PROMINE
MINING & SURVEYING SOFTWARE

RELEASE NOTES

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PROMINE
MINING & SURVEYING SOFTWARE

Release Notes 2023.03 – 04

This document contains the descriptions of new commands and improvements that are included in the 2023.03 -04 version of Promine. These are valid from the release of the version the March 27, 2023.

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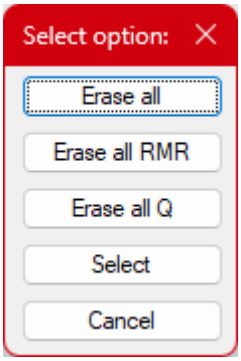
New Feature

Module: Rock Mechanics

RKMER – Erase RMR - Q

A new command was added to the RKM module to erase RMR and Q blocks, hatches and surfaces. When starting the command, you will be prompted with these choices:



Erase all: Erases all the RMR and Q objects in drawing
Erase all RMR: Erases all the RMR objects in drawing
Erase all Q: Erases all the Q object in drawing
Select: You can select the RMR and/or Q objects to erase. If you select only the block, the hatch or surface associated will also be erased. Same if you select the hatch only.
Cancel: You exit from the command

Module: Sections

SECMM – Create polylines at the intersection of 2 meshes

This new feature can be found in the custom commands of the module. It has been created to show where a fault is crossing a drift. It allows to warn the production team of what lies ahead and that ground conditions can be hazardous. To use this tool pick 2 meshes (it can be any mesh) and a 3D polyline is drawn where the meshes intersect each other. It is shown as the green line in the image below:

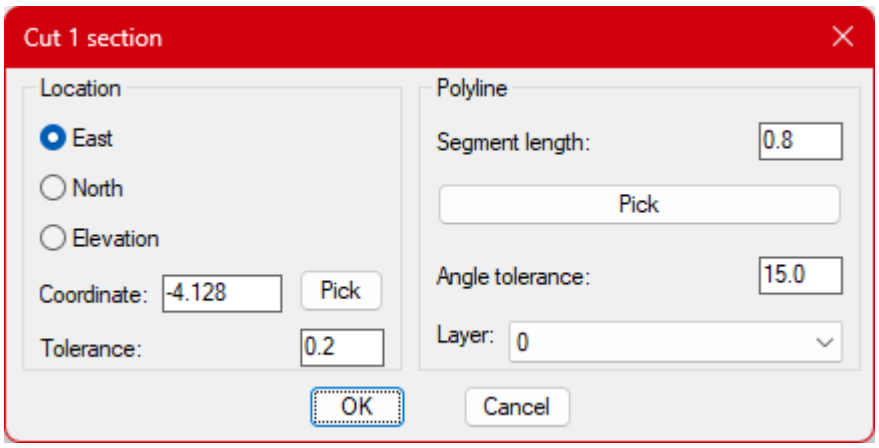
Module: Point Cloud

PCLS – Cut Cloud

This command was added to the Point Cloud module to create sections in a point cloud without having to create a 3D model at first. The command can only be used in the X, Y and Z coordinates.

How to use:

1. Select the command and the following window will open:

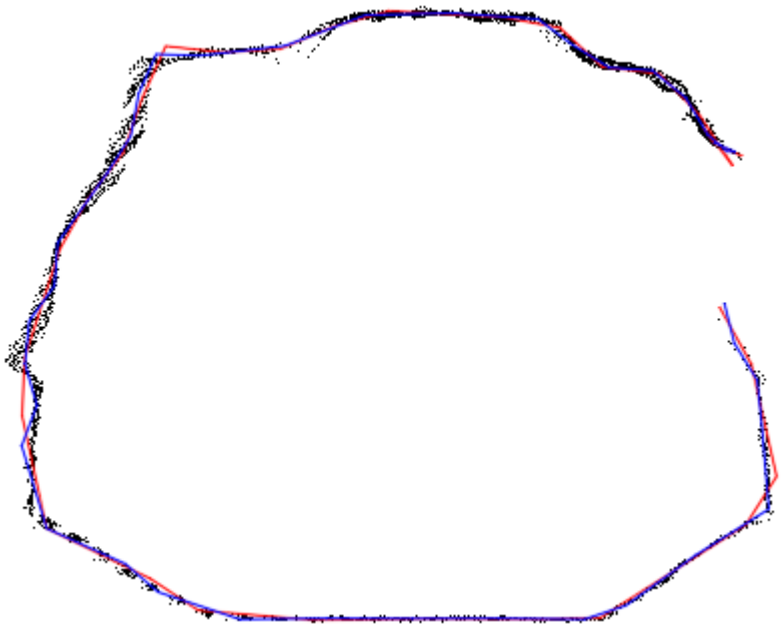


2. Select the cutting direction and coordinate (there is a “Pick” button for the coordinate).
3. The tolerance is how close to the section a point needs to be located to be included in the computation of the section. If the section is done at coordinate 100 and a tolerance of 0.5 is used, all the points between 99.5 and 100.5 will be selected.

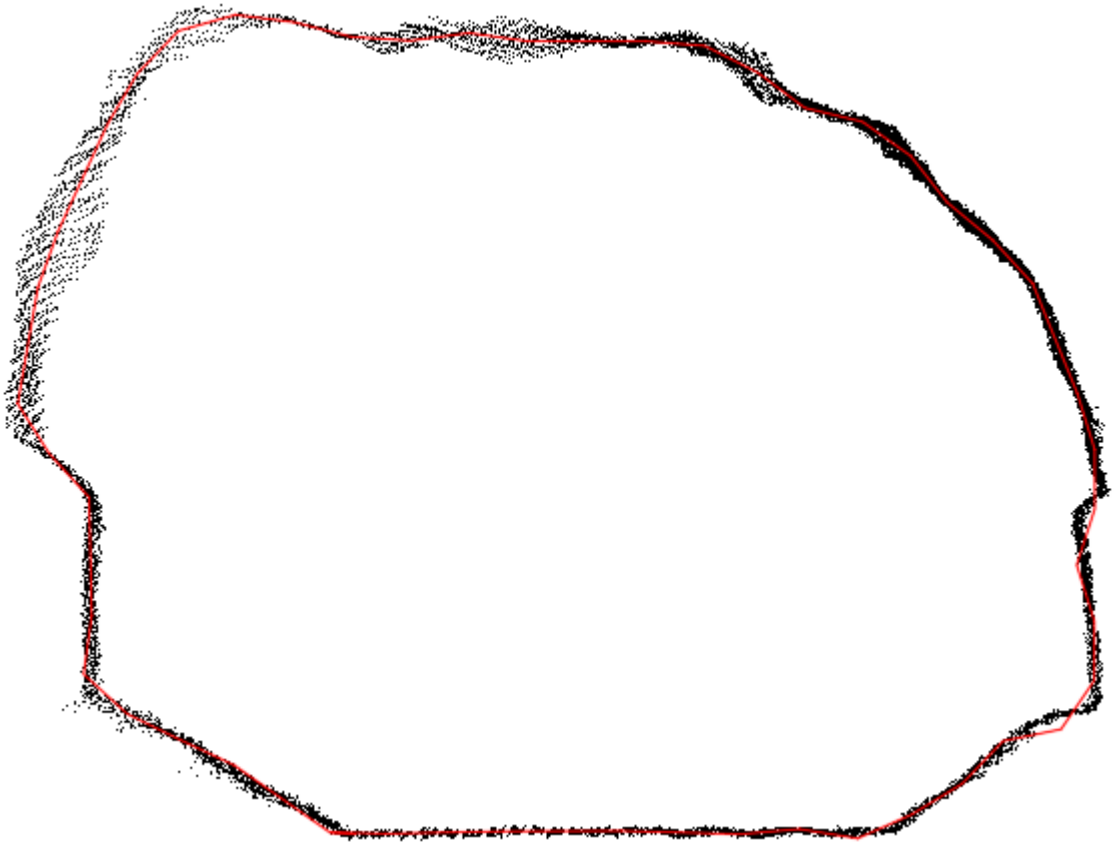
4. The polyline segment length is the distance between each point of the polyline. This is modified by the angle tolerance. If at some location, the point cloud makes a curve, the program will use half-length segments to keep the polyline close to the point cloud profile.
5. Select a target layer for the created polyline.

Example of polyline created (in red):

The result is fairly close and some manual adjustments can make it perfect.
Same data set but with a shorter segment length (in blue) makes it almost perfect:



If the point cloud is closed, it will create a closed polyline:



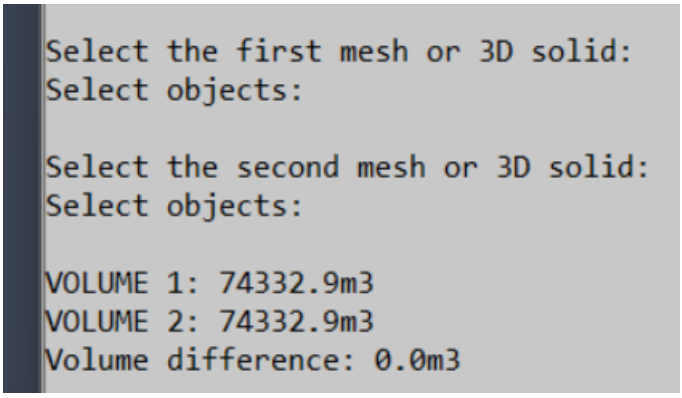
If the point cloud has multiple parts, there will be polylines created for each part. The logic for the polyline path may not be accurate when there are multiple or widespread clusters of points but in general the result will still be useful and can be corrected manually as needed. Testing with various segment length and tolerances can improve the results dramatically.

Module: Solids

PROMVOLCOMP – Compare Volumes

The PROMVOLCOMP command was added to the Solid module to allow users to compare the volume of two different meshes or 3D solids. The results can be displayed into a report and exported as a csv.

Volume difference		
Volume 1	Volume 2	Difference:
222998.7	222998.7	0.0



The command also returns the resulting volumes and difference between them to the command line like PROMVOL.

Improvements

Module: Solids

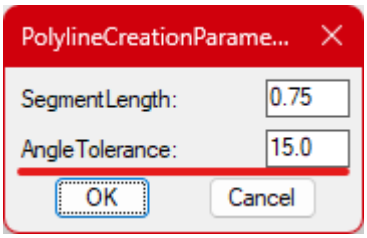
PROMJM – Join 3D faces

Face joining has been made over 6 times faster. There is now a dialog box asking the users if they want to check for self-intersections if the created mesh doesn't have a volume as that verification now takes much longer than the mesh joining.

Module: Point Cloud

PCLP – Create Polyline

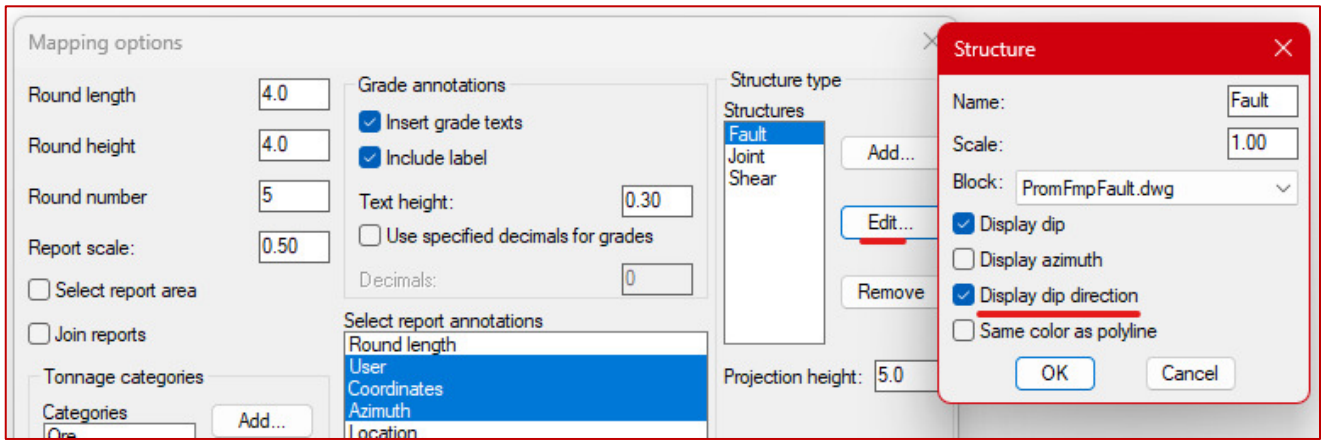
An option to have a limit angle was added to the command. When that limit angle is exceeded, the program will make half-length segments to follow more closely the point cloud when the shape is getting curvy.



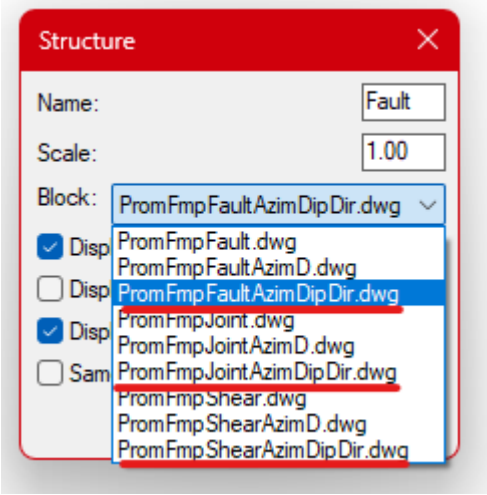
Module: Face Mapping

FMPO – Options

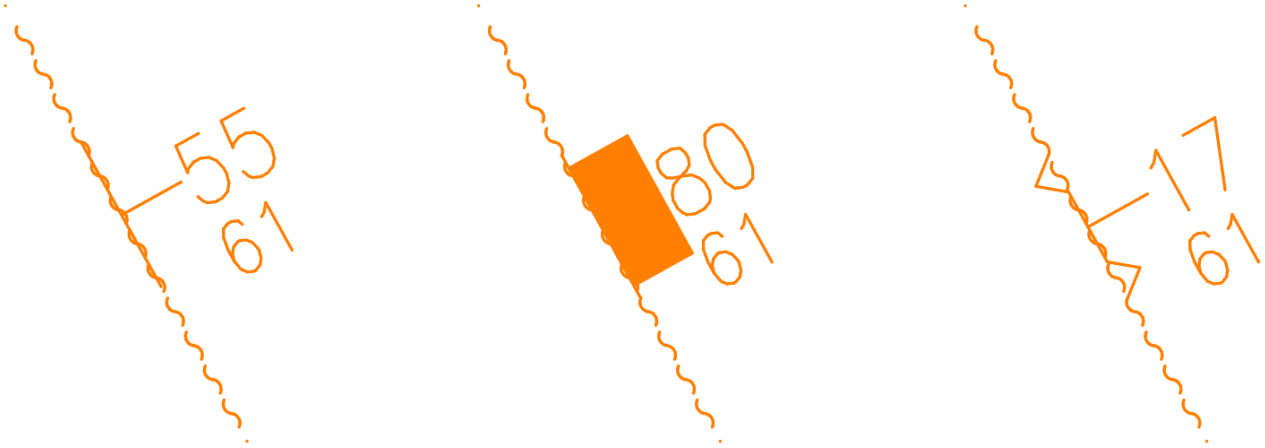
A toggle item was added to the FMP structures options to annotate the dip direction. The user must also use a block which includes an attribute for the dip direction.



A set of blocks for faults, joints and shears was added to the module to use this feature.



Here are how the result looks:

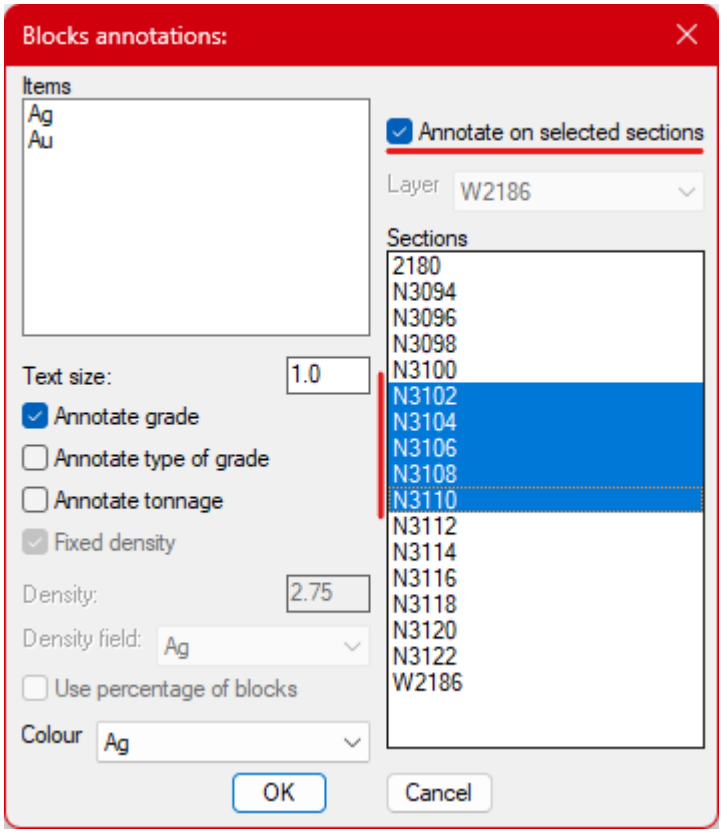


The “61” value is the dip direction value.

Module: Stope Design

STDA – Annotations

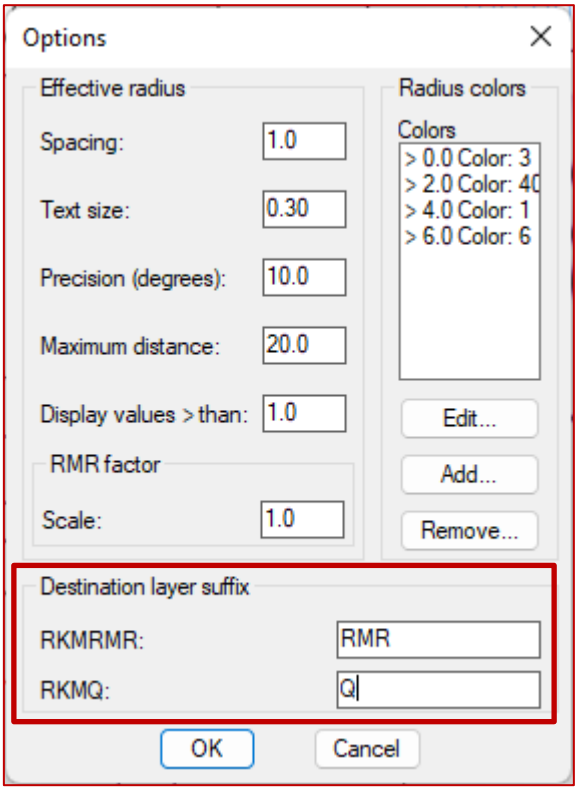
You can now select the blocks to annotate by sections. The program will go on each section selected and annotate the blocks:

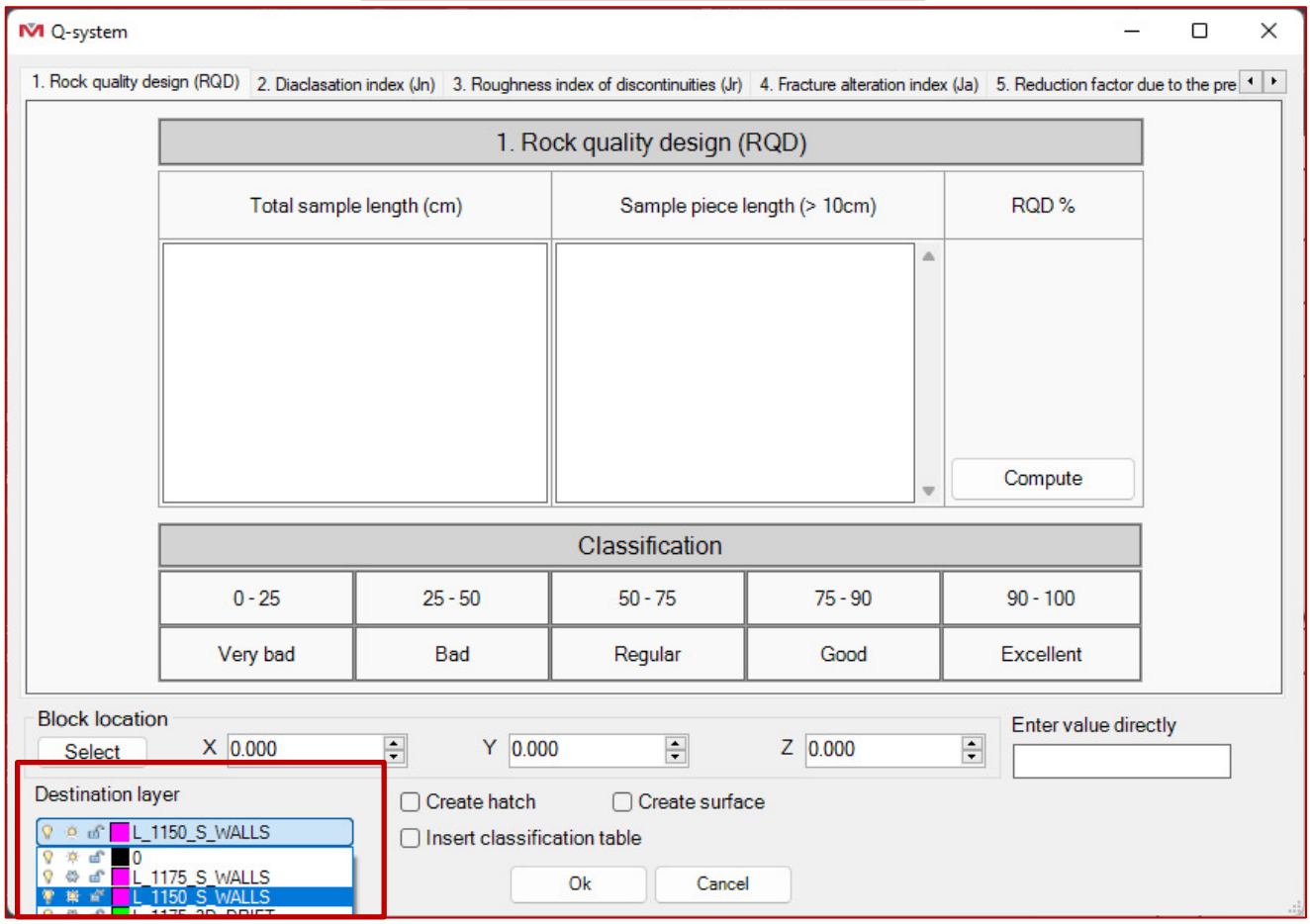


Module: Rock Mechanics

RKMQ – RKMRMR : Q-system and RMR value

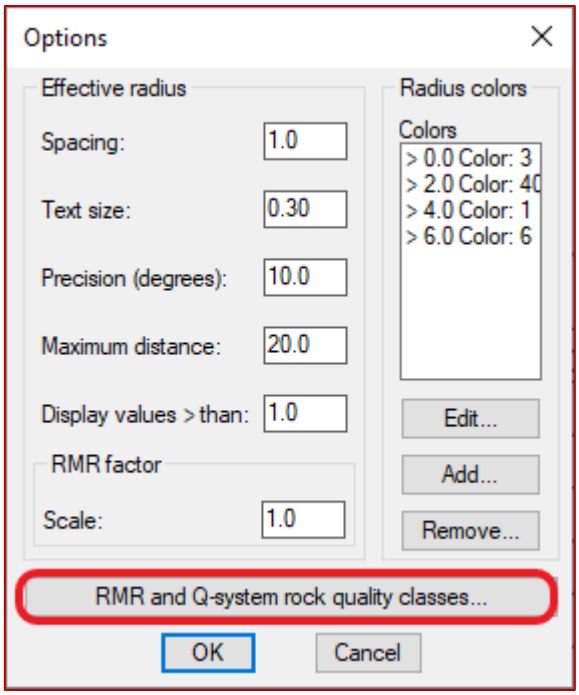
A destination layer field is added in RKMRMR and RKMQ command, the default layer selected will be selected according to the suffix set in RKM options. All elements will be put onto the same layer, the block, the hatch or surface and the classification table.

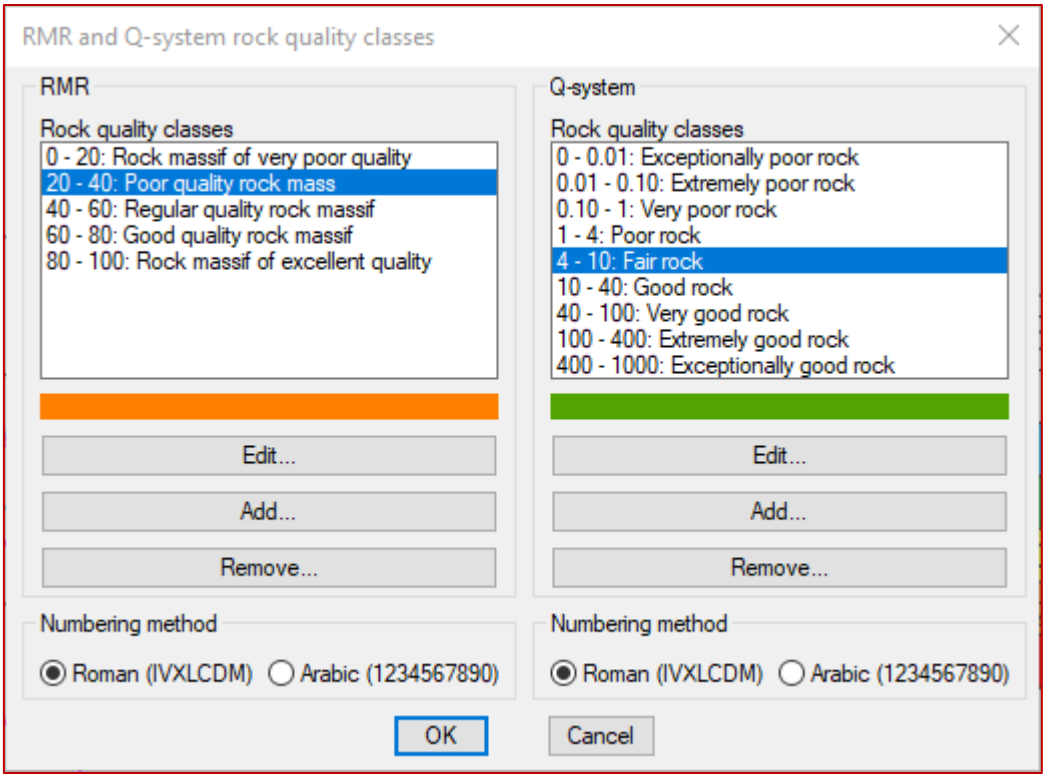

Options
Effective radius
Spacing:
1.0
Text size:
0.30
Precision (degrees):
10.0
Maximum distance:
20.0
Display values > than:
1.0
RMR factor
Scale:
1.0
Radius colors
Colors
> 0.0 Color: 3
> 2.0 Color: 40
> 4.0 Color: 1
> 6.0 Color: 6
Edit...
Add...
Remove...
Destination layer suffix
RKMRMR:
RMR
RKMQ:
Q
OK
Cancel

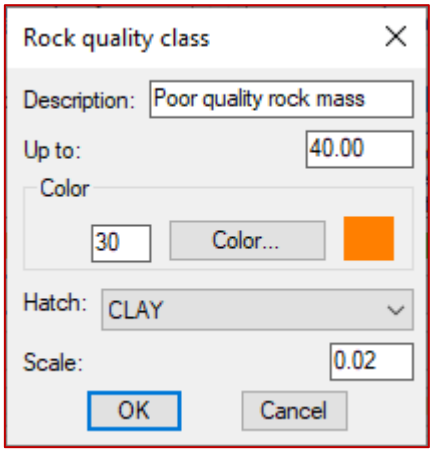

Q-system
1. Rock quality design (RQD)
2. Diaclasation index (Jn)
3. Roughness index of discontinuities (Jr)
4. Fracture alteration index (Ja)
5. Reduction factor due to the pre
1. Rock quality design (RQD)
Total sample length (cm)
Sample piece length (> 10cm)
RQD %
Compute
Classification
0 - 25
25 - 50
50 - 75
75 - 90
90 - 100
Very bad
Bad
Regular
Good
Excellent
Block location
Select
X 0.000
Y 0.000
Z 0.000
Enter value directly
Destination layer
L_1150_S_WALLS
0
L_1175_S_WALLS
L_1150_S_WALLS
Create hatch
Create surface
Insert classification table
Ok
Cancel

RKMO – Options

It is now possible to personalize the classes for RMR and Q-system values.
Each rock quality class includes a description, an upper limit, color, hatch pattern and hatch scale. The assigned color and hatch will be used for the hatch, when inserting a surface only the assigned color will be used.



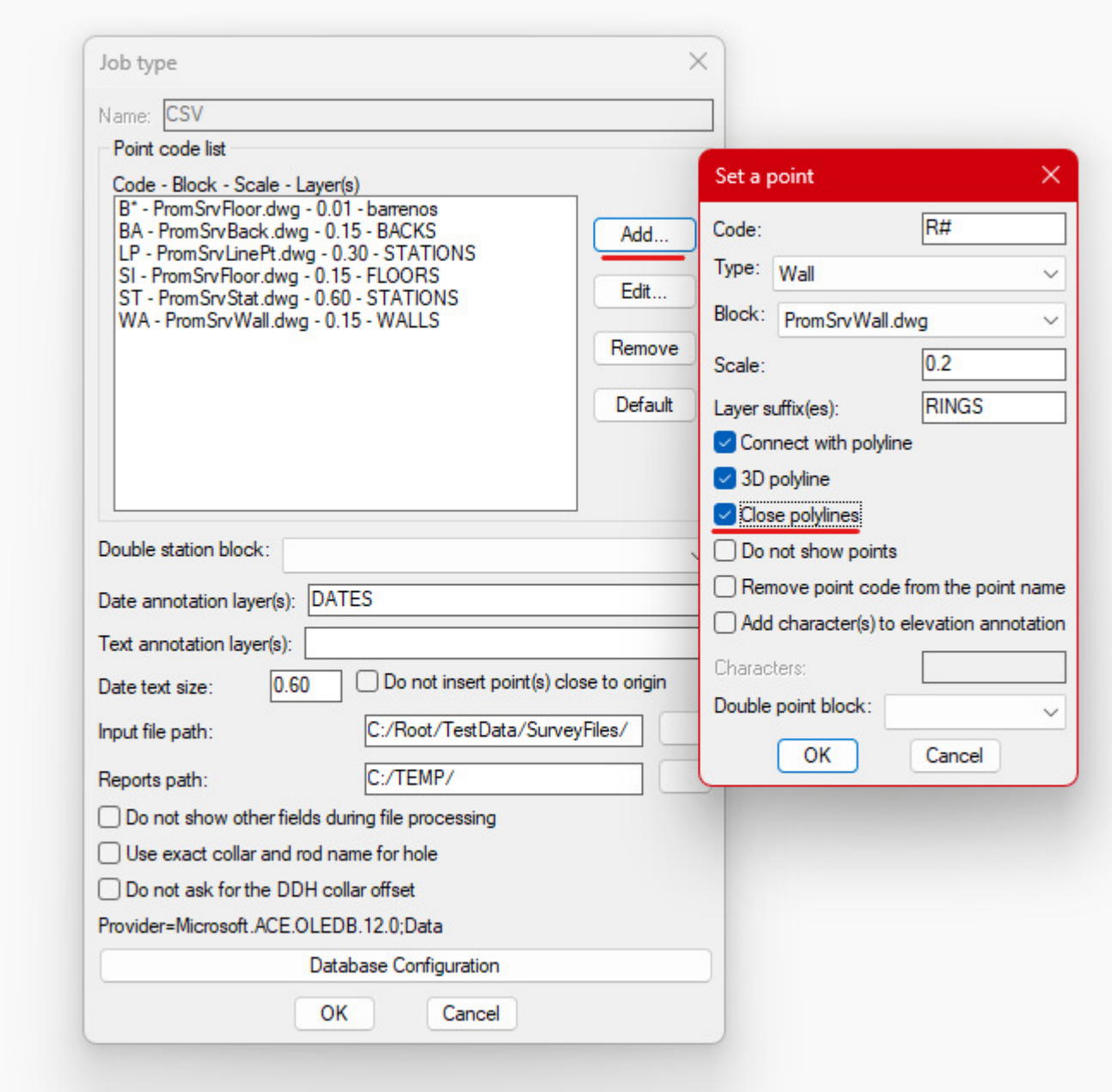




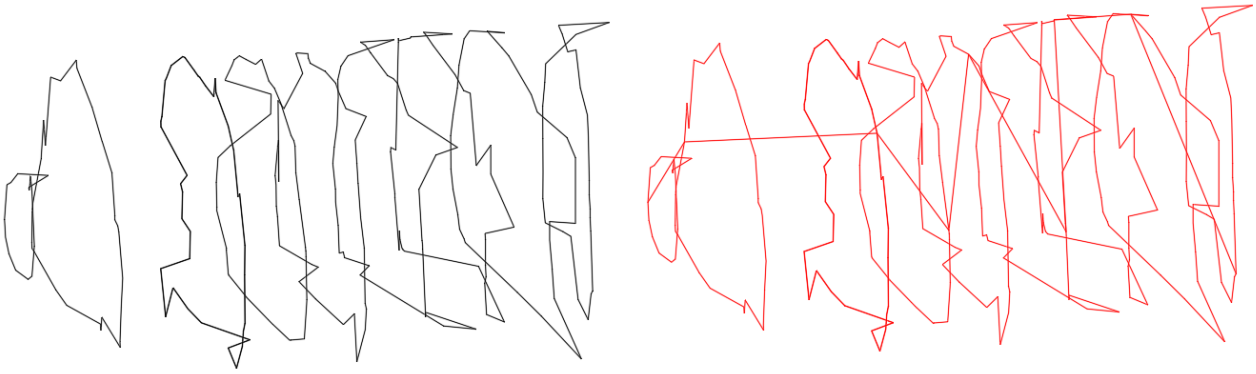
Module: Survey

SRVO – Options

It is now possible to create closed polylines. This is useful if the survey is done in rings. An option was added to the point configuration to close or not the polyline created by joining points. You can modify this option in the configuration of point code of a job:



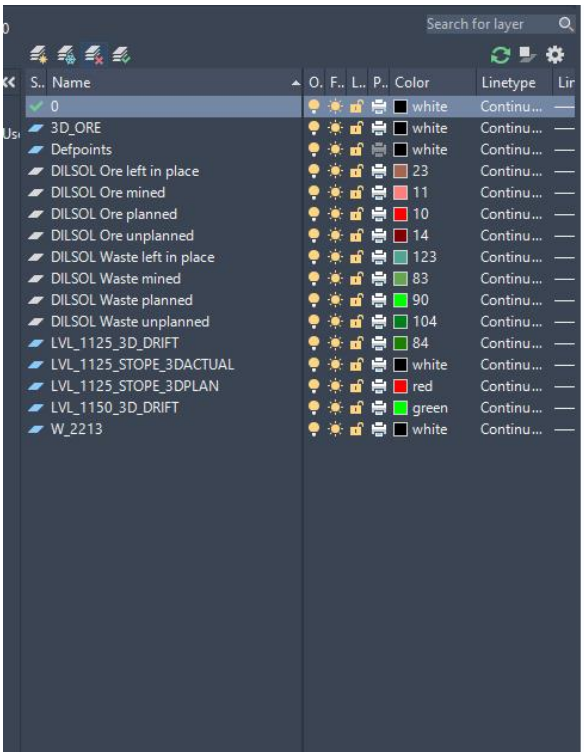
Here is an example of the output (red was previous results):

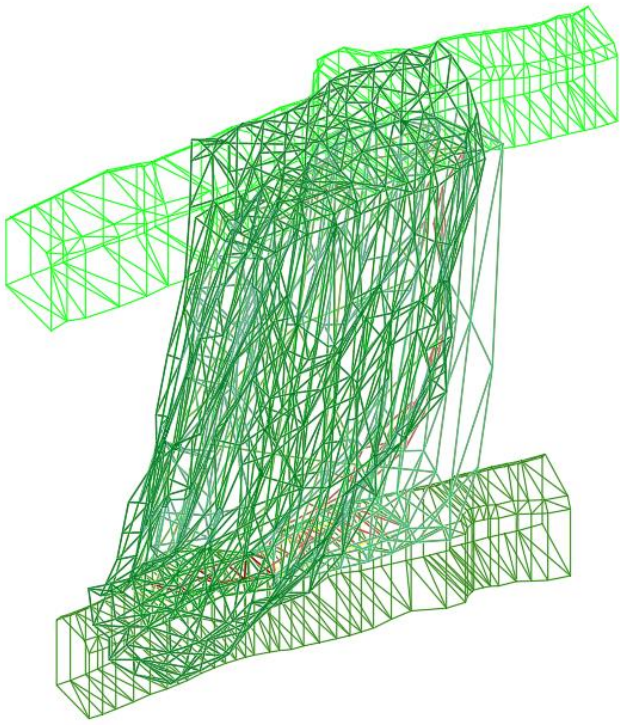


Module: Dilution

DILSOL – Solid comparison

The DILSOL command will now color each resulting solid based on DIL hatch coloring schemes.
If blocks are placed on separate layer, the layer will get the right color.
But if the solids go on the current layer, the solids themselves will be colored.

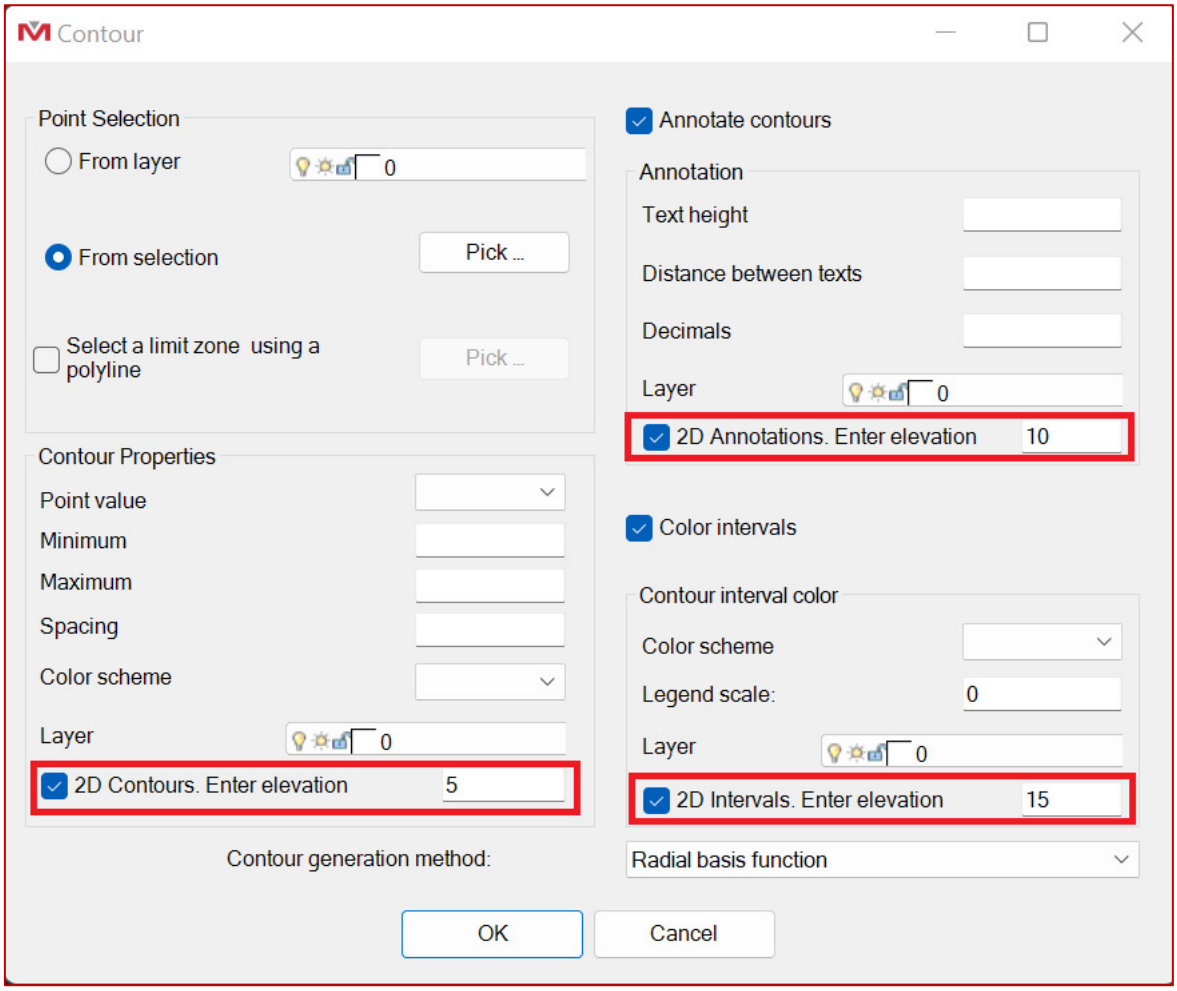




Module: Geological Mapping

GMPC – Contours

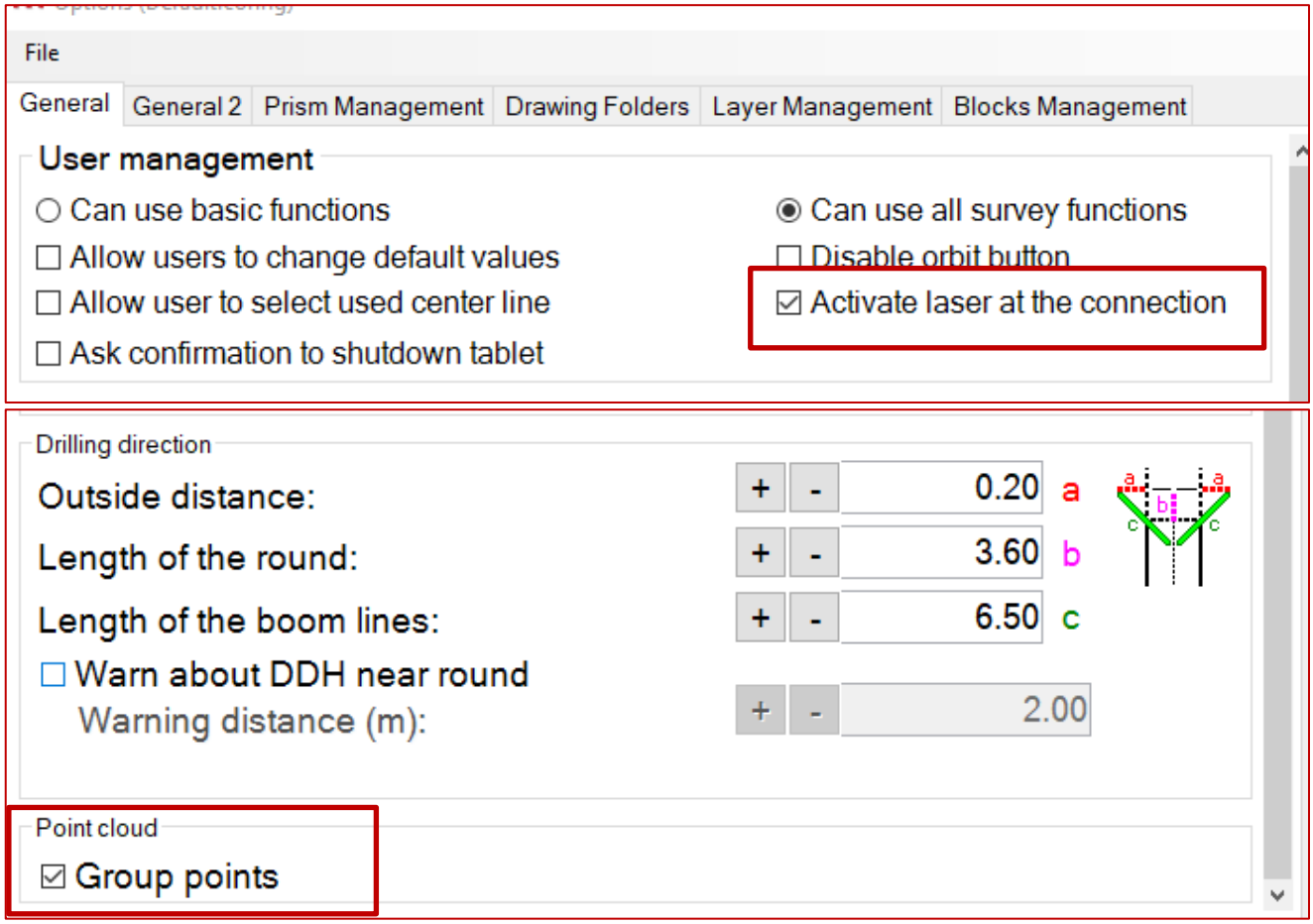
There is now the option to create contours, annotations, and intervals in 2D instead of 3D. The elevation of each element can be set in the configuration window. The values of the annotations will be the same as if the contours were in 3D.



Module: Live Survey

LSVO – Options

The option 'Activate laser at the connection' now keeps the laser activated as long as the instrument is connected, it is now exclusively available in the options and was removed from the Connection command.
The option to ' Group points' for the Point Clouds was moved from the command to the module options.


File
General
General 2
Prism Management
Drawing Folders
Layer Management
Blocks Management
User management
Can use basic functions
Can use all survey functions
Allow users to change default values
Disable orbit button
Allow user to select used center line
Activate laser at the connection
Ask confirmation to shutdown tablet
Drilling direction
Outside distance:
0.20
a
Length of the round:
3.60
b
Length of the boom lines:
6.50
c
Warn about DDH near round
Warning distance (m):
2.00
Point cloud
Group points