

Finish Book Plan (v1.0) — Full System Specification and Technical Rules

1. Purpose of Finish Book

The Finish Book Plan is Politeia's primary planning mode for completing a specific book. Its purpose is to transform a static book object into a dynamic execution calendar that:

- distributes reading effort into scheduled sessions,
- tracks real reading through stopwatch evidence,
- locks past performance permanently,
- adapts the future workload continuously,
- enforces failure when the plan becomes unrealistic.

Finish Book is a commitment system: the past is frozen, failure is recorded, and only the future can be adjusted.

2. Core Philosophy: The Plan Has Memory

Past sessions become historical facts. They are never recalculated or erased (Freeze the Past invariant).

3. Key Entities and Database Tables

Evidence Layer — wp_politeia_reading_sessions (source of truth for actual reading).

Scheduling Layer — wp_politeia_plans, wp_politeia_plan_goals, wp_politeia_planned_sessions.

4. Plan Creation: Initial Distribution

Effective Pages: $Pe = pf - pi + 1$

Sessions Needed: $St = \text{ceil}(Pe / ps)$

Derivation Engine: PlanSessionDeriver::derive_sessions()

5. Execution Layer: Stopwatch-Based Completion

Reading counts only if logged in wp_politeia_reading_sessions.

6. Session State Machine

planned (editable future), accomplished, partial, missed (immutable past).

7. Daily Closure: Lazy Settlement Engine

PlanSettlementEngine::settle() runs when user interacts (no per-user cron).

8. Timezone Correctness

Sessions close at 23:59:59 in the user's timezone.

9. Determining Session Outcome

$A=0 \Rightarrow$ missed

$0 < A < E \Rightarrow$ partial

$A \geq E \Rightarrow$ accomplished

10. Redistribution of Workload

Deficits carry forward, excess reduces future load. Uniform redistribution.

11. Editing Rules

Users can only edit future planned sessions. Past is protected.

12. Missed Sessions Are Eternal

Missed remains as permanent record.

13. Failure Threshold

If future expected session > threshold (default 120 pages), plan fails.

14. Plan Completion

All sessions settled and pages completed => plan.status = finished.

15. Guarantees

Evidence-based reading, immutable past, adaptive future, timezone-correct closure, enforced failure.