



# Deswik.SOT

SCHEDULE OPTIMIZATION TOOL

## Realize more value from your underground resource with an NPV optimized schedule

A companion module for Deswik.Scheduler, Deswik.SOT works to maximize the value of your resource investment. Developed by Revolution Mining Software, Deswik.SOT uses heuristics and a unique evolutionary algorithm to optimize the Net Present Value of your long term mine schedule.

Calculating from defined cost and revenue inputs, Deswik.SOT maximizes the NPV of a constrained mining sequence, outputting as a mining date for each task.

### SCHEDULE FOR VALUE

- » Uses heuristics and a unique evolutionary algorithm to optimize the Net Present Value of long-term mine schedules.
- » Control and narrow the focus by allocating more time to reviewing the highest-valued schedules.

### UNDERSTAND RESOURCE CAPACITY

- » Capacity Analysis feature reports on the valid capacity ranges for the operational resources.
- » Investigate a range of scenarios with capacity flexing to assess alternative operational resource scenarios.

### ASSESS RESULTS

- » A set of significantly different schedules with the best optimized NPVs are retained for comparison.
- » Add contaminant costs when the concentration passes a specified threshold for a given scheduling period.

### SEAMLESS INTEGRATION

- » Integrated with Deswik.Sched, the Deswik.SOT forms can be repopulated from existing schedule fields.

### NEW IN SOT 3.0

- » **User Interface.** The interface for SOT v3 offers a cleaner look and feel, with items easier to find. From importing projects to viewing results, the entire user interface has been redesigned.
- » **Assignment of Types.** SOT v3 will no longer constrain you to types and units selected on import. You can now set and change these associations as needed.
- » **Equipment.** One of the biggest changes to the functionality of SOT v3 relates to equipment. Equipment quantities and capacities have now been integrated for better performance and ease of use. Further, SOT v3 now gives the option to specify alternative equipment sets.
- » **View Resource Allocation.** You can easily view how SOT v3 assigned your resources throughout the mine life.
- » **Activity Filters.** Activity Types have been replaced with Activity Filters. You can now filter by any text field and value in order to flexibly apply a number of properties, from setting objectives, costs, and equipment, to the new ability to assign weight and length fields selectively.
- » **Activity Splits.** SOT v3 can now split tasks in order to schedule priority tasks earlier in the mine life while adhering to capacity constraints.
- » **Guidance.** SOT v3 now allows multiple Guidance Types and/or various Intensity amounts to be configured in one Execution.
- » **New Objective.** In addition to the objectives in SOT2 (maximize NPV or maximize peak NPV), SOT v3 includes a new objective – the maximization of a schedule's profitability index.
- » **Multi-Core.** SOT v3 can run on up to 4 processor cores, allowing for reduced run times.
- » **Baseline Executions.** SOT v3 can now conveniently reproduce an imported schedule, for quick financial and resource analysis, and for a baseline comparison with optimized schedules.