

# Release Notes

## Studio Survey 3.0



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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** is for geological and structural modeling.



**Studio Mapper** for geological face mapping and reporting.



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



**Studio NPVS+** for strategic open pit optimization, design and enhanced 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

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>.

# Studio Survey 3.0 Release Notes

## Key Improvements

### New Datamine File Format

RECORD	XP (N)	YP (N)	ZP (N)	PTN (N)	PVALUE (N)	FEATURE (A...	NA
1	364171.645	6510879.86	307.963	1	1.2		18
2	364172.215	6510880.768	307.789	2	1.2		18
3	364172.613	6510882.136	307.809	3	1.2		18
4	364173.272	6510883.104	307.946	4	1.2		18
5	364174.201	6510883.364	307.639	5	1.2		18
6	364174.893	6510884.41	307.606	6	1.2		97
7	364175.293	6510885.608	306.272	7	1.2		98
8	364176.73	6510886.829	306.21	8	1.2		99
9	364177.737	6510888.178	306.446	9	1.2		10
10	364178.145	6510888.689	306.775	10	1.2		10
11	364179.405	6510889.36	306.17	11	1.2		10
12	364180.453	6510890.488	306.679	12	1.2		10
13	364181.377	6510891.378	306.628	13	1.2		10
14	364182.772	6510891.814	305.986	14	1.2		10
15	364184.331	6510893.014	305.7	15	1.2		10
16	364185.119	6510893.238	305.127	16	1.2		10
17	364187.553	6510894.553	305.5	17	1.2		10
18	364188.706	6510894.06	305.112	18	1.2		10
19	364189.879	6510894.427	304.705	19	1.2		11
20	364191.383	6510895.039	304.617	20	1.2		11

The Datamine file format used natively by Studio products originated from Datamine's "Native File System" over thirty years ago. It has been maintained and supported by Datamine products since then. The mining industry has seen a significant increase in data volume and complexity during this time, which has started to strain the capabilities of the Datamine format.

Our response to this challenge is a new file format that is more suitable for the current and future data requirements of the mining industry. This format has a new file extension; .dmx.

Files are smaller and now supports up to 2048 columns. Your application generates .dmx files by default (this can be changed on the **System Options** screen. Both legacy (.dm) and new .dmx format files can be read. Other improvements will follow, as our new format is highly extensible and provides many opportunities to make data handling easier and smarter in the future.

The new format integrates smoothly with modern Studio products and your existing workflows and customization scripts, and the Table Editor can be used to view both

legacy and new formats. For bulk file conversion, there's even a useful DM to DMX file conversion utility in the **Data Converter** installation folder should you wish to batch convert input files.

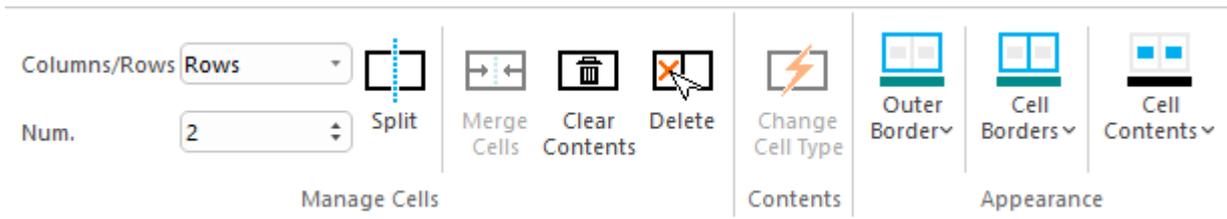
You can recognize .dm and .dmx files in the **Project Files** control bar:

	.dmx file	A file in the proprietary .dmx Datamine binary file format.
	.dm file	A file in the legacy .dm Datamine binary file format.

## Report Multiple EOM Pit Areas

Pit results from multiple areas can now be plotted in a single template with their respective volumes. This is done by picking multiple pit boundaries. A report is created for each boundary, then merged into a final report. If no or only one pit boundary is selected, the report behaves as before.

## Plots Overhaul



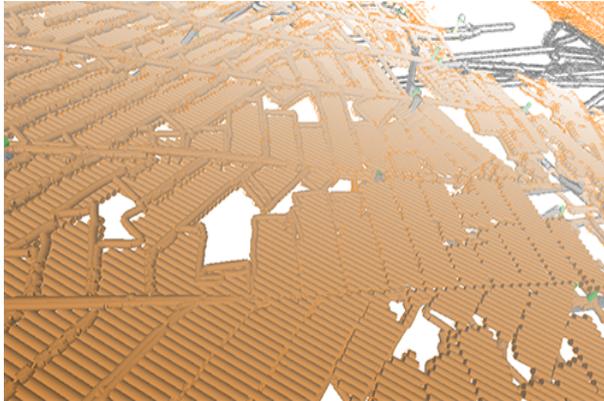
We've made major changes to the way plots are constructed with this update.

Plots are formed from a collection of plot items, ranging from 3D projections and associated sections, to clip art, text boxes and so on. You asked us to improve the usability of these tools so we've taken a step back and changed our approach to reporting. In a good way.

Plot items are now supported by their own ribbons, displayed whenever a particular plot item is selected, be that a projection, a north arrow, title box or whatever. With your help, we analysed the most commonly-used features and settings and have created a dedicated ribbon of tools for each plot item type. For example, managing the tabular contents of title box cells is now much easier thanks to handy cell managers.

The **Plots (Manage)** and **Plots (View)** ribbons have also been combined.

## 3D Window Improvements

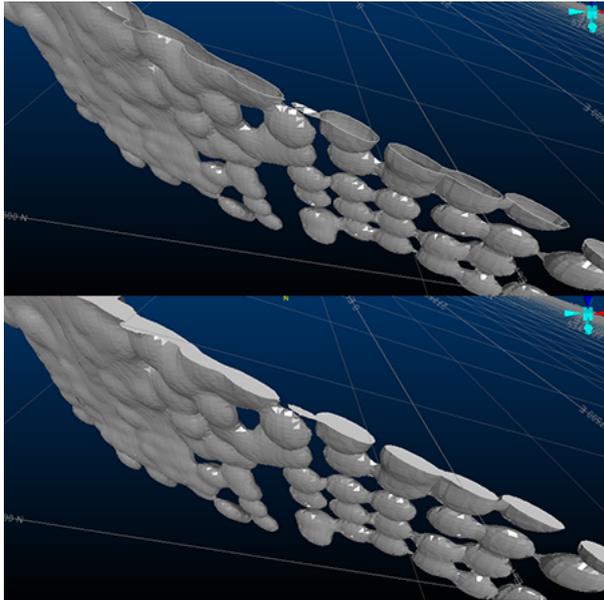


The display of large data so that it has a lower impact on system and application performance. This includes new, smart settings to control how and when 3D scene data is rendered, making sure the system only has to draw what it needs to. To support these changes, new 3D options have been introduced to control **Environment Settings** (automated scene clipping) and a **Render on Demand** setting (on by default), added to the 3D system settings screen.

## Filled Wireframe Intersections (Preview)

**Note:** This feature is still in development, but we thought we'd let you have a look at progress so far. There are some limitations, such as viewing intersections of multiple coincident intersection planes of different colours, but it should give you an idea of what we're aiming for.

We've added a new wireframe formatting option to the Wireframe 3D Properties screen: **Fill intersection**.



Wireframe data shown with standard clipping and filled intersection mode

Now, you can display clipped wireframes with solid intersections, emulating a 'filled' volume. This can be really useful when visualizing volumes in cross section.

## Text Importer

**Data Definition Mapping: \_vb\_collars.txt**

Data definition: Collars

Include	Column Name	Mapped Type	Output Name	Type	Length	Default	Implicit
<input checked="" type="checkbox"/>	BHID	✓ BHID	BHID	Alpha	8	0	N
<input checked="" type="checkbox"/>	XCOLLAR	✓ XCOLLAR	XCOLLAR	Numeric	0	0	N
<input checked="" type="checkbox"/>	YCOLLAR	✓ YCOLLAR	YCOLLAR	Numeric	0	0	N
<input checked="" type="checkbox"/>	ZCOLLAR	✓ ZCOLLAR	ZCOLLAR	Numeric	0	0	N
<input checked="" type="checkbox"/>	ENDDEPTH	None	ENDDEPTH	Numeric	4	-	N
<input checked="" type="checkbox"/>	REFSYS	None	REFSYS	Alpha	8	-	N
<input checked="" type="checkbox"/>	REFMETH	None	REFMETH	Alpha	4	-	N
<input checked="" type="checkbox"/>	ENDDATE	None	ENDDATE	Alpha	12	-	N

Import one or multiple text files using a new **Text Importer** screen.

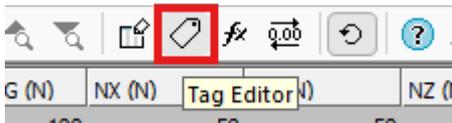
Select as many files as you need to import and configure all importation options on a single screen, including automated and interactive field mapping for your selected data type and preview your file before you import.

Once you're happy with your settings (which can be set for each individual file if required), store your configuration information in a handy scenario file which can be used to consistently import data in the future and to share with others in your organization.

## Datamine File Tags

With the introduction of the new DMX file format in this version (see above), a new facility arrives for all users; table tagging.

We intend to make use of this new feature in the future, but you can also add your own data tags and values to any .dmx file using the Table Editor, which includes a new **Tag Editor** function on its toolbar:



Add as many tags and associated values as you like. This could be useful, say, to embed the status of a model or other design files, or to provide some implicit spatial context to data (mine, area, level, for example) without requiring additional data attributes.

## New Processes

- **COMBTRI** allows up to 20 wireframe files to be combined in a single operation.
- **INTEXT** – You asked for a file-based process to convert text files to Datamine files, so we created **INTEXT**. Either using the data definition specified in the incoming file, or by choosing the definition of another file, import text data using a range of options.

## Command & Process Improvements

- **extend-segment-virtual-intersect** can now be used on closed strings.

## Russian Language Version

Studio Survey 3.0 is also available for our customers in Russian language speaking areas. This version is found alongside the English version on the Customer Portal.

**Note:** Datamine cannot sell or support software users resident within the Russian Federation.

# All Improvements

## Commands & Processes

- **Case: Multiple Cases** Your product can now read and write the new Datamine binary format (.dmx) and will automatically convert non-default files in the project folder when a project is opened.
- **Case: Multiple Cases** A new scenario-based **Text Importer** lets you import (single or batch) text files as a specified data type.
- **Case: Multiple Cases** Several improvements and fixes have been made to improve 3D window visualization.
- **Case: Multiple Cases** Studio Survey has been localized into the Russian language.
- **Case: CORE-9284** If you create a project using a folder that contains files in a non-native format, they are automatically converted.
- **Case: CORE-9265** By popular request, the "red" quick key combination now launches reduce-points (not simplify-string) as in previous versions. Menu options have also been reinstated.
- **Case: CORE-9240** Plot item locations now remain static when adjust the Relative positioning option for locatable plot items.
- **Case: CORE-9239** You can now interactively pick the target position of a locatable plot item using a new Anchor ribbon button.
- **Case: CORE-9234** DMX data saved from a Studio application now embeds the creating product and version as metadata (tags).
- **Case: CORE-9112** Studio project startups now include a check for local project files in a non-default format, and converting them to the default format.
- **Case: CORE-9021** Your product's Mesh wireframing library has been updated to version 2.0.1.53.
- **Case: CORE-9006** You can now use the "uc" quick key combination to apply clipping in Plots sheets.
- **Case: CORE-8938** A warning is now displayed when running HOLES3D when the BHID value in the Collar and Survey files doesn't match.
- **Case: CORE-8929** Loaded data objects that have metadata tags display those tags in the Properties control bar.
- **Case: CORE-8918** Supporting plugins for PTCLD2WF and the Point Reconstruction Wizard have been updated.

- **Case: CORE-8895** In the Project files control bar, when using the context menu on a macro file that contains more than 9 macros, Studio doesn't crash and works as expected.
- **Case: CORE-8876** You can now choose to manually or automatically adjust 3D window clipping planes using the Environment Settings screen.
- **Case: CORE-8860** The "red" quick key combination now runs the **simplify-string** command, not the legacy reduce-points command. Ribbon access has also been updated.
- **Case: CORE-8702 query-angle** now outputs angle information in degrees, minutes and seconds.
- **Case: CORE-8697 intersect-drillholes-wireframes** now outputs the intersection angle between drillhole and wireframe.
- **Case: CORE-8465** Context-sensitive Section and View ribbons now support projection editing and creation in the Plots window.
- **Case: CORE-8424** Quick filtering wireframes and block models is now much quicker.
- **Case: SURV-472** When generating an EOM Pit Actual report, you can now report multiple pit areas with extended plot template functionality.
- **Cases: CORE-8490, CORE-8452, CORE-8357** Front & back 3D window clipping distances now computed automatically based on object's bounding box.
- **Case: CORE-8465** Context-sensitive **Section** and **View** ribbons now support projection editing and creation in the Plots window.
- **Case: CORE-8460** The **Plots (Manage)** and **Plots (View)** ribbons have been combined.
- **Case: CORE-8310** By default, data is now rendered in the 3D view only when required. This makes application usage with large data much quicker with more responsive controls.
- **Case: CORE-8216** An Anchor ribbon has been introduced to support locatable plot items.
- **Case: CORE-8206** Reloading and refreshing large data objects is now quicker.
- **Case: CORE-8093** Improvements have been made to the way strings and points are rendered in the 3D window, to improve performance.
- **Case: CORE-8047** Changes to the Plots ribbons will now be automatically shared with all Studio products, making forward development quicker and easier.

- **Case: CORE-8012** A new context-sensitive Text Cell ribbon has been created to modify the contents of text cells in title boxes.
- **Case: CORE-7966** You can now overwrite an existing legend instead of having to specify an unused/unique legend name.
- **Case: CORE-7946** Legend box plot item formatting can now be performed using a new Legend Box context-sensitive ribbon.
- **Case: CORE-7732** A new **Text Importer** screen lets you import multiple ASCII text files with per-file configurations and share your importation settings as a scenario.
- **Case: CORE-7694** Symbol plot item formatting can now be performed using a new Symbol context-sensitive ribbon.
- **Case: CORE-7693** Text Box formatting can now be performed using a new Text Box context-sensitive ribbon.
- **Case: CORE-7692** Title box formatting can now be performed using a new Title Box context-sensitive ribbon.
- **Case: CORE-7691** Scale bar formatting can now be performed using a new Scale Bar context-sensitive ribbon.
- **Case: CORE-7690** North arrow formatting can now be performed using a new North Arrow context-sensitive ribbon.
- **Case: CORE-7279** **extend-segment-virtual-intersect** can now be used on closed strings.
- **Case: CORE-7161** The Create Model Prototype screen now has additional support for both new and copied rotated model prototypes.
- **Case: CORE-7051** **COMPDH** now lets you save residual composites to a new &RESIDUAL output file option.
- **Case: CORE-6906** When creating a ramp string, if the Distance set is less than the minimum segment length, a partial segment is added.
- **Case: CORE-2410** A new process - **INTEXT** - converts text files to Datamine files using an existing data definition and other parameters.
- **Case: CORE-231** We've added a new wireframe visualization option; **Fill intersection**.
- **Case: CORE-68** A new command - **clip-strings-to-wireframe** - lets you trim string data in relation to a wireframe surface or volume.

## User Experience

- **Case: SURV-508** Studio Survey is now available in Russian. Contact your local Datamine office for more details.
- **Case: OP-3740** Mineable Reserves Optimizer has been removed from the Reserves ribbon.
- **Case: CORE-9108** The Quick Filters screen now inherits the selected look and feel option.
- **Case: CORE-9086** The INTEXT text import process has been added to the Data ribbon
- **Case: CORE-8973** The Project Files control bar now differentiates .dm and .dmx formats by distinct icons.
- **Case: CORE-8937** The Project Files and Project Data control bars now display up to 30 macros in a .mac file.
- **Case: CORE-8935** A new splash screen has been implemented.
- **Case: CORE-8851** The Table Editor now supports visual themes.
- **Case: CORE-8765** The **Georeference Objects** screen now inherits current look and feel settings.
- **Case: CORE-8742** Images and colour scheme have been updated for the New Project Wizard.
- **Case: CORE-8601** The Project Data bar now displays the first level of available folders by default.
- **Case: CORE-5599** Managed task windows, such as implicit modelling and lithology assignment tasks, now persist their docked UI status between project sessions.

## Utilities & Supporting Services

- **Case: CORE-8915** ALS Coreviewer options have been removed from this product. Datamine no longer resells ALS Coreviewer.
- **Case: CORE-8906** Large Data Mode has been relabeled "Keep data in front of the camera" to make it clearer what it does.
- **Case: CORE-8759** End User License Agreement references have been replaced with Terms and Conditions.
- **Case: CORE-8747** You can now associate meta data with .dmx files using the Table Editor. This facility is not available for legacy .dm files.

- **Case: CORE-8585** You can now import up to 256 fields via the Surpac driver, and you are alerted if this limit is exceeded.
- **Case: CORE-8564** The obsolete command erase-wireframe-surface has been removed from the ribbon system.
- **Case: CORE-8488** Icons for the visualization window tabs and control bars have been updated.
- **Case: CORE-8439** A standalone utility has been created to convert .dm to .dmx files.
- **Case: CORE-8329** A new method more accurately calculates the volume of Prismatic models, as imported by the MineScape Importer utility (minescape-to-blockmodel command).
- **Case: CORE-6986** .xyz files can now be imported when importing Text files to the project.

## Documentation & eLearning

- **Case: CORE-9348** EXTRA help files, including the examples topic, have been updated for clarity and consistent terminology.

## Scripting & Automation

- **Case: Multiple** Scripted access to Datamine files has been extended to manage both legacy and new DMX file processes.

## Additional Defect Fixes

- **Case: CORE-9000** Enabling and disabling values in Assign and Group Lithology tasks now shows and hides drillhole intervals as expected.
- **Case: CORE-8947** 1-letter macro file names now appear in the Project Files control bar as expected.
- **Case: CORE-8947** SELWF now produces expected results when there are spaces in the field name values of ZONE.
- **Case: CORE-8867** An issue preventing the successful installation of License Services on some Windows Server platforms has been resolved.
- **Case: CORE-8848** The double-sided 3D wireframe rendering setting is now correctly saved to the project.
- **Case: CORE-8811** An issue caused by swapping Snap Mode settings has been resolved.
- **Case: CORE-8823** .var files now reference the correct stack version.
- **Case: CORE-8820** A regression of field addition in EXTRA when parsing numbers with scientific notation has been resolved.
- **Case: CORE-8801** An intermittent issue affecting file lookups when running macros has been resolved.
- **Case: CORE-8783** Making a plot item locatable no longer unexpectedly changes that plot item's position.
- **Case: CORE-8675** An issue causing **converge-segments** to display unexpected results after undoing the operation has been resolved.
- **Case: CORE-8670** The BOOLEAN process no longer fails when the two inputs (in the same run) have a column with the same name but a different data type.
- **Case: CORE-8610** 3D object bounding boxes, used for 3D view configuration are now set correctly for all string object entities.
- **Case: CORE-8583** An issue causing an orthographic 3D view corruption where the front clipping plane distance is very large, has been resolved.
- **Case: CORE-8530** An issue causing system instability, when clipping in the Plots window using a quick key, has been resolved.
- **Case: CORE-8523** An issue attempting to print screen contents when Info Mode is active has been resolved.
- **Case: CORE-8479** In Plots, setting a primary clipping width to a value larger than the extent of the section no longer causes the midpoint to be moved outside of the section extents.

- **Case: CORE-8475** An issue causing unexpected behaviour when snapping at high zoom levels has been resolved.
- **Case: CORE-8087** An issue that could cause a progressive memory leak when reloading a data object has been resolved.
- **Case: CORE-7713** An issue preventing the automatic generation of legends by data type has been resolved.
- **Case: CORE-7645 HOLES3D** now considers dip and bearing information from both a survey and collars file, prioritizing the survey file information. DIPMETH is applied to all data, regardless of source.
- **Case: CORE-6002** An issue preventing the update of associated screens after renaming 3D overlays has been resolved.
- **Case: CORE-3477** You can now generate a 2 point vertical plane by selecting 2 vertically-aligned points.

Datamine enables efficient and sustainable mining through the application of world-leading technology and services.

## Read the Docs

[docs.dataminesoftware.com](https://docs.dataminesoftware.com)

## Get in Touch

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