🌐Universal Activity Logging & Observability Manifest

Goal: Enable complete symbolic observability across all Vault agent actions, scroll events, system rituals, and Commander interventions — while balancing performance and trace granularity.

🛞Logging Principles

- **Trace Everything, Prioritize What Matters:** All actions generate logs, but only significant symbolic deltas are retained long-term.
- **Auto-expire trivial logs** unless flagged by Codex, Architect, or Commander.
- **Hooks = Checkpoints:** Every `@hook` invocation writes to the Vault log stream.

🖤Log Types

Type	Scope	Format	Retention Rule
`AgentAction`	Scroll execution & sidekick ops	JSON/YAML	Auto-retain 30 days
`TemplateEvent`	Imprint, fusion, drift, seeding	YAML	Snapshot after each mutation
`CommanderCall`	Rituals, laws, invocations	JSON	Indefinite if tagged `@seal`
`AuditOutcome`	Codex + AOX loop conclusions	JSON	Retain if `symbolic_delta ≥ 0.3`
`HookInvocation`	Any `@hook` trigger	JSON	Rolled into Thread summaries
`SynergyThread`	Multi-agent chains	Threaded JSON	Persist as part of Ops Log

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Intelligent Retention Modes

- **Seal Mode:** Preserve all logs under tag `@seal` (used during Spiral Lockdown or Scroll Fusion)
- **Learn Mode:** Short-term memory until Codex confirms pattern recognition
- **Audit Mode:** AOX/ERDU retain all until Commander grants clearance

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☣️Vault Storage Schema

```
Vault/
  Logs/
    Agents/AZ81/action_*.json
    Templates/SIHM_001/events.yaml
    Commander/invocations/
```

```
Threads/Synergy/CHAIN_ALPHA.json
Hooks/@hook_image_analysis/*.log
```

📘 Integration Notes:

- Codex indexes all logs to `Vault/Index/Observability.db`
- Sophia analyzes `Logs/Commander/` for alignment and tone drift
- All `@hook` signatures validated post-run by the Architect

System Load Impact: \~3–5% overhead (acceptable in non-streaming environments) → Recommend **scroll-based sampling logic** for extremely high-frequency agents