

The AVEVA logo is displayed in white, bold, sans-serif capital letters against a dark blue background.

CUSTOMER CASE STUDY

Roy Hill drives digital strategy at its remote operations center

Sentry Equipment - www.royhill.com.au
Industry - Metals, Mining and Minerals

Goals

- Achieve real-time value chain optimization from the mine-to-port

AVEVA Solution

- ITQM we can rename as AVEVA Production Management – Inventory
- DA we can rename as AVEVA Production Management – Performance
- Capacity Simulation – as per DCPS

Results

- Improves efficiency by streamlining processes
- Increases collaboration among different functions
- Optimizes resource to market opportunities with real-time execution
- Cultivates a high performance team connected by a digitized process



Background

Located in the Pilbara region of Western Australia, Roy Hill has built a greenfield iron ore mine and mine process plant in a heavy haul railway system from mine-to-port, new port facilities in Port Hedland, and a Remote Operations Center (ROC) in Perth. Each of these infrastructure components were designed to meet its capacity of 55 million tonnes per annum (MTPA) of iron ore.

As a ground up development, Roy Hill had the ability to recruit their own people, establish their own culture, and define their own operating model with a focus on their own vision. What has resulted is an organization free of bureaucracy where efficiency is seamless through streamlined processes that can drive high performance, fit for purpose outcomes.

The challenge

Most leading mining companies have historically evolved with organizational silos, usually between mines, processing facilities and logistics. In the age of increasing automation, data, and digitalization, these silos often prevent end-to-end visibility and optimization opportunities to realize resource to market potential, creating hidden inefficiencies.

The solution

AVEVA was selected as a vendor for its compelling mining industry offerings, experience and consultative approach.

Mine and port operations include Schneider Electric's electrical switchgear and distribution, variable frequency drives, critical power systems (UPS) and power monitoring systems.

In addition, Roy Hill implemented AVEVA's industrial software offering tailored for the mining industry which included the following specific solutions:

- Demand Chain Planning and Scheduling (DCPS)
- Inventory Tracking and Quality Management (ITQM)
- Delay Accounting (DA)
- Capacity Simulation Model (Pre-CAPEX Analysis)

The DCPS solution allows for optimization of Roy Hill's end-to-end demand chain from the pit to the port across different time horizons, from long term planning down to weekly scheduling. This full visibility is then linked into real-time inventory and quality information through its ITQM solution to close the loop between actuals and the schedule (conformance to schedule), and between actuals and the plan (conformance to plan).

DA provides key financial insights into production slowdowns and outages. While this may seem rudimentary compared to a typical manufacturing scenario, it is very rare in the mining industry to see these results on a shift by shift basis, as it is often only reconciled monthly. Roy Hill is using this digital process to drive better decisions on a timely basis – a vision that was completely synchronized before the first shovel went into the ground.



Roy Hill's remote operations centre

All of these processes and technologies are brought together in Roy Hill's state-of-the-art ROC in Perth. In one room, all aspects of Roy Hill's operations, from real-time execution to scheduling to planning, and everything from the mine to the processing plant to rail and port are being monitored and controlled, at a location that is 1,300 km away from the mine site. With all of this expertise in the same room, Roy Hill can dramatically improve opportunities to collaborate, de-risk decisions and place greater focus on business improvements, all with a view of their entire business.

The bottom line

With the help of its ecosystem partners, including AVEVA, Roy Hill has been able to combine process, technology and people and has achieved industry-leading efficiency and competitive advantage, emerging as Australia's largest single mine producer.

AVEVA has worked closely with Roy Hill to help drive significant achievements so far, and continues to work arm-in-arm to further their digital transformation and innovation strategies within the mining industry.

Learn more about AVEVA's mining solutions. visit us at [aveva.com](https://www.aveva.com)



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