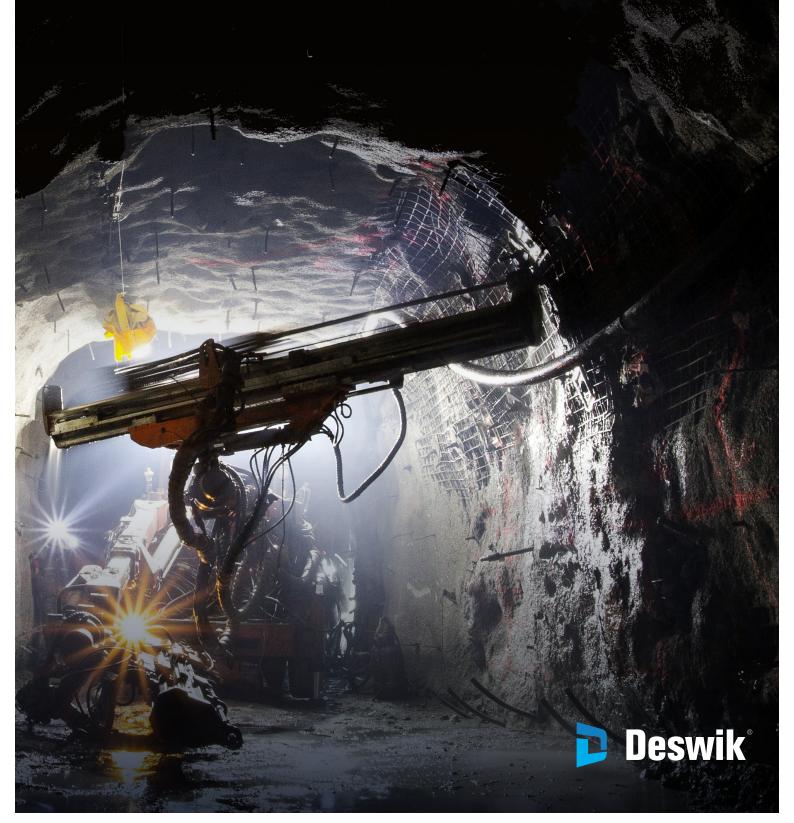


Collaborative short-term planning and shift execution tool for monitoring and managing compliance to plan



# Use mine planning to drive more efficient execution



## Keep your operational activities in line with your long-term goals

Deswik.OPS is a web-based, operations scheduling, production data management and collaboration tool. Integrating with the organization's longer-term schedules, it enables production planners to rapidly create detailed, activity-based shift plans directly from the short-term schedule. Deswik.OPS manages the progress of mining activities within the site and meets the daily requirements of:

- Short-term engineers
- Production engineers
- Shift bosses
- Control room personnel
- Site superintendents.

### An Integrated Platform

Deswik.OPS is a highly configurable, webbased system. It provides a centralized interface, enabling inputs from multiple departments (e.g. mine planning, production, geology, drill and blast). Deswik.OPS tightly integrates with the Deswik Suite of mine planning tools. Third-party external systems can be configured to integrate with Deswik. OPS (e.g. maintenance and production management tools, corporate reporting solutions).

## Manage your operations' activities from a single location

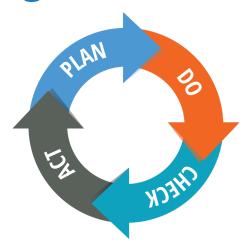
Get the big picture view: Deswik.OPS provides a single user interface to review the combination of weekly schedules, task management for the current shift and production data captured from multiple sources.

#### Plan

- » Two-way integration with the short-term planners' schedule lets you easily create and update the detailed activities and cycles making up your operational plan.
- » Keep your operational plan in line with your longterm goals.
- » Understand and efficiently manage your equipment utilization.
- » Update your short-term schedule with production data captured in Deswik.OPS.

#### Check

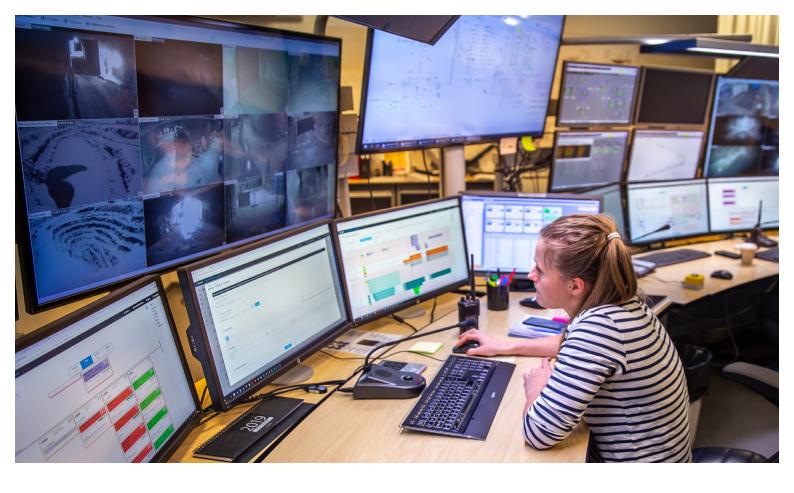
- » Review your mine progress: plan, control and measure each individual activity in the mining process.
- » Understand the impact of delays upon your schedule and take corrective actions.



#### **Outcomes**

- » Provides the operations management team full visibility of factors that directly influence decisionmaking.
- » Improved communication and collaboration across the technical and production departments.
- » Increase your teams' productivity: fast, auditable scheduling and data capture.





#### **Operations Planning**

#### Create a shift-based weekly plan and dynamically manage shift progress

#### Plan

- » Quickly build detailed, activity-based weekly and shift plans directly from the short-term plan.
- » Convert longer term tasks into detailed activity cycles using user configurable rules.
- » Create additional activities and cycles representing detailed work not considered in the short term plan, e.g. services activities.
- » Assign equipment and operator resources to activities.
- » Use dependencies to maintain relationships between activities when scheduling.
- » Prioritize activities to ensure operations focus on critical tasks.

#### Check

- » Record in-shift movements and better understand the constraints within the mine for the shift being managed.
- » Record baselines of the agreed plans to help drive compliance to plan.
- » Monitor equipment/location availability and utilization, and dynamically adjust the shift plan based on the impact of delays upon your schedule.

- » Track and manage resource and material assignment, movements and delays.
- » Check the progress of the previous or current shift activities to allow for Short Interval Control (SIC) during a shift while monitoring any deviations from the longer term goals of the organization.
- » Monitor progress against the plan: the shift view and progress trackers provide a clear picture of what is happening throughout a shift for the control room operator.

#### Act

» Dynamically change a plan at the shift level and add new activities as required during the shift.

#### Outcomes

- » Maintain a direct link between longer term schedule tasks and the operations plan.
- » Display multiple baselines or future plans to ensure the active operations schedule follows the longer term plans.

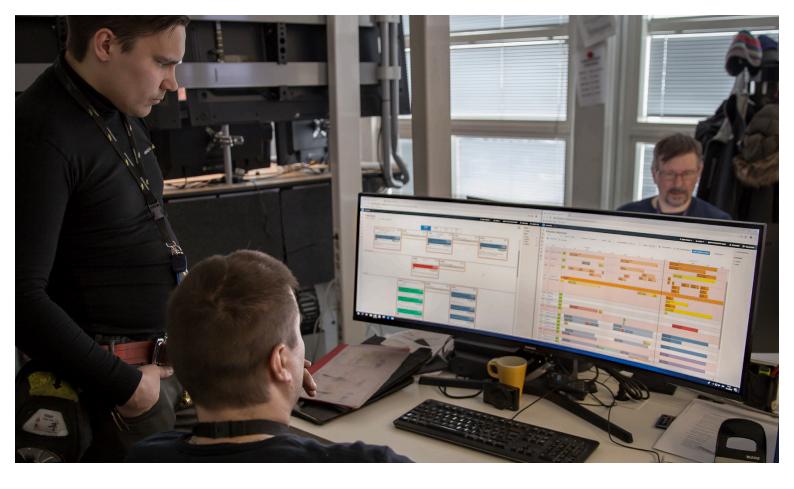


#### Schedule Integration

#### Manage the integration between the operations' schedule and the longer term schedules

- » Direct integration with the short-term planners' schedule lets you rapidly build your operations schedule. For example, you can import the first 1-4 weeks of the 12-week plan from Deswik.Sched or a third-party system.
- » Use process and site-specific activity cycles along with business rules to automatically expand your short-term schedule into an operations schedule.
- » Deswik.OPS builds on the strong foundations provided by the powerful Deswik.Sched engine to manage dependencies and business rules.
- » A link is maintained between the activity cycles in Deswik.OPS and the Deswik.Sched tasks in the shortterm schedule, allowing production data in Deswik.OPS to quickly update the short-term schedule.
- » All data captured in Deswik.OPS is available for reporting using third party reporting tools through a SQL Server database.

"Manage your operations' activities from a single location"



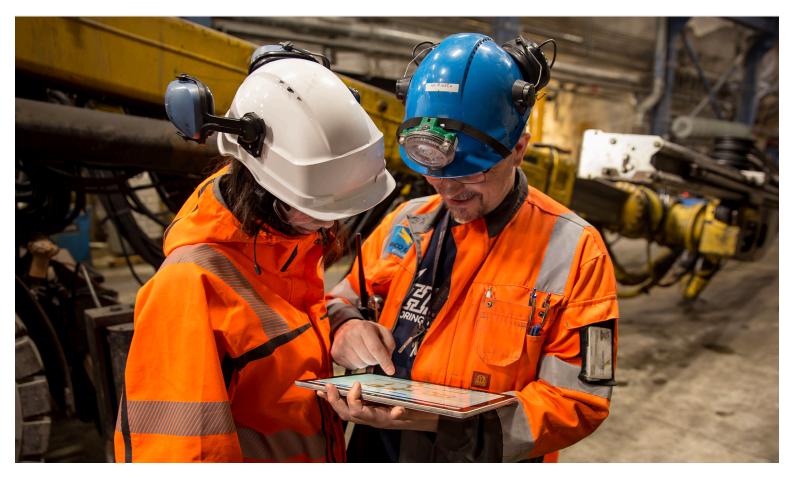
## Track and Monitor Activity Progress

## Capture production data to track progress and compliance against plans

- » As production data is directly matched against the planned activities, data analytics can reveal more meaningful insights.
- » Analyse the repository of historic planning and production data to predict ways to improve your operations' efficiency.
- » Reconcile planning Baselines against production data to help manage the compliance to plan.
- » Throughout a shift, capture real-time data regarding shift operations, or enter it at shift completion.
- » Automatically record production data for each activity from a third-party system, or manually enter it for equipment not managed by a Production Management System.
- » Activity specific metrics can be configured to ensure all important production data is captured.
- » All collected production data is mapped to planned activities to display progress against the plan and allow reporting of planned vs actual.

#### "Oversee and manage activities to improve resource/location productivity and utilization"

- » Process specific tracker views clearly indicate how production is performing against the agreed plan, allowing corrective action to be taken.
- » Superintendents and managers can view outstanding work across departments and re-allocate tasks to balance workloads.
- » All planning and production data is available through the Reporting Database for analysis and reporting using 3<sup>rd</sup> party tools.



#### Collaboration

### Everyone working towards the same plan

- » Deswik.OPS supports collaboration between multiple departments through the multi-user web interface.
- » It improves communication across shifts between all site personnel.
- » Users can add structured comments about locations, activities, resources, or a shift, and add attachments to increase meaning.
- » A range of configurable input views enables planning and production data input from different teams.
- » Different views of the same data are available for different stakeholders:
  - Location tracker and whiteboard for the shift supervisors
  - Gantt chart for the scheduling engineers and control room operators
  - Agreed weekly or daily planned activities recorded as baselines can be compared against current activity progress to check for deviations to the plan and allow corrective action to be taken.
- » The data underlying the operations schedule is kept synchronized between the multiple views and is available for reporting and analysis through the Reporting Database.

"Improved communication and collaboration across the technical and production departments"

#### Our industry leading software solutions include



#### Design & Solids Modeling

A powerful design platform with superior data handling - the next generation of planning tools for mining.



#### **Advanced Survey**

Fast, efficient point cloud handling.



#### Coal Seam Aggregation

Simplifying complex aggregation processes to create fit for purpose Run-of-Mine reserves.



#### **Auto Stope Designer**

Automatically create mineable stopes for narrow-vein vertical mining methods.



#### **Dragline & Dozer Section Designer**

Automated dragline section design tool with direct integration into Deswik's mine design, scheduling and data management tools.



#### Dig Optimizer

Design of optimum dig lines for open pit grade control.

#### °°° Deswik.OPDB

#### Open Pit Drill & Blast

Fast, efficient drill and blast design for surface mining methods.



#### Stope Optimizer

Underground stope shape optimization using the latest version of industry leading SSO.

#### ္စိုင္တိ**့ Deswik.UGDB**

#### **Underground Drill & Blast**

Fast, efficient drill and blast design for underground mining methods.

#### 🔁 Deswik.Sched

#### **Gantt Chart Scheduling**

A powerful Gantt chart scheduler specifically designed to handle the challenges of mine planning.

#### Deswik.OPS

#### **Operations Planning and Control**

Collaborative short-term planning and shift execution tool for monitoring and managing compliance to plan.

#### Deswik.Blend

#### Material Flow Modeling

Optimize your product value with material flow modeling for both coal and metals.

#### □ Deswik.SOT

#### **Schedule Optimization Tool**

Realize more value from your resource with an NPV optimized schedule.

#### □ Deswik.IS

#### Interactive Scheduler

Bridging the planning gap between designing and scheduling.

#### Deswik.LHS

#### Landform & Haulage

Understand material movement like never before with scenario-based modeling and analysis.

#### ዓ 🛫 Deswik.OPSTS

#### Open Pit Short-Term Scheduling

Short-range ore control modeling and design tool.

#### Deswik.MDM

#### Mining Data Management

A spatial database and process workflow management tool.

#### **Deswik.Mapping**

#### Mapping app

Perform geological mapping on-the-go.

#### **Deswik Advanced Modules**

Advanced functionality tailored to the specialized demands of the specific mining sectors.





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