Deterministic Document Review Protocol (DDRP) v0.2

Execution Walkthrough & Artifact Record

Document Type:
Deterministic Execution Walkthrough (UI + Artifacts)

Protocol Version:
DDRP v0.2.0

Walkthrough Scope:
Single completed deterministic run, from initialization through artifact export

Test Subject Document:
California-2025-AB853-Introduced.pdf

Purpose of This Document:
This document provides a step-by-step walkthrough of a completed DDRP execution, showing how a deterministic run is initiated, isolated, executed, and recorded. It is intended to orient the reader to the interface and the resulting artifacts. It does **not** interpret results, assess compliance, or make legal, policy, or correctness claims.

Licensing & Use

Software License:
DDRP is released under the **[insert exact license name, e.g., Apache 2.0 / MIT / custom non-commercial license]**.

Walkthrough Content License:
This walkthrough document and included screenshots are provided under the same license unless otherwise stated.

Permitted Use:
Inspection, evaluation, testing, academic review, regulatory examination, and adaptation of the protocol pattern consistent with the license terms.

Prohibited Use:
No claims of legal compliance, regulatory approval, or correctness may be made based solely on this walkthrough or the artifacts shown herein.

Evidentiary & Interpretation Disclaimer

- This walkthrough documents **execution behavior only**.
- DDRP does **not** perform legal interpretation, policy analysis, or compliance determination.

- Detected operators and instantiated obligations represent **structural signals** derived deterministically from canonical text.
- Obligation statuses (e.g., OPEN, SATISFIED) reflect **structural completeness**, not legal validity, enforceability, or intent.
- Any conclusions drawn from these artifacts are the responsibility of the downstream analyst or authority.

Determinism & Integrity Statement

All inputs, outputs, and artifacts shown in this walkthrough are bound to a single isolated run via cryptographic hashes and transaction records. Re-execution against the same canonical input and pattern set will produce byte-identical results.

Provenance

Author / Maintainer:
Bruce Tisler (Researcher)

Project Repository:
https://github.com/btisler-DS/ddrp

Run Date (UTC):
2026-01-031

Generated Artifacts:

- Operators JSON
- Obligations JSON
- Transaction Record JSON

UI Walkthrough Introduction

This walkthrough shows a single, completed DDRP v0.2 run from initialization through artifact generation. Each figure corresponds to a visible stage in the UI and reflects what the system displays at that point in execution. The purpose of the walkthrough is to orient the reader to the interface and to show how a deterministic run is executed and recorded, not to interpret results or assess compliance.

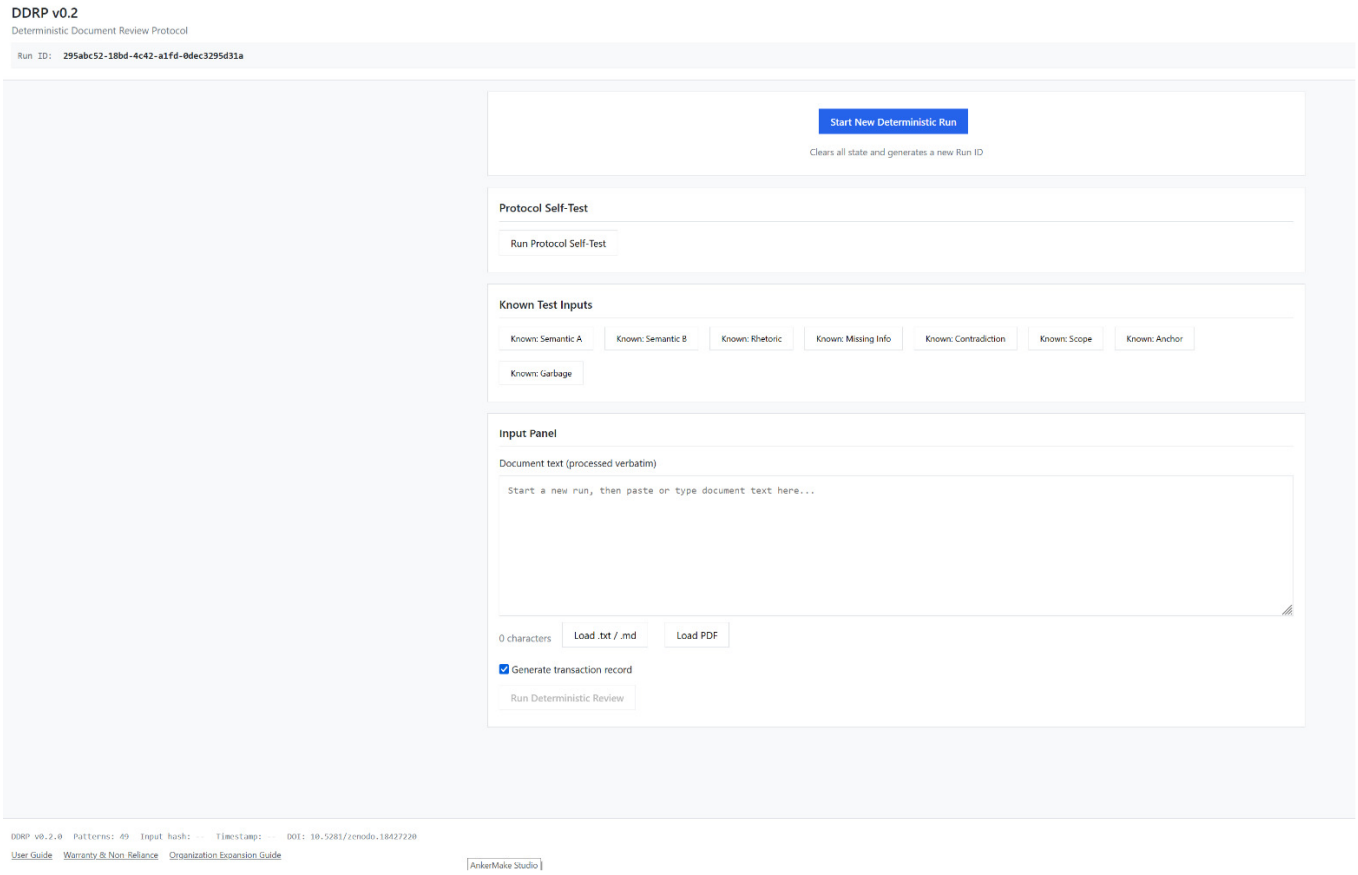


Figure 1 — Run Initialization and Isolation

This figure shows the UI immediately after a new run is started. A unique Run ID is generated and displayed, and the interface transitions from an idle state to an active, isolated execution context. All subsequent inputs and outputs in the walkthrough are bound to this run.

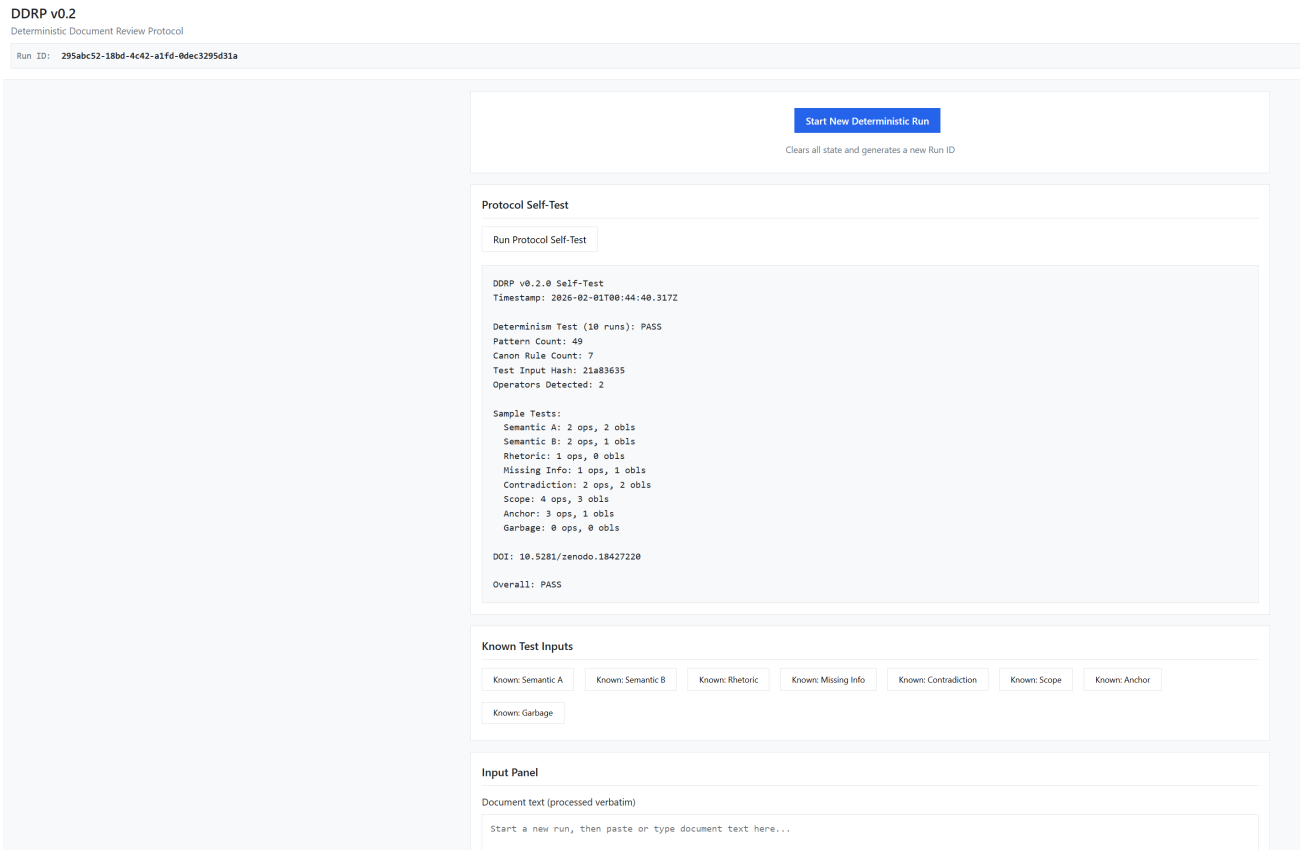


Figure 2 — Protocol Self-Test

This figure shows the protocol self-test being executed to verify that the DDRP runtime and pattern set are loaded correctly. All checks complete successfully, confirming the system is in a valid state before document analysis begins.

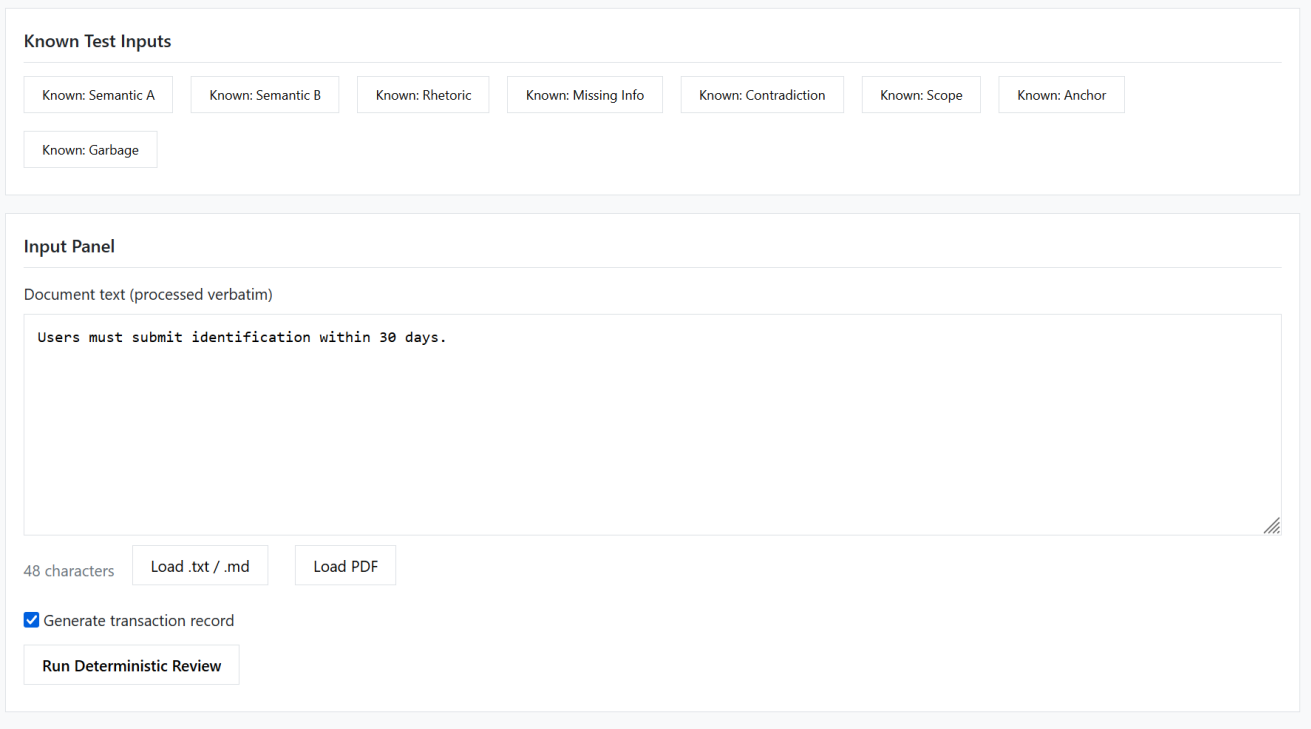


Figure 3 — Known Test Inputs (Known Semantic A)
This figure shows a known test input used to validate deterministic operator detection against a predefined semantic pattern. The input is fixed and serves as a control to confirm expected behavior.

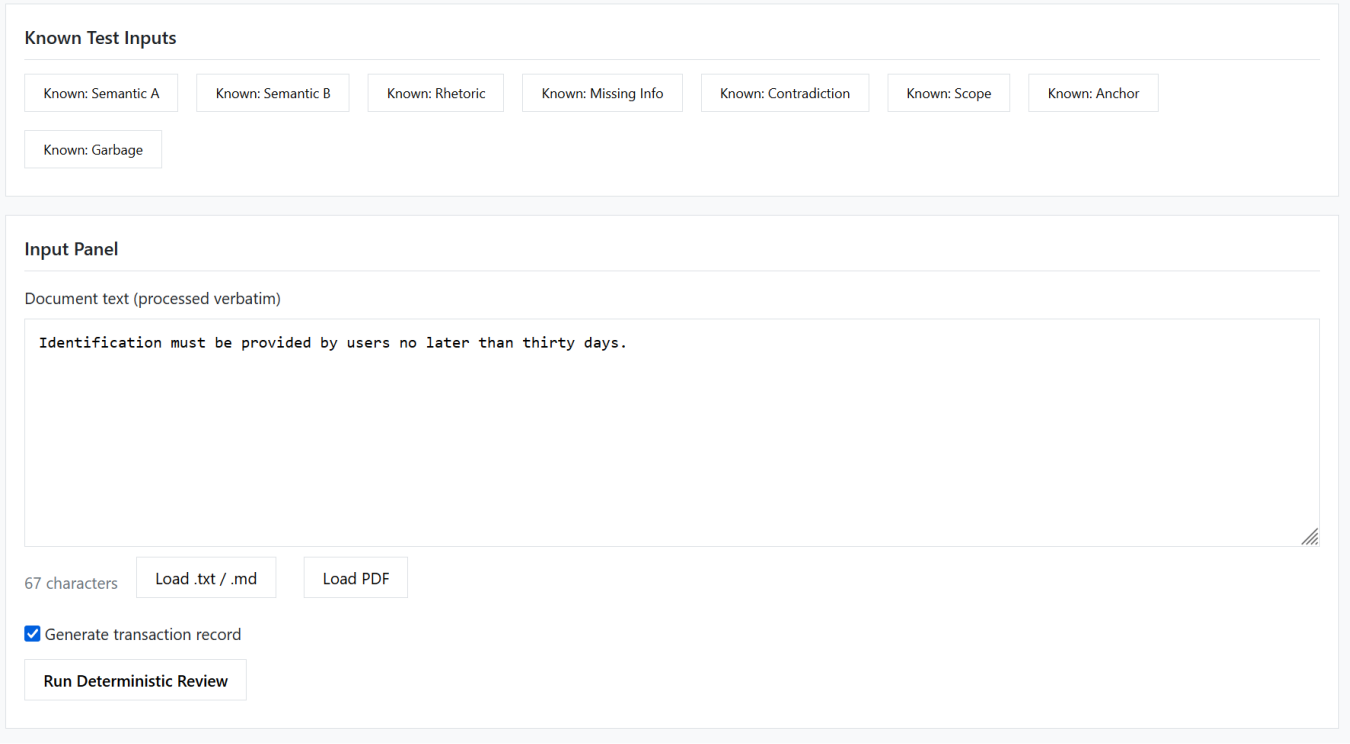


Figure 4 — Known Test Inputs (Known Semantic B)
This figure shows a second known test input with a different predefined semantic structure. It is used to verify consistent detection behavior across distinct but controlled inputs.

Known inputs are fixed, predefined test documents whose structure and expected outcomes are already understood in advance.

They exist for one reason only: **to verify that the protocol behaves deterministically before it is applied to an unknown document**. By running DDRP against known inputs (Semantic A and B) and the remaining 6, you confirm that the same operators and obligations are detected every time, without drift, inference, or interpretation. This establishes a stable baseline so that any ambiguity or gaps found later can be attributed to the source document—not to the system.

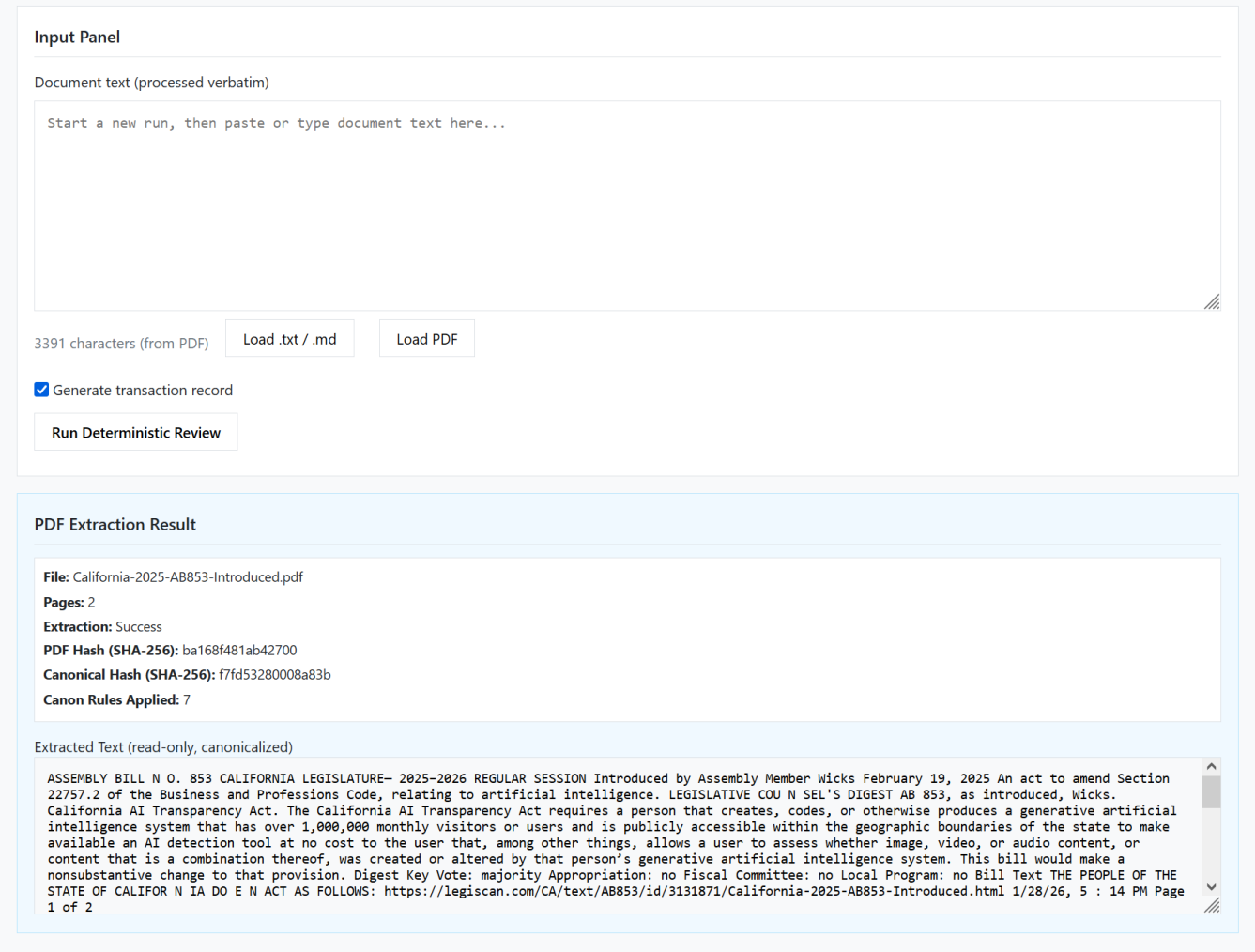


Figure 5 — Input Panel and Canonical PDF Extraction

This figure shows the document input panel after a PDF has been loaded and successfully extracted into canonical text for deterministic review. Document used in this demo is: California-2025-AB853-Introduced.pdf

Explanation
The upper panel displays the active run's input state, indicating that the document has been loaded and is bound to the run before analysis is executed. The lower panel shows the PDF extraction result, including page count, extraction status, cryptographic hashes, applied canon rules, and the read-only canonicalized text.

This view exists to make the exact analysis substrate explicit. It shows precisely what text will be reviewed by the protocol and provides verifiable evidence that extraction succeeded and that the text has not been interpreted, altered, or enriched prior to deterministic processing.

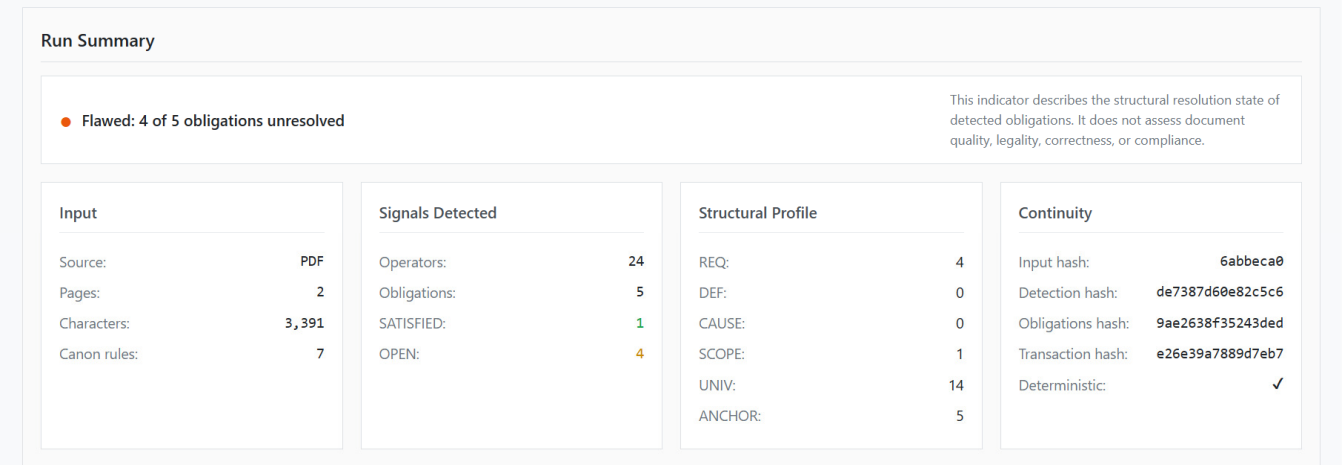
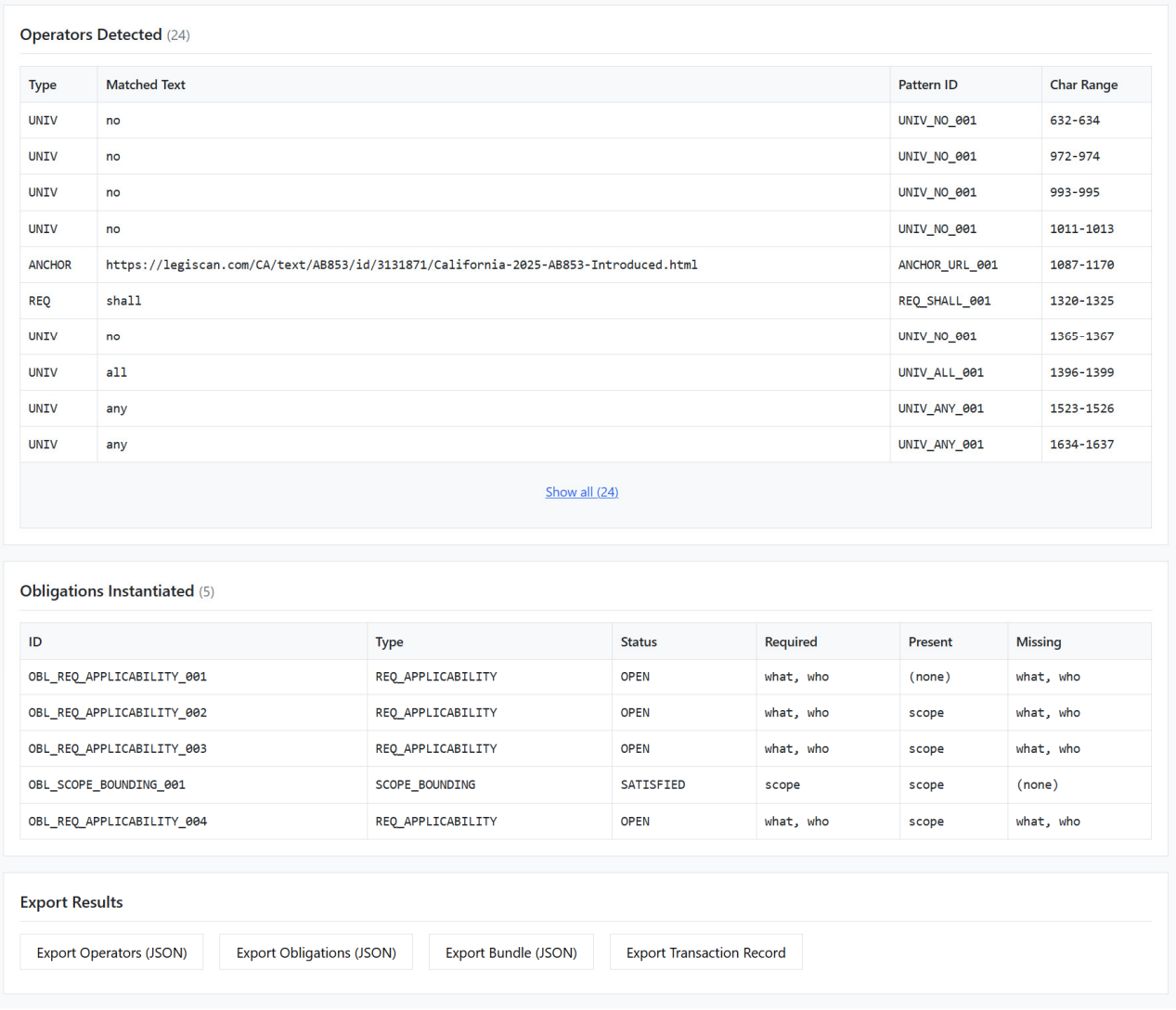


Figure 6 — Run Summary and Structural Status

This figure shows the run summary generated after deterministic review, presenting the structural resolution state of detected obligations and the integrity of the execution.

Explanation
The summary consolidates the results of the completed run into four panels. The input panel reports basic characteristics of the analyzed document. The signals panel reports the number of operators and obligations detected, including how many obligations remain unresolved. The structural profile panel shows the distribution of operator types that contributed to those obligations. The continuity panel records the cryptographic hashes and confirms that the run executed deterministically.

This view exists to provide a high-level structural assessment of the run without interpreting meaning or evaluating compliance. It allows the reader to see, at a glance, whether obligations were structurally resolvable and whether the execution artifacts are complete and auditable.



Operators Detected (24)

Type	Matched Text	Pattern ID	Char Range
UNIV	no	UNIV_NO_001	632-634
UNIV	no	UNIV_NO_001	972-974
UNIV	no	UNIV_NO_001	993-995
UNIV	no	UNIV_NO_001	1011-1013
ANCHOR	https://legiscan.com/CA/text/AB853/id/3131871/California-2025-AB853-Introduced.html	ANCHOR_URL_001	1087-1170
REQ	shall	REQ_SHALL_001	1320-1325
UNIV	no	UNIV_NO_001	1365-1367
UNIV	all	UNIV_ALL_001	1396-1399
UNIV	any	UNIV_ANY_001	1523-1526
UNIV	any	UNIV_ANY_001	1634-1637

Show all (24)

Obligations Instantiated (5)

ID	Type	Status	Required	Present	Missing
OBL_REQ_APPLICABILITY_001	REQ_APPLICABILITY	OPEN	what, who	(none)	what, who
OBL_REQ_APPLICABILITY_002	REQ_APPLICABILITY	OPEN	what, who	scope	what, who
OBL_REQ_APPLICABILITY_003	REQ_APPLICABILITY	OPEN	what, who	scope	what, who
OBL_SCOPE_BOUNDING_001	SCOPE_BOUNDING	SATISFIED	scope	scope	(none)
OBL_REQ_APPLICABILITY_004	REQ_APPLICABILITY	OPEN	what, who	scope	what, who

Export Results

Export Operators (JSON) | Export Obligations (JSON) | Export Bundle (JSON) | Export Transaction Record

Figure 7 — Detected Operators, Instantiated Obligations, and Export Artifacts

This figure shows the detailed results of a completed deterministic review, including detected operators, instantiated obligations, and available export artifacts.

Explanation

The upper table lists all operators detected in the document, each tied to a specific pattern ID and character range in the canonical text. The middle table shows the obligations instantiated from those operators, along with their resolution status and the specific structural fields that are present or missing. The lower section provides export controls for the generated artifacts, including operator detections, obligations, bundled outputs, and the transaction record.

This view exists to allow direct inspection and verification of how obligations were derived from textual signals and to provide access to the immutable artifacts produced by the run. No interpretation or remediation is performed at this stage; the interface exposes structure and evidence only.

Exported Artifacts

At the conclusion of a run, DDRP produces three structured JSON artifacts. Together, these files constitute the complete, auditable record of execution.

Operators JSON
This file lists every operator detected in the canonical text. Each entry records the operator type, matched text, pattern identifier, and exact character range. It represents the raw, deterministic signal surface extracted from the document, without aggregation or interpretation.

Obligations JSON
This file records the obligations instantiated from detected operators. For each obligation, it specifies the obligation type, required structural fields, which fields are present or missing, and the resulting status. It documents how textual signals resolve—or fail to resolve—into structurally complete obligations.

Transaction Record JSON
This file records execution continuity and integrity. It includes run identifiers, timestamps, input and output hashes, environment metadata, and hash chaining. The transaction record does not assert correctness or compliance; it exists to prove that the run occurred as recorded and that the exported artifacts are bound to that execution.

Actual contents of each .json file of the document tested is below.

ddrp-v0.2.0-transaction-6abbeca0-c2dfd6e8-2026-02-01T00-50-01-027Z.json


```
{
 "ddrp_version": "0.2.0",
 "transaction_version": "0.2.0",
 "transaction_id": "4f4d87a0-07c7-4f15-8afb-06034f675c59",
 "timestamp_local": "2026-02-01T00:49:02.100Z",
 "timezone": "UTC",
 "input": {
  "input_hash": "6abbeca0",
  "input_length": 3391,
  "input_format": "application/pdf"
 },
 "outputs": {
  "detection_hash": "de7387d60e82c5c6",
  "obligations_hash": "9ae2638f35243ded"
 },
 "environment": {
  "browser": "Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:147.0) Gecko/20100101 Firefox/147.0",
  "ddrp_version": "0.2.0"
 },
 "chain": {
  "previous_transaction_hash": "0000000000000000",
  "transaction_hash": "e26e39a7889d7eb7"
 },
 "disclaimer": "This record documents execution continuity only. It does not assert compliance, correctness, or legal validity."
}
```

ddrp-v0.2.0-obligations-6abbeca0-c2dfd6e8-2026-02-01T00-49-58-803Z(1).json


```
{
  "version": "0.1.0",
  "obligation_count": 5,
  "obligations": [
    {
      "obl_id": "OBL_REQ_APPLICABILITY_001",
      "obl_type": "REQ_APPLICABILITY",
      "trigger_op_id": "REQ_SHALL_001",
      "trigger_char_start": 1320,
      "trigger_char_end": 1325,
      "required_fields": [
        "what",
        "who"
      ],
      "present_fields": [],
      "missing_fields": [
        "what",
        "who"
      ],
      "status": "OPEN",
      "evidence": []
    },
    {
      "obl_id": "OBL_REQ_APPLICABILITY_002",
      "obl_type": "REQ_APPLICABILITY",
      "trigger_op_id": "REQ_SHALL_001",
      "trigger_char_start": 2324,
      "trigger_char_end": 2329,
      "required_fields": [
        "what",
        "who"
      ],
      "present_fields": [
        "scope"
      ],
      "missing_fields": [
        "what",
        "who"
      ],
      "status": "OPEN",
      "evidence": [
        {
          "field": "scope",
```

```
      "source_op_id": "SCOPE_EXCEPT_001",
      "char_start": 2574,
      "char_end": 2583,
      "value": "Except as"
    }
  ]
 },
 {
  "obl_id": "OBL_REQ_APPLICABILITY_003",
  "obl_type": "REQ_APPLICABILITY",
  "trigger_op_id": "REQ_SHALL_NOT_001",
  "trigger_char_start": 2531,
  "trigger_char_end": 2540,
  "required_fields": [
   "what",
   "who"
  ],
  "present_fields": [
   "scope"
  ],
  "missing_fields": [
   "what",
   "who"
  ],
  "status": "OPEN",
  "evidence": [
   {
    "field": "scope",
    "source_op_id": "SCOPE_EXCEPT_001",
    "char_start": 2574,
    "char_end": 2583,
    "value": "Except as"
   }
  ]
 },
 {
  "obl_id": "OBL_SCOPE_BOUNDING_001",
  "obl_type": "SCOPE_BOUNDING",
  "trigger_op_id": "SCOPE_EXCEPT_001",
  "trigger_char_start": 2574,
  "trigger_char_end": 2583,
  "required_fields": [
   "scope"
  ],
  "present_fields": [
```

```
      "scope"
    ],
    "missing_fields": [],
    "status": "SATISFIED",
    "evidence": [
     {
      "field": "scope",
      "source_op_id": "SCOPE_EXCEPT_001",
      "char_start": 2574,
      "char_end": 2583,
      "value": "Except as"
     }
    ]
   },
   {
    "obl_id": "OBL_REQ_APPLICABILITY_004",
    "obl_type": "REQ_APPLICABILITY",
    "trigger_op_id": "REQ_SHALL_001",
    "trigger_char_start": 2961,
    "trigger_char_end": 2966,
    "required_fields": [
     "what",
     "who"
    ],
    "present_fields": [
     "scope"
    ],
    "missing_fields": [
     "what",
     "who"
    ],
    "status": "OPEN",
    "evidence": [
     {
      "field": "scope",
      "source_op_id": "SCOPE_EXCEPT_001",
      "char_start": 2574,
      "char_end": 2583,
      "value": "Except as"
     }
    ]
   }
  ],
  "status_summary": {
   "SATISFIED": 1,
```

```
    "OPEN": 4,
    "CONTRADICTED": 0,
    "AMBIGUOUS": 0
  }
}
```

ddrp-v0.2.0-operators-6abbeca0-c2dfd6e8-2026-02-01T00-49-56-490Z.json


```
{
  "version": "0.1.0",
  "pattern_count": 49,
  "matches": [
    {
      "op_type": "UNIV",
      "pattern_id": "UNIV_NO_001",
      "char_start": 632,
      "char_end": 634,
      "matched_text": "no",
      "captures": {
        "quantifier": "no"
      },
      "metadata": {}
    },
    {
      "op_type": "UNIV",
      "pattern_id": "UNIV_NO_001",
      "char_start": 972,
      "char_end": 974,
      "matched_text": "no",
      "captures": {
        "quantifier": "no"
      },
      "metadata": {}
    },
    {
      "op_type": "UNIV",
      "pattern_id": "UNIV_NO_001",
      "char_start": 993,
      "char_end": 995,
      "matched_text": "no",
      "captures": {
        "quantifier": "no"
      },
      "metadata": {}
    },
    {
      "op_type": "UNIV",
      "pattern_id": "UNIV_NO_001",
      "char_start": 1011,
      "char_end": 1013,
      "matched_text": "no",
      "captures": {
```

```
    "quantifier": "no"
   },
   "metadata": {}
  },
  {
   "op_type": "ANCHOR",
   "pattern_id": "ANCHOR_URL_001",
   "char_start": 1087,
   "char_end": 1170,
   "matched_text": "https://legiscan.com/CA/text/AB853/id/3131871/California-2025-AB853-Introduced.html",
   "captures": {
    "url": "https://legiscan.com/CA/text/AB853/id/3131871/California-2025-AB853-Introduced.html"
   },
   "metadata": {}
  },
  {
   "op_type": "REQ",
   "pattern_id": "REQ_SHALL_001",
   "char_start": 1320,
   "char_end": 1325,
   "matched_text": "shall",
   "captures": {
    "keyword": "shall"
   },
   "metadata": {
    "strength": "hard",
    "negated": false
   }
  },
  {
   "op_type": "UNIV",
   "pattern_id": "UNIV_NO_001",
   "char_start": 1365,
   "char_end": 1367,
   "matched_text": "no",
   "captures": {
    "quantifier": "no"
   },
   "metadata": {}
  },
  {
   "op_type": "UNIV",
   "pattern_id": "UNIV_ALL_001",
   "char_start": 1396,
   "char_end": 1399,
```

```
  "matched_text": "all",
  "captures": {
    "quantifier": "all"
  },
  "metadata": {}
 },
 {
  "op_type": "UNIV",
  "pattern_id": "UNIV_ANY_001",
  "char_start": 1523,
  "char_end": 1526,
  "matched_text": "any",
  "captures": {
    "quantifier": "any"
  },
  "metadata": {}
 },
 {
  "op_type": "UNIV",
  "pattern_id": "UNIV_ANY_001",
  "char_start": 1634,
  "char_end": 1637,
  "matched_text": "any",
  "captures": {
    "quantifier": "any"
  },
  "metadata": {}
 },
 {
  "op_type": "UNIV",
  "pattern_id": "UNIV_ANY_001",
  "char_start": 1723,
  "char_end": 1726,
  "matched_text": "any",
  "captures": {
    "quantifier": "any"
  },
  "metadata": {}
 },
 {
  "op_type": "ANCHOR",
  "pattern_id": "ANCHOR_CITATION_PAREN_001",
  "char_start": 2113,
  "char_end": 2118,
  "matched_text": "(URL)",
```

```
  "captures": {
    "citation": "(URL)"
  },
  "metadata": {}
},
{
  "op_type": "REQ",
  "pattern_id": "REQ_SHALL_001",
  "char_start": 2324,
  "char_end": 2329,
  "matched_text": "shall",
  "captures": {
    "keyword": "shall"
  },
  "metadata": {
    "strength": "hard",
    "negated": false
  }
},
{
  "op_type": "UNIV",
  "pattern_id": "UNIV_ANY_001",
  "char_start": 2459,
  "char_end": 2462,
  "matched_text": "any",
  "captures": {
    "quantifier": "any"
  },
  "metadata": {}
},
{
  "op_type": "REQ",
  "pattern_id": "REQ_SHALL_NOT_001",
  "char_start": 2531,
  "char_end": 2540,
  "matched_text": "shall not",
  "captures": {
    "keyword": "shall not"
  },
  "metadata": {
    "strength": "hard",
    "negated": true
  }
},
{
```

```
  "op_type": "UNIV",
  "pattern_id": "UNIV_ANY_001",
  "char_start": 2544,
  "char_end": 2547,
  "matched_text": "any",
  "captures": {
   "quantifier": "any"
  },
  "metadata": {}
 },
 {
  "op_type": "SCOPE",
  "pattern_id": "SCOPE_EXCEPT_001",
  "char_start": 2574,
  "char_end": 2583,
  "matched_text": "Except as",
  "captures": {
   "scope_phrase": "Except as"
  },
  "metadata": {}
 },
 {
  "op_type": "ANCHOR",
  "pattern_id": "ANCHOR_PURSUANT_TO_001",
  "char_start": 2814,
  "char_end": 2825,
  "matched_text": "pursuant to",
  "captures": {
   "anchor_phrase": "pursuant to"
  },
  "metadata": {}
 },
 {
  "op_type": "ANCHOR",
  "pattern_id": "ANCHOR_PURSUANT_TO_001",
  "char_start": 2938,
  "char_end": 2949,
  "matched_text": "pursuant to",
  "captures": {
   "anchor_phrase": "pursuant to"
  },
  "metadata": {}
 },
 {
  "op_type": "REQ",
```

```
  "pattern_id": "REQ_SHALL_001",
  "char_start": 2961,
  "char_end": 2966,
  "matched_text": "shall",
  "captures": {
    "keyword": "shall"
  },
  "metadata": {
    "strength": "hard",
    "negated": false
  }
},
{
  "op_type": "UNIV",
  "pattern_id": "UNIV_ONLY_001",
  "char_start": 2975,
  "char_end": 2979,
  "matched_text": "only",
  "captures": {
    "quantifier": "only"
  },
  "metadata": {}
},
{
  "op_type": "UNIV",
  "pattern_id": "UNIV_ANY_001",
  "char_start": 3073,
  "char_end": 3076,
  "matched_text": "any",
  "captures": {
    "quantifier": "any"
  },
  "metadata": {}
},
{
  "op_type": "UNIV",
  "pattern_id": "UNIV_ANY_001",
  "char_start": 3189,
  "char_end": 3192,
  "matched_text": "any",
  "captures": {
    "quantifier": "any"
  },
  "metadata": {}
},
```

```
    {
      "op_type": "ANCHOR",
      "pattern_id": "ANCHOR_URL_001",
      "char_start": 3277,
      "char_end": 3360,
      "matched_text": "https://legiscan.com/CA/text/AB853/id/3131871/California-2025-AB853-Introduced.html",
      "captures": {
        "url": "https://legiscan.com/CA/text/AB853/id/3131871/California-2025-AB853-Introduced.html"
      },
      "metadata": {}
    }
  ],
  "input_hash": "6abbeca0"
}
```