Brochure

Unlock Business Value from Industrial Data Across the Enterprise

AspenTech Inmation™ for Metals & Mining

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In the face of escalating challenges, Metals & Mining companies are navigating a complex landscape. The surge in demand for metals, spurred by global decarbonization efforts and the transition towards renewable energy, coincides with the critical need for digitalization to stay competitive. This digital shift is essential for optimizing energy costs, managing the declining ore grades in existing reserves and achieving ambitious net-zero objectives.

From the operators in the mine to the executive team, getting the right data at the right time with the right level of access is key. With data residing in a variety of places and in multiple formats, it can be a challenge to integrate and manage it in order to make actionable decisions for the business.

AspenTech Inmation is a real-time, scalable solution with enterprise historian capabilities. Data is securely streamed, contextualized and transformed without disrupting production systems. By utilizing AspenTech Inmation, everyone can have the access they need to historical and real-time data. AspenTech Inmation connects people, machinery, plants, logistics and applications using a unified, flexible, high-performance system.

Connected Industrial Data Management without Vendor Lock-In

AspenTech Inmation offers real-time operating systems integration. As production data proliferates, seamless, real-time integration between the control systems, MES and corporate IT is necessary. AspenTech Inmation responds with an architecture designed for unlimited scalability. By offering more than just interfaces, functions and data handling, the solution enables you to leverage your existing technology investments while assuring that it they can respond to technological changes to future-proof investments.
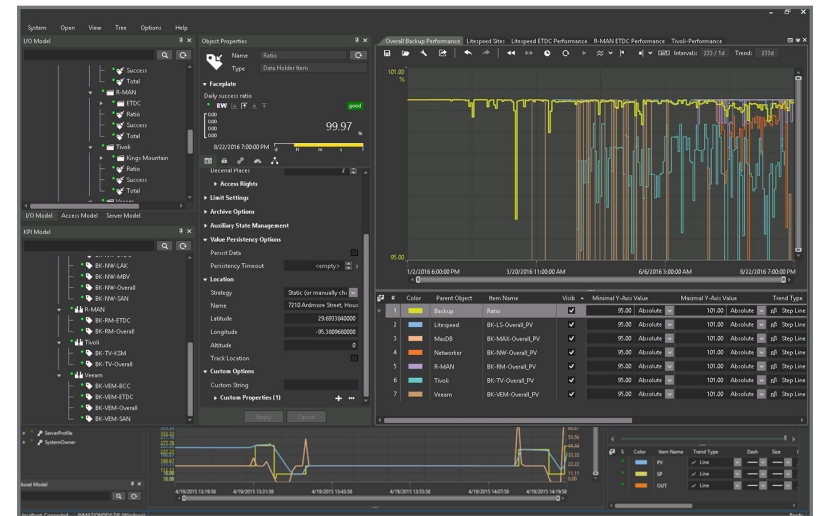
Figure 1. AspenTech Inmation DataStudio is designed to be a secure and singular interface to access your entire data source network.

What is AspenTech Inmation?

The heart of AspenTech Inmation is an engine that processes all of the data in the background in order to execute the necessary consolidation into actionable information. All operational components and IT systems can be connected, across the plant, enterprise network infrastructure and geographic locations.

With AspenTech Inmation, everything can be seen at a glance. You can review production and process data and key performance indicators (KPIs) in real-time via integrated performance dashboards.

AspenTech Inmation DataStudio, the main client application for AspenTech Inmation, is designed to be a secure interface that can quickly access your entire data source network—both real-time and historized data—with a suite of dynamic, effective visualization options. The intuitive interface and customizable toolset provides both casual and power users with the ability to create, configure and control their own workspace. Management of user profiles, security settings and access to shared workspaces can all be configured through AspenTech Inmation DataStudio, providing on-demand data to decision-makers.

Fully Integrated Monitoring

Server Interfaces for Enterprise Application Integration

Cloud Ingestion

OPC Classic

.Net API

OPC UA

Mongo DB JSON

Central System Management
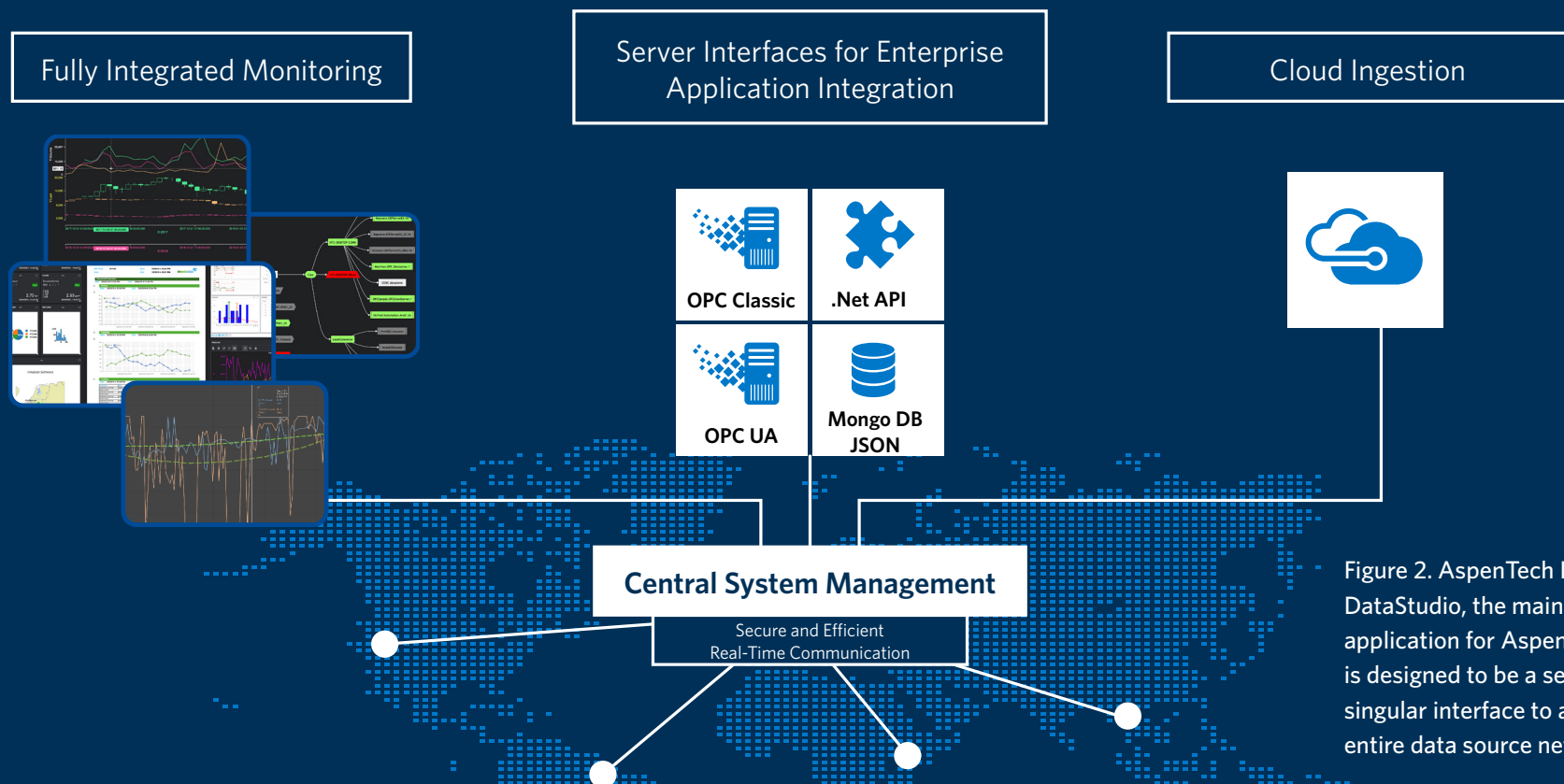
Secure and Efficient Real-Time Communication

Figure 2. AspenTech Inmation DataStudio, the main client application for AspenTech Inmation, is designed to be a secure and singular interface to access your entire data source network.

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Why AspenTech Inmation?

AspenTech Inmation supplies a true real-time data infrastructure to organizations of any size and operational complexity.

Industry, manufacturing, processing, supplying goods and services, can leverage existing data sources from any location to form a global data backbone for human and machine analysis, ultimately creating fast data systems and real-time business intelligence, analytics and artificial intelligence.

Figure 3. The AspenTech Inmation DataStudio Engineering Workbench.

Key Features

- Managed centrally for easy upgrades, support

- Supports cloud-based or mixed architectures

- Works in any cloud environment

- Offers open Interfaces: WebAPI, OPC-UA interfaces enable connectivity to visualization and analytics tools

- Provides embedded scripting for computing at the edge, data contextualization and more

- Avoids disruption of OT systems

- Created using a 'service-based' architecture with modern information technology

- Is vendor agnostic and works with DCS, PLC, historians, Lab systems, maintenance systems, and more

- Supports most data types/structures: Process data, alarms/events, files, documents, ODBC, XML, TCP streams, video/image, text, etc.

- Built for scalability from very small (a few CPU cores) to enterprise scale (1000s of CPU cores)

- Supports fast, high-resolution data (sub sub-millisecond, if required)

AspenTech Inmation for Metals & Mining

AspenTech Inmation's innovative integration layer is the cornerstone for metals & mining companies to adopt and scale best-of-breed technologies with ease. The Automation Layer can "meet you where you are" with the data sources you have in place with minimal change management.

For example, should a crusher experience a diminished capacity, the processing plant can automatically be made aware of starvation circumstances developing as well as notify Operations to increase truck cycle times or reduce shovel capacities to match ore supply to the reduced demand of the comminution circuit.

Our system is designed to enforce rules that monitor the entire mining operation, scanning for specific conditions or keywords within alarms. This proactive approach triggers automated processes—from generating work orders and managing spare parts inventory to updating stakeholders on schedule modifications.

CASE STUDY: Slurry Pump Reliability in Mining

SPARTAN CONTROLS

A Canadian mining company worked with AspenTech partner, Spartan Controls, to implement AspenTech Inmation to successfully collect, transform and contextualize their industrial data.

CHALLENGE:

- Erosive slurries and belt breaks were common failure modes

- High maintenance asset had frequent failures

- Bottlenecks slowed down the mining operation when failures occur

- Needed to proactively plan and monitor maintenance and repairs

- Wanted to access data from multiple sources to make maintenance spend decisions

- Costs were out of control given resources requirements and plant overtime

SOLUTION:

AspenTech Inmation helped to:

- Connect and consolidate data consolidation from heterogeneous sources

- Provide visualization of data for remote monitoring of critical assets

- Consolidates data in real time to help with maintenance spend decisions

RESULTS:

- Reduced unplanned unscheduled maintenance activities on these pumps by >85%

- Decreased number of resources required for maintenance

- Eliminated overtime costs associated with unplanned repairs
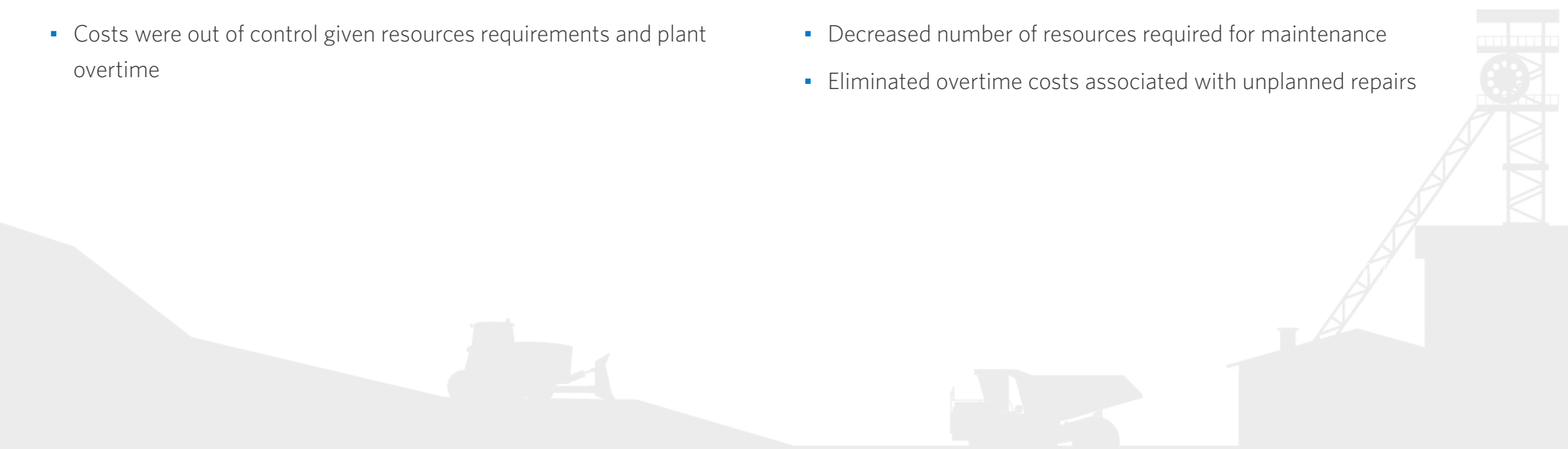
About AspenTech

Aspen Technology, Inc. (NASDAQ: AZPN) is a global software leader helping industries at the forefront of the world's dual challenge meet the increasing demand for resources from a rapidly growing population in a profitable and sustainable manner. AspenTech solutions address complex environments where it is critical to optimize the asset design, operation and maintenance lifecycle. Through our unique combination of deep domain expertise and innovation, customers in capital-intensive industries can run their assets safer, greener, longer and faster to improve their operational excellence.

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