ARF Provenance Engine

Reading a signed history of agent work

Two engineers looking at the same change can mean different things by “the previous step.” One means the record immediately before the commit in a log. The other means the review that authorized it. In a concurrent job those may be different events.

Preserve both relationships

The native record wraps an event, its leaf hash, the key identifier and an Ed25519 signature. The writer assigns a sequence and signs the canonical event bytes. Ledger parents bind the event to its history. A producer can also name the earlier work that led to an action. An agent deleting a test fixture, for example, can cite the completed test and the reviewer who released it for cleanup.

Pick a cleanup operation with several prerequisites. One ledger predecessor explains when cleanup was recorded. Its work parents explain why it happened. Both views point at the same line of JSONL. A line number can help a reader find it in one download, while the event ID and signed digest identify the record across copies.

Verify a real export

The protocol reference includes six native ARF records for three notify actions to numbered test targets. For each, the writer records a policy decision and an unfulfilled dispatch because no signed result came back. Use the trust file and verifier to check the signed bytes, sequence and parent references.

The Decision Press file-review example contains 45 signed events, 57 links between dependent actions and 44 links to preceding ledger entries. In its JSONL, event.payload.causes carries the work links. Select the deletion to find the file’s last bytes and the decision that allowed cleanup.

Ask what the observation establishes

An executor can attest that it sent a command. A target readback can attest that a value changed. A signature identifies who recorded each claim. Preserve the source and time of each observation so a later reviewer can decide whether it answers their question. For stronger custody, compare the export with a commitment held by an independent witness.

Finding the right edge

Question	Signed field	Interpretation
Which record is this?	event.event_id and leaf_hash	A stable event identity and commitment to the canonical event.
Which history contains it?	event.parents and event.sequence	The writer's ledger ancestry and sequence.
What earlier work led here?	The producer's signed payload	Look for a reference to the request, review or result that prompted this action.
Whose claim am I checking?	key_id and signature	The signature checked against a chosen trust record.

Sources and evidence

JSONL specification and native records · Signed fixture-review history · Inspect a native checkpoint