



Solutions for the Minerals, Metals & Mining Industries

Leverage real-time data to optimize production, lower costs, maximize recovery, and improve energy management

The minerals, metals & mining industries are closely tied to the global economy. Coming off one of the biggest global economic crises in history, these industries are poised for strong growth. In order to maximize revenues and increase profitability, mining organizations require visibility into real-time operational performance information and the flexibility to communicate between multiple departments operating across the mine production value chain.

Key Benefits

- Deliver critical information anytime, anywhere
- Utilize role-based KPIs and dashboards to improve productivity
- Design and implement model-based and multi-variable control applications
- Maximize reliability and availability
- Capture knowledge and expertise
- Reduce energy footprint and increase efficiency

Minerals, Metals & Mining Industry Solutions from AspenTech

Over the last 30 years, AspenTech has built its reputation by helping customers solve the most complex design, operations and control, and supply chain challenges in the mining industry. Our solutions provide industry-leading technology with cross-industry best practices that allow owners/operators to mitigate complexities and achieve their business objectives. Solutions for these industries include:

- **Production Management & Execution:** Using a data historian for monitoring operational performance in real-time enables organizations to increase operational efficiency and improve product quality. For example, our customers are using KPIs and dashboards to improve productivity and evaluate operator performance by monitoring haul trucks as they move through the mine. *Aspen InfoPlus.21*[®] provides the ability to aggregate process, production, and business information into a context for understanding and improving operational performance. These solutions make data actionable and accelerate root cause analysis and corrective actions. *Aspen InfoPlus.21 Mobile* enables even more rapid response by delivering this information anytime, anywhere via mobile devices.
- **Energy Management:** Mining and processing minerals is energy-intensive. Volatile energy costs, emissions constraints, and GHG publicity mean that energy management initiatives are now top priority. Combined with site factors such as batch demand variability, swinging power and steam demands, and multiple fuel types and new emission systems, optimization complexity has risen to a whole new level. *Aspen Utilities Operations* is an online operations advisor as well as an off-line simulator specifically designed to optimize these challenges. Energy efficiency increases are often reported in the 2 - 8% range. Industry leaders report up to a 15% increase in energy efficiency, saving millions of dollars every year.

- Advanced Process Control:** The minerals, metals & mining industries are continually studying and implementing processes that reduce their energy footprint and improve efficiency of mining operations. Our mining customers are applying Advanced Process Control solutions to operations such as the milling circuit, flotation circuits, and kilns, as well as power and utility system optimization. Customers regularly report increased throughput by 9%, reduced reagent consumption by 2%, and reduced energy consumption by 7%. *Aspen DMPlus*[®] is a multivariable model-predictive controller proven to maintain processes at their optimal operating point. Our solution efficiently scales to the largest control problem size and has been successfully deployed for linear and non-linear operational control problems.
- Engineering:** Minerals, metals & mining organizations operate and maintain large, complex assets. These assets are continually re-configured to increase efficiency and yield, reduce energy consumption, increase maintainability and reliability and conform to increasing regulatory scrutiny. Therefore, it is imperative to use the right modeling and economics tools to optimize the capital, yield and energy tradeoffs as early in the design process as possible. Our customers use *Aspen Basic Engineering*, *Aspen Custom Modeler*, *Aspen Capital Cost Estimator*, and *Aspen Plus*[®] to support the lifecycle of the plant through engineering. Our solutions enable mining organizations to capture knowledge and expertise, leverage existing design standards, and reduce engineering man-hours.

Identify your top challenges and solve them

AspenTech brings industry-leading technology together with a global partner network and cross-industries best practices to deliver proven solutions for overcoming these challenges and more. Identify your top challenges and solve them with AspenTech.

For more information visit us online at: <http://www.aspentech.com/mining> or contact us at MMM@aspentech.com.

About AspenTech

AspenTech is a leading supplier of software that optimizes process manufacturing—for energy, chemicals, pharmaceuticals, engineering and construction, power & utilities, minerals, metals & mining, consumer products, and other mill products industries that manufacture and produce products from a chemical process. With integrated *aspenONE*[®] solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing, and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs, and become more energy efficient. To see how the world's leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit www.aspentech.com.



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