GEOVIA ROLES
EXPLORING THE GEOVIA WHITTLE™ PORTFOLIO

When exploration and mining companies need to evaluate the financial viability and the optimal mine strategy for a deposit, they turn to the industry leading strategic mine planning solution – GEOVIA Whittle™.

Companies depend on Whittle to help them determine their investment strategy and to deliver robust mine plans that maximize profitability by taking into account real mining constraints.

Whittle delivers trusted results and is used in scoping, feasibility, life-of-mine scheduling, and in the ongoing re-evaluation of mine plans throughout the production phase
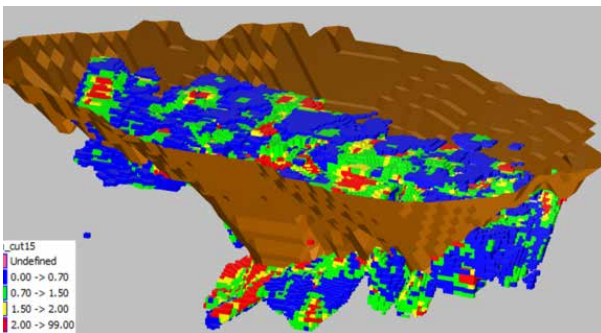
WHITTLE™

// **PIT OPTIMIZER**

// **PUSHBACK OPTIMIZER**

// **MULTI-MINE OPTIMIZER**

// **BLEND OPTIMIZER**

// **SIMULTANEOUS OPTIMIZER**

// PIT OPTIMIZER

Find the optimal mining strategy utilizing a combination of economic, physical, geotechnical and operational constraints.

- Choose either Pseudoflow or Lerchs-Grossman (LG) algorithm to generate optimized pit shells

- Utilize unparalleled toolkit for high level economic evaluation of new projects and operating open pit mines

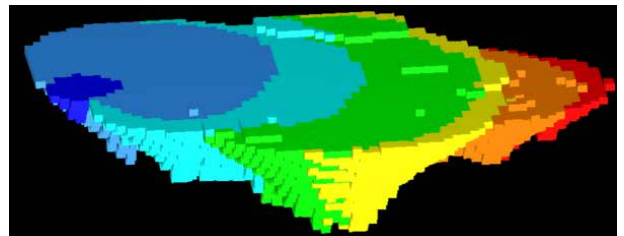- Uncover and understand economic drivers and associated sensitivities

- Focus on NPV maximization or resource recovery

- Manage projects with an easy-to-use framework

- Analyze multiple scenarios and elements with advanced reporting and charting

// PUSHBACK OPTIMIZER

Create Strategic Mine Plans linking in Milawa's Life of Mine Scheduling approach focused on NPV or material balance.

- Determine best set of practical pushbacks or mining phases

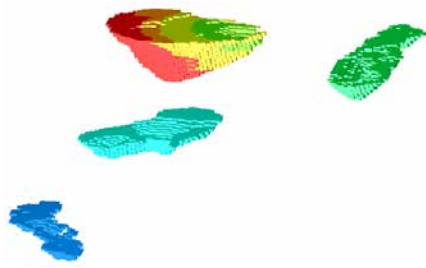- Develop optimal and achievable life of mine schedules

- Handle complex mining and processing constraints

- Calculate NPV based on realistic schedules supporting up to 50 pushbacks

*The Pushback Optimizer role also includes all of the benefits of the Pit Optimizer role.
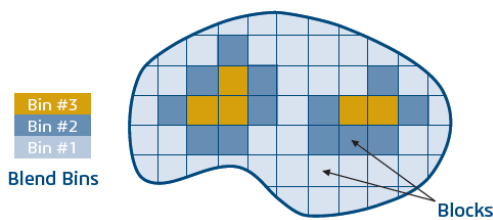
// MULTI-MINE OPTIMIZER

Perform a single optimization over a complex collection of mines all while maintaining individual work constraints for each mine. Producing a more realistic overall schedule from the different areas all within the one optimization framework.

Run a single optimization over a whole mining complex

Apply individual work constraints for each mine within a complex

Define unique physical constraints for each mine, such as mining width

Modify mining rate per mine in different scenarios

View, report and analyze all or individual mines in one go

*The Multi-mine Optimizer role also includes all of the benefits of the Pushback Optimizer role.
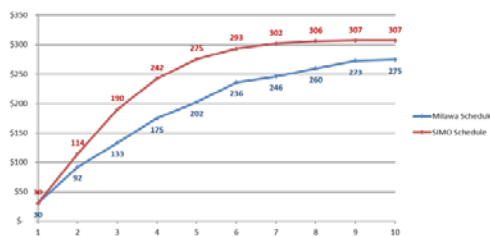
// BLEND OPTIMIZER

Optimize blend considering the schedule and existing stockpiles to ensure these are optimized at the same time, driven by the overall objective of maximizing the Net Present Value (NPV) of the whole operation.

Bin #3
Bin #2
Bin #1
Blend Bins

Blocks

Blend optimization based on Whittle schedules or imported schedule

Bulk blend scenario analysis considering multiple products with different specifications, prices, blending costs and blending limits

Handle multiple coal specifications and constraints such as minimum BTU, max ash and sulphur

Perform extractive blend factoring in blending costs and constraints, such as process recovery, prices and selling costs while limits are applied to the extractive process

Handle multiple stockpiles, different cut-offs, time dependant recoveries, initial size and grade while utilizing Whittles scheduling engine to determine the optimal blend strategy

*The Blend Optimizer role also includes all of the benefits of the Pushback Optimizer role.

// SIMULTANEOUS OPTIMIZER

Simultaneously optimize schedules, cut-offs, stockpiles and blend for the life of the operation. Find better outcomes compared to traditional methods resulting in higher Net Present Value (NPV) for the operation.

Increase NPV beyond multiple sequential optimization mechanisms

Simultaneously optimize the optimization mechanisms for cut-off, blending, stockpiling and sequencing to create the ultimate mine schedule

Make individual optimization mechanisms more accessible in a single step

Analyze and report using both standard Whittle outputs and advanced spreadsheet reporting

Handle 30 processing paths as well as capital or CAPEX optimization

*The Simultaneous Optimizer role also includes all of the benefits of the Pushback Optimizer role.

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