

RAPID | INTUITIVE | EFFICIENT

MINESCAPE 2023 UPDATE 2 RELEASE NOTES

www.dataminesoftware.com
 sales@dataminesoftware.com



© Copyright 2024 Datamine Software All Rights Reserved Confidential and Proprietary

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, at a such security breach, unauthorised access, interference, or corruption or theft of data.

Contents

| What's New | 5 |
|--|----|
| CAD | 5 |
| Set/Trim/Extend to Boundary Enhancements | 5 |
| RapidCAD | 6 |
| Drape Element | 7 |
| Polygon Centre | |
| Viewport Background Colour | 9 |
| Other CAD Enhancements | 10 |
| Mesh | 10 |
| Create Surface Meshes | 11 |
| Re-added the Filter Functionality | 11 |
| Plot Designer | 12 |
| Rapid Plot | 12 |
| Surface Engineering | 13 |
| Interval Intersection | 13 |
| Reserves | 14 |
| Volume Calculations to Support Mesh | 14 |
| Scheduling | 15 |
| Improved the Sequence Dock Usability | 15 |
| Improved the Equipment Utilisation & Availability Form | 16 |
| Other Scheduling Enhancements | 17 |
| Drone Surveying | 19 |
| Point Cloud Tools | 19 |
| Tools | 24 |
| Report Designer | 24 |
| Bug Fixes | 25 |
| System Service | |
| Start Page | 25 |
| Core | |
| Mesh | 27 |
| Geology | 27 |
| Stratmodel | 27 |
| GDB | |

| Plot Designer | 29 |
|---------------------|----|
| Surface Engineering | 29 |
| Open Cut | 29 |
| Mining Blocks | |
| Dragline | |
| Scheduling | |
| Drone Surveying | |
| Point Cloud | |
| Survey Data Manager | |
| Survey Server | |
| Tools | |
| Removed | |

What's New

Discover the latest enhancements and additions introduced in MineScape Update 2.

CAD

This update brought significant improvements to the MineScape **CAD**, as follows:

Set/Trim/Extend to Boundary Enhancements

 Trimming or extending line segments to boundary has been made easier by allowing users to choose whether to do it interactively or all at once. When users click the Set to Boundary, Trim to Boundary or Extend to Boundary Option in the Element Utilities Group of the Design Tab, a confirmation dialog box appears, as shown below.



Confirmation Dialog Box

• A new setting button has also been added to decide which Z values to apply on the resulting element

| Repair Data • Curve • | Smooth Clip t String • Polygo -/ Trim t / Exten | o Set to Boundary - o Boundary d to Boundary gs | | |
|--------------------------|--|--|-----------------------------|--------|
| | | Boundary Options Options Otions Use Original Z Valu Use the Boundary C | ? ? les Line Z Values | Cancel |

Select Z Value

- Use original Z Values: maintain the Z values of the element being modified
- **Use the Boundary Line Z Values**: use the Z values of the boundary line used to trim or extend the element

RapidCAD

• Added five **Edit** Options, which are **Copy**, **Move**, **Offset**, **Drape**, and **Project**, as part of the **RapidCAD** right-click options.



Additional RapidCAD Options

All features of RapidCAD, including Quick Edit Toolbar, Quick Element
 Options, and Quick Input Box, are now enabled by default. Previously, only the Quick Dropdown Menu was accessible without manual activation, while other features required enabling. Users can adjust these settings within the RapidCAD Node of the Graphics Settings Form, accessible by clicking the Dialog Launcher (S) icon in the Graphics Group on the Home Tab of the CAD Ribbon.

| Graphics Settings | | ? | × |
|---|--|-------|---|
| ▲ □ Graphics ⋮ CAD ⋮ RapidCAD ⋮ Drawing & Panning ⋮ Colours ⋮ Cursor ⋮ Picking & Snapping ⋮ Selection ⋮ Zoom & Scale ⋮ Rotation ⋮ Performance | RapidCAD ✓ Enable Quick Edit Toolbar ✓ Enable Quick Element Options ✓ Enable Quick Input Box ✓ Enable Quick Dropdown Menu Quick Element Option: Offset 100 ✓ Show Vertices When Drawing Element ✓ Show Vertices for Nearby Elements When Drawing | | |
| | | Close | |

RapidCAD Node

• The Intersect and Trim Option, accessible in RapidCAD or Segment Group of the Design Tab, allows users to choose which Z values for newly trimmed vertices. By pressing the Space Bar, users can toggle between using the Z values of the first and second elements.

Drape Element

The **Drape Elements** Form has been enhanced with a new **Add Vertices on Large Grade Changes** Option. When the checkbox is ticked, new vertices will be added on any parts of the element that has a grade value that is outside of the grade change value. This helps to improve the accuracy of the resulting element.

| Drape Elements | ? | ₩? | ₽ | _ | | × |
|--|-------|------|------|-----|------|---|
| Schema Name Model Type | | | | | | |
| Input Expression Surface Elevation 20.000 metres Mesh Mesh Group Name PIT OR Drape original vertices only Add Vertices on Large Grade Changes Sampling Density Grade Change | Mesh | I ID | 1003 | | | |
| ok CAI | D App | ly | | Can | icel | |

Drape Element Form

Polygon Centre

The **Polygon Centre** Option has been added to automatically detect the centre point of polygons. Users can also snap the centre points as part of a new line segment. The Option is available within the **Graphics** Toolbar.

The magnified red boxes in the image below show the blue centre point within each polygon. The X, Y, and Z coordinates can be viewed by hovering over the centre point or via the **Weighted Centre** section in the **Statistics** Dock.

New Polygon Centre Option



Polygon Centres

Viewport Background Colour

The **Cycle Background Colours** update enhances users' ability to choose background colours for **Viewports**, offering a wider selection of preferences. The new settings layout utilises a table format to maximise the availability of background colour options. By default, MineScape includes 11 predefined colours, featuring both solid colour and top-to-bottom linear gradient options.

| Graphics Settings | | |
|---|---|-------------|
| Caphics | Colours | |
| CAD RapidCAD Colours Colours Cursor Picking & Snapping Selection Zoom & Scale Rotation Performance | Cycle Background Colours Direction Top to Bottom Gradient Primary Sec 3 4 5 6 7 7 7 7 | condary |
| | 8 ✓ 9 ✓ 10 ✓ 11 ✓ | Apply Reset |
| | Line Colour RAINBOW24 ~ Rubber Band Colour YELLOW ~ Point Cloud Colour ① Indexed Colour ① True Colour | |
| | | Close |

CAD Graphics Colours Settings

Other CAD Enhancements

- When a light bulb icon in the **Display** Dock is clicked, the respective elements on the **CAD** Window will automatically be hidden without being highlighted first. This will save time when huge data are currently opened.
- The Height Cue dialog box has been enhanced with Preview and OK Buttons. The Preview Button enables users to preview selected colours after clicking Apply, without closing the dialog box. The OK Button closes the dialog box and applies the colour selection, streamlining the process when working with large datasets and multiple selected elements.
- Multiple design files can be exported into AutoCAD DXF/DWG file formats through the Export Design Data Form. The Output and Control settings can be configured directly in this form and will always override the settings made in the Data Exchange Settings Form.

| Туре — | | AutoCAD | DWG | | | | | | |
|---------|-----------------|-----------|--------------------|---|-------|---|--------------------|--|--|
| File | Туре | Output | | | | | | | |
| DAT | MineScape Data | | | | | | | | |
| DAT | MineScape XYZ | Output | t File Name | | ~ | | | | |
| M | Datamine | Pattern | Scale 1 | | | | | | |
| GD.ISIS | Vulcan | AutoC | AD Version 2004 | ~ | | | | | |
| ΉP | ESRI Shapefiles | | 2001 | | | | | | |
| DAT | XPAC | Controls | | | | | | | |
| MP | Dump | Controis | | | | | | | |
| DWG | AutoCAD DWG | Constar | nt Easting 0 | | | | | | |
| DXF | AutoCAD DXF | Constar | nt Northing 0 | | | | | | |
| | | 3rd | Quadrant | | | | | | |
| | | | | | | | | | |
| | | ✓ Include | e Design File Name | | | | | | |
| | | Use C | Custom Layer Name | | | | | | |
| | | | Design File | | Layer | | AutoCAD Layer Name | | |
| | | ф | | ~ | | ~ | | | |
| | | - | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Export Design Data to DWG Form

Mesh

Explore the latest enhancements and additions to mesh functionality.

Create Surface Meshes

Two new sub-options have been added to the **Create Surface** Option within the **Surface Mesh** Group: **Create Mesh from Layer** and **Create Mesh by Polygons**, replacing the previous functionality of **Create Surface Mesh from Design Data**.



Create Surface Sub-Options

Both sub-options allow users to generate surface meshes with or without limit areas, supporting both standard and extended design file formats. Run by a module, they offer a selection of output mesh formats, with convenient export options to DXF. When creating meshes using extended design file formats, the mesh name file can use the polygon name.

Create Mesh from Layer

This feature simplifies surface mesh generation by eliminating the need for manual file loading onto the **CAD** Window. It is tailored for scenarios in which users aim to generate a mesh while honouring all elements within the nominated layer. Polygons can also be used to define limit areas, provided these polygons are located within the same layer. The feature outputs both single and multi-mesh files.

Create Mesh by Polygons

This feature streamlines surface mesh generation from multiple design files simultaneously while sourcing boundary polygons from different layers. By specifying polygon IDs as limit areas, users can define exclusion zones within or outside polygon boundaries. Multiple outputs are supported, including **Separate Mesh Files**, **Combined Mesh**, and **Multi-Mesh**.

Re-added the Filter Functionality

Brought back the **Filter** Option under the **Point Cloud** Group of the **Mesh** Tab.



Filter Option

The **Filter Points** Form allows users to remove data points and reduce the number of point clouds within a dataset. Users can select the **Thin Method**, **Output Resolution**, and **Output** .LAS file name.

| Filter Points | | ? | ₽? | ₽ | _ | | × |
|-------------------|------------------|----------|----|---|-----|------|---|
| Thin Method | Keep Every Nth p | oint | ~ |] | | | |
| Keep Every | | th point | | | | | |
| Output Resolution | | metres | | | | | |
| 🖌 Keep All Return | 5 | | | | | | |
| Point Cloud Name | 2 | | | | | | |
| | Ok | Apply | | | Car | icel | |

Filter Points Form

Plot Designer

Rapid Plot

The new **Rapid Plot** Option offers users a quick way to generate output plot files. By drawing or selecting a polygon, users can define the plotting area. Users can also customise the pre-defined paper parameters and input scale values for more precision.



| ∺ Rapid P | Plot | | ? | ▶ ? 🖵 – 🗆 × |
|------------------------|---------------|------------|-----|--------------------|
| Plot | | | | |
| Plot File | plot02 | | | |
| Paper Size, | Scale, and Ma | argin | | |
| Media | Scale | | ~ | Scale 🔘 Fit |
| Scale 1 : | | | | |
| Тор | 0.0 | Left | 0.0 | Centimetres |
| Bottom | 0.0 | Right | 0.0 | Centimetres |
| Orientation Portrai | it cape | | | |
| Output Size | e ——— | | | |
| Plotted Siz | ze: 0.00 | x 0 | .00 | Centimetres |
| Paper | 0.00 | x 0 | .00 | Centimetres |
| | | | | |
| | | | Ok | Cancel |

A New Rapid Plot Option

Rapid Plot Form

Surface Engineering

Interval Intersection

The interval intersection process has been enhanced to improve execution time. Additionally, a new **Volume Tolerance** field has been added to the form which allows users to input the minimum desired volume tolerance for the output block. **NOTE**: The unit follows the unit defined in the MineScape's **Project Properties**.

| Hoterval Intersection | ? k ? 🖵 — 🗆 🗙 |
|---------------------------------|-------------------------|
| Input | |
| Scenario × | |
| Description | |
| | |
| | |
| Schema 🗸 | |
| Grid Spec | |
| Mesh ~ | |
| Qutput | |
| Suffix Name | |
| Volume Telerance 0.99 Cu Matres | |
| | |
| Intersection | |
| Intervals Seam Naming Displa | lay Definition Material |
| u | |
| | |
| | |
| | |
| | |
| | |
| | |

New Volume Tolerance Field

Reserves

Volume Calculations to Support Mesh

In addition to **Triangle**, users can now calculate volume using **Mesh** as the **Data Source**. By default, **Mesh** is selected.

This functionality is accessible in the **Stratmodel** and **Open Cut** through the **Engineering** Group of the **Reserves** Tab, and in the **Survey**, **UG Coal**, and **UG Surveys** apps within the **Reserves** Group under the **Reserves** Tab.

| Reserves Calculate Volume | | | | ? | ▶? – | |
|---|----------|------------|----|-----------|-------|----|
| Data Source Mesh ~ | | | | | | |
| Reserves Calculate Type Type Nett Volumes Setup Options | | | | | | |
| Input Polygons | Input Me | shes | | | | |
| Design File 🗸 🗸 | | Mesh Group | | Mesh File | | |
| File List 🗸 | Тор | | ~ | | | ~ |
| Polygon Name Element ID | Bottom | | ~ | | | ~ |
| ₽ ∨ | Sides | | ~ | | | ~ |
| | | | | | | |
| Table File | | | | | | |
| | | | | | | |
| Report Title | | | | | | |
| ■ = - | | | Ok | Apply | Canc | el |

Reserve Calculate Volume with Mesh as the Default Data Source

Scheduling

Improved the Sequence Dock Usability

The **Sequence Dock** has been enhanced with several new functionalities for better usability.

| Sequence | ▼ ⋕ × |
|------------|-------|
| Sequences | 🕀 🖨 🗶 |
| Sequence01 | |

Improved Sequence Dock

• The **Eye** Icon displays the sequence number and colour when toggled ON, otherwise they will be hidden.

- The **Colour** Box provides better visualisation and displays a colour picker dialog box when clicked
- The **Checkbox** Icon displays the equipment model when clicked

Improved the Equipment Utilisation & Availability Form

Added a row fill down functionality in the Equipment Utilisation &
 Availability Form that is accessible by right-clicking a cell under the
 Equipment Utilisation or Equipment Availability Column. This feature
 enables users to quickly populate multiple rows with the same value.

| 🗎 Equipment Utilisation & Avail | ability | | | | ▶? 🖵 – 🗆 | × | |
|---|----------------------------------|--|--|---------------------------------------|------------------------|----------|-------------------------------|
| | | | | | Export to CSV | | |
| Diggers Pit Digger Fleet | Period | Start Date | Duration | Equipment Utilisation | Equipment Availability | <u>^</u> | |
| Stockpile Digger Fleet Trucks Truck Fleet 1 Truck Fleet 2 Truck Fleet 3 | 2 | 02/Nov/2023 | 7 | Fill Do | wn | | |
| | 3 | 16/Nov/2023 23/Nov/2023 | 7 | | | | |
| | 5 | 30/Nov/2023 07/Dec/2023 | 7 | | | | 🚔 Set Repeat Count ? 🔥? 🖵 🗆 🗙 |
| | 7 | 14/Dec/2023 21/Dec/2023 | 7 | | | | Repeat Value |
| | 9 10 | 28/Dec/2023 04/Jan/2024 | 7 | | | | Value 100 |
| | 11 12 | 11/Jan/2024 18/Jan/2024 | 7 | | | | Repeat Count |
| | 13 14 | 25/Jan/2024 01/Feb/2024 | 7 | | | ~ | To End of Table |
| | If the cell is If neither the | empty, its value will e cell nor its parent o | be inherited fron cell is filled, the d | n the parent. efault value is 100. | | | Ok Apply Cancel |
| | | | | Recalculate | All Sequences Close | | <u>ئ</u> ە |

Row Fill Down Functionality in the Equipment Utilisation & Availability Form

- The **Duration** column now aligns with the calendar when **Period** is set to monthly, rather than fixed at 30 days.
- A new Export to CSV button located in the upper-right corner of the form allows users to export equipment utilisation & availability data to a .CSV file. As part of this update, the Import CSV Form has also been enhanced to allow importing the same type of data.

| | Production Schedule Rates Diggers | Custom Metadata Meta-Data | Activity Map Activities | Define Constraints | Import Data Exchance | Settings Settings | | | |
|--------------|--------------------------------------|---------------------------------|-------------------------------|-----------------------|-------------------------|---|------------|--|---|
| H Import CSV | INFA BRIGA I PATIA | | | | | | | ? k ? 🖵 — C | |
| CSV File | | | Delimit Comn | ier na | • . | Preview Size Based on first 200 rows × | Has Header | Table Equipment Group Equipment Type Equipment Sequence Utilisation & Availability | × |
| = 🗄 🕶 | | | | | | | | Import Close | |

A New Import Option

Other Scheduling Enhancements

 A new Angle Threshold field is added to both pit face positions forms. Higher thresholds generate more lines/edges, potentially increasing noise, while lower thresholds may result in missing lines/edges. The default value is 12. More Contour Options are also added: Contour Interval, Annotation Frequency, Major Contour and Minor Contour. These functionalities are taken from the existing Contour Form.

| Generate by | y Progress | ▶? | Ţ | - | | \times | | | | |
|---|-----------------------------------|----|---|-----|----|----------|--|--|--|--|
| Contour Lines – Crest Colour Toe Colour | | | | | | | | | | |
| Angle Threshol | d 12 🗘 Degrees | | | | | | | | | |
| Topography Me | sh | | | | | | | | | |
| Mesh Group | Topo_mesh | | | | | - | | | | |
| Mesh File | Topo_STP | | | | ` | • | | | | |
| Mining Block Inp | but | | | | | | | | | |
| Mesh Group | cut_v2 | | | | ` | · | | | | |
| Mesh File | cut_v2bench | | | | | - | | | | |
| Contour Input − ● Mesh ○ S | Contour Input ● Mesh ○ Surface | | | | | | | | | |
| Schema | Contour Interval | | | | | 1 | | | | |
| Model Type | Annotation Frequency | | | | | L | | | | |
| Quality Model | Major Contour | | | | ~ | L | | | | |
| Grid | V Minor Contour | | | | · | L | | | | |
| Output | | | | | | | | | | |
| Boundary Line | ···· | | | | | | | | | |
| Design File | updated_topo | | | | ~ | | | | | |
| Layer | Plg11042023 | | | | ~ | | | | | |
| Contour | | | | | | | | | | |
| Design File | updated_topo | | | | ~ | | | | | |
| Layer | Ctr11042023 | | | | ~ | | | | | |
| ✓ Save mesh DTM | | | | | | | | | | |
| Mesh Group | Topo_mesh | | | | ~ | | | | | |
| Mesh File | DTM11042023 | | | | ~ | | | | | |
| | | | | | | | | | | |
| = | Run | | | Clo | se | | | | | |

New Options in the Pit Face Positions Forms

 Added a confirmation dialog box that appears before deleting a block or a sequence, providing an opportunity for review and preventing accidental deletions.



A Confirmation Dialog Box

- When generating pit face positions by periods, all layers with duplicate dates will be created by adding a suffix incrementally to avoid duplicate names. For example, 12022024A, 12022024B, and so on.
- Auto save feature is now implemented in the Mine Map and Activity Map Windows.
- Added an error message that displays when blocks being picked contain an incorrect activity, e.g., waste blocks should have waste removal activity instead of coal mining activity.
- Added an error message that displays when trying to open a schedule project that's located outside the folder of the currently opened MineScape project.
- The triple dot buttons next to the meta-data in the **Properties** Dock are hidden until the **Scheduler** App is loaded.

Drone Surveying

Point Cloud Tools

More Actions in the Running Jobs Form

The **Running Jobs** Form has been revamped for more flexibility. It allows users to view, stop, and delete running jobs via the new **Stop**, **Delete**, and **View Log** Options. Users can also save logs by accessing the **View Log** Option and clicking the **Save Log** Option.

Three new statuses are added to the **Status** Column:

- **Stopped**: The job is stopped
- **Deferred**: A series of queued jobs that will run in the order they are scheduled to be completed.
- **Unable to Run**: Deferred jobs that will not be executed in the future. This may occur if a job in the queue fails, preventing subsequent jobs from running.

| | Start | End | Site | Survey Date | Job | Status |
|------|----------------------------|---------------------|-------------|---------------------|----------------------|-------------|
| 22 | 04/01/2024 15:41:39 | 04/01/2024 15:44:16 | dji | 2024-04-01 15.41.27 | Generate Point Cloud | Finished |
| 23 | 04/01/2024 14:33:06 | 04/01/2024 14:36:00 | dji | 2024-04-01 14.32.57 | Generate Mesh | Finished |
| 24 | 04/01/2024 14:33:06 | 04/01/2024 14:35:50 | dji | 2024-04-01 14.32.57 | Generate Point Cloud | Finished |
| 25 | 04/01/2024 13:21:36 | 04/01/2024 13:24:28 | 2023update1 | 2024-04-01 13.20.58 | Generate Contours | Finished |
| 26 | 04/01/2024 13:21:36 | 04/01/2024 13:24:44 | 2023update1 | 2024-04-01 13.20.58 | Generate Breaklines | Failed |
| 27 | 04/01/2024 13:21:36 | 04/01/2024 13:26:44 | 2023update1 | 2024-04-01 13.20.58 | Simplify Mesh | Finished |
| 28 | 04/01/2024 13:21:36 | 04/01/2024 13:24:38 | 2023update1 | 2024-04-01 13.20.58 | Generate Mesh | Finished |
| 29 | 04/01/2024 13:21:36 | 04/01/2024 13:24:21 | 2023update1 | 2024-04-01 13.20.58 | Generate Point Cloud | Finished |
| 30 | 04/01/2024 13:03:00 | 04/01/2024 13:06:08 | dji | 2024-04-01 13.02.12 | Generate Mesh | Finished |
| 31 | 04/01/2024 13:03:00 | 04/01/2024 13:05:50 | dji | 2024-04-01 13.02.12 | Generate Point Cloud | Finished |
| 32 | 04/01/2024 09:18:16 | 04/01/2024 09:24:15 | east_java | 2024-04-01 09.17.32 | Generate Contours | Failed |
| 33 | 04/01/2024 09:18:16 | 04/01/2024 09:24:13 | east_java | 2024-04-01 09.17.32 | Generate Breaklines | Failed |
| 34 | 04/01/2024 09:18:16 | 04/01/2024 09:24:11 | east_java | 2024-04-01 09.17.32 | Simplify Mesh | Failed |
| updo | nted: 04/04/2024 09:48:40. | | | | Stop | Delete View |

Improved Running Jobs Form

Classify Noise

The improved **Classify Noise** Form allows users to remove points that have been classified as **Noise** and automatically store the new point clouds without noise to a desired output .LAS File.

| Classify Noise | ? | \ ? | Ţ | — (| ⊐ × | | |
|---|-------|------------|---|--------|--|--|--|
| Noise Classify Settings | | | | | | | |
| Reset Points Low Noise Unclassified Only High Noise | | | | | | | |
| Input | | | | | | | |
| Grid Size 4 | | | | | | | |
| Moving Window Size 5 pixels | | | | | | | |
| Min Low Noise Offset 10 metres | | | | | | | |
| Min High Noise Offset 80 metres | | | | | | | |
| Min Standard Deviation 3 | | | | | | | |
| Mark Noise by Range | | | | | | | |
| Minimum | Max | imun | ı | | | | |
| Mark Noise Outside Elevation | | | | metres | | | |
| Mark Noise Outside Height Above Ground metres | | | | | | | |
| Remove Noise Points | | | | | | | |
| Output To | | | | | | | |
| | | | | | | | |
| 📑 🗄 ▾ 💦 🕹 🖓 | Apply | | | Cance | el de la constante | | |

Classify Noise Form

Remove Points by Class

The new **Remove Points by Class** Option allows automatic removal of previously classified points according to the classes chosen by users.

Find the **Remove Points by Class** Option within the **Clean** Group of the **Point Cloud** Tab.



A New Remove Points by Class Option

The example below shows points classified as *building* are removed.

Before



After



Image Validation when Generating Point Clouds with Images

When users upload images for point cloud generation and those images lack camera information, a **New Camera Model** dialog box will now appear. This allows users to input camera details such as model, maker, sensor width, and focal length. **NOTE:** If users are using existing scenarios created before MineScape 2023 Update 2, the dialog box will not appear immediately. Instead, a new 'Update Camera Model' button will be displayed. Clicking this button will prompt the dialog box to appear.

| Generate Point Cloud from Images | ? N2 |
|---|---|
| | |
| | Drop files or folders here Click to browse from your computer Allowed file types: jpg. jpg. tiff |
| Emptyljpg | 0 🖬 🔼 |
| Empty2.jpg | 🖬 New Camera Model 🍂 🖵 — 🗆 X |
| Empy3jpg | Specify Sensor Width and Focal Length of: Camera Model Sensor Width 0 mm Focal Length 0 mm Camera C A Cancel |
| Please specify Camera Model, Camera Maker, Sensor Width and Focal Length. | Remove All |
| | Run Save Back Next Cancel |

New Camera Validation Dialog Box

New Warning Message for Missing Geotag Information

If geotag information is absent during point cloud generation from images, a new warning message now appears at the bottom of the **Generate Point Cloud from Images** Form. While users can proceed with the process, it may cause the resulting point clouds to contain incorrect coordinates. Consequently, this will prevent the generation of orthoimages.



A New Warning Message for Missing Geotag Information

Tools

Report Designer

Users can now print their personalised reports directly from the **Report Designer** Tool. This Option is accessible within the **Export** Group of the **Report Designer** Tab, available when in **Preview** Mode.



Print Option in Report Designer Ribbon

Bug Fixes

This section lists all bug fixes and corrections delivered through MineScape 2023 Update 2.

System Service

• Fixed an issue where MineScape System Service was unable to be installed in a freshly-installed Windows 10 machine.

Start Page

• Fixed an issue where the **Start Page** did not display the Christmas greeting form.

Core

- Fixed an issue where Format Painter did not copy the fill background colour.
- Fixed an issue where users could not insert a minus sign in the **Height Cue** within **Visual Overrides**.
- Fixed an issue where the Explorable Service retained the selected Mesh after node deletion, causing multiple loads and unloaded nodes.
- Fixed an issue where the Explorable Service retained the selected Design Layer after node deletion, causing multiple unloaded nodes.
- Fixed an issue where removing a design file with multiple layers from the Display Dock and then selecting one of the layers prevented the loading of multiple selected layers.
- Fixed an issue where the prompt in **Height Cue** on **Visual Overrides** continued to ask for the second colour from the previously chosen palette after selecting another colour palette.

- Fixed an issue where symbols could be entered in the Start Height and End Height fields.
- Fixed an issue where the **Current Unit** for the **Category** continued to follow the setting from the previous project on the **Edit Project Units** form.
- Fixed an issue where drill holes were not visible on the **Top** and **Fit** view modes on the CAD window.
- Fixed an issue where the selected **Marker** type on **Visual Overrides** was not applied to drill holes.
- Fixed an issue where the the primary and secondary colours in the Cycle Background Colours of the Graphic Settings Form always switched to black.
- Fixed an issue where users couldn't change a primary colour in the **Graphics Settings** Form.
- Fixed an issue where decimal texts were displayed as zero in the **Properties** Dock.
- Fixed an issue where the **Clip Direction** Form didn't appear after clicking the **Apply** Button in the **Planes** Form.
- Fixed an issue where the temporary line didn't honour the CAD colours
- Fixed an issue where pressing the **Reset** Button in the **Graphics Settings** Form didn't reset the direction for the **Cycle Background Colours** settings
- Fixed an issue where overwriting existing data in the **Contour** Form resulted in incorrect results
- Fixed a crash that occurred when closing MineScape with a specific layout
- Fixed an error that occurred when processing a grid file with expression
- Fixed an issue where MineScape stopped working after right-clicking on nominated triangle sets
- Fixed an issue where the viewport background displayed incorrect gradient colour after re-opening MineScape using session

- Fixed an issue where no **CAD** Window was loaded automatically after opening a session file
- Fixed an issue where the Input and Output box labels and order were incorrect on Grids >> Process >> Merge.

Mesh

- Fixed an issue where polygons couldn't be selected when creating a surface mesh
- Fixed a display issue where the form title was *mesh_settings* instead of *Mesh Settings*
- Fixed an issue where MineScape didn't read the existing surface mesh definition
- Fixed an issue where the mesh wasn't immediately updated after changing the Trim Surface value
- Fixed an error that occurred when creating a mesh between crest and toe
- Fixed an issue where creating solid using the **Between Surfaces** Option resulted in surface mesh being generated

Geology

Stratmodel

- Fixed an issue where the Polygon of Influence wasn't merging properly due to a malfunction in the Horizontal Calculation on the Create Resource Classification form.
- Fixed an issue involving the omission of the polygon in Stratmodel >> Drill Holes >> Graphics >> Polygon of Influence.

- Fixed an issue where overflowing text expanded the fields in the Set
 Current Model form under Stratmodel >> Set Model to the right.
- Fixed a performance issue when running the reserve categorisation using Mesh surface.
- Fixed an issue where drill holes were incorrectly connected to other holes after the import process
- Fixed an issue where the output table file produced from the **Resolve** Interval/Split Composite Form displayed many zero values
- Fixed an issue where column mapping didn't work when trying to import drill holes data and the **Has Header** Option was selected
- Fixed an issue where merging polygons of influence failed when using horizontal calculation

GDB

- Fixed an issue where all values were rejected after importing .LAS files.
- Fixed an issue where the **Import CSV** Form didn't recognise Polish characters
- Fixed an issue where the **Setup Dictionary Validation** wasn't applied, resulting in the .LAS file still being imported
- Fixed an issue where the drill hole direction was incorrect when the declination value was set to zero
- Fixed an issue where drill hole values couldn't be updated through the
 View Single Hole Form
- Fixed an issue where inputting characters in the **Drill Hole Type** field could exceed 4-character limit when importing drill hole data
- Fixed an error that occurred when trying to load data into the Proximate table

Plot Designer

- Fixed an issue where the **ScaleBar** on **Plot Designer** was appearing shrunken in **Print Preview** mode.
- Fixed an issue where a plot file with the default name could not be opened.
- Fixed an issue where the background colour in the plot paper wasset according to the colour settings in the **Graphics Settings** Form.
- Fixed a crash that occurred after changing the scalebar type in the **Properties Editor**
- Fixed an issue where the scale bar displayed an empty value in the **Properties Editor**
- Fixed a crash that occurred when adding a new scale bar container to a plot design file
- Fixed an issue where the **Page Setup** form on **Plot Designer** would expand to the right if the text in the **Description** field exceeded its width.
- Fixed an issue where the **Error** message on the **Borrow End Date** was truncated when exceeding the form width.
- Fixed an issue where the graphics of the **Triangle Prisms** were not displayed in a plot file.

Surface Engineering

Open Cut

- Fixed an issue where using invalid characters for rapid slicer operation still continued the process even though it kept throwing an error message
- Fixed an error that occurred when trying to generate a report in an .XLSX format with a long path name
- Fixed an issue where the schema name in the **Interval Intersection** Form wasn't automatically loaded

Mining Blocks

- Fixed an issue where the selected scenario appeared to be invalid when creating mining blocks for single bench
- Fixed an issue where the mining blocks disappeared from the **CAD** Window in the middle of cutting process
- Fixed an issue where closing the spreadsheet editor after generating Mining Block reports would lead to the CAD App instead of the Mining Blocks App

Dragline

• Fixed a precision issue when snapping to tagged points

Scheduling

- Fixed an issue where the **Generate by Periods** form couldn't be opened due to an SQL query error.
- Fixed a crash that occurred when closing the Settings Form within the Animation Tab if no mesh was loaded in the CAD Window.
- Fixed an issue where toe lines were not created when generating pit face positions because there was only one bench left.
- Fixed an error that occurred when creating a sequence using the Line or Polygon method.
- Fixed an issue where the sequence animation could not play until it finished.
- Fixed an issue where the sequence animation did not follow the correct order.
- Fixed an issue where a truck's destination was incorrect due to **Scheduling** allowing a truck to carry multiple activities.

- Fixed an issue where the **Save** confirmation box for **Activity Map** did not appear.
- Fixed an issue where an error message appeared after users cancelled opening projects.
- Fixed a display issue in the **Schedule** Toolbar to prevent truncated controls.
- Fixed an issue where equipment utilisation & availability was not calculated in the sequence, which resulted in exceeding equipment work hours for the day.
- Fixed an exception that occurred when picking a block while a schedule constraint was not defined.
- Fixed a crash that occurred when picking a block.
- Fixed an issue where the **Activity** toolbar showed an empty list even though activities were defined in the **Activity Map**
- Fixed an issue where generating pit face positions by progress resulted in incorrect toe and crest lines
- Fixed an error that occurred when opening a schedule project caused by overlapping loading action from session events
- Fixed an issue where MineScape failed to save connection materials in the Mine Map
- Fixed a crash that occurred after changing the animation settings
- Fixed an issue where the fields in the **New Schedule Project** form were being truncated, causing incomplete information display

Drone Surveying

Point Cloud

Fixed an issue with saving zone values in Point Cloud >> Coordinate
 System Setting

- Fixed an issue where the **Filter** and **Create Mesh** Ribbons were still available when no point clouds .LAS files were displayed in the **CAD** Window
- Fixed an issue where orthoimages couldn't be generated
- Fixed an issue where the Next Button on the Options Tab was not disabled in the generate Point Cloud from Images Form even though there was no more steps left
- Fixed an issue in the **Running Jobs** Form where the subsequent job would continue even though the previous job failed
- fixed an issue where the undo function didn't work after performing the
 Delete Points operation
- fixed an error that occurred when trying to set values in the Coordinate
 System Form
- fixed an issue where the error message didn't appear when the job to generate point clouds from images failed
- fixed an issue in the **Running Jobs** Form where the failed jobs were listed in between jobs that were still in progress
- Fixed an issue where the **Status** Column for other jobs were empty after the **Generate Point Cloud** Job was stopped
- Fixed an issue where removing removing height cue colours in the Visual
 Override Dock also resulting in point cloud colour being removed
- Fixed an error that occurred when generating partial point cloud job

Survey Data Manager

• Fixed a display issue in the **Revisions** Form where no scrollbar was present

Survey Server

• Fixed an error that occurred when starting the service because of insufficient delay time

Tools

- Fixed a crash that occurred when saving a spreadsheet as a .PDF file
- Fixed an issue where the previous Survey Server version wasn't successfully uninstalled
- Fixed an error that occurred when trying to record MineScape workspace using the **Screen Recorder** Tool

Removed

- Removed the sequence colour setting in the Settings Option of the Schedule Setup Tab. Sequence colour can now be configured directly in the Sequence Dock next to the sequence name.
- Removed the **Scale**, **Rotate**, **Interactive Curve**, **Reverse** actions from the right-click option of RapidCAD