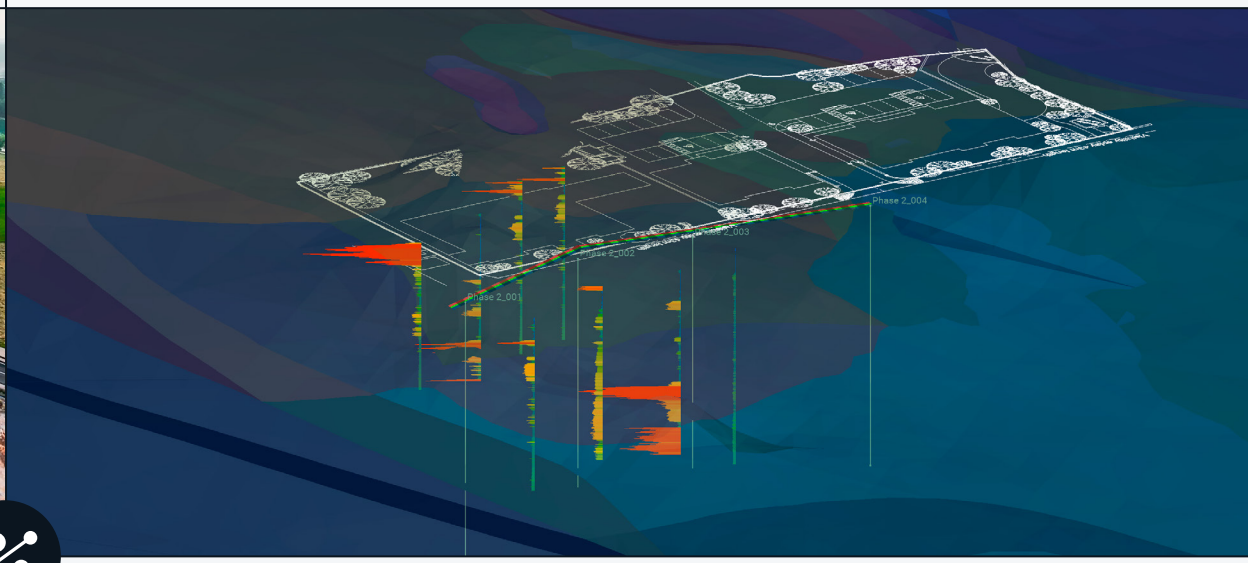
SEEQUENT

Leapfrog Works

2026.1.2

POINT RELEASE

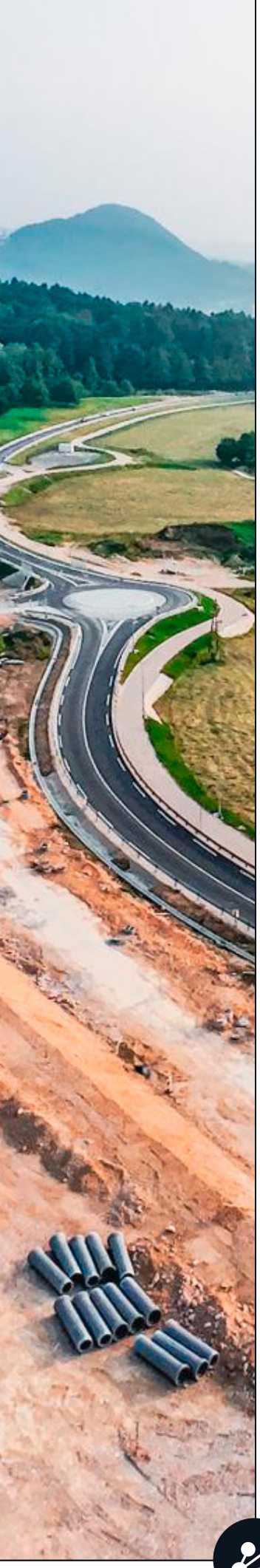
Release Notes



Leapfrog Works 2026.1.0 delivers practical enhancements focused on the core capabilities you use every day. This release targets two critical areas, cross-sections and data analysis, to help you produce higher-quality deliverables with greater control and efficiency.

Key highlights include a significantly improved section creation workflow, with enhancements like auto-syncing end-labels and configurable downhole graphs that speed up the process of creating polished, report-ready outputs. Building on this, new data analysis capabilities, such as scatter plot filtering and batch exports, allow you to perform more of your work directly within Leapfrog Works, creating a more integrated and efficient path from site investigation to final report.

Collectively, these updates refine the capabilities at the heart of your projects, giving you back valuable time and enhancing the quality and clarity of your work.



Contents

1. Leapfrog features and functionality

1.1. Clearer cross-sections, more confident interpretation

Cross-sections are a core part of geological interpretation and communication. In Leapfrog 2026.1.0, we have delivered a suite of enhancements focused on improving the clarity, consistency, and predictability of your section outputs. These improvements reduce ambiguity and manual validation by ensuring that data behaves predictably, graphs are clear, and projections are transparent. Ultimately, this shifts your effort away from *checking if a section is correct* and toward *understanding what it is telling you*, resulting in faster, more confident interpretation and professional reporting directly from Leapfrog.

1.1.1. Improved downhole readability with axes

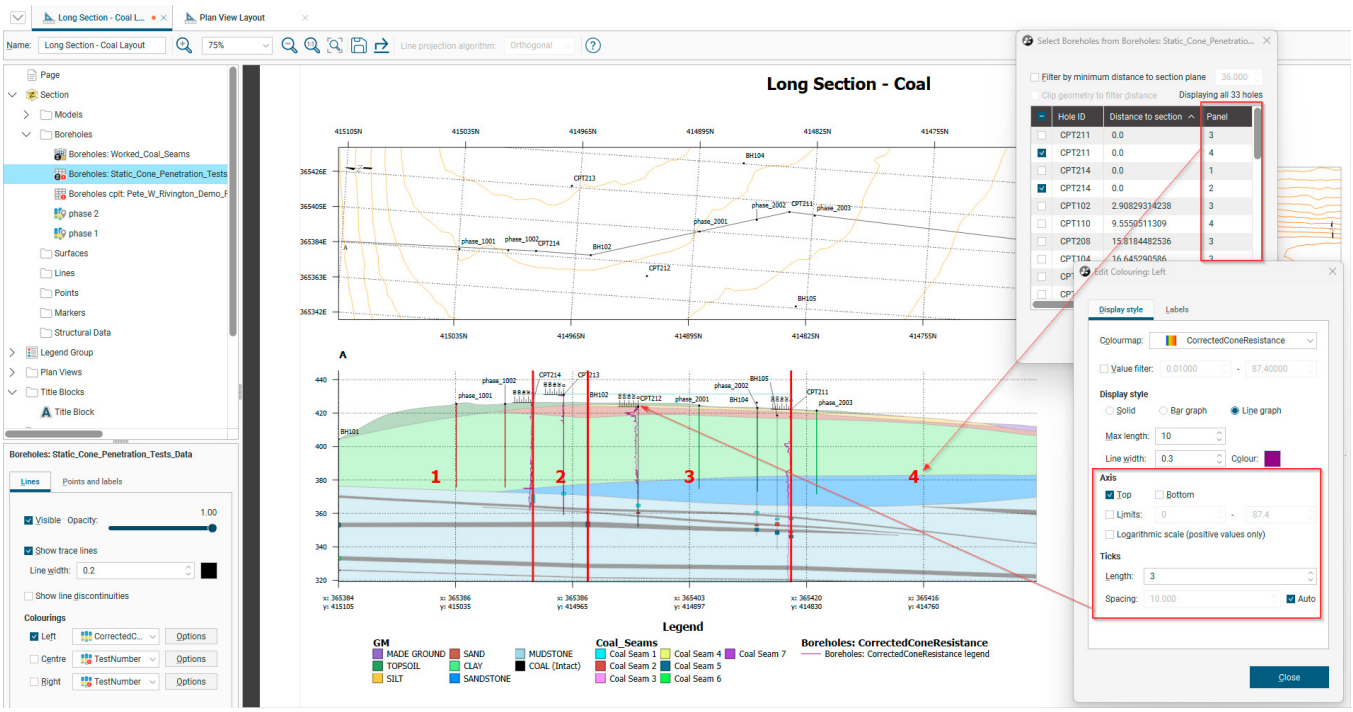
Downhole graphs on cross-sections now provide clearer visual cues and greater control. You can adjust line widths to emphasise key curves, which improves readability when multiple datasets overlap. Axis scales now clearly show value ranges and units, removing ambiguity about what each graph represents. These visual improvements are supported by more consistent axis behaviour and responsiveness, ensuring that both automatic and manual settings behave predictably. Together, this makes downhole graphs easier to interpret, easier to explain, and suitable for direct use in reporting without additional clean-up.

1.1.2. Data confidence on sections

Point projections onto long sections have been refined to behave more consistently and transparently, in line with borehole behaviour. When points are projected, contextual information, such as hole ID, depth, and panel, is displayed, making it clear where each point originates and how it relates to the section geometry. This makes projection behaviour visible rather than implicit, especially in dense or complex sections.

You can sort projected points by multiple criteria and filter by panel, which is particularly valuable in dense datasets. When a projection is ambiguous, the relevant panel is highlighted directly in the section view. Optional visualisation can show the distance from the section plane, and the closest valid projection is always used, ensuring predictable behaviour even in complex geometries.

Projection algorithms for points are now aligned with those used for boreholes. Existing selections and visual settings are preserved, while accuracy and performance are balanced using efficient methods for large datasets and more precise methods where they add interpretive value.



1.1.3. Consistent sections, wherever they appear

Section views are now easier to keep aligned and consistent. Section end labels are automatically synchronised across section views, strip views, and plan views. When you update a label on the parent section, that change propagates everywhere the section is used, including newly created views, reducing the risk of mismatches between related outputs.

This removes a common source of subtle inconsistency when the same section is reused across multiple views.

Plan views embedded in sections also offer more control over presentation. You can choose whether to show or hide the frame around a plan view, allowing you to balance visual emphasis against layout simplicity both on screen and in exports.

1.1.4. Faster navigation in complex layouts

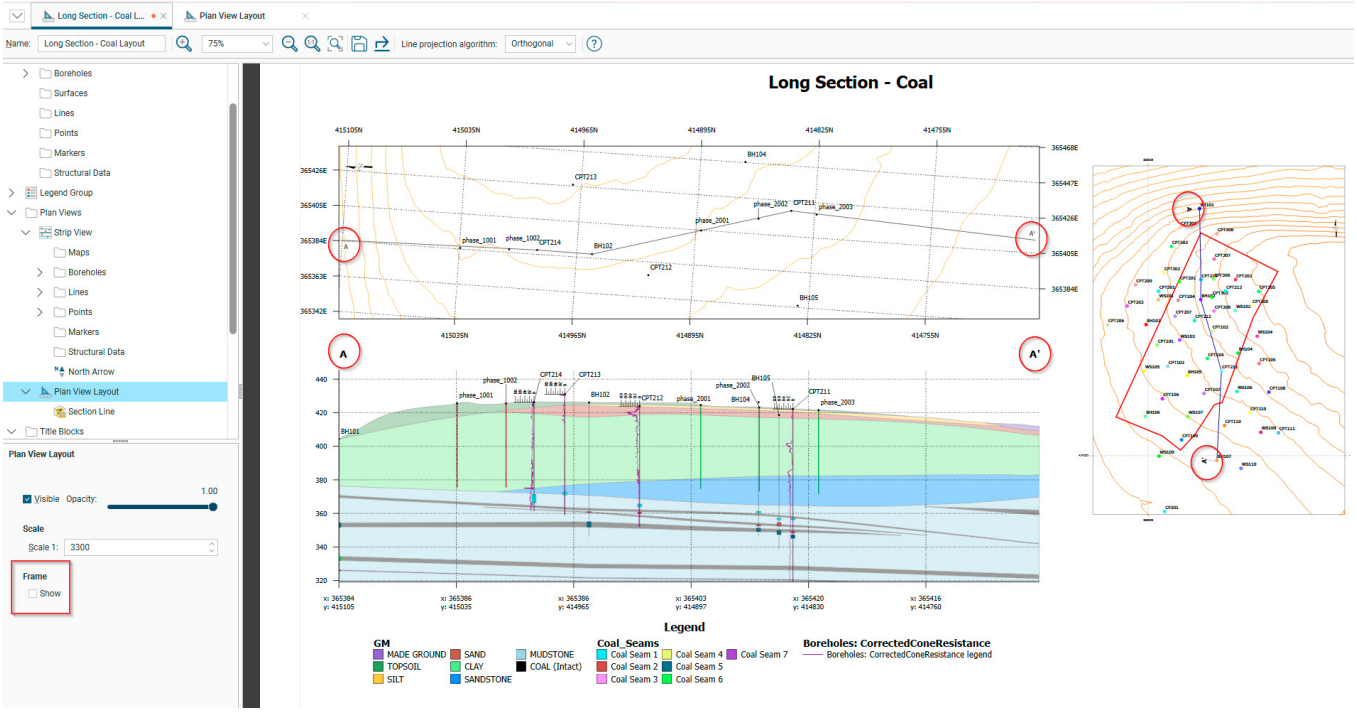
As section layouts become more complex, quickly identifying the right content becomes increasingly important. In the section layout tree, boreholes and related datasets now use clearer prefixes, making it easier to distinguish between multiple borehole sets and their associated data.

This helps users stay oriented when working in large layouts without having to inspect objects one by one. This improves navigation and reduces cognitive overhead when working with large layouts, without requiring changes to existing projects or established workflows.

1.1.5. Greater flexibility with planned boreholes

Planned boreholes are now evaluated onto sections using the same model as actual boreholes, making evaluation more explicit and predictable. Instead of a single combined “planned boreholes” evaluation, you can now select specific planned borehole objects, with clear control over what is evaluated. The strip view folder structure now mirrors the sections folder structure, allowing users to add and manage multiple sets of planned boreholes alongside actual boreholes. Planned borehole groups can be filtered using queries, allowing only relevant planned drilling to be projected.

Existing layouts are upgraded automatically: legacy combined planned borehole evaluations are split into their equivalent objects. This preserves previous results while providing finer control going forward, all without manual rework.



2. Contaminants features and functionality

2.1. Flexible vein surface selection in variable orientation

With Leapfrog 2026.1.0, you have greater control and flexibility when using vein objects as inputs in variable orientation. You can now select which surfaces of a vein system (the hanging wall, the footwall, or both) are used to influence your variable orientation. This enhancement provides more representative and customised variable orientation output, particularly in complex vein geometries.

This new option appears directly in the variable orientation dialog when a vein is selected, integrating seamlessly into your existing workflow. By giving you direct control over the input surfaces, you can ensure the orientation of your data is influenced precisely as intended.

For projects created prior to Leapfrog 2026.1.0 that use a vein object in a variable orientation, the input will default to using the footwall surface only to maintain consistency with previous results. You can now edit the object to select the hanging wall, footwall, or both surfaces to take full advantage of this new flexibility.

2.2. Targeted model validation with swath plots

For the 2026.1.0 release, we have continued to enhance the swath plot in the Contaminants extension, solidifying its role as an essential tool for robust model validation. These improvements are designed to give you greater analytical power, more flexibility, and a significantly faster workflow, allowing you to interrogate values with higher precision and confidence.

- **Deeper and more targeted analysis:** You can now show associated values from a combined estimator, allowing you to display different domains or passes with the same query filter applied into your block model.
- **Analyse data preparation impact:** Visualise the effect of your data treatment by displaying raw, capped, or declustered data directly on the plot. This provides immediate insight into how your choices affect the estimate locally.
- **Experience a faster, more efficient workflow:** We've made significant performance improvements with on-demand processing, so plots update only when you make a change. You can also now duplicate complex swath plots with a single click, dramatically reducing setup time.
- **Create clearer, customizable graphs:** Improved labelling and the ability to customise marker style and size help you create more readable, presentation-ready plots to better communicate your findings.

These enhancements make the swath plot more dynamic and indispensable, helping you validate your models with greater confidence and efficiency.

3. What's new in Leapfrog 2026.1.0

3.1. Borehole data

Leapfrog 2026.1.0 introduces new data analysis capabilities and enhances saved statistics into a powerful, interactive interface for analysis and reporting.

Feature	What's Changed
Compositing comparison	
Side-by-side analysis for composite validation	Instantly compare your data before and after compositing in a new multi-graph view with grade distribution plots, interval length comparisons, and a detailed statistics table. This includes % difference calculations, domain column UX, composite status filtering, and category column support.
Interactive, contextual analysis	All comparison plots are now fully interactive: apply filters, toggle between different numeric variables, and link selections directly to the 3D scene to see data in context.
Deeper residual analysis	Directly investigate and quantify the potential grade bias from how residuals were handled. You can now create a residual category to segment your data and use it in a box plot or statistics table to clearly visualise and report on the impact of your choices.
Saved statistics	
Saved graphs folder in project tree	Saved graphs now have their own dedicated Saved Statistics folder in the project tree. This allows you to manage graphs like any other project object – right-click to open, copy, rename, and view relationships.
More control with expanded filtering and customisation	We have extended categorical filtering to more graph types including scatter plots and comparison graphs for deeper analysis. You also now have more granular control over individual graph settings, such as font size and legend placement.
Embedded statistics on univariate graphs	You can now display key statistics (mean, std dev, etc.) directly on univariate graph views for presentation-ready visuals.
Grouping by numeric column in Table of Statistics	The Table of Statistics now supports grouping by a numeric column.
Accelerated reporting with bulk export	Export all graphs from the Saved Statistics folder in a single click using the "Export All" button. Scatter plot export was also added to the bulk export dialog.

3.2. Modelling and meshes

Feature	What's Changed
Geological modelling	
Scenario testing with copy combined model	Create a non-static copy of a combined geological model, giving more flexibility when iterating designs.
Agile input mesh change for any model surface	You can now change the input mesh for deposits, erosions, and intrusions that were built from meshes, without needing to recreate the surface in the chronology
Organised fault chronology	Arrange faults in the project tree by chronology rather than alphabetically, helping build cleaner structural frameworks.
Structural modelling	
Structural disks from 3 Points	You can now generate structural disks directly from three selected points.
Meshes	
Preserved extruded mesh attributes	When you update a source polyline, the attribute columns on the resulting extruded mesh are now preserved.
Updated attribute icons	The icons for mesh and volume attributes have been updated for improved clarity.

3.3. Cross sections

Clearer cross-sections, more confident interpretation. We've improved both how sections look and how data is presented, so your insights are more consistent and reliable.

Feature	What's Changed
Visual clarity and presentation	
Downhole graph readability	You can now adjust line widths for downhole curves, while clear axis scales show value ranges and units, removing ambiguity. We have also improved axes behaviour and responsiveness.
Consistency across section views	Section end-labels now automatically synchronise across section views, strip views, and plan views. To customise, you can now show or hide frames around embedded plan views.
Faster navigation in complex layouts	Boreholes and related datasets in the section layout tree now use clearer prefixes, helping you stay oriented when working with large, complex layouts.
Improved evaluation of planned boreholes on sections	You can now select planned holes on an individual or query filtered basis for projection onto sections. This makes planned holes consistent with how boreholes are evaluated onto sections.
Data confidence on sections	
Clearer projected-point information	Projected points now display additional context such as hole ID, depth, and panel.
Enhanced handling of dense data on sections	You can now sort projected points by multiple criteria and filter by panel.
Feedback for ambiguous projections	When a point could project onto more than one panel, the relevant panel is highlighted directly in the section view for instant clarity. An optional visualisation shows the distance to the section plane, and the closest panel is always chosen.
Aligned behaviour with boreholes	Points can be managed alongside boreholes to use the same advanced projection algorithms.
Balanced accuracy and performance	Projection methods stay aligned for boreholes on the same section.

Feature	What's Changed
Greater flexibility with planned boreholes	
Per-object evaluation	You can now choose specific planned boreholes for evaluation giving you more precise control over what is displayed on the section.
Strip view	The strip view now has a folder structure consistent with the section folder, allowing you to manage multiple sets of borehole (planned and/or actual) evaluations more intuitively.
Group filtering	Apply query filters when selecting planned borehole groups.
Smarter defaults for individual holes	When you add single deep, directional, or deviated planned boreholes to a section, the relevant evaluation parts are now automatically selected, saving you clicks.
Automatic upgrade of existing layouts	Older layouts using the combined planned boreholes object are automatically upgraded to equivalent evaluations.

3.4. Contaminants

Feature	What's Changed
Variable orientation	
Flexible vein surface selection	You can now select which surfaces of a vein system (the hanging wall, the footwall, or both) are used to influence your variable orientation, for more representative and customised variable orientation output, particularly in complex vein geometries.
Swath plots	
Comparison of multiple associated values	Select and display multiple associated values simultaneously on swath plots. Associated values can now be displayed for combined estimators.
Precise filtering	You can now apply query filters directly to selected items and add filters from within the selected items list.
Clear, report-ready graphs	New graph style settings, improved axis labelling, copy-to-clipboard, and improved overall readability enhance and accelerate your reporting workflow.
Performance improvement	When you remove evaluations from a plot, Leapfrog no longer fully reprocesses the object.

4. Leapfrog 2026.1.1 – Point Release

Leapfrog 2026.1.1 improves stability and resolves specific issues introduced in the 2026.1.0 release. This update resolves project upgrade and stability issues and addresses specific data handling behaviours in the new data preparation workflow in Leapfrog Edge.

Key updates address project upgrade failures for projects containing simplified category composites, 3D SEG-Y data, or combined models with large volume counts. Furthermore, it corrects younging direction calculations in stratigraphic analysis, and resolves specific errors that previously disrupted strip views, swath plots, filtering, and hole planning.

Upgrading is recommended for all users, especially those working with estimation datasets, stratigraphic sequences, or section layouts.

Issue Summary

	Issue	Resolution Summary
1	**An error occurred when viewing composite comparison statistics on a domained estimator using an estimation dataset.**	The issue has been resolved.
2	**An error occurred when adding downhole points to a Strip View via the Drillholes folder.**	The issue has been resolved.
3	**Error when applying/removing a filter on a geological model base column with an advanced stratigraphic sequence.**	The issue has been resolved.
4	**Projects with combined models containing many volumes were stuck on "updating UI" after upgrade.**	The issue has been resolved.
5	**Error when selecting collar location for Multiple Deviation planned holes.**	The issue has been resolved.
6	**Upgrade error from 2025.3.0 to 2026.1 for projects with simplified category composites.**	The issue has been resolved.
7	**Error when opening projects with section layouts containing projected drillhole shapes.**	The issue has been resolved.
8	**Compositing from estimation dataset at the domained estimation level started at incorrect position down the hole.**	Compositing of estimation datasets at the domained estimation level starts at the top of the hole, including where there may be invalid or missing assay intervals. A warning message will now appear when creating a new estimation data preparation with missing intervals.

9	**Error when selecting a triaxial structural trend as the thickness method in a stratigraphic dataset.**	Triaxial structural trends are not available for selection.
10	**Error when upgrading projects containing 3D SEG-Y data.**	The issue has been resolved.
11	**Incorrect younging direction used with planar and structural trend thickness methods in stratigraphic modelling.**	The issue has been resolved.
12	**Swath plot error when evaluating estimators based on interval midpoints.**	The issue has been resolved.

5. Leapfrog 2026.1.2 – Point Release

This point release resolves several issues identified in Leapfrog 2026.1. Upgrading is strongly recommended for all users.

Issue Summary

	Issue	Resolution Summary
1	**Incorrect dip and azimuth calculated for planned boreholes in certain situations.**	The issue has been resolved.
2	**Planned hole collar incorrectly snapped to topography on Save & New Hole**	Save & New Hole now keeps the next collar at the previous holes elevation instead of snapping to the topography.
4	**Swath plots could be stuck in an error state after upgrade**	The issue has been resolved.
5	**Error when removing estimators from swath plots**	The issue has been resolved.