

MINESIGHT® SCHEDULE OPTIMIZER

OPTIMIZE SHORT AND MEDIUM TERM PLANNING

OVERVIEW

MineSight Schedule Optimizer determines the most productive cut mining sequence to achieve the highest project profitability while satisfying all project quality and quantity constraints, destination capacities, equipment resources, and economic parameters.

MineSight Schedule Optimizer generates practical short to medium term project schedules that satisfy quality, quantity, market, and geotechnical constraints using advanced integer programming engines to solve optimization/blending and scheduling problems.

D A T A S H E E T

KEY POINTS

- ⊙ Shovel-level cuts
- ⊙ Quality/quantity constraints
- ⊙ Equipment usage
- ⊙ Semi-automatic material routing
- ⊙ Stockpile handling
- ⊙ Infeasibility analysis
- ⊙ Customized Charting
- ⊙ Customized Reporting
- ⊙ Maximize/minimize metal contents
- ⊙ Maximize net present value (NPV)

KEY FEATURES

- > Calculate schedules based on objectives, constraints, and economic parameters
- > Determine optimal cut mining sequence per period
- > Automatically conduct infeasibility analysis to find violating constraints
- > Maximize/minimize net present value (NPV), stripping ratio, or metal contents
- > Utilize available truck and shovel resources efficiently
- > Import cuts from multiple models stored on reliable and secure databases
- > Provide flexible and customized reports and charts for pre- and post-scheduling analysis
- > Define or Input:
 - Objective per period
 - Materials sent to any number of mills, leaches, pads, stockpiles, and waste dumps
 - Mining, processing, marketing, and geotechnical constraints
 - Stockpile mining and reclaiming constraints as well as reclaiming method
 - Constraints for materials sent to destinations or received from stockpiles
 - Constraints for grade items, grade ratio, and stripping ratio
 - Bench vertical advance rates (VARs)
 - Constraints for shovel and truck hours
 - Physical relationships between phases
 - Material movements by mining area and by phase
 - Equipment usages by mining area and by phase
- > Integrated with MineSight Haulage to define destinations, capacities, opening balances, and calculate cycle time
- > Calculate cut precedence between benches and phases
- > Allow semi-automatic material routing
- > Integrated with cuts designed by MineSight Interactive Planner and MineSight scripts
- > Read data directly from the MineSight Planning Database
- > Generate customized reports and charts filtered by periods, phases, benches, materials, cutoff grade, cut attributes, and/or equipment hours
- > Export customized reports to Microsoft Excel® and CVS
- > Export schedules to MineSight 3D for visualization
- > Integrated with MineSight 3D end-of-period maps



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