MINESCAPE 2023 UPDATE 4 RELEASE NOTES

Legal Disclaimer

The product described in this documentation may be connected to, and/or communicate information and data via, a network interface, which should be connected to a secure network. It is your sole responsibility to ensure a secure connection to the network and to establish and maintain appropriate measures (such as but not limited to the installation of firewalls, application of authentication measures, encryption of data, installation of antivirus programs, etc.) to protect the product, the network, your systems, and the interface against any kind of security breach, unauthorised access, interference, intrusion, leakage, damage, or corruption or theft of data. We are not liable for damages or losses related to any such security breach, unauthorised access, interference, intrusion, leakage, damage, or corruption or theft of data.

Contents

What's New

Discover the latest enhancements and additions introduced in MineScape Update 4.

IMPORTANT: Before installing **MineScape 2023 Update 4**, please ensure you update the System Services to the latest version, which is available for download in the [Distribution Portal](#). This update is mandatory to ensure a smooth installation process and the optimal performance of MineScape. Attempting to install MineScape without first updating the System Service will result in installation issues.

This release also addresses the retirement of Microsoft Azure CDN services. We've updated the URLs for MineScape auto-update, rollback, and online help. For those who may have missed the notification to update MineScape, the installer is available for download in the Distribution Portal.

Improve DFServer Connection Limit

MineScape now allows for a maximum of 2047 connections to the design file server. A message will be displayed when the connection limit has been exceeded. Please exit MineScape and contact your local system administrator for assistance.

More Seamless Silent Installation

Users can now add `-nosql` before starting a silent installation if they wish to exclude SQL components.

```
MineScapeSystemServices-[Version].[Build].exe -q -nosql -l [LOGFILE]
```

Updated Terms & Conditions

This release includes revised **Terms & Conditions** in alignment with the latest document from the Datamine legal team. Additionally, the EULA has been renamed to **Third_Party_Licenses**, and the **Privacy Policy** has been updated to Rich Text Format (*.RTF) for consistency with the **Terms & Conditions**. Both now include the **Save As** functionality. These documents are currently available in English only.

To view the updated **Terms & Conditions**, click the **About MineScape** Icon on the Start Page or go to **Help > Information > About**.

Conditional Formatting in Table Editor

The new **Conditional Formatting** Feature in the **Table Editor** enables users to dynamically style table cells based on specified conditions, similar to spreadsheet editors. With the **Manage Rules** Option, users can create and manage formatting rules by defining a name, condition, cell colour, text colour, and value via the **Rules** Form. The **Clear Rules** Option allows users to instantly remove all applied formatting from the table cells. This feature enhances data visualisation and readability by allowing custom styling based on cell content.

To access **Conditional Formatting**, go to the **Table Editor** Tab, and locate the **Validate & Output** Group.
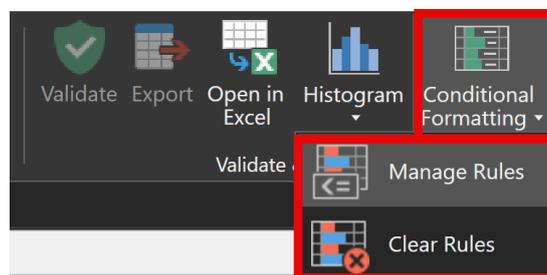

New Conditional Formatting Feature in Table Editor

|	MESH	SEAM	BURDEN	TOTALVOLUME	PLANAREA	MASS	TRUEVERTTHK	RECOVERY	EASTING_1	NORTHING_1
1	GT0101	AC	MINE_ROOF	134.23	1,061.03	295.31	0.16	100.00	651,293.99	7,402,6
2	GT0101	AC	RESOURCE	11,773.24	2,100.00	16,618.71	5.84	100.00	651,288.15	7,402,6
3	GT0101	AC	UNDERBURDEN	245.42	1,037.32	539.93	0.24	100.00	651,290.75	7,402,6
4	GT0102	AC	MINE_ROOF	360.09	2,958.22	792.21	0.15	100.00	651,306.31	7,402,6
5	GT0102	AC	RESOURCE	33,508.93	6,000.00	47,300.83	5.85	100.00	651,303.35	7,402,6
6	GT0102	AC	UNDERBURDEN	794.22	3,037.56	1,747.27	0.26	100.00	651,297.72	7,402,6
7	GT0103	AC	MINE_ROOF	338.60	2,921.71	744.93	0.15	100.00	651,328.79	7,402,6
8	GT0103	AC	RESOURCE	33,762.02	5,999.99	47,658.97	5.85	100.00	651,325.12	7,402,7
9	GT0103	AC	UNDERBURDEN	696.99	3,073.73	1,533.39	0.23	100.00	651,321.12	7,402,7
10	GT0104	AC	MINE_ROOF	314.08	2,945.67	690.98	0.14	100.00	651,350.69	7,402,7
11	GT0104	AC	RESOURCE	34,084.23	6,000.00	48,114.49	5.86	100.00	651,347.26	7,402,7
12	GT0104	AC	UNDERBURDEN	548.18	3,052.10	1,205.99	0.18	100.00	651,346.82	7,402,7
13	GT0105	AC	MINE_ROOF	334.41	2,953.26	735.70	0.15	100.00	651,372.62	7,402,7
14	GT0105	AC	RESOURCE	33,790.55	6,000.00	47,700.38	5.86	100.00	651,369.49	7,402,7
15	GT0105	AC	UNDERBURDEN	684.40	3,043.48	1,505.68	0.22	100.00	651,364.12	7,402,7
16	GT0106	AC	MINE_ROOF	359.66	2,971.51	791.25	0.15	100.00	651,397.05	7,402,8
17	GT0106	AC	RESOURCE	33,478.60	6,000.01	47,260.16	5.85	100.00	651,390.90	7,402,8
18	GT0106	AC	UNDERBURDEN	823.99	3,025.92	1,812.77	0.27	100.00	651,393.58	7,402,8
19	GT0107	AC	MINE_ROOF	375.73	2,948.23	826.61	0.16	100.00	651,418.08	7,402,8
20	GT0107	AC	RESOURCE	33,453.83	6,000.01	47,225.20	5.84	100.00	651,414.30	7,402,8
21	GT0107	AC	UNDERBURDEN	809.39	3,049.48	1,780.66	0.27	100.00	651,406.47	7,402,8
22	GT0108	AC	MINE_ROOF	401.47	3,003.26	883.23	0.17	100.00	651,439.56	7,402,9
23	GT0108	AC	RESOURCE	33,474.52	5,999.99	47,254.13	5.83	100.00	651,431.67	7,402,9
24	GT0108	AC	UNDERBURDEN	755.76	2,994.32	1,662.68	0.25	100.00	651,432.64	7,402,9
25	GT0109	AC	MINE_ROOF	445.33	3,105.68	979.72	0.18	100.00	651,467.20	7,402,9
26	GT0109	AC	RESOURCE	33,235.32	6,000.01	46,916.02	5.82	100.00	651,451.98	7,402,9

Conditional Formatting

New GDB-Specific Containers and Variables

The **Plot Designer** App enhances user workflows with support for **GDB**-specific containers and variables, enabling users to design and customise dynamic, database-driven plot files and templates. These feature allows users to interactively add enriched, real-time data elements to their plots.
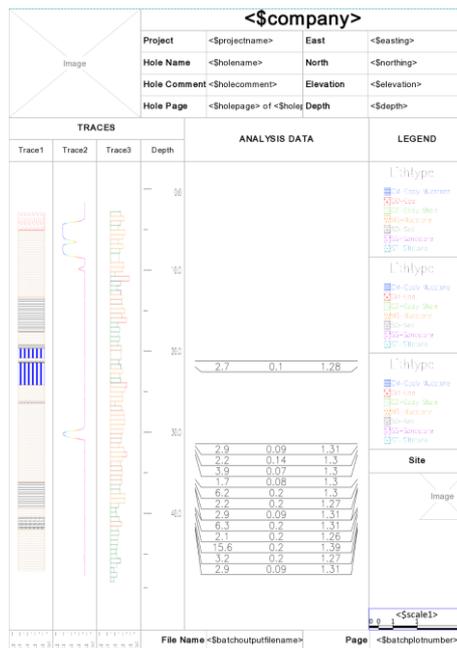
Pre-defined Plot Template Containing GDB-Specific Containers and Variables

The release also includes the **Hole Plot** Options, which uses data retrieved from the **GDB** database to generate PDF outputs.
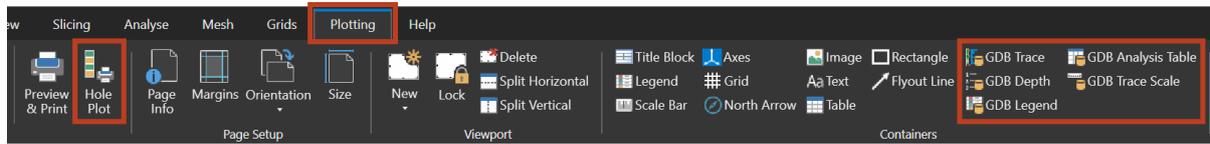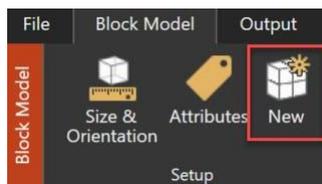

Hole Plot and GDB-Specific Containers in the Plot Designer Ribbon

This feature is also available in the **GDB** App, ensuring a seamless and flexible experience working across both environments.
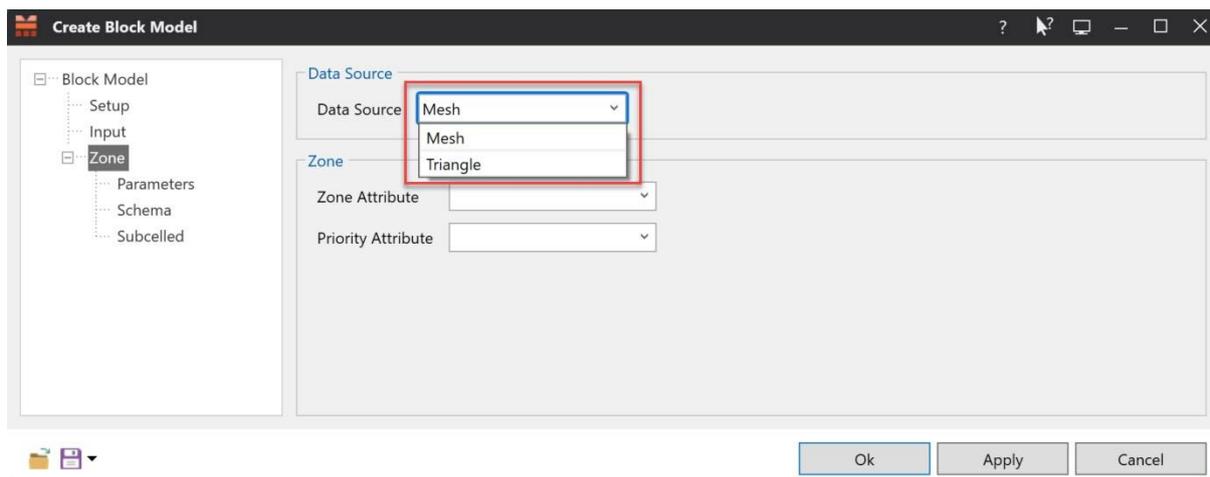
Block Model

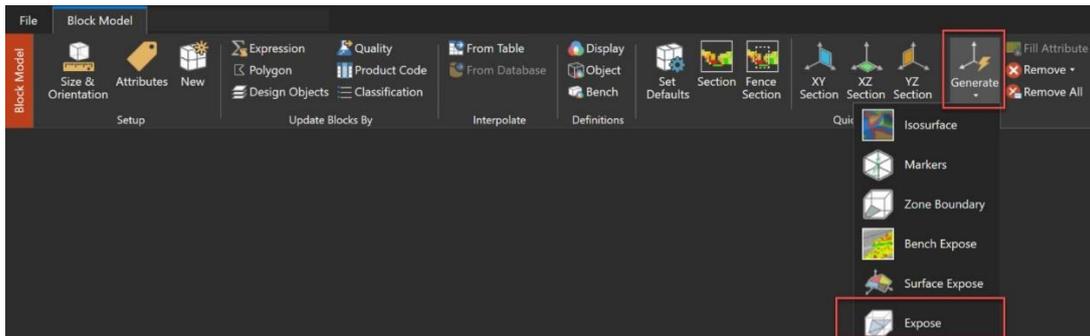## New Option Now Supports Mesh Input

New Option

Provided **Zone** and **Intersect** are selected in the **Setup** Node, **Mesh** is now available as an input option in addition to **Triangle** in the **Zone** Node of the **Create Block Model** Form, which appears after users select the **New** Option.
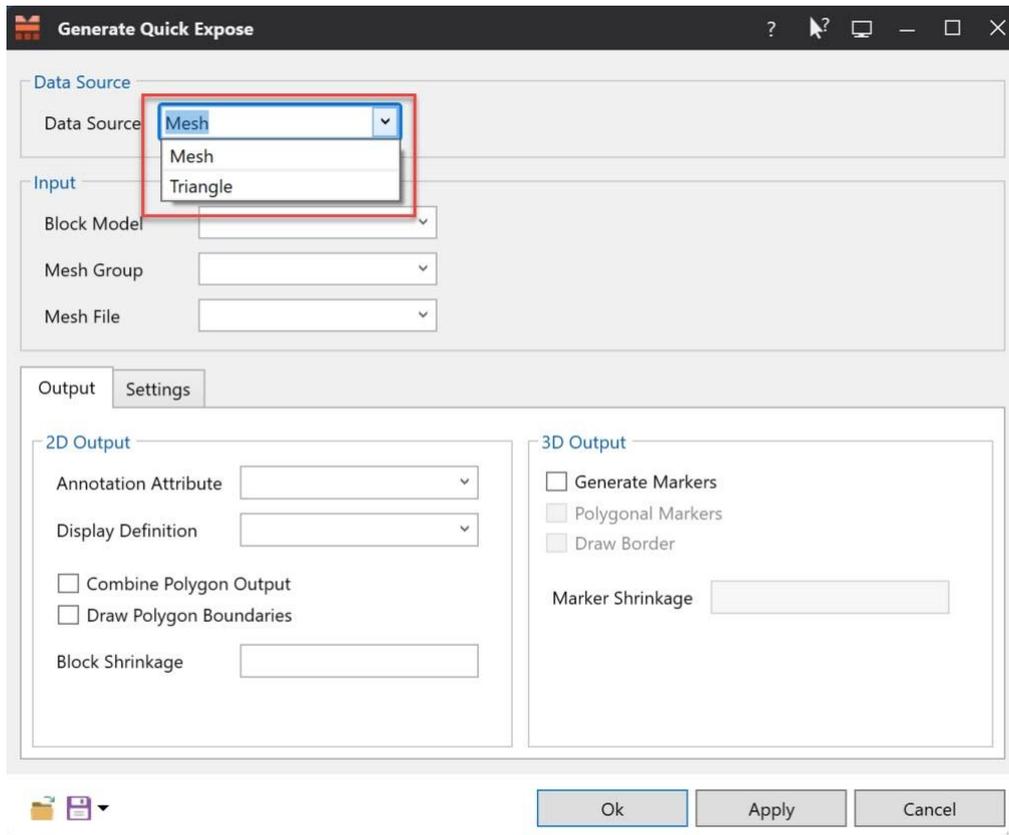

Mesh and Triangle Options

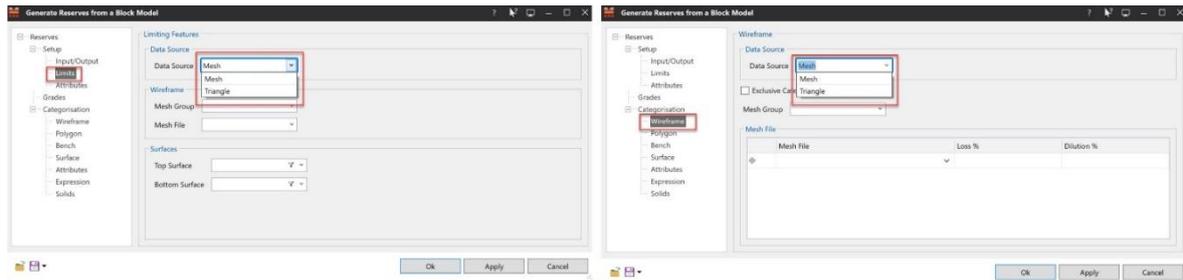# Expose Option in Block Model Tab Now Supports Mesh Input

Expose Option

Mesh is now available as an input option alongside **Triangle** in the **Generate Quick Expose** Form, which appears after users select **Generate** » **Expose** under the **Quick Graphics** Group.

Mesh and Triangle Options

# Mesh Input & Increased Attribute Limits for Categorisation Option

Mesh is now available as an option in addition to **Triangle** in the **Limits** and **Wireframe** Sub-nodes of the **Generate Reserves from a Block Model** Form, which appear after users select the **Categorisation** Option under the **Reserves** Group.


Limits and Wireframe Supports Mesh as Input

The attributes limit has increased to 1,000, and category combinations have expanded to 10,000.

Expose Option in Output Tab Now Supports Mesh Input
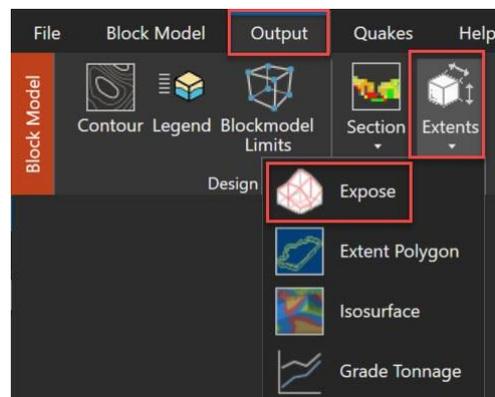
Expose Under Extents

Mesh is now available as an input option in addition to **Triangle** in the **Expose** Form, which appears after users select **Extents** » **Expose** under the **Design File Graphics** in the **Output** Tab.
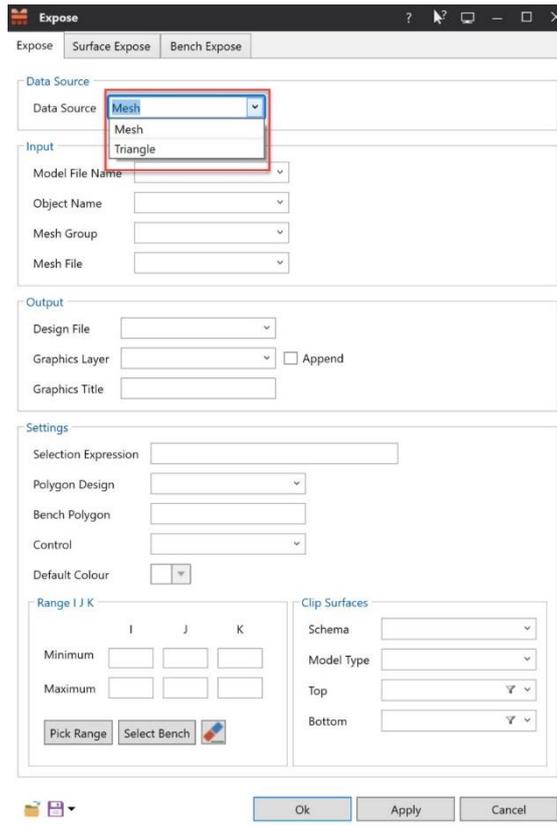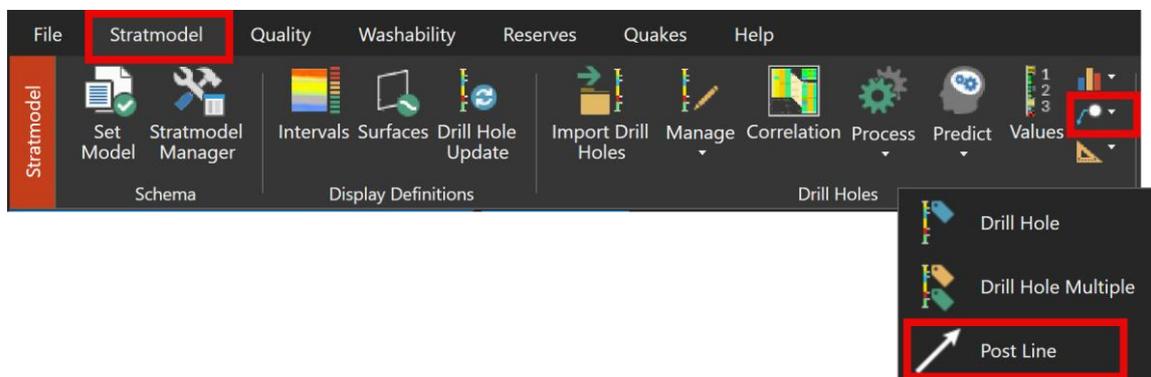
Expose Form Now Supports Mesh

Stratmodel

Re-introduced Post Line Option

Added the **Post Line** Option, previously available only as a user command, to the **Stratmodel** Tab under the **Drill Holes Group** via the dropdown next to **Posting**. This update makes it easier to draw simple arrows in the design layer.


Post Line Option

GDB

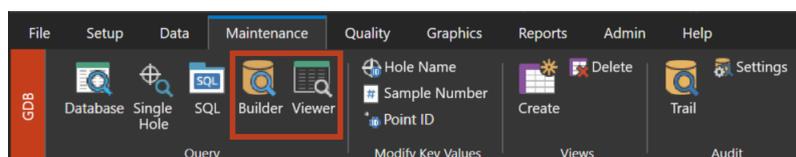## Interactively Build SQL Queries and Manage Results

MineScape's **Query Builder** offers enhanced flexibility and functionality through its interactive interface for creating SQL queries, while still allowing users to type in SQL syntax directly. It supports parameters, a capability not available in the legacy query tool, and includes a preview function to validate query results before execution.
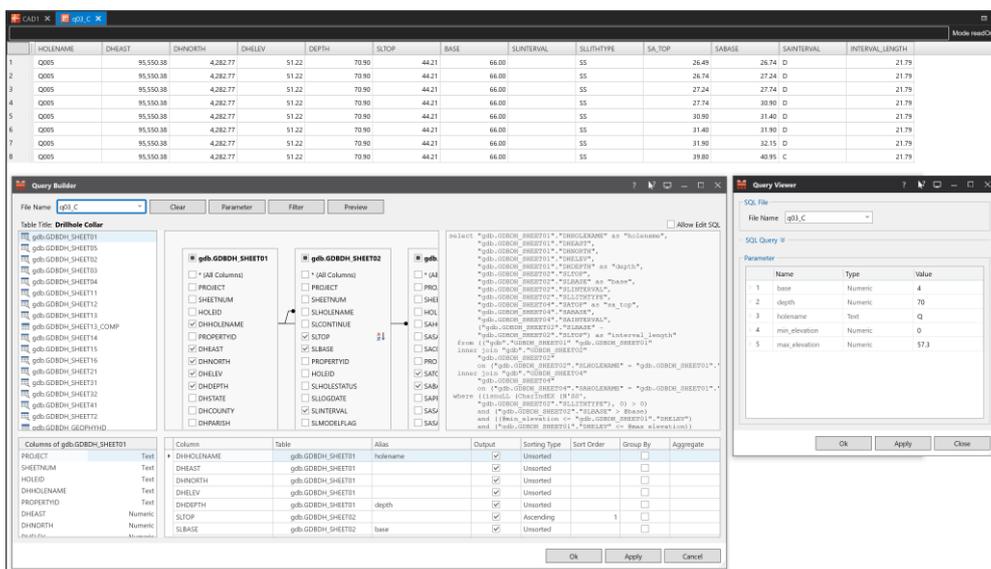
SQL Query: Built in Query Builder, Run in Query Viewer, Viewed in Table Editor

The **Query Viewer** allows users to dynamically update parameter values before execution, with query results displayed in the **Table Editor** Tool, which includes the option to export data to CSV for further analysis. Together, these features streamline the process of crafting and managing SQL queries, replacing the legacy tool with a more streamlined and powerful query management experience.
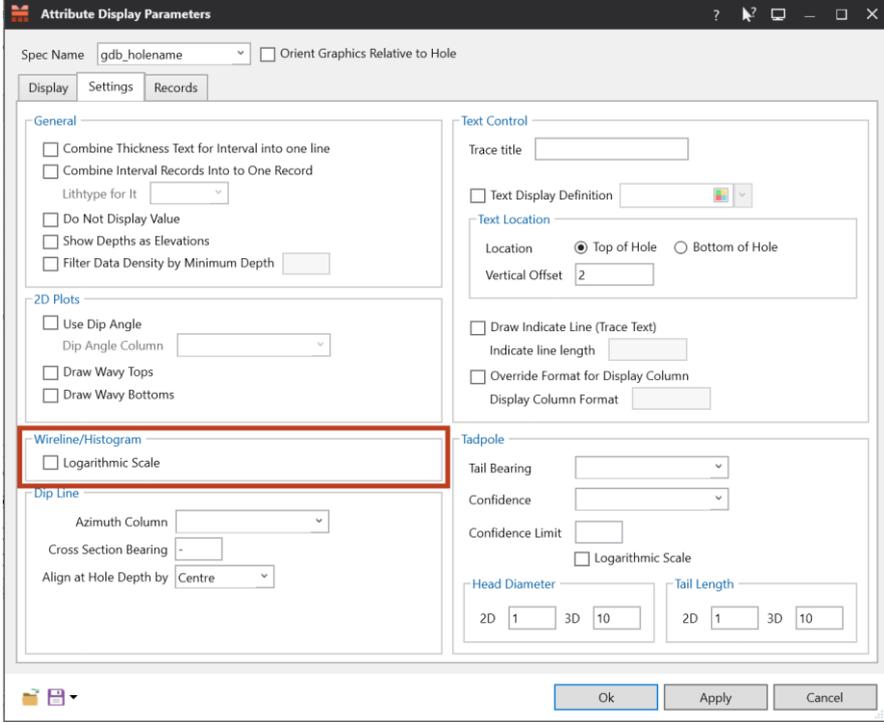
Both options are available in the **Query** Group under the **Maintenance** Tab of the **GDB** App.

Maintenance Tab of the GDB Ribbon

Generate Hole Plots

The **GDB** App introduces the **Hole Plot** Option, a new feature that enables users to generate drill hole plots directly from the app using data retrieved from the **GDB** database.

Graphics Tab

The **Hole Plot** Form, accessible through this option, requires a plot file containing **GDB**-specific containers and the preferred drill hole(s). The generated plots are output as PDF files, with the number of files depending on the depth and number of selected holes.

Example of a Successful Hole Plotting

For ease of use, the **Hole Plot** Option is also available in the **Plot Designer** App.

Logarithmic Scaling for Wireline and Histogram Traces

Users can now draw **Wireline** and **Histrogram** traces in 2D and 3D drill hole graphics using **base-10 logarithmic scaling (log10)**. The logarithm is applied directly to the data values without shifting them to a predefined minimum (for

example, 0.001). This ensures that values are plotted according to their actual logarithmic distribution, providing a more accurate representation of attributes that span multiple orders of magnitude.


Annotated Attributes Display Parameters Form Showing the Logarithmic Scale Option

This option can be enabled or disabled through the **Settings** Tab of the **Attribute Display Parameters** Form, which opens when users edit the **Field Display** specification.

Revamped Single Hole Forms

Both the **Edit Single Hole** Form and **View Single Hole** Form have been revamped to improve the user experience. In addition to the new **Select All** Button, which allows quick selection of all available tables and columns, the **Drill Hole Edit** Form now enables users to select and update values for other drill holes without restarting the selection process. These updates enhance workflow efficiency and simplify drill hole data management.
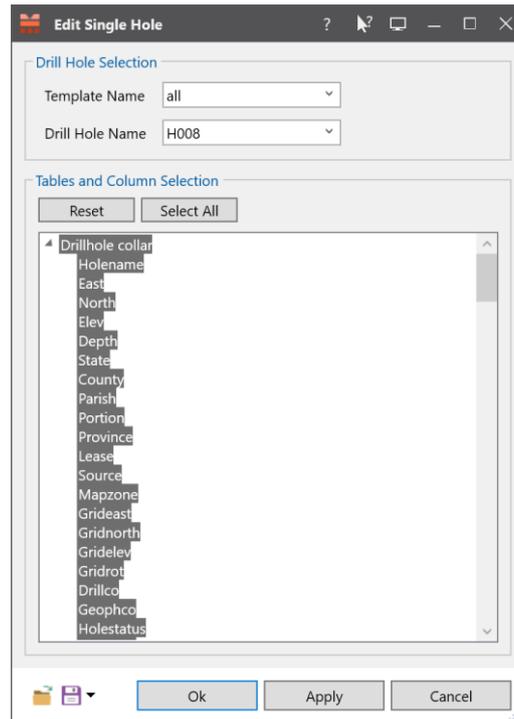
Revamped Edit Single Hole Form with All Listed Items Selected

Improved Internal Summary Reports

Enhanced the **Interval Summary Report** output table to be able to use lith depths when desurvey coordinates are unavailable, preventing holes from being reported without interval names. Additionally, the **Collar** Column has been renamed to **Elevation**.
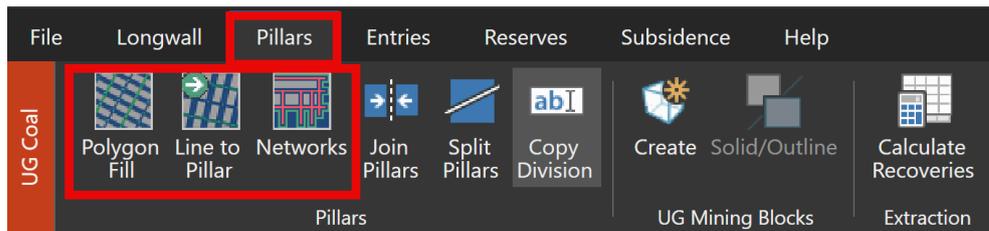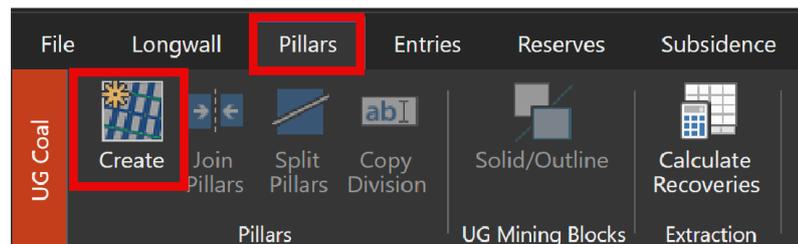

Collar Column is Renamed to Elevation

Underground Engineering

Consolidated Pillar Forms

The **Polygon Fill**, **Line to Pillar**, and **Networks** Options in the **Pillars** Tab have been consolidated into a new **Create** Option for a more seamless pillar creation workflow.


Before

After

Clicking **Create** opens the **Generate Pillars** Form, where users can generate pillars from a **Polygon**, **Line**, or **Networks**. The form's parameters adjust based on the selected input source, while all other fields remain unchanged from the previous forms. Additionally, this form includes an option to generate UG mining blocks from the pillars layout. Once reserved, these blocks can be used as input for underground scheduling in MineScape's **Tactical Scheduler**, similar to the **Create** Option in the **Longwall** Tab.
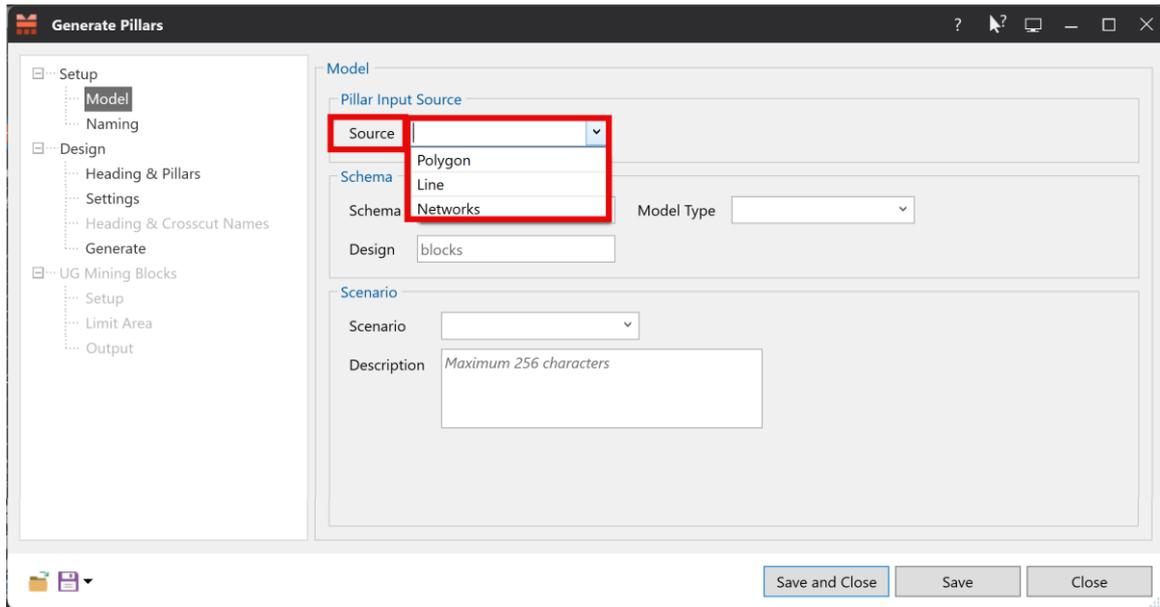
Generate Pillars Form

Additionally, pillars from polygon now accepts multiple input values for pillar length, allowing users to generate different pillar lengths.
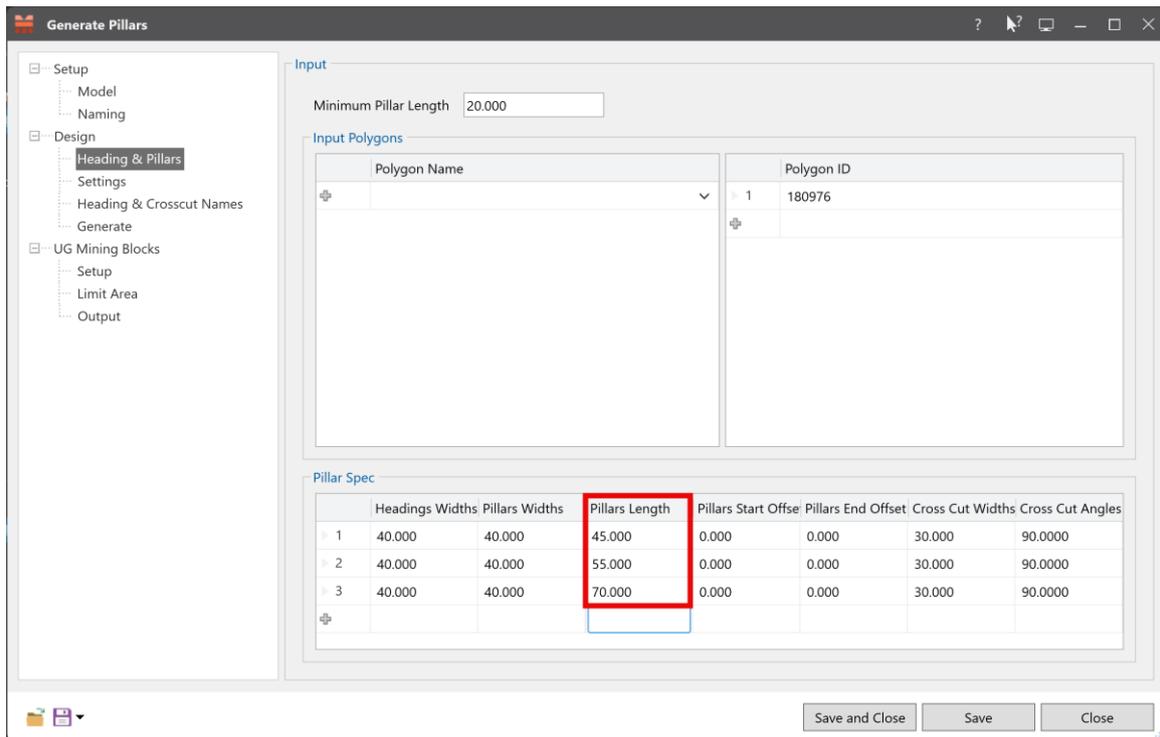
Input Different Pillar Length for Pillars from Polygon

Improved the Join Pillar Option

Improved the **Join Pillar** Option to automatically remove roadways located between two joined pillars. After selecting two pillar polygons, the **Select Scenario** Dialog Box appears, prompting users to choose a scenario. MineScape then identifies the road layer within that scenario and deletes the roadway between the two pillars.
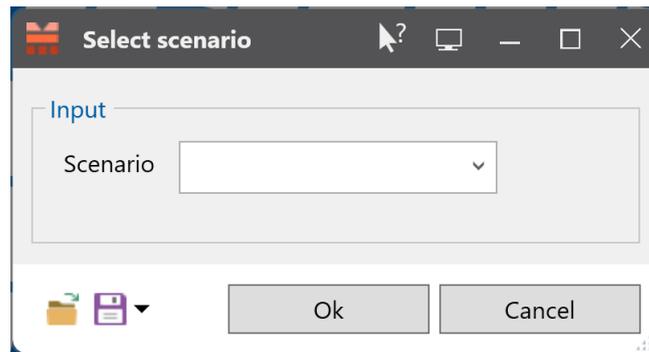
Select Roads Layer Dialog Box

Improved the Split Pillar Option

The **Split Pillar** Option now generates a new roadway when splitting a pillar. After selecting the centre element, a **Road Creation** Dialog Box appears, prompting users to choose a scenario and define the width of the new roadway.

> **NOTE:** If the centre-line intersects multiple pillars, MineScape automatically generates unique names for all the new road elements created, ensuring there are no duplicate names in the design.
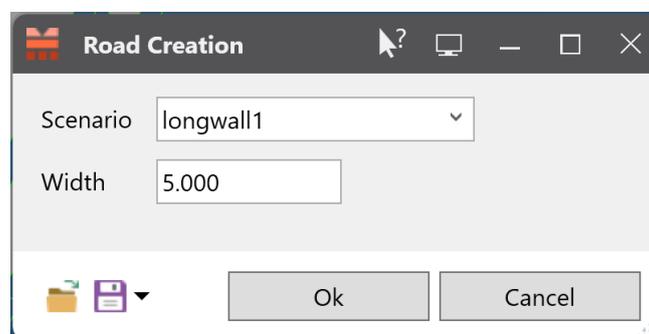
Road Creation Dialog Box

Improved Output of UG Mining Blocks

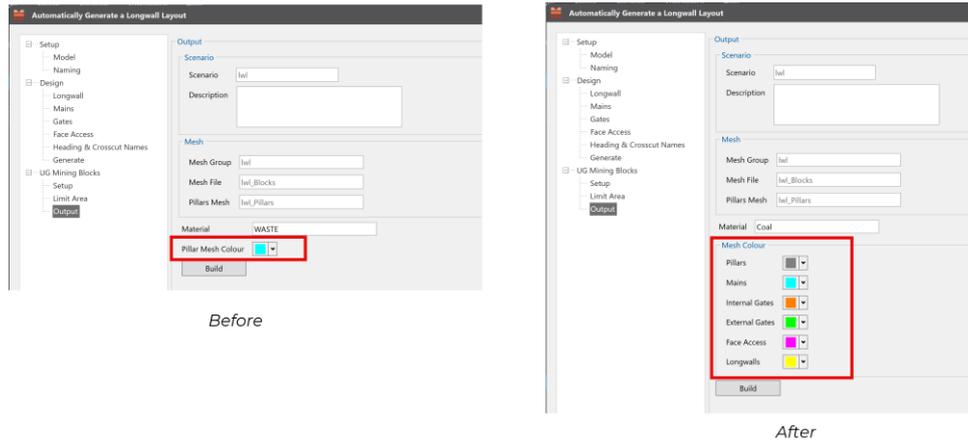- **Added Mesh Colour Definition to UG Mining Blocks**

Users can now assign colours to UG mining blocks based on their types, i.e., pillars, mains, gates, longwalls, roadways and installations. This improvement provides a visual cue when highlighting a particular mesh and to provide better user experience when creating underground scheduling.

Before

After

New Mesh Colour Definitions

- **Barrier Pillars Mesh Added to the UG Mining Blocks Output**

Barrier pillars mesh is now included in the UG mining blocks output if a value is entered for the **Barrier Width** Column in the **Longwall** Sub-Node of the form. Previously, the pillars mesh was generated only in the mains, gates, and face access
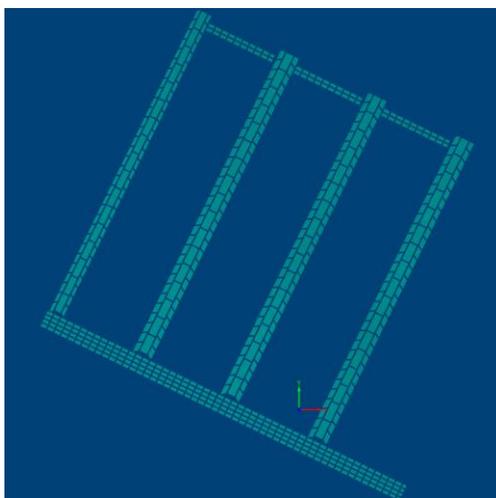
Figure 1. Barrier Pillar Mesh is not Created
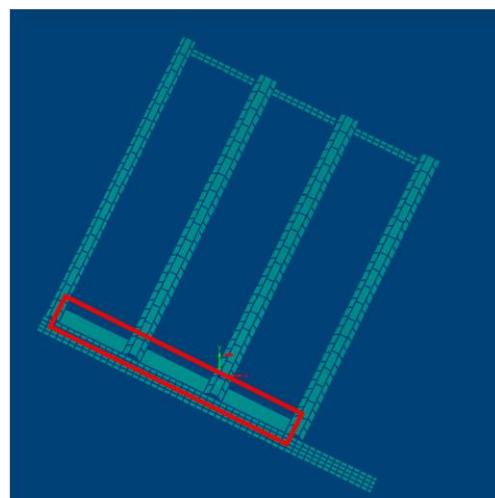
Figure 2. Barrier Pillar Mesh is Created

Bug Fixes

Core

- Fixed a crash that occurred when reading local license server

- Fixed an error that occurred when importing a large ESRI Shape File to MineScape design file

Mesh

- Fixed an issue where selecting **Yes** in the **Lower Surface** Dropdown within the **Create Mesh from Surfaces** Form did not apply the setting correctly to the output mesh
- Fixed a display issue in the **Save Mesh** Form where two checkboxes were overlapping

Stratmodel

- Fixed an issue where coal intervals were missing in certain sections of the Cross Section output

- Fixed an issue where some intervals in the Cross Section were displayed outside the grid in 2D graphics

Block Model

- Fixed an issue where the module failed when trying to generate reserve using the **Categorisation** Option in the **Reserves** Group of the **Block Model** Tab

GDB

- Fixed an issue where the **Drill Hole Edit** Form couldn't be loaded

- Fixed an issue in the **Basic Interval Data Retrieval** output where missing values were incorrectly displayed as **0.0**

- Fixed an issue where the **Lithology Code** column header was blank in the **Interval Parting Report**

- Fixed an issue where no warning was displayed when importing undefined lithology codes

Open Cut

- Fixed an issue where running **Multipart Reserves** resulted in incorrect values for INTRRMASS and TOTALBURDVOLUME and missing values for INTLOSS and PARTVOLUME

Watershed

- Fixed an issue where watershed files could be deleted while loaded in an inactive viewport
- Fixed an issue where watershed generation failed because the point cloud input did not use a coordinate system

Dragline

- Fixed an issue where the **Parallel** Option under **Copy** could not be executed in the draft plane after exiting the **Dragline** section view. The draft plane is now properly reset upon exiting the section view to ensure expected functionality.

- Fixed an error that occurred when attempting to draw material reports in **CAD** for a new dragline project

- Fixed an issue in the **Dragline 3D View** where moved material areas were incorrectly displayed above the topo. The **3D View** now excludes **DRAG_AREA** elements with step type **Volume_Area**, validated by their fixed fill pattern, to ensure accurate visualisation.

- Fixed an error that occurred when trying to dump material using the **Fill Template** method. The tolerance for point snapping to line segments in the template area constraint has been updated to resolve this issue.

- Fixed an error that occurred when selecting a current section after recreating it. MineScape now validates and closes any unfinished drag block activities during the section recreation process.

UG Coal

- Fixed an issue where node elements were not created when generating pillars from polygons with more than 1,000 vertices. MineScape now generates multiple node elements if the vertex count exceeds 4,094.
- Fixed an issue where pillars could not be created using the Network input source when the input layer contained too many intersecting lines. MineScape now merges elements every 100 vertices to prevent excessive result vertices. Merging smaller elements reduces unused vertices, preventing an overflow of vertices.
- Fixed an issue where running a reserve for **UG Multi-Mesh** failed due to missing quality specifications. MineScape now displays a warning message, `No qualities have been specified,` in the **Feedback** Dock.

Scheduling

- Fixed a crash that occurred when loading a scheduling project because of an issue in the color implementation

- Fixed an issue where block numbers were incorrectly displayed in split block temporary graphics when using **Active Bench** in the **Interactive Filter**

- Fixed an issue where block number remained after delecting a block from the sequence

- Fixed an issue where the last block number was still displayed at the end of animation

- Fixed an error that occurred when performing a split block action using the **Pick Line** Method

Plot Designer

- Fixed an issue where grid annotations appeared upside down in projects using the 3rd quadrant (SW). The grid now correctly flips the path and aligns text rotation accordingly.

Removed

- Removed the **Subdivision Count** Field in both the **Create** Option from the **Longwall** and **Pillars** Tab. The value is now hardcoded as 1.