



# RELEASE NOTES

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## **Release Notes 2022.14**

This document contains the descriptions of new commands and improvements that are included in the **2022.14** version of Promine. These are valid from the release of the version the **November 16<sup>th</sup>, 2022**.

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# New features

## Module: Sections

### SECIE – Edit 1 section

For this new improvement the sections created with the SEC1 command can now be edited one by one. All the parameters can be changed on an existing section. A window has been added to select which section should be edited:

Define the Section: ✕

Section name: 

BLABLA ▼

BLABLA

ETC

0 ▼

Type:

☐ Looking West

☒ Looking North

☐ Looking East

☐ Looking South

☐ Elevation

☐ Point-Azimuth:

☐ Current UCS

Coord:

3049.640

Pick>

View from: 

None ▼

Point-Azimuth:

East:

North:

Elev:

Azimuth:

Pick>

Elevation Direction

☐ Use direction

UCS Origin

East:

North:

Elev:

Azimuth:

Slope

Pick>

Clips:

☒ Front 

0.010

☒ Back 

-0.010

0.001

Default

Pivot:

Elevation: 

0.00

Pick elevation >

Angle: 

0.00

?

☒ Cut objects

☒ Turn off other layers

☐ Use attached text

Sections at clips

☐ Cut at front clip

Linetype: 

Continuous ▼

☐ Cut at back clip

Linetype: 

Continuous ▼

OK

Cancel

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In the case of the window above the sections available are “BLABLA” and “ETC” and the user can select between any of them and change the specifications if needed.

**Note:** Since the old sections did not register their parameters, only the sections created after this update will be able to be edited.

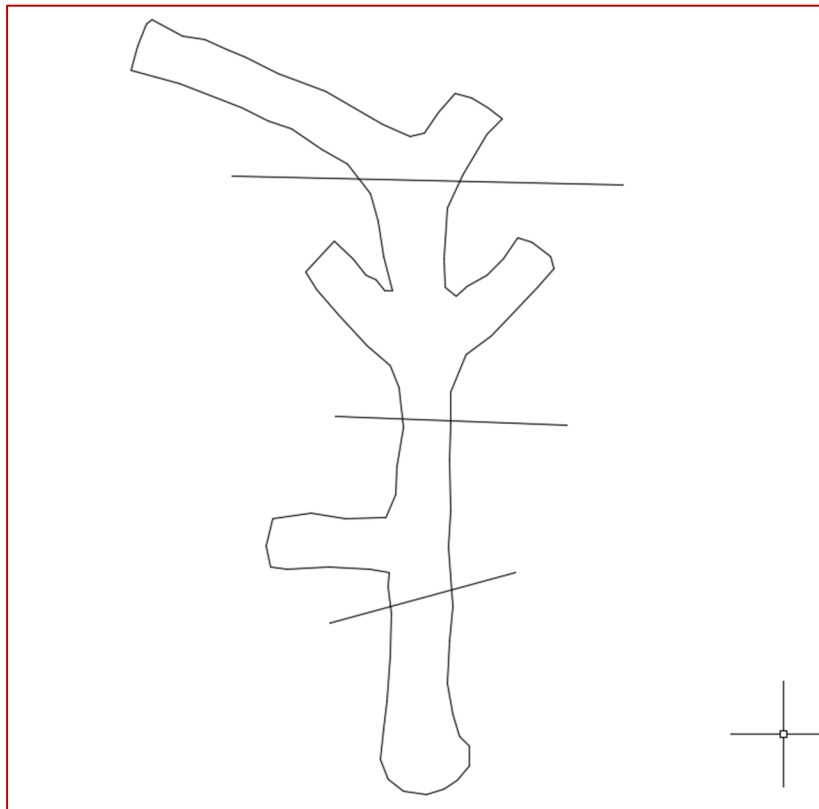
## Module: Rock Mech

### RKMRMR – Calculate RMR

There is a new feature in the RKMRMR command which lets the user insert hatches having a wall contour and polylines to divide the sections with different hatches.

Steps to use:

1. Having in the drawing wall contours previously inserted.
2. Separate sections with polylines.



3. Then click on the “Calculate RMR” (RKMRMR) command.
4. The next window will follow showing the new option to add hatches

**Rock Mass Rating (RMR)** [X]

Rock resistance value | Modified Recovery Index Values | Joints Spacing | Fracture Condition | Groundwater condition | Criteria for f [Left] [Right]

1* Rock resistance values			
Uniaxial compressive strength (Mpa)	Index of punctual test (Mpa)	Factor A1	
> 250	> 10	15	<input type="radio"/>
100 - 250	4 - 10	12	<input type="radio"/>
50 - 100	2 - 4	7	<input type="radio"/>
25 - 50	1 - 2	4	<input type="radio"/>
5 - 25	n/a	2	<input type="radio"/>
1 - 5	n/a	1	<input type="radio"/>

FACTOR	RANGE
A1	0

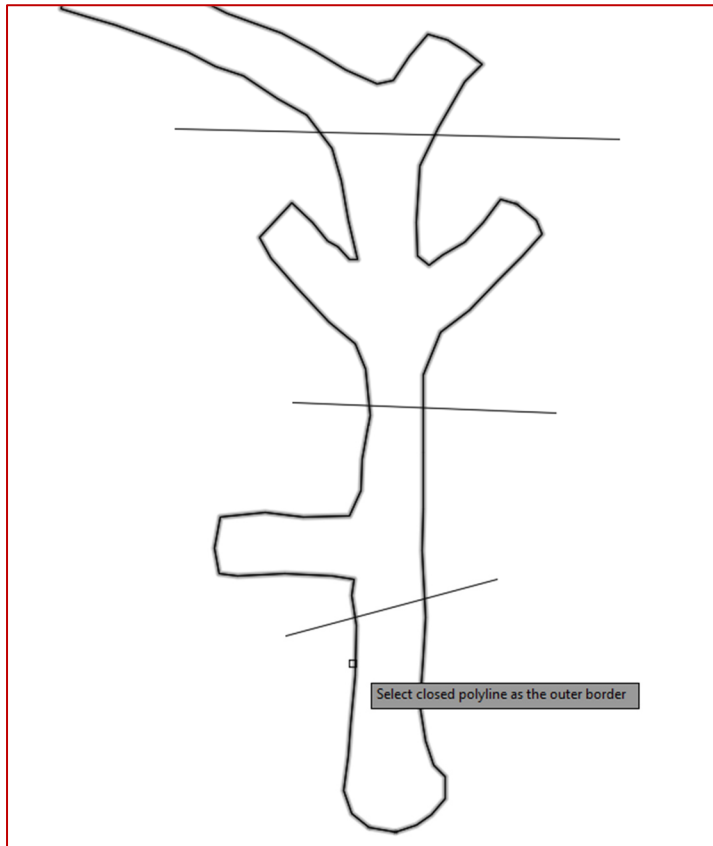
RKM block location

X  Y  Z

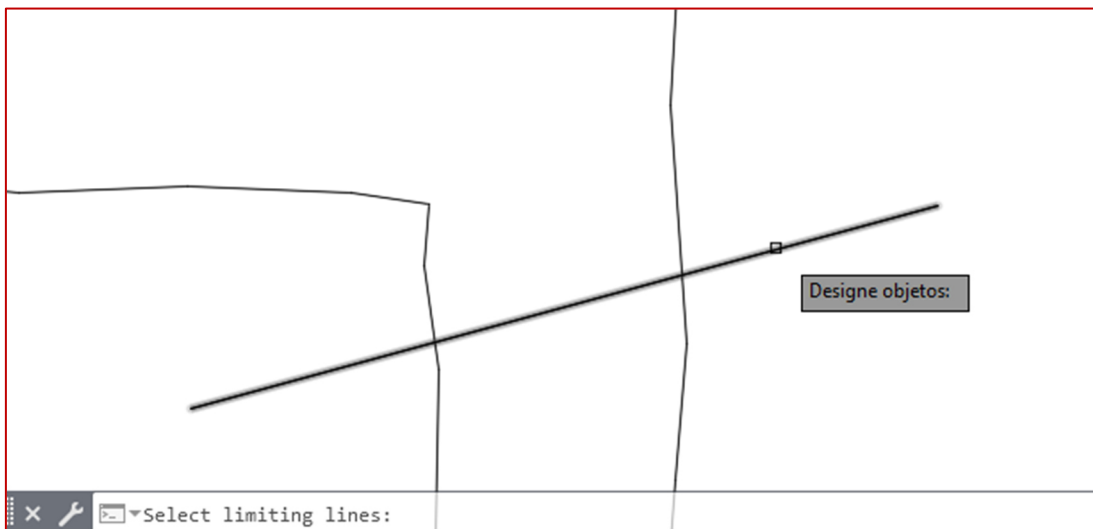
☐ Create hatch

☐ Insert class table

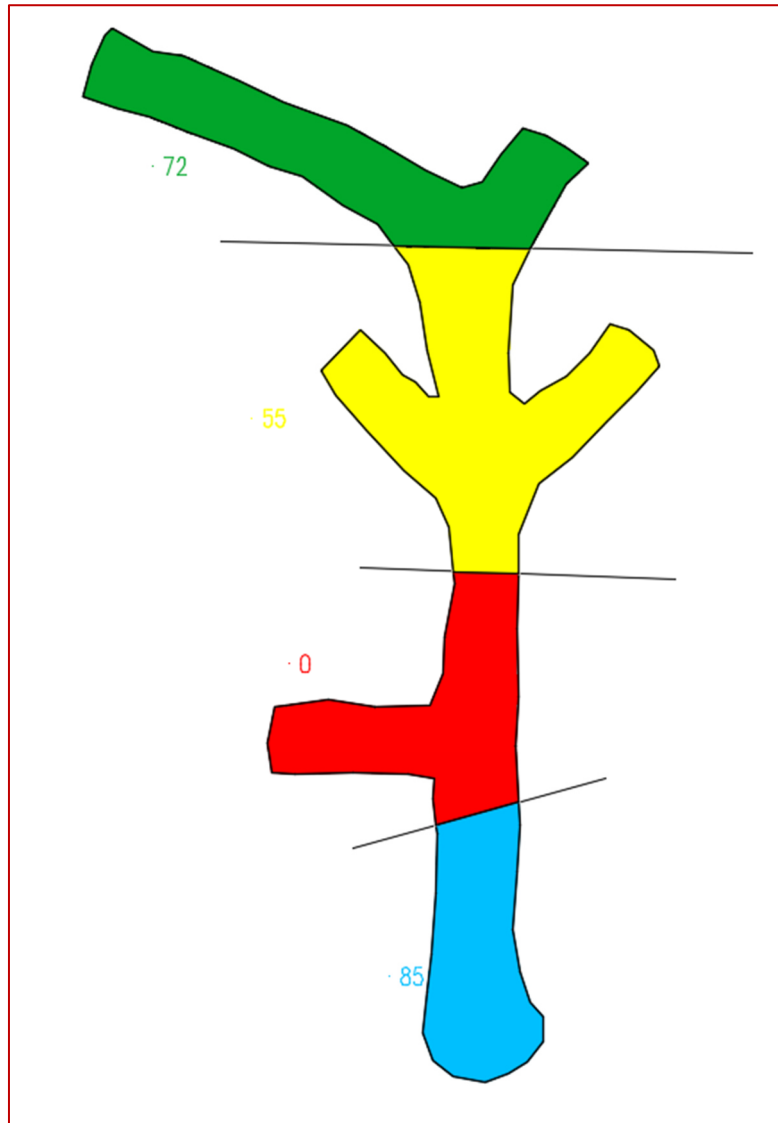
- The user fills all the information in the tabs in the window to get the RMR calculation
- The software will prompt the user to select a closed polyline as the outer border.



7. The user will be prompted to select all the limiting lines and then hit enter



8. Pick a point inside the area to hatch
9. The user can select more than one single area to color with the same hatch color. If not, hit enter to configure a different hatch color for a different section.



### RKMQ – Calculate Q-system

There is a new command called RKMQ similar to the RKMRRM command but using the Q-system method to classify the rock masses. This is a classification system for rock masses with respect to stability of underground openings. Based on estimation of six rock mass parameters.

Steps to use it:

1. Click on the command or write the shortcut RKMQ in the command line
2. The next window will follow:



Q-system

Rock quality design (RQD) | Diaclasses index | Roughness index of discontinuities (Jr) | Fracture alteration index (Ja) | Reduction factor due to the presence of water (Jw) | Rock stress

### 1. Rock quality design (RQD)

Total sample length (cm)	Sample piece length (> 10cm)	RQD %

Compute

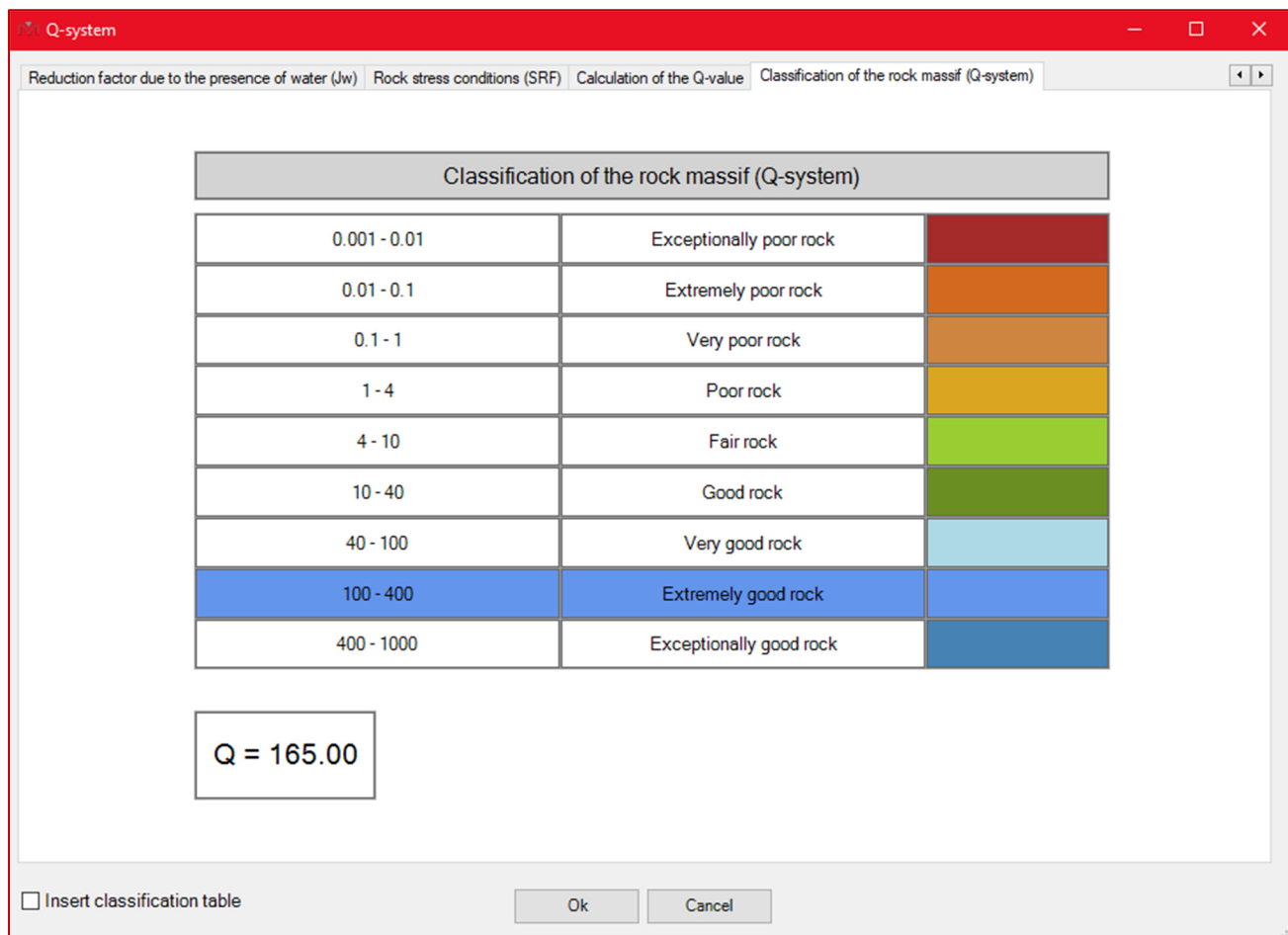
### Classification

0 - 25	25 - 50	50 - 75	75 - 90	90 - 100
Very bad	Bad	Regular	Good	Excellent

☐ Insert classification table

Ok Cancel

- The window has 8 tabs that are: Rock Quality (RQD), Diaclasses index, Roughness index of discontinuities (Jr), Fracture alteration index (Ja), Reduction factor due to the presence of water (Jw), Rock Stress conditions (SRF), calculation of the Q-value, Classification of the Rock Massif (Q-system)
- The user must set all these parameters based on their rock mass in all the tabs to be able to see their Q-value



5. This window also has an option (checkbox) to insert the classification table, a table with the legend of what the number of the Q-system signifies.
6. When the user clicks OK, the following table with the legend will be inserted in the drawing with its block, the number of Q-value and description.

⊕ 888.89  
Exceptionally good rock

Classification of the rock massif (Q-system)	
0.001–0.01	Exceptionally poor rock
0.01–0.1	Extremely poor rock
0.1–1	Very poor rock
1–4	Poor rock
4–10	Fair rock
10–40	Good rock
40–100	Very good rock
100–400	Extremely good rock
400–1000	Exceptionally good rock

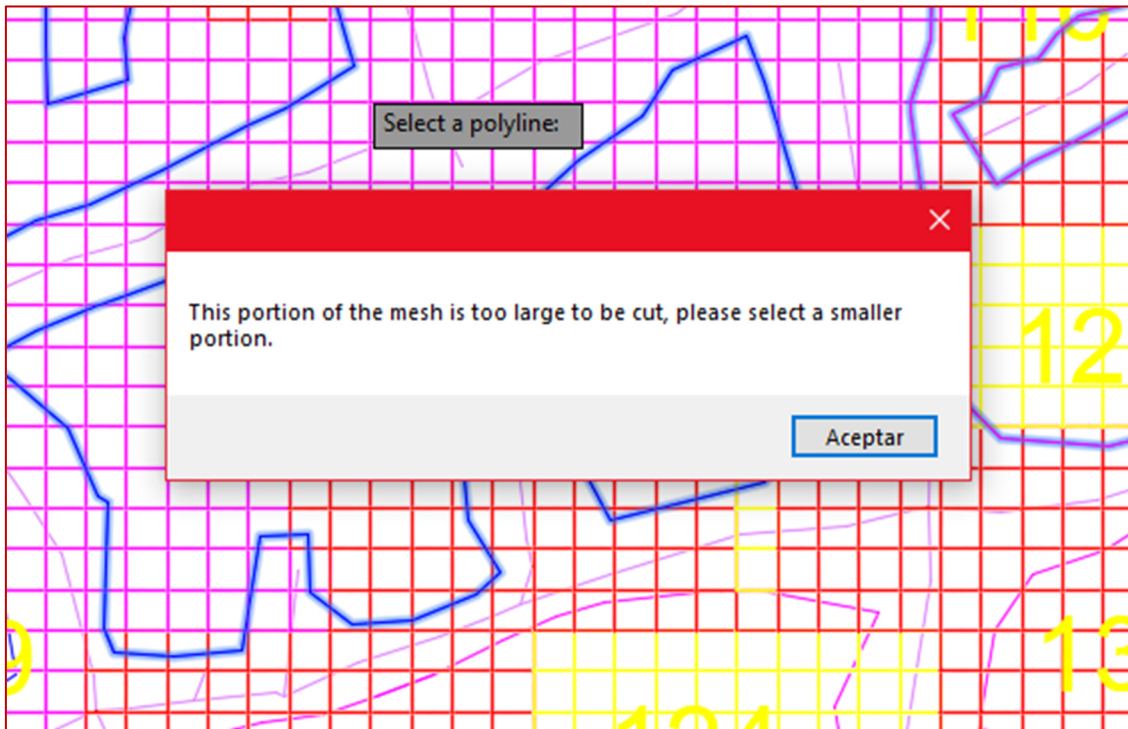
# Improvements

## Module: Solids

### PROMCUTR – Reverse cookie cutting

For this new improvement in the command PROMCUTR the user can now select multiple contours before the user could only select one contour at a time. Also, the speed of the command computation has been improved.

If number of mesh multiplied with number of contours results in a number greater than 150 000 system will throw a message "This portion of the mesh is too large to be cut, please select a smaller portion." as the computation might otherwise timeout.



## Module: Drill/Blast underground

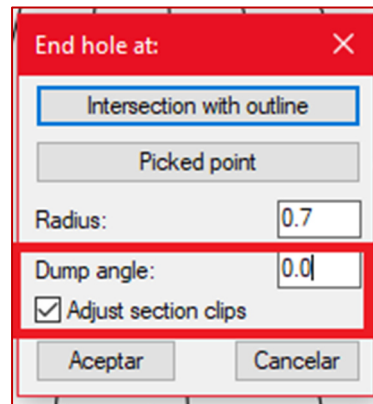
### DRIE – Edit hole

For this new improvement the edit command allows the user to specify a dump angle for each hole in the section.

The dump angle produces a 3D rotation of the drill hole by the specified angle over the z axis and centered at the pivot point. A dump angle of 0 represent a drill hole following the same orientation as the section.

A corresponding dump angle element has been added to the reports angle tags. Finally, a checkbox was added, that allow the adjustment of the section clips in order to not have the drill holes fall outside of the current view.

This is how the window looks like, giving the user the option to add the dump angle and also to adjust the clips to see the hole even when the hole is in an angle outside of the section



**Note:**

If the hole is already loaded with explosives and boosters those features will move with the hole.