



DATASHEET

AVEVA™ Production Management

AVEVA Production Management provides a leading operations management solution specifically designed for continuous process industries, in particular Mining, Metals and Minerals. Trusted for over twenty years, the software enables better decision-making and facilitates better planning, which helps our customers to continuously improve the performance, inventory and sustainability of their operations and reduce the cost of production.

AVEVA

Achieve end-to-end process and inventory visibility to optimize your value chain

AVEVA Production Management is designed around three foundational operational excellence pillars: production performance, inventory, and sustainability.

It produces rich, contextualized operating intelligence and guiding information your workforce can easily access to quickly identify value leaks, and continuously improve operational efficiency.

Empower workers across all levels with advanced visualization tools, real-time notifications and decision support. Enable swift responses to production events and facilitate quick identification of root causes behind delays or impacts on operational performance and sustainability.

The codeless application is both sustainable and highly scalable, enabling quick-win opportunities and the ability to expand functionality in line with digital maturity or evolving business needs. It provides scalable solutions from a single plant to enterprise production management across multi-site operations.

Benefits

- Full historical Root Cause Analyses (RCA) across the value chain supports better decision making around asset purchases and maintenance programs.
- Achieve end-to-end value chain visibility and facilitate conformance to plan reporting and accountability to accelerate business processes
- Digital shift logs eliminate delays and reduce the efforts required to analyze paperwork, enabling faster corrective actions, accurate compliance reporting and a more efficient continuous improvement process.
- Gain full visibility into inventory levels, both in quantity and quality, to enhance inventory management and material movement. Streamline inventory reporting and reconciliation across your entire value chain
- Drive sustainability improvements by identifying the root causes of individual energy and water overconsumption events in production context, considering factors like crew and shift details or feed/product types.



Performance management features

Delay Accounting

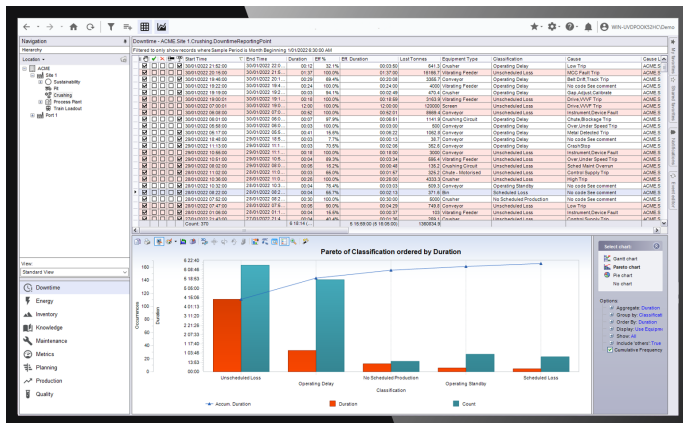
AVEVA Production Management captures downtime, throughput delays and quality losses, which enables continuous improvement of operational performance and asset utilization closer to the maximum sustainable rate (MSR) target. It offers a full-featured, out-of-the-box process delays and rate losses solution, including:

- 4- level Time Usage Model (TUM)
- Event Splitting (Automatically and Manual)
- Approval Workflow
- Quick Complete (Statistical & Rules options)
- Alarms Lookup,
- Configurable Context Fields

All events captured from AVEVA PI System, other Historians, or other data sources identify the root cause process/asset, upon which the reason code is assigned.

Cause location, cause, and reason code information provide the context needed to accurately identify the root cause of rate loss.

As a result, you can perform full historical Root Cause Analyses (RCA) across the value chain, which supports better decision-making around maintenance programs and asset purchases.



Production Reporting

AVEVA Production management automates the collection of production and consumption data for an accurate overview of your plant's inputs and outputs, and production progress versus plan.

It reduces the effort required for operational reporting and streamlines business processes by providing current and accurate production and inventory status information to Operations, Planning, Scheduling and Enterprise Resource Management applications.

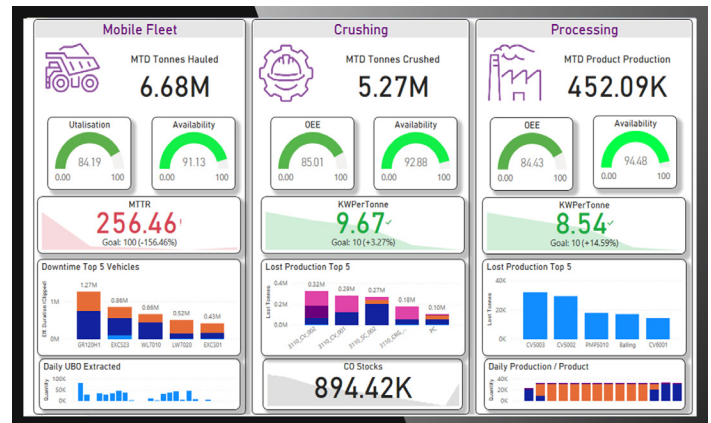
Shift Logs

AVEVA Production management provides a configurable user interface for entering shift log data across the organization from knowledgeable control room operators and field personnel, encompassing topics like staffing, campaigns, procedures, training, health, safety and environmental concerns.

Key Performance Indicator Engine

Configure and automate the calculation of process and site KPIs to provide operational performance and sustainability insights in near real time.

These KPIs are calculated by combining the data from process delays, sustainability events and production figures (collected from machines and human) and for desired time periods such as shift/day/week/month and year.



Inventory management features

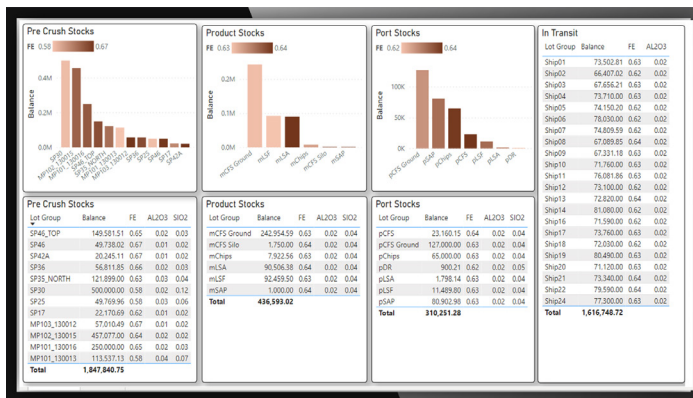
AVEVA Production Management provides a complete work-in-progress (WIP) inventory solution for continuous process industries.

The software tracks and visualizes stock levels across your entire value chain to better manage inventory and material movements, highlighting areas of quantity and quality concern before they propagate downstream.

It provides visibility at a work-center level to enable increased control of the use and storage of raw materials, It monitors the progress of material through an operation in real-time, tracking both manual and automated movements.

The software supports a range of processing, stacking, reclaiming and stockpile management philosophies:

- Report inputs, outputs and track material quantities and qualities through dynamic/virtual locations (e.g. temporary stockpiles, trains, ships, bags).
- Track individual lots (parcels of material) across the supply chain according to FIFO, LIFO, Selective and Weighted Average Grade models for inventory locations.
- Automatically estimate downstream qualities prior to lab assays or surveys, and seamlessly update them once actual data is available.
- Apply point-in-time surveys (quantity and quality) and reprocess all inventory calculations and genealogy accordingly.



Material Accounting

AVEVA Production Management provides metal balance data to produce end-of-period metal or material accounting reports with creation and approval workflows to support full auditability and accountability.

It helps to reduce the efforts and improve the accuracy of material accounting, metallurgical balancing, inventory reporting and reconciliation activities across your entire value chain.

End of period (e.g. daily or month-end) reporting includes:

- Opening balances
- Inputs
- Outputs
- Adjustments and Closing balances (quantity and quality)



Sustainability management features

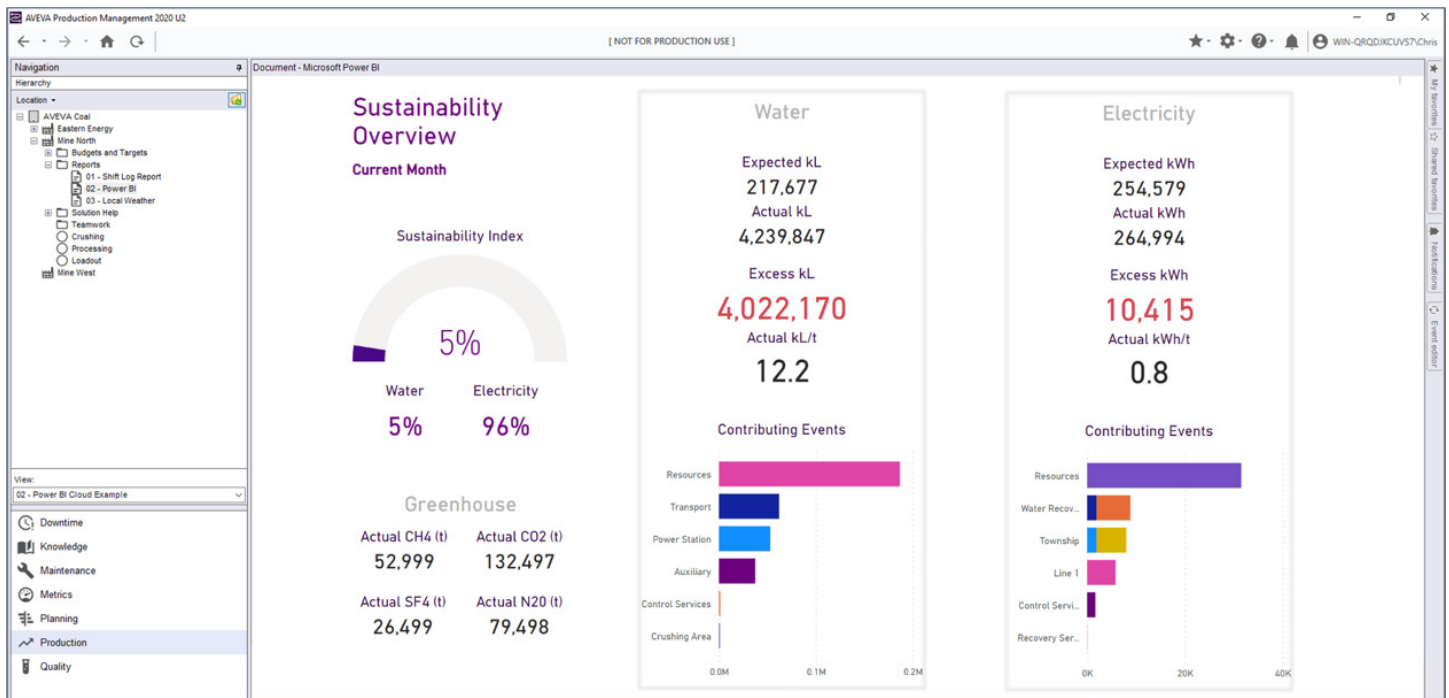
AVEVA Production Management provides real-time visibility into operational sustainability in the context of production.

It identifies sustainability concerns and environmental incidents by capturing the root causes of individual energy and water overconsumption, air quality and high noise events.

Meet your sustainability commitments by empowering your workforce with the tools and context they need to immediately identify adverse sustainability events, take corrective actions and coordinate root cause analysis for continuous improvement:

- Report energy and water usage in the production context, including factors such as shift, crew, feed and product types
- Identify and capture events of energy and water overconsumption, where kWh per unit of product and kL per unit of product surpasses expected thresholds
- Perform root-cause analysis of overconsumption, utilizing the accurate classification of events by leveraging both automatic and manual classification methods

Day	01-FEB-22
Shift	Day
Product Total (t)	15,135
Sustainability Index	60% ↘
Sustainability Index - Energy	73% ↘
Actual Total (kWh)	10,367
Expected Total (kWh)	7,568
Overconsumption Total (kWh)	2,800 ↗
Overconsumption Total (%)	27% ↗
Overconsumption due to Quality	11% ↗
Overconsumption due to Maintenance	14% ↗
Overconsumption due to Unaccounted	2% →
CO2 (t)	1,275 ↗
CO2 from Overconsumption (t)	344 ↗
CH4 (t)	42 ↗
CH4 from Overconsumption (t)	5 ↗
Sustainability Index - Water	83% ↗
Actual Total (kL)	7,325
Expected Total (kL)	6,054
Overconsumption Total (kL)	1,271 ↗
Overconsumption Total (%)	17% ↗
Overconsumption due to Quality	4% →
Overconsumption due to Maintenance	10% ↘
Overconsumption due to Unaccounted	3% ↘





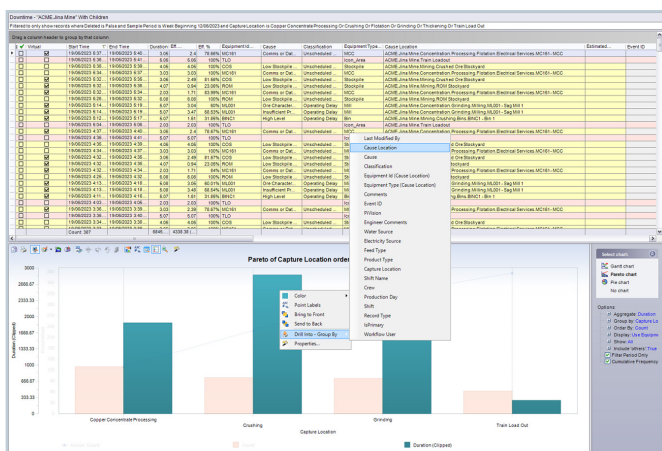
Data management, reporting and analysis

AVEVA Production Management makes reporting and data exploration easy by providing data management and visualization capabilities both on plant premises and in the cloud.

Production Analyst

This native client provides a purpose-built user experience for ad-hoc data analysis and entry with functions such as filtering and grouping, event duplication, bulk editing, column operations, charting and auditing.

The Production Analyst client also enables saving reports as “Favorites” and sharing with select users across your organization.

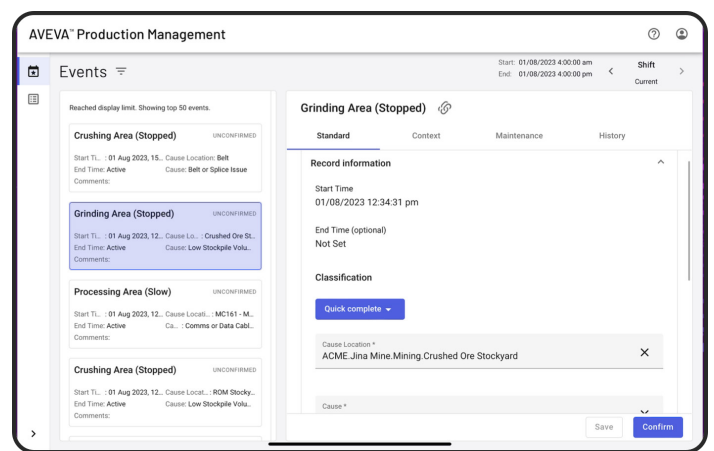


Web Client

The AVEVA Production Management web client is a user experience designed for ease of use on tablets with touch interaction. It improves the productivity of operators and supervisors with its capacities to log shift information and classify events on the go.

Integration with Microsoft Teams provides real-time notifications and easy access on both mobile devices and workstation devices, enhancing collaboration with team members in response to unplanned events.

Direct links within Teams notifications allows users to quickly take appropriate actions within AVEVA Production Management.



Unlock the full value of your data in the cloud

AVEVA Production Management supports hybrid cloud solution architectures, with integration to cloud-based data management services on CONNECT, our industrial intelligence platform.

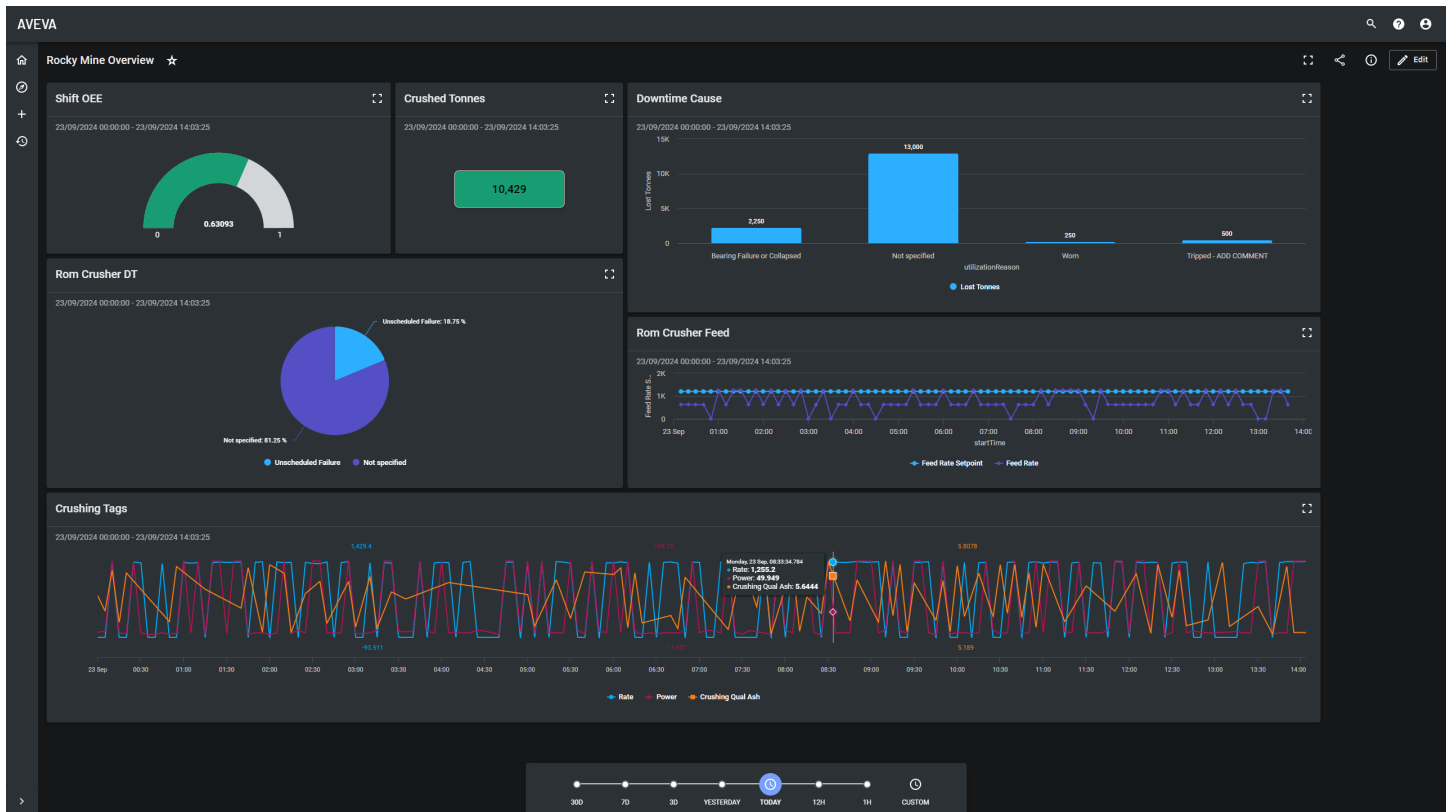
The integration provides on-premises software components which curate configuration and event data for publishing to the cloud in a safe, secure and robust manner.

Storing events in the cloud ensures secure remote access to operational data, simplifies information sharing and fosters collaboration across organizations within and beyond your company's network.

AVEVA's ready-to-use cloud visualization services allows quick visualization of data and the creation of dashboards with a self-service, no-code experience. Visually relate operational data from distributed solutions and other data types within a single pane of glass.

Create and share near real-time status updates and dashboards with operations, business planning and other teams in a collaborative environment accessible anywhere through a web browser.

Seamlessly link your data to AI and ML services and third-party visualization tools to find new ways to optimize your operational performance and sustainability with advanced and predictive analytics.



Enterprise Production Management

AVEVA Production Management provides scalability and support for secure centralized multi-site deployments across multiple time zones and languages.

Enterprise integration

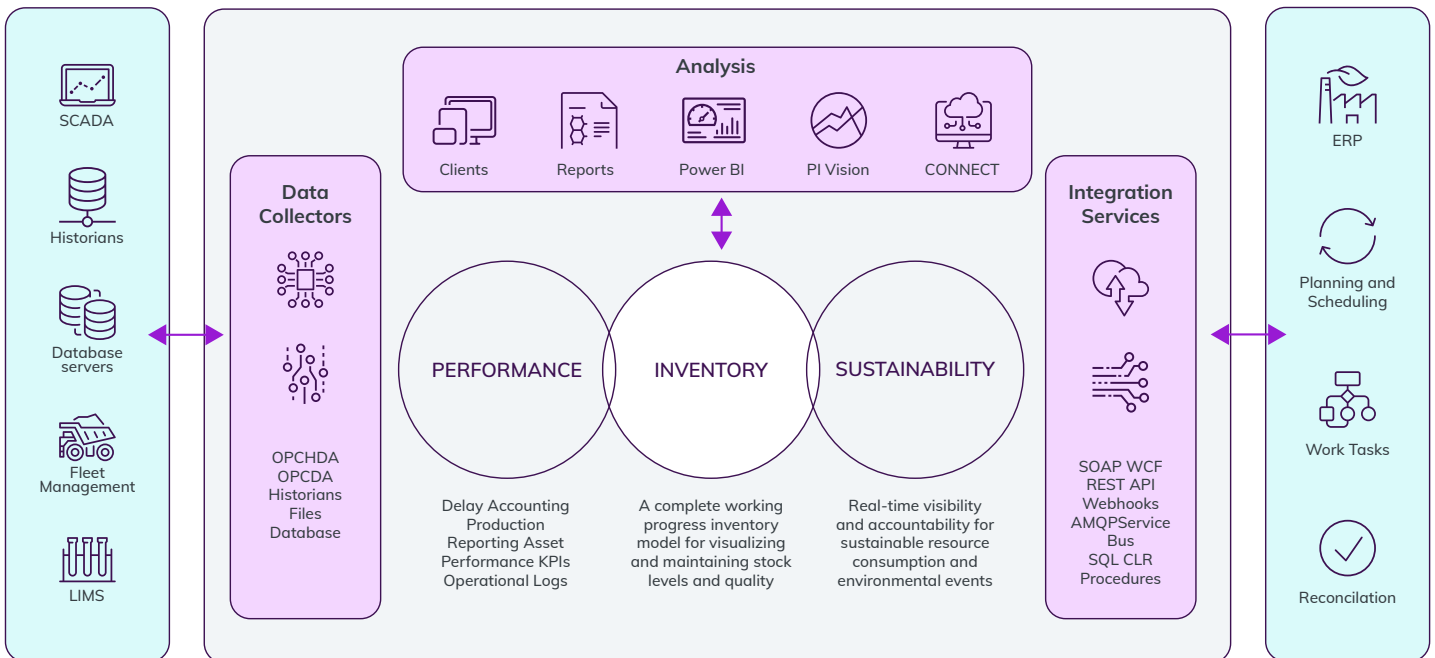
Integrate your historians, fleet management systems and other control systems to contextualize this data with execution plans, material movements, and consumable usage.

Provide current and accurate production and inventory status information to Operations, Planning, Scheduling and ERM/ERP applications.

Leverage production management data with your preferred enterprise visualization, collaboration and business intelligence tools.

Rich out of the box enterprise integration capabilities include:

- **Connectors**
 - AVEVA Historian
 - Other Historians via OPC/DA
 - LIMS, FMS and other databases via OLEDB
 - Control Systems via OPC/DA
 - Files (CSV)
- **APIs**
 - REST
 - SOAP WCF
 - Stored Procedures
- **Messaging**
 - AMQP/AMQPS Service Bus
 - Webhooks



Technical specifications:

Operating systems

- Client: Windows 10 or newer
- Server: Windows 2016 LTSC or newer

Database technology

- Microsoft SQL Server 2017 Enterprise edition or newer

Production Analyst

- Microsoft Edge in IE Mode on Windows OS
- Microsoft Internet Explorer 11 on Windows OS

Web Client

- Microsoft Edge on Windows OS
- Microsoft Internet Explorer 11 on Windows OS
- Google Chrome on Windows OS
- Mozilla Firefox, on Windows OS
- Apple Safari, on iPad devices

The user interface is localized in the following languages:

- English
- French
- Spanish
- Portuguese (Brazilian)
- German
- Chinese (Simplified)
- Italian
- Russian

For more information on AVEVA Production Management software visit:
aveva.com/en/products/production-management