netmine
Mining Solutions

NETMine Plan Optimization

Users can optimize long-term production stages with NETMine Plan Optimization module. Allows calculating the optimum quarry boundaries, surfaces, and production amount by entering a number of economic and metallurgic parameters are entered with a mineral resource. Plans with lower costs and high profitability can be produced, risk analysis can be made, alternative reporting options can be used by comparing results produced by using different optimization parameters.

Optimization modüle is fully integrated with NETPROMine. There is no need to manually import and export files to exchange data with other applications.

Prerequisites

NETMine Plan is mandatory for all planning modules.

KEY FEATURES

- ✔ Fast solution generation with known, traditional and current methods
- ✔ Import and export block model data in * .csv format
- ✔ Ability to work with more than one ores and attributes
- ✔ Ease of producing topography using Lidar data (* .las, * .laz) and other (* .dxf, * .dwg, * .xyz, * .txt, * .csv etc.) formats
- ✔ Ability to run optimization using ore mass without having to create mask blocks
- ✔ A single workflow-oriented dialog box that allows all optimization parameters to be entered through a single window
- ✔ Importing and exporting optimization parameters in * .xml format
- ✔ Flexibility to determine cost, capacity and recovery rate on process basis
- ✔ Easy to define Discount rate, Depth Factor, Dilution
- ✔ Amount and Mine Operation Efficiency
- ✔ Defining four-way block slope angle
- ✔ Re-blocking option
- ✔ Automatically determining the maximum mine capacity
- ✔ Different iteration options to minimize optimization process time
- ✔ Stocking option to be used in optimization reports
- ✔ Ability to determine the width of the open-pit bottom surface to avoid the formation of small pits, to suit mining practice at the bottom of the optimum pit
- ✔ Automatically calculating and displaying optimization limits
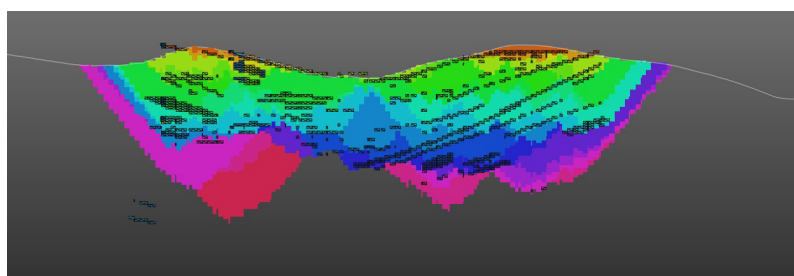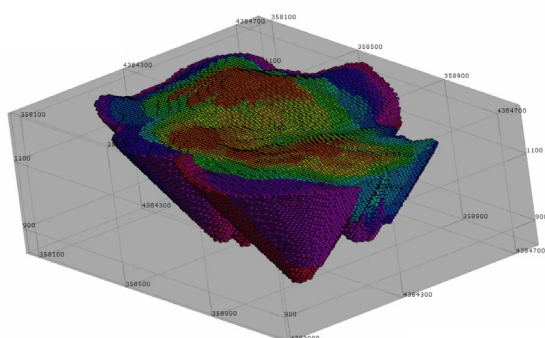- ✔ Economic limit tenor/grade calculation
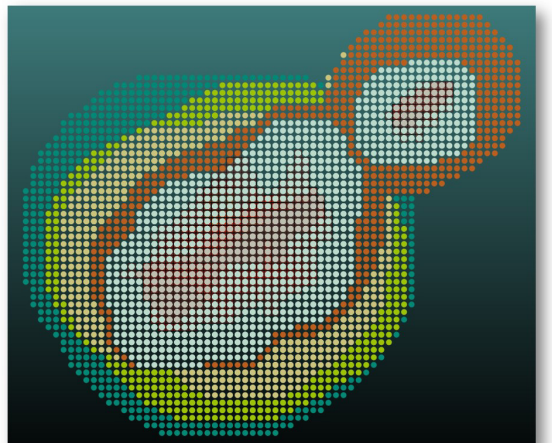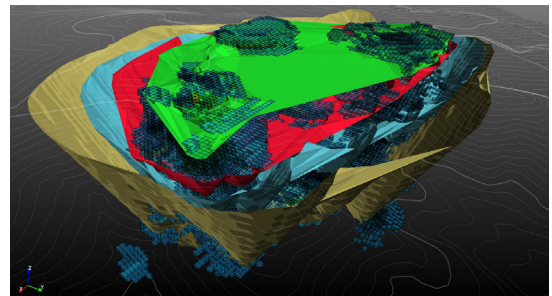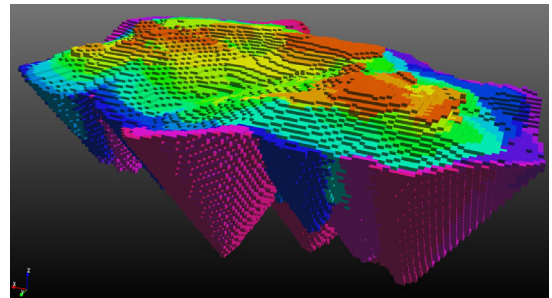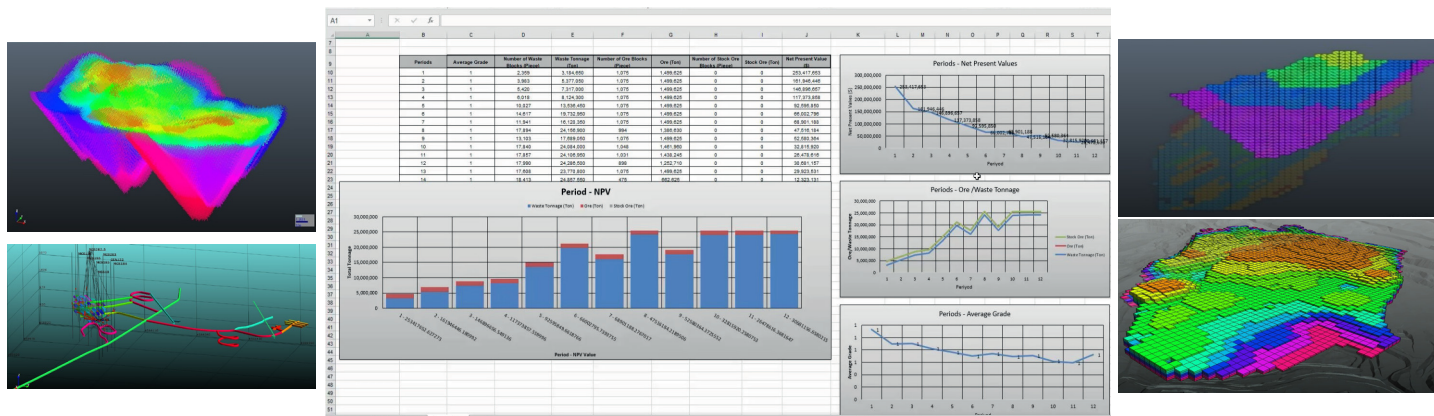
Features

- Flexibility to enter manual cut-off value
- Options to display optimization result blocks in nested pit or bench structure
- Block model point display feature
  Generating all optimization results on a single summary screen
- Point and block model displaying that automatically thematized according to years
- Automatically produce optimization final surface
- Ability to export graphically supported optimization plan and detail reports in excel format
- Automatic generation of the final pit surface boundary with draped to the topography
- Scenario option to evaluate the optimization results
- Creating final surfaces for each production period
- Displaying ore/waste blocks according to periods and reporting the number of blocks, tonnage and average grade values
- Ease of running optimization according to different parameters and comparing results
- Flexibility to evaluate results on sections with advanced section tools
- Risk analysis according to different parameters with Monte-Carlo simulation and graphically supported reporting

KEY BENEFITS

- 3D visualization, access to the surface and block model features.
- Fast result generation from data to model
- Easy to use interface
- Uptading mining costs, prices, coefficients and detailed parameters optionally, and the flexible optimization process
- Ease of evaluating the optimization results with different options
- Data exchange with different mining software
- Advanced graphical reporting features
- Automatic final surface generation option on a periodic basis
- Ease of evaluating results with interactive cross-section tools
- Adjustable high-performance options
- Advanced thematic and style features
- Graphical reporting with Risk Analysis feature

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