

MINESCAPE

RAPID | INTUITIVE | EFFICIENT

MINESCAPE 2023 UPDATE 3 RELEASE NOTES

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What's New

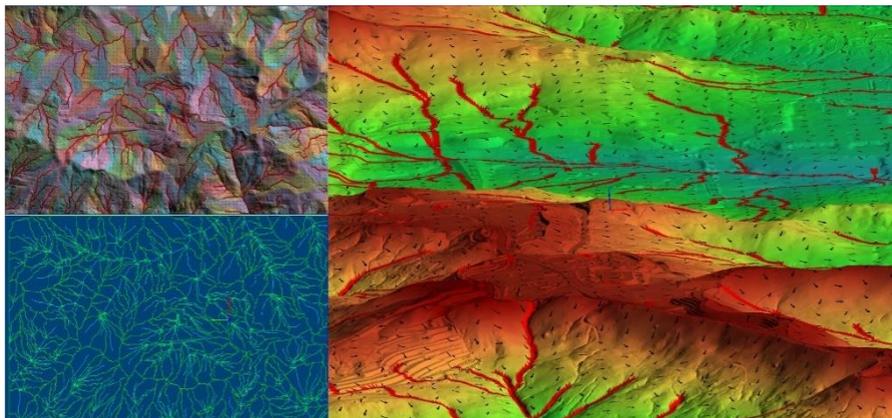
Discover the latest enhancements and additions introduced in MineScape Update 3.

IMPORTANT: Before installing MineScape 2023 Update 3, users **must** update the System Service to the latest version through the [Distribution Portal](#). This update is required to ensure a smooth installation process and optimal performance of the MineScape software. Attempting to install MineScape without first updating the System Service will result in installation issues.

Watershed Analysis

The new **Watershed Analysis** App allows users to visualise water flow from existing terrain data. It includes an integrated **Mesh Smoothing** feature to enhance the clarity of flow direction arrows and an **Elevation Heatmap** to display height differences in the terrain, helping users quickly understand the landscape's shape and slopes.

This feature comes as a standalone app within the **Surface Engineering** Product. Once loaded, it can be accessed through either the **Watershed Analysis** App or the **Open Cut** App.



Watershed Layers and Textures

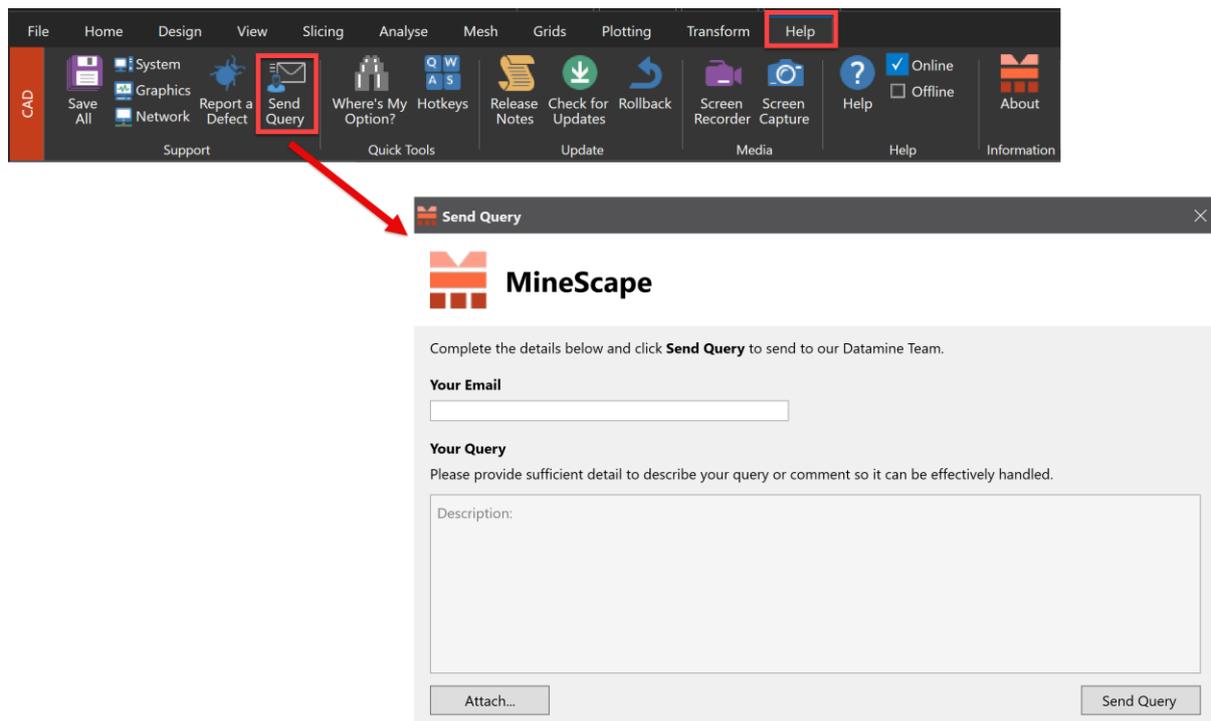
New Send Query System

Users can now directly send queries from MineScape via the new **Send Query** Button, accessible within the **Help** Tab. This update provides a form for users to write their issues, suggestions, or feedback and send it to our support team. This enhancement streamlines the support process, making it easier and faster for users to communicate with our team without having to exit MineScape.

The form also allows users to attach files up to 5 MB in size. Supported file types are:

- ASCII: .ASC, .DAT, .CSV, and .TXT
- Video: .MP4, .AVI, .MOV, .WMV, .FLV, .MKV
- Image: JPG, .JPEG, .PNG, .BMP

NOTE: Internet connectivity is required to use this functionality.

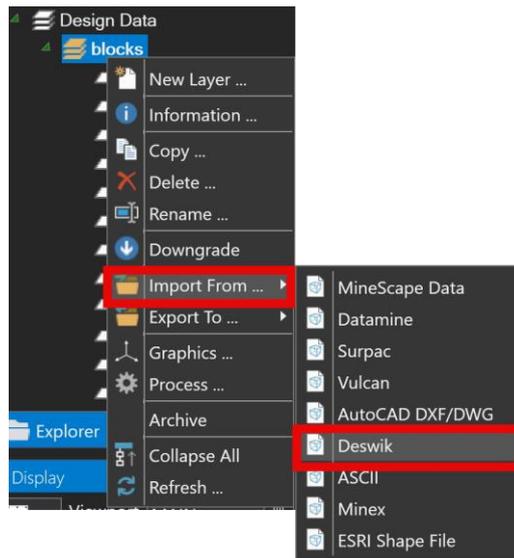


New Send Query Form

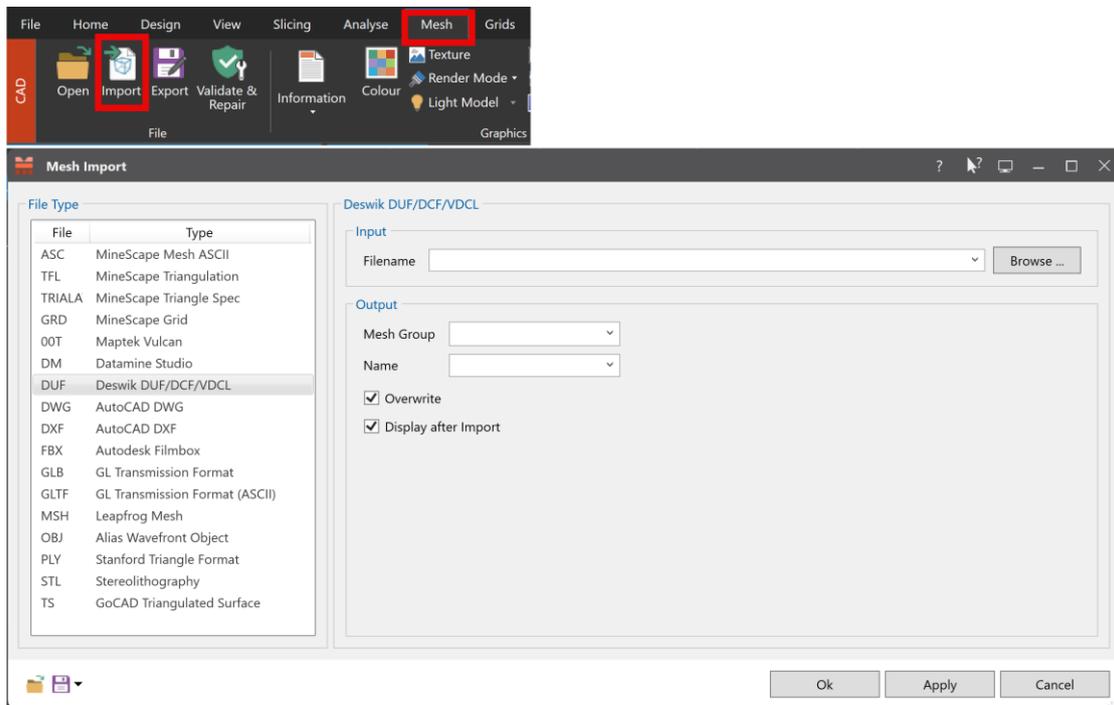
CAD

Support for Deswik Import

Users can import Deswik files to MineScape. Files can be imported as either design data or mesh. For design data (.dgn), only lines, polygons and colours are currently supported.



New Deswik Import Option as Design Data

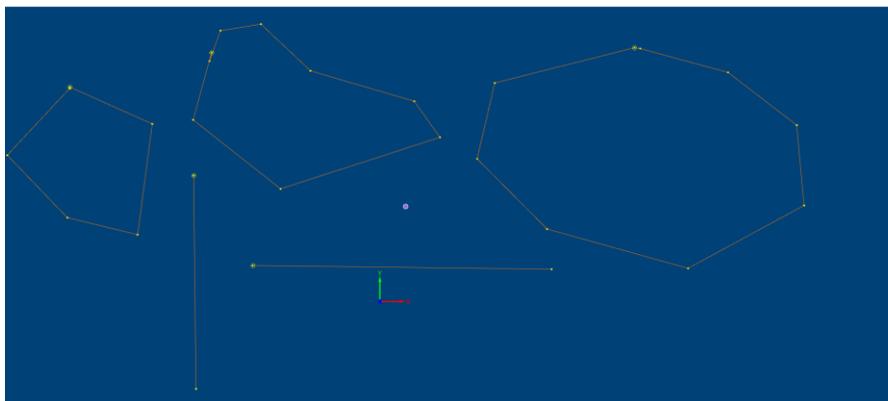


New Deswik Import Option as Mesh

Improved Statistics Dock

Users can now view the total area and total length in the **Statistics** Dock of all selected elements in the **CAD** Window after clicking **Run**. Previously, this information was only available for single-element selections. The **Area** calculation applies only to *POLYGON* and *DESIGNPOLYGON* element types, as lines do not have an "inside area." Additionally, the **Area View** value updates after rotating elements and clicking **Run** again.

NOTE: Currently only elements with **LINES, DESIGNLINE, POLYGON, and DESIGNPOLYGON** types are supported.

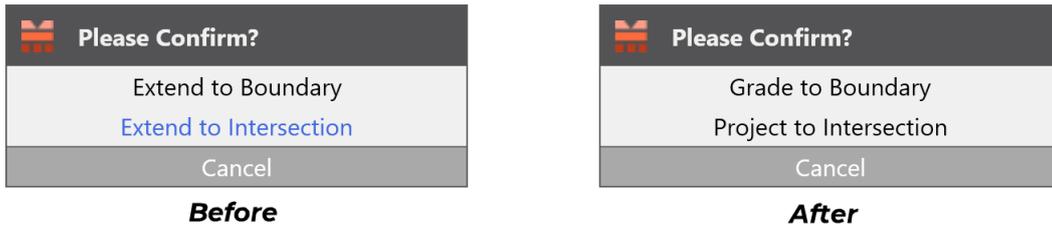


Statistics	
Details	
Run	
Minimum	
X	15152.996
Y	40443.080
Z	0.000
Maximum	
X	18531.877
Y	41997.590
Z	0.000
Length	
Total	10540.099
Horizontal	10540.099
Vertical	0.000
Area	
Area Plan	156.76
Area View	156.76
Area In Plane	156.76
Elements	
All	5
Points	0
Lines	2
Polygon	3
Text	0
Triangle	0
Details	
Generate the statistics	
Properties Visual Ove... Statistics	

Total Area and Total Length Information of All Selected Elements

Nomenclature Change in RapidCAD

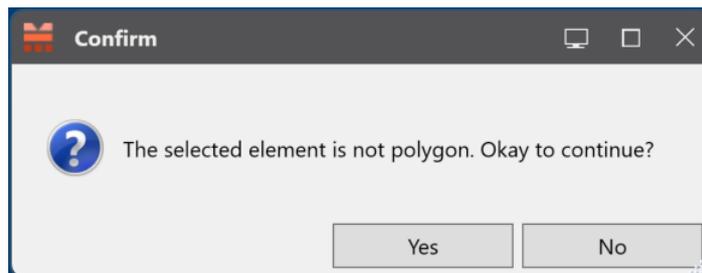
Changed the option texts in the confirmation dialog box that appears after clicking the **Extend to Intersection** Option in **RapidCAD**.



Updated Option Texts

New Validation for Removing Self-Intersection

Added a confirmation message for the **Remove Self-Intersection** Option, accessible in the **Design** Tab under the **Repair Data** Dropdown Menu, that appears when users select line elements with start and end vertices that overlap too closely. If the minimum segment length of the resulting elements is less than 0.0001, the confirmation message below will appear. This prevents confusion where lines with overlapping vertices might be mistaken for polygons.

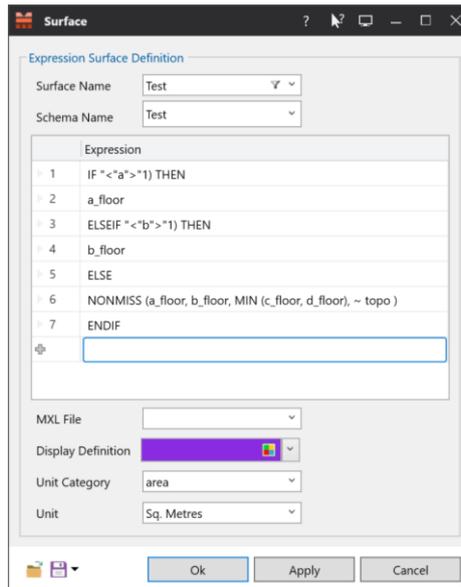


A Confirmation Message for Self-Intersection Option

Added Multi-Line Expression Capability

Users can now input multi-line expressions directly into the **Surface** Form when creating or updating an expression surface, eliminating the legacy requirement of linking the expression to an XML file.

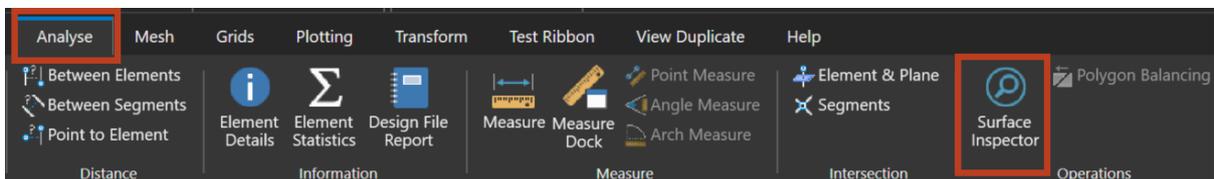
The **Surface** Form is accessible by navigating to **Definitions » Surfaces » Expression** in the MineScape in the MineScape **Explorer**.



Surface Form with a Multi-Line Expression

Improved Surface Inspector Feature

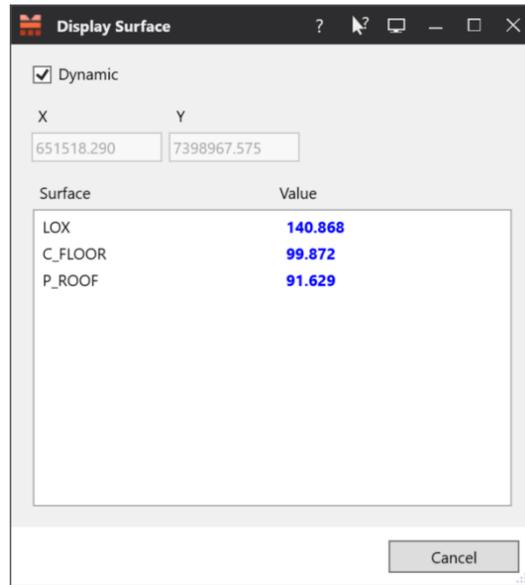
Users can now obtain elevation values of one or multiple surfaces simultaneously, without having to load the surfaces on the **CAD** Window. The **Surface Inspector** Option is accessible from the **Analyse** Tab of the **CAD** App.



Surface Inspector Option

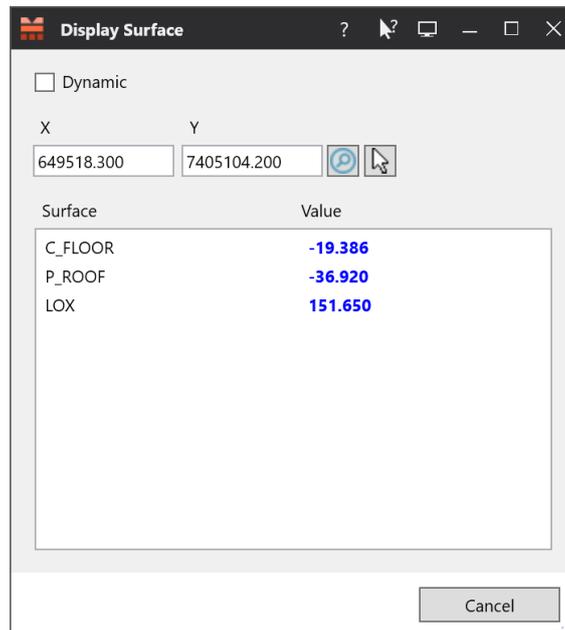
There are two types of modes – **Dynamic** and **Manual**.

The **Dynamic** Mode allows users to hover the cursor anywhere on the **CAD** Window and the **Display Surface** Form will display the elevation values in real-time.



Display Surface Form in Dynamic Mode

The **Manual** Mode allows users to input specific coordinates (X and Y values) and the **Display Surface** Form will display the elevation values of the specified coordinates.

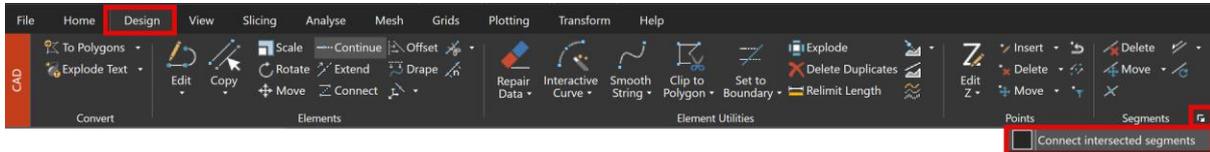


Display Surface Form in Manual Mode

Other CAD Enhancements

- Added the **ESRI Shape File** as an import option when right-clicking on a design file and selecting **Import From** Option.

- Added the **Connect intersected segments** Checkbox in the **Segments** Group of the **Design** Tab. When ticked, MineScape merges two segments into one after they intersect.



Connect intersected segments checkbox

- Added the grade switcher in the **Measure Dock** that is similar to the one in the **Statistics** Dock.

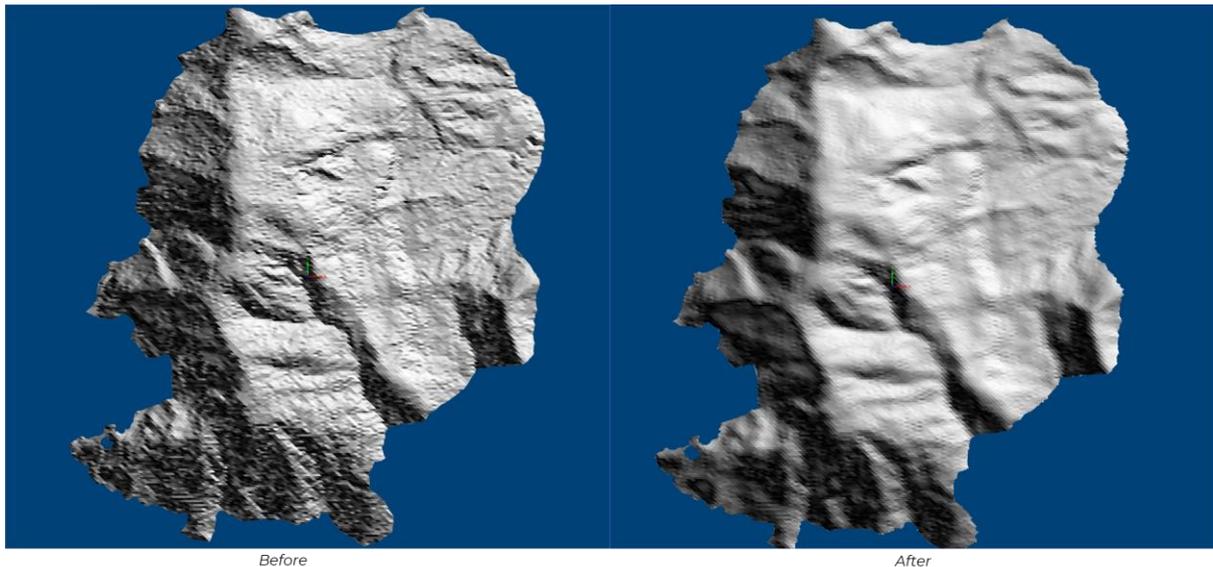
Mesh

Mesh Smoothing

Users can now improve mesh surfaces by reducing irregularities and noise, such as those from LiDAR scanners, with the new **Mesh Smoothing** Option. This tool enhances visual clarity in applications like watershed analysis by refining elements like flow direction arrows. Users can either generate a new mesh as the output or override an existing one.

NOTE: Keep in mind that this feature will copy the mesh texture and metadata into the output mesh, but it will not retain point colours.

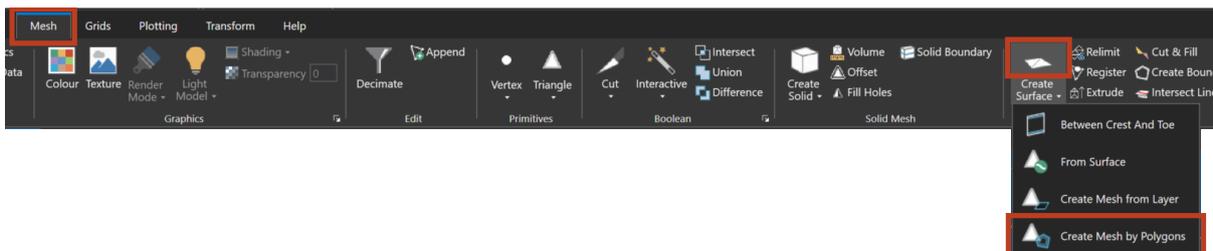
To access this option, go to the **Mesh** Tab in the **CAD** App. Locate the **Graphics** Group and select **Smooth**.



Mesh Smoothing

Expanded Element Type Support in the Relimit Function

Users can now use any element type from the polygon class as a boundary polygon, expanding beyond polygon-type elements. This update applies to the **Relimit Boundary** Section in the **Create Surface** Form and the **Relimit** Section in the **Create Mesh by Polygons** Form. Both forms are accessible under the **Surface Mesh** Group within the **Mesh** Tab, which is available in both the **CAD** Ribbon and the **Point Cloud Tools** Ribbon.

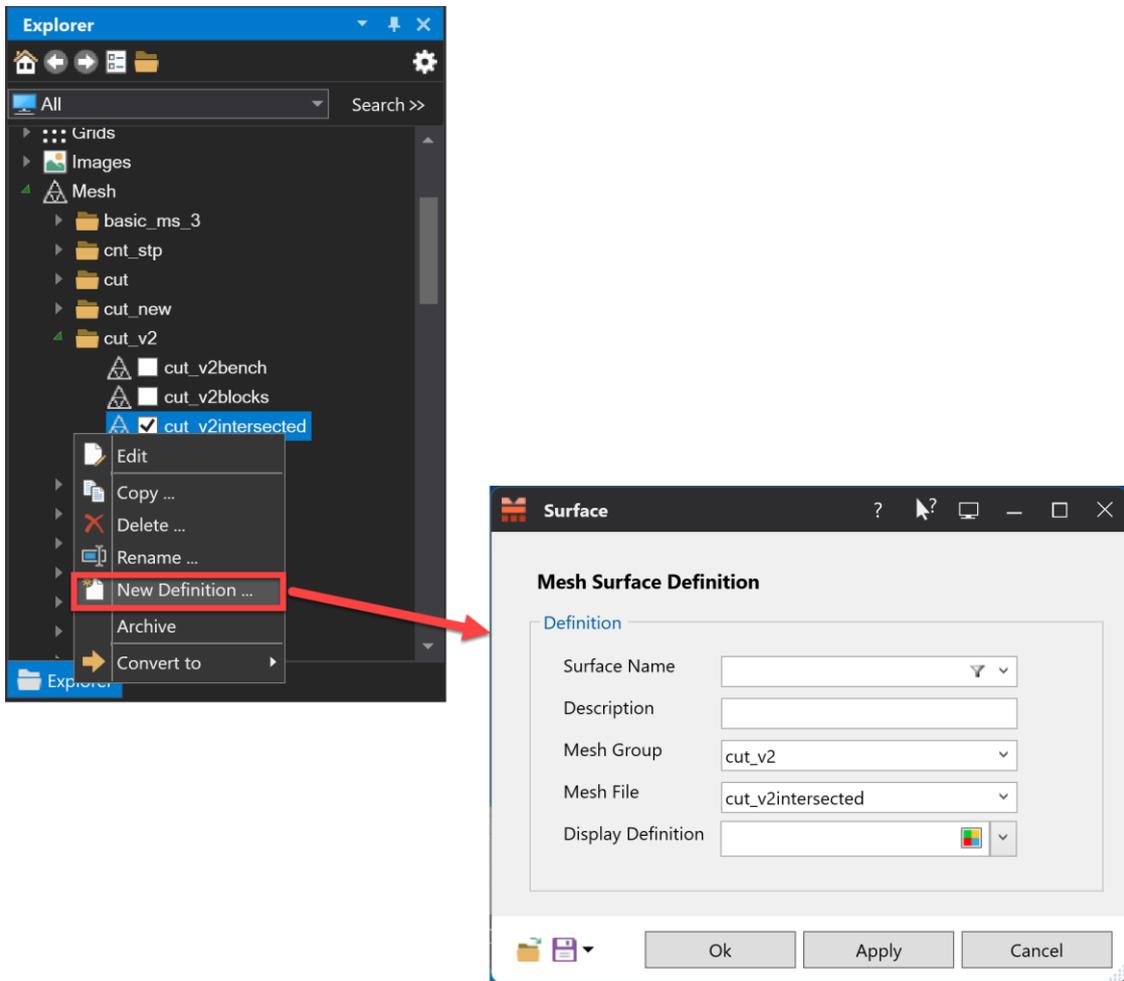


Surface Mesh Group within the Mesh Tab

Added “New Definition” Option

A **New Definition** Option has been added when right-clicking a mesh file under the **Mesh** Node in the **Explorer** Dock. This opens the **Mesh Surface Definition** Form, which is the same form accessed from the **Definition** >> **Surfaces** Node, but with the **Mesh Group** and **Mesh File** fields pre-populated. Once created, the

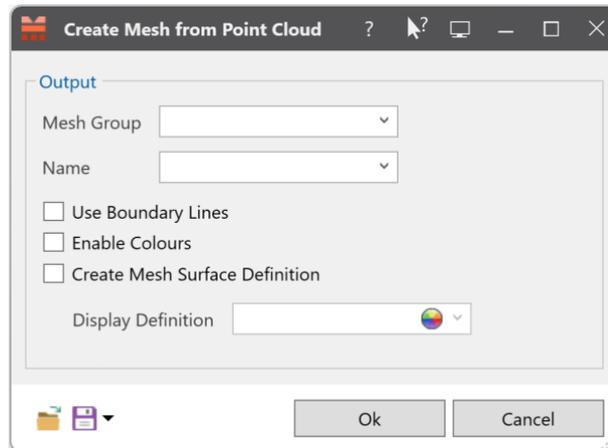
new Mesh Surface Definition will be stored under **Definition** >> **Surfaces** >> **Mesh** in the **Explorer** Dock.



Mesh Surface Definition Form

Improved the Mesh from Point Cloud Feature

Added a **Create Mesh Surface Definition** Checkbox to the **Create Mesh from Point Cloud** Form to simplify the mesh creation process. Users can now create mesh surface definitions directly from the form, while the option to manually create them through the MineScape **Explorer** remains available.



Improved mesh from point cloud feature

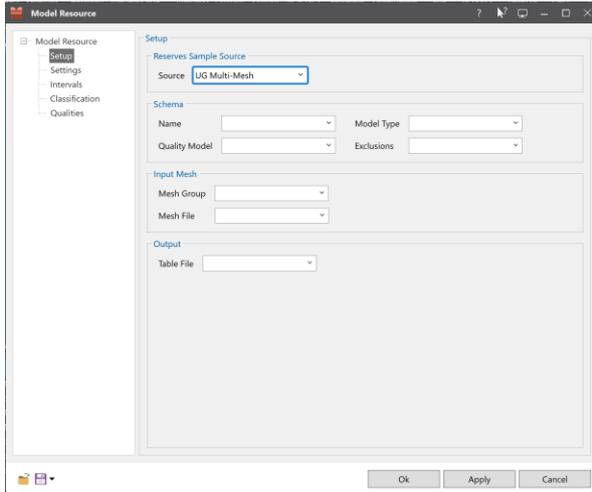
Reserves

Run underground reserves from Across MineScape Apps

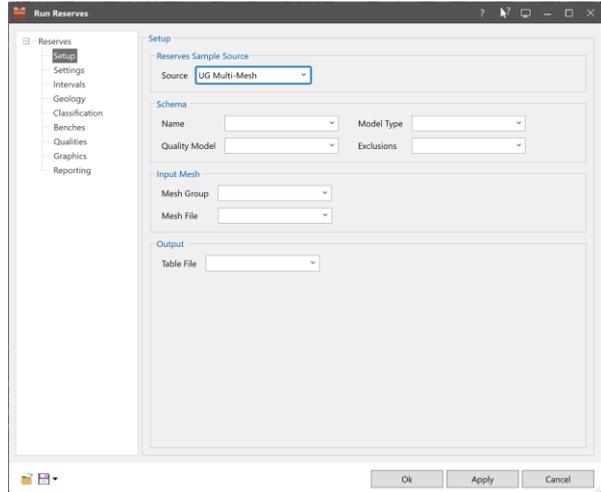
Starting from this update, **UG Multi-Mesh** is added as a sample source in the **Run Reserves**, **Model Resource**, and **Multipart Reserves** Forms. This way, users can calculate reserves and volumes for underground mining blocks from across all MineScape applications.

This form can be accessed from:

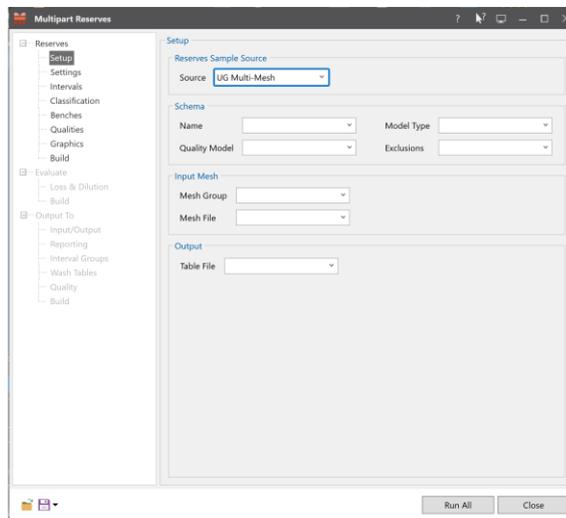
- **Open Cut > Reserves > Engineering > Run Reserves/Multipart Reserves**
- **Open Cut > Reserves > Geology > Model Resource**
- **UG Coal > Reserves > Run Reserves/Multipart Reserves**
- **Stratmodel > Reserves > Engineering > Run Reserves/Multipart Reserves**
- **Stratmodel > Reserves > Geology > Model Resource**



Model Resource Form



Run Reserves Form



Multipart Reserves

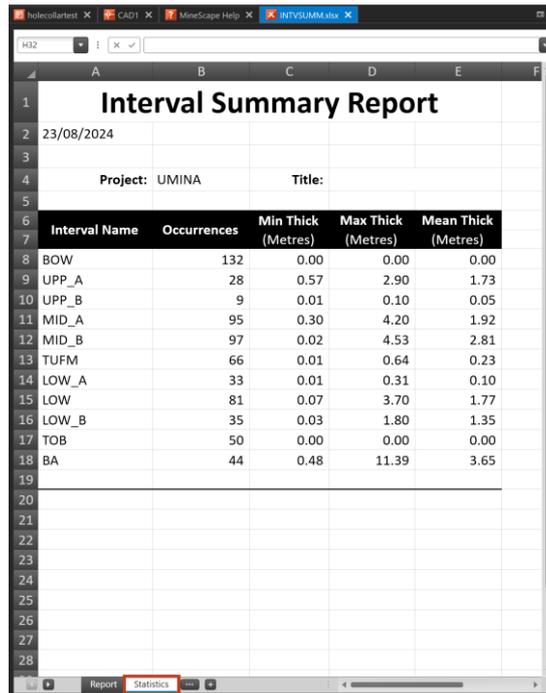
Geology

Nomenclature Change in GDB's 2D and 3D Graphics Forms

Changed the **CAD Apply** Button to **Apply** in the **Drill Hole 2D Graphics** and **Drill Graphics** Forms. The **CAD Apply** previously stowed the form, whereas the updated button will no longer stow the form.

Added the Statistics Tab in the Interval Summary Report

Accessible through the **Reports** Tab of the **GDB** App, users can generate the **Interval Summary Report** via the **Logs** Option. Upon generation, there will be a new addition of a second **Statistics** Tab in the output spreadsheet file.

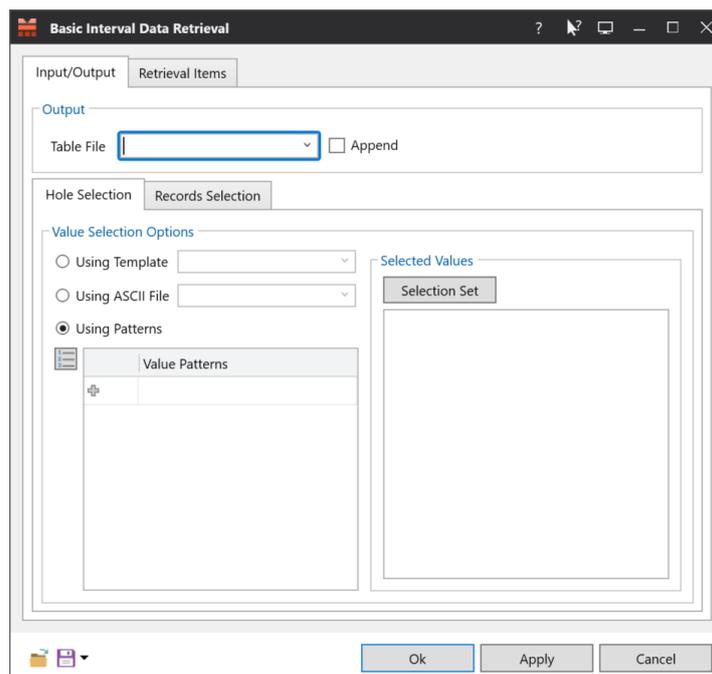


Interval Name	Occurrences	Min Thick (Metres)	Max Thick (Metres)	Mean Thick (Metres)
BOW	132	0.00	0.00	0.00
UPP_A	28	0.57	2.90	1.73
UPP_B	9	0.01	0.10	0.05
MID_A	95	0.30	4.20	1.92
MID_B	97	0.02	4.53	2.81
TUFM	66	0.01	0.64	0.23
LOW_A	33	0.01	0.31	0.10
LOW	81	0.07	3.70	1.77
LOW_B	35	0.03	1.80	1.35
TOB	50	0.00	0.00	0.00
BA	44	0.48	11.39	3.65

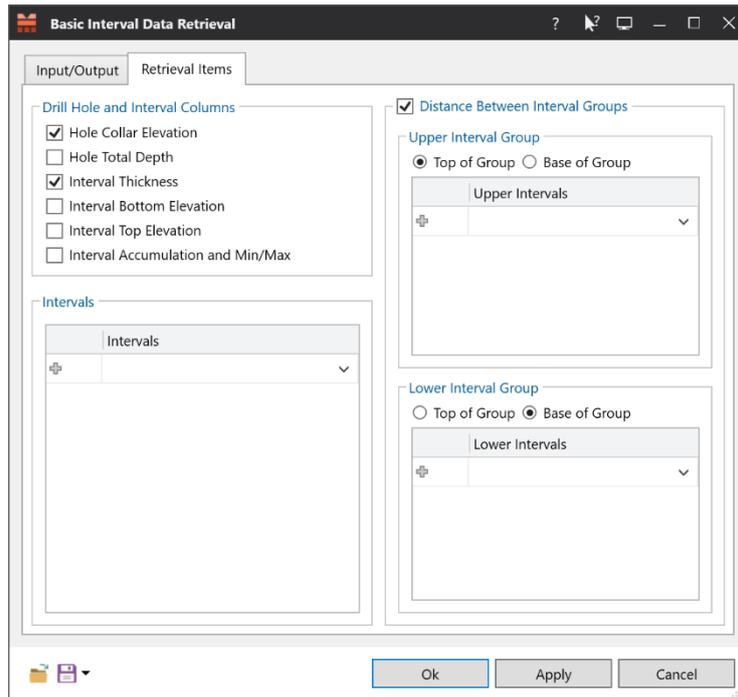
Statistics Tab of the Interval Summary Report

Basic Interval Data Retrieval

Added the **Basic Interval Data Retrieval** Option, which allows users to retrieve drillhole and interval data from the database and put it in a table file. The **Basic Interval Data Retrieval** Form can be accessed through the **Reports** Tab of the **GDB** App.



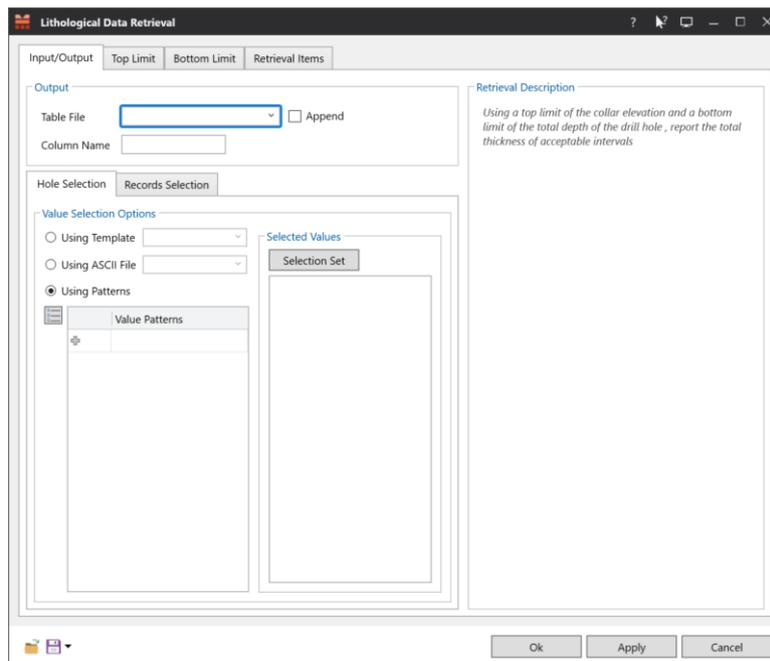
Input/Output Tab of the Basic Interval Data Retrieval Form



Retrieval Items Tab of the Basic Interval Data Retrieval Form

Lithological Data Retrieval

Added the **Lithological Data Retrieval** Option, which allows users to generate an output table file containing geometrical and lithological information of the geological environment. The **Lithological Data Retrieval** Form can be accessed through the **Reports** Tab of the **GDB** App.



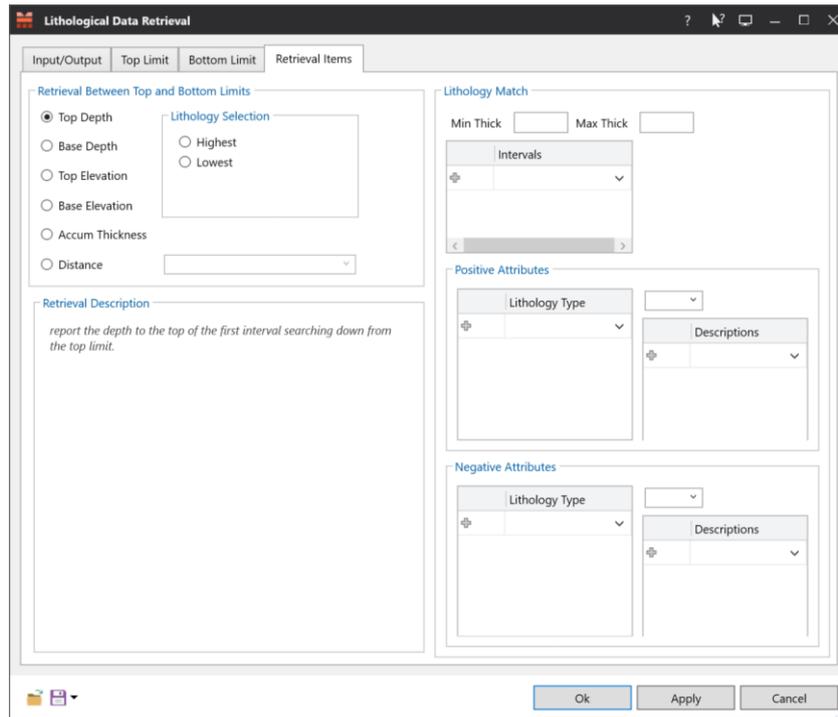
Input/Output Tab of the Lithological Data Retrieval Form

The screenshot shows the 'Lithological Data Retrieval' window with the 'Top Limit' tab selected. The 'Top Limit' section on the left includes radio buttons for 'Elevation', 'Surface', 'Collar' (selected), 'Total Depth', and 'Intervals'. Below these is an 'Intervals' list box and an 'Offset' field. The 'Bottom Limit Description' field contains the text 'top limit of the collar elevation'. The right side of the window features a 'Search for Lithologies' section with a 'Locate' dropdown, 'Min Thick' and 'Max Thick' fields, and two attribute lists: 'Positive Attributes' and 'Negative Attributes', each with a 'Lithology Type' dropdown and a 'Descriptions' list box. The bottom of the window has 'Ok', 'Apply', and 'Cancel' buttons.

Top Limit Tab of the Lithological Data Retrieval Form

The screenshot shows the 'Lithological Data Retrieval' window with the 'Bottom Limit' tab selected. The 'Bottom Limit' section on the left includes radio buttons for 'Elevation', 'Surface', 'Collar', 'Total Depth', and 'Intervals'. Under 'Intervals', there are radio buttons for 'Top' (selected), 'Centre', and 'Bottom'. Below these is an 'Intervals' list box and an 'Offset' field. The 'Bottom Limit Description' field contains the text 'bottom limit of the top of'. The right side of the window features a 'Search for Lithologies' section with a 'Locate' dropdown, 'Min Thick' and 'Max Thick' fields, and two attribute lists: 'Positive Attributes' and 'Negative Attributes', each with a 'Lithology Type' dropdown and a 'Descriptions' list box. The bottom of the window has 'Ok', 'Apply', and 'Cancel' buttons.

Bottom Limit Tab of the Lithological Data Retrieval Form

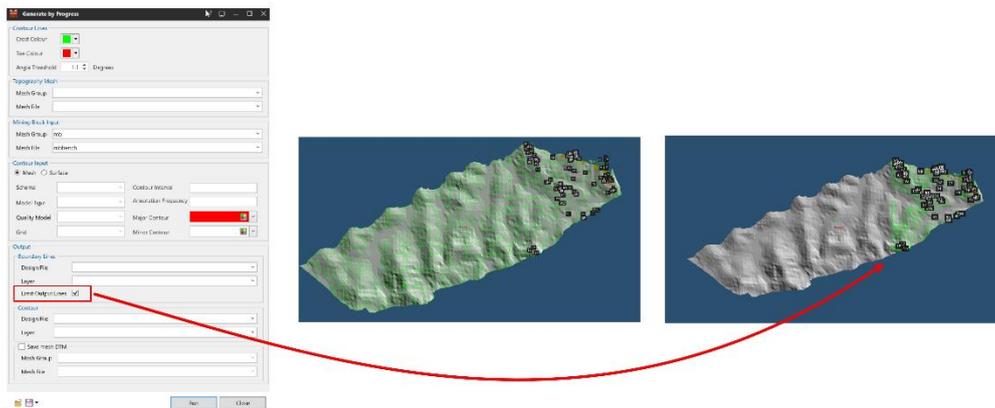


Retrieval Items Tab of the Lithological Data Retrieval Form

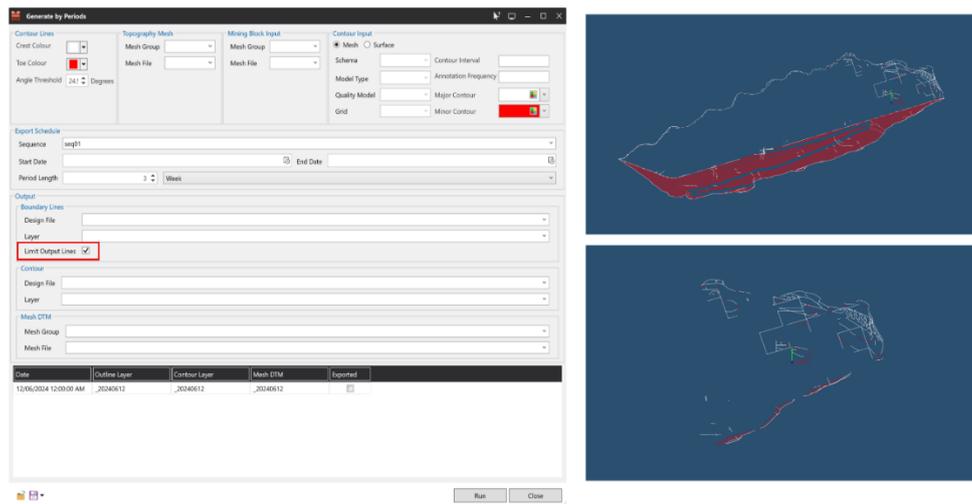
Scheduling

Limit Output Lines

The **Limit Output Lines** Field has been added to the **Generate by Progress** and **Generate by Periods** Forms allowing users to apply the limit output lines only to the scheduled blocks.



Generate by Progress Form



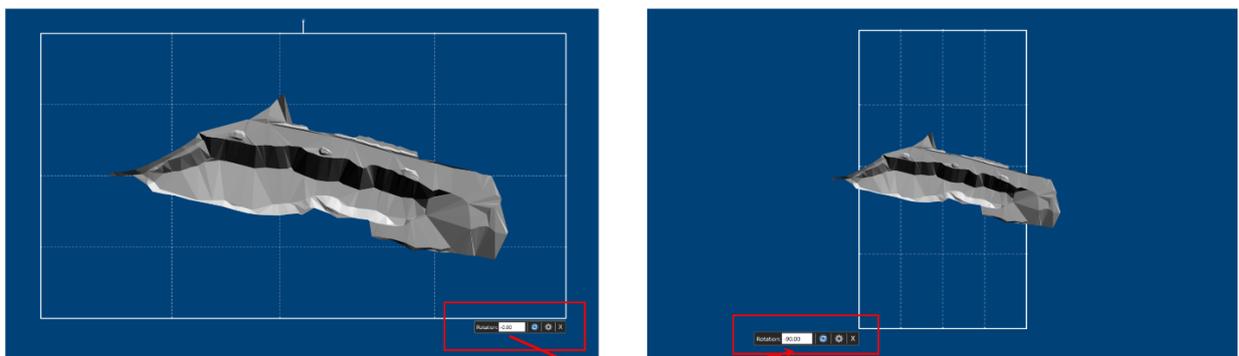
Generate by Period Form

Surface Engineering

Improved Rapid Slicer for More Usability

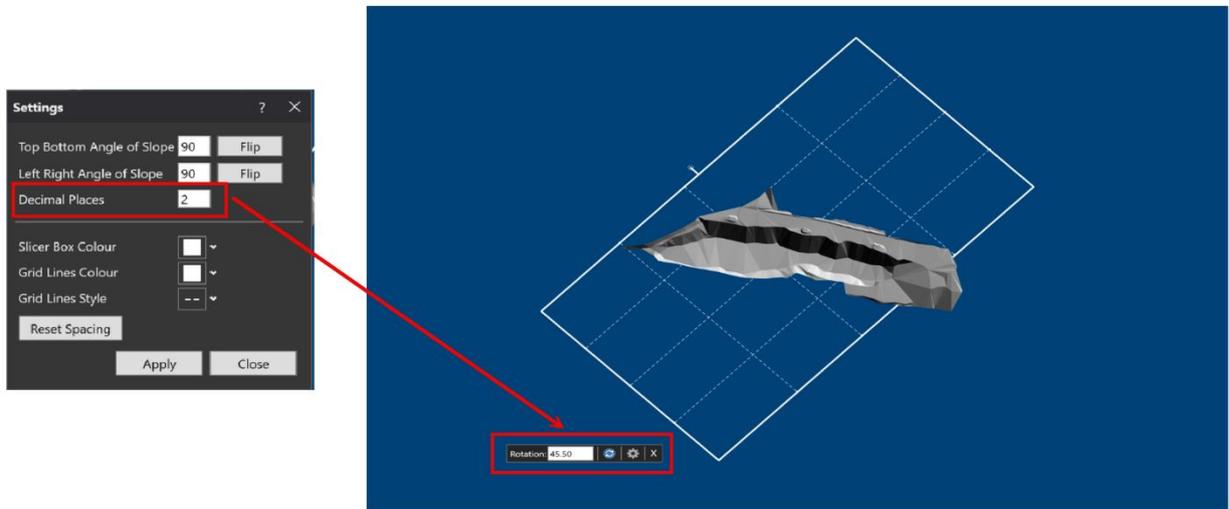
MineScope's **Rapid Slicer** Tool has been improved in the following ways:

- Added the **Apply** Button in the **Settings** Dialog Box so that users can now apply a new angle to all slicer lines simultaneously, regardless if they are horizontal or vertical
- Effortlessly adjust the rotation angle by entering the exact degree in the **Rapid Slicer Toolbox**, providing an alternative to the **Rotation Handle**



Rapid Slicer Toolbox Now Features Effortlessly Adjustable Rotation

This enhancement also accommodates decimal values, offering a customisable decimal place setting.

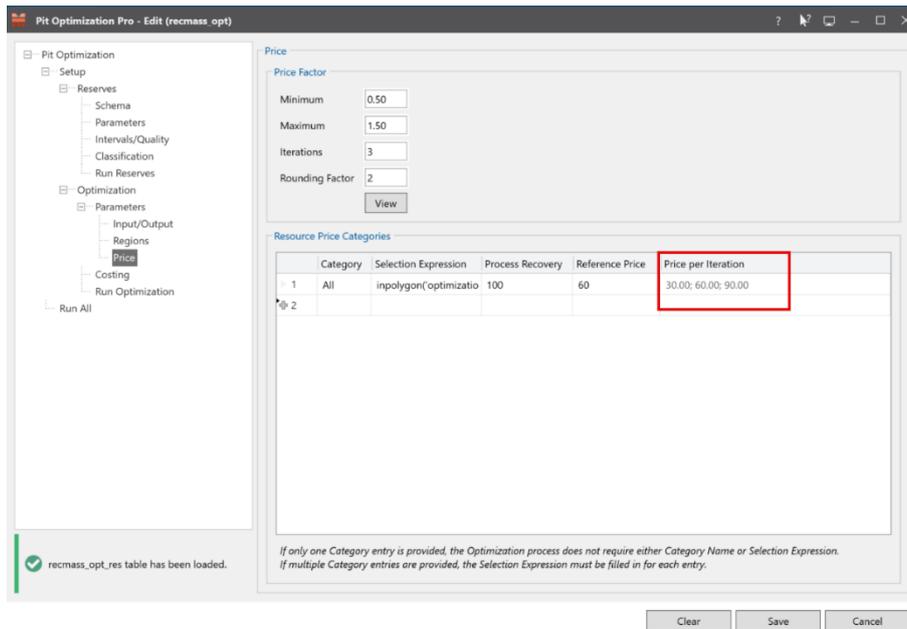


Rotation Supports Adjustable Decimal Places

Pit Optimization Pro

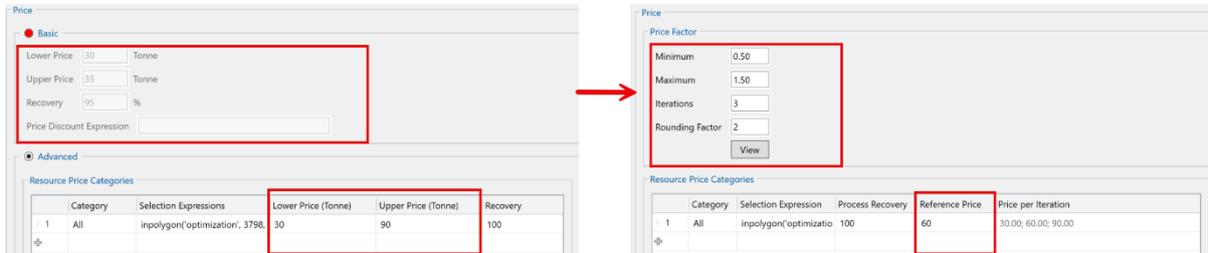
The **Pit Optimization Pro** App has been enhanced in the following ways:

Added Automatic Price Calculation



Pit Opt Pro now supports automatic Price Per Iteration

Pit Optimization Pro now automatically calculates the **Price per Iteration** based on enhanced attributes such as **Price Factor**, **Iterations**, **Rounding Factor**, and **Reference Price** to replace **Lower** and **Upper Prices**, ensuring a hassle-free and efficient pit optimization experience.

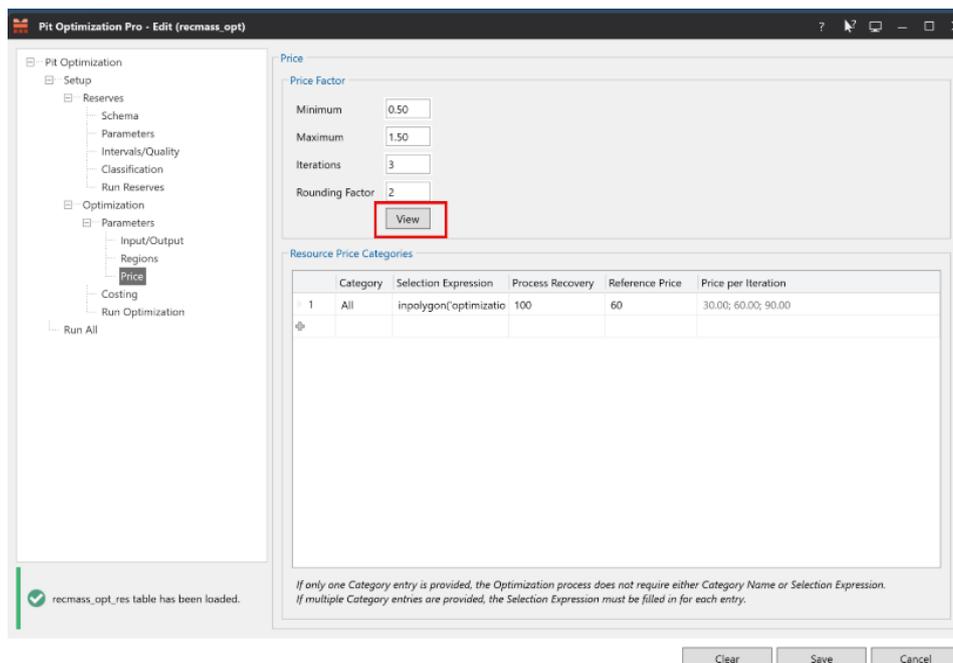


Enhanced Attributes on Price

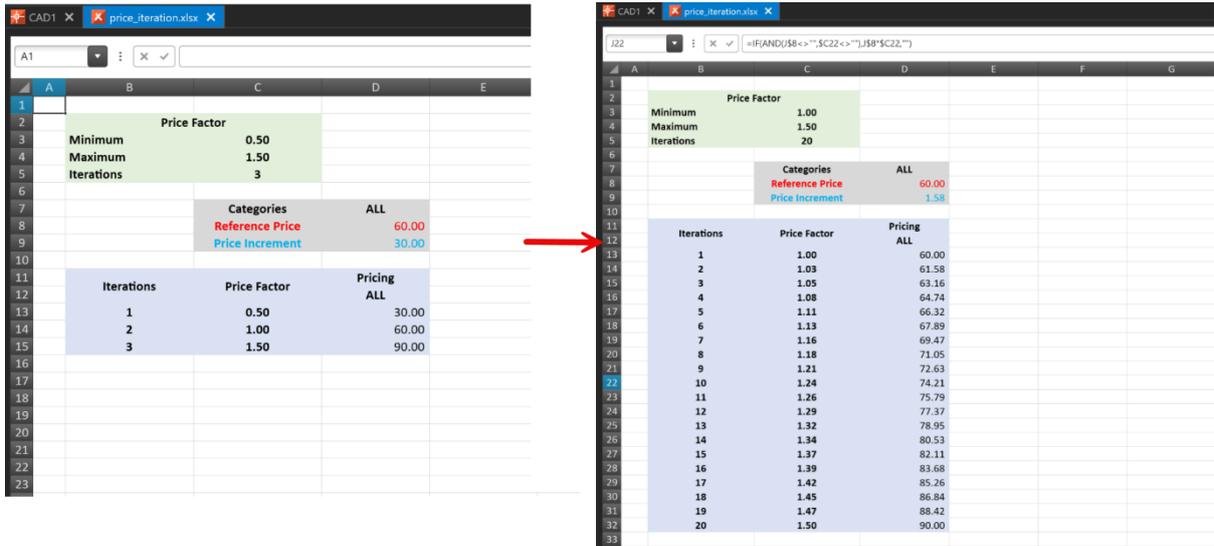
NOTE: The new price factor calculation is only applicable starting from MineScope 2023 Update 3.

Added Excel File for Price per Iteration

Effortlessly run price simulations for each iteration with the provided Excel file. Users can easily adjust **Minimum** and **Maximum Price Factors**, set the number of **Iterations**, and input the **Reference Price** to see dynamic pricing for each iteration.

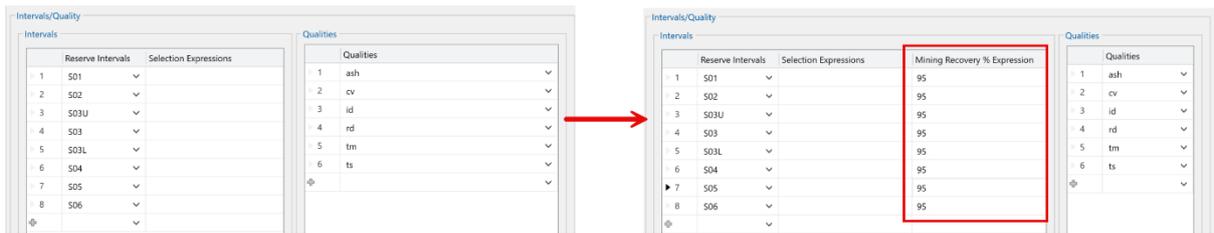


View Button



Calculate Price Simulation with the provided Excel File

Added Mining Recovery Expression



Interval/Quality has been enhanced with Mining Recovery % Expression

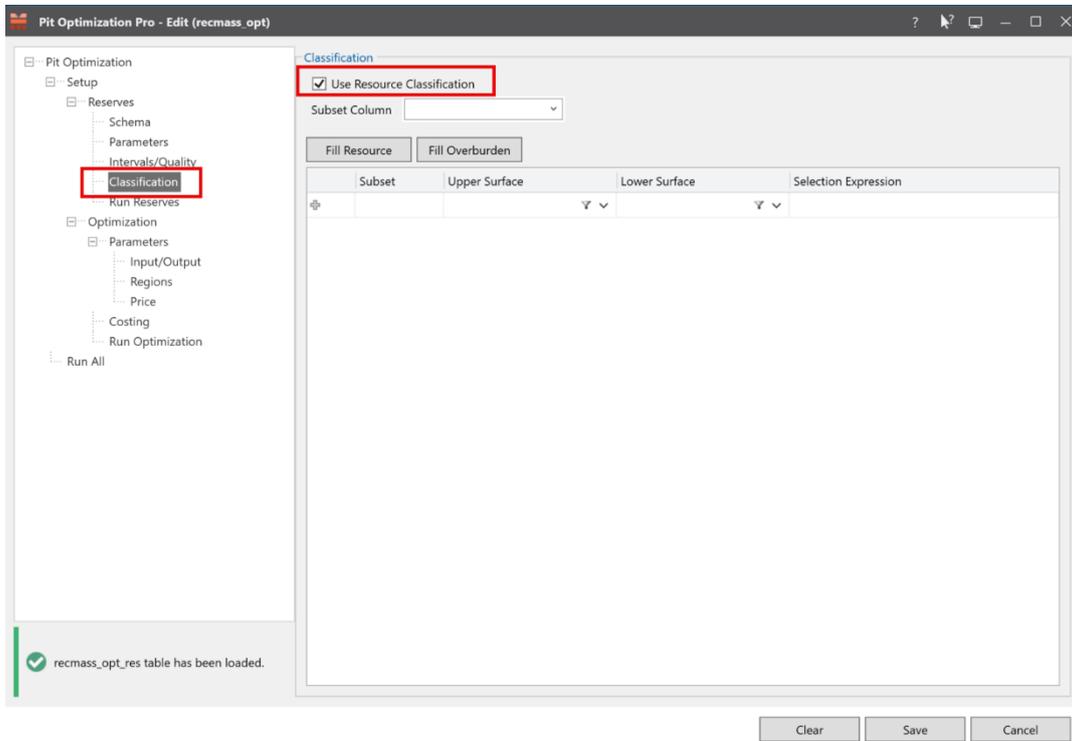
Pit Optimization Pro has been enhanced with **Mining Recovery Expression** to calculate resource loss, which is considered a burden instead of a mining cost for accurate calculation, ensuring precise recoverable resources and revenue estimation.

	COAL_TONNAGE	TOTBURDINCLINE	TOTBURDISS	BLOCK_COALFACT	BLOCK_REVENUE	BLOCK_COST	BLOCK_POIST	BLOCK_NET_VALUE	BLOCK_TONNAGE	BLOCK_MCF	BLOCK_FCM	BLOCK_ROCKTYPE	PITOP_PHASE	REVENUE	MINING_COST	PROCESSING_COST	PARCEL_TONNAGE	PARCEL_NET_VALUE	
13547	1,000.00	1,000.00	2,300.00	0.00	0.00	11,500.00	0.00	-11,500.00	2,300.00	5.00	0.00	WASTE	0	0.00	-11,500.00	0.00	2,300.00	-11,500.00	
13547	1,000.00	1,000.00	2,300.00	0.00	0.00	11,500.00	0.00	-11,500.00	2,300.00	5.00	0.00	WASTE	0	0.00	-11,500.00	0.00	2,300.00	-11,500.00	
13547	0.00	741.82	741.82	1.71432	0.18	2,127.42	0.18	2,127.42	2,127.42	4.88	0.31	RESOURCE	1	2,127.42	-488.23	0.00	2,127.42	1,639.19	
13547	0.00	0.00	0.00	0.00	0.00	110,366.47	3,878.88	2,395.82	106,911.37	1,292.96	3.10	1.81	RESOURCE	1	110,366.47	-3,878.88	-2,395.82	1,292.96	106,911.37
13547	0.00	865.03	1,989.56	0.08	15,706.38	10,471.34	349.03	4,886.02	2,194.07	4.84	0.18	RESOURCE	1	15,706.38	-10,471.34	-349.03	2,194.07	4,886.02	
13547	0.75	419.45	419.45	0.44	67,911.34	7,087.35	1,509.14	59,514.65	1,719.30	4.12	0.88	RESOURCE	1	67,911.34	-7,087.35	-1,509.14	1,719.30	58,314.85	
Mining Recovery and Process Recovery 100%																			
13547	1,000.00	1,000.00	2,300.00	0.00	0.00	11,500.00	0.00	-11,500.00	2,300.00	5.00	0.00	WASTE	0	0.00	-11,500.00	0.00	2,300.00	-11,500.00	
13547	1,000.00	1,000.00	2,300.00	0.00	0.00	11,500.00	0.00	-11,500.00	2,300.00	5.00	0.00	WASTE	0	0.00	-11,500.00	0.00	2,300.00	-11,500.00	
13547	0.00	741.82	741.82	1.71432	0.18	2,127.42	0.18	2,127.42	2,127.42	4.88	0.31	RESOURCE	1	2,127.42	-488.23	0.00	2,127.42	1,639.19	
13547	0.50	0.00	0.00	0.00	0.95	110,549.65	4,008.17	2,456.62	104,083.25	1,292.96	3.10	1.90	RESOURCE	1	110,549.65	-4,008.17	-2,456.62	1,292.96	100,083.25
13547	0.50	865.03	1,989.56	0.08	14,921.06	10,488.79	331.58	4,100.70	2,194.07	4.85	0.15	RESOURCE	1	14,921.06	-10,488.79	-331.58	2,194.07	4,100.70	
Mining Recovery 95% & Process Recovery 100%																			
13547	1,000.00	1,000.00	2,300.00	0.00	0.00	11,500.00	0.00	-11,500.00	2,300.00	5.00	0.00	WASTE	0	0.00	-11,500.00	0.00	2,300.00	-11,500.00	
13547	1,000.00	1,000.00	2,300.00	0.00	0.00	11,500.00	0.00	-11,500.00	2,300.00	5.00	0.00	WASTE	0	0.00	-11,500.00	0.00	2,300.00	-11,500.00	
13547	0.00	741.82	741.82	1.71432	0.18	2,127.42	0.18	2,127.42	2,127.42	4.88	0.31	RESOURCE	1	2,127.42	-488.23	0.00	2,127.42	1,639.19	
13547	0.50	0.00	0.00	0.00	0.95	110,549.65	4,008.17	2,456.62	104,083.25	1,292.96	3.10	1.81	RESOURCE	1	110,549.65	-4,008.17	-2,456.62	1,292.96	99,083.44
13547	0.50	865.03	1,989.56	0.08	14,921.06	10,488.79	331.58	4,100.70	2,194.07	4.85	0.15	RESOURCE	1	14,921.06	-10,488.79	-331.58	2,194.07	2,608.59	
Mining Recovery 95% & Process Recovery 90%																			

Revenue Comparison

Added Classification in Reserves

A new **Classification** Node has been added to the **Pit Optimization Pro** Form so that users can incorporate resource classification into the pit optimization process.



Classification is now available in the Pit Optimization Form

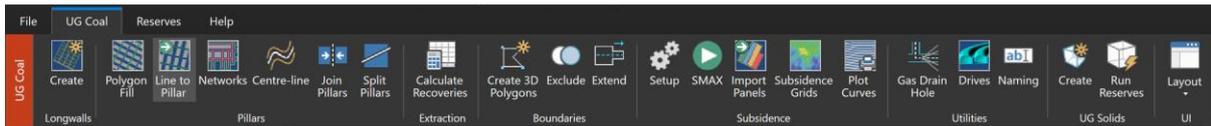
Nomenclature Change

Changed the name of **Recovery** (used to calculate the extractable volume of coal and overburden) to **Process Recovery**.

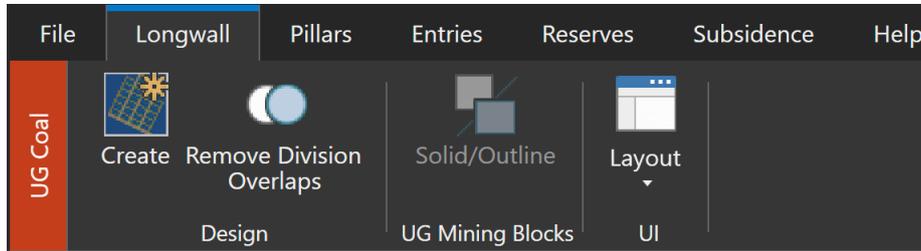
Underground Engineering

Revamped the Tabs in the UG Coal Ribbon

Reordered the tabs in the **UG Coal** Ribbon so now they are divided into **Longwall**, **Pillars**, **Entries**, **Reserves** and **Subsidence**. Most options in the old **UG Coal** Tab has been moved to different tabs.

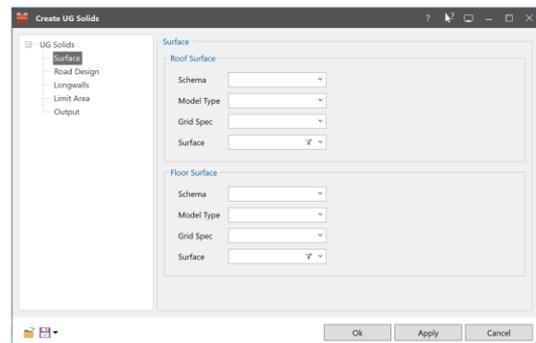
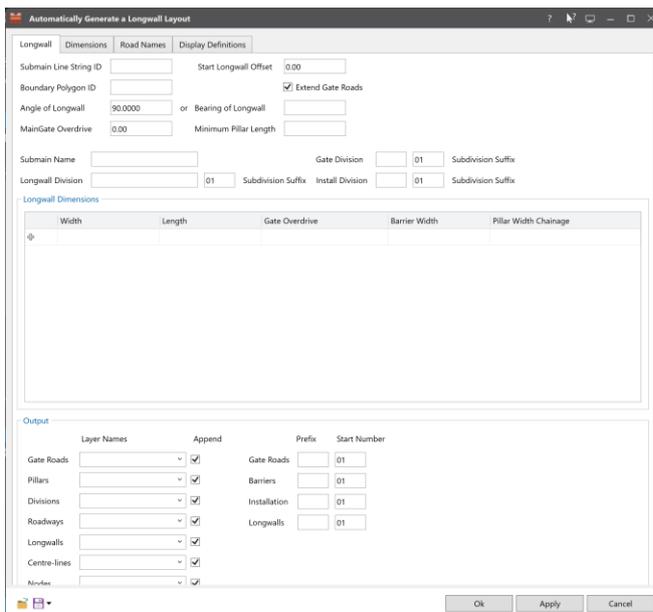


UG Coal Ribbon – Before

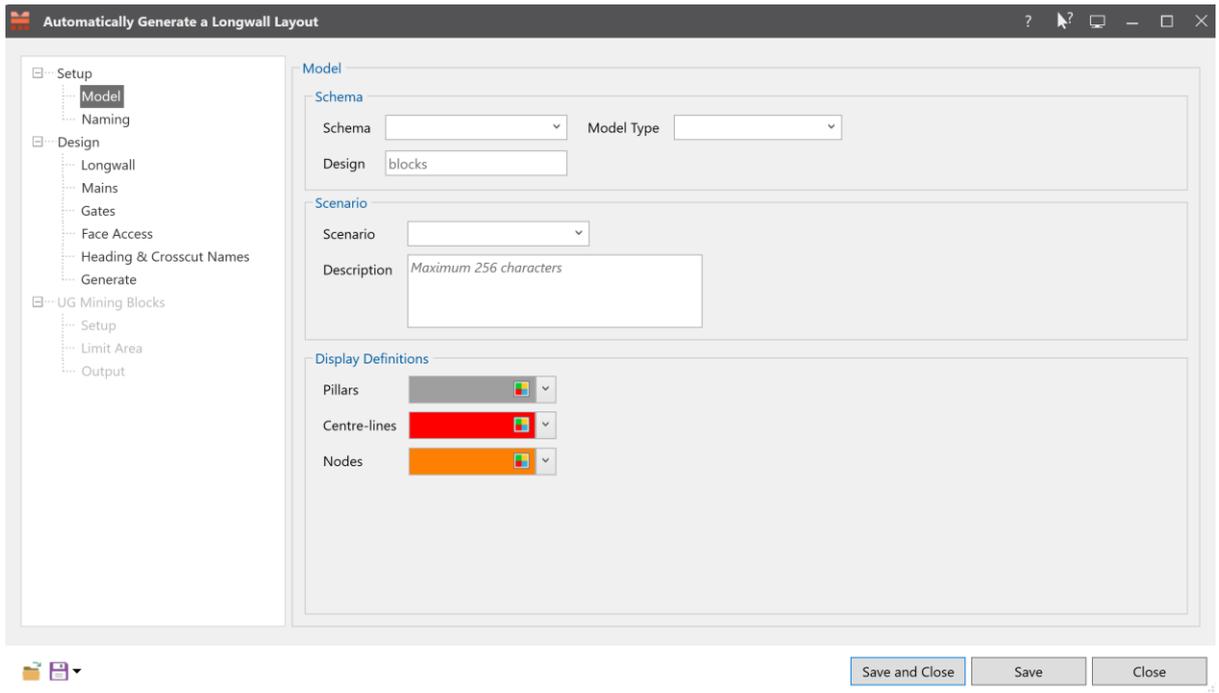


UG Coal Ribbon - After

- The old **UG Coal** Tab has been renamed to **Longwall**
- Added **Solid/Outline** Option in both the **Longwall** and **Pillars** Tabs. It's helpful to toggle between displaying or hiding mining blocks outlines for better viewing of the bences, slices, and intervals. Similar functionality is found in the **Mining Blocks** App
- The **Create UG Solids** Form has been merged into the **Longwall Layout** Form, accessible by selecting **Create** in the **Longwall** Tab. This update provides a smoother workflow by enabling users to generate longwall layouts and UG mining blocks in one simple form.



Before – Longwall and UG Mining Blocks Creation in Two Separate Forms



After – Longwall and UG Mining Blocks Creation in One Form

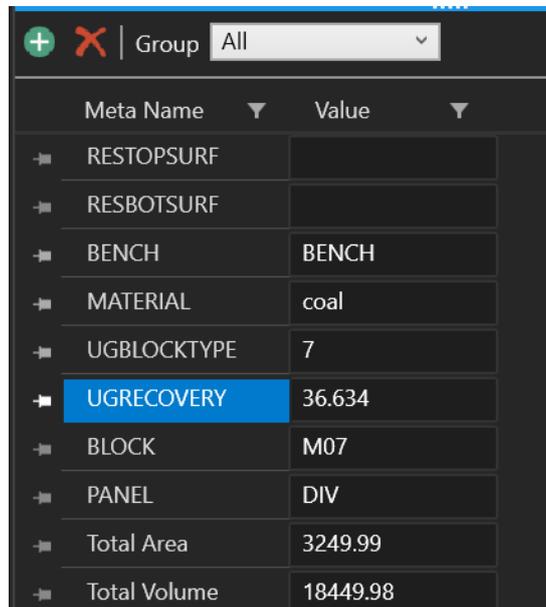
- The **Run Reserves** Option (previously located in **UG Coal » UG Solids » Run Reserves**) is now removed. Users can calculate volumes and reserves for UG Mining Blocks by going to the **Reserves** Tab and select **Run Reserves**

Revamped the Form for Longwall Layout Creation

The **Automatically Generate a Longwall Layout** Form has been enhanced in the following ways:

- Ability for users to create scenario-based configuration. The UG scenario is saved as a .UGSCEN extension within the **Specs** Folder of the MineScape project.
- UG mining blocks generation now outputs pillar mesh
- Users can now choose to generate UG mining blocks from road or division layer
- When generating UG mining blocks from a division layer, the recovery rate is written to the metadata as **UGRECOVERY**, which is useful for scheduling at a later time. The recovery rate represents the mineable area, which is the

portion of polygon blocks not covered by pillars. For longwall areas, the recovery rate is always 100%.



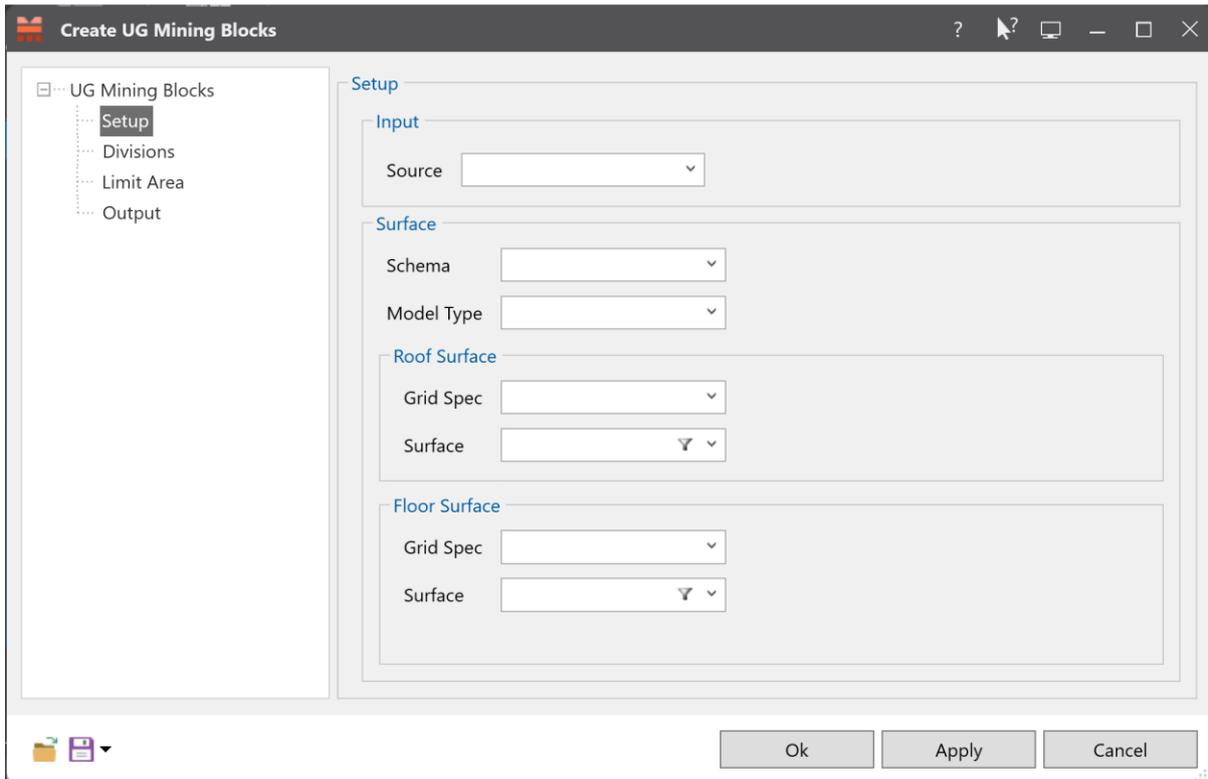
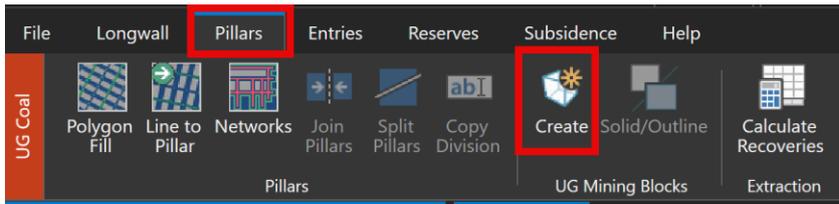
Meta Name	Value
RESTOPSURF	
RESBOTSURF	
BENCH	BENCH
MATERIAL	coal
UGBLOCKTYPE	7
UGRECOVERY	36.634
BLOCK	M07
PANEL	DIV
Total Area	3249.99
Total Volume	18449.98

UGRECOVERY Metadata

With this update, the recovery data will be taken into account when calculating underground reserves in the **Run Reserves** Form.

Generate Mining Blocks for Room and Pillar Method

Added the **Create** Option in the **Pillars** Tab to allow users generate UG mining blocks for the Room and Pillar method. This option is similar to the **UG Mining Blocks** section in the **Automatically Generate a Longwall Layout** Form



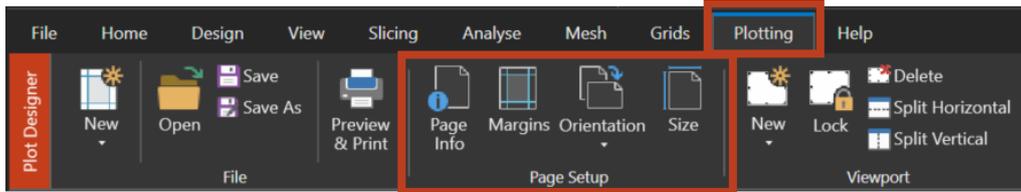
Create UG Mining Blocks Form for Room and Pillar Method

Plot Designer

Improvements to Page Setup and Layout Features

Plot Designer's user interface and page management features have been updated, streamlining access to page settings and improving paper size and margin adjustments.

- A new group called **Page Setup** is now available in the **Plotting** Tab, containing individual options that were previously managed within the **Page Setup** Form



Page Setup Group in Plotting Tab

- The option to change page orientation is now also accessible from the **Plotting** Tab. Previously it was only available in the **Plot Designer** Toolbar.
- The size of a **Paper** Window can now be updated. When the paper size changes, containers within the **Paper** Window may be resized and repositioned to maintain the layout as closely as possible. Previously, users had to create a new plot file with a new paper size.
- The **Restrict Data to Margins** Option now affects margin updates, whereas previously it only applied when creating a new viewport. When enabled, containers are automatically repositioned and may be resized to fit within the new margins.

Bug Fixes

System Services

- Fixed an issue where MineScape could not be installed due to outdated .NET Desktop Runtime version. MineScape System Services has now been updated to using .NET Desktop Runtime version 6.0.29.

Core

- Fixed an issue where MineScape notification pop-ups in a multi-monitor environment would appear on the other monitor instead of the monitor where the MineScape main window is located

CAD

- Fixed an issue in the **Height Cue** Form where selecting pastel colour palette would revert back to **CAD** colours
- Fixed an issue where **Surface Inspector** was unable to inspect mesh surfaces
- Fixed an issue where the the Height Cue colours were not properly applied on a multi-mesh after clicking **Apply**
- Fixed an issue where selecting only one colour on the **Height Cue** Form would cause the selection to become stuck, allowing the selection of three colours
- Fixed an issue where the selecting **Grade to Boundary** through **RapidCAD** would display the **Extend Interactive/Extend All** Confirmation Dialog Box
- Fixed performance issue when loading and unloading layers in **CAD**
- Fixed a display issue where several tooltips showed different texts than the actual button functions
- Fixed an issue where **Surface Inspector** couldn't be accessed from the History context menu from the **CAD** Window
- Fixed an issue where the **Create Mesh** and **Filter** Options in the **Point Cloud** Group of the **Mesh** Tab were disabled even though a point cloud file had been loaded onto the **CAD** Window
- Fixed an issue where **Surface Inspector** didn't mark invalid surfaces properly in the **Display Surface** Form
- Fixed an issue where compound surfaces weren't listed in the **Surface Inspector** Form

Mesh

- Fixed an error that occurred when trying to update a Digital Terrain Model (DTM) using an existing mesh

- Fixed an error where mesh couldn't be created using the **Create Mesh from Layer** Form because the **Mesh Group** Field was left blank
- Fixed an issue where creating a surface mesh using the **Between Crest and Toe** Option would not automatically refresh the output mesh if it was already loaded in the **CAD** Window. MineScape now detects if the output mesh is open and refreshes it accordingly.
- Fixed an issue where the **Create Mesh Surface Definition** Checkbox was disabled in the **Save Mesh** Form
- Fixed an issue where mesh definition wasn't created after restoring a form spec in the **Create Mesh by Polygons** Form
- Fixed an issue where users were unable to create a mesh using polygons due to manually inputted polygon IDs. The **Polygon ID** Column in the **Create Mesh by Polygons** Form is now set to read-only. Users must use the **Pick Polygons** Button or right-click and select **Pick** to input the polygon ID.
- Fixed an issue where users were unable to input design file and layer names in the **Create Mesh from Layer** Form
- Fixed an issue where mesh couldn't be created when using the **Relimit All – Delete Inside** Option in the **Create Mesh by Polygons** Form
- Fixed an issue where the statistics data disappeared when the mesh was loaded from the **Display** Dock

Block Model

- Fixed an issue where the **Zone** Column for an interval didn't automatically get filled in when setting up a new block model
- Fixed an issue where an error message was displayed after clicking **Information** from the right-click menu on a block model file in the **Explorer** Node
- Fixed an issue where the **Length** Fields were not disabled after the **Generate Extents** Button was clicked in the **Size & Orientation** Form

- Fixed an issue where MineScape failed to generate surface grids through a block model due to a limitation of only 10 grid value inputs. MineScape can now handle up to 2000 inputs in a single process.

GDB

- Fixed an issue where selecting the **Lithology Type** Radio Button through **Correlate > Insert/Replace** Option showed interval names instead of lithology names

Stratmodel

- Fixed an issue where clicking the **Adjust** Button in the **Edit a Drill Hole** Form caused an Interval record to disappear due to an invalid sorting index when multiple **Depth From** values were similar. The sorting method has been updated to account for both **Depth From** and **Depth To** values.
- Fixed a performance issue that occurred when generating a section through a schema
- Fixed an issue in the **Run Reserves** Form where coal was not detected as resource in the result table when the **Honour Triangles** Checkbox in the **Settings** Node was ticked

Surface Engineering

- Fixed an issue where the **Rapid Slicer** box could be hidden and show vertices
- Fixed an issue where the node label still said **Bench Blocks** in the **Explorer** Node instead of **Mining Blocks**
- Fixed an issue where the Projection module failed due to incorrect strip naming when switching between 9 and 10 characters. The naming is now properly assigned, and the layer opens correctly after projection.
- Fixed an issue where the **Rapid Slicer** grid wasn't displayed after performing dynamic slicing on a single-bench mining block

- Fixed an issue where the **Rapid Slicer** Tool couldn't slice a mining block with top and bottom surfaces
- Fixed an issue where slicing multi-bench mining blocks with **Rapid Slicer** resulted in incorrect strip name assignment
- Fixed an issue where MineScape displayed incorrect error message because the polygon layer name was missing
- Fixed an error that occurred when generating a dump mesh
- Fixed an issue in the **Mining Blocks to DTM** Form where the **Mesh Name** Dropdown list didn't show any mesh block names based on the selected scenario
- Fixed an issue where the routput engineering solid meshes were truncated because the input data was trimmed incorrectly
- Fixed an error that occurred when trying to perform the **Do Strip** operation in the **Dragline** Application
- Fixed an issue where selecting the **Project Down** Radio Button in the **Generate Solids** Form resulted in incorrect projection

Scheduling

- Fixed an issue where the sequence number and the associated block metadata were not automatically removed from the scheduling database when deleting multiple sequences
- Fixed an issue where pit face positions couldn't be generated by progress
- Fixed an issue where the controls of the **Constraints, Mine Map** and **Activity Map** Windows were hidden behind the **CAD** Window
- Fixed an issue where a blank error message appeared after picking a block for a sequence that contained a schedule constraint
- Fixed an issue where incorrect results were generated by the **Generate by Periods** Form due to the pit mesh not being loaded beforehand and the metadata not being immediately queried from the mesh server

- Fixed an issue where activating a sequence before the mesh file was loaded in the **CAD** Window would result in digger appearing in an incorrect position
- Fixed an issue where mesh numbers were still shown on a bench that was not set to **Active** in the **Active Bench** Option when running animation
- Fixed an issue where unloading the mesh file from the **CAD** Window didn't automatically remove the digger from the **CAD** Window
- Fixed an issue where reordering sequence numbers did not automatically repositioned the digger position in the mining blocks
- Fixed an issue where the **Cancel** Button to undo split block didn't work
- Fixed an issue where the animation showed incorrect sequence order when there were split blocks
- Fixed an issue where the split block process showed the mesh number from the bench underneath
- Fixed a crash that occurred when selecting an active bench after performing split block operation
- Fixed an issue where a block number was still displayed after the animation had stopped running

Underground Engineering

- Fixed an issue in longwall creation where entering numbers with a decimal point only captured the digits after the decimal. For example, typing "30.5" would incorrectly take "5" as the input due to premature number formatting.
- Fixed an issue where re-running underground reserves in the **Run Reserves** Form didn't completely overwrite existing metadata, leaving some outdated entries. Now, clicking **OK** or **Apply** will wipe all metadata and rewrite from the table file, except for the six metadata produced when creating UG mining blocks: **RESTOPSURF**, **RESBOTSURF**, **BENCH**, **MATERIAL**, **UGBLOCKTYPE**, and **PANEL**.

- Fixed an issue where reserving UG mining blocks with mesh not loaded in the **CAD** Window resulted in the output reserve table not having the **Material** Column
- Fixed an issue where the **SMAX** Option in the **Subsidence** Group failed to run because it didn't read the Grid spec from the **Setup** Option

Plot Designer

- Fixed an issue where resizing the viewport resulted in the title block container being resized because their positions were aligned
- Fixed an issue where the **Properties** Dock didn't update when switching to a different viewport
- Fixed a crash that occurred after clicking the **Preview & Print** Button on a rapid plot file

Archive and Recover Tool

- Fixed an error where the **Archive & Recover** Tool couldn't be started

Pit Optimization Pro

- Fixed the **Add Region** and **Edit Region** forms to make it easier to adjust the value of benches and block model counts (I, J, K)
- Fixed an error that occurred when trying to run the optimization module in **Run Optimization** Node of the **Pit Optimization Pro** Form

Removed

- Removed the **Like acceses mode** Checkbox from the **Filter** Form
- Removed the **Run Reserves** Option within the **UG Solids** Group of the **UG Coal** Tab. Users can now calculate reserves for the UG mining blocks by going to the **Reserves** Tab and click **Run Reserves** in the **Reserves** Group.