# **Pre-Coding Essentials (Component: LICENSE, Version/FormulaID: VM-ENGINE v0) — 10/89**

## **1) Goal & Success**

Goal: Choose and apply clear, compatible licensing for **code, docs/specs, schemas, fixtures, and assets** so downstream use is unambiguous and CI can enforce it.

Success: Single LICENSE (and NOTICE if needed) covers code; separate notices clarify docs/data/assets; all files have SPDX headers; cargo-deny (or equivalent) passes.

## **2) Scope**

In scope: Top-level license for **code**, license statements for **Docs 1–7 & Annex A/B**, **schemas**, **fixtures**, **UI assets** (tiles/icons), third-party attributions.

Out of scope: Dependency licenses (validated via tooling), contributor agreements.

## **3) Inputs → Outputs**

Inputs: Repository contents (crates/\*, schemas/\*, fixtures/\*, docs/\*, UI assets).

Outputs: LICENSE (primary), optional NOTICE, short per-folder LICENSE or COPYING files where license differs (schemas/fixtures/assets).

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

*(Short, keywords only.)*

## **5) Variables**

## **6) Functions**

(None.)

## **7) Algorithm Outline**

**Pick code license**: Dual license Apache-2.0 OR MIT. Write combined text in top-level LICENSE (both), or LICENSE-APACHE + LICENSE-MIT with a short LICENSE pointer.

**Docs/specs**: Add docs/LICENSE with **CC BY 4.0** text; add header note to each Doc 1–7 / Annex A/B.

**Schemas**: Add schemas/LICENSE (prefer **CC0-1.0** for maximal reuse). Include SPDX headers in schema files via comment fields (if allowed) or README note.

**Fixtures**: Add fixtures/LICENSE (**CC0-1.0**). Mention that hashes/expected results are non-copyrightable facts.

**Assets**: Add crates/vm\_app/ui/public/LICENSES.md listing each third-party style/font/icon with required attribution and URLs; include any provider NOTICE (e.g., MapLibre style/tiles).

**SPDX headers**: Add SPDX-License-Identifier to all source files (.rs, .toml, .ts, etc.).

**NOTICE** (optional): If Apache-2.0 used, create NOTICE summarizing copyrights/trademarks.

**CI/license check**: Configure cargo-deny (or equivalent) to fail on incompatible deps and verify SPDX headers present.

## **8) State Flow**

Reader sees clear top-level license; subfolders with different terms have explicit LICENSE/LICENSES.md. Build/test includes a license audit step.

## **9) Determinism & Numeric Rules**

N/A. (This file supports policy, not computation.)

## **10) Edge Cases & Failure Policy**

**Vendored deps**: keep upstream LICENSE files in vendor/.

**Map tiles / fonts**: ensure redistribution rights; if not redistributable, exclude from repo and document fetch procedure.

**Generated outputs**: artifacts/ remain unlicensed build products; not committed.

**Mixed content**: if any doc embeds code, clarify that code snippets are Apache-2.0/MIT while prose is CC BY 4.0.

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

grep finds SPDX headers in all source files.

License audit passes (no copyleft-incompatible crates unless intentionally allowed).

Docs/schemas/fixtures folders contain their LICENSE files.

UI assets have LICENSES.md with attributions; app “About” screen shows required credits.

Packaging (dist/) includes relevant LICENSE/NOTICE files.