

# AVEVA™ Advanced Analytics: Improve asset performance and production processes with cloud-based prescriptive insights

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Utilize artificial intelligence and  
machine learning in CONNECT  
to maximize efficiency



Maximize the value of your industrial data with real-time predictive insights during the production process to improve overall asset performance and operational efficiency. With AVEVA Advanced Analytics on CONNECT, you can build and run no-code artificial intelligence (AI) and machine learning (ML) driven models using real-time and historical operations data to generate predictive and prescriptive insights—all from one cloud-based, scalable solution.

With AVEVA Advanced Analytics, operations personnel have access to the insights and actions they need they need to improve uptime, asset reliability, throughput and asset life, as well as improvements in quality, energy efficiency and perfect batch.



## AI Models for Common Operational Goals

### Process Optimization

#### Perfect Energy

Operate at the sweet spot of production and energy consumption

#### Perfect Production / Batch

Automate investigations and understand performance drivers with ML

#### Perfect Quality

Reduce variability, eliminate losses, and improve operational flexibility

#### Process Anomaly Detection

Detect asset anomalies in real-time, prioritize by impact, enable early intervention



### Asset Optimization

#### Uptime Optimization

Real-time alerts and recommendations to avoid downtime events

#### Throughput Optimization

Maximize production output on a per-product and per-asset basis

#### Asset Reliability

Predict and prevent common failure modes at scale

#### Asset Life

Maximize serviceable life and proactively manage failure risks at scale

#### Perfect Centerline

Optimize a process based on five objectives (minimum, maximum, run to target)

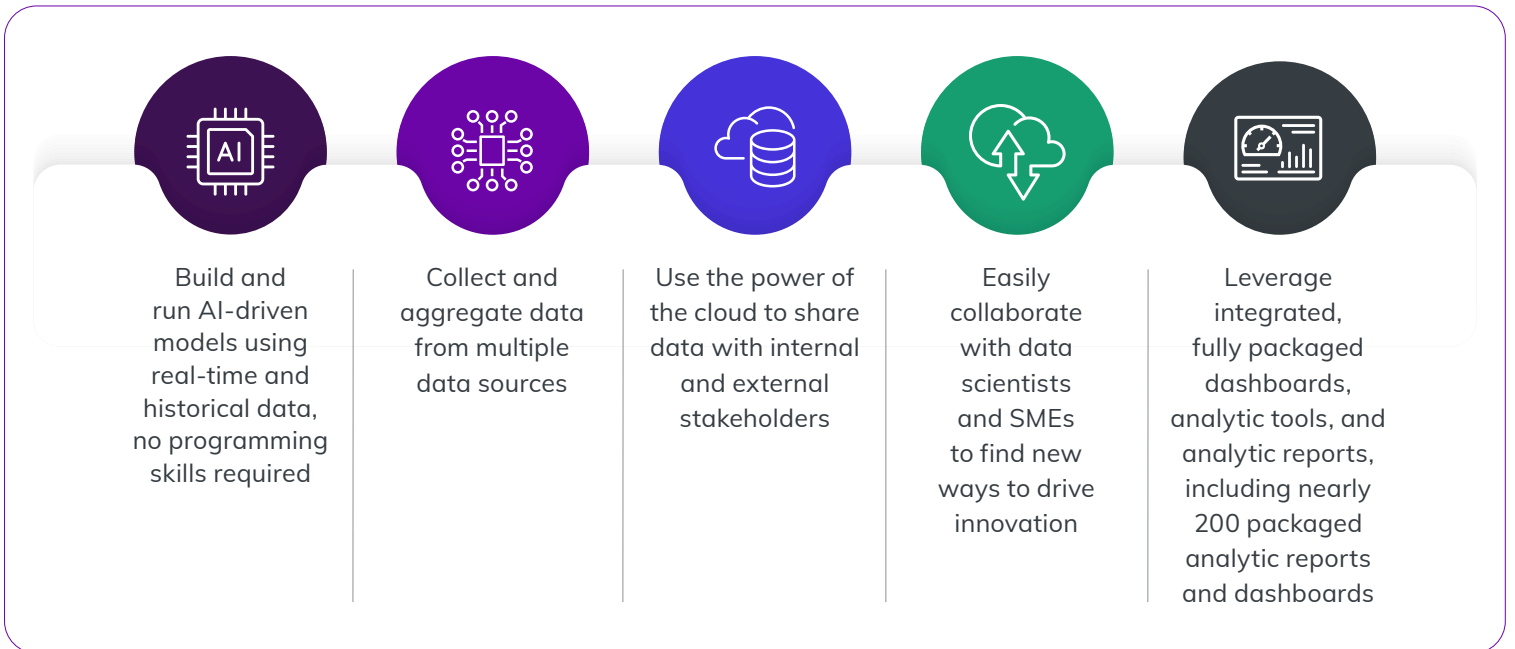
#### Asset Anomaly Detection

Detect asset anomalies in real-time, prioritize by impact, enable early intervention

# The journey to optimized production efficiency

AVEVA Advanced Analytics can meet you wherever you are. Start by visualizing variables and metrics, then deepen your process and asset knowledge modeling use cases for asset performance and production process optimization so you can identify and correct inefficiencies and problems to improve uptime, eliminate waste and improve productivity.

From production to quality, maintenance, or management, users of all skill levels—from novices to data scientists – can easily gain insights using AVEVA Advanced Analytics. Users can:



## Predict product quality to minimize waste and rework

Predict batch quality during the production process to increase first-pass yield, reduce recalls, and minimize waste. Detect finished product deviations sooner and receive recommendations to bring processes back in line with KPIs.

# 1.3 million

A global Pet Food Manufacturer saved annually by implementing predictive models that recommend real-time process and ingredient changes to optimize product quality, including moisture, fat, protein, and density.

## AVEVA Advanced Analytics by the numbers

Typical deployments enjoy up to:

**5% - 10%**

Reduced energy  
intensity

**1% - 3%**

Material loss  
reduction

**2% - 5%**

Production  
increases

**1% - 3%**

Yield  
improvements

**5% - 15%**

Reliability  
improvements

**25% - 50%**

Quality  
improvements

### Maximize energy efficiency to ensure sustainable operations

Quickly identify patterns and conditions to reduce your carbon footprint and CO<sub>2</sub> emissions, meet sustainability KPIs, and ensure assets are running using optimal energy rates. Get system-generated corrective actions when operating conditions deviate or assets are unnecessarily using energy.

### Predict throughput to optimize process conditions

Understand production outcomes and get recommended corrective actions to shorten production time, increase efficiency, and realize cost savings. Optimize throughput on products and lines to operate at the highest possible production rate.

# Going green

Thanks to AI and ML tools, a large consumer products manufacturer reduced its global manufacturing energy footprint by 5% across all utilities, including water, air, gas, electricity, and steam within one year.

# CONNECT: The Industrial intelligence platform for faster, more informed decision making

AVEVA Advanced Analytics on CONNECT serves its modelling and analytics capabilities. CONNECT data services fuels the application with processes information from across the CONNECT platform. CONNECT is an open and neutral industrial intelligence platform that helps teams to unify data and collaborate more closely across the organisation by bringing together information that spans an entire value chain, from 2D drawings to the latest operational sensor feeds. By combining on-premises information from diverse sources and applying visualisation and analytics in the cloud, CONNECT helps to break down traditional organisational silos so that teams and individuals can access one shared source of truth in real-time, to make better-informed decisions that drive efficiency, sustainability and competitiveness.

CONNECT has a native integration to AVEVA PI System.

With this fully-managed, ready-to-use cloud service, requiring no installation or maintenance, you can translate production and sensor data into improved efficiency and reduced waste.

- Utilize AI and ML insights to optimize asset performance and process efficiency
- Operationalize analytics at scale using the cloud and asset templates by type
- Easily manage incidents with alerts and notifications and prescriptive guidance
- No code / low code analytics to increase adoption and realize rapid ROI
- Break down traditional organisational silos with one shared source of truth in real-time with CONNECT
- Collaborate with trusted partners to enable cross-company collaboration and discover new opportunities

## The future is optimized

Now is the time to maximize production efficiency and improve product quality, energy efficiency, and production throughput with AVEVA Advanced Analytics.

To learn more, visit:

[aveva.com/en/products/advanced-analytics](https://aveva.com/en/products/advanced-analytics)

To learn more about CONNECT, visit:

[aveva.com/en/solutions/connect](https://aveva.com/en/solutions/connect)



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