

Dedicated Open Pit Surveying Package

STUDIO SURVEY

Release Notes

Studio Survey 2.1.54.0



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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.

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Overview



Studio Survey is a software solution exclusively designed for the needs of Mine Surveyors. It is not a module inside a complex product but is a dedicated mine surveying product that simplifies and streamlines the processing of everyday survey tasks in mining operations of any commodity with the use of dedicated and automated reporting functionality.

Studio Survey is one of several products in the Studio product family, which includes:



Studio EM for exploration data analysis and modeling.



Studio Geo for structural modeling.



Studio Mapper for geological face mapping and reporting.



Studio NPVS for strategic open pit optimization, design and scheduling.



Studio OP for open pit design and operational scheduling.



Studio PM for very short term open pit operational planning.



Studio RM for mine geology, reserve modeling and resource estimation.



Studio Survey for open pit and underground mine surveying and reporting.



Studio UG for underground mine design and scheduling.

Further Information

This document includes cumulative releases notes for Studio Survey 2.1.54.0.

Release notes for other versions of Studio Survey are available via the Support Portal <https://www.dataminesoftware.com/support/>.

For the complete Studio Survey documentation, see <https://docs.dataminesoftware.com/StudioSurvey>.

License Services - Important Information

Technical Note: TN00399

Datamine Studio products automatically install or upgrade **Datamine License Services**, a support service used to protect your software from unauthorized use.

License Services is a technology that governs access to your installed application through a running background service. It has a dedicated application – **Datamine License Manager** – to administer licenses on both client and server machines.

Studio products released after July 2023 are connected to the License Services version that comes with the Studio application. You can't go back to an older version of License Services that was installed before the one by your Studio application.

This modification doesn't impact License Services versions on dedicated license servers. Older server versions of License Services can still be used alongside newer versions of License Services on local machines hosting Studio applications.

To put it simply: Studio products created after July 2023 install a version of License Services that can't be downgraded on your local machine.

Why are we making this change?

To protect your software from unlicensed use and permit more flexible and accessible methods of licensing to be developed in the future.

Will my software work with a newer version of License Services (than Studio originally installed)?

Yes. If the local installation of License Services is newer than the one originally installed, your older Studio product(s) will continue to operate normally. A minimum version of License Services is required to launch your application.

Will future License Services versions be compatible with legacy Studio products?

Yes. This change doesn't break compatibility between License Services and versions of Studio products produced prior to July 2023.

If a locally-installed version of License Services is incompatible, what happens?

When your application is launched, a message is displayed indicating an upgrade to License Services is required. License Services can be downloaded from the Datamine Support Website as a standalone installation package, or it can be installed with another Studio product.

Does this affect servers running License Services (that aren't used to run Studio products)?

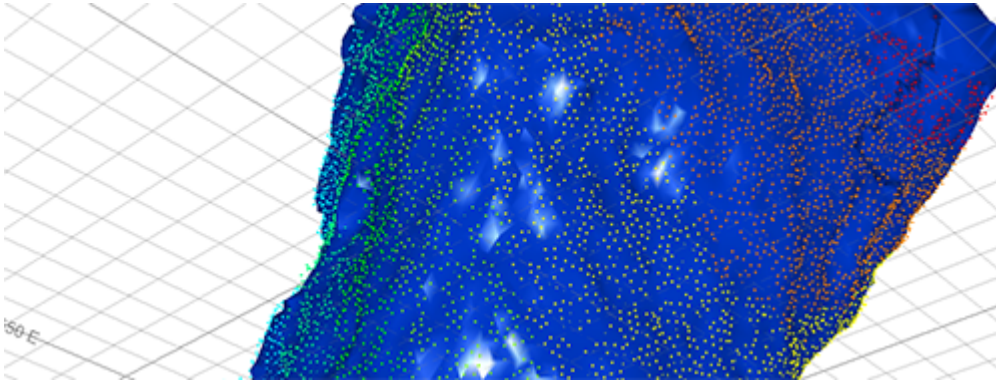
No. Server versions, providing they are already supported, continue to serve licenses as before. There's no need to upgrade license servers as a result of this change. This change enforces a minimum *local* License Services version constraint.

For more information on License Services, please refer to your help file, the Datamine Support website, or contact your local Datamine representative for assistance.

Studio Survey 2.1 Release Notes

Key Improvements

Point Cloud Reconstruction 2.0



This release provides an update to our point reconstruction facility, including completely new surfacing methods and a workflow-based UI to guide you through the surfacing process and make the best decisions for your ground data.

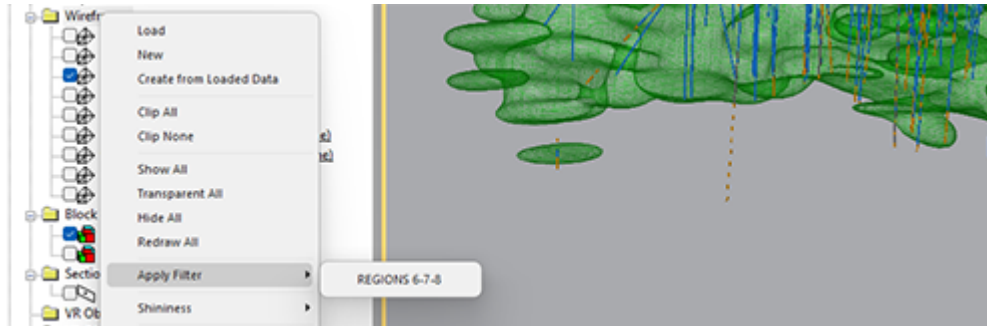
With six surfacing options at your fingertips, including interpolative and triangulation methods, you can reproduce your surface and volume data even for the most challenging input point clouds. We've kept parameters as simple as possible whilst maintaining flexibility, presenting a simple step-through process to accurately model your survey data, and it's all supported by in-depth help files with activity-based learning, method overviews and tips.

You can find the **Point Reconstruction** console on the **Home** ribbon (**Automatic >> From Points**).

Multiple Attribute Range Legends

The **Multiple Attribute Legend** wizard has been extended to let you define numeric ranges as well as distinct values, allowing for even more flexibility when generating visualization or evaluation legends.

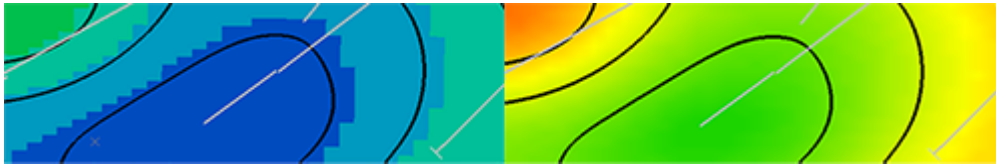
View & Data Type Quick Filters



Apply previously saved quick filters to all overlays of a data type, or all overlays of an entire view, using new **Sheets** control bar menu options.

Smooth Contour Grid Colouring

Generate a 'smooth' contour grid legend to show subtle variations in contour values between contour isobars. Select from a range of custom smooth legend options and your output grid model displays smooth colour transitions between contour landmarks.



Drillhole Data Selection Toggle

You can now use the quick key combination "tds" to swap between full drillhole and independent sample data selection in a **3D** view. A new command - toggle-drillhole-selection - is also available.

Attributes from Perimeters

A new command - **attributes-from-perimeters** - transfers attributes and values from closed perimeter strings to enclosed target data. Target data can be points, strings, drillholes or wireframes.

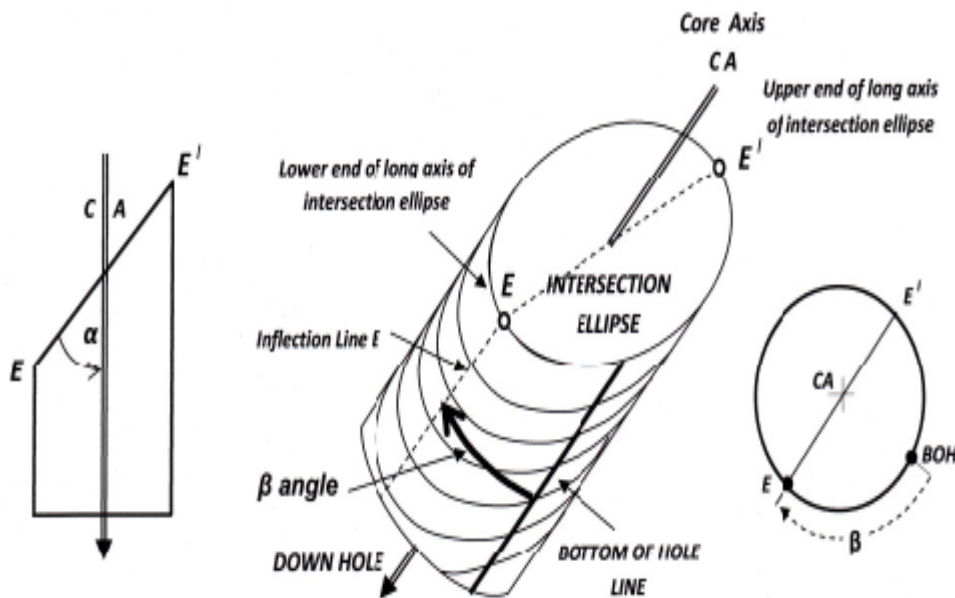
HTML5-compliant, Online Documentation

Access help instantly on docs.dataminesoftware.com. This new online resource will, if an Internet connection is available (and you choose to access it), provide up-to-date system documentation that adapts to multiple target reading devices from laptops to phones. If no Internet connection is available, or you prefer to view compiled offline help, you can view the legacy installed content instead.

Not only that, but the latest help is deployed instantly, meaning you benefit from the latest knowledge available at all times.

docs.dataminesoftware.com will benefit from a lot of innovative development in the future, so it's worth taking a look!

Calculate and Display Structural Orientations



Define and format 2D or 3D drillhole structural symbols using a new 3D properties screen. Choose up to 3 orientation angles and render core sample orientation data using a wide range of visualization options.

Calculate-structural-orientations automatically calculates dip and dip directions from core logged alpha and beta angles. The resulting dip and dip direction attributes can be used to visualize angles using downhole structural symbols.

All Improvements

Commands & Processes

- **Case: CORE-7632** Contouring commands now tag output data with their source command name.
- **Case: CORE-7569** Data objects derived from a database connection now display their connection string in the Data Object Manager.
- **Case: CORE-7478** **Converge-segments** has been refactored, making it faster and more robust.
- **Case: CORE-7447** **JOIN** supports up to 30 key fields.
- **Case: CORE-7348** The **PTCLD2WF** process has been overhauled to accommodate a wider range of input point clouds.
- **Case: CORE-7254** **SLIMOD** has a tolerance to check for the creation of very small cells. A cell will not be created in the output file if it has a volume less than the parent volume of the output prototype multiplied by 0.00000001. This tolerance is smaller than in previous versions to allow for prototypes with a large parent cell dimension in one of the axes.
- **Case: CORE-7180** The legacy command **make-dtm-from-objects** is obsolete.
- **Case: CORE-7172** **MODSPLIT** now supports a **@TOLERANCE** parameter.
- **Case: CORE-7163** Choosing to auto-align a section after creation will not automatically zoom to fit all data in the **3D** view.
- **Case: CORE-7150** Dynamically resize the components of the **Quick Filter** control bar.
- **Case: CORE-7141** **SELWF** supports a **@SETABSNT** parameter.
- **Case: CORE-7112** **Offset-string** accommodates a wider range of input string shapes.
- **Case: CORE-7102** Choose a 'smooth' legend output when generating contour grids.
- **Case: CORE-7079** By default, the **Edit Attributes** screen defaults to selecting value options from selected legend items.
- **Case: CORE-7032** If the input files cannot be found in the **BOOLEAN** process, a warning is issued.
- **Case: CORE-7027** The **Extract Separate** command provides identical results when run interactively and via a script.
- **Case: CORE-7026** Choose to hide the 'Browse for file' prompt when loading a project with broken file references.

- **Case: CORE-7012**HOLES3D has a @DESURVMD option if run interactively. It is used to locate sample centers or end points on desurveyed arcs.
- **Case: CORE-6991** The **BOOLEAN** process provides more verbose output messages.
- **Case: CORE-6885** Section plane pierce points are not enabled by default.
- **Case: CORE-6883** A new command - **toggle-drillhole-selection** (quick key "tds") toggles between full drillhole and independent sample data selection in a **3D** view.
- **Case: CORE-6793** You are now only notified of excessively large legends if the total number of bins exceeds 1000. Previously, the limit was 100.
- **Case: CORE-6570** **snap-to-mid-string-switch** now affects snapping to both the mid points of strings and drillhole segments.
- **Case: CORE-6449** The **BOOLEAN** process will transfer attributes from input to output wireframes and strings.
- **Case: CORE-6148**DECLUST now supports retrieval criteria.
- **Case: CORE-5954** The **Multiple Attribute Legend** wizard has been extended to let you define numeric ranges as well as distinct values, allowing for even more flexibility when generating visualization or evaluation legends.
- **Case: CORE-5223** Enabling the **Lock View** mode in a 3D window no longer adjusts the zoom setting of that view.
- **Case: CORE-5198** Automatically align the view with a newly-defined 2 point section.
- **Case: CORE-5079** The **MINLAY** process has been obsoleted.
- **Case: CORE-1938** **Apply a template** to a 3D overlay by right-clicking it in a 3D view.
- **Case: CORE-1654** **Lock any 3D view**, or 3D view segment using a 3D window context menu option.
- **Case: STUDIO-1095** **COMPDH** can now composite both down and up holes, using a new @REVERSE parameter.
- **Case: STUDIO-924** **calculate-structural-orientations** calculates dip and dip directions from core logged alpha and beta angles. The resulting dip and dip direction attributes can be used to visualize angles using downhole structural symbols.

User Experience

- **Case: CORE-7405** The deprecated command "Undo Last DTM" is no longer available via the ribbon system.
- **Case: CORE-7267** The **Command** toolbar icons have been updated.

- **Case: CORE-7183** Look and feel options have been updated, and a new default theme is applied.
- **Case: CORE-6792** Display up to **1000 drillhole names** for each drillhole object in the Sheets control bar.
- **Case: CORE-6735** Hover your cursor over the object name in the **grid-dtms** screen to display the name in full.
- **Case: CORE-5442** The **3D Templates** screen has been reorganized and iconized to make template creation and application easier to understand.

Utilities & Supporting Services

- **Case: CORE-7451** Rename multiple license solutions using a standard naming convention.
- **Case: CORE-7312** The License Services screen no longer appears behind the active Studio application if initiated by the third-party EPS application.
- **Case: CORE-7306** Desurveying is no longer automatically performed when importing through the Data Providers as desurveying is now handled by the Drillhole Importer.
- **Case: CORE-7130** If an attempt is made to import a Vulcan .bmf file that is larger than our Maptek-provided driver can accommodate, a message is issued before processing and the operation is aborted.
- **Case: CORE-7118** Export Vulcan .bmf block models to file sizes up to 4GB. Previously, the limit was 2GB.
- **Case: CORE-6816** A maximum fields check and warning display for Vulcan, Surpac, Text, MineSight and Micromine drivers.
- **Case: CORE-6648** When importing data via the **Text driver**, only a single legend is created (based on the first attribute field). In previous versions, a legend was created for each detected field in the incoming file, leading to an excessive number of stored legends.
- **Case: CORE-6510** Studio products will no longer operate if the local version of License Services is downgraded to an earlier version than installed with the product. See “License Services – Important Information, above”.
- **Case: CORE-5020** When importing **Micromine block models**, field names are no longer limited to 9 characters. They can now be up to 24 characters on a long field system.
- **Case: CORE-5019** The **Data Converter** now converts MineSight block models to .dm format.

Documentation & eLearning

- **Case: UG-3860** The **Advanced Extrusion Control** screen has a dedicated help button and page.
- **Case: CORE-7414** The **PICREC** help file includes information on disambiguating reserved keywords.
- **Case: CORE-85** Your application is supported by online, **HTML5-compliant help**. If an Internet connection is available (otherwise, locally-stored help content displays), context and conceptual help is displayed via Datamine's online documentation website at docs.dataminesoftware.com.

Scripting & Automation

- **Case: CORE-6402** Feature Edge parameters can now be set when scripting the **Wireframe Verify** command (**VerifyEx(FeatureEdgeAngle=x...)**, where x is a numeric value between 0 and 360).

Additional Defect Fixes

- **Case: CORE-7709** Reliance on the Microsoft Visual C++ 2010 x64 Redistributable (10.0.40219) has been removed, following reports of potential insecurities.
- **Case: CORE-7684** An issue causing **SELWF** to produce unexpected output, if both input sample and model attributes have the same name but different lengths, has been resolved.
- **Case: CORE-7682** An issue causing system instability when changing the format of a block model overlay in the Plots window has been resolved.
- **Case: CORE-7622** Global selection buttons in the Data Provider table selection screen are now operational.
- **Case: CORE-7436** @BOUNDTYP is no longer supported in the PTCL2WF process.
- **Case: CORE-7390** **SELWF** now assigns attribute values based on the order of input wireframe data, reinstating legacy behaviour.
- **Case: CORE-7304** An issue in **SELWF** (used by WFCODE), causing legacy automation scripts to fail, has been resolved.
- **Case: CORE-7300** MineSight Points Files can now be loaded by script.
- **Case: CORE-7291** **SELWF** now selects inside a wireframe correctly when the plane is not set.
- **Case: CORE-7255** If querying multiple strings the correct area is now calculated for non-convex shapes.
- **Case: CORE-7252** Retrieval criteria in **SELWF** are now working as expected.
- **Case: CORE-7250** An issue causing system shutdown, when clicking OK in the acQuire drillhole database import wizard, has been resolved.
- **Case: CORE-7245** The Text driver no longer fails when the number of fields exceeds the maximum limit.
- **Case: CORE-7216** The **Apply Filter** option no longer appears in **Sheets >> Plots** menus.
- **Case: CORE-7213** An issue preventing the import of a .mdl block model file has been resolved.
- **Case: CORE-7202** 'Point data' controls are correctly enabled/disabled on the **generate-contours-from-holes-intercepts** screen.
- **Case: CORE-7192** An issue causing system instability, when closing a project with the **Extract Objects** screen displayed, has been resolved.
- **Case: CORE-7178** The **Values** drop-down list in the **Edit Attributes** screen now initializes correctly.

- **Case: CORE-7171** Breaking strings with other strings (BKI or BKS) now correctly breaks the target string.
- **Case: CORE-7145** After breaking a string with another string (BKI or BKS), attributes are now edited correctly on resulting string segments.
- **Case: CORE-7139** In **COPYMOD**, default values of the new origin and angles are now being set correctly set when angles and origin are blank.
- **Case: CORE-7127** **PTCLD2WF** no longer fails when the active user account name contains a ".".
- **Case: CORE-7126** An issue preventing the successful drag and drop loading of DWG and DXF files has been resolved.
- **Case: CORE-7123** A legacy data driver problem causing system shutdown when reopening projects has been guarded against. In this version, a warning of unexpected driver input is issued, but all loadable project items are loaded afterwards.
- **Case: CORE-7122** An instance of system instability, if closing a project whilst the **wireframe-volume** screen is displayed, has been resolved.
- **Case: CORE-7119** An issue causing system failure, when unloading objects via the **Data Object Manager**, where table data is selected, has been resolved.
- **Case: CORE-7117** **SELWF** output is now consistent between multiple runs with the same settings and data.
- **Case: CORE-7099** **COMPSE** will now ignore trivial gaps between concurrent samples.
- **Case: CORE-7094** **edit-model-cell-values** now responds correctly to data unload operations.
- **Case: CORE-7091** Internal block model blocks are now rendered correctly in the 3D view when clipping.
- **Case: CORE-7087** An issue causing system failure when renaming an object data column in the Data Object Manager, has been resolved.
- **Case: CORE-7077** An issue causing "Error 39" in **License Services** has been investigated and resolved by adding support for Dinkey Pro driverless dongles.
- **Case: CORE-7070** An issue causing **WFCODE** to generate only a single record when @ALLPTS=1 and @SETABSNT=0 has been resolved.
- **Case: CORE-7069** The **Edge Cylinder Segments** label is no longer truncated in **Tools >> options > 3D**.
- **Case: CORE-7054** Messages no longer overlap on product splash screens.
- **Case: CORE-7050** **wf-intersections** generates string data with the expected inherited attributes.

- **Case: CORE-7038** Picture and plane objects no longer obscure transparent foreground filled strings and sections.
- **Case: CORE-7031** An issue causing system instability, if cancelling the **Image Registration** screen before the specified image has loaded, has been resolved.
- **Case: CORE-7028** The 3D view no longer unexpectedly shifts view position after using the **View Controller**.
- **Case: CORE-7025 DESURV** no longer terminates with confusing message if number of survey points in a hole exceeds 10000.
- **Case: CORE-7024** In **DESURV**, @DESURVMD=0 no longer resets all of the coordinates to 0 if @ENDPTS=0.
- **Case: CORE-7018** The **PTCLD2WF** process will run correctly on machines that have no previous Studio installation.
- **Case: CORE-7009 HOLES3D** does not reset the first Survey record to AT=0 if there is no AT=0 record.
- **Case: CORE-6839** An issue causing incomplete export to Surpac .mdl format has been resolved.
- **Case: CORE-6935** DTM creation creates a surface where coincident points exist.
- **Case: CORE-6987** Object data overlays are rendered in the correct way when object opacity is reduced.
- **Case: CORE-6983 DESURV:** Under some circumstances zero length or horizontal samples when using @ENDPTS=1 could result in corrupted B0 output values. This has been resolved.
- **Case: CORE-6979** The **BOOLEAN** process generates identical results to the wireframe-intersection command.
- **Case: CORE-6978 DILUTMOD's** subcell checking routines now provide useful user feedback instead of creating (potentially) arbitrarily large model outputs.
- **Case: CORE-6915** An issue causing system failure, when resetting the customization profile from **the Quick Access** menu, has been resolved.
- **Case: CORE-6877** The system no longer halts unexpectedly if the file source of a histogram chart cannot be found.
- **Case: CORE-6822** Adjusting the scale of a plot no longer causes unexpected repositioning of labels.
- **Case: CORE-6818** An issue preventing accurate data picking in 3D views, when high magnification has been applied, has been resolved.
- **Case: CORE-6814 DECLUST** no longer automatically lists X, Y and Z as default coordinate fields.

- **Case: CORE-6807** A data-specific issue causing system shutdown after importing a 3D sheet template has been resolved.
- **Case: CORE-6781** In the create-new-legends command, changing the **Precision** value (of a **Numeric Range** legend) no longer results in the custom defined Range Filter being reset back to the defaults.
- **Case: CORE-6774** An issue causing the splash screen to flicker on startup has been resolved.
- **Case: CORE-6730** The **Edit Attributes** screen correctly references the ellipsoid data type.
- **Case: CORE-6720** An issue causing mouse wheel zooming to fail, after box selection and panning in 3D, has been resolved.
- **Case: CORE-6617** **wf-intersections** adds expected data attributes to generated strings.
- **Case: CORE-6607** An issue causing the system to fail after running **make-dtm-from-object** has been resolved.
- **Case: CORE-6594** An issue causing system shutdown when moving points with the snap mode set to 'Lines' has been resolved.
- **Case: CORE-6548** An intermittent problem causing an unclean shut down of the system after importing files via the Vulcan driver, has been resolved.
- **Case: CORE-6433** Mouse scrolling when editing date ranges in the **Create New Legend** wizard is no longer using inverse controls.
- **Case: CORE-6418** An issue causing scale locking in the **Plots** window to fail has been resolved.
- **Case: CORE-6368** Context sensitive help for the Fault Modelling panel now appears correctly.
- **Case: CORE-6167** The dialog labels for the **MODTRI** process have been corrected.
- **Case: CORE-6166** The dialog labels for the **BLKTRI** process have been corrected.
- **Case: CORE-6160** The **Project File** control bar's **Pictures** folder, if displayed, displays a title as expected.
- **Case: CORE-6137** An issue causing unexpected A0 and B0 results in output from **COMPDH** has been resolved.
- **Case: CORE-6124** An issue preventing the import of a large number of 3D display templates in one action has been resolved.
- **Cases: CORE-6039, CORE-5674** **Linestyle** and **Thickness** attribute values are now exported to DXF and DGN as expected.
- **Case: CORE-6003** Text boxes are now displayed as expected when switching back to **Plots** from the **Print Preview** window.

- **Case: CORE-5626** During volumetric block modelling, records are no longer saved in the control files if they have empty or non-existent filenames.
- **Case: CORE-5502** The **Plots** window correctly honours "SCALE" when a section definition file is applied from a script.
- **Case: CORE-5238** An issue causing the **Data Converter** to fail when accessing it via script has been resolved.
- **Case: CORE-5209** An issue causing alphanumeric field data to be imported incorrectly via the ODBC v2 driver has been resolved.
- **Case: CORE-4632** **WFCODE** no longer incorrectly sets alphanumeric zone fields to numeric if @SETABSENT=1.
- **Case: CORE-4333** Drillhole data selection in the 3D window is now more accurate with large data and high scaling.
- **Case: CORE-4238** A typographic error in the E-W section ribbon button tooltip has been corrected.
- **Case: CORE-4085** In **COMPBE**, where FROM-TOs are greater than @MINGAP, compositing will now continue at the next interval of the same hole, and won't skip to the next BHID as previously.
- **Case: CORE-3694** An intermittent issue causing 3D window zooming to fail after filtering has been resolved.
- **Case: CORE-3189** Unexpected rounding results in the A0 and B0 columns when using **COMPBE** have been resolved.
- **Case: CORE-3076** The ODBC v2 driver now permits alphanumeric columns to be exported in Microsoft Access format.
- **Case: CORE-2692** Spinner button behaviour in **Tools >> 3D >> Initial States** is now as expected.
- **Case: CORE-2405** **COMPDH** now produces accurate results when the **EOH** interval is 0.
- **Case: CORE-1449** An issue causing **COMPBR** to become unresponsive with certain interval values has been resolved.

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