



**Deswik.GO**  
Global Optimization

A single application  
for all strategic mine  
planning needs





# Make the right decisions, starting with Deswik.GO



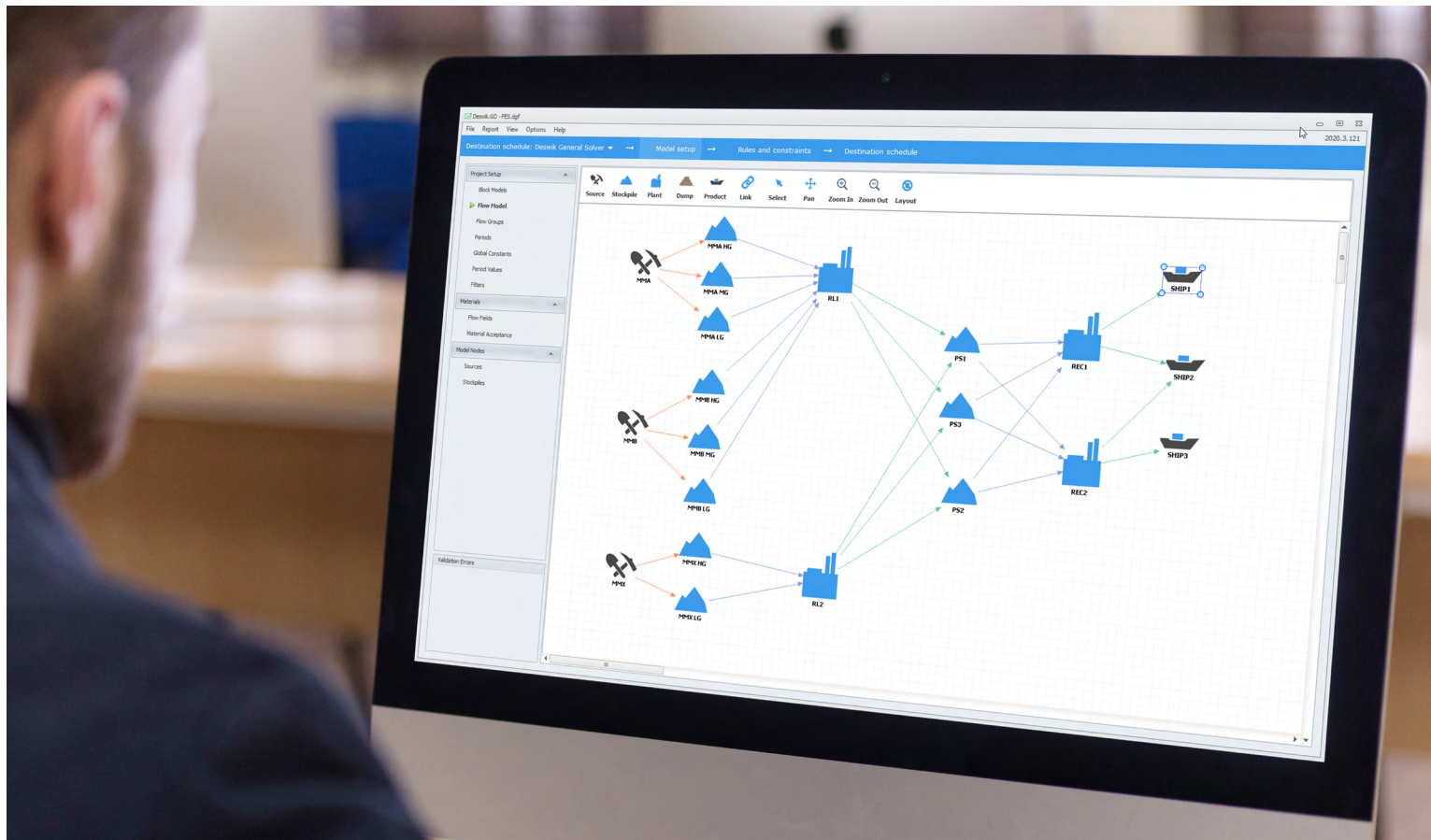
Simultaneously optimize your designs and scheduling decisions across the value chain

Avoid the time and effort of setting up multiple software packages to generate and evaluate strategic designs and schedules. A single application, Deswik.GO completes all of these tasks and reduces the risk of creating sub-optimal plans.

Deswik.GO has a simple, easy-to-use interface that guides the user through a workflow based planning process. Powered by a ground-breaking engine developed in partnership with Alicanto Labs from the University Adolfo Ibañez, Deswik.GO solves real sized mining problems more efficiently. With the functionality to perform fast multi-pit optimization using direct block scheduling, phase generation using mathematical techniques, schedule optimization, destination optimization, and economic analysis using the integrated reports.

Deswik.GO maximizes Net Present Value using mixed integer linear programming to find an optimal solution for the operational mining, processing and capital constraints applied. This means you can understand the options and make better decisions on what to mine, when to mine it, how to treat blocks from pit to waste or product, and how to best deploy capital in the mine plan, for example, new pits or incremental capacities.

Deswik.GO integrates with existing Deswik tools to align the planning horizons and enable accurate pit designs, tactical schedules, and detailed reports for more fluid and optimized results.



## Pit optimization

Optimize the pit using direct block scheduling

- » Generate pit shells by individually scheduling each block in your block model while considering the time value of money.
- » Simultaneously optimize more than one block model to understand and analyze different pit interactions from the first pass in the strategic planning process.
- » Understand the value drivers and constraints, including mining and processing constraints, costs, and revenues over time.
- » Generate more operational mining phases based on the direct block schedule using the fuzzy clustering algorithm to group blocks by their closeness in space and their extraction sequence.

## Schedule optimization

Make the plan mineable using phase bench scheduling

- » Apply more realistic constraints to your schedule and ensure that the value of the deposit is being maximized.
- » Optimize the mine and processing schedule using the outputs of the pit optimization step or a block model coded with actual designs.
- » Limit mining by number of benches per period, or by the size of the bench.
- » Apply lags between phases.
- » Apply opening costs for phases.
- » Apply blending and ratio constraints.



## Destination optimization

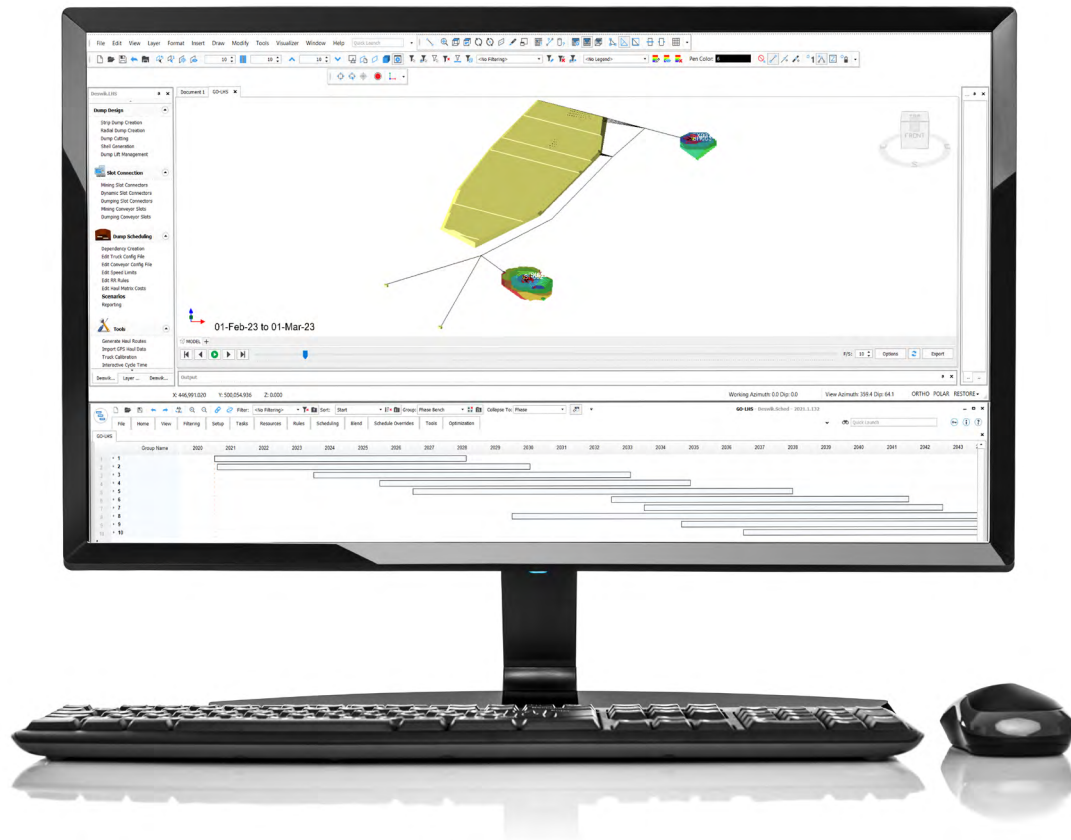
Ensure you are getting the most value from material movement

- » Use the Fixed Extraction Sequence option if you have a completed mine plan at hand to determine the best destination for each of the mined units in the plan.
- » Model complex flows, such as the movement of mined material through all the steps in the logistics process, from crushing to railing, stockpiling, and shipping.

## Integrated analysis and reporting

Visualize the decisions made

- » Create business intelligence (BI) style reports using the integrated dashboard reporting to drill down into the details and results of the schedule. This gives you maximum visibility of the value drivers of the plan.
- » Animate the results of the schedule to immediately see the mining sequence in 3D, and interact with the plan by applying filters and legends to the results.



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## Integration with Deswik.Suite

### Align planning horizons using a range of Deswik tools

- » Refine the results by leveraging other tools available in Deswik.Suite to analyze tactical sensitivities on the strategic plan.
- » Use Deswik.LHS for detailed haulage analysis of your results and then apply the cost model in Deswik.GO for further analysis.
- » Use the resulting block models from Deswik.GO in Deswik.CAD to generate shells that can be used in further design processes, including automated and standard pit design.
- » Input the results from Deswik.GO into Deswik.Sched (via Deswik.IS) to apply more tactical constraints, such as resource constraints and block mining direction.
- » At any stage, import the results again into Deswik.GO for further optimization of the plan.



# Our industry-leading software solutions include

## **Deswik.CAD**

### Design & Solids Modeling

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

## **Deswik.AdvSurvey**

### Advanced Survey

Fast, efficient point cloud handling.

## **Deswik.Agg**

### Coal Seam Aggregation

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

## **Deswik.ASD**

### Auto Stope Designer

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

## **Deswik.DD**

### Dragline & Dozer Section Designer

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

## **Deswik.DO**

### 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.

## **Deswik.SO**

### Stope Optimizer

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

## **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.

## **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.

