# **Pre-Coding Essentials (Component: .gitattributes, Version/FormulaID: VM-ENGINE v0) — 6/89**

## **1) Goal & Success**

Goal: Enforce **LF line endings** and binary/text classification so canonical artifacts (JSON, schemas, results) are byte-identical across OS.

Success: No CRLF sneaks in; JSON/MD/RS/TS files normalized to LF; binaries never diff/normalize; result/run\_record hashes stable across clones.

## **2) Scope**

In scope: line-ending policy, text/binary classification, optional diff hints.

Out of scope: formatting rules (.editorconfig), repo ignores (.gitignore).

## **3) Inputs → Outputs**

Inputs: Source tree (Rust, JSON, MD, HTML/TS), fixtures, map tiles, icons.

Outputs: Consistent checkout/commit normalization; stable bytes for hashing.

## **4) Entities/Tables**

## **5) Variables**

## **6) Functions**

(None.)

## **7) Algorithm Outline (rules to include)**

Place these entries (specific → generic):

gitattributes

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# --- Canonical text (force LF) ---

\*.rs text eol=lf

\*.toml text eol=lf

\*.md text eol=lf

\*.json text eol=lf

\*.yml text eol=lf

\*.yaml text eol=lf

\*.txt text eol=lf

\*.html text eol=lf

\*.css text eol=lf

\*.ts text eol=lf

\*.tsx text eol=lf

\*.js text eol=lf

\*.csv text eol=lf

# Ensure schemas/fixtures/results are always LF (hash stability)

schemas/\*\* text eol=lf

fixtures/\*\* text eol=lf

artifacts/\*\*/\*.json text eol=lf

# --- Binary assets (never normalize or diff) ---

\*.png binary

\*.jpg binary

\*.jpeg binary

\*.webp binary

\*.ico binary

\*.gif binary

\*.pdf binary

\*.zip binary

\*.tar binary

\*.tar.gz binary

\*.tgz binary

\*.wasm binary

\*.mbtiles binary # map tiles DB

# --- Lockfiles & vendor blobs (treat as text but LF) ---

Cargo.lock text eol=lf

crates/vm\_app/ui/package-lock.json text eol=lf

crates/vm\_app/ui/pnpm-lock.yaml text eol=lf

crates/vm\_app/ui/yarn.lock text eol=lf

vendor/\*\* -text # keep bytes as-is if you vendor exact upstream tarballs

# --- Optional: nicer diffs (only if diff drivers configured) ---

#\*.json diff=json

## **8) State Flow**

On checkout/commit, Git applies attributes → text files normalized to LF, binaries untouched → canonical bytes preserved for hashing and cross-OS determinism.

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

Determinism: LF-only for all normative text; binaries never normalized. (No numeric rules here.)

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

On Windows, set git config core.autocrlf false to avoid conflicts; .gitattributes still enforces LF.

If you must keep exact upstream bytes (e.g., vendored tarballs) under vendor/, mark -text to prevent normalization.

Don’t mark JSON as binary—report generation relies on readable diffs during review.

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

git add on Windows/macOS/Linux does **not** show CRLF warnings for tracked text.

git grep -n $'\r' -- . ':(exclude)vendor' returns nothing.

Recompute result.json/run\_record.json on two OSes → identical hashes.