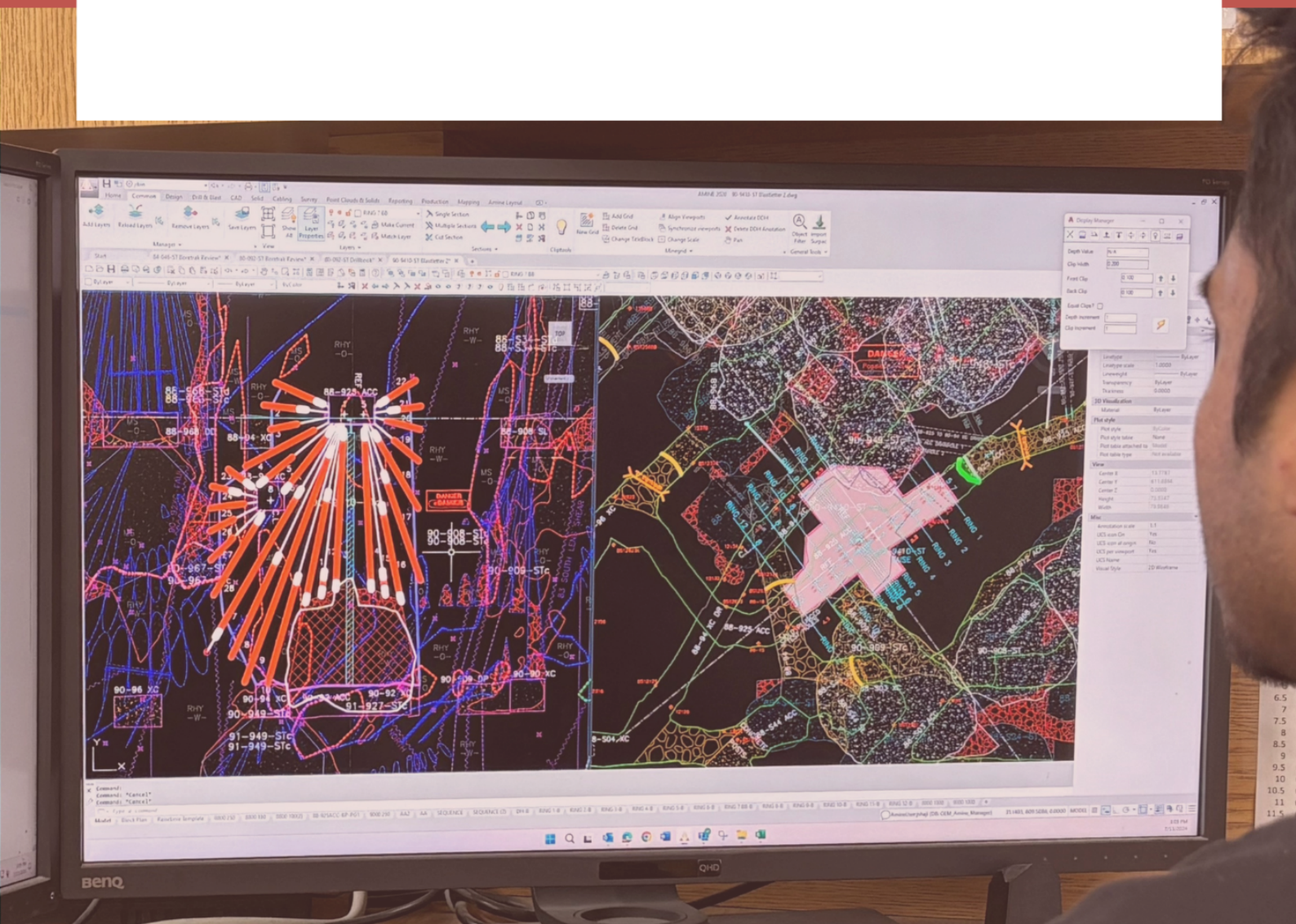
DATAMINE

AMINE

Amine 2.7

Release Notes



Published: Monday, July 7, 2025

Contents

Overview

The most advanced CAD-based underground mining platform, **Amine** is designed specifically for Mine Engineers and Surveyors.

Seamlessly combining powerful CAD functionality with industry-specific tools, Amine revolutionizes the way you survey, design, and execute mining operations. It provides an intuitive and versatile environment that empowers Mine Engineers to bring their visions to life. With its AutoCAD foundation, you have access to a familiar interface and robust drafting tools, allowing you to effortlessly create precise and detailed mining designs, 3D models, and technical drawings.

Amine offers a comprehensive suite of underground surveying tools including a laser offset function, automated CMS slicing and underground monthly reporting summary. It simplifies and streamlines daily survey tasks whilst providing a more efficient and time-saving EOM reporting process. Seamlessly integrate with your surveying equipment and leverage advanced surveying features to optimize your workflows and increase productivity.

Further Information

This document includes cumulative release notes for Amine 2.7.

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

Amine 2.7.3 Updater

New Features

GATTE

- A new command, ***GATTE***, allows users to update the value of a specific attribute across all matching block references in both model and paper space. This command filters by block name and attribute tag, applies only to blocks with defined attributes, and displays a summary confirming how many instances were updated. ***GATTE*** is integrated into the attribute management menu and supports full undo functionality to ensure safe and consistent drawing-wide modifications.

Layer Cleaning

- A new command, ***Amine_CleanAllLayers***, has been added to the Amine Manager. This command runs only in an empty drawing, no objects in model space and only default layers (Layer 0 and Defpoints) present. The tool scans all layers stored on the server and identifies accessory or ZZZ layers unintentionally brought along. Users are shown the scan results and can choose whether to proceed with cleaning. If cleaning is selected, the tool removes unintended layers, applies a minimal non-destructive change to the target layer to enable saving, and ensures the saved version includes only the intended data. This prevents layer contamination and protects against accidental data override.

3D Polylines

- A new command, ***Amine_3DPLineStyle***, has been added to allow users to toggle the display of linestyles (such as dashed, hidden, or centerline) on 3DPolylines in both model space and paper space. This functionality maintains the original elevation data by preserving 3DPolylines and supports custom linetypes defined in .LIN files. This function integrates with AutoCAD drawing standards and is compatible with DWG exports. Any updates to linetype properties (e.g., color, scale, or type) are reflected dynamically on the 3DPolylines. This eliminates the need for 2D overlays and improves clarity in technical drawings involving ventilation, utilities, or hazard representation.

Enhancements

Compliance and Drive Dimension

- A new **Paths** button has been added beside **Create Excel Report** to improve navigation and clarity. Selecting this button opens a separate window that contains grouped fields for report file name, file path, auto file naming, and associated templates. This separation reduces clutter and enhances usability, particularly in workflows involving multiple users or repeated reporting tasks.
- A new **Prep Solid** button has been added to launch a dedicated **Solid/Mesh Prep Tools** window. This tool includes options to **Create Cut Lines**, **Slice Wireframe**, generate **Outlines**, and **Subtract Solids**, streamlining geometry preparation for compliance and dimension plotting.
- Users can generate closed 3DPolylines for pillar boundaries using either manual clicks at pillar centers or automatic detection from surveyed centroids. The tool uses surrounding wall lines to form outlines and prompts users to create walls if missing. A confirmation dialog highlights detected pillars before creation.
- A new button allows users to build pillar outlines by selecting boundary curves. The tool detects pillar centers manually or from layer objects, analyzes nearby geometry to define UCS and boundary intersections, connects outline points, and applies elevation from surrounding curves.
- When **Create Excel** is checked, the system generates a drive dimension report using a dedicated Excel template. The output matches the compliance format, excluding fields like overbreak and underbreak. The template is included in the updater.

Centerline

- An **Area** value is calculated and stored automatically when height and width are present in a centerline. This attribute is accessible in the centerline information panel and updates dynamically when the centerline geometry changes, including segmented cases.
- A **Centerline Name** field has been added to the creation dialog, allowing users to assign a drive name that is stored as a persistent attribute. This name can be retrieved later for queries and included in annotations or reports.
- New configurable annotation tools allow users to choose placement (centerline or wall line) and content such as curve radius, elevation, grade, and drive name, improving clarity and communication in plotted outputs.
- When using the **Break Centerline** function, curves are preserved between segments if auto curve is active, and wall lines maintain continuity when auto wall is enabled, supporting consistent and smooth design visuals.

Drill and Blast

- A new **Decimal Precision** tab allows users to define precision settings for each numeric field in title blocks. These settings apply across all drill and blast letter outputs. The tab includes a three-column table with bold headers: **Name**, **Attribute**, and **Precision**, and is alphabetically sorted for easier navigation.

Monthly Stope

- When selecting an advance line that contains a drive name, the **Stope Name** field is automatically filled based on the centerline attribute. This reduces manual entry and improves data consistency during monthly stope recording.

Defect Fixes

- When placing a drill, the setup window previously obscured the workspace, forcing manual repositioning. This has been resolved by updating the ***ABLS/ICAB_PGUI*** and ***ABLS/ICABS_Create*** forms to open at the top left of the screen.
- The **Create Excel Report** option for compliance reports was previously disabled (greyed out); this has been fixed. Additionally, checkmarks have been added beside box titles, and the **Report File Name** appears directly in the main dialog window with an auto-generated default. The UI layout has also been refined for improved usability.
- The **Contact Mapping** Tool attempted to locate drawing files outside of the defined path in the ***settings_path*** dialog, even when a valid path was configured. The SDK logic was updated to check for user-defined paths first, fall back to defaults only if necessary, and display a prompt if the file is missing, ensuring the path defined in ***settings_path*** is always respected.
- When importing sample data using **Smart Data Import**, attributes were not displaying correctly due to incorrect delimiter handling. The parser was updated to exclude tab and space characters as delimiters, only using commas (,) and semicolons (;) for accurate parsing.
- In the centerline creation workflow, annotation settings were not always restored between sessions, especially when running *Lay_WLine* or deleting multiple objects. The dialog logic ensures settings are reliably saved and restored, and the form layout has been adjusted for all UI elements to fit properly.
- Running ***ABLS_HNameAdd*** was unintentionally loading powder into the first hole during the naming process. This occurred due to the SHPromptAndSelect1ChargeObjInHoleLst method, which has been corrected to prevent default powder addition unless explicitly requested.
- When deleting all defined sections, the application previously remained in section view, and cut lines were still visible on the plan. This has been fixed to return the interface to plan view and remove all associated cut lines when no sections remain.
- An SQL script used the unsupported TRIM function, which caused errors for clients using SQL Server versions earlier than 2017. The script has been revised to use the compatible LTRIM() and RTRIM() functions for broader version support.
- When selecting the **Bore Hole** data type during import, users encountered ConnectionString not initialized and Object reference not set errors. The import logic establishes the SQL connection at startup and includes proper

null checks for hole and zone lists, preventing these errors.

- The UI for the **Strings** data type in the **Import Data** window was inconsistent with others, text size and button alignment were off. The layout has been standardized to match the rest of the data type forms.
- Closing the secondary windows for **Points** or **Strings** import did not close the main **Import Data** window, unlike other types like **Drill Hole** or **Bore Hole**. The window handling has been corrected to ensure consistent close behavior across all data types.
- Clicking the **Edit Annotation** field button in ***DDH_HImport*** > **Edit** > **Edit** > **Left/Right Annotation** did nothing due to an unlinked action. This button has been removed, and the layout of both annotation tabs has been corrected.
- The survey date string inserted by the ***srvjob*** command was incorrect when placing string points. This occurred because object config changes were not applied until restarting Amine. The code was updated to initialize config immediately when a database connection change, allowing survey dates to display correctly without requiring a restart.
- The layout linking between centerlines, wall lines, and annotations was unreliable due to the use of object IDs instead of persistent identifiers. This caused deleted annotations to persist or relink incorrectly. The logic uses centerline IDs in XData for proper linking, and ***lay_wline*** reliably deletes and recreates related geometry and annotations.
- Section names in room and pillar compliance reports were appearing inverted, and the generated Excel report failed due to formatting issues and spelling errors in messages. These have been corrected, and section names appear correctly with successful report generation.
- The ***Amine_MergeCUIX*** command failed with a System.IO.WinIOError when merging CUIx files. The root cause was invalid or inaccessible file paths during file operations. The issue has been fixed by handling missing or null paths and improving file copy logic.
- Drive dimension cuts were misaligned and increasingly inaccurate across multiple sections. This occurred because slicing logic assumed uniform vectors, which failed for vertical or collinear segments. The slicing plane logic was updated to handle vertical lines, add fallback normals, and skip invalid segments, producing consistently accurate cuts.
- The merge result display in the UI showed no data when no panels had been added. The UI logic was updated to handle and display empty merge results correctly.

Amine 2.7.2 Updater

New Features

Blasting Cap

- Added a new ***BCap*** command that automates the calculation and labeling of explosive cap sizes (9, 15, 30, or 55) directly on blast designs in paper space.
  - Reads collar and powder lengths from the ibs_blasout block.
  - Calculates toe and mid charge positions using standard formulas and adds a 3m excess wire buffer.
  - Selects the nearest valid cap size and inserts a formatted label (e.g., “15” or “15/30”) at a fixed offset from the block.
  - Enforces strict input rules (e.g., numeric powder/collar values, valid block type) and displays helpful error messages for invalid entries.
  - Works only in paper space to ensure layout consistency.

Enhancements

Drive Dimension

- Centerline grading is fully supported for drive width calculation, enabling measurement along realistic drift paths.
- A new **Dimension Width** field has been added next to **Status**, including a numerical input and label **Height from CL**. This allows drive widths to be measured at a specific offset above or below the centerline. For example, 5 for measurement 5 feet above centerline. This mirrors survey practices for plug placements and supports flexible reporting.

Centerline

- Refactored the **Centerline** tool (***Lay_CLine***) window with a streamlined layout and new tools:
  - **AutoCurve**: Automatically curves the centerline during creation based on angle and length conditions.
  - **Flat Top Option**: Available when **AutoCurve** is enabled; ignores elevation differences for flat sections.
  - **Auto Wall**: Allows simultaneous wall creation using saved height/width, written directly to centerline xdata.
  - **Break Option**: Adds an (***B***)reak input during centerline creation that starts a new 3D polyline segment while keeping the centerline logically joined, useful for changing attributes mid-design.
  - Centerline and Wall Layer Options: Lets users assign lines to specific layers (current, from list, or custom).
  - **Centerline Info** Button: Opens a detailed xdata window for real-time attribute entry and updates.

Drill and Blast

- Reintroduced the ability to select a 3D Polyline or Polyline as a boundary in the Remote Drilling command (***ABLS_VRemDrill***), enabling faster multi-hole selection and aligning behavior with earlier Amine versions.
- Improved usability in the letter functions (***ABLS_LDrill*** and ***ABLS_LBlast***) by allowing stope names to include spaces during input, removing the need to substitute with underscores.
- Updated the powder moving tools (***PMove***, ***PMMove***, and ***PErase***) to allow direct selection of powder instead of holes, making interaction more intuitive and reducing confusion.

Text Increment

- Added a **Clone Entity** feature in the text increment tool (***ASec_Name_Sec***), allowing users to copy attributes like base value, prefix, suffix, text height, angle, and layer, improving section labeling speed and consistency.

CUIx

- Updated the CUIx merge tool (***Amine_MergeCUIX***) to detect changes not only to command images but also to command names, tool tips, and help text for more complete updates.
- Renamed the **Name Sections** tool in the **Sections** panel to **Text Incr** for consistency with legacy tools and clarified the form title to **Text Increment Parameters**.

DBConfig

- Replaced the manual text field for line types in the **DBConfig** tool with a drop-down menu, reducing guesswork and ensuring only valid line types are used.
- Removed the ability to generate an Amine Database for Corelog from scratch, encouraging use of existing database templates to avoid unusable empty databases.

End of Month

- Added a new option in the End of Month drift tool (***Srv_Rec_Drift_Monthly***) allowing users to measure peg-to-face distance directly from the drawing instead of entering the measurement manually, streamlining survey workflows for laser-scanned data.

Wall Outlines

- Enabled persistent form memory for the **Wall Outlines** tool (***Lay_WLine***), so taper settings (start width, end width, etc.) are restored the next time the tool is run, improving consistency in wall design.

Defect Fixes

- Fixed a bug where the hole naming direction would unexpectedly reverse when switching between holes in the **Load Holes** tool. This caused confusion and disrupted workflow when trying to maintain consistent orientation. The direction remains uniform across all holes, ensuring smoother navigation.
- Resolved an issue with the **Remote Drill** command where the red warning line appeared slightly offset above the actual drill hole in 3D views. This misalignment made it hard to visually confirm drilling paths. The line accurately follows the drill hole path for correct representation.
- Fixed a crash in the **Plot Data** tool that occurred when no **MineName** was selected. If more than one mine name was configured but none selected, the tool would fail to launch. The update removes the strict requirement, allowing the tool to function as long as a valid list of mine names is available.
- Addressed a defect where Datamine files were not organized into folders by mine name, even when the **Split by Mine Name** checkbox was enabled. This created confusion and extra work for users managing large data exports. Files are correctly sorted into mine-specific folders as intended.
- Corrected the **End-of-Month (EOM) Stope** tool, which inconsistently failed to process either demo or client datasets depending on the patch version. Both types of data are supported reliably, ensuring consistent reporting for all users.
- Fixed a problem where layers imported via the **Manager** were renamed to generic “ZZZZ” names and not saved as recognized Amine layers. This broke downstream workflows and caused data loss. Imported layers retain valid names and save correctly into Amine’s system.
- Resolved a destructive behavior in the ***FVPL_A*** command used in paper space, which unintentionally turned off essential layers like title blocks and reset the view to top-down. Running the command made the layouts unusable. It isolates only non-selected layers and safely preserves viewport settings and layout elements.
- Fixed a usability issue in ***LAY_WLINE*** where taper width settings (start/end values) were not saved between sessions. Users had to manually re-enter values every time. The command remembers previous settings using a persistent configuration file, improving workflow efficiency.
- Clicking the **User Defined**, **Profile Defined**, or **Survey Solid** buttons in the ***VS_CompliancePlot*** dialog did not trigger any command or close the dialog. The dialog remained open and unresponsive due to missing command connections. This has been corrected. Each button closes the dialog and activates the corresponding command.

- When applying the **Width** setting with different **Start Width** and **End Width** values using the ***Lay_DMesh*** command, the resulting mesh wireframe did not taper smoothly. The issue was caused by an incorrect interpolation logic during mesh generation. The mesh reflects a properly tapered width between start and end points.
- Executing ***Lay_DMesh*** with a curved centerline reopened the settings window upon selecting the first point on the centerline. This was due to an incorrect state reset in the workflow. The window no longer reappears, and the mesh builds correctly when both points are selected.
- Using ***Lay_DMesh*** with a curved centerline created via ***Lay_CLine*** raised an exception, caused by improper handling of 3D polylines. The command processes curved centerlines without error and builds the mesh as expected.
- In the **Drill and Blast** tab, when increasing the number of charges in **Load Holes**, only one charge appeared in the side panel. The toe charge was hidden, and splitting or editing charges was not very functional. This happened due to layout constraints and missing UI hooks. All charges, including the toe, display correctly in the side view. Additional spacing has been added to the top and bottom of the **Load Holes** window for better clarity, and intuitive charge splitting is supported directly within the panel.

Amine 2.7.1 Updater

New Features

Drive Dimension Report

- A simplified tool for assessing surveyed drifts without relying on planned wireframes. Integrated within ***VS_Compliance***, the report outputs drive dimensions (width, height, length) across intervals. Users can analyze multiple centerlines, insert photos into the layout, and generate formatted reports.
- Page 1 includes plan and side views with optional centerline-to-wall measurements. Page 2 displays individual section widths, heights, and areas.
- The section creation plane aligns with the angle of the selected centerline. When using the dimension report tool and selecting two points on the centerline, the section is generated perpendicular to that segment—regardless of grade. This enhancement ensures that measurements reflect the true orientation of ramps or angled drives, improving dimensional accuracy in steep or inclined areas.

CUI

- A method is introduced to update users' CUI files without affecting their custom toolbar setups, allowing new buttons to be added without losing personalized layouts.
- In the CUI confirmation message, the confirmation window has a clearer header and content layout. The window includes a breakdown of added commands, panels, and tabs, and provides a **Details** button with a line-by-line listing of updates to assist with easier review.

Enhancements

DM Export

- In ***PML_ExportToDM***, DM exports include all attributes in a single file rather than separate files for strings and centerline. Only fields with valid xdata are included, grouped appropriately. A new **Include Attributes** check box allows toggling between full export and a minimal export.

DM Folder

- DM folders names accept special characters (e.g., #, $, %) while disallowing invalid characters like <, >, /, etc.

DB Config

- The **D1 MineName** field is linked to a drop-down list that is populated consistently across all relevant windows using the configured **MineName tab**.
- A configurable DM File Path column is added, allowing each topic to define its save location. A new DM Path tab is added, mirroring the DWG Path tab functionality.

Wall Outline

- In ***Lay_WLine***, when creating a tapered wall outline, temporary markers are placed for Point 1 and Point 2, helping with accurate placement of wall tapers.

Drill and Blast

- In ***ABLS/ICAB_Config***, the database columns are reordered and grouped by type. Hover tool-tips have been added for complex fields to clarify behavior and improve usability.
- The second prompt for blast outline selection is skipped if the outline was already defined, streamlining the letter creation process.
- Only the viewport of the currently selected section remains visible when generating a drill and blast or cabling letter. All other viewports are frozen to clean the layout.

Light Table

- In ***ABLS_LightTble***, a **Turn Off** option removes the ZZZZ_TMP_LIGHTTABLE layer, letting users exit the light table view without undoing other changes.

Contour

- In ***VS_Contour***, increments accept decimal values (e.g., 0.1). Elevation tags are renamed and reordered to **Top Elevation** and **Bottom Elevation**.
- Radio buttons for dataset selection are removed, with elevation values auto-populated based on selected geometry.
- Prompting is simplified by removing the initial selection mode and going straight to object selection.

Sections

- In ***Asec_GoTo***, a new **Freeze all other layers** check box runs the VP Clean command, automatically isolating the section viewport when selected.

End of Month

- In ***SRV_Rec_Drift_Montly***, in the **Customize HW** tool, an **Export** button has been added to export the HW table and section data to CSV format.
- The logged-in username is auto-filled in the surveyor field, removing the need for manual selection.

Memo

- In ***VS_Memo***, if a centerline lacks width xdata, the users receive a warning and is returned to the memo window. This ensures offsets are not created using incomplete data.
- If an existing memo is detected, the uses are prompted to delete the existing memo before proceeding. Confirming clears all related offsets, tables, and pages for a clean redo.
- Required fields in the memo setup displays indicators if left blank. A message is shown when trying to proceed without completing these fields.

Defect Fixes

- When not connected to the internet, an error message appeared that did not indicate the actual issue. The message has been removed if the connection is not required.
- The Wall Outline tool ***Lay_WLine*** did not create tapered wall effects on the centerline as expected. The tool applies the taper correctly.
- Wall lines were getting staggered when a curve was present. This has been corrected.
- Drill and Blast Letters were not populating correctly:
    - Ring names were displayed in full, filling up the title block space instead of showing only the ring.
    - Viewport was not splitting as expected.
    - Letter grid portion (Setup (C/L) field) was blank.
    - Cardinal markers (N, E, S, W) were showing in DUMP and DIP values when they were not required.
    - DIP direction was reversing unexpectedly.
    - The overall view was severely offset from the page.
    - A new option, Show Cardinal, has been added to hide cardinal markers.
    - DipCounterClockwise (called Dip CCW) has been fixed to ensure continuous DIP values.
    - Prompt center point moves the jig as expected.
- Running the ***VS_Memo*** command caused a Just-In-Time (JIT) debugging error when selecting **Pick 2 wall lines** or **Pick Centerline**. The issue has been resolved.

- The Light Table function ***ABLS_LightTble*** was not displaying all views on the drill letter due to frozen layers. The function unfreezes all layers and viewports automatically.
- SmartSet ***Abls_Driftset_N*** caused an error when applying drift replication. The command correctly replicates the working drift and blast outline across all selected sections.
- Amine windows were opening in a zoomed-in state, cutting off important text. Adjustments have been made to ensure windows scale properly for different screen resolutions and scaling settings.
- Numbers for attributes (Drive width, height, etc.) overlapped with existing units, making them difficult to read. Units are dynamically appended to the input rather than pre-displayed.
- The Offset Table in ***VS_Memo*** exceeded the paper boundary when too many rows were present. The system:
    - Automatically re-sizes the table to fit within the page.
    - Creates a second page if the table exceeds 25 lines.
- When cutting a section, an error occurs due to a missing item in the AutoCAD Summability. This prevents the section from being created. The logic in GetSectionViewUcs and related methods was failing when the referenced section name block was not found. Sectioning works without triggering errors.
- When a drill and blast section is created and the clip is adjusted for a wider view, several tools that validate the section fail to operate. This was caused by the tools relying on a clipping boundary that was no longer aligned with the original drawing plane. The function has been adjusted to account the clip expansion.
- The DDH_GEOMAPPING_CONFIG window does not display all configuration options due to sizing issues. The hatch profiles were too wide and the preview occupied too much space. All text and controls display correctly within the re-sized window.
- The margin tolerance option in the drill and blast configuration is not visible at typical screen resolutions. The layout did not account for scaling at lower resolutions, pushing important fields out of view. Margin tolerance remains accessible across supported display settings.

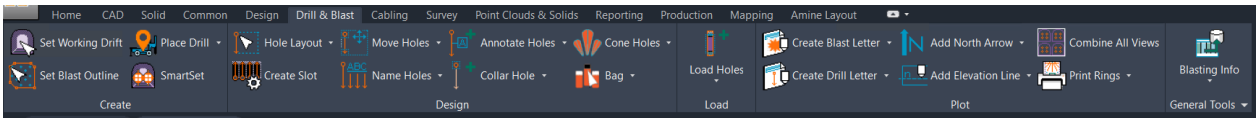
Amine 2.7.0 Base Release

> **Important:** Before upgrading to this version, users might like to save their custom workspace. See the installation activities in the online help (http://docs.dataminesoftware.com/Amine/Latest/).

New Features

Drill and Blast Tab

- The **Drill and Blast** tab, formerly known as iBlast, is a comprehensive tool for designing and drafting ring layouts, creating precise drill hole patterns using drill-specific dimensions, and calculating the required quantities of explosives, offering a complete solution for underground design and planning. This update brings significant enhancements, including improved tools for faster and more reliable performance, redesigned icons for a modern and intuitive interface, and a revamped workflow to streamline daily tasks. Additionally, new tools have been introduced to assist with key drill and blast design processes, making the design experience more efficient and productive.



Cabling Tab

- The **Cabling** tab, previously known as iCable, is a versatile tool designed for creating and drafting cable layouts, generating accurate cable placement patterns using project-specific dimensions, and calculating material requirements, providing a comprehensive solution for efficient underground design and planning. This update introduces enhanced functionality, including improved commands for greater reliability, redesigned icons for a more intuitive user-interface, and a restructured workflow to optimize daily tasks. New tools have also been added to streamline key cabling processes, making the design experience more seamless and productive.

Buttons and Commands (.CUIx)

- **Static Layer** is used to turn selected layers into referenced layers. Changes made to these layers are not saved. This button has been added on the Manager panel found in the Common, Design, Survey, Point Clouds & Solids, Reporting and Mapping tabs.
    - **AMGR_ToStaticLayers**
- **Import Select DWG Layers** is used to import select layers from another AutoCAD drawing (.DWG). This button has been added on the Manager panel found in the Common, Design, Survey, Point Clouds & Solids, Reporting and Mapping tabs.
    - **AMGR_ImportLayerNoTrack**
- **Clean VP** freezes all layers except for a chosen layer and removes all outlying points. This button is added in the View panel found on the Common, Design, Survey, Point Clouds & Solids, Reporting, Mapping and Amine Layout tabs.
    - **FVPL_A**
- **Convert Sections** converts sections from an older AutoCAD drawing versions to the current AutoCAD version. This button is added on the Sections panel found on the Common tab.
    - **ASEC_Convert**
- **Name Section** inserts text at an incrementation. This button is added on the Sections panel found in the Common tab.
    - **ASEC_Name_Sec**
- **Import DM CL** imports Datamine design files with attributes on centerline for Amine to utilize in Amine design files. This button is added on the Layer Match panel found in the Design tab.
    - **VS_ImportDMFile**
- **Project Curve** projects lines onto a wireframe to create survey-grade outlines. This button is added on the Create panel found in the Design tab.
    - **Amine_ProjectCurve**
- **Smooth Line** equalizes the angles on a selected 3D polyline to smooth the contouring of the line. This button is added on the 3D Polyline panel found in the Design and Survey tabs.
    - **Amine_3P_Smooth**
- **Edit Segment** provides editing and annotation of individual segments along a 3D polyline. This button is added on the 3D Polyline panel found in the Design and Survey tabs.

    - **Lay_ESeg**
- **Auto-Connect Pts** automatically connects points by creating a 3D polyline with the option to have the line open or closed. This button is added on the 3D Polyline panel found in the Design and Survey tabs.
    - **SRV_Connect_Points**
- **Shortcut Line** connects any two selected points along a line and removes any points and segments in between the two selecting points. This button is added on the 3D Polyline panel found in the Design and Survey tabs.
    - **SRV_Remove_Between_PTS**
- **Total Length** measures the total distance of all selected lines, connected or not. This button is added on the 3D Polyline panel found in the Design and Survey tabs.
    - **Amine_TotalLength**
- **Point XYZ** annotates a location or point in X, Y and Z coordinates. This button is added on the Annotate panel found in the Design tab.
    - **Amine_PositionLeaderTxt**
- **Point ENZ** annotates a location or point in Northing, Easting and Elevation coordinates. This button is added on the Annotate panel found in the Design tab.
    - **Lay_Pnt**
- **Survey Stations** allows quick access to import, view and export control points. This button is added on the Data panel found in the Survey tab.
    - **SRVSTA**
- **Cone Holes** creates a user-defined cone from Collar to Toe showing possible drill deviations. This button is added on the Design panel found in the Drill and Blast tab.
    - **ABLS_VAutoCone**
- **Model Holes** creates a modeled cylinder around the drill holes with a user-defined diameter. This button is added on the Design panel found in the Drill and Blast tab.
    - **ABLS_VMHole**
- **Bag** creates a warning at the end of the hole to insert a bag. This button is added on the Design panel found in the Drill and Blast tab.
    - **ABLS_VBag**
- **Stem** creates a warning at the top of the hole to insert a plug. This button is added on the Design panel found in the Drill and Blast tab.
    - **ABLS_VStem**

- **Remote Drilling** creates a remote drilling warning at a user-defined distance in the hole.
  - **ABLS_VRemDrill**
- **Energy Outline** creates an outline of the estimated blast energy being created. This button is added on the Design panel found in the Drill and Blast tab.
  - **IBS_Energy_Outline**
- **Hole Outline** creates an outline of the drill holes on the present ring. This button is added on the Design panel found in the Drill and Blast tab.
  - **IBS_Hole_Outline**
- **Powder Outline** creates an outline of the powder on the present ring. This button is added on the Design panel found in the Drill and Blast tab.
  - **IBS_Powder_Outline**
- **Object Measure** provides a quick method to measure multiple attributes of most objects in AutoCAD. This button is added on the Virtual Survey panel found in the Survey tab.
  - **Amine_Query**
- **Hole Search** searches a defined area of a centerline for any drill holes found in the Amine drill hole database. This button is added on the Virtual Survey panel found in the Survey tab.
  - **VS_MemoHoles**
- **Create Raise Solid** creates a vertically shaped solid or mesh to represent a mined raise. This button is added on the Solid panel found in the Point Clouds and Solids tab.
  - **Amine_Raise**
- **Record** and **Report** for ventilation provides a method to record and report the area where vent blocking has been installed. A new panel is added with these buttons on the Reporting tab.
  - **VS_VentWall**
  - **VS_VentWallRPT**
- **Annotate Datamine** imports and annotates a Datamine blockmodel. This button has been added on the Tag & Annotate panel found on the Production tab.
  - **DDH_Annotate_DMDBM**
- **DM DDH Import** imports Datamine drill hole files. This button is added on the Drillholes panel found in the Mapping tab.
  - **DDH_HImport_DM**

- **PDF Plot** generates a PDF of the layout and immediately adds a marker on the drawing linking to the location of the PDF generated. This button is added on the Memo panel found in the Amine Layout tab.
  - **VS_Plot_PDF**
- **Color by Level** colorizes the plot by layer when multiple levels are loaded to visually differentiate each object. This button is added on the Memo panel found in the Amine Layout tab.
  - **AMGR_ApplyPlotColor**
- **Memo Reports** provides a method to view past memo reports. This button is added on the Memo panel found in the Amine Layout tab.
  - **VS_MemoRPT**
- **Amine Palette** is a live tree-style palette of all Amine layers found on the server with a simple drag and drop feature. This button has been added on the Manager panel found in the Common, Design, Survey, Point Clouds & Solids, Reporting and Mapping tabs.
  - **AMGR_Palette_Live**

> **Important:** This palette may not work properly with complex layer structures on a server. Contact your local Amine consultant for assistance.

- **Rotate View** prompts the users to select two points along an object, calculates the angle between the two points and rotates the view so that the object appears horizontal in the view keeping the original UCS. No button has been assigned for this function.
  - **VROT**

New Graphics

- New Graphics have been updated throughout the Amine platform to reflect the red Planning portfolio color and Datamine re-branding.

Enhancements

Amine Help

- The Amine Help CHM file has been replaced by the HTML5 version of the Amine product document. If users do not have access to the internet, a local HTML5 file is installed. For the online product documentation, visit https://docs.dataminesoftware.com/Amine/Latest/index.htm

Booking Meters

- Cumulative meters and area display on the Booking Meters Report window for a selected date range, mine name, drive name, level and miner.

Amine Windows

- Amine windows appear in the center of the screen where Amine is being used.

Block Model

- Negative values are possible when annotating block models.

Confirm Delete

- The confirm delete window is optional. By selecting **Do not show this window anymore**, the window does not appear when deleting multiple objects. To have the window reappear, navigate to the **Manager Settings** and check **Enable Confirm Delete**.

Defect Fixes

- Running the SRVPT command would generate an error if the survey database did not have records in the MineName table, and when a point was being inserted. This function has been modified and the error handling was

centralized for better clarity.

- Running the Lay_Curve command would not work on specific drawings. If points were too close together, the function would not work as intended. This has been resolved.
- Running the ICAB_ResetScale command would generate a function scale error. There was an error with the coding for certain parts of the function. This has been resolved.
- The elevation text when contouring point clouds was not showing. Part of the function was not intended for point clouds. The function is modified to include point clouds.
- The Cancel button in ICAB/ABLS_LightTble was not mapped to any function. This has been resolved.
- The function Amine_ObjectFilter did not retain users configured settings. This has been resolved.
- Setting a blockmodel was not being remembered by Amine. This has been resolved.
- The bag placement when placing a bag object on a drill & blast section was not showing in the correct location. This has been resolved.
- The powder outline was not generating a proper contour of the powder. This has been resolved.
- The hole outline was not generating a proper contour of the drill & blast holes. This has been resolved.
- The energy outline was not generating a proper contour of the drill & blast energy. This has been resolved.
- The XYZ point tool was posting incorrect coordinates from the end of the leader. Instead, the tool was posting the coordinates of the text. This has been resolved.
- When creating a centerline, the centerline was not going on the designated layer. This has been resolved.
- The vent wall reporting tool was pulling incorrect values from the Miner drop down. This has been resolved.
- The sliced wireframes were not changing to distinct colors in the end of month tool when slicing more than 5 times. This has been resolved.
- The contouring tool did not contour mesh objects properly. This has been resolved.
- Contouring was not horizontal or parallel to the users plane. This has been resolved.

- The reload layers window did not encompass all layers loaded, leading to a list of layers not visible to users. This has been resolved.
- Text was visible from other sections on the active section. This has been resolved.
- Text in a section was not flipping when the section was flipped. This has been resolved.

DATAMINE

AMINE

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

Read the Docs

docs.dataminesoftware.com

Get in Touch

www.dataminesoftware.com/contact

www.dataminesoftware.com/support