

AI Asterion | ASSETVAULT

Asset Lifecycle Management for Mining

One source of truth for every physical asset — from pit to plant.

EXECUTIVE SUMMARY

Mining asset data is scattered across ERP, spreadsheets, CMMS platforms and engineering drawings. No single team holds a complete picture of what exists, where it sits in its lifecycle, or what strategy applies.

- AssetVault unifies register, hierarchy, lifecycle and documentation into one operational environment for every site.
- Risk-based criticality ranks each asset — driving maintenance priority, inspection frequency and investment decisions.
- Condition, criticality and lifecycle data feed long-range capital planning — so assets are neither run to failure nor replaced too early.

WHY IT MATTERS FOR MINING

Heavy fleets are capital-intensive and unforgiving of blind spots. AssetVault gives management the visibility to control spend, close compliance gaps and plan capital with confidence.

- 100% asset visibility across all sites, hierarchies and lifecycle stages.
- Built on ISO 55000, PAS 55 and ISO 14224 asset-management frameworks.

WHAT THE PLATFORM ENABLES

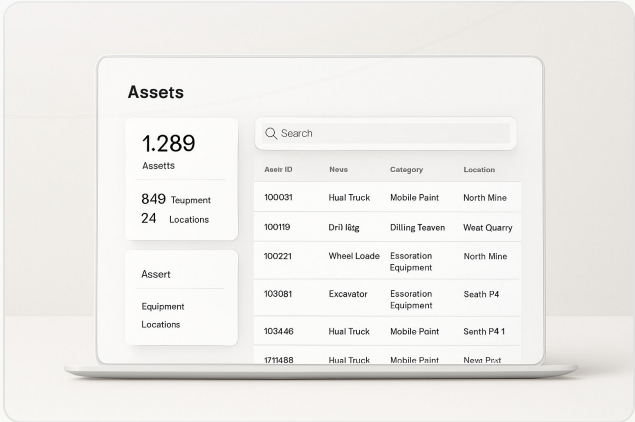
- 1 A centralised digital register of all physical assets
- 2 Multi-level hierarchy from enterprise to component
- 3 Lifecycle tracking with configurable stage gates
- 4 Risk-based criticality scoring
- 5 Documentation linked directly to each asset
- 6 Long-range capital planning and forecasting

OUTCOMES FOR MANAGEMENT

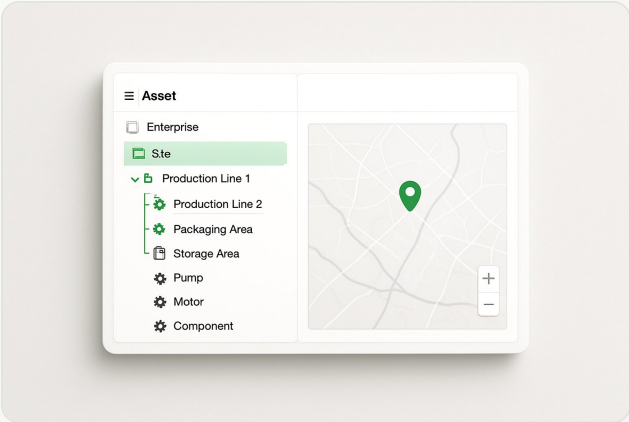
- 15%+ maintenance cost reduction
- Fewer premature replacements and run-to-failure events
- Audit-ready records that close compliance gaps
- Capital forecasts grounded in condition and criticality

Six Integrated Capabilities. One Unified Platform.

AssetVault is the foundational data layer of the Asterion suite. Asset data does not live in isolation — it drives reliability, inspection and shutdown decisions across the operation.



1 Asset Registry



2 Hierarchy Modelling



3 Criticality Scoring

CAPABILITY

1



Asset Registry
Unique identifiers, classifications and location mapping across every site

2



Hierarchy Modelling
Enterprise to component, in functional, location and financial views

3



Lifecycle Tracking
Commissioning to decommissioning with configurable stage gates

WHAT IT DELIVERS

→

What assets do we own and where are they?

→

How does each asset roll up?

→

Where is each asset in its life?

CAPABILITY

4



Criticality Scoring
Configurable risk matrices driving priority and inspection frequency

5



Documentation
Drawings, certificates and datasheets linked to each asset

6



Capital Planning
Replacement and refurbishment forecasting from condition and criticality

WHAT IT DELIVERS

→

Which assets carry the most risk?

→

Is the record current and accessible?

→

What must we invest, and when?

 **ALIGNED TO GLOBAL ASSET-MANAGEMENT STANDARDS**

 ISO 55000 / 55001 / 55002

 PAS 55

 ISO 14224

 API RP 580

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PRODUCT OVERVIEW

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Asset Data Is Broken Across the Enterprise

Fragmented asset data is not an IT inconvenience — it is a direct cost. In mining, blind spots translate into idle fleets, deferred capital decisions and audit exposure.

\$5k–10k/hr

lost output per idle haul truck (industry estimate)

100%

asset visibility delivered by AssetVault

15%+

maintenance cost reduction

 PLANNING BLIND SPOTS

1

Incomplete visibility defers decisions

2

Capital estimates drift and overrun

3

No shared picture of lifecycle status

 COMPLIANCE GAPS

1

Fragmented documentation fails audits

2

Regulatory exposure across equipment classes

3

Records that cannot be trusted on demand

 AVOIDABLE CAPITAL SPEND

1

Assets replaced prematurely

2

Others run wastefully to failure

3

No lifecycle basis for the call



The Foundation the Whole Suite Runs On

AssetVault feeds every downstream module — turning one clean asset picture into reliability, inspection and shutdown precision across the operation.



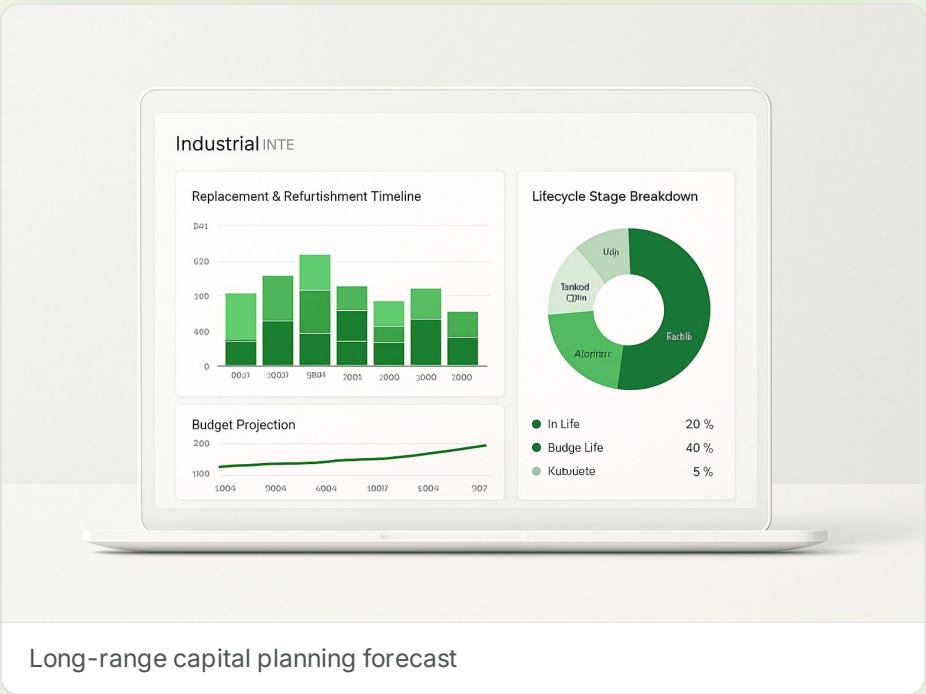
POWERS THE ASTERION SUITE

-  ReliCore draws on criticality and lifecycle data for failure modelling and RCM strategies.
-  Inspecta schedules inspections automatically from the asset register — no manual scheduling.
-  TurnSure pulls hierarchy and documentation directly into shutdown scope planning.



WHO OWNS THESE DECISIONS

-  Asset & Maintenance teams maintain the register and build risk-aligned strategies.
-  Engineering and Finance leaders manage records and long-range capital plans.



 **START WITH A DIAGNOSTIC**

 Sector-specific assessment

 Data-quality baseline

 Clear deployment roadmap from Day 1





KNOW EVERY ASSET. PLAN EVERY REPLACEMENT. CONTROL EVERY COST.