# PRUFIA – Echo Dual Memory Integration + Developer Plug-and-Play Guide

🔐 Echo Comparison Protocol – Human Trust vs AI Wall

## 🎯 Purpose

This module enables Echo to make trust decisions by comparing raw document traits against two behavioral fingerprint banks: (1) the Human Trust Fingerprint Bank (TFB) and (2) the AI Wall Trap Bank.

## 🧬 Trust Fingerprint Bank (TFB)

• A JSON or embedded data file containing signal traits from known human-authored documents  
• Traits are stored as dictionaries with acceptable value ranges for each input (SF, SM, PF, etc.)  
• Used to confirm that a document exhibits real human rhythm and structure

## 🧱 AI Wall Trap Bank

• A JSON or embedded data file containing signal patterns seen in known AI-generated or mimic documents  
• Used to red-flag documents with high mimic signature density

## 🔁 Echo Decision Logic (Live Protocol)

When a teacher uploads a document:  
1. Extract SF, SM, PF, EB, TT, MC, PGFI using prufia\_raw\_human\_extractor.py  
2. Echo loads both fingerprint banks  
3. Compare fingerprint to Human TFB:  
 - If document matches at least one valid human trait cluster → return GREEN  
4. Compare fingerprint to AI Wall Trap Bank:  
 - If document matches at least one AI trait cluster → return RED  
5. If fingerprint is ambiguous or mixed:  
 - Send to MDT, Drift, Fusion, HTL for tiered override/rescue decision

## ✅ Dev Integration Instructions

• Use `prufia\_raw\_human\_extractor.py` for raw trait pull (already installed)  
• Load `human\_trust\_fingerprint\_bank.json` and `ai\_wall\_trap\_bank.json` into memory  
• Echo should loop through both:  
 - Match = True if fingerprint aligns with known cluster signature  
• Return final status: 'green', 'red', or 'gray'  
• Ensure no baseline scoring is active in Echo logic

## 📁 File Reference (included in bundle)

• prufia\_raw\_human\_extractor.py  
• human\_trust\_fingerprint\_bank.json  
• ai\_wall\_trap\_bank.json  
• PRUFIA\_Raw\_Human\_Extractor\_DevGuide.docx  
• PRUFIA\_Echo\_DualMemory\_Guide.docx (this file)

Protocol authored by Sentinel. Locked for deployment under Alvin’s clearance model.