# **Lean pre-coding sheet — 80/89**

**Component:** crates/vm\_app/src-tauri/Cargo.toml (Tauri backend manifest)  
 **Version/FormulaID:** VM-ENGINE v0

## **1) Goal & success**

**Goal:** Define the Tauri **backend crate** manifest for the desktop app; pin deps; respect offline/determinism rules; target Win/macOS/Linux (x86-64/arm64).

**Success:** cargo build -p vm\_app/src-tauri --locked succeeds on all targets; runtime has **no network/telemetry**; assets (fonts/styles/tiles) are bundled.

## **2) Scope**

**In:** [package] meta; [dependencies] (tauri + app crates); [features] passthrough (e.g., report-html, frontier); profiles/determinism hints.

**Out:** UI build (vite/npm), map assets, filesystem policy (lives in tauri.conf.json), app Rust code (src-tauri/src/main.rs). Security posture and CI belong to Doc 3B.

## **3) Inputs → outputs**

**Inputs:** Workspace toolchain pin; Cargo.lock; local UI bundle under ui/; MapLibre assets (tiles/styles) packaged.

**Outputs:** Desktop backend binary packaged by Tauri; no external asset fetch at runtime.

## **4) Entities/Tables (minimal)**

## **5) Variables (only ones used here)**

## **6) Functions (signatures only)**

N/A (manifest).

## **7) Algorithm outline (what the manifest enforces)**

Pin **Rust toolchain** and crate versions; --locked builds only.

Depend on **tauri** and internal crates (vm\_report, vm\_core, etc.) with features gated.

Ensure **offline** runtime: no telemetry, no network; bundle fonts/styles/tiles.

Target Win/macOS/Linux, x86-64/arm64 (CI matrix will enforce).

## **8) State flow (very short)**

Manifest → compile backend → Tauri packages app with **local** assets. No pipeline semantics here; adheres to platform/offline rules used by reports.

## **9) Determinism & numeric rules**

Canonical serialization and hashing rules apply to artifacts the app emits; manifest itself must not introduce nondeterminism (no build-time net, fixed versions, stable ordering).

## **10) Edge cases & failure policy**

**Build scripts** or deps that attempt network access under --locked → fail the build (policy).

Filesystem scope and shell commands are restricted by Tauri config (security posture); treat violations as packaging errors, not code paths.

## **11) Test checklist (must pass)**

cargo build -p vm\_app/src-tauri --locked OK on Windows/macOS/Ubuntu; x86-64 and arm64.

Runtime checks: no telemetry/network; fonts/styles/tiles are local.

Changing critical math/serialization deps triggers determinism re-cert (6C-020).