Repertoire Practice Management (RPM)

Integrated with the String Instrument Practice Framework (SIPF)
Design Overview – v0.1

1. Overview

Repertoire Practice Management (RPM) is a structured system for acquiring, stabilizing, and retaining a large repertoire of technically demanding musical works over long time horizons. It treats repertoire as a portfolio of assets subject to decay, rather than a static list of songs.

2. System Summary

Core Principles

• Repertoire and exercises are distinct but integrated.
• Decay is expected and explicitly managed.
• ProblemSections are the atomic unit of work.
• Cheap maintenance beats heroic relearning.
• Fatigue constraints are non-negotiable.

Repertoire States

NEW, ACQUIRE, FRAGILE, STABLE, LEGACY, ARCHIVED. FRAGILE items receive highest priority outside of hard deadlines.

Portfolios

Acquisition Portfolio (growth-focused) and Maintenance Portfolio (retention-focused). Acquisition is throttled if maintenance minimums are not met.

ProblemSections

Each ProblemSection defines severity, technique tags, tempo ceiling, and failure modes. All exercise selection flows from active ProblemSections.

Maintenance Tiers

Tier 0: Memory Probe (0.5–2 min)
Tier 1: Section Refresh (2–8 min)
Tier 2: Skeleton Run (5–12 min)
Tier 3: Full Performance (song-length, validation only)

Decay Model

FAST (3–5 days), MED (7–14 days), SLOW (21–45 days). Intervals expand or contract based on PASS, CLEAN, SHAKY, or FAIL outcomes, with FRAGILE items capped to prevent neglect.

Scheduler Invariants

- Maintenance scheduled first
- Decay outranks difficulty
- Sections outrank songs
- Lowest effective tier always preferred
- Fatigue limits are enforced via SIPF

3. Appendix: Next Steps

Immediate
- Define canonical TechniqueTag taxonomy
- Define finite failure-mode list
- Run FRAGILE-only Tier 1 sessions

Short-Term
- Encode minimal JSON data model
- Formalize scheduler interface
- Add lightweight session logging

Medium-Term
- Automatic exercise selection from TechniqueTags
- Weekly planning layer
- Legacy repertoire bootstrap via Tier 0 probes

Future / Optional
- Visualization of decay and risk
- Individual decay-rate estimation
- Tooling only after habits stabilize