	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/logs/DEV003_TRANSFORMATION_LOG.json Validation/failure evidence	1967 bytes 23603e5bc21949fd...
A-251	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/daily_1995_scaler.csv Frozen candidate/output	2011 bytes f7b45a2f62ce5110...
A-252	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/null_world_summary.csv Frozen candidate/output	1587 bytes 427244faec01095...
A-253	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/cross_resolution_mode_match.csv Frozen candidate/output	196 bytes 65c0fe8efcda828c...
A-254	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/equal_event_1995_scaler.csv Frozen candidate/output	2021 bytes 57a16a614bf64034...
A-255	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/mode_transition_null_tests.csv Frozen candidate/output	2171 bytes a7f1856f91978f15...
A-256	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/event_root_self_transition_candidates.csv Frozen candidate/output	946 bytes 4512bcc1df8d0bdf...
A-257	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/FROZEN_1995_CANDIDATES.json Frozen candidate/output	8406 bytes 21b7ded89a901496...
A-258	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/equal_event_mode_centroids.csv Frozen candidate/output	3561 bytes 2dbdfe21816bd461...
A-259	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/mode_stats.csv Frozen candidate/output	818 bytes 136c28764af41c8b...
A-260	D-050 · RP0 String-Compatible Recurrence Labyrinth v05.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v05/candidates/daily_mode_centroids.csv Frozen candidate/output	3542 bytes 2ecc9496ca3159de...
A-261	D-052 · RP05 Continuity Supplement 01.zip	2026-9-12 (ZIP local/unspecified)	rp05_continuity_supplement_01/SUPPLEMENT_SHA256_MANIFEST.txt Protocol/narrative	96 bytes 62b0acc3db46be8...
A-262	D-052 · RP05 Continuity Supplement 01.zip	2026-9-12 (ZIP local/unspecified)	rp05_continuity_supplement_01/RP05_CONTINUITY_SUPPLEMENT.md Protocol/narrative	2504 bytes a347fa1b4325eb10...
A-263	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC02.03_NULLS_MULTIPLICITY_AND_CONTROLS.md Research chapter	2161 bytes 1768b4faceb8f5b5...

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A-264	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC02.04_RAW_TO_ATLAS_RECONSTRUCTION.md Research chapter	7381 bytes 2b22bd23f76f3771...
A-265	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC03.01_RELATIONAL_LEXICON_AND_DISTINCTIONS.md Research chapter	2925 bytes 29d87485fb82b248...
A-266	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md Research chapter	2974 bytes 5666d3392aed45a5...
A-267	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC02.01_BLIND_EXPERIMENTAL_BOUNDARY.md Research chapter	2882 bytes 9a57c9384b5ff705...
A-268	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC02.05_PRECRYPTO_LAB_INTEGRATION.md Research chapter	9970 bytes b1de325399098621...
A-269	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC05.01_FINDINGS_LIMITS_AND_ALTERNATIVES.md Research chapter	2111 bytes 2894200b4baeef8f...
A-270	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC03.03_TOOL_LINEAGES_AND_FRAME_SHAKING.md Research chapter	2201 bytes 7db3f0161f63e2bd...
A-271	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC04.02_OBSERVATION_ARTIFACT_AND_CONDITIONAL_ASSOCIATION.md Research chapter	2050 bytes 28b2c7a345e2b3ee...
A-272	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC06.01_CROSS_DOMAIN_TRANSLATION.md Research chapter	1910 bytes 43ae9e45a8578dff...
A-273	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC05.02_PROSPECTIVE_VALIDATION_AND_PHYSICAL_TESTS.md Research chapter	2345 bytes e7cc4f8abc2fd2c9...
A-274	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC04.01_RELATIONAL_MATHEMATICS_PROGRAM.md Research chapter	2177 bytes 2ffca161a017bb08...
A-275	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC01.03_CONSISTENCY_PROPAGATION.md Research chapter	2922 bytes 8ff8f734039eb1b4...
A-276	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md Research chapter	3197 bytes 23669d9da941a2f5...
A-277	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC01.01_RECOVERY_POINT_GOVERNANCE.md Research chapter	2844 bytes b306d30f126a5a6e...
A-278	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Documents/Chapters/DC03.02_RECURRENCE_OPERATOR_INVENTORY.md Research chapter	2260 bytes da36ebfc0e4768a9...
A-279	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/SCALAR_DEPENDENCY.md Protocol/narrative	3125 bytes a453d6a17a3f2928...
A-280	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/requirements-dev006.txt Protocol/narrative	60 bytes 9ec195fede134c6f...
A-281	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/config/RAW_TO_ATLAS_V01.json Supporting artifact	4150 bytes 858a222226ea23a3...
A-282	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/scripts/run_dev006_integration.py Executable method	32135 bytes 2cc0b10a50c785c5...
A-283	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/scripts/dev006_feature_adapter.py Executable method	4946 bytes be565bfdc47cf56b...
A-284	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/scripts/implement_rp0_labyrinth.py Executable method	19342 bytes eeae310046e0d6f8...
A-285	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/scripts/dev006_lab_adapter.py Executable method	5504 bytes 28d9f34c2f02f781...
A-286	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/scripts/reconstruct_raw_1995_to_atlas.py Executable method	10644 bytes ddf48d09e260aa61...
A-287	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/scripts/compare_atlas_outputs.py Executable method	3385 bytes cd1315d9e81a65f76...
A-288	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/PRESERVATION_PROTOCOL.md Protocol/narrative	2910 bytes c53493975aea650b...
A-289	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/README.md Protocol/narrative	9913 bytes f2c6d36077f9ac9e...

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A-290	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/03_CITATION_REGISTER.md Protocol/narrative	5803 bytes 38fb65833d66df1e...
A-291	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/RELATIONAL_LEXICON.md Protocol/narrative	7962 bytes 3f414c8e906a754f...
A-292	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/04_DOCUMENT_HIERARCHY.md Protocol/narrative	2138 bytes 99e7c18acfa3b501...
A-293	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/VALIDATION.md Protocol/narrative	6515 bytes 67473a1824195b93...
A-294	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/00_CREATE_NEXT_RECOVERY_POINT.md Protocol/narrative	6191 bytes e397a0e1257adb5f...
A-295	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/02_RECOVERY_COMPOSITE.md Protocol/narrative	11741 bytes e436b0441162400e...
A-296	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/reconstruction/DEV003_regenerated_atlas/equal_5000_event_blocks.csv Data/derived output	86137 bytes e14b7ed9ebd91b14...
A-297	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/reconstruction/DEV003_regenerated_atlas/country_pair_lifts.csv Data/derived output	242514 bytes 52e908f8dc8c3b29...
A-298	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/reconstruction/DEV003_regenerated_atlas/event_root_transition_lifts.csv Data/derived output	18821 bytes 9fcc5d35d9afabda...
A-299	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/reconstruction/DEV003_regenerated_atlas/raw_summary.json Data/derived output	8291 bytes 40eb74f457b296dc...
A-300	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/reconstruction/DEV003_regenerated_atlas/daily_representation.csv Data/derived output	128424 bytes c68b1157dc9998c0...
A-301	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/reconstruction/DEV003_regenerated_atlas/1995_dimensional_atlas_v01.md Data/derived output	6967 bytes a4515b459e7b7895...
A-302	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/reconstruction/DEV003_regenerated_atlas/top_actor_missingness_patterns.csv Data/derived output	32563 bytes 226ae52a298e594c...
A-303	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP06_LINEAGE.json Provenance/metadata	1399 bytes 31de66e56813f329...
A-304	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP05_LINEAGE.json Provenance/metadata	1260 bytes 3ab5f6741ec1f965...
A-305	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/DOCUMENT_INDEX.json Provenance/metadata	889 bytes b56f22777282c569...
A-306	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP04_LINEAGE.json Provenance/metadata	1343 bytes 27ea93612223f992...
A-307	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP06_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	13395 bytes 0434955073b8fe00...
A-308	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/CHANGE_IMPACT_TEMPLATE.json Provenance/metadata	535 bytes 01ddb0d80619ac02...
A-309	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RECOVERY_ASSET_MANIFEST.json Provenance/metadata	3688 bytes fd1d57e8c41b6bf1...
A-310	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/OUTPUT_SHA256_MANIFEST.json Provenance/metadata	3155 bytes ffe7a49062cc5eee...
A-311	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/DEVELOPMENT_STATUS.json Provenance/metadata	1221 bytes e4c4ca603001ebc5...
A-312	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/PARENT_RP03_LINEAGE.json Provenance/metadata	1538 bytes 422a5d823d2230c4...
A-313	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP06_ACCEPTANCE.json Provenance/metadata	4020 bytes e7e7e46adde682bc...
A-314	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP05_ACCEPTANCE.json Provenance/metadata	2608 bytes 9eb0838c3b7c1d70...
A-315	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP04_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	9448 bytes d3001666a97598fd...

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A-316	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/DEV003_CHANGE_IMPACT.json Provenance/metadata	2308 bytes 3a658f04fdb69fd...
A-317	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/FRAME_SHAKING_REGISTRY_TEMPLATE.json Provenance/metadata	2797 bytes 91b6ca61eb1725de...
A-318	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	986 bytes b50a0da85ce1daf2...
A-319	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/RP05_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	11830 bytes 48491bc3071b7342...
A-320	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	5244 bytes 366d305f42eaa483...
A-321	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/metadata/DEV006_CHANGE_IMPACT.json Provenance/metadata	3037 bytes 2566f8393108158c...
A-322	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v05.zip Legacy preservation	3384408 bytes 2abe521218c7efd4...
A-323	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v02.zip Legacy preservation	254922 bytes 1ed38e3f74e30d0b...
A-324	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v04.zip Legacy preservation	1552744 bytes 17e548467a243866...
A-325	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v03.zip Legacy preservation	268565 bytes 23737068ff61ebfb...
A-326	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v01.zip Legacy preservation	227685 bytes 9eef6e63a4b1f1ce1...
A-327	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/Continuity_Supplements/RP05 Continuity Supplement 01.zip Legacy preservation	1950 bytes 1da58c1eddb9bb1f...
A-328	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Source_Archives/Substrate_PreCrypto_Blind_Lab_v01.zip Legacy preservation	10993 bytes 0e574cf3becbee2...
A-329	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Source_Archives/GDELTA_1995_Dimensional_Atlas_v01.zip Legacy preservation	233784 bytes 1759d543ec9356d6...
A-330	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/blind_state.json Legacy preservation	537 bytes 5bf54730aabc7923...
A-331	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/locked_outcomes_manifest.json Legacy preservation	850 bytes 8806b3ebaabb1938...
A-332	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/gdelta_manifest.json Legacy preservation	2265 bytes 9f075d3db4c08526...
A-333	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/candidate_definition_example.json Legacy preservation	469 bytes 3133c3475959c264...
A-334	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/README.md Legacy preservation	4593 bytes 386eea65feb4e45a...
A-335	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/freeze_candidates.py Legacy preservation	896 bytes d11dd8cded10c26a...
A-336	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/unlock_year.py Legacy preservation	1697 bytes 9efe0dbba1826735...
A-337	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/download_gdelta.py Legacy preservation	1592 bytes ab8de88f4532e51f...
A-338	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/build_media_features.py Legacy preservation	7193 bytes d269efac280af8e2...
A-339	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/requirements.txt Legacy preservation	83 bytes 1d9a276dce519522...
A-340	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/data/locked_outcomes/DO_NOT_OPEN_DURING_LABYRINTH.txt Legacy preservation	144 bytes 82de80a52e8c0f21...
A-341	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/GDELTA_1995_Dimensional_Atlas_v01/equal_5000_event_blocks.csv Legacy preservation	86137 bytes e14b7ed9ebd91bf4...

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A-342	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/country_pair_lifts.csv Legacy preservation	242514 bytes 52e908f8dc8c3b29...
A-343	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/event_root_transition_lifts.csv Legacy preservation	18821 bytes 9fcc5d35d9afabda...
A-344	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/raw_summary.json Legacy preservation	8291 bytes 40eb74f457b296dc...
A-345	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/daily_representation.csv Legacy preservation	128424 bytes c68b1157dc9998c0...
A-346	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/1995_dimensional_atlas_v01.md Legacy preservation	6967 bytes a4515b459e7b7895...
A-347	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/top_actor_misngness_patterns.csv Legacy preservation	32563 bytes 226ae52a298e594c...
A-348	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/Legacy/RP0_Original/Readable/String-Compatible Recurrence Research Prompt.md Legacy preservation	20284 bytes b63a9e899d256911...
A-349	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/FRAME_SHAKING_PROTOCOL.md Protocol/narrative	6758 bytes ee34641a6564e845...
A-350	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/FRAME_COMPLETENESS.md Protocol/narrative	5107 bytes 4bc6e955e236a492...
A-351	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/validation/dev006/DEV006_TEST_EXECUTION.jsonl Validation/failure evidence	12430 bytes 452201546a1cc9a9...
A-352	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/validation/dev006/DEV006_INTEGRATION_RESULTS.json Validation/failure evidence	15841 bytes a7c8754e447b4290...
A-353	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/validation/DEV003_ATLAS_COMPARISON.json Validation/failure evidence	8539 bytes 817234bde47ebc94...
A-354	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/01_DEVELOPMENT_BACKLOG.md Protocol/narrative	15301 bytes 9563610fe49539a1...
A-355	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/requirements.txt Protocol/narrative	53 bytes 63fb1204097bf24a...
A-356	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/data/1995_calendar_day_labyrinth.csv Data/derived output	256796 bytes bd21a6069d4e722e...
A-357	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/data/1995_equal_5000_event_labyrinth.csv Data/derived output	209602 bytes 7ba4c899f3a402...
A-358	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/PROCESS_INTENTS.md Protocol/narrative	18007 bytes 3d17db24ea050685...
A-359	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/requirements-dev003.txt Protocol/narrative	27 bytes 6979eeaed30ec7f4...
A-360	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/TOOL_LINEAGE_ROLES.md Provenance/metadata	5363 bytes bf5d03b4f54d466c...
A-361	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/logs/DEV003_FAILED_ATTEMPTS.jsonl Validation/failure evidence	583 bytes 31984aaf5ddeafcd...
A-362	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/logs/DEV006_FAILED_ATTEMPTS.jsonl Validation/failure evidence	814 bytes 6e935ed255a859dc...
A-363	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/logs/DEV003_TRANSFORMATION_LOG.json Validation/failure evidence	1967 bytes 23603e5bc21949fd...
A-364	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/daily_1995_scaler.csv Frozen candidate/output	2011 bytes f7b45a2f62ce5110...
A-365	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/null_world_summary.csv Frozen candidate/output	1587 bytes 427244faec01095...
A-366	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/cross_resolution_mode_match.csv Frozen candidate/output	196 bytes 65c0fe8efcda828c...
A-367	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/equal_event_1995_scaler.csv Frozen candidate/output	2021 bytes 57a16a614bf64034...

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A-368	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/mode_transition_null_tests.csv Frozen candidate/output	2171 bytes a7f1856f91978f15...
A-369	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/event_root_self_transition_candidates.csv Frozen candidate/output	946 bytes 4512bcc1df8d0bdf...
A-370	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/FROZEN_1995_CANDIDATES.json Frozen candidate/output	8406 bytes 21b7ded89a901496...
A-371	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/equal_event_mode_centroids.csv Frozen candidate/output	3561 bytes 2dbdfe21816bd461...
A-372	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/mode_stats.csv Frozen candidate/output	818 bytes 136c28764af41c8b...
A-373	D-053 · RP0 String-Compatible Recurrence Labyrinth v06.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v06/candidates/daily_mode_centroids.csv Frozen candidate/output	3542 bytes 2ecc9496ca3159de...
A-374	D-055 · RP06 Continuity Supplement 01.zip	2026-9-12 (ZIP local/unspecified)	rp06_continuity_supplement_01/RP06_CONTINUITY_SUPPLEMENT.md Protocol/narrative	6697 bytes 85040d370a1715e6...
A-375	D-055 · RP06 Continuity Supplement 01.zip	2026-9-12 (ZIP local/unspecified)	rp06_continuity_supplement_01/SUPPLEMENT_SHA256_MANIFEST.txt Protocol/narrative	100 bytes fb774cad33373f4d...
A-376	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP07_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	15003 bytes 801ba972292689ac...
A-377	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/DEV003_CHANGE_IMPACT.json Provenance/metadata	2308 bytes 3a658f04fdb69fd...
A-378	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RECOVERY_ASSET_MANIFEST.json Provenance/metadata	4410 bytes 628e7ba70de60631...
A-379	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP05_ACCEPTANCE.json Provenance/metadata	2608 bytes 9eb0838c3b7c1d70...
A-380	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/DOCUMENT_INDEX.json Provenance/metadata	931 bytes 05e318d0f2cbd79f...
A-381	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/DEV006_CHANGE_IMPACT.json Provenance/metadata	3037 bytes 2566f8393108158c...
A-382	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP05_LINEAGE.json Provenance/metadata	1260 bytes 3ab5f6741ec1f965...
A-383	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/STRING_COMPATIBLE_MAPPING_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	986 bytes b50a0da85ce1daf2...
A-384	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/CHANGE_IMPACT_TEMPLATE.json Provenance/metadata	535 bytes 01ddb0d80619ac02...
A-385	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/DEVELOPMENT_STATUS.json Provenance/metadata	1339 bytes 695672b68632cd8c...
A-386	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/DIMENSIONAL_PREMISE_DO_NOT_USE_FOR_BLIND_SCORING.json Provenance/metadata	5244 bytes 366d305f42eaa483...
A-387	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP06_ACCEPTANCE.json Provenance/metadata	4020 bytes e7e7e46adde682bc...
A-388	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/FRAME_SHAKING_REGISTRY_TEMPLATE.json Provenance/metadata	2797 bytes 91b6ca61eb1725de...
A-389	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP04_LINEAGE.json Provenance/metadata	1343 bytes 27ea93612223f992...
A-390	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/PARENT_RP03_LINEAGE.json Provenance/metadata	1538 bytes 422a5d823d2230c4...
A-391	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP07_CHANGE_IMPACT.json Provenance/metadata	2413 bytes fcbf9ba8f1a988b2...
A-392	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP07_ACCEPTANCE.json Provenance/metadata	3050 bytes 5d80c8717f873c36...
A-393	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP04_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	9448 bytes d3001666a97598fd...

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A-394	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/OUTPUT_SHA256_MANIFEST_HISTORICAL_RP03.json Provenance/metadata	3155 bytes ffe7a49062cc5eee...
A-395	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP05_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	11830 bytes 48491bc3071b7342...
A-396	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP06_PACKAGE_SHA256_MANIFEST.txt Provenance/metadata	13395 bytes 0434955073b8fe00...
A-397	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP06_LINEAGE.json Provenance/metadata	1399 bytes 31de66e56813f329...
A-398	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/metadata/RP07_LINEAGE.json Provenance/metadata	1559 bytes 215d15b454d805b5...
A-399	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/daily_1995_scaler.csv Frozen candidate/output	2011 bytes f7b45a2f62ce5110...
A-400	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/hull_world_summary.csv Frozen candidate/output	1587 bytes 427244afaec01095...
A-401	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/cross_resolution_mode_match.csv Frozen candidate/output	196 bytes 65c0fe8efcda828c...
A-402	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/equal_event_mode_centroids.csv Frozen candidate/output	3561 bytes 2dbdfe21816bd461...
A-403	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/FROZEN_1995_CANDIDATES.json Frozen candidate/output	8406 bytes 21b7ded89a901496...
A-404	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/mode_transition_null_tests.csv Frozen candidate/output	2171 bytes a7f1856f91978f15...
A-405	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/event_root_self_transition_candidates.csv Frozen candidate/output	946 bytes 4512bcc1df8d0bdf...
A-406	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/equal_event_1995_scaler.csv Frozen candidate/output	2021 bytes 57a16a614bf64034...
A-407	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/daily_mode_centroids.csv Frozen candidate/output	3542 bytes 2ecc9496ca3159de...
A-408	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/candidates/mode_stats.csv Frozen candidate/output	818 bytes 136c28764af41c8b...
A-409	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/00_CREATE_NEXT_RECOVERY_POINT.md Protocol/narrative	6192 bytes fcf5386688cce0d9...
A-410	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/TOOL_LINEAGE_ROLES.md Provenance/metadata	5363 bytes bf5d03b4f54d466c...
A-411	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/validation/DEV003_ATLAS_COMPARISON.json Validation/failure evidence	8539 bytes 817234bde47ebc94...
A-412	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/validation/dev006_hardening/DEV006_HARDENING_EXECUTION.jsonl Validation/failure evidence	8310 bytes 2fecb0d9e9e364ce...
A-413	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/validation/dev006_hardening/feature_alternatives/pooled_actor_country_entropy.csv Validation/failure evidence	268880 bytes 8bb7cfd2fed7ce93...
A-414	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/validation/dev006_hardening/feature_alternatives/mean_side_actor_country_entropy.csv Validation/failure evidence	269958 bytes e43616fc2934aae2...
A-415	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/validation/dev006_hardening/DEV006_HARDENING_RESULTS.json Validation/failure evidence	11773 bytes da66c7c738a05a51...
A-416	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/validation/dev006/DEV006_INTEGRATION_RESULTS.json Validation/failure evidence	15841 bytes a7c8754e447b4290...
A-417	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/validation/dev006/DEV006_TEST_EXECUTION.jsonl Validation/failure evidence	12430 bytes 452201546a1cc9a9...
A-418	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/01_DEVELOPMENT_BACKLOG.md Protocol/narrative	15454 bytes 63576e82afe43d94...
A-419	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/requirements.txt Protocol/narrative	53 bytes 63fb1204097bf24a...

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A-420	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/FRAME_SHAKING_PROTOCOL.md Protocol/narrative	6758 bytes ee34641a6564e845...
A-421	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/requirements-dev006.txt Protocol/narrative	60 bytes 9ec195fede134cf...
A-422	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/02_RECOVERY_COMPOSITE.md Protocol/narrative	12800 bytes 97253a86ff886962...
A-423	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/RELATIONAL_LEXICON.md Protocol/narrative	7962 bytes 3f414c8e906a754f...
A-424	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/04_DOCUMENT_HIERARCHY.md Protocol/narrative	2413 bytes df72a1c9bdf4a1ae...
A-425	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Source_Archives/GDELT_1995_Dimensional_Atlas_v01.zip Legacy preservation	233784 bytes 1759d543ec9356d6...
A-426	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Source_Archives/Substrate_PreCrypto_Blind_Lab_v01.zip Legacy preservation	10993 bytes 0e574cf3becbee2...
A-427	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/requirements.txt Legacy preservation	83 bytes 1d9a276dce519522...
A-428	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/blind_state.json Legacy preservation	537 bytes 5bf54730aabc7923...
A-429	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/locked_outcomes_manifest.json Legacy preservation	850 bytes 8806b3ebaabb1938...
A-430	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/candidate_definition_example.json Legacy preservation	469 bytes 3133c3475959c264...
A-431	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/config/gdelt_manifest.json Legacy preservation	2265 bytes 9f075d3db4c08526...
A-432	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/unlock_year.py Legacy preservation	1697 bytes 9efe0ddb1826735...
A-433	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/build_media_features.py Legacy preservation	7193 bytes d269efac280af8e2...
A-434	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/freeze_candidates.py Legacy preservation	896 bytes d11dd8cded10c26a...
A-435	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/src/download_gdelt.py Legacy preservation	1592 bytes ab8de88f4532e51f...
A-436	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/README.md Legacy preservation	4593 bytes 386eea65feb4e45a...
A-437	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/substrate_precrypto_lab_v01/data/locked_outcomes/D_O_NOT_OPEN_DURING_LABYRINTH.txt Legacy preservation	144 bytes 82de80a5e8c0f21...
A-438	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/country_pair_lifts.csv Legacy preservation	242514 bytes 52e908f8dc83b29...
A-439	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/equal_5000_event_blocks.csv Legacy preservation	86137 bytes e14b7ed9ebd91bf4...
A-440	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/event_root_transitions_lifts.csv Legacy preservation	18821 bytes 9fcc5d35d9afabda...
A-441	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/daily_representation.csv Legacy preservation	128424 bytes c68b1157dc9998c0...
A-442	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/top_actor_misingsness_patterns.csv Legacy preservation	32563 bytes 226ae52a298e594c...
A-443	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/raw_summary.json Legacy preservation	8291 bytes 40eb74f457b296dc...
A-444	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-6 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/GDELT_1995_Dimensional_Atlas_v01/1995_dimensional_atlas_v01.md Legacy preservation	6967 bytes a4515b459e7b7895...
A-445	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/RP0_Original/Readable/String-Compatible Recurrence Research Prompt.md Legacy preservation	20284 bytes b63a9e899d256911...

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A-446	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v01.zip Legacy preservation	227685 bytes 9eef6e63a48f1ce1...
A-447	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v05.zip Legacy preservation	3384408 bytes 2abe521218c7efd4...
A-448	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-11 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v06.zip Legacy preservation	6811253 bytes bb4f80cc1052b88a...
A-449	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v04.zip Legacy preservation	1552744 bytes 17e548467a243866...
A-450	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v03.zip Legacy preservation	268565 bytes 23737068ff61ebfb...
A-451	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Recovery_Points/RP0 String-Compatible Recurrence Labyrinth v02.zip Legacy preservation	254922 bytes 1ed38e3f74e30d0b...
A-452	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Continuity_Supplements/RP05 Continuity Supplement 01.zip Legacy preservation	1950 bytes 1da58c1eddb9bb1f...
A-453	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Legacy/Continuity_Supplements/RP06 Continuity Supplement 01.zip Legacy preservation	3406 bytes 7f2e5a8b1d846c97...
A-454	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/config/RAW_TO_ATLAS_V01.json Supporting artifact	4150 bytes 858a222226ea23a3...
A-455	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/FRAME_COMPLETENESS.md Protocol/narrative	5107 bytes 4bc6e955e236a492...
A-456	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/logs/DEV003_FAILED_ATTEMPTS.jsonl Validation/failure evidence	583 bytes 31984aaf5ddeafcd...
A-457	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/logs/DEV006_FAILED_ATTEMPTS.jsonl Validation/failure evidence	814 bytes 6e935ed255a859dc...
A-458	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/logs/DEV003_TRANSFORMATION_LOG.json Validation/failure evidence	1967 bytes 23603e5bc21949fd...
A-459	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/VALIDATION.md Protocol/narrative	8335 bytes cf189d124d242c5e...
A-460	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/SCALAR_DEPENDENCY.md Protocol/narrative	3125 bytes a453d6a17a3f2928...
A-461	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/requirements-dev003.txt Protocol/narrative	27 bytes 6979eeaed30ec7f4...
A-462	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC01.02_EVIDENCE_AND_CITATION_ARCHITECTURE.md Research chapter	3620 bytes 2e596d72a3bf22ce...
A-463	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC01.03_CONSISTENCY_PROPAGATION.md Research chapter	3318 bytes ebcf034e31de5d9d...
A-464	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC03.03_TOOL_LINEAGES_AND_FRAME_SHAKING.md Research chapter	2201 bytes 7db3f0161f63e2bd...
A-465	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC02.01_BLIND_EXPERIMENTAL_BOUNDARY.md Research chapter	3295 bytes 4817baa128184d2d...
A-466	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC05.01_FINDINGS_LIMITS_AND_ALTERNATIVES.md Research chapter	2543 bytes b543d544fa72bf84...
A-467	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC03.02_RECURRENCE_OPERATOR_INVENTORY.md Research chapter	2260 bytes da36ebfc0e4768a9...
A-468	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC03.01_RELATIONAL_LEXICON_AND_DISTINCTIONS.md Research chapter	2925 bytes 29d87485fb82b248...
A-469	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC04.02_OBSERVATION_ARTIFACT_AND_CONDITIONAL_ASSOCIATION.md Research chapter	2050 bytes 28b2c7a345e2b3ee...
A-470	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC02.05_PRECRYPTO_LAB_INTEGRATION.md Research chapter	9970 bytes b1de325399098621...
A-471	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC02.02_DATA_AND_REPRESENTATION_LINEAGE.md Research chapter	3382 bytes e54e2f8cca993d8e...

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A-472	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC02.03_NULLS_MULTIPPLICITY_AND_CONTROLS.md Research chapter	2161 bytes 1768b4faceb8f5b5...
A-473	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC04.01_RELATIONAL_MATHEMATICS_PROGRAM.md Research chapter	2177 bytes 2ffca161a017bb08...
A-474	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC02.06_PRECRYPTO_LAB_HARDENING.md Research chapter	7402 bytes 97cbc56d0165e2d0...
A-475	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC02.04_RAW_TO_ATLAS_RECONSTRUCTION.md Research chapter	7381 bytes 2b22bd23f76f3771...
A-476	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC01.01_RECOVERY_POINT_GOVERNANCE.md Research chapter	2844 bytes b306d30f126a5a6e...
A-477	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC06.01_CROSS_DOMAIN_TRANSLATION.md Research chapter	1910 bytes 43ae9e45a8578dff...
A-478	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/Documents/Chapters/DC05.02_PROSPECTIVE_VALIDATION_AND_PHYSICAL_TES TS.md Research chapter	2345 bytes e7cc4f8abc2fd2c9...
A-479	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/03_CITATION_REGISTER.md Protocol/narrative	7566 bytes b8219c70f3265467...
A-480	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/PROCESS_INTENTS.md Protocol/narrative	18007 bytes 3d17db24ea050685...
A-481	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/README.md Protocol/narrative	10679 bytes 15a7287ba8c98029...
A-482	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/compare_atlas_outputs.py Executable method	3385 bytes cd1315d9e81a6576...
A-483	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/dev006_hardening.py Executable method	13101 bytes 6465436429e54ef7...
A-484	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/implement_rp0_labyrinth.py Executable method	19342 bytes eeae310046e0d6f8...
A-485	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/run_dev006_integration.py Executable method	32135 bytes 2cc0b10a50c785c5...
A-486	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/dev006_lab_adapter.py Executable method	5504 bytes 28d9f34c2f02f781...
A-487	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/run_dev006_hardening.py Executable method	15306 bytes e8cb446b4a1c6cf6...
A-488	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/dev006_feature_adapter.py Executable method	5429 bytes 21270180dcea0318...
A-489	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/scripts/reconstruct_raw_1995_to_atlas.py Executable method	10644 bytes ddf48d09e260aa61...
A-490	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/data/1995_equal_5000_event_labyrinth.csv Data/derived output	209602 bytes 7baf4c899f63a402...
A-491	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-7 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/data/1995_calendar_day_labyrinth.csv Data/derived output	256796 bytes bd21a6069d4e722e...
A-492	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/PRESERVATION_PROTOCOL.md Protocol/narrative	2910 bytes c53493975aea650b...
A-493	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/reconstruction/DEV003_regenerated_atlas/country_pair_lifts.csv Data/derived output	242514 bytes 52e908f8dc8c3b29...
A-494	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/reconstruction/DEV003_regenerated_atlas/equal_5000_event_blocks.csv Data/derived output	86137 bytes e14b7ed9ebd91bf4...
A-495	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/reconstruction/DEV003_regenerated_atlas/event_root_transition_lifts.csv Data/derived output	18821 bytes 9fcc5d35d9afabda...
A-496	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/reconstruction/DEV003_regenerated_atlas/daily_representation.csv Data/derived output	128424 bytes c68b1157dc9998c0...
A-497	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/reconstruction/DEV003_regenerated_atlas/top_actor_missingness_patterns.csv Data/derived output	32563 bytes 226ae52a298e594c...

ID	Containing package	Internal date	Member / contribution class	Size and hash
A-498	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/reconstruction/DEV003_regenerated_atlas/raw_summary.json Data/derived output	8291 bytes 40eb74f457b296dc...
A-499	D-056 · RP0 String-Compatible Recurrence Labyrinth v07.zip	2026-9-12 (ZIP local/unspecified)	RP0_String-Compatible_Recurrence_Labyrinth_v07/reconstruction/DEV003_regenerated_atlas/1995_dimensional_atlas_v01.md Data/derived output	6967 bytes a4515b459e7b7895...

Appendix E. Duplicate and relocation inventory — 30 groups

Byte identity is stronger than filename similarity. Conversely, different hashes do not prove substantive difference; PDF metadata and export processes can alter bytes without changing visible text.

Group	SHA-256	Exact-copy placements and dates	Interpretation
G-01	fac67027ab5b3362709d0313b424a8189492b505e8b546a2c47e2b075a66777b	D-002 · 2026-08-10 · /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity.docx D-069 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_Research_Continuity.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-02	b47f91e05cbef412b7f6a6fe44c2bd9bfe897e3e4deca28a2ed1f4638f90ec08	D-003 · 2026-08-10 · /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context.docx D-006 · 2026-08-12 · /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context(1).docx D-011 · 2026-08-12 · /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context(2).docx D-017 · 2026-08-12 · /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Continuity_Expanded_Context(3).docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-03	7036e692c45480f75ad881b7500eddc1297380606b714d68d013bf8d387c037	D-004 · 2026-08-10 · /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction.docx D-005 · 2026-08-12 · /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction(1).docx D-009 · 2026-08-12 · /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction(2).docx D-014 · 2026-08-12 · /Substrate Cosmology/General Research/Fibered_Relational_Tensor_Theory_Research_Direction(3).docx D-067 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Fibered_Relational_Tensor_Theory_Research_Direction.docx D-106 · 2026-09-14 · /Substrate Recurrence/Fibered_Relational_Tensor_Theory_Research_Direction.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-04	93ac4d627bd50ef033d293d579bd1859b98eefb6a1cff124b87a37217f9e9d	D-007 · 2026-08-12 · /Substrate Cosmology/General Research/Substrate_Cosmology_Chat_Session_Transcript.docx D-010 · 2026-08-12 · /Substrate Cosmology/General Research/Substrate_Cosmology_Chat_Session_Transcript(1).docx D-015 · 2026-08-12 · /Substrate Cosmology/General Research/Substrate_Cosmology_Chat_Session_Transcript(2).docx D-065 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_Chat_Session_Transcript.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-05	28f65c09b543bf8094498e361ca25ec88046334df489ee49ffc5983cc467d7fa	D-008 · 2026-08-12 · /Substrate Cosmology/General Research/Teleportation_as_Byproduct_of_FRTT.docx D-013 · 2026-08-12 · /Substrate Cosmology/General Research/Teleportation_as_Byproduct_of_FRTT(1).docx D-085 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Teleportation_as_Byproduct_of_FRTT.docx D-101 · 2026-09-14 · /Substrate Recurrence/Teleportation_as_Byproduct_of_FRTT.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-06	99c2d3d5cbb236a41459e1c518ccf67bfa92008276adc4d79c2e2610f89d925	D-012 · 2026-08-12 · /Substrate Cosmology/General Research/Alternate_Dimension_Scalar_Laboratory_Apparatus.docx D-016 · 2026-08-12 · /Substrate Cosmology/General Research/Alternate_Dimension_Scalar_Laboratory_Apparatus(1).docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-07	11271f4064ced4f2b925af2390fa9609a6d8d8aaf8cb6a46120ba13a7b408e65	D-018 · 2026-08-13 · /Substrate Cosmology/General Research/400_Related_Grant_Opportunities_Ranked.xlsx D-071 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/400_Related_Grant_Opportunities_Ranked.xlsx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-08	d4f8dbbf837b42a9d61c09ba46c81e135166f19fbc30d4fe963dda37e3aa90	D-022 · 2026-08-30 · /Substrate Cosmology/General Research/Substrate_Cosmology_33_Tools_Inline_Equation_Images.docx D-087 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_33_Tools_Inline_Equation_Images.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-09	87f9003a555a68df306584e1429d452401a52a1bd7805b56f1631acda6b37703	D-023 · 2026-08-31 · /Substrate Cosmology/General Research/Substrate Cosmology manuscript.odt D-080 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Substrate Cosmology manuscript.odt	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-10	f9d07a2fafa918a7f189e3917cadfcd719bf31f51bf5c9b77099afee16122778	D-024 · 2026-08-31 · /Substrate Cosmology/General Research/Substrate_Cosmology_Research_Reference_Edition_v1.docx D-088 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Substrate_Cosmology_Research_Reference_Edition_v1.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-11	fbeaa28b54de5e2ce94b3f0033bc083f09dfe294f3006a1e4ff01068ee45e4b	D-030 · 2026-09-06 · /Substrate Cosmology/Tarot Card Experiment/Substrate_Cosmology_Tarot_Forced_Recurrence_Protocol_Equation_Images.docx D-076 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Tarot_Forced_Recurrence_Protocol.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-12	0e574cf3becbee27d1866026f85fd1f8ab41db8845e254e23e96ce02bb4302	D-031 · 2026-09-06 · /Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01.zip D-032 · 2026-09-06 · /Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01(1).zip D-037 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01(2).zip D-041 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind Lab v01.zip D-073 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Substrate_PreCrypto_Blind_Lab_v01(3).zip D-093 · 2026-09-14 · /Substrate Recurrence/Substrate_PreCrypto_Blind_Lab_v01.zip	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-13	f743759ab1907b78f9627039dde3164be46416fd9d16fec8fcbf922f622de560	D-033 · 2026-09-06 · /Substrate Cosmology/Recurrence Research/1995.zip D-036 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/1995(1).zip D-040 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/GDELТ 1995 Raw.zip D-092 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/1995(2).zip	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-14	1759d43ec9356d619de8531ec276decbb587b07a95ed58f66e8ba72a09b776c	D-034 · 2026-09-06 · /Substrate Cosmology/Recurrence Research/GDELТ 1995 Dimensional Atlas_v01.zip D-038 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/GDELТ 1995 Dimensional Atlas_v01(1).zip D-042 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/GDELТ 1995 Dimensional Atlas v01.zip D-060 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/GDELТ 1995 Dimensional Atlas_v01(2).zip	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-15	b63a9e899d2569116869fdc74dda79e59eaa38fac257742fd046b36078a5f696	D-035 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/Pasted markdown(5).md D-039 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/String-Compatible Recurrence Research Prompt.md D-096 · 2026-09-14 · /Substrate Recurrence/String-Compatible Recurrence Research Prompt.md	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.

Group	SHA-256	Exact-copy placements and dates	Interpretation
G-16	9eef6e63a48f1ce16b833ce8d7e5e287ad68f5d81e9c7beaf9c490bc870a25d	D-043 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v01.zip D-044 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/RP0_String-Compatible_Recurrence_Labyrinth_v01.zip D-045 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/RP0_String-Compatible_Recurrence_Labyrinth_v01(1).zip D-064 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/RP0_String-Compatible_Recurrence_Labyrinth_v01(2).zip	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-17	7b80bf048ff765925b51fe93e6d5910fd7509e8adc2b75ce1e73035f67f8f85a	D-046 · 2026-09-07 · /Substrate Cosmology/Recurrence Research/README.md D-100 · 2026-09-14 · /Substrate Recurrence/README.md	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-18	2abe521218c7efd44c2c523c8571fe1a6f524cc356c1b011d9eac3256aaf37e4	D-050 · 2026-09-12 · /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v05.zip D-084 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v05(1).zip	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-19	a60d85c976ddc62181aa5314517b4b9b8ee3d1a57ede21c66027cece85b11f2d9	D-051 · 2026-09-12 · /Substrate Cosmology/Recurrence Research/RP05_to_RP06_Continuation_Prompts.md D-068 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/RP05_to_RP06_Continuation_Prompts(1).md D-110 · 2026-09-14 · /Substrate Recurrence/RP05_to_RP06_Continuation_Prompts.md	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-20	bb4f80cc1052b88ad578d7a50e0077c649965eda77bbddc937baa788ed2c1a3	D-053 · 2026-09-12 · /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v06.zip D-086 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/RP0 String-Compatible Recurrence Labyrinth v06(1).zip	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-21	d5bfea50c8b2e62a9b3214256db454c04b02b14a4852ceb02e664a696757007f	D-054 · 2026-09-12 · /Substrate Cosmology/Recurrence Research/RP06_to_RP07_Continuation_Prompts.md D-079 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/RP06_to_RP07_Continuation_Prompts(1).md D-103 · 2026-09-14 · /Substrate Recurrence/RP06_to_RP07_Continuation_Prompts.md	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-22	c5e8bcb13291a9a9e7df8757120edff5fef210f42135b0b761cfba45d61cce73	D-057 · 2026-09-12 · /Substrate Cosmology/Recurrence Research/RP07_to_RP08_Continuation_Prompts.md D-066 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/RP07_to_RP08_Continuation_Prompts(1).md D-107 · 2026-09-14 · /Substrate Recurrence/RP07_to_RP08_Continuation_Prompts.md	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-23	e2ecd326b82441836a0b164a15705ab44d25900d58ee5787c3e2dd988a4408bf	D-058 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/CONSOLIDATED_INTENTS_AND_EMERGENCE_PROTOCOL.md D-099 · 2026-09-14 · /Substrate Recurrence/CONSOLIDATED_INTENTS_AND_EMERGENCE_PROTOCOL.md	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-24	1b976e3749952d7761dd3ea5cd14ef978b84db9b716910d318e5ec184b0624a2	D-061 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/FRTT_Tensor_System_Blueprint.docx D-108 · 2026-09-14 · /Substrate Recurrence/FRTT_Tensor_System_Blueprint.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-25	7c40e8a28edb54d4a4e4be6c510727c5145e50270450c2d61f0e1708a279d38d	D-062 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Scaling Scientific Units Dimensional Extensions.docx D-105 · 2026-09-14 · /Substrate Recurrence/Scaling Scientific Units Dimensional Extensions.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-26	cf659706aff3459b4aefdfc0a16de26c4d26df67d9a2300b220b77ca38c019d5	D-063 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/helios_collective.html D-104 · 2026-09-14 · /Substrate Recurrence/helios_collective.html	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-27	546072eaf12edf5b41f3447f3b98b8ca57ebfbaa8dd305dcc7fff1ff4fd67a7	D-070 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Alternate_Dimension_Scalar_Laboratory_Apparatus.docx D-097 · 2026-09-14 · /Substrate Recurrence/Alternate_Dimension_Scalar_Laboratory_Apparatus.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-28	dfb74a7477c155a8e9b7a98eed12d79b03570374c445f9c0a772197d3164f19c	D-074 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Recommended_Direction.docx D-098 · 2026-09-14 · /Substrate Recurrence/Recommended_Direction.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-29	ed8a79388e0e4f17e2dc6d98aed9bed71526e254ed17b94173aaeb54dd30c55	D-075 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Big Bang and White Holes in Substrate Cosmology.docx D-109 · 2026-09-14 · /Substrate Recurrence/Big Bang and White Holes in Substrate Cosmology.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.
G-30	fbbc48e1fcbebc01acd3a414804e300da59c77906519bf93736b0a87c48c246	D-081 · 2026-09-13 · /Substrate Cosmology/Recurrence Research/Experimental Program for Exploring Nonrelativistic Relational Physics.docx D-102 · 2026-09-14 · /Substrate Recurrence/Experimental Program for Exploring Nonrelativistic Relational Physics.docx	One content object with multiple archive placements. Count relocations as preservation/organization events, not independent conceptual corroboration.

Appendix F. Source and citation register

Narrative conclusions in this report derive from the internal project record. The ledgers are the detailed citations: document IDs identify preserved artifacts; website IDs identify commits; archive-member IDs identify records within unique ZIP packages.

Citation key	Source and use
MANUSCRIPT-APR-2026	D-023, D-080. James Dunn, Substrate Cosmology Tools for Restoring Dimensional Depth to Scientific Units, Canonical Development Draft, April 2026. Primary conceptual and wording lineage.
MANUSCRIPT-DOC	D-089. Earlier Word manuscript snapshot; compound-file creation/save metadata used for chronology.
DEVELOPMENT-APR	D-091. Development transcript; interaction and drift record.
REFERENCE-AUG	D-024, D-088. Research Reference Edition v1.0, dated 30 August 2026; principal early correction and provenance layer.
RP01–RP07	Recovery packages identified individually in Appendix A, compared in Appendix C, and expanded in Appendix D. README, lineage, validation, failure, and change-impact records support the recovery chronology.
VOLUMES-1–11	Volume PDFs identified individually in Appendix A. First/Second Edition front matter, revision notes, contents, appendices, and source records support the edition audit.
WEBSITE-GIT	W-001–W-091, Appendix B. Local repository commit history and affected paths; authoritative for website change chronology at cutoff.
WEBSITE-SNAPSHOT	Current repository source and public/resources directory at commit 5eb68e2.... Used to distinguish current homepage links, historical links, and unlinked/unpublished files.
AI-AUDIT-2026	OpenAI ChatGPT Codex, Substrate Cosmology Development Inventory and Errata Index: Additions, Modifications, Deletions, Preservation, and Relations Considered, Indexed Edition 2.0, 19 September 2026 UTC. AI contribution: inventory, extraction, correlation, classification, drafting, PDF production, and visual verification. No scientific authority claimed.

How to cite this report

Dunn, James, with OpenAI ChatGPT Codex. *Substrate Cosmology Development Inventory and Errata Index: Additions, Modifications, Deletions, Preservation, and Relations Considered*. Indexed Edition 2.0. 19 September 2026.

Closing note

This audit should remain a recoverable checkpoint. When a newly found manuscript, chat export, external page, dataset, or edition appears, add its date basis, hash, lineage relationship, and collapse impact. Do not revise earlier entries to make the sequence look more coherent than it was.

End of audit.

FORWARD-ONLY CONTINUITY RECORD

Cumulative Errata Append

Findings, changes, removals, preservation events, and relations recorded after the 19 September 2026 cutoff

Status: This append does not create a new named edition. The original 67 pages remain the historical body of Indexed Edition 2.0. These pages extend that body in place and preserve the existing filename, Library identity, and public download relation.

"Update errata" now means: append every recoverable development since the preceding cutoff; categorize additions, modifications, qualifications, supersessions, preservation events, deletions or removals, format transformations, integrations, and unresolved loss; never rewrite an earlier entry merely to make the history appear more coherent.

Previous cutoff: 19 September 2026 UTC; 132 Library records; 91 website commits; website commit 5eb68e2...; Volume Nine Second Edition was the latest publication represented.

Current append boundary: all identified documentary and website events after that cutoff through publication of Experiment 1 Second Edition on 20 September 2026. The update includes four new project PDFs, five completed website commits, the present errata replacement event, and the conceptual corrections that transformed the first experimental setup.

Scientific status: Documentary and methodological development only. No experiment reported here has been physically executed, and no anomaly or Substrate Cosmology claim has been empirically established.

One cumulative errata PDF	New dated append pages and the stored file version	Title, filename, prior pages, prior IDs, and historical classifications
One public download relation	Bytes served by the existing errata link	The homepage link label and resource path
Forward-only correction	Later entries may qualify an earlier claim	Earlier wording remains visible and attributable

APPEND 1

New document inventory

Document IDs continue from D-132. Hashes identify the Library-resident files as collected for this append. The errata file itself is versioned in place rather than counted as a new edition.

D-133	2026-09-19 22:27	Volume Twelve, First Digital Edition. A/I. Added the guarded string-theoretic transaction model, the errata-by-Tool overlay, recurrence/recursion/resonance distinctions, mainstream recovery requirements, and alternate-outcome evidence gates.	283,706 bytes e472de56c835440d04634aa9b14caacc6572c6576398045d76adaebe9f7acba1
D-134	2026-09-19 22:51	Volume Twelve, Second Digital Edition. M/A/S/P. Added relational radius and dimensionalized C, D, division, equality, pi, two, center, geometry, apparatus, tolerance, winding, momentum, and T-duality. Became current; D-133 preserved.	293,820 bytes 13894601f2f0c707dcbe6325ba1bfdef3660fd9ffb9ed253a8bfd7b11f2f3697
D-135	2026-09-20 01:40	Cross-Laboratory Relational Frame-Shake Experimental Program. A/I. Added a 44-page distributed experimental program whose reference implementation was a 24-node low-voltage RLC ring with preregistration, provenance, uncertainty, null-world, and interlaboratory controls.	207,992 bytes 2487d29a8c003d5a493d04cc07a37cdd008d3207085a50491e9e96cd3ad7ae21
D-136	2026-09-20 15:28	Experiment 1 Second Edition: Recurrence-First Field-Mode Frame-Shaking Program. M/Q/S/P/D/A. Replaced the RLC reference setup with delayed-detection recirculating field modes; retained D-135 as developmental evidence.	156,736 bytes 79f2be7cb3606ba3f2d2c80eb0748b3f6075bd1e20e275d9b1c77cb4704468d6
D-137	2026-09-20	This cumulative errata append. M/P/I. Replaces the stored errata bytes under the same file identity and filename, without a named edition increment. Prior version hash is retained below.	Prior version: 267,440 bytes 04db893b83d43022beb34f9d5d919abfe6988879998e9bdf170e7d19995f4154

Counting note. D-133 through D-136 are new files. D-137 is a new change event on an existing file identity, not a fifth new file. Storage versioning is used for recoverability and is not treated as a conceptual or editorial edition.

Self-hash boundary. A PDF cannot stably print its own final SHA-256 without changing the bytes being hashed. The completed replacement hash belongs in the next cumulative append or an external manifest; the preceding version hash is fully recordable here.

APPEND 2

Website publication inventory

Website IDs continue from W-091. The listed hashes are repository commits already complete before this errata publication transaction.

W-092	58a8c512fe1b...	A/I - Added the development errata PDF to the homepage.	Made the change inventory publicly downloadable above the volume list; created the public continuity relation used by this update.
W-093	ac6b39da4ccb...	A - Published Volume Twelve First Edition.	Added first-edition resource and homepage link.
W-094	1ff484754136...	M/S/P - Published Volume Twelve Second Edition.	Changed the active link to the relational-radius edition while retaining the first-edition asset.
W-095	ad99807f151b...	A/I - Published the first cross-laboratory experimental program.	Added the first experimental-program link above Volume One; updated continuity, change-register, interconnection, and styling surfaces.
W-096	8aa2fc99a8b...	M/S/P/D - Published Experiment 1 Second Edition.	Changed the active experimental link to the recurrence-first field-mode program; retained the RLC program as an unlinked developmental asset; updated continuity and change registers.

W-097 publication note. Replacement of the public errata resource with this cumulative file is part of the present update transaction. Its exact repository commit cannot be embedded in the bytes that determine that commit without creating a self-reference. It is therefore reserved as W-097 and its exact hash will be entered in the next append from the repository record.

Deletion distinction. The active homepage links to Volume Twelve First Edition and Experiment 1 First Edition were removed. Their PDF assets were not deleted. These are D at the navigation layer, S at the current-publication layer, and P at the artifact layer.

APPEND 3

Volume Twelve: additions and qualifications

A/I	Errata cross-dimensional overlay. Each individual errata member can be correlated with one Tool at a time, one volume at a time, and one recurrence class at a time.	Generated a provenance-preserving research matrix. Compound entries must remain decomposable so a class label does not erase member-specific relations.
A/Q	Recurrence, recursion, resonance, and collapse separated. Recurrence is reappearance under a declared test; recursion re-enters output or residue into later conditions; resonance is selective response to compatibility; collapse is a locally usable stabilization.	Transformed four previously overlapping words into distinct operators and evidence burdens. None is treated as fundamental merely because it has a name.
A/Q	Stateless transaction. No represented instantaneous state receives final ontological priority. Preparation, boundary, coupling, history, projection, record, and loss mutually condition the represented result.	Qualified "stateless" so it does not mean structureless, timeless by assertion, or without useful state variables.
Q	Typed mutual influence. Direct interaction, mediation, boundary constraint, shared ancestry, measurement dependence, statistical correlation, and entanglement are not interchangeable.	Discarded the implication that "everything influences everything" means equal, instantaneous, or controllable influence.
A/Q	String theory as a guarded representation resource. Modes, worksheets, topology, duality, compactification, boundaries, recursive products, and holographic dictionaries provide constrained comparison structures.	Retained mainstream definitions and prohibited representability from becoming proof of shared ontology.
A	Emergent-scalar candidates. Stable clusters across Tool, volume, recurrence, and resonance layers may identify useful new compressed variables.	Generated candidates only. Formal invariance, mainstream recovery, and prospective discrimination remain required.
Q	Conservative extension and failure. Accepted physics must be embedded and recovered within tolerance, and a proposed enlargement must expose a prospective way to fail.	Prevented flexible reinterpretation, retrospective fitting, and analogy from serving as evidence.

APPEND 4

Relational radius and operator dimensionalization

The second edition of Volume Twelve introduced a worked example of how an ordinary scalar can conceal several mutually consistent but nonidentical relational systems.

C	Circumference	Closed traversal, metric, path construction, apparatus contact, scale, sampling, and tolerance.
D	Diameter	Opposition, chord selection through a constructed center, endpoint choice, straightness, metric, and measurement path.
/	Division	Normalization, operand ordering, admissible domain, commensurability, denominator conditions, and information intentionally canceled.
=	Equality	Criterion, tolerance, equivalence class, invariance claim, and observer or instrument decision.
pi	Mathematical constant	Mathematical invariance distinguished from the geometry and measurement conditions under which a physical ratio approaches it.
2	Bisection factor	Symmetry, pairing, opposition, repeated halving, and the rule that makes a center operationally meaningful.
R	Radius	A collapsed output assembled from C, D, operators, center, geometry, units, apparatus, history, and loss.
R*	Relational-radius profile	A proposed uncollapsed record retaining those contributing systems and their compatibility conditions.

String-theory connection. In circular compactification, R controls momentum and winding contributions differently and participates in T-duality. The update proposes applying a transformation to the full relational profile R*, together with modes, boundary conditions, and retained observables, rather than substituting one scalar expression for another.

Qualification. Dimensional increase does not automatically add a spatial direction. It reopens independently variable relational capacities compressed by the scalar. Curved geometry, topology, nonunique centers, apparatus, and tolerance may break the familiar Euclidean deployment of $C/D = \pi$ without changing the mathematical definition of π .

Prospective question. Can systems that match on measured C, D, and R but differ in documented relational ancestry yield distinguishable mode, recurrence, resonance, or collapse behavior after conventional causes are controlled? This remains a research question, not a result.

APPEND 5

Experimental program: retained strengths and exposed collapse

D-135 was not a failed document. It established valuable experimental governance while selecting an apparatus whose ontology was too narrow for the later question.

Retained contributions

P	Preregistration, protected analysis, uncertainty budgets, raw-data and transformation lineage, unit preservation, local reports before harmonization, null-result publication, cross-laboratory heterogeneity, safety, and staged interpretation.
A/I	A shared protocol for laboratory differences as candidate conditioning relations rather than immediate nuisance variance.
Q	A clear boundary between ordinary observables, model-dependent quantities, project interpretations, and claims that would require independent evidence.
A	Frame-shake families across representation, scale, topology, temporal order, measurement, history, and controlled feedback.

Collapse exposed by later critique

24-node RLC ring	A large matter-defined system whose components, couplings, parasitics, sensors, and classical variables selected the response family before the experiment began.
Direct source-detector relation	Detector material, bandwidth, recovery, thresholding, and event construction forced an observable central tendency before recurrence could accumulate.
Tool-to-variable mapping	Treating the 33 Tools as if they were an apparatus basis risked closing the ontology and excluding artifacts that did not resemble a known Tool.
Observable entanglement	Even a reduced entangled system is an enormous aggregate of preparation, environment, device, field, detector, and classification histories; the named entanglement is already a collapse.
Instantaneous decoherence language	Erasure was too abrupt a model. Residual system-environment correlation, detector recovery, relaxation, and non-Markovian memory can decay across operational boundaries.
Collider terminology	Partons, quark-gluon plasma, hadrons, tracks, jets, and events identify useful layers in a reconstruction stack. They do not expose an uncollapsed pre-matter object outside all measurement frames.

APPEND 6

Experiment 1 Second Edition: the replacement setup

The current setup is a dynamically coupled, low-loss recirculating optical field-mode loop. Matter remains in sources, optics, switches, clocks, environments, and final detectors, but the deliberately varied carrier is a field-mode relation and the final detector interaction is delayed.

Preparation histories A/B	Construct different operation orders or adjacency distributions over time-bin, frequency, path, phase, or polarization modes.	Preserves historical difference while allowing a declared finite match on selected conventional summaries.
Sacrificial calibration	Use interleaved copies to establish the preregistered match; do not measure the actual circulating trial.	Prevents the matching operation from becoming an in-loop detector interaction.
Physical recursion	Return the same trial through the declared mode-mixing cell for pass count N.	Makes recursion a physical re-entry relation rather than repeated analysis of stored data.
Controls	N=0, true-return N, sham-N, pass-matched bypass, reversed/randomized programs, and classical references.	Separates return structure from elapsed time, loss, switching, leakage, and analytical expectation.
Common final challenge	Release A and B through the same frozen interferometric or mode-overlap challenge.	Converts any surviving relation into an externally recordable distribution only after recursion.
Delayed detector plurality	Rotate characterized detector families in confirmation and record recovery, dead time, afterpulsing, saturation, and threshold histories.	Treats measurement as a participating interaction and tests detector-specific collapse.
Independent recurrence	Freeze the artifact definition locally, protect confirmation data, and require independently implemented cross-site recurrence.	Separates an internally reinforced response from scientific reproducibility.

APPEND 7

Changes and deletions introduced by Experiment 1 Second Edition

S/D	The 24-node RLC ring was the common reference apparatus.	The field-mode recirculation loop is the current Experiment 1 reference.	RLC document and website asset retained as First Edition developmental evidence.
D/Q	A materially instrumented network was expected to expose the desired frame-shake relations.	The RLC network is acknowledged as suitable for ordinary history, resonance, and model-sensitivity studies but too ontologically constraining for the revised primary question.	Its methodological controls remain reusable.
D/M	Detection and channel substitution were integrated throughout the reference protocol.	No detector is placed in the experimental loop; sacrificial copies calibrate and final measurement is delayed until release.	Detector effects remain explicit conventional explanations.
D/Q	The histories could be described too broadly as observationally identical.	A and B are equivalent only under a finite, preregistered observable set and tolerances.	The unmatched remainder is unknown, not automatically nonphysical.
D/M	The 33 Tools could be read as a complete apparatus-variable inventory.	The Tools are provisional prompts for shaking frames and auditing losses.	Versioned Tool tags remain secondary metadata.
D/A	A candidate tended toward classification within an existing conceptual vocabulary.	A recurrent artifact may map to zero, one, or several Tools and receives a neutral RA identifier before interpretation.	Unclassified artifacts and failed Tool assumptions are retained.
D/Q	Recursion could be inferred from any repeated or amplified difference.	A candidate must follow a frozen pass-count or return-structure signature and discriminate true return from sham and bypass controls.	Stable null response is retained as a valid result.
D/Q	A replicated residual could be read as evidence for Substrate Cosmology.	Conventional state mismatch, loss, memory, leakage, drift, timing, detector effects, and analysis flexibility retain priority. A surviving residual is a candidate anomaly only.	Interpretation is postponed beyond independent reproduction.

No rude collapse rule. Reproduction of a well-specified anomaly is more important than forcing it into a preferred category. Classification can remain unresolved indefinitely without invalidating a reproducible record.

APPEND 8

New evidence grammar and recurrence registry

Recorded observation	Output produced by a detector or monitor under documented conditions.	Raw values, time base, instrument ID, calibration, rejected events, and provenance.
Derived relation	Declared transformation of recorded values.	Exact pipeline, parameters, software version, uncertainty, loss ledger, and alternatives.
Mainstream model	Quantum-optical, electromagnetic, thermal, statistical, or instrument account.	Prospective prediction, fit limits, diagnostics, and residuals.
Candidate recurrent artifact	Frozen residual that survives specified controls and returns in protected trials.	Neutral RA-YYYY-SITE-#### ID, contrast, recursion signature, null distribution, exclusions, and recurrence capsule.
Interpretive mapping	Substrate Cosmology, string-theoretic, or other conceptual correspondence.	Statement class, mapping direction, preservation, loss, generated structure, and prohibition against ontological promotion.

Two thresholds of detectability

Internal threshold: a residual relation must survive, accumulate, alternate, saturate, or otherwise respond to true physical return strongly enough to alter an eventual detector distribution. This is tested against N=0, sham-N, bypass-N, and true-return-N conditions.

External threshold: the frozen pattern must recur across new trials, sessions, apparatus rebuilds, or laboratories strongly enough to distinguish it from drift, chance, analysis flexibility, and one instrument history.

Resonance is optional. Recursion can attenuate, preserve, scramble, or selectively reinforce a relation. "Amplification" is not used until a registered response exceeds its matched controls. Nonmonotonic response, antiresonance, and nulls remain informative.

Classification follows evidence. A new recurrent property is not required to resemble the 33 Tools. A missing Tool, a failed mapping, or an artifact that remains only operationally described is a preserved outcome.

APPEND 9

New unintentional-collapse register

The replacement program reduces several premature collapses but does not escape representation. The following new risks must remain visible in future documents and experiments.

"Field mode"	May collapse source, propagation, boundary, basis, and material support into one label.	Basis definition, mode decomposition alternatives, preparation history, coupling map, and platform genealogy.
"Same transformation"	May ignore pass-dependent drift, switching transients, backreaction, hysteresis, or evolving loss.	Per-pass controls, waveforms, round-trip characterization, and time-resolved environment logs.
"Undetected"	May be mistaken for un-interacted or unrecorded.	Monitor loading, leakage channels, environmental coupling, absorbed loss, and controller telemetry.
"Matched histories"	May be mistaken for complete physical identity.	Exact finite match set, tolerances, excluded observables, tomography limits, and rejected equivalence tests.
"Recursion"	May conflate true physical return with repeated timing, repeated analysis, or copied records.	True-return, sham, pass-matched bypass, and causal control-path documentation.
"Artifact"	May imply error, novelty, or ontology before conventional accounts are tested.	Neutral identifier and layered evidence status.
"Decoherence residual"	May become a universal half-life claim.	Specific memory kernel, recovery curve, non-Markovian diagnostic, time scale, and competing ordinary model.
"Independent recurrence"	May conceal common vendor, firmware, software, data, calibration, or analytical ancestry.	Implementation genealogy, personnel separation, code/data lineage, and correlated-failure audit.

Persistent epistemic limit. Delayed detection changes when and how collapse is imposed; it does not provide observation outside all apparatus, matter, theory, notation, or statistical construction.

APPEND 10

Relations preserved for future experimental use

Raw time tags and unthresholded analog traces	Threshold and coincidence construction can manufacture or erase recurrence.
Rejected, ambiguous, saturated, and no-click events	Central-tendency reporting otherwise deletes boundary cases.
Full switch and controller waveforms	Command labels do not prove the physical path taken.
Pass-resolved loss, dispersion, polarization, phase, and mode-overlap records	Apparent recursion can follow ordinary degradation or selection.
Detector recovery, dead time, afterpulsing, bias, temperature, and substitution history	The final detector is part of the transaction and may retain memory.
Source, component, vendor, lot, firmware, clock, and calibration genealogy	Cross-laboratory agreement can reflect shared ancestry rather than independent recurrence.
Null runs, failed replications, and abandoned classifications	Failure changes the relation map and constrains later reinterpretation.
Neutral RA records before Tool or string-theory mapping	Empirical form must remain separable from conceptual classification.
First editions and removed active links	The path by which the perspective changed is itself evidence about collapse.

Research relation now exposed

A detectable artifact requires more than a difference. It must show a registered dependence on physical return, survive conventional modeling and false-return controls, recur under protected conditions, and remain recoverable without forcing its description into a predetermined vocabulary. The sequence can be represented as: **residual relation -> physical re-entry -> structured response -> delayed collapse -> neutral record -> protected recurrence -> independent reproduction -> optional classification.**

The arrows in that sequence are themselves scalar operators. Future work must record whether each arrow denotes temporal succession, physical coupling, logical dependency, statistical filtering, or editorial organization.

APPEND 11

Standing protocol for every future "update errata" request

1. Recover the prior cutoff	Read the current cumulative errata and identify its last completed document, website, research, and publication events.
2. Preserve prior pages	Do not restyle, renumber, normalize, silently correct, or replace earlier entries. Add a correction entry if needed.
3. Keep one identity	Replace the same stored errata file and the same website resource. Do not create a newly named edition unless James Dunn explicitly asks for one.
4. Inventory all event classes	Append additions, modifications, qualifications, supersessions, relocations, exact duplicates, preservation events, deletions/removals, format transformations, integrations, and unknown losses.
5. Separate layers	Distinguish file deletion, active-link removal, conceptual rejection, supersession, archive preservation, and wording qualification.
6. Record relations	State what was retained, transformed, merged, discarded, generated, or left unknown.
7. Record conceptual development	Include user-originated corrections and questions even when they produced no separate file, and relate them to the documents in which they were incorporated.
8. Preserve uncertainty	Do not infer unrecorded deletions, treat duplicates as independent support, or convert proposed interpretations into findings.
9. Update public continuity	Refresh the existing website download and any site-maintained change or continuity record needed to explain the append.
10. Close with a new cutoff	State the final included event and reserve same-transaction self-references for the next append when exact hashes cannot be embedded without changing the artifact.

Default naming rule: The public filename remains

Substrate_Cosmology_Development_Errata_Contribution_Chronology_and_Collapse_Audit.pdf.

Default meaning of "update errata": append; do not issue an edition change.

APPEND 12

Append source register and new cutoff

ERRATA-PREVIOUS	The prior indexed body, whose document inventory ended at D-132: Substrate Cosmology Development Inventory and Errata Index, Indexed Edition 2.0, 19 September 2026 UTC, pages 1-67.
V12-E1	D-133. Volume Twelve First Digital Edition; source for the guarded string-theoretic transactional model and initial cross-dimensional overlay.
V12-E2	D-134. Volume Twelve Second Digital Edition; source for relational radius, operator dimensionalization, compactification, winding/momentum, and T-duality extensions.
EXP1-E1	D-135. Cross-Laboratory Relational Frame-Shake Experimental Program; source for the RLC reference design and retained experimental-governance controls.
EXP1-E2	D-136. Experiment 1 Second Edition; source for the recurrence-first field-mode apparatus, finite matching, delayed detection, neutral recurrence registry, and open-artifact rule.
WEBSITE-GIT	W-092 through W-096; source for public link additions, substitutions, preservation status, and continuity changes through commit 8aa2fc99a8b16eda8a99c0fdb5138fa4c3821c60.
AI-APPEND-2026-09-20	OpenAI ChatGPT Codex correlated the four new documents, the prior errata, and website history; classified changes and losses; drafted this append; and produced and visually verified the cumulative PDF. No scientific authority is claimed.

New cutoff

Included through: Experiment 1 Second Edition publication, W-096, 20 September 2026, plus preparation of this cumulative append. The website replacement event W-097 and the completed cumulative-file SHA-256 are reserved for exact entry at the next update because they are outputs of the current transaction.

Current totals at the completed pre-publication boundary: 136 identified Library records, including four new PDFs since the prior cutoff; 77 prior unique hashes plus four newly identified PDF hashes subject to the existing duplicate rules; 96 completed website commits; 499 previously inventoried recovery-package members; and one cumulative errata identity with preserved version history.

Recommended citation: Dunn, James, with OpenAI ChatGPT Codex. *Substrate Cosmology Development Inventory and Errata Index: Additions, Modifications, Deletions, Preservation, and Relations Considered*. Indexed Edition 2.0 with cumulative append through 20 September 2026.

End of 20 September 2026 cumulative append.

FORWARD-ONLY CONTINUITY RECORD

Cumulative Errata Append

Findings, changes, removals, preservation events, and relations recorded after the 20 September 2026 cutoff

Status. This append does not create a new named edition. The first 80 pages remain unchanged. These pages extend the same cumulative errata identity, filename, Library record, and public download relation.

Previous cutoff. Experiment 1 Second Edition, W-096, 20 September 2026 UTC. W-097 and the completed prior cumulative-file hash were reserved for this update.

Current boundary. W-097’s errata publication, Volume Eleven Second Edition, Volume Twelve Third Edition, and their website substitutions through W-099 on 21 September 2026 UTC. Two new Library PDFs and one new in-place errata change event are inventoried.

Preserved identity	Newly appended relation	Boundary retained
One cumulative errata PDF	Pages 81 onward and stored-file version	No renamed errata edition; pages 1–80 unchanged
One public resource path	Replacement bytes under the same link	Homepage label and URL path retained
First and prior editions	Explicit archive roles and links	Supersession is not deletion
Scientific status	Documentary and methodological development	No physical execution, anomaly, or new-physics finding

The sequence recorded here propagates Experiment 1 Second Edition backward into Volume Eleven and then forward into Volume Twelve. It is a correction of conceptual and experimental grammar, not empirical confirmation.

New document and change-event inventory

Document IDs continue from D-137. Hashes below identify the Library-resident files as collected for this append. Site assets with different transfer-level bytes are recorded separately in Append 21.

ID / UTC	Artifact and classified operation	Library size / SHA-256
D-138 2026-09-20 22:54	Volume Eleven Second Edition. M/Q/S/P/A/I. Preservation-first revision integrating Volume Twelve Second Edition and Experiment 1 Second Edition. It separates physical recursion, protected recurrence, optional resonance, collapse, and classification; adds finite matching, open artifacts, and detector ancestry; preserves Volume Eleven First Edition.	1,471,396 bytes bedfb791f72cd1acd6f395c39230195c562553c4784269eb8506c345b35427da
D-139 2026-09-21 01:25	Volume Twelve Third Edition. M/Q/S/P/A/I/D. Propagates Volume Eleven Second Edition and Experiment 1 into the string-theoretic transactional model; replaces the one-way teaching chain as a sufficient architecture; adds physical-return, collapse-stack, residual-history, neutral-artifact, and bounded-nonfactorization disciplines; preserves first and second editions.	1,841,072 bytes d3f8f668e196574cc92b030de8c69c8000537eeb97e9b997083e7787588f44c8
D-140 2026-09-21	This cumulative errata append. M/P/I. Replaces stored errata bytes under the same identity and filename without an edition increment. The prior 80-page file and its hash are retained as the revision boundary.	Prior version: 305,205 bytes 850bc773c126ab6e3c00410ab1689cca5153a6b04797ee632a79063298b1917b

Counting rule. D-138 and D-139 are new Library files. D-140 is a change event on the existing errata identity, not a third new file. The completed D-140 hash is reserved for the next append because printing a self-hash would change the bytes being hashed.

Website publication inventory

Website IDs continue from W-096. Full commit identifiers are recoverable from the source repository; abbreviated forms are printed for readability.

ID	Commit / operation	Relations affected
W-097	6d3790a95e9b... M/P/I — Published the prior cumulative errata append.	Resolved the W-097 reservation; replaced the public errata asset under the same path; updated continuity and the change register.
W-098	2ec38d7a49b5... M/S/P/A — Published Volume Eleven Second Edition.	Made the physical-recursion edition current; retained Volume Eleven First Edition as a labeled archive.
W-099	dfe623d8fff1... M/S/P/A/D — Published Volume Twelve Third Edition.	Made the transactional-string-relations edition current; relabeled Volume Twelve Second Edition as an archive; restored the First Edition to an explicit archive link.

W-100 publication note. Replacement of the public errata resource with this cumulative file and the related continuity entry are the present transaction. Its exact commit is reserved as W-100 for the next append to avoid embedding a self-reference before the commit exists.

Deletion distinction. Current-edition link targets were changed at W-098 and W-099. No Volume Eleven or Twelve PDF asset was deleted. Volume Twelve First Edition changed from an unlinked preserved asset to an explicitly linked archive. Link removal, current-status removal, and artifact deletion remain separate operations.

Volume Eleven Second Edition: revision and preservation map

D-138 is a preservation-first propagation of the experimental corrections already recorded in D-136. It retains every first-edition chapter or makes its disposition recoverable; the First Edition remains a separate PDF.

Class	Development	Relational consequence
M/Q	Revised Chapters 46, 47, 51, 55, 63, 64, 67, 68, 70–73, 78–79 and Appendices H, J, K.	Current wording narrows or corrects the experimental order while the archived edition preserves superseded wording.
A/I	Added Chapters 47A, 51A, 63A, 64A, 73A and Appendices L–A, M–P.	Preserves legacy numbering while adding resonance, residual memory, finite-match translation, open artifacts, collapse stack, and transition ledger.
P	All other First Edition pages retained; First Edition checksum and disposition categories recorded.	Prevents a cleaner later narrative from erasing how the earlier perspective developed.
S	Second Edition becomes the authoritative Volume Eleven reading copy.	Supersession changes current jurisdiction, not historical existence.
Q	String theory remains a guarded model of adjacency, history, modes, winding, splitting, joining, and dual representation.	A recirculating mode is not promoted to a literal string, worldsheet, or fundamental winding state.

Authorship relation. James Dunn supplied the originating theory, corrections, and experimental objections. OpenAI ChatGPT Codex correlated sources, drafted integrations, designed the preservation/disposition method, produced and verified the PDF, and prepared publication. That role is provenance, not empirical evidence.

APPEND 16

Volume Eleven: conceptual additions, qualifications, and deletions

Class	Former or incomplete relation	Current relation / preserved loss
D/Q	Recursion, recurrence, resonance, and collapse could be read as one developmental sequence.	Physical recursion is pre-observation physical re-entry; recurrence is later protected reappearance; resonance is optional selective response; collapse and classification are additional reductions.
D/M	Repeated data, analysis, timing, or software feedback could be called physical recursion.	Physical recursion requires an auditable carrier, return path, re-entry, and renewed physical interaction before terminal observation.
D/Q	Two preparations or histories could be described as observationally or physically identical.	Only a finite match is established over preregistered observables, tolerances, calibration jurisdiction, and excluded relations. The unmatched remainder stays unknown.
D/M	Detector-first narrative could stand in for the physical history.	Preparation, return topology, boundaries, environment, detector microhistory, rejected events, analysis, and publication form a collapse stack.
D/A	The 33 Tools could constrain what counts as a preservable result.	A neutral RA record may map to zero, one, or several Tools. Reproduction precedes classification.
Q	More passes or resonance could imply amplification.	Return may reinforce, attenuate, redirect, scramble, saturate, extinguish, or leave no selective response.

Deletion means conceptual rejection here. No text was silently destroyed. The rejected implications remain recoverable in the First Edition and in Appendix P's disposition ledger.

Volume Twelve Third Edition: propagated architecture

D-139 carries the D-138 distinctions into the string-theoretic transactional synthesis. It retains the Second Edition’s eight-part structure, Chapters 1-62, Conclusion, and Appendices A-M while materially revising affected chapters and adding lettered chapters and appendices.

Operation	Affected material	Purpose
M/Q	Chapters 17-21, 24, 26, 31, 37-38, 46, and 49-62.	Reformulates recurrence, three recursion classes, optional resonance, stateless memory, detector ancestry, open Tools, experimental intervention, formalization, testing, and progress.
A/I	Chapters 20A, 31A, 46A.	Adds physical recursion before terminal observation; collapse-stack and detector-ancestry analysis; residual-decay, recovery, and non-Markovian tests.
P/Q	Appendices A-M preserved as the Second Edition crosswalk and source record.	Earlier relations remain visible but are qualified and extended by later operational appendices.
A/I	Appendices N-S.	Adds the R3C matrix, finite-match/physical-return contract, collapse-stack worksheet, neutral recurrence capsule, transition ledger, and third-edition source supplement.
S/P	Third Edition current; First and Second Editions explicitly archived on the homepage.	The reader can compare perspective changes instead of receiving a silently normalized history.

Relational radius preserved. The Second Edition’s dimensional reopening of C, D, division, equality, pi, bisection, center, geometry, apparatus, tolerance, compactification, winding, momentum, and T-duality remains part of Volume Twelve. The Third Edition adds experimental ancestry rather than retracting that work.

Volume Twelve: additions, replacements, and bounded claims

Class	Prior relation	Third-edition relation
D/M	recurrence → compatibility → resonance → coupling → collapse → record could function as the sufficient teaching architecture.	Preparation history → finite match → physical return or altered adjacency → structured response → delayed collapse stack → neutral record → protected recurrence → optional classification. Every arrow retains a typed lineage.
D/Q	Resonance could appear to be a required bridge or amplification mechanism.	Resonance is optional and may strengthen, weaken, redirect, phase-shift, scramble, broaden, extinguish, or be absent.
A/Q	Stateless risked being read as memoryless or historyless.	States remain useful interfaces; transactions may contain material change, hysteresis, non-Markovian dependence, finite recovery, and delayed effects.
A/Q	No click or no terminal record risked implying no interaction.	No coupling, subthreshold response, absorption, destructive interference, rejection, dead time, saturation, and out-of-window response are separated.
D/A	Candidate scalar formation could begin from an interpreted recurrent pattern.	A neutral recurrence artifact with frozen inputs, hashes, return ancestry, collapse stack, controls, and replication graph is preserved before naming.
D/Q	Nonfactorization could be read as surviving every possible ordinary explanation.	Bounded nonfactorization applies only to frozen model families, observables, ranges, nuisance structures, tolerances, detector models, and decision rules.

Scientific boundary. String compatibility remains a formal correspondence unless a prospective difference survives mainstream recovery, controls, finite matching, protected recurrence, and independent reproduction.

Cross-volume propagation and dependency relation

The sequence is recursive but not circular proof. Each document changes the conditions under which the others are read.

Source relation	Propagation	What must not be inferred
Experiment 1 Second Edition → Volume Eleven Second Edition	A concrete recurrence-first apparatus forces the grammar of physical return, finite match, delayed detection, open artifacts, and external recurrence back into the conceptual volume.	The proposed apparatus has not been executed and supplies no anomaly.
Volume Eleven Second Edition → Volume Twelve Third Edition	The corrected grammar restructures string-compatible recurrence, transaction, measurement, formalization, and intervention.	A string-theoretic mapping does not establish shared ontology.
Volume Twelve Second Edition → Volume Eleven Second Edition	Relational radius and operator dimensionalization help show that apparatus identities and experimental matches are also scalarized.	Greater relational dimensionality is not automatically an added spatial dimension.
Volume Twelve Third Edition → future experiment	Finite-match contracts, physical return, collapse-stack worksheets, neutral RA capsules, and bounded nonfactorization become reproducible partial systems.	A registry, match, or reproducible residual is not automatically Substrate Cosmology evidence.
Errata → all volumes	Perspective changes, deletions, supersessions, archives, and unknown losses remain independently recoverable.	Chronology and recurrence of language do not create scientific support.

Current dependency order. Physical history first; finite comparison second; collapse-stack ancestry third; neutral record fourth; protected recurrence fifth; classification and ontology last and optional.

New unintentional-collapse and loss register

Risk	Possible hidden collapse or loss	Required counter-record
"Physical return"	A commanded path may be mistaken for the path physically taken; unintended EM, thermal, acoustic, optical, mechanical, power, or software-mediated loops may dominate.	Carrier and resource accounting, transfer characterization, true/zero/sham/bypass controls, telemetry, leakage tests.
"Finite match"	The declared observable set may omit the variable that actually distinguishes histories.	Frozen scope, tolerances, exclusions, rejected equivalence tests, alternate match operators, sensitivity analysis.
"Collapse stack"	A list may imply clean serial layers although the apparatus branches, feeds back, and shares resources.	Dependency graph, shared ancestry, feedback paths, timing, recovery, rejected and near-threshold populations.
"Neutral artifact"	An identifier may still imply novelty, error, separability, or objecthood.	Raw lineage, operational definition, open ontology, conventional alternatives, reopen trigger, classification history.
"Residual decay"	A fitted lifetime may be mistaken for a universal decoherence or substrate law.	Model family, fit jurisdiction, delay/pass/reset/order variables, recovery curves, latent-cause and drift alternatives.
"Independent laboratory"	Shared vendors, firmware, clocks, calibration, code, personnel, or components may create correlated recurrence.	Implementation genealogy and correlated-failure audit.
"Preserved page"	Unchanged text can be mistaken for unchanged authority after later qualification.	Edition-transition ledger, current-jurisdiction statement, direct link to superseding relation.

Persistent limit: a more complete ledger is still a collapse. Its value is that its jurisdiction, ancestry, and reopening conditions are explicit.

Preservation, deletion, and format-transformation audit

Event class	Recorded event	Preserved relation
P/S	Volume Eleven First Edition remains a separate PDF and labeled website archive after D-138/W-098.	Earlier physical-recursion wording and chapter order remain recoverable.
P/S	Volume Twelve First and Second Editions remain separate PDFs and labeled archives after D-139/W-099.	The initial string-transaction model and relational-radius integration remain independently citable.
D — navigation	First- or prior-edition link ceased to be the current-edition target.	No file deletion; archive links make historical status explicit.
D — conceptual	One-way recurrence-to-collapse sufficiency, complete identity language, Tool closure, mandatory resonance, and universal nonfactorization are rejected or narrowed.	Earlier language remains in archived editions and the transition ledgers.
F — storage	Library-normalized and website-served copies have different byte sizes and hashes.	They are distribution forms of the same named publication, not independent documentary support. Page count and extracted content remain the comparison basis.

Transfer-level identifiers.

- Prior errata: Library 305,205 bytes, 850bc773...b1917b; W-097 website asset 65cd8d1c...57521f.
 - Volume Eleven Second Edition: Library 1,471,396 bytes, bedfb791...427da; website asset 1,446,518 bytes, feaf8f12...31982.
 - Volume Twelve Third Edition: Library 1,841,072 bytes, d3f8f668...f44c8; website asset 1,816,194 bytes, b10e55a6...9c0fde.
- Unknown loss boundary: storage normalization can alter metadata, object ordering, compression, and signatures even when rendered and extracted publication content is preserved. Byte equality is therefore asserted only within each distribution channel.

APPEND 22

Source register and new cutoff

Key	Source and use
ERRATA-PREVIOUS	Pages 1–80 and Library version 2 of the cumulative Development Inventory and Errata Index; prior cutoff and W-097 reservation.
V11-E2	D-138; preservation note, revised and lettered chapters, Appendices L-A and M-P, physical-recursion grammar, finite-match contract, collapse stack, open-artifact rule, and disposition ledger.
V12-E3	D-139; revised Chapters 17–21, 24, 26, 31, 37–38, 46, 49–62; Chapters 20A, 31A, 46A; Appendices N–S; protected recurrence and bounded nonfactorization.
WEBSITE-GIT	W-097 through W-099; commits 6d3790a95e9b..., 2ec38d7a49b5..., and dfe623d8fff1...; publication, substitution, archive, and navigation relations.
AI-APPEND-2026-09-21	OpenAI ChatGPT Codex recovered the prior cutoff, correlated D-138/D-139 and W-097/W-099, classified additions, modifications, qualifications, supersessions, preservation, deletions, format transformations, and unknown loss; drafted and visually verified this append. No scientific authority is claimed.

New cutoff. Included through Volume Twelve Third Edition publication, W-099, 21 September 2026 UTC, plus preparation of this cumulative append. W-100 and the completed D-140 SHA-256 are reserved for the next update.

Totals at the completed pre-publication boundary. 138 identified Library records, including two new PDFs since the prior cutoff; 99 completed website commits; 499 previously inventoried recovery-package members; and one cumulative errata identity with preserved version history.

Recommended citation. Dunn, James, with OpenAI ChatGPT Codex. Substrate Cosmology Development Inventory and Errata Index: Additions, Modifications, Deletions, Preservation, and Relations Considered. Indexed Edition 2.0 with cumulative append through 21 September 2026.

End of 21 September 2026 cumulative append.