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 blended production outputs from any mining deposit, metaliferrous or coal. Using an intuitive graphic interface, complex material flows can be comprehensively modelled for easy multi-scenario analysis.

Built around the IBM CPLEX optimizing engine, Deswik. Blend schedules the available material with consideration for stockpile limits, flow constraints, plant capacities and product targets. Outputs are balanced across defined periods against the competing priorities of product quantity targets, product specifications and maximizing the value mix for multi-product scenarios.

Reporting directly into Deswik.Sched, the output flow log maps each material flow - tracking material throughout the entire beneficiation process to mining the block level of granularity. Matching this information into Deswik.LHS can define the additional haulage pressures of complex stockpile reclaim strategies.

PERIOD-BASED OPTIMIZATION
» Material flow modeling and targeting that closes the planning gap between ROM production and blended product.
» Develop product strategies for defined constraints using the IBM CPLEX solver engine.

MODEL COMPLEX SYSTEMS
» Intuitive graphic interface builds a network of sources, stockpiles, plants and destinations via material pathways.
» Blend materials on either a raw or product basis incorporating unlimited variables.

REALISTIC CONSTRAINTS
» Simulate metal and coal plants, with flotation, washability and yield curves at discrete cut points.
» Balance quantity and quality/grade targets with flow ratios, stockpile turnover and material transformations.

STRATEGIC OPTIONS
» Audit material flows through the entire the network, trace from source block to destination via all stockpiles and plants.
» Allow the blending engine to select the best production sequence for defined saleable product streams.

EMBEDDED REPORTING
» Complete exposure of all data used during the blending process, reportable via Deswik.Sched.
» Generates a detailed flow log record of each material movement from pit to stockpile to plant.

EXPANDED SOLUTION
» Integrated seamlessly within Deswik.Sched eliminating any manual transfer of data.
» Extend the results to Deswik.LHS for haulage scenario analysis including stockpile reclaim and transport trucking.

Deswik®