

Dedicated Mine Surveying Package

# STUDIO SURVEY

**Release  
Notes**

**Studio Survey 2.3**



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Published: 09 December 2024

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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 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 2.3 Release Notes

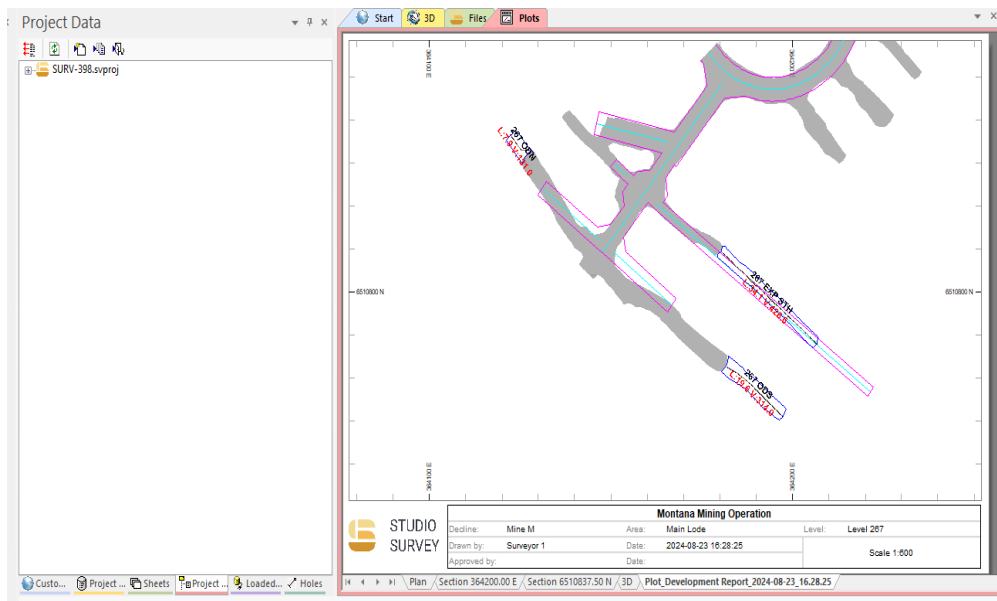
This version of Studio Survey installs Datamine PixPro version 1.7.8.

## Key Improvements

### ROM Stockpile Reference Points

The **Add to Database** screen's new **ROM** tab can now be used to define a surveyed points file containing stockpile name references. If a *ROM Stockpile Boundary* is added, pick any loaded points object or points file (typically an artefact of drone survey) and Studio Survey automatically assigns stockpile names based on points data attribute values.

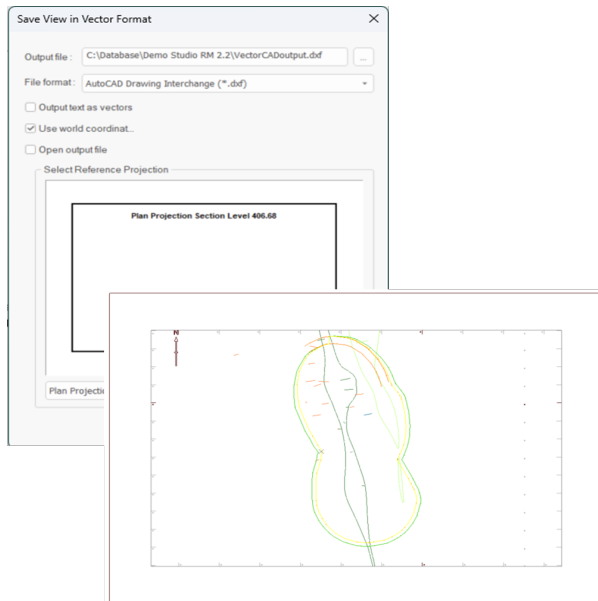
### Edit Generated Reports



Edit generated reports by loading the associated template file via the **Browse Database** task.

Simply browse the database for files with a '.dmtpl' extension, then load them to regenerate editable plot sheets. Changes can be committed back to the standard reporting template at the click of a button.

## Vector Export Improvements



Exporting Plots window data to CAD formats has been completely overhauled to provide support for a wider range of data configurations and to improve accuracy for all exported data types.

Data can be exported as AutoCAD Drawing (.dwg) or AutoCAD Drawing Interchange Binary (.dxf) formats.

The latest changes also remove the need for plot projections to be axis-aligned before exportation, so they can now be exported in any orientation. Several other limitations of the previous export engine have been resolved as a result of this work, including export of labels to a dedicated layer, as outlined in the release notes further below.

## EXTRA Improvements

EXTRA is a popular expression translator tool, now in its 27th year!

In this release, we've extended EXTRA and made existing functions easier to access and more consistent with global standards. For example, there's a new arctangent function ( $\text{atan2}$ ), an azimuth calculator ( $\text{azimuth}(dx,dy)$ ), NOT expression support, simple row number field addition, random number generators and field type detection.

There are improvements elsewhere, such as improved handling of missing fields, new ways to work with IJK values in block models. Inequality definition using "<>" and implicit field creation.

New procedures are here; `exit()` for immediate process termination (pre-data-recording) and `keep()` to name specific fields (cumulatively if required) to retain in data output. It's a useful partner function to `saveonly()`, which requires all output fields to be specified.

## New Commands & Improvements

- A new process - **ALPHCODE** - converts between numeric and alphanumeric field values.
- A new command - **create-planar-rectangle** - lets you define a rectangle by height, width, azimuth and anchor point, then position it in a 3D window interactively.
- You can now right-click a visible 3D object to set it as the **current object**.
- The **extrude-strings** command now lets you define a field for existing azimuth and dip extrusion values.
- A new process - **RANDOM** - generates random numbers, superseding the legacy MONACO process.
- A new process - **TRANSCO** - transforms data coordinates in physical files between Well Known Transformation (WKT) codes.

# All Improvements

## Commands & Processes

- **Case: SURV-553** The **move-blasthole** command is now available in Studio Survey.
- **Cases: SURV-504, SURV-505** The **Add to Database** screen's new **ROM** tab can now be used to define a surveyed points file containing stockpile name references.
- **Case: SURV-454** Edit generated reports by loading the associated template file via the **Browse Database** task.
- **Cases: Multiple** The **EXTRA** process has been extended with new features, procedures and other improvements.
- **Case: CORE-8681** If a maximum file or field length is exceeded in a process, the output report now specifies the maximum amount breached.
- **Case: CORE-8515 ELLIPSE** now supports an input CENTRE file containing coordinates for positioning multiple ellipsoid output.
- **Case: CORE-8514 ANISOANG** process feedback has been improved.
- **Case: CORE-8447 DAELLIPS** now features a **ZONE** field that allows for multiple zones to be processed.
- **Case: CORE-8441 ELLIPSE** now supports a ZONE field to allow multiple ellipsoids to be generated simultaneously.
- **Case: CORE-8332 TRIFIL** now considers surfaces where the elevation value is outside the block model Z range.
- **Case: CORE-8209** The **extrude-strings** command now lets you define a field for existing azimuth and dip extrusion values.
- **Case: CORE-8181** Exporting Plots window data to CAD formats has been completely overhauled to provide support for a wider range of data configurations and to improve accuracy for all exported data types.
- **Case: CORE-8173** During volumetric block modelling, TRIFIL's @RESOL (Z Resolution) parameter is now available when using wireframe dip to determine maximum subcelling.
- **Case: CORE-7892 REBLOCK** now cleans up temporary files during processing.
- **Case: CORE-7759** A new process - RANDOM - generates random numbers, superseding the legacy MONACO process.



- **Case: CORE-7391** A new command - **insert-segment-intersect** - lets you add a vertex to a string segment where it intersects the projected intersection of another segment.
- **Case: CORE-7342** You can now right-click a visible 3D object to set it as the current object.
- **Case: CORE-6369** A new process - **TRANSCO** - transforms data coordinates in physical files between Well Known Transformation (WKT) codes.
- **Case: CORE-543** A new command - **create-planar-rectangle** - lets you define a rectangle by height, width, azimuth and anchor point, then position it in a 3D window interactively.

## User Experience

- **Case: SURV-522** The Studio Survey Start page has been updated to reflect the latest product branding and categorization.
- **Case: CORE-7785** The Data Unload screen now lists objects alphabetically.
- **Case: CORE-7783** The Data Unload screen is now resizable.

## Utilities & Supporting Services

- **Case: SURV-557** PixPro version 1.7.8 is installed with Studio Survey 2.3.

## Documentation & eLearning

- **Case: CORE-8623** Documentation for the translate-string, translate-point, translate-string-opt and translate-wireframe commands has been updated.
- **Case: CORE-8007** Help files have been updated to reflect the latest corporate branding.
- **Case: CORE-3931** More information on IF-ELSE-END loops in EXTRA has been added to the help file.

## Additional Defect Fixes

- **Case: SURV-532** An issue causing slowdown when adding data to the database, or changing database settings, has been resolved.
- **Case: CORE-8727** The application no longer halts unexpectedly if a macro containing more than 10 macros is right-clicked in the Project Files control bar.
- **Case: CORE-8693** If EXTRA is called from a macro, a missing GO instruction no longer prevents the process from completing.
- **Case: CORE-8448** The DAELLIPS field label for ANGLE3 is now correct.
- **Case: CORE-8352** An issue causing the system to halt when reimporting Fusion data has been resolved.
- **Case: CORE-8280** An issue causing the restoration of form values to render process screens incorrectly has been resolved.
- **Case: CORE-8126** When assigning attributes via perimeters, you can now group attributes using the system SURFACE attribute.
- **Case: CORE-8199** When exporting plot data in a vector format, labels are now position correctly if not exported as vectors.
- **Case: CORE-7971** An issue causing the Back, Finish and Cancel buttons to appear incorrectly in the New Legend wizard, after resizing it, has been resolved.
- **Case: CORE-7826** Block model hulls are now displayed correctly in 3D windows, in relation to the current clipping settings.
- **Case: CORE-7524** An issue causing an incorrect string segment to be removed, after using the Insert Line command, has been resolved.
- **Case: CORE-7514** An issue causing clipboard items to be pasted twice into the command line has been resolved.
- **Case: CORE-7487** EXTRA's calculation of inverse trigonometric function "asin" while there is a mathematical expression which contains columns inside it, is now as expected.
- **Case: CORE-6690** An issue causing misaligned texturing of an imported .obj file has been resolved.
- **Case: CORE-5460** When exporting plot data to a CAD format, precision issues no longer occur when world coordinates are disabled.
- **Case: CORE-2248** Macro names in a .mac file now appear correctly via the Project Files control bar.
- **Case: CORE-1498** Exporting to a vector format no longer includes data outside the original view boundaries.

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## **Read the Docs**

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

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