



# Deswik.Blend

MATERIAL FLOW MODELING

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

A companion module for Deswik.Sched, Deswik.Blend has been developed to meet the challenges of scheduling material handling and blending production outputs from any mining deposit, metaliferrous or coal. Using an intuitive graphic interface, complex material flows can be modeled easily for scenario analysis in either multi-period or period-based modes.

Use multi-period mode to make the optimal destination decision of where to send material once mined with consideration for stockpile limits, flow constraints, plant capacities and product targets to maximize value across multiple periods.

Use period-based mode to extend the optimal destination decision to include the mining decision of when to mine with consideration for mining capacity and extraction constraints to maximize value on a period-basis.

Penalties can be configured and balanced to model the competing priorities of product quantity targets, product specifications and maximizing value for multi-product scenarios.

### OPTIMIZED DECISIONS

- » In multi-period mode - make the optimal decision of where to send material once mined, develop product strategies considering capacity and blending constraints to maximize value across multiple periods.
- » In single period mode - make the optimal decision of when to mine and where to send material once mined, develop plans considering mining, capacity and blending constraints to achieve product targets on a period-basis.

### COMPLEX SYSTEMS

- » Build a network of sources, stockpiles, dumps and plants to model material flows and transformations to products and waste through an intuitive graphic interface.
- » Materials can be modeled on either a raw or product basis and incorporate unlimited variables.

### FLEXIBLE CONFIGURATION

- » Model metal and coal plants with flotation and yield curves at discrete cut points.
- » Balance quantity and quality/grade targets with flow ratios, stockpile turnover and material transformations.
- » Assign economics to flows to model mining, processing, transport, selling costs and revenues.

### AUDITABLE

- » Audit material flows through the entire the network, generate a detailed log record of each material movement from pit to stockpile to plant or dump.

### EMBEDDED REPORTING

- » Report material flow between sources and destinations including quantities, grades, recoveries, products and stockpile inventories.

### EXTENDED SOLUTION

- » Integrates seamlessly within Deswik.Sched to eliminate any manual data transfer.
- » Extend the results to Deswik.LHS for haulage scenario analysis including stockpile reclaim.