

MYTHIRIL 1

v5 Deterministic Creation and Secure Redaction Engine

Mythiril provides three replayable creative jobs plus a separate destructive identity-redaction path. Creative jobs use counterexample-guided render verification and byte-identical replay; Secure Redact uses reviewer-approved masks, constant overwrite, opaque metadata-free re-encoding, and fail-closed verification. Every count and status below is derived from the collected evidence set.

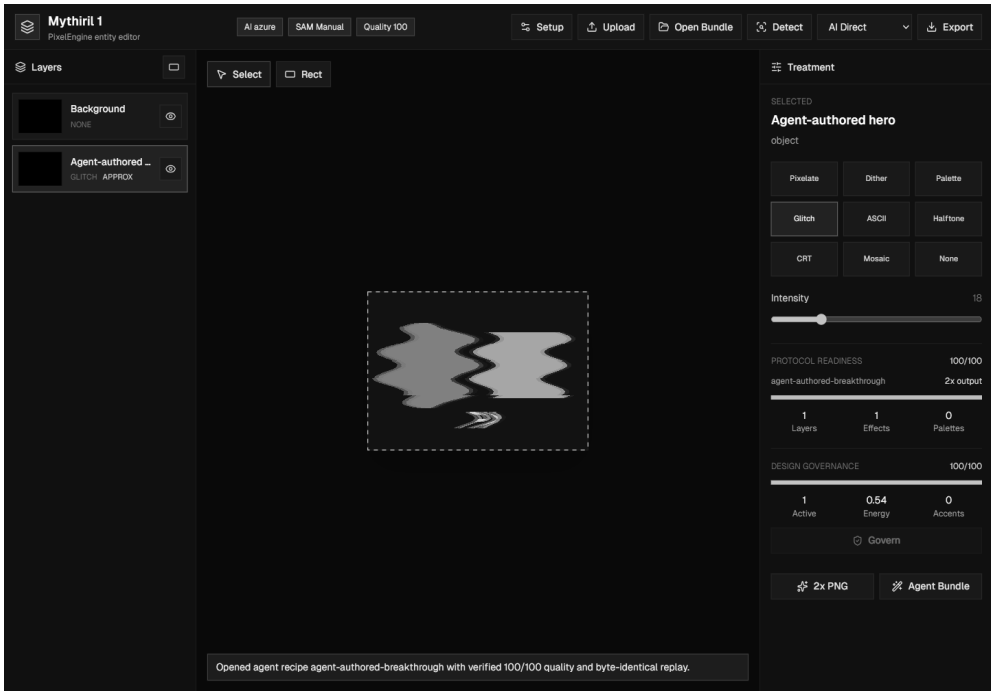
EVIDENCE COMPLETE

Evidence generated: July 16, 2026 at 16:15:55 UTC

Failed release gates: none

Missing evidence fields: none

Benchmark scope: one local Windows machine;
measurements are not universal product claims



Final desktop proof - capability v5, 12 MCP tools, 640 x 440 byte-identical replay

PRECISION DEFINITION: Deterministic protocol compliance and replay fidelity: the same trusted inputs and explicit recipe satisfy the declared protocol and reproduce the certified bytes. Precision is not a claim about authorship, live segmentation quality, market position, or aesthetic merit.

Creative Outcomes and Secure Redaction

3 + 1

VERIFIED PATHS

Three creative jobs plus secure redaction

24 / 24

TARGET ACCURACY

Adversarial labeled selection corpus

6 + 2

EXECUTIONS

Creative and secure paths repeat byte-identically

1 + 2 + 1

EXPORT MIX

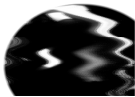
Composite, transparent entities, and flattened redaction



Make pixel asset
382 x 521 entity PNG



Make product graphic
512 x 512 composite PNG



Glitch an object
246 x 188 entity PNG



Secure redact
96 x 64 flattened PNG

Job	Selected entity	Delivered artifact	Certified replay
Make pixel asset	astronaut - rank 1 - score 250 Selection 09d955da96ed1dd4...	astronaut-pixel-asset.png entity - 382 x 521 - 33.4 KiB	Recipe 100 - transparent proof valid - 8 px exact padding - zero border contact - repeated hashes equal Certificate 79bda56e2cfd9416...
Make product graphic	astronaut - rank 1 - score 270 Selection dd49563c91116a55...	mythiril-product-graphic.png composite - 512 x 512 - 443.2 KiB	Recipe 100 - composite bytes equal bundle preview - repeated hashes equal Certificate 881df1f3bbf6afff...
Glitch an object	helmet - rank 1 - score 420 Selection 8cbeeb896f7e356b...	helmet-glitch-object.png entity - 246 x 188 - 55.6 KiB	Recipe 100 - transparent proof valid - 8 px exact padding - zero border contact - repeated hashes equal Certificate 703a2d4101ff6a2f...

EDITOR VALUE: For creative jobs, Figma or Photoshop can place the returned PNG while retaining the replayable bundle. For secure redaction, the editor supplies reviewer-approved masks and receives only a flattened PNG plus certificate; no source-preserving bundle is produced. Mythiril complements these editors with deterministic execution and does not replace their authoring or review surfaces. Fixture masks prove this execution path, not live SAM quality.

Target Selection: Baseline vs Current

79.2%

BASELINE

Ugated resolver on the 24-case corpus

100.0%

CURRENT

Eligibility, role, lexical, and threshold model

+20.8 pp

ABSOLUTE GAIN

Five previously failing cases corrected

10

REPEATED RUNS

One unique complete-ranking hash

Outcome	Baseline	Current	Corrected
Secure redact	5 / 6 (83.3%)	6 / 6 (100.0%)	1
Make pixel asset	5 / 6 (83.3%)	6 / 6 (100.0%)	1
Make product graphic	4 / 6 (66.7%)	6 / 6 (100.0%)	2
Glitch an object	5 / 6 (83.3%)	6 / 6 (100.0%)	1

Corrected case	Expected	Baseline selected	Current selected
redact without a person has no target	no compatible target	clock-face	no target
pixel selected text does not displace visual hero	visual-hero	headline	visual-hero
product hidden product is ineligible	visible-person	visible-object	visible-person
product generic object does not displace semantic hero	astronaut	helmet	astronaut
glitch product object outranks incompatible person	product-device	person-accent	product-device

BOUNDARY: This is exact-match accuracy on a deterministic 24-case labeled engineering corpus, not a held-out production study and not segmentation quality. The report preserves the 19/24 baseline and requires the current 24/24 result to use the identical corpus hash.

Executive Evidence

4

BOOTSTRAP MASKS

Raw PNG plus explicit semantic masks

4

RENDER PROOFS

Targets: astronaut, face, helmet

376 / 376

FULL SUITE

Current machine-readable test run

12 / v5

MCP / CAPABILITY

Real stdio surface and document version

Area	Status	Evidence	Interpretation
Release and evidence status	PASS	Failed gates: none; missing evidence: none	Gate results and evidence-schema completeness are reported independently.
Capability and MCP surface	PASS	Capability document v5; exact 12-tool stdio list; create_design present	The capability version and tool list are release-gated, not inferred from documentation.
Outcome target accuracy	PASS	24 / 24 exact matches versus 19 / 24 on the identical corpus	Absolute gain 20.8 percentage points; all 5 baseline misses corrected.
Raw asset bootstrap	PASSED	4 source/mask hashes; validated bundle 65894e8a804527f0...; preview replay true	The bootstrap uses checked-in PNGs and explicit mask semantics, with no AI or segmentation credential.
Product outcome execution	PASSED	3 jobs, 6 executions, 3 bundles and 3 PNGs re-hashed from disk	Target, selection, certificate, bundle, and artifact hashes are joined into one checked proof chain.
Render-contract compiler	PASSED	4 proofs; 51 full-resolution evaluations; 25 rejected candidates; 27 counterexamples	Every intent names an entity target and changes it: astronaut, face, helmet.
Runtime conformance	PASS	15 cases agree across Node and 2 Chromium runtimes	All passing runtimes report the same aggregate digest.
Governance efficacy	PASS	Issue recall 100.0%; repair success 100.0%	Effectful retention 100.0%; treatment-family retention 72.0%.
Pipeline evidence	PASS	7 measured stages; 20 full-transaction samples; preview/render byte identity true	Repeated governance, compile, render, bundle, and transaction digest-set counts are present and equal one.
Archive resilience	PASS	Focused archive tests 8 / 8; importer/headless tests 27 / 27	Counts are included only when the corresponding test file is present in the current result.
Compiler provenance	BOUNDED	The evidence proves deterministic compilation and replay, not who authored the input bundle.	Input filename, labels, and recipe IDs are not treated as agent-authorship provenance.

Closed-Loop Intent Compiler Certificate

4 CERTIFIED INTENTS Each compiled twice from one verified input	4 ENTITY TARGETS astronaut, face, helmet	51 RENDER EVALUATIONS 26 valid / 25 rejected	27 COUNTEREXAMPLES 103 deterministic repair candidates
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Intent	Entity target	CEGIS eval / reject / repair	Render score	Compiler certificate SHA-256
Retro Game	astronaut	8 / 1 / 2	100	1f3e42fca33e810c9948857102321ebf2552423ac6898432ba915696c01bea5e
Privacy Redact	face	12 / 7 / 38	100	38117593427a32c23dac39e91c2eb64c5e4421238a157e5f48b08354effdb300
Product Hero	astronaut	11 / 6 / 21	100	2697f843287695402b44b7251e1dae27ddff3c7a69e993a2b19c41ed7cc75bb9
Vaporwave	helmet	20 / 11 / 42	100	fd811a885ff8cd00e267fbb2d6b8899e2fae0a67cfe9ee3358693ec7bb93eb9f

Proof	Derived result	Boundary
Raw bootstrap	scripts/demo/astronaut-create-spec.json; source plus 4 mask hashes; validated preview replay	The explicit mask specification proves deterministic construction, not segmentation quality or authorship.
Entity targets	4 declared targets across 4 intents; all appear in changedLayerIds	Targets are layer IDs from the trusted bundle: astronaut, face, helmet.
Render contract	4 valid mythiril.render-proof/v1 objects; 51 full-resolution candidate renders	Measured constraints cover scope leakage, effect strength, protected edges, privacy suppression, and hero salience.
Counterexample loop	25 rejected candidates, 27 typed violations, 103 repair candidates, max 4 iterations	Counts describe this bounded deterministic evidence run; they are not a universal quality rate.
Repeated bytes	Compilation, certificate, selection, bundle, render, and preview repeat checks pass	This proves deterministic protocol compliance and replay fidelity for this evidence set.
Certificate scope	Intent, source recipe, compiled recipe, search, selection, assignments, and digest	It does not prove live SAM quality, market leadership, or aesthetic superiority.

Certificate protocol: mythiril.compiler-certificate/v1; compiler: bounded-content-aware-beam-search. Deterministic protocol compliance and replay fidelity: the same trusted inputs and explicit recipe satisfy the declared protocol and reproduce the certified bytes. Precision is not a claim about authorship, live segmentation quality, market position, or aesthetic merit.

The Implemented Closed Loop

1. Discover	2. Create	3. Target	4. Verify	5. Govern	6. Compile	7. Open + Edit	8. Prove
Capability document v5 publishes bootstrap, intent, render-proof, CLI, and MCP contracts.	create_design turns one PNG and 4 semantic masks into a validated bundle.	Each intent names trusted entity layers: astronaut, face, helmet.	Full-resolution render proof rejects 25 candidates and feeds typed counterexamples into bounded repair.	mythiril.governance/v1 scores five effect dimensions and applies bounded minimal repairs.	The CLI emits a self-validating bundle only after deterministic checks pass.	The GUI preflights and replays the bundle, records ASCII -> GLITCH, and re-exports.	CLI inspect, validate, and render pass; the 640 x 440 result equals preview bytes.

Importer stage	Implemented behavior	Failure boundary
Archive preflight	Reads ZIP structure before decompression and applies hard entry and expansion limits	Rejects ZIP64, encrypted, traversal, duplicate, overlapping, or oversized structures
Bundle validation	Validates manifest roles, tracked files, SHA-256 records, byte lengths, dimensions, recipe, and quality policy	Tampering, missing assets, untracked assets, role mismatch, and dimension mismatch fail closed
Mask materialization	Supports canonical PNG masks plus supported float32/binary encodings and produces editable LayerState masks	Encoding, dimensions, and decoded size are bounded before document acceptance
Editor acceptance	Replays the imported recipe through PixelEngine, verifies quality and byte identity, then preserves protocol policy in store state	The document is not accepted when replay or validation diverges

Archive evidence: focused tests 8 / 8; importer/headless tests 27 / 27. The MCP v5 proof creates and replays a raw bundle, executes secure redaction separately, then moves governance score 85.46 to 100 while the certified final bundle remains byte-identical under replay.

Closed-Loop Artifact Proof

ASCII -> GLITCH

TREATMENT CHANGE

whole-image: glitch (intensity=18)

640 x 440

OUTPUT

Scale 2 from the canonical bundle

5,637 B

FINAL PREVIEW / RENDER

Same canonical PNG bytes

TRUE

BYTE IDENTICAL

Headless replay equals preview

Artifact	SHA-256	Meaning
Imported baseline bundle	6be698a1aa1b0e2cd936e0f53422c0407af229e4771e45f73dc6523e4ae1f6cd	Starting artifact with ASCII; filename and recipe ID do not establish authorship
Imported baseline preview	859b49a3c372ce77743ee998bf7d50e75d2db107e72cd02ca7ab2bb52f2c3d37	Canonical starting preview from 320 x 220 at scale 2
Final GUI bundle	b5d130646c171ba9bc6f9e0fb827c87606c07a0799daa5b62e796fd1b8ef7080	Re-exported mythiril.bundle/v1 with GLITCH
Final preview / CLI render	4a3df867f7de58cfdc39f5587a22baae d3339a1d78df8e117eef1d60eefc56ab	One digest for both outputs; byte-identical replay true

Recipe field	Verified value	Closed-loop role
recipeld	agent-authored-breakthrough	Stable identity survives import, GUI edit, and re-export; it is not authorship provenance
Imported treatment	ASCII	whole-image: ascii (cellSize=10, charSet=@#%*+=-:.)
GUI-recorded treatment	GLITCH	whole-image: glitch (intensity=18)
Protocol / governance	100 / minimum 85	Final recipe passes schema, protocol, and external governance checks
Output	PNG, srgb, scale 2	Compiler and GUI share the same explicit output contract
Automation surface	CLI + 12-tool MCP; capability v5	Raw create, entity-targeted synthesis, governance, and 640 x 440 byte-identical replay

Governance Efficacy and Intent Retention

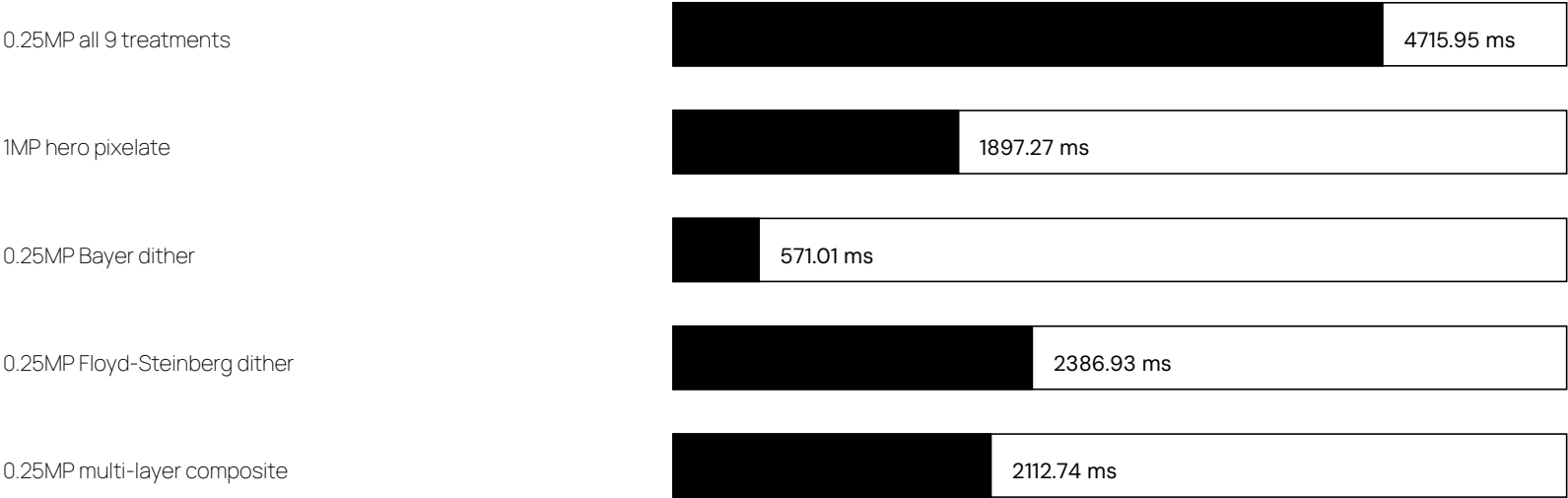
100% ISSUE RECALL 13 / 13 expected issues	100% REPAIR SUCCESS 6 / 6 adversarial cases	100% EFFECTFUL RETENTION 25 / 25 layers	72.0% TREATMENT-FAMILY RETENTION 18 / 25 layers
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Measure	Result	Interpretation
Corpus coverage	9 cases; 5 / 5 issue codes	Current corpus covers every declared governance issue code.
Structural retention	100%	Recipe structure remains present across good and adversarial cases.
Adversarial effectful retention	18 / 18 (100%)	Every initially effectful adversarial layer remains effectful after repair.
Adversarial treatment-family retention	11 / 18 (61.1%)	Some repairs change treatment family; this is not reported as original-family retention.
Good-case no-op	3 cases; 100%	Already compliant recipes remain unchanged in the current corpus.
Mutation minimality	91.7%	12 changed layers versus 11 oracle minimum layers.

Effectful intent retention and original treatment-family retention are distinct metrics. A repair can preserve an active effect while changing the treatment family used to express it.

Machine-Local Performance Benchmark

Local mean milliseconds – one machine – lower is better within this harness



Benchmark case	Mean	Median	Samples / RME
0.25MP bounded batch across all nine registered treatments	4715.95 ms	4752.30 ms	10 / 3.40%
1MP hero pixelate	1897.27 ms	1857.25 ms	10 / 11.47%
0.25MP Bayer dither	571.01 ms	585.33 ms	10 / 6.49%
0.25MP Floyd-Steinberg dither	2386.93 ms	2399.69 ms	10 / 7.29%
0.25MP multi-layer composite	2112.74 ms	2100.97 ms	10 / 4.87%

Environment: 11th Gen Intel(R) Core(TM) i7-1165G7 @ 2.80GHz | 8 logical cores | 15.8 GiB RAM | win32 10.0.26200 x64 | Node v24.14.1 | Next 15.5.20.

Benchmark boundary: these values are local measurements collected into output/mythiril-evidence.json on one machine and one harness. They support reproducible engineering tracking for this build. They do not establish universal throughput, cross-product speed, state-of-the-art performance, or market superiority.

Release Evidence Coverage

3

PASSING RUNTIMES

Node plus installed browser engines

20

PIPELINE SAMPLES

Timing + final byte identity; repeat fields partial

51

CEGIS RENDERS

25 rejected / 103 repairs

12 TOOLS

REAL STUDIO MCP

Capability v5; create + synthesize

Evidence family	Derived status	Report use and boundary
Cross-runtime conformance	PASS - 15 cases; 2 browser runtimes	One aggregate digest across passing runtimes. Unavailable locally: Mozilla Firefox, WebKit.
Pipeline benchmark	PASS - 7 stages; p95 2504.399 ms	Machine-local timing and final preview/render byte identity. Repeated governance, compile, render, bundle, and transaction digest-set counts are present and equal one.
Raw bootstrap	PASS - 4 masks; bundle 65894e8a804527f0...	Source, mask, bundle, and preview hashes are checked against the actual raw-handoff artifact.
Render-contract CEGIS	PASS - 4 proofs; 51 evaluations	Targets astronaut, face, helmet; 27 counterexamples; 103 generated repairs; max 4 iterations.
Provider - AI	live=true; provider=azure; duration=2342 ms	Connectivity and structured-output acceptance only; not an authorship or quality claim.
Provider - SAM	live=false; requested=auto; message=Missing FAL_API_KEY, REPLICATE_API_TOKEN.	Configuration/connectivity is never promoted to segmentation quality, cost, latency, or comparative evidence.
Archive resilience	PASS - 8 / 8; evidence f613b858dc6ea56c...	Ceilings: 128 MiB compressed, 512 MiB expanded, 256 entries, 64,000,000 decoded pixels; typed MythirilBundleImportError; ASCII code-unit order by file path.
Breakthrough compiler demo	PASS - 4 targeted intents	Consumes core compiler certificates, render proofs, CEGIS counts, and repeated byte proofs; does not infer input authorship.
Creative outcome pack	PASS - 3 jobs / 6 executions	1 composite and 2 isolated PNGs; secure redaction is excluded from replayable bundles by design.
Secure redaction	PASS - destructive raster path	2,952 pixels overwritten; zero-bit region entropy, metadata-free opaque PNG, pending-review quarantine, forbidden-method rejection, tamper detection, and repeated-byte identity verified.
Target-selection comparison	PASS - 24 / 24	Same-corpus baseline 19 / 24; 10 repeated current runs produce one complete-ranking hash.
MCP create + synthesis	PASS - v5, 12 tools	create_design validates and replays raw assets; targeted synthesize_design certificate af57dd64de1e98f1... also renders byte-identically.

This coverage table is a release-evidence inventory, not a market ranking. Market leadership and aesthetic superiority are outside the measured scope.

Proof Boundaries and Next Evidence

Implemented edge	Verified evidence	Next compounding evidence
Raw asset bootstrap	One PNG plus 4 semantic masks becomes a validated, byte-identical mythiril.bundle/v1	Broader fixture corpus across image sizes, mask channels, overlaps, and production handoff sources
Protocol over prompt drift	Strict recipe validates assets, layers, masks, treatments, intent, quality, and output	Version migrations and long-term compatibility policy
Deterministic governance	mythiril.governance/v1 issue recall 100% and repair success 100% in the current corpus	Signed policy provenance, broader corpora, domain-specific packs, and longitudinal regression data
Render-contract CEGIS	51 full-resolution evaluations, 25 rejections, and 103 typed repair candidates across explicit entity targets	Reviewed multi-image target corpus and task-specific acceptance thresholds
Useful artifact delivery	Three creative jobs deliver 1 whole-composition PNG and 2 transparent entity PNGs with replayable bundles; secure redaction separately emits a flattened PNG and certificate	Native Figma and Adobe panels, document-layer placement, remote storage, and reviewed task-success studies
Target resolver accuracy	Same-corpus exact match improved from 79.2% to 100.0%	Larger held-out corpus with real segmentation masks, dual annotation, acceptable-target sets, no-target F1, and permutation invariance
Automation surface	Capability v5; real studio MCP exposes 12 tools and proves create -> validate -> render plus targeted synthesize -> validate -> render	Hosted transport, scopes, authentication, telemetry, and remote artifact storage
GUI continuity	Open Bundle validates, replays, preserves policy, and supports continued editing and re-export	Cross-browser, large-bundle, cancellation, and sustained malformed-input evidence
Exact deterministic replay	GUI-edited output at 640 x 440 and 2x matches the canonical preview SHA-256 byte-for-byte	Fixtures across every treatment, layer count, palette mode, mask encoding, scale, and independent renderer

Boundary	Current evidence limit	Required gate
Cross-runtime conformance	Node and 2 installed Chromium runtimes pass; unavailable locally: Mozilla Firefox, WebKit; ARM, macOS, Linux, and an independent renderer are not covered	Golden corpus across additional runtimes plus an independent Rust/WASM or host-plugin implementation
Intent compiler efficacy	4 deterministic intents target astronaut, face, helmet, produce 4 plans, and pass 4 render contracts; aesthetic preference is not measured	Reviewed multi-image corpus, human preference study, task success criteria, and provenance-aware agent trials
Importer production hardening	Archive resilience 8 / 8 and importer/headless 27 / 27 pass; sustained hostile-corpus and browser-matrix evidence is not included	Fuzzing, decoded-memory ceilings, browser parity, high-volume cancellation, and crash telemetry
Live segmentation providers	No credentialed SAM quality corpus belongs to this release evidence	Reviewed image corpus and provider telemetry before any comparative quality, cost, or latency statement

Release Evidence and Methodology

Gate	Result	Report use
Governance and agent tests	35 / 35	Machine-derived subset for governor, protocol, compiler, capabilities, CLI, and MCP behavior
Intent compiler tests	10 / 10	Content-aware feature extraction, entity targeting, render-contract certification, counterexample repair, and editor-layer parity
Importer/headless round trip	27 / 27	Machine-derived subset for ZIP import/materialization, compile, validate, render, and tamper rejection
Archive resilience	8 / 8	Hard ceilings, traversal and collision rejection, size deception, malformed manifests, and deterministic valid imports
Full suite	376 / 376	Current output/vitest-results-latest.json; zero failed tests
Release and security	PASS	Failed gates: none; npm audit reports 0 known vulnerabilities
Runtime and pipeline	PASS	15 conformance cases plus 20 full-transaction timing samples. Repeated governance, compile, render, bundle, and transaction digest-set counts are present and equal one.
Real MCP process	PASS	Capability v5, exact 12-tool list, raw create, targeted certified synthesis, governance, validation, and byte-identical render
Creative outcome execution	PASS	3 jobs compiled twice; selection, certificate, bundle, PNG, dimensions, and filenames match the outcome-pack manifest
Secure redaction execution	PASS	Solid-fill-only original-resolution overwrite, reviewer gate, opaque metadata-free PNG, certificate, hostile method matrix, tamper detection, and byte-identical repeat proof
Outcome target benchmark	PASS	Current 24 / 24 versus captured baseline 19 / 24 on corpus 2db221806b948ed0...
Artifact integrity	PASS	Collector and generator independently verify raw bootstrap source/masks, bundles, previews, outcome PNGs, CLI render, compiler render proofs, certificates, and MCP hashes

REPRODUCTION: Run `npm run evidence:mythiril`, then `npm run report:mythiril`. The collector regenerates every current gate and compares target selection against the preserved same-corpus baseline before the report generator independently re-hashes the cited artifacts.

Sources and Constraints

- 1 Performance values are read from output/mythril-evidence.json: 0.25MP bounded batch across all nine registered treatments: 4715.95 ms; 1MP hero pixelate: 1897.27 ms; 0.25MP Bayer dither: 571.01 ms; 0.25MP Floyd-Steinberg dither: 2386.93 ms; 0.25MP multi-layer composite: 2112.74 ms.
- 2 Machine-derived verification: governance/agent 35 / 35, intent compiler 10 / 10, importer/headless 27 / 27, archive resilience 8 / 8, full suite 376 / 376. Evidence complete=true; failed gates: none; missing evidence: none; npm audit vulnerabilities: 0.
- 3 Closed-loop baseline: recipeld agent-authored-breakthrough; ASCII -> GLITCH; final governance score 100 at minimum 85.
- 4 Imported bundle SHA-256: 6be698a1aa1b0e2cd936e0f53422c0407af229e4771e45f73dc6523e4ae1f6cd; imported preview SHA-256: 859b49a3c372ce77743ee998bf7d50e75d2db107e72cd02ca7ab2bb52f2c3d37.
- 5 Final GUI bundle SHA-256: b5d130646c171ba9bc6f9e0fb827c87606c07a0799daa5b62e796fd1b8ef7080; final preview/render SHA-256: 4a3df867f7de58cfdc39f5587a22baaed3339a1d78df8e117eef1d60eefc56ab. CLI inspect, validate, and render pass at 640 x 440 with byteldenticalToBundlePreview=true and 5,637 bytes.
- 6 Raw bootstrap: scripts/demo/astronaut-create-spec.json; source SHA-256 62189cac111a98ab7cd594539a02fd3b778a21e077548c4d7bf91fede26adc12; 4 mask hashes; bundle SHA-256 65894e8a804527f0dc4f322f05967b7854d81c33b7a3f1d9141419f3b8f5b915; preview/render SHA-256 62189cac111a98ab7cd594539a02fd3b778a21e077548c4d7bf91fede26adc12; byteldenticalToBundlePreview=true.
- 7 Intent compiler demo: 4 intents targeting astronaut, face, helmet; 4 treatment plans; 4 render hashes; 4 valid render contracts; repeatedRunsByteldentical=true. Certificates: retro game: 1f3e42fca33e810c9948857102321ebf2552423ac6898432ba915696c01bea5e; privacy redact: 38117593427a32c23dac39e91c2eb64c5e4421238a157e5f48b08354effdb300; product hero: 2697f843287695402b44b7251e1dae27dfff3c7a69e993a2b19c41ed7cc75bb9; vaporwave: fd811a885ff8cd00e267fbb2d6b8899e2fae0a67cfe9ee3358693ec7fb93eb9f.
- 8 Outcome target selection: identical corpus SHA-256 2db221806b948ed06246b01ead07f94c81a859434534504f23722888c5644d9b; baseline 19 / 24 (79.2%); current 24 / 24 (100.0%); absolute gain 20.8 percentage points; 10 repeated runs, one ranking hash.
- 9 Outcome pack: protocol mythril.outcome-pack v1; 3 jobs executed 2 times each; summary SHA-256 ea30e6bab7ef374640091bf2c60509041514966a64f7194e4219aef8895101f5; manifest SHA-256 fc4c1d7234bc341c9277f2efc6c56f5d0711b4eebab366263c1cd8ca0736e540. pixel-asset: target astronaut score 250, astronaut-pixel-asset.png 314da2c271b5802bccdd486ab5a2d3630f321c535b0a6c69190312524013e320; product-graphic: target astronaut score 270, mythril-product-graphic.png 3aa3076fb1f141f6d3c6c9cf7610edae5e165c75f639b87dff53b3fb52e5de13; glitch-object: target helmet score 420, helmet-glitch-object.png f4d1ac5a5d74cc48e7bfa5eb406231dee5dfea57cf2b70ae5a5b9ebb3afae660.
- 10 Render-contract CEGIS: 51 evaluated, 26 valid, 25 rejected, 27 counterexamples, 103 repair candidates, 13 aggregate repair iterations, maximum 4 for one intent.
- 11 Governance corpus: issue recall 100.0%; repair success 100.0%; effectful retention 100.0%; original treatment-family retention 72.0%.
- 12 Runtime conformance: 15 Node cases and 2 passing Chromium runtimes share aggregate SHA-256 d2b4b56f3e7edaa930d0948a8854f6c3f328dfe274dba68c0968b1e333651bf6.
- 13 Pipeline proof: 20 full-transaction samples; rendered SHA-256 270372303bd13b21b8625e4704b9a76049f286942d6fbec9fbb6e3503499d369 equals preview SHA-256. Repeated governance, compile, render, bundle, and transaction digest-set counts are present and equal one.
- 14 MCP proof: capability document v5; exact 12-tool stdio list; create_design bundle SHA-256 65894e8a804527f0dc4f322f05967b7854d81c33b7a3f1d9141419f3b8f5b915; create render SHA-256 62189cac111a98ab7cd594539a02fd3b778a21e077548c4d7bf91fede26adc12; targeted synthesize_design certificate af57dd64de1e98f156ec8a6b97328e6d8f63985b9576d2823b64b44ae8c34a08; governed render SHA-256 270372303bd13b21b8625e4704b9a76049f286942d6fbec9fbb6e3503499d369.
- 15 Archive evidence SHA-256 f613b858dc6ea56cf8d7eda60b89a9d27e1aa5cf4c1356b0022d5d0add08eb3: 128 MiB compressed, 512 MiB expanded, 256 entries, 64,000,000 decoded pixels, 16,000,000 editable pixels, typed error contract MythrilBundleImportError, deterministic order ASCII code-unit order by file path.
- 16 Provider probe generated 2026-07-16T07:48:07.139Z: live AI verified=true; live SAM verified=false. Connectivity/configuration evidence is not SAM quality evidence.
- 17 Claim boundary: Deterministic protocol compliance and replay fidelity: the same trusted inputs and explicit recipe satisfy the declared protocol and reproduce the certified bytes. Precision is not a claim about authorship, live segmentation quality, market position, or aesthetic merit. Input filenames, labels, and recipe IDs are not authorship provenance; no live SAM quality, market leadership, aesthetic superiority, universal speed, exclusivity, or state-of-the-art claim is made.