

Deswik.MDM providing technical data management efficiency



DATA MANAGEMENT | UNDERGROUND MINING | OZ Minerals - Prominent Hill, Australia

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On March 25, 2019, the Deswik.MDM implementation at OZ Minerals Prominent Hill went live, and Senior Mining Engineer Kelsea Kurtzer checked out a draft mine design. During the next twelve months 1,175 designs, surveys and other technical changes for the Ankata and Malu underground orebodies were checked in and approved. Deswik.MDM has provided critical data management, transparency, and governance for the large volumes of technical data required to keep Prominent Hill operational and productive.

Deswik.MDM is a spatial database, and technical workflow management tool, that provides the single source of truth for a site. It maintains data integrity while providing site-wide access to the latest data, enabling quick and efficient decision making. The implementation of Deswik.MDM at OZ Minerals has delivered considerable value, which is visible in the:

- Management of critical data categories related to underground hazards
- Optimization of planning processes
- Efficiency gains in day-to-day data access and use
- Increased quality and clarity of outputs from the planning process
- Easy access and visibility of mine plans by the Site Operations and Control Room teams

The Prominent Hill team partnered with Deswik in a multi-stage implementation process:

1. Mine planning process review and improvement identification
2. Implementation of process improvements in three phases of System Configuration, User Acceptance Testing (UAT) and System Launch, as departments incrementally transitioned to Deswik.MDM
3. Post-launch incremental growth and sustaining improvements as more departments start to leverage the value provided by Deswik.MDM

Increasing internal expertise and building self-sufficiency during the project resulted in a sustainable system after the project was commissioned and Deswik's role reverted to support and mentoring.

Delivering value through change

During the delivery of this project, change management and internal engagement were major challenges. Prominent Hill overcame these challenges by internally sourcing key agents of change. One such key agent of change was Senior Mining Engineer Jesse Clark, who was instrumental in the successful implementation of Deswik.MDM, focusing on delivering key value drivers for Prominent Hill. Another key agent of change was Kelsea Kurtzer, who acted as a Super User on site, influencing other users and helping them to adapt to the new software.

Jesse Clark notes that "success requires getting the right people in different departments and making sure someone in each department is going to influence the change management."

Managing critical data

One of the most important aspects of this implementation was improvement of the management of voids, which are a critical risk controlled in part by the Technical Services team. In a void model it is very easy to have out-of-date information.

"Reviewing the planning process gave us license to change. Part of the implementation was improving our business process, the facilitator was Deswik.MDM. If we hadn't done the Deswik.MDM project, we wouldn't have done the Mine Planning Process review." Clark says.

Using Windows File Explorer to export files to different locations for other users was a key issue, as Windows File Explorer is not a data management tool.

Jesse stated that "It was pretty easy to make errors through that method of transferring data. The confidence in the data is a lot higher now."

Improved work efficiency and quality

The seamless integration of data from Deswik.MDM to Deswik.CAD has increased the efficiency of daily work at Prominent Hill.

Jesse notes that "going and getting designs through the (MDM) plugin saves so much time, and having all those designs at your fingertips rather than a million reference layers is great."

During the project, Prominent Hill improved the interface to the operations team, by ensuring hazards are more accurately displayed during the life cycle of a design, simplifying the complexity and size of each plan, and adding important context like section views for developing into paste. Jesse states that "the teams pick up a lot easier that we are mining inside a hazard zone now".

Site wide access to critical information

Operations teams, Mine Controllers, and other site personnel have also benefited from simple, universal access to all approved mine plans, surveys and other technical data using Deswik.MDM SiteView. Instead of relying on plotted maps which are often outdated, Prominent Hill Mine Controllers now easily access the latest data from a single source of truth.



Figure 1 - Deswik.MDM SiteView in use at OZ Minerals Prominent Hill mine control room.

Pre-start meetings now use Deswik.MDM SiteView as an aid to discussions, which increases awareness of the latest status of locations, as shown in Figure 2



Figure 2 - Deswik.MDM SiteView shows the latest 3D mine information in a pre-start room.

Sustaining value

Prominent Hill has now entered the sustaining value and growth phase of the implementation process. Deswik.MDM use is increasing rapidly on site, with ICT, Ventilation, and other departments now recognizing the value of the software.

To ensure the system keeps delivering the maximum benefit to Prominent Hill, it needs to be maintained.

Jesse explains that Deswik.MDM "grows with the business. You could set and forget, but all the technology we implement still needs maintenance, like a loader."

Prominent Hill has arrived at this point after a 12-month journey that included approximately one person devoting 50% of their time to the project for a 7-month period.

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Delivery through partnership

The Deswik.MDM implementation at Prominent Hill showcases the benefits of a strong partnership, back to basics system simplification technology that supports critical data management, and identifying agents of change within your organization. Deswik are proud to have worked with OZ Minerals and the team at Prominent Hill to deliver this project.

