

# SOFTWARE RELEASE NOTES

Version 2020.2.3

PETROSYS PRO

The Petrosys PRO 2020.2.3 release builds on the collection of new and enhanced features in PRO 2020.1, across Connectivity, Mapping and Surface Modeling. Petrosys PRO 2020.2 delivers the latest new functionality while development and improvements to existing features continue to provide our clients with high value in their software investment- the key highlights of Petrosys PRO 2020.2.3 are:

**Superior Connectivity - Significant enhancements to Petrosys PRO's already large footprint of 3<sup>rd</sup> Party Direct Connectivity:**

- Connection enhancement to Eliis PaleoScan™ for reading fault sticks and well data building on the recent release of surface and horizon integration support
- Ability to write fault sticks and checkshots to Schlumberger Petrel™ through the Exchange tools
- Multi-trace FMI logs can now be moved via Well Data Exchange from DLIS to Petrel
- Enjoy the convenience and ease of use with Drag'n'Drop added to the Well Data Exchange wizard
- The workflow enabled Spatial Data Translator has scripting improvements wherever polygons are used
- A new image/grid direct connect import option makes it simpler to work directly with DEM, BIL, ERDAS, ECW, GeoTIFF, Arc Binary Grid formats in Petrosys PRO

**More than mapping - The industry leading Petrosys PRO Mapping simply keeps getting better:**

- Directly display PDFs on the map canvas. Great for including archived map content from key project milestones
- Use a new collection of perceptually equal gradients to better visualize surface features and attributes in maps
- Take advantage of your FMI logs in the popular log signature map displays
- New controls added to provide display style control for individual contours to highlight contacts and map features
- The Spatial Editor now supports extraction of map image components directly into grids, surfaces and attributes
- Automated Map Text Scaling v2.0 provides a wider range of choice and control for users – enjoy improved text sizing and scaling in response to map size changes
- Overpost Correction provides improved selection of multiple labels using a new 'freehand' option

**Effective and reliable surface modeling - Continuing to improve the high-quality trusted module our users expect:**

- Use a range of image grid formats, such as DEM, BIL, ERDAS, ECW, GeoTIFF and Arc Binary formats as direct data inputs into gridding processes or directly displayed on the map canvas
- Take advantage of Paleoscan Fault sticks and Well Data in your surface modelling workflows.
- Produce more accurate grid surfaces around fault zones, with the new Clipping Distance feature. This removes erroneous input data within a specified distance of each fault, thereby reducing the likelihood of noise
- Control the Minimum Heave modelled at each fault polygon when using fault sticks to constrain gridding

**Supported Environment updates of note:**

- RHEL7 and RHEL8 platforms supported
- RHEL6 support is deprecated with reduced functionality.

Read on for more details on these options with more to follow in the 2020 stream. For more information on how to put these features into practice please contact support at [support@petrosys.com.au](mailto:support@petrosys.com.au) and learn more from our webinars, video and portal resources.



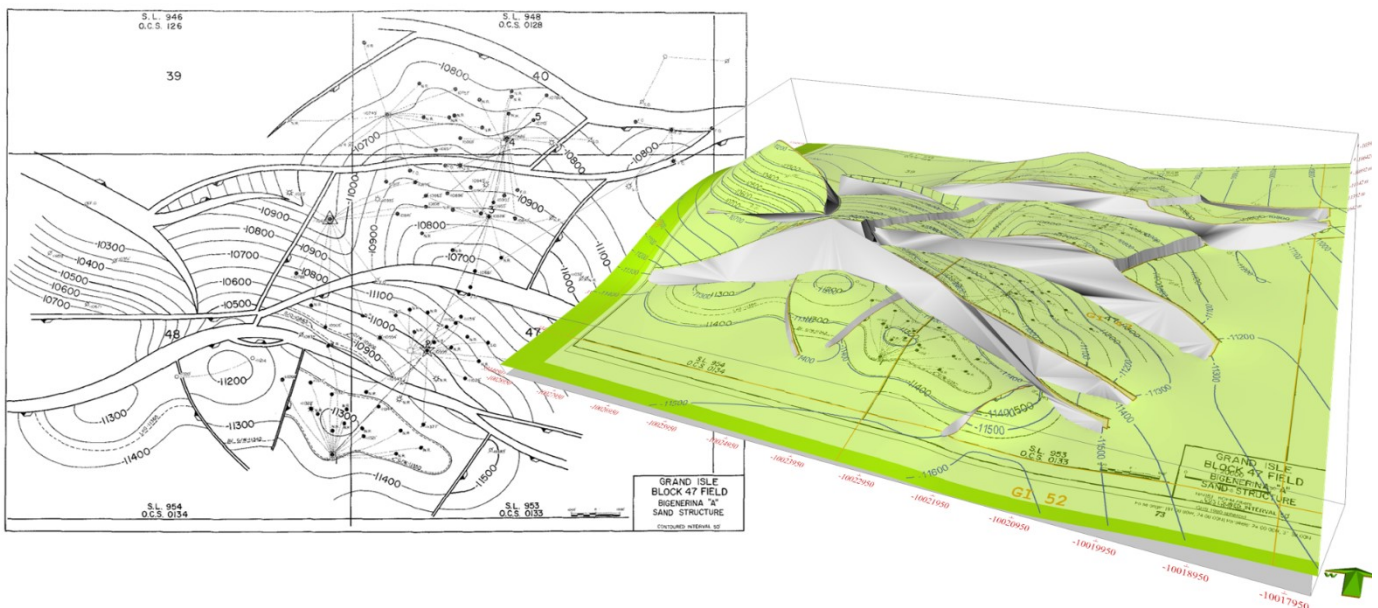
## **Image Augmented Line Tracing in the Spatial Editor.**

Digitizing contours, faults and other linear features from scanned or published map images has become a lot more productive through the introduction of a 'raster tracking' feature that lets the user track lines on an underlying image.

The georeferenced image is opened in the spatial editor. A line data file - which can be a contour, fault, shape or other file - is opened as a separate layer in the editor. When the line editing 'draw' tool (the pencil icon) is picked, a new 'raster tracking' option can be selected. With this option enabled, the tracing cursor looks for lines as it is moved across the underlying image, and turns to a 'hand' icon when a line is detected. As with the existing 'add segments from existing features' option, the operator can now click on a point further along the line, and the system will automatically add the recognized line segment from the image to the line being digitized.

Tracking can be enhanced by restricting the line recognition to a given color. The line tracing algorithm is quite good at picking a preferred line through intersections, and the space bar can be used to temporarily switch off the tracing algorithm to allow the operator to skip across in-line annotations or poorly defined areas.

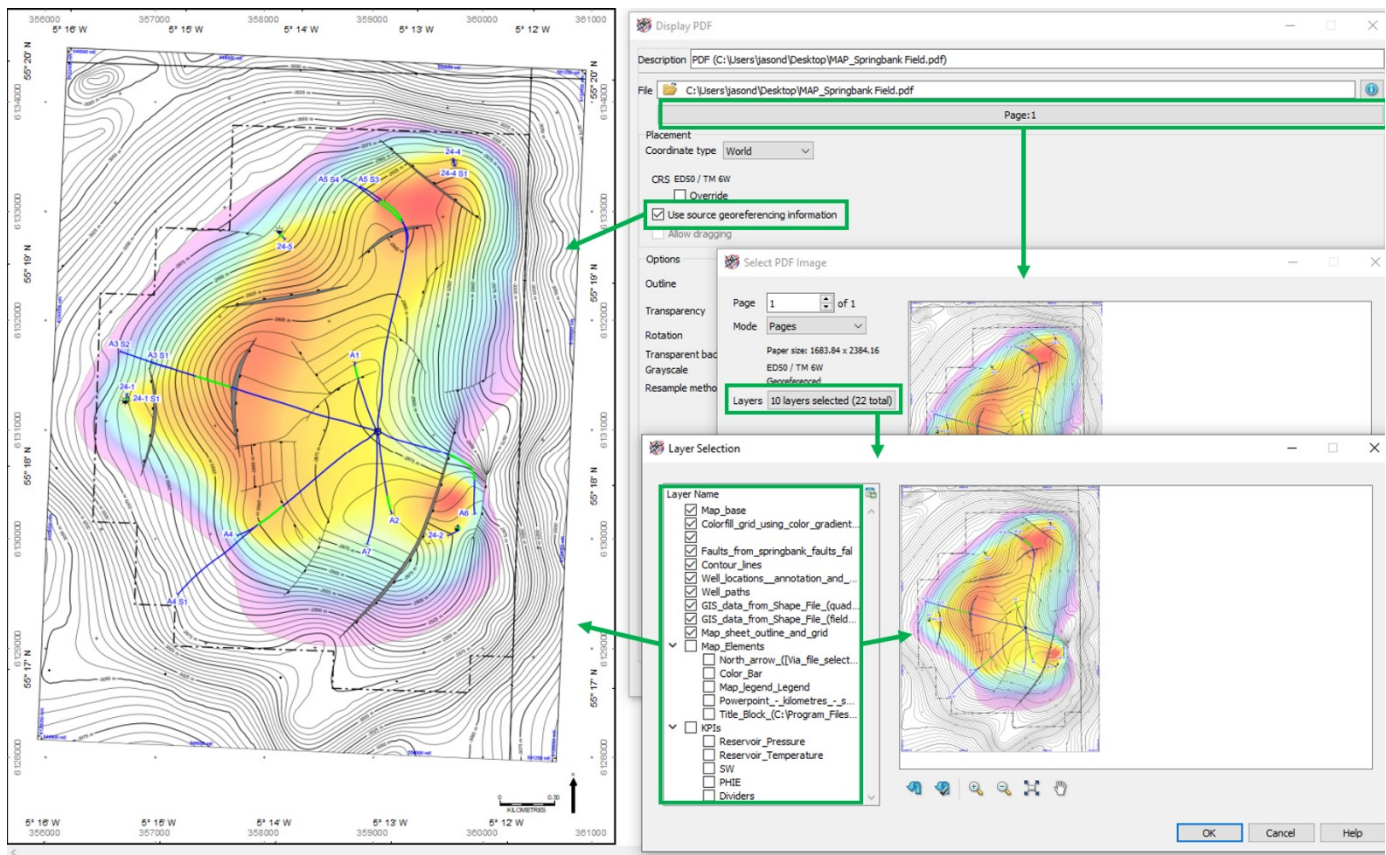
Existing line editing tools such as smoothing, bending, extending and erasing are all available in the digitizing session, as are hot keys to step assigned contour levels up and down. The tracking provides additional 'autopilot' functionality to enhance the already very powerful contour and line digitizing in Petrosys PRO.



*Raster tracking significantly improves line tracing productivity, allowing legacy maps to be converted into better surface models in less time*

## **Display of PDF's enhanced with georeferenced and layer support**

The Display/PDF option has been enhanced to support display of PDFs that contain georeferencing information. These PDFs can now be displayed in the correct spatial locations on the map. In addition, where a PDF contains layered information, the Display/PDF option now supports explicit selection of these layers for display. The existing map based PDF display remains available where georeferencing and layering is not captured in the PDF to be displayed.



## SEGY Export of Stacking Velocity Data

Petrosys PRO supports reading stacking velocity data from different sources: SEGY files, SDF (Petrosys PRO Seismic Data Files) and text files using various formats, also supports writing stacking velocity data back to SDF and text files.

Writing stacking velocity data back to SEGY is added in 2020.2 to make it possible to use generated SEGY file in third party packages such as DUG Insight.

Output SEGY can be a single 3D SEGY file or a group of 2D SEGY files under a specified folder.

Generated output SEGY files will be in revision is 1 using a 4 byte IEEE Floating numbers, all traces have the same sample rate and sample length.

If the input stacking velocity data is not regular i.e. traces have different sample rates resampling using linear interpolation is done prior to writing to output SEGY file to ensure all traces to have the same sample rate.

Padding is done by using the last velocity value to ensure all traces have the same number of samples.

## Eliis PaleoScan™ now supports writing of grid data and reading of Culture data

Petrosys PRO enables data integration and exchange across a wide range of subsurface applications and databases. Our simple and intuitive direct connections allow geoscientists to effortlessly combine data from numerous sources, enhancing the potential for discovering new opportunities. Over the past year we have added PaleoScan to the list of 3rd party applications supported, with accepted data types including grids, wells and fault sticks.

For the 2020.2 release we continue to expand our connection capabilities with PaleoScan, by adding in support for reading polyline Culture data in the Mapping, Surface Modelling and Spatial Data Translator applications. Culture data stored within a PaleoScan project can now be directly displayed on a Petrosys PRO map with the /Display/GIS tool. Users will have full control over the styling, annotation and attribute filtering of this data, and can take advantage of our thematic mapping functionality. Within the Surface Modelling application, PaleoScan Culture data can be used to clip grids and provide boundary outlines for volumetric calculations. And lastly, PaleoScan Culture data can be converted into different file formats using the Spatial Data Translator, reducing data management challenges if working in a multi-platform environment.

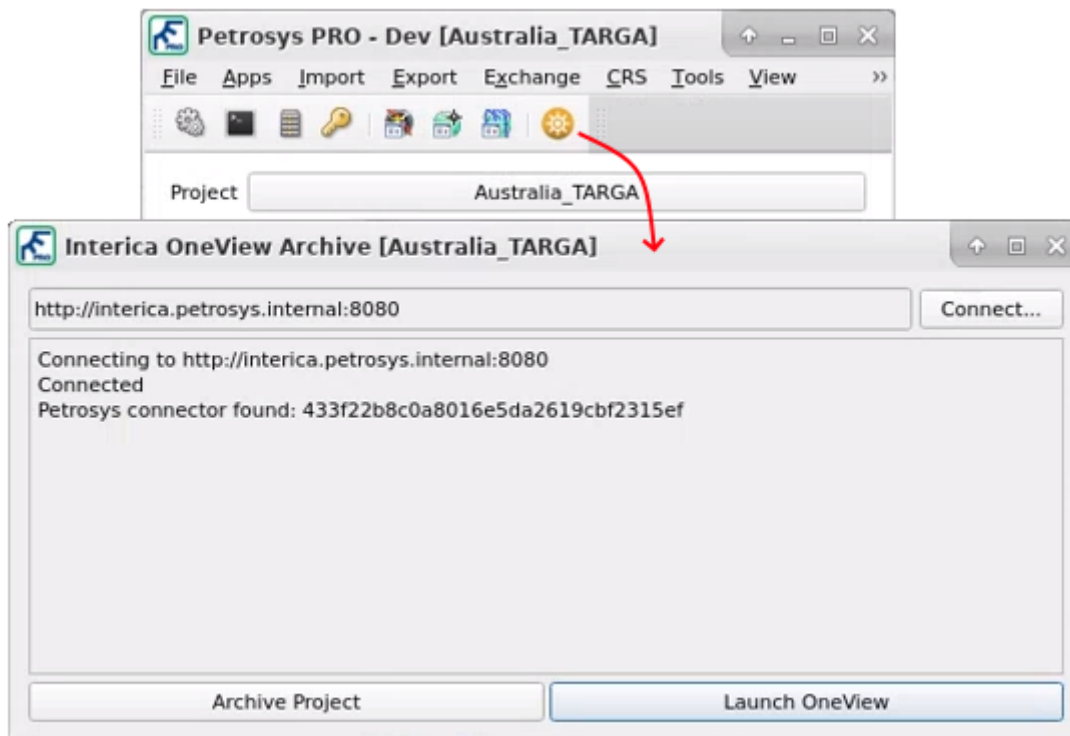
The reading of Polyline/Culture data from PaleoScan has been added to all areas of the application which support the use of spatial data, this includes Mapping, Surface Modeling and Spatial Data Translator.

Further to the support for reading PaleoScan grids into Petrosys PRO, in 2020.2 is now possible to write grid data into a PaleoScan project using our Grid Exchange tool. The input grid could come from a Petrosys PRO project, or be stored in one of

our supported third party applications (such as Petrel, DUG Insight, IHS Kingdom, GoCAD and many more).

## Interica OneView™ archiving integration

Petrosys PRO now includes a direct link to Interica OneView™. This allows for Petrosys PRO projects catalogued by OneView™ to be archived directly from within Petrosys PRO. Additionally, a quick-link to open your OneView™ instance has been provided for more advanced project cataloguing, search, archival and retrieval tasks.



## Contouring performance enhanced

Contouring performance is further optimized in 2020.2 to make things faster while keeping the quality results.

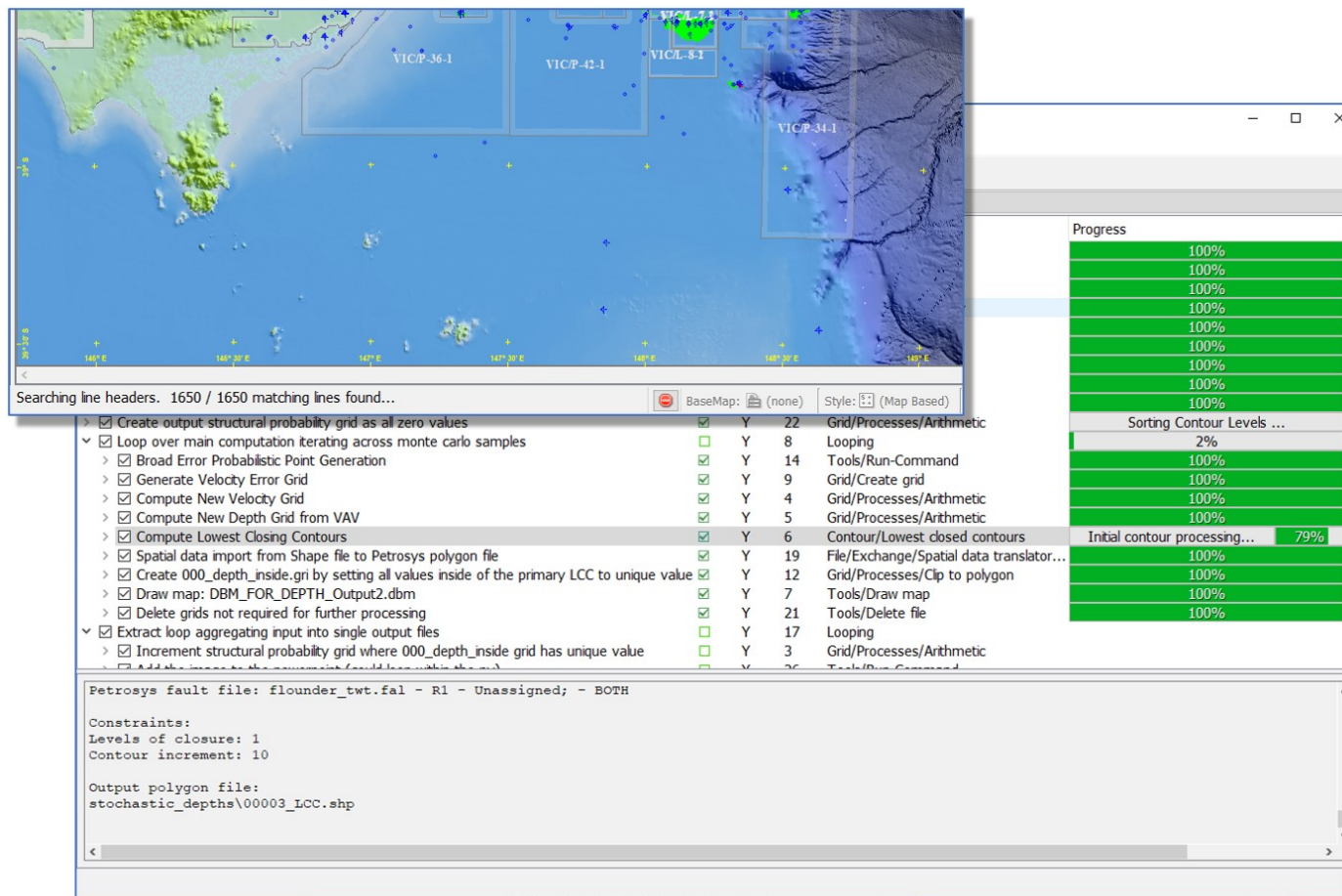
In Mapping the Display/Grid/Colorfill display will be faster as you need to wait less time for the contours generated on the fly to show up.

Likewise, Surface Modeling workflows involving contouring will take less time to run. For example: in Contour Grid (by Cell), Grid/Create Grid, WellTie, Phantom, Grid arithmetic, Lowest Closest Contours, etc

## Progress notes find a less obtrusive home

Progress notes, such as whilst scanning database content or posting wells in mapping, or showing the progress of grid computations in the surface modeling task list, now appear as part of the respective windows instead of popping up as separate windows. In mapping, the progress notes appear in the status bar at the footer of the map window. In surface modeling, the progress notes become an enhancement to the existing progress checkboxes to track the ongoing work of a task list.



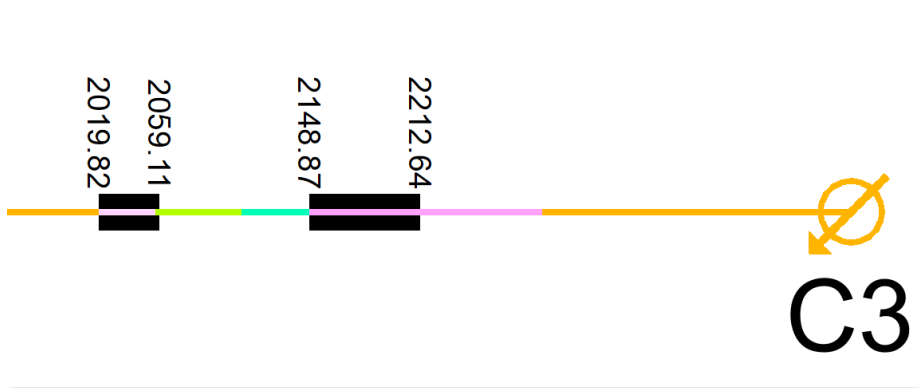


Users didn't like progress bars popping up over their workspace, so we've moved them into the map frame and the main task list window

## Well perforation display from Petrel

Development teams and reservoir engineers will benefit from a new Mapping/Display/Wells tab to add Downhole Data to their maps. This release add support for Perforations from the Petrel Global Completions folder.

Perforations can be displayed along the entire borehole, or between tops; and there is an option to annotate the measured depth at the start and end depth of each perforation.



Well symbols Well annotation Paths Formation tops Formation thickness Downhole data Log signature

☒ Display downhole data

Perforations

Depth range interval (MD)

Between Surface And Bottom-hole

Color Fixed Line style 1 1

The depth range defines the interval where the downhole data will be drawn

Posting Text Depth-only

Annotation size 1 mm Color 1

Offset 0 mm

Labeling location Left

## Reprise license manager

In this version (2020.2), Petrosys have upgraded to a new Reprise license manager system for new sites. Existing sites will have the option to upgrade to this license manager over time.

The Petrosys PRO 2020.2 implementation of the Reprise license manager (RLM) offers a number of useful features that the previous FlexLM based system does not.

Some of the nice features it includes is the ability to allow “roaming/borrowing” of licenses, for those sites that have staff that need to be away from the main license server for a time (say for attendance at data rooms, or onsite at some other location) and the ability to have “cloud hosted” licenses, for those sites that prefer to have Petrosys host and manage the license server themselves.

The Reprise license manager has a web interface to the license server allowing easier monitoring and control of the licenses.

Installation of the new RLM is via an MSI installer for Windows and an RPM for Linux. License files will be available for downloading from the client portal.

Configuration of the client is now done in the main Configuration tool accessible from the Launcher. From the Launcher, click on the menu item Tools/Configuration, or the gear icon in the toolbar, then select the License section. From there you can choose the type of licensing system you are using. For the RepriseLM system you then have the choice of “On Premise” or “Cloud” based servers.

## Eliis PaleoScan™ now supports fault stick and well data

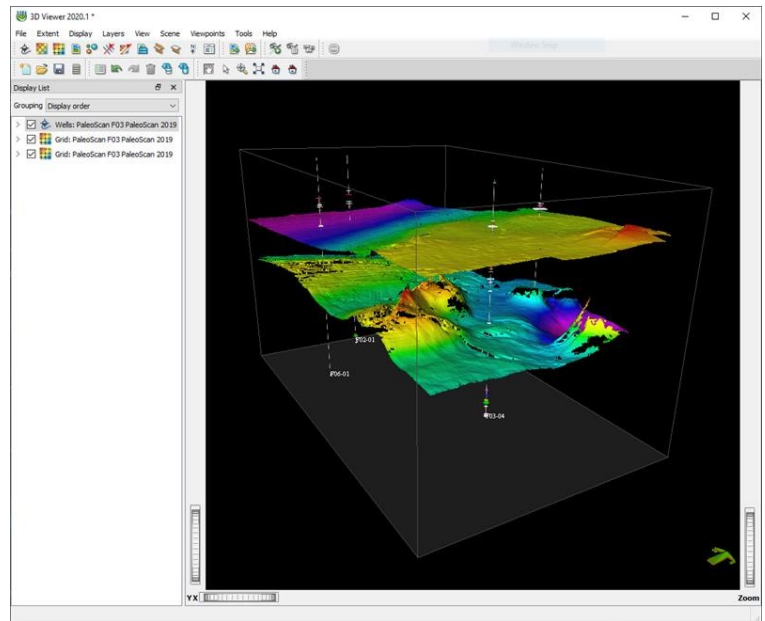
Petrosys PRO connectivity supporting direct interaction with Eliis PaleoScan 2019.1 has been extended based on direct user input to drive increased workflow efficiency between these two popular applications. In PRO 2020.1 the ability to make direct use of Fault Sticks and Well Data from PaleoScan has been extended to all areas of the Petrosys PRO application. This includes the ability to directly display wells and fault sticks in the PRO Mapping & 3D Viewer applications. The well data types supported include well header, locations, directional surveys, check shots, well marker data and well logs.

Users can now also take advantage of fault sticks and well data in the trusted Petrosys PRO Surface Modeling workflows, blending this data with PaleoScan horizons or data from other supported sources. This further unites the strength of Petrosys PRO surface modelling and high-quality mapping and presentation capabilities working in a complimentary way with PaleoScan.

In addition, users and data managers alike, will also appreciate the ability to move data via the Petrosys PRO Data Exchange options for fault sticks and well data from PaleoScan to other third-party software.

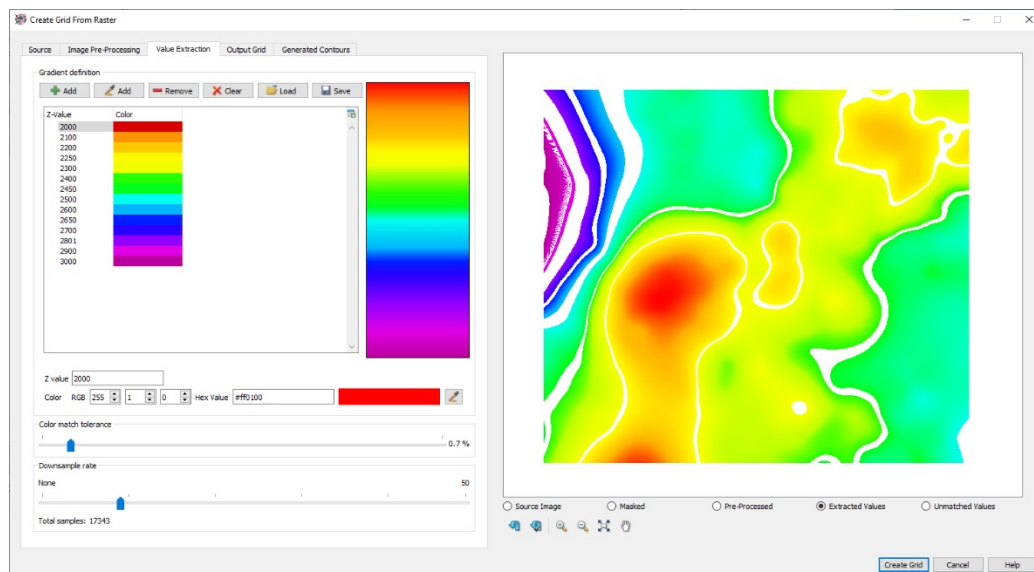
This compliments the previously released support for PaleoScan horizon, attribute and surface data types in Petrosys PRO Mapping, 3D Viewer and Surface Modeling.

Support has also been added to allow for the assignment of a Projected CRS to a PaleoScan project. The connection CRS will be used when any data read from the project does not have an associated CRS already set.



## Extract grids from raster images

The Spatial Editor includes a new option for helping users to extract surfaces, attributes and grids from raster images. This helps users to convert images of historical maps – perhaps from archives or past technical reports into working surface models. This feature allows geoscientists to extract value from past work, where images of the structures, surface or attributes would be valuable to furthering the asset and project aims.



The option can be run from the Operations/Create Grid From Raster or from the RMB menu option of the same name. The user can include fault polygons, clip regions, manually edit the image and assign the Z-value range, providing a high degree of control over the produced grid.

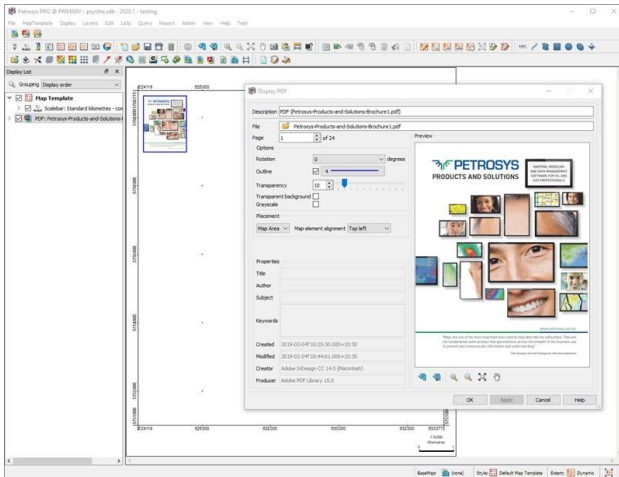


## Direct display of PDF documents

The direct display of PDF documents within Mapping has been added in Petrosys PRO 2020.1.

Users can now choose to display a full page from a PDF document as an image on the Map Canvas in Mapping. The new Display/PDF, menu in Mapping brings up a dialog to choose the PDF document as well as providing Rendering and Placement options, along with document properties and a Preview.

The user has full control over the rotation, background and foreground transparency of the page displayed on the Map Canvas as part of the Rendering options. Placement options are the standard selections available for most Map based elements. The rich Preview of the document's page allows the user to see how the result will be displayed on the Map.



Information such as the PDF Title, Author, Subject, etc. of the document is also displayed in the Properties section of the dialog. Password protected PDF documents are supported and users have the option to utilise the Petrosys PRO Password Manager for saving document passwords.

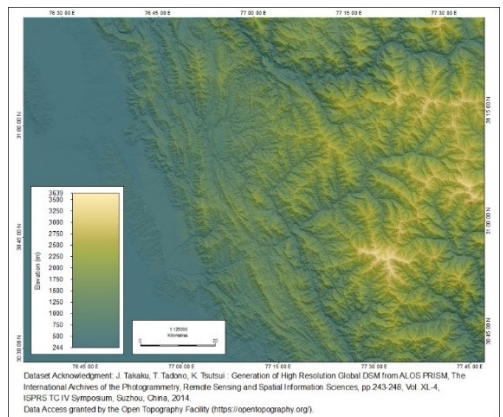
With this new feature, Petrosys PRO does not currently support multi-layer PDFs, individual images or geospatial information from a PDF document - but rest assured these features are coming very soon in the 2020 release stream as we aim to help users restore from the very rich Petrosys PRO layered and georeferenced PDF map archive outputs.

Please note - the display of PDF documents is currently supported on Windows only. Linux support may be available in a future version.

## Easily use XYZ rasters with the new Grid Data Connection

Raster files with XYZ data can now be used and imported in Petrosys PRO. They can be directly displayed in Mapping and the 3D Viewer as a colorfill or sun-shaded grid, and even used as an input data source for gridding in Surface Modeling. The Surface Modeling application can also now import raster files with non-square cells.

The new options are available in a wide range of places that grids are used. File types supported include DEM, GeoTiff, ECW, Arc BinaryGrid, ERDAS Imagine and BIL files.



*Raster image file displayed directly in Mapping as a colorfill layer overlaid on a sun shaded layer.*

## Support for Petrel checkshots and drag'n'drop in the versatile Well Exchange Wizard

Writing checkshots to Petrel is now available through the popular Wells import wizard from the Exchange/Wells menu. This will help user to move checkshots into Petrel from a wide range of Petrosys PRO and 3<sup>rd</sup> party datasources.

Several steps of Wells Exchange have had drag'n'drop functionality added, for data types from applications like Petrel and DecisionSpace Geosciences. The supported data types include, wells and well lists, formations, zones and log curves in the various selection lists of the Exchange tool. This makes it much easier to use selections between your favourite applications.

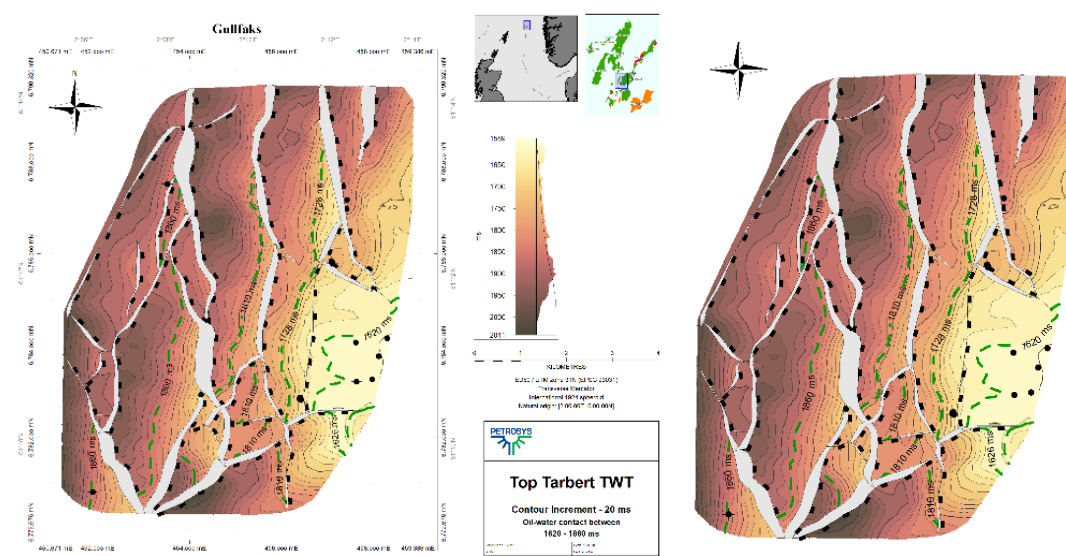
## Scripting of polygon selection enabled in Exchange workflows

Added the ability to use scripting of the polygon selection in the Spatial Data Translator so it can be used within a loop, for example to more effectively batch data exchange a collection of Petrosys PRO polygon files into ESRI shapefiles. This also enables interactive scripting of the data AOI filter where polygons selections are used.

		Name	Description
✓	2	Loop Begin	Loop Begin [ Files : Polygons ]
✓	1	File/Spatial data translator...	Convert Petrosys polygon file to Shape file
✓	3	Loop End	Loop End [ Files : Polygons ]

## Display individual contours with a custom style

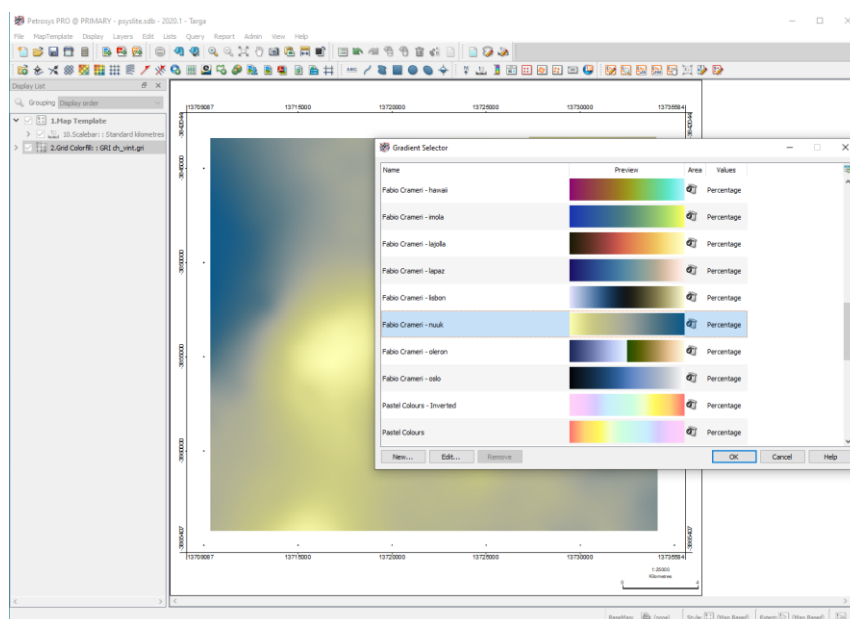
In addition to setting styles for particular contour levels, it is now possible to set a custom style for individual contours, for both contours shown from file or on the fly from a grid or 3D seismic surface. This might typically be used to highlight fluid contacts in the structure - where there might be multiple contours at a specific level but not all represent the fluid contacts. The custom style can be set for a specific contour by selecting it on the map and using the RMB/Apply Contour Style menu option. This may also be useful when contour reflect prospect boundaries. The user has full control over the style used to display the selected contour.



## Additional perceptually equal gradients included in standard Petrosys PRO set

The standard set of gradients included with Petrosys PRO has been expanded with the addition of several "perceptually equal" colour gradients. A "perceptually equal" gradient is where color intensity is balanced across the gradient, avoiding incorrect highlighting of certain colors. The gradients added are based on the work by Fabio Crameri, a researcher in scientific visualization from the University of Oslo.

For many mapping situations, a perceptually uniform colormap is a good choice - one in which equal steps in data are perceived as equal steps in the color space. Why? This prevents the viewer of the map perceiving false anomalies, attributes or structure in the data where there is none. This provides opportunity for the map to ensure that features and attributes are not either missed or lost in areas of low perceptual colour contrast. Researchers have found that humans perceive changes in the lightness parameter as changes in the data much better than, for example, changes in hue of the colours.



## Mapping Overpost Correction Editor now provides a 'freehand' selection option

In addition to the option to select labels via rectangular selection, the Overpost Correction tool allows selection of labels via an arbitrary polygon. This can be useful for selecting labels that are not aligned along vertical or horizontal lines.

## Improvements to modelling faults

The ability to effectively use fault sticks throughout the Petrosys PRO application has rapidly become a central feature of many users mapping and surface modelling workflows. In this release there are many improvements that users will value:

### *Directly work with Paleoscan fault stick in Petrosys PRO through the popular new direct connect option*

The ability to make direct use of Fault Sticks from the popular PaleoScan connection recently added to Petrosys PRO, has been extended to all areas of the Petrosys PRO application which support the use of Fault Stick data. This includes but not limited to direct display in the 3D Viewer, use of the fault stick in Petrosys PRO Surface Modeling and the ability to Data Exchange fault sticks from Paleoscan with other third-party software.

### *Fault stick exchange now supports Petrel as an output source*

In this release, the Fault Stick Exchange tool has been extended to include Schlumberger Petrel™ as an output data source, enabling the writing of fault sticks directly to Petrel from any of the available input third-party applications.

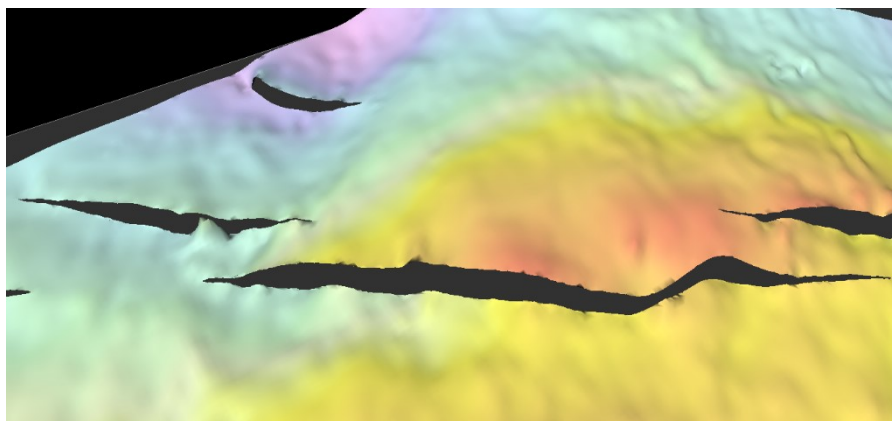
### *Even better fault polygons generated from fault sticks*

The Petrosys PRO methods that automatically generate fault polygons from faults sticks have been improved to reduce “waviness” to provide a more accurate fault surface from a variety of fault stick interpretations and all third-party supported fault stick data sources. Access this valued and easy to use feature from the Fault Tab in the Surface Modeling/Grid/Create grid option:

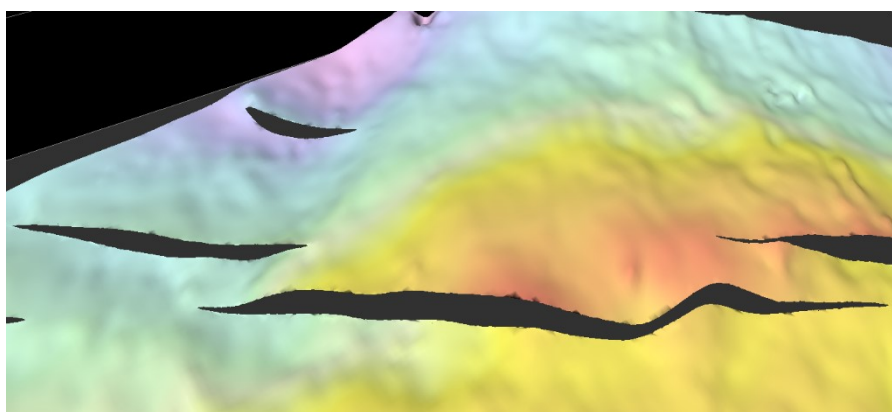
<input checked="" type="checkbox"/> Save fault polygons	
Petrosys fault file	<input type="text" value="north prospect faults"/>
Surface to assign faults to	<input type="text" value="Gro"/> Gro
Overwrite Petrosys fault file	<input type="button" value="Create"/> Data type

### **Use the new Clipping Distance and Heave Control options to get better output grid surfaces where fault sticks are used**

Gridding input data located within a specified distance to the input fault sticks can be removed before gridding starts. This is used to remove noise around fault sticks which might cause unexpected results in generated grids.



Example with no clipping



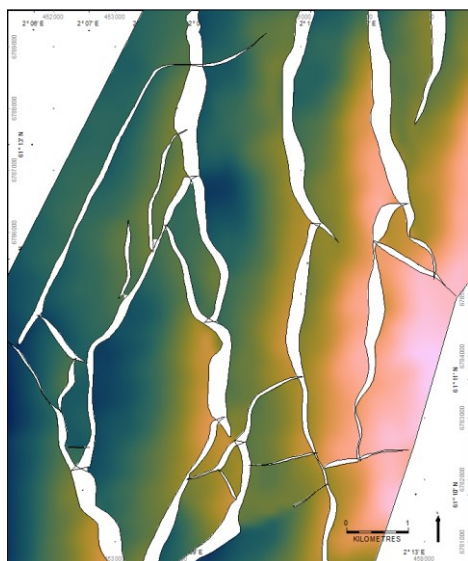
Clipping input data within distance 300

The new ‘Minimum Heave’ option can be used to widen very narrow fault polygons, which tend to form around vertical fault

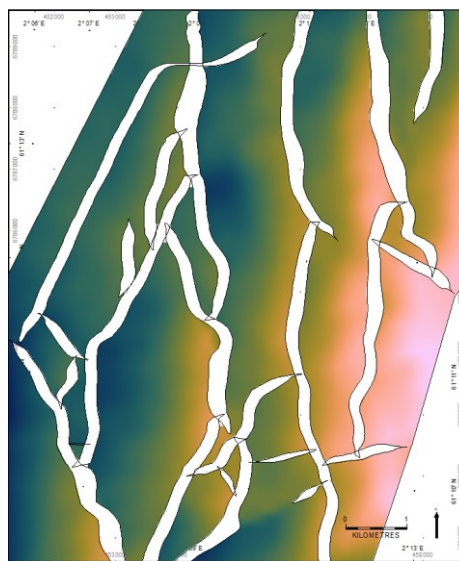


sticks. Narrow fault polygons are often deemed unreliable due to uncertainty surrounding the seismic resolution and the nature of many fault stick auto-tracking algorithms. The 'Minimum Heave' option can be used to generate polygons that accurately reflect a fault zone, as opposed to a discrete sliver of deformation. This feature can also be applied if users require fault polygons with a minimum heave for basin modelling applications.

Left: No minimum heave



Right: Minimum heave applied. The thinnest parts of several faults are thickened, and the overall geometry is honoured as close as possible.



## Searchable Map Display Lists

The mapping display list now allows layers to be easily searched for text keywords.

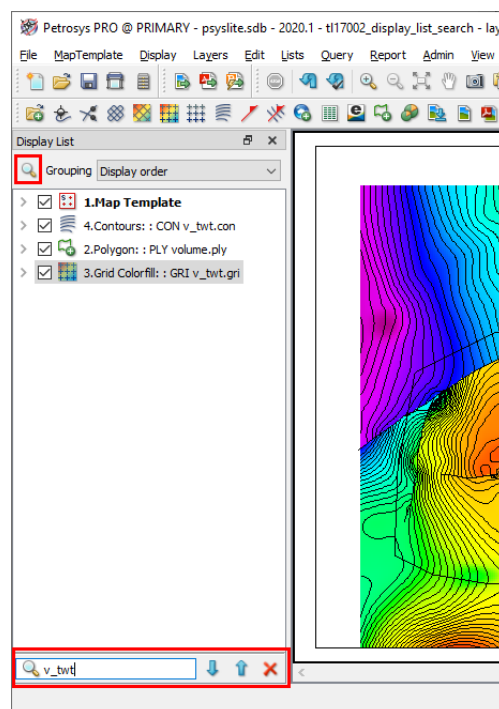
A search can be made by clicking the icon at the top of the display list or using the Ctrl-F shortcut key. Note that the search will match text properties of layers (filename and data types) in addition to the displayed text.

With the addition of map layer groups to maps which allow users to bring together logical collections of map layers, the number of layers in individual maps has grown. This handy new search feature makes it easier to find a desired map layer among a larger collection of layers and map folder groups.

## Automated Map Text Scaling v2.0 provides a wider range of choice and control for users

The behaviour of text scaling and symbol sizes within Mapping has been enhanced in PRO 2020.1. In previous versions of PRO, these sizes (and other properties with mm units) would be scaled in proportion to changes to the map scale. This has been changed to provide an enhanced user experience in the following ways:

- Scaling is now disabled by default. This can be changed via a configuration setting under the Mapping tab
- Scaling can be enabled or disabled for each dbm, using the File/Size Scaling Properties dialog
- Scaling can be enabled or disabled for individual layers using the RMB/Scale Text Sizes Proportional To Map Scale option
- Text and symbol heights for a layer can be manually scaled using the RMB/Scale Sizes option
- Size properties in dialogs can be optionally shown in a specific scale, rather than the current map scale, using the File/Size Scaling Properties dialog

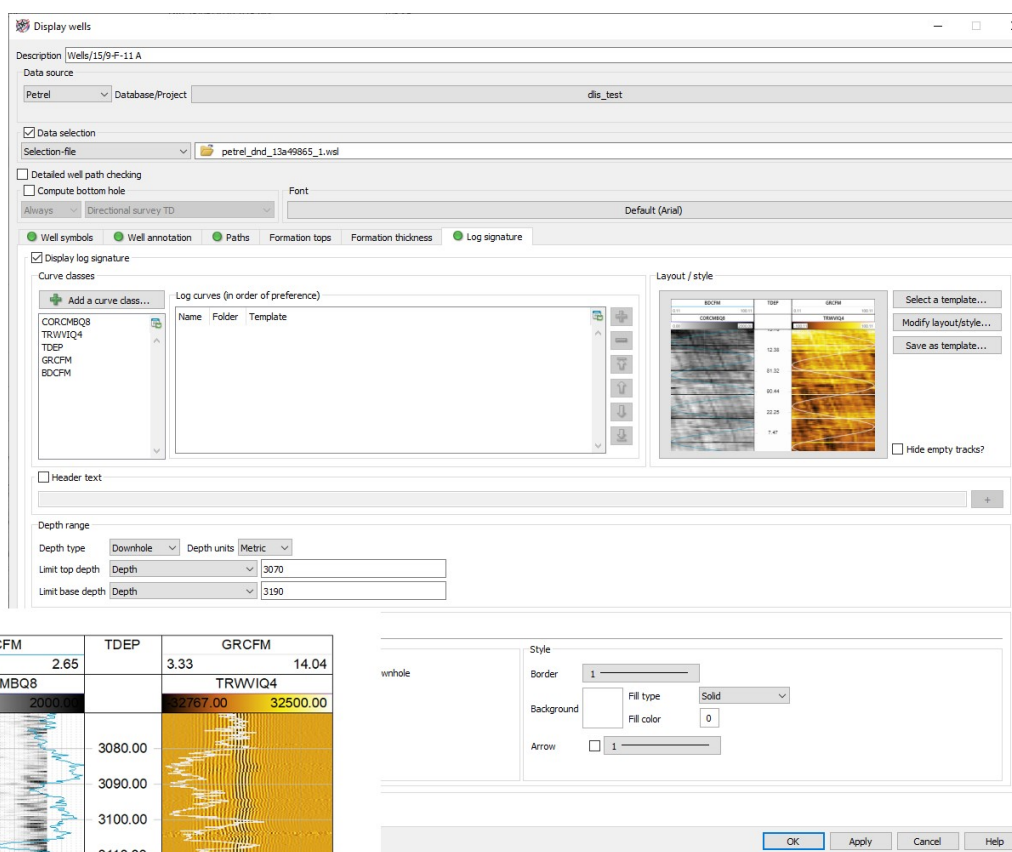


## Log Signature Maps and Exchange now support FMI multi-value logs from Petrel

The Well Log Signature display option in Petrosys PRO now supports multi-value FMI logs and data sourced directly from

Petrel. In addition, Multi-value FMI logs can now be exchanged from DLIS to Petrel.

In log signature map displayed using a gradient fill style – a handy option has been added to easily reverse the gradient to streamline achieving the desired fill.



## Take advantage of new directional arrow line styles in Mapping

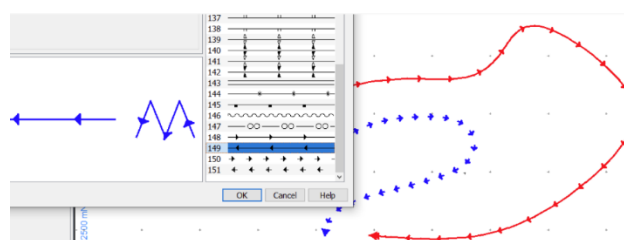
Four new line styles that include arrows to indicate direction have been added to Mapping.

## Notes for Upgraders and Installers of Applications

Upgraders from Petrosys PRO 2019 should be aware of the following changes:

- Support for Red Hat Enterprise Linux 6 (RHEL6) has been deprecated. RHEL6 can be supplied on special request. Some features may be unavailable on the RHEL6 platform.
- Petrosys PRO supports Red Hat Enterprise Linux 7 and 8 (RHEL7 and RHEL8) and equivalents (CentOS, Oracle Linux). RHEL7 is shipped by default.
- Petrosys PRO 2020 requires a new license file. Please obtain your license file by logging on to the Petrosys Client Portal or contacting Petrosys Support.
- Petrosys PRO 2020 requires dbMap/Web 2020.1 for full compatibility. Most functionality is available with earlier versions of dbMap/Web, but certain features such as coordinate transformations will not work. Please upgrade dbMap/Web to 2020.1 or later.

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





## Detailed Release Notes Summary PRO 2020.2.3

### Enhancements

#### *Connections, Import and Export - OpenWorks*

[78822](#) Improved the performance of the horizon selection list

#### *Mapping - GIS, Spatial and Culture*

[78720](#) Improved warning message when text file has more or less columns than expected

#### *Mapping - Wells*

[78599](#) Improved the performance of display from WDF when using checkshots

## Detailed Release Notes Summary PRO 2020.2.3

### Bug Fixes

#### *Application - Launcher*

[78871](#) GroupLockdown user restriction no crashes the project selector

#### *Connections, Import and Export*

[78865](#) Well log catalogue merge option Keep/Replace has been improved

#### *Connections, Import and Export - DUG Insight*

[78852](#) DUG project directories read correctly

#### *Connections, Import and Export - Esri*

[78877](#) Improved performance when accessing SDE servers with large number of feature classes

#### *Connections, Import and Export - Petrel*

[78744](#) Fixed unit conversion issues when writing Petrel well logs matching existing log curve templates

#### *Mapping - Wells*

[78880](#) Well list - Fixed a crash that can occur when filtering lists with highlighted items

#### *Surface Modeling - Gridding*

[78738](#) Grid/Create Grids - Faults - Field activity now correct after switching from fault sticks to fault polygons

# Petrosys Release PRO 2020.2.3

## Detailed Release Notes

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### Application - Launcher

### Bug Fixes

#### **GroupLockdown user restriction no crashes the project selector**

78871

A crash in the Project Selector has been fixed when a user had a GroupLockdown restriction applied.

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### Connections, Import and Export

### Bug Fixes

#### **Well log catalogue merge option Keep/Replace has been improved**

78865

Well log file catalogue has been improved:

- Merge option 'Replace' only does the replacement if the well log has been updated
- Merge option 'Keep' now honours the file path mapping between Windows and Linux
- Well catalogue information in generated HTML report is reorganised based on output wells

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### Connections, Import and Export - DUG InsightBug Fixes

#### **DUG project directories read correctly**

78852

DUG project directories have now been parsed properly in order to read project data correctly.

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### Connections, Import and Export - Esri

### Bug Fixes

#### **Improved performance when accessing SDE servers with large number of feature classes**

78877

In previous releases, using Display/GIS to select and display data from SDE databases with large numbers of feature classes could be slow. In particular, this would occur when using the PsSde option to access the database.

### Connections, Import and Export - OpenWorksEnhancements

#### **Improved the performance of the horizon selection list**

78822

The performance of the horizon selector has been significantly improved where there are many horizons. It now shows in seconds where before it might take eight minutes to show 10,000 horizons.

A number of other lists in the application also have better performance, like the alpha-numeric editor in the SDF Editor application.

## **Fixed unit conversion issues when writing Petrel well logs matching existing log curve templates**

78744

Depth and curve value units are now handled correctly when writing well logs to Petrel with an existing log curve template.

### Mapping - GIS, Spatial and Culture Enhancements

## **Improved warning message when text file has more or less columns than expected**

78720

The warning message displayed when displaying or using text files in Display/GIS or as a Gridding source now gives the line number and content of the first line that caused the message.

### Mapping - Wells Enhancements

## **Improved the performance of display from WDF when using checkshots**

78599

The performance of display wells with checkshot data from a WDF is significantly improved. The display time can be up to 10 to 20 times faster. The more wells being display the bigger the performance gain.

## **Well list - Fixed a crash that can occur when filtering lists with highlighted items**

78880

A random crash that could occur whilst using the /Lists/Wells.. option in Mapping has been fixed. The crash would occur whilst using list filtering and clicking on different wells and highlighting wells on the map.

## **Grid/Create Grids - Faults - Field activity now correct after switching from fault sticks to fault polygons**

78738

Fixed panel activity in Grid/Create grid - Faults tab, the additional parameters fields activity is now enabled/disabled correctly based on fault type.

## Detailed Release Notes Summary PRO 2020.2.2

### Bug Fixes

#### *Mapping - General*

[78695](#) Titleblock cgm files with full UNC pathname now work on Windows

#### *Seismic (SDF) Editor*

[55353](#) Interval velocity horizon labels swapped when calculating from stacking velocities



## Petrosys Release PRO 2020.2.2

Detailed Release Notes

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### Mapping - General

### Bug Fixes

#### **Titleblock cgm files with full UNC pathname now work on Windows** 78695

Introduced in PRO 2020.2.1, a bug where using full Windows UNC file names (e.g. of the form \\server\share\folder\file.cgm) for cgm titleblock files on Windows would result in an XP:20 "Unsupported file format" error. This has now been fixed.

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### Seismic (SDF) Editor

### Bug Fixes

#### **Interval velocity horizon labels swapped when calculating from stacking velocities** 55353

Interval velocity horizon labels display in the correct order, i.e. top horizon label followed by the base horizon label.

# Detailed Release Notes Summary PRO 2020.2.1

## Enhancements

### *Application - General*

- [78317](#) Updated custom\_install.vbs to handle file systems where file open may initially fail
- [78582](#) Performance improvement for some options that read text files

### *Configuration - Licensing*

- [78476](#) Support added for RepriseLM to the Maintain/License Manager application
- [78214](#) Added warning for license file with .lic suffix

### *Connections, Import and Export*

- [78204](#) Export/PDF now outputs exactly four points for GCP

### *dbMap - Client*

- [77883](#) StatX now supports using the dbMap Database connection from the Launcher

### *Mapping - General*

- [40508](#) The cursor coordinates are now always displayed in the status bar
- [78642](#) Improved interactive responsiveness for large numbers of mapping layers

### *Mapping - GIS, Spatial and Culture*

- [78665](#) Non ASCII characters are now supported for the annotation prefix and suffix properties

### *Surface Modeling - Exchange*

- [73852](#) Added support of reading LAS V3

### *Surface Modeling - Workflows/Scripting*

- [78552](#) Support added for looping over strings from Unicode encoded text files

# Detailed Release Notes Summary PRO 2020.2.1

## Bug Fixes

### *Application - General*

- [78365](#) Import Petrel gradient from within gradient editor now works
- [78559](#) Embedded browser download manager now shows downloaded content
- [78579](#) Download manager no longer appears under other application windows
- [78593](#) Fixed a crash when closing dialog immediately it was shown

### *Application - User Interface*

- [78533](#) Modal lock out problem for MapTemplate/Edit/Style/Map Elements fixed

### *Connections, Import and Export*

- [78416](#) Exchange list filter no longer resets when filtering by fault or horizon name

### *Connections, Import and Export - Paradigm-Epos*

- [78618](#) Seismic import - saving 3D horizon interpretation as grids now works

### *dbMap - Client*

- [78383](#) Performance improvements for dbMap well list related options (Santos only)

### *Mapping - General*

- [78281](#) Display of georeferenced ECW images (Windows Only)
- [78120](#) Crash when displaying particular PDFs and VSI\_CACHE set fixed
- [78122](#) Display/PDF: layers with blank names can be selected
- [78247](#) Display/PDF: Visibility of layer fixed for case where complex visibility expressions used

### *Mapping - GIS, Spatial and Culture*

- [72228](#) Crash fixed in Display/GIS
- [78661](#) Display/GPS support re-enabled on Windows

### *Mapping - Grids, Surfaces and Sampled Data Files*

- [78545](#) Fixed colorbar display when grid colorfill equalization is enabled

### *Surface Modeling - General*

- [78234](#) Appended PDFs in Draw Map now use correct CRS
- [78236](#) Fixed Merge PDF feature

### *Surface Modeling - Volumetrics*

- [78468](#) Grid base slices - Top and Base text report fixed

### *Wells (WDF) Editor*

- [78407](#) Fixed "Fatal Assert" error when saving changes to the well header

# Petrosys Release PRO 2020.2.1

## Detailed Release Notes

### [Application - General](#)

### [Enhancements](#)

#### **Updated custom\_install.vbs to handle file systems where file open may initially fail**

78317

The custom\_install.vbs script, used by some sites to assist in the roll-out of Petrosys PRO, has been updated to tolerate systems where opening a file for writing may initially fail.

#### **Performance improvement for some options that read text files**

78582

The performance has been improved for some options that process text or CSV files. The improvement is more significant for very large text files that are on network drives.

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### [Application - General](#)

### [Bug Fixes](#)

#### **Import Petrel gradient from within gradient editor now works**

78365

Importing a Petrel gradient using Gradient Editor "/Import/Petrel (\*.alut)..." option now works correctly.

Previously the option would simply return without doing anything.

#### **Embedded browser download manager now shows downloaded content**

78559

In earlier 2020 versions of Petrosys PRO the download manager dialog did not display the downloaded file. This has now been fixed, with downloaded files listed. Double-clicking on the downloaded file will open the file in the associated program.

#### **Download manager no longer appears under other application windows**

78579

In earlier 2020 versions of Petrosys PRO it was possible for the embedded web browser's download manager to appear underneath other application windows. This has now been fixed so the download manager will initially display above other application windows when a new file has been downloaded.

#### **Fixed a crash when closing dialog immediately it was shown**

78593

A crash that could happen when closing a dialog immediately after it was shown has been fixed.

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

### [Bug Fixes](#)

#### **Modal lock out problem for MapTemplate/Edit/Style/Map Elements fixed**

78533

An issue on certain Linux window managers (e.g. MATE) running on TurboVNC where a new window would appear behind other windows and locked for input has been fixed. This issue was evident in the MapTemplate/Edit/Map Elements panel.

## Support added for RepriseLM to the Maintain/License Manager application

78476

The /Tools/License Manager application now supports displaying RepriseLM license status.

### Added warning for license file with .lic suffix

78214

The Petrosys PRO Windows Installer now warns if a license file with a ".lic" suffix is used when configuring the FLEXlm license. The ".lic" suffix is typically used for RepriseLM license files, so the warning is to prevent accidental misconfiguration of the FLEXlm license with data for RepriseLM. If the license file is correctly for FLEXlm, then the warning can be ignored.

## Export/PDF now outputs exactly four points for GCP<sup>78204</sup>

When exporting georeferenced PDFs, Petrosys PRO will now export the four corner points of the area of interest as the ground control points instead of the four corner points, plus a variable number of internal points. This improves the ability of third-party software to accurately locate PDFs produced by Petrosys PRO.

## Exchange list filter no longer resets when filtering by fault or horizon name<sup>78416</sup>

When filtering the fault sticks list by fault name or the 3D seismic surfaces list by horizon name, the list filter now remains after checking or unchecking rows in the list.

## Seismic import - saving 3D horizon interpretation as grids now works<sup>78618</sup>

In previous versions Seismic Import 'save 3D horizon interpretations as grids' did not work correctly. This has now been fixed.

## StatX now supports using the dbMap Database connection from the Launcher<sup>77883</sup>

The StatX application now connects to the dbMap database selected on the launcher. Previously it only connected to the primary dbMap database specified in connections.xml

## Performance improvements for dbMap well list related options (Santos only)<sup>78383</sup>

Some significant performance issues have been resolved for Santos, when viewing dbMap well data using options under Lists/Wells. For example, refreshing the directional survey dialog previously could take around 10 seconds, but now it updates almost instantly.



## **The cursor coordinates are now always displayed in the status bar** 40508

In Mapping the coordinate information of the current cursor location is now always shown in the status bar at the bottom right of the Mapping window. Click on the coordinate display to modify the display style. Use the keyboard shortcut Ctrl+Shift+C at any time to copy the current cursor location to the system clipboard.

## **Improved interactive responsiveness for large numbers of mapping layers**

78642

The interactive responsiveness for a map with a large number of layers has been improved. The improvement is more significant when there is a large percentage of in-active layers in conjunction with the project directory being on a network drive.

In some cases the loading of large dbm files is now twice as fast. The response time on modifying a layers properties and OK/Apply can be five to ten times faster.

## **Display of georeferenced ECW images (Windows Only)** 78281

An error in Petrosys PRO 2020.2 caused georeferencing information in ECW images to be ignored. This has been fixed.

## **Crash when displaying particular PDFs and VSI\_CACHE set fixed** 78120

A crash that could occur when displaying particularly formatted PDFs and VSI\_CACHE was set in the user environment has been fixed.

## **Display/PDF: layers with blank names can be selected** 78122

Previously, PDFs with layers whose names were blank could not be displayed. This has been fixed.

## **Display/PDF: Visibility of layer fixed for case where complex visibility expressions used** 78247

Cases where a PDF uses complex visibility expressions to control the visibility of items within a layer has been corrected. Previously, an object using a complex visibility expression may have remained visible when they should have been hidden.

## **Non ASCII characters are now supported for the annotation prefix and suffix properties** 78665

For the Display/GIS option in Mapping, the annotation suffix and prefix fields now fully support Unicode characters like the degrees symbol ° or any other non-ASCII characters.

## **Crash fixed in Display/GIS** 72228

A crash has been fixed in the /Display/Spatial module. This crash could occur whilst the layer was determining the area of interest.

## Display/GPS support re-enabled on Windows

78661

The Windows only option /Display/GPS now works correctly.

This option takes GPS live feed data from a Windows COM (serial) port and displays the GPS location as a red cursor on the current map.

It is possible to use mobile phone applications and virtual serial port PC software to enable Petrosys PRO to display and capture your mobile GPS location. For example the iPhone app "GPS2IP" and the PC app "HW Virtual Serial Port" have been tested and are known to work.

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## Mapping - Grids, Surfaces and Sampled Data FilesBug Fixes

### Fixed colorbar display when grid colorfill equalization is enabled

78545

The issue which caused the colorbar for an equalized colorfill grid to be incorrect has been fixed.

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

### Added support of reading LAS V3

73852

LAS v3 is now supported with some limitation in Well cataloguing into dbMap PPDM38.

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## Surface Modeling - General

## Bug Fixes

### Appended PDFs in Draw Map now use correct CRS 78234

Previously, when using Draw Map, any appended PDFs would have used the same CRS and bounding box information as the first page of the PDF. This has been fixed, so now subsequent pages have the CRS information from the source map.

### Fixed Merge PDF feature

78236

Due to a bug in Petrosys PRO 2020.2, PDFs produced by the Append feature of Surface Modeling/Tools/Draw Map were corrupted. This has been fixed.

Any corrupt PDFs can be fixed if required, please contact Petrosys support for assistance.

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## Surface Modeling - Volumetrics

## Bug Fixes

### Grid base slices - Top and Base text report fixed 78468

When Top and Base volumetrics task is used, the correct base grid name is reported in the surface modelling log window.

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

### Support added for looping over strings from Unicode encoded text files

78552

Looping over strings from text files that are encoded (contains Byte Order Mark) are now processed without displaying an error message.

### **Fixed "Fatal Assert" error when saving changes to the well header** 78407

A "Fatal Assert on modify well header "column >= 0 && column < m\_columnData.size()" error that can occur when saving well header changes in the WDF Editor has now been fixed.

This error could be triggered by a certain scrolling pattern in the well selection list and then saving the well header changes.

# Detailed Release Notes Summary PRO 2020.2

## Enhancements

### *3D Viewer - General*

- [77951](#) Added annotation option to display well header information at surface holes
- [77857](#) 3DViewer export to STL file
- [71500](#) OpenInventor upgraded to version 9.9.19

### *Application - General*

- [44799](#) Progress notes now displayed within application window

### *Configuration - Licensing*

- [32630](#) Alternative license system - RepriseLM

### *Connections, Import and Export*

- [77592](#) Export/PDF now includes creator application information

### *Connections, Import and Export - Esri*

- [78155](#) Speed improved for Display/GIS when showing SDE layers using the PsSde driver

### *Connections, Import and Export - PaleoScan*

- [71643](#) Support added for reading Polyline/Culture data from PaleoScan
- [76737](#) Writing grids to PaleoScan is supported

### *Connections, Import and Export - SEG Y*

- [38860](#) Supported exporting stacking velocities to SEG Y files
- [77498](#) Allow specifying constant scalars in SEG Y format

### *Documentation - Online Help*

- [78038](#) Updated volumetrics help explaining contributing area

### *Mapping - General*

- [77199](#) Display/PDF supports georeferenced PDF display and layer selection
- [77672](#) Project crawler: added support for mapping (.dbm) files

### *Mapping - Grids, Surfaces and Sampled Data Files*

- [78169](#) Fault symbol sides can be swapped in Mapping grid colorfill display

### *Mapping - Wells*

- [47350](#) Add ability to display Petrel wells perforations as interval path segments

### *Project Management - Administration*

- [77673](#) Added support for initiating a project archive backed by Interica OneView

### *Spatial Editor*

- [77328](#) Image Augmented Line Tracing in the Spatial Editor

### *Surface Modeling - Contouring*

- [77541](#) Contouring performance has been further improved

### *Surface Modeling - Gridding*

- [77664](#) SEG Y stacking velocity reading performance improved in Gridding and velocity interpolation

### *Velocities/Depth Converter*

- [76035](#) Added ability to select depth units in depth conversion options

## Detailed Release Notes Summary PRO 2020.2

### Bug Fixes

#### *Application - General*

[78205](#) Client specific package now added to Administrative Install Point

#### *Application - User Interface*

[78024](#) Sorting of filtered scrolled lists no longer crashes

[77463](#) List search now finds matches in immediately preceding item

#### *Connections, Import and Export*

[74240](#) DLIS files now can be catalogued successfully to dbMap PPDM38

#### *dbMap/Web - Client*

[77933](#) Zoom enabled for embedded browser

#### *Mapping - General*

[78082](#) Drawing Tools Lines - Arrow heads now always draw in the correct orientation

#### *Mapping - GIS, Spatial and Culture*

[78181](#) Display/GIS - Fixed some issues with shape filenames and shape attributes thematically mapped with non-ASCII characters

#### *Spatial Data Translator*

[78059](#) Fixed connection not established when selecting feature class

#### *Spatial Editor*

[77858](#) Eyedropper color sampler works correctly on most multiple screen configurations

#### *Surface Modeling - General*

[78096](#) GIP Editor - Added in /File/Export options to PDF, Raster Image, CGM, PIC, ZGF

#### *Surface Modeling - Workflows/Scripting*

[77130](#) Shapes in shape file with non-printable characters can be selected



## Petrosys Release PRO 2020.2

### Detailed Release Notes

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

##### **Added annotation option to display well header information at surface holes** 77951

Added annotation option to display well header information at surface holes.

##### **3DViewer export to STL file** 77857

Added ability to export the scene to the STL format (.stl) file. ASCII and binary file formats are supported.

##### **OpenInventor upgraded to version 9.9.19** 71500

The OpenInventor toolkit used for rendering content in the 3D Viewer has been upgraded to version 9.9.19. This update provides improved performance and stability, and better support for some graphics cards.

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

##### **Progress notes now displayed within application window** 44799

Progress notes, such as when scanning database content or posting wells in mapping, or showing the progress of grid computations in the Surface Modeling task list, now appear as part of the respective windows instead of popping up as separate windows. In Mapping, the progress notes appear in the status bar at the footer of the map window. In Surface Modeling, the progress notes become an enhancement to the existing progress checkboxes to track the ongoing work of a task list.

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

#### [Bug Fixes](#)

##### **Client specific package now added to Administrative Install Point** 78205

In previous versions, the setup installer program did not add the client specific package to the administrative install point, instead it raised an error. This has now been fixed and client specific files are now added to the install point.

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

#### [Bug Fixes](#)

##### **Sorting of filtered scrolled lists no longer crashes** 78024

In previous versions, when a scrolled list was filtered and then sorted the application may have crashed. This has been fixed.

##### **List search now finds matches in immediately preceding item** 77463

Previously, searching for an item in a single column list may not have found a match if the only matching item in the list was immediately preceding the current item. This bug has now been fixed.

## Alternative license system - RepriseLM

32630

In this version (2020.2), Petrosys have upgraded to a new Reprise license manager system for new sites, and plan to upgrade older sites to this license manager over time.

The Reprise License Manager (RLM) has been chosen as it was already being used successfully by our sister company Claritas, and it has a number of useful features that the older Flex system does not.

Some of the nice features it includes is the ability to allow "roaming/borrowing" of licenses, for those sites that have staff that need to be away from the main license server for a time (say for attendance at data rooms, or onsite at some other location) and the ability to have "cloud hosted" licenses, for those sites that prefer to have Petrosys host and manage the license server themselves.

Installation of the new RLM is just as easy as the older Flex system, and clients will have new license keys issued promptly, and they will also be available for downloading from the client portal, as they have been in the past.

Configuration of the client is now done in the main Configuration tool accessible from the Launcher

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

## [Enhancements](#)

### Export/PDF now includes creator application information 77592

Exported PDFs now contain creator information, for example "Petrosys PRO 2020.2", to record the version of Petrosys PRO used to produce the PDF. Previously this metadata field was blank.

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

## [Bug Fixes](#)

### DLIS files now can be catalogued successfully to dbMap PPDM38

74240

In previous versions cataloguing well logs files to dbMap PPDM38 may fail if the index units is very small such as '0.1 inches'. This has now been fixed.

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

## [Enhancements](#)

### Speed improved for Display/GIS when showing SDE layers using the PsSde driver

78155

The "PsSde driver" is used to display SDE data from Oracle 18c and other certain other SDE backend database configurations. In previous PRO versions displaying the initial list of layers using Display/GIS could sometimes be slow - in particular for SDE databases with a very large number of feature classes.

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

### Support added for reading Polyline/Culture data from PaleoScan

71643

Petrosys PRO enables data integration and exchange across a wide range of subsurface applications and databases. Our simple and intuitive direct connections allow geoscientists to effortlessly combine data from numerous sources, enhancing the potential for discovering new opportunities. Over the past year we have added PaleoScan to the list of third-party applications supported, with accepted data types including grids, wells and fault sticks.

For the 2020.2 release we continue to expand our connection capabilities with PaleoScan, by adding in support for reading polyline Culture data in the Mapping, Surface Modeling and Spatial Data Translator applications. Culture data stored within a PaleoScan project can now be directly displayed on a Petrosys map with the /Display/GIS tool. Users have full control over the styling, annotation and attribute filtering of this data, and can take advantage of our thematic mapping functionality. Within the Surface Modeling application, PaleoScan Culture data can be used to clip grids and provide boundary outlines for volumetric calculations. And lastly, PaleoScan Culture data can be converted into different file formats using the Spatial Data Translator, reducing data management challenges if working in a multi-platform environment.

The reading of Polyline/Culture data from PaleoScan has been added to all areas of the application which support the use of spatial data, this includes Mapping, Surface Modeling and Spatial Data Translator.

## Writing grids to PaleoScan is supported

76737

Further to the support for reading PaleoScan grids into Petrosys PRO, in 2020.2 it is now possible to write grid data into a PaleoScan project using our Grid Exchange tool. The input grid could come from a Petrosys project or be stored in one of our supported third-party applications (such as Petrel, DUG Insight, IHS Kingdom, GoCAD and many more).

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

### Supported exporting stacking velocities to SEGY files<sup>38860</sup>

Petrosys PRO supports reading stacking velocity data from different sources: SEGY files, SDF (Petrosys Seismic Data Files) and text files using various formats, also supports writing stacking velocity data back to SDF and text files.

Writing stacking velocity data back to SEGY is added in 2020.2 to make it possible to use generated SEGY file in third-party packages such as DUG Insight.

Output SEGY can be a single 3D SEGY file or a group of 2D SEGY files under a specified folder.

Generated output SEGY files are in revision 1 format, using 4-byte IEEE Floating numbers in its sample data, all traces having the same sample rate and sample length.

If the input stacking velocity data is not regular, i.e. traces have different sample rates, resampling using linear interpolation is done prior to writing to output SEGY files to ensure all traces have the same sample rate.

Padding is done by using the last velocity to ensure all traces have the same number of samples.

### Allow specifying constant scalars in SEGY format<sup>77498</sup>

It is now supported to use constant scalars to X/Y coordinates or shotpoints in defining a SEGY format.

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## dbMap/Web - Client

## Bug Fixes

### Zoom enabled for embedded browser

77933

The embedded browser used to display dbMap/Web content has re-enabled support for zoom in and out, using the "ctrl +" and "ctrl -" keyboard shortcuts.

## [Documentation - Online Help Enhancements](#)

### Updated volumetrics help explaining contributing area<sup>78038</sup>

Updated volumetrics grid area help topic.

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

### **Display/PDF supports georeferenced PDF display and layer selection**

77199

The Display/PDF option has been enhanced to support display of PDFs containing georeferencing information in correct spatial locations. This is the default behaviour for georeferenced PDFs, but the existing map based display option is still available. Some PDFs have data organised into hierarchical layers. Selection of the set of layers to display is now supported for those PDFs that do contain layer information.

### **Project crawler: added support for mapping (.dbm) files**

77672

The project crawler now contains an option to crawl and generate reports for .dbm files.

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## [Mapping - General](#)

## [Bug Fixes](#)

### **Drawing Tools Lines - Arrow heads now always draw in the correct orientation**

78082

In the Mapping option /Display/Drawing Tools/Curve, the option to render an arrow head at the end of the line or curve now works correctly when using the mouse to double click to end creation of the line.

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## [Mapping - GIS, Spatial and Culture](#)

## [Bug Fixes](#)

### **Display/GIS - Fixed some issues with shape filenames and shape attributes thematically mapped with non-ASCII characters**

78181

The Display/GIS option has improved support for non-ASCII characters. Shape filenames with non-ASCII characters are now supported. In addition thematically mapping attributes with non-ASCII values is now supported.

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

### **Fault symbol sides can be swapped in Mapping grid colorfill display**

78169

In Mapping/Display/Grid/Colorfill fault symbol sides are now allowed to be flipped for display purposes. This is useful in cases where automatically assigned fault symbols are incorrect. For example, in a Petrosys grid file if embedded faults are not completely inside the grid's AOI there are not enough grid Z-values to correctly calculate the fault sense (upthrown vs downthrown).

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

### **Add ability to display Petrel wells perforations as interval path segments**

47350

Development teams and reservoir engineers will benefit from a new Mapping/Display/Wells tab to add Downhole Data to their maps. This release add support for Perforations from the Petrel Global Completions folder.

Perforations can be displayed along the entire borehole, or between tops; and there is an option to annotate the measured depth at the start and end depth of each perforation.

## [Project Management - Administration](#) [Enhancements](#)

### **Added support for initiating a project archive backed by Interica OneView**

77673

For sites using Interica OneView to catalogue and archive their Petrosys projects, Petrosys PRO now includes tighter integration between the two products.

OneView project archives can now be triggered from the Petrosys Launcher.

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## [Spatial Data Translator](#)

## [Bug Fixes](#)

### **Fixed connection not established when selecting feature class** 78059

When a connection is already selected in the Spatial Data Translator, selecting a feature class would silently fail until the connection was manually re-established. The connection is now re-established automatically upon clicking the "Select Feature Class..." button.

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## [Spatial Editor](#)

## [Enhancements](#)

### **Image Augmented Line Tracing in the Spatial Editor** 77328

Digitizing contours, faults, and other linear features from scanned or published map images has become a lot more productive through the introduction of a 'raster tracking' feature that lets the user track lines on an underlying image.

The georeferenced image is opened in the spatial editor. A line data file - which can be a contour, fault, shape, or other file - is opened as a separate layer in the editor. When the line editing 'draw' tool (the pencil icon) is picked, a new 'raster tracking' option can be selected. With this option enabled, the tracing cursor looks for lines as it is moved across the underlying image and turns to a 'hand' icon when a line is detected. As with the existing 'add segments from existing features' option, the operator can now click on a point further along the line, and the system will automatically add the recognized line segment from the image to the line being digitized.

Tracking can be enhanced by restricting the line recognition to a given color. The line tracing algorithm is quite good at picking a preferred line through intersections, and the space bar can be used to temporarily switch off the tracing algorithm to allow the operator to skip across in-line annotations or poorly defined areas.

Existing line editing tools such as smoothing, bending, extending, and erasing are all available in the digitizing session, as are hot keys to step assigned contour levels up and down. The tracking provides additional 'autopilot' functionality to enhance the already very powerful contour and line digitizing in Petrosys PRO.

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## [Spatial Editor](#)

## [Bug Fixes](#)

### **Eyedropper color sampler works correctly on most multiple screen configurations**

77858

There are several panels in the Spatial Editor that allow a color to be selected using an eye dropper tool to interactively select a pixel from anywhere on the screen. In previous versions of PRO this did not work correctly when using more than one monitor (for certain monitor configurations).

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## [Surface Modeling - Contouring](#)

## [Enhancements](#)

### **Contouring performance has been further improved** 77541

Contouring performance is further optimized in 2020.2 to make things faster while keeping the quality results.

In Mapping the Display/Grid/Colorfill display will be faster as you now need to wait less time for the contours generated on the fly to show up.

Likewise, Surface Modeling workflows involving contouring now take less time to run. For example: in Contour Grid (by Cell), Grid/Create Grid, WellTie, Phantom, Grid arithmetic, Lowest Closest Contours, etc.

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## Surface Modeling - General

## Bug Fixes

### **GIP Editor - Added in /File/Export options to PDF, Raster Image, CGM, PIC, ZGF**

78096

In Surface Modeling the Sample Data Editor (/Grid/Sampled Data File/Edit) now has the full /File/Export menu to properly export to PDF, Raster Images, PIC, CGM and ZGF.

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## [Surface Modeling - Gridding](#)

## [Enhancements](#)

### **SEGY stacking velocity reading performance improved in Gridding and velocity interpolation**

77664

In Surface Modeling stacking velocity gridding and 3D velocity interpolation stacking velocity reading has been sped up when output grid area is only partly overlapping the survey area by applying an AOI filter.

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## Surface Modeling - Workflows/Scripting

## Bug Fixes

### **Shapes in shape file with non-printable characters can be selected**

77130

In previous versions in Surface Modeling in the workflow of looping through a collection of polygons from a shape file which has non-printable characters in its attributes some shapes could not be selected. This has now been fixed.

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## [Velocities/Depth Converter](#)

## [Enhancements](#)

### **Added ability to select depth units in depth conversion options**

76035

In Surface Modeling it is now supported to select depth units (Meters or Feet) in Well Checkshots Depth Conversion and Well Time Depth Trend Conversion options.

## Detailed Release Notes Summary PRO 2020.1.2

### Enhancements

#### *Connections, Import and Export*

[77738](#) Exchange Wells - DLIS/LAS files now uses a configuration option for the storage location in dbMap PPDM38

#### *Connections, Import and Export - Petrel*

[77869](#) Updated dbMap to Petrel rock properties logs output folder (Origin only)

#### *dbMap - Client*

[77963](#) Lists/Wells/dbMap - Columns added to display lat/lon in DMS format and CRS name (Santos only)

[77953](#) Exchange - Wells - dbMap Reservoir summaries are now grouped by lithology in Petrel (Santos only)

#### *Mapping - Grids, Surfaces and Sampled Data Files*

[77849](#) Display Raster as Grid - Drag and drop of HGT, DEM, GRIB2, IMG, BIL and E00 raster files supported



## Detailed Release Notes Summary PRO 2020.1.2

### Bug Fixes

#### *Application - Printing and Publication*

[78040](#) Improved rendering of zero length lines in PDF output

#### *Connections, Import and Export*

[77913](#) Cataloguing LAS or DLIS files to PPDM38 dbMap performance improved

[77863](#) Cataloguing multiple log files at once supported

[78018](#) Well log exchange - HTML file not generated if it is on network drive

#### *Connections, Import and Export - Petrel*

[77624](#) Wells import wizard now able to generate Petrel folder structure from the well grouping field

#### *dbMap - Client*

[77607](#) dbMap SQL function - ps\_format\_dms no longer returns strange character symbols

#### *Mapping - Editors*

[78017](#) Raster images displayed in the Spatial Editor with a CRS different to the map are reprojected correctly

#### *Mapping - Wells*

[77939](#) Mapping - Does not crash when displaying wells from Rescue file

# Petrosys Release PRO 2020.1.2

## Detailed Release Notes

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### Application - Printing and Publication

### Bug Fixes

#### **Improved rendering of zero length lines in PDF output** 78040

The rendering of lines that are effectively zero length has been improved when outputting to PDF, specially for the Adobe Acrobat Reader. The rendering now makes sure that something visible is drawn at all zoom levels working around issues with the Adobe reader.

This case can be triggered when displaying GIS data from an Excel spreadsheet that might have something like well perforation data in it that you want to display as lines as some of the perforations were lines and others points.

There are some advanced configuration options to control the rendering if the need to fine tune the output is required. Talk to Petrosys support to access these options.

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### Connections, Import and Export Enhancements

#### **Exchange Wells - DLIS/LAS files now use configuration option for the storage location in dbMap PPDM38** 77738

Exchange/Wells loading DLIS or LAS files into dbMap PPDM38 database on Windows now makes use of the Tools/Configuration/Advanced/Third party/dbMap/Well exchange/Well Log Run file location options to map files selected on Windows to a Linux path, so the files will be accessible from dbMap/Web.

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### Connections, Import and Export

### Bug Fixes

#### **Cataloguing LAS or DLIS files to PPDM38 dbMap performance improved** 77913

Cataloguing LAS or DLIS files to PPDM38 dbMap has been improved in its performance. A HTML report and progress info has been added.

#### **Cataloguing multiple log files at once supported** 77863

In the previous version when cataloguing well logs files to dbMap PPDM38 using Surface Modeling Well Exchange it could fail when importing multiple LAS files which contain same Log Curve types. This has now been fixed.

#### **Well log exchange - HTML file not generated if it is on network drive** 78018

In the previous version in exchange tasks such as Well Exchange, if the specified HTML log file is on a network drive it will fail to generate. This has been fixed.

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

### **Updated dbMap to Petrel rock properties logs output folder (Origin only)**

77869

Rock properties logs written to Petrel now have a default output folder. (Origin only)

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

#### [Bug Fixes](#)

### **Wells import wizard now able to generate Petrel folder structure from the well grouping field**

77624

The well grouping field value can now contain double backslashes or double forward slashes to indicate a subfolder in the Petrel wells structure.

## [dbMap - Client](#)

## [Enhancements](#)

### **Lists/Wells/dbMap - Columns added to display lat/lon in DMS format and CRS name (Santos only)**

77963

For the Santos Lists/Wells/dbMap option, LATITUDE\_DMS/LONGITUDE\_DMS and BH\_LATITUDE\_DMS/BH\_LONGITUDE\_DMS columns have been added to allow display of the surface and bottom hole latitude/longitude of the well in DMS format. The CRS\_NAME column has also been added to show the name of the geographic CRS assigned to the well.

### **Exchange - Wells - dbMap Reservoir summaries are now grouped by lithology in Petrel (Santos only)**

77953

For Santos only, using Exchange/Wells to load Reservoir summaries from dbMap to Petrel now creates separate stratigraphy groups for each lithology type (Sand, Coal & Shale). Separate comment logs are also created for each lithology type.

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

#### [Bug Fixes](#)

### **dbMap SQL function - ps\_format\_dms no longer returns strange character symbols**

77607

The dbMap SQL function ps\_format\_dms used for reporting latitude/longitude values in DMS format no longer returns values with a strange "?" symbol.

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#### [Mapping - Editors](#)

#### [Bug Fixes](#)

### **Raster images displayed in the Spatial Editor with a CRS different to the map are reprojected correctly**

78017

In previous versions of PRO, raster images displayed in the Spatial Editor would only be located correctly if the map and image had the same projected CRS.

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

### **Display Raster as Grid - Drag and drop of HGT, DEM, GRIB2, IMG, BIL and E00 raster files supported** 77849

Added support for the drag and drop of HGT, DEM, GRIB2, IMG, BIL and E00 raster formats to trigger the Display/Grid/Colour fill display.

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## Mapping - Wells

## Bug Fixes

### **Mapping - Does not crash when displaying wells from Resuce file** 77939

In previous version Mapping crashes when displaying wells from Rescue file, this has now been fixed.

# Detailed Release Notes Summary PRO 2020.1.1

## Enhancements

### *Application - User Interface*

- [77462](#) Filter list widget now highlight searched text
- [77461](#) Search highlighting in lists now clears when search term no longer matches

### *Connections, Import and Export*

- [77135](#) Web Map Service URLs can optionally be read from catalog entries

### *Connections, Import and Export - OpenWorks*

- [77125](#) Display of OpenWorks polygons now reads the correct Polygon Type

### *Connections, Import and Export - PaleoScan*

- [77407](#) Connecting to Eliis PaleoScan no longer holds onto the PsDataIO license
- [77406](#) Improved error message when connecting to Eliis PaleoScan fails due to no PsDataIO license
- [77383](#) Added support for reading well logs

### *Coordinate Reference Systems*

- [77636](#) Support added for the OpenWorks "Hotine Oblique Mercator Center Origin" CRS projection

### *Mapping - General*

- [77470](#) Text highlighting now supported in display list search

### *Mapping - GIS, Spatial and Culture*

- [77351](#) WMTS image compatibility improvements
- [76993](#) Support added for SDE 10.5 on SQL Server
- [77106](#) Web service catalog includes a 'Category' field to allow grouping

### *Mapping - Wells*

- [45097](#) List/Wells/Finder - Support added for selecting wells from from a text file or Excel file

# Detailed Release Notes Summary PRO 2020.1.1

## Bug Fixes

### *Application - Printing and Publication*

[77588](#) Export Raster - PNG compression correctly used

### *Application - User Interface*

[76017](#) Search highlighting re-enabled for lists

[77575](#) Clearing file selector now returns to project directory

[31061](#) Search in scrolled list now handles text alignment

### *Connections, Import and Export*

[77646](#) Exchange Wells - Logs - All selected well log curves now get loaded

### *Connections, Import and Export - Excel*

[77568](#) The number of rows of data to scan to determine Excel column type is configurable

### *Connections, Import and Export - IHS*

[77432](#) 3D horizon data can be read from a file bigger than 2GB

### *Connections, Import and Export - OpenWorks*

[77536](#) Duplicate 2D seismic line coordinates are no longer generated when reading from OpenWorks

[77556](#) OpenWorks Fault sticks Z-values are now read correctly

### *Connections, Import and Export - Paradigm-Epos*

[77580](#) Paradigm culture polygon sets are correctly read as closed polygons

### *Connections, Import and Export - Petrel*

[77458](#) Fixed point logs written to Petrel depth converting all numeric attributes (Santos only)

### *dbMap/Web - Client*

[77656](#) Fixed crash in dbMap/Web embedded browser

[77395](#) Linux embedded browser now stays on top of parent window

[77396](#) Previous embedded browser size and position restored

### *Mapping - Editors*

[77594](#) Raster to grid conversion supports centerline faults

[77631](#) Spatial Editor allows raster images to be opened with a defined CRS

[77519](#) Spatial editor correctly reprojects raster images

### *Mapping - General*

[73541](#) Legends saved into map templates support text over multiple lines

### *Mapping - GIS, Spatial and Culture*

[77387](#) Display/WMS handles services with duplicate layer identifiers

[77625](#) Display/GIS display of FileGDB using the Series Gradient method works as expected

[77342](#) Improvements to reading geographic data for certain GIS data sources

### *Mapping - Wells*

[77641](#) Log signatures no longer require a continuous curve class type to be displayed

[77572](#) Potential crash in well log viewer fixed

### *Surface Modeling - Gridding*

[77655](#) Kriging variogram parameters now update task when runtime prompt is on

### *Surface Modeling - Workflows/Scripting*

[77522](#) Looping over polygons from shapefile now works

# Petrosys Release PRO 2020.1.1

## Detailed Release Notes

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### Application - Printing and Publication

### Bug Fixes

#### **Export Raster - PNG compression correctly used** 77588

The File/Export/Raster Image option now compresses PNG files fully. Previously the compression value (0-9) was being used incorrectly leading to uncompressed PNG files.

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### Application - User Interface

### Enhancements

#### **Filter list widget now highlight searched text** 77462

Search highlighting has been added to filtered lists. Previously these lists were searchable, but matched content was not highlighted.

#### **Search highlighting in lists now clears when search term no longer matches** 77461

When the search term used in a list search matches an item in the list, the text in the list is highlighted. If the search term is changed so there are no matches within the list, the text highlighting is now cleared.

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### Application - User Interface

### Bug Fixes

#### **Search highlighting re-enabled for lists** 76017

Due to a bug in PRO 2019.1, searched for text was not highlighted in various lists. This bug is now fixed.

#### **Clearing file selector now returns to project directory** 77575

In PRO 2020.1, clearing a file selector that had a path outside the current project using the right mouse button and then opening the file browser would start the file browser in the previously displayed path. This has been fixed so clearing the selector will return the path to the current project.

#### **Search in scrolled list now handles text alignment** 31061

Previously, in some lists, searched text would be highlighted in a different position than the actual text due to differences in the text alignment. This has now been fixed.

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### Connections, Import and Export

### Enhancements

#### **Web Map Service URLs can optionally be read from catalog entries** 77135

An option has been added that allows saved raster or vector web map services to be reloaded from the catalog entry instead of the saved URL. This can be useful when the URL for services are likely to change, as just the catalog entry needs to be updated.

### **Exchange Wells - Logs - All selected well log curves now get loaded** 77646

When using Exchange/Wells to load well logs from one data source to another, it now correctly loads all selected well logs. Previously it may not have loaded some log curves, particularly when the input data source wells had a significant number of logs.

### **The number of rows of data to scan to determine Excel column type is configurable** 77568

Previous versions of PRO contained a configuration variable that was supposed to allow this to be set, but which did not work correctly in practice.

### **3D horizon data can be read from a file bigger than 2GB** 77432

In previous versions IHS Kingdom 3D horizon data may not be read successfully if file size is bigger than 2GB. This has now been fixed.

## Connections, Import and Export - OpenWorksEnhancements

### **Display of OpenWorks polygons now reads the correct Polygon Type** 77125

Display/GIS/OpenWorks Polygon now picks up the correct PolygonType for each polygon from the Mapping Polygon Set in OpenWorks. Previously, if you tried to annotate or used the Filter/Scan option for the PolygonType, it would only show the value EXCLUSIVE, even though there were INCLUSIVE polygons in the set.

### **Duplicate 2D seismic line coordinates are no longer generated when reading from OpenWorks** 77536

2D seismic navigation from OpenWorks is now read correctly. Previously each shotpoint location was being duplicated in memory, so it had twice as many points as it should have. The duplicate points could be seen from Mapping/Lists/Seismic/Lines/OpenWorks/Edit/Coordinates and if you tried to import into dbMap, you would see warnings about duplicate shot points being ignored for every line.

### **OpenWorks Fault sticks Z-values are now read correctly** 77556

In previous versions, faults sticks in the time domain read from OpenWorks projects may have had invalid Z-values. This has now been fixed.



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

### **Connecting to Eliis PaleoScan no longer holds onto the PsDataIO license**

77407

Connecting to PaleoScan no longer keeps the PsDataIO license checked out. Previously each connection to PaleoScan in each app would checkout and keep a PsDataIO license. e.g. If you connected to PaleoScan in Mapping and Surface Modeling it would check out two PsDataIO licenses. It now only checks out the license initially when connecting and then each time data is requested using the PaleoScan DevKit, keeping it free for other applications and users.

There is potential that this may slow down PaleoScan data access, so there is now also the Tools/Configuration/Advanced/Third Party/PaleoScan/Connect to PaleoScan DevKit on demand option to turn this behaviour off, and revert to checking out and holding the PaleoScan PsDataIO license as long as Petrosys is connected to the project..

### **Improved error message when connecting to Eliis PaleoScan fails due to no PsDataIO license**

77406

Connecting to PaleoScan now gives a more informative error if it is unable obtain a PaleoScan PsDataIO license. Previously it just reported there was a fatal error with no mention of the license not being available.

### **Added support for reading well logs**

77383

Support for reading Well logs from PaleoScan has been added to allow for display of log signature maps and exchange of well logs directly from PaleoScan.

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## [Connections, Import and Export - Paradigm-EposBug Fixes](#)

### **Paradigm culture polygon sets are correctly read as closed polygons**

77580

In previous versions of PRO (from 17.2.4 onward), Paradigm polygon sets were incorrectly read as open lines rather than closed polygons. This meant that fill style was not applied and the polygons could not be exported to other GIS polygons.

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

### **Fixed point logs written to Petrel depth converting all numeric attributes (Santos only)**

77458

When writing point logs to Petrel, all numeric attributes were treated as depths resulting in incorrect values for wells stored with imperial depth units. This has now been fixed.

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## [Coordinate Reference Systems](#)      [Enhancements](#)

### **Support added for the OpenWorks "Hotine Oblique Mercator Center Origin" CRS projection**

77636

Petrosys PRO now supports this OpenWorks projection method.

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## [dbMap/Web - Client](#)      [Bug Fixes](#)

### **Fixed crash in dbMap/Web embedded browser**

77656

PRO no longer crashes when data was displayed via the embedded browser and the browser then closed.

## Linux embedded browser now stays on top of parent window 77395

On Linux, the embedded browser now stays on top of parent window, becoming consistent with behaviour on Windows.

## Previous embedded browser size and position restored 77396

The position and size of the embedded browser window is now restored from the last used position and size.

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### Mapping - Editors

### Bug Fixes

## Raster to grid conversion supports centerline faults 77594

In PRO version 2020.1, if centre line faults were included when creating a grid from a raster image, the faults did not get included in the output grid.

## Spatial Editor allows raster images to be opened with a defined CRS 77631

Petrosys PRO 2020.1 introduced a bug whereby the CRS Override setting that allows manual selection of a CRS in the Spatial Editor for rasters without one, did not work as expected.

## Spatial editor correctly reprojects raster images 77519

In previous versions of PRO, certain rasters would not be reprojected into the current map CRS correctly when opened in the spatial editor.

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### Mapping - General

### Enhancements

## Text highlighting now supported in display list search 77470

Now, when searching within the display list, the found text is highlighted in the list.

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### Mapping - General

### Bug Fixes

## Legends saved into map templates support text over multiple lines 73541

In previous versions of PRO, new line characters in map template legends would be lost when the map template was applied.

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### Mapping - GIS, Spatial and Culture

### Enhancements

## WMTS image compatibility improvements 77351

The robustness of WMTS image display has been improved:

- support for additional CRS formats
- handle services with no defined operations

## Support added for SDE 10.5 on SQL Server 76993

Petrosys PRO can access GIS data from Esri SDE 10.5 (or later) databases running on SQL Server. Previous versions of PRO would show the list of feature classes, but would not display any shape data (due to changes in the SDE database schema from 10.4 to 10.5).

## Web service catalog includes a 'Category' field to allow grouping

77106

The web service catalog can be used for raster image (e.g. WMS, WMTS) and vector (WFS, ArcGIS) web services. Web service catalog entries now include a 'Category' field, which allows for ad hoc grouping of different services.

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### Mapping - GIS, Spatial and Culture

### Bug Fixes

## Display/WMS handles services with duplicate layer identifiers 77387

In previous versions of PRO, trying to connect to a WMS service that included multiple layers with the same layer identifier would either crash (Linux) or not show any available layers (Windows)

## Display/GIS display of FileGDB using the Series Gradient method works as expected 77625

In previous PRO versions, display of FileGDB data using Display/GIS would occasionally not display, or display with an incorrect style. In particular this would happen when using the "Series Gradient" thematic method.

## Improvements to reading geographic data for certain GIS data sources 77342

In previous versions of PRO, for certain data sources (notably PostGIS), more data would be read than necessary.

### Mapping - Wells

### Enhancements

## List/Wells/Finder - Support added for selecting wells from from a text file or Excel file 45097

In Mapping List/Wells/Finder adding and selecting wells using a 'well name list file' is now supported. The well name list file can be a column based text file or an Excel file.

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### Mapping - Wells

### Bug Fixes

## Log signatures no longer require a continuous curve class type to be displayed 77641

Previously, log signatures would not be displayed when displaying only FMI logs. This has now been fixed and FMI logs can be displayed without requiring a continuous log curve.

## Potential crash in well log viewer fixed 77572

A possible crash in the well log style viewer has been fixed.

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### Surface Modeling - Gridding

### Bug Fixes

## Kriging variogram parameters now update task when runtime prompt is on 77655

In previous versions, when using gridding method 'Kriging' or 'Kriging with External Drift' user run-time modified variogram parameters were not saved into the task after the task was run. This has been fixed.

### **Looping over polygons from shapefile now works** 77522

In previous versions, the workflow of looping through a polygon selection did not work for some shapefiles if some attributes had http URL values. This has now been fixed.

# Detailed Release Notes Summary PRO 2020.1

## Enhancements

### *Application - General*

[76649](#) Red Hat Enterprise Linux 7 now shipped as the default platform for Linux

[75681](#) Updated to Qt 5.14

### *Application - User Interface*

[76790](#) Improved performance of adding data to lists

### *Configuration - Licensing*

[77249](#) PRO Licensing - Require a new license file to run PRO 2020.1

### *Connections, Import and Export - PaleoScan*

[71637](#) Added support for reading Wells, Directional surveys, Checkshots and Markers from PaleoScan

[71641](#) Added support for reading Fault Sticks from PaleoScan

[77019](#) Added support for assigning a CRS to a PaleoScan project connection

### *Connections, Import and Export - Petrel*

[44717](#) Added support for writing checkshot surveys to Petrel

[73801](#) Petrel 2014 no longer supported

[77050](#) Use configured well log folder when writing well zone comment logs to Petrel (Santos only)

[76759](#) Wells exchange now supports multitrace well log curves from DLIS to Petrel

### *Connections, Import and Export - SEG Y*

[77182](#) SEG Y format - support unsigned integer for sample interval

### *dbMap - Client*

[76765](#) dbMap well directional survey restriction on zero azimuths removed (Santos only)

### *dbMap/Web - General*

[72953](#) Embedded web browser now uses system configured proxy

### *Mapping - Editors*

[30844](#) Extraction of grids from image by converting pixel colours into data values

[76634](#) Overpost correction allows selection of multiple labels via polygon

### *Mapping - General*

[16051](#) Added support for direct display of PDF files in Mapping

[17002](#) Display list search enabled

[31524](#) Display individual contours with a custom style

[72986](#) Improvements to map size scaling

[76989](#) Linestyles - Added directional arrow styles

[77211](#) Additional perceptually equal gradients included in standard Petrosys set

### *Mapping - GIS, Spatial and Culture*

[75658](#) Location Map can now display additional polygons

### *Mapping - Grids, Surfaces and Sampled Data Files*

[53007](#) Support added for "grid" data stored in raster formats

### *Mapping - Wells*

[75351](#) Added support for display of multitrace (FMI) log signature maps

[76591](#) Log signature maps: added option to reverse gradient fills

### *Spatial Data Translator*

[37035](#) Polygon selections in Spatial Data Translator enabled for scripting

[74427](#) AOI filter is now interactively scriptable

## *Surface Modeling - Contouring*

[76863](#) Improved contouring with snapping to faults

## *Surface Modeling - Exchange*

[35137](#) Added Petrel as an output data source to Fault Stick Exchange

[76511](#) Added Drag-n-Drop capabilities to Wells Exchange

[68689](#) Wells Exchange - Allow user selection of UWI to be written to output data source

[44639](#) 3D Seismic Surfaces Exchange - Added ability to scale Z values during transfer

[44640](#) Fault Sticks Exchange - Added ability to scale Z values during transfer

## *Surface Modeling - Gridding*

[76588](#) Allow users to have control over the heave of the generated fault stick polygons

[76839](#) Gridding/Fault sticks - added input data clipping distance

## *Wells (WDF) Editor*

[76983](#) WDF Import - Support added for dates with only year and month

# Detailed Release Notes Summary PRO 2020.1

## Bug Fixes

### *Application - General*

- [67209](#) Fixed potential crashes when reading from the Data Cache
- [77410](#) custom\_install.vbs no longer reboots during silent install
- [77408](#) Linux installation script now installs all client specific components
- [77409](#) Windows installer now installs client specific add-ons when system restart requested

### *Application - User Interface*

- [29212](#) Mapping and 3D Viewer display dialogues Cancel does not undo last Apply
- [77152](#) Checkboxes contained within a collapsible group now displayed correctly

### *Connections, Import and Export*

- [76775](#) Rescue wells now uses Z-value as inverted TVDSS

### *Connections, Import and Export - OpenWorks*

- [66934](#) Fixed grid exchange duplicate name error when writing to OpenWorks

### *dbMap/Web - Client*

- [77070](#) Exchange Wells - dbMap preferred checkshots are now exported (Santos only)
- [74545](#) Updated embedded browser to recent Chromium web engine

### *Mapping - Editors*

- [77071](#) Eye dropper colour selector picks up the correct colour on second virtual desktop
- [77098](#) Spatial editor reads rasters with colour palettes correctly

### *Mapping - General*

- [74147](#) Bubble Maps shown from database queries show data without an explicit refresh
- [77298](#) Display/Bubble Map data filter is disabled when unticked

### *Mapping - Wells*

- [77425](#) Display/Wells: Using Form data selection now works

### *Surface Modeling - Exchange*

- [75752](#) Improved non-Latin character support in the Wells Import Wizard

### *Surface Modeling - General*

- [77029](#) Surface Grid/Process/Calculate Mean Inside Polygon now handles rotated grids
- [77109](#) Tools/Create directory now has a default task name

### *Surface Modeling - Gridding*

- [63822](#) Added clipping distance functionality to help remove noisy input data around fault polygons
- [75388](#) Fixed wavy fault polygons generated from fault sticks
- [77055](#) Z min and max now used in welltie and phantom options

### *Surface Modeling - Workflows/Scripting*

- [77110](#) Scripting fields now re-evaluated during loop
- [77209](#) Task workflows now run faster when overwrite prompt disabled
- [77108](#) Scripting function promptUser() and promptUserShared() have param dataType now

# Petrosys Release PRO 2020.1

## Detailed Release Notes

### [Application - General](#)

### [Enhancements](#)

## Red Hat Enterprise Linux 7 now shipped as the default platform for Linux

76649

The Petrosys PRO default native Linux platform is now Red Hat Enterprise Linux 7 (RHEL7) and equivalents; CentOS 7, Oracle Linux 7.

Red Hat Enterprise Linux 6 is still supported, however it will need to be requested specially by contacting Petrosys support. In addition a number of functions are not available on RHEL6. These functions are the log signature map template editor and the PRC cloud computation function in Surface Modeling.

The RHEL7 version will run on RHEL8.

## Updated to Qt 5.14

75681

Petrosys PRO now uses version 5.14 of the third-party Qt library.

### [Application - General](#)

### [Bug Fixes](#)

## Fixed potential crashes when reading from the Data Cache

67209

An attempt has been made to eliminate potential crash scenarios when reading Well, Grid, Culture and Fault information from the Data Cache.

## custom\_install.vbs no longer reboots during silent install 77410

The custom\_install.vbs script used by some sites to roll out Petrosys PRO no longer requests for a reboot during installation.

Previously, depending on particular PC configuration and other applications that were running, the install could either spontaneously reboot or prompt for a reboot, depending on whether the script was running a silent install or not. In the case of a silent install, any client specific add-ons would not have been installed after the reboot.

There is a very small chance that after the install of Petrosys PRO, it may not function correctly in all cases until the system has been restarted.

## Linux installation script now installs all client specific components

77408

Due to a bug introduced in the Petrosys PRO 2019.3 Linux installer, client specific panels may not have been installed. This has now been corrected.

## Windows installer now installs client specific add-ons when system restart requested

77409

The Petrosys PRO installer (setup.exe) will now install the client specific add-ons, if required, in the case where a system restart was requested during installation. Previously the installer would not install the client specific add-ons if a system restart was requested during the install of Petrosys PRO.

A system restart is only requested if a system is has out-of-date shared components installed and an application that is running is accessing those shared components. Examples may include Microsoft Teams, Outlook and many other commonly used applications.



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

### **Improved performance of adding data to lists** 76790

The performance of adding data to some types of lists has been improved.

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## [Application - User Interface](#)

## [Bug Fixes](#)

### **Mapping and 3D Viewer display dialogues Cancel does not undo last Apply** 29212

In Mapping and 3D Viewer the Cancel button on dialogues with OK, Apply, Cancel now works as expected. The cancel does not undo any changes applied by an earlier click of the Apply button.

### **Checkboxes contained within a collapsible group now displayed correctly** 77152

In Petrosys PRO 2019, checkboxes that were displayed within a collapsible group may have displayed incorrectly. This has now been fixed.

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

### **PRO Licensing - Require a new license file to run PRO 2020.1** 77249

Petrosys PRO 2020 requires a new license file. Please obtain your license file by logging on to the Petrosys Client Portal or contacting Petrosys Support.

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

## [Bug Fixes](#)

### **Rescue wells now uses Z-value as inverted TVDSS** 76775

Z-value read from Rescue file wells is now treated as inverted TVD subsea values

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

### **Fixed grid exchange duplicate name error when writing to OpenWorks** 66934

Grid exchange would raise a duplicate name error when writing grids to OpenWorks with the same geologic name. This issue has now been fixed by incorporating geologic type, pointset name and grid name in the duplicate name check.

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

### **Added support for reading Wells, Directional surveys, Checkshots and Markers from PaleoScan** 71637

The reading of Well locations, Directional surveys, Checkshots and Markers from PaleoScan has been added to all areas of the application which support the use of Well data. This includes Mapping, 3D Viewer, Surface Modeling and Exchange.

## **Added support for reading Fault Sticks from PaleoScan** 71641

The reading of Fault Sticks from PaleoScan has been added to all areas of the application which support the use of Fault Stick data, this includes but not limited to, 3D Viewer, Surface Modeling and Exchange.

## **Added support for assigning a CRS to a PaleoScan project connection** 77019

Support has been added to allow for the assignment of a Projected CRS to a PaleoScan project. The connection CRS will be used when any data read from the project does not have an associated CRS already set.

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

### **Added support for writing checkshot surveys to Petrel** 44717

The wells exchange wizard can now be used to exchange checkshot surveys to Petrel.

### **Petrel 2014 no longer supported** 73801

Petrel 2014 is no longer supported in Petrosys PRO 2020.1+.

Support for Petrel 2015 through Petrel 2020 remains.

### **Use configured well log folder when writing well zone comment logs to Petrel (Santos only)** 77050

When writing well zones to Petrel, the client-specific well log folder is now used for zone comment logs.

### **Wells exchange now supports multitrace well log curves from DLIS to Petrel** 76759

Complementing the display of multi-trace logs in Mapping, multi-trace well logs stored in DLIS files can now be exchanged to Petrel using the Wells Import Wizard.

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

### **SEGY format - support unsigned integer for sample interval** 77182

SEGY format now supports unsigned integer for sample interval and sample length fields in SEGY binary file header.

## [dbMap - Client Enhancements](#)

### **dbMap well directional survey restriction on zero azimuths removed (Santos only)** 76765

For Santos only, the restriction on dbMap well directional survey points with azimuth values of zero has been lifted, so they are now included in any well path calculations and you no longer get warning messages about surveys with null or zero azimuths being ignored.

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## dbMap/Web - Client

## Bug Fixes

### **Exchange Wells - dbMap preferred checkshots are now exported (Santos only)** 77070

Exchange/Wells from dbMap now only writes preferred checkshots to the output data source. Previously it would incorrectly read points from all checkshot surveys assigned to a well and merge them into one.

## Updated embedded browser to recent Chromium web engine 74545

The embedded browser used to access dbMap/Web has been upgraded to a modern web engine based on a recent Chromium release. This provides a familiar experience when using the embedded browser, for example browser tabs and download progress, along with security improvements.

Note: dbMap/Web 2020.1 is required for full compatibility with the new embedded browser in PRO 2020.1.

### [dbMap/Web - General](#) [Enhancements](#)

## Embedded web browser now uses system configured proxy 72953

The embedded browser, which is used to support features such as dbmap/Web and the Probabilistic Resource Calculator will now use the system configured proxy. Any proxy configured in within the Configuration Tool is now ignored for the embedded browser.

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

## Extraction of grids from image by converting pixel colours into data values 30844

The Spatial Editor includes a new option for raster images allowing grid data to be extracted.

The option can be run from the Operations/"Create Grid From Raster" or from the RMB menu option of the same name.

The process for creating a grid is as follows:

- The source image is loaded
- Faults and clipping polygons can be optionally applied
- Manual image editing is done if required - for example to blank out parts of the source image to avoid processing them
- A gradient is interactively constructed by picking colours from the grid and assigning z-values. The gradient is used as a reverse lookup to match pixels from the image to z-values from the gradient. The desired accuracy can be controlled, by specifying how closely colours should match.
- The parameters of the output grid are set (cell size and geometry)
- Finally, the grid is created by converting pixels into z-values to create an input sample set, which is then gridded to create the output

## Overpost correction allows selection of multiple labels via polygon 76634

In addition to the option to select labels via rectangular selection, the Overpost Correction tool allows selection of labels via an arbitrary polygon. This can be useful for selecting labels that are aligned along not vertical or horizontal lines.

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### Mapping - Editors

### Bug Fixes

## Eye dropper colour selector picks up the correct colour on second virtual desktop 77071

The spatial editor "Extract Shapes From Raster" option supports an eye-dropper mode which allows colours to be picked from the screen using the mouse cursor. In previous versions of PRO, picking a colour on a second monitor did not return the correct colour.

## Spatial editor reads rasters with colour palettes correctly 77098

Some raster image formats are based on a colour palette (typically with a small number of colours in the image). The Spatial Editor now opens colour palette rasters correctly. In previous versions of PRO, these were incorrectly read as a gray-scale image.

## Added support for direct display of PDF files in Mapping 16051

The direct display of PDF documents within Mapping has been added in Petrosys PRO 2020.1.

Users can now choose to display a full page from a PDF document as an image on the Map Canvas in Mapping. The new Display/PDF, menu in Mapping brings up a dialog to choose the PDF document as well as providing Rendering and Placement options, along with document properties and a Preview.

The users has full control over the rotation, background and foreground transparency of the page displayed on the Map Canvas as part of the Rendering options. Placement options are the standard selections available for most Map based elements. And the rich Preview of the document's page allows the user to see what will be finally displayed on the Map for the options selected. Information such as the Title, Author, Subject, etc. of the document is also displayed in the Properties section of the dialog.

Password protected PDF documents are supported and users have the option to utilise the Petrosys PRO Password Manager for saving document passwords.

With this new feature, Petrosys PRO does not currently support layer, individual images or geospatial information from a PDF document.

Note: The display of PDF documents is only supported on Windows.

## Display list search enabled 17002

The mapping display list allows layers to be searched for text keywords. A search can be made using the icon at the top of the display list or using the Ctrl-F shortcut key. Note that the search will match text properties of layers (filename and data types) in addition to the displayed text.

## Display individual contours with a custom style 31524

In addition to setting style for particular contour levels, it is now possible to set a custom style for individual contours, for both contours shown from file or on the fly from a grid or 3D seismic surface. This would typically be done to highlight fluid contacts - where there might be multiple contours at a specific level but not all represent fluid contacts. The custom style can be set for a specific contour by selecting it on the map and using the RMB/Apply Contour Style menu option. The style used to display can be set in the corresponding panel for the particular layer.

## Improvements to map size scaling 72986

The behaviour of scaling of text and symbol sizes within Mapping has been modified. In previous versions of PRO, these sizes (and other properties with mm units) would be scaled in proportion to changes to the map scale. This has been changed in the following ways:

- Scaling is now disabled by default. This can be set via a configuration setting under the Mapping tab
- Scaling can be enabled or disabled for each dbm, using the File/Size Scaling Properties dialog
- Scaling can be enabled or disabled for individual layers using the RMB/Scale Text Sizes Proportional To Map Scale option
- Text and symbol heights for a layer can be manually scaled using the RMB/Scale Sizes option
- Size properties in dialogs can be optionally shown in a specific scale, rather than the current map scale, using the File/Size Scaling Properties dialog

## Linestyles - Added directional arrow styles 76989

Four new graphical linestyles have been added with directional arrows.

## Additional perceptually equal gradients included in standard Petrosys set 77211

The standard set of gradients included with PRO has been expanded with the addition of a number of "perceptually equal" colour gradients (where intensity is balanced across the gradient, avoiding incorrect highlighting of certain colours) based on work By Fabio Crameri.

### **Bubble Maps shown from database queries show data without an explicit refresh** 74147

In previous versions of PRO, displaying bubble maps from a data base query would sometimes not display any of the bubbles.

### **Display/Bubble Map data filter is disabled when unticked** 77298

In previous versions of PRO, disabling the data filter property by unchecking did not work as expected.

## [Mapping - GIS, Spatial and Culture Enhancements](#)

### **Location Map can now display additional polygons** 75658

Location maps can now optionally include additional polygons from a single GIS source from a number of supported GIS sources.

Additionally, display of the map extent is now optional.

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

### **Support added for "grid" data stored in raster formats** 53007

Raster files with grid data can now be read or imported in Petrosys PRO, displayed in Mapping and 3D viewer, even used as gridding data in Surface Modeling.

## [Mapping - Wells Enhancements](#)

### **Added support for display of multitrace (FMI) log signature maps** 75351

Multi-trace well logs from Petrel can now be displayed as raster images in a log signature map.

### **Log signature maps: added option to reverse gradient fills** 76591

Gradient fills in log signature maps can now be reversed. In the curve fill style properties, an option to reverse the gradient has been added.

### **Display/Wells: Using Form data selection now works** 77425

A bug has been fixed in Display/Wells using the Data Selection option 'Using Form' (for supported data sources) that was not honouring the users selections when setting up the data selection information.

## [Spatial Data Translator Enhancements](#)

### **Polygon selections in Spatial Data Translator enabled for scripting** 37035

When used in Surface Modeling, shape selection in Spatial Data Translator tasks is now scriptable.

### **AOI filter is now interactively scriptable** 74427

The AOI filter in Spatial Data Transfer is now scriptable when used in Surface Modeling workflows.

### Improved contouring with snapping to faults

76863

In previous version contours generated from grids might have some random artefacts when snapping to faults is enabled. This has now been fixed.

## Surface Modeling - Exchange Enhancements

### Added Petrel as an output data source to Fault Stick Exchange

35137

The Fault Stick Exchange tool has been extended to include Petrel as an output data source, enabling the writing of fault sticks directly to Petrel from any of the available input third-party applications.

### Added Drag-n-Drop capabilities to Wells Exchange

76511

Several steps of Wells Exchange have had drag-n-drop functionality added, for data types from applications like Petrel and DecisionSpace Geosciences. The supported data types include, wells and well lists, formations, zones and log curves in the various selection lists of the Exchange tool.

### Wells Exchange - Allow user selection of UWI to be written to output data source

68689

Wells Exchange now has the ability for the user to assign an alternate Well Header field from input wells to be written as the UWI of the output wells. This option is available on the last step of Wells Exchange for supported combinations of input and output data sources.

### 3D Seismic Surfaces Exchange - Added ability to scale Z values during transfer

44639

Z values from input 3D Seismic Surfaces may now be re-scaled when writing to an output data source using the options from the Z value scaling drop-down, which has been added to the display dialog.

The drop-down contains three options:

- None - this option does not effect the input Z values.
- Invert - allows an inversion to be applied to all Z values from the selected surfaces.
- Custom - allows a scale factor and offset value to be specified, which will be applied to the Z values read from the surfaces when it is transferred.

### Fault Sticks Exchange - Added ability to scale Z values during transfer

44640

Z values from input Fault Sticks may now be re-scaled when writing to an output data source using the options from the Z value scaling drop-down, which has been added to the display dialog.

The drop-down contains three options:

- None - this option does not effect the input Z values.
- Invert - allows an inversion to be applied to all Z values from the selected fault sticks.
- Custom - allows a scale factor and offset value to be specified, which will be applied to the Z values read from the fault sticks when it is transferred.

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## Surface Modeling - Exchange

## Bug Fixes

### Improved non-Latin character support in the Wells Import Wizard

75752

Improved handling of non-Latin characters in the Wells Import Wizard formations and zones.

### **Surface Grid/Process/Calculate Mean Inside Polygon now handles rotated grids**

77029

In previous versions in Surface Modeling option Grid/Process/Calculate Mean Inside Polygon doesn't handle rotated grid case properly. This has now been fixed.

### **Tools/Create directory now has a default task name**

77109

Tools/Create directory now has a default task description when it is created.

### **Allow users to have control over the heave of the generated fault stick polygons**

76588

Previously generated faults from fault sticks could be very narrow. Now we have option 'minimum heave' for the user to control the minimum heave of generated polygons.

### **Gridding/Fault sticks - added input data clipping distance**

76839

Gridding Input data points which are close to fault sticks surfaces in a configured distance now can be removed before gridding starts. This is to remove noise around fault sticks which might cause unexpected results in generated grids.

### **Added clipping distance functionality to help remove noisy input data around fault polygons**

63822

The input data clipping distance field has been added to fault selection panel. This functionality helps remove noisy data around fault polygons. The clipping distance is used to create boundary polygons. The input data points falling within these boundary polygons are clipped away before the gridding process starts.

### **Fixed wavy fault polygons generated from fault sticks**

75388

Fault polygons generated from faults sticks no longer show waviness artefacts.

### **Z min and max now used in welltie and phantom options**

77055

Z-Min/Max is now honoured in welltie and phantom process for clipping the input data points.

### **Scripting fields now re-evaluated during loop**

77110

In previous versions there was a bug that both interactive and non-interactive scripted fields were not re-evaluated during a looping workflow. This has now been fixed.

### **Task workflows now run faster when overwrite prompt disabled**

77209

It has been made faster when running workflow when option 'Prompt for overwrite files before running workflow' in the Configuration Tool is turned off.



## **Scripting function promptUser() and promptUserShared() have param dataType now**

77108

Scripting function promptUser() and promptUserShared() now have parameter DataType.

### [Wells \(WDF\) Editor](#) [Enhancements](#)

## **WDF Import - Support added for dates with only year and month**

76983

Support has been added for date formats that contain only the year and the month for the WDF import options.