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Leapfrog Energy **2025.3**

new release

Leapfrog 2025.3 Release Notes

As the third release for 2025, Leapfrog 2025.3 prioritises statistical and exploratory data analysis workflows and simplifies the analysis and application of structural trends.

With Leapfrog 2025.3 you can work more optimally, stay in Leapfrog for a larger part of your workflow, eliminate rework, and gain greater understanding from geological data.

Key highlights include the ability to save, share, and revisit statistical graphs and tables; adjustments to structural trend analysis for clearer and more intuitive modelling; and Imago image streaming is now embedded within the correlation tab view. Worth noting are several frequently requested improvements added to the planned drilling feature, making the tool more practical and easier to use.

Together, these updates provide immediate productivity gains, further advance the desktop experience and position Leapfrog for continued enhancement and longevity.

Main improvements

Top features included in Leapfrog 2025.3 include:

- **Powerful Imago image streaming**
  - Drillhole correlation support for visualising core photos in both 2D and 3D views
  - Optional dataset parameter for flexible image setup
  - Automatic unit conversion for seamless alignment between Imago imagery and Leapfrog projects
- **Efficient exploratory data analysis**
  - Save graphs and tables for easy organisation and less rework
  - Swath plots for enhanced model validation and evaluation
- **Deeper insights through enhanced structural capabilities**
  - Improved structural interpretation with stereonet filtering controls
  - Greater transparency and flexibility in structural trend clustering
  - Smarter, more targeted structural trends with mesh filtering

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1. Leapfrog features and functionality

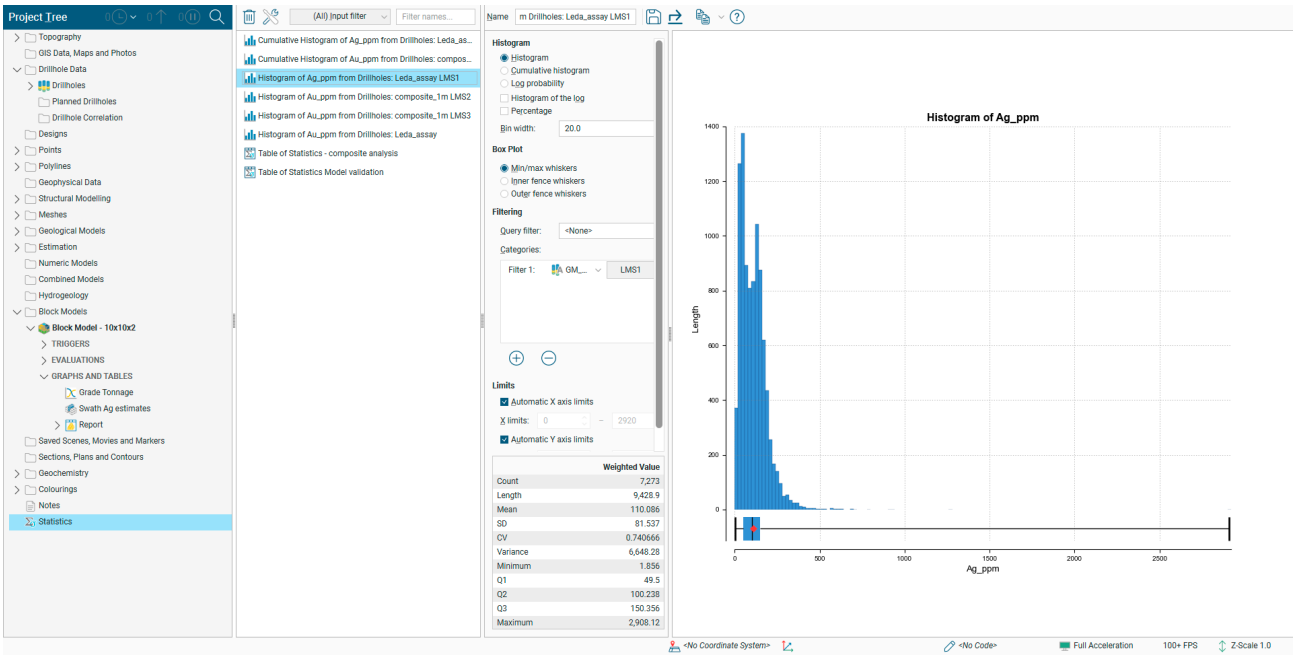
1.1. Drillhole data

1.1.1. Efficient statistical analysis with new statistics features

1.1.1.1. Saved graphs and tables

With Leapfrog 2025.3, your statistical findings are now securely saved and easily accessible. A new statistics tab allows you to quickly save and share report-ready graphs, eliminating the need to recreate them each session.

Saved graphs appear under a dedicated statistics item in the project tree, creating a dynamic library of analysis that supports auditability, collaboration, and confident decision-making across geological modelling and estimation workflows. Users can preserve their insights for future sessions and reports, reduce manual rework, and focus more on interpretation than recreation. Graphs are also more customisable, with adjustable font sizes and intuitive naming, helping users create clear, professional visuals ready for reporting and presentation.



1.1.1.2. Multiple inputs for table of statistics

A new feature has been introduced to the table of statistics that enables users to add inputs, facilitating dynamic comparisons between different tables, such as composite and block model data for model validation. This enhancement minimises dependence on external software while improving transparency and traceability.

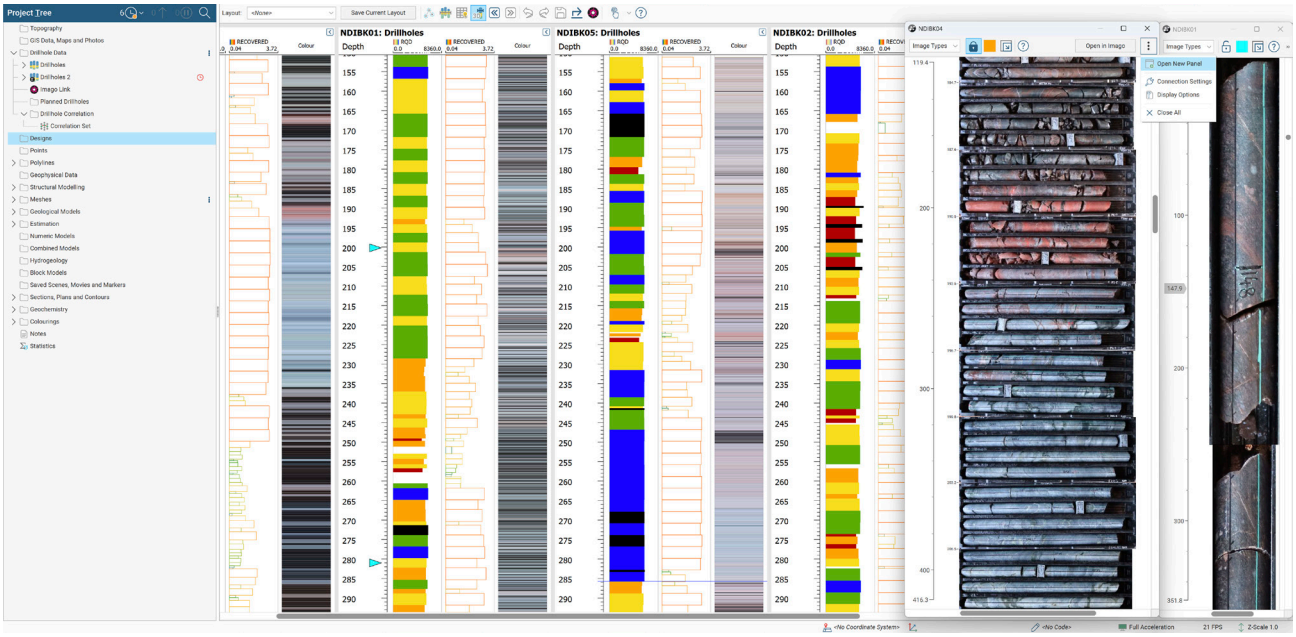
This update marks an important first step toward a more connected, efficient, and reliable statistical analysis experience.

1.1.2. Powerful Imago image streaming

In Leapfrog 2025.2, we introduced Leapfrog-Imago image streaming to revolutionise how geoscientists derive insights from imagery at every stage of modelling. In Leapfrog 2025.3, we have further enhanced this integration to improve its usability and flexibility.

1.1.2.1. Visualise images in hole correlation

Leapfrog 2025.3 now brings the same image streaming capability of the 3D scene to drillhole correlation, allowing images to be easily visualised in both 2D and 3D workflows. Additionally, a new quick menu shortcut makes it easier to open multiple Imago panels at once, improving efficiency when reviewing imagery.

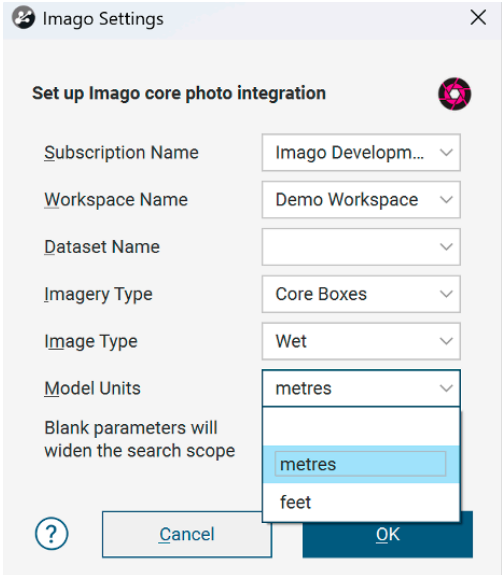


1.1.2.2. Dataset parameter for flexible setup

The dataset parameter in Imago connection settings is now optional, providing greater flexibility in how image data is structured in Imago. Setting the dataset name to blank removes the need to manually switch datasets for different drilling types or mine levels, as Leapfrog will automatically select the appropriate dataset based on available imagery.

1.1.2.3. Automatic unit conversion

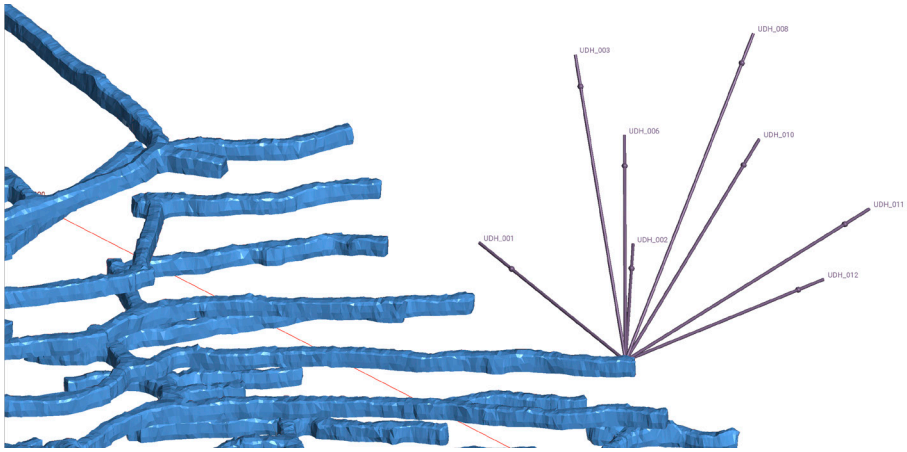
Leapfrog now supports automatic unit conversion between Imago workspaces and Leapfrog projects. If Imago imagery and Leapfrog project data use different units, such as feet and metres, the integration will automatically convert between them. This ensures consistent alignment of imagery and drillhole data without manual adjustments. In the Leapfrog Imago connection settings, set the unit to the units of the Leapfrog project.



1.1.3. Elevated user experience for planned drilling

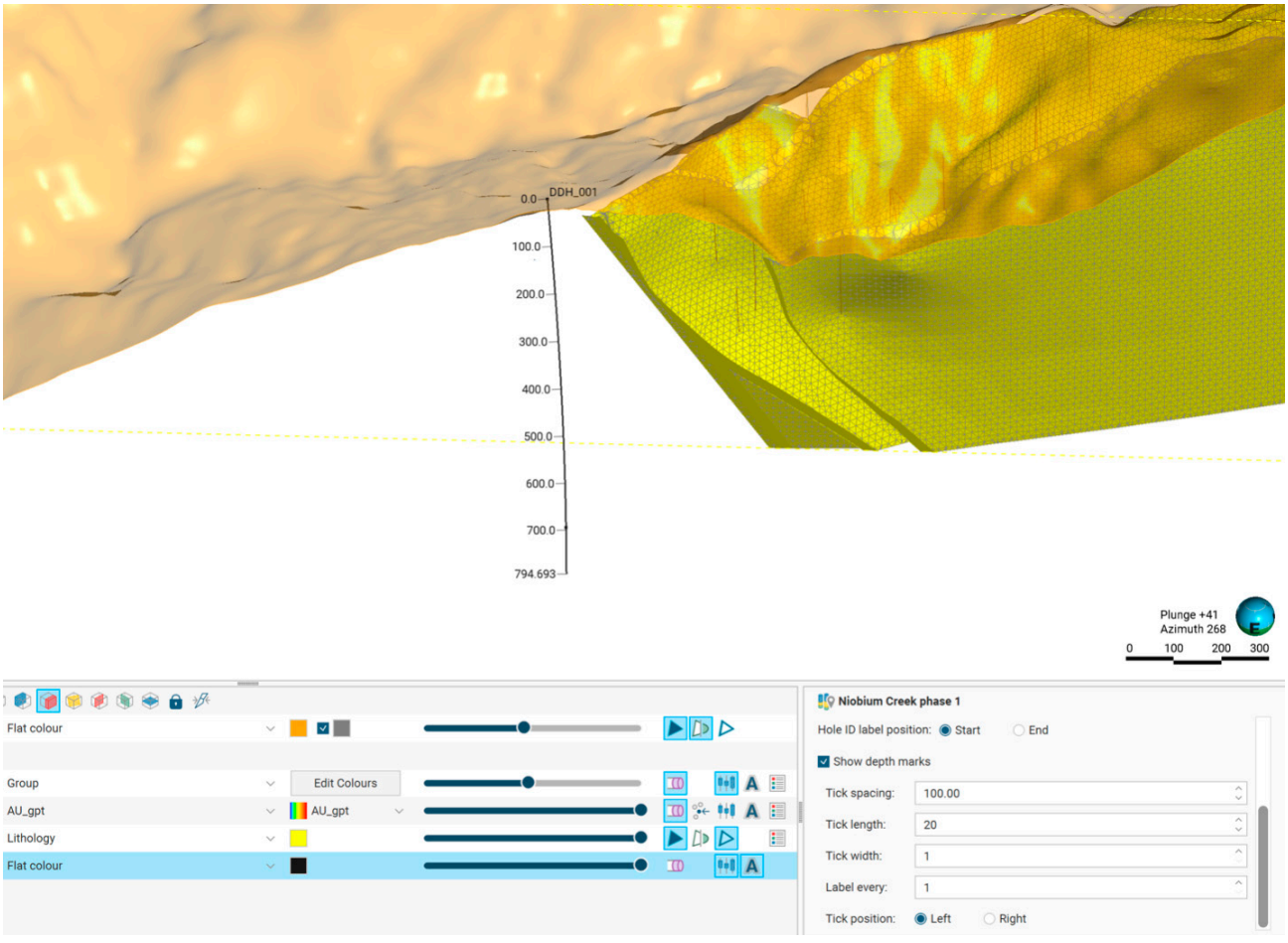
1.1.3.1. End of hole labels for planned drillhole group

Planned holes that share a collar location, such as underground fan drilling, often resulted in overlapping hole ID labels, making it difficult to identify individual holes in the 3D scene. In Leapfrog 2025.3, labels can now be placed at either the start or end of the hole. This update provides greater flexibility and improved visualisation, making it easier to identify holes, create clear screenshots, and communicate drilling plans.



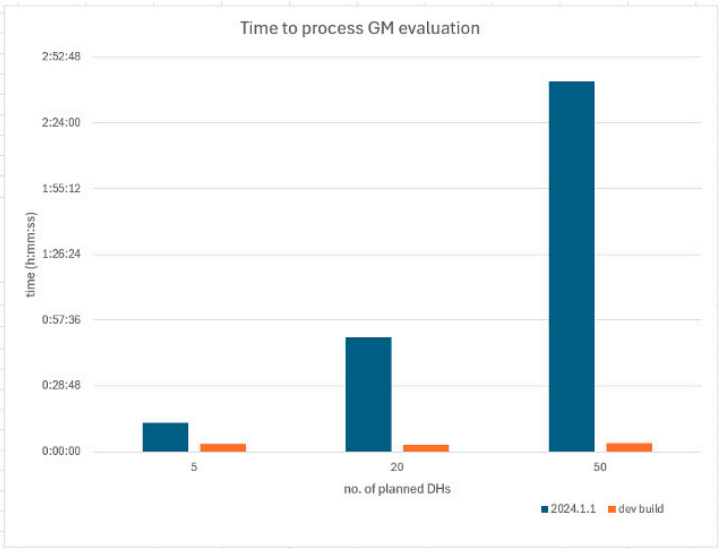
1.1.3.2. Depth markers for planned drillhole group

Depth markers are now supported for planned drill holes. Users can customise the placement of depth marks, for example, displaying a tick mark every 50 metres downhole with corresponding labels such as 50, 100, 150, and 200 metres. These markers offer a clear way to visualize depth along a planned hole for better presentation of planned holes in the scene.



1.1.3.3. Performance improvements

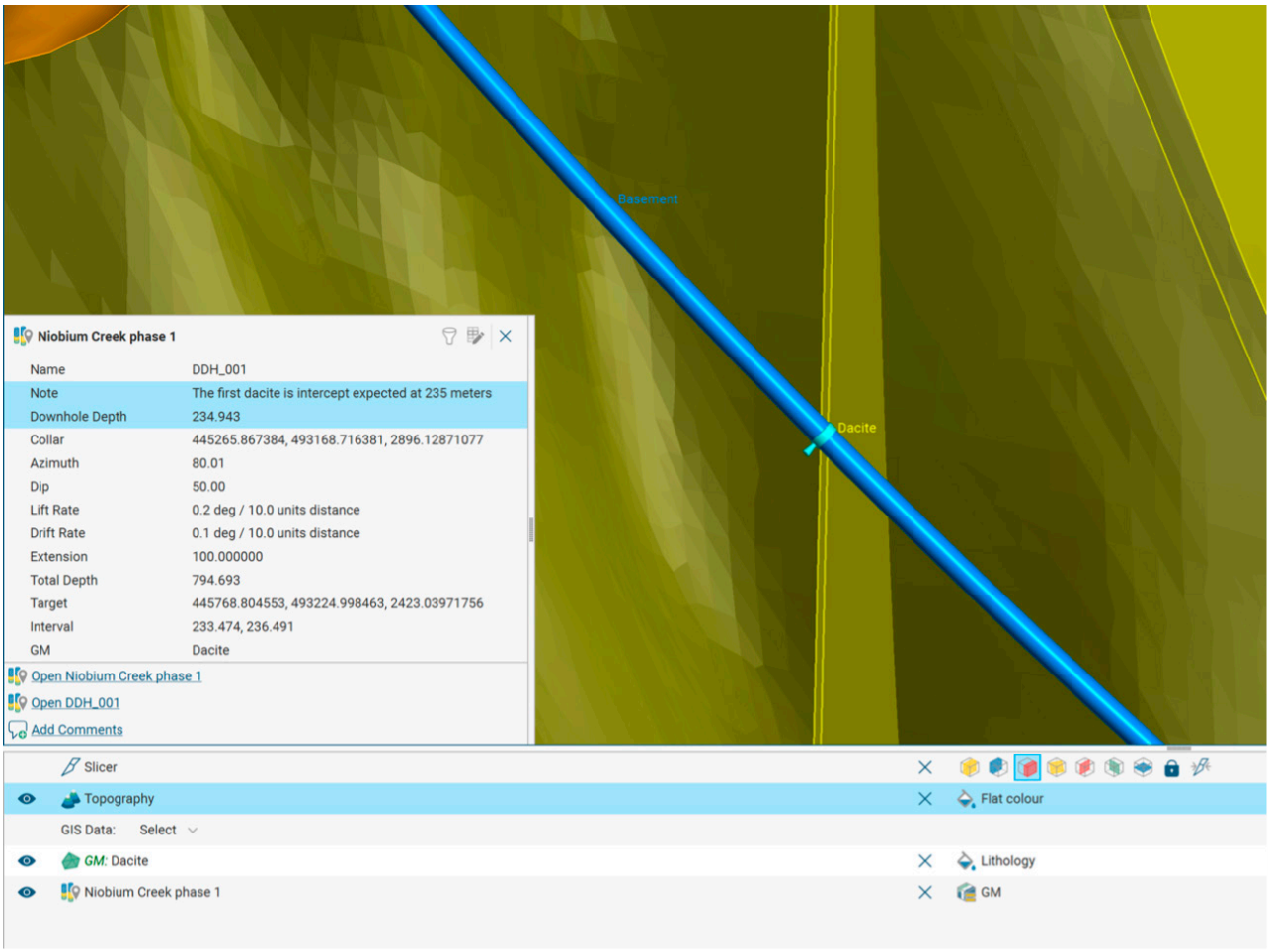
Significant performance improvements have been made to geological model evaluations on planned drillholes. Tasks that previously took hours to process now only take minutes.



1.1.3.4. Informative scene details

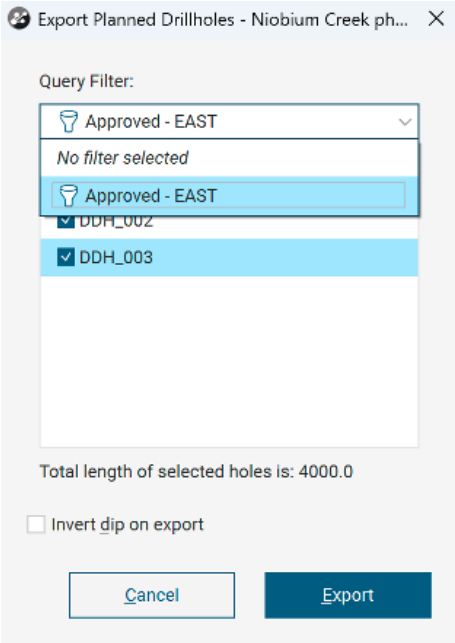
Planned drilling downhole depth is now visible in scene details. Selecting a planned hole in the 3D scene reveals depth at the chosen point, aiding identification of key locations.

Comments from Planned Drillhole groups are also now shown in scene details, providing access to planning notes directly in the scene.



1.1.3.5. Filter on export for planned drillhole group

It is now possible to apply query filters when exporting planned drillholes as parameters. This allows users to select holes of interest and export only those, streamlining the process and saving time.



1.1.3.6. Export and import well trajectory

Leapfrog 2025.3 introduces a new well trajectory import and export option, designed to preserve well path geometry more accurately than directional well plans. The new well trajectory option allows for well plans to be imported or exported with the section type information preserved, while also keeping the same section points as set in the planning tool. This ensures well plans remain consistent and reliable when being shared, as there is no loss of section type or geometry information, which can sometimes cause issues for complex well plans.

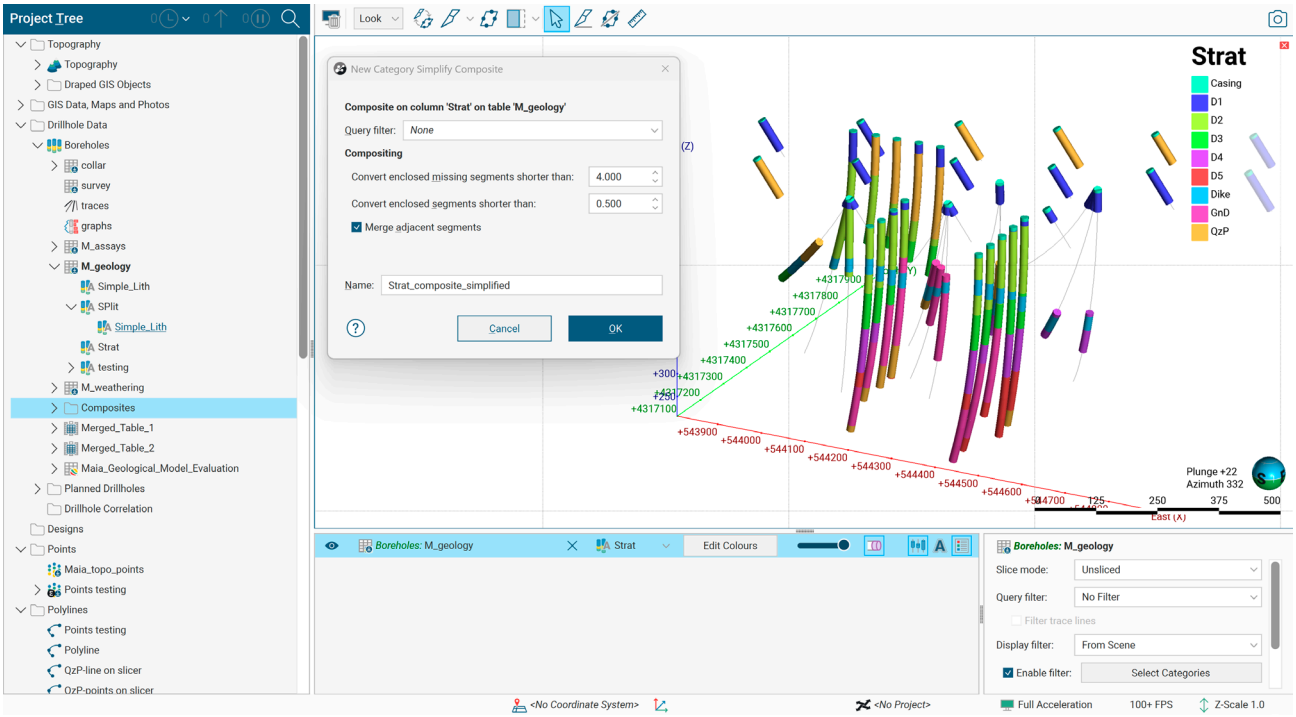
1.1.3.7. Drillhole correlation depth markers

In the drillhole correlation view, markers can now be added at geological points of interest in 2D, which are also displayed in 3D. This makes it easier for geologists to orient themselves and correlate between 2D view location and 3D space. Multiple markers can be added for reference, supporting powerful analysis across geological features.

1.1.4. Essential compositing enhancements

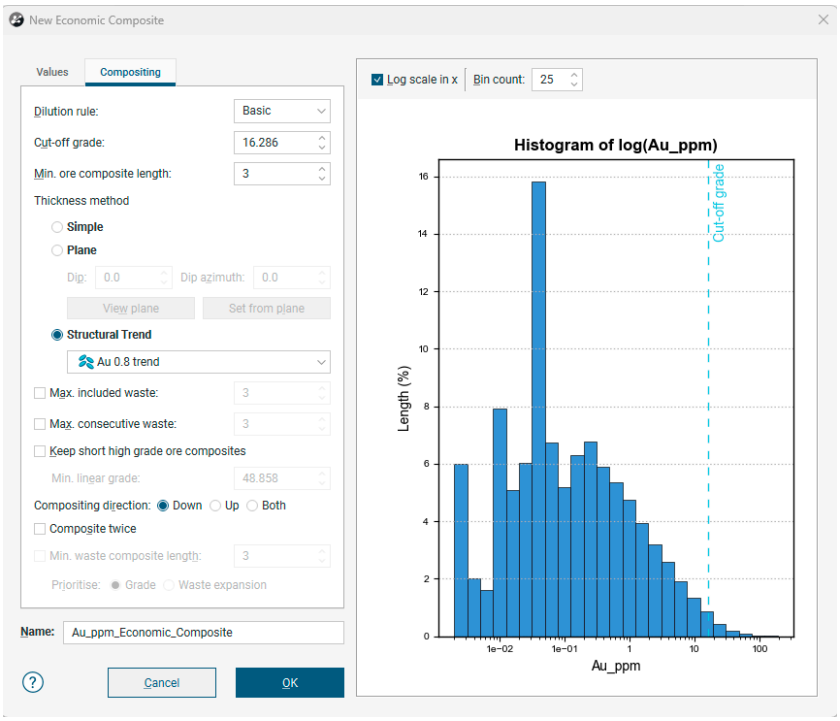
1.1.4.1. New category simplify composite

Leapfrog 2025.3 introduces a powerful new composite tool that gives users greater control over how categorical data is cleaned and simplified while preserving geological context. Unlike traditional compositing that reduces data to Primary, Exterior, and Ignored codes, this new method retains original lithology codes and offers flexible options for merging adjacent segments and converting short or missing intervals. This is especially valuable for workflows like oxidation or stratigraphy modelling, where true layer thicknesses are critical.



1.1.4.2. True thickness in economic composite

Economic Composite now offers the addition of a “Structural Trend” Thickness method, which calculates true thickness at each interval midpoint using a Structural Trend as the reference orientation. This provides a more geologically realistic representation of deposit geometry, especially in folded or dipping terrains. Leapfrog will alert users if the trend input doesn’t overlap with the composited data, ensuring transparency and control.

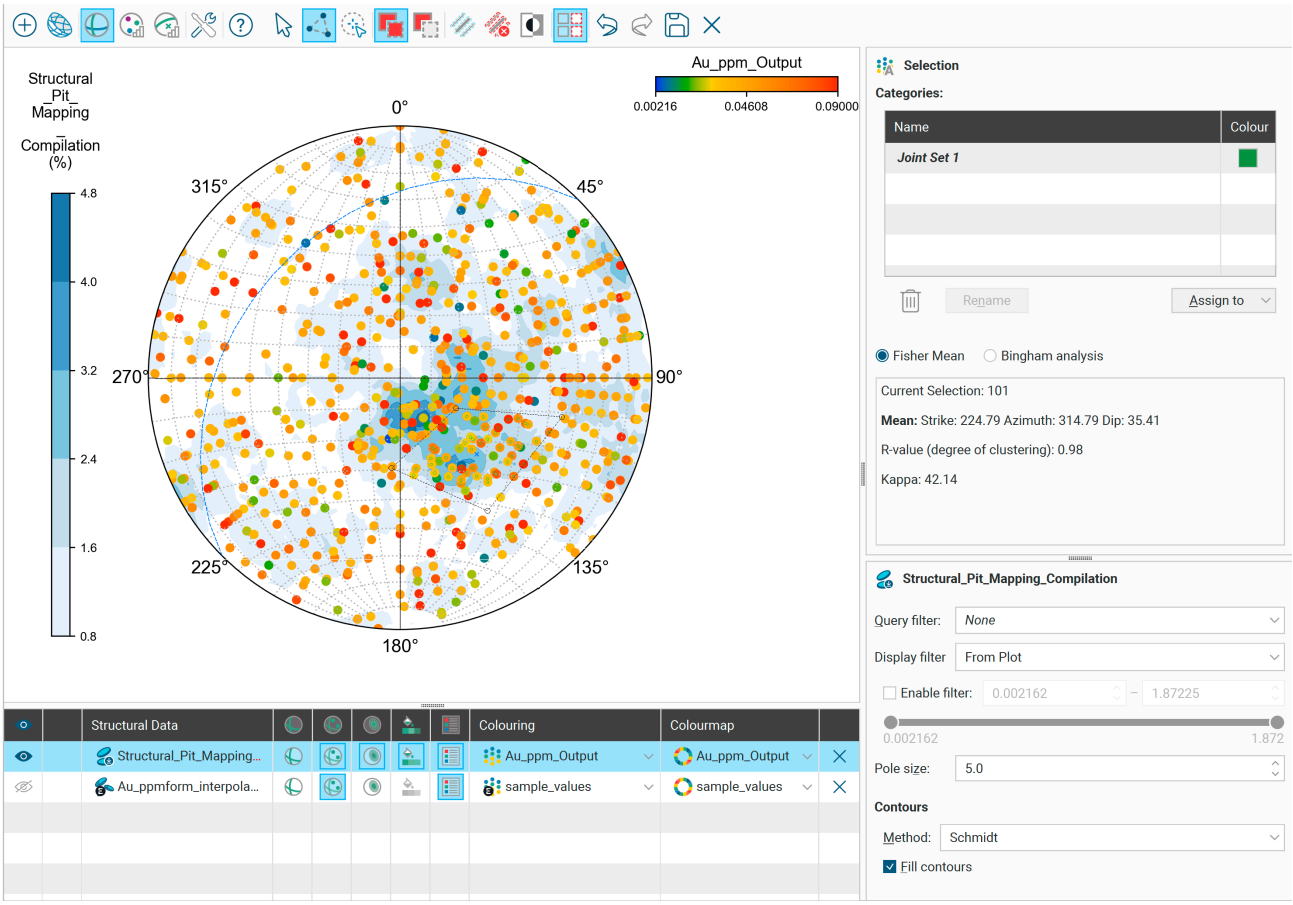


1.2. Deeper insights through enhanced structural capabilities

1.2.1. New interface layout and filtering in stereonet

Latest updates to the stereonet tool make structural analysis workflows easier and more intuitive, thanks to enhanced data filtering options, more flexible editing controls, and cleaned-up interface layout. Users can now filter displayed data by choosing categories from any column, such as grade or geological attributes, which provides deeper insights during interpretation. Editing category selections is now simpler, as you can change both the column and the colourmap at the same time, removing earlier restrictions. The stereonet scene now includes integrated display filtering, like category selectors and double-ended sliders, which speeds up data exploration and sharpens visual clarity.

Additionally, the redesigned properties panel and toolbar boost usability, giving structural geologists and modellers a cleaner, more responsive interface.

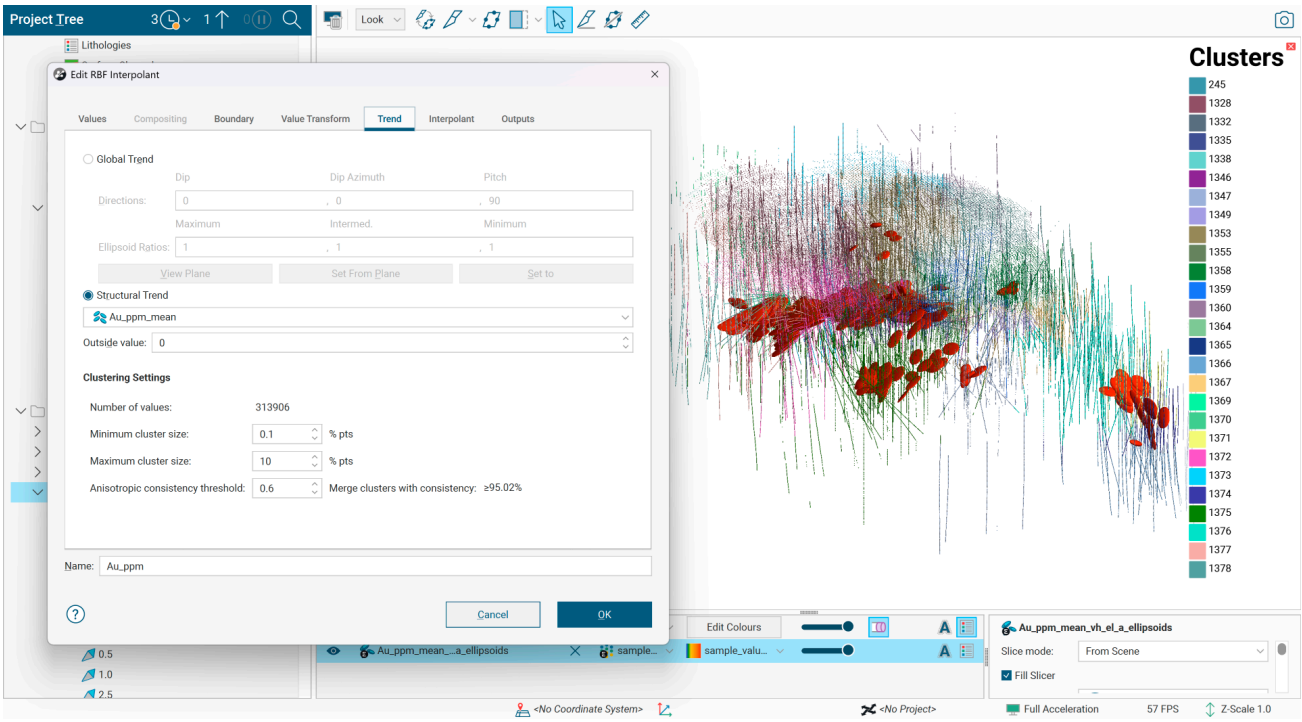


1.2.2. Structural trends

1.2.2.1. Clustering settings

In Leapfrog 2025.3, clustering settings in structural trend have been moved from the trend object to the input model (such as an intrusion surface or suitable numeric models), bringing control and clarity directly to the model and surfaces the trend affects. By separating clustering configurations from the trend and integrating them into an advanced surfacing workflow, users can achieve a deeper insight into clustering processes and benefit from a more adaptable structural trend. This approach enables a single trend to be appropriately applied across multiple models.

To support better model setup, the number of input data points is now shown alongside clustering settings, helping ensure clustering settings reflect the underlying data. Additionally, a new colouring option enables clustering results to be visualized as category-based colourings.

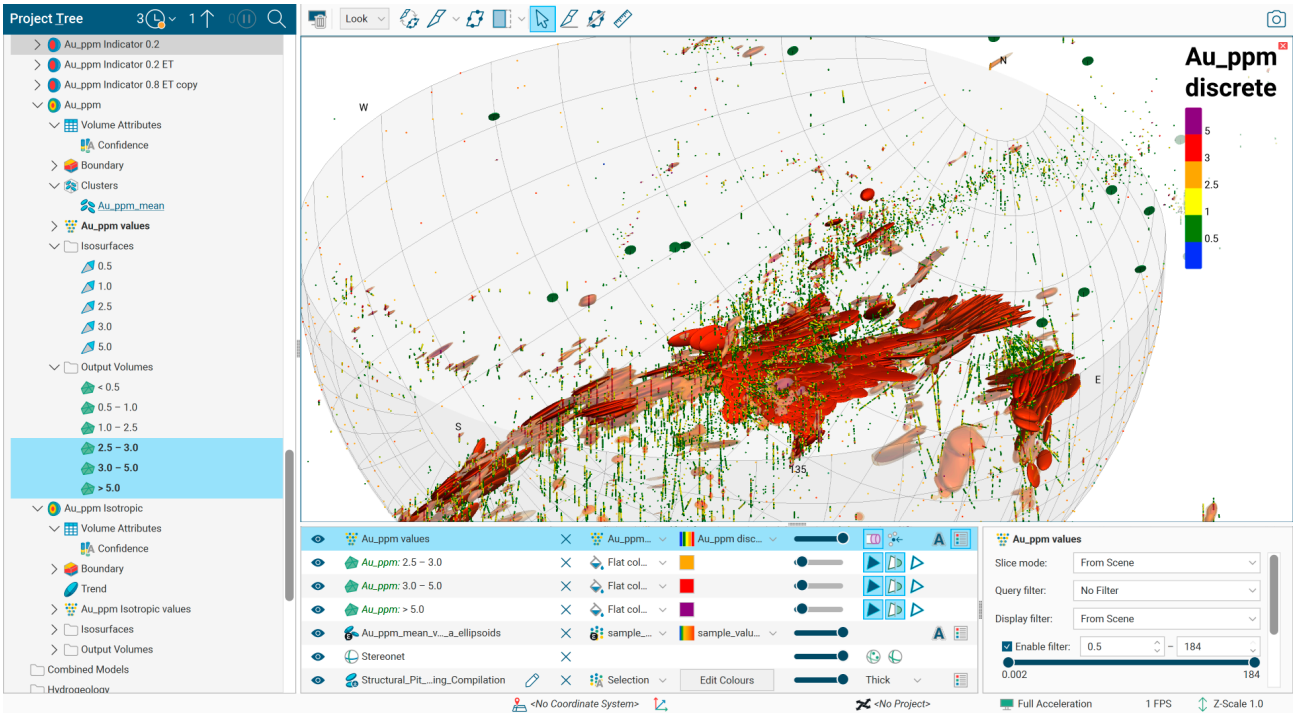


1.2.2.2. Filtering on mesh attributes

To support more flexible data selection in structural trend generation, query filters can now be applied to attributed meshes. This allows for more targeted control over the data used in trend generation, improving the relevance and validity of structural interpretations.

1.2.2.3. Blended trends with global mean trend

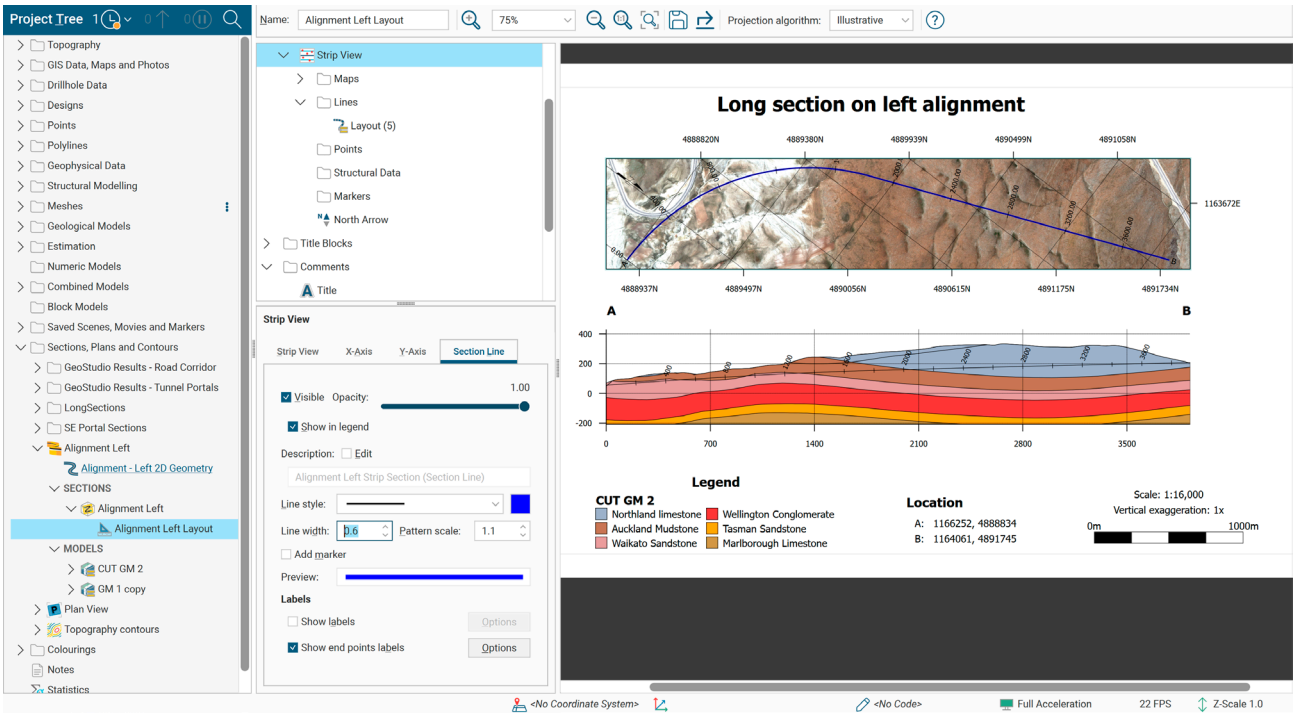
When a global trend is applied to a blended structural trend, the global trend object now appears as an input in the project tree. Double-clicking this object opens the global mean trend tab within the structural trend dialog, making it easier to access and understand how the global trend is influencing the model.



1.3. Better site presentation in sections with strip views

1.3.1. New strip view for long sections

Leapfrog 2025.3 introduces several improvements focused on long sections. Accurately aligning strip views on long sections was a task that previously relied on labour-intensive manual processes and was susceptible to inconsistencies. With Leapfrog 2025.3, users can now quickly add a strip view to any long section by right-clicking on the “Plan View” folder and selecting “New Strip View.” This enhancement removes the need to use a plan view as a workaround, time, effort and double handling work.



1.3.2. New section line controls for strip view

Controls for section line appearance in the strip view were minimal, allowing only adjustments to colour and thickness for customisation. In Leapfrog 2025.3, a new tab called “Section Line” has been added to the strip view and provides a comprehensive set of appearance options. Additionally, the location of endpoint labels (e.g. A to A') can be adjusted directly in the strip.

Together, these updates improve the efficiency and consistency for visualizing section lines in strip views in both regular and long sections.

1.3.3. Minimum distance sign for strip view

A new “Show sign” option under the minimum distance display options now adds “+” or “–” signs to structural measurements on the strip view. This small addition help users better interpret spatial distribution of measurements in relation to section position and orientation.

1.3.4. Chainage and long sections

When alignments that contain chainage information are used to define the long section path, the section parameters default is now set to “line section” rather than “entire line”. This better prompts the user to make use of the chainage information on the object and to focus the long section creation to the area of interest more intuitively.

A new display option has been added to the section’s X and Y axes display options. Again, when alignments that contain chainage information are used to define the section path, a new “projected distance” option has been added and set by default to be checked on. This option adds the chainage distance to the long section axis.

1.4. Geostatistics

1.4.1. Addressing challenges in geostatistical analysis

With new capabilities to saved graphs and statistics, introduced in Section 5.1, users can now save graphs generated from drillholes, points, and block models, ensuring that key geostatistical analyses are preserved within the project. This enhancement streamlines data insights, promotes informed decisions and advances model validation, allowing geologists to maintain a consistent record of univariate and comparative statistics across datasets. By keeping analytical outputs directly tied to the statistical item, Leapfrog delivers a more auditable, repeatable, and confidence-building workflow for geostatistical interpretation and resource evaluation.

1.4.2. Swath plot improvements

In Leapfrog 2025.3, the swath plot has been upgraded to give resource geologists greater control when validating block model estimates. The swath plot is essential for comparing estimated grades against actual data, helping users gain deeper insight into their deposit and validate block models.

Users can now:

- see coordinates for each data point,
- filter blocks by domain, category, or estimation pass,
- view sample counts within each swath to better understand data density, and
- set coordinate limits to focus on specific areas, allowing for more detailed analysis and targeted validation.

These enhancements make the swath plot a more efficient, powerful tool for assessing estimation performance and ensuring confidence in resulting resource evaluations.