

SOFTWARE RELEASE NOTES

Version 2023.2.1

PETROSYS PRO



Connectivity



Mapping & Visualisation



Surface Modeling

Petrosys PRO 2023.2.1 takes visualization to the next level with a completely new X Section module and a Fault Statistics module.

Building on the strong collection of innovative and improved features in the PRO 2021 series across Connectivity, Mapping & Visualisation and Surface Modeling, Petrosys PRO 2023.2.1 delivers the latest functionality whilst the enhanced development of existing features continues to add value to our client's software investment.

Highlights

X Section application: the next step in advanced visualisation making it easier for you to understand the relationships in your structure and achieve an accurate representation of the subsurface.

- Fast and Easy: Create a line of section from an existing Petrosys PRO map.
- More Powerful than Ever: View surfaces in the cross section before & after editing and re-gridding.
- All your Data in One Place: Display data from 3rd party vendors and compare in cross section.

Fault Statistics: development driven by customer feedback the new tool gives users access to plotting capabilities, thematic mapping, editing functionality, rose diagrams and much more.

Licensing updates:

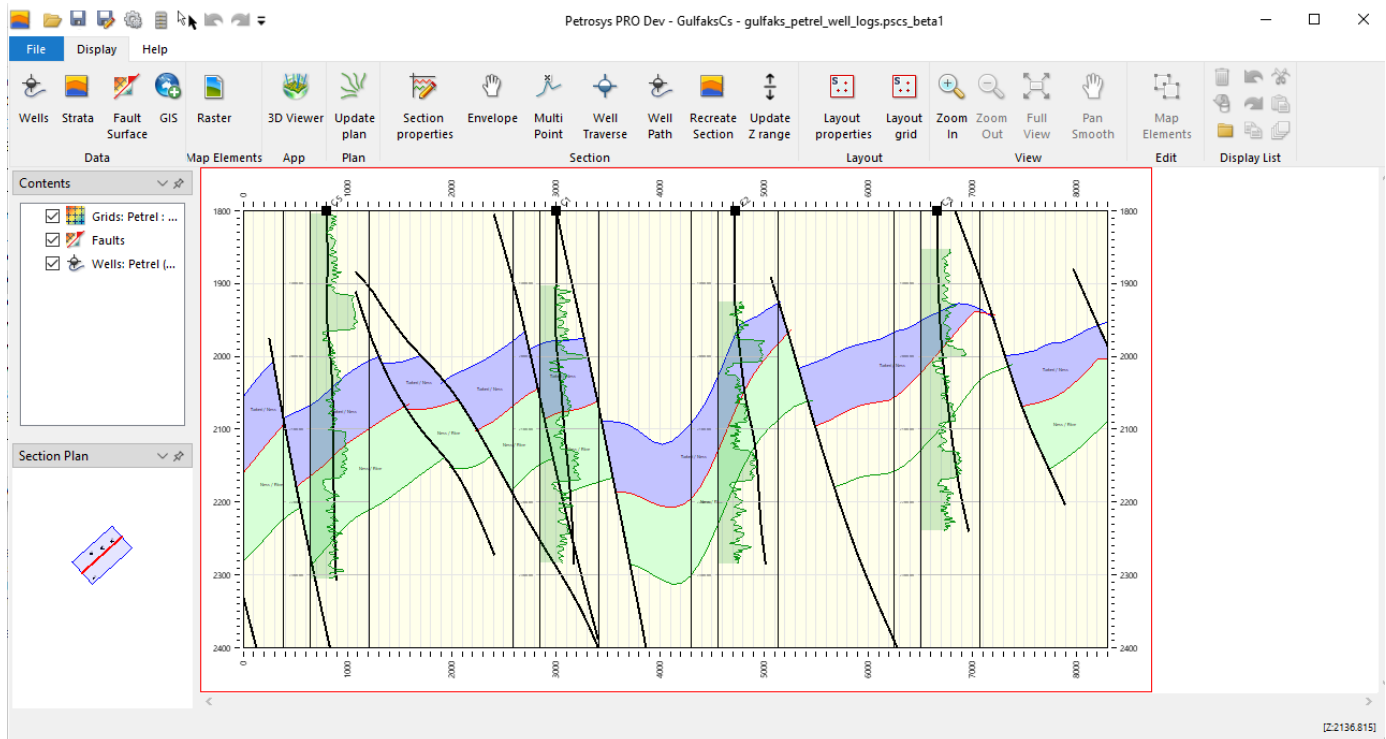
- PRO 2023.1 requires a new license file to be installed for all clients.

Supported Environment updates of note:

- Linux platforms RHEL7 and RHEL8 are supported, RHEL6 is no longer supported.
- Windows 10 is the minimum supported version for Windows.

For more information on how to put these features into practice please contact support at support@petrosys.com.au and learn more from our webinars, video and portal resources.

X Section



A completely new application for generating cross sections.

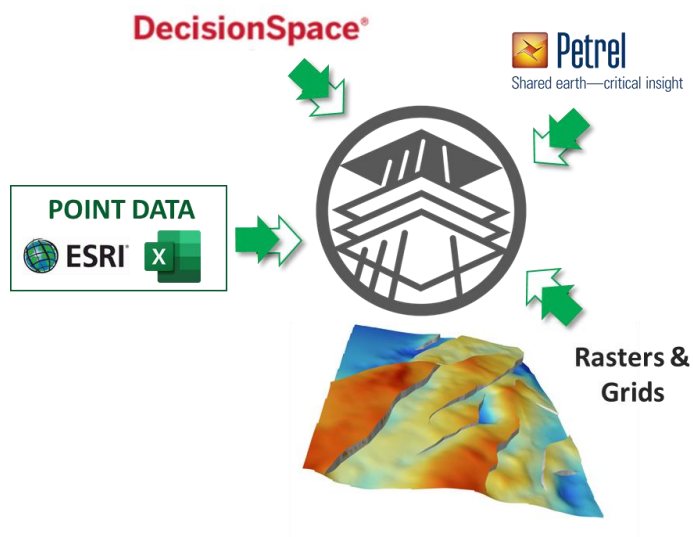
Pick a single line, well traverse multi point traverse or single well section. Create in Mapping or the new X Section application. Well display, horizons, faults and GIS data can be displayed in the section. The layout properties are customisable to suit each section created.

Features:

- New module for a standalone (top level window) X Section application, targeting structural cross sections, accessed from main Petrosys menu or from within Mapping (populated from current Map display).
- Tied to 3D viewer licensing
- Standard display list functionality - layer ordering and grouping, visibility, undo/redo, copy/paste, drag and drop.
- Different methods to define line of section: single line segment, multiple line segments, well traverse (SH, BH or marker), well directional survey. Interactive editing in plan-view where applicable.
- Horizon flattening - Choose one horizon and adjust relative so horizon appears flat. Deals with pinch-outs
- Display of multiple surfaces/grids, wells, fault surfaces, and cultural information.
- Full control over annotation, colors, lines etc., including the ability to color fill between surfaces/horizons.
- Simple interactive correction of ambiguous zones
- Presentation map elements – title block, legend, location map, text annotation, image/picture display
- Reading and displaying of log data read from all supported Well Log sources (Petrel, OW, Paradigm, Kingdom, DUG, IC (ODM), dbMap)
- Shared cursor tracking between X Section, Map and 3D Viewer
- Maps to be drawn in cross section as an inset and cross section images to be drawn on Map
- Standard output and export options (hardcopy, pdf, pptx, raster image, SVG).

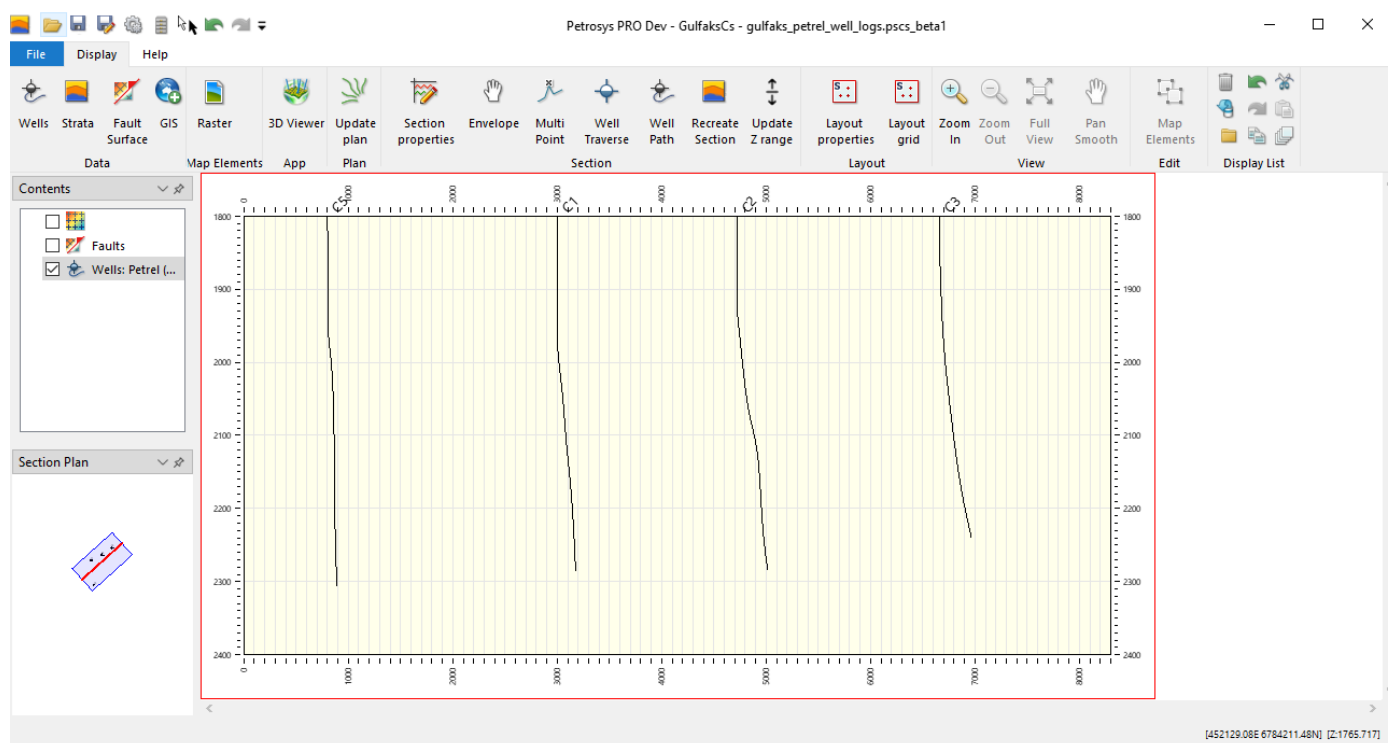
Drag and Drop

Drag and drop supported data from your interpretation package onto the X Section. Multiple data sources are supported in the one section.



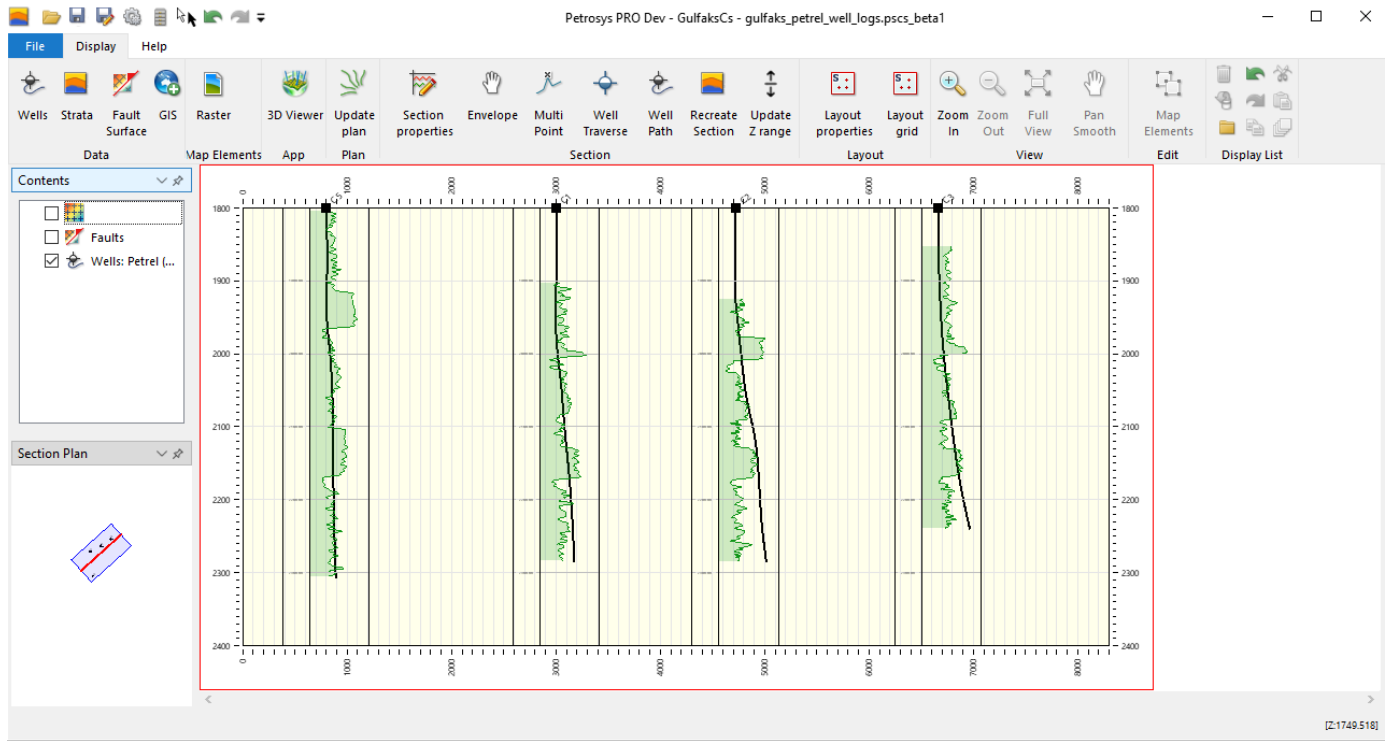
Wells

Well paths can be displayed with annotations for well name, tops and more.



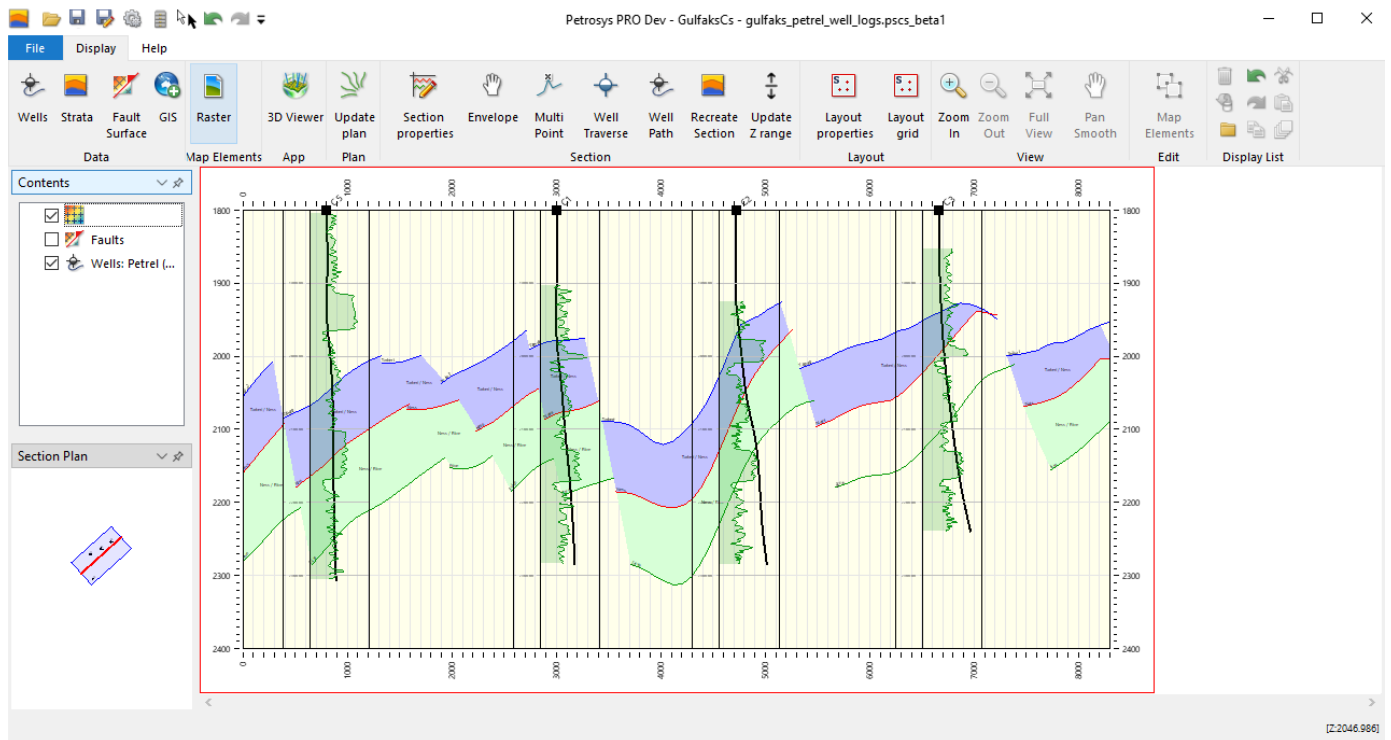
Well Logs

Wireline logs for wells can be displayed as part of the well display.



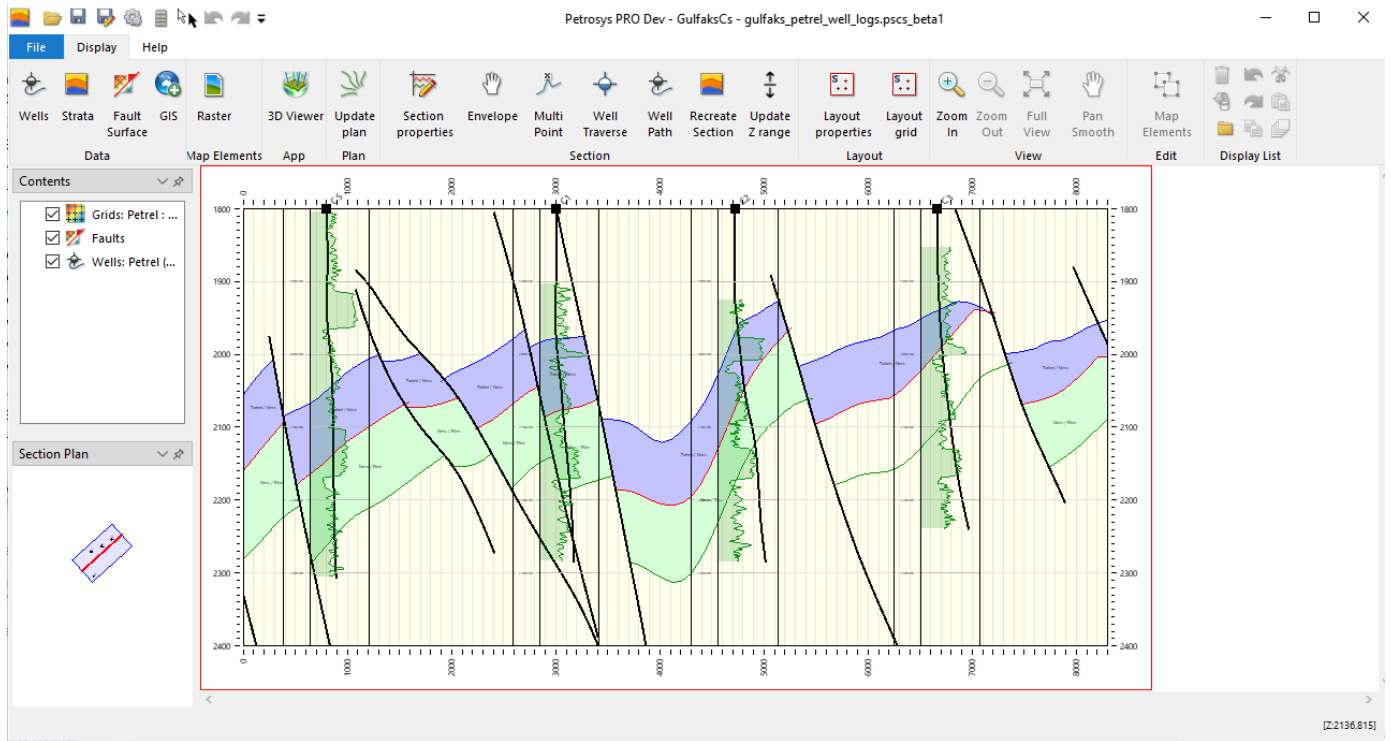
Horizons With ColorFill

Zones can be created either manually or automatically from the surfaces selected for display. Automatic assigned colorfill or manual color selection is also available.



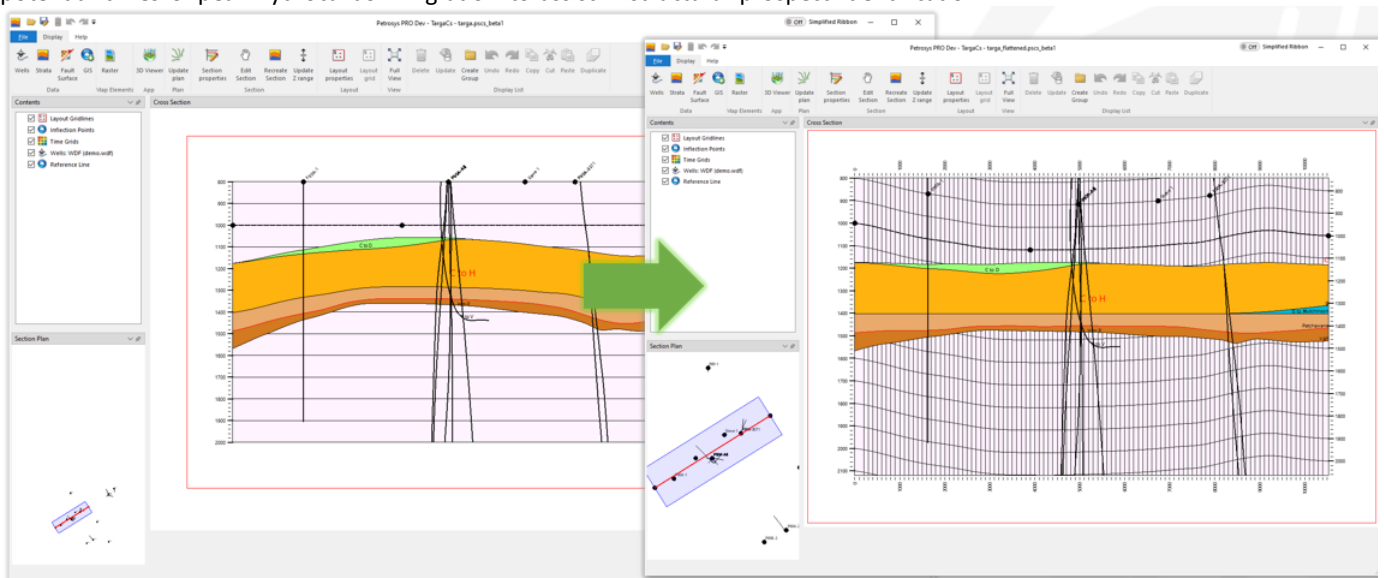
Faults

Fault surfaces from the interpretation packages can be displayed on the section with full control over display options.



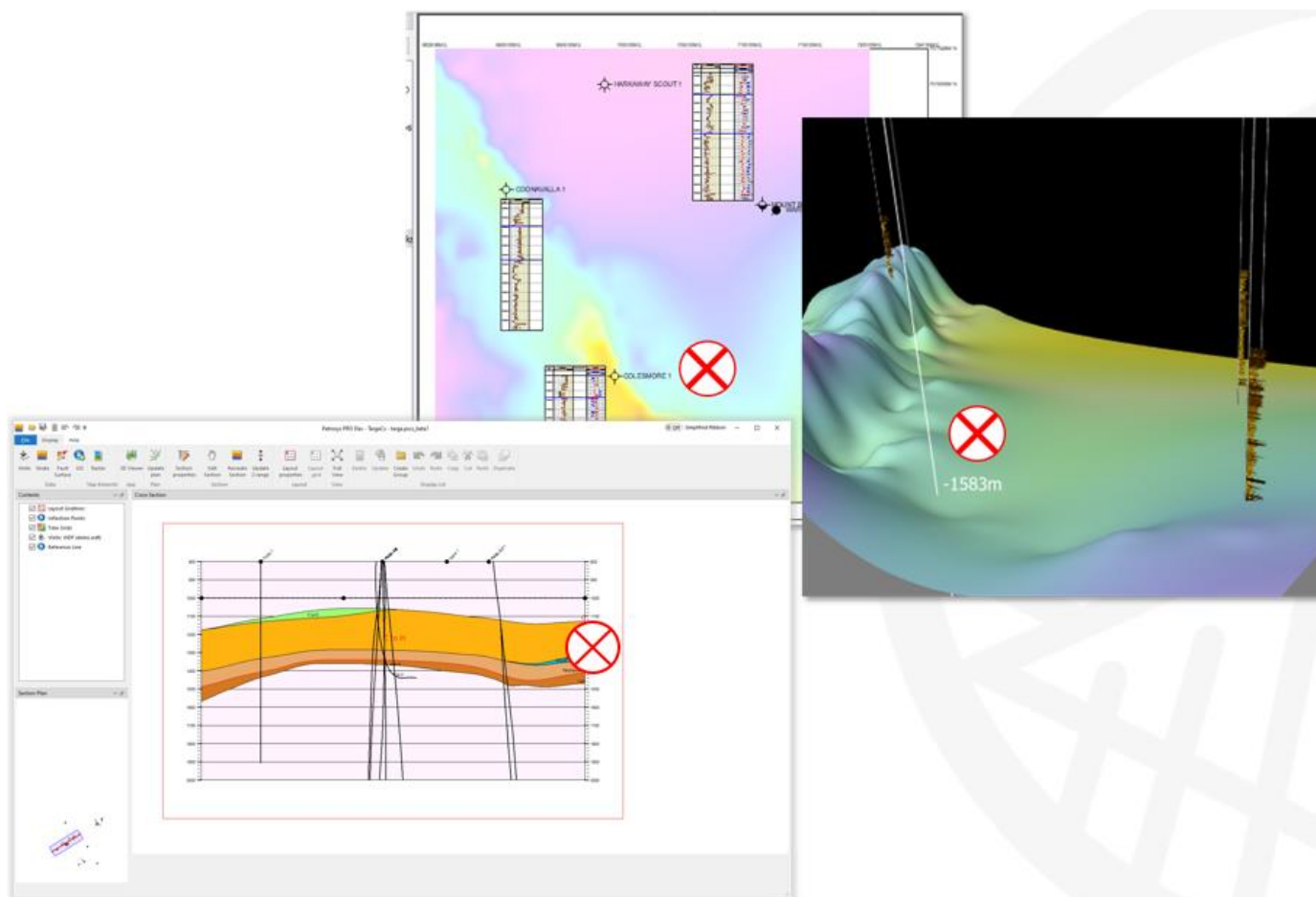
Flattening

Surfaces can be chosen to be flattened, the thickness to other surfaces is honoured allowing the interrogation of surfaces at potential times of peak hydrocarbon migration to assist in structural prospect identification.



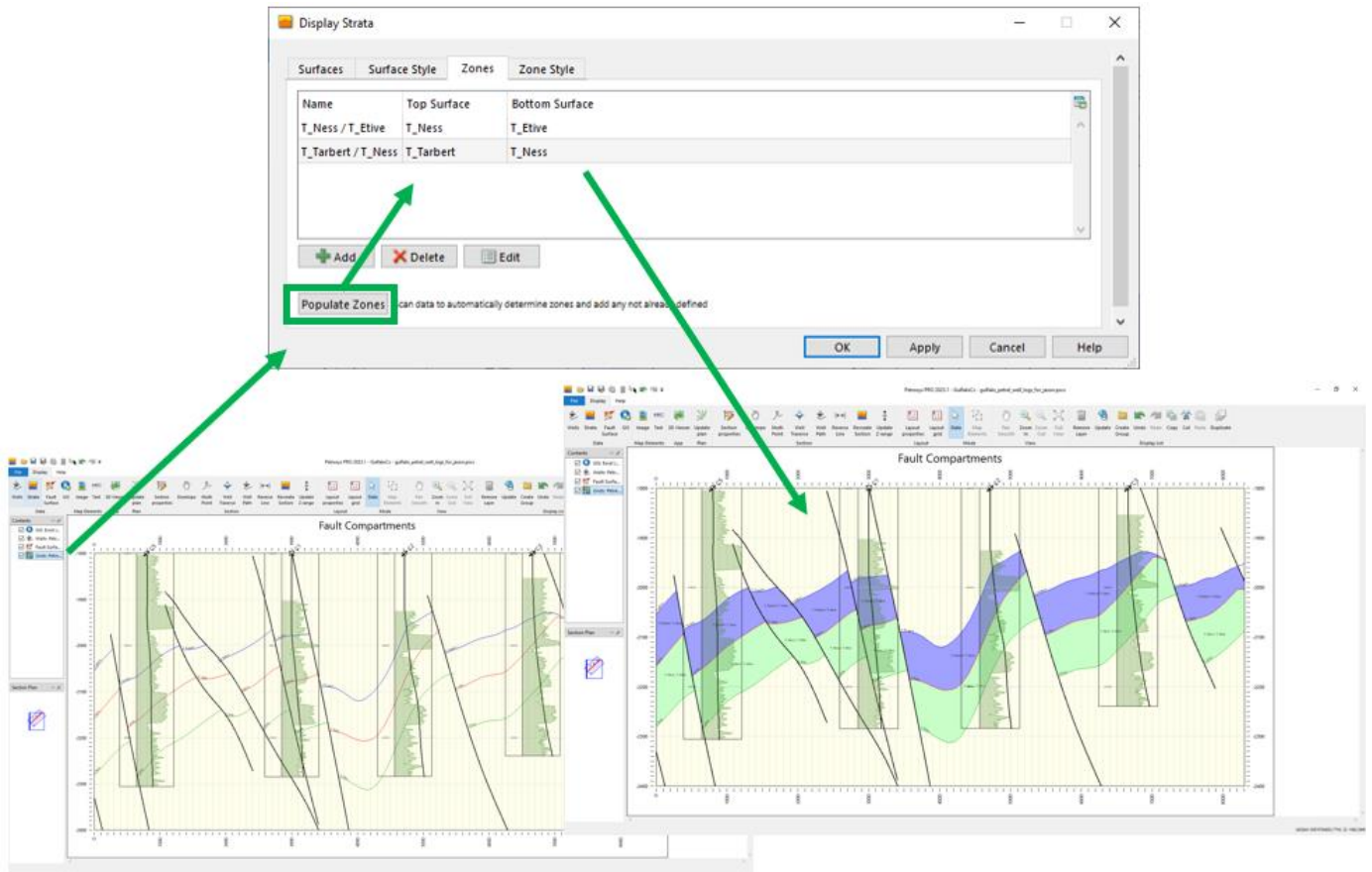
Shared Cursor

When X section is linked to mapping and/or 3D Viewer the mouse cursor can be seen in all three windows to view the relationships in 3D, plan and section views.



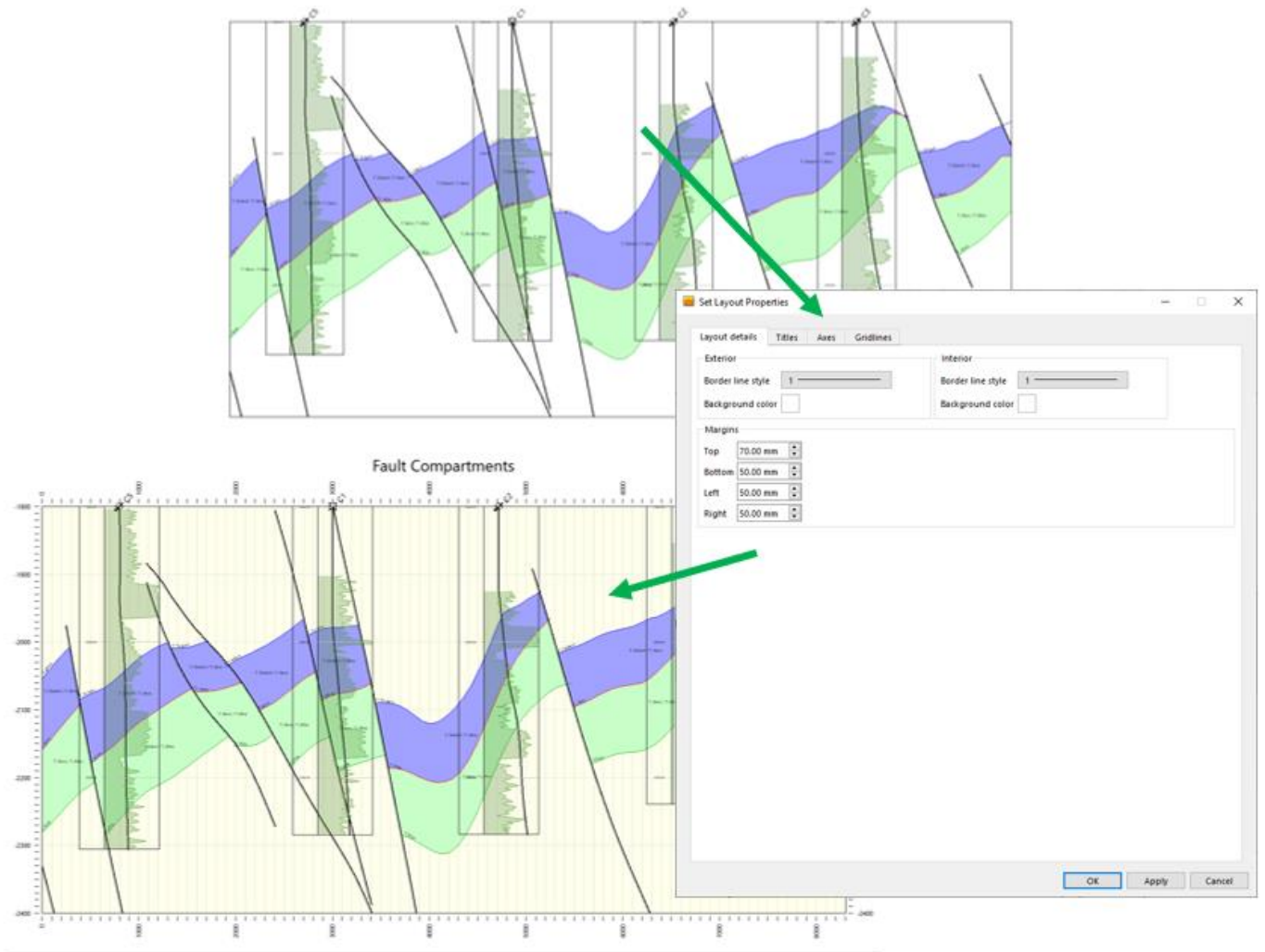
Auto Populate Zones

When displaying and generating zones between surfaces, zones can be generated by the click of a button to save time. Zones are still able to be created, modified and deleted as necessary.



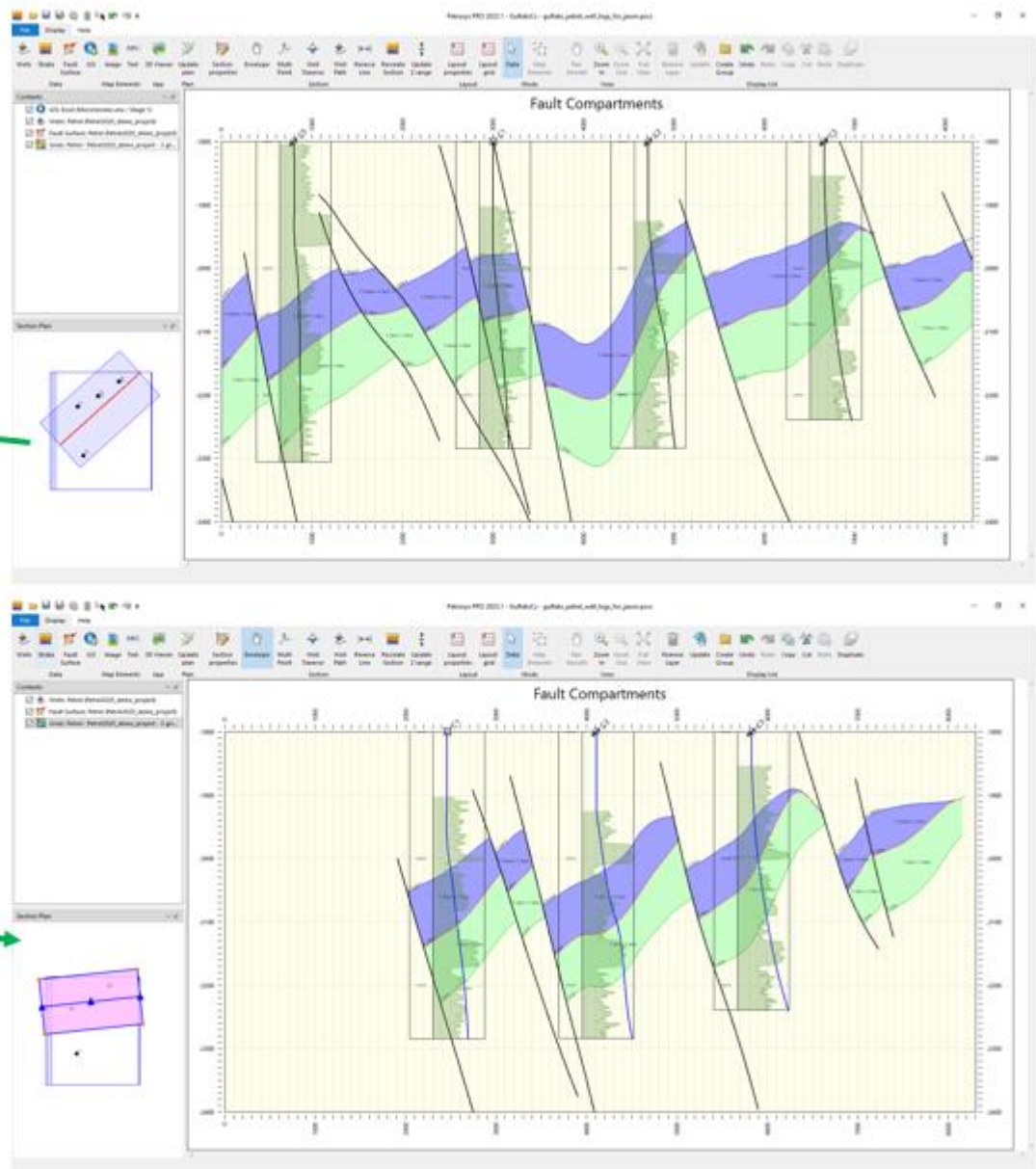
Style Control

Background color, annotation, grid and tick marks can be added, modified and customized to suit the X Section requirements.



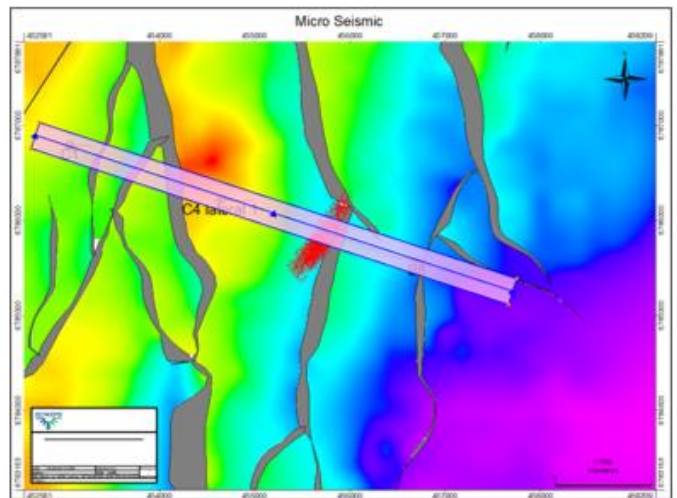
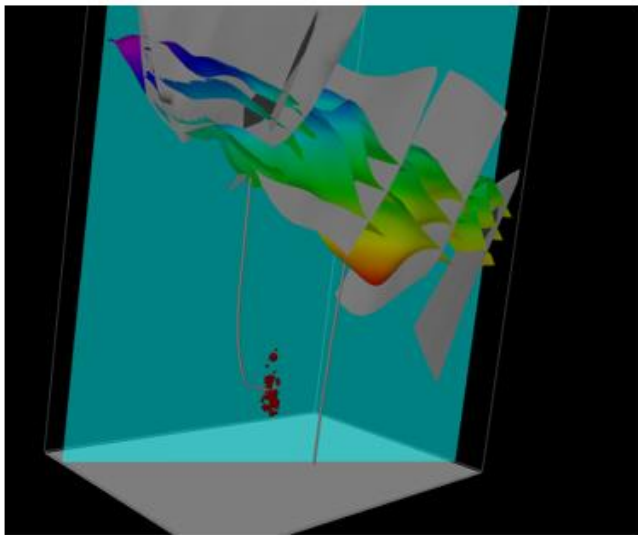
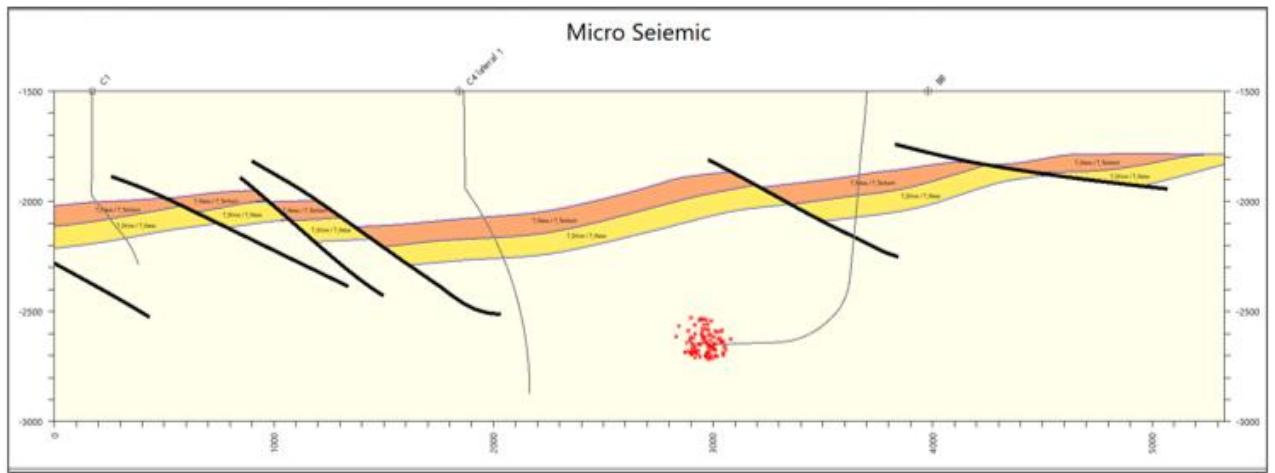
Manual Scroll and Rotation of Line

In the Map window the line of section can be moved, rotated and re-picked to show a section over a different line of section with the existing section properties, saving time creating new sections.



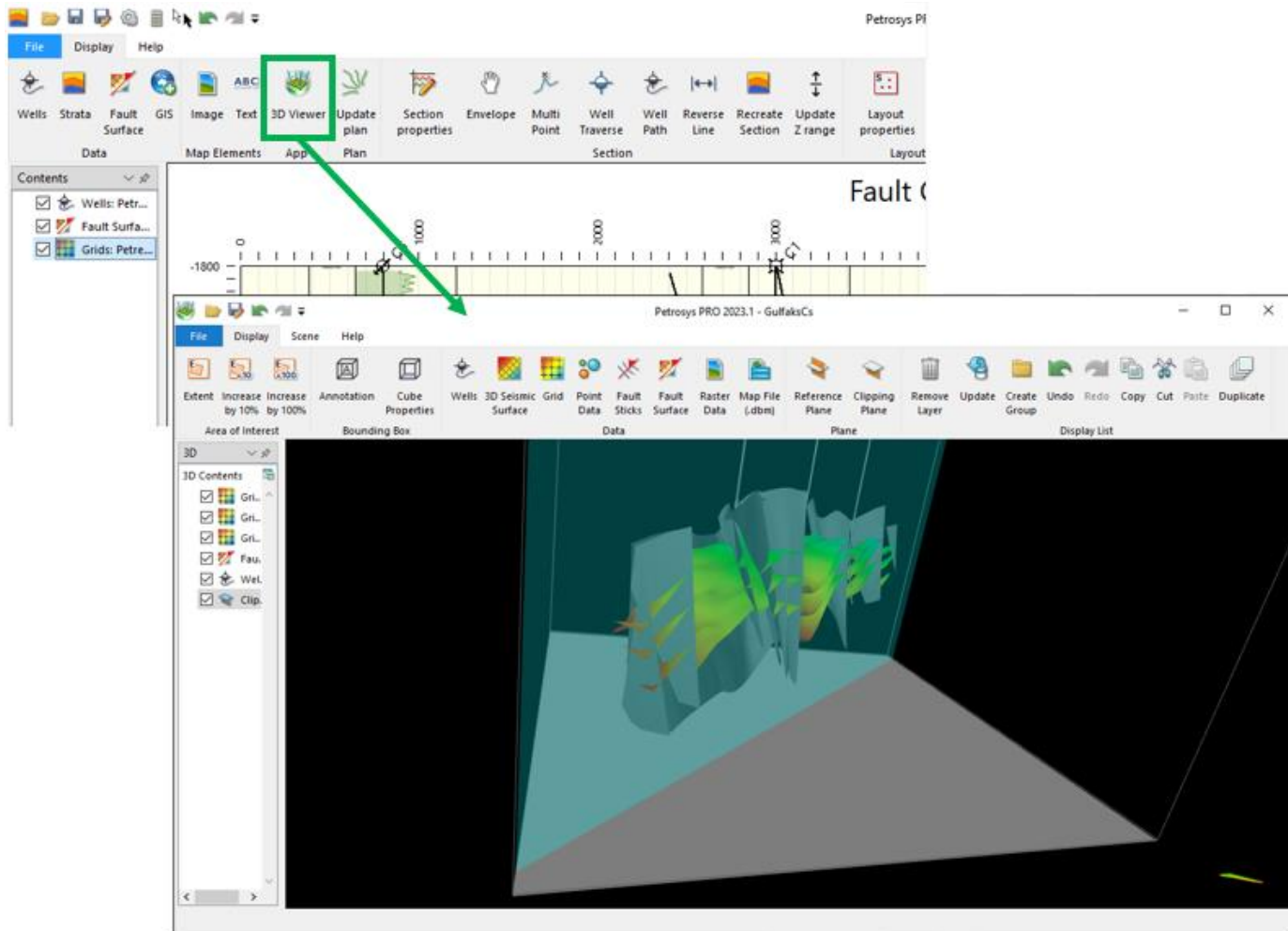
Display GIS

GIS data can be displayed where location and depth data is included in the datafile. Multiple GIS data sources and types are supported.



[Link to 3D Viewer](#)

The supported data displayed in the X Section can be displayed in 3D viewer with the click of an icon.



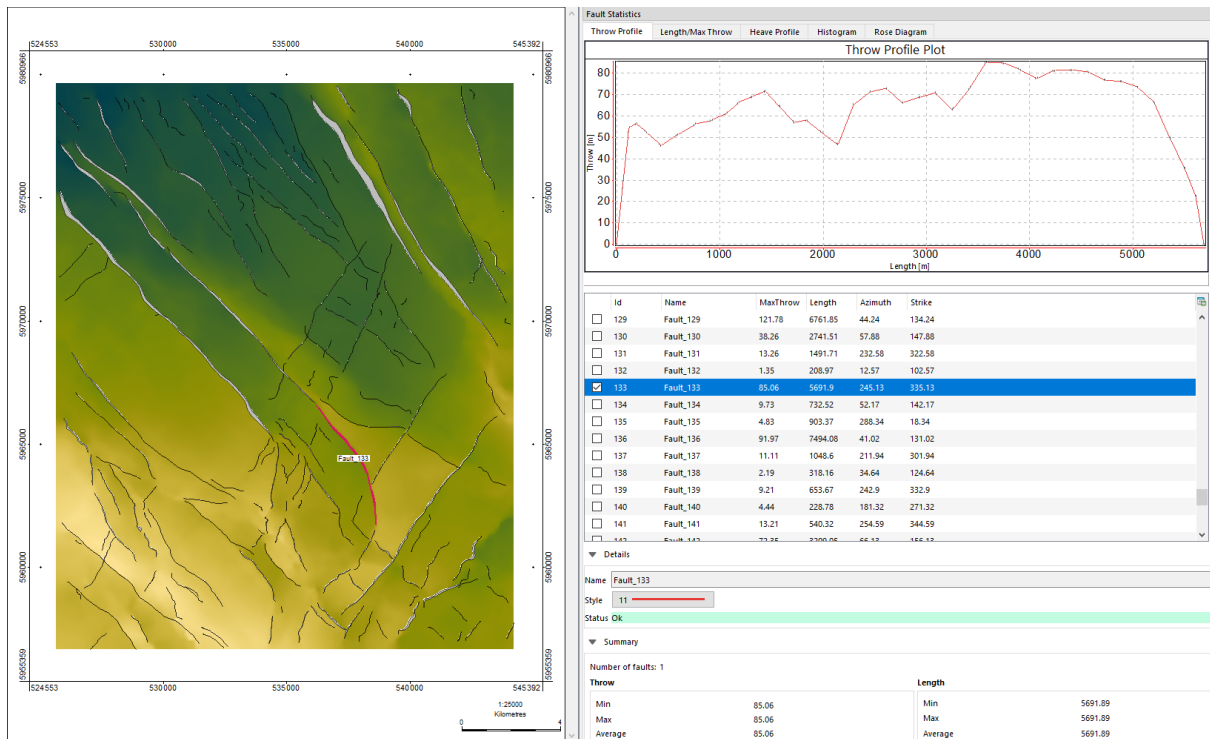
Fault Statistics

The launch of Petrosys PRO 2023.1 delivers into the hands of our users exactly what they asked for in a Fault Statistics tool.

- Plotting Capabilities: Visualise the throw-length profiles and cross plots of fault statistics.
- Thematic Mapping: Show distribution of the throw gradient across the length of each fault, useful for identifying high slip zones & fault QC.
- Editing Functionality: Directly edit the throw profiles and feed those edits back into the fault polygon data set or use in conjunction with the spatial editor.

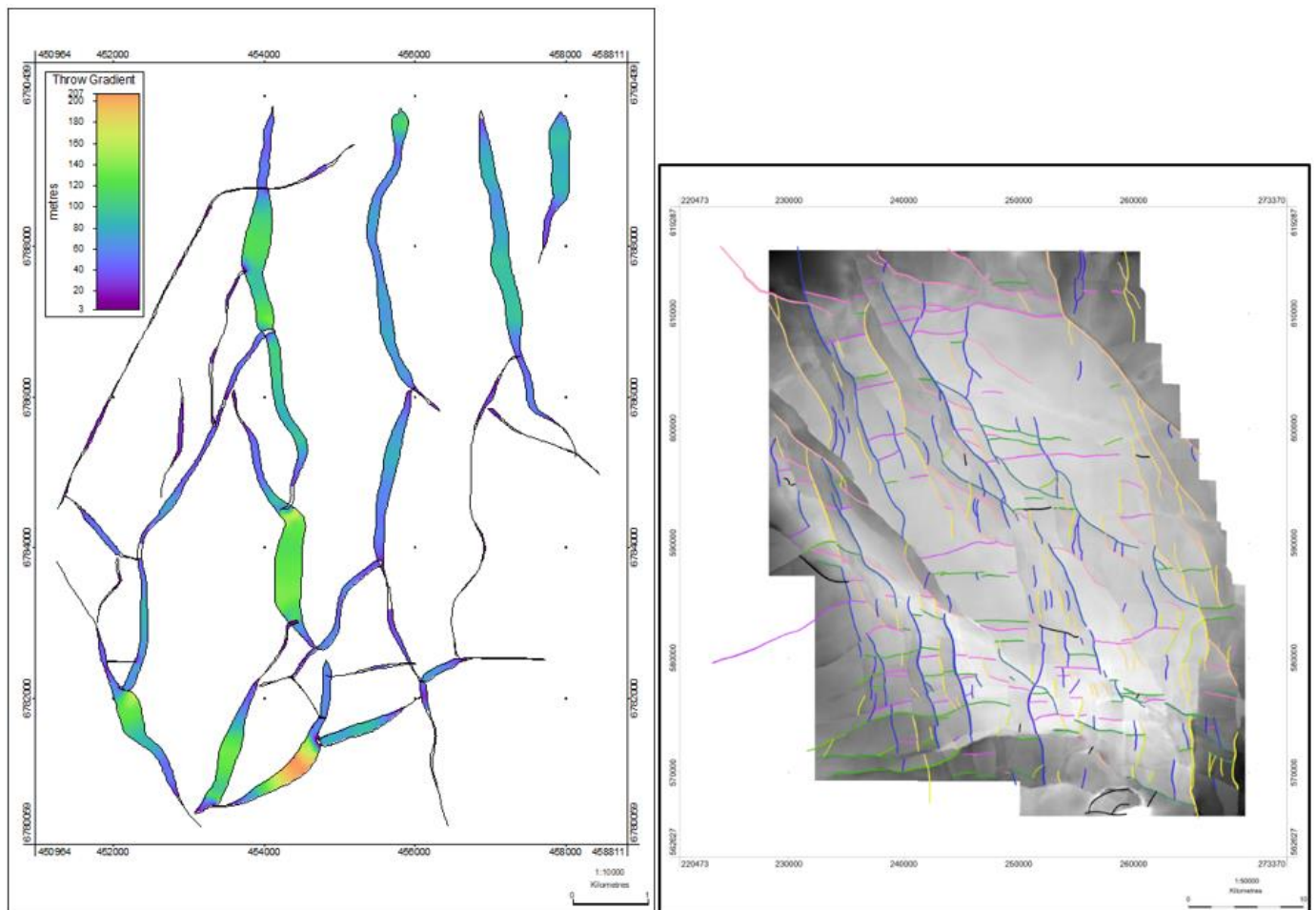
Throw Profiles

- Extract information on the maximum throw, fault length, azimuth and strike for a fault dataset
- Assess the validity of a subsurface map through the assessment of a single or multiple faults e.g. validate your trap.



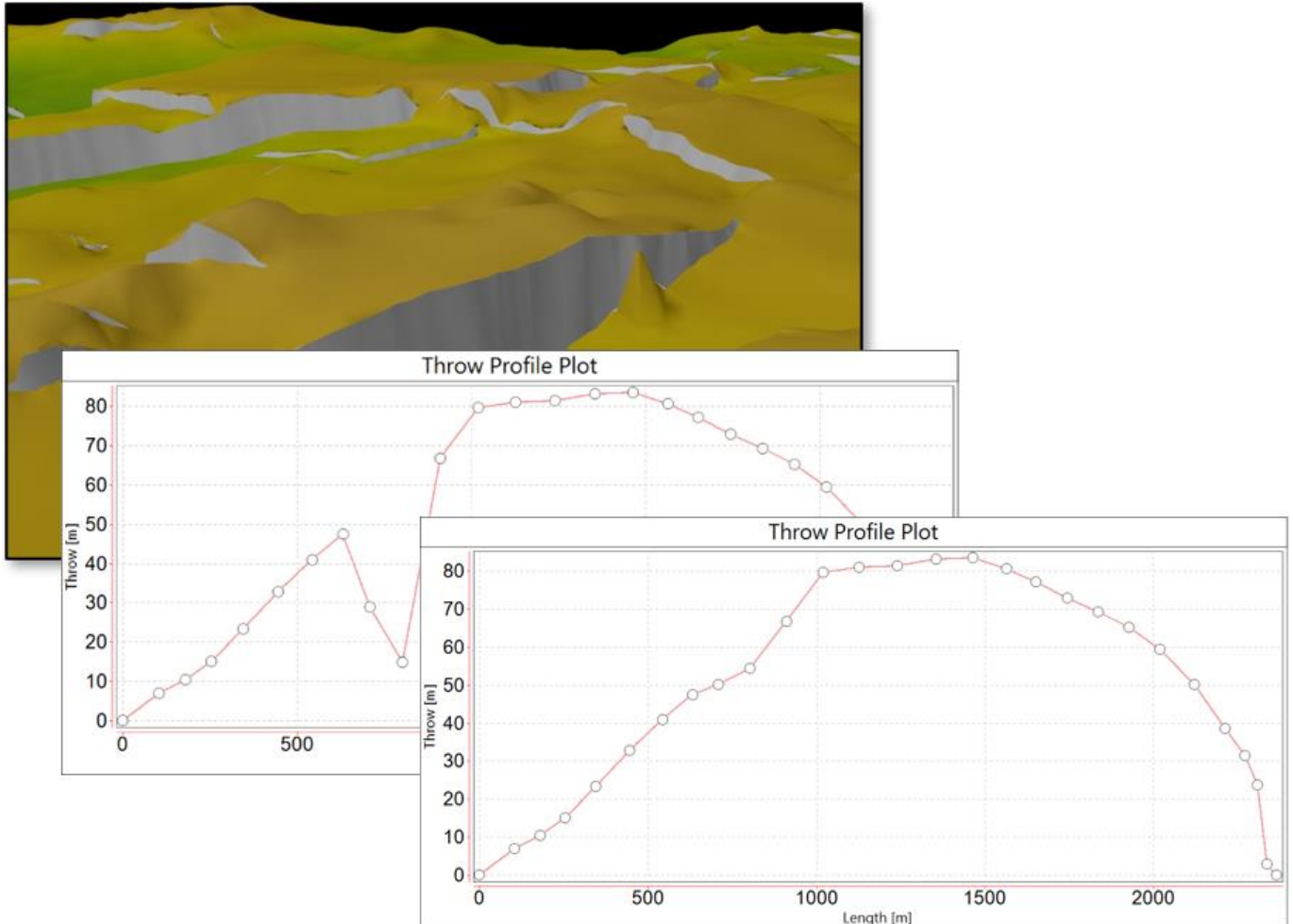
Thematically Map Fault Attributes

- Visualise throw distribution by mapping throw gradients across the length of the fault
- Quickly identify high slip zones which has implications for lithological juxtapositions
- Analysis spatial relationships by thematically mapping max throw, length, strike, azimuth.
- Access to filtering and annotation tools to better group faults.



Data Editing

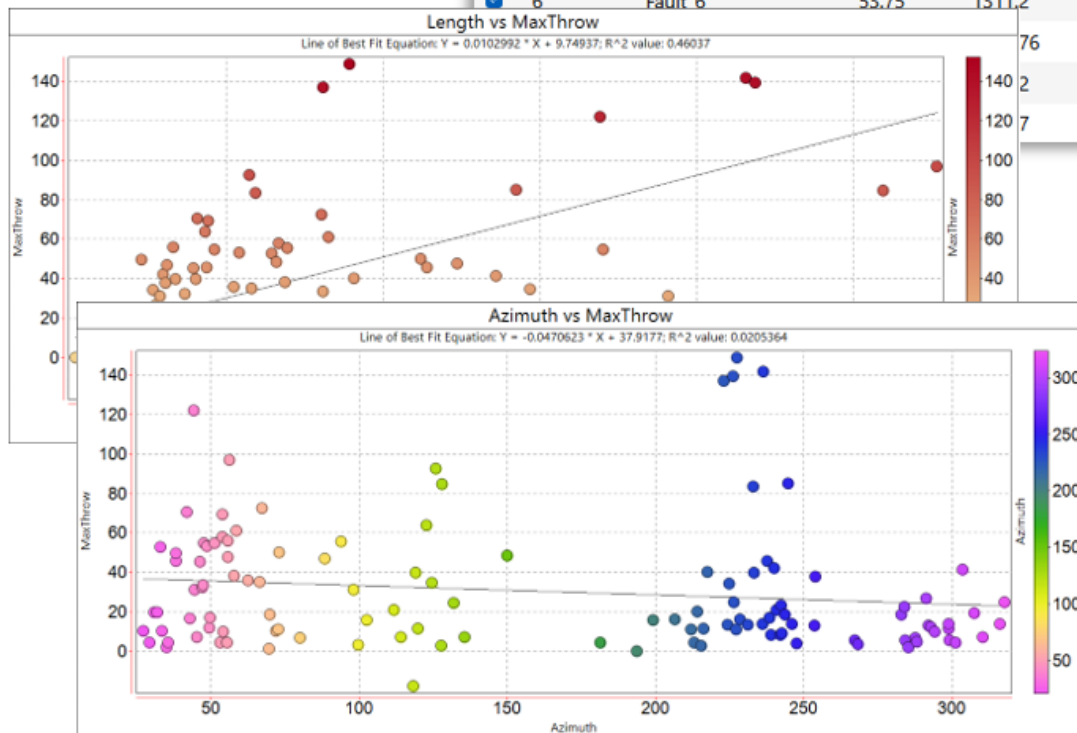
- Carry out edits directly in the throw-length plot to adjust the amount of throw interpreted along a fault
- Edits are fed back into the fault file
- Use in conjunction with the Spatial Editor.



Cross Plotting

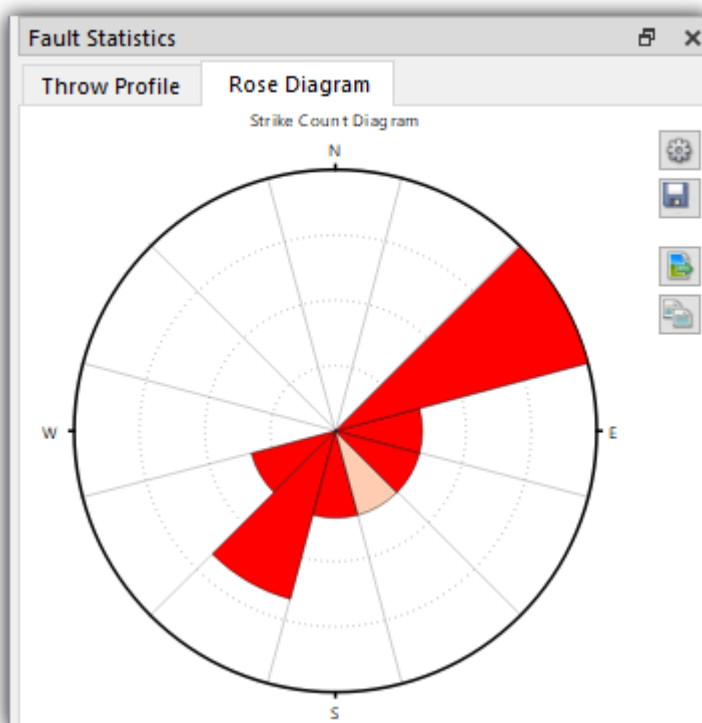
- Analyse the relationship between the maximum throw, fault length, azimuth and strike for all faults
- Identify outliers e.g. fault segmentation issues.

	Id	Name	MaxThrow	Length	Azimuth	Strike
<input checked="" type="checkbox"/>	1	Fault_1	4.98	260	285.63	15.63
<input checked="" type="checkbox"/>	2	Fault_2	1.83	242.96	286.11	16.11
<input checked="" type="checkbox"/>	3	Fault_3	2.74	316.07	126.6	216.6
<input checked="" type="checkbox"/>	4	Fault_4	16.24	1288.14	285.85	15.85
<input checked="" type="checkbox"/>	5	Fault_5	4.3	757.19	303.98	33.98
<input checked="" type="checkbox"/>	6	Fault_6	53.75	1311.2	54.49	144.49



76	293.17	23.17
2	224.39	314.39
7	73.57	163.57

Rose Diagrams



The strike count rose diagram is a visual representation of the distribution of fault strikes, each section representing a

different area of the target. The number of fault strikes that occurred in each section is indicated by the length of a "petal" extending from the center of the circle. The direction of the petal indicates the direction of the targeted area. The longer the petal, the higher the strike count in that particular section.

Data Required

Fault statistics works with:

- Fault polygon files from Petrosys PRO and 3rd party sources:
 - Support for Petrel, Kingdom
- Petrosys PRO grids - .gri files that contain embedded fault polygons.
- All fault nodes must contain Z values

Data Export

Export Data to

- Excel
- PDF
- Raster Image
- PowerPoint

General Information

Notes for Upgraders and Installers of Applications

Upgraders from Petrosys PRO 2021 or earlier should be aware of the following changes:

- Petrosys PRO supports Red Hat Enterprise Linux 7 and 8 (RHEL7, RHEL8) and equivalents (CentOS, AlmaLinux, RockyLinux, Oracle Linux).
- Petrosys PRO 2023.1 requires a new license file for every client. Please obtain your license file by logging on to the Petrosys Client Portal or contacting Petrosys Support.

For a full list of supported environments, please see the Petrosys PRO [Supported Environments webpage](#).

Detailed Release Notes Summary PRO 2023.2.1

Enhancements

3D Viewer - Publication

[83717](#) Additional export video formats now supported

Detailed Release Notes Summary PRO 2023.2.1

Bug Fixes

Application - General

- [83523](#) libwebp CVE-2023-4863 addressed
- [83621](#) Third-party library OpenCV updated to 4.8.1

Application - User Interface

- [83744](#) Fixed crash in list filters

Connections, Import and Export - OpenWorks

- [83578](#) Fixed drag and drop for DSG10ep5/OpenWorks R5000.10.7

Connections, Import and Export - Petrel

- [83611](#) Fixed issues reading polyline objects from Petrel with a custom NAME attribute

Mapping - General

- [83686](#) Sample Data File is disabled for mapping layer gridding

Petrosys Release PRO 2023.2.1

Detailed Release Notes

[3D Viewer - Publication](#)

[Enhancements](#)

Additional export video formats now supported

83717

Depending on system configuration, additional video formats are now available when exporting video from 3D Viewer.

[Application - General](#)

[Bug Fixes](#)

libwebp CVE-2023-4863 addressed

83523

CVE-2023-4863 has been addressed by updating or removing the dependency on libwebp. System administrators remain responsible for updating any system libwebp package that may be used by Petrosys PRO.

Third-party library OpenCV updated to 4.8.1

83621

The third-party library OpenCV has been upgraded to 4.8.1.

[Application - User Interface](#)

[Bug Fixes](#)

Fixed crash in list filters

83744

A crash that could occur when using the RMB context menu in list filters has been fixed.

[Connections, Import and Export - OpenWorks](#)

[Bug Fixes](#)

Fixed drag and drop for DSG10ep5/OpenWorks R5000.10.7

83578

Drag and drop from DSG10ep5 with connections to OpenWorks R5000.10.7 now work correctly.

[Connections, Import and Export - Petrel](#)

[Bug Fixes](#)

Fixed issues reading polyline objects from Petrel with a custom NAME attribute

83611

The bug preventing polyline objects from Petrel being read if they contained a custom NAME attribute has now been fixed. The NAME attribute is also available to annotate in mapping.

Sample Data File is disabled for mapping layer gridding 83686

Display/Sample Data File layer is now correctly disabled for layer gridding functionality as the functionality has not been implemented for this layer.

Detailed Release Notes Summary PRO 2023.2

Enhancements

Application - General

[17140](#) Auto-save files - Mapping, Cross Section, 3d Viewer, PGC

Connections, Import and Export

[77884](#) OpenWorks R5000.10.7 now fully supported

[37332](#) Support reading from ZGY/VDS files

[83284](#) Spatial Data Translator performance improved when updating existing dbMap culture groups

Connections, Import and Export - Petrel

[83514](#) Additional well test data types for exchange from dbMap to Petrel

Cross Section - General

[83337](#) Cross section display snaps open faults to nearby surfaces or faults

[82884](#) Cross section includes the ability to display and label hinge points

[82524](#) Cross Section Display/Excel includes a preview image

[82689](#) Cross Section Display/Text includes a preview image

[82975](#) Cross Section layout layer improvements

Mapping - General

[26704](#) Gridding directly from Mapping, Cross Section and 3D viewer applications now supported

[81656](#) Mapping includes a new Display/Line of Section option

Mapping - Grids, Surfaces and Sampled Data Files

[65317](#) Added support for displaying grids with discrete values

Mapping - Wells

[74813](#) Log signature maps: Added control over depth graticules styling attributes

Spatial Editor

[82923](#) Fault Statistics - Streamlined use in Spatial Editor

Surface Modeling - Gridding

[83141](#) Disabled faults for kriging

Surface Modeling - Workflows/Scripting

[83508](#) Computing boundary polygons from input facies stored in Petrosys grid

Detailed Release Notes Summary PRO 2023.2

Bug Fixes

3D Viewer - General

[83419](#) 3D Viewer layer update refreshes the cached data from its original source

Application - User Interface

[83528](#) File browsing dialog - Performance improved on directories with large numbers of files on network shares on Linux

Connections, Import and Export

[83379](#) WFS import handles date attributes where values have trailing Z

Connections, Import and Export - DUG Insight

[83385](#) A crash when connecting to DUG Insight has been fixed

[82822](#) DUG fault polygon date columns sorting now works

Connections, Import and Export - Esri

[83073](#) Windows no longer crashes when a connection to a PostgreSQL SDE database fails

Connections, Import and Export - OpenWorks

[83505](#) Export/Landmark/Faults and ZMap/Faults options fixed

Connections, Import and Export - Petrel

[83355](#) Petrel: Fixed user well header attributes names Latitude and Longitude conflicting with system attributes

Cross Section - General

[82980](#) Bottom hole symbol is now displayed in correct position for well path sections

[83349](#) Cross Section Display/Strata option prevents crash when populating zones

[83474](#) Mapping works correctly when the map sheet changes while interactively editing section envelope

dbMap/Web - Client

[83369](#) Added option to serialize URL loads to mitigate embedded web dialog hanging under high load

GIS (CUL) Editor

[83270](#) Crash fixed in Culture Editor option 'Edit/Compute values'

Mapping - General

[82860](#) Grid location coordinates displayed in the mapping status bar are more responsive to mouse presses

[83494](#) Fault sticks layer display list update is enabled and refreshes the cached data

Mapping - Seismic

[83473](#) Display SDF - Fixed crash on redraw in rare circumstance

[79364](#) Display SDF - Fixed crash on degenerate seismic lines with one shotpoint

Mapping - Wells

[81818](#) Log signatures curve class preference order now works

Surface Modeling - Contouring

[82394](#) Contour By Cell task panel issues have been resolved

Petrosys Release PRO 2023.2

Detailed Release Notes

3D Viewer - General

Bug Fixes

3D Viewer layer update refreshes the cached data from its original source

83419

3D Viewer layers display list update option now refreshes the layer cached data and reads new data from its original sources.

Application - General

Enhancements

Auto-save files - Mapping, Cross Section, 3d Viewer, PGC 17140

A new feature is added to automatically save .dbm files for Mapping, .pscs files for X-section, .ps3d file for 3d Viewer and .tsk files for Surface Modeling applications.

When the application is reopened after a crash the automatically saved files can be opened so previously unsaved work can be restored instead of being lost.

The automatically saving frequency is default to 1 minute and can be modified in Configuration and Settings.

Application - User Interface

Bug Fixes

File browsing dialog - Performance improved on directories with large numbers of files on network shares on Linux 83528

On Linux, the performance of browsing for files in the file selector is much improved. The improvement is more noticeable when the directories have a large number of files and/or the directory is on a network share

Connections, Import and Export

Enhancements

OpenWorks R5000.10.7 now fully supported 77884

Petrosys now fully supports OpenWorks R5000.10.7 through the Petrosys OpenWorks links.

Previously most options for reading data worked, however options requiring an OpenWorks devkit connection did not, such as reading 3D Seismic Surfaces and writing Grids, Faults and other data.

Refer to help topic 'Multiple Connectivity - Configuration - OpenWorks' for details connecting to a R5000.10.7 installation.

Note: R5000.10.7 requires the Version tag to be set to *R5000.10.7* in connections.xml.

Support reading from ZGY/VDS files 37332

ZGY and VDS files are now supported in stacking velocities exchanges and velocity gridding in Surface Modeling.

3d seismic bin grids from ZGY and VDS files can be displayed in Mapping as well.

Spatial Data Translator performance improved when updating existing dbMap culture groups 83284

Using the Spatial Data Translator to update a dbMap culture group, replacing existing shapes has been sped up significantly. Depending on the amount of culture data stored in the dbMap database, it can be between 5 to 10 times faster.

Connections, Import and Export

Bug Fixes

WFS import handles date attributes where values have trailing Z 83379

Depending on how they are configured, WFS servers based on Geoserver can return date fields with a trailing Z suffix. In previous versions, dates in this format were considered invalid, whereas WFS import now correctly handles these fields.

Connections, Import and Export - DUG InsightBug Fixes

A crash when connecting to DUG Insight has been fixed 83385

There was a bug that Petrosys might crash when connecting to DUG Insight. This has now been fixed.

DUG fault polygon date columns sorting now works 82822

In DUG Insight fault polygon list view the Date columns 'Created' and 'Modified' now can be sorted correctly.

Connections, Import and Export - Esri

Bug Fixes

Windows no longer crashes when a connection to a PostgreSQL SDE database fails 83073

In previous versions of PRO, if a connection was attempted to a PostGIS based SDE server and the connection failed, PRO would crash (on Windows only).

Connections, Import and Export - OpenWorksBug Fixes

Export/Landmark/Faults and ZMap/Faults options fixed 83505

The options Export/Landmark/Faults and Export/Landmark/ZMap/Faults are fixed. From the 2023.1.0 to 2023.1.4 versions they would throw up a missing field error and fail.

[Connections, Import and Export - Petrel Enhancements](#)

Additional well test data types for exchange from dbMap to Petrel 83514

Added support for exchange of MPLT's, Gradient Surveys and LETs from dbMap to Petrel

Petrel: Fixed user well header attributes names Latitude and Longitude conflicting with system attributes

83355

Custom (user) Petrel well attributes named 'Latitude' or 'Longitude' would conflict with the built-in well attributes of the same name. This has now been fixed.

[Cross Section - General](#)

[Enhancements](#)

Cross section display snaps open faults to nearby surfaces or faults

83337

Cross section display optionally snaps faults to nearby other faults or surfaces (enabled by default). In previous versions, this was done for surfaces, but not for faults. The Display/Strata option allows control over whether faults are snapped and also allows the snapping tolerance to be set.

Cross section includes the ability to display and label hinge points

82884

In previous version of the Cross Section application it was possible to define manual labels for the start and end points of the section. This function has been improved to allow automatic labelling of all section hinge points.

Cross Section Display/Excel includes a preview image

82524

The Cross Section Display/Excel option now includes a preview window, which shows what the selected Excel table will look like when displayed on the section.

Cross Section Display/Text includes a preview image

82689

The Cross Section Display/Text option now includes a preview window, which shows what text will look like when displayed on the section.

Cross Section layout layer improvements

82975

Previous versions of the cross section application included a "Layout grid" option, which added an explicit layer to the contents to control where grid lines were displayed relative to other layers. This option has been renamed to "Layout layer" and displays border lines, title, axis annotation and ticks and hinge points.

[Cross Section - General](#)

[Bug Fixes](#)

Bottom hole symbol is now displayed in correct position for well path sections

82980

Bottom hole symbols are now displayed in the correct location when using well path sections. Previously bottom hole symbols were displayed on the Y-axis.

Cross Section Display/Strata option prevents crash when populating zones

83349

The Cross Section Display/Strata option includes an option to scan surfaces and automatically populate zones. This can take some time to run, if surfaces and faults need to read from the original source. In previous versions it was possible to interact with the Cross Section application while the zone population was taking place, which could lead to a crash.

Mapping works correctly when the map sheet changes while interactively editing section envelope

83474

In previous PRO versions, if the map extent or size was changed while editing the cross section envelope, a crash would usually be observed.

dbMap/Web - Client

Bug Fixes

Added option to serialize URL loads to mitigate embedded web dialog hanging under high load

83369

An advanced option has been added to cause URL loads to the embedded browser to be run in series rather than in parallel. This mitigates a situation where loading data into multiple embedded browsers would cause high processing load, causing all embedded browsers appear to hang.

This situation has only been observed on Linux and only affects certain configurations. To enable this option, please contact Petrosys support for guidance.

GIS (CUL) Editor

Bug Fixes

Crash fixed in Culture Editor option 'Edit/Compute values'

83270

A crash has been fixed in GIS Editor 'Apps/GIS (CUL)...' while computing values using formula in the 'Groups/Variables' screen.

Mapping - General

Enhancements

Gridding directly from Mapping, Cross Section and 3D viewer applications now supported

26704

Gridding from displayed layers has been added to the Mapping, Cross Section and 3D Viewer applications. In general, only the contours, grid and wells layers are enabled for gridding where available. The layer gridding is a subset functionality of full fledged surface modelling gridding.

Mapping includes a new Display/Line of Section option

81656

A Display/Line of Section option has been added to PRO mapping. This option allows selection of an existing cross section file, and displays a plan view of the defined line of section. The line of section can be styled and annotated, based on the hinge point labels defined for the cross section.

Mapping - General

Bug Fixes

Grid location coordinates displayed in the mapping status bar are more responsive to mouse presses

82860

The status bar at the bottom of the map window will now show the grid location coordinates and z value are now updated more immediately when pressing and holding the left mouse button.

Fault sticks layer display list update is enabled and refreshes the cached data

83494

Fault sticks layer display list update option is now enabled. The update functionality refreshes the layer cached data and reads new data from its original source.

[Mapping - Grids, Surfaces and Sampled Data Files](#)[Enhancements](#)

Added support for displaying grids with discrete values 65317

Added support for reading Petrel discrete grids and an additional 'Grid type' option in the Display/Grids/Colorfill window. The option can be set to 'Continuous' (default) which interpolates the grid values or 'Discrete' to apply no interpolation.

Mapping - Seismic

Bug Fixes

Display SDF - Fixed crash on redraw in rare circumstance 83473

A rare crash on display of SDF in Mapping has been fixed.

Display SDF - Fixed crash on degenerate seismic lines with one shotpoint

79364

Fixed a crash that could occur on SDF files containing seismic lines with a single shotpoint.

[Mapping - Wells](#)

[Enhancements](#)

Log signature maps: Added control over depth graticules styling attributes

74813

Custom styles can now be applied to depth graticules of log signature maps in the same way value graticules could be styled in previous versions. Additionally, the display of depth graticules can be disabled.

Mapping - Wells

Bug Fixes

Log signatures curve class preference order now works 81818

A bug that log signatures curve class preference order was not honored has now been fixed.

[Spatial Editor](#)

[Enhancements](#)

Fault Statistics - Streamlined use in Spatial Editor 82923

Added changes to simplify and remove confusion from spatial editor when launched editing faults from fault statistics. The mapping display list fault layers associated with fault statistics faults are disabled, existing fault statistics virtual layers are removed from mapping display list, the 'Save As' function as well as spatial editor layer list have been removed.

Surface Modeling - Contouring

Bug Fixes

Contour By Cell task panel issues have been resolved 82394

In previous version there are issues in Surface Modeling contour by cell task panel such as rescue file doesn't work, raster file cannot be selected, DUG Insight data source type changes to Petrosys grid file when opening saved .tsk etc. They have now been fixed.

[Surface Modeling - Gridding](#) [Enhancements](#)

Disabled faults for kriging

83141

Disabled faults from kriging as krigging with discontinuities is not supported and the resulting grid could have artefacts.

[Surface Modeling - Workflows/Scripting](#) [Enhancements](#)

Computing boundary polygons from input facies stored in Petrosys grid

83508

Added functionality to compute boundary polygons for facies stored in Petrosys grid., The output is shape file containing all polygons.

Detailed Release Notes Summary PRO 2023.1.4

Enhancements

Connections, Import and Export

[83144](#) Add support to /Import/Landmark/ASCII 3D Horizons for reading "LandmarkAll" format

Detailed Release Notes Summary PRO 2023.1.4

Bug Fixes

Connections, Import and Export - IHS

[82804](#) Read small fault polygons from IHS Kingdom projects

Connections, Import and Export - Petrel

[83098](#) Importing oil shows to Petrel now ignores null fluorescence and oil show rating entries (Santos only)

Mapping - General

[83085](#) Certificate revocation checking is optionally more tolerant

Spatial Editor

[83109](#) Spatial Editor fault symbol attribute selector allows selection of pre-defined symbol types

Petrosys Release PRO 2023.1.4

Detailed Release Notes

[Connections, Import and Export](#) [Enhancements](#)

Add support to /Import/Landmark/ASCII 3D Horizons for reading "LandmarkAll" format 83144

Support has been added to import seismic data from LandmarkAll text file to Petrosys Seismic Data File.

There is a config option to whether read 3D data as 2D data.

[Connections, Import and Export - IHS](#) [Bug Fixes](#)

Read small fault polygons from IHS Kingdom projects 82804

Fault polygons can now be read properly from small IHS Kingdom fault data files.

[Connections, Import and Export - Petrel](#) [Bug Fixes](#)

Importing oil shows to Petrel now ignores null fluorescence and oil show rating entries (Santos only) 83098

Importing oil shows to Petrel now ignores null fluorescence and oil show rating entries. Previously, these entries would raise an error within Petrel.

[Mapping - General](#) [Bug Fixes](#)

Certificate revocation checking is optionally more tolerant 83085

When downloading files, Petrosys PRO allows control over certificate revocation checking on Windows specifically. The default behavior is to ignore cases where the certificate server cannot be contacted, which is typical of web browsers and commonly encountered when using a proxy server.

[Spatial Editor](#) [Bug Fixes](#)

Spatial Editor fault symbol attribute selector allows selection of pre-defined symbol types 83109

In Petrosys PRO 2023.1, the spatial editor fault symbol attribute property was incorrectly change to a free text field. This has been fixed to allow selection from the pre-defined list of fault symbol types.

Detailed Release Notes Summary PRO 2023.1.3

Enhancements

Connections, Import and Export - Petrel

[82855](#) Petrel 2023.1 supported

Cross Section - General

[82783](#) Display/Strata - added the ability to interpolate across gaps in grids

[82941](#) Cross section PDF export includes support for PDF layers

dbMap - Administration

[82834](#) New dbMap SQL function added to return the units of a projected CRS

Mapping - General

[82902](#) Petrosys Grid File with big faults now reads significantly faster

Wells (WDF) Editor

[82812](#) Performance improved when deleting and importing WDF directional survey points

[82446](#) WDF Directional survey dialog changes

Detailed Release Notes Summary PRO 2023.1.3

Bug Fixes

Application - General

[82840](#) Linux installer for rhel7 now installs updated dependencies; libdouble-conversion and EPEL repo

Connections, Import and Export

[82893](#) SDE display from Oracle using PsSde works as expected when run from Petrel

Cross Section - General

[82939](#) Cross section Export to PDF includes all layers and base layout

dbMap - Client

[82784](#) dbMap PPDM38 - Well Directional Survey Points panel updates correctly when survey header projected CRS is changed

Fault Statistics

[82896](#) Fault statistics shows correct data when table view columns sorting is applied

[82894](#) Profile drag symbols are now showing after selecting a single fault

[82952](#) User prompted to save faults when closing Fault Statistics

Mapping - General

[79287](#) Display/Location Map no longer crashes when additional geometry file is not available

[82883](#) Display Cross Section panel preview shows the full zoom on initial panel opening

[82897](#) Throw profile editing changes moves the correct direction

[82983](#) Export of displayed contour to polygon shows assert error

Mapping - GIS, Spatial and Culture

[82936](#) Exporting Display/GIS polygons to KML writes polygons in correct locations

Mapping - Seismic

[82949](#) Crash when displaying 2D Seismic lines from dbMap on RHEL8 fixed

Mapping - Wells

[82940](#) Kingdom well symbol 36 now mapped correctly

Surface Modeling - Contouring

[82686](#) A crash in contouring has been fixed

Petrosys Release PRO 2023.1.3

Detailed Release Notes

Application - General

Bug Fixes

Linux installer for rhel7 now installs updated dependencies; libdouble-conversion and EPEL repo 82840

The Linux installer now correctly installs all dependencies for Redhat Enterprise Linux 7. The missing dependencies were the epel repository and the packages double-conversion and pcre2-utf16 .

Connections, Import and Export

Bug Fixes

SDE display from Oracle using PsSde works as expected when run from Petrel 82893

In previous versions of PRO, it was not possible to display SDE data from Oracle when running Petrosys PRO from Petrel - only a single SDE feature class would be available to select.

[Connections, Import and Export - Petrel Enhancements](#)

Petrel 2023.1 supported 82855

Petrosys connectivity to Schlumberger's Petrel now supports direct interaction with Petrel 2023.1.

Support for Petrel 2023.1 includes the ability to:

- Drag and drop data from Petrel into Petrosys PRO
- Import Model grid horizons and 3D seismic interpretation horizons to a Petrosys grid file
- Import faults from Model grids to a Petrosys fault file
- Import 2D and 3D seismic navigation and horizon interpretation data to a Petrosys SDF
- Directly display Structural framework horizons, Model grid horizons, Input surface grids and 3D seismic interpretation horizons in Mapping
- Directly contour Structural framework horizons, Model grid horizon data and Input surface grids in Surface Modeling
- Directly grid 2D and 3D seismic horizon interpretation data in Surface Modeling
- Directly display, grid and import well data.
- Directly display 2D seismic navigation and horizon interpretation in Mapping
- Directly display 3D seismic bin grids in Mapping
- Directly display Structural Model fault surfaces in 3DViewer
- Directly display fault sticks in 3DViewer
- Export Petrosys and other third party grids to Petrel

Petrosys PRO continues to maintain support for connections to Petrel 2017.1 through 2022.x.

Display/Strata - added the ability to interpolate across gaps in grids

82783

Added ability to fill (interpolate across) missing value areas, fault polygon areas and clipping polygon areas.

Cross section PDF export includes support for PDF layers 82941

Now, when you export cross sections to PDF, the layers in the cross section display list will be registered as PDF layers. This means you'll be able to interact with individual layers directly in the PDF, offering improved control, clarity, and flexibility in your data presentations.

Cross section Export to PDF includes all layers and base layout

82939

In PRO 2023.1, exporting a cross section to PDF would incorrectly only include a single layer in the output PDF, with the base layout also not included.

New dbMap SQL function added to return the units of a projected CRS

82834

A new dbMap SQL function `ps_proj_crs_uom` is now available to report the units of measure for a projected CRS.

dbMap PPDM38 - Well Directional Survey Points panel updates correctly when survey header projected CRS is changed 82784

The adjusted X/Y offsets and Easting/Northing values on the dbMap PPDM3.8 well directional survey points dialog are now updated correctly when changing the projected CRS or correction to True north on the survey header. Previously the values shown related to the original survey header and you had to select a different well with a directional survey then come back to the modified well for it to refresh with the correct values.

Fault statistics shows correct data when table view columns sorting is applied 82896

The Fault Statistics module has been improved for better data accuracy. Now, when you sort rows by columns in the table view, the fault throw profile and rose diagram will still accurately reflect your data. This ensures your data visualization remains reliable and precise, no matter how you choose to sort your data within the table view.

Profile drag symbols are now showing after selecting a single fault 82894

Fault statistics throw profile plot dragging symbols appear correctly after selecting a fault in the table view.

User prompted to save faults when closing Fault Statistics

82952

The Fault Statistics module is now designed with added user prompts. If you have made changes to the faults within the module, you'll now receive a reminder to save your work when you're about to close it. This feature ensures that none of your modifications are lost, providing an extra layer of data protection and peace of mind.

[Mapping - General](#)

[Enhancements](#)

Petrosys Grid File with big faults now reads significantly faster

82902

This update delivers significant performance improvements for Petrosys grid files. Now, grid files featuring embedded faults with tens of thousands of fault points can be displayed much more quickly on the Mapping Grid Colorfill display. These enhancements also extend to the Spatial Editor, where opening these complex grid files is now notably faster and more efficient. This upgrade streamlines your workflow, enabling you to access and visualize intricate grid data in less time.

Mapping - General

Bug Fixes

Display/Location Map no longer crashes when additional geometry file is not available

79287

Previously, the Mapping feature would crash if a location map was set to use an "Additional Geometry" (such as a shape file) that wasn't available. With this update, we've resolved this issue. Now, the absence of an "Additional Geometry" will no longer cause Mapping to crash, improving the stability and reliability of the tool.

Display Cross Section panel preview shows the full zoom on initial panel opening

82883

The Cross Section raster preview on the panel is showing the raster in full zoom on initial preview.

Throw profile editing changes moves the correct direction

82897

Throw profile editing moves correct direction for faults with negative z-values or swapped foot and hanging walls.

Export of displayed contour to polygon shows assert error

82983

Export of displayed contours to polygon working as expected.

Mapping - GIS, Spatial and Culture

Bug Fixes

Exporting Display/GIS polygons to KML writes polygons in correct locations

82936

In previous versions of PRO, exporting Display/GIS polygons including style (i.e. to KML) would result in filled polygons being written to an incorrect location

Mapping - Seismic

Bug Fixes

Crash when displaying 2D Seismic lines from dbMap on RHEL8 fixed

82949

A crash that would only occur only on Redhat Enterprise Linux 8 when displaying 2D seismic lines from a database source has been fixed.

Kingdom well symbol 36 now mapped correctly 82940

Kingdom well symbol 36 is now mapped correctly to Petrosys well symbol 112

A crash in contouring has been fixed 82686

A crash in contouring has been fixed.

Performance improved when deleting and importing WDF directional survey points 82812

We've introduced a significant performance upgrade in the "Wells (WDF) Application" module. Now, when deleting directional survey points from a WDF using the "Edit/Selected wells/Delete" option or using the "Import" button on the Directional survey dialog, the process is drastically faster. Depending on the number of points in the survey, you'll experience a speed increase anywhere from 30x to over 300x. Notably, the more points your survey contains, the greater the improvement. This enhancement dramatically boosts efficiency and workflow speed, particularly for larger data sets.

WDF Directional survey dialog changes 82446

The "WDF Directional Survey" dialog has been enhanced with new data columns in both the list and panel sections. These additional columns include:

- Adjusted X Offset
- Adjusted Y Offset
- Easting
- Northing
- Latitude
- Longitude

These values are dynamically calculated using the grid convergence angle of the survey and the projected Coordinate Reference System (CRS) of the WDF. This advanced computation takes into account the curvature of the earth at the well surface location, using what is known as the grid scale factor. With these updates, you now have access to more detailed and accurate data directly in the WDF Directional Survey dialog.

Detailed Release Notes Summary PRO 2023.1.2

Enhancements

Application - User Interface

[82484](#) Fixed ribbon menu icon highlighting in the cross section and 3D viewer windows

Connections, Import and Export

[82644](#) Added stacking velocity format for 2D HANDVEL velocity file

[82677](#) LAS Importer - Optional support for comment lines in the A~ data section added

Cross Section - General

[82530](#) Additional keyboard shortcuts added for Cross Section

[81057](#) Cross section Legend support

[82562](#) Display/Wells - Support added for downhole log traces to be filled against curve

[82561](#) Downhole log trace display supports curve classes

[82563](#) Fault sticks now supported when reading Mapping dbm files

[82552](#) Well surface symbol location can now be set to "On well path"

dbMap - Administration

[81687](#) New dbMap SQL functions added to help with computing well path locations and reporting CRS details

dbMap - Client

[80592](#) dbMap PPDM3.8 - Well Directional surveys - Added support for using Projected CRS instead of Correction to True north

Mapping - General

[82567](#) Display/Cross Section performance improvements

[82395](#) Fault Statistics - Rose Diagram display added

Detailed Release Notes Summary PRO 2023.1.2

Bug Fixes

3D Viewer - General

[80157](#) 3d viewer allows multiple hotkey shortcuts in a row

Application - General

[82734](#) Graphics on high resolution displays with scaling > %100 are now sharp

[82415](#) Upgraded Linux to Qt 6.4.2

Application - Launcher

[82585](#) Fixed delete of project group using RMB

Application - User Interface

[82409](#) Eyedropper colour selection now works when display resolution not set to 100%

Configuration - General

[82325](#) Configuration Tool font selector now displays correct font

Connections, Import and Export

[82654](#) dbMap - Seismic import does not crash on unexpected data (p190 files particularly)

[82627](#) Importing LAS 2.0 files with additional characters on the ~P lines is now supported

Cross Section - General

[82591](#) Cross section map element editor shows a selection rectangle for multi selection

[82565](#) Cross section well log display supports transparency for gradient fills

[82758](#) Layer draw order is now correct for layers in groups

[82601](#) Well zone false coloring now works

[82709](#) Cross section Excel display draws cell border lines correctly

dbMap - Administration

[63166](#) dbMap SQL function ps_format_dms now handles null values

dbMap - Client

[77647](#) dbMap PPDM3.8 - Well Directional Survey - Compute offsets option on the Survey Points dialog now updates the Oracle spatial path

Mapping - Editors

[82693](#) Georeferencing no longer crashes after completing georeferencing of a raster image

Mapping - Wells

[82449](#) Well Directional survey accuracy improved to handle the curvature of the earth

Surface Modeling - General

[82645](#) Analyse data in chart button is enabled when TWT input grid is entered

Surface Modeling - Gridding

[82687](#) Gridding with clipping input data using fault polygons is more stable

Well Curves

[82675](#) Added support for case-insensitive well log curve mnemonic matching from dbMap

Petrosys Release PRO 2023.1.2

Detailed Release Notes

3D Viewer - General

Bug Fixes

3d viewer allows multiple hotkey shortcuts in a row⁸⁰¹⁵⁷

In previous PRO versions, mouse focus was lost after a keyboard shortcut was used, which meant subsequent keyboard shortcuts were not recognised, until the contents windows regained focus. Multiple hot keys now work as expected.

Application - General

Bug Fixes

Graphics on high resolution displays with scaling > %100 are now sharp

⁸²⁷³⁴

The graphics in the Mapping and Cross Section applications are now crisply drawn, when on a scaled high DPI display. The issue was triggered by "Scaling" values of greater than %100 as set in "Control Panel/System/Display/Scale" on Windows.

Upgraded Linux to Qt 6.4.2

⁸²⁴¹⁵

The third-party library Qt used by Petrosys PRO has been updated to version 6.4.2, the same version of Qt used by Petrosys PRO on Windows.

Application - Launcher

Bug Fixes

Fixed delete of project group using RMB

⁸²⁵⁸⁵

A bug that prevented the Delete item from working in the RMB context menu of the Project Selector/Admin/ProjectGroups list has been fixed.

Application - User Interface

Enhancements

Fixed ribbon menu icon highlighting in the cross section and 3D viewer windows

⁸²⁴⁸⁴

The activity and mouse hover highlighting of ribbon menu items in the new 3D viewer and the cross section windows was too subtle for some user configurations in PRO 2023.1.1. This has now been fixed.

Application - User Interface

Bug Fixes

Eyedropper colour selection now works when display resolution not set to 100%

⁸²⁴⁰⁹

Previously, in some cases, if the resolution of a display had been set to anything other than 100%, the eyedropper colour selector may have selected the wrong colour. This problem has now been fixed.

Configuration Tool font selector now displays correct font

82325

Previously, in some cases on Windows, the Configuration Tool font selectors may have listed the incorrect font, however, within the application, the selected font was used. This has now been fixed.

[Connections, Import and Export](#) [Enhancements](#)**Added stacking velocity format for 2D HANDVEL velocity file**

82644

Stacking velocity format for 2D Handvel text file has been added.

LAS Importer - Optional support for comment lines in the A~ data section added

82677

In LAS files, optional support for comment lines in the A~ data section has been added.

Strictly the LAS specification does not allow comments in the A~ data section, however a number of cases that violate this rule have been encountered.

To allow these files to be imported, use the Tools/Configuration tool. Open the "Advanced/Data Type/Wells" section and change the option "Enable tolerant parsing of LAS/DLIS files" to True

dbMap - Seismic import does not crash on unexpected data (p190 files particularly)

82654

The dbMap Mapping option "Admin/dbMap Data Transfer/Import/Seismic..." will now work more robustly on files with unexpected data lines. eg. When importing p190 files that have extra header lines throughout the data will now import without crashing.

Importing LAS 2.0 files with additional characters on the ~P lines is now supported

82627

Importing LAS 2.0 files with additional characters on the "~P" lines is now supported

[Cross Section - General](#) [Enhancements](#)**Additional keyboard shortcuts added for Cross Section**

82530

The following keyboard shortcuts have been added to the PRO cross section application:

- Ctrl-S to save the current section
- Ctrl-O to open a different section
- Ctrl-N to start a new section
- Z to pick a rectangular region to zoom into

Cross section Legend support

81057

An option to display a legend has been added to the cross section application. The legend is similar to the legend available in PRO Mapping, but also includes a mode for live update, where the legend will update dynamically as the displayed data changes.

Display/Wells - Support added for downhole log traces to be filled against curve 82562

Downhole log curves now can be filled with gradient color.

Downhole log trace display supports curve classes 82561

Log curve classes are supported in Cross Section Downhole display.

Fault sticks now supported when reading Mapping dbm files 82563

Fault sticks layers from Mapping now can be imported into Cross Section as fault layers.

Well surface symbol location can now be set to "On well path" 82552

The well surface symbol can now be posted on the well path.

Cross Section - General

Bug Fixes

Cross section map element editor shows a selection rectangle for multi selection 82591

The cross section Map Element mode allows multi-selection of different map elements (title block, text, images etc) by selecting a rectangle. In previous versions, the multi-select did work as expected, but there was no visual indication of the selection rectangle while selection was in progress.

Cross section well log display supports transparency for gradient fills 82565

PRO version 2023.1.1 introduced support for gradient fill for log signature display in a cross section. This release adds support for translucency for gradient fills, which brings the cross section functionality into line with PRO Mapping.

Layer draw order is now correct for layers in groups 82758

Layer draw order is now correct for layers in groups

Well zone false coloring now works 82601

A Well formation/zone false coloring bug has been fixed in X-Section.

Cross section Excel display draws cell border lines correctly 82709

In previous PRO versions, display of Excel files in cross sections (via Display/Excel or Display/Title Block) would sometimes not draw cell border lines.

[dbMap - Administration](#) [Enhancements](#)

New dbMap SQL functions added to help with computing well path locations and reporting CRS details 81687

The following dbMap SQL functions have been added to help with well path locations and CRS details:

- `ps_well_path_crs_x`: Well path x (easting or longitude) in the given CRS. Arguments: (UWI, DEPTH, CRS, DECIMAL_PLACES (optional), DBMAP_SOURCE (optional), DBMAP_SURVEY_ID (optional), CONNECTION_NAME (optional))
- `ps_well_path_crs_y`: Well path y (northing or latitude) in the given CRS. Arguments: (UWI, DEPTH, CRS, DECIMAL_PLACES (optional), DBMAP_SOURCE (optional), DBMAP_SURVEY_ID (optional), CONNECTION_NAME (optional))
- `ps_well_path_proj_crs`: Well path projected CRS (if assigned). Arguments: (UWI)

- `ps_well_closest_tm_proj_crs`: Return the closest Transverse Mercator projected CRS for a well based on the it's surface location and geographic CRS. Arguments: (UWI)
- `ps_crs_name`: Return a CRS name. Arguments: (CRS_ID)

In addition to this, support has been added for an optional argument to specify the number of decimal places to return for the `ps_crs_convert_x` and `ps_crs_convert_y` dbMap SQL functions.

dbMap - Administration

Bug Fixes

dbMap SQL function `ps_format_dms` now handles null values 63166

The dbMap SQL function `ps_format_dms()` has been fixed to return NULL when a NULL latitude or longitude is passed in. Previously it would return a very large number for latitude and 80W for a longitude values.

dbMap - Client

Enhancements

dbMap PPDM3.8 - Well Directional surveys - Added support for using Projected CRS instead of Correction to True north 80592

For dbMap PPDM3.8 clients, Well Directional surveys now have support for storing a projected CRS. This can be used for surveys that have azimuths relative to Grid north to compute the Grid convergence angle on the fly, avoiding the need to store a Correction to True north value with the survey. It can also be used to store the projected CRS for positional log surveys from data sources where the X/Y offsets have been computed for that CRS. e.g. When using Exchange/Wells to import OpenWorks positional log surveys into dbMap, the projected CRS for the well/survey is now stored with the dbMap survey, and the compute method is set to "Positional log".

In addition to this, if the projected CRS is populated, the directional survey points dialog now displays "Adjusted X/Y offsets", which take the curvature of the earth into consideration, along with Easting/Northing values. The dialog also shows Latitude/Longitude, where they have been computed for use with Oracle spatial.

From the database point of view the changes include the addition of `AZIMUTH_COORD_SYS_ID` column to the `WELL_DIR_SRVY` table from PPDM3.9 to store the projected CRS ID, along with some updates to the precision and scale of several columns in the `WELL_DIR_SRVY` and `WELL_DIR_SRVY_STATION` tables to match PPDM3.9.

dbMap - Client

Bug Fixes

dbMap PPDM3.8 - Well Directional Survey - Compute offsets option on the Survey Points dialog now updates the Oracle spatial path 77647

For dbMap PPDM3.8 clients, the Compute offsets option on the well directional survey points dialog now also re-calculates the Oracle spatial well path geometry and latitude/longitude values for the points.

Mapping - Editors

Bug Fixes

Georeferencing no longer crashes after completing georeferencing of a raster image 82693

In PRO version 2023.1, the image georeference option crashed after the Ok button was pressed to complete georeferencing process. This now works as expected.

Display/Cross Section performance improvements 82567

The draw, move and resize performance "Display/Cross Section" has been significantly improved.

Fault Statistics - Rose Diagram display added 82395

Added strike count rose diagram to fault statistics module. The strike count rose diagram is a visual representation of the distribution of fault strikes, each section representing a different area of the target. The number of fault strikes that occurred in each section is indicated by the length of a "petal" extending from the center of the circle. The direction of the petal indicates the direction of the targeted area. The longer the petal, the higher the strike count in that particular section.

[Mapping - Wells](#)

[Bug Fixes](#)

Well Directional survey accuracy improved to handle the curvature of the earth 82449

The accuracy of well directional survey locations has been improved for dbMap and all third-party well data sources by taking the curvature of the earth into consideration, also known as the grid scale factor for a projection.

In most cases the difference is small and even negligible for vertical wells, with the biggest impact of this change seen for long horizontal wells, and in particular, those that are furthest away from the central meridian of the projected CRS being used to display or compute values. e.g. For a well that has a TD about 3.5 km away from surface location near the edge of a UTM zone, the difference in the bottom hole location can be around 2-3 metres.

In addition to this, when using Exchange/Wells to import directional survey data into dbMap PPDM3.8 from third-party data sources which have positional log data, such as OpenWorks and Petrel, we now store them with a compute method of "Positional log" along with the projected CRS, so that the locations can be replicated precisely.

[Surface Modeling - General](#)

[Bug Fixes](#)

Analyse data in chart button is enabled when TWT input grid is entered 82645

'Analyse Data in Chart' button is enabled when TWT input grid is entered after the well data.

[Surface Modeling - Gridding](#)

[Bug Fixes](#)

Gridding with clipping input data using fault polygons is more stable 82687

There was a bug in Surface modeling gridding when clipping input data using faults enabled which caused crashes. This has now been fixed.

Added support for case-insensitive well log curve mnemonic matching from dbMap

82675

When importing or displaying well log curves from dbMap, the log curve mnemonics reported by dbMap would not necessarily match those from the corresponding LAS file when using case-sensitive matching. The well log curve mnemonic matching for LAS files has now been updated to be case-insensitive which allows these well log curves to be exchanged or displayed correctly.

Detailed Release Notes Summary PRO 2023.1.1

Enhancements

3D Viewer - Visualization

[82464](#) Improvement to the rendering of elements in the scene

Cross Section - General

[81093](#) Added downhole log trace display

[81404](#) Added support for filling zones bounded by fault sticks

[82157](#) Automatic population of contacts and zones for drag and drop data

[82285](#) Control over width and position of log signature

[82123](#) Cross section log signature display now supports gradient fills

[82328](#) Cross Section minor enhancements and fixes

[81056](#) Cross section title block display

[82510](#) Improvements to cross section fill patterns

[82138](#) Option to force stratigraphic surface lines in section view to follow the stratigraphic order

[82267](#) Reading of bottom hole annotation from dbm now supported

[82065](#) The section layout properties "start" and "end" text now allows justification to be set

[82059](#) Well log border now highlighted when selected

dbMap - Client

[82177](#) Exchange/Wells - Write extra formation attributes from dbMap to Petrel (Santos only)

Mapping - General

[82473](#) Show color bar grid name in the display list text

[81074](#) Display of cross sections in Mapping added

Surface Modeling - Exchange

[82265](#) Additional "Replace-Always" merge mode for the Wells Exchange Wizard

Detailed Release Notes Summary PRO 2023.1.1

Bug Fixes

3D Viewer - General

- [82192](#) 3DViewer launched via Mapping now correctly resolving well selection file where filtering is disabled
- [82183](#) dbm file draped on Petrel model grid now produces correct blending result
- [82462](#) Grid display performance improved
- [82500](#) Well zone false coloring now working

Application - General

- [82506](#) Sqlite upgraded to latest version (3.41.0)
- [82474](#) File selector field keeps text when focus changed
- [82508](#) Linux Installer - Permissions for client specific pace files are consistently set
- [82414](#) Windows updated to use Qt 6.4.2

Application - Printing and Publication

- [82176](#) Fixed custom form entry in paper size combobox

Application - User Interface

- [82315](#) Menus now appear in correct place
- [82364](#) Searching and filtering lists with / characters fixed
- [82291](#) Fixed crash in progress dialogs
- [82202](#) Fixed high CPU load caused by certain panels

Configuration - Licensing

- [80683](#) License Administration - FLEXlm - 'Start New Log File' does not crash when no license connection

Connections, Import and Export - IHS

- [82388](#) IHS Kingdom grids are now read successfully from files prior to 2023.1

Connections, Import and Export - OpenWorks

- [82250](#) OpenWorks 2D seismic horizon data is now read in all cases

Connections, Import and Export - Oracle

- [82343](#) Text columns from Oracle containing maximum characters are no longer truncated

Connections, Import and Export - Petrel

- [82219](#) Fixed transaction error when writing discrete well logs to Petrel (Santos only)
- [82211](#) Write history entry when updating directional surveys in Petrel

Cross Section - General

- [82553](#) Copy via Ctrl+C on Windows fixed
- [82269](#) Cross section layout changes are saved for cross sections created from Mapping
- [82377](#) Pasting of layers fixed

dbMap - Client

- [82454](#) dbMap PPDM38 - Import 2D Seismic lines - Data source lookup fixed
- [82301](#) Improved accuracy for dbMap spatial well paths

Mapping - General

- [79482](#) Toolbars no longer disappear
- [82381](#) Fault Statistics - throw profile editing is now being applied correctly
- [81648](#) Improved rendering on high resolution displays

Mapping - GIS, Spatial and Culture

- [82180](#) SQL Server connection to SDE databases using PsSde is working correctly

Mapping - Wells

- [82430](#) Display/Wells screen - Potential initial delay removed if you have slow or disabled printers on your system

Surface Modeling - Exchange

[64766](#) Polygon names imported when using Petrel polygons/faults to polygon file

Surface Modeling - General

[82263](#) Grid Process Arithmetic - clipping blanking value can now be set

[82482](#) Grid/Process/Arithmetic panel always opens with the last tab as active

Surface Modeling - Gridding

[82201](#) Fixed crash when gridding fault sticks

Surface Modeling - Volumetrics

[81633](#) Volumetrics reporting with anti-aliasing option enabled now produces correct chart graphics

Petrosys Release PRO 2023.1.1

Detailed Release Notes

3D Viewer - General

Bug Fixes

3DViewer launched via Mapping now correctly resolving well selection file where filtering is disabled

82192

Starting 3D Viewer from Mapping with wells layer and with Data Selection disabled with non-existing selection file will not prompt user for file resolution and wells will be displayed as expected.

dbm file draped on Petrel model grid now produces correct blending result

82183

Display map file (.dbm) on to Petrel model grid produces correct blending result.

Grid display performance improved

82462

A grid display performance issue has been fixed.

Well zone false coloring now working

82500

Fixed a well marker false coloring bug.

3D Viewer - Visualization

Enhancements

Improvement to the rendering of elements in the scene

82464

The visual display of elements in the 3D scene has been greatly improved. Detail of complex elements, for example surfaces, is now much more visible.

Application - General

Bug Fixes

Sqlite upgraded to latest version (3.41.0)

82506

The underlying Sqlite database API has been upgraded to the latest version 3.41.0. This addresses all known CVEs of this component. No database upgrades are required.

File selector field keeps text when focus changed

82474

When typing changes to file selector field and then use mouse to move away from that field, the modified text is remembered.

Linux Installer - Permissions for client specific pace files are consistently set

82508

The Linux installer for systems that have client specific files will now install the panel (pace) files with more consistent file permissions.

Windows updated to use Qt 6.4.2

82414

The version of the third-party library Qt that is used by Petrosys PRO on Windows has been updated to 6.4.2.

Application - Printing and Publication

Bug Fixes

Fixed custom form entry in paper size combobox 82176

Using custom paper sizes with Petrosys PRO 2023.1 may not have worked as expected. This has now been fixed.

Application - User Interface

Bug Fixes

Menus now appear in correct place 82315

Menus now appear directly under the menu header on Windows. Previously, when using multiple displays with differing display resolutions, menus may have appeared disconnected from the menu header.

Searching and filtering lists with / characters fixed 82364

A bug which prevented list contents with a / character to be searched or filtered has been fixed.

Fixed crash in progress dialogs 82291

In Petrosys PRO 2023.1, in some cases a progress dialog may have appeared, or remained visible, after the progress operation had completed. Interacting with the progress dialog may have resulted in a crash. This has now been resolved.

Fixed high CPU load caused by certain panels 82202

Due to a bug in Petrosys PRO 2023.1, certain dialogs could cause high CPU load. This has now been fixed.

Configuration - Licensing

Bug Fixes

License Administration - FLEXlm - 'Start New Log File' does not crash when no license connection 80683

A crash has been fixed when using the '/Tools/License Administration/FLEXlm/Start New Log File' option on a FLEXlm configuration that is in a disconnected state.

Connections, Import and Export - IHS

Bug Fixes

IHS Kingdom grids are now read successfully from files prior to 2023.1 82388

In previous version, for dbm, tsk and ps3d files saved prior to 2023.1, IHS Kingdom grids were not read successfully. This has now been fixed.

Connections, Import and Export - OpenWorksBug Fixes

OpenWorks 2D seismic horizon data is now read in all cases 82250

Previously, when reading 2D seismic horizon data from OpenWorks, some data for was missed if it was beyond the last SP in the SP/Trace relationship defined for the line. Now it reads this data correctly. This was not a problem if the SP/Trace relationship covered the whole SP range for the line.

Connections, Import and Export - Oracle Bug Fixes

Text columns from Oracle containing maximum characters are no longer truncated 82343

In previous versions, when the PsSde driver was used to display text from an Oracle table column where the text was the same size as the column length, the last character would be incorrectly truncated.

Connections, Import and Export - Petrel Bug Fixes

Fixed transaction error when writing discrete well logs to Petrel (Santos only) 82219

When writing the discrete well logs for oil show fluorescence and oil show rating, Petrel would generate a transaction error when the oil show ranges overlapped. This issue has now been fixed.

Write history entry when updating directional surveys in Petrel 82211

When writing directional surveys to Petrel, a history entry is now made to the Petrel directional survey object and the updated date is affected.

Cross Section - General Enhancements

Added downhole log trace display 81093

Well log curves can now be displayed as wiggly lines along well path.

Added support for filling zones bounded by fault sticks 81404

Fault sticks can be now used to either create fault surfaces or create embedded fault polygons in stratigraphic surfaces.

Automatic population of contacts and zones for drag and drop data 82157

The strata contacts and zones are automatically populated when using drag and drop from third-party applications to Cross Section.

Control over width and position of log signature 82285

The position and width of log signatures can now be controlled. If the position is not centre, then the offset from the centre position can be set.

Cross section log signature display now supports gradient fills 82123

Log signature display on a cross section supports gradient fill as per Mapping

Cross Section minor enhancements and fixes 82328

A number of improvements and fixes have been made to cross sections:

- RMB when creating a well traverse in Mapping no longer shows incorrect pop-up menu
- Display/Text correctly updates when vertical exaggeration is modified
- Display/GIS no longer crashes after editing style for an Excel file that was added via drag and drop
- Hook text support added to Display/Text and layout titles
- Reverse line of section automatically swaps the start and end section titles (if set)
- Support added for drag and drop of formations from Petrel
- Minor changes to ribbon icon text and tool-tips

Cross section title block display 81056

Petrosys title blocks (Excel and CGM format) can now be displayed on a cross section.

Improvements to cross section fill patterns 82510

Support for pattern fill styles in cross section zone display has been improved:

- Support for filling using an ad hoc raster or SVG file
- Support for selecting a fill pattern from catalogs of rasters or SVG files
- Rich library of fill styles based on FGDC guidelines included by default

Option to force stratigraphic surface lines in section view to follow the stratigraphic order 82138

Added an option to force stratigraphic surface lines in section view to follow the stratigraphic order.

Reading of bottom hole annotation from dbm now supported 82267

Cross Section and 3D Viewer now support reading of well bottom hole annotations from dbm files. Previously any well annotation was posted to the surface hole location.

The section layout properties "start" and "end" text now allows justification to be set 82065

Cross section start and end text allow justification to be set.

Well log border now highlighted when selected 82059

Well signature log borders are now drawn in the highlight style when the associated well is selected.

Cross Section - General

Bug Fixes

Copy via Ctrl+C on Windows fixed 82553

An issue with copying layers using the Ctrl+C shortcut key has been resolved. In the previous version, this shortcut key sequence was unreliable when used to copy a layer on Windows.

Cross section layout changes are saved for cross sections created from Mapping 82269

In previous versions, changes made to the cross section layout would not be retained when the section was saved

Pasting of layers fixed 82377

Pasting of layers after a wells dialog was displayed now works. Previously, if a wells dialog had been show, pasting a layer into the display list did not work.

Exchange/Wells - Write extra formation attributes from dbMap to Petrel (Santos only)

82177

For Santos only, Exchange/Wells from dbMap to Petrel has been extended to transfer the extra formation attributes Confidence rating, Approved by, Remarks and Basement flag.

dbMap - Client

Bug Fixes

dbMap PPDM38 - Import 2D Seismic lines - Data source lookup fixed

82454

The Data source lookup on the dialogs for loading 2D seismic coordinates, Elevations, Water Depths and Permanent markers via the Admin/dbMap Data Transfer/Import/Seismic option has been fixed to show correct source values for PPDM38 clients. Previously, the values shown were from the wrong reference table. The field has also been changed to a standard database lookup list with filtering and searching capabilities.

Improved accuracy for dbMap spatial well paths

82301

dbMap spatial well paths calculated from directional survey data are now more accurate. Previously the latitude/longitude values for the survey points were calculated and stored with 6 decimal places. Now they are stored at 9 decimal places.

[Mapping - General](#)

[Enhancements](#)

Show color bar grid name in the display list text

82473

Mapping color bar layers include "linked" layer datasource information in the display list text.

Display of cross sections in Mapping added

81074

Added ability to display a Cross Section in Mapping.

Mapping - General

Bug Fixes

Toolbars no longer disappear

79482

In previous versions, on Windows Mapping toolbars may randomly disappear. This has been fixed.

Fault Statistics - throw profile editing is now being applied correctly

82381

Throw profile editing is applied correctly to fault geometry.

Improved rendering on high resolution displays

81648

The appearance of on-screen rendering for Mapping and Cross Sections on high resolution displays (such as typical current model laptops) has been improved

SQL Server connection to SDE databases using PsSde is working correctly

82180

In Petrosys PRO version 2023.1, data could not be read from SQL Server based SDE databases using the PsSde driver method.

Display/Wells screen - Potential initial delay removed if you have slow or disabled printers on your system

82430

A potential delay, of around 10 seconds, in displaying the Wells panel in Mapping has been fixed. This delay could happen if you had disabled or sleeping printers on your Windows system.

Surface Modeling - Exchange Enhancements

Additional "Replace-Always" merge mode for the Wells Exchange Wizard

82265

The Wells Exchange Wizard now includes a new "Replace-Always" merge mode for well headers, directional surveys, checkshot surveys. This mode will replace the data in the output datasource even if no changes are detected. The old "Replace" merge mode has been renamed

"Replace-If-Changed" and will only replace the well data in the output datasource if changes between the input and output data have been detected.

Polygon names imported when using Petrel polygons/faults to polygon file

64766

Importing faults and polygons from Petrel includes name attribute and exported faults and polygons can have names assigned.

Grid Process Arithmetic - clipping blanking value can now be set

82263

Grid process arithmetic clipping let the user set the clipping type and the clipping blanking value.

Grid/Process/Arithmetic panel always opens with the last tab as active

82482

Grid/Process/Arithmetic panels opens with 'Variables' tab as active.

Fixed crash when gridding fault sticks

82201

Fixed a crash when gridding fault sticks and there were no initial contacts between the fault sticks and surface.

Volumetrics reporting with anti-aliasing option enabled now produces correct chart graphics

81633

The anti-alias chart option for Volumetric reporting from the option "Surface Modeling/Volumetrics/Grid based slices" now produces correct graphics.

Detailed Release Notes Summary PRO 2023.1

Enhancements

3D Viewer - General

[80282](#) Direct connect grids can now to be displayed in different units

Application - General

[79858](#) Upgraded Qt library

[80615](#) Updated GEOS library

[80705](#) New Fault Statistics feature

[81918](#) Improved performance when diagnostics is enabled

[80556](#) Updated boost library

[80658](#) Updated Xerces and Xalan

Application - User Interface

[51781](#) Improved support for high DPI screens

Configuration - General

[43013](#) Windows Installer remembers previously used value for "Create desktop shortcut"

Configuration - Licensing

[81154](#) New license file required to run Petrosys PRO 2023.1

[78062](#) Removed FLEXlm licensing page from Windows installer

Connections, Import and Export

[80564](#) Support removed for GeoFrame, Petrel 2016, Paradigm 17 and 18, OpenWorks 5000.8, Esri ArcGIS Desktop 10.x

[80701](#) Dropped support for ArcGIS Pro 2.5

Connections, Import and Export - Esri

[80066](#) Added configuration of multiple ArcGIS portal client IDs to ConfigTool

dbMap - Client

[80982](#) Original and current operator now shown on dbMap well header (Santos only)

Mapping - General

[81629](#) Edit discrete color interval Legend sub-items

Mapping - Wells

[80670](#) Well log signature maps no longer consider depth and formation tracks when 'Hide empty tracks' is enabled

Seismic (SDF) Editor

[81479](#) Improved error messages when SDF exceeds 2GB in size on import

Surface Modeling - General

[70887](#) Back-interpolation of zone tops MD from attribute grid

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Bug Fixes

3D Viewer - General

- [81764](#) Display/Grid Z-range uses current extent
- [81756](#) Fixed crash in Display/Grid crashes when cell outlines enabled
- [81571](#) Transparent layers no longer allow desktop background content to be visible (Linux only)

Application - User Interface

- [81541](#) DateTime entry field now recognises pasted and typed in dates
- [81139](#) Added option to disable use of GPU for embedded browser
- [72049](#) Fixed position selector widget now responds to all clicks
- [73623](#) Layout of dialogs using group boxes has improved on Linux
- [81294](#) Tab order of dialog buttons fixed

Configuration - General

- [80389](#) Config tool license server settings now show override indicator

Connections, Import and Export

- [80770](#) Exported PDF version changed to 1.6

Connections, Import and Export - SEGY

- [80614](#) Stacking velocity text format now supports line name with spaces

Mapping - Grids, Surfaces and Sampled Data Files

- [81441](#) Fixed crash when Display/Grid Values from Text File

Mapping - Seismic

- [77173](#) Seismic water depths scrolled list is much faster to populate

Surface Modeling - General

- [81299](#) Fixed crash in Grid Scanning

Petrosys Release PRO 2023.1

Detailed Release Notes

[3D Viewer - General](#) [Enhancements](#)

Direct connect grids can now to be displayed in different units ⁸⁰²⁸²

Grid units are honored if they are available.

[3D Viewer - General](#)

[Bug Fixes](#)

Display/Grid Z-range uses current extent ⁸¹⁷⁶⁴

Display/Grid now accounts for the current extent when calculating the Z-range.

Fixed crash in Display/Grid crashes when cell outlines enabled ⁸¹⁷⁵⁶

Display/Grid with cell outlines enabled now works as expected.

Transparent layers no longer allow desktop background content to be visible (Linux only) ⁸¹⁵⁷¹

3D Viewer does not show desktop background through displayed transparent layers. Previously, desktop content below the transparent layer may have been visible.

[Application - General](#) [Enhancements](#)

Upgraded Qt library ⁷⁹⁸⁵⁸

To provide improved stability and security, the version of the third-party library Qt used by Petrosys PRO has been upgraded to 6.2.4.

Updated GEOS library ⁸⁰⁶¹⁵

To provide improved stability and security, the version of the third-party library GEOS used by Petrosys PRO has been upgraded to 3.10.2.

New Fault Statistics feature ⁸⁰⁷⁰⁵

Fault Statistics module has been added to Petrosys Mapping application. The functionality provides the following:

- Plotting Capabilities: Visualise the throw-length profiles and cross plots of fault statistics.
- Thematic Mapping: Show distribution of the throw gradient across the length of each fault, useful for identifying high slip zones & fault QC.
- Editing Functionality: Directly edit the throw profiles and feed those edits back into the fault polygon data set or use in conjunction with the spatial editor.

Improved performance when diagnostics is enabled ⁸¹⁹¹⁸

Improved performance when diagnostics is enabled.

Updated boost library

80556

To provide improved stability and security, the version of the third-party library boost used by Petrosys PRO has been upgraded to 1.78.0.

Updated Xerces and Xalan

80658

To provide improved stability and security, the version of the third-party libraries Xerces and Xalan used by Petrosys PRO has been upgraded to 3.2.3 and 1.12.0 respectively.

[Application - User Interface](#) [Enhancements](#)

Improved support for high DPI screens

51781

Support for HighDPI screens is much improved. The icons and other user interface elements are scaled up to match the same size on lower resolution screens.

Application - User Interface

Bug Fixes

DateTime entry field now recognises pasted and typed in dates

81541

Dialogs that have date entry fields with a date selector pop down now work correctly when a date is typed in directly or pasted in.

Added option to disable use of GPU for embedded browser

81139

An advanced configuration option has been added for Linux to allow the user to disable the use of the GPU within the embedded browser. This option may assist in cases where the X-server does not support a sufficient version of OpenGL.

The option is available under ConfigTool/Advanced/Application Internals/Disable GPU support when running the embedded browser. It is recommended to only use this option on the advice of Petrosys support.

Fixed position selector widget now responds to all clicks

72049

The position selector, which is used to select the posting location of text items in some panels, has been fixed to accurately respond to mouse clicks. Previously, in some cases, clicks outside the parent widget area may not have been registered.

Layout of dialogs using group boxes has improved on Linux

73623

On Linux, the layout of dialog that use group boxes has improved, with less wasted space.

Tab order of dialog buttons fixed

81294

The tab order of buttons at the bottom of dialogs has now been corrected to go from left to right. Previously tabbing to the next button may have skipped over certain buttons (e.g. Apply).

[Configuration - General](#) [Enhancements](#)

Windows Installer remembers previously used value for "Create desktop shortcut"

43013

From Petrosys PRO 2023.1 onwards, the Windows Installer will default to use the previously used value for the "Create desktop shortcut" installation option. This means one less click for people who like to have shortcuts on their desktop.

Config tool license server settings now show override indicator

80389

The license server options within the ConfigTool now contain an override indicator to show which options have been modified. Additionally it allows the user to easily revert the setting to the default or inherited value.

[Configuration - Licensing](#)

[Enhancements](#)

New license file required to run Petrosys PRO 2023.1⁸¹¹⁵⁴

Petrosys PRO 2023.1 requires a new license file. Please obtain your license file by logging on to the Petrosys Client Portal or contacting Petrosys Support.

Removed FLEXlm licensing page from Windows installer⁷⁸⁰⁶²

The previously deprecated FLEXlm configuration page has been removed from the Petrosys PRO installer. Previously configured FLEXlm systems will continue to function, however users are encouraged to switch to a RepriseLM based system.

[Connections, Import and Export](#)

[Enhancements](#)

Support removed for GeoFrame, Petrel 2016, Paradigm 17 and 18, OpenWorks 5000.8, Esri ArcGIS Desktop 10.x⁸⁰⁵⁶⁴

This release drops support for the following versions of connections:

- GeoFrame - all versions
- OpenWorks 5000.8
- Paradigm 17 and 18
- Petrel 2016
- Esri ArcGIS Desktop 10.x plugin

Dropped support for ArcGIS Pro 2.5⁸⁰⁷⁰¹

Support for ArcGIS Pro 2.5 via the Petrosys ArcGIS Pro add-in has been removed. Petrosys maintains support for ArcGIS Pro 2.6 through to 3.0.

Exported PDF version changed to 1.6⁸⁰⁷⁷⁰

The PDF version exported by Petrosys PRO has been changed from 1.7 to 1.6. This enables a wider range of third-party PDF tools to open exported PDFs.

[Connections, Import and Export - Esri](#)

[Enhancements](#)

Added configuration of multiple ArcGIS portal client IDs to ConfigTool⁸⁰⁰⁶⁶

Multiple ArcGIS portal server client IDs can now be configured via the ConfigTool. Previously multiple portals was supported, but only by directly entering XML text into a text field.

Stacking velocity text format now supports line name with spaces 80614

Stacking velocity text format now supports line name with spaces.

[dbMap - Client](#) [Enhancements](#)

Original and current operator now shown on dbMap well header (Santos only) 80982

On the Santos dbMap well header dialog, the "Operator" field has been renamed to "Original operator" and "Current operator" field has been added.

[Mapping - General](#) [Enhancements](#)

Edit discrete color interval Legend sub-items 81629

Sub-items of discrete color intervals Legend item can now be edited individually.

[Mapping - Grids, Surfaces and Sampled Data Files](#) [Bug Fixes](#)

Fixed crash when Display/Grid Values from Text File 81441

Display/Grid Values from Text File is now working correctly.

[Mapping - Seismic](#)

[Bug Fixes](#)

Seismic water depths scrolled list is much faster to populate 77173

The Mapping option 'Lists/Seismic lines/dbMap', 'Water Depths' now is much faster in populating the list of items.

[Mapping - Wells](#) [Enhancements](#)

Well log signature maps no longer consider depth and formation tracks when 'Hide empty tracks' is enabled 80670

In previous versions, if a well had no log curves, but did have formation tops, a log signature would still be displayed containing the formation tops and depth tracks. This logic has now been changed to ignore formation tracks if no other log curve exists for the well.

[Seismic \(SDF\) Editor](#) [Enhancements](#)

Improved error messages when SDF exceeds 2GB in size on import 81479

Improved error messages when the SDF file imported exceeds 2GB. Now gives a hint to the issue.

Back-interpolation of zone tops MD from attribute grid 70887

Added support for back-interpolate zone tops MD as an attribute from a given attribute grid.

[Surface Modeling - General](#)

[Bug Fixes](#)

Fixed crash in Grid Scanning 81299

Grid scanning correctly validates input XY coordinates. Previously, invalid XY values could leave to a crash.