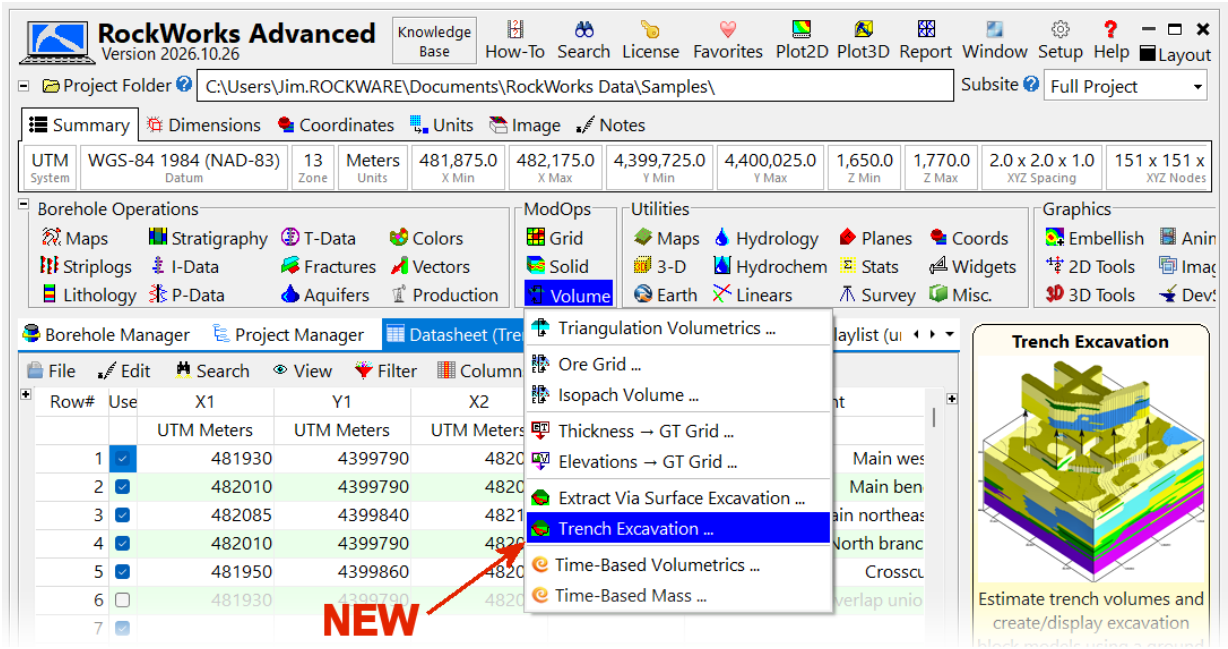
RockWorks Revisions

(Changes made after the 2026.10.26 release.)

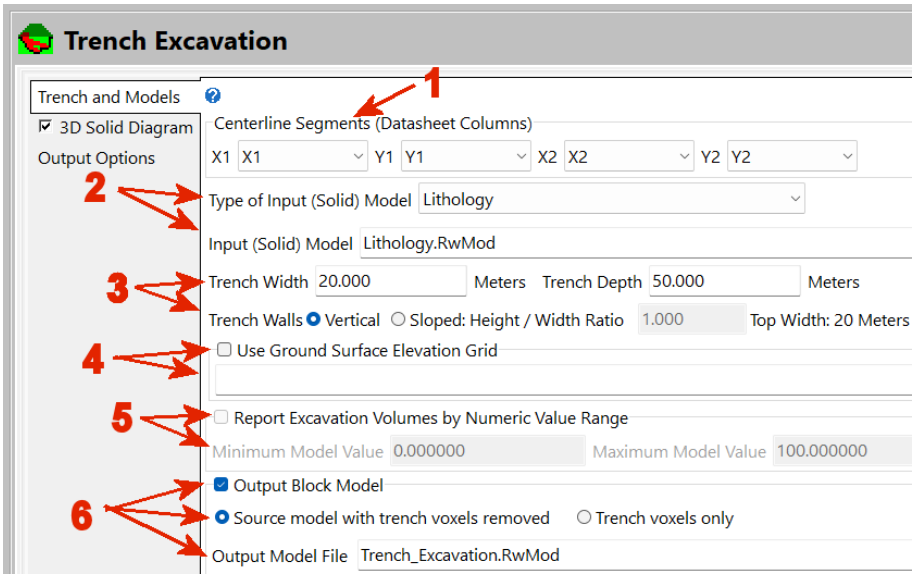


https://www.rockware.com/support/rockworks-support/rockworks-downloads/rockworks-product-updates/

10/28/26: A new program titled "**Trench Excavation**" has been added to the ModOps → Volume menu.



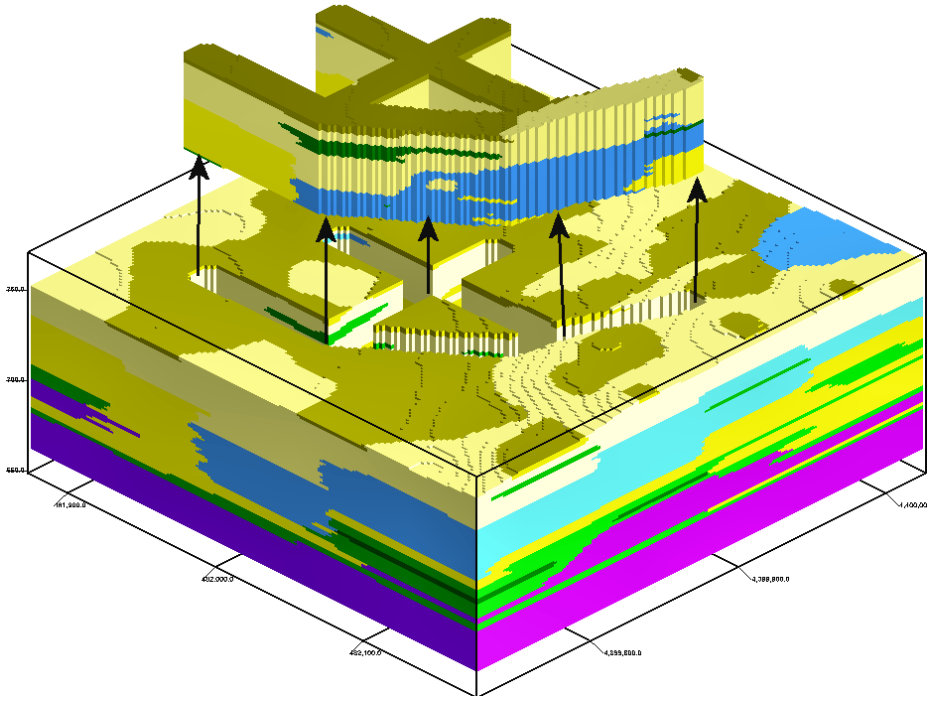
This program estimates excavation volumes along user-defined trench centerlines.



1. **Trench layout:** Each enabled Datasheet row defines a centerline segment using X1, Y1, X2, and Y2 coordinates. Segments can connect, branch, or cross. Overlapping excavation volumes are counted only once.
2. The program supports **lithology, stratigraphy, hydrostratigraphy, and numeric solid models**, including geochemical models.
3. **Dimensions and side slopes:** Specify trench width and depth, then choose vertical or sloped walls. Sloped walls use a horizontal-to-vertical ratio, such as 2:1. The width becomes **Bottom**

Width, and the calculated **Top Width** updates automatically. Dimension labels reflect the applicable project units.

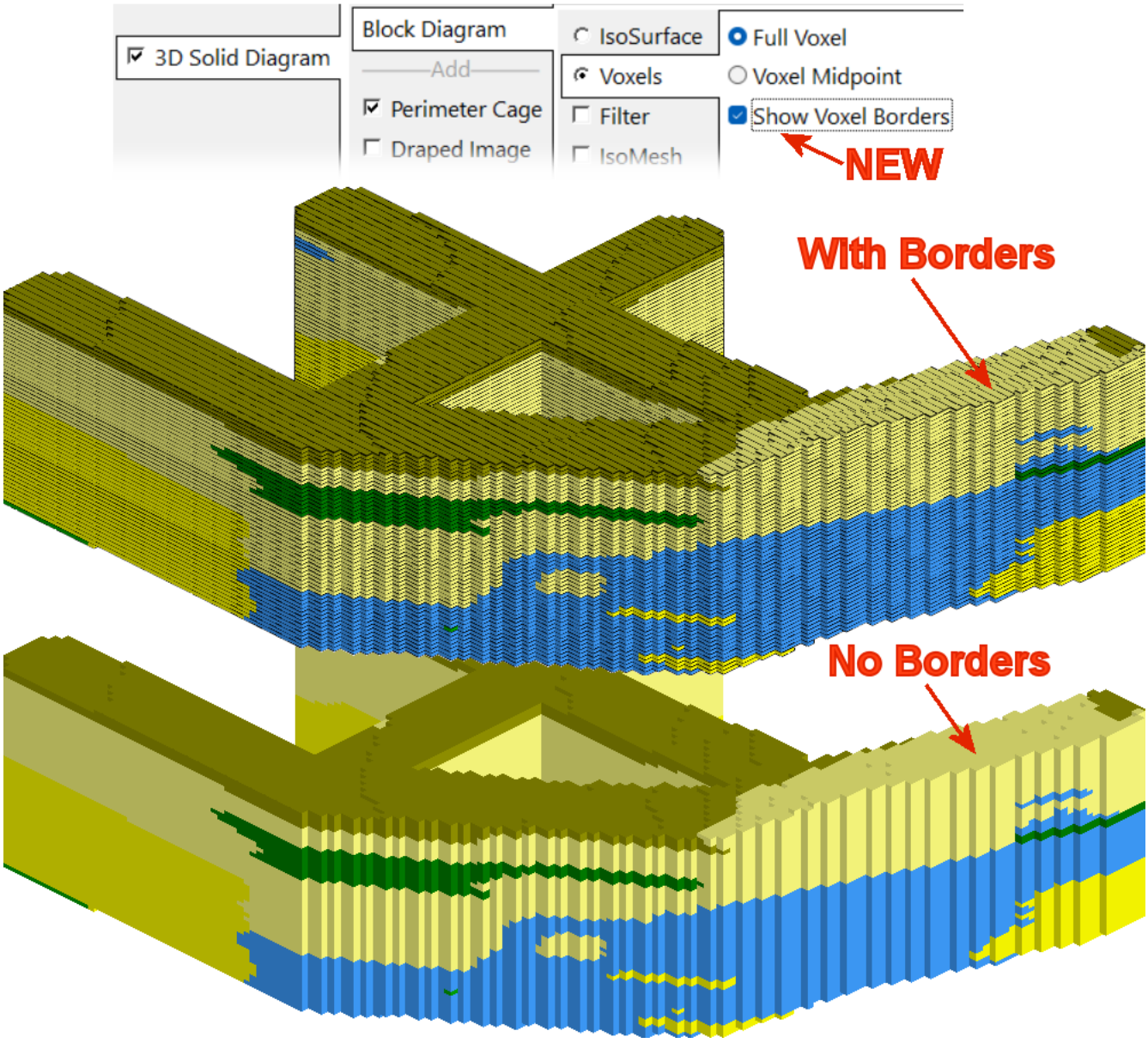
4. **Ground surface:** Use an elevation grid or derive ground elevations from the highest non-null voxel in each source-model column. Trench depth follows the selected surface.
5. **Volume reports:** Categorical models report excavation volumes by material or stratigraphic unit. Numeric models report minimum, volume-weighted mean, and maximum values, with optional volume summaries below, within, and above a specified value range. Undefined material is reported separately.
6. **Output block models:** Optionally save and display either the excavated trench material or the source model with trench material removed. Input files remain unchanged.



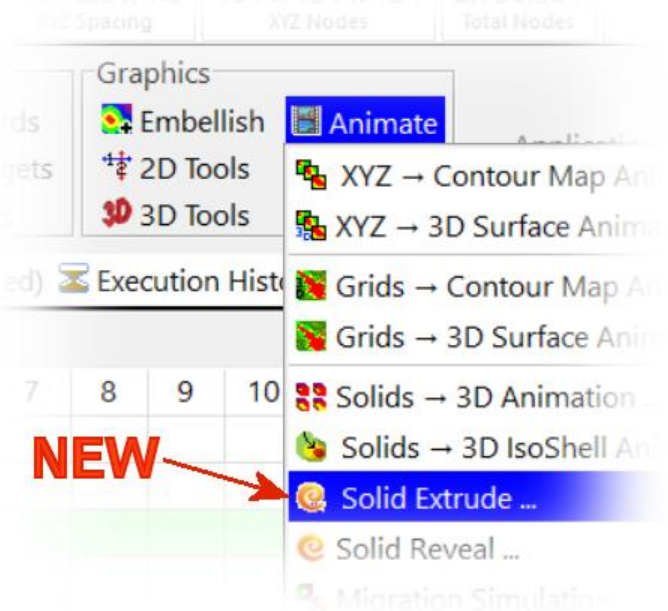
7. **Help and examples:** Contextual HelpHub instructions explain setup, side slopes, output choices, and accuracy. The Samples folder includes **Trench_Excavation_Test.RwDat**, containing connected segments, branches, a crossing, and a disabled duplicate for testing overlap handling.

Reported volumes estimate partial excavation of boundary voxels. Output block models retain or remove whole intersected voxels, so their volumes may differ from the report. Coverage and input settings are validated before output is replaced. Settings can be saved in menus and Playlists. Use the volume reports to compare trench alignments or side slopes before excavation.

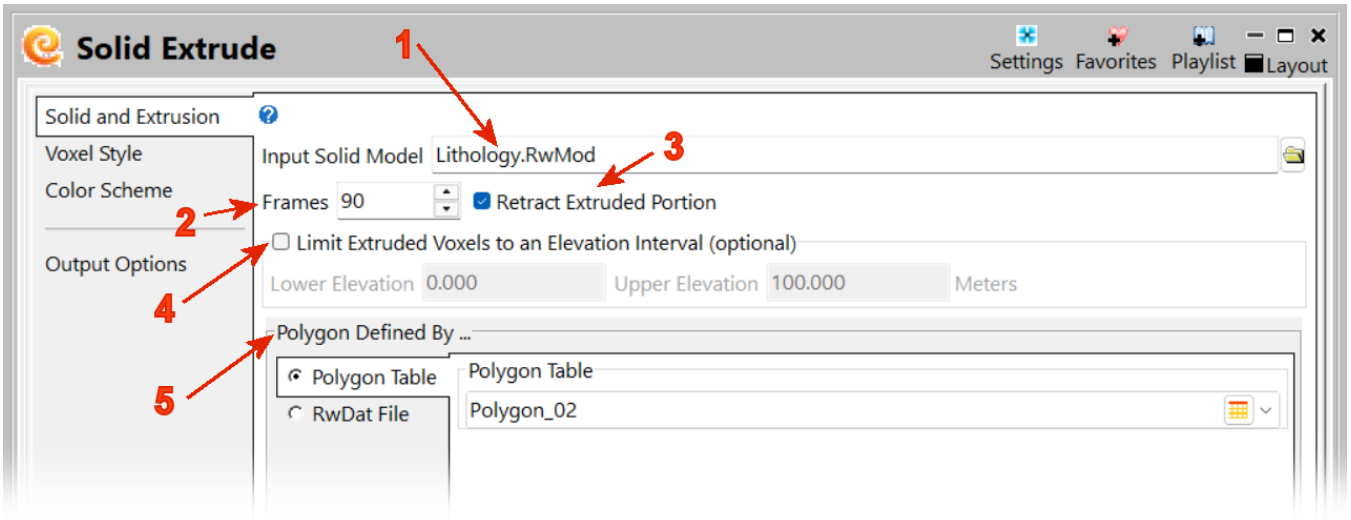
10/28/26: Plotting block models as voxels now includes an option to plot the **voxel borders**. Borders make neighboring voxels easier to distinguish when they share the same color.



10/29/26: A new program titled “Solid Extrude” has been added to the Graphics | Animate sub-menu.



This program will create an animation in which a polygon-defined portion of a block model rises out of its surroundings. Optionally return that portion to its original position while the camera keeps rotating, tilting, or zooming. Please note that the input model is unchanged.



1) Input Solid Model: Choose the source .RwMod file containing the material to animate. The screenshot uses Lithology.RwMod as an example; other block models can also be used. The input model is unchanged.

2) Frames: Enter the total number of images in the complete animation, including retraction when selected. Use at least 2 frames for a rise alone or 3 when retraction is enabled. More frames make movement smoother and increase rendering time. Hover over Frames or its value for a hint.

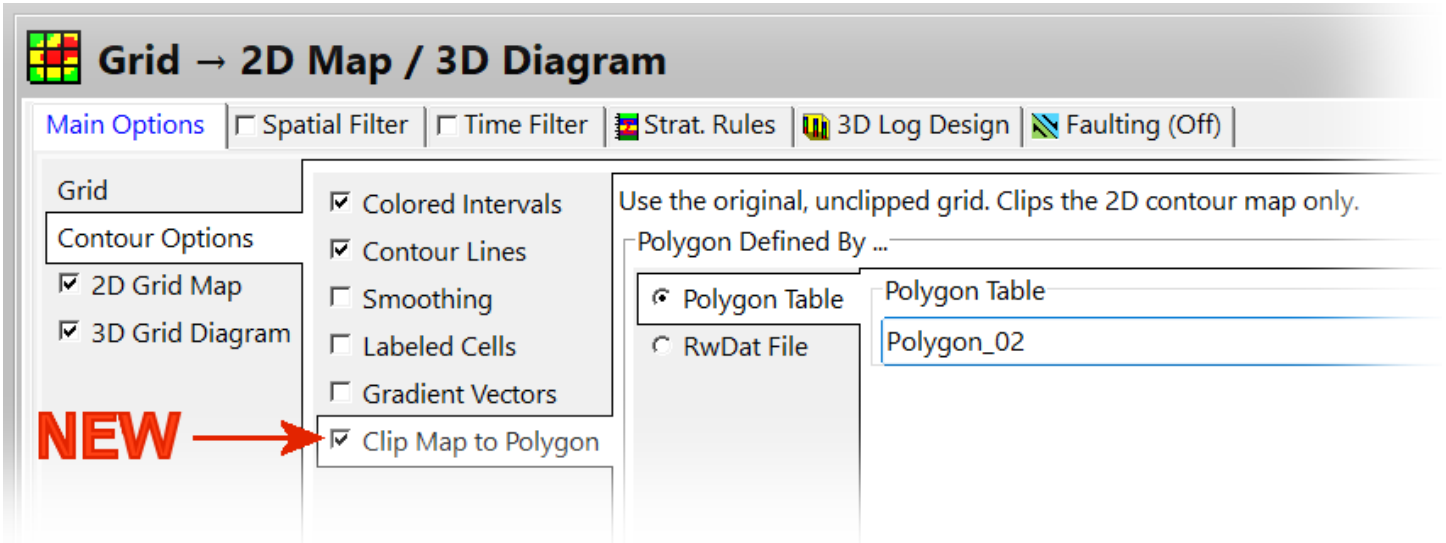
3) Retract Extruded Portion: Leave unchecked for an upward movement only. Check to return the selected material to its original position. Camera direction, inclination, and zoom continue forward across the entire sequence; the video is not reversed. Retraction is included in Frames; it does not add extra images. The fully raised frame is shared by rising and returning. With an odd total, the two movements have the same number of steps. With an even total, the rise has one more step than the return. For example, 10 Frames always produces 10 images, with or without retraction.

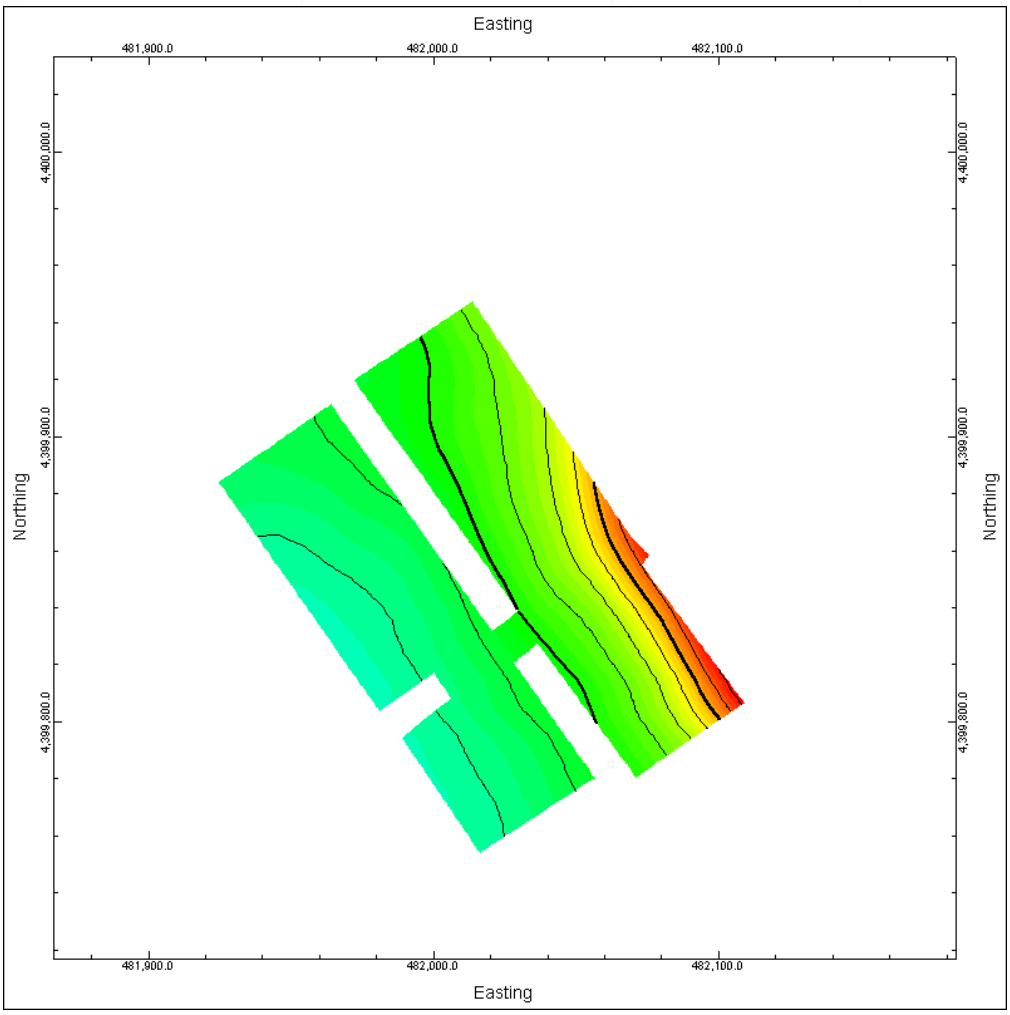
4) Limit Extruded Voxels to an Elevation Interval: Leave unchecked to select the entire polygon-defined column. Check to select only voxel centers between the inclusive Lower and Upper Elevations. Enter elevations in project/output vertical units, shown beside the controls. These are elevations, not depths below the ground surface.

5) Polygon Defined By: Choose a project Polygon Table or a polygon .RwDat file. The polygon defines the material to lift in plan view. A .RwDat polygon uses its first two data columns for X and Y. List vertices in perimeter order; RockWorks closes the polygon if needed and uses the existing coordinate conversion to project units. The polygon and optional elevation interval work together: only defined voxels inside the polygon and within the selected elevation interval are lifted. The selection must contain some defined voxels and leave some defined voxels in the remaining model. Use the animation to show how a selected body relates to the surrounding model.

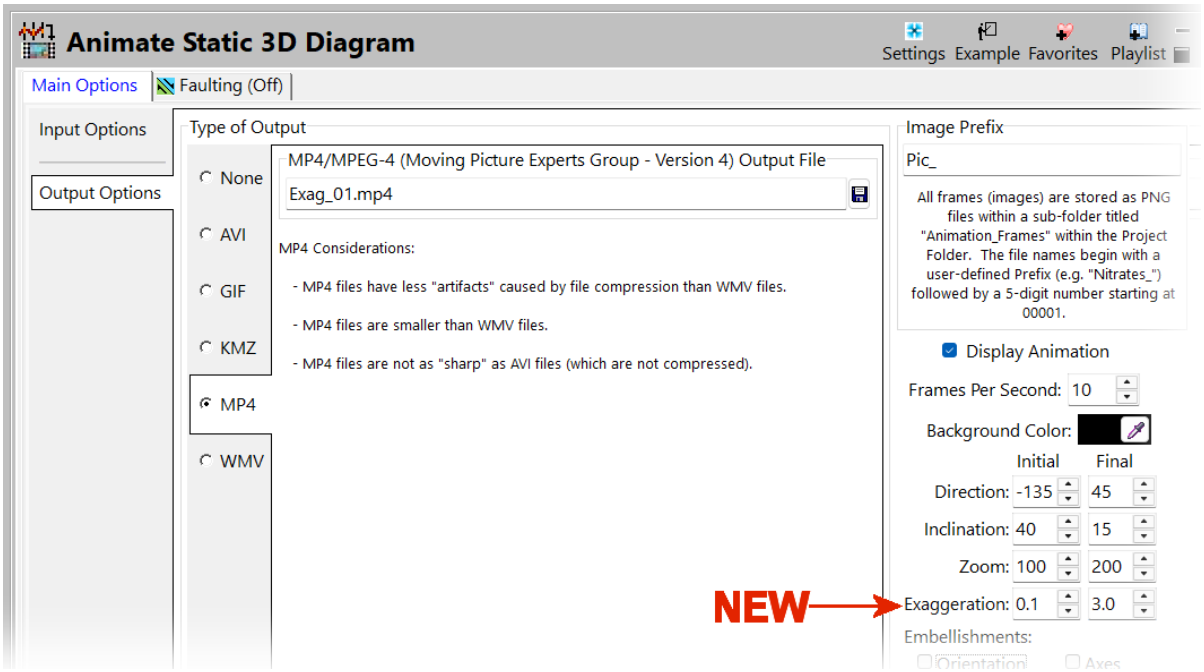
Click here to view an example of a Solid Extrusion video.

10/29/26: Added a **Clip Map to Polygon** option to the Contour Options sub-menu that is used within many programs. Numeric contour lines and colored intervals can now follow an exact polygon boundary, including concave outlines, using a polygon table or RwDat file. This is based on the original, unclipped grid. Grid values, 3D output, and map annotations remain unchanged. You can present contours within a site or study boundary while using the same grid for other views.



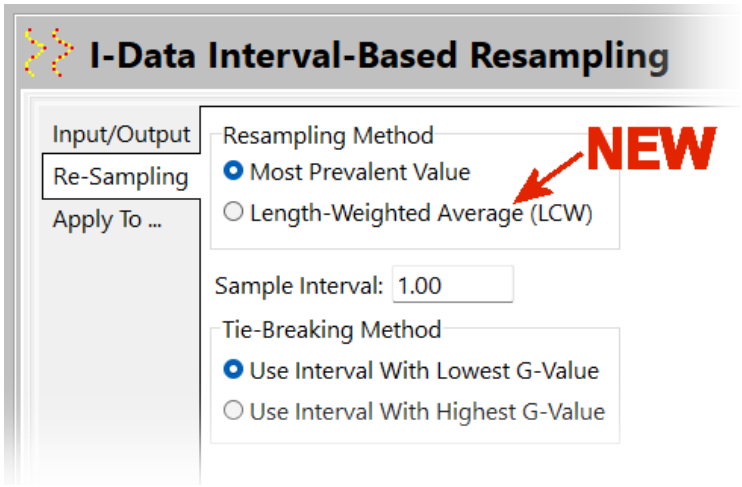


10/29/26: It is now possible to vary the **vertical exaggeration** when generating videos of 3D diagrams. Start with true proportions and increase the exaggeration during the video to reveal subtle relief.

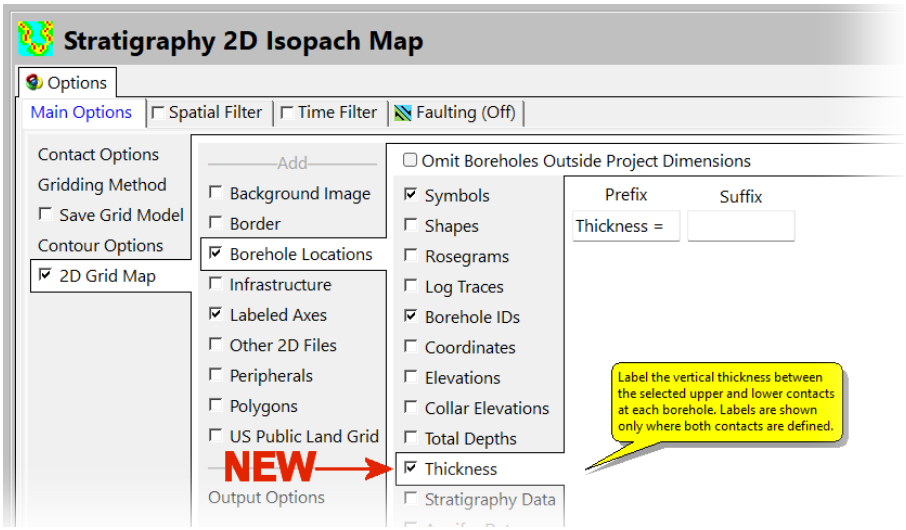


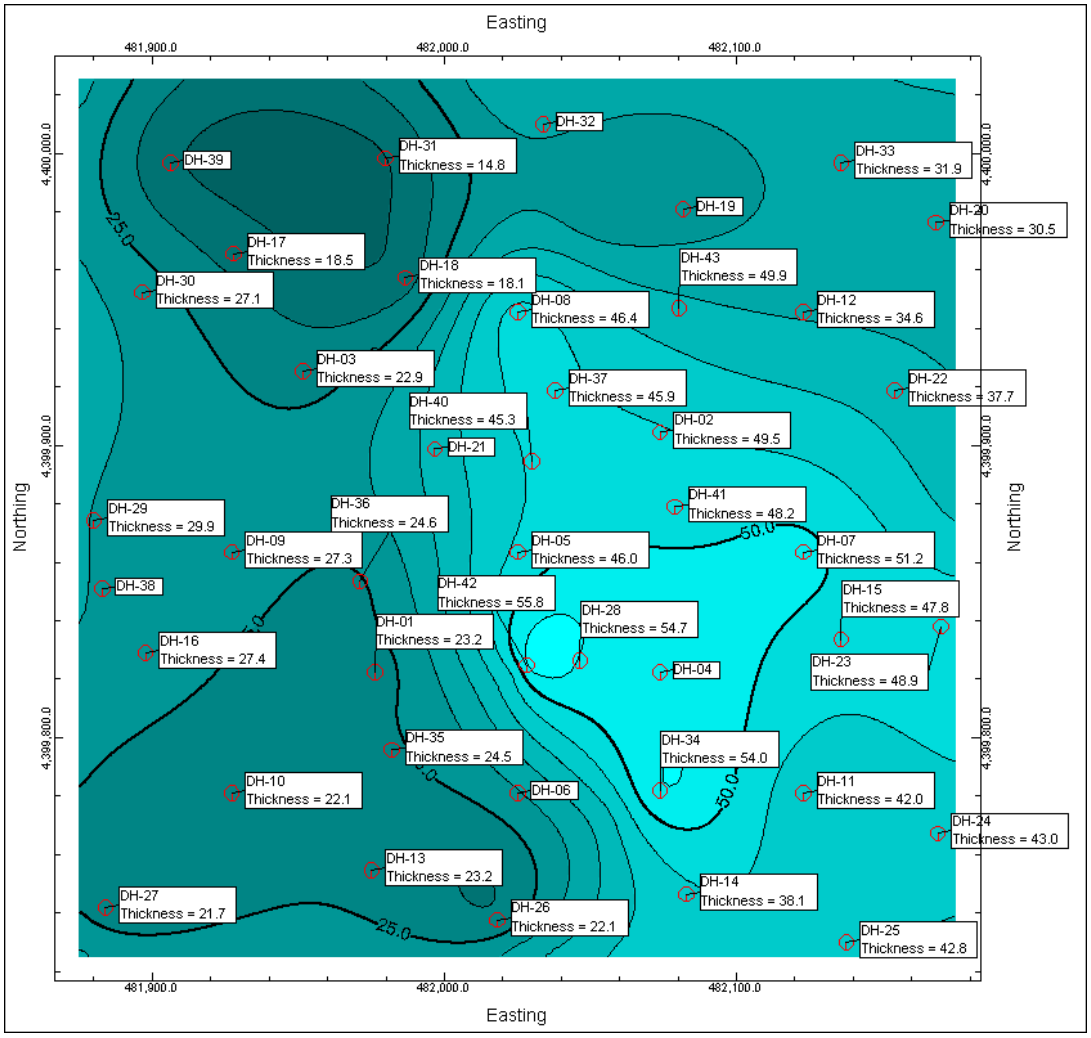
Click here to view a video demonstration.

10/31/26: Added a **Length-Weighted Average** (LCW) option to **I-Data Resampling**. Values are averaged using their overlapping lengths within each output interval. Measurement gaps are excluded. Most Prevalent Value remains the default, with tie-breaking controls enabled only for that method. Use this option when sample intervals vary in length and you want each measured length to contribute proportionally.

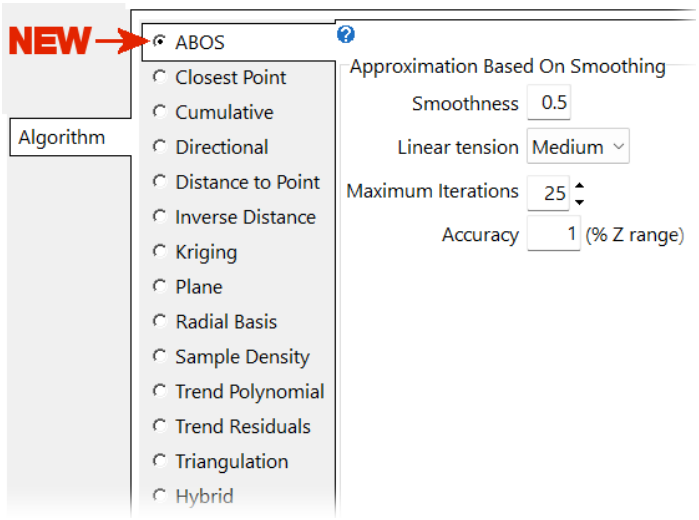


11/02/26: Added an optional **Thickness** label under Borehole Locations for 2D Stratigraphy / Hydrostratigraphy Isopach maps. Labels show the observed vertical separation between the selected contacts where both are defined, using existing label-formatting controls. A hint explains the option. You can compare measured thickness at each borehole with the contoured thickness around it.

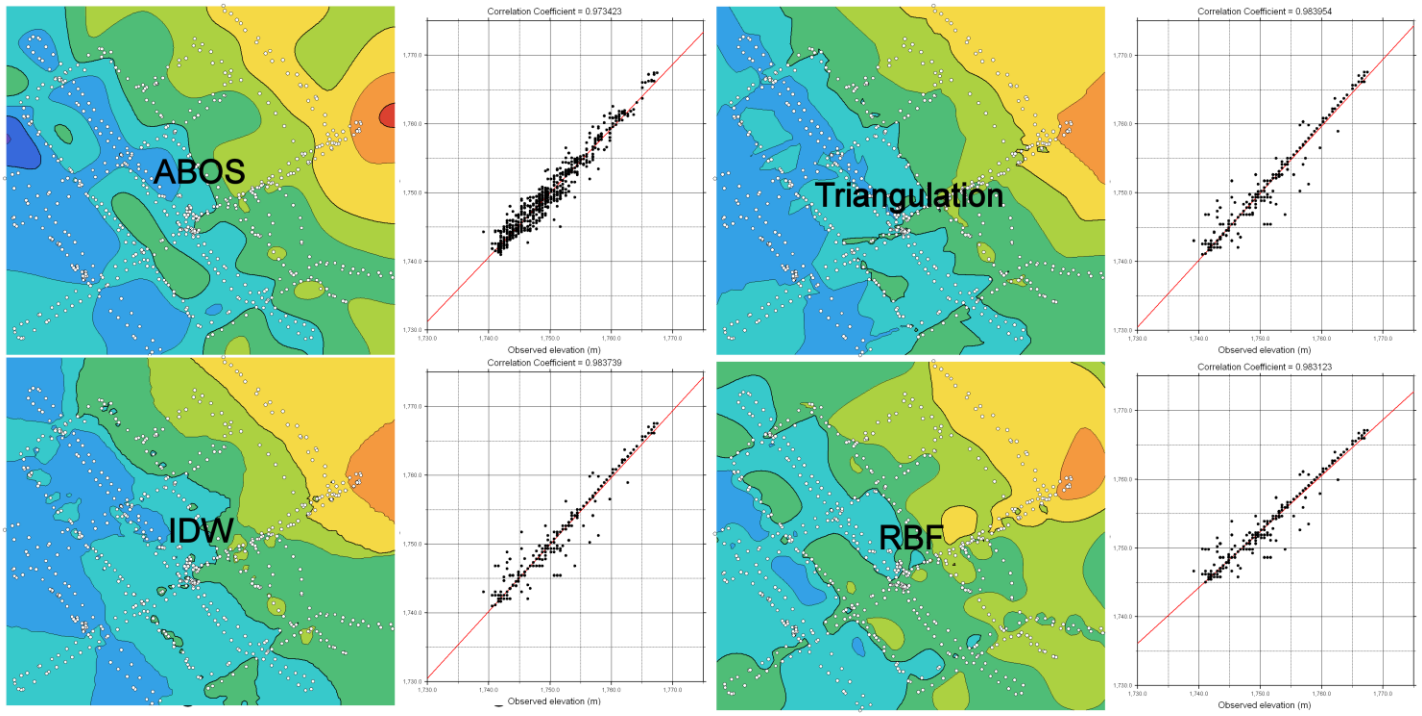




11/02/26: RW/11/02/26/jcj: - Available gridding algorithms now include the "**Approximation Based On Smoothing" (ABOS)** method. ABOS produces smooth surfaces that closely honor irregularly spaced XYZ measurements while reducing triangulation facets and distance-weighting artifacts. Users can control smoothness, accuracy, linear tension, and iteration limits. Enabled RockWorks faults are honored to preserve discontinuities. Open ABOS 2D Gridding from HelpHub for the PDF guide.

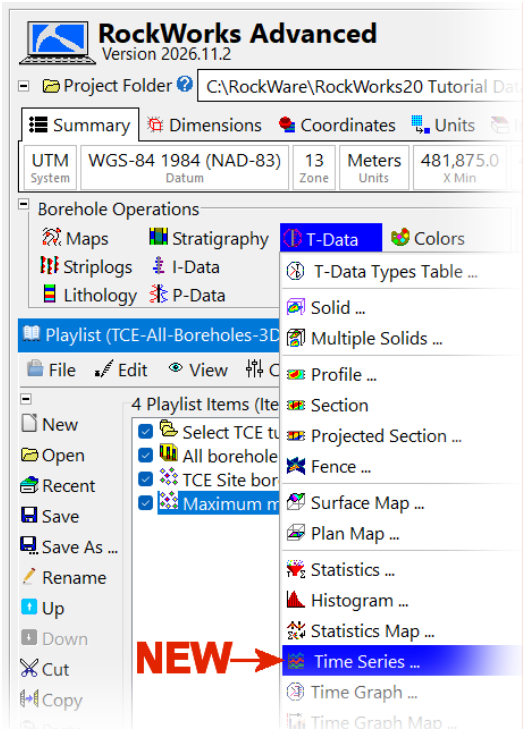


In summary, the ABOS modeling algorithm is a lightweight, scalable interpolation method that relies on iterative smoothing and tensioning to generate accurate, user-tunable surfaces from large, irregular datasets, without the computational overhead of more complex interpolation techniques.

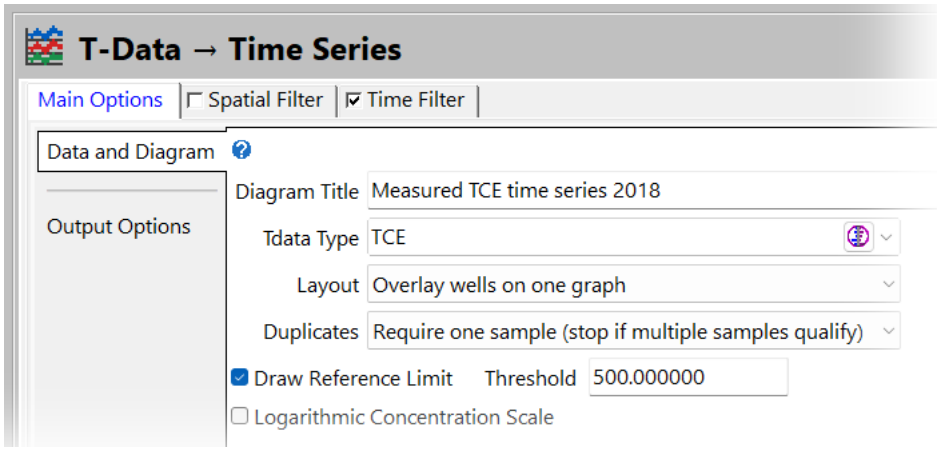


ABOS, IDW, triangulation, and RBF elevation grids use the same input points (white circles), 5 m grid spacing, and contour intervals. Each map is paired with a Krajewskigram showing observed versus predicted elevations at the control points on matching axes.

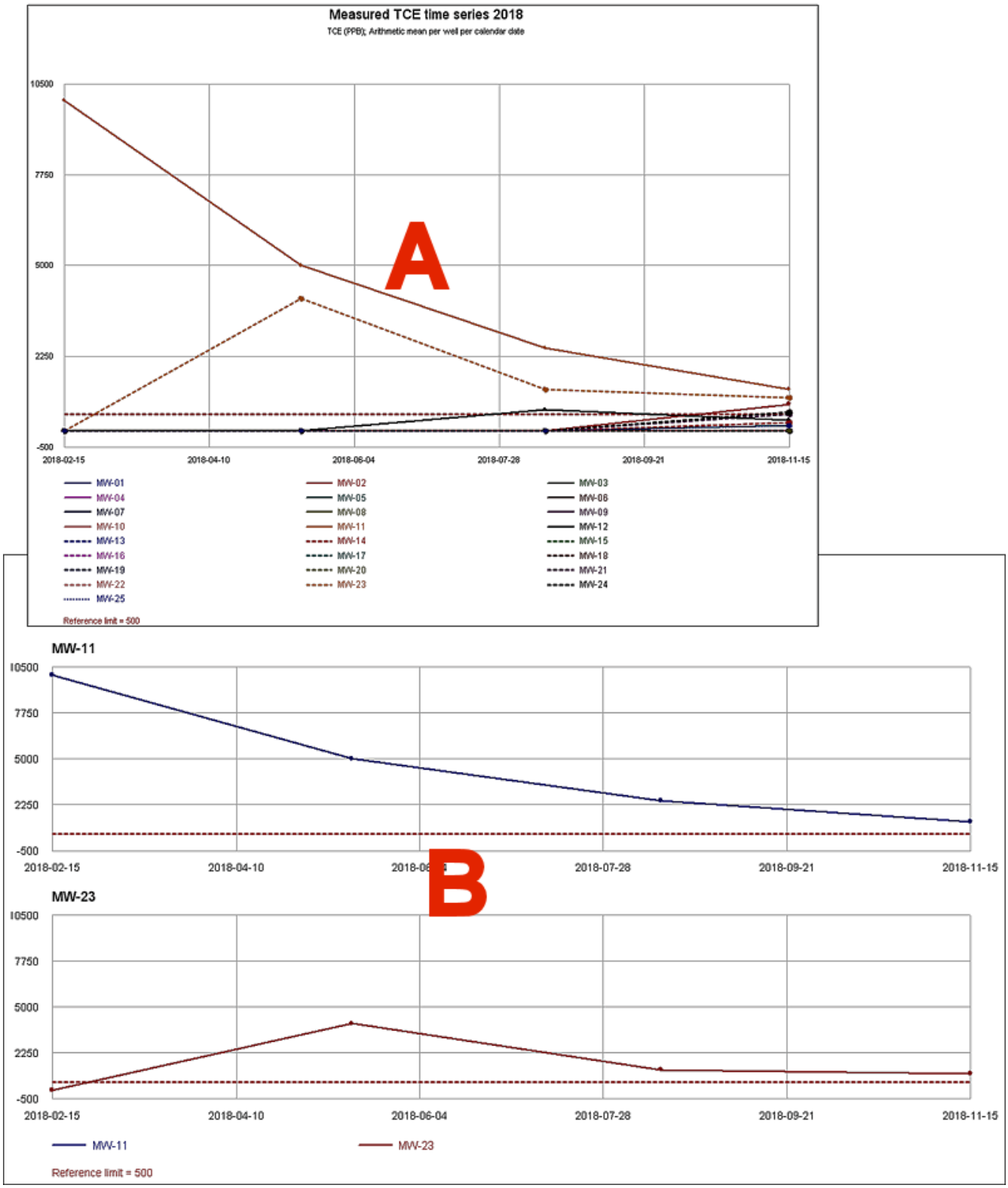
11/04/26: Added **T-Data → Time Series** for comparing a selected T-Data type across multiple wells over time. For example, users can plot PCB concentrations from several monitoring wells to compare trends and identify measurements above a specified reference or cleanup limit. Wells can be displayed as overlaid curves with a color-coded legend or in separate panels with matching date and concentration scales.



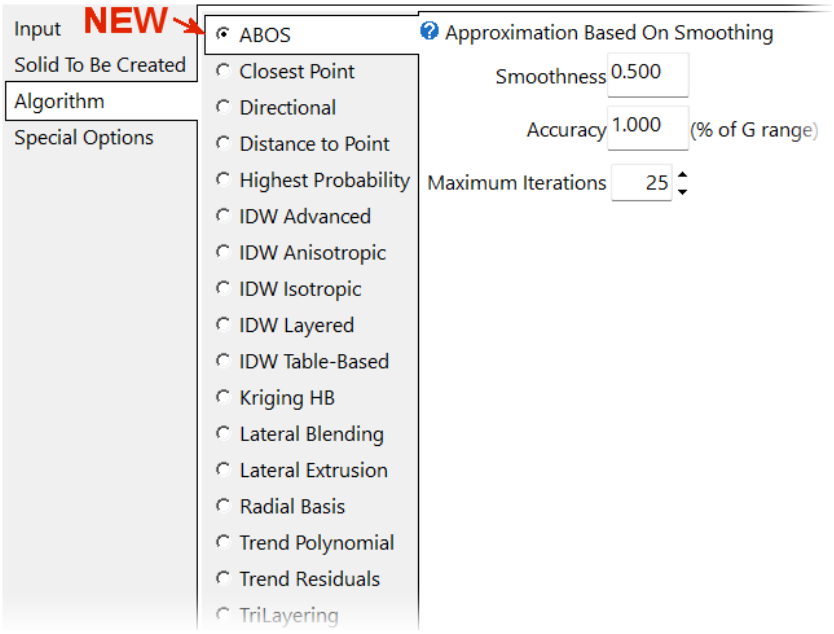
Options include logarithmic concentration scaling and explicit handling of multiple samples collected from the same well on the same date: require a single sample, average the values, or use their minimum, maximum, or median. Separate T-Data fields can represent different sampling zones, such as shallow and deep PCB concentrations. PDF documentation is available through the menu's blue help button.



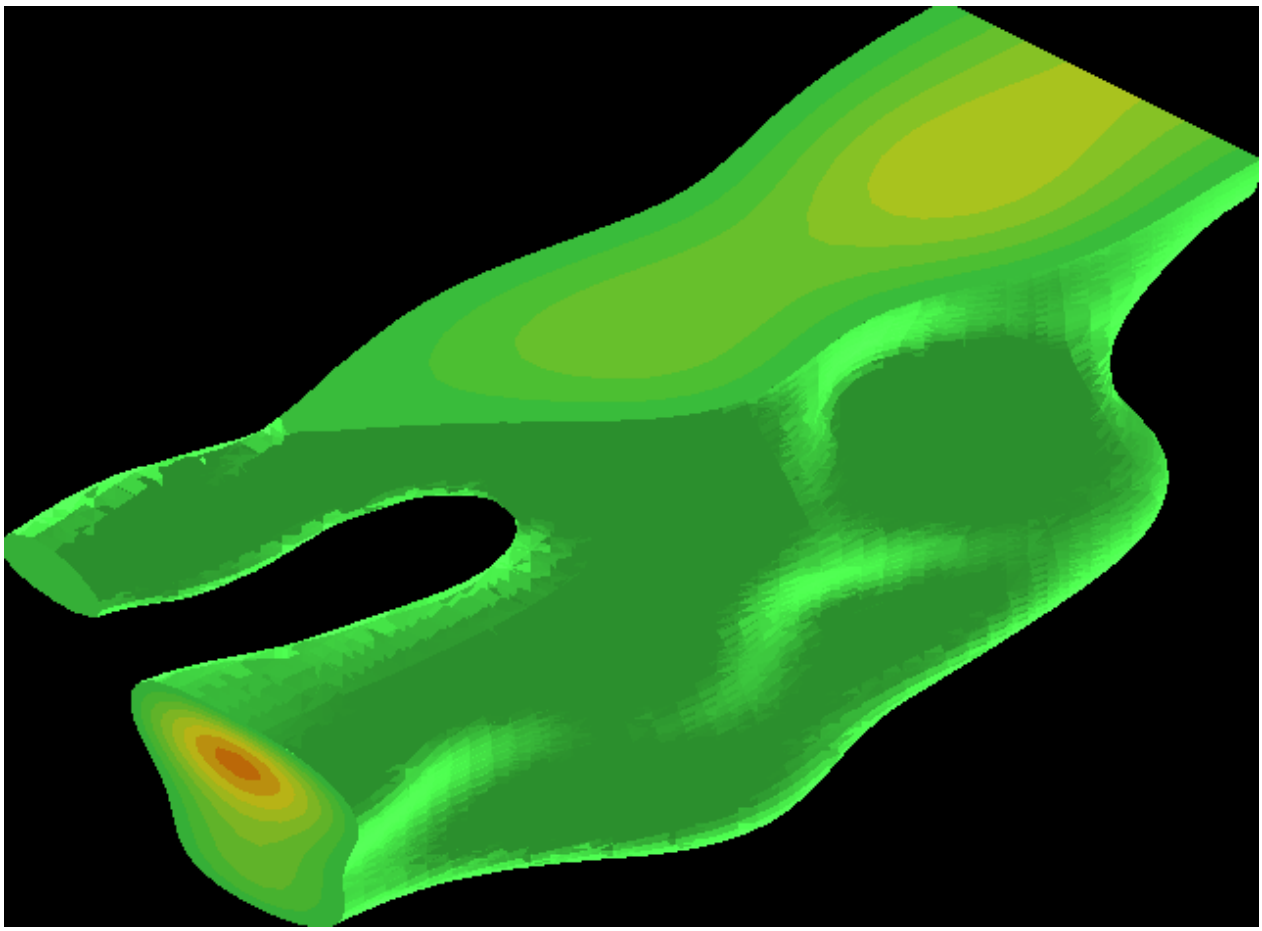
Overlay the curves to compare timing (Diagram A), or stack them when overlapping lines make individual wells hard to follow (Diagram B).



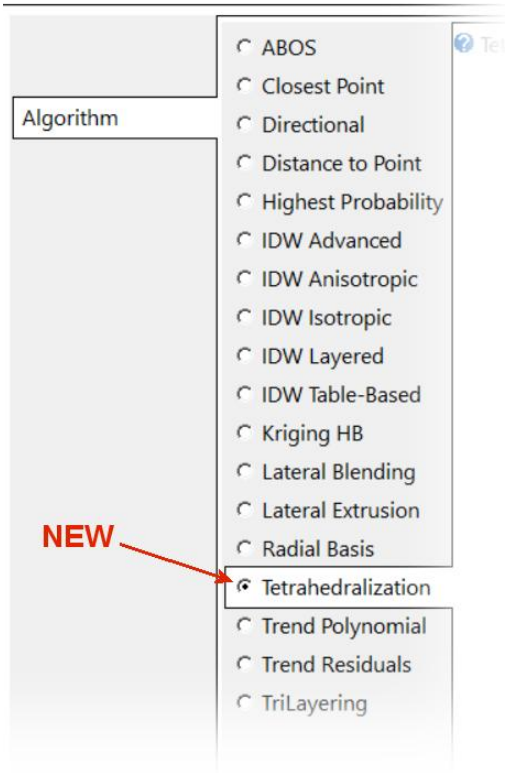
11/11/26: A new block modeling algorithm titled "**ABOS**" (**Approximation Based On Smoothing**) has been added to the list of solid interpolation methods.



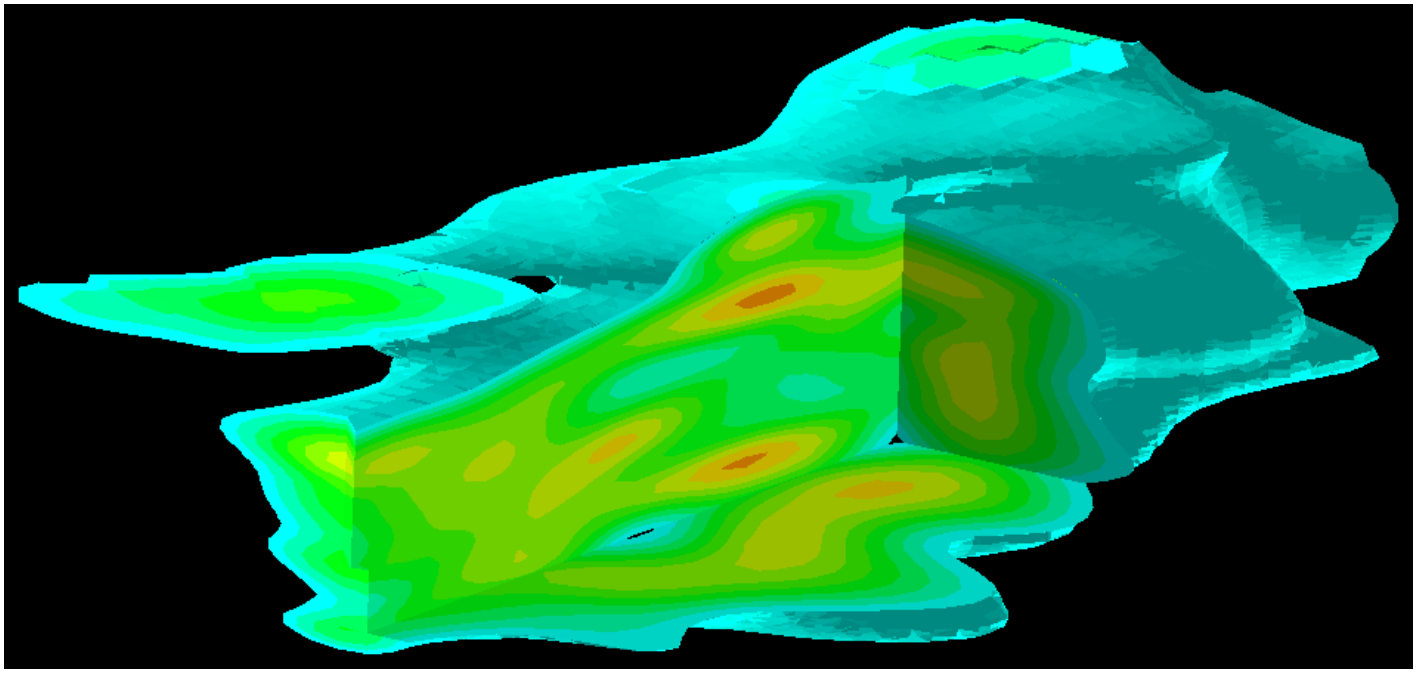
This algorithm is a 3D version of the 2D algorithm pioneered by Miroslav Dressler around 1989.



11/13/26: A new block modeling algorithm titled "**Tetrahedralization**" has been added to the list of solid interpolation methods.



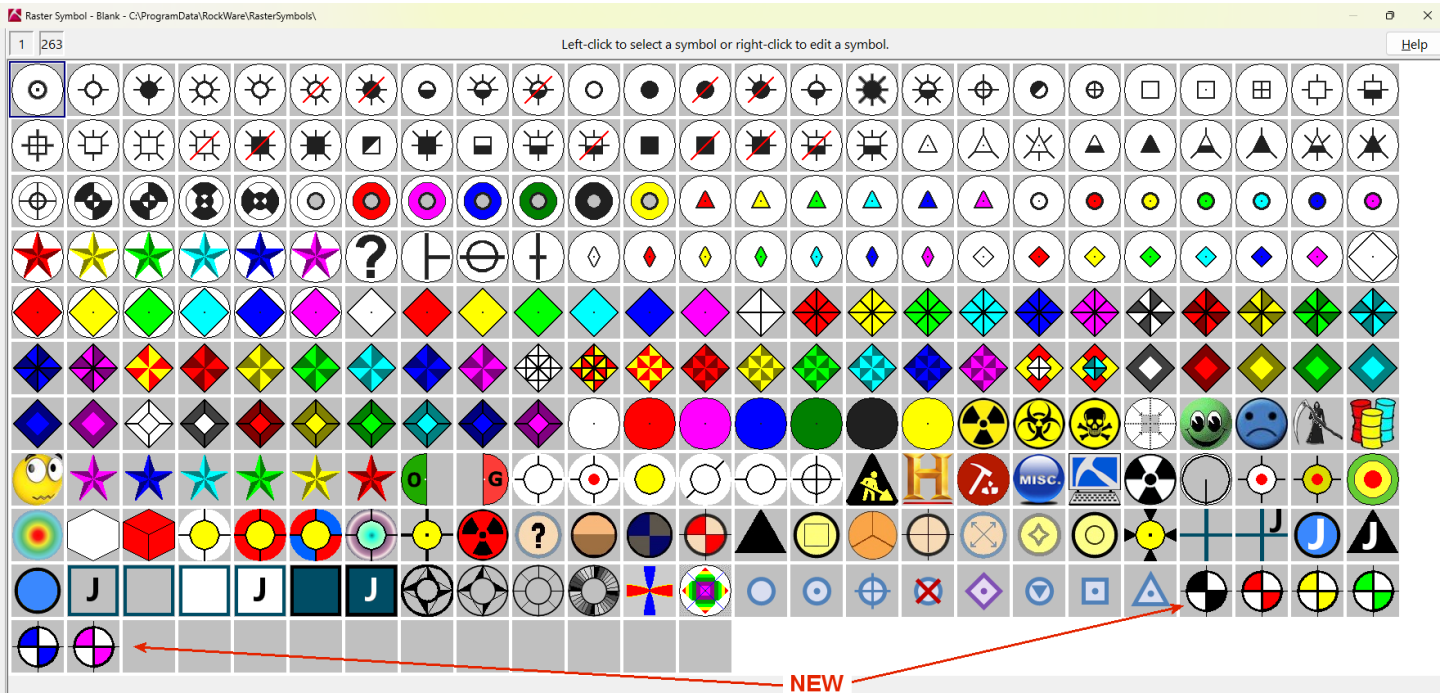
This method builds a **3D Delaunay mesh** from the sample locations. Each voxel inside the mesh gets a linear blend of the four sample values at the corners of its enclosing tetrahedron. The interpolation requires at least four noncoplanar locations.



11/13/26: The Faulting tab in Multiple 3D Striplogs now includes a **Display Faults Within 3D Diagram** option.

11/13/26: **Section Lines/Route table.** You can now use the **Section Lines/Route** table as an alternative to the **XY Coordinate** table on the **Section Location** tab in **2D Striplog Section** and in the **Transect Map** menu. You can also save to the new table from RockPlot2D.

11/13/26: Six new symbols have been added to the **Raster Symbol Library**.



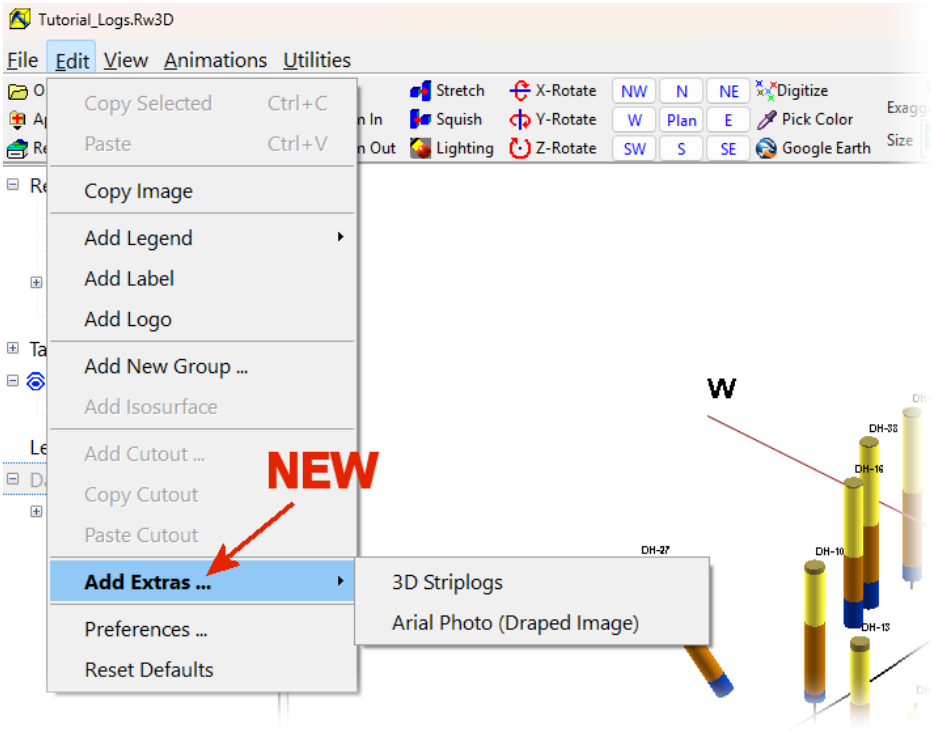
11/16/26: Added an optional **3D Cluster Analysis report** showing the selected components, cluster membership at every merge, merge distances, and corresponding plotted elevations for validating the 3D diagram.

11/16/26: Added a **Datasheet Time Filter** for enabling or disabling rows based on a selected Date/Time column, with exact-date, date-range, and optional time-of-day filtering.

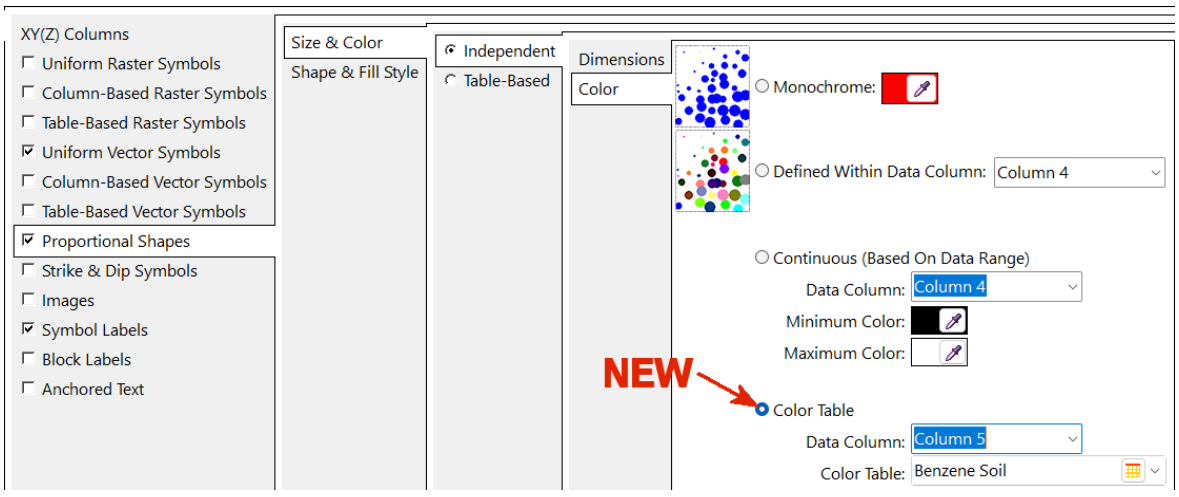
Improvements

10/27/26: Added **independent Anchored Text** options for borehole location maps and Utilities point-symbol maps, including configurable content, styling, positioning, leaders, and overlap prevention. Leaders and overlap prevention help keep labels readable where wells or sample locations are close together.

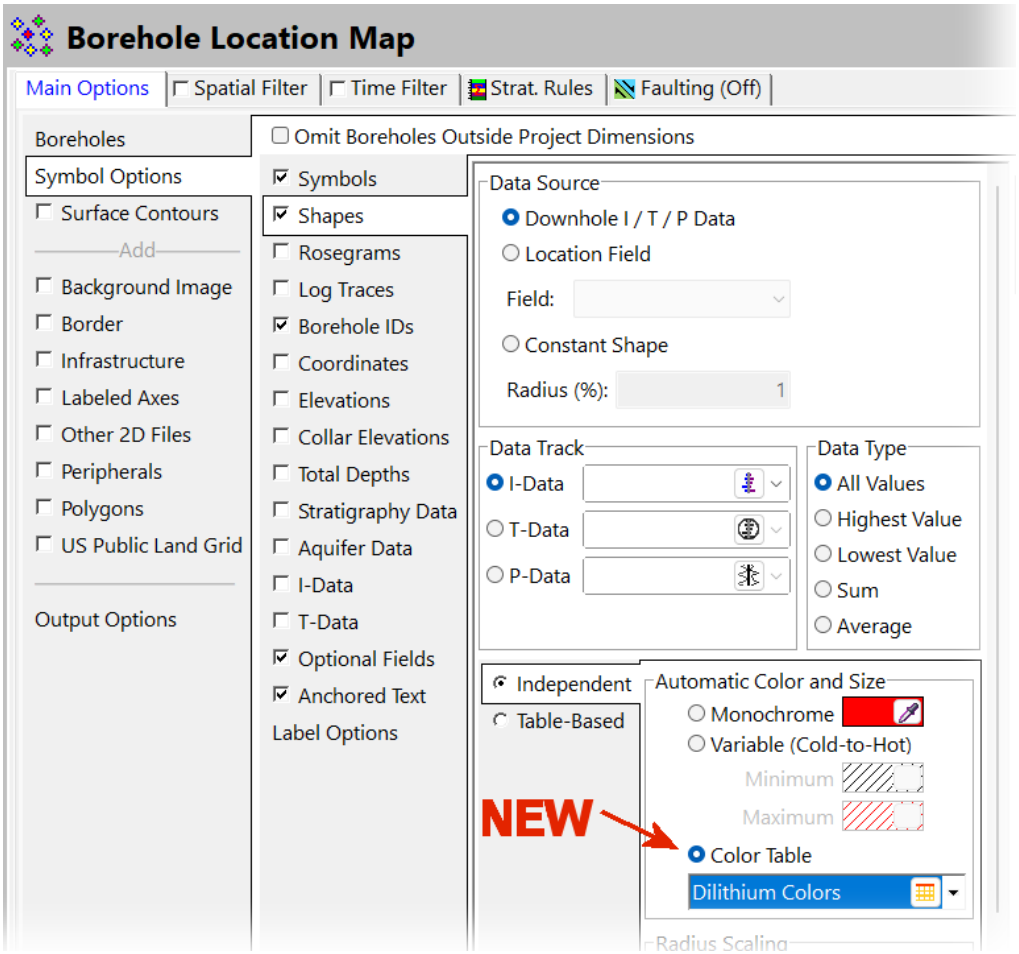
10/27/26: Added an "**Add Extras**" menu to RockPlot3D for appending 3D **striplogs and aerial-photo** drapes directly to the current scene. You can add field and surface context to a finished view without recreating the scene.



10/27/26: Added an independent **color-table option for EZ-Map proportional circle maps**, allowing circle colors to be assigned from concentration ranges without affecting circle dimensions. Readers can identify concentration bands even where circle sizes look similar.



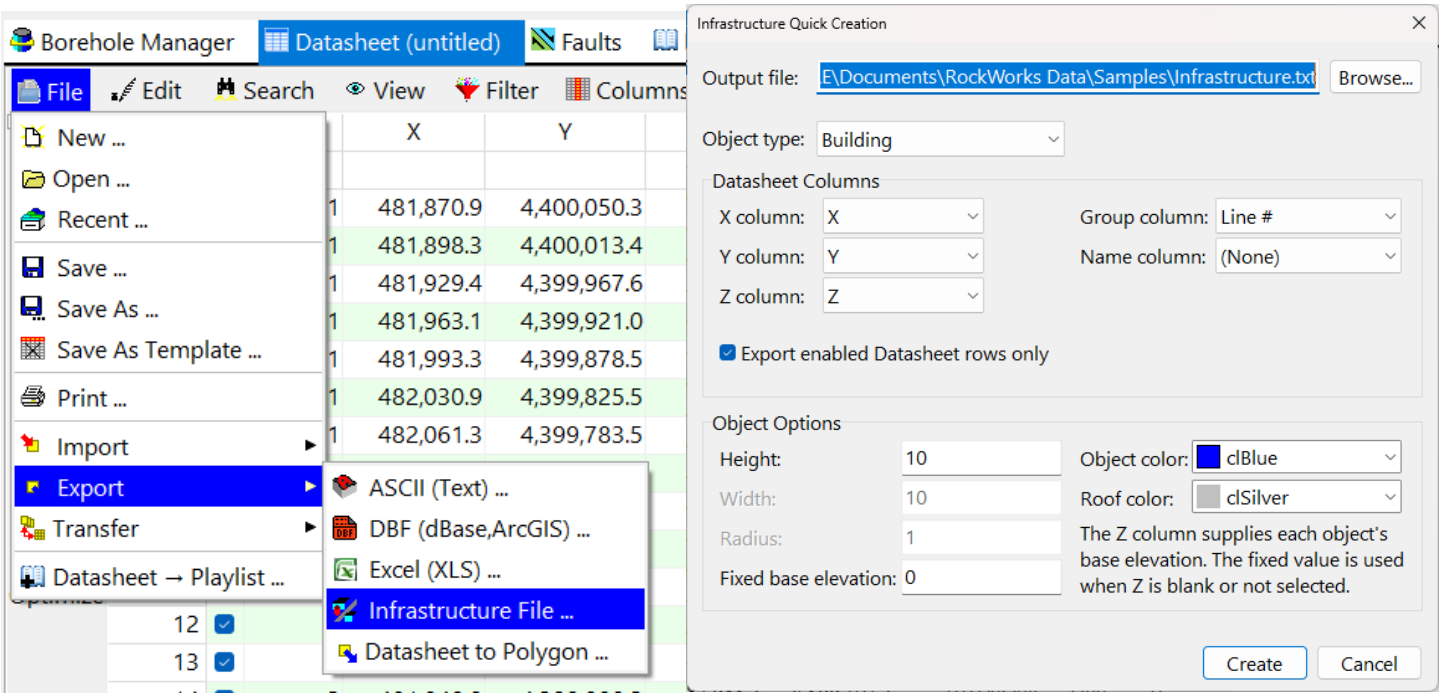
10/27/26: Added independent minimum/maximum **color-table support for borehole location-map shapes** based on I-, T-, and P-data values, including highest, lowest, sum, and average aggregations. Under **Borehole Location Map → Shapes → Independent**, users can now select **Color Table** and choose a standard minimum/maximum color table. Use the same table across maps to make a given color represent the same range of values.



10/28/26: The **3D reference cage** is now a separate object with its own Options dialog for adjusting panel colors, grid/outline color and width, and coordinate-label color, size, and offset. You can keep the coordinate guides legible against the colors of the model and background.

10/29/26: Water Levels (**Aquifer**) Base Depth (**Depth2**) is now **optional**. This updates the Data Dictionary to version 44. You can enter a water level using Top Depth (Depth1) alone.

10/29/26: Added a Datasheet **Infrastructure File exporter** for quickly creating buildings, roads, walls, and pipes from grouped XYZ data, allowing users to turn imported shapefile or coordinate data into infrastructure models without manually constructing command files.

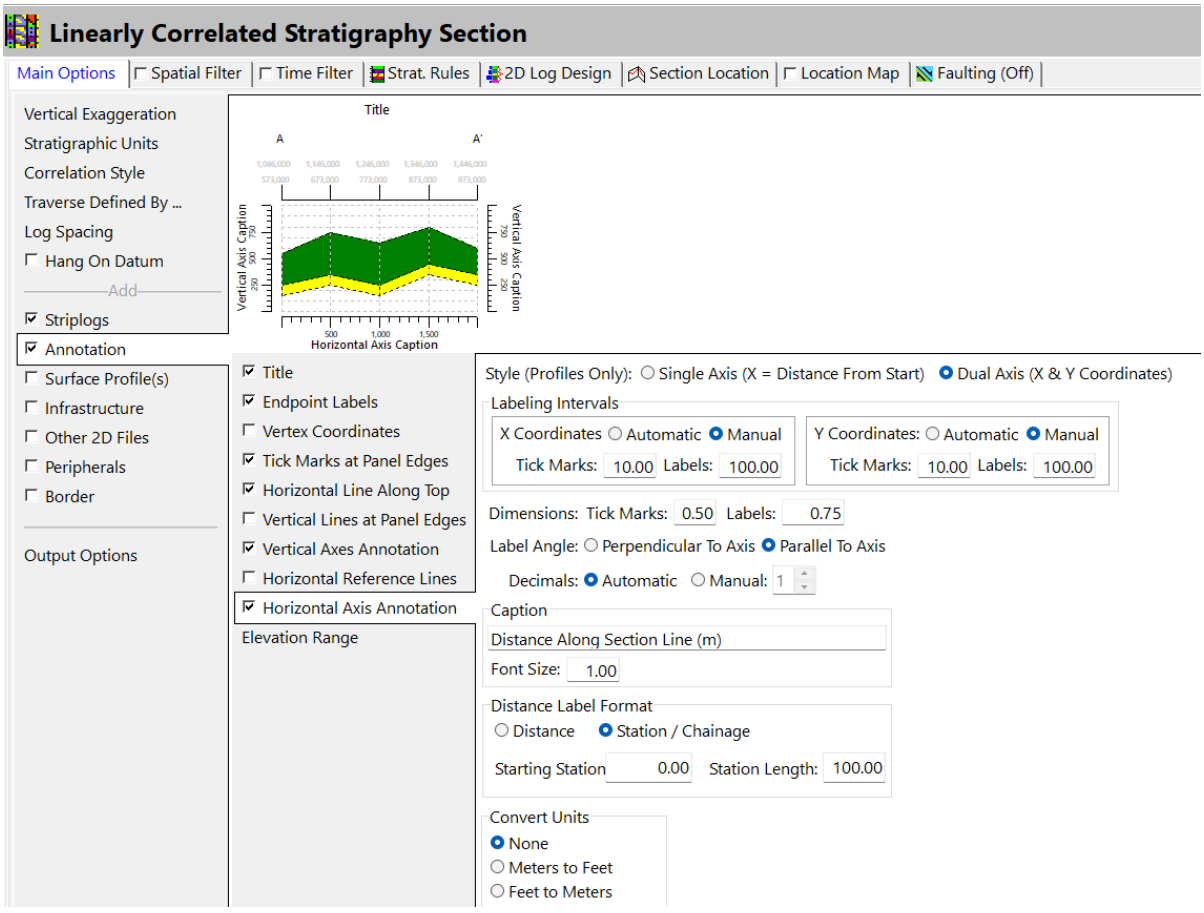


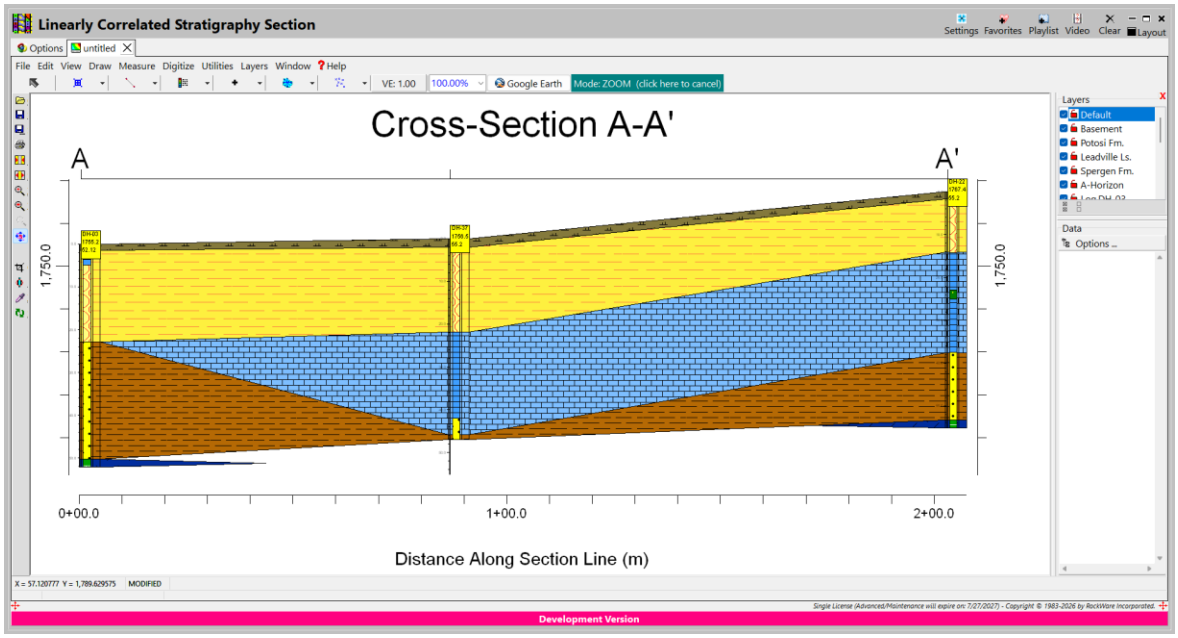
10/29/26: Improved **database validation reports** to clearly distinguish completed corrections from reported discrepancies, making it easier to see what RockWorks changed and which differences still require attention.

10/29/26: Improved the **T-Data | Multiple Solids** help documentation to explain the **five Duplicate Points options**, clarify that summaries apply to each borehole within each modeling interval, and describe how these settings interact with spatial declustering. Removed the outdated statement that the highest G-value is always used. The guidance helps you choose how to summarize duplicate samples before comparing models over time.

10/29/26: Create a 3d fence diagram using points internal to a picture. Added interactive internal-point calibration for vertical 3D image panels. Users can identify a rectangular data area by clicking three points within an image, eliminating the need to manually measure pixel margins. The selected area can optionally be saved as a cropped copy while preserving the original image.

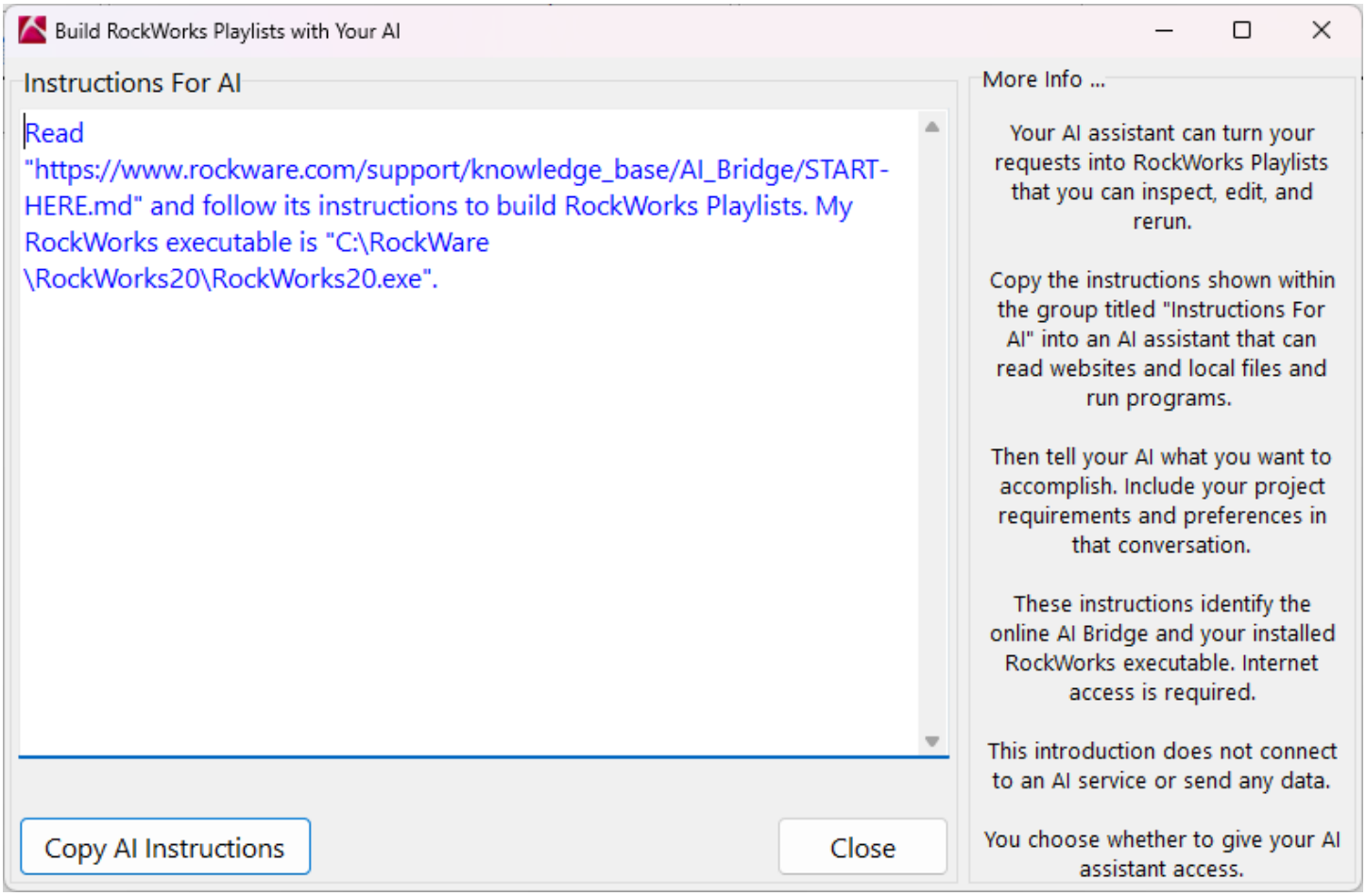
10/29/26: Added Station/Chainage formatting for profile and section distance axes, including a configurable starting station and station length. Added an independent Station/Chainage option for strip maps. This allows diagrams to match surveying alignments and existing engineering drawings without manually editing axis labels.



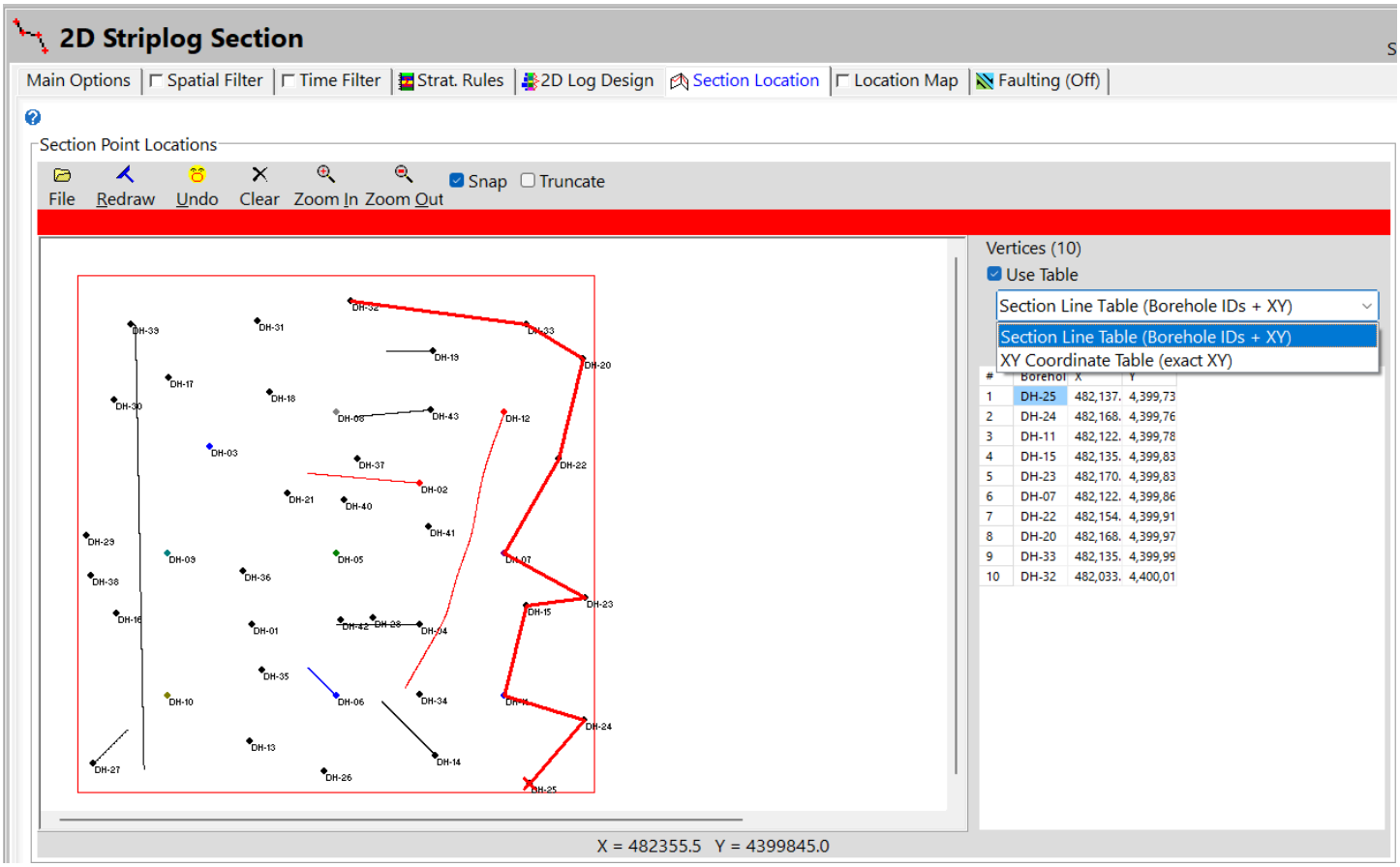


10/30/26: Added **RockPlot2D Vector PDF Export**. This allows users to make simple edits to the diagrams in Acrobat or other graphics programs.

11/02/26: The **AI Bridge files** (i.e., files used to educate AIs regarding the creation of Playlists based on user instructions) have been **moved to the RockWorks website**. Consequently, the RockWorks installation program is smaller so that it downloads faster and takes up less space on your machine.



11/03/26: Saved **section tables now retain** and display each selected **borehole IDs** alongside the X/Y coordinates, making wells easier to identify and verify when routes are reused. RockWorks also now warns when a referenced borehole has moved, is disabled, or is missing. Existing XY Coordinate section tables remain supported. These checks help catch outdated borehole locations before you regenerate a section.



11/03/26: The object **selection and precision editing within RockPlot2D** have been improved. Specifically, selection handles and clickable areas are now larger and easier to use, including on high-resolution displays. Hover feedback helps identify selectable objects, and Alt+Click cycles through overlapping objects. Selected objects and vertices can be repositioned with the arrow keys using normal, coarse, or fine increments, while F2 opens the object's properties for entering exact values. Repeated keyboard movements are grouped into a single Undo operation.

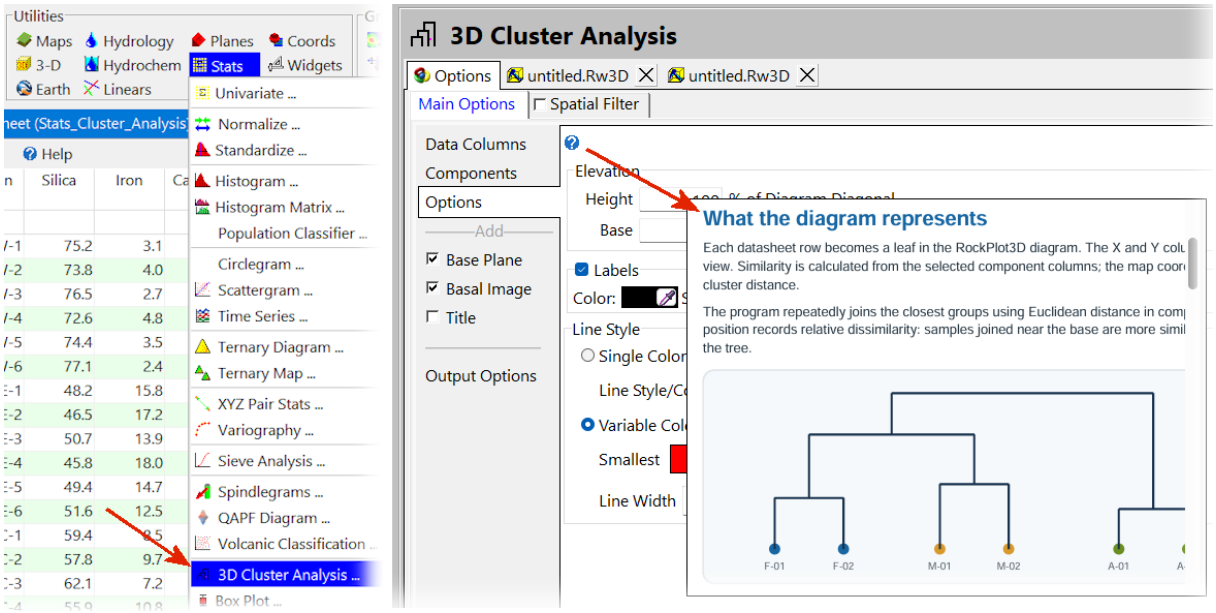
11/04/26: The **AI Bridge** can now **run a Playlist without closing RockWorks**. It also checks for active operations and unsaved edits before accepting the request. After the run, RockWorks stays open with the completed Playlist available for review.

11/05/26: **Improved reliability for synchronized and network project folders**. RockWorks now retries when Dropbox or another program briefly locks a project settings or data dictionary file. It writes the complete replacement before swapping out the existing file and marks data dictionary upgrades complete only after every step succeeds. Testing with Dropbox actively syncing confirmed that RockWorks recovered from temporary file locks.

Important: Close the project in RockWorks before syncing its SQLite database.

11/06/26: The Utilities | Stats | **3D Cluster Analysis** program has been **significantly improved**;

- The menu now includes a help button that links to documentation that describes how to use the program and what the diagrams mean.

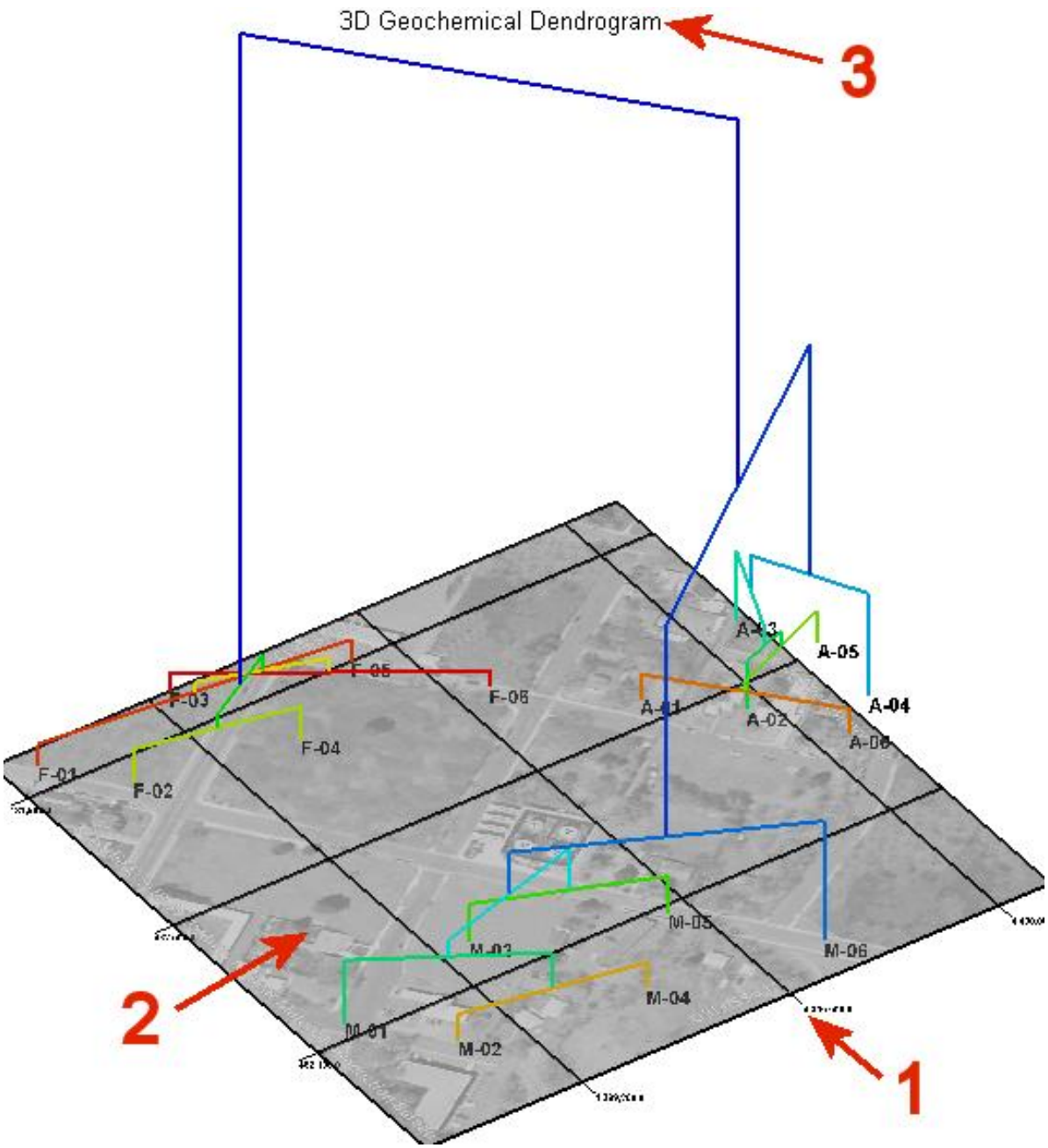


1. An optional "**Base Plane**" adds a flat perimeter at the dendrogram base, with optional grid, panel fill, X/Y labels, and north arrow. Choose project, automatic, or manual X/Y bounds.

2. An optional "**Basal Image**" adds a map, aerial photo, or other image at the dendrogram base. Set the image source, horizontal placement, opacity, and optional transparent color. A map or aerial photo at the base helps readers place the clusters in their site context.

3. An optional "**Title**" adds a title to identify the diagram.

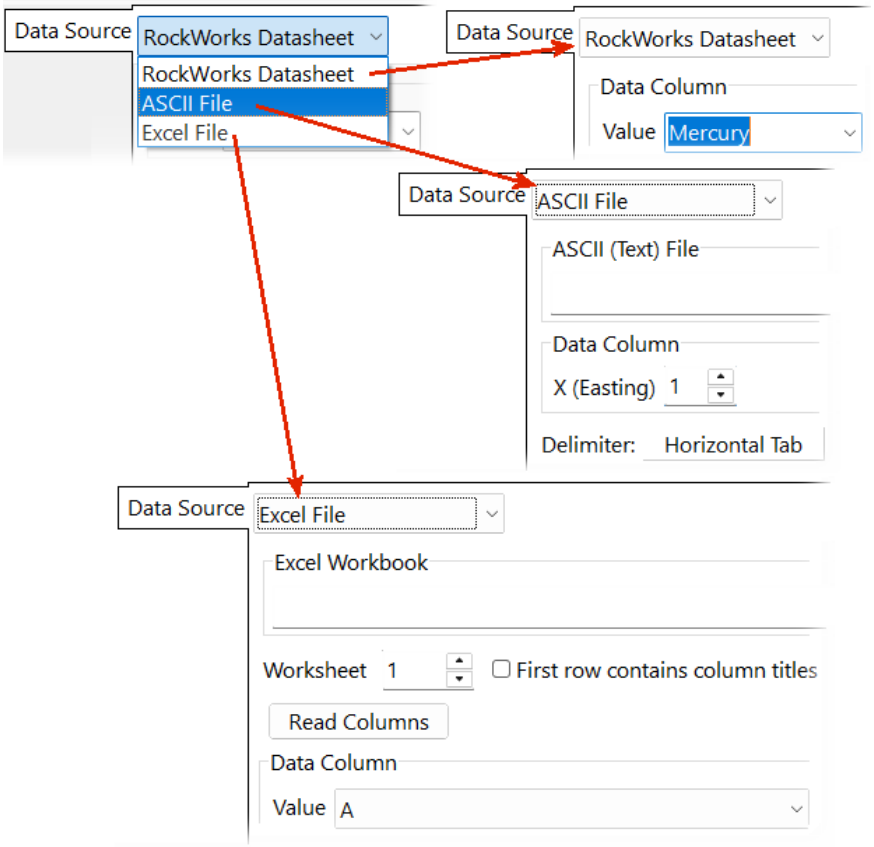
4. **Output Options** display the diagram in RockPlot3D, save an editable .Rw3D file, or export a PNG or PDF.



11/13/26: **Anchored titles in RockPlot2D are easier to select** because the clickable area now matches the displayed text, including in views with vertical exaggeration.

11/13/26: The **Scale** option in Profiles and Sections, Station Chainage can now specify the increments to show.

11/13/26: Many programs that were formerly limited to Datasheet input may now be configured to read data from either RockWorks Datasheets, ASCII Text files, or XLSX Excel files. This is accomplished by a new Data Source pull-down button which lists the three data types.



Once a data type has been selected, a nested sub-menu will present a series of options that are unique to the selected data type. Examples: (1) If an Excel file is selected, the user will be prompted to select the worksheet that contains the data. (2) If an ASCII file is selected, the user will be prompted to define the column delimiter.

These changes save time by allowing the user to process data directly from Excel or text files, without first importing it into the RockWorks datasheet.

11/16/26: **Improved** object selection and precision editing in **ReportWorks**. Selection handles and clickable areas now scale better on high-resolution displays. Hover feedback identifies selectable objects, and Alt+Click cycles through overlapping objects. Selected objects and vertices can be repositioned with the arrow keys using normal, coarse, or fine increments, while F2 opens object properties for entering exact values. Repeated keyboard movements are grouped into a single Undo operation.

11/16/26: Improved **3D Cluster Analysis** diagrams by positioning **labels** above the basal image, rendering cluster connectors as Web Viewer-compatible tubes, and reducing excessive vertical spacing.

11/17/26: The **Knowledge Base button** at the top of the main RockWorks menu is always visible, regardless of the screen DPI (Dots Per Inch).

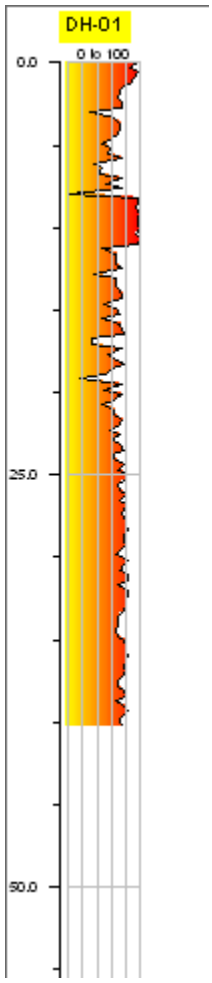
11/16/26: Clarified Profile and Section **station/chainage settings** by distinguishing the station base from label intervals, adding unit-specific examples and defaults, and correcting remainder padding.

11/17/26: Added selectable minimum/maximum colors and independent min/max color-table coloring to the **3D Points tool**.

Bug Fixes

10/29/26: Corrected **I-Data** and **T-Data Volumetrics** to honor Volume Output Units selected on the main project Units tab. Report labels now follow that setting automatically. Density-based masses remain consistent when output units change, and conversions handle differing horizontal and vertical model units.

10/30/26: Fixed an issue with **vertical color fills** on **logarithmically scaled P-Data curves** in 2D Striplogs. Color transitions now remain parallel to the depth axis, producing consistent, readable fills comparable to non-logarithmic curves.



11/05/26: Fixed **Text Replace** adding wildcard characters to output filenames when saving menu or Playlist settings.

11/05/26: Fixed **PLSS coordinate** entry dropping the first digit from the second footage offset and ensured both footage edits are saved whenever their values change.

11/09/26: Fixed a problem in which **long SQL statements in Playlists** could be split every 1,024 characters and truncated when reopened. Long statements are now preserved, and previously split SQL entries are reconstructed when loaded.

11/10/26: 3D fault imports. The Grid, Triangles, Contours, and XYZ to 3D Fault tools now **correctly classify imported faults as 3D.**

11/13/26: Changing the RockPlot3D **perimeter cage interval settings** now update the perimeter cage correctly.

11/13/26: The RockPlot3D "**3D Display of Faults**" option now displays the imported fault and enabled faults, with each fault displayed only once. If turned off, it displays only the imported fault.

11/13/26: On rare occasions, opening a RockPlot2D file caused a "Property ClientHeight does not exist." error due to an **unpublished property**. The properties are now published. This prevents the initial streaming error and the subsequent resize access violation.

11/13/26: Corrected automatic **scaling for logarithmic P-Data** curves within 2D striplogs. Logarithmic ranges now use the proper maximum value, keeping curves within their columns and producing accurate, readable striplog diagrams.

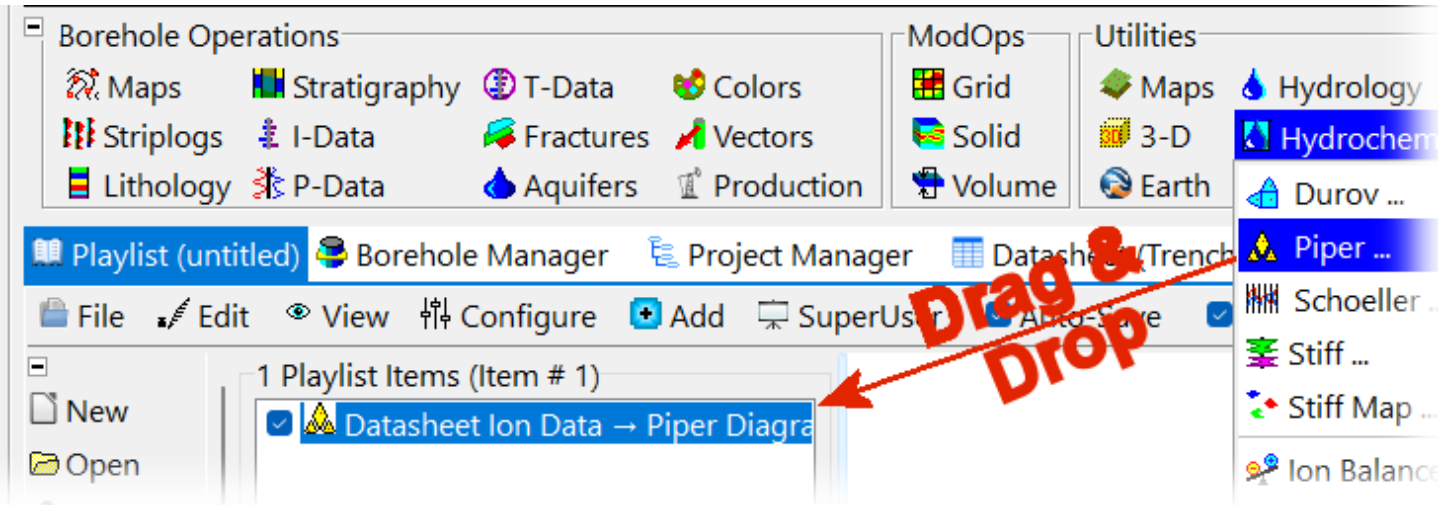
11/13/26: Corrected an issue whereby the Utilities | Planes | **Stereonet** program plotted color fills and contour lines when the Contours option was disabled. Stereonet diagrams now honor the selected settings, producing cleaner output without unwanted contour layers.

11/16/26: Fixed a problem in which the cursor keys would not move selected objects in newly generated, embedded **RockPlot2D** diagrams. **Cursor-key movement** now works consistently in both newly created and reopened diagrams.

11/17/26: Fixed Borehole Location Maps to always create **anchored-text labels** and removed the redundant Anchored Text menu option while preserving existing playlist label variables.

11/17/26: The current new-project default now selects **Stratigraphy**, not **Hydro-Stratigraphy**.

10/30/26: It is now possible to **drag-and-drop** items from the Applications Menus into the **Playlist**. For example, you could click on the Utilities | Hydrochem | Durov item and drag it into the Playlist. This saves a trip through the Playlist menus when assembling a workflow.



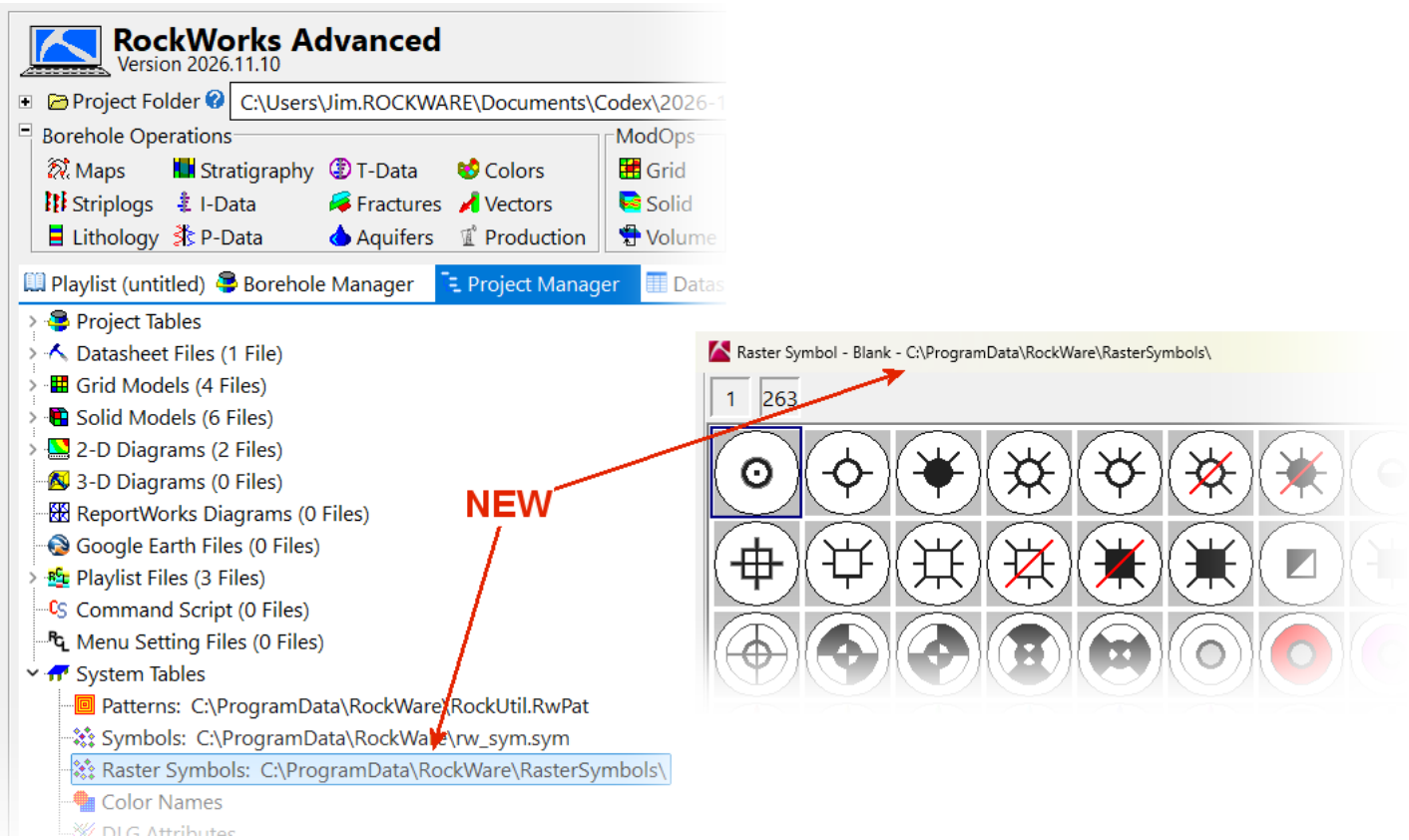
11/09/26: - Removed the **RockPlot2D | Export | Paint Program** menu option. The Export | Raster | BMP does the same thing and has more options to control the exported file.

11/13/26: **Fault display during import.** With fault display turned off, the diagram shows only the newly imported faults. With fault display turned on, it also shows other enabled faults. Each fault appears once, whether displayed as a mesh or draped onto a surface.

11/13/26: **Exporting infrastructure data from the Datasheet.** The **Options** panel now includes an example infrastructure file. A new Help topic explains how to export the data and how to arrange it in the Datasheet.

11/13/26: **Adding perimeter cages in RockPlot2D.** In the **Edit** menu, **Add Extras** is now called **Add** and appears directly below **Add Logo**. The **Add** menu includes a perimeter cage option. You can select the entire cage as one object and change its settings in its own property editor.

11/13/26: The name of directory that hosts the **RockWorks Raster Symbol Library** is now displayed within the Project Manager and the Symbol Selector dialog.



11/13/26: Added a brief delay to file-preview hints within the **Project Manager** after opening a RockPlot2D or RockPlot3D diagram. This prevents the main RockWorks window from reclaiming focus and hiding the newly opened diagram, allowing users to begin working with it immediately.

11/14/26: The Datasheet | File | Export | Datasheet to Polygon program has been relocated to the Utilities | Maps pulldown menu and renamed to "**Create Polygon Table**". This change was made because the program can now read Excel and ASCII files in addition to the Datasheet. Existing Playlists continue to use the same command ID.