



Release Notes

Studio Survey v2.0.10.0



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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 has been designed for operational use by open pit mine surveyors. It is a multi-user solution that is straightforward to implement. Its streamlined functions for processing survey data dramatically reduce the time surveyors need to spend manipulating data to produce routine end of month reports.

Studio Survey provides powerful and flexible mine surveying and reporting facilities, closely tied to your operational data, and builds on the strengths of the popular Datamine Studio engine, inheriting a raft of data management, editing and visualation tools combined with proprietary functions to meet the surveying requirements of even the most demanding projects.

The Studio product family:



Studio EM: Exploration data analysis and modelling



Studio Mapper Geological face mapping and reporting



Studio NPVS: Strategic open pit optimisation, design and scheduling



Studio OP: Open pit design and operational scheduling



Studio PM: Short-term open pit production management



Studio RM & RM Pro: Mine geology, reserve modelling and resource estimation



Studio Survey: Mine surveying and reporting



Studio UG: Underground mine design and scheduling

Further Information

More information on your product can be found:

in your installed Help file.

- in the Datamine Knowledge Base: https://datamine.freshdesk.com/en/support/solutions.
- from members of the Datamine LinkedIn, Facebook and Twitter group pages and forums.
- on Datamine's website: www.dataminesoftware.com

Product Downloads

The latest versions of Datamine products can be downloaded from the support website:

https://www.dataminesoftware.com/support-portal-and-downloads/



New in this Version

This update provides useful new features and improvements and is recommended for all Studio Survey users.

Datamine Studio Survey v2.0 Key Features

The following new features and improvements are available with this update:



Stope Report

Stope reporting arrives in Studio Survey in this update. Specify a surveyed stope volume and one or more surveyed development shapes to automatically calculate a stope void volume and present it as a formatted survey report.

Optionally, you can define a block model for more granular evaluation results of the excavated material and/or specify a designed stope shape to report overbreak and underbreak amounts.



Memo Report

Using interactive tools, layout the optimal laser sight configuration for linear and non-linear developments using a range of memo report types (variable offsets, constant offsets, paint lines). With reference to survey and design data and using smart 3D editing tools for positioning and orienting lasers with or without linkage points, you can easily create a presentation-ready report in minutes.



Drive Solid from Survey Data

Surface surveyed underground string data in seconds, without the need for any additional attribution or structure picking. Robust and reliable and suitable for a huge range of data inputs, our unique surfacing tool will generate watertight volumes in seconds.



Preview Database Results

You can now preview and/or load your database query results (using the Browse Database task). Choose which actions to perform during a preview (file browser or 3D preview), select your database item(s) and they will be displayed automatically for validation.



Fixed Report Scale

All EOM reports now include an option to set a fixed scale for automatically generated plot projections. By default, automatic scaling will be applied as in previous versions.



Point Cloud Reconstruction v2.0

This release includes a new process – PTCLD2WF. Choose from multiple surfacing options at your fingertips, including interpolative and triangulation methods. We've kept parameters as simple as possible whilst maintaining flexibility.

You can now reconstruct surfaces from a much wider range of point cloud inputs than ever before.





Swipe Data Selection

A new data selection mode is introduced with this update. selection-mode-line-switch (quick keys 'sml') will activate line selection mode, letting you select data using a dynamically oriented line of variable thickness in any 3D window.



String Distance Label Options

Building on existing string labelling formats, you can now display a calculated 'Distance' label on strings.



BOOLEAN File-based Process

A new process is introduced in this version. BOOLEAN accepts wireframe data file pairs as inputs and outputs either wireframe or string data depending on the @METHOD chosen.



Save and Reapply Quick Filters

With this update, you can now store your quick filters away for later use. Simply define and store your filter, then reapply it, either using the Quick Filter control bar or a handy new right-click menu item in the **Sheets** control bar.



Overlay-specific Clipping

Clipping can now be applied independently for each overlay. Enable or block clipping using a simple right-click option, then opt into or out of clipping for each overlay as required. You can also set clipping activity for all overlays of a particular data type, or even an entire 3D window.



Attribute Editor v2.0

This release introduces a much-improved Edit Attributes console.

You can now edit attribute values of multiple objects of the same type simultaneously and can see averaged numeric values instantly. Any attributes supported by custom legends can also display any combination of associated colour, line style and symbol to make it easier to choose the best value to apply. You can also now copy attributes between objects.



Data Source Drivers Improvements

The ODBC and ODBCv2 drivers have been combined, providing all online database connectivity options in one place.

We have updated the Minesight Data Source Driver to the latest available.



Updated User Interface

As a major update, we felt it was time to refresh the look and feel of the ribbon interface. Based on modern user interface design principles, ribbons now contain a series of simplified and more easily recognisable icons that should benefit both new and seasoned users alike.



Other Improvements

The **Clip Perimeters with Perimeters** command can now output both inside and outside string traces simultaneously.



- A new superprocess COPYMOD lets you easily relocate and rotate an existing block model.
- A new command **georeference-objects** is available in this update. You can use it to georeference any loaded 3D data objects.
- You can now manage 3D object labels more easily using a multi-select grid in the 3D Properties dialogs.
- You can now apply an upper and lower constraint to your new numeric **legends**.
- You can now define an output attribute name for an output file generated by LISTDR. *FIELDNAM is now supported.
- You can now toggle double-click behaviour in digitizing commands using the **Options** dialog's *Project* controls.
- A new command merge-points-to-object lets you add selected points data to the current points data object.
- You can now use your keyboard's Page Up and Page Down keys to move sections backward and forward when a 3D window is active.
- Inserted table plot items in the Plots window will now honour existing filter expressions associated with string data.
- A new command switch: selection-mode-append-switch can be used to control how data is added to the selection pool when the CTRL key modifier is used.
- SELPER now features new @ALLPTS and @CLOSE parameters.
- Unsaved changes are now recognized by an overlay listed in italics in the Sheets or Project Data control bar(s).
- You can now apply multiple translations automatically using the translate-string command.



Getting Started

Studio SURVEY is a powerful yet straightforward product that does everything a mine surveyor needs it to do.

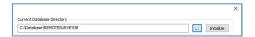
Focussed processes significantly reduce the time a surveyor will spend appending data, performing calculations and producing regular reports such as end of month reconciliations.

1 - Input Data - Connect to Survey Equipment



Connect directly to survey equipment using the Survey Import Module (SIM). Process ground data and add it to the project database for assessment in an EOM report.

2 - Set up the Database



Studio Survey is supported by a dedicated database, which can be local or remote. A skeleton database can be generated in seconds, or you can connect to an existing one equally rapidly. Data is added to the database using a simple utility that associates data with a description and survey date. Once added, data will immediately appear in a Project Data control bar, which creates a single area for file, object and overlay management.

3 - Use the EOM Reporting Tools



With date-linked survey data in the database, running a report is simple; choose a report type (Pit Actual, ROM, Design Compliance, Plan Compliance or Blast Volume) then select the reference surfaces and, if required, other constraints such as a perimeter string. Run the reporting tool to generate cut & fill volumes, volume calculation results and output report-ready reports based on a custom plot template.

4 - Publish the Results



Once cut & fill volumes have been created, you can publish the results to a summary Excel spreadsheet (again, using a custom template) and analyse month-end results. In addition to the above, Studio Survey users have access to a wide range of Studio Core functionality to make digitizing, designing, presenting and analysing survey data easy.



Studio Survey v2.0 Release Notes

Several changes have been introduced since the last version of your product. These changes fall into one of the following categories:



An improvement to an existing function or behaviour

A resolution to a reported issue

Core Commands and Processes

SURV-432	A Stope Summary task has been created.
SURV-431	Stope reporting arrives in Studio Survey in this update.
SURV-379	Specify laser sighting with a range of reports using the new Memo Report.
SURV-5	A new command – Drive Solid – has been added to the <i>Home</i> ribbon. This lets you quickly create drive wireframes from input development survey strings.
CORE-6711	A new process for point reconstruction – PTCLD2WF – is available in this version.
CORE-6379	You can now use the Quick Filter control bar to configure, store and reapply previously stored filters.
CORE-6099	A new superprocess – COPYMOD – lets you easily relocate and rotate an existing block model.
CORE-6037	The Create New Legend tool is introduced with this update.
CORE-5014	Generate BOOLEAN outputs quickly and easily without having to load input data into memory first.
CORE-219	You can now apply or disable clipping for individual object overlays, data types and/or 3D views using new Sheets control bar menu options.
SURV-429	The unsupported Design window is no longer available in Studio Survey.
SURV-427	All EOM reports now include an option to set a fixed scale for automatically generated plot projections. By default, automatic scaling will be applied as in previous versions.
SURV-418	You can now preview and/or load your database query results (using the Browse Database task).
Multiple	Edit Attributes functionality has been extended significantly in this version.
CORE-6864	SELWF can now process more than 1000 unique ZONE values.
CORE-6746	The ALLPTS parameter has been added to SELWF and the behaviour for CHECKROT has been corrected.



CORE-6683	When editing an object with lots of attributes, the selected item no longer swaps to the top of the attributes list when you make a new selection.
CORE-6601	You can now specify absent data values in attribute editing commands by typing a hyphen.
CORE-6565	You can now restore previous settings in the Grid DTMs dialog.
CORE-6544	The Create Ramp String command now calculates the segment length based on slope distance rather than the horizontal distance.
CORE-6552	You can now toggle double-click behaviour in digitizing commands using the Options dialog's <i>Project</i> controls.
CORE-6534	Wireframe Manipulation tools now default to making a new object.
CORE-6490	SELPER now includes a @CLOSE parameter, automatically closing open input strings for processing, or ignoring open strings if disabled.
CORE-6472	Output data from contouring now has an improved naming convention.
CORE-6365	You can now define an output attribute name for an output file generated by LISTDR. *FIELDNAM is now supported.
CORE-6467	COZONE now has a new @IJKSORT parameter. Models will be sorted on IJK by default.
CORE-6426	Generate Distance Contours now places contours and grids more proximally to original data when created using a non-orthogonal orientation.
CORE-6386	For unique numeric and alpha legends, you can now assign colours from a colour pallet.
CORE-6377	You can now use your keyboard's Page Up and Page Down keys to move sections backward and forward when a 3D window is active.
CORE-6374	You can now copy attributes quickly between different data.
CORE-6347	You can now apply multiple translations automatically using the translate-string command.
CORE-6303	You can now define the number of segments, or the segment length, in the create-ramp-string command.
CORE-6279	Various drillhole management commands have been updated to respond to partial drillhole/sample selection.
CORE-6268	convert-wf-hull now includes an "Outer boundary only" option.
CORE-6246	A Large Data Mode switch has been added to 3D Options to circumvent data picking and data disappearance issues at high magnification settings.
CORE-6118	TONGRAD will now output an Excel spreadsheet with a unique filename.
CORE-5927	SELPER can now code points using strings and you can include all points in the output with a new ALLPTS parameter.



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intervals, has been resolved. CORE-6603 A data-specific issue causing the system to halt when generating a new legend has	CORE-6606	
	CORE-6605	
	CORE-6603	



CORE-6580	An issue causing the system to halt when using circle-with-defined-radius has been resolved.
CORE-6574	When creating a scatter plot, when bin averaging is turned on and average points are displayed, cumulative averaging is no longer incorrectly performed.
CORE-6504	Using the make-dtm-from-objects command with a strings file now completes as expected.
CORE-6501	Calculated virtual field values are now saved correctly to physical files.
CORE-6492	Strings generated by the wireframe-section command now inherit attributes from the input wireframe as expected.
CORE-6478	An issue preventing string or surface generation after restoring the Contours from Drillholes dialog has been resolved.
CORE-6477	Values are now restored correctly in Contour commands.
CORE-6465	Data columns can no longer be created with empty names.
CORE-6462	Selecting wireframes in the 3d view no correctly deselects other data types.
CORE-6474	The system no longer halts unexpectedly on closing a project after attempting to load an unsupported image file format.
CORE-6452	Creating a new legend from "Use default legend" button no longer includes values from previously made legend.
CORE-6430	An issue that could cause the system to halt, when using unload-all in combination with the move-string-section command, has been resolved.
CORE-6428	When a non-horizontal orientation is used with generate-contours-from-points, the contour, grid and surface values are now as expected.
CORE-6427	An issue that could cause the system to halt, when using unload-all in combination with the insert-by-segment-length command, has been resolved.
CORE-6421	An instance of system failure when running the Split with String command has been resolved.
CORE-6416	An instance of system instability when digitizing, deleting and edit the attributes of string data has been resolved.
CORE-6411	An issue causing the system to halt, when running dtm-create with a 3 point string or points file, has been resolved.
CORE-6398	Drillhole data can now be selected for attribute editing even if data was selected before running edit-dh-attributes.
CORE-6392	A potential unexpected program termination has been fixed in the edit-attributes dialog which was previously caused if trying to apply changes repeatedly.
CORE-6387	Rotated models are now rendered with the expected origin and orientation.
CORE-6362	The context menu option to select a 3D section is now working as expected.



CORE-6361	Section reference point changes (Section Row Properties) are now applied immediately on exiting the field.
CORE-6342	An issue causing a persistent error message in the Data Column Properties dialog (Loaded Data control bar) has been resolved.
CORE-6340	An issue, that could cause the system to halt if displaying a large amount of object data, has been resolved.
CORE-6336	An unexpected error message in MODTRI after processing a large model has been resolved.
CORE-6323	The checkboxes in the Quick Filter control bar now respond correctly to mouse events.
CORE-6235	A data-specific issue causing the system to halt when linking two open strings (with duplicate points) has been resolved.
CORE-6277	An issue causing objects displayed as intersections to be rendered on non-primary Plots projections has been resolved.
CORE-6276	An unexpected "LESS THAN TWO SAMPLES, PROCESS TERMINATED" error when running the ST1GX process has been resolved.
CORE-6251	A persistent warning message displayed when setting the Back clipping < Front clipping has been removed.
CORE-6229	COUNT no longer creates a blank file (".dm") if running within a macro and the file path is 40 characters
CORE-6189	generate-contours-from-holes-intercepts contour attribute is now updated correctly when an object is selected
CORE-6180	A memory deallocation error when processing a valid block model with MODTRI has been resolved.
CORE-6104	Default line and point symbols are now correctly reinstated when a project is reloaded.
CORE-6097	HOLES3D with INCLMISS specified now provides consistent output regardless of input sample order.
CORE-6011	System failure no longer occurs with very large Custom Plot Page Height and Widths when accessing Histograms.
CORE-5758	The Borehole Warning Report no longer fails to produce output when multiple drillhole objects are input.
CORE-5705	The Project Files bar now correctly lists all expected projects files when an existing project is opened (data-specific)
CORE-5494	HOLMER no longer produces zero length samples under some circumstances.
CORE-5364	SELPER now produces output coordinates in the expected coordinate system.
CORE-5200	A data-sensitive issue causing intermittent corruption of alphanumeric field values in TRIVAL has been resolved.
CORE-4809	PICREC now operates as expected when processing non-integer attribute values.



CORE-4506	File names are no longer restricted to 8 characters when recording APPEND in a macro.
CORE-4359	An issue that could cause the system to freeze by selecting non-target data in the insert-by-segment-length command has been resolved.
CORE-4198	An issue causing system failure when editing the length value in the Compositor window, has been resolved.
CORE-4169	OUTPUT results with @DPLACE=-1 now match the same precision as values cut and pasted into Excel from Table Editor
CORE-3798	Generate-contours-from-points now reacts correctly to object deletions.
CORE-2704	In POLREG the coefficients are now written as explicit rather than implicit fields. The output file has one record.
CORE-2701	All contouring commands can now be run regardless of data visibility settings.
CORE-617	A data-specific issue preventing MODTRI from completing has been resolved.
CORE-375	An issue causing SELPER to fail where X,Y,Z, where specified as additional fields, has been resolved.
CORE-180	A data import issue causing system failure, after decimating an imported Sirovision .TIFF/.SJT file, has been resolved.

User Interface

SURV-389	The Studio Survey splash screen has been updated to match current branding.
SURV-388	Studio Survey icons have been redesigned throughout.
SURV-387	The Studio Survey Start Page has been rebranded and reformatted for this major update.
CORE-2277	You can now access create-new-wireframe-object via the Sheets control bar.
SURV-382	You can now access custom cursors from the Format ribbon.
CORE-6689	The 3D object labels panel has been reconfigured for clarity.
CORE-6555	A new 3D object labels menu has been designed to make multiple label editing quicker.
CORE-6495	The Ignore Clipping button has been removed from the 3D View ribbon as it is deprecated following the introduction of overlay-specific clipping.
CORE-3537	Validation of values when using the edit-model-cell-values command has been extended.
CORE-3529	Tabular data in all attribute editing commands can now be sorted by column.
CORE-2662	Your Studio product version number will now appear on the title bar of your application.



SURV-440	The Format ribbon now displays the correct icon for Filter Report.
CORE-6527	The Generate-contours-from-holes-intercepts dialog has been rearranged to accommodate our minimum supported screen height.
CORE-6468	3D Properties windows are now fully displayed on the minimum supported screen height (768 pixels)
CORE-6406	Splash screens will now appear correctly with 125% display scaling.
CORE-3535	The Tab order of fields in the Edit Model Cell Values dialog is now correct.
CORE-3012	The View ribbon no longer disappears if you hide and reopen the primary 3D window.
CORE-2860	Minor edits have been made to the Evaluation Settings dialog for consistency.
CORE-2691	Incorrect spin button behaviour in the Plots Default Page Setup dialog has been corrected.

Utilities & Supporting Services

CORE-6444 CORE-4983	P	When importing DXF and DWG files containing multiple data types, separate objects are created for each type detected in the incoming file.
CORE-6868		You can now force data imported via the ODBC driver to be imported as numeric data.
CORE-6599		CSV tables without up to 1000 data columns can now be imported.
CORE-6566		The Table Editor now has a template for Ellipsoid data tables.
CORE-6171		Microcosm's Dinkey Pro dongles can now be used to secure license keys.
CORE-6156		The ODBC and ODBCv2 drivers have been combined, providing all online database connectivity options in one place.
CORE-5668		We have updated the Minesight Data Source Driver to the latest available.
CORE-2586		A message indicating the possible presence of duplicate points after CAD import has been implemented.
CORE-2411	M	A "slab error" message, displayed where a non-existent import file is selected, has been improved when importing Minesight block models.
CORE-2205		Support has been provided for up to 1024 fields when exporting a Vulcan BDF model.
CORE-6876		An issue causing system failure after cancelling a CAD driver import dialog has been resolved.
CORE-6772		A Machine ID is no longer affected by the presence of temporary, external storage devices.
CORE-6749		A potential security vulnerability in License Services has been blocked.



CORE-6709	An issue causing the export of previously imported/exported .dwg/.dxf files to fail has been resolved.
CORE-6592	An issue affecting the import of Micromine TRIDB files has been resolved.
CORE-6549	An issue preventing the import of ECW files with embedded colour band data has been resolved.
CORE-6519	A data-specific issue causing incomplete importation of DGN shape data has been resolved.
CORE-6507	An issue causing the corruption of field names during Micromine model import has been resolved.
CORE-6482	License Services Machine ID calculation is no longer affected by the boot order of devices.
CORE-6448	An issue preventing the successful import of a MineSight model has been resolved.
CORE-6343	A data-specific issue preventing the import of CAD points has been resolved.
CORE-6327	An unexpected model data definition change during text driver import no long occurs.
CORE-6297	An issue causing an .shp import to generate double the expected records has been resolved.
CORE-6056	Data types are now persisted correctly when importing CSV data.
CORE-6046	An issue, causing system failure when reloading or refreshing a data object imported from an acQuire Database, has been resolved.
CORE-5667	A data-specific issue when importing STR and DTM (Surpac) format files has been resolved.
CORE-5345	A "Error extracting geometry from Micromine wireframe" message has been investigated and resolved.
CORE-2138	Cancelling out of Load External Data no longer leaves the CAD driver inoperable

^{*} You can apply these fixes to older application versions using standalone License Services, Table Editor, Data Converter and/or Data Source Drivers installation packages. These are found on the Datamine Support Website.

Documentation and Support

CORE-6378		A new help file has been added to explain retrieval criteria in processes.
SURV-392		The Studio Survey help file has been rebranded.
CORE-6311		A railroad diagram has been added to the Help system to better explain expected EXTRA syntax
CORE-6191	P	The SETVAL help page has been updated to explain the use of the ! character to terminate multi-field entry.



CORE-6140		The SELPER help file now includes information relating to CHECKROT and IJKSORT parameters.
CORE-5230		The PICREC helpfile now contains information about disambiguating values.
CORE-5024		The SELWF help file has been expanded.
CORE-6982		An error in the BOOLEAN process documentation has been corrected.
CORE-6828		An issue causing tutorial help files to display script errors has been resolved.
CORE-6289		You can now reliably copy and paste formatting between title box plot items.
CORE-6287		During dynamic string evaluation, you can now write attributes back to strings if using non-horizontal sections.
CORE-6286		During dynamic string evaluation, you can now copy attributes from strings with non-horizontal sections.
CORE-6272		An issue causing the system to halt when editing the format of a Table plot item has been resolved.
CORE-6120		Histogram, variogram, grade tonnage curve or graphic resultsetc files created in the plots window no longer require remapping of the files used when opening the project file from a new location.
CORE-6081		The reinstated unlink-wireframe command now has a help file.
CORE-5996		The COMPDH help file now includes data relating to *ZONE2 and *ZONE3.
CORE-5832		A help topic has been created for the undo-last-edit command.
CORE-5742		Erroneous text on the Wireframe Solid Hull help page has been corrected.
CORE-5563	M	An incorrect hyperlink on the summary help page for Studio Commands & Processes has been corrected.
CORE-5507		Redundant links to legacy support resources have been removed from Help files.
CORE-2308		Various corrections have been made to the Scripting Tutorial.

This table represents documentation-only tasks. Functional documentation is completed as part of other development work tasks.