

# Tier 1 Sandbox (DeFi) — Steps 2, 3, 4

Goal: Run DeFi MVP with synthetic latents using matched filter + Stage 10 parser only, while keeping Stage 11/WDD and ARC paths intact for Tier 2.

## Step 2 — Disable WDD/Denoiser in MVP

Set rails to bypass Warp→Detect→Denoise. Keep the parser path active.

Policy JSON (sandbox profile):

```
{ "rails": { "denoise": false, "use_wdd": false }, "ltv_max": 0.75, "mapper": { "model_path": ".artifacts/defi_mapper.joblib", "confidence_threshold": 0.7 }, "oracle": { "age_sec": 5, "max_age_sec": 30 } }
```

CLI example:

```
python3 milestones/defi_milestone2.py --rails stagell --runs 5 --policy "$(cat configs/tier1_mvp.json)" --context '{"oracle":{"age_sec":5,"max_age_sec":30}}'
```

## Step 3 — Encapsulate Configs (No Code Changes)

Introduce a small config switch to route around Stage 11. Prefer environment variable for quick toggling.

Environment variable:

```
SANDBOX=1 # enables matched filter+parser only mode
```

Optional policy merge override:

```
POLICY_OVERRIDES='{"rails":{"denoise":false,"use_wdd":false}}'
```

Makefile target (excerpt):

```
mvp_all: python3 milestones/defi_milestone1.py --rails stagell --policy "$(cat configs/tier1_mvp.json)" python3 milestones/defi_milestone2.py --rails stagell --runs 5 --policy "$(cat configs/tier1_mvp.json)" python3 milestones/defi_milestone4.py --rails stagell --runs 5 --policy "$(cat configs/tier1_mvp.json)" python3 milestones/defi_milestone5.py --rails stagell --runs 5 --policy "$(cat configs/tier1_mvp.json)"
```

## Step 4 — Preserve Tier 2 Hooks (No Ops in Sandbox)

Keep the Stage 11 functions present but inert when SANDBOX=1.

Pseudocode shim (rails module):

```
def warp(latents, policy): if os.getenv("SANDBOX") == "1" or policy.get("rails", {}).get("use_wdd") is False: return latents # no op return warp_impl(latents, policy) def detect(traces, policy): if os.getenv("SANDBOX") == "1" or policy.get("rails", {}).get("use_wdd") is False: return stock_matched_filter(traces) # Stage 10 path return detect_impl(traces, policy) # Stage 11 def denoise(state, policy): if os.getenv("SANDBOX") == "1" or policy.get("rails", {}).get("denoise") is False: return state # no op return denoise_impl(state, policy)
```

Contract to keep stable:

- Stock parser API unchanged: returns (keep, order, confidence).

- Verifier interface returns {'ok': bool, 'reason': str} across all paths.
- Aux hooks (aux.stage10/aux.stage11) optional; sandbox mode may omit them without failing tests.

## Smoke Tests to Validate Sandbox

- 1 M1: Non-exec prompt abstains (empty plan or verify.ok=False with reason='abstain\_non\_exec').
- 2 M2: Five repeated runs yield identical top1 (denoise off).
- 3 M4: Blocked actions (withdraw\_high\_ltv, borrow\_low\_hf) set verify.ok=False with reasons containing 'ltv'/'hf'.
- 4 M5: Consolidated suite passes with policy rails.denoise=false, rails.use\_wdd=false.