

New Modular Mining public API brings interoperability to mining technology

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Modular Mining, the global leader in the delivery of real-time computer-based mine optimization solutions, announced today the launch of its Modular Mining Public Application Programming Interface (API). The new API is designed for superior integration and increased openness among third-party technologies and Modular Mining's IntelliMine® portfolio, including the DISPATCH® Fleet Management and ProVision® Machine Guidance systems.

Through the Public API infrastructure, bi-directional data sharing is possible among the industry-leading DISPATCH and ProVision systems and third-party programs, helping to increase productivity, operational efficiency, and overall value to the mines. The release of up- and down-stream third-party integration characterizes Modular Mining's first step towards mine wide optimization.

The Modular Mining Public API provides the Modular Mining mine management ecosystem with access to previously unavailable information, to supplement existing decision-making algorithms, automate tasks, and avoid duplication among systems. The Public API enhances third-party systems by providing real-time read-only access to various endpoints including equipment positioning data, equipment status changes, and equipment cycle state changes. In addition, the API provides write access to various entry points including location status, road state, and crusher telemetry. The Public API is based on industry standards, including OpenAPI and AsyncAPI technical specifications and employs both REST with JSON for request/response patterns and WebSockets for publish/subscribe patterns.

"As industry needs have evolved, we've come to understand that integration is increasingly more important and that we can't solve all problems in the mining value chain ourselves," said Lourens du Plessis, Vice President Customer Value, Modular Mining. "The Public API allows us to collaborate with other technology providers to deliver enhanced value to the industry."

The Modular Mining Public API includes components such as:

- Mine Planning: Developed initially for integration with RPM Global and their short-term planning solution, XECUTE. The generic mine planning element enables any third-party mine planning system to integrate with the ProVision system, bridging the gap between planning and execution, and enabling mines to monitor progress to plan and proactively respond to unplanned events.
- Payload Management: Built in conjunction with MineWare to integrate two Komatsu technology solutions: the Argus Payload Management System from MineWare, and Modular Mining's ProVision Machine Guidance and DISPATCH Fleet Management systems. The API can integrate a site's existing ProVision and DISPATCH systems with any third-party shovel-based payload monitoring system.
- Enterprise Resource Planning (ERP): To facilitate data exchange among Modular Mining's DISPATCH and ProVision systems and a mine site's ERP system. Available endpoints enable bi-directional updates with regards to current configuration, positioning, time tracking, and production states.

Crusher Management: To manage the flow of traffic at the crusher by integrating the mine site's crusher Supervisory Control and Data Acquisition (SCADA) and Programmable Logic Controller (PLC) data with Modular Mining's DISPATCH Fleet Management System (FMS) for use in real-time decision-making algorithms. The integration enables the DISPATCH FMS to re-direct trucks to stockpiles and mitigate the effects of unnecessary queuing at the crusher. The Crusher Management component also makes it possible to monitor bin levels in real-time and reduce crusher black belt losses by calling for ROM feed on demand. With access to crusher data, the DISPATCH FMS can address gaps from ex-pit sources and minimize disruptions at the crusher caused by the rock breaker occupying the crusher bin at inopportune times. Information exchanged via the API can be used to customize utility display parameters such as bin level and time to green light status.

The Modular Mining Public API is available now for the latest releases of the DISPATCH Fleet Management and ProVision Machine Guidance systems.

About Modular Mining

Founded in 1979, Modular Mining Systems, Inc. is the market-leading provider of powerful information management solutions for surface and underground mining operations, driving value in the key areas of production, machine guidance, equipment health, and operator safety. Employing over 800 employees in 10 globally distributed offices, Modular Mining leverages data and innovation to optimize the mining value chain in real time. For more information, visit: https://www.modularmining.com/.

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