



**NETPROMine Geological Modeling – Core Module** 



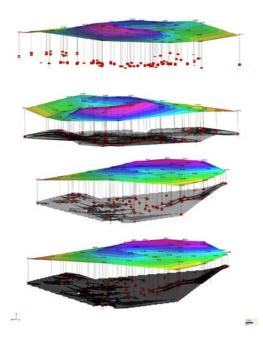
NETPROMine Geological Modeling product is an essential component that should be present in every installation of NETPROMine.

This important component includes exploration, surveying, solid modeling and resource estimation solutions.

NETPROMine offers powerful tools to manage and analyze projects using the visualization, drilling management, surface, solid and block modeling tools, statistics and geostatistics functions needed for an advanced exploration and resource estimation project.

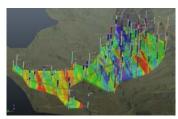
## **KEY FEATURES**

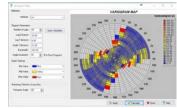
- 64 bit architecture
- Project database support (\* .mdb, \* .SQLite)
- Easy to use interface
- Multi-language support (English, Russian, Turkish)
- Fast and flexible data transfer
- Advanced 3D visualization screen, different stereo and display types
- Working with different windows at the same time on dual monitors
- 3D navigation
- Instant data filtering with optional hiding of excluded records
- Creation, verification and management of borehole databases
- Ability to add borehole data manually
- Ability to work with oriented drills
- Assign diameter, lithology color and pattern to boreholes
- Advanced tools for borehole reporting, grouping, merging, filtering, updating
- Basic grid and contouring functions
- Statistical summaries, graphs and reports for basic exploration and data analysis
- Cross-section drawing and editing tools
- Automatic cross section generation from selected boreholes
- **3D sectioning**, dynamic transition between sections
- Able to watch interactively by dividing the project screen into different windows
- Advanced drawing and point snapping tools
- General measurement and query tools
- Different navigation, 2D screen locking and camera stabilization options
- Labeling tools
- ∠ Lidar point cloud (\*.las, \*.laz) importing support
- Options for simplifying, classifying, coloring point cloud data
- Ability to produce surfaces from point cloud data

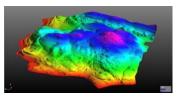


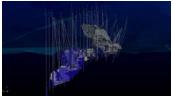
- Defining transparency to project data
- User-defined, advanced **thematic** displays
- Comprehensive statistical graphics and reporting options on analysis results
- Ability to add fault measurements using a template file or manually
- Surface creation, editing, visualization and analysis tools
  - Ability to produce surfaces from points, lines, multiple lines
  - Ability to produce surface from seam/vein definitions
  - Elevation editing, adding triangle, adding point, rotating triangle, simplifying
  - Arithmetic operations between surfaces Surface elevation visualization
  - Raster draping on the surface
  - Generating a contour lines
  - ✓ Slope / slope direction **trend analysis** over the surface
  - Adding faults to the surface
  - Ability to cut selected surfaces inside or outside the boundary
  - Automatic generation of intersection boundaries for intersecting surfaces
  - Area draping on the surface
  - Surface merging
  - Converting underground gallery profiles into surfaces
  - Convert produced surfaces to \* .dxf, \* .dwg file
- Solid model creation tools
  - Create a solid model between surfaces
  - Create a solid model using cross sections
  - Create solid model from block model attribute values
  - Create the outer shell using **ground point cloud data**

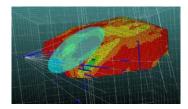


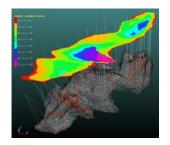


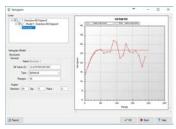


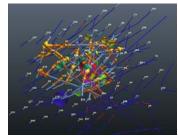












- Ability to produce **sub-block** or **normal blocks** in different combinations
- Rotating the block axes by entering an angle in X, Y, Z directions
- Advanced geostatistical tools
  - Inverse Distance
  - Kriging
  - CoKriging
  - Indicator Kriging
  - Nearest Neighbor
  - Kringing Postproccesing
  - Convert Distribution Function
  - **Sgsim** (Sequential Gaussian Simulation)
  - Sisim (Seguential Indicator Simulation)
  - Simulation Postprocessing
  - Cross Validation
  - Histogram Graph
- Support for geostatistical modeling variations
  - Multiple estimation studies
  - Point view of the block model
  - Option to add search ellipsoid
  - Anistropy detection with Variogram Map
  - Block filtering using surface, solid model, polygon, attribute, elevation
  - Use of filtered blocks by separating them
  - Ability to perform geostatistical operations only on filtered blocks
  - Block attribute editing operations
  - Block model histogram chart
- Block model reporting options
  - Block report
  - Block **list report** (block \* .csv export)
  - Tenor Tonnage curve
  - Grouped block report
  - 3D **print** screen
  - Easy to use, technical support platform.

## **KEY BENEFITS**

- Fast and accurate transfer of all borehole datas
- Monitor sampling accuracy and precision
- Combine data from complex data sources into a secure project database
- Logically constructed, editable toolbars that provide quick access to all tools
- Manual, automatic cross-section creation with interactive section tools and editing tools
- ✓ Flexible use with almost unlimited undo and redo features
- Adjustable high performance options
- Maintain accuracy and consistency among project team members
- Spatial organization tools for basic geological interpretation and basic engineering design
- Link windows for fast spatial comparison and navigation in multiple linked windows
- Advanced **block modeling**, validation and reporting tools
- Easy to use 3D for effortless visualization of project data
- Meet advanced operators for surface modeling, editing and analysis
- Freeform drawing flexibility. Advanced drawing and query tools to control entering specific distances, directions and positions
- Flexible options for cut fill calculations and volume calculations between two surfaces
- Interactive tools that facilitate geostatistical modeling and verification
- Ability to import and export data from different mining software
- Flexible tools for converting surfaces and cross sections to solid models



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