PETROSYS SOFTWARE RELEASE NOTES VERSION 17

| **17.3sp8**	**August 2013**

Create, manage and share content faster and with more flexibility using Petrosys 17.3. An incremental release - which can be installed side by side with Petrosys 17.2 - Petrosys 17.3 adds a range of new options while making refinements to existing functionality.

Further information on many of the new features available in Petrosys 17.3 can be found on the Petrosys YouTube page.

Added Support For Text and Excel Data. All of It.

Text files and Excel spreadsheets are now fully supported as data sources for point, line and polygon data on both Windows and Linux. Data stored in almost any text based file or Excel spreadsheet can be displayed directly in Mapping using the GIS display options, used as a data source in Surface Modeling or imported using the Petrosys Spatial Data Translator and other data management applications.
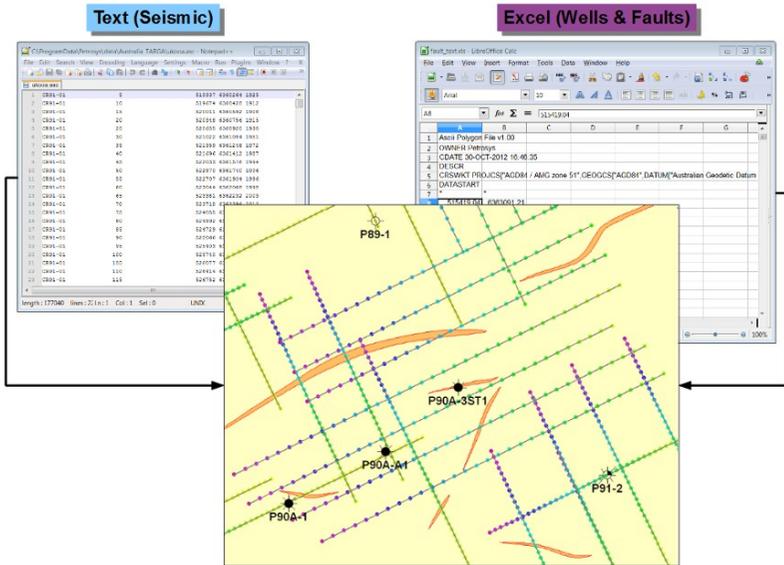
Loading text and Excel data has also never been easier, thanks to improvements in automatic format definition. Text files are now loaded automatically into Petrosys, making short work of an often tedious process, and putting the focus back on using and sharing data; not getting it loaded.

Manual format definition is also now far more accessible than in previous versions. Column labelling and mapping can now be achieved interactively, using the raw text data as a guide, and additional format definition options allow the structure of line and polygon data to be explicitly specified, using either a segment ID or separator.
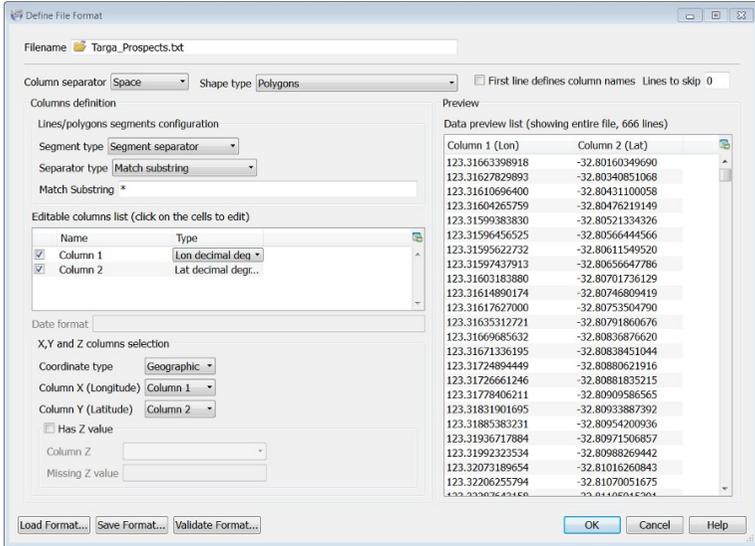
The improved format definition panel, with added options for defining segment information present in line and polygon data

Excel spreadsheets are also now fully supported by the format definition interface, making It possible to read data from a specific sheet and extract values calculated from a formula.

Finally, creating, saving and loading file formats can now be accomplished directly from wherever the file is loaded, and all new validation options mean that troubleshooting problematic formats is made far easier, saving time and frustration. Associating each text file or Excel spreadsheet with a validated format will ensure that incorrectly loaded data is a thing of the past.

Official Support for Windows 8

To ensure ongoing access to your business critical applications, no matter what your upgrade cycle, Petrosys v17.3 adds official support for the Windows 8 operating system. Windows 8 support is in addition to the existing support for Windows XP, Windows Vista and Windows 7.

Share Maps With More Flexibility Using Layered Geospatial PDFs

Petrosys maps can now be exported to Geospatial PDF files, allowing complex and interactive maps to be shared with nearly anyone at the click of a button. This powerful new output option allows all the geospatial and layering information from Mapping to be included in a portable, widely accepted file format: small enough to be attached to an email, but detailed enough to do justice to even the most intricate of map compositions.
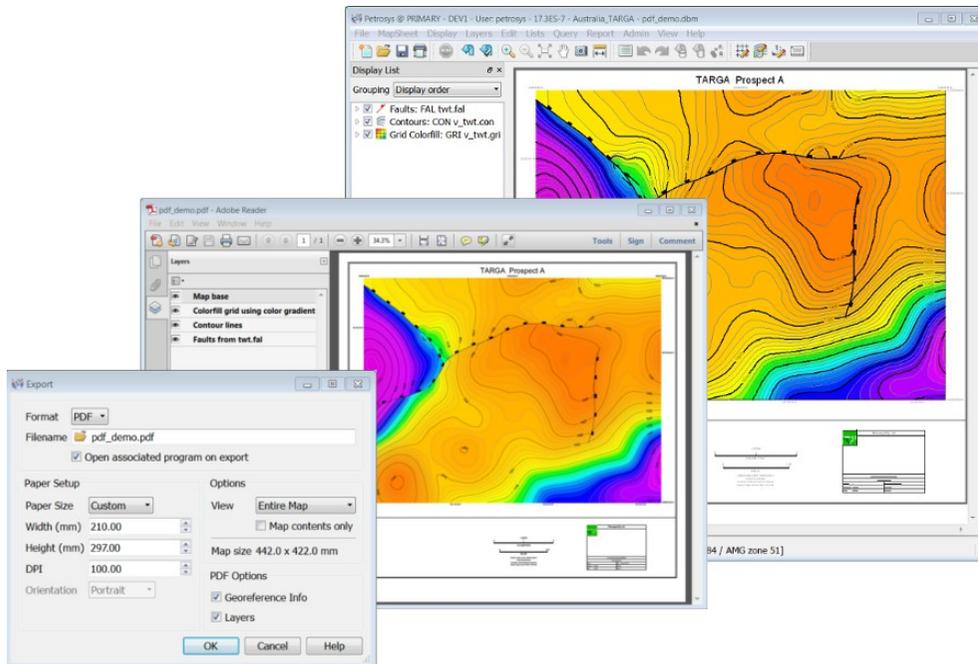

PDF export options, available by selecting /File/Export/PDF... from the main menu of the Mapping application, allow full control over the size, resolution and content of the output PDF. As well as including georeferencing and layering information, it is possible to export a map with or without the associated map sheet, or create a PDF using the current view of the Mapping Canvas.

Raster output options have also been streamlined, and allow for a similar degree of customisation to those present in the PDF export options, making sharing maps faster and simpler than ever before.

Improved Support For Cartographic Map Elements

North arrows, scale bars and title blocks can now be added to maps and configured as individual display layers. Graphics, annotations and display properties can be defined independently for each layer, and with improved flexibility to control their appearance, making the use of these custom map elements more straightforward and easily accessible.
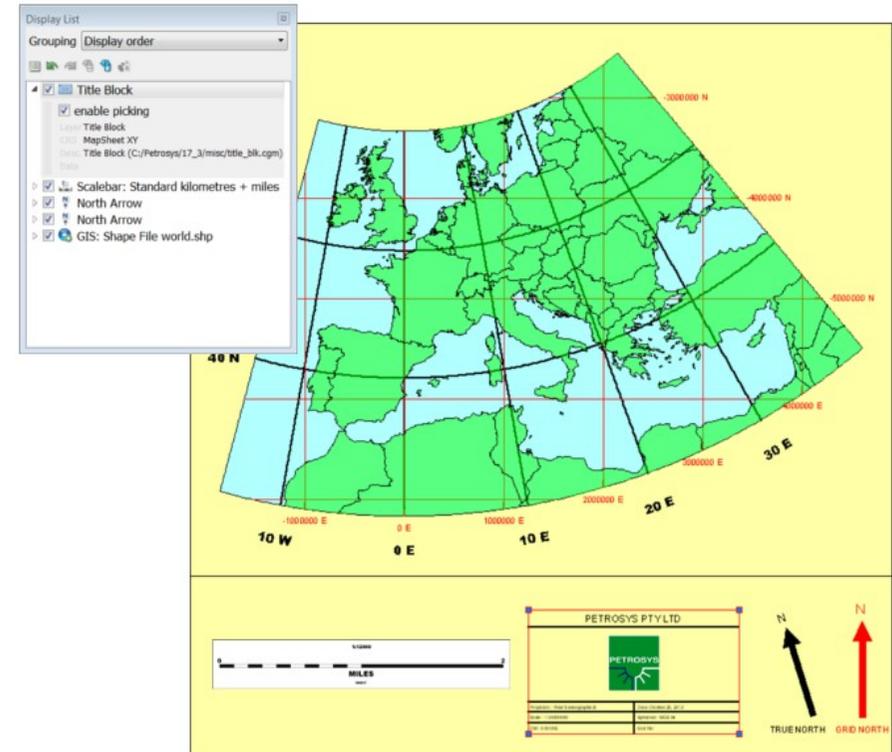

Petrosys ships with a number of pre-defined north arrows for your use. However, north arrows can be represented by images in a range of popular formats, meaning the choice of north arrow is limited only by your imagination. All north arrows can be directed towards grid north, geographical north or a custom magnetic declination.

Scale bars are now fully customisable, making it possible to configure up to three independent scales, with varying units, intervals, annotations and visual elements. Scale bars for the most detailed of features, or the entire world, are easily produced with a few mouse clicks and of course if one scale bar isn't enough, you can display as many scale bars as required.

Title blocks can now be configured independently of the map sheet, and displayed in multiple variations. Support for embedded title blocks has also been improved, allowing the title bar of the map sheet to be set up independently of the title block.

Dynamic map properties - including the map name, CRS and other properties - can now be inserted as annotations, without the need for complicated run time text substitution. These properties are tied to the state of the map, and will be updated automatically each time the map is changed, removing the need for constant, time consuming updates.
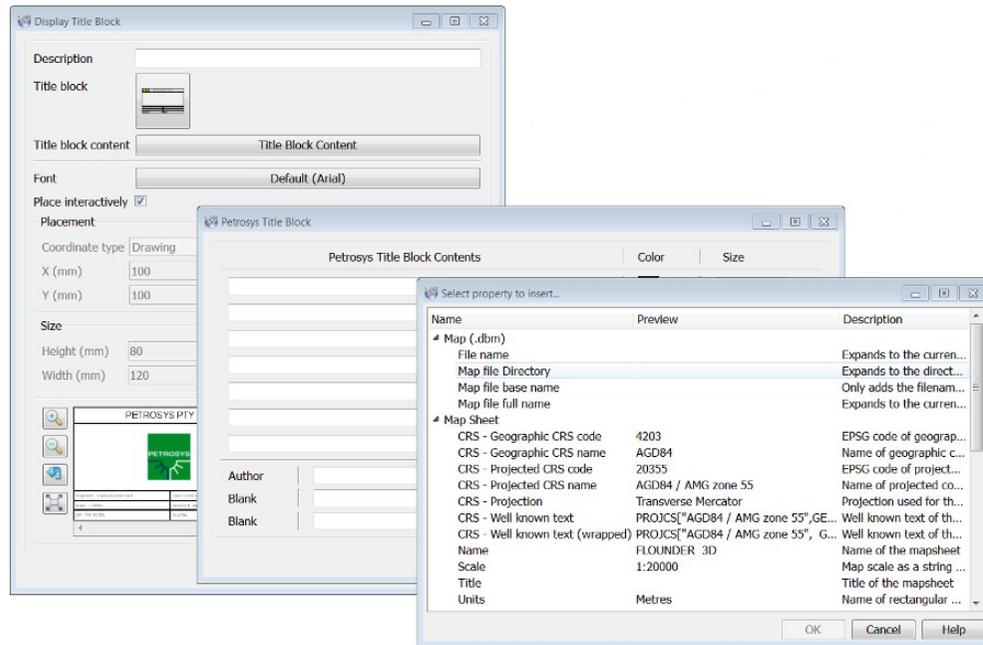
Title block, north arrow and scale bar graphics are now configured interactively, using a custom graphics selector. Images from all major formats are supported - including JPEG, TIFF, PNG and CGM - and project and site wide collections can be set up using directories in the required area of the file system.

Added Support For GeoFrame 2012

GeoFrame 2012 is now fully supported as a data source in all GeoFrame enabled Petrosys applications. Petrosys continues to maintain support for previous iterations of GeoFrame, including versions 4.4 and 4.5.

Added Support For IHS Petra 4.0

Petrosys now supports the latest version of IHS Petra - 4.0 - which can be used in addition to IHS Petra 3. Petrosys supports Petra 4.0 as a data source under all the same options as Petra 3 data, including display options in 3D Viewer and Mapping, and input data options in Surface Modeling.

Added Support For Petrel 2013.1

Petrel 2013.1 is now fully supported as a data source in all Petrel enabled Petrosys applications. Petrosys continues to maintain support for previous versions of Petrel, including 2010.1, 2010.2 and all versions of 2011 and 2012 (64 bit).

Overpost Correction and Gradients For GIS

Making easily understood maps is even simpler now, with the addition of overpost correction of attribute labels for all GIS data sources available under Mapping's Display/GIS menu. The location of all labels can be controlled using Petrosys' familiar overpost correction mode, enabling precise control over their position and orientation, to best communicate your map concepts.
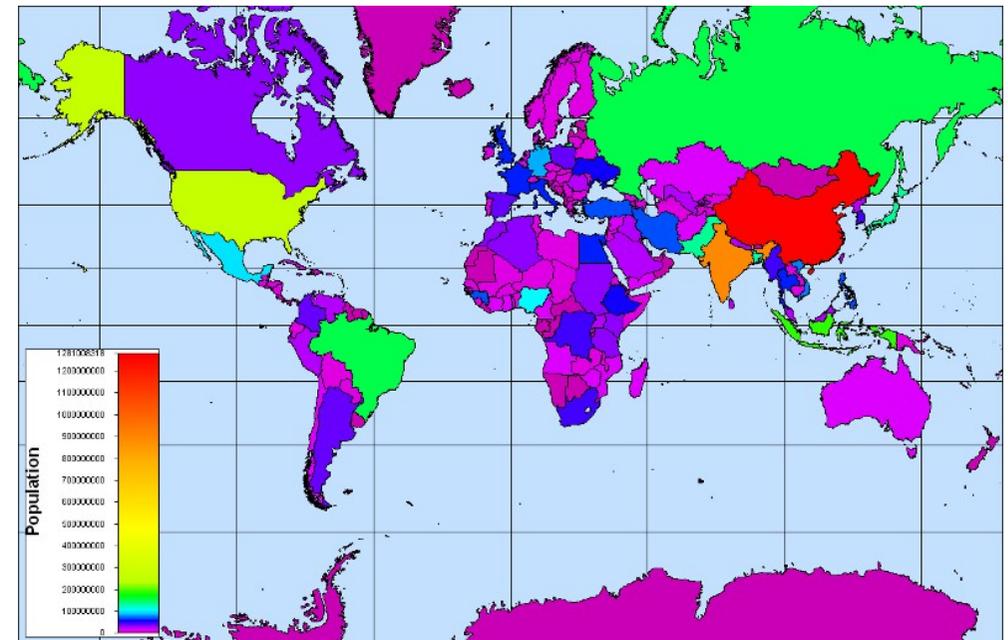
GIS layers can also be thematically mapped using a color gradient, giving a simple way of visualising continuous data ranges. You can let Petrosys apply the gradient to the data range, or use Petrosys to scan the data to give you guidance on a suitable minimum and maximum. Teamed with the newly added text and Excel support, thematically mapped gradient data allows data from many sources to be tied into a consistent and coherent map.

Raster Sun Shaded Grids

Sun-shaded grids can now be displayed using the raster display method for color or inverted color schemes. This enables the display to be drawn much faster and with more detail that using the alternate rectangles method. This improvement will particularly interest users building bathymetry/terrain maps with photo-realistic sun-shading needs.

FaultRisk™ Integration

As part of a new partnership between Petrosys and FaultSeal, the Petrosys application suite has now been integrated with FaultRisk, a fault analysis and profiling tool which provides a direct and simplified workflow capable of transforming leads into fully promotable prospects.
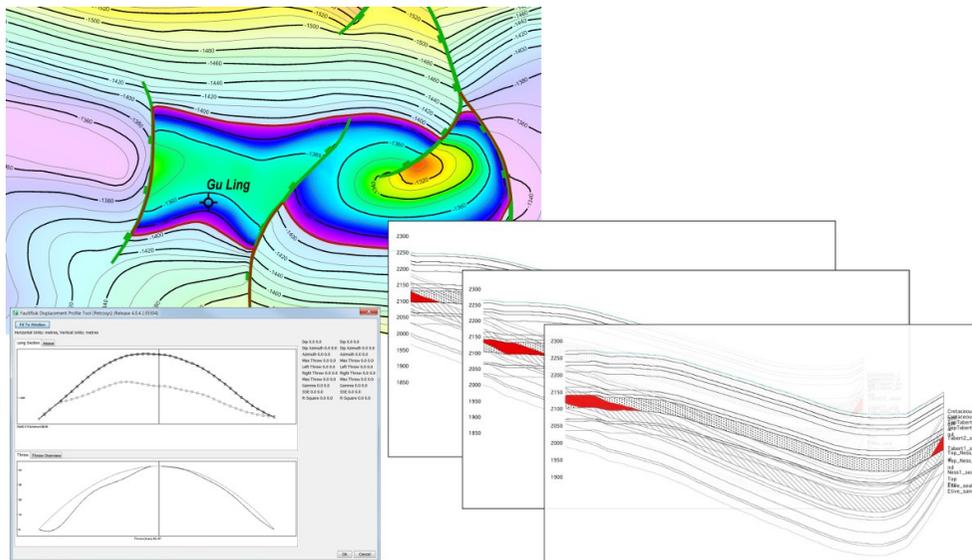
FaultRisk provides a fast and direct means of assessing the viability of prospective fault based reservoirs, and can now be launched directly from the Petrosys Mapping application.

The FaultRisk displacement Profile tool can be launched directly from the Petrosys map canvas, and can be used to assess and improve the displacement characteristics of fault polygons, the vertical and horizontal geometry of which are often imprecisely defined when interpreted from seismic data. Modified faults can then be returned to a Petrosys fault file, for further use in Petrosys applications. This easy to use tool significantly improves the geological quality of mapped fault polygons, allowing more precise placement of wells on fault bounded reservoirs.

The FaultRisk application, which can be launched from a suitably configured Petrosys launcher, can be used to analyze the sensitivity of a potential reservoir sequence to possible value ranges for a variety of geometrical and geological parameters associated with a fault. FaultRisk uses Monte Carlo techniques to create likely distributions for hydrocarbon bearing columns around faults, with probabilities assigned to the likelihood of traps being controlled by the range of potential fault juxtapositions. Probabilities can then be displayed in Allan diagrams for various levels of confidence.

By analyzing the fault dependency of a field, taking into account possible variations in geometry and seal characteristics, management are provided with a quantified assessment of the risk associated with a given geological scenario, allowing more confident planning of investments from license bidding through to field re-working.

As the leading independent mapping software supplier to the oil and gas E&P industry, we understand the challenges that geoscientists face in reducing uncertainty. We are proud to be working with FaultSeal to deliver their exclusive technology to the industry. FaultRisk will help us to enhance our clients' existing workflows in the growing number of commercial energy opportunities that are sensitive to fault geometry and seal. Petrosys provides public and customized on-site training programs for FaultRisk and the Petrosys FaultRisk integration, to ensure that clients are utilising the technology to the fullest and fostering confident mapping professionals, while also providing FaultRisk support via existing Petrosys support channels. FaultSeal's team of experts are happy to be backing the acclaimed global Petrosys support team.

Customise, Filter and Export List Data

Lists and tables throughout Petrosys can now be filtered using a much wider array of rules and conditions.

Filter rules can be defined interactively, or directly using text based input of supported logical and mathematical operators. After being defined, filters can be saved to an external file and re-applied to any of the lists throughout the software.

New filtering options available in all lists throughout the software after right click and selecting "Filter".

List data can now also be exported to either a text or Excel file, in both Windows and Linux, simply by right clicking a list and selecting the required option. Coupled with the improvements to text and Excel data support in other parts of the software, this means that sharing data is now far more versatile than in previous versions.

Directly Connect to SeisWare SQL Server Projects

Petrosys' direct connects technology now allows you to directly connect to your SQL Server based SeisWare projects with no pre-configuration necessary. Simply select your SeisWare project and Petrosys does the rest. This builds on the previously available run time connection to Microsoft Access based SeisWare projects, ensuring you have easy access to all your SeisWare projects, no matter which database you choose.

Simplified Exchange of Stacking Velocities

Stacking velocities can now be imported from text files more efficiently, and with less hassle, thanks to automatic format definition for a wider range of text file formats - including Western 2D / 3D and Promax - and the inclusion of on the fly data compression.
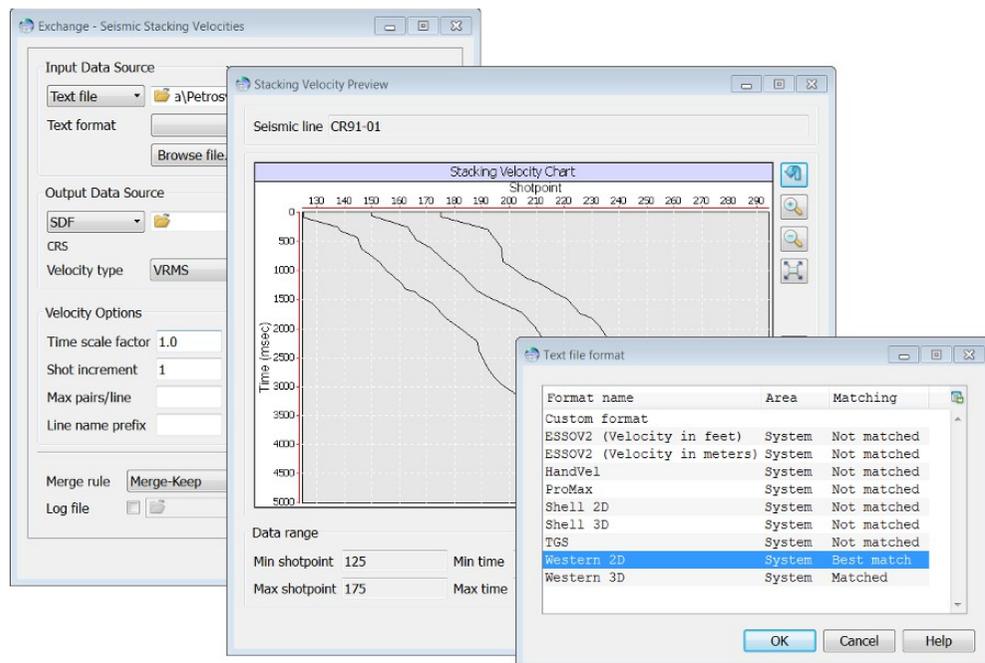
Improvements to custom format definition means refining automatically detected formats has been simplified considerably, and even in the event that a stacking velocity text file is not recognised, the Petrosys global support team is on hand to help define a format to suit your data.

Set Gridding AOI Using Third Party Survey Outlines

The area of interest used by Petrosys Gridding can now be specified using a survey outline from a supported third party data source.

This vastly simplifies the work required to model 3D seismic surveys stored in third party data sources, while adding an additional layer of depth to the capabilities of the Surface Modeling application.

Report Misties in Well Tie and Phantom Gridding

Mistie reports can now be generated by both the Well Tie and Phantom options in Surface Modeling. The report states the difference between the input point data and Z values of the grid to which they are being tied, adding a crucial extra layer to the refinement and quality control of surfaces.
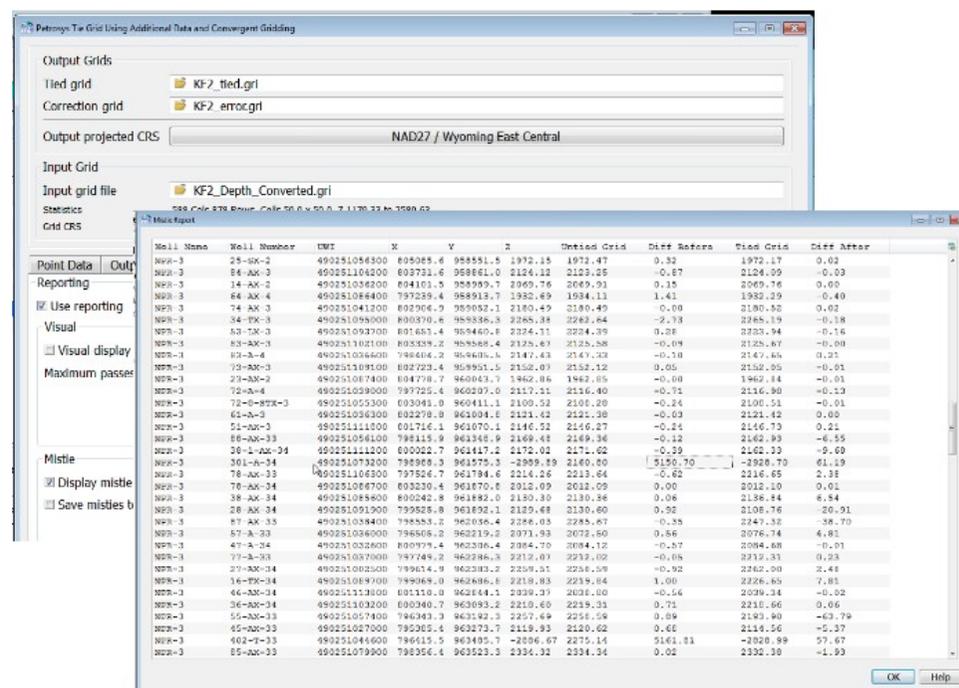
The new mistie reporting options can be accessed from under the "Mistie" heading in the "Reporting tab" in either the Well Tie or Phantom gridding options.

Projected GeoGraphix

Petrosys data connectivity support for GeoGraphix projects has been extended to cover GeoGraphix projects using

projected coordinate systems, complementing the existing geographic coordinate system support. With Petrosys' on-the-fly coordinate transformation engine, using your GeoGraphix data is as easy as a few clicks, no matter what CRS you prefer.

EPOS, Petrel, Kingdom, Landmark Tops Import to dbMap/PPDM now enabled

In Petrosys v17.3sp2 the popular Wells Import Wizard' has been extended to allow a wide range of 3rd party sourced interpreted formation tops to be uploaded into corporate dbMap / PPDM repositories.
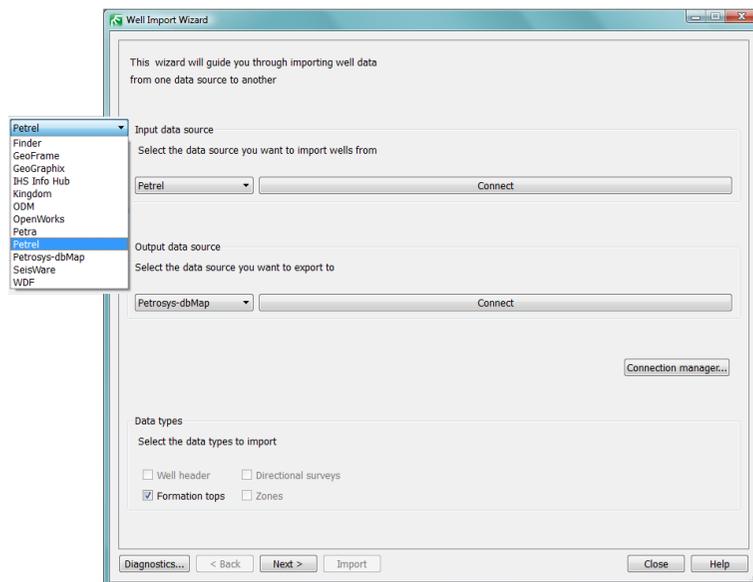
Data sources from which well data can be extracted include Finder, GeoFrame, Geographix, IHS Well Data, ODM, OpenWorks, Paradigm-Epos, Petra, Petrel, Petrosys dbMap, Kingdom, SeisWare and a Petrosys Well Data File (WDF).

The formation top data can then be imported to either a WDF or a Petrosys dbMap/PPDM database. The option can be accessed using the main Petrosys Launcher Import or Exchange menus.

Major Improvements to ODM Connectivity

Direct connectivity with Senergy ODM has been upgraded to support version 3.7+. Direct connectivity to ODM now comprehensively enables users to produce top quality maps and surfaces using Petrosys, while integrating this information with other geoscience and GIS applications without physically having to export any data.
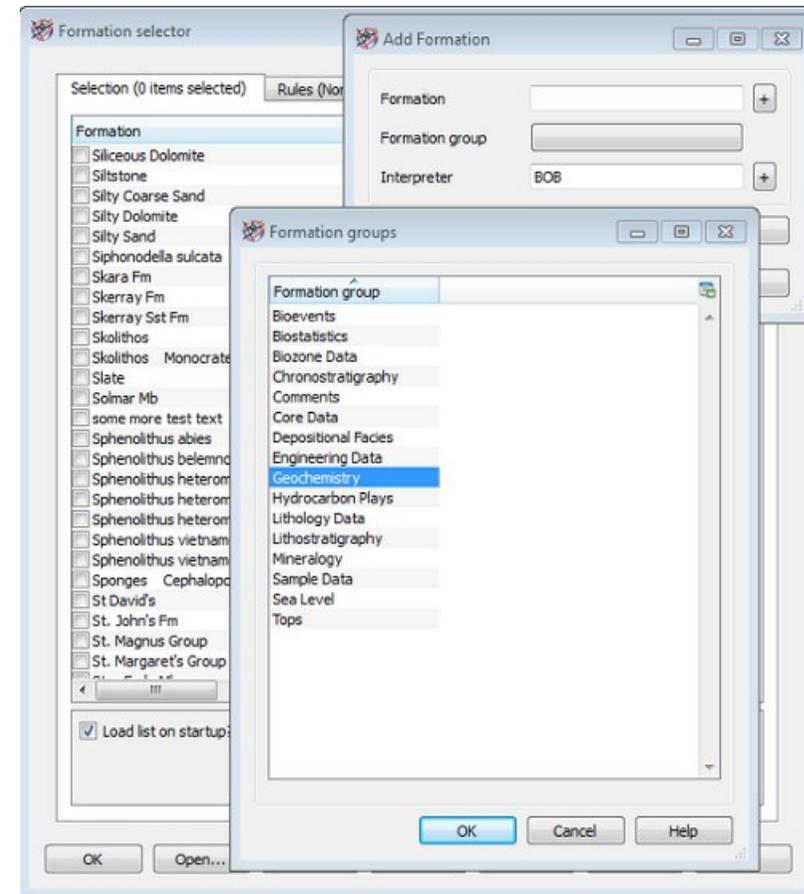
It is now possible to use custom formation tops and filter formation by interpreter, increasing the flexibility of ODM direct connectivity.

In addition to a range of bug fixes, client requested enhancements and usability improvements (see the detailed release notes for more information) it is now possible to use custom formation tops from ODM via the Petrosys interface. Filtering options have also been improved - with formation tops now able to be filtered by interpreter - making it much easier to find and work with data from ODM projects.

Grid Distance Clipping Improvements

New "Distance Clipping" options in Petrosys Gridding can be used to more accurately clip data to pre-defined regions around the input data points. The speed of distance clipping is also greatly improved, significantly reducing the time required to produce a grid.
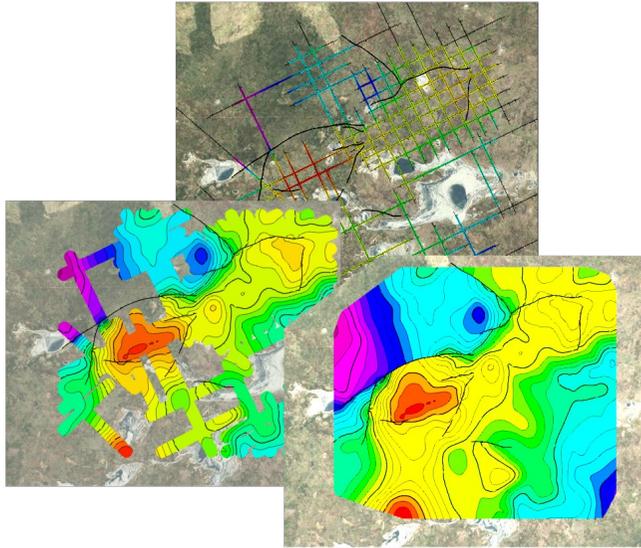
Original seismic data (top), grid clipped to circular regions around input data points (left) and clipped using a data envelope (right).

Grids can be clipped to circular or square regions occupying a specified distance from each input data point. Alternatively, grids can now be clipped to within a specified distance of a data envelope (or convex hull) - which is the shape that would be formed by a rubber band around the input data points.

Volume Certainty

Volumetrics reports have been enhanced to include the input parameters used to calculate the volume scaling factor. This allows easy access to the volume for auditing and traceability purposes. In addition, Surface Modeling now includes bbls as a standard unit for volumes, eliminating an extra conversion step when reporting volumes.

Project Selector Improvements

Petrosys projects can now be given a name that is independent of the project directory, allowing project directories with similar names to be easily distinguished.

Permission assignment in the Project Selector has been overhauled, allowing specific permissions to be added or removed from user groups, along with the ability to create site specific user groups. Group assignment has also been simplified, with a clearer distinction between project and user groups.

Support has also been added for custom columns, which can be used to display arbitrary information associated with projects.

Better Value Licenses

Petrosys 17.3 increases the value of your current third-party interpretation system connection licenses by eliminating the separate Petrosys-Petrel plugin license. This means connectivity to all your interpretation systems are under a single license, no matter which systems you choose to use.

Alongside this change, Petrosys 17.3 will require an updated license file. Petrosys support will ensure that you receive your updated license when Petrosys 17.3 is delivered.

Improved Performance

Petrosys knows that not everyone has access to the latest computer hardware. So while the features of Petrosys are constantly being improved, you can rest assured that performance remains a focus. In Petrosys 17.3 there are a number of changes that make Petrosys run faster, ranging from start time speed ups, through surface modeling performance boosts, to better mapping interactions. In some cases the improvements have been over 10 times - meaning you can focus on getting your job done, not waiting for your computer.

Enhancements

Petrosys release 17_3_8 [1 entries]

Connections, import and export

38101   Added Support for Petrel 2013

Bug Fixes

Petrosys release 17_3_8 [6 entries]

3D Viewer

39100   Fixed incorrect prompt for database connection when displaying a Kingdom
surface

Client specific

40941   Correct formation list now shown when adding new formation tops for Reference
Wells - Santos only

General

34460   WMS servers containing layers with duplicate titles now handled correctly by
Display/Raster/WMS

General - User interface

41017   Fixed incorrect handling of long path names by the Location field in Advanced
time series

Mapping

40827   Restored ability to toggle display of shape border in Display/GIS

Surface Modeling/Volumetrics

41098   Warning added when volumetric net/gross parameter greater than 1.0

Detailed Release Notes

Petrosys release 17_3_8 [7 entries]

3D Viewer Bug Fixes

Fixed incorrect prompt for database connection when displaying a Kingdom surface
39100

Kingdom surfaces are now correctly retrieved by 3D Viewer. Previously, when attempting to display a surface from a Kingdom data source, a spurious dbMap connection dialog was displayed.

Client specific Bug Fixes

Correct formation list now shown when adding new formation tops for Reference Wells - Santos only
40941

When adding formation tops to a Reference Well, the user will now see the correct list of available formations based on the Source and System being edited.

Connections, import and export   Enhancements

Added Support for Petrel 2013
38101

Petrosys connectivity to Schlumberger's Petrel now supports direct interaction with Petrel 2013.1 (64-bit).

Support for Petrel 2013.1 includes the ability to:

➢ 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 Model grid horizons, Input surface grids and 3D seismic interpretation horizons in Mapping

➢ Directly contour 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

➢ Export Petrosys and other third party grids to Petrel

Petrosys continues to maintain support for connections to Petrel 2010.1, 2010.2, 2011.x, 2012.x (64bit).

General Bug Fixes

WMS servers containing layers with duplicate titles now handled correctly by Display/Raster/WMS
34460

Layers from a WMS server are made available for selection in Petrosys using the title stored in the layer meta-data. If multiple layers are stored using the same title, only one instance of the identically titled layers would be made available for selection. This was causing unpredictable behaviour when attempting to select layers and, in some cases, prevented layers from being selected completely. This has been fixed by assigning a unique number to each layer with an identical title.

General - User interface   Bug Fixes

Fixed incorrect handling of long path names by the Location field in Advanced time series
41017

A bug in the "Location" field in the Advanced time series panel was causing path names longer than 132 characters to be shortened. This has now been fixed.

Mapping   Bug Fixes

Restored ability to toggle display of shape border in Display/GIS
40827

It is now possible to toggle the display of the "border" of shapes displayed in Mapping using /Display/GIS. The border refers to the line depicting the outer boundary of a shape.

Surface Modeling/Volumetrics   Bug Fixes

Warning added when volumetric net/gross parameter greater than 1.0
41098

A warning is now displayed when the net/gross ratio is set to a number larger than 1.0. The user then has the choice to continue with this value or to return to the volumetric parameter dialog and change it. This applies to both Grid Based and Grid Based Slices volumetrics.

Enhancements

Petrosys release 17_3_7 [3 entries]

Client specific

40369   Added the ability to filter by Reference Well to the "Using form" dialog - Santos
             only

Graphics/Plotting and Hardcopy

26057   ZGF 80 character filename limit increased

Surface Modeling

33822   Added ability to re-scan data used to define grid geometry upon task execution

Bug Fixes

Petrosys release 17_3_7 [15 entries]

3D Viewer

40716   Addressed a case where directional surveys were being displayed in the wrong location

Client specific

40299   "Current status" field in the well header screen is now updated correctly - Chevron only

40689   Adding new formations now displays the correct depth units on the dialog - Santos Only

40688   Fixed a crash which occured after clicking Remove while editing an empty list of well formations - Santos only

40698   Restricted edit rights for formation tops associated with Reference Wells - Santos Only

Connections, import and export

40171   Grids exported to Paradigm Epos4.1 now have correct Z Data Type set

Mapping

37573   2D Seismic shotpoint symbol size allows values less than 0.5mm to be entered

38713   Adding a new line character to a layer description no longer produces a corrupt DBM file

38116   Displaying wells from an SQL server now handles user defined queries correctly

40136   Fixed data selection using form parameters or user defined queries for ODM wells

Project Selector

40516   Updated MiddleEast-Yemen project template thumbnail image

Surface Modeling

40361   Contour based volumetrics now correctly produces volumes in ACRES or ACRE-FEET

39553   Grid geometry generated from data with rotated coordinates now covers the full area defined by the specified data source

39930   Improved support for non-English characters in connection names

24328   Improvements to geometry definition in various grid creation and processing options

Detailed Release Notes

Petrosys release 17_3_7 [18 entries]

3D Viewer — Bug Fixes

Addressed a case where directional surveys were being displayed in the wrong location
40716

An issue has been addressed where, in some cases, the well paths computed from directional survey data were being displayed in the wrong location by 3D Viewer, which could offset the path of the well relative to other data, such as grids and seismic surfaces. Well paths are now displayed in the correct location by 3D Viewer in these cases.

Client specific — Enhancements

Added the ability to filter by Reference Well to the "Using form" dialog - Santos only
40369

The "Using form..." option can now be used to used to select Reference Wells, by enabling the "Reference Well?" option. A well is considered a reference well if it has formation tops listed in Source:Strat Services in the same two formation systems.

Client specific — Bug Fixes

"Current status" field in the well header screen is now updated correctly - Chevron only
40299

The current status of a well is now displayed correctly on the corresponding well header screen. Previously, only the "Status" tab was displaying this information correctly.

Adding new formations now displays the correct depth units on the dialog - Santos Only
40689

When adding new well formations, the dialog now correctly displays the units of the well having formations added to, rather than the previous unit that was saved to panels.pnd.

Fixed a crash which occured after clicking Remove while editing an empty list of well formations - Santos only
40688

A crash has been fixed, which occured after clicking the "Remove" button while editing an empty list of well formations.

Restricted edit rights for formation tops associated with Reference Wells - Santos Only
40698

Edit rights for formation tops associated with Reference Wells from Source:Santos in the Lithostrat and Chronostrat systems have now been restricted. A well is considered a reference well if it has formation tops listed in Source:Strat Services in the same two formation systems. Formation tops which aren't associated with Reference Wells will not be affected by this change.

Connections, import and export   Bug Fixes

Grids exported to Paradigm Epos4.1 now have correct Z Data Type set
40171

The Z data type associated with grids exported to Paradigm Epos4.1 will now be set correctly. Previously, the wrong value was being used, which prevented users from creating contours of exported surfaces in BaseMap.

Note that if the Overwrite Mode is set to "Replace" additional grids may be created due to the changed Z data type. Old grid data using the incorrect Z data type should be removed once the newer grids have been written.

Graphics/Plotting and Hardcopy   Enhancements

ZGF 80 character filename limit increased
26057

The previous Zycor ZGF output filename length limit of 80 characters has been increased to 256 characters.

Mapping   Bug Fixes

2D Seismic shotpoint symbol size allows values less than 0.5mm to be entered
37573

When displaying 2D seismic data in Mapping, it is now possible to use values less than 0.5mm for the shot point symbol size. In previous versions (from 17.0 onwards) the shot point symbol size was restricted to values greater than 0.5mm.

Adding a new line character to a layer description no longer produces a corrupt DBM file
38713

Saving a display list with a "return" character (a new line) in the "Description" field of one or more layers will no longer produce a corrupt DBM file.

Displaying wells from an SQL server now handles user defined queries correctly
38116

All user-defined queries will now be retrieved when displaying Well data from an SQL server. Previously, in some cases user-defined queries would not be retrieved, even if they did exist in the current database.

Fixed data selection using form parameters or user defined queries for ODM wells
40136

An issue has been fixed which prevented data selections made using form parameters or user defined queries from being applied correctly. If a selection was made using either of these methods, then saved, the resulting selection file would not honor the selection made using the form/query. This issue was introduced in 17.3.6.

Project Selector   Bug Fixes

Updated MiddleEast-Yemen project template thumbnail image
40516

The thumbnail image for the MiddleEast-Yemen template has been updated to better reflect the project template.

Surface Modeling   Enhancements

Added ability to re-scan data used to define grid geometry upon task execution
33822

When using a data source to define the extent of a grid, it is now possible to re-scan the specified data when the task used to create the grid is executed in Surface Modeling. If the data source used to define the grid geometry is changed prior to the task being run, the grid extent will be updated automatically to accommodate the changes.

This functionality is optional, and can be enabled by activating the "Rescan data during task execution" option under the "Output Geometry" section of grid creation. The option is only available when using "Data" to define the geometry of the output grid.

Surface Modeling   Bug Fixes

Contour based volumetrics now correctly produces volumes in ACRES or ACRE-FEET
40361

Volumes created by the contour based volumetrics option in units of either "ACRES" or "ACRE FEET" are now computed correctly. Previously, these units of measure were actually calculated in "SQ-METRES" or "CUBIC-METRES", then incorrectly labelled as "ACRES" and "ACRE-FEET" respectively. This problem was introduced in the 17.3.0 release of Petrosys.

Grid geometry generated from data with rotated coordinates now covers the full area defined by the specified data source
39553

When using data with rotated coordinates to define the extent of a grid, the output grid now covers the full extent of the area defined by the input data. Previously, rotation values would incorrectly be applied to the output grid after the origin and extent were calculated from the selected data, meaning a portion of the grid would be removed from the area of interest. A rotation value of zero is now automatically used wherever grid geometry is defined by a data source.

Improved support for non-English characters in connection names
39930

Connections using non-English characters are now displayed correctly when adding data to a gridding task. This applies to the list of data sources available under the "Input Data" tab in the Grid creation panel and under "Data Source Selection" in the "Select Input Data to Grid" panel. Previously, these characters were not displayed correctly by the application, even if the name stored in the panels.pnd file was accurate.

Improvements to geometry definition in various grid creation and processing options 24328

Geometry definition in Petrosys Grid Re-sampling (/Grid/Processes/Resample...), Creating a distance grid from lines in a culture file (/Grid/Distance Grid/Lines...) and Grid merging via the Blend and Regrid options (/Grid/Merge/Blend and /Grid/Merge/Regrid) has been updated to take advantage of improvements which have been made in recent releases:

➢ The origin and extent of the output grid should now be set correctly when defining a geometry using a data set with a different CRS to the output grid.

➢ Changing the origin, extent or rotation of the output grid will now automatically re-set the "input type" to "Manual".

➢ Changing the "buffer" value now correctly updates the AOI, origin and extent values.

➢ When using the "Data" option (if available), clicking the "Scan" button now re-sets the the rotation to zero.

Enhancements

Petrosys release 17_3_6 [15 entries]

Client specific

39853   List of available GeoFrame projects now uses case insensitive comparison of username - Saudi Aramco only

Connections, import and export

35586   Added support for non-english Petrel project names

37852   KTI (Kelman) has been renamed to KDM (Katalyst Data Management)

37336   Performance improved when reading 2D seismic lines from SeisWorks dispatch connections

39805   Session enabled connection information used by the Wells Import Wizard

39804   Session enabled database connections established during SDF import

38676   Support for ODM 3.7+ added

37711   Wells Import Wizard now loads more well information when importing from ODM to WDF

dbMap

23849   Added support for importing base depths associated with formation tops from ODM

23356   Added support for multiple coordinate reference systems stored in a single ODM project

37961   Added support for new ODM directional survey format

38482   Added support for Oracle spatial data using a projected CRS

37133   Improved support for ODM formation tops

27803   ODM formation tops can now be filtered by interpreter

21152   ODM lithostrat formation tops can now be imported to WDF

Bug Fixes

Petrosys release 17_3_6 [9 entries]

3D Viewer

24409   ODM vertical well paths now supported by 3D Viewer

Connections, import and export

21792   Fixed well selection using form in the ODM wells edit list

39819   GeoFrame grids with negative row/column increments are now displayed in the correct location

39497   Improved CRS mapping between Paradigm and Petrosys projects

39239   OpenWorks/SeisWorks connections now correctly synchronised between applications running in the same session

Data Management

33619   Data displayed by the "Asset item ancillary data" panel is now in sync with the selected ancillary data

Mapping

39806   Display GIS now correctly displays data using a CRS different to the current mapsheet

38322   Fixed backwards compatibility of files containing references to updated data source names

Surface Modeling

39989   SeisWorks dispatch connections are again available to use as seismic data sources in gridding

Detailed Release Notes

Petrosys release 17_3_6 [24 entries]

3D Viewer — Bug Fixes

ODM vertical well paths now supported by 3D Viewer
24409

Vertical well paths from wells stored in an ODM data source are now displayed correctly by 3D Viewer. The "final TD" value, which determines the end point of the well path along the vertical axis in 3D viewer, is determined by either the "terminal_depth" of the current well or the deepest "base_depth" value recorded in the formation tops table.

Client specific — Enhancements

List of available GeoFrame projects now uses case insensitive comparison of username - Saudi Aramco only
39853

Due to different cased usernames between operating system, the way in which the list of GeoFrame projects is collected now ignores the case of users login names.

Connections, import and export   Enhancements

Added support for non-english Petrel project names
35586

Petrel projects using non ASCII characters, such as those used by non-English alphabets, are now supported. Previously, these project names were not read correctly, and data could not be transferred.

KTI (Kelman) has been renamed to KDM (Katalyst Data Management)
37852

All references to KTI (Kelman) have been renamed to KDM (Katalyst Data Management).

In addition, backwards and forwards compatibility has been fixed for datasources IHS Info Hub, Katalyst Data Management (KDM) and Kingdom.

Performance improved when reading 2D seismic lines from SeisWorks dispatch connections
37336

Significant performance improvements have been made in the reading of 2D seismic lines from SeisWorks on Windows using a dispatch connection. Displaying 2D seismic lines in Mapping is now between 60% and 80% faster.

Session enabled connection information used by the Wells Import Wizard
39805

The Wells Import Wizard has been "session enabled", which allows connection information to be shared with the Petrosys Launcher, as well as any applications running in the same session (which includes all applications opened from the Launcher).

Session enabled database connections established during SDF import
39804

Various SDF import options have been "session enabled", which allows connection information to be shared with the Petrosys Launcher, as well as any applications running in the same session (which includes all applications opened from the Launcher).

Support for ODM 3.7+ added
38676

Petrosys now supports ODM versions 3.7 and up.

Wells Import Wizard now loads more well information when importing from ODM to WDF
37711

More information is now imported when loading well header data from ODM into a WDF using the Wells Import Wizard. Additionally, the depth datum type (KB, RT, etc.) of the well is now set and the associated well depth field is populated.

Connections, import and export   Bug Fixes

Fixed well selection using form in the ODM wells edit list
21792

A bug has been fixed which prevented a well selection from being made using a form when listing wells from an ODM data source. This affected the /Select/Using form option in the /List/Wells/ODM option in Mapping.

GeoFrame grids with negative row/column increments are now displayed in the correct location
39819

A bug has been fixed which caused grids from GeoFrame with a negative row or column increment in the associated Grid Library to be displayed in the wrong location.

Improved CRS mapping between Paradigm and Petrosys projects
39497

The CRS projection types Lambert Conic Conformal 1SP and 2SP are now mapped correctly from Paradigm to Petrosys.

OpenWorks/SeisWorks connections now correctly synchronised between applications running in the same session
39239

A problem has been fixed where incomplete connection data about newly added SeisWorks connections was being sent to applications running in the same Launcher session.

Data Management   Bug Fixes

Data displayed by the "Asset item ancillary data" panel is now in sync with the selected ancillary data
33619

The "Asset item ancillary data" panel now displays information correctly, according to the ancillary data selected from the list in the top portion of the panel. In previous versions, it was possible for rows of data to disappear from the list of ancillary data, or for information displayed in the lower portion of the panel to become out of sync with the item selected from the list.

dbMap Enhancements

Added support for importing base depths associated with formation tops from ODM
23849

It is now possible to import both the top and base depths associated with formation tops from ODM projects. Previously, it was only possible to import the top depths.

Added support for multiple coordinate reference systems stored in a single ODM project
23356

In newer versions of ODM, it is possible to assign coordinate reference systems to individual wells by entering a CRS into the well header. Petrosys now fully supports the use of this CRS information, allowing multiple wells to be assigned to different coordinate reference systems. This information is retrieved automatically via the current ODM connection, and no longer needs to specified manually while establishing a connection to the required project.

Added support for new ODM directional survey format
37961

The directional survey format used by more recent versions of ODM is now supported. This newer format adheres to the naming convention W<well_id>_DEV2.bin (where <well_id> is replaced with the id value of the well associated with the survey) and stores MD, TVD and X/Y offsets associated with each point in the survey. The older format used the naming convention W<well_id>_DEV.bin and stored the MD, TVD and Easting/Northing values associated with each survey point.

Added support for Oracle spatial data using a projected CRS
38482

Oracle Spatial data using a projected CRS can now be used in Display/GIS and the Spatial data translator. Only standard EPSG CRS are supported.

Improved support for ODM formation tops
37133

Overall support for ODM formation tops has been improved. It is now possible to pick formation tops from all possible tables in ODM. Additionally, the fields "top_depth", "base_depth" and "interpreter" are now all read correctly from the relevant tables.

ODM formation tops can now be filtered by interpreter
27803

It is now possible to filter ODM formation tops by interpreter.

ODM lithostrat formation tops can now be imported to WDF
21152

ODM formation import has been enhanced to allow "Lithostrat" formation tops to be imported into a Petrosys WDF.

Mapping   Bug Fixes

Display GIS now correctly displays data using a CRS different to the current mapsheet
39806

A bug has been fixed where GIS data displayed in Mapping using a CRS different to the current map sheet would either be shown in the wrong location (for geographic CRS) or not shown at all (for projected CRS). This would occur under very specific circumstances while zooming on the map.

Fixed backwards compatibility of files containing references to updated data source names
38322

DBM, 3DM and TSK files containing references to IHS, Kingdom or Katalyst Data Management (KDM) are now backwards compatible with older versions of Petrosys. Previously, opening these files in older versions of Petrosys (pre 17.3) could cause the software to crash.

Surface Modeling   Bug Fixes

SeisWorks dispatch connections are again available to use as seismic data sources in gridding
39989

A bug that was introduced in Petrosys 17.3.0 has been fixed, which dropped the support for SeisWorks dispatch connections being used as seismic data source for gridding.

Enhancements

Petrosys release 17_3_5 [3 entries]

Client specific

37890   Formation tops data is now synchronised between `Strat Services` and `Santos` picks - Santos only

General

39047   FaultRisk integration

Mapping

39411   Display GIS no longer incorrectly reports missing files

Detailed Release Notes

Petrosys release 17_3_5 [3 entries]

Formation tops data is now synchronised between `Strat Services` and `Santos` picks - Santos only   37890

Formation modifications made to the "Lithostrat" and "Chronostrat" systems from the "Strat Services" source are now synchronised with the same systems from the "Santos" source. It is no longer possible to edit the "Santos" source formation tops for Lithostrat and Chronostrat on a well, all modifications will be made through synchronization with Strat Services. Local Markers from the Santos source may still be added, modified and deleted and will not be affected by the synchronization process.

Whether a well contains information from Strat Services can be easily discerned by checking the "Reference well?" field. A value of "Y" indicates the presence of Strat Services formation tops for that well.

General Enhancements

FaultRisk integration
39047

Petrosys now links directly to the FaultRisk tools provided by FaultSeal.

- ➢ The main FaultRisk application can be started by selecting "Apps/FaultRisk..." from the main menu of the Petrosys Launcher.
- ➢ The FaultRisk Displacement Profile Tool (DPT) can be used to examine any of the faults displayed in Petrosys Mapping by right clicking the required fault polygon on the mapping canvas and selecting "Run FaultRisk DPT...". Fault polygons edited using the DPT can be saved back to Petrosys fault files.

Mapping Enhancements

Display GIS no longer incorrectly reports missing files
39411

A situation in which the Display GIS option would incorrectly report missing files when displaying a shapefile has been fixed. Previously, in some rare cases when displaying a shapefile, the option would report a missing file even if the files existed.

Enhancements

Petrosys release 17_3_4 [7 entries]

Client specific

38746	"Well full name" now displayed in edit list and basic well header panel - Santos only
37888	Added Gauge Depth to Well Pressure Tests - Santos only
30970	Original/Current Operator and Geological Province added to Wells - Santos only
39061	Removed effective and expiry date fields from the Well Alias dialog - Santos only

Connections, import and export

38530	Errors no longer halt the Importation of 2D/3D horizons to SDF
37351	Performance improvements when importing 2D coordinates from SeisWorks to SDF

Paradigm-Epos plugin

38792	Improved performance when retrieving wells from Paradigm-EPOS

Bug Fixes

Petrosys release 17_3_4 [13 entries]

Configuration

37999   Oracle Spatial connections using the same database as PRIMARY now listed in the Connection Manager and Display GIS

Connections, import and export

38628   Contour file export via the Spatial Data Translator now works correctly for input data sources containing more than 10000 points

38627   Exchange/Stacking velocities option now checks out the correct licenses

37817   Exporting data from a map to a polygon file now handles CRS conversion correctly

38936   Landmark unit codes "ft" and "ftUS" now translated correctly to US survey feet

dbMap

38912   Adding/importing directional survey points is now functional for PPDM 3.8 clients

Mapping

37352   Displaying 3DSeismicSurface values and highs and lows no longer outputs a trace message to the console

38937   Fixed intermittent crash in dbMap when displaying certain kinds of data using /Display/GIS...

38666   Mapping no longer crashes when using mapping annotations that return invalid values

38486   Minimum allowable MapSheet scale is now 1

25145   Retain-matching-from-active option now works when selecting Kingdom seismic lines using a polygon

39115   Text file reading correctly handles double-quoted fields

Surface Modeling

38006   Kriging with external drift now uses residuals to set up the experimental variogram

Detailed Release Notes

Petrosys release 17_3_4 [20 entries]

Client specific

Enhancements

"Well full name" now displayed in edit list and basic well header panel - Santos only
38746

The "Well full name" is now listed in a separate column under /Lists/Wells/dbMap and in a read only field on the basic well header panel. It is derived automatically from a combination of the well name and the well number.

Added Gauge Depth to Well Pressure Tests - Santos only
37888

Gauge Depth has been added to the Well Pressure Tests dialog and database.

Original/Current Operator and Geological Province added to Wells - Santos only
30970

The original and current operator of a well can now be recorded using the corresponding fields in well header creation and editing panels. This information is also supported in queries and Edit List Preferences. Geological province can also now be viewed in the Edit List Preferences.

Removed effective and expiry date fields from the Well Alias dialog - Santos only
39061

The fields for Effective Date and Expiry Date have been removed from the Well Alias dialog found off the Basic Wells header dialog as they are no longer required by the client.

Configuration

Bug Fixes

Oracle Spatial connections using the same database as PRIMARY now listed in the Connection Manager and Display GIS
37999

The Connection Manager now shows all Oracle Spatial connections defined by the active connections.xml file. In previous versions, Oracle Spatial connections targeting the same database as the PRIMARY connection may not have been available for selection.

Connections, import and export   Enhancements

Errors no longer halt the Importation of 2D/3D horizons to SDF
38530

Errors encountered while importing 2D/3D horizon data to an SDF no longer stop the import process. Instead, these errors are recorded in the log file and the import continues on to the next horizon.

Performance improvements when importing 2D coordinates from SeisWorks to SDF
37351

The time taken to import 2D coordinates from SeisWorks to SDF has been improved.

Connections, import and export   Bug Fixes

Contour file export via the Spatial Data Translator now works correctly for input data sources containing more than 10000 points
38628

Contour files are now exported correctly from the Spatial Data Translator when the input data source has more than 10000 points. Previously, if the input data source contained exactly 10000 points, an error would be displayed and the export would fail. If the input data source contained more than 10000 points, the export would work, but the ten thousandth point in the data source would not be processed.

Exchange/Stacking velocities option now checks out the correct licenses
38627

Exchange - Seismic Stacking Velocities (/Exchange/Stacking Velocities...) now checks out the following Petrosys licenses: Framework - Text (as part of Suite - Base), App - Gridding & Contouring (appgc) and App - Seismic (apseis). Previously the "datconnect" license was incorrectly checked out in addition to those listed.

Exporting data from a map to a polygon file now handles CRS conversion correctly
37817

Exporting data displayed in Petrosys Mapping to a polygon file now assigns the MapSheet CRS to the output file. Previously, the CRS of the input data (the polygon file) was used.

Landmark unit codes "ft" and "ftUS" now translated correctly to US survey feet
38936

The Landmark unit codes "ftUS" and "ft" are now translated correctly to US survey feet. Previously, when reading the CRS from an OpenWorks/SeisWorks project, these units were not translated correctly, which could lead to 3D seismic surveys being displayed in the wrong location.

Other unit codes that translate to US Survey feet were already handled correctly and have not been affected by this fix.

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dbMap   Bug Fixes

Adding/importing directional survey points is now functional for PPDM 3.8 clients
38912

Directional survey points can now be imported and/or added using the dbMap edit screens. This was prohibited in previous versions by a bug which was introduced in version 17.0.

Mapping   Bug Fixes

Displaying 3DSeismicSurface values and highs and lows no longer outputs a trace message to the console
37352

In previous versions of 17.3, using either the /Display/3D Seismic Surface/Values or /Display/3D Seismic Surface/Highs And Lows options would cause a trace message to be printed to the console. This message has been removed.

The message had no effect on the functionality of Petrosys and all operations were performed correctly, it was merely distracting.

Fixed intermittent crash in dbMap when displaying certain kinds of data using /Display/GIS...
38937

A crash has been fixed which occurred intermittently when displaying dbMap GIS data from some databases on the Linux RHEL4 platform.

Mapping no longer crashes when using mapping annotations that return invalid values
38666

A possible crash in Mapping has been fixed when using mapping annotations which returned invalid values.

Minimum allowable MapSheet scale is now 1   38486

The minimum allowable scale for a MapSheet is now 1. In previous iterations of Petrosys version 17, the scale could be no less than 1000.

Retain-matching-from-active option now works when selecting Kingdom seismic lines using a polygon   25145

The "Retain-matching-from-active" option, available when selecting Kingdom seismic lines within a polygon, now works correctly.

Text file reading correctly handles double-quoted fields   39115

In previous version 17.3 versions, text file reading did not correctly read double-quoted fields from text files using a separator character (a comma for example) that were over a certain length. This problem would manifest as an incorrect number of columns being determined. The problem could occur in a number of places - for example, when importing wells into WDF via the Wells Import Wizard.

Paradigm-Epos plugin   Enhancements

Improved performance when retrieving wells from Paradigm-EPOS   38792

The time taken to retrieve a list of wells from a Paradigm-EPOS project has been improved. The amount of time taken to retrieve wells from Paradigm using a Petrosys WSL or Paradigm-EPOS selection has also been improved.

Surface Modeling   Bug Fixes

Kriging with external drift now uses residuals to set up the experimental variogram   38006

Kriging with external drift now performs a least squares regression of the primary input data to the drift data. This is used to calculate residuals or differences of the input data with the converted drift data at each point. These residuals are now used when setting up the experimental variogram, rather than the raw primary input data. This makes the theoretical variogram estimation more accurate.

Enhancements

Petrosys release 17_3_3 [9 entries]

Client specific

38204   Modified Oracle Spatial query to overcome local Oracle bug - Santos only

37279   Restored report building and table set up functionality - Santos only

Connections, import and export

34737   Support for GeoFrame 2012 added

Mapping

38254   Improved performance of Oracle Spatial Display/GIS queries in certain
         circumstances

20831   SeisWorks and OpenWorks connection details are now displayed in the title bar
         of the line header dialog

Surface Modeling

38082   /Grid/Statistics/Grid now workflow enabled

37050   Grid/Well-Tie mistie report display no longer stops the current task from
         proceeding

37139   Grid/Well-Tie mistie report includes difference between final tied grid and input
         grid

37757   Spatial data sources now support scripting

Bug Fixes

Petrosys release 17_3_3 [25 entries]

Connections, import and export

38216   Can now connect to a remotely hosted SQL Server based SeisWare project

38478   Exporting Petrosys grids to Petra 3 no longer results in an error

37477   Importing GeoFrame IESX horizon data now works for 2D seismic lines where the number of CDP interpretation points is a multiple of 1000

38310   Importing multiple 3D surfaces to an SDF from SeisWorks no longer causes a crash

38315   Landmark environment login script does not modify X11 DISPLAY

38487   OpenWorks R2003.12 plugins no longer crash on start up

38502   SeisWorks import now loads interpretation data for seismic lines with different common and unique names

dbMap

38309   OpenWorks, SeisWare or Kingdom formation top depths posted on a map are no longer treated incorrectly as feet

38237   Runtime Parameters - Secondary data source runtime parameter queries now query the correct database

37690   Tracking vertical well paths now reports the correct MD range

dbMap - User interface

35144   GCP points added in Mapping are now immediately added to the Georeferencing panel

General

38046   Translating GeoFrame or OpenWorks datums via a geographic CRS code no longer produces an error

Mapping

38494   Occasional performance problem when adding new layers to a map no longer occurs

38563   Surface units from the OpenWorks Project CRS are now retrieved correctly

38220   Title blocks now support long path names for the local configuration directory

Mapping/Contours

38533   CFP editor now uses the system temporary path for the temporary contouring file

Mapping/Coordinate Reference Systems

38205   Trailing spaces used in point conversion no longer results in an incorrect coordinate conversion

Mapping/Spatial

37085   PSO data stored in remote databases now extracted correctly to allow subsequent PSO functionality

Surface Modeling

38505   Petra import and export menu options reinstated in the Surface Modeling application

38112   Spatial data translator now remembers previously defined formats when importing text and Excel files

Surface Modeling/Contouring

38183   Fixed memory leak in Contour/Grid(by cell) when Contour up to faults enabled

Surface Modeling/Gridding

36683   Crash no longer occurs when exporting Grid to XYZ Points or Node Dump with nothing selected

38293   GisGridUsing scripting parameter was duplicated in the script editor dialog

Surface Modeling/Volumetrics

38177   Volumetrics (Grid Based) - Graphic Display - Works with polygon files over 5000 points

Well data

38574   OpenWorks R5000 interpretation project directional survey offsets no longer undergo inappropriate unit conversion

Detailed Release Notes

Petrosys release 17_3_3 [34 entries]

<u>Client specific</u> <u>Enhancements</u>

Modified Oracle Spatial query to overcome local Oracle bug - Santos only
38204

GIS Layer listing performance has been dramatically improved with extra Oracle sql "first_rows" hints to overcome Santos-specific database problems.

Restored report building and table set up functionality - Santos only
37279

Functionality to set up tables and build reports has been restored to the Admin/Report menu in dbMap.

Connections, import and export   Enhancements

Support for GeoFrame 2012 added
34737

GeoFrame 2012 is now supported as a data source in all features that previously supported GeoFrame 4.4 and 4.5 data.

Both GeoFrame 4.4 and 4.5 will continue to be supported as data sources.

Connections, import and export   Bug Fixes

Can now connect to a remotely hosted SQL Server based SeisWare project
38216

An error that prevented on-the-fly connections to remote SQL Server-based SeisWare projects from working has been corrected. On-the-fly connections were added in Petrosys 17.3. The previously supported method for connecting to remote SQL Server based SeisWare projects was not affected by this bug.

Exporting Petrosys grids to Petra 3 no longer results in an error
38478

Petrosys version 17.3 introduced a problem where exporting Petrosys grids to Petra 3 would fail, triggering an error. This problem has now been fixed.

Importing GeoFrame IESX horizon data now works for 2D seismic lines where the number of CDP interpretation points is a multiple of 1000
37477

The /File/Import/GeoFrame/IESX GF4.* options no longer fail to load horizon data for 2D seismic lines when the number of CDP interpretation points is an exact multiple of 1000. Previously the presence of such lines would trigger an error, which reported a problem in reading seismic line interpretation.

Importing multiple 3D surfaces to an SDF from SeisWorks no longer causes a crash
38310

A crash has been fixed in the /Import/Landmark/SeisWorks tool. The crash occurred when importing multiple 3D surfaces into an SDF.

Landmark environment login script does not modify X11 DISPLAY
38315

The Landmark connection scripts now do not modify the X11 DISPLAY variable unless it is not set at all. This will prevent connection problems in the case where the user has X11 authentication issues when connecting to the local X11 server.

Note that in most client configurations this script (ps_lgclogin.csh) is copied into the local site configuration directory ($ps_local) and modified to match the OpenWorks configration. If you have X11 authentication issues then please contact your local Petrosys support representative to assist in merging the appropriate changes into your configuration.

OpenWorks R2003.12 plugins no longer crash on start up
38487

In Petrosys version 17.3sp2, the OpenWorks and SeisWorks plugins could crash on start up on some Linux systems, depending upon the library configuration of that particular system. This has been corrected so the same library dependencies as previous versions of Petrosys are used.

SeisWorks import now loads interpretation data for seismic lines with different common and unique names
38502

When importing SeisWorks interpretation data to a Petrosys SDF, if the unique name of a particular line is different to the common name the interpretation data for that line will now be loaded correctly. Both the common and unique name of each line in the SeisWorks data source will be displayed in the line header dialog. When posted to a map, the unique name will always be used as the line name. The common name may also be posted by using the type "Other" under the "Line name" tab of the /Display/2D Seismic Lines dialog.

dbMap   Bug Fixes

OpenWorks, SeisWare or Kingdom formation top depths posted on a map are no longer treated incorrectly as feet
38309

Petrosys version 17.3sp2 introduced an error where depth units were incorrectly being stated in feet when displaying the formation tops associated with wells from OpenWorks, SeisWare or Kingdom. The depth units are now correctly read from the OpenWorks, SeisWare or Kingdom project.

Runtime Parameters - Secondary data source runtime parameter queries now query the correct database
38237

Running a User Defined query on a secondary connection containing runtime parameter lookups will no longer incorrectly query the primary connection for results.

Tracking vertical well paths now reports the correct MD range
37690

A problem has been fixed where the reported depths displayed when tracking a vertical well on a map reported the wrong measured depths (MD).

dbMap - User interface   Bug Fixes

GCP points added in Mapping are now immediately added to the Georeferencing panel
35144

Ground control points added to an image interactively in Mapping will now immediately be added the ground control point list in the Georeferencing panel. Previously, points would only be added after returning to the Georeferencing panel.

General Bug Fixes

Translating GeoFrame or OpenWorks datums via a geographic CRS code no longer produces an error
38046

Datums from OpenWorks and GeoFrame are mapped to Petrosys equivalent geographic CRSs using the datummap.dat file. In previous versions, this file supported direct use of a geographic CRS code. However, even if the datum was mapped correctly, an error would be displayed reporting a problem.

Mapping   Enhancements

Improved performance of Oracle Spatial Display/GIS queries in certain circumstances
38254

The performance of several queries used in /Display/GIS for Oracle Spatial has been improved by optimising the "where" clause used for querying data. This can improve performance by more than 100 times in some cases.

SeisWorks and OpenWorks connection details are now displayed in the title bar of the line header dialog
20831

SeisWorks and OpenWorks line header now use the generic line header screen, which includes the connection details in the dialog title.

Mapping   Bug Fixes

Occasional performance problem when adding new layers to a map no longer occurs
38494

A bug was introduced in Petrosys version 17.3 that could cause new layers added to a map to draw slower than expected. This would only occur the first time the layer was drawn and only under specific circumstances, based on the new layer being added and the existing layers in the map. This problem has now been fixed.

Surface units from the OpenWorks Project CRS are now retrieved correctly
38563

In Petrosys version 17.3 a bug was introduced when retrieving coordinates for OpenWorks 3D bin grids, where the surface units were read from the incorrect OpenWorks CRS. This has been corrected so the surface unit is in the same unit system as the coordinate values. This was only an issue for grids where the surface unit differed between the original CRS when the data was loaded to OpenWorks and the current OpenWorks project CRS.

Title blocks now support long path names for the local configuration directory
38220

Long pathnames for the local configuration directory ($ps_local) are now supported by the title block edit content options. Previously a path name of about 70 characters or longer would trigger a PA:115 error message.

Mapping/Contours   Bug Fixes

CFP editor now uses the system temporary path for the temporary contouring file
38533

The CFP editor now uses the system's temporary location for the temporary contour file created during contouring, rather than the Petrosys project directory. This avoids possible networking issues and may improve performance.

Mapping/Coordinate Reference Systems   Bug Fixes

Trailing spaces used in point conversion no longer results in an incorrect coordinate conversion
38205

A bug in the Point Conversion tool has been fixed where trailing spaces in the input geographic points could cause the sign of the input value to be inverted during the calculation of the result.

Mapping/Spatial   Bug Fixes

PSO data stored in remote databases now extracted correctly to allow subsequent PSO functionality
37085

Display/GIS now retrieves PSO data stored in remote databases. In previous versions, the PETROSYS_SPATIAL_OBJECTS table needed to be replicated in both primary and secondary databases for PSO functionality to work.

Surface Modeling   Enhancements

/Grid/Statistics/Grid now workflow enabled
38082

Grid/Statistics/Grid is now workflow enabled. Advanced statistics values are now available when scripting.

Grid/Well-Tie mistie report display no longer stops the current task from proceeding
37050

The Well-Tie mistie report no longer stops the current workflow. A separate window is created for the report, which will be visible until closed.

Grid/Well-Tie mistie report includes difference between final tied grid and input grid
37139

The Well-Tie mistie report now contains an additional column showing the actual difference between each input grid value and the corresponding output (tied) grid value.

Spatial data sources now support scripting
37757

Spatial input data sources can now be scripted (including interactive scripting) within workflows. Scripting is available for spatial files and spatial feature classes, as well as for attribute selection. Data types which support scripting include shapefile, Oracle Spatial, ArcSDE, MapInfo file and Petrel. Scripting for culture file attributes is not supported.

Surface Modeling   Bug Fixes

Petra import and export menu options reinstated in the Surface Modeling application
38505

The import and export of Petra grid options in Surface Modeling were inadvertently removed in version 17.3. They have been reinstated and can be found under the File/Import/Petra and File/Export/Petra submenus.

Spatial data translator now remembers previously defined formats when importing text and Excel files
38112

The spatial data translator will now correctly remember the previously defined format when importing text and Excel files.

Surface Modeling/Contouring   Bug Fixes

Fixed memory leak in Contour/Grid(by cell) when Contour up to faults enabled
38183

The Surface Modeling option /Contour/Grid (by cell) previously triggered a memory leak when the "Contour up to faults" option was enabled, slowing performance and potentially resulting in a crash. This has been fixed.

Surface Modeling/Gridding   Bug Fixes

Crash no longer occurs when exporting Grid to XYZ Points or Node Dump with nothing selected
36683

A check is now performed when running the export option to ensure an input grid and output file are both selected. A check has also been added to the dialog after pressing OK.

GisGridUsing scripting parameter was duplicated in the script editor dialog
38293

Scripting an Oracle Spatial data source now only produces the one instance of the GisGridUsing parameter.

Surface Modeling/Volumetrics   Bug Fixes

Volumetrics (Grid Based) - Graphic Display - Works with polygon files over 5000 points
38177

The /Volumetrics/Grid Based/ options will now work correctly with polygons containing over 5000 points when using the "Graphics display" option. Previously, these polygons could have caused a crash or resulted in stray polygon line segments being drawn.

Well data   Bug Fixes

OpenWorks R5000 interpretation project directional survey offsets no longer undergo inappropriate unit conversion
38574

Previously, directional survey offsets from OpenWorks R5000 interpretation projects where the surface unit of the interpretation project did not match the surface unit of the master project would undergo an incorrect unit conversion. This has been corrected so the directional survey offsets only undergo appropriate unit conversions.

Enhancements

Petrosys release 17_3_2 [3 entries]

Connections, import and export

34410   Formation tops from 3rd party data sources can now be imported into a dbMap database

dbMap

37269   Runtime Parameters: LOOKUP and MULTI_LOOKUP can now be used in a report lookup

Mapping

33796   Petrel 2D seismic lines where coordinates are associated with the same shotpoint number are now handled correctly by Mapping

Bug Fixes

Petrosys release 17_3_2 [20 entries]

Connections, import and export

37953   CRS information can now be read from more recent versions of SeisWare projects

37538   Grids are now exported to Paradigm-Epos in the correct location for BLM CRSs

37951   Reading horizon files from SeisWare no longer causes a crash

37869   Some grids displayed from Paradigm-Epos were out by a cell in one direction

dbMap

33366   dbMap formation names now displayed correctly

35273   Runtime Parameters: "Multi-select" buttons now correctly remember previous values

37576   Runtime Parameters: Operators are now restored correctly

37866   Runtime Parameters: The use of the keywords SEP: and OPER: together on a TEXT parameter now works

ESRI plugin

37912   ESRI ArcMap Plugin: Error messages are correctly displayed when source files are missing

General - User interface

37901   Individual selection available in polygon lists

Import and Export

37944   All lines are now active when loading seismic data from ASCII to dbMap

37687   Export to Petrel via the spatial data translator now handles NULL attribute value robustly

Mapping

37984   Computed bottom hole lat/lon locations displayed on the well header dialog are now correctly calculated

28840   Corrupt contour files no longer produced by the CFP Editor

37756   Displaying 3D seismic surveys from Petrel no longer causes a crash

38065   Reordering display layers in Mapping by interactive dragging works as expected

37441   Scan option in thematic mapping now returns the complete contents of the chosen spatial data set

37862   Title block CGM files stored in system directories now loaded correctly when specified in display and edit options in Mapping

33592   Using the return/enter key in a legend title no longer produces a corrupt DBM file

Surface Modeling

38104   Fixed selection of seismic surveys in grid data source selection panel

Detailed Release Notes

Petrosys release 17_3_2 [23 entries]

Connections, import and export   Enhancements

Formation tops from 3rd party data sources can now be imported into a dbMap database
34410

The Wells Import Wizard has been updated to allow the importing of formation tops into a dbMap database.

Connections, import and export   Bug Fixes

CRS information can now be read from more recent versions of SeisWare projects
37953

In more recent versions of SeisWare, the way in which CRS information is stored has changed. Petrosys has been updated to reflect these changes, meaning that CRS information from these newer versions of SeisWare will now be retrieved correctly.

Grids are now exported to Paradigm-Epos in the correct location for BLM CRSs
37538

Export/Paradigm EPOS/Grid now writes grids that are in a BLM coordinate reference system (e.g. NAD27 / BLM 15 N) to the correct location. Previously an unnecessary unit conversion was done for these coordinate reference systems, causing the grid to appear in the wrong location.

Reading horizon files from SeisWare no longer causes a crash
37951

A crash has been fixed which happened when a SeisWare horizon file contained only time or amplitude data and not both.

Some grids displayed from Paradigm-Epos were out by a cell in one direction
37869

Grids displayed and imported from Paradigm-Epos are now in the correct location. Previously, certain grids would be out by one cell in either the x or y direction.

dbMap Enhancements

Runtime Parameters: LOOKUP and MULTI_LOOKUP can now be used in a report lookup
37269

It is now possible to have runtime parameters using the keywords LOOKUP and MULTI_LOOKUP inside a report lookup query.

dbMap Bug Fixes

dbMap formation names now displayed correctly
33366

The name associated with formations from dbMap is now displayed correctly when queried in Surface Modeling or Mapping. Previously, only the unique ID assigned to the formation would be displayed.

Runtime Parameters: "Multi-select" buttons now correctly remember previous values
35273

The multi-select buttons on a runtime parameter dialog now correctly display the previous selection. On pressing the button the selection made the last time the query was run will be displayed correctly. Previously, the button would display the previous selection, but after being clicked would return an empty selection.

Runtime Parameters: Operators are now restored correctly
37576

The previously selected operator is now correctly restored when running a query that uses a runtime parameter with the OPER: keyword.

Runtime Parameters: The use of the keywords SEP: and OPER: together on a TEXT parameter now works
37866

The keywords SEP: and OPER: can now be used together on a TEXT runtime parameter. Previously, this would not work.

ESRI plugin   Bug Fixes

ESRI ArcMap Plugin: Error messages are correctly displayed when source files are missing
37912

The Petrosys ArcMap plugin will now correctly display error messages when files are missing, rather than crashing. Additionally, in the ArcMap "Add Data" dialog, Petrosys files that have additional dots in their file names will now be visible.

General - User interface   Bug Fixes

Individual selection available in polygon lists
37901

Petrosys version 17.3sp1 introduced a bug where the some polygon lists did not allow selection (all polygons in the polygon file were always selected). This has now been corrected to work like previous versions, where each polygon could be individually selected.

Affected options included Surface Modeling Grid/Well Tie and Grid/Phantom POLYGON method, Grid/Statistics Inside Polygon and Grid/Processes/Calculate Mean Inside Polygon and Mapping Display/Contours (filled with polygon regions included or excluded).

Import and Export   Bug Fixes

All lines are now active when loading seismic data from ASCII to dbMap
37944

When previewing 2D seismic lines to be loaded from an ASCII file into a dbMap database, one of the lines would be inactive. This has been fixed so all seismic lines are now active by default after loading the preview list.

Export to Petrel via the spatial data translator now handles NULL attribute value robustly
37687

NULL attributes are now handled more robustly when exporting culture data to Petrel using either the Spatial Data Translator or the Export options in Mapping. A bug in previous versions meant this data was not always exported correctly in some cases.

Mapping — Enhancements

Petrel 2D seismic lines where coordinates are associated with the same shotpoint number are now handled correctly by Mapping
33796

2D Seismic lines from Petrel are now displayed correctly where multiple locations are associated with the same shotpoint number.

Mapping — Bug Fixes

Computed bottom hole lat/lon locations displayed on the well header dialog are now correctly calculated
37984

A problem has been fixed where the computed bottom hole latitude/longitude were using the top hole eastern/northern values instead of the bottom hole during calculations.

Corrupt contour files no longer produced by the CFP Editor
28840

A bug causing corrupt contour files to be produced by the contours, faults and polygons editor has been fixed. Previously, removing all the contours from a file, then adding contours back into the same file before saving it would result in a corrupted contour file. This no longer occurs.

Displaying 3D seismic surveys from Petrel no longer causes a crash
37756

Displaying a 3D seismic survey from Petrel with an invalid geometry will no longer crash the Mapping application.

Reordering display layers in Mapping by interactive dragging works as expected
38065

In the 17.3 version of Petrosys (Linux version only), ordering display layers in Mapping by dragging and dropping resulted in the layers being reordered incorrectly.

Scan option in thematic mapping now returns the complete contents of the chosen spatial data set
37441

Using the "scan" option in thematic mapping now returns all the data from within the current map sheet area. Previously, any data which was clipped by the map sheet would not be returned by the scan option, meaning data which appeared in Mapping would not appear in the scan results.

Title block CGM files stored in system directories now loaded correctly when specified in display and edit options in Mapping
37862

Entering the name of a title block CGM file stored in a system location ($ps_local/$ps_misc) into any of the title block display or edit options in Mapping will no longer produce an error stating that the specified file could not be found. Previously, no check was in place to search system locations for the specified title block, which caused an error stating the requested file could not be found. This no longer occurs.

Using the return/enter key in a legend title no longer produces a corrupt DBM file
33592

Saving a map containing a legend with a title using a "return" character (a new line) will no longer produce a corrupt DBM file.

Surface Modeling — Bug Fixes

Fixed selection of seismic surveys in grid data source selection panel
38104

When gridding from a 3D seismic survey, it is now possible to select a single survey for inclusion in the gridding process. Previously, seismic survey selection could only be confirmed after selecting multiple surveys.

Enhancements

Petrosys release 17_3_1 [7 entries]

3D Viewer

36703   Added width and height labels to Save to Raster dialog

Connections, import and export

17319   Added support for Easting / Northing GeoGraphix projects

dbMap

37228   Report Printing - output file name can have .csv suffix

Help

34003   Mapping printing and plotting help improved

Mapping

37329   Display/GIS - Thematic Expression now uses thematic value for legend

Seismic data

37592   Seismic SDF Display - Improved performance when only displaying a small set of lines from a larger SDF

Surface Modeling

37433   Grid/Well-Tie mistie report no longer displays the extra auto-generated points for the distance and polygon methods

Bug Fixes

Petrosys release 17_3_1 [11 entries]

3D Viewer

37153   Error message for large grid/surface corrected

dbMap

37667   Fixed crash in Reports with large data strings

General

37720   Fixed crash when error message box displayed and other dialog closed

Mapping

37073   GeoGraphix well header screen no longer crashes

37731   MapSheet/Delete/Selected no longer deletes incorrect map sheets

37629   Panning while using the View/Measure tool no longer crashes

Surface Modeling

37430   Grid/Well Tie - Mistie report displays well information when the polygon method is used

37086   Grid/Well Tie - Mistie report now displays when using the filtering method

37150   Grid/Well Tie - Mistie report now reports correct numbers when using the distance method

37704   Longer contour now drawn near faults

31076   No longer receive irrelevant missing polygon file warnings when editing a gridding task

Detailed Release Notes

Petrosys release 17_3_1 [18 entries]

3D Viewer Enhancements

Added width and height labels to Save to Raster dialog   36703

Save to Raster panel now has labels for the width and the height fields to make it clear the field that is used for each dimension.

3D Viewer Bug Fixes

Error message for large grid/surface corrected   37153

The correct error message is displayed when large grid/surface fails to display as a result of insufficient memory.

Connections, import and export   Enhancements

Added support for Easting / Northing GeoGraphix projects
17319

Along with Latitude / Longitude projects, Petrosys now supports GeoGraphix projects that have Easting / Northing coordinates. Upon connecting to a GeoGraphix project the user will be prompted to select the coordinate type of the project, Geographic or Projected, at the time of choosing a CRS.

dbMap   Enhancements

Report Printing - output file name can have .csv suffix
37228

The dbMap reporting options, e.g. /Report/Seismic/Lines/dbMap, now use the comma delimited format by default and allow the report file name to have a .csv suffix. This allows easier importing into Excel or other products that understand a file suffix of .csv

Additionally the option to export to an ASCII file that is available in most lists via the right mouse button allows various other file suffixes to be used, such as .txt or .asc.

dbMap   Bug Fixes

Fixed crash in Reports with large data strings
37667

A crash in dbMap Reports resulting from a failure to handle a large data string (more than 50,000 characters in a column) has been fixed.

General Bug Fixes

Fixed crash when error message box displayed and other dialog closed
37720

Petrosys could occasionally crash when an error message was displayed at the same time as other dialogs were closed. This problem has now been fixed so error messages can be displayed irrespective of other dialog activity.

Help Enhancements

Mapping printing and plotting help improved 34003

Printing and publishing options from Mapping are now more clearly documented. Export options allow for simple export to a variety of formats, including geospatial PDF and various raster and vector formats. Printing to hard copy output devices is also explained more clearly.

Mapping Enhancements

Display/GIS - Thematic Expression now uses thematic value for legend 37329

For Display/GIS Thematic Expression, Legend now shows thematic value as label. In previous version, a generic label "ThematicMap" was used

Mapping Bug Fixes

GeoGraphix well header screen no longer crashes 37073

An intermittent crash has been fixed when displaying well header information for a GeoGraphix data source.

MapSheet/Delete/Selected no longer deletes incorrect map sheets 37731

In previous v17 versions, the Mapping/MapSheet/Delete/Selected option could incorrectly delete map sheets other than those selected in some circumstances.

Panning while using the View/Measure tool no longer crashes 37629

A bug was introduced in Petrosys version 17.3.0 that caused a crash when panning was performed using the middle mouse button while the Mapping/View/Measure tool was being used.

Seismic data Enhancements

Seismic SDF Display - Improved performance when only displaying a small set of lines from a larger SDF
37592

The performance of displaying SDF seismic data in Mapping has been improved when using a selection file (sls) that only has a small set of lines selected out of a very large number of lines. The performance gain is most noticeable on Windows and if the SDF is on a network drive. In the best case the performance is improved by a factor of about five.

Surface Modeling Enhancements

Grid/Well-Tie mistie report no longer displays the extra auto-generated points for the distance and polygon methods
37433

The automatically generated input data points when using the distance or polygon method are no longer displayed in the mistie report.

Surface Modeling Bug Fixes

Grid/Well Tie - Mistie report displays well information when the polygon method is used
37430

The Well Tie mistie report displays appropriate well information when the polygon method is used.

Grid/Well Tie - Mistie report now displays when using the filtering method
37086

The Well Tie mistie report is now shown when the filtering gridding method is used.

Grid/Well Tie - Mistie report now reports correct numbers when using the distance method
37150

The Well Tie mistie report now correctly converts coordinates when using the distance method.

Longer contour now drawn near faults
37704

In 17.3sp0, contour generation was modified to remove suspicious points in grid cells that are faulted. This test has been removed as it was eliminating too many points, making the contours become truncated or segmented.

No longer receive irrelevant missing polygon file warnings when editing a gridding task
31076

No longer receive missing polygon file warnings when editing a task with clipping turned off. This affects /Grid/CreateGrid, /Grid/Well-Tie and /Grid/Phantom task dialogs.

Enhancements

Petrosys release 17_3 [164 entries]

3D Viewer

30632   3D Viewer well tracks rendering improvements
17198   Can now update layers using icon buttons
30590   OpenInventor upgraded to 8.6.2

Application Launcher

35541   Added menu options to launch Well Import Wizard and Spatial Data Translator under Import menu

Configuration

31656   Command line option available to allow renaming of SDE servers referenced in a dbm file
33301   Linux Installer adds more explicit checks at the start of the install to be sure the user has permissions to create/modify files
32839   Support removed for directory based panels.pnd files (multi-session)

Connections, import and export

22139   Ability to connect to SeisWare SQL Server projects without specifying them in connections.xml
35072   Added support to use a UPM central password manager
34835   dbMap SQL function to format decimal degree coordinates as Degrees Minutes Seconds
22036   Enhancements to SeisWorks seismic import
34048   Export/Paradigm/Grid now supports Paradigm as an input data source
26311   Import/Kingdom seismic default horizon data type is now Time
26659   Kingdom import can now load larger 3D survey horizon data to grids
32292   Paradigm-Epos well header screen now computes and displays the bottom hole coordinates
36433   Reduced memory used when reading SeisWorks 3D seismic surfaces with inline / xline increments
25082   Renamed IPL options to IHS Info Hub
32920   Renamed SMT options to Kingdom
21344   Seismic lines can now be filtered by 2D survey in OpenWorks edit list
18553   SeisWorks seismic data import is now available on Windows
35933   Username/password prompts now explicitly state if you are being asked for a Database or Operating system username/password
23387   Well directional survey screen now available for Paradigm-Epos, Petra, Petrel and SeisWare
23386   Well formation tops screen now available for Paradigm-Epos, Petra, Petrel and SeisWare

31547   Wells Import Wizard now loads more well depth datum information when importing from OpenWorks to WDF

dbMap

35950   Admin/Reports/Edit now shows only data types that are available for use
35791   dbMap Titles - Increased Title name maximum width to 50 characters
35125   Renamed "dbMap" to "Petrosys-dbMap" in Display/3D Seismic Bin Grid
36115   Stored SQL editing - Increased allowed size of query name and description

dbMap - User interface

33397   Added Well Alias screen for all dbMap clients
23107   dbMap reports screen - Ability to create selection file from report results
29866   dbMap reports scrolled list sorting defaults set to be ascending
33808   dbMap Wells - Checkshot - TZPlot - Menu now has export and print options
35328   Kingdom, Petrel, Paradigm-Epos and SeisWare well header screens now also display Latitude/Longitude coordinate if original data is in Easting/Northings
34611   Numeric fields in panels no longer have a limit of 10 decimal places
33956   Query Windows - Lists now expand with the window as it is resized
28424   The appearance of the dbMap well header screen has been improved
33086   Wells production charts now have Print and Export options

General

34083   Add support for detecting Oracle Linux and Red Hat Workstation on Linux
32324   File/Preferences/Diagnostics now includes more connection and configuration information
35231   Improved error messages when running in a project with insufficient permissions
30650   Improved support for operating system usernames that have non-ASCII characters
28912   Licensing changes for v17.3
30730   Petrosys diagnostics screen simplified
36578   Petrosys supported on Windows 8
33586   Start performance of application has improved
34682   Various improvements to table list filtering

General - graphics

32520   Performance and memory improvements to raster image display
33672   Removed support for /Display/Picture/Raster Web raster source

General - User interface

34455   3D Viewer and Surface Modelling now support additional and custom toolbars
31552   Certain table lists allow in-cell editing
35242   File selection dialog includes a shortcut to the project directory
33312   File Selector converts previously selected files to native platform format
11041   File selector now allows files without suffixes on Linux
35019   Font selector has better handling for unknown fonts
37458   Improved detection of corrupt user state XML files
31151   Improvements to appearance of active tabs
29438   Improvements to the Project Selector/Find Projects option

33656	More control over whether windows can be shown behind or in front of other windows
31502	Overall appearance of a number panels has been improved
33802	Query result table list sorting and column widths improved
34075	Table list editing and navigation improved
35386	Table list searching loops from end of the list back to the start
32162	Table list sorting now uses natural sort order
35272	Table lists resize fonts dynamically
35364	Table lists support sorting of checkbox columns
31476	Table lists with checkbox selection support shift key for bulk selection
33259	The sizing of expanded combo box fields has been improved

GIS Editor

33769	Performance populating Culture Editor group point and line edit lists improved

Graphics/Plotting and Hardcopy

33577	File/Export/Raster Image - improved exporting of raster images
25504	Improved PDF generation including support for layers and geospatial information

Help

33064	3D Viewer help updated
32906	Spatial and Wells Input Data help topics updated
35086	User Interface help topics created

Import and Export

32753	/Display/Picture/Raster Image includes support for Kingdom SMT raster images
23496	Excel spreadsheets can now be directly imported to WDF
24507	Improved support for reading data from Excel spreadsheets
22330	Improved support for reading GIS and grid input data from text files
32145	Improvements to the Table list RMB/Export to Excel option
35298	Spatial Data Translator allows multiple exports without the dialog closing
32332	Support added for Petrosys GIP file as an input data source in Spatial Data Translator
34380	The default grid export option is now "XYZ points"

Mapping

12629	Display/Grid/Sun Shaded option supports colour display using the raster method
15187	Display/Scale Bar option allows easy editing of displayed scale bar
12293	Drawing tool shape layers allow sizes to be specified in real-world units
31975	Improved method for adding dynamic property text
33182	Improved North Arrows in Mapping
35268	Improved selection and resizing of rectangles with a fixed aspect ratio
14338	Improved support for multiple custom title block panels
34935	Improvements to positioning of scale bars
33181	Significant improvements to scale bars

Mapping/Bubble Maps

36493	Display/Bubble Map memory usage has been reduced

Mapping/Coordinate Reference Systems

36174	Change default suffix for Point Conversion output to be txt (Linux only)
34373	CRS database upgraded to EPSG v7.11

Mapping/Editors

23654	Manual overpost correction is now supported for Display/GIS layers

Mapping/Images

35771	Display/Picture options no longer include an interactive sizing option

Mapping/Map Sheets

30637	Improvements to the point conversion window
34798	Map sheet "align map" defaults to off for new mapsheets
36264	Map sheet margins are able to be set to zero width and height
36925	Map sheets allow a title bar to be displayed without showing a title block
33265	Warnings are issued when a map sheet with inconsistencies is used

Mapping/Other

34134	Icons added for Pan menu items
33569	Improve interactive resizing and positioning for various Mapping layers
13321	Mapping includes a new Display/Title Block allowing multiple title blocks to be used in a single map

Mapping/Spatial

33815	Display/GIS - thematic mapping scan dialog is now sortable
22715	Display/GIS allows thematic display of data based on a gradient
32812	Display/GIS data with non-numeric IDs no longer needs to be requeried
34528	Display/GIS dbMap Culture filtering supports case insensitive field names
35079	Display/GIS dynamic attributes default to the primary Oracle connection
34154	Display/GIS now includes a "dbMap GIS" data source
34660	Display/GIS now support text element stored in Paradigm-Epos 4.1 culture layer
25764	Display/GIS performance improvements
33398	Display/GIS supports annotation and thematic mapping of Z-value for point data
19715	Display/Spatial - thematic mapping expression operator "between" allows insertion of both values from "Scan"
29533	Improved drawing performance for Display/GIS in some circumstances
18660	Legend generation has improved support for Display/GIS layers

Mapping/Surfaces

29862	Default settings for Display/Grid/Values and Display/3D Seismic Surface/Values now look like colorfill display

Mapping/Wells

36287	Display/Wells - Seismic horizon selection list columns now sort alphanumerically
32419	Surface and bottom hole locations are now available to Run/External script for wells
34180	Well symbol generator on Windows now will use existing well symbols as primitives

Petra plugin

28579   Added support for IHS Petra v4.0

Petrel plugin

28594   Removed support for Petrel 2008 and 2009

Project Selector

29008   Directory selector dialog improved

34459   New project templates added in the South and Central America and Asia regions

33454   Project Selector allows the project name to be independent of the directory name

29405   Project Selector includes more configurable user groups and permissions

21438   Project Selector supports custom columns

35033   Project Selector/Administration user and group lists support filtering and searching

33103   Project Selector/New option no longer automatically sets the group based on project directory

31573   Project templates no longer require a project_metadata.xml

Seismic data

35811   Compute velocities from Stacking velocities functionality is now available in Surface Modeling

36510   dbMap Bin Grid screen now shows survey name in window title

36508   dbMap seismic survey processing and acquisition screens now show additional columns in their lists

26907   Increased the number of stacking velocity pairs that can be imported into the SDF from 200,000 to 1,200,000

35158   Petrosys now imports more stacking velocity text file formats and can compress data on the fly

Surface Modeling

33004   Contouring memory buffer size is now configurable via Tools/Configuration

26757   Grid/Create Grid - always recalculate mapsheet or grid AOI at runtime

28423   Grid/Create Grid from seismic source should allow the user to select 2 horizons

32780   Improved performance in workflows that draw many maps with seismic layers

33932   Map sheet AOIs can now be scripted interactively

33201   Surface Modeling no longer consumes appgc license on start up

33338   Surface Modeling/Tools/Draw Map includes support for creating PDFs

32455   Version information is now available for PGC workflow scripting

32140   WDF wells gridding data source GUI improvement

Surface Modeling/Grid Operations

33685   Speed improvement when resampling grids using bicubic interpolation

Surface Modeling/Gridding

23507   /Grid/Well-Tie can now report mistie differences

29303   Double click in Input Data now launches the edit input data panel

26092   Gip files are now 64 bit enabled

25895   Grid / Well-Tie options have been CRS-enabled

34235   Grid Create GUI used to disallow cell sizes smaller than 10.0 EN units

26932   Grid/Create - Can now select AOI using third party 3D surveys

36505   Grid/Create - New distance clipping option using a "square" clipping window

34044   Grid/Create Grid - Using Z values on faults now produces better grids

27978   Grid/Create Grid... - New "Clip to data envelope" option added

31814   Grid/Create/ - Clipping using distance has been made much more efficient

33437   Gridding 3D seismic from Kingdom, Paradigm-Epos and SeisWare now uses less computer memory

31881   Gridding multiple text files of the same format is easier

23687   Interpolation of Petrosys grids near faults has been improved

33740   List filter support has been added to horizon selector

26557   Petrel 2D and 3D horizon data access consistent with Mapping

34046   Petrosys-dbMap seismic gridding input now uses the generic seismic interface

27215   SeisWorks as an input seismic data source uses a generic data source dialog

Surface Modeling/Volumetrics

17568   Grid-based Slice Volumetrics now displays the input factors used to compute the volume scaling factor

21062   More standard reporting units for slice volumetrics have been added

Well data

35244   Petrel Well Symbols - Additional CGM well symbols added

Bug Fixes

Petrosys release 17_3 [177 entries]

3D Viewer

34515   3D Viewer grid cell outlines used to be incorrectly located when the project CRS differs from the grid CRS

31338   3D viewer now prompts to save changes when closed via "X" button

35145   3D Viewer now restores background colour setting from previous session

Application Launcher

32604   Improved error message when Petrosys fails to start due to an invalid or inaccessible "local" directory

Client specific

32667   Correct well header column is now used for Final TD data (DPI Victoria only)

24933   dbMap Well coordinates screen - Source lookup list appeared twice when button pressed

28158   Fixes for /List/Prospects And Leads (Santos only)

35270   Lists/Wells/dbMap, Add/Using form... now remembers previous values for fields (Santos only)

35007   Prospects and leads and drilling opportunities are correctly highlighted on the map and edit list (Santos only)

37224   Well alias details now update correctly on Basic Well screen (Santos only)

Configuration

32399   Configuration option to reset user interface settings renamed

29820   Configuration options to clear saved window positions and toolbars are only available as User options

33745   Linux installer now uses configured $ps_local

Configuration/Configuration Files

33638   Petrosys configuration directory .petrosys is created for first time users on Linux

Configuration/Database Connections

35837   Petrosys will now connect to primary connections that have spaces in the name

Connections, import and export

21321   Connection errors caused by bad login credentials now prompt user to re-enter a username and password

29901   Connection manager panel now initialises the primary connection correctly

21141   Connections now prompt to re-enter username/password credentials if they are incorrect in the Password Manager

32313   Connections to Oracle are now allowed for users whose password is about to expire

37258   Exchange/Fault sticks and 3D seismic surfaces can now connect to SeisWorks R5000 when there are many projects

33493   Importing zone attributes from one WDF to another no longer hangs

35161   Kingdom well header now shows coordinates in CRS of the map sheet

35623   Kingdom/Import - xline increment is now used for xline lines

35070   OpenWorks projects specified in connections.xml now appear when adding new connections

34919   Paradigm-Epos version string now displayed for old connections.xml entries

28812   Removed incorrect Oracle errors from diagnostics

16137   SeisWorks 3D horizon data no longer gets mirrored in Gridding and Direct Import

dbMap

29679   /Mapping/Lists/Culture highlighting is synchronised with map highlighting

35839   dbMap Well coordinates edit screen now works for non-primary connections

16118   Edit list reports run against dbMap databases now honour sorting and group by SQL statements with more than 254 items in the list

dbMap - User interface

15597   dbMap Reports - Clip-to-AOI now returns the correct number of results

30496   Numeric columns in dbMap/Query table lists are sorted numerically

30548   Wells/Run External Script option now checks a script is selected before a user can click OK

Digitizing

33629   Depth Section Digitizing - Label on Y axis is correctly labelled as Depth

General - User interface

35581   Certain numeric fields in panels enforce a maximum value

33537   Correct parent window is shown after a panel is closed

32674   CRS / Projection Editor no longer crashes when table list filter used

35758   Disabled file selector fields can no longer be cleared using the right mouse button

35090   ECW error XP:202 "User Interrupt" eliminated

34971   Fixed format definition dialog column selection improved

36148   Gradient selector widget shows preview correctly

33795   Multi-line text "Save to file" and "Insert from file" options work as expected

31618   Petrosys help is able to be printed on Windows

37116   Popup error message box windows are now parented correctly

34482   Scrolling with mouse wheel in file selector field no longer crashes

36632   Table list "Reset all" option correctly resets column visibility

31735   Table list searching in lists with in-cell editing works as expected

34390   The last column in table lists no longer stretches to fill the entire screen

GIS Editor

34320   /Culture Editor/Format list only accepts upper case characters for "Field" column

34224   Culture Editor in-cell editing no longer adds trailing spaces

Graphics/Plotting and Hardcopy

33406   Line style mappings from Petrosys to CGM improved

Help

33648   Invoking help for top-level tools now show the correct help page

Import and Export

32955   Can now load ASCII files in WDF import if it is open in another application (Windows only)

32721   Display/GIS - RMB/Export Spatial data now exports Z values of polygon inner holes

33280   Export to Petrosys culture files via spatial data translator sets values with maximum decimal places

33352   Exporting spread-sheet data to Excel includes headers for all columns

37256   Importing using the fixed format options now works better with files that contain tabs

32482   Improved support for multi-line and multi-polygon shapefiles

36305   Launcher - Export/Landmark/OpenWorks Grid option is no longer visible on Windows

33533   Spatial data translator create unique feature name for dbMap Culture

33818   Spatial Data Translator has been fixed to handle spaces in column name

33036   Spatial Data Translator supports reading data from SDE feature dataset layers

23271   Spatial export to culture file correctly handles case where project default CRS is used and set to Local LL/XY

Mapping

35899   Cancelling interactive placement leaves undo/redo in a correct state

15322   Curve smooth line option smooths over all entered curve points

14464   Database based map layers are consistently added to the legend

35901   Errors are no longer reported from inactive grid layers with missing files when moving layers

35157   Gradient selector button behaviour improved when selected gradient does not exist

29770   Mapping interactive picking is no longer lost after printing

34123   Picking is correct for drawing tools layers after dragging to a new position

28101   Redrawing while interactively creating a drawing tools shape draws correctly

35069   Well Symbol Selector filters site and project well symbols correctly

31530   Window flickering fixed in Display/Grid and Display/3D Seismic Surface panels

Mapping/2D Seismic

32968   Thematic queries for Display/2D seismic work as expected

Mapping/Coordinate Reference Systems

33095   Improved error message (crs:138) when creating project from template when CRS of template is hidden

33273   Point conversion write to file labels the coordinate columns correctly

Mapping/Editors

27533   CFP Editor allows Local Lat/Lon - Local XY CRS polygon files to be created

36950   Multiple overpost corrections to the same Mapping layer are applied correctly

35208   New points added in the Gradient Editor are based on the currently selected point

37042   Overpost correction mode no longer crashes when dbm is saved with text selected

Mapping/Images

36149   Display/Raster no longer displays 1-bit TIF images as inverted

28993   Improvements to display of tie points in image georeferencing

33639   Sorting works as expected in the /Display/Picture/Raster Image ArcSDE raster selector

Mapping/Other

35251   Display/Drawing Tools/Closed Shape allows modification of position via direct entry of projected coordinates

28547   Display/Drawing Tools/Curve no longer allows a blank text value

35042   Display/Scale Bar dialog no longer allows OK or Apply to be pressed when no scale bar has been selected

29845   Drawing tool curves no longer show arrow heads without connecting lines

34773   Drawing tool shape layers perform the same checks when OK and Apply buttons are pressed

Mapping/Spatial

31520   Display list update options are available again for Display/GIS layers

34527   Display/GIS - dbMap Culture correctly allows filtering to be disabled

34068   Display/GIS - thematic mapping annotation selection works as expected

25733   Display/GIS - thematic mapping handles null values correctly in expression evaluation

34924   Display/GIS allow setting of format for annotations of integer type

34718   Display/GIS annotates Paradigm Culture correctly

31282   Display/GIS attribute query no longer prompts to restore database connection when not required

33964   Display/GIS correctly displays dbMap Culture null numeric values

32893   Display/GIS correctly draws Oracle Spatial data when switching between map sheets

35830   Display/GIS correctly handles drag and drop with with "Automatically Modify Defaults" enabled

35293   Display/GIS correctly handles non native file paths

34826   Display/GIS crash no longer occurs when layer is deleted and data cache is disabled

27811   Display/GIS dbMap Culture handles invalid map sheets more robustly

35913   Display/GIS Info button no longer causes a crashes if pressed with no file name selected

35059   Display/GIS lists available annotation queries are updated when data source is modified

32692   Display/GIS Query attribute works as expected for SDE layers with floating point key fields

34851   Display/GIS SDE attribute querying has more robust SQL handling

33409   Display/GIS thematic mapping "exact match" correctly shows date selector field

24527   Display/GIS thematic mapping "exact match" scan allows selection of multiple values

33419   Display/GIS thematic mapping date selector allows "July" to be selected

35220	Display/GIS thematic mapping now works correctly for date attributes
33536	Display/GIS thematic mapping processes numeric attributes with non standard formatting correctly
26291	Display/Legend no longer groups separate GIS layers based on common thematic mapping rules
32557	Exporting polygon with holes to line type shapefile includes holes
34841	Improved handling of DGN files with invalid element information
35217	Mapping/Display/Any Data handles ZGF files correctly

Mapping/Surfaces

| 32154 | Direct display of formation thickness is now always displayed as positive values |

Paradigm-Epos plugin

| 35383 | Paradigm-Epos plugin no longer crashes when loading DBM files that reference missing formation tops |
| 33675 | Paradigm-Epos plugin no longer leaks memory when reading 3D seismic data |

Project Selector

29232	File selector fields warn about files being overwritten when file name is directly typed into the field
36823	Project Selector Administration dialog has better validation of input data
32953	Project Selector Administration dialog robustness improved when duplicate data encountered
29276	Project Selector performance in group lockdown mode has been improved for large project lists
31103	Project Selector/Copy Project option now has a progress dialog
32635	Project Selector/New disallows selection of an existing directory for a new project

Seismic data

35149	A SeisWorks shift file in Windows text format is now correctly read on Linux
32714	Adding new line data in the Seismic Line Editor no longer crashes
34872	SDF - Misties Report - Complex SDF with lots of datatypes selected will now work
30518	Seismic SDF project manager status bar displays correct summary information

Surface Modeling

33155	Can now select individual clipping polygons
33501	For some grid create options, a progress bar used to be displayed with random characters shown
31622	Grid/Dump fault file- Overwrite warning no longer is raised for a non-existent fault file
32465	No longer prompted for file name resolution on AOI file names which are not active
33229	Output Geometry tab using Data input initialises the dialog with correct values
27283	Precision of EN and rotation data in Surface Modelling showed too many decimal places
33100	Snapping to cell size with different X and Y cell sizes now produces correctly sized grids
22280	Temporary grid files used to be left behind after gridding processes had been run
23994	The "Tools/Log Stop" option now correctly searches for the appropriate XSL file

| 29556 | The order of gridding data inputs in Grid/Create/Grid no longer changes when the task is reopened |

Surface Modeling/Contouring

35201	Contour / Grid (By Cell)... now closes all contour files
32948	Contouring no longer produces kinks when using faults digitised on grid cell boundaries.
31725	Contouring would occasionally fail to generate long contours

Surface Modeling/Grid Operations

17414	/Grid/Processes/Arithmetic - Contour file name correctly linked to grid file name
32858	/Grid/Processes/Arithmetic - Kingdom fault connection restored when dialog raised
33003	/Grid/Processes/Arithmetic - variable information now saved to panels if overwrite dialog is cancelled
35216	Grid/Create/ - Polygon Clipping no longer clips grid nodes located on the polygon boundary
33775	Grid/Merge/Blend now checks the feathering distance is not too small for the input grids selected
37396	Grid/Processes/Arithmetic now restores the selected map sheet for the geometry tab between runs

Surface Modeling/Gridding

34286	Geometry Area of Interest Data scan now uses output grid CRS
22403	GIP editor no longer crashes after File/Merge
32350	Grid / Create Grid with Petrel fault data - "Use Z values" toggle could not be changed
32957	Grid interpolation improved around faults/polygons with segments lying directly along the x or y axis.
30395	Grid interpolation now uses clipping polygons correctly
26928	Grid/Create - clipping by distance and polygon GUI has been simplified.
33736	Grid/Create Grid - spatial data source work as expected for all sampling methods
27947	Grid/Create Grid clip by distance and polygon GUI improvements
22627	Grid/Create grid has been made more efficient and more stable
17268	Grid/Create now checks the sample data file name is valid
33045	Grid/Well Tie and Grid/Phantom using fault Z values would produce incorrect correction and tied grids
15835	Gridding 2D seismic from non-primary connection now works
34042	Only input data points which lie inside the AOI of a grid will be used
33519	Seismic dbMap input data is now referred to as Petrosys-dbMap
32479	Support for gridding multi-shape spatial data sources
31457	The "Projected Slope" gridding algorithm method has been deprecated
30878	Well-Tie and Phantom gridding using the "distance" method was not using third party fault information correctly

Surface Modeling/Kriging

| 36260 | "Set initial theoretical variogram parameters" incorrectly used to display error message about constraint parameters |

35335   Display of sill and range now drawn correctly for the minimum direction
         variogram

Surface Modeling/Volumetrics

32942   Computed scale factor parameters are now saved for every zone in a task file

28272   Grid based slice volumetrics areas reporting for Top/Base grid was not consistent
         with old grid-based method

32927   Grid based statistics button no longer shows a blank dialog on first invocation

34336   Volumetrics template XSV files are now searched for in correct priority order

33203   Volumetrics web report was incorrectly reporting Totals by polygon within zone

Well data

33814   Deleting a spreadsheet layout in the WDF Editor no longer hides tree view

34704   WDF import now reports warning about vertical wells only once per well when
         importing checkshot data

32328   Wells (WDF) editor - Fixed stratigraphical sorting of Zone classes

34615   Wells (WDF) editor fields missing from File/Import/General panel have been
         restored

33683   Wells (WDF) editor no longer hangs when closing main window tabs

30172   Wells (WDF) editor Project Information Zone sequence sorting works as expected

35974   Width of directional survey Y-Offset column in WDF editor has been reduced

Detailed Release Notes

Petrosys release 17_3 [341 entries]

3D Viewer   Enhancements

3D Viewer well tracks rendering improvements   30632

Well track rendering has been made smoother.

Can now update layers using icon buttons   17198

There are two new icons in Display/Modify. One to update selected layers and one to update all layers.

OpenInventor upgraded to 8.6.2   30590

OpenInventor toolkit used for 3D Viewer rendering has been upgraded to version 8.6.2.

3D Viewer   Bug Fixes

3D Viewer grid cell outlines used to be incorrectly located when the project CRS differs from the grid CRS   34515

Surface/grid cell outlines are in the correct positions when the project CRS is different from that of the surface/grid.

3D viewer now prompts to save changes when closed via "X" button   31338

In previous versions, if the 'X' button was used to close 3D Viewer, a prompt to save changes would not be displayed. Note that the prompt is only shown when the current 3D Viewer display list has been modified.

3D Viewer now restores background colour setting from previous session   35145

The viewer's background colour is remembered between sessions. Previously the background colour would be reset to the default.

Application Launcher   Enhancements

Added menu options to launch Well Import Wizard and Spatial Data Translator under Import menu
35541

Menu options to launch the Wells Import Wizard and Spatial Data Translator have been added to the Import menu on the Launcher screen.

Application Launcher   Bug Fixes

Improved error message when Petrosys fails to start due to an invalid or inaccessible "local" directory
32604

The "Local" directory is a directory that contains certain Petrosys information and can be used for sharing configuration across a site, Petrosys requires read access to this directory to be able to run. The error message shown when the "Local" directory could not be run has been improved to give a clearer indication of the problem.

Client specific   Bug Fixes

Correct well header column is now used for Final TD data (DPI Victoria only)
32667

DPI Victoria used a different column to store the Final TD value on the well header than some other clients. The DPI Victoria configuration has been updated to read the data from the correct column.

dbMap Well coordinates screen - Source lookup list appeared twice when button pressed
24933

For some clients when pressing the 'Surface/Source' button or 'Bottom hole/Source' button on the well header/New... screen, the lookup screen would be displayed twice. It is now correctly displayed only once.

Fixes for /List/Prospects And Leads (Santos only)
28158

The Santos /Lists/Prospects And Leads panel has been fixed in a couple of ways:

- ➢ selection now works correctly and is done via a checkbox
- ➢ the layout of the Add/Using Form dialog has been improved and fields now work as expected

Lists/Wells/dbMap, Add/Using form... now remembers previous values for fields (Santos only)
35270

The Add using form functionality to populate the dbMap wells edit list now correctly remembers the previously entered field values.

Prospects and leads and drilling opportunities are correctly highlighted on the map and edit list (Santos only)
35007

The client specific "Display/Prospects And Leads" and "Display/Drilling Opportunities" options have been fixed so that highlighting items from either of these layers on the map correctly highlights the corresponding entry in the list screen (and vice versa).

Well alias details now update correctly on Basic Well screen (Santos only)
37224

The well alias displayed on the Basic Wells screen is now correctly refreshed as different wells are selected.

Configuration   Enhancements

Command line option available to allow renaming of SDE servers referenced in a dbm file
31656

Petrosys includes an advanced (command-line only) option to aid upgrading dbm files to use a different SDE server. Please contact Petrosys support for more details regarding this.

Linux Installer adds more explicit checks at the start of the install to be sure the user has permissions to create/modify files
33301

Linux installer adds more explicit checks that the user has permissions to create/modify files at the start of the install.

Support removed for directory based panels.pnd files (multi-session)
32839

Support for directory based panels.pnd files has been removed. This option was enabled by the ps_multi environment variable and was rarely if ever used and added unneeded complexity to the start scripts. Removing support for this improves the performance of the application slightly. This option was only available under Linux.

Configuration   Bug Fixes

Configuration option to reset user interface settings renamed
32399

The options available under the Configuration/Advanced/Reset tab have been renamed, expanded and clarified to make their behaviour more obvious.

Configuration options to clear saved window positions and toolbars are only available as User options
29820

These options are only applicable for "User" based settings in the configuration tool.

Linux installer now uses configured $ps_local
33745

In previous versions, the Linux Petrosys installer would ignore the ps_local setting from petrosys.cfg and install files to either the users $ps_local location (if set) or a default location. This has been corrected so the installer will use the ps_local value as configured by the site's petrosys.cfg.

Configuration/Configuration Files   Bug Fixes

Petrosys configuration directory .petrosys is created for first time users on Linux
33638

On Linux some configuration data is located in the ~/.petrosys directory. In previous versions this directory was not automatically created if it did not exist leading to an unnecessary error.

Configuration/Database Connections   Bug Fixes

Petrosys will now connect to primary connections that have spaces in the name
35837

Petrosys previously could not connect to a primary connection with an embedded space in its connections.xml 'Name' entry. Names with embedded spaces are now handled correctly.

Connections, import and export — Enhancements

Ability to connect to SeisWare SQL Server projects without specifying them in connections.xml
22139

Users can now connect to SeisWare SQL Server projects without adding an entry to connections.xml.

Added support to use a UPM central password manager
35072

The Password Manager command line utility has been added to support the use of a UPM (Universal Password Manager). The newly added script (*ps_passwd_mgr*) is available in the root directory of the Petrosys installation for Linux installations.

The utility provides several functions for managing passwords in Petrosys:

- ➢ Update connection details (ps_passwd_mgr --update)
- ➢ Delete connections (ps_passwd_mgr --delete)
- ➢ List connections (ps_passwd_mgr --list)

For more information on each function use the *--help* command line option to get a detailed usage message (e.g. *ps_passwd_mgr --update --help*).

dbMap SQL function to format decimal degree coordinates as Degrees Minutes Seconds
34835

A new dbMap SQL function is now available for formatting decimal degrees as degrees minutes seconds (DMS). For example, call ps_format_dms(140.234,"LATITUDE", "ddmmss.ss E", 2)

Parameters:

1. Coordinate in decimal degrees
2. "LATITUDE" or "LONGITUDE" string (so Petrosys can append N, S, E or W)
3. DMS format (optional - default is "ddmmss.ss E")
4. Number of decimal places (optional - default is 2)

Supported format strings are:

- ➢ "ddmmss E"
- ➢ "ddmmss e"
- ➢ "ddmmss.ss E"
- ➢ "ddmmss.ss e"
- ➢ "d.dd"
- ➢ "d.dd E"
- ➢ "d.dd e"
- ➢ "ddmm.mm"
- ➢ "ddmm.mm E"
- ➢ "ddmm.mm e"

Enhancements to SeisWorks seismic import
22036

Several enhancements and bug fixes have been made to the Launcher/Import/Landmark/SeisWorks option for loading seismic and other data into Petrosys data files. These include:

1. The Connection Manager selection interface is now used to pick SeisWorks projects, which reads CRS information directly from the SeisWorks project.
2. The 2D line, 3D survey, inline/xline and horizon lists now re-size when you change the size of the import dialog
3. The import dialog now remembers your previous 2D seismic line, 3D survey and horizon selections along with the horizon name mapping
4. It is now possible to add the survey name to 3D survey inlines and xlines via RMB/Set prefix-suffix
5. Improved logging and summary reporting of import processes
6. Allow interpolation across gaps in interpretation data from SeisWorks
7. Added control for overwriting existing grid files when saving 3D horizon interpretations

Export/Paradigm/Grid now supports Paradigm as an input data source
34048

It is now possible to transfer grids between Paradigm projects, as Paradigm itself is now a valid input data source for exporting grids to Paradigm.

Import/Kingdom seismic default horizon data type is now Time
26311

The default data type is now "Time" when importing seismic horizon data into an SDF using Import/Kingdom/Import horizon data. Previously the default data type was Amplitudes.

Kingdom import can now load larger 3D survey horizon data to grids
26659

Kingdom Import can now load larger 3D surveys of approximately 6000 x 9000.

Paradigm-Epos well header screen now computes and displays the bottom hole coordinates
32292

The well header screen now computes the bottom hole location if it is missing. It is computed by extrapolating to Final TD (if a Final TD value exists), else to the end of the directional survey.

Reduced memory used when reading SeisWorks 3D seismic surfaces with inline / xline increments
36433

When reading 3D seismic surfaces from SeisWorks, the inline and xline increments are now used, which reduces the amount of memory required.

This affects Display/3D Seismic Surfaces, Grid/Create grid, Exchange/3D Seismic Surfaces with SeisWorks as the data source, along with Import/Landmark/SeisWorks. The options previously gave the correct results but used more memory than was necessary.

Renamed IPL options to IHS Info Hub 25082

References to 'IPL' in Petrosys have been replaced with 'IHS Info Hub'.

Renamed SMT options to Kingdom 32920

References to 'SMT' in Petrosys have been replaced with 'Kingdom'.

Seismic lines can now be filtered by 2D survey in OpenWorks edit list 21344

It is now possible to filter the list of OpenWorks seismic lines by 2D survey in the Using-form filter.

SeisWorks seismic data import is now available on Windows 18553

The importing of 2D and 3D survey horizon data from SeisWorks to SDF is now available on Windows using a dispatch server connection. This also includes saving 3D survey outlines as polygons and 3D horizon interpretations as XYZ or grid files. Importing SeisWorks fault data is currently not supported on Windows.

Username/password prompts now explicitly state if you are being asked for a Database or Operating system username/password 35933

Previously when connecting to OpenWorks, SeisWorks or GeoFrame connections via the dispatch server, it was confusing as to which username / password the user was expected to enter. The labels are now more explicit and state if it is the database username / password or the operating system username / password that needs to be entered.

Well directional survey screen now available for Paradigm-Epos, Petra, Petrel and SeisWare 23387

A well directional survey screen is now available for Paradigm-Epos, Petra, Petrel and SeisWare. The Kingdom wells module has also been upgraded to use the new screen.

It can be accessed from the Well header screen for each data source.

Well formation tops screen now available for Paradigm-Epos, Petra, Petrel and SeisWare 23386

A well formation tops and attributes screen is now available for Paradigm-Epos, Petra, Petrel and SeisWare. The Kingdom, ODM and WDF wells module have also been upgraded to use the new screen when accessed from Mapping.

It can be accessed from the Well header screen for each data source.

Wells Import Wizard now loads more well depth datum information when importing from OpenWorks to WDF 31547

Importing well header data from OpenWorks into WDF using the Wells Import Wizard is now consistent with using the Import/Landmark/OpenWorks/Wells to WDF link option. The depth datum type (KB, DF, GL, etc.) of the well is now set and the associated well depth field is also populated.

Connections, import and export   Bug Fixes

Connection errors caused by bad login credentials now prompt user to re-enter a username and password 21321

If making a connection fails due to a username and/or password problem, the user will now be prompted to re-enter their username and password credentials.

Connection manager panel now initialises the primary connection correctly 29901

When starting the connection manager tool from the Surface Modeling application, the primary connection was not being displayed correctly. The panel now correctly initialises the primary connection if required and and displays it on start up.

Connections now prompt to re-enter username/password credentials if they are incorrect in the Password Manager 21141

Re-establishing connections will now prompt for your user and password if the saved information in the Password Manager is incorrect.

Connections to Oracle are now allowed for users whose password is about to expire 32313

The Oracle message ORA-28002 has now been changed from an error to a warning. This allows connections to databases where the user's password is about to expire.

Exchange/Fault sticks and 3D seismic surfaces can now connect to SeisWorks R5000 when there are many projects 37258

If you have an OpenWorks R5000 database with many SeisWorks projects (3D surveys), the Exchange/Fault sticks and Exchange/3D Seismic Surfaces options are now able to connect successfully. Previously, if you had more than approximately 2500 SeisWorks projects, Petrosys would appear to hang for 5 minutes, then report an error that it could not connect to the selected project.

This was only a problem with the Exchange options. Other SeisWorks options such as Display/2D seismic & 3D seismic surfaces were able to connect without issue.

Importing zone attributes from one WDF to another no longer hangs
33493

Importing zone attributes from one WDF to another could some times cause the Wells Import Wizard to hang. This has been fixed.

Kingdom well header now shows coordinates in CRS of the map sheet
35161

Previously the Kingdom well header did not display the coordinates of the well in the CRS of the current map sheet. The well header screen now shows the coordinates in the CRS of the Kingdom project and the CRS of the current map sheet.

Kingdom/Import - xline increment is now used for xline lines
35623

When importing Kingdom seismic data to SDF the xline and inline increments are now correctly used. Previously the inline increment was used for both inline and xline lines.

OpenWorks projects specified in connections.xml now appear when adding new connections
35070

OpenWorks projects specified in the connections.xml file will now correctly appear in the Connection Managers 'Add new connection' dialog when establishing new connections to OpenWorks projects.

Paradigm-Epos version string now displayed for old connections.xml entries
34919

The connection manager now shows the Paradigm-Epos version for old style Paradigm-Epos connection entries where the Epos version was not specified.

Removed incorrect Oracle errors from diagnostics
28812

File/Preferences/Diagnostics no longer reports "ORA-01002: fetch out of sequence" or "Error. No records exist" messages for Oracle database connections, when the query that was run was in fact valid and returned rows from the database.

SeisWorks 3D horizon data no longer gets mirrored in Gridding and Direct Import
16137

Some SeisWorks 3D seismic surfaces could appear mirrored in direct gridding and direct import options. These options have been fixed.

dbMap   Enhancements

Admin/Reports/Edit now shows only data types that are available for use
35950

The Admin/Reports/Edit screen previously showed all possible data types irrespective of whether those data types were available for use. The list of data types shown are now restricted by what connections you have configured in your site connections.xml file and the platform you are running on (Windows vs Linux).

dbMap Titles - Increased Title name maximum width to 50 characters
35791

The length allowed for a name of a title (dbMap Titles Module) has been increased to 50 characters.

Renamed "dbMap" to "Petrosys-dbMap" in Display/3D Seismic Bin Grid
35125

When choosing a data source to extract data we use the name 'Petrosys-dbMap' instead of 'dbMap' through out the application. Display / 3D Bin Grid has been changed to use the same naming.

Stored SQL editing - Increased allowed size of query name and description
36115

On the Admin/Reports/Edit screen the maximum size of a query name has been increased to 100 characters and the maximum size of description has been increased to 2000 characters.

dbMap   Bug Fixes

/Mapping/Lists/Culture highlighting is synchronised with map highlighting
29679

Selecting shapes in the Culture list window highlights the corresponding shape on the map and vice versa. In previous v17 versions this did not work correctly.

dbMap Well coordinates edit screen now works for non-primary connections
35839

When editing dbMap well coordinates the screen would attempt to save changes to the primary database, even if it is data from a secondary connection that was being edited.

Edit list reports run against dbMap databases now honour sorting and group by SQL statements with more than 254 items in the list
16118

Previously when running a report from the Edit list options the items in the list would be processed in batches of 254 items. This meant that order by or group by clauses in an SQL statement could be processed incorrectly. If you have a PETROSYS_WORK4 table in your dbMap database order by and group by clauses will now be processed correctly.

This problem only applied to reports launched from the Edit list screens. Reports launched from the 'Reports' menu already process order by and group by correctly.

dbMap - User interface   Enhancements

Added Well Alias screen for all dbMap clients
33397

A well alias screen is now available for dbMap clients who didn't have one previously. It can be accessed from the well header screen.

Any client who already had access to the well alias screen is unaffected by this change.

dbMap reports screen - Ability to create selection file from report results
23107

Selection files can now be saved from dbMap report results screens. This functionality is accessed from File/Save selection file on the report results screen.

dbMap reports scrolled list sorting defaults set to be ascending
29866

In v16 (and earlier) versions of Petrosys, when sorting in the dbMap reports table list screens by clicking on a column header, the contents were sorted in ascending order. Version 17.3 also sorts in this order (previous v17 versions initially sorted descending).

dbMap Wells - Checkshot - TZPlot - Menu now has export and print options
33808

The dbMap Lists/Wells/Checkshots/.... TZ plot menu now has the /File/Print and /File/Export to ... options.

Kingdom, Petrel, Paradigm-Epos and SeisWare well header screens now also display Latitude/Longitude coordinate if original data is in Easting/Northings
35328

On well header screens, if the original coordinates are in projected easting/northings, the equivalent latitude/longitude values are now also computed and displayed.

Numeric fields in panels no longer have a limit of 10 decimal places
34611

In previous v17 versions, numeric fields only allowed a maximum of ten decimal places. This restriction has been removed.

Query Windows - Lists now expand with the window as it is resized
33956

The query windows for /Display/Wells and /Display/GIS will now resize smarter with list contents expanding with the window.

The appearance of the dbMap well header screen has been improved
28424

The alignment and sizing of field widgets on this screen have been improved to make the screen more usable.

Wells production charts now have Print and Export options
33086

The dbMap gas and oil production graphs now have the print and export options in their File menu.

dbMap - User interface   Bug Fixes

dbMap Reports - Clip-to-AOI now returns the correct number of results
15597

If you had a report that didn't contain an OBJECT_UID column or a %UIDLIST% in-clause but had Clip-to-AOI turned on and Data selection is not checked, then the results from the report would be added to the list twice. This has been fixed.

Numeric columns in dbMap/Query table lists are sorted numerically
30496

The /Mapping/Query options show table lists with query results. In previous v17 versions, sorting on a numeric columns in one of these lists would show the rows sorted alphanumerically instead of numerically.

Wells/Run External Script option now checks a script is selected before a user can click OK
30548

The Run external script option available from the right-mouse-button menu after selecting a well on a map now checks that a script has been selected before the user can press OK.

Digitizing   Bug Fixes

Depth Section Digitizing - Label on Y axis is correctly labelled as Depth
33629

In the seismic depth digitizing application, the label for the Y axis is now correctly labelled as "Depth"

General Enhancements

Add support for detecting Oracle Linux and Red Hat Workstation on Linux
34083

Linux OS detection script has been extended to recognise Oracle Linux.

File/Preferences/Diagnostics now includes more connection and configuration information
32324

More information is now written to the diagnostics log file when File/Preference/Diagnostics is turned on. This information makes it easier for Petrosys support staff to gather information when diagnosing client issues.

Improved error messages when running in a project with insufficient permissions
35231

To run Petrosys in a project, write permission is required to the project directory. The error message when attempting to run Petrosys in a read-only directory has been improved to more clearly identify the problem.

Improved support for operating system usernames that have non-ASCII characters
30650

We now handle operating system usernames that have non-ASCII characters better. There were a number of places in the application that could fail due to temporary file names being unable to be created based on the username.

Licensing changes for v17.3
28912

Petrosys 17.3 requires an updated Flex license file to run. The key change to licensing is access to Petrel functionality is now controlled by the Data - Connect and Data - SQL licenses.

Petrosys diagnostics screen simplified
30730

Petrosys diagnostics have option has been simplified by removing the rarely used trace to screen option and removing the priority levels. This simplifies the process of gathering diagnostics when seeking assistance from Petrosys Support.

Petrosys supported on Windows 8
36578

Petrosys v17.3 has been validated on the Windows 8 operating system and is an officially supported platform. This includes both 32- and 64-bit variants of Windows 8.

Start performance of application has improved

The time to start Petrosys applications has improved, in some cases, significantly. Starting the Mapping application shows the greatest improvement with a speed up of 50% seen in some instances. The biggest improvements are seen when either the application and/or the project are on a network drive and mostly on the Windows operating system.

Various improvements to table list filtering

Petrosys version 17 first introduced the ability to filter rows displayed in "scrolled lists" (i.e. table grids) throughout the software. Version 17.3 includes several improvements to this functionality:

➢ The value to filter by in previous versions was a simple drop-down list selection of single value. The user interface for this has been upgraded to provide much more control over filtering. Firstly a multi-select list may be used to filter by multiple values. Secondly, rules based mapping has been added allowing for sub-string matching and greater-than and less-than numerical comparisons - refer to the on-line help for more details

➢ In previous versions, the drop-down list of values was restricted to only show a limited set for performance reasons. The number shown by default has been increased and is configurable and a <more> option has been added to the list to the show all possible values to filter by

➢ Checkbox columns can now be filtered - this is a quick way to show only selected or unselected rows

➢ Scrolled lists include right mouse button popup menus to select all and deselect all the current visible items after filtering has been applied. This can be a powerful method to build up complex selections of items in certain lists by changing the filtering a number of times and updating the selected items each time (the well selection list for example)

General - graphics   Enhancements

Performance and memory improvements to raster image display

Memory use when drawing raster images in certain contexts (screen, hardcopy, PDF and export raster) has been improved which results in faster operation and larger images able to be supported.

Removed support for /Display/Picture/Raster Web raster source

The Display/Raster "Web" data source has been removed - this has been superseded by WMS.

General - User interface   Enhancements

3D Viewer and Surface Modelling now support additional and custom toolbars
34455

3D Viewer and Surface Modeling now include extra tool bars including a customisable toolbar allowing addition of arbitrary menu options.

Certain table lists allow in-cell editing
31552

Certain table lists in Petrosys allow entry of data values (for example coordinate entry screen). In previous versions, data was entered via an edit box below the list. In version 17.3, all editable lists have been upgraded to allow direct in-cell editing of values.

File selection dialog includes a shortcut to the project directory
35242

The file selection dialog now contains a bookmark for the current project. This is an easy way to return to the project directory after browsing to a different location.

File Selector converts previously selected files to native platform format
33312

When the same project is used on Windows and Linux, file fields can be populated with values in a non-native format. In version 17.3, paths are converted to use native directory characters (back slash on Windows and forward slash on Linux).

File selector now allows files without suffixes on Linux
11041

In previous v17 versions, the Linux file selector did not allow files without an extension to be selected.

Font selector has better handling for unknown fonts
35019

In previous versions, the font selector would default to the previously selected font when an unknown font was encountered. In version 17.3, the font selector will default to the font that most closely matches the unknown font. This problem is most evident when upgrading from v16 to v17.

Improved detection of corrupt user state XML files
37458

A bug in previous v17 versions could result in a corrupt user state configuration file on Linux (this file is used to store panel sizes and locations). Version 17.3 has fixed this bug and also includes functionality to detect a corrupt configuration and correct it by removing invalid entries.

Improvements to appearance of active tabs
31151

In previous versions, tabs that were enabled via a checkbox were were marked with a star character ('*') on the tab title. In version 17.3, active tabs are flagged with an icon.

Improvements to the Project Selector/Find Projects option
29438

The Find Projects option has been improved in several ways

- ➤ The dialog has been revamped to be quicker and easier to use.
- ➤ The folder to search from is added as a project if appropriate (previously this folder was never considered)
- ➤ When searching for projects, the project list is populated as potential projects are found, instead of at the end of the search.
- ➤ When searching for projects, the project list indicates directories that have already been added as a project.

More control over whether windows can be shown behind or in front of other windows
33656

The behaviour of windows shown by Petrosys can now be customised using the Configuration Tool/Appearance/Settings option. The following alternatives are now available:

- ➤ Allow all windows to go behind
- ➤ Specially flagged windows stay in front
- ➤ Allow Specially flagged windows to go behind
- ➤ All windows stay in front

Please refer to the help topic for more information on these settings.

Overall appearance of a number panels has been improved
31502

Sizing and layout of various panels across the application has been improved. In addition specific improvements have been made to the following panels:

- ➤ Spatial data translator
- ➤ Grid/Create Grid - OpenWorks point data
- ➤ Various dialogs in the Project Selector including the new project dialog.
- ➤ WDF Editor "Checkshot survey" and "Directional survey" tabs
- ➤ Project Selector
- ➤ Configuration

Query result table list sorting and column widths improved 33802

The table lists used in query dialogs (one example of these is the right mouse button "Query Attributes" options available for Display/GIS) to show query results have been improved to remember column widths where possible, to show correct sorting indicators and to disable sorting when adding new rows. In previous v17 versions, column widths would resize when new data was added to the query result dialog (e.g. by clicking on an object on the map) and the new rows would be added in positions that were non-obvious.

Table list editing and navigation improved 34075

Mouse handling, keyboard shortcuts and appearance for table lists has been improved throughout Petrosys in order to make them easier to use:

➢ Arrow keys can be used to navigate through fields for all types of table list
➢ Tab and Shift-Tab can be used to move forwards and backwards through cells, skipping ahead to the next editable cell
➢ When not editing a cell, the Enter key will move to the next row. When editing a cell, the Enter key will accept the current value and move to the next editable cell
➢ A single mouse click on editable cells will invoke edit mode for that cell (for both text cells and combo box cells)
➢ Pressing F2 with an editable cell selected will invoke edit mode for that cell
➢ The Delete key will delete the contents of an editable cell when it is not being edited
➢ Pressing the Escape key in a cell that is in edit mode will revert any changes

Table list searching loops from end of the list back to the start 35386

Table list searching loops over and over through all occurrences of the text being searched for. In previous versions, searching would stop at the end of the table list.

Table list sorting now uses natural sort order 32162

Table list column sorting has been improved to reflect natural sort order which is the sort order generally expected by humans. In previous versions, the sort order was less than ideal with handling of numbers, blanks and unicode characters.

Table lists resize fonts dynamically 35272

The size of font used for table lists in panels can be dynamically increased or decreased using Ctrl+ or Ctrl-. This functionality has been available in all v17 versions of Petrosys, but did not work correctly for table lists.

Table lists support sorting of checkbox columns 35364

This allows easy grouping of selected rows versus unselected rows.

Table lists with checkbox selection support shift key for bulk selection 31476

Table lists that use a checkbox to allow multiple row selection now support setting multiple rows as checked by using the shift key when clicking.

The sizing of expanded combo box fields has been improved 33259

Two improvements have been made to the way that combo box fields are sized when expanded (i.e. after clicking on the arrow):

➢ The horizontal size can now be wider that the unexpanded field, which prevents unnecessary truncation of list items
➢ The vertical size is now expanded to as much room as available on the screen to avoid showing a scroll bar when not required.

General - User interface   Bug Fixes

Certain numeric fields in panels enforce a maximum value 35581

Certain numeric fields in panels throughout Petrosys have an upper limit defined. In previous versions of Petrosys, this limit was not enforced.

Correct parent window is shown after a panel is closed 33537

In previous versions, when closing certain dialogs, windows from other applications could be incorrectly brought to the front instead of the parent Petrosys window of the dialog that was closed.

CRS / Projection Editor no longer crashes when table list filter used 32674

This dialog could crash in previous v17 versions under some circumstances.

Disabled file selector fields can no longer be cleared using the right mouse button 35758

File selector fields support clearing the currently selected file with a right mouse button press on the icon. In previous v17 versions, the clearing incorrectly occurred for disabled file selector fields.

ECW error XP:202 "User Interrupt" eliminated 35090

In some rare situations the error XP:202 could appear whilst displaying ECW files. This error has been eliminated.

Fixed format definition dialog column selection improved 34971

In version 17 of Petrosys the fixed format column definition dialog was difficult to use to define multiple columns. After selecting a column the mouse highlight would remain in place which made it hard to select the next column. Version 17.3 now behaves the same as version 16 with regard to this.

Gradient selector widget shows preview correctly 36148

Petrosys version 17 added a graphical preview to the gradient selector button. In some circumstances (usually relating to the default gradient), the gradient preview drawn on the button would be drawn incorrectly - typically as all red.

Multi-line text "Save to file" and "Insert from file" options work as expected 33795

Several problems with multi-line text fields have been fixed:

➢ The right mouse button "Save to file" option correctly overwrites existing files
➢ Improved support for unicode characters

Petrosys help is able to be printed on Windows 31618

In previous v17 versions of Petrosys attempting to print the online help would result in blank pages being printed.

Popup error message box windows are now parented correctly 37116

Error message boxes now linked to the panel they were created for. In previous versions they were not linked and this could lead to confusion as to why a panel would not respond due a modal error message being hidden.

Scrolling with mouse wheel in file selector field no longer crashes 34482

Mouse wheel scrolling has no actual effect inside a file selector field, but caused in crash in previous v17 versions if inadvertently done.

Table list "Reset all" option correctly resets column visibility 36632

The table list right mouse button option "Reset All" now correctly hides columns which are not visible by default.

Table list searching in lists with in-cell editing works as expected 31735

Several problems related to searching in editable table lists were fixed:

➢ highlight being drawn in the incorrect location in some lists
➢ cell editing stealing input from search bar

The last column in table lists no longer stretches to fill the entire screen 34390

Table lists have been improved to size the last column to a sensible width by default. In previous v17 versions, the last column in a table list would (usually) automatically resize to take up all available space.

GIS Editor — Enhancements

Performance populating Culture Editor group point and line edit lists improved
33769

In previous v17 versions, the group editing lists in the Culture Editor could take a very long time to be initialised for data with large amounts of points.

GIS Editor — Bug Fixes

/Culture Editor/Format list only accepts upper case characters for "Field" column
34320

The Field column now enforces upper case values.

Culture Editor in-cell editing no longer adds trailing spaces
34224

In previous versions, editing shape names in the GIS (CUL)>Edit screen incorrectly added trailing spaces to the name entered.

Graphics/Plotting and Hardcopy — Enhancements

File/Export/Raster Image - improved exporting of raster images
33577

File/Export/Raster Image has been added to Mapping as a new method for exporting maps to raster image types. This option is intended to eventually replace exporting to raster via File/Print, but currently both methods are available. The File/Export/Raster option supports writing to the same image types (TIF, ECW, JPEG2000, PNG, JPEG, BMP) but provide more dynamic control over the output raster. For example, File/Export/Raster Image allows the output raster size to be specified in pixels or DPI, and also allows this size to be modified for each export whereas File/Print requires pre-setup of a raster format plotter at particular DPI settings.

Improved PDF generation including support for layers and geospatial information
25504

Mapping now includes a File/Export/PDF option allowing more control over exporting the current map to a PDF, including output orientation, size and DPI settings and current view versus entire map.

PDF generation in Petrosys has also been enhanced to allow (optional) support for including the following:

➢ layers matching the display list hierarchy
➢ geospatial information

Geospatial PDFs can be a useful way to distribute maps as they potentially allow for location and measuring on published maps.

Graphics/Plotting and Hardcopy — Bug Fixes

Line style mappings from Petrosys to CGM improved
33406

The Petrosys graphical linestyles number 5 and 6 are now correctly translated to the equivalent CGM linetypes when exporting or saving a map to CGM. Additionally Petrosys linestyles 6 to 9 are translated to the closest CGM equivalent. Previously linestyles 6 to 9 would be translated to a solid line.

Help   Enhancements

3D Viewer help updated
33064

The help for the 3D Viewer application has been completely re-written to improve readability and better describe the available functionality.

Spatial and Wells Input Data help topics updated
32906

The GRIDDING - WELL AND CULTURE DATA topic has been split into GRIDDING - INPUT DATA - SPATIAL and GRIDDING - INPUT DATA - WELLS. The topics have been revised to better document how spatial and well data can be used as a data input in gridding.

User Interface help topics created
35086

The common functionality of the Petrosys user interface is now described in a new section of the Petrosys Online Help. This provides both new and existing users direction on how to use the features of the Petrosys user interface such as:

- ➢ shortcut keys, right-mouse-button (RMB) menus, middle-mouse-button modes and mouse-wheel functions
- ➢ toolbars, including custom toolbars
- ➢ file selection and bookmarking
- ➢ advanced list features, including sorting, searching and filtering

Help   Bug Fixes

Invoking help for top-level tools now show the correct help page
33648

In previous v17 versions the help introduction topic was shown instead of application specific help.

Import and Export   Enhancements

/Display/Picture/Raster Image includes support for Kingdom SMT raster images
32753

Raster images from the native Kingdom format are now able to be displayed in Mapping.

Excel spreadsheets can now be directly imported to WDF
23496

Excel spreadsheets can now be imported into WDF using the WDF editor File/Import/General option.

Improved support for reading data from Excel spreadsheets
24507

Support for handling of Excel data within Petrosys has been improved in a number of areas in the software:

Point, line and polygon data stored in Excel spreadsheets (support is included for xls and xlsx formats) can now be read directly by Petrosys and made use of in the following contexts:

- ➢ Mapping/Display/GIS (including drag-and-drop support)
- ➢ Surface Modelling/Grid/Create/Grid (as a Point Data input source)
- ➢ Spatial Data Translator input

The spreadsheet reading functionality includes the ability to control the columns that are read and their corresponding data-types - which are made available as attributes for use in the various contexts.

This feature is available on both Windows and Linux.

Improved support for reading GIS and grid input data from text files
22330

Version 17.3 includes better and more wide-spread support for reading data from text files, including the ability to handle text files containing point, line and polygon data. The reading functionality automatically determines the format of input files as much as possible, with a new format specification dialog available to correct or tailor the determined format. The format definition dialog includes the ability to control the columns of data that are read and their corresponding data-types, which are made available for use as attributes of the data.

Improved text-file reading support is available in the following contexts:

- ➢ Mapping/Display/GIS (including drag-and-drop support)
- ➢ Mapping/Display/Grid/Values
- ➢ Surface Modelling/Grid/Create/Grid (as a Point Data input source)
- ➢ Spatial Data Translator input

Improvements to the Table list RMB/Export to Excel option
32145

In previous versions of Petrosys all table lists already included a right mouse button option that allowed the table data to be exported to Excel. This functionality was limited however in that it was only supported on Windows and did not work for all permutations of Windows and Excel versions. In version 17.3 this export options has been enhanced to export the data directly to a .xls file. This makes the export work reliably and also makes the option available on Linux.

This includes the following specific fixes and enhancements:

- ➤ Export allows "All columns and rows" or "Visible columns and rows" to be exported. When the "Visible" option is selected, data will be exported exactly as it appears - visible columns, non-filtered rows and sorted to match
- ➤ The export options works when Excel is not installed
- ➤ A larger quantity of data can be exported

Spatial Data Translator allows multiple exports without the dialog closing
35298

The spatial data translator has been modified to change the OK button to an Apply button which now allows multiple runs without the dialog closing. This option is available under Launcher/Exchange/Spatial data translator.

Support added for Petrosys GIP file as an input data source in Spatial Data Translator
32332

The spatial data translator now supports Petrosys Sample Data File (.gip) as an input data source, allowing export to any spatial data translator output type that supports point data. Sample Data File can also be exported from Mapping via the right mouse mouse popup menu option "Export Spatial" from "Display/Sample Data File (.gip)" layers.

The default grid export option is now "XYZ points"
34380

Petrosys grid export now defaults to the XYZ-Points format for a new project.

Import and Export   Bug Fixes

Can now load ASCII files in WDF import if it is open in another application (Windows only)
32955

Importing an ASCII file into the WDF will now work if that same file is currently opened in another package that has a write-lock on the file, such as Excel

Display/GIS - RMB/Export Spatial data now exports Z values of polygon inner holes
32721

The Display/GIS right mouse button "Export Spatial data" option now exports Z values from polygon inner holes - these values were not included in exports from earlier versions.

Export to Petrosys culture files via spatial data translator sets values with maximum decimal places
33280

In previous versions, numeric values were written with no decimal places to culture files, whereas now the maximum (2) decimal places is assumed.

Exporting spread-sheet data to Excel includes headers for all columns
33352

In previous versions, when spread-sheet data was exported to Excel (via the right-mouse menu option "Export to Excel" available from any table list) the first column header only was included in the export.

Importing using the fixed format options now works better with files that contain tabs
37256

The import options that allow selection of a fixed-format type ASCII file will now work without giving a MX:110 error when the ASCII file contains tab characters

Improved support for multi-line and multi-polygon shapefiles **32482**

Shapefiles containing multi-polygons are multi-lines are now handled correctly in various locations in Petrosys:

- ➤ Mapping/Display/GIS
- ➤ Spatial Data Translator - input
- ➤ Spatial Data Translator - output
- ➤ Surface Modeling/Grid/Create Grid/Input

Launcher - Export/Landmark/OpenWorks Grid option is no longer visible on Windows
36305

The Export/Landmark/OpenWorks Grid option is no longer visible on windows.

Spatial data translator create unique feature name for dbMap Culture
33533

Spatial data translator can now write feature name longer than 40 characters to dbMap culture. In previous version, exporting data to dbMap Culture might fail if feature culture name was longer than 40 characters

Spatial Data Translator has been fixed to handle spaces in column name
33818

Previously Spatial Data Translator would fail with error ps_geom:101 (unable to create view) if data columns with spaces in their names were exported to a dbMap culture database.
This has been corrected so all data will now be exported to dbMap culture databases.

Spatial Data Translator supports reading data from SDE feature dataset layers
33036

Feature datasets are a single-level hierarchical group containing feature classes. The spatial data translator now supports reads individual feature classes from within a feature dataset.

Spatial export to culture file correctly handles case where project default CRS is used and set to Local LL/XY
23271

Previous versions produced an output file with an unusable CRS set.

Mapping   Enhancements

Display/Grid/Sun Shaded option supports colour display using the raster method
12629

The Display/Grid/Sun Shaded option allows sun-shaded display of grids using either monochrome, color or inverted color. This has been enhanced when color or inverted-color is selected to support the "raster" display method (for screen and hardcopy output) which is much faster to draw than the "rectangles" method which was the only method supported in previous versions.

Display/Scale Bar option allows easy editing of displayed scale bar
15187

The Display/Scale Bar option includes a right mouse button popup menu option "Edit Scalebar" that displays the scale bar editor for the scale bar being displayed by the mapping layer. This menu will be enabled if the user has write permissions for the scale bar definition file.

Drawing tool shape layers allow sizes to be specified in real-world units
12293

In the past, the box, circle and ellipse drawing tool options in Mapping stored sizes reflected on the map sheet. This has been enhanced in 17.3 to also allow specification of sizes using world units (such as miles or kilometres). This can be advantageous for a couple of reasons - firstly the shape being mapped may be geographical in nature and its size defined in world units, and secondly the size of shapes using world units remains the same when changing to different map sheets or different scales.

Improved method for adding dynamic property text
31975

Previous versions of Petrosys have supported use of dynamic text properties in certain Mapping layers (e.g. Display/Text and also in title blocks) which are substituted when a map is drawn. Dynamic properties include such things as map sheet CRS, project name, dbm file name amongst others. Utilising this functionality in the past required error-prone and complicated manual entry of text keywords, but version 17.3 has improved by including a popup dialog allowing graphical selection. This is available via a "plus" button on the right hand side of edit boxes where the functionality is supported. In addition, Display/North Arrow and Display/Scale Bar also support dynamic text properties.

Improved North Arrows in Mapping
33182

North arrow display in 17.3 has been significantly improved. Where previous versions supported a single Petrosys defined north arrow, 17.3 allows arbitrary raster images and CGM files to be used to draw a north arrow, and is shipped with more default north arrows to choose from.

The improved north arrow includes more customisation options, including the type of north to display (true, grid or magnetic), colour and style options and additional text fields supporting dynamic properties.

Improved selection and resizing of rectangles with a fixed aspect ratio
35268

There are several interactive Mapping layers where Petrosys allows either selection or resizing of a rectangle with with a fixed aspect ratio (the ratio of width to height). The resizing behaviour has been optimised in this version to more closely follow the mouse position without large "jumps" which could occur in previous versions.

Improved support for multiple custom title block panels
14338

Petrosys maps are now able to better handle multiple title blocks for a single project. Title block content is populated using a custom panel for data entry. Previous versions of Petrosys only supported one custom title block panel per project (due to the title block panel having to be a specific name). Version 17.3 removes this restriction and uses a panel name equivalent to the title block CGM file name.

Improvements to positioning of scale bars
34935

Scale bars displayed via the Display/Scale Bar option have improved options for how they are located. In previous versions, scale bars were always positioned at an EN location. As of version 17.3, the position can also be set to LL or absolute position on the map sheet.

Significant improvements to scale bars
33181

Scale bars in Mapping in version 17.3 have been greatly improved. Previous versions of Petrosys allowed scale bars to be customised to some degree, but the scale bar style and layout was fundamentally the same. Scale bars in 17.3 have been made significantly richer and more flexible including the following:

- ➢ Support for a range of GIS standard scale bar line types
- ➢ The width of scale bar divisions can be specified directly (in the units of the scale)
- ➢ Flexibility of tick marks, tick annotation and label annotation in terms of both layout and style to allow easy creation of almost any desired scale bar style
- ➢ Support for scale bars with decimal place
- ➢ Handling of scales for small scale and large scale maps

The Display/Scale Bar option has also been enhanced to allow more flexibility to control the width and number of divisions of a particular scale bar, allowing tailoring for a particular map or situation.

Mapping

Bug Fixes

Cancelling interactive placement leaves undo/redo in a correct state
35899

There are a few mapping layers that allow interactive placement of the layer on a map (for example north arrow, scale bars, drawing tools etc.). While placing items such as these, the right mouse button can be used to cancel. In previous v17 version, cancelling interactive placement via the right mouse button would result in problems with undo and redo (for example, a single undo button press causing all changes to be reversed instead of just the most recent).

Curve smooth line option smooths over all entered curve points
15322

In previous versions for certain lines, enabling the "Smooth line" option in the Display/Drawing Tools/Curve option would result in the first entered point on the line being dropped from the smoothed output.

Database based map layers are consistently added to the legend
14464

This has been a long-standing bug where certain database based layers (Wells in particular) would sometimes get added correctly to the legend and sometimes not, depending on when the legend was created with respect to the layer being drawn. All map layers should now be added to the legend correctly in all contexts, including when updating into an existing legend.

Errors are no longer reported from inactive grid layers with missing files when moving layers
35901

Petrosys is not supposed to raise errors for missing files for mapping display layers that are not visible (until the layers are activated). In previous versions, moving inactive Display/Grid layers with missing grid files to a new position in the display list would incorrectly result in errors being displayed.

Gradient selector button behaviour improved when selected gradient does not exist
35157

The button used to select a gradient (for example observed on the Mapping/Display/Grid/Colorfill option) had several problems (including excessive error messages and potentially crashing) in previous versions when a previously selected gradient no longer existed.

Mapping interactive picking is no longer lost after printing *29770*

In previous versions, interactive picking of objects on a map would be lost after the map was printed (to a printer or raster format) via the File/Print option.

Picking is correct for drawing tools layers after dragging to a new position *34123*

In previous v17 versions dragging any of the drawing tools layers (closed shape, curve, ellipse, box, circle) to a new position and picking another layer could result in the second layer being considered part of the drawing tools layer when subsequently picking data on the map.

Redrawing while interactively creating a drawing tools shape draws correctly *28101*

In previous versions, redrawing while interactively creating a closed shape, curve, ellipse, box or circle would result in incorrect drawing on the map.

Well Symbol Selector filters site and project well symbols correctly *35069*

The well symbol selector dialog includes an option to show only site or project based well symbols. In previous versions, this filtering option did not have any affect.

Window flickering fixed in Display/Grid and Display/3D Seismic Surface panels *31530*

The various panels available under the /Mapping/Display/Grid and /Mapping/Display/3D Seismic Surface have been improved to reduce screen updates when the data source is changed.

Mapping/2D Seismic   Bug Fixes

Thematic queries for Display/2D seismic work as expected *32968*

In previous versions, /Display/2D Seismic/Petrosys-dbMap was not rendering lines with the colours coming from the thematic query option.

Mapping/Bubble Maps   Enhancements

Display/Bubble Map memory usage has been reduced *36493*

The addition of picking to the Display/Bubble Map options in v17.0 resulted in additional memory being used by these layers. In some circumstances an excessive amount of memory was used, which could lead to a crash. The memory usage has been improved to prevent this from happening.

Mapping/Coordinate Reference Systems Enhancements

Change default suffix for Point Conversion output to be txt (Linux only)
36174

The default file suffix for the Interactive Point Conversion utility has been changed from .prn to .txt on Linux. This makes the file suffix consistent across Windows and Linux platforms.

CRS database upgraded to EPSG v7.11
34373

The Petrosys CRS database has been upgraded to includes changes from the EPSG version 7.11 data, including a number of new pre-defined projected CRSs, mostly in Europe.

The previous version supported was 7.9. Please refer to http://www.epsg.org for more details of changes between these versions, including CRSs that have been deprecated.

Mapping/Coordinate Reference Systems   Bug Fixes

Improved error message (crs:138) when creating project from template when CRS of template is hidden
33095

Improved the error message (crs:138) displayed when creating a project from template when template's CRS is hidden. The error message now references the correct menu options to correct the issue.

Point conversion write to file labels the coordinate columns correctly
33273

Fixed bug in point conversion writing to file where the latitude and longitude columns were incorrectly labelled.

Mapping/Editors   Enhancements

Manual overpost correction is now supported for Display/GIS layers
23654

Annotations displayed from any of the data sources supported in Display/GIS are now able to be manually overpost corrected. Manual overpost correction can be invoked via an icon on the Mapping layers tool bar or by selecting a Display/GIS layer on the map and using a right mouse button context menu option.

Mapping/Editors   Bug Fixes

CFP Editor allows Local Lat/Lon - Local XY CRS polygon files to be created
27533

In previous versions creating a polygon file with a local CRS in the CFP Editor would result in a mismatch between coordinate type (Geographic) and coordinate values (EN), resulting in no shapes being displayed on a map for such a file.

Multiple overpost corrections to the same Mapping layer are applied correctly
36950

In previous versions when overpost corrections were made to a layer, and the layer was modified and further overpost corrections were made, the second set of corrections could be ignored for some pieces of text.

New points added in the Gradient Editor are based on the currently selected point
35208

When control points are added via the "Edit/Create Control Point" menu option in the Gradient Editor ("Edit/Gradient"), the dialog values are initialised to the currently selected point. This makes it easier to add multiple points of the same type or of similar values or colours.

Overpost correction mode no longer crashes when dbm is saved with text selected
37042

In previous versions, an intermittent crash could be observed when saving a dbm with a piece of text selected in overpost correction mode.

Mapping/Images   Enhancements

Display/Picture options no longer include an interactive sizing option
35771

The Display/Picture/Raster and Display/Picture/CGM options previously included an "Interactive Sizing" option to allow image size to be modified while position remained the same. This option was difficult to use and has been removed as these options now support resizing directly on the map sheet.

Mapping/Images   Bug Fixes

Display/Raster no longer displays 1-bit TIF images as inverted
36149

In previous v17 versions, 1 bit TIF images were shown inverted (white as black and vice versa).

Improvements to display of tie points in image georeferencing
28993

In previous v17 versions, image georeferencing did not automatically display tie points in some situations (loading existing points, deleting points) and a manual redraw was required.

Sorting works as expected in the /Display/Picture/Raster Image ArcSDE raster selector
33639

In previous v17 versions the table list used to select ArcSDE rasters to show in the Display/Picture/Raster Image option could not be sorted.

Mapping/Map Sheets   Enhancements

Improvements to the point conversion window
30637

The point conversion tool has been improved in several ways:

- ➢ The input CRS is no longer always set to the map sheet CRS automatically
- ➢ Right mouse button on the CRS selector buttons sets to the project default CRS
- ➢ The CRS selection window no longer appears behind the main panel
- ➢ The panel appearance and button sizes have been improved

Map sheet "align map" defaults to off for new mapsheets
34798

The 'Align map' checkbox option has been changed to default to false. This option is found in MapSheet/New for geographic and township/range map sheets.

Map sheet margins are able to be set to zero width and height
36264

The margins of a map sheet control the distance between edge of the map and the map border and are set via the "Layout Details" option in map sheet editing. In previous versions a minimum margin of 1 was enforced. In 17.3 the lower limit has been changed to zero.

Map sheets allow a title bar to be displayed without showing a title block
36925

Petrosys map sheets can optionally include a "title bar" - a horizontal or vertical strip outside of the data area on the map sheet that generally contains title block, scale bar, location maps, north arrow, etc.. In previous versions it was not possible to include a "title bar" without the map sheet including a title block. This has been made possible in version 17.3 to allow optimal use of the new Display/Title Block option.

Warnings are issued when a map sheet with inconsistencies is used
33265

A small number of older map sheets have been identified that are internally inconsistent with respect to the units defined by the projected CRS used by the map sheet and the v15 map sheet units. If a map sheet such as this is selected for use, a warning is issued as using such a map sheet can give incorrect results for several scenarios (measuring coordinates on the map, creating new map sheets by drawing on the map).

Any map sheet suffering from this problem can be corrected by opening the MapSheet/Edit/Projection Details option, pressing the OK buttons on both dialogs and then saving the map sheet.

Mapping/Other — Enhancements

Icons added for Pan menu items
34134

Panning icons have been added to Mapping's View/Pan menu to indicate the direction of pan.

Improve interactive resizing and positioning for various Mapping layers
33569

The following map layers have been enhanced to allow interactive positioning and resizing by direct manipulation of the displayed layer:

- ➢ Display/Map Elements/Colorbar
- ➢ Display/Map Elements/Legend
- ➢ Display/Map Elements/North Arrow
- ➢ Display/Picture/Raster
- ➢ Display/Picture/CGM

Mapping includes a new Display/Title Block allowing multiple title blocks to be used in a single map
13321

Mapping now includes a Display/Title Block option that allows for greater flexibility in title block placement and also allowing for multiple different title blocks in the same map. Having more than one title block would generally be useful to select a different title block depending on the map content and intended audience. Another typical use might be to create multiple groups of data within the same map and include a title block per group.

Mapping/Other — Bug Fixes

Display/Drawing Tools/Closed Shape allows modification of position via direct entry of projected coordinates
35251

The Display/Drawing Tools/Curved Shape option includes Easting and Northing fields that show the position of the first point in the closed shape. These fields are able to be edited to move the shape to a new position on the map, but in previous versions this did not work as expected.

Display/Drawing Tools/Curve no longer allows a blank text value
28547

The "Display/Drawing Tools/Curve" option is now consistent with other drawing tool layers by not disallowing the enabling of annotation when no text has been entered.

Display/Scale Bar dialog no longer allows OK or Apply to be pressed when no scale bar has been selected
35042

Previous versions had a minor bug in the Display/Scale Bar option which allowed a scale bar map layer to be created that did not reference a scale bar.

Drawing tool curves no longer show arrow heads without connecting lines
29845

In previous versions, the Display/Drawing Tools/Curve option could get into a state where arrow heads could be drawn without a connecting line.

Drawing tool shape layers perform the same checks when OK and Apply buttons are pressed
34773

The various Display/Drawing Tools layers have been fixed where required to ensure that any checks performed when a layer is saved via the Ok and Apply button are consistent. In previous versions, there were some minor differences (for example, the Apply button allowed blank text whereas the OK button did not).

Mapping/Spatial   Enhancements

Display/GIS - thematic mapping scan dialog is now sortable *33815*

The Display/GIS thematic mapping "Scan" button displays a dialog with a list containing all applicable values, which in version 17.3 is now sortable.

Display/GIS allows thematic display of data based on a gradient *22715*

The Display/GIS option has a new "Series (gradient)" option available on the "Thematic mapping" tab. The "Series (gradient)" option allows the colour of shapes to be set from a Petrosys gradient according to either a numeric attribute or z-value. The option includes data filtering and allows for a fixed number of colour bins or using as many gradient colours that are available.

Display/GIS data with non-numeric IDs no longer needs to be requeried *32812*

Support for feature classes with non-numeric key fields has been improved. In particular the "Query Attributes" right hand mouse button menu in previous versions required data with non-numeric key fields to be re-read from the database. This is no longer required in 17.3.

Display/GIS dbMap Culture filtering supports case insensitive field names *34528*

Previous versions required exact case to be specified for field names included in a dbMap Culture SQL filter.

Display/GIS dynamic attributes default to the primary Oracle connection *35079*

The Display/GIS option allows attributes to be added to database layers (Oracle Spatial or SDE) based on runtime queries. In previous versions the connection had to be manually selected for each attribute added. Version 17.3 has been changed to automatically default to the Primary connection (if Oracle Spatial) as this is the desired database in the vast majority of cases.

Display/GIS now includes a "dbMap GIS" data source *34154*

Previous versions of Petrosys included two separate options for displaying Oracle Spatial data from the primary database - "Oracle-Spatial" and "dbMap-Culture". When either of these was selected a login was still required.

Version 17.3 has added a new "dbMap GIS" source in Display/GIS which merges the feature classes from "dbMap Culture" and "Oracle Spatial" for the primary database. Users will be automatically logged onto this option when this option is selected from Display/GIS (the database has already been authenticated as part of running Mapping).

The "dbMap Culture" option has been removed as this only supports data from the primary database connection, but "Oracle Spatial" is still available to select data from secondary Oracle Spatial connections.

Display/GIS now support text element stored in Paradigm-Epos 4.1 culture layer *34660*

Text elements stored in Paradigm-Epos 4.1 Culture database can now be displayed via Display/GIS.

Display/GIS performance improvements *25764*

Display of spatial data sources under Display/GIS has been significantly improved in several circumstances. The following specific improvement have been made:

- ➢ loading data within the map sheet area only
- ➢ loading posted annotations only
- ➢ querying data via RHM/Query Attribute no longer loads spatial data
- ➢ optimising the spatial query used to extract dbMap Culture and Oracle Spatial data.

The performance improvement will vary according to data, but in some cases it has been observed being as much as 250% faster.

Display/GIS supports annotation and thematic mapping of Z-value for point data *33398*

Z-values for GIS point data sources are treated in the same way as other numeric attributes and can now be used in Display/GIS for annotation or thematic mapping.

Display/Spatial - thematic mapping expression operator "between" allows insertion of both values from "Scan" *19715*

In previous versions, scan could only be used to select the left hand side value for the "between" expression operator.

Improved drawing performance for Display/GIS in some circumstances *29533*

The time spent to draw certain Display/GIS layers has been improved in some circumstances by improving the process of registering drawn objects for interactive picking on the map. The improvement seen in practice will vary according to data and computer, but in some cases has been observed being as much as 200% better.

Legend generation has improved support for Display/GIS layers
18660

In previous versions, only thematically mapped data from Display/GIS layers would be included in legends. Version 17.3 adds all Display/GIS layers to the legend.

Mapping/Spatial

Bug Fixes

Display list update options are available again for Display/GIS layers
31520

The Mapping display list includes "Update Selected" and "Update All" options that clears cached data for the selected layer or all layers to be cleared. Data is cached for performance reasons, but if the underlying database data has changed, it is useful to be able to clear the cache. In previous v17 version of Petrosys, the display list update functionality was incorrectly not available for Display/GIS layers.

Display/GIS - dbMap Culture correctly allows filtering to be disabled
34527

In previous versions once filtering was enabled for a dbMap culture layer, the filtering could subsequently never be disabled.

Display/GIS - thematic mapping annotation selection works as expected
34068

In previous v17 versions, any selections made in the annotation selection popup list were not used when applying thematic mapping styles - the styles were applied to all annotations.

Display/GIS - thematic mapping handles null values correctly in expression evaluation
25733

In previous versions, null values were incorrectly assumed to be 0 when evaluating expressions - which could lead to incorrect styles being applied.

Display/GIS allow setting of format for annotations of integer type
34924

In previous v17 versions, pressing the "Set" button on the Display/GIS annotation tab for integer type annotations did not show the integer format dialog.

Display/GIS annotates Paradigm Culture correctly
34718

Display/GIS can now annotate Paradigm Culture layer's information together with culture data. In previous version, Display/GIS would only handle either culture geometries or annotation per draw

Display/GIS attribute query no longer prompts to restore database connection when not required
31282

The Display/GIS - Attribute Queries option no longer connect to database if they is not being used for annotation. In previous versions this could result in an unnecessary database connection prompt being shown.

Display/GIS correctly displays dbMap Culture null numeric values
33964

In previous versions, "null" numeric values from dbMap Culture sources were incorrectly displayed as "0" which could be potentially misleading.

Display/GIS correctly draws Oracle Spatial data when switching between map sheets
32893

A bug was introduced in version 17.1 that caused Oracle Spatial data to not be drawn correctly in some circumstances when switching from a world map sheet to a regional map sheet.

Display/GIS correctly handles drag and drop with with "Automatically Modify Defaults" enabled
35830

In previous versions, Display/GIS might display an incorrect file when a file is dragged and dropped onto the map if the /Mapping/Preferences/Automatically modify defaults setting was enabled.

Display/GIS correctly handles non native file paths
35293

Display/GIS in previous v17 versions did not correctly handle default non native file paths (this situation can arise when the same project is used in Petrosys on both Windows and Linux).

Display/GIS crash no longer occurs when layer is deleted and data cache is disabled
34826

In previous versions, deleting Display/GIS layers would result in a crash when the data was not being cached.

Display/GIS dbMap Culture handles invalid map sheets more robustly 27811

In previous versions, a map sheet producing an invalid area of interest would result in no data being displayed. Version 17.3 detects this situation and doesn't use the invalid area of interest when querying data to display.

Display/GIS Info button no longer causes a crashes if pressed with no file name selected 35913

In previous versions of Petrosys, pressing the "Info" button on the Display/GIS panel with no file selected would cause a crash.

Display/GIS lists available annotation queries are updated when data source is modified 35059

Display/GIS - Attribute Query now shows all available queries when an Oracle Spatial data source is selected. In previous version, only public queries were available.

Display/GIS Query attribute works as expected for SDE layers with floating point key fields 32692

In previous versions, Query Attribute for SDE layers with a decimal type key value column resulted in incorrect results being shown in the query attributes dialog when picking shapes on the map.

Display/GIS SDE attribute querying has more robust SQL handling 34851

The Display/GIS right mouse button option "Query Attributes" has been improved for SDE data sources to better handle small, legal variations in SQL and now handles joined tables correctly. In previous versions, table joining would only work if the UID column existed in both tables.

Display/GIS thematic mapping "exact match" correctly shows date selector field 33409

A bug was introduced in version 17.1 where a standard edit selector was shown for date fields instead of the date selection field.

Display/GIS thematic mapping "exact match" scan allows selection of multiple values 24527

In previous versions the scan dialog for Display/GIS thematic mapping exact match would allow multiple selection of values, but only the first time scan was run - on subsequent runs it looked like you could select more than one value but only the first was actually added into the "exact match" list. In version 17.3 this now works as expected.

Display/GIS thematic mapping date selector allows "July" to be selected 33419

Display/GIS can now select July for thematic mapping. in previous versions, selecting July would revert back to January and unexpected data would be selected.

Display/GIS thematic mapping now works correctly for date attributes 35220

Display/GIS now applies thematic mapping correctly for date attributes. In previous versions, selected date values would not actually be matched and corresponding thematic styles would not be applied.

Display/GIS thematic mapping processes numeric attributes with non standard formatting correctly 33536

Previous versions of Petrosys applied thematic mapping rules based on the formatted version of numeric attributes (i.e. for annotation purposes). When formatting such as "commas instead of period" or "thousands separator" were used, the thematic rules did not work correctly. Version 17.3 has fixed this bug by applying the thematic rules to the raw numeric data value instead of the formatted annotation version.

Display/Legend no longer groups separate GIS layers based on common thematic mapping rules 26291

Previous versions merged separate Display/GIS layers in the legend.

Exporting polygon with holes to line type shapefile includes holes 32557

Export Spatial data will now export polygons with holes to a line type shapefile correctly. In previous versions, only the outer boundary ring was exported, with all inner holes skipped.

Improved handling of DGN files with invalid element information 34841

Display/GIS now handles DGN files with invalid element information more robustly. In previously versions attempting to open an invalid DGN file could cause a crash.

Mapping/Display/Any Data handles ZGF files correctly 35217

In previous version, Display/Any Data or drag and drop or of a ZGF file would result in a crash if the Mapping/Preference/Automatically modify defaults setting was set to off.

Default settings for Display/Grid/Values and Display/3D Seismic Surface/Values now look like colorfill display 29862

The default Display of 3D seismic surfaces and grids will have no values displayed; only non-missing symbols; using a color gradient; and filled circle symbols.

Mapping/Surfaces   Bug Fixes

Direct display of formation thickness is now always displayed as positive values 32154

The direct display of a grid created using formation thickness information now always displays as positive values.

Display/Wells - Seismic horizon selection list columns now sort alphanumerically 36287

The seismic horizon selection list under Display/Wells now correctly sorts columns based alphanumerically, rather than alphabetically.

Surface and bottom hole locations are now available to Run/External script for wells 32419

When you display a well on the map, you can configure scripts that can be launched that take information about a well as command line arguments. The following new command line arguments are available:

- ➢ "-BH_MAPSHEET_COORD_COMPUTED_LAT" - Computed bottom hole latitude in Geographic CRS of map sheet
- ➢ "-BH_MAPSHEET_COORD_COMPUTED_LON" - Computed bottom hole longitude in Geographic CRS of map sheet
- ➢ "-BH_MAPSHEET_COORD_COMPUTED_Y" - Computed bottom hole northing in Projected CRS of map sheet
- ➢ "-BH_MAPSHEET_COORD_COMPUTED_X" - Computed bottom hole easting in Projected CRS of map sheet
- ➢ "-BH_MAPSHEET_COORD_LAT" - Bottom hole latitude from data source in Geographic CRS of map sheet
- ➢ "-BH_MAPSHEET_COORD_LON" - Bottom hole longitude from data source in Geographic CRS of map sheet
- ➢ "-BH_MAPSHEET_COORD_Y" - Bottom hole northing from data source in Projected CRS of map sheet
- ➢ "-BH_MAPSHEET_COORD_X" - Bottom hole easting from data source in Projected CRS of map sheet
- ➢ "-SH_MAPSHEET_COORD_LAT" - Surface hole latitude from data source in Geographic CRS of map sheet
- ➢ "-SH_MAPSHEET_COORD_LON" - Surface hole longitude from data source in Geographic CRS of map sheet
- ➢ "-SH_MAPSHEET_COORD_Y" - Surface hole northing from data source in Projected CRS of map sheet
- ➢ "-SH_MAPSHEET_COORD_X" - Surface hole easting from data source in Projected CRS of map sheet
- ➢ "-MAPSHEET_PROJ_CRS_NAME" - Name of map sheet projected CRS
- ➢ "-MAPSHEET_GEOG_CRS_NAME" - Name of map sheet geographic CRS
- ➢ "-MAPSHEET_PROJ_CRS_ID" - Petrosys CRS Id of map sheet projected CRS.
- ➢ "-MAPSHEET_GEOG_CRS_ID" - Petrosys CRS Id of map sheet geographic CRS.

Well symbol generator on Windows now will use existing well symbols as primitives
34180

The "Well Symbol Generator" tool as run from the Launcher Tools menu will now show the full set of Petrosys well symbols in the primitive list, allowing you to use these to construct new well symbols.

Paradigm-Epos plugin   Bug Fixes

Paradigm-Epos plugin no longer crashes when loading DBM files that reference missing formation tops
35383

The Paradigm plugin no longer crashes when loading an old DBM file that contains a Paradigm-Epos layer that includes formation top information that no longer exists in the Paradigm-Epos project.

Paradigm-Epos plugin no longer leaks memory when reading 3D seismic data
33675

Paradigm-Epos connection no longer leaks memory when reading 3D seismic data.

Petra plugin   Enhancements

Added support for IHS Petra v4.0
28579

Petrosys now supports reading data from and writing grids to IHS Petra v4.0 projects. All the previous functionality supported for Petra v3.x is now available for Petra v4.0 connections. The main difference to the user interface, is users will need to connect to Petra Database Servers to gain access to the available Petra projects. For more information on this please refer to the help topics on connecting to Petra projects.

Petrel plugin   Enhancements

Removed support for Petrel 2008 and 2009

28594

Petrel 2008.1 and 2009.1 and 2009.2 is no longer supported. Support for Petrel versions 2010.1, 2010.2, 2011.1, 2011.2 and 2012.1 is maintained.

Project Selector   Enhancements

Directory selector dialog improved

29008

The dialog used to select directories on Windows has been improved to a nicer version of the built-in Windows dialog selector and also opens to correct location.

New project templates added in the South and Central America and Asia regions

34459

New project templates have been added under the "Americas" (Cuba, Mexico), "South America" (Bolivia, Chile, Guyana, Paraguay, Suriname, Uruguay) and "Asia" (Taiwan) categories. The default project templates are small projects containing map-sheets suitable for working in a particular country and can be made use of via the "Launcher/Project Selector/New" option.

Project Selector allows the project name to be independent of the directory name

33454

Petrosys project names have been defined in the past to be the directory name of the project. This has been changed in 17.3 to allow the project name to be customised independently of the directory name to allow greater flexibility in how Petrosys projects are stored in a file system. The name for a project can be set using the Properties panel in the Project Selector (invoke using the "Properties" button or right mouse popup menu option).

Project Selector includes more configurable user groups and permissions

29405

User permissions in previous v17 versions were implemented based on pre-defined user groups with certain fixed permissions set. This approach was not configurable enough for practical needs so the Project Selector Administration dialog has been enhanced to support assigning various permissions to the predefined user groups and allowing creation of custom user groups. A new pre-defined "Administrator" group has also been added. Refer to the online help for more specific details.

Project Selector supports custom columns

21438

In previous v17 versions, the Project Selector included support for arbitrary tags that could be applied to projects. Version 17.3 has added the ability to define custom columns in the project selector. This allows projects to be annotated with additional client specific meta-data in a more structured way than tags allow for. Custom columns can be filtered and searched in the same way as pre-defined columns.

Project Selector/Administration user and group lists support filtering and searching
35033

Standard table list filtering and searching functionality can now be used in the project selector administration dialog. This is useful in cases where there are a large number of users or groups.

Project Selector/New option no longer automatically sets the group based on project directory
33103

Previous v17 versions automatically attempted choose a group when a directory path was selected. This functionality was not useful in practice and has been removed.

Project templates no longer require a project_metadata.xml
31573

In previous version, a project_metadata.xml file had to be present to use a project as a template.

Project Selector   Bug Fixes

File selector fields warn about files being overwritten when file name is directly typed into the field
29232

In previous versions the warning about overwriting existing files was only issued when output files were selected via the popup dialog.

Project Selector Administration dialog has better validation of input data
36823

Improved validation of project selector administration dialog fields. For example, blank project tags are now not allowable.

Project Selector Administration dialog robustness improved when duplicate data encountered
32953

The Project Selector Administration dialog is better able to handle duplicate users, groups or tags - these are automatically removed.

Project Selector performance in group lockdown mode has been improved for large project lists
29276

Projects are now sorted by group for non-standard users when being refreshed. This prioritises reading project information for the projects of most interest.

Project Selector/Copy Project option now has a progress dialog
31103

The progress dialog indicates whether the copying process is active or not.

Project Selector/New disallows selection of an existing directory for a new project
32635

To prevent corruption of projects it is no longer possible to create a project with the same name as an already existing directory.

Seismic data Enhancements

Compute velocities from Stacking velocities functionality is now available in Surface Modeling 35811

The pre-existing functionality to compute velocities for a SDF horizon from stacking velocities has been moved to Surface Modeling under the menu option Velocities/Calculate from Stacking.

This allows the option to be used as part of a workflow and saving the workflow to a tsk file that can later be replayed.

dbMap Bin Grid screen now shows survey name in window title 36510

The survey name is now displayed in the Bin Grid screen window title so it is easier to see which survey is being viewed.

dbMap seismic survey processing and acquisition screens now show additional columns in their lists 36508

dbMap seismic survey processing and acquisition screens now show additional columns in their lists. For acquisition users can now see Type, Shot by, Start date, Completion date and Environment. For processing users can now see Processed by, Start date, Processing name, Process status, Description and Objective.

Increased the number of stacking velocity pairs that can be imported into the SDF from 200,000 to 1,200,000 26907

The number of stacking velocity pairs that can be imported into the SDF has been increased from 200,000 to 1,200,000

Note that the SDF is still limited to a maximum size of 2GB and hence for large stacking velocity datasets it is still recommended to decimate the dataset on import.

Petrosys now imports more stacking velocity text file formats and can compress data on the fly 35158

Petrosys now supports reading stacking velocity data from more text file formats. Custom formats can also be created to support reading file formats that aren't already configured.

The new option is available from Petrosys Launcher/Exchange/Stacking Velocities and Surface Modeling/File/Exchange/Stacking Velocities.

Key functionality includes:

➢ Support for text file formats including Esso v2, ProMax, Shell 2D, Shell 3D, TGS, Western 2D & Western 3D.
➢ The ability to create custom formats for import.
➢ Apply a scale factor to Time or Velocity values during import.

➢ Apply a line name prefix or suffix to seismic line names to help matching existing lines in Petrosys SDF file.
➢ Reduce the volume of data imported by specifying: A shot increment; The maximum time value; The maximum number of time/velocity pairs to be imported per line. (Data is regularly sampled rather than truncated)
➢ Preview the velocity data on a chart prior to import
➢ An optional HTML log file can be created as an audit log of what data was imported.

Seismic data Bug Fixes

A SeisWorks shift file in Windows text format is now correctly read on Linux 35149

A Windows formatted shift file for SeisWorks seismic data is now correctly read and used on Linux.

Adding new line data in the Seismic Line Editor no longer crashes 32714

An intermittent crash has been fixed when adding new line data using Edit/Add in the Seismic Line Editor.

SDF - Misties Report - Complex SDF with lots of datatypes selected will now work 34872

The SDF mistie report options have been improved so they will now work with complex SDFs with many datatypes selected.

Seismic SDF project manager status bar displays correct summary information 30518

In previous v17 versions the status bar in the seismic project manager did not show any details when lines were clicked on.

Surface Modeling   Enhancements

Contouring memory buffer size is now configurable via Tools/Configuration
33004

The contouring memory buffer limit can now be set from the configuration tool (which can be run from the Launcher/Tools/Configuration). The option is found under the "Advanced/Options tab/General/Contouring memory buffer size (MB)" option.

Grid/Create Grid - always recalculate mapsheet or grid AOI at runtime
26757

Tasks which use a dialog Geometry tab to set the AOI (Area Of Interest) will now read from either the map sheet or grid when running. Previously, whatever values were stored in the task file were used. This will now allow for the scripting of grid and map sheet AOI sources.

Grid/Create Grid from seismic source should allow the user to select 2 horizons
28423

Users are allowed to select two horizons for gridding from seismic sources.

Improved performance in workflows that draw many maps with seismic layers
32780

In Surface Modeling the performance of workflows that draw many maps with seismic layers has been improved considerably. We have noted improvements in the order of 10 times faster.

Map sheet AOIs can now be scripted interactively
33932

The map sheet file and map sheet may now be selected by interactive scripting.

Surface Modeling no longer consumes appgc license on start up
33201

Alongside the review of Petrosys licensing it is now possible to run Surface Modeling, allowing access to certain features, without consuming an appgc license.

Surface Modeling will still require a license when running a grid-related option.

Surface Modeling/Tools/Draw Map includes support for creating PDFs
33338

The Surface Modeling /Tools/Draw Map option allows output to PDF files in addition to raster formats. When writing to PDF format using this option, multiple images can be appended to the same PDF file as separate pages.

Version information is now available for PGC workflow scripting
32455

Can now use scripting functions getSoftwareVersion() and getSoftwareRevision() to retrieve version information about the software being used.

WDF wells gridding data source GUI improvement
32140

The WDF gridding data source GUI now forces the WDF to be selected prior to being able to select zones or header fields. This change has also been made to the WDF zone selection in Mapping under Display/Bubble Map.

Surface Modeling   Bug Fixes

Can now select individual clipping polygons
33155

The list of all polygons in a polygon file is updated even when any clipping/polygon switch is off or simply not present on the dialog. This stops cases where the polygon list was blank because the clipping flag was off or not present on the dialog.

For some grid create options, a progress bar used to be displayed with random characters shown
33501

Running a manual scan of geometry in the Grid/Create option, with a WDF wells data source and a small number of wells used to pop up a progress bar showing random characters. This is now fixed.

Grid/Dump fault file- Overwrite warning no longer is raised for a non-existent fault file
31622

Petrosys no longer emits a spurious message about overwriting a non-existent fault file when dumping faults from a grid.

No longer prompted for file name resolution on AOI file names which are not active
32465

Petrosys no longer emits spurious file resolution dialogs for files when that file is not actively used (e.g. grid file used in Geometry area of interest, but Geometry tab is turned off).

Output Geometry tab using Data input initialises the dialog with correct values
33229

The AOI values calculated in the Geometry tab for the Data option, are stored and correctly displayed when reopening the task. Prior to this fix, they would sometimes be blank.

Precision of EN and rotation data in Surface Modelling showed too many decimal places 27283

The Geometry tab now displays the area of interest origin and extent using 2 decimal places and the cell sizes using 3 decimal places.

Snapping to cell size with different X and Y cell sizes now produces correctly sized grids 33100

Snapping to cell size now extends the X direction to a multiple of the X cell size, and extends the Y direction to a multiple of the Y cell size. Previously the code used to extend the Y direction to a multiple of the X cell size.

Temporary grid files used to be left behind after gridding processes had been run 22280

Temporary files needed for storing extracted points from data sources in Grid/Create grid are now removed after the gridding process finishes or when it is cancelled by the user.

The "Tools/Log Stop" option now correctly searches for the appropriate XSL file 23994

The correct platform-dependent path location is used for various XSL files used to display output reports from /Tools/Log Stop and /File/Browse Workflow File.

The order of gridding data inputs in Grid/Create/Grid no longer changes when the task is reopened 29556

The order of gridding datasources in Grid/Create grid is now preserved after saving and re-opening the task. In previous versions the data inputs would be reordered into a default ordering depending upon the data input data type.

Surface Modeling/Contouring   Bug Fixes

Contour / Grid (By Cell)... now closes all contour files 35201

Previously Contouring by cell could leave the contour file open at the end of execution. This could lead to permission problems when attempting to use the same contour file for a later operation.

Contouring no longer produces kinks when using faults digitised on grid cell boundaries. 32948

Contouring around faults no longer produces kinks when using faults with coordinates on the grid cell boundaries.

Contouring would occasionally fail to generate long contours 31725

An issue has been fixed which caused contouring by cell to fail occasionally when generating a contour requiring a lot of points.

Surface Modeling/Grid Operations Enhancements

Speed improvement when resampling grids using bicubic interpolation
33685

Resampling of grids using bicubic interpolation has been made more efficient when repeatedly accessing values form the same grid cell. This has made resampling of grids to a finer grid cell size twice as fast in tests performed at Petrosys.

Surface Modeling/Grid Operations Bug Fixes

/Grid/Processes/Arithmetic - Contour file name correctly linked to grid file name
17414

Every time the /Grid/Processes/Arithmetic dialog is raised, a change to the output grid file name will update the output contour file name. This now works the same as the other contour /Grid options.

/Grid/Processes/Arithmetic - Kingdom fault connection restored when dialog raised
32858

When raising a /Grid/Processes/Arithmetic task dialog all previously stored third party data source fault information is restored.

/Grid/Processes/Arithmetic - variable information now saved to panels if overwrite dialog is cancelled
33003

The Grid Arithmetic variable information is now also stored with the formula text so that the variable information and formula text match when a new Arithmetic task is created.

Grid/Create/ - Polygon Clipping no longer clips grid nodes located on the polygon boundary
35216

When using a polygon to clip a grid, if a grid node lay directly on the polygon border, the node used to be clipped out of the grid and set to a missing value. This had an adverse effect on grid interpolation in cells touching the clipped node. This has been changed so that grid nodes lying on the polygon border are no longer clipped.

Grid/Merge/Blend now checks the feathering distance is not too small for the input grids selected
33775

Grid/Merge/Blend used to allow users to set a feathering distance less than the maximum input grid cell size. This would cause the merge operation to generate invalid data in the resultant merged grid. A warning is now shown to the user and the feathering distance can now be automatically increased to be at least the cell size of the largest input grid cell size.

Grid/Processes/Arithmetic now restores the selected map sheet for the geometry tab between runs
37396

The correct map sheet name in the Geometry tab is remembered between runs for Grid/Processes/Arithmetic. In V17.2sp6, whenever the dialog was opened, the displayed map sheet name was reset to the first in the list.

Surface Modeling/Gridding   Enhancements

/Grid/Well-Tie can now report mistie differences
23507

The /Grid/Well-Tie option now allows for a visual spreadsheet display of the values and differences between the input grid, the input data sources and the output grid.

It is geared towards using well picks as the input data sources as information about the well is displayed along with each input data source point.

A CSV file can also be saved containing the data from the spreadsheet report.

Please note that reporting of the Well name, Well number and UWI is not available if you set Sample Data File Action to 'Create and edit before gridding' as this process removes the metadata associated with points.

Double click in Input Data now launches the edit input data panel
29303

Double clicking the main input data dialog data source list will raise the input data panel for that particular data source.

Gip files are now 64 bit enabled
26092

GIP (Grid Input Point or Sample Data) file handling and associated streaming temporary point file is now 64-bit compliant. This means that these files can now exceed the 2GB limit otherwise imposed.

Grid / Well-Tie options have been CRS-enabled
25895

The Grid/Well Tie options have been CRS-enabled. This means output correction/tied grids can now be generated in a CRS other than that defined in the input grid used for well tie.

Grid Create GUI used to disallow cell sizes smaller than 10.0 EN units
34235

The grid creation algorithm GUI used to insist that grid cell sizes were bigger than 10 units. This caused problems when trying to create grids with very small cell sizes, such as those used for longitude/latitude grids. This has been fixed so cells sizes as small 0.000001 can now be used.

Grid/Create - Can now select AOI using third party 3D surveys
26932

3D seismic survey sources have been added as sources for the area of interest (AOI) for gridding operations.

Grid/Create - New distance clipping option using a "square" clipping window
36505

A new distance clipping option has been added to Grid/Create, Well Tie and Phantom gridding which uses a "square" clipping distance window rather than the "circular" window used in earlier versions of Petrosys. This does the same as the distance clipping option in earlier Petrosys versions, but clips based on both the X and Y distances from the point to the grid node, rather than on the direct radial distance to input points.

Grid/Create Grid - Using Z values on faults now produces better grids
34044

The grid creation algorithm has been improved significantly when using faults with Z values on them. Using Z values from faults now makes the gridded surface inside the faults tie much better with the gridded surface outside the faults, producing much more realistic modelling of fault planes.

Grid/Create Grid... - New "Clip to data envelope" option added
27978

A new option has been added to the Create Grid, Well Tie and Phantom gridding options to allow the output grid to be clipped to the envelope of the input data points. (The envelope is defined by their convex hull). The option also allows the user to extend the envelope by a specified distance buffer.

Grid/Create/ - Clipping using distance has been made much more efficient
31814

Grid clipping by distance has been made much more efficient when creating grids under the Grid/Create, Well Tie and Phantom gridding options. Previously, the distance clipping operation could take a very long time if there was a small cell size, a large number of input points and a large clipping distance.

Gridding 3D seismic from Kingdom, Paradigm-Epos and SeisWare now uses less computer memory
33437

Gridding from seismic data sources now uses less memory, so larger volumes of data can be processed more efficiently.

Gridding multiple text files of the same format is easier
31881

The Grid/Create Grid text input point data screen has been enhanced to allow direct selection of a pre-defined format file. In previous versions this functionality was available but required opening other screens and a lot more mouse clicks.

Interpolation of Petrosys grids near faults has been improved
23687

Grid interpolation has been improved around faults. Sharp changes in direction ("kinks") in the contours that were generated near faults in previous versions are no long generated.

List filter support has been added to horizon selector
33740

List filtering has been added to horizon selection dialogs.

Petrel 2D and 3D horizon data access consistent with Mapping
26557

Surface Modeling has been modified to access Petrel 2D and 3D horizon data via the same method as used in Mapping. This ensures that all Petrel data is consistent between Surface Modeling and Mapping, whereas in the past Surface Modeling could fail to extract all valid data from a Petrel project where the data in the Petrel project was partially corrupt.

Petrosys-dbMap seismic gridding input now uses the generic seismic interface
34046

A data source generic framework is used to allow gridding from Petrosys-dbMap seismic data sources.

SeisWorks as an input seismic data source uses a generic data source dialog
27215

A data source generic framework is used to allow gridding from SeisWorks seismic data sources.

Surface Modeling/Gridding   Bug Fixes

Geometry Area of Interest Data scan now uses output grid CRS
34286

Pressing the Scan button when using a Data area of interest and using a grid as an input gridding data source, now updates the area of interest values after the output projected CRS is changed.

GIP editor no longer crashes after File/Merge
22403

File/Merge in the GIP editor used to crash when merging another GIP file. This other GIP file was created by setting a region of data points in the GIP editor to a constant value using a hand-picked polygon.

Grid / Create Grid with Petrel fault data - "Use Z values" toggle could not be changed
32350

When gridding using Petrel faults, the toggle to use Z values was often incorrectly inactive, meaning users could not turn the fault Z values off or on easily. This has now been fixed.

Grid interpolation improved around faults/polygons with segments lying directly along the x or y axis.
32957

Grid interpolation around fault segments orientated directly North-South or East-West has been corrected. Prior to this change, cells adjacent to the fault would sometimes be interpolated incorrectly.

Grid interpolation now uses clipping polygons correctly
30395

Grid interpolation now works correctly around clipping polygons. Previously there used to be noticeable "ringing" if grid values inside the clipping polygon were set to a non-missing value.

Grid/Create - clipping by distance and polygon GUI has been simplified.
26928

The polygon and distance clipping options when creating a grid have been made simpler to use. Previously, it was not always clear when distance clipping was being used or not.

Grid/Create Grid - spatial data source work as expected for all sampling methods
33736

In previous versions gridding spatial input data sources only worked when the the By-Distance sampling method field was not empty.

Grid/Create Grid clip by distance and polygon GUI improvements
27947

The clipping GUI for the Grid/Create Grid, Well Tie and Phantom Gridding options has been modified so that it is clearer what options are being selected. Prior to this change, if clipping by polygon was turned on, having a non-zero clipping distance would also turn distance clipping on (which was sometimes very slow). The GUI now has a separate toggle for both the distance clipping and the polygon clipping options.

Grid/Create grid has been made more efficient and more stable
22627

An instability in the grid create algorithm has been fixed. Prior to this fix, it was possible for the iterative grid creation process to produce grids with large fluctuations in Z values indicated by the RMS error increasing a lot when the grids were produced.

Grid/Create now checks the sample data file name is valid 17268

The Grid/Create Grid panel now forces users to select a sampled data file name if one is to be created.

Grid/Well Tie and Grid/Phantom using fault Z values would produce incorrect correction and tied grids 33045

The option to use fault Z values in the Grid/Well Tie and Grid/Phantom options was not working correctly, because the Z value of the input grid was being read incorrectly at the fault value locations. Note that this could only affect the "distance" and "polygon" methods as the other methods do not permit use of the fault Z values.

Gridding 2D seismic from non-primary connection now works 15835

When using a Petrosys-dbMap non-primary database as a gridding input data source, the task no longer fails when running as it now reconnects to the database as required.

Only input data points which lie inside the AOI of a grid will be used 34042

Petrosys now ensures that input data points which lie in a grid's extent will be used for gridding. Previously, some points just outside the grid extent could also be considered.

Seismic dbMap input data is now referred to as Petrosys-dbMap 33519

The old "dbMap" gridding data source is now displayed as "Petrosys-dbMap" to be consistent across the software.

Support for gridding multi-shape spatial data sources 32479

In previous versions attempting to grid a multi-type spatial data source would either result in incorrect output (data values being missed) or, in some circumstances with some data types, a crash.

The "Projected Slope" gridding algorithm method has been deprecated 31457

The "projected slope" gridding algorithm has been deprecated. Existing tasks using this method will still run the same method, but it is no longer possible to create new tasks using this method.

Well-Tie and Phantom gridding using the "distance" method was not using third party fault information correctly 30878

When running the Grid/Well Tie or Grid/Phantom options with the "distance" method, the fault Z values used as input to the gridding data were only read correctly if they came from a Petrosys fault file. If the fault data source selected was from a third party source, then the values were not read correctly. In this case, values were inadvertently still read from any fault file specified in the faults panel. This has now been fixed.

Surface Modeling/Kriging   Bug Fixes

"Set initial theoretical variogram parameters" incorrectly used to display error message about constraint parameters 36260

In Kriging, if the constraint flags for both the "range" and "nugget" parameters were set prior to clicking on the "Set initial theoretical variogram parameters", the user used to get an error. This has been fixed in v17.3.

Display of sill and range now drawn correctly for the minimum direction variogram 35335

When displaying anisotropic theoretical variograms, the toggle to display the sill and range was not working properly for the minimum direction plot. This is now fixed.

Surface Modeling/Volumetrics   Enhancements

Grid-based Slice Volumetrics now displays the input factors used to compute the volume scaling factor   **17568**

The parameters which make up a volume scale parameter are now printed in the various volumetric reports.

More standard reporting units for slice volumetrics have been added   **21062**

It is now possible to display volume units in terms of barrels (bbl, Mbbl, MMbbl) and larger blocks of cubic feet (Mscf, MMscf, Bscf).

Surface Modeling/Volumetrics   Bug Fixes

Computed scale factor parameters are now saved for every zone in a task file   **32942**

The scaling parameters are now saved to a task file. These parameters are the ones used to make up the volume scale factor.

Grid based slice volumetrics areas reporting for Top/Base grid was not consistent with old grid-based method   **28272**

The reported total area when the list contains areas from different polygons, will be the sum of the list areas.

The reported total area when the list contains areas from different zones, will be the maximum area from the list areas.

Grid based statistics button no longer shows a blank dialog on first invocation   **32927**

Pressing the statistics button now produces a text dialog with the appropriate statistical information.

Volumetrics template XSV files are now searched for in correct priority order   **34336**

The XSV files used to create volumetric reports are now searched in priority order of project, site then system directories.

Volumetrics web report was incorrectly reporting Totals by polygon within zone   **33203**

When reporting volumetric totals by polygon in zones, just the information about the zone in question is now displayed.

Also, just the area that contributes to a volume slice is reported. This is the maximum area for that slice. There is no longer a top area and base area reported.

Well data   Enhancements

Petrel Well Symbols - Additional CGM well symbols added
35244

The full set of Petrel well symbols has now been added to Petrosys. Now when displaying well data from Petrel all the well symbols in the standard catalogue will be accurately displayed in Petrosys.

Well data   Bug Fixes

Deleting a spreadsheet layout in the WDF Editor no longer hides tree view
33814

In previous v17 versions, deleting a spreadsheet view would cause the "tree view" (i.e. folder list in the top-left) to be hidden.

WDF import now reports warning about vertical wells only once per well when importing checkshot data
34704

The number of warning messages produced when importing checkshot data to a WDF file has been reduced by only warning about vertical wells once per well instead of for each point of the checkshot survey.

Wells (WDF) editor - Fixed stratigraphical sorting of Zone classes
32328

Zones classes can now be sorted stratigraphically.

Wells (WDF) editor fields missing from File/Import/General panel have been restored
34615

Some fields were incorrectly being hidden on the Wells (WDF) editor File/Import/General screen. This fields are now correctly available.

Wells (WDF) editor no longer hangs when closing main window tabs
33683

The /Window/Close command is used to close window tabs in the Wells (WDF) editor. In some circumstances, in previous versions, this could result in Petrosys crashing or hanging.

Wells (WDF) editor Project Information Zone sequence sorting works as expected
30172

The Wells (WDF) editor Project Information Zones list is now sorted by sequence instead of zone name.

Width of directional survey Y-Offset column in WDF editor has been reduced
35974

In the directional survey list, the Y-Offset column was incorrectly set to very wide. The width has been reduced so it is easier to see along with the other data columns.