



**Rockwell
Automation**

MINING DIGITAL VALUE

Make the most of existing data
and transform decision-making
with Mining Operations
Management (MOM).



Let's start ▶

Operational efficiency matters

Mining operations are fundamentally and rapidly changing. Chances are you rely on fewer staff on site – and have shifted resources to more integrated operations.

But some things haven't changed. Commodity price volatility, environmental, social and governmental (ESG) pressures – and a competitive labor market – continue to jeopardize your profitability.

Today, operational efficiency matters more than ever. However, while many mining companies have accelerated investment in digital technologies to bolster performance, results are often unsatisfying.

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It's about worker enablement
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A DATA DISCONNECT

To improve both real-time and long-term outcomes, your team needs ready access to contextualized information.

But despite an abundance of data, miners often struggle to turn it into the useful, timely and accurate information essential for integrated operations and decision-making.

Instead, mines frequently rely on manual workflows and processes – and custom solutions – to compile and present information.

Because typical mines cannot easily share and disseminate information between disparate systems and departments, data is often duplicated – and custom solutions are developed by site personnel to handle their specific needs.

As a result, each system interprets the data differently and delivers a different version of truth. In other words, the maintenance department might record a different “availability” KPI than the operations team.

Multiple versions of truth lead to confusion, not clarity. And stand in the way of effective business decisions.

“...Data has been around a long time. One of the greatest challenges for digital transformation is actually turning it into something useful.”

Former General Manager – Cornerstone Capital Resources
Rockwell Automation Qualitative Research: Digital Transformation in Mining

ACCESS TO INFORMATION IS CRITICAL, BUT THE CHALLENGES ARE CLEAR

Many mines...



Use less than 1% of available data



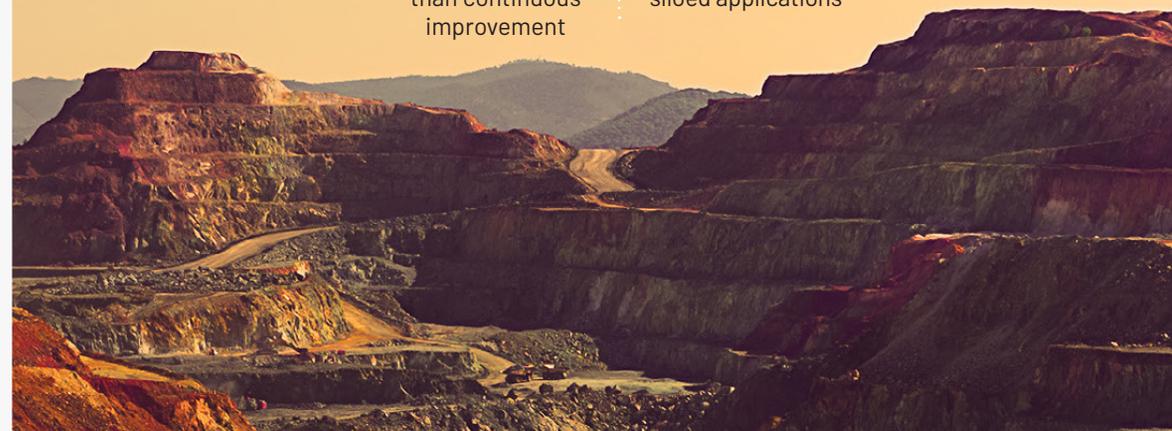
Make business decisions based on unreliable information



Focus on short-term incident resolution rather than continuous improvement



Add new technologies through homegrown and siloed applications



MINING OPERATIONS MANAGEMENT (MOM).

A powerful digital solution that improves your bottom line.



↓
REDUCE COST/TON

↓
MAXIMIZE SHAREHOLDER RETURNS

CHANGING THE EQUATION

Our Mining Operations Management (MOM) platform connects disparate systems and data – and delivers a single version of truth by providing information in the same context across your operation.

How does it work?

The solution integrates and models data from your traditional operations and business systems. And then delivers fit-for-purpose applications designed for mining that interact, share and cooperate on the same platform to deliver new insights.

The result? Better decision-making that impacts the bottom line:

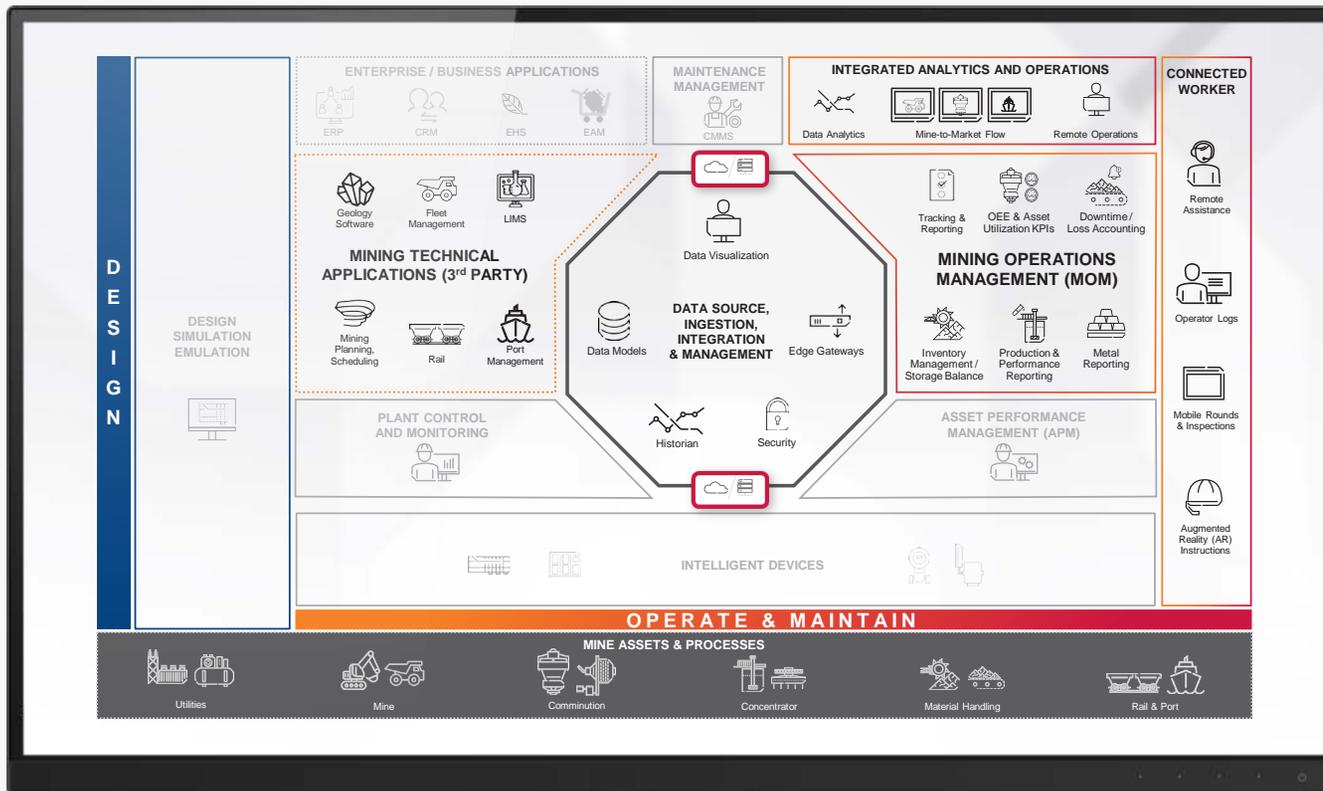
- **Faster** production response to market changes.
- **Economical** processing of low-grade ores.
- **Optimized** use of water and energy.
- **Effective** maintenance strategies.
- **More productive** workforce.

I strongly believe that a company that doesn't seriously go into digital transformation today will not be in business 10 years from now.

Former CIO – BRP and Rio Tinto
*Rockwell Automation Qualitative Research:
Digital Transformation in Mining*

MODERNIZE YOUR INFRASTRUCTURE THE SCALABLE WAY

With the MOM information solution suite, you can add new value to your existing investments and uncover better ways to work – from mine to market. The MOM platform is built to complement the technology you have already deployed. And scale with your needs and new investments.



IMPROVE

ASSET
PERFORMANCE.

PRODUCTION AND
INVENTORY
MANAGEMENT.

WORKER
PRODUCTIVITY.

MAKE YOUR INVESTMENTS WORK SMARTER



EXTRAORDINARY FLEXIBILITY & PERFORMANCE

The MOM solution suite is designed to transform your mine with enabling technology that takes flexibility and performance to new heights.

Thanks to powerful features, you can drive more productivity and agility across your operations:

- Add applications at your own pace and easily expand to address additional requirements, thanks to a unique and flexible IIoT platform.
- Choose from multiple architecture options that complement your site infrastructure, including on-premise, centralized, cloud-hosted or hybrid.
- Rely on the system to inherently manage mining challenges including recirculating material flows, data latency, non-chronological data receipt, network outages and automatic data reprocessing, time-zone distribution, and multisite deployments.
- Enable seamless integration with existing systems including fleet management systems, laboratory information management systems, planning and logistics databases, and ERP systems.
- Enjoy a unified user experience for both on-site and remote personnel, with full support for both desktop and mobile devices, including push-notifications for alerts or scheduled activities.

YOUR CRITICAL CHALLENGES. SOLVED.

What can you expect from the MOM information solution suite? A better view of your mine's performance – and how to improve it. Exactly how you deploy the solution is up to you.

Choose from mining specific applications tailored to your most critical challenges. Out-of-the box functionality speeds your return on investment (ROI) today – and in the future.



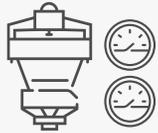
Tracking & Reporting

Records operating statistics by both functional location and asset (for example, run hours, number of starts, machine cycles, throughput, and energy consumption).



Inventory Management / Storage Balance

Automates the calculation of stockpile and storage balances over time, including tonnage-weighted grade estimates to assist with feed blending and loadout strategies.



OEE & Asset Utilization KPIs

Automates the capture, reporting and visualization of OEE, "availability," "utilization," and other KPIs in the context of the plant model.



Metal Reporting

Delivers automated calculation of metal quantities within the ore flows and storage vessels, including "yield" and "recovery" KPI calculations.



Downtime / Loss Accounting

Identifies the business impact of planned and unplanned stoppages by correlating production losses with events.



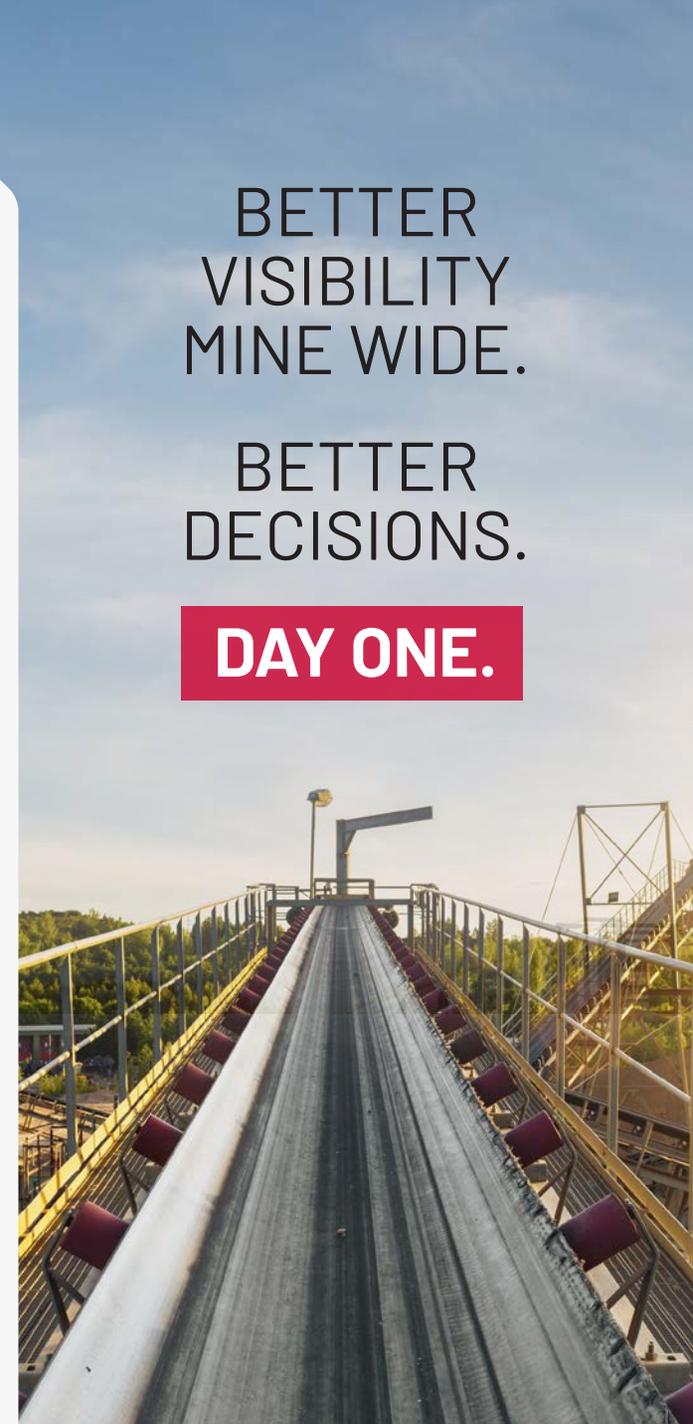
Production & Performance Reporting

Provides visibility of material types, quantities and sources as they move through the process – including consumables, flocculants, reagents and other secondary process streams.

BETTER VISIBILITY MINE WIDE.

BETTER DECISIONS.

DAY ONE.



OPERATORS WORK SMARTER WITH BETTER VISIBILITY – AND POWERFUL DIGITAL TOOLS.



57%

increase in employee productivity when mobile technology is used

Source: Motorola / mobientech.com

IT'S ABOUT WORKER ENABLEMENT

Attracting, training and retaining skilled workers is no easy task. The MOM solution helps upskill operators and maintenance personnel quickly by delivering timely information in easy-to-understand formats.

Add these applications to your solution to empower your workforce:



Remote Assistance

Delivers problem-solving, guidance and expertise remotely by combining advanced augmented reality (AR) collaboration tools with real-time video.



Operator Logs

Captures handover notes, observations, incidents and other logs – and features built-in support for mobile devices.



Mobile Rounds & Inspections

Automates notification of incidents, process anomalies and scheduled tasks, including photo and video visualization of issues.



AR Instructions

Accelerates and simplifies the creation and delivery of augmented 3D work instructions to frontline workers to optimize quality and field maintenance inspections.

The choice is yours. Are you ready to address the skills gap head-on?

Transform Mine Operations. Empower Your Workers.

Learn more about the transformative power of the scalable Mining Operations Management (MOM) information solution suite. And drive more value to your bottom line – from Day One. **Visit us.**

Connect with us.    

rockwellautomation.com

expanding **human possibility**[®]

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