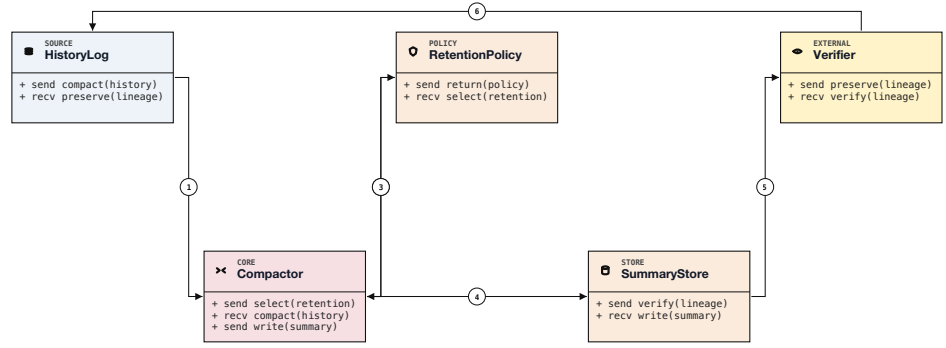
P27 Lineage and threshold compaction

Primitive · A² A3 · funnel role collaboration

Bound history while retaining useful state.

STRUCTURE · PARTICIPANT COLLABORATION



PATTERN INTERFACE

context
History approaches a context or count threshold before a model call.

trigger
A compaction policy activates.

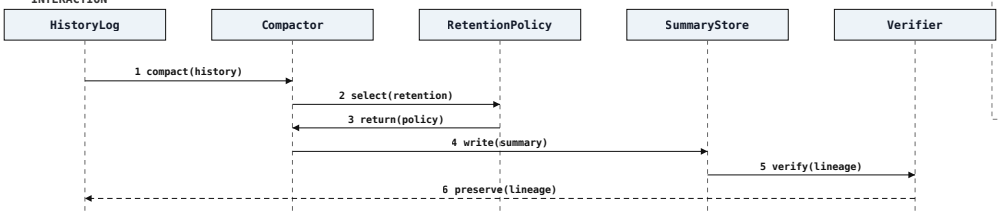
structure
Threshold, selection strategy, summarizer or truncator, and lineage metadata.

effect
Model input is reduced while retained and removed evidence remains attributable.

CONTRACT ANNOTATIONS

requires	Context usage, protected items, and eviction policy are available.
ensures	The replacement fits the target and records what replaced which history.
invariant	Required system, safety, or current-task evidence is not silently evicted.
violation	Summary failure, threshold conflict, or empty projection falls back explicitly.

INTERACTION



MESSAGE TRACE `1 compact(history) → 2 select(retention) → 3 return(policy) → 4 write(summary) → 5 verify(lineage) → 6 preserve(lineage)`

Evidence: 39/41 repositories, 35/36 families; 39 trajectories (18 multi-checkpoint); exact audit: not sampled.

Variation: Message count, token budget, oldest-first, protected groups, remote or local.

Negative control: A generic text truncate utility is not compaction without lineage.