

Optimise Your Underground Mine Design & Scheduling

STUDIO UG



Release Notes

Studio UG 3.3

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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



Datamine Studio UG meets all your underground design and data management needs.

Datamine's industry-leading systems form an unparalleled, integrated toolset for underground mine planning. Whether for an active mine production environment or a potential mine, from concept through to bankable feasibility stage, Datamine's solution will help you design, plan and schedule all aspects of your underground mine.

Studio UG 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 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 UG are available via the Datamine Customer Support website. For more details, see <https://www.dataminesoftware.com/support/>.

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



Studio UG 3.3 Release Notes

Enhanced Production Scheduler (EPS) Compatibility

Studio UG 3.3 requires EPS 3.1.165 or later to export and synchronize schedule data. The latest version of EPS is available from the Datamine Support Website and the Datamine Customer Portal.

Key Improvements

Group Wireframe Design Definitions

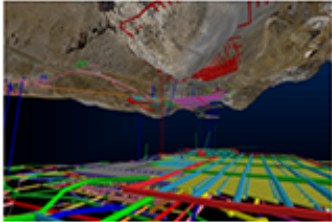
Grouped by	Design Grouping		
	Grouping	Sorting Attribute	Sort Direction
Level	Level	Backfill	Ascending

You can now define a wireframe design definition group for any definition to associate a group of activities relating to the same overall ("parent") definition. For example, you may want to generate a single backfill activity for a group of adjacent stopes, or even all stopes from a level or, in the shorter term, group wireframe solids that represent each ring in order to create activities executed for multiple rings, for example blast and backfill.

Grouped WFM definitions are also highlighted in the **Design Definitions** main screen.

This is now really easy with the enhanced WFM design definition group options.

New eLearning Course



Introduction to Studio UG - The Planning Ribbon

Studio UG serves as the central element within Datamine's comprehensive underground mining solution suite, offering an integrated toolkit for seamless progression from reserves optimization to long and short term planning phases. Join Studio UG's product owner Gustav Hawlitschek as he steps you through the functionality available through the Planning ribbon. Who benefits? Mine planning engineers and mine schedulers. Prior learning requirements This course refers to several k. [Read more](#)

Rating

★★★★★

Difficulty

■ ■ ■ ■

Content

20 modules

Price

Free

Add

A new eLearning course for Studio UG users is now available on the Datamine eLearning website. This course, spread over 20 easy-to-follow modules, takes you through key aspects of the underground planning process and ribbon.

It's an excellent starting point for new users but may also be useful for existing underground planners as there are a lot of tips and tricks to discover. The course demonstrates the very latest functionality available in Studio 3.3 so a lot of it has never been seen before. We're keen to hear your feedback so please take a minute or two to fill out the survey at the end when you're done.

You can access the Studio UG Introductory eLearning course using the **Help** menu. If you don't have access to our eLearning website yet, please contact your local Datamine office.

Edge Editor - Shift Leading Edges

Using the **Edge Editor**, you can now edit subsequent line segments automatically in order to preserve the following line shape.

Project Startup Checks

Studio UG now checks project definitions and settings on startup to ensure they are valid, issuing a warning otherwise.

Performance Improvements

- Reprocessing of automatic attributes is now optimized and quicker.
- Duplicate data checking is now only performed if data has changed since the last run.

Dependency Editing Quick Keys

Dependency editing functions have now been given their own dedicated commands and quick keys:

- **Apply Defaults:** dependency-apply-defaults (quick keys "ddf").
- **Delete Dependency:** dependency-delete (quick keys "ddt").
- **Draw Continuous:** dependency-draw-continuous (quick keys "ddc").
- **Draw Discrete:** dependency-draw-discrete (quick keys "ddd").
- **Move From:** dependency-move-from (quick keys "dmf").



- **Move To:** dependency-move-to (quick keys "dmt").
- **Reverse Dependency:** dependency-reverse (quick-keys "dre").

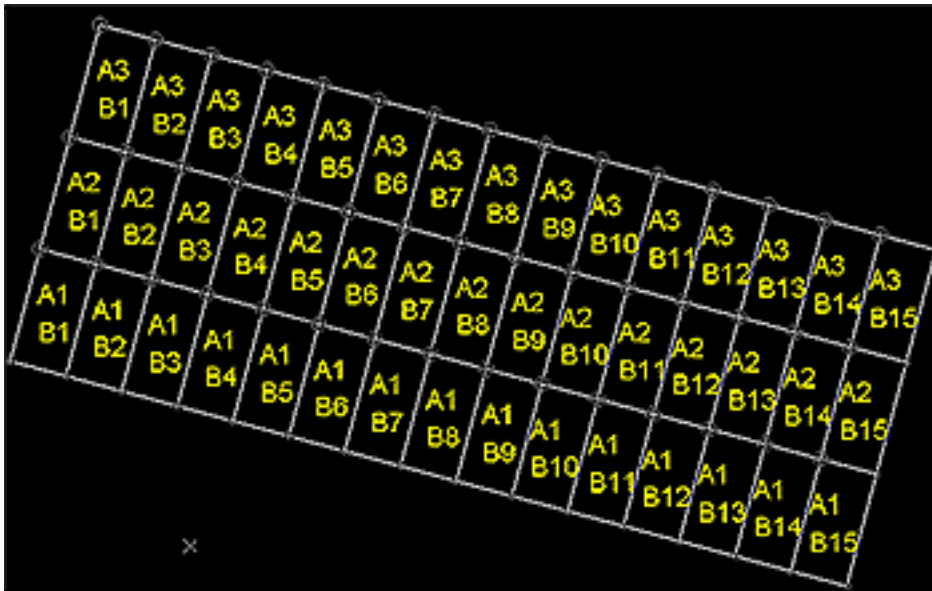
EPS Synchronization Improvements

- If an attribute is to be exported to EPS as a production field, you can now define its production unit.
- You can now replace task rate (or duration), task constraint and task dependency method in EPS with the default values defined using the **Design Definitions** screen for FXS/CXS/OUT/WFM and, if specified, derived activities.

Mine From Earliest or Latest Link

In previous versions, it was possible to set the **Default Dependency Method** to start after the latest predecessor activity link. You can now choose mining to start straight after the earliest predecessor link connection. This information is honoured in EPS animations and can be transferred to the EPS schedule (depending on new export options).

Generate a 2D Grid

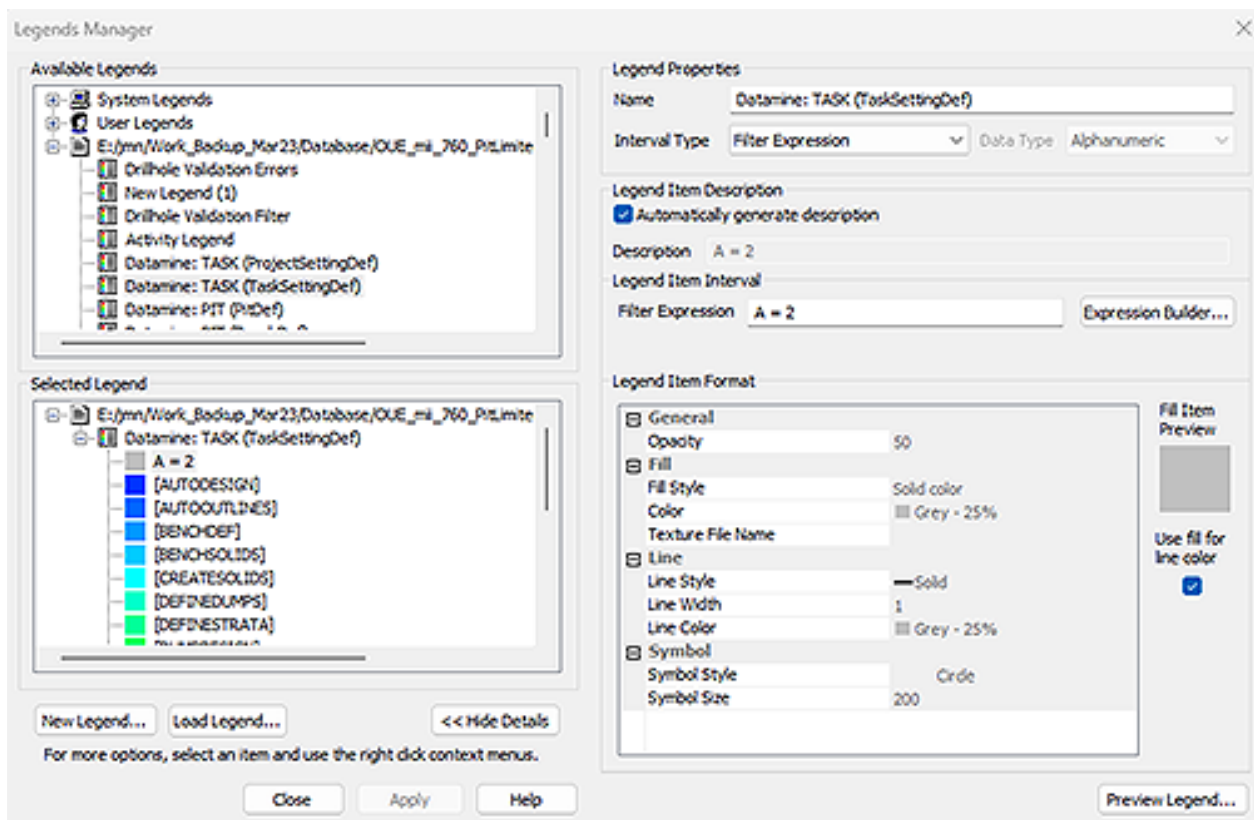


Use **create-grid-perimeter** to generate a 2D grid anywhere in 3D space, with optional grid reference attribution.

Define any origin and azimuth, and design a grid on a 2D plane of any orientation. Each grid cell can be attributed automatically to quickly set up grid reference attributes.

You can access the **Draw Grid** function on the **Design** ribbon.

Legends Manager Overhaul



The **Legends Manager** has been overhauled to make it easier to use; Legends and intervals are now in separate lists. This also allows larger legends to be created.

Plotting Enhancements

- You can now use **Quick Filter** and Format ribbon filtering options whilst using the **Plots** window.
- Use the "za" quick key combination with Page Layout mode inactive, to automatically zoom the contents of a target projection to fit the available space.
- Navigate active projections or plot sheets by zooming in or out using the mouse wheel, similar to the 3D window behaviour.
- Use the "zx" quick key combination in a Plots projection with Page Layout mode inactive, to activate zoom-by-area mode.
- Deselect any active projection using <CTRL> and a left click.

New and improved commands

- A new command - **add-zintersect-to-string** - lets you inject string points at a specified elevation.
- A new command - **clip-strings-to-perimeters** - lets you clip any string data with one or more selected perimeters.
- **extend-string-to-string** can now be used to extend any string segment.
- **extend-segment-virtual-intersect**: Extend a string segment to virtually intersect a second segment of another selected string (new command).
- **fillet-single-string-point** can now be performed on strings not in the XY plane.
- **filter-point-off**: Prevent the display of point data without removing it from memory.
- **hide-non-selected-points**: Disable the display of all non-selected point data.
- Several string **linking** commands now honour the 'Maximum Segment Length' value (if greater than 0) to limit the segment length of wireframes triangles.
- **Macro path lengths** can now be up to 256 characters (the previous limit was 72 characters).
- **move-string-to-view** projects string data without retaining the original data.
- You can now **restore** previously used **retrieval criteria**.
- **switch-wireframe-edge**: interactively swap the arrangement of internal edges in a two-triangle pair.
- The maximum number of unique values for the ZONE field in **TRIVAL** has increased from 40 to 2000. The amount of text being written to the command text output window has been significantly reduced and a better progress indicator added to the status bar.
- **write-selected-points**: Save selected points to an external file.



All Improvements

Commands & Processes

- **Case: UG-4365** The Pivot Table report now updates values as expected when adding new attributes and processing a second time.
- **Case: UG-4288** If automatic dependencies are manually edited in the 3D view, they are now automatically set to be manual dependencies.
- **Case: UG-4287** Running spatial dependency rules on large datasets is now quicker.
- **Case: UG-4275** A project-specific error causing processing to fail has been resolved.
- **Case: UG-4262** Reporting commands on the Planning ribbon are now active even if the planning workflow tasks are inactive.
- **Case: UG-4247** Design processing now alerts you if there is a failure to write Points, Attributes, or Reserves tables, such as when an excessive number of table columns exist.
- **Case: UG-4226** Closing the **Properties** screen is much faster in projects with a lot of properties.
- **Case: UG-4226** The command repeat-last-command can now be actioned whilst the Dependencies panel is displayed.
- **Case: UG-4215** The **Clip Strings to Perimeters** command is now available from the Design ribbon.
- **Case: UG-4191** Studio UG now checks project definitions and settings on startup to ensure they are valid, issuing a warning otherwise.
- **Case: UG-4186** If you select a grouped design definition, child rows are now automatically selected.
- **Case: UG-4142** Design definition WFM grouping now appears in the definitions panel.
- **Case: UG-4040** Duplicate data checking is now only performed if data has changed since the last run.
- **Case: UG-3989** Reprocessing of automatic attributes is now optimized and quicker.
- **Case: UG-3843** Using the **Edge Editor**, you can now edit subsequent line segments automatically in order to preserve the following line shape.
- **Case: UG-3400** An enhanced projection method is now used when processing the "Project to Wireframe" automated design rule.
- **Case: UG-3283** Reprocessing of automatic attributes is now optimized and quicker.



- **Case: UG-2859** You can now set the **Default Dependency Method** to mine from the earliest possible activity link.
- **Case: UG-2597** If an attribute is to be exported to EPS as a production field, you can now define its production unit.
- **Case: UG-2548** The area of outline designs is now reported on the design type totals and definitions totals dashboard tables.
- **Case: UG-2179** A data-specific issue causing dependent activities to animate incorrectly has been resolved.
- **Case: UG-1359** Quick keys are now available for dependency editing modes. See your help file for more details.
- **Case: CORE-7938** You can access the Studio UG Introductory eLearning course using the Help menu.
- **Case: CORE-7917** A new **SELWF** parameter - **FIXNORM** - can be used to detect and rectify common wireframe problems before processing.
- **Case: CORE-7844** **DAELLIPS** can now input rotated models, and **ANISOANG** has been updated to provide expected angular **POINTS** output (plus an optional **REJECTED** output points file). See your process documentation for more details.
- **Case: CORE-7804** The command link-multiple-strings ("lms") now uses the 'Maximum Segment Length' value (if greater than 0) to limit the segment length of wireframes triangles.
- **Case: CORE-7803** The command link-selected-strings-attrib ("lma") now uses the 'Maximum Segment Length' value (if greater than 0) to limit the segment length of wireframes triangles.
- **Case: CORE-7802** The command link-selected-strings-plane ("lmp") now uses the 'Maximum Segment Length' value (if greater than 0) to limit the segment length of wireframes triangles.
- **Case: CORE-7800** The command end-link-boundary (elb) now uses the 'Maximum Segment Length' value (if greater than 0) to limit the segment length of wireframes triangles.
- **Case: CORE-7799** The command end-link (eli) now uses the 'Maximum Segment Length' value (if greater than 0) to limit the segment length of wireframes triangles.
- **Case: CORE-7792** Link-strings now honours the Maximum Segment Length wireframe linking setting.
- **Case: CORE-7780** You can now pan plot views using the cursor as expected.
- **Case: CORE-7778** A new command - **write-selected-points** - lets you save selected points to an external file.



- **Case: CORE-7670 Macro path lengths** can now be up to 256 characters (the previous limit was 72 characters).
- **Case: CORE-7644** Use the "za" quick key combination to automatically zoom the contents of a target projection to fit the available space.
- **Case: CORE-7643** Use the "zx" quick key combination in a Plots projection to activate zoom-by-area mode.
- **Case: CORE-7641** You can now use **Quick Filter** and **Format** ribbon filtering options whilst using the **Plots** window.
- **Case: CORE-7592** Deselect any active projection using <CTRL> and a left click.
- **Case: CORE-7398 move-string-to-view** projects string data without retaining the original data.
- **Case: CORE-7397 extend-string-to-string** can now be used to extend any string segment.
- **Case: CORE-7396 extend-segment-virtual-intersect:** Extend a string segment to virtually intersect a second segment of another selected string.
- **Case: CORE-7395** A new command - **add-zintersect-to-string** - lets you inject string points at a specified elevation.
- **Case: CORE-7361** An issue causing incorrect icons to be displayed for Data options in the Loaded Data/Sheets context menu has been resolved.
- **Case: CORE-7310** The **Legends Manager** has been overhauled to make it easier to use
- **Case: CORE-7152** A new command - **clip-strings-to-perimeters** - lets you clip any string data with one or more selected perimeters.
- **Case: CORE-6934** You can now **restore** previously used **retrieval criteria**.
- **Case: CORE-6705** When clipping perimeters to other perimeters, interacting with the Quick Filter bar now persists the previous selection.
- **Case: CORE-6388** Use **create-grid-perimeter** to generate a 2D grid anywhere in 3D space, with optional grid reference attribution.
- **Case: CORE-3974** Define an upper limit for **triangle edge length** during string linking via the Project Settings screen. This can also be set using the reinstated dtm-new-point-separation command.

User Experience

- **Case: UG-4219** The **Output** window now shows a message indicating the status of a Ventsim export.



- **Case: UG-4137** Your **Start** page will update immediately to reflect the colours of the current Look and Feel mode.
- **Case: UG-4104** If you reorder the columns of the **Data Tables** screen, the configuration is now stored for later reinstatement.
- **Case: UG-4091** You can now access the project and application logs directly from the Planning ribbon.
- **Case: UG-3480** Group header check boxes have been added to the **EPS** and **Utilities** panels.
- **Case: UG-2792** The **Edit Parent Cell Divisors** screen has been redesigned to make it easier to use and understand.
- **Case: UG-2609** The dependency error list is now collapsible.
- **Case: UG-2220** The manual attribute assignment button layout has been improved.
- **Case: CORE-8060** **write-selected-points** has been added to the 3D window context menu (Save >> Selected Points).
- **Case: CORE-7702** An issue causing the degrees symbol to be displayed incorrectly in various parts of the application has been resolved.
- **Case: CORE-7658** The **Find Command** dialog now reacts to visual theme changes.
- **Case: CORE-7574** The **Wireframe Decimate** screen now displays the latest visual themes.
- **Case: CORE-7534** The **Wireframe Smooth** dialog is now supported by extended visual themes.
- **Case: CORE-3957** A new command - **switch-wireframe-edge**, lets you quickly adjust the internal organization of wireframe triangles in a quadrilateral.

Utilities & Supporting Services

- **Case: CORE-8051** Datamine License Services is now supported in networks utilizing the TLS (Transport Layer Security) protocol versions 1.2 and 1.3.
- **Case: CORE-7662** Swapping from online to offline mode (or vice versa) now automatically reloads the current Start page content.

Documentation & eLearning

- **Case: UG-3607** The legacy Studio UG tutorial has now been replaced by a new eLearning course.

Defect Fixes

- **Case: UG-4255** The Properties panel now displays the correct context-sensitive help page.
- **Case: UG-4245** You can no longer select the system attribute **SUBPROJECTID** on the **Field Value Updates** section of the **EPS** panel.
- **Case: UG-4224** A project-specific error during the derived activities creation step (if the Boundaries creation is selected) has been resolved.
- **Case: UG-4218** An issue causing unexpected errors when merging sub-projects has been resolved.
- **Case: UG-4214** Filter editing now allows any field names to be entered.
- **Case: UG-4207** Outline Azimuth Fields are now correctly recognized in Design Definitions.
- **Case: UG-4193** Rule-based dependency visualization after design changes and reprocessing now matches dependency changes.
- **Case: UG-4173** A Stope Reconciliation validation alert is now being cleared when the number of selected fields is reduced to below the maximum.
- **Case: UG-4155** An issue causing incorrect attributes to be added to loaded designs when attribute definitions were changed, has been resolved.
- **Case: UG-4148** The **Select Wireframes** button no longer becomes incorrectly active after applying attributes.
- **Case: UG-4146** A concatenated system message shown when the installed version of EPS is below the minimum supported, has been corrected.
- **Case: UG-4143** Tooltips used when importing attribute values from EPS have been made more consistent.
- **Case: UG-4139** Depleted solids are now purged as expected when a sub-project is converted to a master project.
- **Case: UG-4125** You can now only select visible activities in the 3D window when synchronized with EPS.
- **Case: UG-4100** Density per legend bin in pivot tables is no longer being accumulated instead of weighted.
- **Case: UG-3873** An issue causing system instability when swapping projects has been resolved.
- **Case: MSO-1478** An issue causing a run failure with a scenario utilizing "Gradient strike and dip strings" and "Complex stope shapes", has been resolved.
- **Case: MSO-1474** An issue caused by Maptek Vulcan incorrectly registering a Datamine component has been resolved.



- **Case: MSO-1454** A data-specific issue causing incorrect volume and outline string generation has been resolved.
- **Case: MSO-1451** A check is now made for open quad strings, and if detected, processing will stop.
- **Case: MSO-1450** Output stope volume triangles are now ordered correctly, permitting downstream evaluations in Studio.
- **Case: MSO-1440** An issue relating to stope smoothing has been resolved.
- **Case: CORE-7998** An issue causing system shutdown when creating a legend for a recently modified drillhole has been resolved.
- **Case: CORE-7839** **SWATHPLT** now processes data where a **ZONEFLD** contains more than 40 records.
- **Case: CORE-7788** An issue causing potential system instability when sorting by Date Modified in the Project Browser has been resolved.
- **Case: CORE-7723** You can now update the License Services product name registration database more than once.
- **Case: CORE-7722** In some circumstances in models with a large number of fields including alphanumeric fields, **PROMOD** volume calculations were incorrect. This is now resolved.
- **Case: CORE-7618** Selecting and deselecting individual drillholes or segments is now significantly faster.
- **Case: CORE-7530** An issue causing an unexpected system restart after a product installation has been resolved.
- **Case: CORE-7435** DXF wireframes can now be saved via script as expected.
- **Case: CORE-6872** When using **SELPER**, If the perimeter file contains **DPLUS** and **DMINUS** fields and the values are zero a small tolerance is applied internally to avoid numerical comparison errors. This is now consistent with the methodology used for the **DPLUS** and **DMINUS** parameter values when either of them is zero.
- **Case: CORE-6787** An error in **SWATHPLT** when **ALLZONES** is set to 1 has been resolved.



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

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