

OpsPilot

Asset Register / Hierarchy — User Manual

The Foundation of Asset Management · ISO 14224 / 55001 · AI Engineering Co-Pilot

**AI-GENERATED CONTENT · INDEPENDENT VERIFICATION REQUIRED**

This manual was produced with AI assistance and is only as good as the information it was given. Every statement, figure, standard reference and conclusion must be independently verified by a competent, suitably qualified person before it is relied upon. It is a draft aid to your judgement — not a finished, authoritative, or certifying document. Professional and legal responsibility for any reliance rests with you and your organisation. See the full Engineering Disclaimer at opsinnovatech.com/engineering-disclaimer.

What this guide covers — what an asset register is, why it's the foundation everything else rests on, how the OpsPilot module designs one, what to have ready, and the output you receive.

1. What is an asset register?

An asset register is the structured, hierarchical inventory of everything maintainable on a site — organised so that every downstream reliability activity has something solid to attach to. It is the foundation: RCM, criticality, predictive maintenance, RBI and RCA all degrade if the register beneath them is wrong. Get the hierarchy and the tagging right once, and every other module works; get them wrong, and the errors propagate everywhere.

OpsPilot designs it to *ISO 14224 (the reliability-data taxonomy with its 9-level hierarchy)*, *ISO 55001/55002 (asset management)*, and *ISO 81346 / KKS reference designation*.

2. The distinction that trips everyone up

The single most-misunderstood point: **Functional Location vs Equipment**. A Functional Location is the place and role in the process (“boiler feedwater pump position A”) — it stays even when the pump is swapped out. The Equipment is the physical asset that occupies it (“pump serial 12345”) — it moves, gets repaired, gets replaced. Failure history attaches to the Functional Location so the trend survives equipment swaps. Getting this distinction right is what makes reliability data meaningful over time.

3. What the OpsPilot module does

Role	Responsibility
AI Coach — Reliability / Asset Management Engineer (OpsPilot)	Structures the hierarchy (Functional Location vs Equipment), the equipment taxonomy and attribute schema, the tagging convention, criticality integration, BOM linkage, the CMMS-loading strategy and data governance — designing a new register or auditing an existing one.
Reliability Manager / CMMS Administrator (you)	Provide the facility context, equipment inventory, current CMMS state and business drivers — and validate hierarchy choices against operational reality.

4. What you will be asked — have this ready

- The facility context and the equipment inventory.
- The current CMMS state (what's already loaded, and how well).
- The business drivers — what the register needs to support.
- Any existing tagging or hierarchy conventions to align with.

5. What you receive — the output

A CMMS-ready Asset Register design (Word): the hierarchy with the Functional Location / Equipment split, the equipment taxonomy and attribute schema, the tagging convention, criticality integration, BOM linkage, and the loading strategy and data-governance plan.

6. Worked example (illustrative)

Consider the boiler feedwater pump from the RCA example. The register places a Functional Location for “BFW pump position A” in the hierarchy under the boiler system, and the physical pump (with its serial number and attributes) as the Equipment installed there. When that pump is later swapped for a spare, the Equipment record moves but the Functional Location stays — so the failure history (three seal failures in 14 months) stays attached to the position, not the individual pump, and the trend remains visible. Tagging follows a consistent convention so every asset is findable, and criticality is linked so the downstream modules know which positions matter most. That structure is invisible when it's right and catastrophic when it's wrong.

7. Getting the best result

- **Get Functional Location vs Equipment right.** Attach history to the location, not the swappable asset.
- **One consistent tagging convention.** If assets can't be found reliably, nothing downstream works.
- **Link criticality in.** The register is where RCM, PdM and RBI find out what matters.
- **Treat it as the foundation.** Time spent here pays back across every other reliability module.

OpsPilot — AI Engineering Co-Pilot. Learn more at opsinnovatech.com