

SOFTWARE RELEASE NOTES

Version 2019.3

PETROSYS PRO

Petrosys valued-added development continues with the release of Petrosys PRO 2019.3 – a major update to Petrosys PRO – which offers new features for users – the key highlights are significant enhancements to Petrosys' already large footprint of thirdparty vendor connectivity, including new connections to Eliis PaleoScan™ and Rock Flow Dynamics tNavigator®. Continuing with the addition of the display of OpenWorks contours and Petrel, DecisionSpace fault sticks on the Petrosys PRO map.

Petrosys PRO 2019 solidifies the software's position in the production world by focusing on well data improvements. Often considered as more of an explorationist's tool kit, Petrosys PRO is widely used in production teams globally. After discussing their needs with regards to well data, we have concentrated our development on exchanging well log data and have made some major improvements to the display of well data.

The addition of Well Log Curves to our continuously expanding 'Exchange' capability will be a popular addition for many PRO users. PRO has long been able to exchange well header, tops, directional surveys and checkshot surveys between a variety of 3rd party sources and the addition of 'Well Logs' to this option makes PRO an even more proficient data management tool.

Improvements in the direct access to other data from connected G&G applications continue to be a feature of Petrosys PRO releases. PRO 2019.1 gives Petrel users improvements in the selection of seismic and horizon data and drag and drop of Petrel contours; DecisionSpace and Petrel users get a more straightforward ribbon map when they drag and drop a seismic line layer onto Mapping.

To improve the quality of Production Mapping in PRO, our users have asked us to focus on how deviated well paths are displayed. With advancements in geosteering, modern wells may penetrate the top or base of a key reservoir zone repeatedly. In PRO 2019.1 the user can display the multiple intersections as well as display multiple zones in the same display layer. This ability, combined with PRO's direct connections to key data sources, will give production teams easily updateable maps showing the spatial distribution of key producing zones.

Anyone using the PostGIS opensource database will be glad to see the ability to display data directly from the database, exchange data from the database to other sources and the ability to use data from the database as input to grid creation.

Maps drawn outside of the Anglosphere will benefit from improvements in the support for international character sets, ranging from the elusive German ß to the intricacies of Chinese and Japanese text.

Growing user sophistication in the use of Petrosys PRO Surface Modeling has led to several improvements not immediately obvious to the casual user. Lowest closing contour calculations can have sealing faults that don't have to be closed. Prospect outlines based on lowest closing contours may contain 'holes' based on local surface depressions or other structures: Shapefiles with this topology can now be successfully used in Petrosys PRO volumetrics. Point data from Excel and GIS sources can now be optionally regarded as representing lines to allow inclusion of the implied gradient in surface computations. The inclusion of all input data for gridding, and not just that within the current AOI, can now be enabled, as can elliptical search radii.

Read on for more details on these options and more, or for more information please contact your nearest support office or email support@petrosys.com.au.

Introducing the Eliis PaleoScan™ Connector for Petrosys PRO

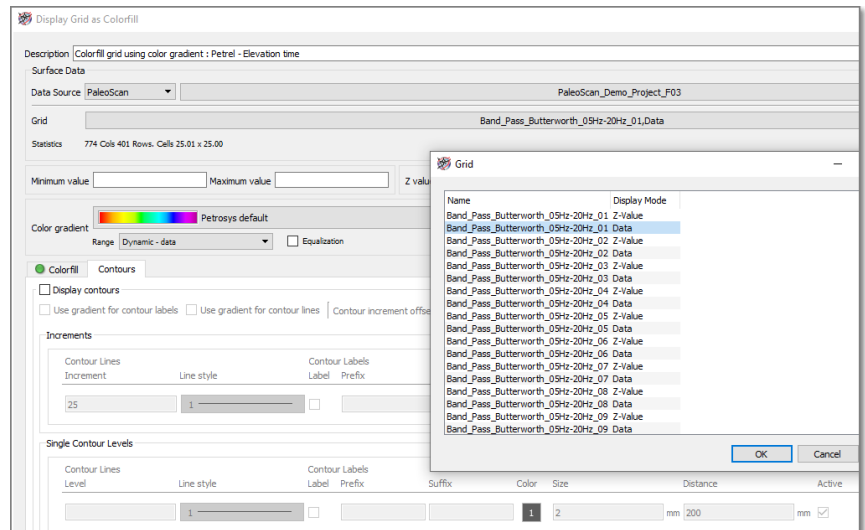
Petrosys connectivity now supports direct interaction with Eliis PaleoScan™ 2019.1 improving your workflow efficiency between these two popular applications.

Support for PaleoScan 2019.1 includes the ability to:

- Import PaleoScan horizons to Petrosys grid files for use in mapping, 3D Viewer and surface modelling.
- Directly display horizons as grids in mapping.
- Directly display horizons in 3D Viewer.
- Direct use of Paleoscan data in Petrosys Surface Modelling where multi-connect grids are supported.

PaleoScan™ is a new generation of 2D/3D seismic interpretation platform. Connecting Petrosys mapping directly to PaleoScan's comprehensive approach to semi-automatically interpret seismic volumes, brings together new workflows for rapid assessment leveraging the high-quality mapping and presentation capabilities of Petrosys PRO working in a complimentary way with the PaleoScan™ data.

This is the first release of the exciting connector. Input from clients to enhance the integration is welcomed.

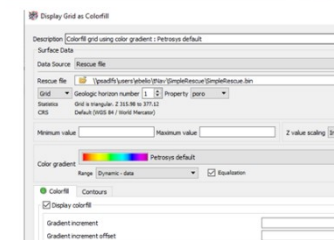
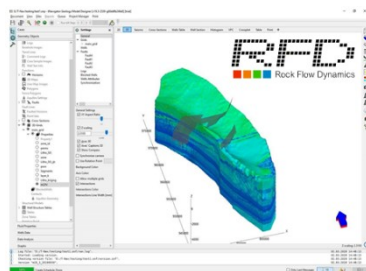


RFD tNavigator® & RESCUE standard format data support enhanced

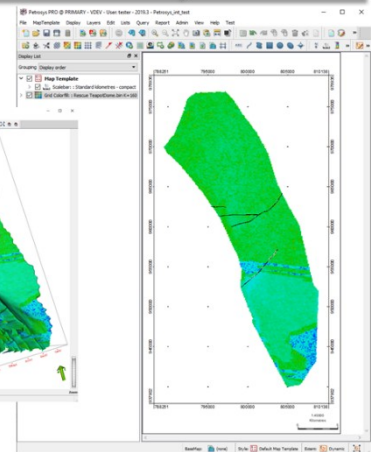
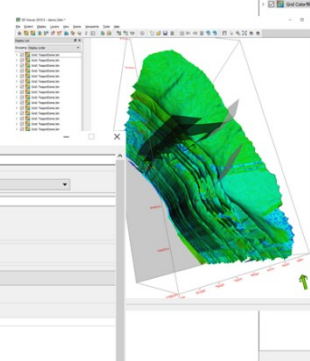
A significant enhancement to the data types supported by the RESCUE standard is available in Petrosys 2019.3. This adds RESCUE format data support for Wells, 3D Grid, 3D Grid properties and fault data, which can now be read and displayed in Petrosys Mapping and the 3D Viewer. Previously only RESCUE format horizon data was supported.

RESCUE formats help to enable data exchange for earth and reservoir models between a wide range of applications.

User of Petrosys can take advantage of this capability to exchange data between tNavigator, Petrosys and a host of other applications which continue to support this open exchange standard



tNavigator & RESCUE data connectivity in Petrosys PRO 2019.3



EXPLORE WITH CONFIDENCE

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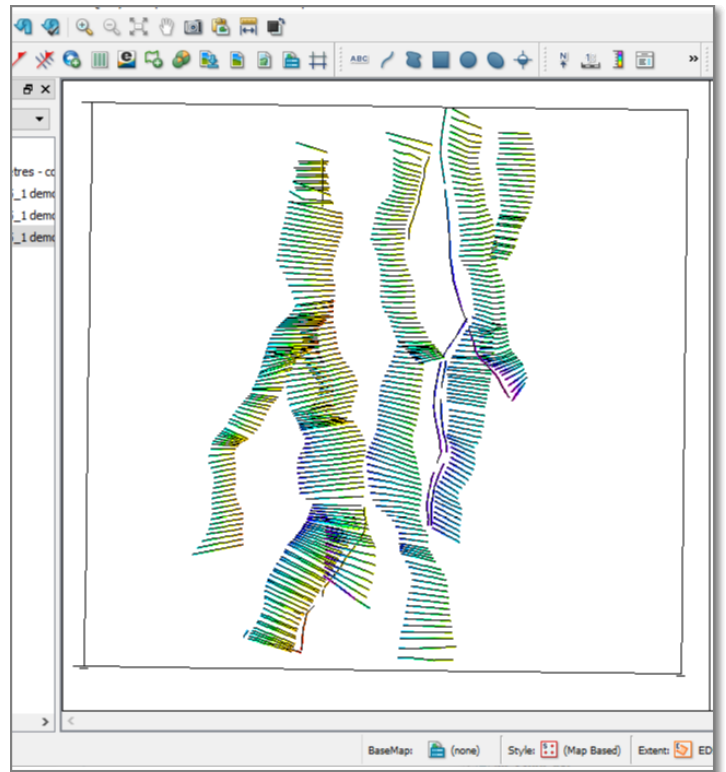
PETROSYS

OpenWorks® Contours

Displaying contours from OpenWorks® in Mapping is now supported.

Fault Sticks now Directly Displayed on Map

Fault sticks from all third-party data sources can now be displayed directly on the Petrosys map.



Drag-n-Drop Enabled in Exchange to Simplify Workflows

The Exchange options for Grid, Fault Sticks, 3D Seismic Surfaces are now drag-n-drop enabled from Petrel® and Decision Space®

Users now can drag-n-drop GIS/File System Shape data from DecisionSpace® Geosciences (DSG) GIS connections to the Mapping canvas.

GIS connections supported in DSG include:

- File System
 - Shape files (.shp)
- Database Connections
 - File Geodatabase
 - SDE (Oracle, SQL Server or PostgreSQL)

Interactive Change of the Map Extent

The extent tab in the map properties dialog now includes the ability to interactively size and position the current extent.

This is similar to the resize option found in Petrosys versions 17.8 and was reintroduced by popular user demand.

This functionality complements directly repositioning the map via pan and zoom.



Highlight features introduced in 2019.2

Log Signature Maps

Petrosys PRO supports log signature displays, building on 2019.1 well log exchange & well log viewer functionality.

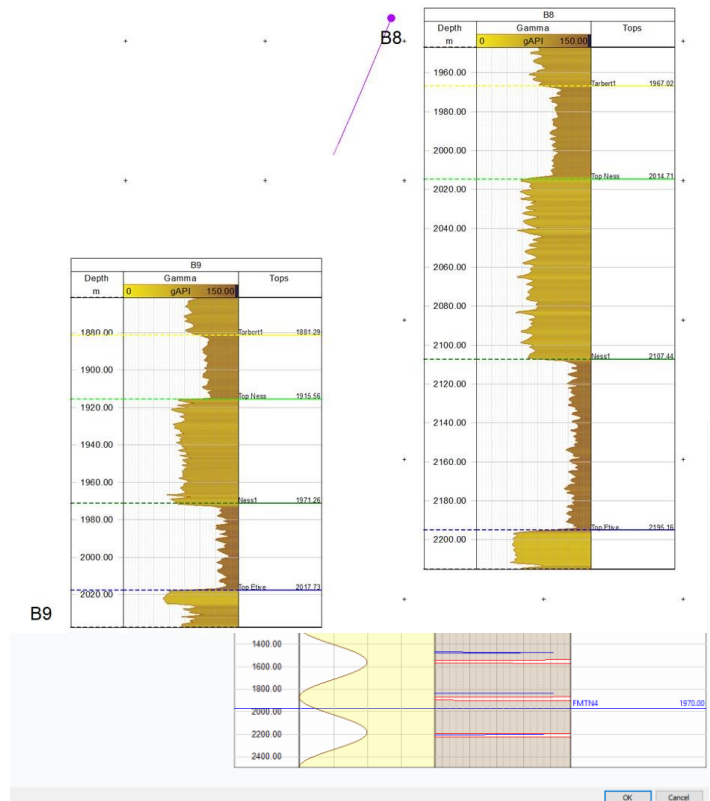
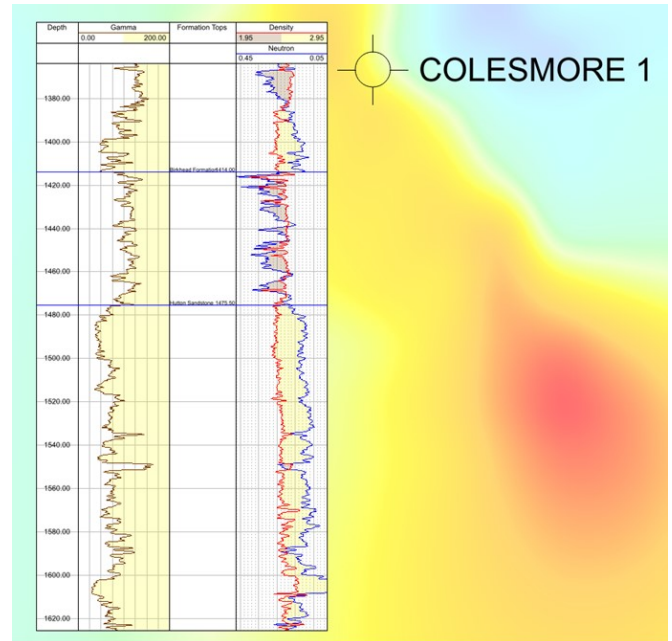
Users can now connect to their interpretation packages and display a wide variety of well log curves directly in Petrosys mapping. These log signatures can be displayed on the map at well top or bottom hole locations. Use of style templates allows for consistent presentation of curves.

Supported log sources include:

- DUG Insight
- IHS Kingdom
- ODM
- OpenWorks
- Paradigm-EPOS
- Petrel
- DLIS or LAS Files from Petrosys dbMap

In addition to the 3rd party data sources, DLIS or LAS files catalogued through the Records Management (RM) system in the dbMap PPDM38 data model can be read and displayed on the map.

In PRO 2019.3 the ability to gradient fill log tracks was added

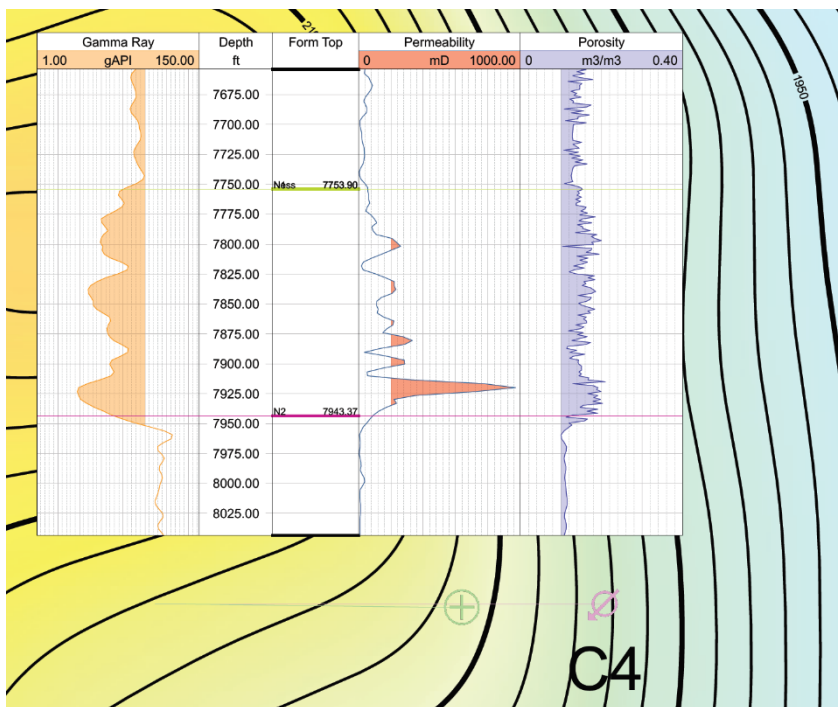


Log displays styles are configured by users and can be saved as re-usable templates.

Curve classes can be set up to allow many logs mnemonics to be displayed in a preferential sequence. A combination of logs,

multiple curves and tracks can be displayed.

Templates can be saved for use in other maps and projects to assist in creating consistent corporate mapping standards.



Logs display can be limited by depth or markers recorded for the borehole.

Depth and formation tops (markers) can be displayed as part of the log template. Full control over height and width of the log signatures is available.

Well symbols Well annotation Paths Formation tops Formation thickness Log signature

☒ Display log signature

Curve classes

Add a curve class...

Log curves for class Gamma (in order of preference)

Name
GR
GRSL
GR0002
GR0003
GRUF
GR2
HICGR
HSGR
SCGR
SSGR

Layout / style

Depth 0.00 Gamma 200.00 Formation Tops

Select a template...
Modify layout/style...
Save as template...

☒ Hide empty tracks?

☒ Header text

<<Plot name>> +

Formations to post on log signature

Formation Top Select 2 items selected

Depth range

Depth type Subsea Depth units Metric

Limit top depth Formation Top Birkhead Formation JasonDixon Buffer above 50

Limit base depth Formation Top Hutton Sandstone JasonDixon Buffer below 150

Posting location Surface

Size and offset

Width 15 mm Height 1 mm per 10 Metres Subsea

Offset Right 0 mm

Style

Border 1

Background Fill type Solid Fill color 0

Arrow ☐ 1

OK Apply Cancel Help

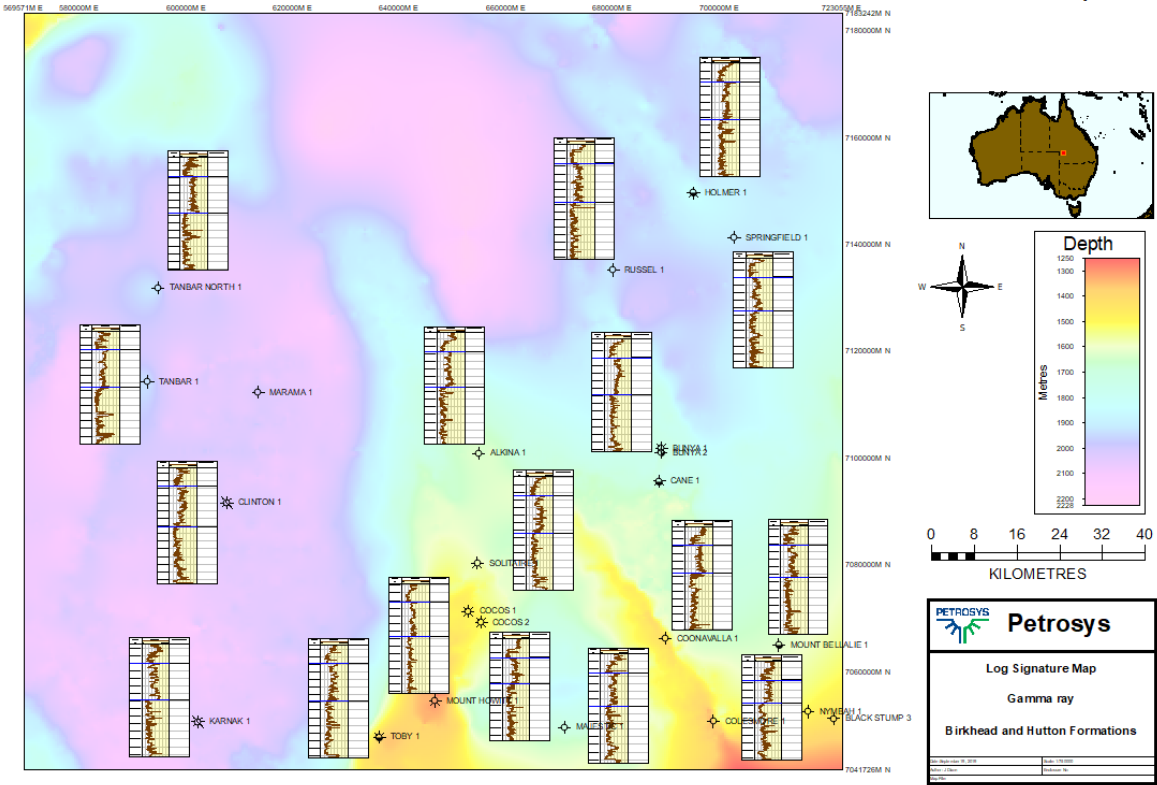
A new Log signature, tab is available under the /Display/Wells option in mapping. This provides users with a range of focused display style, annotation and controls.

For example, log displays can be limited by depth or markers recorded for the borehole, while the depth and markers can also be displayed as part of the log template.

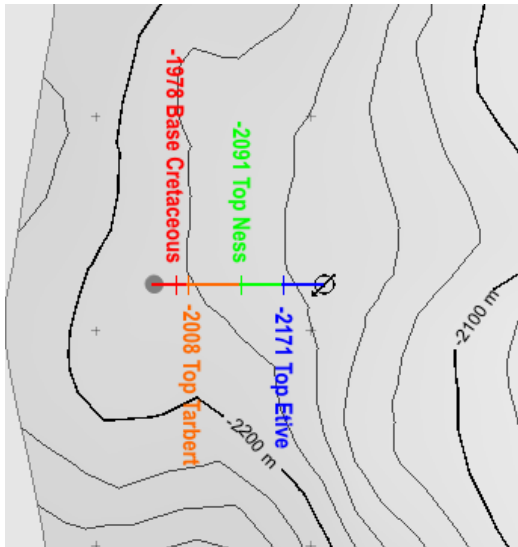
Full control over height, width, scale, offset and various styles and transparency of the log signature is made available.

North Eastern Cooper Basin

Smart focused over post correction is available to assist with tight well spacing and to support users when creating publication and presentation quality map displays.



Display Wells Path Improvements



Displaying well path segments helps visually identify and highlight the spatial distribution of key producing zones, sands or reservoir properties.

In this release, users can even more effectively map unconventional or directional drilling programs, with the addition of the following functionality:

- Bulk adding formations / zones that support both top and bases
- Bulk editing of existing path segments (color, line style, ...)
- Support for multiple zone / formation observations
- Ability to annotate path segments
- Ability to track path segments

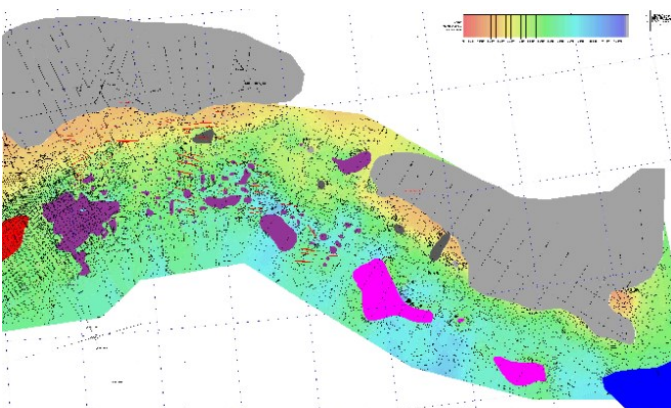
☒ Path segments

Intervals

Interval selection	Segment	Interval color	Color	Line style	Remove
Between	Surface		Petrel formation	1	1
And	Formation Top		Base Cretaceous		
Between	Formation Top		Base Cretaceous	Petrel formation	1
And	Zone Top		Top Tarbert		
Between	Formation Top		Top Tarbert	Petrel formation	1
And	Formation Top		Top Ness		

Extract Vector Features from Raster Images

The Petrosys spatial editor now includes support for extracting vector shapes (contours, faults, generic GIS data) from raster images. This functionality can be run by opening a raster map image in the spatial editor and then using the Operations/Extract Shapes from Raster menu option. The desired shapes can be isolated via an image processing toolbox (for example to filter based on colour) and then post-processed to simplify and compress the resulting shapes.



(Left) Original Image of a saved or archived map is shown.

The user wants to extract the prospect polygons (purple shapes) from the underlying grid, seismic lines and other features to use in their map.

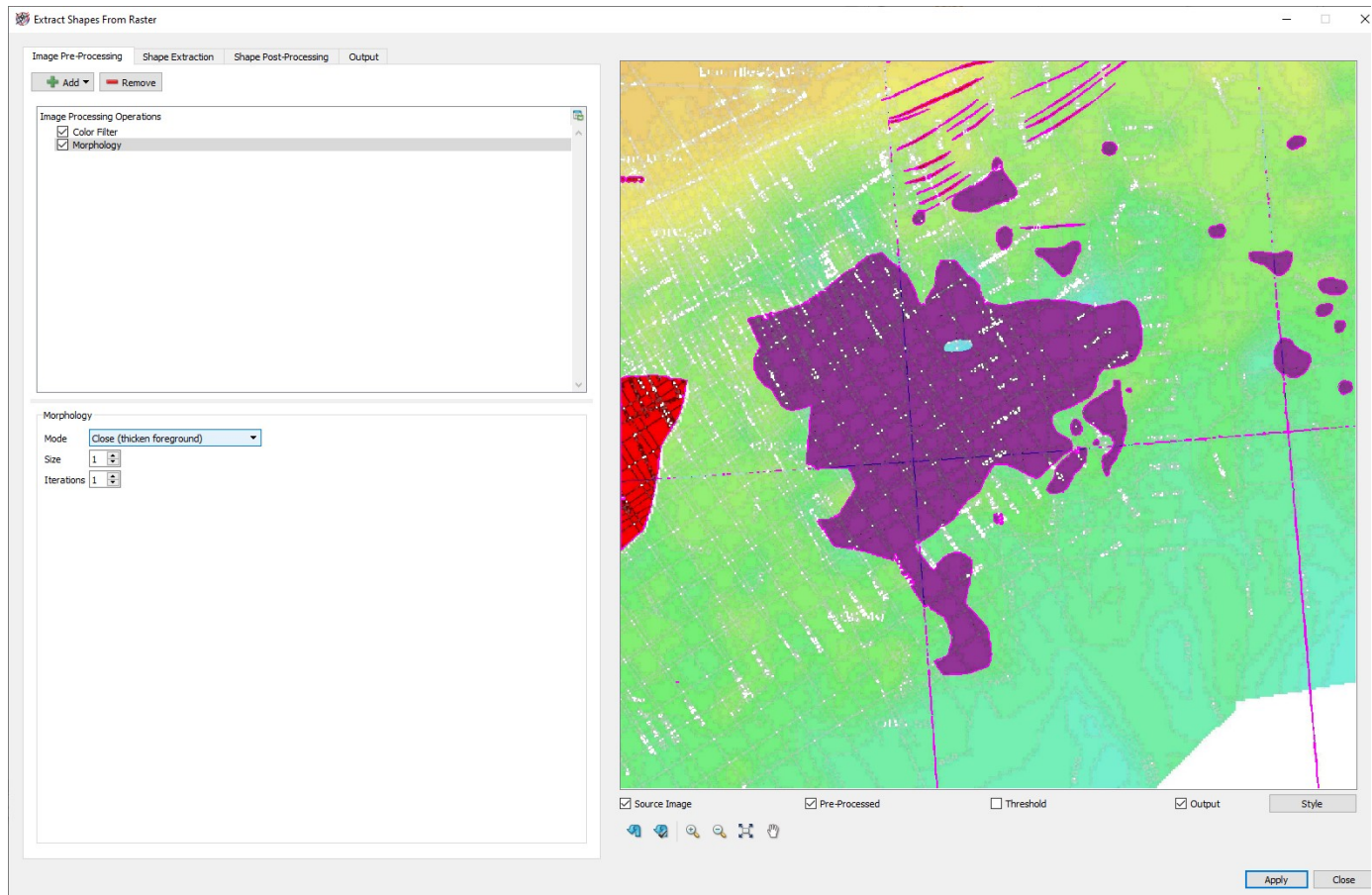
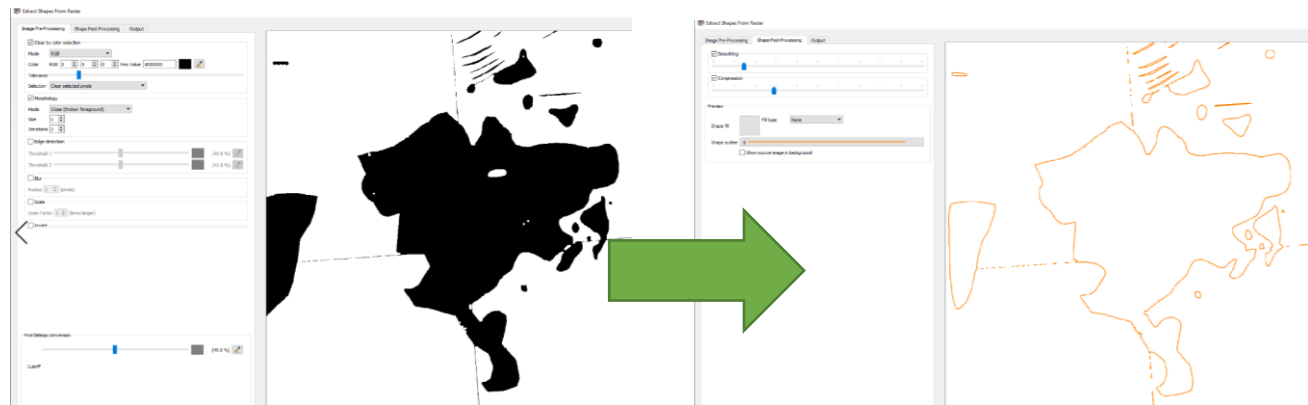
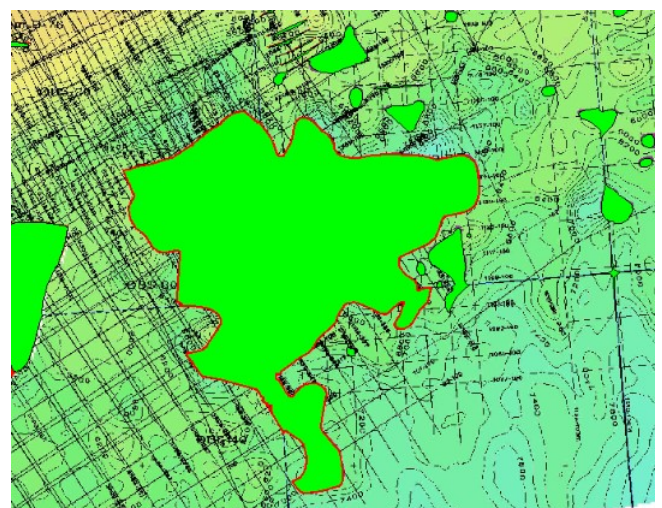


Image processing is applied to remove the seismic lines, faults on the map image (shown above). Then the users highlights the polygons from the image – shown below in the threshold bitmap view (black and white). These resulting polygons are extracted and can be saved to a variety of file formats supported by our spatial data outputs, eg shapefiles, geodatabases, 3rd party data sources, etc.

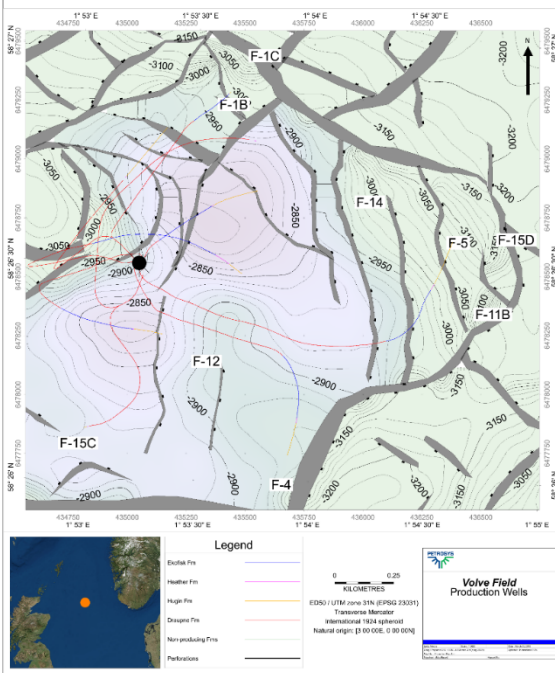
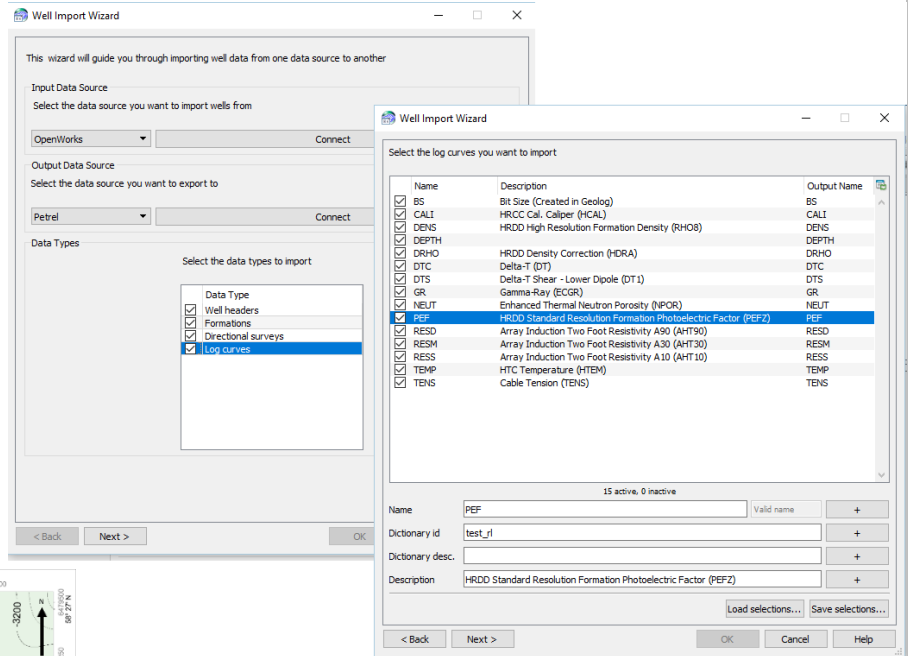


Then the extracted shapes (from the original image) are easily displayed on the map.



Exchange of Well Log Curves

The Wells Exchange has added support for exchanging 'Log Curve' data between supported data sources. Users will now be able to read Log Curve data from third-party data sources like OpenWorks, Petrel, Paradigm, IHS Kingdom, DUG Insight, ODM and DLIS or LAS files and then be able to write that Log Curve data to OpenWorks and Petrel. In addition to third-party data sources, the Petrosys dbMap PPDM38 data model is supported, where DLIS or LAS files previously catalogued through the Records Management (RM) system can be read during an exchange.



Production Mapping

Display/Wells introduces the ability to display multiple path segments in the same display layer. The 'Path' panel has been split into the well full path and path segments display. Users can select multiple path segments, with rich control over the segment start and end point. As in previous versions, when selecting formations for multi-connect data sources, it is also possible to specify rules to use formations and/or sources/interpreters in preference to others. Users can select different line styles and colors for each displayed path segment, while certain data sources offer extra color options; for example, Petrel data source will offer Petrel well, Petrel well folder, Petrel formation options.

The value in being able to segment the display styles of well paths is to more effectively map, visually identify and highlight the spatial distribution of key producing zone, sand or reservoir properties; and to more effectively map unconventional and directional drilling programs.

PostGIS Spatial Data Support Added

PostGIS, the spatial database extender for the PostgreSQL object-relational database, is becoming more popular at some sites, particularly in Norway. We have now added the ability to read PostGIS spatial data. This means users can now find a PostGIS connection available Display/GIS in Mapping, and as an input data source in the Spatial Data Translator and as an input data source when creating a grid.

Paradigm 18p1 Support Pack and Petrel 2019.1 Supported

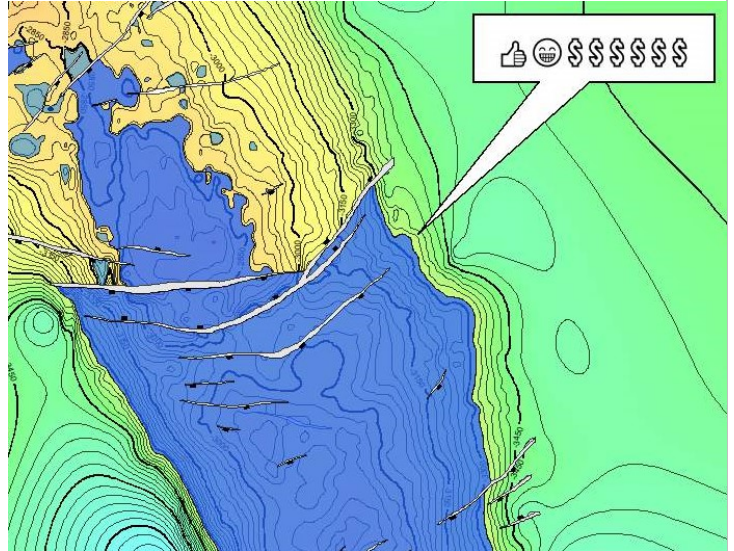
Support for the latest Paradigm 18p1 Support Pack and Petrel 2019.1 has been added for Windows and Linux (Paradigm only). All versions of Paradigm and Petrel supported by Petrosys PRO 2018 remain supported.

Improved Support for non-ASCII Text

PRO 2019.1 adds better support for non-ASCII text being used throughout the application. For example, using Arabic characters in a legend or displaying emoji-text as a callout to a map feature. Furthermore, maps containing non-ASCII text can now be shared with other PRO users on any platform with any language preference, confident in the knowledge that the text will display as intended.

Surface Modeling Enhancements

Several improvements to Surface Modeling have landed in PRO 2019.1. Support for unclosed sealing faults in lowest closing contour calculations and support for polygons with holes in volumetrics makes volumetric workflows simpler. Allowing GIP, Excel and text point data to be interpreted as line data reduces the data manipulations that previously had to be done to support these workflows. Addition of a pause task type enables user intervention within a workflow while maintaining the benefits of the workflow's context and consistency.



Two features are available as a technology preview to allow interested users to evaluate their usefulness:

- Allowing data outside the grid area to calculate the grid surface
- Enable a search ellipse to restrict the data used to calculate a grid node during surface calculation

Each technology preview feature is disabled by default but can be enabled via the Configuration Tool. Please contact Petrosys Support for assistance in enabling these features or for further details.

Dispatch Server Connections Removed

Support for Dispatch Server connections, initially deprecated in Petrosys PRO 2018.2, has been removed. All Dispatch Server connections can be replaced with equivalent remote connections if required.

Notes for Upgraders

Upgraders from Petrosys PRO 2018 should be aware of the following changes:

- The Petrosys Dispatch Server, which allowed access to third-party data sources on remote hosts has been removed. Similar functionality is available through the remote connections feature, which was released in Petrosys PRO 2018.2. Please consult the help documentation or contact Petrosys Support for more information on this feature.
- Petrosys PRO 2019 requires a new license file. Please obtain your license file by logging on to the [Petrosys Client Portal](#) or contacting [Petrosys Support](#). If you already have a license file for PRO 2019.1 then you do not need an updated license file for PRO 2019.2
- Petrosys PRO 2019 now saves map files and panels.pnd in the UTF-8 codec. This means earlier versions of Petrosys PRO may not open these files correctly, or the text within them may not display correctly.
- Petrosys PRO 2019 is backwards compatible with Petrosys PRO 2018, except for:
 - Dispatch server connections will not be connected. Petrosys PRO will prompt for a replacement connection.

Upgraders from versions of Petrosys PRO earlier than 2018 should consult the Petrosys PRO 2018 and earlier release notes for any relevant upgrade information.

No environment, third-party data source or operating system updates are required for Petrosys PRO 2019. For a full list of supported environments, please see the [Petrosys PRO Supported Environments](#) page.

Detailed Release Notes Summary PRO 2019.3

Enhancements

Application - General

- [29680](#) Custom install script now supports reinstalling current version
- [26447](#) Custom Install script now allows uninstall of all other versions of Petrosys PRO
- [76333](#) Custom Install script now allows SQLite database upgrade to be disabled

Configuration - Licensing

- [76451](#) Install now includes latest version of Flexera License Manager Imgrd and Imtools (11.16.6.0)

Connections, Import and Export

- [55828](#) Added data connection support for Eliis PaleoScan 2019.1
- [52873](#) Petrosys integration with tNavigator (RFD)
- [75419](#) Dictionary mnemonic descriptions now automatically exchanged by well log exchange

Connections, Import and Export - DUG Insight

- [75647](#) DUG Insight - Support added for posting a well's Custom display name and Well status

Connections, Import and Export - Excel

- [76214](#) Polygons from Excel are able to be used as clipping polygons

Connections, Import and Export - OpenWorks

- [29736](#) Added support for reading OpenWorks contours
- [76102](#) Linux install script for Petrosys-DecisionSpace Geosciences plugin
- [64533](#) Added Drag-n-Drop support for GIS File System Shape data from DecisionSpace Geosciences

Connections, Import and Export - Paradigm-Epos

- [76279](#) Added support for Paradigm 19 on Linux and Windows

Connections, Import and Export - Petrel

- [76127](#) Support for running Petrel Surface Modeling tasks in batch
- [76312](#) Changed Well Import business rule for writing wells into Petrel (Origin only)
- [75495](#) Petrel 2020.1 supported

dbMap/Web - Client

- [73005](#) Santos Wells Strat Services - formation tops editing enhancements

Mapping - Editors

- [76179](#) Spatial Editor allows vertices to be deleted from the coordinate table for selected shape

Mapping - General

- [72998](#) Added support for center alignment of map items
- [75519](#) Colorbar - Vertical annotation in vertical colorbars is now supported

Mapping - GIS, Spatial and Culture

- [43551](#) Display fault sticks in 2D mapping
- [76209](#) Display/GIS supports alternative annotation position calculation for lines and polygons

Mapping - Grids, Surfaces and Sampled Data Files

- [57880](#) Display/Orthocontours spatial export includes Z-value

Mapping - Map Sheets

- [54899](#) Map properties dialog supports interactive change of the extent
- [74956](#) Map title can now be set in map template
- [76321](#) Map title now supports runtime text substitution

Mapping - Wells

- [75339](#) Log signature displays - Added support for gradient fills.

Spatial Data Translator

[76544](#) Added Drag-n-Drop capabilities to Spatial Data Translator

Surface Modeling - Exchange

[76507](#) Added Drag-n-Drop capabilities to Grid Exchange

[76510](#) Added Drag-n-Drop capabilities to 3D Seismic Surfaces Exchange

[76509](#) Added Drag-n-Drop capabilities to Fault Sticks Exchange

[76136](#) Well Exchange no longer updates fields used by the selected well matching rule

Surface Modeling - Gridding

[75587](#) Ability to grid input data outside output grid geometry

Surface Modeling - Volumetrics

[11025](#) Volumetrics Top + Thickness Option in addition to Top, Top+Base, and Thickness

Detailed Release Notes Summary PRO 2019.3

Bug Fixes

3D Viewer - General

[76315](#) Display wells checks the existence of WDF file

Connections, Import and Export

[73854](#) Item description is now updated when data is dragged and dropped from Petrel or DSG into Surface Modeling

dbMap - Client

[75052](#) Well TVT and TST calculations now support dip of 90 degrees (Santos only)

[75367](#) dbMap Well reservoir summaries no longer crashes (Santos only)

Mapping - General

[76108](#) Map templates or dbms saved on Linux with large id numbers no longer cause errors when used on Windows

[76548](#) Display/Raster - crash in display of one bit images fixed

[76385](#) Display/Bubble Map colour range is pre-populated from previous values

[75515](#) Fixed crash when opening gradient editor

Mapping - GIS, Spatial and Culture

[22061](#) Display/GIS annotation offset has been reversed to be consistent with other display options

[76258](#) Display/GIS thematic mapping series correctly generates increments

Mapping - Grids, Surfaces and Sampled Data Files

[76192](#) Display/Grid/Colorfill now works with clip gradient to map sheet

Mapping - Map Sheets

[74717](#) Map Extent Edit now works correctly for Landgrid extent

Spatial Data Translator

[73836](#) Spatial data translator no longer crashes when selecting shapes to filter

Surface Modeling - General

[76520](#) Crash in task scripting panel fixed

Surface Modeling - Gridding

[76501](#) Gridding wells using Well TD option with positive subsea now computes correct grid

Surface Modeling - Volumetrics

[76034](#) Holes in polygons with unnamed outer polygons now used correctly

Petrosys Release PRO 2019.3

Detailed Release Notes

3D Viewer - General

Bug Fixes

Display wells checks the existence of WDF file 76315

Display wells from WDF checks the existence of WDF file before proceeding to display.

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

Custom install script now supports reinstalling current version 29680

The custom_install.vbs script used by some sites to deploy Petrosys PRO now has a configuration option to allow reinstallation of the version the script is configured to install. For example, if the script is configured to install Petrosys PRO 2019.3 and that version is currently installed, setting ReinstallExisting will cause the custom_install.vbs script to uninstall the currently installed Petrosys PRO 2019.3 and then install it again. This is convenient to install plugins where a supported third-party application (for example Petrel 2019) has been installed after the original Petrosys PRO 2019.3 install was completed.

When disabled, the script will run the installer, but not modify the install. This is the same as previous behaviour.

Please contact Petrosys support for further assistance when using this tool.

Custom Install script now allows uninstall of all other versions of Petrosys PRO 26447

The custom_install.vbs script used by some sites to deploy Petrosys PRO now has a configuration option to uninstall all other versions of Petrosys PRO that are installed on a system.

Additionally, the uninstall_all.vbs script can be called stand-alone to remove all installed versions of Petrosys PRO.

Please contact Petrosys support for any assistance when using this tool.

Custom Install script now allows SQLite database upgrade to be disabled 76333

The custom_install.vbs script used by some sites to deploy Petrosys PRO now has a configuration option to disable the upgrade of the SQLite databases. This is convenient when a single shared PsLocal is used - a single (higher privilege) user can perform the upgrade, either automatically or manually, and all other installs will no longer need to check if the upgrade is required.

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

Install now includes latest version of Flexera License Manager Imgrd and Imtools (11.16.6.0) 76451

The latest version of the Flexera executables Imgrd, Imtools and Imutil are now included in the installer. These are version 11.16.6.0. The previous versions were 11.15.1.0.

There is no need to upgrade your Flexera server if it is already at version 11.15 or newer. Only use update to newer versions if you are having issues with the license server or just want to be on the latest version.

Note that the version of Petrosys vendor daemon (PETROSYS) remains at version 11.11.

Added data connection support for Eliis PaleoScan 2019.1

55828

Petrosys connectivity now supports direct interaction with PaleoScan 2019.1

Support for PaleoScan 2019.1 includes the ability to:

- Import PaleoScan horizons to Petrosys grid file
- Directly display horizons as grid in mapping (e.g. Colorfill, Values)
- Directly display horizons in 3DViewer
- Direct use in Surface Modelling where multi-connect grids are supported

Petrosys integration with tNavigator (RFD)

52873

Rescue format data, as used by tNavigator and other products, for Wells, 3D Grid, 3D Grid properties and fault data can now be read and displayed in Mapping and 3D Viewer.

Previously only Rescue format horizon data was supported.

The Rescue format supported is the Rescue binary format.

Dictionary mnemonic descriptions now automatically exchanged by well log exchange

75419

Well log curve mnemonic description is now imported into dbMap database when cataloguing LAS files through well import wizard.

Item description is now updated when data is dragged and dropped from Petrel or DSG into Surface Modeling

73854

When data such as a 2D or 3D horizon, or well formation, is dragged and dropped from Petrel or DecisionSpace Geosciences into Surface Modeling/Grid/Create Grid/Input data dialog, the description in the list is now updated.

[Connections, Import and Export - DUG InsightEnhancements](#)

DUG Insight - Support added for posting a well's Custom display name and Well status

75647

DUG Insight Well status and Custom well name values are now available for posting on a map via the Current status and Plot name options respectively on the Display/Wells/Well annotation tab.

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

Polygons from Excel are able to be used as clipping polygons

76214

Petrosys PRO supports polygons from GIS sources in several contexts, for both clipping and selection. These contexts now support selection of polygons from Excel files, as long as the Excel based polygon data contains one or more attributes.

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

Added support for reading OpenWorks contours

29736

OpenWorks contours can now be displayed in Mapping, used as input to the Spatial Data Translator and be used as input data for Surface Modeling.

Linux install script for Petrosys-DecisionSpace Geosciences plugin 76102

A script to install the Petrosys-DSG plugin has been created for Linux. This allows users to easily install the Petrosys-DSG plugin outside of the normal Petrosys PRO install procedure.

Added Drag-n-Drop support for GIS File System Shape data from DecisionSpace Geosciences 64533

Users now have the ability to drag-n-drop GIS/File System Shape data from DecisionSpace Geosciences (DSG) GIS connections to the Mapping canvas.

GIS connections in DSG include:

- File System
- Database Connection

Database Connection Shapes data are not yet supported.

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

Added support for Paradigm 19 on Linux and Windows 76279

Paradigm 19 is now supported as a data source in all features that previously supported a Paradigm connection on both Linux and Windows.

Paradigm 15.5, Paradigm 17, Paradigm 18 and Paradigm 18sp1 continue to be supported as data sources.

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

Support for running Petrel Surface Modeling tasks in batch 76127

The ability to run Surface Modeling tasks connecting to Petrel from the command line in batch is now available.

It requires the following:

- Petrel setup to run with a favourite license package.
- A Surface Modeling task file to be created while connected to the Petrel project of interest.
- A Petrosys PRO project directory that is set-up with the appropriate project CRS and preferably has connected to the Petrel project.

Once this is done, a Windows batch file can be setup to re-run the task file from the command line.

An example Windows batch file to run the task file is available in C:\Program Files\Petrosys\20_2\misc\multiple_connects\run_petrel_batch_task.bat

Simply replace the relevant variables like the version of Petrel being used, Petrel and Petrosys PRO project names and the task file to run. The .bat file can then be called from a Windows command prompt or setup to be run as a scheduled event.

If the task file involves writing data to Petrel, the Petrel project will automatically be saved on completion of the batch process.

This functionality requires an additional Petrosys Batch Framework license. Please contact Petrosys support for more information on obtaining a license and using this option.

Changed Well Import business rule for writing wells into Petrel (Origin only) 76312

The Well Import Wizard Business Rule to write the Well name as the UWI for Petrel have been removed from client specific configuration for Origin.

Petrel 2020.1 supported 75495

Petrosys connectivity to Schlumberger's Petrel now supports direct interaction with Petrel 2020.1.

Support for Petrel 2020.1 includes the ability to:

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

Petrosys PRO continues to maintain support for connections to Petrel 2015.1 through 2019.x.

dbMap - Client

Bug Fixes

Well TVT and TST calculations now support dip of 90 degrees (Santos only)

75052

For Santos only, well TVT and TST calculations are now handling dipping bed data where the dip is 90 degrees. Previously this would result in database error that the TVT value was too large when trying to save changes to formations or reservoir summaries.

dbMap Well reservoir summaries no longer crashes (Santos only)

75367

A potential crash when editing dbMap well reservoir summary data has been fixed. This only occurred if there was no existing reservoir summary data for the well.

dbMap/Web - Client

Enhancements

Santos Wells Strat Services - formation tops editing enhancements

73005

Santos well Strat services formations editing has been enhanced so that it no longer replaces Santos corporate formation picks above the first Strat services formation. For reference wells, any Santos corporate formations defined above the first Strat services one are now also able to be edited for reference wells.

This functionality requires a database upgrade which was delivered with dbMap/Web 2019.5.

Mapping - Editors

Enhancements

Spatial Editor allows vertices to be deleted from the coordinate table for selected shape

76179

Coordinates for the a polygon or line selected in the Spatial Editor can be deleted directly from the "Shape Coordinate" table.

Mapping - General

Enhancements

Added support for center alignment of map items

72998

Center alignment options have been added for map items that previously allowed anchoring to the map area corners. This allows anchoring to be centered on an edge or the center of the map area. In total, nine different anchoring positions are now supported, up from the previous four.

Colorbar - Vertical annotation in vertical colorbars is now supported

75519

For the display of colorbars on the map, vertical annotation in vertical colorbars is now supported

Mapping - General

Bug Fixes

Map templates or dbms saved on Linux with large id numbers no longer cause errors when used on Windows

76108

In certain specific circumstances, usually when using dbm files that were created in much older versions of Petrosys, it was possible to create dbm or map templates containing layers with an internal id that would work on Linux, but produce errors on Windows.

Display/Raster - crash in display of one bit images fixed

76548

Fixed a crash when any one-bit (black and white) raster image was displayed on the map.

Display/Bubble Map colour range is pre-populated from previous values

76385

The Display/Bubble Map options allows segments to be filled using a color range - a set of numeric increments mapping to colors. In previous versions, for new segments, the color range would always start empty. The color range is now pre-populated with the most recently entered values, which makes it easier to setup multiple segments using the same range.

Fixed crash when opening gradient editor

75515

A bug was fixed which could cause the application to crash when opening the Petrosys PRO gradient editor.

Mapping - GIS, Spatial and Culture Enhancements

Display fault sticks in 2D mapping

43551

The fault sticks from third-party data sources can now be displayed in Mapping.

Display/GIS supports alternative annotation position calculation for lines and polygons

76209

The Display/GIS annotation option includes a "Bounding Box" method allowing annotation for polygons and lines to be positioned relative to the bounding box of the shape. The previous behavior, which positions annotation based on the center of mass of each shape is available via the "Centroid" option.

Mapping - GIS, Spatial and Culture

Bug Fixes

Display/GIS annotation offset has been reversed to be consistent with other display options

22061

In previous versions, Display/GIS annotation would move further away from the point of origin when negative offset values were used and closer when positive values were used. This has been reversed to be consistent with other parts of the software. Existing layers in dbm files will be upgraded to reverse the previous values.

Display/GIS thematic mapping series correctly generates increments

76258

This fixes a bug introduced in Petrosys PRO version 2019.2, where creating new Display/GIS layers would not always honour the default panel settings. This included the thematic mapping series exact match panel not allowing generation of ranges based on minimum and maximum values.

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

Display/Orthocontours spatial export includes Z-value

57880

Exporting a Display/Grid/Orthocontours layer to a GIS data source will include Z-values on coordinates, back interpolated from the grid used to generate the orthocontours. This is dependent on the output GIS source supporting Z-values, and this being enabled on the spatial export panel.

Mapping - Grids, Surfaces and Sampled Data Files

Display/Grid/Colorfill now works with clip gradient to map sheet

76192

In previous versions, there was a bug where grid colorfill display using gradient clipped to map sheet did not always work. This has now been fixed.

[Mapping - Map Sheets](#)[Enhancements](#)

Map properties dialog supports interactive change of the extent

54899

The extent tab in the map properties dialog now includes the ability to interactively size and position the current extent. This is similar to the resize option found in Petrosys versions 17.8 and earlier. This functionality complements directly repositioning the map via pan and zoom.

Map title can now be set in map template

74956

Map templates can now save a map title to be set when the map template is applied. The template map title can be plain text, or may include runtime text substitution variables. This allows template titles to be dynamic according to the extent or CRS as desired.

Map title now supports runtime text substitution

76321

Map titles now support runtime text substitution. See the help document "Graphics Technology - Runtime Text Substitution" for the range of keywords supported.

Mapping - Map Sheets

Bug Fixes

Map Extent Edit now works correctly for Landgrid extent

74717

Map Extent using Landgrid file will now work correctly for township/range/section. In previous version, map extent would start at section 1 instead of used specified section

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

Log signature displays - Added support for gradient fills.

75339

Petrosys PRO supports gradient fills in log signature displays, building on PRO 2019.2 well log signatures functionality:

Supported log sources include:

- DUG Insight
- IHS Kingdom
- ODM (IC)
- OpenWorks
- Paradigm-EPOS
- Petrel
- DLIS or LAS files catalogued in the dbMap PPDM38 data model

Some of the other display options include:

- Curve classes allow many logs mnemonics to display in preferential sequence
- Combinations of logs and tracks can be displayed
- Logs can be limited by depth or markers
- Logs can be displayed in linear or logarithmic scale.
- Depth and markers can be displayed in log templates
- Templates can be saved for use in other maps and projects

Spatial Data Translator Enhancements

Added Drag-n-Drop capabilities to Spatial Data Translator

76544

The Spatial Data Translator has had drag-n-drop functionality added, which accepts one of more polygon or polyline objects from applications like Petrel and DecisionSpace Geosciences.

Spatial Data Translator

Bug Fixes

Spatial data translator no longer crashes when selecting shapes to filter

73836

Previous versions of Petrosys would crash when attempting to manually select shapes from the input in the Spatial Data Translator.

Surface Modeling - Exchange Enhancements

Added Drag-n-Drop capabilities to Grid Exchange

76507

Grid Exchange has had drag-n-drop functionality added, which accepts one of more grids from applications like Petrel and DecisionSpace Geosciences.

Added Drag-n-Drop capabilities to 3D Seismic Surfaces Exchange

76510

3D Seismic Surfaces Exchange has had drag-n-drop functionality added, which accepts one of more Seismic Surfaces from applications like Petrel and DecisionSpace Geosciences.

Added Drag-n-Drop capabilities to Fault Sticks Exchange

76509

Fault Sticks Exchange has had drag-n-drop functionality added, which accepts one of more fault sticks from applications like Petrel and DecisionSpace Geosciences.

Well Exchange no longer updates fields used by the selected well matching rule

76136

The fields used by the selected Well Matching Rule now no longer have their values in the output data source updated with the value from input data sources.

For rules that use the same fields from the input as the output, this makes no net difference. But for rules that use a different set of fields from the input to the output, this did have adverse side effects that will now not happen.

Surface Modeling - General

Bug Fixes

Crash in task scripting panel fixed

76520

In previous version, there was a bug in Surface Modeling which could cause a crash during editing fields scripting of task 'Grid statistics inside polygon'. This now has been fixed.

Surface Modeling - Gridding

Enhancements

Ability to grid input data outside output grid geometry

75587

Added ability to grid input data that are outside the output grid geometry. The buffer zone can be used to limit the points being used based on the distance from output grid geometry.

Surface Modeling - Gridding

Bug Fixes

Gridding wells using Well TD option with positive subsea now computes correct grid

76501

Gridding wells using Well TD option processes positive subsea values correctly and well final TD value is only used when it is deeper than the surface which is initially computed from the existing zone/formation picks.

Surface Modeling - Volumetrics

Enhancements

Volumetrics Top + Thickness Option in addition to Top, Top+Base, and Thickness

11025

Added new grid based volumetrics type 'Top and Thickness'. The thickness can be entered either as a constant thickness value or a thickness grid.

Surface Modeling - Volumetrics

Bug Fixes

Holes in polygons with unnamed outer polygons now used correctly⁷⁶⁰³⁴

Volumetrics calculations now honour holes in polygons where the outer polygon does not have "Name" attribute.

Detailed Release Notes Summary PRO 2019.2.1

Enhancements

Application - User Interface

- [47245](#) Interactive line and polygon creation can now be ended with Enter key
- [75755](#) CRS Selector - Increased font size for CRS information panel
- [75797](#) Improved performance of operations that write a large amount of text to the screen in a log

Connections, Import and Export - Petrel

- [75851](#) Changes to well header and completion conduits imported to Petrel (Santos)

Mapping - General

- [67541](#) Map templates support inclusion of text layers
- [75661](#) Location map generation performance improved
- [75828](#) Title Block file selector - Default filter file types include both CGM and Excel files

Mapping - Grids, Surfaces and Sampled Data Files

- [75232](#) Display grid colorfill and display contours - support to turn on/off single contour levels

Mapping - Map Sheets

- [66725](#) Maps support title bars located at top and left of maps

Mapping - Wells

- [75905](#) Entries for new Formation or Reservoirs are now added to the Histories (Santos Only)

Seismic (SDF) Editor

- [75782](#) SDF Editor - Improved performance when deleting a large amount of lines

Spatial Editor

- [75523](#) Improvements to the spatial editor for creation of fixed length line segments at specific angles

Surface Modeling - Exchange

- [71973](#) Grid Exchange: Additional field mapping options added
- [70962](#) Grid Exchange - No longer required to select an input data type

Surface Modeling - Gridding

- [57890](#) SEG Y - performance improvement in reading velocity and 3D velocity interpolation

Detailed Release Notes Summary PRO 2019.2.1

Bug Fixes

3D Viewer - General

[75504](#) Viewer3D map file layer could cause a crash during undo

Application - Printing and Publication

[75753](#) Image Export - All text is displayed correctly

Connections, Import and Export

[74971](#) Exporting a map with a colorfill grid to CGM format outputs colors that match the map display

[76064](#) Well Import Wizard - dbmap PPDM38 formation tops export now works

Connections, Import and Export - Excel

[75676](#) Export of DMS coordinates to Excel writes in correct format

Connections, Import and Export - OpenWorks

[75908](#) Fixed a potential crash when reading 2D seismic line data from OpenWorks

[75881](#) Fixed a potential crash when reading Well Log Curve data from OpenWorks

[75200](#) Added a Preference to control the number of the Petrosys PRO instances

Connections, Import and Export - Petrel

[76072](#) Correct missing values are now used when writing 3D seismic horizon interp to Petrel

[75840](#) Multi polygons written to Petrel as part of "single object" correctly include attribute values

dbMap - Client

[75836](#) PLDB - Filtering by Polygon file now works (PPDM3.8 clients only)

Documentation - Online Help

[76036](#) Grid process arithmetic help page for else if else statement is wrong

Mapping - General

[76077](#) Display/Picture: Crash fixed when PIC files have a large palette

[75655](#) Display/Excel Table correctly shows Excel worksheets with cells containing double quotes

Mapping - GIS, Spatial and Culture

[76091](#) Shape files with 'measure' dimension defined display correctly in Display/GIS

Mapping - Map Sheets

[75923](#) Map border and annotation drawn correctly for all geographic extents

Mapping - Wells

[75888](#) Fixed log signatures from Petrel not displaying in some cases with depth units in feet.

[75550](#) Log signatures - Default option to not show formation depths now honoured

Seismic (SDF) Editor

[75796](#) SDF Editor - Line rename does not truncate last character when using "Match end of existing line name"

Spatial Data Translator

[75709](#) Rotated grids written to OpenWorks are at incorrect location

Spatial Editor

[75590](#) Spatial Editor grid input area of interest honours selected map extent

Surface Modeling - Contouring

[52410](#) Automatic contour file naming under the Grid/Processes/Arithmetic should also preserves the file path when selecting

[28176](#) Contour files were limited to have maximum of 10,000 points

Surface Modeling - General

[54721](#) Clipping grid to polygon significant performance improvement
[72508](#) Surface modelling could crash when processing files with formatting % character in the filename
[63103](#) Zone selection widget can now handle an invalid WDF filename

Petrosys Release PRO 2019.2.1

Detailed Release Notes

3D Viewer - General

Bug Fixes

Viewer3D map file layer could cause a crash during undo 75504

Viewer3D processes Map file layer undo correctly.

Application - Printing and Publication

Bug Fixes

Image Export - All text is displayed correctly 75753

A bug has been fixed in the Mapping /File/Export/Raster Image option where some text would not be rendered at certain DPIs

Application - User Interface Enhancements

Interactive line and polygon creation can now be ended with Enter key

47245

When interactively creating lines and polygons on a map you can now end the current segment by using the Enter key as well as double clicking with the mouse. In addition the Escape key will undo the last entered point, equivalent to using the right mouse button.

CRS Selector - Increased font size for CRS information panel 75755

In CRS selector panels, the font used for displaying the detailed information about the selected CRS is now the standard font size rather than the small size.

Improved performance of operations that write a large amount of text to the screen in a log

75797

Operations that write a lot of text into a log window on screen, such as the Seismic Editor(SDF), now are significantly faster in some cases. e.g. The import of a Petrosys SDF from an ASCII file is about 5 to 10 times faster.

Connections, Import and Export

Bug Fixes

Exporting a map with a colorfill grid to CGM format outputs colors that match the map display

74971

This fixes a bug introduced in 17.4 where grids would be exported to CGM with a reduced color range.

Well Import Wizard - dbmap PPDM38 formation tops export now works

76064

In previous versions Well Import Wizard exporting well formation tops to dbMap PPDM38 doesn't work. This has now been fixed.

Export of DMS coordinates to Excel writes in correct format 75676

In previous versions, exporting Excel coordinates from a layer displayed on a map would always write geographic coordinates in decimal degree format, even when DMS format was selected in the user interface.

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

Fixed a potential crash when reading 2D seismic line data from OpenWorks 75908

A potential crash has been fixed when retrieving 2D seismic line coordinate data from an OpenWorks project.

Fixed a potential crash when reading Well Log Curve data from OpenWorks 75881

A potential crash has been fixed when retrieving Well Log Curve data from OpenWorks.

Added a Preference to control the number of the Petrosys PRO instances 75200

A Preference has been added to control if only a single instance of the Petrosys PRO application should be allowed at any one time.

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

Changes to well header and completion conduits imported to Petrel (Santos) 75851

Well headers imported from dbMap to Petrel now include a Reference Well field.

Completion conduits (tubing) imported to Petrel are now filtered to exclude pulled tubing and tubing missing length values.

Correct missing values are now used when writing 3D seismic horizon interp to Petrel 76072

An issue has been fixed where the wrong missing value was used when writing 3D seismic horizon interp to Petrel using the Exchange/3D Seismic Surfaces option. This would result in very large z values being loaded, and the z range of the horizon would be incorrect.

Multi polygons written to Petrel as part of "single object" correctly include attribute values 75840

In previous versions, all attribute values for multi-polygons (including holes) written to Petrel were blank.

PLDB - Filtering by Polygon file now works (PPDM3.8 clients only) 75836

For dbMap PPDM3.8 clients with Prospects and Leads (PLDB), the option to filter prospects by Petrosys polygon file is now working. Previously it came up with an error about a missing panel.

Grid process arithmetic help page for else if else statement is wrong

76036

Grid/Process/Arithmetic help page showing elseif conditional has correct brackets around the condition.

Map templates support inclusion of text layers 67541

The Display/Text option has been enhanced to optionally allow text to be positioned relative to the map paper coordinates (instead of anchored to an Easting/Northing location), and when this is enabled, the text item can be saved into a map template.

Location map generation performance improved 75661

The performance of location map generation has been improved. Two improvements have been made.

The first is always on, and may reduce the time taken to generate location maps by 50%.

The second improvement is off by default and can be enabled via the advanced configuration option in Configuration Tool/Advanced/Location Map/Use suspended processes for generating location map contents. When enabled, this option will cause Petrosys PRO applications that can draw location maps to have child processes on standby ready to create the location map when required. This is a trade-off between consuming extra system resources versus the possible performance improvement.

Title Block file selector - Default filter file types include both CGM and Excel files 75828

The titleblock file selector now shows both Excel and CGM file formats by default.

Display/Picture: Crash fixed when PIC files have a large palette 76077

A crash has been fixed that could occur when displaying Petrosus PIC files, either directly with /Display/Picture or via an embedded map template picture.

Display/Excel Table correctly shows Excel worksheets with cells containing double quotes 75655

In previous versions displaying an Excel file with one or more cells containing double-quote characters would cause the Excel table not to display correctly.

Shape files with 'measure' dimension defined display correctly in Display/GIS

76091

In version 2019.1, Display/GIS would not display any shapes from shape files with the 'measure' coordinate dimension enabled. This has been fixed.

Mapping - Grids, Surfaces and Sampled Data Files Enhancements

Display grid colorfill and display contours - support to turn on/off single contour levels

75232

It is now supported to turn on/off individual single contour levels in grid colorfill display contours display. Same for contours display.

Mapping - Map Sheets Enhancements

Maps support title bars located at top and left of maps

66725

Petrosys maps have long supported a title bar drawn at the bottom or right of the map area. In addition to these locations, a title bar can now be positioned to the top or left of the map area.

Map border and annotation drawn correctly for all geographic extents

75923

A bug was introduced in Petrosys PRO 2017.1, where borders for maps with geographic extents located a long way from the central meridian of the associated CRS could be drawn incorrectly.

Mapping - Wells Enhancements

Entries for new Formation or Reservoirs are now added to the Histories (Santos Only)

75905

Adding new formations or reservoirs to a well, now adds an entry to the associated histories table.

Fixed log signatures from Petrel not displaying in some cases with depth units in feet.

75888

In some cases, log curves from Petrel would not display in a log signature map when the Petrel depth units was set to feet. This has now been fixed.

Log signatures - Default option to not show formation depths now honoured

75550

In Log signatures display the default option to not show formation depths now honoured in all cases. Previously it had to be cycled on and then off again to be picked up.

SDF Editor - Improved performance when deleting a large amount of lines

75782

The performance of line deletion has been significantly improved. For large SDF's it can now be up to 100 times faster

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

[Bug Fixes](#)

SDF Editor - Line rename does not truncate last character when using "Match end of existing line name"

75796

In the Apps/Seismic (SDF) application, the /Edit/Line/Rename option now works correctly for the "Match end of existing line name" mode. Previously it would truncate the existing line name by one too many characters.

[Spatial Data Translator](#)

[Bug Fixes](#)

Rotated grids written to OpenWorks are at incorrect location

75709

Rotated grids written to OpenWorks projects are at the correct locations.

[Spatial Editor](#)

[Enhancements](#)

Improvements to the spatial editor for creation of fixed length line segments at specific angles

75523

Several changes have been made to the spatial editor to make it easier to create lines of specific lengths or angles

- The interactive edit tool reports the length and angle of the current line segment being created
 - The interactive edit tool allows newly created lines or polygons to be split into individual line segments
 - A new operation "Split into line segments" allows existing lines or polygons to be split into individual line segments
 - A new interactive tool "Add line segments" allows creation of lines by defining the length and angle prior to creation. This tool optionally allows multiple parallel line segments to be created.
-

[Spatial Editor](#)

[Bug Fixes](#)

Spatial Editor grid input area of interest honours selected map extent

75590

This fixes a bug introduced in version 2019.1 where defining the geometry of a grid in the spatial editor from a map extent did not correctly set the grid extents and origin.

[Surface Modeling - Contouring](#)

[Bug Fixes](#)

Automatic contour file naming under the Grid/Processes/Arithmetic should also preserve the file path when selecting

52410

When creating a grid in Grid/Process/Arithmetic, the path assigned to the output contour file (if contouring is enabled) will now be preserved if the name of the output grid is changed. Previously, when the name of the output grid was changed, the path of the output contour file would be removed.

Contour files were limited to have maximum of 10,000 points 28176

Contour files can be created with contours having more than 10,000 points

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

Grid Exchange: Additional field mapping options added 71973

The "Bulk apply" option in Grid Exchange has now been extended to all output datasources. Additionally, input grid attribute values can be included as template parameters.

Grid Exchange - No longer required to select an input data type 70962

The mandatory data type filter has been removed from the input data source selector in Grid Exchange. This allows you to exchange grids of multiple data types in a single exchange task.

[Surface Modeling - General](#)

[Bug Fixes](#)

Clipping grid to polygon significant performance improvement 54721

Grid/Processes/Clip to Polygon performance has been greatly improved on Windows.

Surface modelling could crash when processing files with formatting % character in the filename 72508

File names with formatting character (%) are processed correctly.

Zone selection widget can now handle an invalid WDF filename 63103

Zone selection is handled correctly when invalid WDF file is selected in Back Interpolate to WDF.

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

SEGY - performance improvement in reading velocity and 3D velocity interpolation 57890

Reading stacking velocities from SEGY files has been speeded up by using multi-threading and optionally having local copies of SEGY files when they are network drive. SEGY 3D velocity interpolation has been redesigned to use significantly less memory and fast process time.

Detailed Release Notes Summary PRO 2019.2

Enhancements

Application - General

- [19486](#) Windows Installer package now always creates a log file
- [72909](#) Added metadata recording the full pathnames for data
- [75309](#) Support added for Redhat Enterprise Linux 8

Configuration - General

- [74875](#) Added option to set install directory to Windows custom_install.vbs script

Connections, Import and Export

- [45840](#) Text File Display and Import - Line numbers now shown in the preview window
- [66802](#) Text file import to SDF - Shows more lines in the preview window
- [74626](#) Added support for reading LAS v2.1 well log files.
- [74790](#) Improved LAS well log file reader tolerance of blank lines
- [74081](#) Improved performance and reduced memory use of reading LAS files.

dbMap - Client

- [74578](#) Santos LIMS database URL updated
- [74771](#) Initial and current permit added to dbMap well list (Santos only)

Mapping - Editors

- [29817](#) Conversion of data in raster images to vector formats

Mapping - General

- [75186](#) Display Faults - Fault symbols are disabled when no style is set for either centerline or polygon type

Mapping - Grids, Surfaces and Sampled Data Files

- [74991](#) Contour increment offset was added in grid colorfill display layer

Mapping - Wells

- [17562](#) Petrosys PRO adds support for Log Signatures
- [73561](#) Production Mapping features for PRO 2019.2

Surface Modeling - Contouring

- [72396](#) Added support of attribute grids in lowest contours generation to clip resultant closures

Surface Modeling - General

- [74067](#) Added output to CSV format in Grid/Statistics/Inside Polygon

Surface Modeling - Gridding

- [74731](#) Provide warning when user attempts to create excessively large grid

Surface Modeling - Workflows/Scripting

- [74927](#) Well measured depth is added into the well penetration report

Detailed Release Notes Summary PRO 2019.2

Bug Fixes

3D Viewer - General

[74676](#) Extent selector- Switching between different extent types is correctly applied and remembered

Application - General

[74824](#) Removed unnecessary image formats from image selectors

Application - Printing and Publication

[74861](#) PDF export now has text searchable by PDF viewers

Connections, Import and Export

- [75022](#) Paradigm and OpenWorks plugins now connects on Windows when the project folder name has spaces
- [63302](#) Raster/DEM imported to a Petrosys grid was off by a cell or two
- [75431](#) UKOOA export is no longer truncated to three characters
- [75400](#) Fixed merge mode always "keep" when importing seismic horizons to SDF
- [74788](#) Imported extremely large grids from Raster(Tiff) don't have weird edges any more
- [73943](#) Added support for reading DLIS files with non-uniform samples.
- [74820](#) Grids are not corrupted any more when being written and disk space is low

Connections, Import and Export - Esri

[75239](#) Petrosys SDE connection prompts for username and password when opening dbm files only when needed

Connections, Import and Export - Petrel

- [75000](#) Configured point logs written to Petrel now contain correct attribute values (Santos only)
- [75240](#) Exchange well tubing to Petrel now correctly handles NULL end dates (Santos only)

dbMap - Client

[74920](#) Some dbMap menu options did not appear after being prompted to login to the database

Documentation - Online Help

[75268](#) Line End Styles topic now displayed correctly in help viewer contents

Mapping - General

- [75234](#) Mapping - Display/Text - Read from file does not duplicate the text
- [73727](#) Colour Bar no longer prompts to set units to axis label when units are not available

Mapping - GIS, Spatial and Culture

- [75273](#) Display/GIS - dbMap GIS - Selection file filter is no longer hidden
- [75310](#) Display/GIS: multi-point shapes draw correctly when displayed for a second time

Mapping - Wells

- [74955](#) Improved performance of using native OpenWorks well symbols for large datasets.
- [75333](#) Display/Drilling Opportunities does not display well path
- [75190](#) Display/Wells from Paradigm could crash when data selection changed

Seismic (SDF) Editor

[75305](#) File/Export/Fixed format now exports all data correctly

Surface Modeling - General

- [74900](#) Interactive prompt panel supports more than 100 prompts
- [75277](#) Grid/Process/Derivatives now returns success correctly

Surface Modeling - Gridding

[74924](#) Cross validation will warn users there can be multiple gridding runs based on the number of input data points.

Surface Modeling - Volumetrics

[75048](#) Probabilistic Resource Calculator results can now be opened in the associated application

[75117](#)

Probabilistic Resource Calculator help now displayed correctly when proxy is enabled

Petrosys Release PRO 2019.2

Detailed Release Notes

3D Viewer - General

Bug Fixes

Extent selector- Switching between different extent types is correctly applied and remembered

74676

The /Extent/Select dialog now works correctly when switching between different extent types. The selection is also remembered correctly for when you next bring up the option.

[Application - General](#)

[Enhancements](#)

Windows Installer package now always creates a log file

19486

The Windows Installer packages will now always create an install log for the installation. In the event of an installation error, this log file can assist Petrosys support to diagnose the problem and provide a solution.

Added metadata recording the full pathnames for data

72909

Full path names are now added as metadata to .dbm, .tsk and .3dm files. This can help identify original source data location when a file has been moved or is recovered from archive.

Support added for Redhat Enterprise Linux 8

75309

Petrosys PRO is now supported on Redhat Enterprise Linux 8.

Application - General

Bug Fixes

Removed unnecessary image formats from image selectors

74824

In Petrosys PRO 2019.1 a number of unnecessary image formats were available for selection in image selectors (e.g. *.icns, *.wbmp). These have now been removed to make image selection simpler.

Application - Printing and Publication

Bug Fixes

PDF export now has text searchable by PDF viewers

74861

Exported PDF files now have searchable text again. This was broken in PRO 2019.1.0

[Configuration - General](#)

[Enhancements](#)

Added option to set install directory to Windows custom_install.vbs script

74875

An option has been added to the custom_install.vbs script to allow users to set the install directory for Petrosys PRO. Please contact Petrosys support for advice when using this method to install Petrosys PRO.

Text File Display and Import - Line numbers now shown in the preview window 45840

When defining the format for a fixed-format text file, the line numbers of the file are shown in the preview widget. For comma, tab or space separated data, the line number of the cell clicked on in the preview is shown in the header. This helps select the number of header lines to skip.

Text file import to SDF - Shows more lines in the preview window 66802

The "Import/ASCII Fixed Format File to SDF" option now shows 5000 lines in the preview window rather than 100. Additionally, it now shows the line numbers down the left of the preview window to help when selecting the number of header lines to skip.

Added support for reading LAS v2.1 well log files. 74626

LAS v2.1 well log files can now be used as input for well log exchange in the Wells Import Wizard. PPDM38 catalogued LAS v2.1 files are also supported for display of log signatures.

Improved LAS well log file reader tolerance of blank lines 74790

When reading well log data from non-compliant LAS files, blank lines are now ignored.

Improved performance and reduced memory use of reading LAS files. 74081

Improved the performance and reduced the memory use while reading LAS files for exchange or display as log signatures.

Connections, Import and Export

Bug Fixes

Paradigm and OpenWorks plugins now connects on Windows when the project folder name has spaces 75022

When running Petrosys on Windows in a folder name that contained spaces or other special characters like '&' or '<', connecting to Paradigm did not work. Similarly, it was not possible to start the OpenWorks DevKit plugin, when trying to display or read 3D seismic surfaces. These issues have been fixed.

Raster/DEM imported to a Petrosys grid was off by a cell or two 63302

Raster/DEM files imported into a Petrosys grid now have the correct origin. Previously the origin could have been off by half a cell from the input file..

UKOOA export is no longer truncated to three characters 75431

The 'Export/Petrosys/Seismic SDF to UKOOA' option now outputs the full line width. In 2019.1.1 it was broken with the output being truncated to three characters.

Fixed merge mode always "keep" when importing seismic horizons to SDF 75400

The option to overwrite existing data when importing seismic to SDF was being ignored, resulting in existing SDF data always being kept. This has now been fixed.

Imported extremely large grids from Raster(Tiff) don't have weird edges any more

74788

In previous versions when importing an extremely big grid from raster(Tiff) the result grid has wrong edges. This has now been fixed.

Added support for reading DLIS files with non-uniform samples.

73943

DLIS files with non-uniform samples can now be used for inputs to well log exchange and for display in log signatures.

Grids are not corrupted any more when being written and disk space is low

74820

In previous versions when importing an extremely big grid from raster(Tiff) the result grid could be corrupted when the disk is low. Now it has been fixed so that in that case the importing process will fail with proper errors reported.

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

[Bug Fixes](#)

Petrosys SDE connection prompts for username and password when opening dbm files only when needed

75239

In previous versions, the Petrosys SDE connection would prompt for username and password when reading layers from a dbm file - including cases where default information had already been provided.

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

[Bug Fixes](#)

Configured point logs written to Petrel now contain correct attribute values (Santos only)

75000

When writing configured well log data to Petrel, all attribute values for point logs were written with the same value at each depth. This has now been fixed.

Additionally, appropriate unit conversions are performed if the attribute template has been changed from "General Continuous".

Exchange well tubing to Petrel now correctly handles NULL end dates (Santos only)

75240

When importing well tubing data to Petrel with a NULL end date, the end date in Petrel is correctly set to NULL. Previously it was set to 01/01/1800.

[dbMap - Client](#)

[Enhancements](#)

Santos LIMS database URL updated

74578

The Santos Well LIMS database URL has been updated to point to the new server.

Initial and current permit added to dbMap well list (Santos only)

74771

The Santos Well list now has the option to show the initial and current permit fields from the well header.

Some dbMap menu options did not appear after being prompted to login to the database

74920

When running Mapping from the launcher for the first time, some of the dbMap client specific menu options did not appear, such as Display/Prospects or Lists/dbMap/Web. This only happened if you were prompted to login to a dbMap database before Mapping started. These client specific menu options now appear correctly.

Line End Styles topic now displayed correctly in help viewer contents

75268

Previously, the Line End Styles topic was displayed with a default topic title in the contents and search pages. It now displays its correct title.

Conversion of data in raster images to vector formats

29817

The Petrosys spatial editor includes support for extracting vector shapes (contours, faults, generic GIS data) from raster images. This functionality can be run by opening a raster in the spatial editor and then using the Operations/Extract Shapes from Raster menu option. The desired shapes can be isolated via an image processing toolbox (for example to filter based on colour) and then post-processed to simplify and compress the resulting shapes.

Display Faults - Fault symbols are disabled when no style is set for either centerline or polygon type

75186

Fault display symbols group is disabled when both centreline and polygon styles are disabled.

Mapping - Display/Text - Read from file does not duplicate the text

75234

When displaying text from a file the text is now not duplicated on subsequent edits.

Colour Bar no longer prompts to set units to axis label when units are not available

73727

When editing a colour bar layer the axis label can be updated to the units of an associated grid. In previous versions of Petrosys, this would still occur when the units for the associated grid were unknown or not defined.

Display/GIS - dbMap GIS - Selection file filter is no longer hidden 75273

When using the Filter tab on Mapping - Display/GIS dialog with dbMap GIS as the data source and the Filter type set to SQL, the file picker field is now available for the Selection-file option. Previously, when you chose the Selection-file option, the file picker would remain hidden, so you could not choose a selection file.

Display/GIS: multi-point shapes draw correctly when displayed for a second time 75310

In previous versions, if multi-point data was displayed more than once from the same data source, it would not be displayed.

[Mapping - Grids, Surfaces and Sampled Data Files Enhancements](#)**Contour increment offset was added in grid colorfill display layer** 74991

Contour increment offset is supported for contour on-the-fly in grid colorfill display layer.

[Mapping - Wells Enhancements](#)**Petrosys PRO adds support for Log Signatures** 17562

Petrosys PRO supports log signature displays, building on 2019.1 well log exchange & dbMap/Web well log viewer functionality.

Users are now be able to connect to their interpretation packages and display a wide variety of log templates directly in Mapping.

Supported log sources include:

- DUG Insight
- IHS Kingdom
- ODM (IC)
- OpenWorks
- Paradigm-EPOS
- Petrel
- DLIS or LAS files catalogued in the dbMap PPDM38 data model.

Some of the display options include:

- Curve classes allow many logs mnemonics to display in preferential sequence
- Combinations of logs and tracks can be displayed
- Logs can be limited by depth or markers
- Depth and markers can be displayed in log templates
- Templates can be saved for use in other maps and projects

Production Mapping features for PRO 2019.2 73561

Display well path has added the following functionality:

- Bulk adding formations/zones for datasources that support both top and bases
- Bulk editing of existing path segments (color, line style, ...)
- Support for multiple zone/formation observations
- Ability to annotate path segments
- Ability to track path segments

Improved performance of using native OpenWorks well symbols for large datasets.

74955

Some improvements have been made to the native OpenWorks well symbol handling which will result in faster loading and display of OpenWorks wells.

Display/Drilling Opportunities does not display well path

75333

Display/Drilling Opportunities displays well path when selected.

Display/Wells from Paradigm could crash when data selection changed

75190

Data selection filter is handled correctly when displaying wells from Paradigm.

File/Export/Fixed format now exports all data correctly

75305

A bug was introduced in Petrosys PRO 2019.1 which prevented SDF files from being exported to text files correctly. For example, some of the selected data may have been missing. This has now been fixed.

Surface Modeling - Contouring Enhancements

Added support of attribute grids in lowest contours generation to clip resultant closures

72396

In lowest contours generation it is now supported to specify an attribute grid to clip the resultant closures so that closures only cover the areas where the attribute grid's value satisfies the given condition.

Surface Modeling - General Enhancements

Added output to CSV format in Grid/Statistics/Inside Polygon

74067

Option "Grid/Statistics/Inside Polygon..." now supports CSV file format output.

Interactive prompt panel supports more than 100 prompts

74900

Surface modeling now handles double the number of scripting interactive prompts. An error message will be displayed if the limit is reached.

Grid/Process/Derivatives now returns success correctly

75277

In previous versions in Surface Modeling Grid/Process/Derivatives returned failure when dx/dy grids are actually successfully generated. This has now been fixed.

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

Provide warning when user attempts to create excessively large grid

74731

Grid/Create Grid will warn users if they attempt to create excessively large grid (based on number of columns and rows).

[Surface Modeling - Gridding](#)

[Bug Fixes](#)

Cross validation will warn users there can be multiple gridding runs based on the number of input data points.

74924

Cross validation will now warn users there can be multiple gridding runs as the time taken can be lengthy in this case. The warning is based on number of input data points.

[Surface Modeling - Volumetrics](#)

[Bug Fixes](#)

Probabilistic Resource Calculator results can now be opened in the associated application

75048

Surface Modeling Probabilistic Resource Calculator results now launch the associated application when clicking the link. In earlier PRO 2019.1 releases, the results were downloaded correctly, but clicking on the link did launch an application to open the results.

Probabilistic Resource Calculator help now displayed correctly when proxy is enabled

75117

Probabilistic Resource Calculator help can now be viewed when the user has configured Petrosys PRO to use a proxy. Previously, a blank page would have been displayed.

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

Well measured depth is added into the well penetration report

74927

In the Surface Modeling well penetration report, measured depth is reported now.

Detailed Release Notes Summary PRO 2019.1.1

Enhancements

Application - General

[74585](#) Chart Analysis - Added gradient histogram equalisation options

Application - User Interface

[74272](#) Better support for Unicode characters in the application

[70759](#) dbMap - Various panels now better support resizing by expanding the list element

Connections, Import and Export

[68670](#) Improve performance of display of images from tiled map services

Connections, Import and Export - Esri

[74421](#) Added support for SDE data stored in Oracle 18c databases

Mapping - General

[72229](#) Support added for merging a dbm that has a different color palette

[74547](#) Runtime Text Substitution - User name and Application Version fields added

[74265](#) Files referenced in CGM files can now resolve relative paths against PSPATH

[74333](#) Graphics - Support added for FlatCap line end style

Mapping - Map Sheets

[74230](#) Default scanning options for map template and extents can be set via a configuration setting

Surface Modeling - Contouring

[73784](#) Selecting well contact points from formation/zone top/base now supported

Surface Modeling - General

[66140](#) Introduce grid vertical sense in 'Compute Dip and Azimuth Grids'

[74372](#) Introduce grid vertical units in 'Compute Dip and Azimuth Grids'

[43295](#) Added run time scan geometry for grid when importing XYZ file to grid

[42681](#) Updated help for Surface Modeling/Grid/Dump faults to document interpolation parameter usage

[74666](#) Updated Back Interpolate to WDF help topic

Detailed Release Notes Summary PRO 2019.1.1

Bug Fixes

Application - General

[73953](#) Directories with unencodable characters now handled

Connections, Import and Export

[74225](#) dbMap PPDM38 - Cataloging of DLIS files with empty curves has been fixed

[74148](#) Fixed XML/HTML log for well log curves in Well import wizard

[74140](#) Improved support for ArcGIS web feature services

[74221](#) Missing values are handled correctly by Wells Exchange when wells are imported into OpenWorks

Connections, Import and Export - OpenWorks

[50461](#) Correct operator and completion date values are now read for OpenWorks well headers

[74527](#) Fixed OpenWorks plugin not connecting on some Windows machines

Connections, Import and Export - Petrel

[74496](#) Fixed crash when importing 3D seismic coordinates from Petrel to SDF

dbMap - Client

[74041](#) Well Test Dialog no longer crashes when Oracle cursor sharing is enabled

Mapping - General

[73636](#) Bubble map layer names correctly remember custom layer descriptions

[74252](#) Title block text for system title blocks is restored correctly when dbm's are reloaded

[74716](#) Landgrid - /File/Preferences/Tracking panel has more space to display global landgrid file name

[74223](#) Color Bar no longer shows negative zero (-0) as axis annotation

[74350](#) Legend font is drawn correctly if set to Default

[74690](#) Graphics - Custom linestyles with larger scale factor now supported

Mapping - Grids, Surfaces and Sampled Data Files

[74489](#) Contours computed on the fly from grids can now be exported to spatial data successfully

[74455](#) Orthocontouring - Crash in panel when creating new group fixed

[74280](#) Gridding succeeds after output grid gradient has been edited in mapping

Mapping - Publication

[74303](#) Export of raster images with "Map contents only" consistently writes correct georeferencing information

Mapping - Wells

[74588](#) Formation tops - Well name annotation now works with custom format

[74205](#) Petrel wells are displayed when data selection changes and dynamic map extent is used

[74269](#) Selected zones now highlighted in zone selector picker

Surface Modeling - Contouring

[73232](#) Contouring around faults does not end up in an infinite loop

Surface Modeling - General

[74283](#) Collecting output files step is much faster for large workflows

[74339](#) File/Import/Petrosys Grid off by one cell in vertical direction error has been corrected

Surface Modeling - Gridding

[74277](#) Point data gridding error when reading Excel using .xft file has been fixed

Surface Modeling - Workflows/Scripting

[74332](#) File/OpenWorkflow handles network path correctly

Petrosys Release PRO 2019.1.1

Detailed Release Notes

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

Chart Analysis - Added gradient histogram equalisation options

74585

Gradient histogram equalization is now available on the Chart Analysis dialog.

[Application - General](#)

[Bug Fixes](#)

Directories with unencodable characters now handled

73953

An advanced option has been added to the Grid AOI and Text CRS crawlers so they can handle directory and file names which are not legal within the current system codec. This may occur when files have been created on a shared file system by a system with a different, incompatible codec.

When enabled, file names may be displayed in the user interface and log files incorrectly, but the file contents will be crawled as expected.

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

Better support for Unicode characters in the application

74272

Building on the work done in PRO 2019.1 this release has improved again the support Unicode characters throughout the application.

Specifically:

- dbm, tsx and 3dm filenames can have Unicode in the filename.
- Title Block substitution text supports Unicode in the content.
- Excel display via both /Display/GIS and /Display/Excel Table supports Unicode in the Excel filename and Excel content.
- Missing file resolution supports filenames with Unicode.

dbMap - Various panels now better support resizing by expanding the list element

70759

Various panels in the dbMap well header dialogs now better support resizing by expanding the list element.

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

Improve performance of display of images from tiled map services

68670

The time taken to download and display images from tiled raster services (for example, Bing Maps, WMTS, ArcGIS) has been significantly improved, with an approximate speed up of 25x for large numbers of tiles.

dbMap PPDM38 - Cataloging of DLIS files with empty curves has been fixed

74225

In previous version when cataloging DLIS files to PPDM38 dbMap, if the DLIS had empty curves the cataloging process will fail. Now it will succeed by ignoring the empty curves.

Fixed XML/HTML log for well log curves in Well import wizard

74148

In previous version well import wizard does not generate correct HTML report for well log curves exchange. This has now been fixed.

Improved support for ArcGIS web feature services

74140

Improvements have been made to the methodology for accessing ArcGIS web feature services which allows access to some servers (configured with explicit object ids) that did not previously work.

Missing values are handled correctly by Wells Exchange when wells are imported into OpenWorks

74221

In previous version during well log curves exchange to OpenWorks missing values could be mistakenly treated as non-missing values. This has now been fixed.

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

Added support for SDE data stored in Oracle 18c databases

74421

Petrosys includes support for accessing Esri ArcSDE databases running on an Oracle 18c database. This uses a new method to access the SDE data and needs to be explicitly enabled - please contact Petrosys support for details.

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

Correct operator and completion date values are now read for OpenWorks well headers

50461

The OpenWorks well header WL_CURRENT_OPERATOR and COMPLETION_DATE fields are now being used for the Current Operator and Completion date. Previously the DATA_RELEASE_DATE was incorrectly being treated as the Completion date and DRILLING_OPERATOR as Current operator.

Fixed OpenWorks plugin not connecting on some Windows machines

74527

For some Windows machines with OpenWorks installed, it was not able start the OpenWorks DevKit plugin, when trying to display or read 3D seismic surfaces, for example. This has been fixed.

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

[Bug Fixes](#)

Fixed crash when importing 3D seismic coordinates from Petrel to SDF

74496

No longer crashes when importing 3D seismic coordinates from Petrel to SDF.

Well Test Dialog no longer crashes when Oracle cursor sharing is enabled

74041

A crash in the Well Test dialog that can occur when Oracle cursor sharing is enabled has been fixed.

[Mapping - General](#)

[Enhancements](#)

Support added for merging a dbm that has a different color palette 72229

Base Map Template and File/Merge option now support merging .dbm file with different color palette.

Runtime Text Substitution - User name and Application Version fields added 74547

The runtime text substitution fields <<USER>> and <<PVSNO>> have been added to the help documentation as well as showing up in the green plus (+) button dialog of available fields.

Files referenced in CGM files can now resolve relative paths against PSPATH 74265

Files that are used in CGM files can now use a relative path, with that relative path then appended to each entry in the standard search path PSPATH when attempting to resolve the file.

For example, if a title block references a PNG file as 'logos/company.png', then Petrosys PRO can resolve this path to the file \$ps_local/logos/company.png.

Graphics - Support added for FlatCap line end style 74333

Support has been added for the "FlatCap" line end style for graphical lines. This line style end stops right on the start/end of the line, in contrast to the "Butt" style which extends half a line width beyond the start/end point.

This style is accessible in the standard line style selector dialog.

Mapping - General

Bug Fixes

Bubble map layer names correctly remember custom layer descriptions 73636

Changes to bubble maps in Petrosys PRO version 2018.3 introduced a bug where custom layer names for bubble map layers would be reverted to the default whenever the layer was edited. This now works as expected.

Title block text for system title blocks is restored correctly when dbm's are reloaded 74252

In previous versions, user entered text for "System" title blocks would sometimes not be displayed correctly when reopening dbm files. This would occur when opening a dbm in a different version of Petrosys and where the current displayed title block was the same as the dbm.

Landgrid - /File/Preferences/Tracking panel has more space to display global landgrid file name 74716

In the /File/Preferences/Tracking panel, there is now more space to display the global landgrid file name so that it does not display truncated if it is more than 28 characters long.

Color Bar no longer shows negative zero (-0) as axis annotation 74223

In previous versions, the Display/Color Bar option could display negative axis values that were very close to zero as negative zero (-0).

Legend font is drawn correctly if set to Default 74350

The font used for drawing the legend will now be used correctly if it is set to "Default". It will inherit the application default font as set in /File/Preferences/Mapping.

Graphics - Custom linestyles with larger scale factor now supported 74690

Custom linestyles with larger scale factor now supported. Previously scale factors above about 4 could cause the application to crash.

Mapping - Grids, Surfaces and Sampled Data FilesBug Fixes

Contours computed on the fly from grids can now be exported to spatial data successfully 74489

In previous versions there was a bug that in grid colorfill display contours generated on the fly couldn't be exported to shapefile, Excel, etc. if the current map sheet CRS differs from the grid CRS. This has now been fixed.

Orthocontouring - Crash in panel when creating new group fixed 74455

The /Display/Grid/Orthocontours option could error and crash when accessing newly created Culture groups. This bug was introduced in 2019.1 and has now been fixed.

Gridding succeeds after output grid gradient has been edited in mapping 74280

Surface modeling gridding process succeeds after the output grid has been used for gradient editing in mapping.

Mapping - Map Sheets Enhancements

Default scanning options for map template and extents can be set via a configuration setting 74230

When selection map templates and extents, there are options to enable or disable scanning of legacy map sheet files and dbm files (for extents). A configuration option has been added to control the default behaviour (i.e. the settings for the first time Petrosys is run in a particular project)

Mapping - Publication

Bug Fixes

Export of raster images with "Map contents only" consistently writes correct georeferencing information 74303

Previous versions of Petrosys PRO would occasionally write incorrect georeferencing information when exporting raster images from the File/Export/Raster option with "Map contents only" enabled.

Formation tops - Well name annotation now works with custom format

74588

When displaying wells in Mapping, the Custom format option on the Formation tops tab now annotates the Well name at the formation location when selected. Previously the well name did not appear on the map.

It is also now possible to annotate other well header attributes at the formation location by typing them into the Custom format field. e.g. the well UWI can be added by typing in <<UWI>>.

Petrel wells are displayed when data selection changes and dynamic map extent is used

74205

Petrel wells display works correctly when the filtering (Data selection) is changed and dynamic map extent is being used.

Selected zones now highlighted in zone selector picker

74269

Zones selected as path segments in Display/Wells are highlighted in the zone selector picker.

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

Selecting well contact points from formation/zone top/base now supported

73784

In Surface Modeling it is now supported to select well contact points directly from well formation/zone top/base.

Contouring around faults does not end up in an infinite loop

73232

In previous version Mapping or Surface Modeling could hang or crash due to contouring entering an infinite loop. This has now been fixed.

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

Introduce grid vertical sense in 'Compute Dip and Azimuth Grids'

66140

Vertical sense has been added to Compute Dip and Azimuth in order to calculate correct gradients for various grid depth scenarios.

Introduce grid vertical units in 'Compute Dip and Azimuth Grids'

74372

Vertical units has been added to compute dips correctly where the grid z value units might differ from XY units.

Added run time scan geometry for grid when importing XYZ file to grid

43295

Ability to scan imported data for area of interest at task run time has been added for File/Import/XYZ Ascii to grid file option.

Updated help for Surface Modeling/Grid/Dump faults to document interpolation parameter usage

42681

Grid/Dump faults help page has been updated.

Updated Back Interpolate to WDF help topic

74666

Updated help topic for Grid/Back Interpolate/WDF.

Surface Modeling - General

Bug Fixes

Collecting output files step is much faster for large workflows ⁷⁴²⁸³

Collecting output files has been optimized and runs significantly faster.

File/Import/Petrosys Grid off by one cell in vertical direction error has been corrected ⁷⁴³³⁹

File/Import/Petrosys grid calculates correct origin. This may be half cell off from imported data.

Surface Modeling - Gridding

Bug Fixes

Point data gridding error when reading Excel using .xft file has been fixed ⁷⁴²⁷⁷

In previous version the file read time in column file format string saved in .tsk is incorrect which could cause some errors when reading data from Excel. This has now been fixed.

Surface Modeling - Workflows/Scripting

Bug Fixes

File/OpenWorkflow handles network path correctly ⁷⁴³³²

File/OpenWorkflow handles network paths correctly.

Detailed Release Notes Summary PRO 2019.1

Enhancements

3D Viewer - General

[62761](#) OpenInventor upgraded to 9.7.2

Application - General

[73383](#) During file resolution check any relative files against current project directory

[73416](#) Check path mappings against all applicable path mapping

Application - User Interface

[71389](#) Infinite number of decimal places for decimal value entry

Configuration - General

[73348](#) Allow From path mapping to be a blank path

[73882](#) LIMS - Spotfire links updated (Santos)

Configuration - Licensing

[73764](#) Tools/License Manager (Windows) - Leading and trailing spaces are stripped from hostname when using "Edit/License Server Connection Configuration"

[73012](#) Petrosys PRO 2019.1 requires a new license file

Connections, Import and Export

[71518](#) Removed Dispatch Server and support for Dispatch Server typed connections in the Connection Manager

[36485](#) Support added for reading PostGIS spatial data

[72606](#) Flash wells option added to Well list for DevKit data sources

[72525](#) Drag and drop of 2D seismic horizons now creates a layer with just ribbon map displayed

[72520](#) Petrel Drag-and Drop into grid input data only prompts when required

[72278](#) Petrel DnD - Dragging 2D Seismic horizons now filters lines by the Petrel survey folder

Connections, Import and Export - Paradigm-Epos

[73705](#) Added support for Paradigm 18p1 Support Pack on Linux and Windows

Connections, Import and Export - Petrel

[70813](#) Petrel 2019.1 supported

[72635](#) Petrel 2D seismic - Filtering by Seismic folder is now available in Mapping and Surface Modeling

[72270](#) Petrel DnD - Default item/layer names are now more descriptive for 2D and 3D horizons

Mapping - Editors

[73977](#) Well Symbol Generator - Added in 72 and 60 degree arc primitives

Mapping - General

[31024](#) /Display/Text has improved support for international character sets

[63253](#) Improved layer selection in the Display/Web Service Image/WMS layer selector

[52961](#) The selected layer in the Mapping display list is more obviously highlighted

[63443](#) Display of contours from Petrel added

Mapping - GIS, Spatial and Culture

[20227](#) Display/GIS thematic mapping allows polygon outline lines to be turned off

Mapping - Grids, Surfaces and Sampled Data Files

[73436](#) Contour on-the-fly performance improved

Mapping - Wells

[30474](#) Display/Wells - Path Segments - Allow multiple segments in a single display layer

[24190](#) Add support for reading zones from Petrel

[53013](#) Display/Wells/Path Segments - fixed logic when well intersects formation multiple times

Surface Modeling - Exchange

- [43990](#) Wells Exchanges now supports Log Curve data
- [46621](#) Exchange/Wells Import Wizard menu has been renamed to Exchange/Wells

Surface Modeling - General

- [15476](#) Mean and median grid filter added
- [72080](#) Lowest closing contour now supports sealing faults that are not closed

Surface Modeling - Gridding

- [73544](#) Grid outlining performance improved
- [73488](#) Boundary gridding displays error message when not valid data
- [72382](#) Grid/Create grid allows users to select input point data type (point or line) for GIP, text and Excel data

Surface Modeling - Volumetrics

- [72397](#) Use polygons with holes in volumetrics

Surface Modeling - Workflows/Scripting

- [30618](#) Pause functionality added to Surface Modeling workflows
- [68862](#) Tools/DrawMap scripting now insensitive to template dbm layer order

Detailed Release Notes Summary PRO 2019.1

Bug Fixes

3D Viewer - General

[69912](#) Visual Studio 2015 OpenMP library now installed

Application - General

[73860](#) Centreline faults are supported in the Esri ArcMap plugin

Application - User Interface

[54249](#) Fixed warning message for Oracle password due to expire

[73075](#) List filter dialogs now follow parent dialog moves

Connections, Import and Export

[74029](#) Performance improved when filtering by Paradigm-Epos well DB

[73889](#) Exchange 3D Seismic Surfaces no longer crashes if it cannot connect to the OpenWorks DevKit

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Petrosys Release PRO 2019.1

Detailed Release Notes

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

OpenInventor upgraded to 9.7.2

62761

The OpenInventor toolkit used for rendering content in the 3D Viewer has been upgraded to version 9.7.2. This update provides improved performance and stability, and better support for some graphics cards..

[3D Viewer - General](#)

[Bug Fixes](#)

Visual Studio 2015 OpenMP library now installed

69912

Petrosys PRO now installs the Visual Studio 2015 OpenMP library, which allows 3D Viewer to run on a PC that does not have this library already installed.

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

During file resolution check any relative files against current project directory

73383

Unresolved data files (e.g. file-based layers in a map) that are stored as relative paths are now prefixed with the current map directory and tested against available path mappings. This helps applications find data files when data files have been moved to a sub-directory, simply add a path mapping from the project directory to the new sub-directory, for example from c:\PetrosysProjects\MyProject => c:\PetrosysProjects\MyProject\dataFiles.

Check path mappings against all applicable path mapping

73416

Unresolved data files (e.g. file-based layers in a map) now compare against a wider range of path mappings that may be applicable. For example, on Windows mapped network drives are compared to any UNC paths and paths are compared case-insensitively.

[Application - General](#)

[Bug Fixes](#)

Centreline faults are supported in the Esri ArcMap plugin

73860

The Petrosys PRO plugin for Esri ArcMap now supports drawing of all faults, including centre-line faults.

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

Infinite number of decimal places for decimal value entry

71389

Removed the limit of only two decimal places for floating point numbers in the user interface.

Fixed warning message for Oracle password due to expire

54249

In previous versions, Petrosys PRO would display an empty warning if the Oracle password was due to expire. This has now been fixed and the warning text is now shown.

List filter dialogs now follow parent dialog moves

73075

List filter popup dialog now follow the list dialog when the dialog is moved. In particular, when the list filter is shown, then hidden and then the dialog is moved, and then the list filter is shown again, the filter appears in the expected location. Previously, the list filter would restore the last location it was shown on the screen.

[Configuration - General](#)

[Enhancements](#)

Allow From path mapping to be a blank path

73348

Petrosys PRO now allows blank paths to be used for From fields for automated path mapping. This means a path mapping can be added to handle the case where a data file has been moved into a project sub-directory - enter a blank From field with the new location as the To field and automated path mapping will resolve the file location. If the file is then saved, the new path to the data file will be saved.

Path mapping with a blank From field could cause loading of files to be slow, particularly if there are many data files that use path mapping to resolve to their correct location. It is recommended that any blank From field path mappings to be placed at the end of the path mapping list.

Note: if a path mapping with a blank From field has been entered, and then the configuration is saved using an earlier version of Petrosys PRO, then the blank From field path mapping will be removed. This is due to the way earlier versions process paths and can not be changed.

LIMS - Spotfire links updated (Santos)

73882

The Spotfire links have been updated at the request of Santos.

[Configuration - Licensing](#)

[Enhancements](#)

Tools/License Manager (Windows) - Leading and trailing spaces are stripped from hostname when using "Edit/License Server Connection Configuration"

73764

In the Launcher option "Tools/License Manager" on Windows, leading and trailing spaces are stripped from hostname when using "Edit/License Server Connection Configuration".

Petrosys PRO 2019.1 requires a new license file

73012

Petrosys PRO 2019.1 requires a new license file. Petrosys support will make a new license file available for maintained clients. Please contact Petrosys support for any questions on licensing.

[Connections, Import and Export](#)

[Enhancements](#)

Removed Dispatch Server and support for Dispatch Server typed connections in the Connection Manager

71518

The Petrosys PRO Dispatch Server daemon is no longer a supported way to connect to remote data sources from Windows. With the introduction of SSH-based connections in PRO 2018.2, this is now the only method of connecting to remote data source. Existing Dispatch Server connections must be migrated over to use this. Please contact Petrosys Support if you require assistance with using remote connections.

Support added for reading PostGIS spatial data 36485

PostGIS is an extension module for the PostgreSQL database which adds support for GIS and spatial data.

Petrosys PRO now supports reading spatial data from PostGIS spatial databases in a number of contexts:

- Display/GIS
- Spatial Data Translator input
- Grid/Create/Grid input
- Grid/Create/Grid clipping polygons
- Spatial Editor/File/Merge
- Spatial Editor/Clip Polygons
- Mapping/Display/Bubble Maps
- 3D Viewer/Display Point Data
- Volumetrics/Polygons

Flash wells option added to Well list for DevKit data sources 72606

Well lists (Mapping/Lists/Wells) for third-party data sources that require a DevKit, such as DUG Insight, Paradigm, Petrel and SeisWare, now have the Display/Flash well option and associated icon, to flash the currently selected well if it has also been displayed on the map. This functionality is the same as already available for SQL based well data sources.

Drag and drop of 2D seismic horizons now creates a layer with just ribbon map displayed 72525

Drag and drop of 2D seismic horizons from Petrel and DecisionSpace Geosciences into Petrosys PRO Mapping has been changed to create a new 2D seismic line layer with only the ribbon map turned on to show the horizon interpretation. Previously the navigation and line names were also displayed.

Petrel Drag-and Drop into grid input data only prompts when required 72520

Drag-and-drop of items from Petrel into the Surface Modeling/Grid/Create grid/Input data list will now only prompt with the add item screen when required.

For example, previously, when a Seismic Horizon is dragged and dropped, the 3D survey or 2D seismic folder and horizon fields were populated appropriately, and it would prompt you to press OK for adding each 3D survey and horizon. Now it simply adds the items to the list, as it has enough information to make a valid input item. On the other hand, if a 3D Seismic survey is dragged and dropped, it will still prompt you to select the horizon to grid.

Petrel DnD - Dragging 2D Seismic horizons now filters lines by the Petrel survey folder 72278

When a 2D seismic horizon is dragged and dropped into Petrosys PRO Mapping or Surface Modeling, it now creates a layer with the lines filtered by the appropriate 2D seismic survey folder.

Connections, Import and Export

Bug Fixes

Performance improved when filtering by Paradigm-Epos well DB 74029

Performance has been significantly improved when filtering Wells by Paradigm-Epos Well_DBs for Mapping/Display/Wells, Gridding Input data source and Wells exchange. Previously it could take over 1.5 hours to read 2000 wells, where as now it takes about 40 seconds.

Exchange 3D Seismic Surfaces no longer crashes if it cannot connect to the OpenWorks DevKit 73889

Exchange/3D Seismic Surfaces no longer crashes when OpenWorks is selected as the input data source and it fails to connect to the OpenWorks DevKit.

Exchange 3D seismic surface more tolerant of geometry differences ⁷³⁰⁰²

In 3D seismic exchange it is now supported for the case that input and output surveys do not match exactly, but the increment of inline/xline of one survey is multiple of the other survey's inline/xline increment and the two survey areas overlap.

Connections, Import and Export - Excel

Bug Fixes

Excel integer values with more than 10 digits are correctly saved ⁷³⁹¹⁴

Previously, in contexts where Excel files are written as spatial feature class data (for example Spatial Data Translator, Spatial Editor, Back Interpolate to GIS), Excel numeric values with a large number of digits could be written as blank.

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

Added support for Paradigm 18p1 Support Pack on Linux and Windows

73705

The Paradigm 18p1 Support Pack is now supported as a data source in all features that previously supported a Paradigm connection on both Linux and Windows.

Paradigm 15.5, Paradigm 17 and Paradigm 18 continue to be supported as data sources.

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

Petrel 2019.1 supported

70813

Petrosys connectivity to Schlumberger's Petrel now supports direct interaction with Petrel 2019.1.

Support for Petrel 2019.1 includes the ability to:

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

Petrosys PRO continues to maintain support for connections to Petrel 2015.x, 2016.x, 2017.x and 2018.x.

Petrel 2D seismic - Filtering by Seismic folder is now available in Mapping and Surface Modeling

72635

It is now possible to filter 2D seismic lines from Petrel using a Petrel seismic folder when displaying in Mapping or gridding in Surface Modeling.

Petrel DnD - Default item/layer names are now more descriptive for 2D and 3D horizons

72270

Drag-and-drop of 2D and 3D seismic horizons from Petrel into Petrosys PRO Mapping and Surface Modeling now gives more descriptive and distinct names to each item created, including whether the item is for 2D or 3D seismic, along with the 3D survey name and horizon.

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

[Bug Fixes](#)

Petrel 2D seismic - Import to SDF and dbMap filtering by Seismic folder now works

72669

The option to filter 2D seismic lines by Petrel folder now works when importing lines from Petrel into SDF (Import/Petrel/Seismic) or dbMap (Mapping/Admin/dbMap Data Transfer/Import/Seismic)

Previously the list of 2D seismic lines would remain empty when this option was used.

[dbMap - Client](#)

[Bug Fixes](#)

PPDM3.8 Well Checkshot Survey ID, Survey type and Source are now editable

72973

For dbMap PPDM3.8 clients, the well checkshot survey header dialog now supports editing the Survey ID, Survey type and Source. Previously these fields were read-only.

[Documentation - Online Help](#)

[Bug Fixes](#)

Print dialog launches correct help topic

73198

The print dialog has been attached to the relevant help topic.

[Mapping - Editors](#)

[Enhancements](#)

Well Symbol Generator - Added in 72 and 60 degree arc primitives

73977

The /Tools/Well Symbol Generator program has been updated to have 72 and 60 degree arc segment primitives.

[Mapping - Editors](#)

[Bug Fixes](#)

Spatial Editor reports correct polygon area when projected CRS for data does not have units of metres

74088

Previous versions had an issue where projected coordinates were always assumed to be in metres when reporting lengths and areas for shapes in the spatial editor.

Grid Editor requires confirmation when editing contours with ungridded changes

69379

The grid editor allows a sequence of editing, where a grid can be generated from contours, and then the contours generated from the grid can be selected to be used as the input contours for future edits. The grid editor now requires confirmation prior to updating the input contours if there are changes that have not been gridded.

/Display/Text has improved support for international character sets 31024

The /Display/Text option has improved support for international character sets. In most situations any international characters that are entered are preserved and displayed correctly.

Improved layer selection in the Display/Web Service Image/WMS layer selector 63253

The layer selector for the Display/Web Map Service/WMS option has been improved to allow layers can be selected from a hierarchy in addition to the existing select and re-order behaviour, which now shows the hierarchical layer name.

The selected layer in the Mapping display list is more obviously highlighted 52961

The current layer is shown using a darker colour to make it more obvious that it has been selected.

Display of contours from Petrel added 63443

Petrel contours can now be displayed in Mapping.

Map Templates - Handle Unicode chars correctly when serialised to dbm 72558

Map templates now better handle Unicode character sets for items in the legend and other elements. They are correctly saved and loaded via dbm files.

Drawing Tools/Closed Shape and Curve - Button double click is more reliable on linux 74051

In the 'Display/Drawing Tools/Closed Shape' and Curve options the double click required to end creation of the line is now more reliable on Linux.

Display/Location Map does not crash when enabled for a map with a LocalXY CRS 73557

It is not possible to show a location map for a map using a Local XY CRS as the extent cannot be shown in a wider context. In previous versions, enabling a location map for a map using a Local XY extent would cause a crash.

Display/GIS thematic mapping allows polygon outline lines to be turned off 20227

Display/GIS allows polygon outline to be turned of when setting a thematic polygon fill style. A limitation in previous versions caused the polygon outline to be displayed when just a fill style was desired.

Display/GIS correctly draws long lines that are close to the central meridian +180 degrees

71420

Petrosys PRO maps are drawn using a projected CRS, to flatten the spherical Earth to a rectangular. Several improvements have been made in Display/GIS to handle certain situations relating to the "wrapping" point of the projected CRS (the central meridian, plus or minus 180 degrees), including correctly handling cases where lines oscillate backwards and forwards across this boundary.

Display/GIS shows the correct number of decimal places for maps created prior to 2018.3

74002

In Petrosys PRO version 2018.3, the default number of decimal places for numeric attributes in Display/GIS was changed from 6 to 2. This change caused some maps created prior to this version to change to show 2 decimal places instead of 6. The correct number of decimal places will now be shown based on when the map was created.

Display/GIS/Thematic Mapping Series Range allows entries of bound between -1.0 and 0.0

72389

Previous versions would incorrectly disallow entry of a value for series range in Display/GIS thematic mapping that was less than 0.0 but greater than -1.0.

[Mapping - Grids, Surfaces and Sampled Data Files Enhancements](#)**Contour on-the-fly performance improved**

73436

Grid colorfill display contour on-the-fly performance is improved about 400% for the case there are many embedded faults or polygon in the Petrosys grid file or many faults are selected for the third-party grid.

Mapping - Grids, Surfaces and Sampled Data Files Bug Fixes**Display/Grid contour label size fields are updated correctly when the map scale changes**

64318

In previous versions, editing the contours displayed directly from a grid could result in the labels changing relative size.

Mapping - Map Sheets

Bug Fixes

Initial map grid line and annotation increments are set correctly for dynamic map extents

70453

In previous versions, when Mapping was started with a dynamic extent selected, the map grid lines and border annotation would be set from the data previously displayed, which would more than likely no longer be appropriate.

Map template scale field is editable for dynamic extent in "Fixed Scale" mode

69527

If the 'Fixed Scale' map template mode is selected, the scale for the map should be able to be explicitly set. In previous versions, this field was incorrectly read-only when a dynamic extent was enabled.

Display/Wells - Path Segments - Allow multiple segments in a single display layer 30474

Display well path has ability to select multiple path segments for display. This simplifies the display list greatly as only one well layer can be used rather than multiple well layers each with the same well data and different path segment.

Add support for reading zones from Petrel 24190

Added support for reading zones from Petrel projects.

Display/Wells/Path Segments - fixed logic when well intersects formation multiple times 53013

Changed the logic for displaying path well segments.

- When displaying well path segment from a selected formation to bottom-hole, the deepest measured depth formation is selected (previous versions would use the shallowest measured depth formation) if multiple formations present
- When displaying well path segment between formations, then the segment is drawn from the shallowest measured depth formation to the other shallowest measured depth formation (previous versions would use the other deepest measured depth formation) if multiple formations present

Mapping - Wells

Bug Fixes

Viewing WES plots and then panning, now re-enables the main menus on the mapping window correctly (Santos Only) 57793

When viewing WES plots in mapping, then panning around and exiting the WES plot viewer before exiting the panning action the main mapping window will now have its menu activity correctly restored.

Surface Modeling - Contouring

Bug Fixes

Replacement connection dialog is displayed when running Contour/Grid (by cell) task 47182

The connection panel pops up when running a contouring task with a third-party connection and the connection has not been established yet.

Surface Modeling - Exchange

Enhancements

Wells Exchanges now supports Log Curve data 43990

The new data type 'Log Curve' has been added to the Wells Exchange framework. As with all other data types, writing Log Curve data can only be done if both the input and output data sources support reading and writing of the data types, respectively.

Wells Exchange supports the reading of Log Curve data from the following data sources:

- OpenWorks
- Petrel
- IHS Kingdom
- Paradigm
- ODM
- DUG Insight

- Petrosys-dbMap (PPDM38 data model)
- LAS and DLIS files

And has the ability to write to:

- OpenWorks
- Petrel
- Petrosys-dbMap (PPDM38 data model)

The use of Log Curves from Petrosys-dbMap with third-party data sources, reads / writes metadata information about the Log Curves in the database, however the sample data is stored in external log files (LAS / DLIS), that are referenced through the Records Management system within the database.

In addition, Wells Exchange has a preview feature of cataloguing LAS and / or DLIS files into a Petrosys-dbMap (PPDM38 data model) database. Information about the files are entered into the Records Management system and files contents metadata is associated to appropriate Wells in the database. This feature will allow data managers to load their Log Curve files and content metadata into dbMap and utilise the power of dbMap/Web to view, and manage the Log Curve metadata through the Web. With the recent introduction of the new Well Log Viewer in dbMap/Web, users will also be able to visualise the Log Curve sample data in the same browser session.

To use this preview feature a user only needs to choose the File based input within Wells Exchange and select their Petrosys-dbMap (PPDM38 data model) database as the output data source and like above for third-party data source the 'Log Curve' data type will become available for selection.

Exchange/Wells Import Wizard menu has been renamed to Exchange/Wells

46621

For menu naming consistency, the existing Exchange/Wells Import Wizard menu items have been renamed to Exchange/Wells.

Surface Modeling - Exchange

Bug Fixes

Wells Exchange - Fixed an issue with not being able to set formation system values for selected items

72771

A bug has been fixed that was causing the use of the formation mapping list RMB menu option for setting the output formation group to not allow a user to specify a new name by typing in text to the field rather than selecting an existing system using the + button.

Surface Modeling - General

Enhancements

Mean and median grid filter added

15476

Mean and Median grid filtering functionality is now available in Surface Modeling through menu item Grid/Processes/Filtering.

Lowest closing contour now supports sealing faults that are not closed

72080

Unclosed sealing faults are now supported in LCC.

Surface Modeling - Gridding

Enhancements

Grid outlining performance improved

73544

Grid outlining performance is improved for extremely big grids.

Boundary gridding displays error message when not valid data

73488

An error message pops up when boundary gridding fails as a result of not having valid data.

Grid/Create grid allows users to select input point data type (point or line) for GIP, text and Excel data

72382

The gridding of point data from sampled data, text or Excel files offers control over how the input data should be treated for grid estimation process - either as point or line data. The user can set Automatic to have the data processed the same way as in previous versions.

Surface Modeling - Gridding

Bug Fixes

Grid/Create Grid from shapefile using formula no longer requests attribute to grid

72870

Gridding from shapefile and using FORMULA works correctly without setting up the attribute to grid.

Improved sizing of fault polygons list in gridding

55555

The fault polygons list is now sized dynamically when the dialog is resized.

Grid input data summary dialog now links to appropriate help topic

73368

The input data summary dialog now links to the help topic "Gridding - Create Grid" rather than the "Welcome to Petrosys PRO" page.

Grid smoothing now runs when selected after Kriging

73136

The selected smoothing is applied to output grid when Kriging is used.

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

Use polygons with holes in volumetrics

72397

Volumetrics supports polygons with holes. This will benefit greatly to the lowest closing contour functionality where such polygons are often generated.

Surface Modeling - Volumetrics

Bug Fixes

Volumetrics thickness reports no longer shows negative thickness

72102

Volumetrics thickness report does not report negative thickness even though the grid z values are negative for better and more precise volume calculations.

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

Pause functionality added to Surface Modeling workflows

30618

Added support for pause workflow functionality. This allows the user to perform some operation outside of the workflow (e.g. to edit generated data, or execute some external operation) and then resume the workflow.

Tools/DrawMap scripting now insensitive to template dbm layer order

68862

Surface Modeling Tools/DrawMap tasks no longer rely on the layer order of the template dbm file. I.e. changing the layer order in the template dbm file does not affect the Tools/DrawMap task which still generates the correct result.