



PRO**M**INE

MINING & SURVEYING SOFTWARE





THE MOST FLEXIBLE AND EASY-TO-USE
MINING & SURVEYING SOFTWARE

PROMINE COMBINES AN **AUTOCAD**
INTEGRATED INTERFACE
WITH **POWERFUL, INDUSTRY**
FOCUSED MODULES FOR
PLANNING VITAL **MINING &**
SURVEYING TASKS.


Promine addresses one of the most critical issues in mining and geology software: the lack of complete integration from exploration to the production phase. Promine users are covered from exploration, resource estimation, mine planning, drift design, drilling and blasting, scheduling operations, and finally creating professional layouts ready for presentations.

Increase mine planning efficiency:

- Plan and model drifts, ramps and raises
- Create drill and blast designs
- Create an implicit model of a lithology
- Perform section cutting quickly, easily and intuitively
- Create professional printing layouts rapidly
- Secure layer management and up to date drawings

Essentials

Secure all drawings and maintain up to date designs easily

Manage layer permissions as well as keep drawings organized. Connect with other mining software by importing and exporting files of block models. Use the fastest and most intuitive section cutting module on the market and a helpful grid tool to create professional layouts. 

Filer

Manage layer permissions with this simple collaboration tool as well as keep drawings organized and up to date while avoiding conflicting copies of common work.

Promine Tools

Configure your basic Promine settings, convert polylines from 3D to 2D and vice versa. Finally, return to plan with one simple click.

Section

Use the fastest and most intuitive section cutting module on the market. Easily cut one or multiple sections in just a few seconds.

Grid

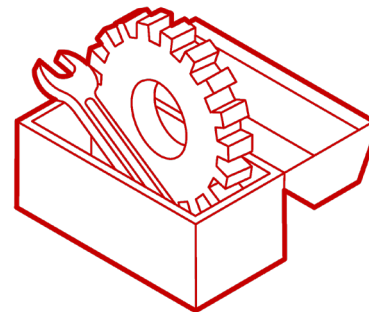
Create professional printing layouts in just a few clicks. Easily manage scales, title blocks and plotting settings.

Library

Store and share all commonly used symbols easily in the library module in order to annotate maps and drawings following industry standard codes.


Interface

Connect with other mining software which allows you to export individual files or entire directories into DXF format. Easily import block models from other software.



Engineering

Design mine developments and perform stope optimization

Generate grade and tonnage reports of the block model directly in the drawing, optimize stopes based on specific preferences and design 3D drifts, raises and ramps effortlessly. Create drilling and blasting designs for underground and surface mining using different drilling options and use the optimal breakage tool to analyze blasting efficiency. 

Drill & Blast : Underground

Design drill and blast plans and insert reports showing lengths, explosives weight, safety distance, etc. Calculate powder factors and generate energy analysis to determine optimal rock breakage.

Drill & Blast : Surface

Design drill and blast patterns for benches, calculate powder factors, delays, and create drilling and blasting reports.


Stope Design

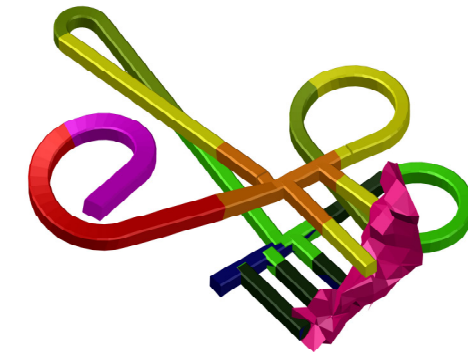
Compute tonnages and grades based on geological data from block models and create accurate annotations to keep stopes organized.

Proximity


Search the units surroundings to identify intersections between mine workings.

Mining Scheduling


Insert gantt charts and cost reports, then use the optimization tool to maximize profit. 




Drift Planning

Design 3D drifts and ramps along a graded centerline, then insert annotations easily to create a clear report showing all information needed for development. 

Raise Planning

Connect underground workings by creating a raise. Annotate and model designs easily. 


Survey

Import and update drawings with survey data points and stations in a few clicks. 



Modeling

Create as built 3D models with imported survey data

Construct and manipulate 3D models of stopes, geological structures, surfaces, benches, pillars, drifts, ramps and other mining underground developments. Calculate volume between surfaces, tonnages and apply boolean operations such as union, subtraction and intersection of solids. 

Surfaces

Triangulate and manipulate 3D surfaces using face rotations, line or point additions and color coding according to elevations.

3D Bench

Build top and bottom surfaces then create benches according to specifications and gain accurate volume and tonnage calculations.

3D Modeling

Model stopes, geological models, faults and other 3D objects from polylines.

Solids

Calculate volumes and manipulate 3D models using commands such as union, intersection and subtraction as well as convert meshes to solids and vice versa.

3D Raise

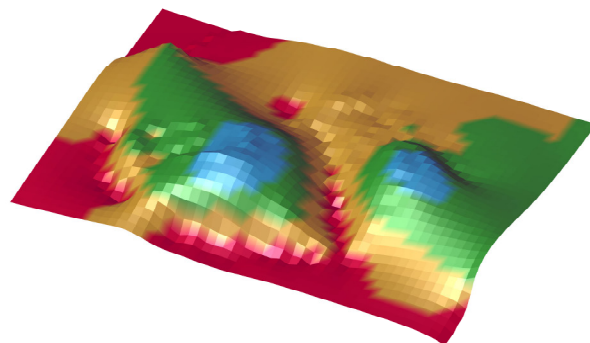
Create a model of various raise types with survey data, then compute the volume and tonnages.

3D Drift

Create as-built plans of all drifts swiftly with dated color coding according to surveyed data.

Rooms & Pillars

Create an orebody and map out pillars, then calculate the volume and tonnage. Mine out horizontal orebodies with ease.




Live Survey


Efficiently update your mine workings through survey data

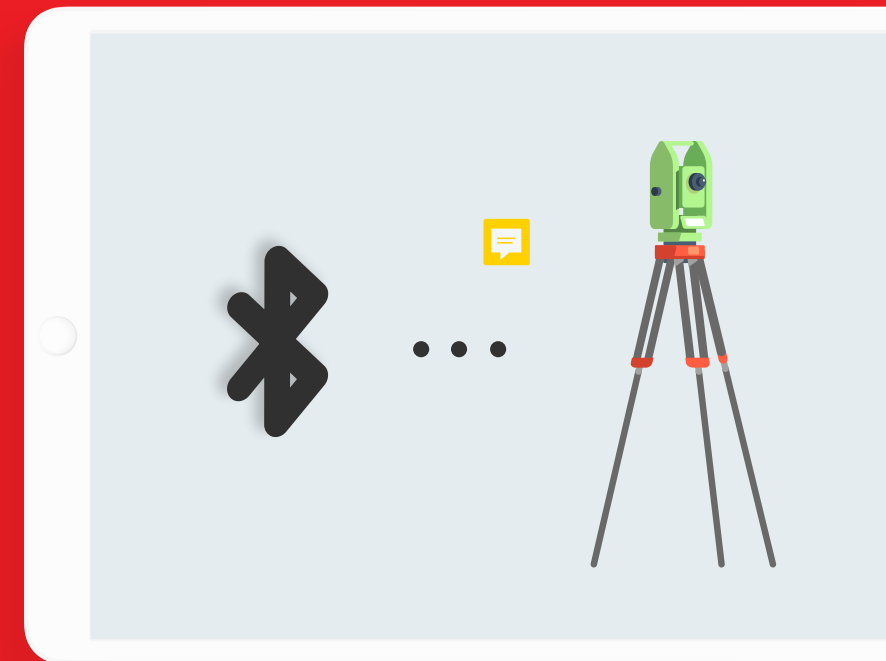
Set up. Connect. Get results instantly. Using a tablet, transfer all results easily to the server, where the updated information is readily available for anyone to view it. 

▶ Basic Survey

Locate the instrument quickly by performing a resection of two prisms. Then, survey the underground development and show drilling direction to accurately advance to the next round efficiently using a Leica instrument. 

▶ Advance Survey

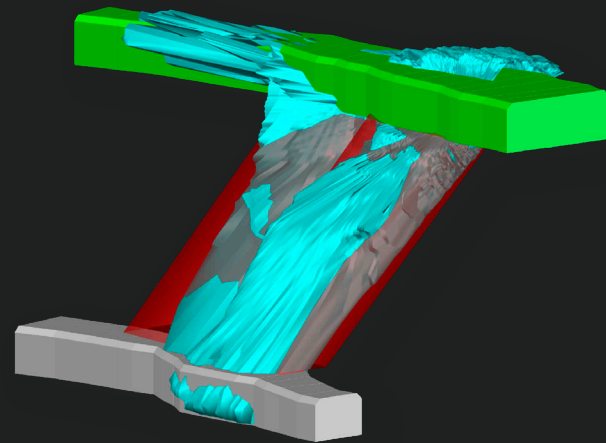
Complete your full surveying job in detail by easily measuring underground drilling holes, staking grade lines and measuring the overbreak and underbreak of a face. Use comprehensive commands such as marking face walls, backs and floors to automatically survey as-built drifts layouts directly in the drawing. 





.01 What is SmartDIL ?

SmartDIL is an artificial intelligence tool for predicting and controlling dilution and losses in underground mines.



.02 How it works ?

SmartDIL collects and normalizes historical site data (dimensions, rock type, drilling-and-blasting data, dilution result, etc.). From this data, an artificial intelligence model is trained and capable of predicting dilution and losses for a given planned stope. The more data available, the more precise the prediction will be.

The main features of SmartDIL:

- Estimated dilution and losses of a given stope.
- Easy to use web interface
- Detailed report of a stope
- Display of dilution trends and losses over time
- Communication with design tools (Promine)
- Sending automated data from an active stope to SmartDIL

.03 Benefits

- Better control of dilution and losses = increased profitability
- Facilitate the work of the engineer while improving the results
- Keep and improve expertise on dilution management within the organization
- Reduction of the time before finding an optimal solution
- Reduction of the environmental impact

Drones



A customizable solution for your surveying and exploration needs

TriStar drones allow to rapidly collect data points by surveying a large terrain and estimate stockpile resources efficiently. Use TriStar drones to improve the exploration activities by collecting survey data and geological data accurately. This customizable solution gives a wider range and a greater value to reassign resources to higher value-added activities.

PROMINE

► Stockpiles Surveying

PROGEOX

► Exploration Surveying




Fly Longer
Superior Range








Built by **TriStar**

The Solution for Geologists




Map out drilling campaigns, annotate drill holes, create composites and estimate resources in a few clicks. The compatibility with Access and SQL will ensure to keep the data organized. Generate 3D surfaces, perform implicit modeling of a lithology and create block models using classical and geostatistical methods. Analyze your data easily using statistics, distributions, semivariograms, grade-tonnage curves and much more.



- ▶ **Create geostatistical models** from samples and block models.
- ▶ **Create block models from composites** and perform resource estimation.
- ▶ **Plan and insert a diamond drilling campaign** and enter the data of coordinates, azimuth, inclination and length.
- ▶ **Create Map contour** and create a surface model of property for better visualization.
- ▶ **Import hole data stored into a drawing** from an ODBC and edit them in 3D.
- ▶ **Create an Implicit Model** of a lithology and model a surface of a property.


Geostatistics

Analyze data throughout the exploration phase using kriging methodologies to model geometry-grade relations and exploratory data analysis.




Resources

Perform conventional resource estimation from various methods based on the geometry of the mineralization. Generate reports of tonnage, grade, dilution and thickness.




Geological Mapping

Model different lithologies using the easy to use function of implicit modeling. Import data points and their attributes to create isocontours or surfaces that allows to clearly visualize data.



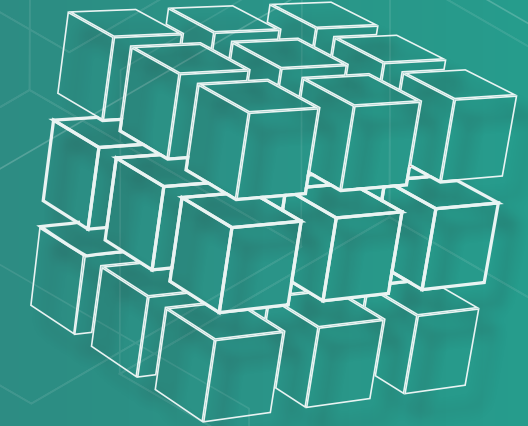

DDH & Channel Sampling

Insert diamond drill holes and channel data into drawings. Annotate and composite grades along holes for accurate block modeling and resource calculations.




Face Map

Map geological faces with ease and assign different rock types to specific, defined areas of the face map. Insert geological structures and create tonnage reports of the face.



Hole Planning

Create robust drilling plans with adjustments for deviations and end of hole predictions. Issue customizable reports showing Hole IDs, length, diameter, etc.



Block Modeling

Create accurate block models from drill holes or import a block model in any industry standard file format, then carry out various resource calculations.

Exploratory Data Analysis

Select the type of data and calculate the statistics such as the median, coefficient of variation, percentile, etc. Then, insert a scatter plot, a distribution table and measure the correlation between different data.



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See Promine in action with one of our expert specialists.
Discover first-hand Promine's capabilities and speak directly with a live agent.