PETROSYS SOFTWARE RELEASE NOTES VERSION **17**

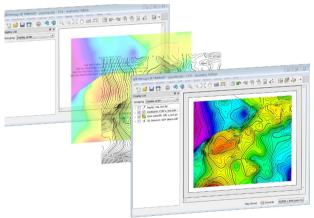| 17.4sp7	April 2014

Introducing Petrosys 17.4, with dynamic map sheets and many important refinements to Mapping, Depth Conversion and 3D Visualization; along with the introduction of the first fully 64 bit edition of Petrosys and a range of smaller, but significant, changes requested by users to make workflows even more intuitive.

Released April 2014, Petrosys 17.4sp7 is the most recent iteration of the 17.4 series, and may be installed side-by-side with earlier versions of Petrosys.

A More Refined and Vastly Simplified Mapping Experience

Mapping in Petrosys 17.4 has been given a significant overhaul with the introduction of the dynamic map sheet, which adapts automatically to the scale and extent of data as it is displayed, allowing for a faster, simpler and more flexible introduction to Petrosys mapping.

Building maps has never been easier. Using the dynamic map sheet, data can simply be dragged onto the map canvas. The map sheet will automatically adapt to the extent and scale of the data as it is added to the display list, allowing new maps to be built with a fraction of the effort.

Using the dynamic map sheet, data can simply be displayed and the map canvas will automatically detect an appropriate scale, extent and CRS to suit the information provided. As more data is added, the map sheet will be updated automatically, seamlessly creating the best map for the data provided.
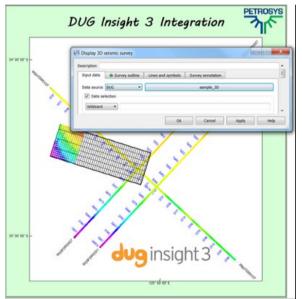
This enables a range of processes - such as drawing a map as part of a workflow and previewing the appearance of data in Mapping - to be performed efficiently and without the hassle of defining geographical information and worrying about the limitations of a particular scale or CRS.

A dynamic map sheet can, at any time, be saved as a new map sheet. This makes setting up a map sheet using an existing data source simply a matter of displaying the data, then saving the generated map sheet. The style of a dynamic map sheet can also be set using a template, allowing styling guidelines to be enforced, and significantly streamlining the map making process.

Direct Connectivity to DUG Insight

The suite of direct connectivity options provided by Petrosys has been expanded to allow geoscientists to take advantage of the interpretive knowledge provided by DUG Insight v3.

The culmination of 10 years research and development, DUG Insight provides a fully featured 2D/3D/pre-stack seismic interpretation software suite incorporating rock physics, processing and depth imaging capabilities. Direct connectivity to DUG allows these features to be fully leveraged by the powerful mapping, sub-surface modeling and volumetrics tools provided by Petrosys.

Well data and a range of 2D and 3D seismic interpretation and navigation data can be mapped directly in Petrosys, utilised as a data source in Surface Modeling or imported to a corresponding Petrosys data source. Surfaces and grids generated by Petrosys can also be written back to DUG as horizon data, to aid in the interpretation process.

Petrosys direct connectivity gives users the opportunity to capitalize on the benefits provided by DUG Insight, as well as those provided by other data sources. It expands the range of opportunities for the seamless integration of interpretive results using the most effective combination of technologies.

Petrosys Goes 64 Bit

Petrosys is now available in a 64 bit edition on both Windows and Linux, which enables the use of much larger and more detailed data sets than were allowed by the 32 bit edition.

The 64 bit edition of Petrosys is fully compatible with all previous versions of Petrosys; regardless of platform or hardware type. This makes data exchange and collaboration between users of 64 and 32 bit software completely seamless, and means taking advantage of the bonuses provided by 64 bit software can be done without the hassle of following lengthy update procedures.

Added Support for Esri ArcMap Documents

Data from Esri ArcMap documents (lyr and mxd files respectively) can now be utilised in Petrosys Mapping, further expanding the spatial visualization capabilities of the Petrosys Mapping application, while strengthening cross compatibility with established third party data sources. The combination of the powerful database mapping tools provided by Petrosys Mapping with the spatial visualization capabilities of ArcMap means the diversity of content available for creating data rich maps is greater than ever before.

Petrosys supports ArcMap documents via a new XML based format, pslyr. ArcMap documents are converted to the pslyr format automatically as they are displayed in Mapping, and stored in the current temporary directory. Alternatively, ArcMap documents may be converted in bulk using a new conversion tool, which is available from the /Tools menu in the Petrosys Launcher. Once converted to pslyr, an Esri license will no longer be required for displaying a file (as it may be displayed from the Petrosys pslyr format, rather than the original Esri document) so bulk conversion provides a useful tool for preparing large collections of data (sets of base maps for example) for use in Petrosys.

Note that a pslyr file is independent of the original ArcMap document, and will not be updated automatically as changes are made to the original file. This means the conversion to pslyr will need to be performed each time changes are made to a document, or those changes will not be visible in Petrosys. By default, if the ArcMap document exists in the same directory as the corresponding pslyr file, Petrosys will perform a check to ensure the pslyr file is up to date with the original ArcMap file. If the ArcMap document has been changed at some point after the creation of the corresponding pslyr file, the pslyr will be updated prior to being displayed. This ensures the most recent changes will be visible in Petrosys, and that conversions will be performed if necessary.
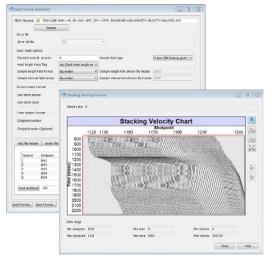
Faster 3D Visualisation

The performance of the 3D Viewer application has been vastly improved, in some cases nearly halving the amount of time taken to render a 3D display.

Performance increases are enabled by numerous refinements and fixes which have been made in the application. In particular, the speed of 3D displays containing large amounts of text, detailed surfaces or well data (directional surveys in particular) will benefit enormously from these improvements.

3D visualization in the 64 bit edition of Petrosys will see an improvement in performance above and beyond the increases in the 32 bit edition of 17.4; thanks to the larger quantities of memory available to the 64 bit application.

Depth Conversion Using Stacking Velocities and Third Party Time/Depth Data Just Got Better

Petrosys 17.4 introduces two new features which serve to dramatically improve depth conversion using stacking velocities and third-party time/depth or checkshot data.

Fast, Simple and Flexible Support for SEGY Stacking Velocities

Stacking velocities stored in the SEGY format can now be transferred to a Petrosys Seismic Data File (SDF). A range of pre-defined formats, covering a variety of industry wide standards for the SEGY format, as well as the tools for defining a new format from the ground up, mean that support for SEGY files is both diverse and flexible.

Comprehensive automation of the format definition process also means that creating a new format is largely a matter of selecting a file and letting the software do the hard work. Easily accessible data previewing options then mean that tweaking a format to further optimise data extraction is straightforward and easily grasped by accomplished users, and those familiar with the SEGY format.
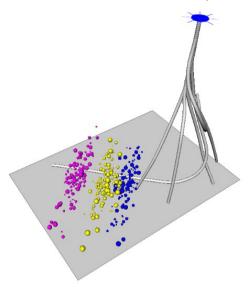
Full Support for Third-Party Checkshot and Time/Depth Data

It is now possible to import checkshot and time/depth data from Kingdom, OpenWorks, Petrel, Paradigm and Petrosys dbMap/PPDM to a Petrosys Well Data File (WDF) - removing the need for intermediary text files. This significantly improves the versatility of the WDF format, and vastly stream-lines the process of transferring checkshot and time/depth data into the Petrosys application for easy and accurate depth conversion.

Comprehensive Support for Point Data Visualization in 3D Viewer

Full support for point data, stored in a range of industry standard spatial and GIS data sources, has been added to the increasingly robust range of functionality available in the 3D Viewer. This enables the visualization of microseismic data, large-scale regional data sets - such as magnetic and gravitational surveys - and a variety of well-bore oriented analysis and chemistry data, such as that used in unconventional exploration, which can be used to better demonstrate the relationship between wells and surfaces.

The addition of Point data display to the 3D Viewer means that it is now possible to display microseismic point data along well paths, adding new dimensions to 3D views created in Petrosys.

The use of point data in the 3D Viewer also enables surfaces to be displayed along-side the input data from which they were computed, adding a new dimension to the QC process, and allowing the relationship between surfaces and input data to be examined in a greater level of detail than was previously possible.

Point data can be displayed directly from text or Excel files, shapefiles, Petrosys culture files and Petrosys sampled data (GIP) files. The size and color of each point may either be specified manually, or set using attribute values from the data source, allowing physical attributes to be effectively modelled in three dimensions.

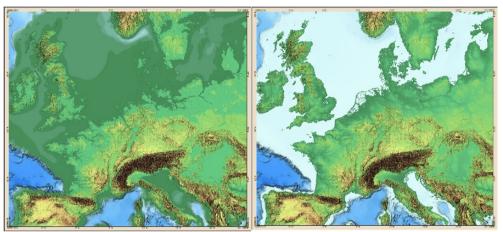## Improved Clipping Plane Placement in 3D Viewer

Cipping planes in the 3D Viewer can now be rotated, enabling these visual aids to be better aligned with faults, stratigraphic boundaries and other geological features; while allowing a greater degree of control to be exercised over their placement and re-positioning.

After being positioned, planes can either be rotated interactively or manually, by entering the required rotation angle into the associated display options.

Higher Resolution, More Precisely Defined Gradients

Improvements to color gradients in 17.4 mean that not only are gradients are higher resolution than ever before, but also that definition of gradients can be now be performed more precisely using a far greater range of values.

Creating a gradient type using "Exact" gradient values (specifying which color will occur at what value in the data source) is now much more precise. Improvements to this gradient type mean that exact values associated with the minimum, maximum and intermediary control points in a gradient are no longer rounded to the nearest value; allowing for a much finer grained approach to gradient definition.

Improvements to the use of exact values in gradient definition mean that data sets exhibiting significant changes over a small range of Z values are now represented more accurately. The images above demonstrate the use of a gradient mapping sea level in Europe. In 17.3 (left) many of the values near or at sea level are rounded, resulting in shallower depths being displayed in green. In 17.4 (right) these values are read more accurately, allowing them to be mapped to the appropriate colors.

These changes, coupled with gradients which are now much higher in resolution, mean that gradients can be tailored to suit a much wider array of data sets - particularly where a significant change in color occurs over a very small range of values. The improvements also serve to increase the overall smoothness of color gradients, as well as fix a number of issues which could result from the values in a gradient being rounded in an unexpected or counter-intuitive way.

All gradients created in 17.4 are fully backwards compatible with past versions of Petrosys.

Scale Independent Mapping

The efficiency and ease of use of presentation mapping has been vastly improved in 17.4 by the introduction of scale independent mapping, which allows layers using absolute widths to be re-sized automatically as the scale of the map is changed. This feature is optional, and can be enabled or disabled using the configuration tool, allowing it to be applied on a user, project or site wide basis.

Scale independence means that supported data types will always look the same, at every scale; making the often time consuming task of re-sizing each element in a map whenever the scale is changed a thing of the past.

Improvements to Group Creation in Mapping Display Lists

Improvements have been made to group creation in the Mapping Display List, allowing a finer degree of control to be exercised over the organisation of layers, and further simplifying display list organisation.

It is now possible to create sub-groups (groups within groups) in the Display List. This makes it possible to organise display layers into hierarchies based on data type, vendor 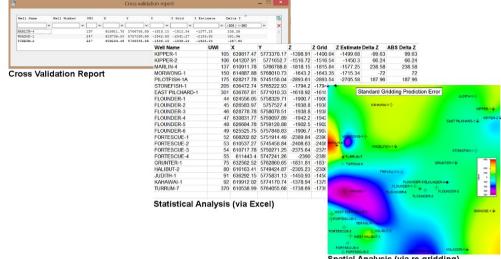or any other piece of information. Groups may now be created in a blank display list, allowing a display hierarchy to be configured and saved before the addition of any data.

The creation of groups from existing display lists has also been improved. Any layers selected in the display will automatically be added to a new group when created. This makes the process of organising a display list faster and more intuitive.

Detailed Analysis of Grids Using Cross Validation

The introduction of cross validation to Petrosys Gridding sees the addition of a valuable new tool for the analysis and verification of sub-surface models. Cross validation provides a deeper insight into the gridding functionality used by Petrosys, enabling a better understanding of how well a grid models a given input data set, as well as the accuracy of interpolated regions on the grid, and therefore the reliability of any predictions which are made based on the geometry of these regions.

Cross validation works by re-gridding the input data multiple times, removing a single data point during each subsequent gridding pass. The Z value of the grid at the location corresponding to each data point is recorded twice - once from a grid produced with the data point, and once from a grid produced without the data point. An error value, calculated from the difference between the two gridded values, is also recorded, giving an indication of how well the model was able to predict the Z value at the location of the input data point. This information is provided in a tabular format, which may be exported to either a text or Excel file for further analysis.

Cross Validation Report

Statistical Analysis (via Excel)

Spatial Analysis (via re-gridding)

By analysing how well the current gridding parameters were able to predict the geometry at each input data point, an estimation can be made as to how well these parameters have modeled the input data. Significant errors may also be used to diagnose problems with an input data set, such as outlying data points. Spatial trends in the error values may also be investigated by re-gridding the error values (labelled as "delta Z") in the report. Errors concentrated over a particular region may be indicative of more systematic errors in either the data set or gridding parameters, which may be a crucial piece of information when assessing the quality of a given model.

Cross validation further expands upon the already diverse array of tools provided by the Petrosys Surface Modeling application, and further validates the predictive power and reliability of the gridding parameters used in an existing workflow.

User-Defined Formula Templates

Modelling formula and other computational methods can now be saved to user-defined templates, allowing standard or best practice mathematical processes to be shared amongst users. Creating and managing a library of standard or best-practice formula and computational methods puts more tools at the fingertips users, meaning that less time is spent setting up the computations necessary to perform commonly executed tasks, and improving the overall efficiency of setting up work-flows.

Anticipating that some formula may not be applicable to everyone at a site, while others will be used throughout an organisation, formula templates may be saved and accessed at a project, site or system-wide level; meeting the needs of both small scale, project oriented computational tasks and large scale, company wide procedures.

Improvements to Bubble Maps

Bubble maps in Petrosys 17.4 have been subjected to a range of changes, from the addition of a new data source - Excel - to input, error checking and general usability improvements.

Excel Now Supported as a Data Source for Bubble Maps

Excel spreadsheets have been introduced as a data source for bubble maps created in Petrosys Mapping, further improving the versatility of this popular feature, while broadening the range of input data allowed in Mapping.

Bubble maps are a great way of mapping production, fluid property, and other well information from the many sources of data accessible to Petrosys (including 3rd party direct links). An important segment of this data might be provided in spreadsheets from labs, joint venture partners, data rooms and other sources.

The addition of Excel support to bubble maps means it is now possible to quickly and efficiently turn these sources of data directly into informative maps, helping with quality control of the data on receipt, along with rapid use and communication of data using stunning and visually appealing maps.

Formula Improvements

Formula input has been improved, adding to the versatility and range of formulae which can be used to define bubble maps.

Spaces may now be added to a formula by enclosing the space in either single or double quotation marks. The use of upper and lower case characters in a variable name will now be matched correctly when the formula is run, fixing any problems which may have previously occurred when mixed case variable names were used in a formula.

Error checking has also been improved, and will now properly detect all illegal formula syntax when the OK or Apply button is pressed. This makes it more difficult to create erroneous bubble maps, and allows for a quicker response to any faults which may have been entered into a formula.

Display and General Usability Improvements

It is now possible to display negative values in a bubble map, and these will be drawn correctly within a bubble if used. Missing values will no longer be drawn. Data selection for bubble maps created from databases and other third-party data sources is now fully supported. Re-drawing bubble maps is now far more responsive.

Print Preview

Publication of content in Windows has been made more accessible with the addition of a preview window when printing material using the "Window Printers" Print System. The window displays an approximation of the output from the selected printer, based on the chosen print settings (paper size, margins, etc.).

File Selector Shortcuts

Shortcuts to frequently used directories can now be added to the file selector. This allows the file selector to be configured to cycle between multiple directories with little effort, improving general usability and efficiency of day to day operations.

Improved Assignment of Top and Bottom Flags in Fault Data

The automatic identification of points along a fault polygon has been measurably improved, allowing the geometry of faults to be determined more accurately, and fixing problematic cases which sometimes meant the same symbol was assigned to both sides of a fault.

Petrosys 17.4 improves the assignment of symbols and other annotation at "apex points" along a fault polygon, allowing for the correct detection of the up-thrown and down-thrown side of the fault, and by extension enabling the automatic assignment of the correct symbols to these features.

Further Integration of the FaultRisk™ Fault Analysis Package

Petrosys 17.4 contains further support of FaultSeal's FaultRisk product, with direct access to the Fault Statistics tool added. Using a fault layer within Petrosys, FaultRisk Statistics provides detailed analysis of faults, allowing better understanding and de-risking of the fault interpretation.

Esri File Geodatabases Now Supported on Linux

The Esri File Geodatabase library has been updated to version 1.3, enabling full support for the format on RedHat Enterprise Linux 5.

As a consequence of this upgrade, Windows Vista can no longer be used to access File Geodatabases. This platform is no longer supported by File Geodatabases.

Support for Esri Desktop 10.2 Added to Esri Plugin

The Petrosys Esri plugin has been updated to support all Esri 10.2 products, allowing for a tighter level of integration with Esri products, and enabling a greater degree of cross-compatibility between the Esri and Petrosys desktop applications.

More information about the Petrosys Esri plugin can be found by contacting your local Petrosys sales or support representative.

Windows Support for Paradigm 2011.3

Paradigm 2011.3 is now supported on both Windows and Linux editions of Petrosys, bringing an already powerful world of integrated data management to users of the Windows platform.

The ability to access Paradigm via the EPOS connector allows Windows users to interactively bring together data from Landmark, GeoFrame, Esri, Petrel, Paradigm, Kingdom, ODM and Petra in the industries most trusted, effective and respected mapping environment.

This enables sub-surface decisions to be communicated through one of the most commonly used mediums - a map! No wonder Petrosys is considered the industry's most dynamic aggregator of sub-surface data.

Import and Export Z-MAP Polyline or Vertex Files

Z-MAP vertex files are now supported by the Spatial Data Translator, allowing files in this format to be transferred to any of the other formats supported by the tool.

Added Support for SeisWare 8.0

Petrosys 17.4 introduces support for SeisWare 8.0. This enables support of the new directional survey structure used by SeisWare.

Updated Oracle Runtime Library to Version 11.2.0.1

The Oracle runtime library used by Petrosys has been updated to 11.2.0.1. This fixes a number of issues relating to LDAP connections, along with introducing support for authentication using LDAP/Active Directory.

This upgrade has changed the way in which Oracle databases are configured for use with Petrosys. More information about these changes can be found in the Petrosys configuration guide.

Updated WDF Internal Database

The internal database used by Petrosys Well Data Files has been changed from Ctree to Sqlite, improving performance and access speed, particularly when accessing a WDF stored on a networked drive.

As a consequence of this update, all well data files created prior to 17.4 will need to be changed to use the new database. Once a file has been changed, it will not be backwards compatible with earlier versions of Petrosys. A backup of all updated files will be saved to the current project directory before the change is made.

FLEXlm Upgraded to 11.11

The FLEXlm license management software used by Petrosys has been upgraded to version 11.11, bringing about numerous improvements in performance and stability.

As a consequence of this upgrade, all Petrosys license servers must be upgraded to version 11.11 to allow licenses for Petrosys 17.4 to be checked out. In addition, a new set of license codes will be required for Petrosys 17.4.

Bug Fixes

Petrosys release 17_4_7 [4 entries]

Connections, import and export

44964   DUG Insight projects now opened in "readonly" mode to prevent connection conflicts

44969   Formation data now extracted correctly from IHS Kingdom using queries

Mapping/2D Seismic

45040   2D Seismic interpretation data now displayed correctly when read directly from IESX

Surface Modeling

45107   Grid creation ignored faults when running the sampled data editor

Detailed Release Notes

Petrosys release 17_4_7 [4 entries]

Connections, import and export   Bug Fixes

DUG Insight projects now opened in "readonly" mode to prevent connection conflicts
44964

Petrosys will now open DUG Insight projects using "readonly" mode, except when writing grids to the current project, in which case the project will temporarily be changed to "readWrite" mode while the grid is being written. This will prevent instances where having the same project open in both Petrosys and DUG Insight would cause the connections to become "blocked", giving the impression in some cases that either application had become unresponsive.

Formation data now extracted correctly from IHS Kingdom using queries
44969

Data from formations stored in IHS Kingdom will now be extracted correctly by associated SQL queries. Previously formation names containing single quotation marks were being extracted incorrectly by associated queries, due to the quotation marks being handled incorrectly. This has now been fixed.

Mapping/2D Seismic   Bug Fixes

2D Seismic interpretation data now displayed correctly when read directly from IESX
45040

Seismic interpretation data is now displayed correctly when read directly from IESX (using ribbon maps for example). Previously, interpretation data was not being read based on the correct shotpoint range, meaning it would appear along the wrong segment of the associated line. This has now been fixed. Interpretation data will now be mapped accurately when displayed from IESX.

Surface Modeling   Bug Fixes

Grid creation ignored faults when running the sampled data editor
45107

In version 17.4sp5, a problem was introduced where grid creation would ignore faults when using the sampled data editor interactively. This has now been fixed.

Enhancements

Petrosys release 17_4_6 [1 entries]

Prospects and Leads

44644   DELETED removed from Prospects and Leads prospect status option

Bug Fixes

Petrosys release 17_4_6 [3 entries]

Connections, import and export

44658   GeoFrame IESX plugin no longer crashes when reading 2D Seismic lines

Graphics/Plotting and Hardcopy

44548   CGM and ZGF color gradient output banding fixed

Surface Modeling

37800   Petrosys Grid Files metadata no longer truncates long file names

Detailed Release Notes

Petrosys release 17_4_6 [4 entries]

Connections, import and export   Bug Fixes

GeoFrame IESX plugin no longer crashes when reading 2D Seismic lines
44658

A bug in v17.4.0 that could cause a crash while reading 2D seismic horizon data from GeoFrame has been fixed.

Graphics/Plotting and Hardcopy   Bug Fixes

CGM and ZGF color gradient output banding fixed
44548

In previous Petrosys 17.4 versions exported CGM and ZGF files may have contained color bands, missing colors or a significant portion of content drawn in a single color. This was particularly noticeable in maps containing many colors (e.g. colorfilled grids). This bug has now been fixed so behaviour is similar to previous versions.

Prospects and Leads   Enhancements

DELETED removed from Prospects and Leads prospect status option
44644

'DELETED' is no longer an option in the prospect status list on displaying 'Prospect and Leads' screen.

Surface Modeling   Bug Fixes

Petrosys Grid Files metadata no longer truncates long file names
37800

The metadata stored in a Petrosys grid file can now handle information strings longer than 80 characters. Previously long filenames stored for the original datasources used to generate the grid or from operations such as Grid Arithmetic could be clipped leading to loss of information on the source of the grid,

Enhancements

Petrosys release 17_4_5 [16 entries]

Client specific

43819   Increased size of `NUMBER_OF_CHANNELS` field on seismic line header screen - Santos only

Connections, import and export

39667   Added Western Geco text format to Stacking Velocity Exchange

44229   Increased the allowed number of shot points when reading 2D seismic information from SeisWorks

General - User interface

43207   Added keyboard shortcuts for zoom functionality to embedded web browser

43782   Error message now displayed by embedded web browser if unable to connect to web server

43974   Icons size now defaults to small and Mapping now has all toolbars enabled by default

43738   Window size of embedded browser screens launched from Petrosys now restored correctly

Graphics/Plotting and Hardcopy

43557   Multiple improvements to the Print dialog

Mapping

38584   Added option to toggle display layer tool tips to the Configuration Tool

15461   Added support for Esri ArcMap documents (lyr and mxd)

40040   Created more informative error message for unsupported file geodatabases in Display GIS

43078   Default paper size for dynamic map sheets changed to one metre

42303   Increased map sheet title text height limit to 150mm

19706   Maximum allowed length of map sheet title field increased from 39 to 255 characters

43756   New attributes may now be created on Back Interpolate to WDF screen

Surface Modeling

21697   Cross validation added to Petrosys grid creation

Bug Fixes

Petrosys release 17_4_5 [18 entries]

3D Viewer

42346   Fixed application crash when saving to raster on Windows

Configuration

44505   Petrosys Linux installer service pack install creates backup of existing version and removes deleted files

Connections, import and export

43796   convertFiles tool now generates default line names in velocity files without embedded spaces

44337   Petrosys 64-bit can now run all 32-bit server plugins

dbMap

21577   Fixed issues which prevented dbMap seismic surveys from being created

44289   Petrosys embedded web browser no longer crashes when running on RHEL6

Graphics/Plotting and Hardcopy

32924   Custom page dimensions now used correctly when printing maps to PDF

43869   Fixed large black regions produced by plots to HP using HPGL/2 and raster elements

42046   PDF layer grouping now works correctly when final element in the display list is a group

44456   ZGF Export - Annotations are now always visible

28429   ZGF Export - map sheet background and/or exterior colours are not not exported to ZGF

Mapping

43544   Added support for platform specific title block panel files

41746   Contour lines and labels now displayed by default

44555   Linux print dialog no longer crashes

41663   Rename RMB menu option now functions correctly

42119   Seismic lines and line names now displayed by default

44217   Title block files stored in local project title_blocks directory now resolved correctly

Web map server

42679   WMS Server GetFeatureInfo now correctly returns text information

Detailed Release Notes

Petrosys release 17_4_5 [34 entries]

3D Viewer
Bug Fixes

Fixed application crash when saving to raster on Windows 42346

A crash has been fixed, which could occur when saving the current scene to a raster file and/or creating a project thumbnail picture on Windows.

Client specific
Enhancements

Increased size of `NUMBER_OF_CHANNELS` field on seismic line header screen - Santos only 43819

The maximum size of the Number of channels on the seismic line header screen has been increased to 999999.

Configuration
Bug Fixes

Petrosys Linux installer service pack install creates backup of existing version and removes deleted files 44505

During a Linux installation of a service pack version any existing installation of the same major version will be moved to <vsn>.backup. A maximum of one .backup will be taken, with any pre-existing .backup deleted. This fixes issues where the new service pack has deleted or moved files from the prior release.

Connections, import and export Enhancements

Added Western Geco text format to Stacking Velocity Exchange
39667

A format for recognising "Western Geco" text files has been added to Stacking Velocity Exchange tool.

Increased the allowed number of shot points when reading 2D seismic information from SeisWorks
44229

The number of shot points allowed when reading 2D seismic information from SeisWorks has been increased from 55,000 to 110,000. A possible crash has also been fixed which could occur if this limit was exceeded.

Connections, import and export Bug Fixes

convertFiles tool now generates default line names in velocity files without embedded spaces
43796

The convertFiles tool (used for generating advanced format files for velocity importing) now no longer inserts a space between the default line name and the automatically generated line number index. For example the default line name "abc" will now produce the generated line names "abc1", "abc2", etc. Previously, these would be generated as "abc 1", "abc 2", etc.

Petrosys 64-bit can now run all 32-bit server plugins
44337

A problem has been solved where some of the third-party server plugins were unable to be launched when using the 64-bit version of Petrosys.

dbMap Bug Fixes

Fixed issues which prevented dbMap seismic surveys from being created
21577

Several bugs have been fixed which were preventing new Seismic Surveys from being created in dbMap using either the 'Save As' or 'New' buttons.

Petrosys embedded web browser no longer crashes when running on RHEL6
44289

In some cases, on particular Linux platforms with specific third-party packages installed, the Petrosys embedded web browser could crash. This has been resolved so a defined set of libraries will be used when the embedded browser starts.

General - User interface Enhancements

Added keyboard shortcuts for zoom functionality to embedded web browser
43207

Keyboard shortcuts for changing the size of the current page (i.e. zooming) have been added to embedded web browser. The Ctrl + shortcut can be used to zoom in, and the Ctrl - shortcut can be used to zoom out.

Error message now displayed by embedded web browser if unable to connect to web server
43782

The embedded web browser now displays an appropriate error message if there is a network problem

Icons size now defaults to small and Mapping now has all toolbars enabled by default
43974

The default icon size is now set to small (16x16 pixels) and all the toolbars in Mapping have been enabled by default.

The small size will only be set on a new install, or if preferences are reset to default using the Configuration tool Advanced/Reset option.

Note: some tools within the Petrosys suite do not have a Customize toolbar menu item to allow the modification of icon size. In those cases right-clicking on the toolbar itself will display a context menu that allows the icon size to be changed.

Window size of embedded browser screens launched from Petrosys now restored correctly
43738

The window size of embedded browser (e.g. PLDB) screens launched from within the Petrosys desktop application are now restored correctly after being re-opened. Previously, any changes made to the size of these windows would be reset if the window was closed then re-opened.

Graphics/Plotting and Hardcopy   Enhancements

Multiple improvements to the Print dialog   **43557**

A range of improvements have been made to the Print dialog in Mapping: printer validation has been delayed until required, resulting in shorter load times; a progress bar has been added when printing in Windows; a bug has been fixed which prevented some print properties from being restored correctly when re-opening the dialog; and finally sorting options have been added when viewing and selecting printer names and paper sizes.

Graphics/Plotting and Hardcopy   Bug Fixes

Custom page dimensions now used correctly when printing maps to PDF   **32924**

Custom page dimensions will now be used correctly when printing content from Mapping in the PDF format. Previously, the use of certain PDF drivers would result in the output dimensions defaulting to an A4 size, ignoring any any custom dimensions which may have been specified.

Fixed large black regions produced by plots to HP using HPGL/2 and raster elements   **43869**

Printing/plotting maps containing raster elements (such as colorfill grids) could result in large black regions appearing in the final hardcopy. This has now been fixed.

PDF layer grouping now works correctly when final element in the display list is a group   **42046**

Layer grouping is now preserved correctly when exporting a Petrosys map to a layered PDF. Previously, maps where the final element in the display list was a group would result in incorrect layer grouping in the output PDF.

ZGF Export - Annotations are now always visible   **44456**

The /File/Export ZGF option would sometimes lose text annotations on certain dimension and projection map sheets. This problem has now been fixed.

Additionally an extra ZGF driver option has been added to control how text annotations are exported to ZGF. In Petrosys, by default, when a font is selected that is not Simplex, the ZGF driver attempts to render this font in ZGF as polygons, this can result in large ZGF output files and slow rendering. To prevent this happening there is now the option _fp0 which can be added to the "ZGF" option in Configuration/Printers & Plotters/Settings panel, e.g. set the whole string to "plugin_dpxddzgf_fp0". With this option all text, regardless of font, is output as ZGF text primitives resulting in a smaller faster file, with the difference being the fonts will not look the same as they do in the Petrosys canvas.

ZGF Export - map sheet background and/or exterior colours are not not exported to ZGF   **28429**

The /File/Export ZGF option now does not export the map sheet to the ZGF file. This prevents a problem where a map sheet with solid filled color exterior borders would export to the ZGF file as black rectangles that could cover the real content of the map.

Note: If you desire the old behaviour where the map sheet border is exported to the ZGF then this can be enabled by an Advanced configuration option. See you Petrosys support representative for guidance on setting this option.

Mapping   Enhancements

Added option to toggle display layer tool tips to the Configuration Tool   <small>38584</small>

A new option has been added to the configuration tool which can be used to toggle the display of the tooltips associated with display layers in Mapping.

The option is available in the Mapping sub-section of the configuration tool, under the General tab.

Added support for Esri ArcMap documents (lyr and mxd)   <small>15461</small>

Petrosys now includes support for reading and displaying Esri ArcMap .lyr and .mxd files. These files can be displayed in Mapping via drag-and-drop onto the map, File/Merge or the new Display/Esri LYR,MXD menu option. Displaying a .lyr or .mxd file in Petrosys will create a Display/GIS layer referencing the associated data, with the ArcMap styles and symbologies from imported files mapped to equivalents in Petrosys where possible.

This functionality uses Esri technology which is not available on Linux, and also requires the temporary use of an Esri ArcMap license (the Esri license is only checked out when a lyr/mxd file is read - once imported into Petrosys the license is no longer required, including .dbm saving/loading).

A Launcher/Tools/Esri Batch Convert option has been added to bulk convert .lyr and .mxd files into an open representation of the data which can be read on Linux and which does not require an Esri licence.

Created more informative error message for unsupported file geodatabases in Display GIS   <small>40040</small>

Petrosys does not support reading pre version 10.0 or compressed file geodatabases. An error message is now shown when attempting to access a file geodatabase of these types in Display GIS stating this information.

Default paper size for dynamic map sheets changed to one metre   <small>43078</small>

The default paper size for dynamic map sheets has been changed to one meter, which has been shown to produce better mapping results when using default settings.

Increased map sheet title text height limit to 150mm   <small>42303</small>

The maximum height of the map sheet title text has been increased from 40mm to 150mm.

Maximum allowed length of map sheet title field increased from 39 to 255 characters   <small>19706</small>

The maximum allowed length of the map sheet title text has been increased from 39 to 255 characters.

New attributes may now be created on Back Interpolate to WDF screen   <small>43756</small>

New attributes can now be created in the output WDF using the Back Interpolation to WDF screen.

Mapping   Bug Fixes

Added support for platform specific title block panel files   <small>43544</small>

Mapping now supports platform specific title block panel files (.pnx). Platform specific panel files are located under title_blocks\platform directory (for example, title_blocks\win32 or title_blocks\win64).

Previous versions required title block panel files to be saved in the same location as the corresponding title block (.cgm) file.

Contour lines and labels now displayed by default   <small>41746</small>

Displaying contour data will now result in the lines and labels associated with the selected contours being displayed by default. In previous versions of 17, lines and labels would only be displayed after the corresponding option in the display panel was enabled.

Linux print dialog no longer crashes   <small>44555</small>

A crash that could occur when using the Linux print dialog has been fixed.

Rename RMB menu option now functions correctly   <small>41663</small>

Using the Rename option, available after right clicking a layer in the display list, will now correctly modify the description associated with the specified layer. Previously, this option would function correctly for the first layer modified, but subsequent layers could not be edited and the description text would be set arbitrarily.

Seismic lines and line names now displayed by default   <small>42119</small>

Displaying seismic navigation data will now result in the lines and line names associated with the selected data being displayed by default. In previous versions of 17, lines and line names would only be displayed after the corresponding option in the display panel was enabled.

Title block files stored in local project title_blocks directory now resolved correctly   <small>44217</small>

Mapping will now resolve map sheet title block file correctly. In previous versions, Mapping could not find title block file if it was located in title_blocks directory

Surface Modeling   Enhancements

Cross validation added to Petrosys grid creation   21697

Cross validation can now be performed when gridding by turning on the required option in the "reporting" tab when configuring a new or existing gridding task in the Surface Modeling application.

Cross validation (sometimes known as jack knifing) is a well known method for analysing the performance of gridding models. The implementation in Petrosys involves running the gridding operation multiple times, each time removing a different point from the input gridding data. The interpolated result at the location of the removed point is compared with the input value that was removed to get a measure of how well the gridding model is performing for this data set.

The cross validation report can be output to screen or to a csv file. If the screen option is used, the report can be exported to Excel or other formats.

Cross validation is available for all gridding operations under the /Grid/Create Grid... option. It is not implemented for the "Well-Tie" or "Phantom" gridding operations.

Web map server   Bug Fixes

WMS Server GetFeatureInfo now correctly returns text information   42679

The GetFeatureInfo request type used by the Petrosys WMS Server will now return the correct text information. Previously this request type would not return any information if used.

Enhancements

Petrosys release 17_4_4 [7 entries]

Connections, import and export

41788   ArcSDE - Petrosys client side upgraded to version 10.2 for 64bit platforms

39431   Petrosys supports connecting via ArcSDE "direct connections"

dbMap

43446   DUG Insight 3D surveys now defined using maximum area of all horizons

General - User interface

38735   Improved performance of print dialog on Windows

Import and Export

43069   Spatial Data Translator can now be used to update Petrel culture objects

Mapping

43497   Added support for reading SeisWare version 4 culture files

Petrel plugin

41999   Petrosys Petrel plugin version now recorded in diagnostics

Bug Fixes

Petrosys release 17_4_4 [22 entries]

3D Viewer

43449   Addressed inconsistent frame rate during 3D Viewer animation playback

Administration/dbMap

43350   Large SQL queries no longer truncated when imported from XML

Application Launcher

43578   FaultRisk can once again be opened from the Launcher

Configuration

43468   Windows license server now upgraded correctly

Connections, import and export

41785   Added support for unicode characters in Windows printer names and form names

43547   ArcMap 10.1 no longer crashes when saving mxd file with a layer containing a Petrosys contour file

43657   DUG Insight project connection errors now return the correct error message

43460   Exporting a grid to an existing horizon in DUG with notes no longer fails

43563   Fixed crash when reading grids from IHS Petra imported from IHS Kingdom

43580   Fixed crash when switching lines while previewing 3D stacking velocity data

43558   Georeferencing information now preserved by raster export while "map contents only" option is enabled

43604   Non-existent zone attributes now read correctly from Petrel well data

43802   Petrel plugin now retrieves 2D and 3D seismic surfaces for large projects

41852   Print dialog on Windows no longer returns an XP:324 error when no printers are configured

43606   Wells from DUG Insight now read correctly according to the specified data source and selection file

dbMap

43573   Annotation queries containing %UIDLIST% keyword now supported when displaying drilling opportunities from PLDB

43373   DUG Insight Z values outside of associated survey area no longer considered invalid

General - User interface

43142   Print Preview now displays the correct sizing and margins when outputting to PDF

Mapping

43534   Improved performance when displaying drilling opportunities

29324   Landgrids are now displayed with the correct posting style

43466   Mapping no longer crashes when displaying 2D seismic lines and the data source is not connected

Surface Modeling

43039   Output geometry created from AOI of rotated grid or 3D seismic survey is now established correctly

Detailed Release Notes

Petrosys release 17_4_4 [29 entries]

3D Viewer   Bug Fixes

Addressed inconsistent frame rate during 3D Viewer animation playback
43449

Scene animation animation in the 3D Viewer will now be played smoothly, at a constant frame rate. This addresses a bug introduced in 17.4.1 which could cause very dramatic drops in the frame rate of animation play-back, resulting in noticeable slowdown.

Administration/dbMap   Bug Fixes

Large SQL queries no longer truncated when imported from XML
43350

A bug has been fixed, which caused SQL queries imported from XML (using the /Admin/Reports/Edit/Import... option in Mapping) to be truncated to 18 000 characters. SQL queries longer than 18 000 characters will now be imported correctly from XML.

Application Launcher   Bug Fixes

FaultRisk can once again be opened from the Launcher
43578

The FaultRisk application can once again be opened from the Petrosys Launcher. Previously some versions of FaultRisk would not start if invoked using the menu option from the Launcher.

Configuration   Bug Fixes

Windows license server now upgraded correctly
43468

All license server upgrades are now installed correctly. Previously, a change made to the license server in 17.4.1 was not being installed if the 17.4.0 license server had already been installed.

Connections, import and export   Enhancements

ArcSDE - Petrosys client side upgraded to version 10.2 for 64bit platforms
41788

The Petrosys application is now using the ArcSDE 10.2 client side libraries for all 64 bit client side platforms. This update means that these platforms will be compatible with the newest versions of ArcGiS Server.
Note with this upgrade ArcSDE servers older than version 9.3 are no longer supported.

Petrosys supports connecting via ArcSDE "direct connections"
39431

It is now possible to establish a connection to an ArcSDE database instance via the Esri "Direct Connect" method. This allows a direct connection to be established to the ArcSDE database back-end without the need for intermediary server software, providing an overall improvement in the performance of the connection, and bringing Petrosys into line with current Esri methodologies.

Direct connections for ArcSDE instances using an Oracle Spatial or PostGreSQL backend database are officially supported, with other backends potentially able to be used. This functionality is supported on Linux 32 and 64 bit versions and Windows 64 bit version, but not the Windows 32 bit version. Petrosys ships the client drivers for both Oracle Spatial and PostGreSQL so no additional driver installation is required for these.

Connections, import and export   Bug Fixes

Added support for unicode characters in Windows printer names and form names
41785

Unicode characters, which include characters used in foreign alphabets, can now be used in printer names and form names on Windows. Previously the use of unicode characters in either of these fields would result in an error.

ArcMap 10.1 no longer crashes when saving mxd file with a layer containing a Petrosys contour file
43547

Previously ArcMap 10.1 could crash when saving a .mxd file that contained a Petrosys contour file layer. This has been fixed.

DUG Insight project connection errors now return the correct error message
43657

Connection manager error messages relating to DUG Insight connections were sometimes truncated or malformed. This issue has been rectified and these error messages are now being displayed correctly.

Exporting a grid to an existing horizon in DUG with notes no longer fails
43460

Exporting a grid to an existing horizon in DUG Insight no longer fails. Previously, the export would fail if the grid was exported with a "notes" attribute specified, and the output DUG horizon did not have this attribute stored.

Fixed crash when reading grids from IHS Petra imported from IHS Kingdom
43563

Grids from IHS Petra originally imported from IHS Kingdom will now be read correctly. Previously, reading these grids would result in a crash.

Fixed crash when switching lines while previewing 3D stacking velocity data
43580

Changing seismic lines while previewing 3D stacking velocity data will now function correctly. In previous versions, this may have caused Surface Modeling to crash under some circumstances.

Georeferencing information now preserved by raster export while "map contents only" option is enabled
43558

Georeferencing information associated with an image will now be preserved correctly when exported to a raster image using the Export/Raster Image option. Previously, enabling the "map contents only" option could result in the wrong georeferencing information being saved to the output image.

Non-existent zone attributes now read correctly from Petrel well data
43604

A bug has been fixed which caused zone attributes for wells stored in Petrel to be read incorrectly. Previously if a well did not have an attribute value stored, one would be (erroneously) assigned from another well.

Petrel plugin now retrieves 2D and 3D seismic surfaces for large projects
43802

A performance issue has been resolved that was causing some large Petrel projects to return no 2D or 3D seismic surfaces.

Print dialog on Windows no longer returns an XP:324 error when no printers are configured
41852

Opening the print dialog on Windows will no longer produce XP:324 errors if no printers are currently configured. Previously, multiple errors would be displayed under these circumstances before the print dialog could be accessed.

Wells from DUG Insight now read correctly according to the specified data source and selection file
43606

When exchanging well data using the Wells Import Wizard, wells will now be filtered correctly according to the chosen data source and selection file. Previously, when using DUG Insight as a data source, if a well was listed in the chosen selection file, but not in the DUG project, all wells from the selection file would still be made available by the wizard - including those not stored in the project, which would be listed with empty values.

dbMap   Enhancements

DUG Insight 3D surveys now defined using maximum area of all horizons
43446

The survey area of 3D surveys stored in DUG Insight is now determined by the maximum area of all horizons, as defined by inline/xline numbers stored with the survey. The survey area (the maximum area of all horizons) may be calculated from any three non-collinear points, which are used to define the affine transformation from inline/xline to x/y coordinates.

Previously, the survey area of 3D surveys was defined by calculating a bounding box from the inline/xline coordinates associated with the extremities of the survey. Although this worked in most cases, it could cause problems where survey data (for example horizon Z values) existed outside of the survey area.

dbMap   Bug Fixes

Annotation queries containing %UIDLIST% keyword now supported when displaying drilling opportunities from PLDB
43573

The %UIDLIST% keyword can now be used in annotation queries when displaying drilling opportunities from PLDB. In previous versions, the %UIDLIST% keyword would not function correctly if used in annotation queries for drilling opportunities.

DUG Insight Z values outside of associated survey area no longer considered invalid
43373

Z values stored in DUG Insight horizons which are outside of the associated survey area are now considered valid.

General - User interface   Enhancements

Improved performance of print dialog on Windows
38735

The time taken to open the print/plot dialog on Windows has been significantly reduced.

General - User interface   Bug Fixes

Print Preview now displays the correct sizing and margins when outputting to PDF
43142

When producing a PDF from Mapping, the Preview window in the Export dialog now displays the image which will be written to the PDF using the correct margins and sizing. Previously, the Preview window could display an image with a much greater amount of white-space than would eventually be written to the output file.

Import and Export   Enhancements

Spatial Data Translator can now be used to update Petrel culture objects
43069

The Spatial Data Translator can now be used to update cultural objects in Petrel. The "Replace existing Petrel object" option can be used to update an existing Petrel object, while maintaining the Petrel GUID, instead of creating a new object.

Mapping   Enhancements

Added support for reading SeisWare version 4 culture files
43497

Data can now be read from SeisWare version 4 culture files. This includes support for culture files produced in SeisWare 8.0.

Mapping   Bug Fixes

Improved performance when displaying drilling opportunities
43534

The query used to retrieve drilling opportunities from PLDB has been optimized, resulting in a vast improvement in performance when displaying drilling opportunities in Mapping.

Landgrids are now displayed with the correct posting style
29324

Landgrids will now be displayed using the posting style specified using the "Posting style" field under the Sheet (for Canadian NTS) or Township/Range tab. Previously, the value selected using this field would not always be honoured when the landgrid was displayed.

Canadian NTS landgrids may now also be displayed using the "97" posting style. Previously only one posting style - "Sheet: 97" - was available for Canadian NTS landgrids.

Mapping no longer crashes when displaying 2D seismic lines and the data source is not connected
43466

Mapping no longer crashes when the 2D seismic data source is not connected or available in the Connection Manager when enabling a display layer using it.

Petrel plugin   Enhancements

Petrosys Petrel plugin version now recorded in diagnostics   **41999**

The current version of the Petrel plugin is now recorded by the Petrosys diagnostics utility.

Surface Modeling   Bug Fixes

Output geometry created from AOI of rotated grid or 3D seismic survey is now established correctly   **43039**

Output geometry based on a rotated 3D survey or rotated grid area is now established correctly.

Previously, the bounding box used to establish the area of interest (AOI) of these data types was not being calculated correctly, resulting in an output grid covering the wrong area, and therefore including an incorrect sub-set of the selected input data.

Enhancements

Petrosys release 17_4_3 [3 entries]

Connections, import and export

26951
DUG Insight link - Support for Seismic, Wells, Fault Sticks and Writing back Grids

Help

40195
All supported import/export file types and software vendors now documented by Petrosys help

Mapping

43253
Added wider range of default title blocks and north arrows

Bug Fixes

Petrosys release 17_4_3 [8 entries]

3D Viewer

42953   Well path segments between the surface and bottom hole now displayed correctly

Connections, import and export

43297   Connections to Petrel now established automatically by gridding tasks

Mapping/Wells

43307   MD now correctly interpolated from TVD using well directional survey
43291   Well display layers using data source specific data selection filters now displayed correctly

Seismic data

43151   Display 3D Seismic Bin Grid now uses memory more efficiently

Surface Modeling

43014   Fixed performance issues with variogram charts in kriging
27245   Phantom gridding now supports subsea depth top and base grids (TVDSS)
43275   Using multiple horizons from 2D seismic now uses all data if line ends contain missing values

Detailed Release Notes

Petrosys release 17_4_3 [11 entries]

3D Viewer   Bug Fixes

Well path segments between the surface and bottom hole now displayed correctly
42953

A display issue has been fixed which occurred when displaying well paths in the 3D Viewer. The issue was triggered by enabling the "draw path segment" option, then displaying each segment in the well path between the surface and bottom hole. Well paths will now be displayed correctly under these circumstances.

Connections, import and export   Enhancements

DUG Insight link - Support for Seismic, Wells, Fault Sticks and Writing back Grids
26951

Petrosys 17.4.3 introduces connectivity to DUG Insight.

Functionality available in 17.4.3:

Wells

➢   Direct display of well header, well markers and directional surveys
➢   Direct gridding of well header depths, well markers and well marker attributes
➢   Direct import of well header, well markers, checkshot surveys and directional surveys

Seismic

➢   Direct display of 2D seismic navigation and interpretation data
➢   Direct display of 3D seismic surfaces
➢   Direct display of 3D bin grids
➢   Direct gridding of 2D & 3D seismic interpretation data
➢   Direct import of 2D & 3D seismic data
➢   Direct exchange of 3D seismic surfaces

Faults

➢   Direct exchange of fault sticks

Grids

➢   Writing grids back to DUG Insight

Note that reading grids from DUG Insight is not included in 17.4.3.

Connections, import and export   Bug Fixes

Connections to Petrel now established automatically by gridding tasks
43297

Petrel fault data will now be used correctly by gridding tasks. In previous versions, if a connection to Petrel had not been established prior to running the task, a connection would not be established automatically by the task, and the faults would not be included in the output grid.

Help Enhancements

All supported import/export file types and software vendors now documented by Petrosys help
40195

The help documentation has been updated to list all file types and software vendors supported by the import and export options in Petrosys. Previously, only partial or incomplete summaries of this information was available.

Mapping Enhancements

Added wider range of default title blocks and north arrows
43253

A wider selection of title block templates and north arrows is now available for use.

Mapping/Wells Bug Fixes

MD now correctly interpolated from TVD using well directional survey
43307

The Measured Depth (MD) of a well can now be correctly interpolated from the True Vertical Depth (TVD) using a directional survey. Previously, if the depth of the last point in the directional survey was equal to the TVD depth of the well, the MD would not be interpolated correctly.

Well display layers using data source specific data selection filters now displayed correctly
43291

Data source specific data selection filters (Paradigm selection lists, Petrel folders, IHS Petra WSN files, etc.) are now applied correctly when loading well display layers in the same DBM or between different DBM files. Previously, the individual filter for each display layer was not being processed correctly, resulting in the wrong wells being displayed, or no wells being displayed at all.

Seismic data Bug Fixes

Display 3D Seismic Bin Grid now uses memory more efficiently
43151

The "3D Seismic Bin Grid" display option in Mapping now uses memory more efficiently. Previously using this option could lead to excessive memory usage, resulting in a crash when running the 32bit version of the application.

Surface Modeling Bug Fixes

Fixed performance issues with variogram charts in kriging
43014

The variogram charts used by kriging are now drawn faster. This fixes a drastic decrease in performance which was introduced by 17.4.

Phantom gridding now supports subsea depth top and base grids (TVDSS) 27245

Phantom gridding now handles cases where all input grids are in subsea units. Previously phantom gridding would only function correctly if all grids were in positive units.

Using multiple horizons from 2D seismic now uses all data if line ends contain missing values 43275

Gridding 2D seismic data using two horizons (e.g. isopach) will now use all selected input data. Previously, if any of the input data contained a seismic line with missing data at either or both ends, data from that line could be ignored in the output grid.

Enhancements

Petrosys release 17_4_2 [7 entries]

Client specific

43182   Chronostrat Local Marker formations can now be associated to a Field Reservoir - Santos Only

Connections, import and export

31533   Added configurable wait time for certain connect types that may reduce CPU load

Help

41600   Getting Started Guide updated to take advantage of changes made in 17.4

Prospects and Leads

43168   Added ability to display a straight line between a drilling opportunity surface and bottom hole location

43102   Added ability to filter wells using a Petrosys polygon file

43011   Drilling Opportunity header can now be opened from drilling opportunity on map

43037   User settings now remembered by embedded web browser

Bug Fixes

Petrosys release 17_4_2 [9 entries]

Connections, import and export

43029   Petrel faults may now be imported with several layers selected

dbMap

43007   DatabaseId for dbMap/Web connections is now case insensitive

dbMap - User interface

41459   Left and right portions of Excel and Text format definition panel can no longer be completely hidden

General

43134   Application dialogs now restored to the correct size when re-opened
42756   Display list no longer automatically re-sizes when Mapping window is hidden
20422   Line names now displayed correctly for vertical seismic lines

Import and Export

43027   Fixed spatial data export in Mapping from Petrel to Petrosys fault file

Prospects and Leads

43049   Drilling opportunities can now be filtered based on conceptual status

Surface Modeling

43042   Use fault Z values option is now applied correctly during Well Tie

Detailed Release Notes

Petrosys release 17_4_2 [16 entries]

Client specific   Enhancements

Chronostrat Local Marker formations can now be associated to a Field Reservoir - Santos Only   43182

Field reservoirs can now be associated with Local Marker formations from the Chronostrat formation system.

Connections, import and export   Enhancements

Added configurable wait time for certain connect types that may reduce CPU load
31533

An environment variable has been added that can be used to adjust the time Petrosys waits while accessing data from certain third-party connections. By adjusting this factor the CPU load of Petrosys can be reduced by eliminating many cycles where Petrosys is waiting for data from the third-party data source. To make use of this feature set the environment variable PS_IPC_PKT_WAIT_TIME to an integer number to set the wait latency (in milliseconds). This will introduce a small latency to data access operations, but will allow a reduction in the number of wasted compute cycles while waiting for data.

Connections, import and export   Bug Fixes

Petrel faults may now be imported with several layers selected
43029

Petrel faults can now be imported to a Petrosys fault file when several layers are selected. In previous versions attempting to import Petrel faults under these circumstances could trigger a crash.

dbMap   Bug Fixes

DatabaseId for dbMap/Web connections is now case insensitive
43007

The DatabaseId used to establish a connection to dbMap/Web in the desktop application is no longer case sensitive. Previously, the DatabaseId could only be specified in upper case, and doing otherwise would result in a connection error.

dbMap - User interface   Bug Fixes

Left and right portions of Excel and Text format definition panel can no longer be completely hidden
41459

The left and right portions of the Excel and Text format definition panel can no longer be completely hidden. Previously, it was possible to hide either side of the panel by re-sizing a given pane to the point where it was no longer visible. Upon exiting and re-entering the panel, this sizing would be preserved, giving the appearance that one half of the panel had disappeared completely. This behaviour caused confusion, so now a minimum size for each pane is enforced.

General Bug Fixes

Application dialogs now restored to the correct size when re-opened
43134

The size of top-level application dialogs (for example Mapping, Surface Modeling, etc.) is now restored correctly upon re-entry. This corrects a bug introduced in 17.4 which was preventing the size of these dialogs from being restored to their intended size.

Display list no longer automatically re-sizes when Mapping window is hidden
42756

The display list now maintains the correct size when the Mapping window is minimised. Previously, a bug introduced in version 17.4 meant the display list would revert to the default width if the Mapping window was minimised.

Line names now displayed correctly for vertical seismic lines   **20422**

Line names for seismic lines with a perfectly vertical orientation are now drawn correctly. Previously, certain combinations of line style and shot point orientation could cause line names to overlap the end of the line.

Help   Enhancements

Getting Started Guide updated to take advantage of changes made in 17.4
41600

The Getting Started guide, intended for helping first time users adjust to the tools and concepts employed by the Petrosys application, has been updated to take advantage of a number of features introduced in 17.4 - including dynamic map sheets, and the improved publication (printing) interface.

Import and Export   Bug Fixes

Fixed spatial data export in Mapping from Petrel to Petrosys fault file
43027

A bug has been fixed which prevented the export of Petrel data to a Petrosys fault file using the Export spatial data option from the Mapping canvas.

Prospects and Leads   Enhancements

Added ability to display a straight line between a drilling opportunity surface and bottom hole location
43168

When displaying Drilling Opportunities on a map it is now possible to display a straight line between the surface location and the bottom hole location.

Added ability to filter wells using a Petrosys polygon file
43102

The Prospects and Leads database can now use a Petrosys polygon file to filter the list of wells. An appropriate version of the Prospects and Leads database must be in use.

Drilling Opportunity header can now be opened from drilling opportunity on map
43011

The Drilling Opportunity header is now launched directly from the mapping canvas when selecting a drilling opportunity and invoking the Edit DOP menu item.

User settings now remembered by embedded web browser
43037

The embedded web browser, used to connect to the Prospects and Leads database, now remembers various user settings such as column visibility and order.

Prospects and Leads   Bug Fixes

Drilling opportunities can now be filtered based on conceptual status
43049

Drilling opportunities can now be filtered based on the "CONCEPTUAL" drilling opportunity status. Previously this was missing from the list of possible statuses.

Surface Modeling   Bug Fixes

Use fault Z values option is now applied correctly during Well Tie
43042

When performing a Well Tie, the Use Z Values option under the Faults tab is now applied correctly. Previously, the application of this parameter to the well tie process was determined by the results of a hidden value, independent of whether or not this option was enabled.

Enhancements

Petrosys release 17_4_1 [12 entries]

Client specific

41701 Added a "Copy To" feature for copying all formation tops from source Santos to Strat Services - Santos Only

42022 Added Assets module - Santos Only

41900 Changed dbMap RFT label "Hydrostatic" to "Hydro Pres. Before" - Santos Only

Configuration

37046 Computer Graphics Metafile (.cgm) files associated with Petrosys Picture View

11754 Improved temporary file configuration and control

Connections, import and export

41931 Added export menu options for all supported input data sources in the Wells Import Wizard

41307 SEGY preview loads lines on demand

dbMap

38928 Added PLDB2 support to the desktop application

General - User interface

41915 Added support for printing from web applications launched using the Petrosys desktop application

Graphics/Plotting and Hardcopy

41766 Improved quality of the preview image in print preview

Import and Export

42158 Improved performance when reading from very large text files

Mapping

41905 Added ability to create and edit prospect polygons from dbMap/Web

Bug Fixes

Petrosys release 17_4_1 [24 entries]

3D Viewer

41259   3D Viewer window now re-sized correctly when in Pick Mode
42352   Angled clipping plane azimuth is now preserved when saved to a 3dm file

Configuration

42142   Administrative install points can now be created for all clients
42317   License server daemon (PETROSYS.exe) now works when Petrosys main application is not installed
42771   Petrosys custom install script now sets license server correctly

Connections, import and export

41790   Connection Manager now supports database names for SDE connections

dbMap

41929   dbMap Well Header title had garbled text when diagnostics was turned on

Import and Export

42667   Importing IHS Kingdom to SDF no longer raises error SL:110
41562   SDF Horizon Editor no longer crashes when marking the last horizon as active or inactive
42509   UNC mounted printers now accessible

Mapping

42741   Fixed crash which could occur during polygon creation
41535   Fixed inline/xline range fields in the Display 3D seismic survey window
42782   Importing polygons to a prospect now uses the correct CRS
42861   Mapsheet creation from data extent now works correctly with reference Mapsheet selected
41466   Mapsheet/Title block contents now edits the correct title block
42432   Shift values now applied correctly to SeisWorks 2D lines with mixed case names

Petrel plugin

42880   Administrative installation of Petrosys 64 bit with Petrel plugin now performed correctly
41781   Petrel plugin no longer causes benign exception message on start up

Project Selector

38135   Fixed support for absolute paths in the Project Selector Move option
42168   Projects can now be moved if they are the only project in the current list

Surface Modeling

40517   First line defines column names option now updated correctly when changing between spreadsheets
41984   GIP editor now correctly saves GIP files after modification
41338   Surface Modeling now correctly handles task files containing missing information
39947   Temporary files used by Phantom gridding now removed upon task completion

Detailed Release Notes

Petrosys release 17_4_1 [36 entries]

3D Viewer   Bug Fixes

3D Viewer window now re-sized correctly when in Pick Mode   41259

A Windows only bug has been fixed which caused the 3D Viewer to stop responding to user input if the window was re-sized while in pick mode. This problem was exacerbated by having large amounts of data displayed in the current scene.

Angled clipping plane azimuth is now preserved when saved to a 3dm file   42352

The azimuth of angled clipping planes will now be set correctly upon opening a 3dm file. Previously, the azimuth of angled planes would be reset to either 0 or 90 degrees after re-opening a 3dm file to which they had been saved.

Client specific   Enhancements

Added a "Copy To" feature for copying all formation tops from source Santos to Strat Services - Santos Only   40701

There is now functionality to copy all formations tops from source "Santos" to "Strat Services" for the formation systems Lithostrat and/or Chronostrat. This functionality is only available on the first copy (per formation system), and once the formation tops have been copied the "Copy To" functionality is disabled. If all the formation tops for source "Strat Services" are deleted in either Chronostrat or Lithostrat then the "Copy To" functionality will be available again for the corresponding formation system.

Added Assets module - Santos Only   42022

The Santos dbMap model now has configuration for the Assets module.

Changed dbMap RFT label "Hydrostatic" to "Hydro Pres. Before" - Santos Only   41900

The label "Hydrostatic" in the pressure test - RFT section in dbMap has been changed to "Hydro Pres. Before".

Configuration   Enhancements

Computer Graphics Metafile (.cgm) files associated with Petrosys Picture View
37046

The .cgm file suffix is now associated with Petrosys Picture View application. This allows Computer Graphics Metafile (CGM) files to be opened in Picture View via a double click in Windows Explorer.

Improved temporary file configuration and control
11754

More control is now afforded over the location used for temporary files. A new option, which has been added to the configuration tool, allows temporary files to be written to the operating system default location for temporary files, the project directory or a custom location. By default, temporary files are now written to the operating system default location. On Linux, this is /tmp. On Windows, this is usually AppData\Local\Temp, which can be found under the current user home directory (i.e. C:\users\user_name). Additionally all temporary files now start with the prefix ps_ and end in .tmp. This will aid in identifying Petrosys temporary files for any clean-up required.

Previously, most temporary files were written to the current project directory. This often resulted in performance issues when running processes heavily dependant on the use of temporary files, such as gridding and contouring. By allowing a greater degree of control over the directory used for temporary files, it is now possible to optimise the speed of these processes, by opting to use a faster, local disk for temporary file exchange.

Configuration   Bug Fixes

Administrative install points can now be created for all clients
42142

An issue introduced in 17.4.0 that prevented a Windows Installer administrative install point from being created for some clients has been corrected. All clients can now create an administrative install point using the appropriate link from the setup program.

License server daemon (PETROSYS.exe) now works when Petrosys main application is not installed
42317

The license server will now work on servers that do not have the Petrosys application installed. Previously it would require Microsoft run-time support files, which were only installed by the main application installer.

Petrosys custom install script now sets license server correctly
42771

Previously, the Petrosys custom_install.vbs script could, in some scenarios, fail to set the license server correctly. The identified scenarios have now been corrected so license server settings are correctly applied.

Connections, import and export   Enhancements

Added export menu options for all supported input data sources in the Wells Import Wizard
41931

Menu options have been added for each of the supported input data sources in the Wells Import Wizard. They are available from the /Export menu in the Petrosys Launcher, and can be used to launch the wizard with the input data source corresponding to the selected export option.

SEGY preview loads lines on demand
41307

Loading of data for preview of SEGY files is now done on a line-by-line basis. This makes the preview of large 3D SEGY files much faster.

Connections, import and export   Bug Fixes

Connection Manager now supports database names for SDE connections
41790

It is now possible to associate an SDE database name with SDE connections by adding an SDEDatabaseName element to the required SDE entry in connections.xml. For example:

<SDEDatabaseName>pggdb</SDEDatabaseName>

In previous versions, only the default SDE database name "sde" was supported.

dbMap Enhancements

Added PLDB2 support to the desktop application   38928

The desktop Petrosys application can now be used to access Prospects, Leads and Drilling Opportunities from the PLDB-2 database structure. Records can be accessed using a range of filters, including selection files, selection lists, user defined queries and user defined form parameters. Additionally, the desktop application can now also be used to log into and browse the dbMap/Web application, allowing the full power of dbMap/Web to be leveraged from within the main Petrosys application framework.

dbMap Bug Fixes

dbMap Well Header title had garbled text when diagnostics was turned on   41929

A bug has been fixed which, on occasion, would cause the title bar of the dbMap Well Header dialog to contain garbled, nonsensical text. This was triggered by launching the dialog with diagnostics turned on.

General - User interface   Enhancements

Added support for printing from web applications launched using the Petrosys desktop application   41915

It is now possible to print content from web applications launched via the Petrosys desktop applications. This includes support for printing reports produced in dbMap/Web when launched via Mapping.

Graphics/Plotting and Hardcopy   Enhancements

Improved quality of the preview image in print preview
41766

The algorithm used for drawing the preview image in /File/Print has been improved, resulting in a significantly improved map preview.

Import and Export   Enhancements

Improved performance when reading from very large text files
42158

Performance when reading from large text files, such as CSV, has been improved. Performance improvements of up to 200% are visible where the reading of the text file is a significant part of the workflow (in the Spatial Data Translator for example).

Import and Export   Bug Fixes

Importing IHS Kingdom to SDF no longer raises error SL:110   *42667*

Importing 2D seismic data from IHS Kingdom to SDF with the update narrative option enabled will no longer trigger unnecessary error messages. Previously, an error would be raised for each line as it was imported.

SDF Horizon Editor no longer crashes when marking the last horizon as active or inactive
41562

A crash has been fixed, which was triggered by modifying the activity of the last horizon in the list on the SDF Horizon Editor.

UNC mounted printers now accessible
42509

A bug introduced in 17.4.0 that prevented printers shared via UNC names from appearing in the list of printers has been fixed.

Mapping   Enhancements

Added ability to create and edit prospect polygons from dbMap/Web
<small>41905</small>

It is now possible to create, edit and import prospect polygons from an instance of dbMap/Web launched from the desktop application. Polygons are created, modified and imported using the corresponding functions from the Mapping application.

Note that this functionality is not available in any instance of dbMap/Web launched from a standalone browser.

Mapping   Bug Fixes

Fixed crash which could occur during polygon creation
<small>42741</small>

A bug has been fixed, which caused the Mapping application to crash if the "creating polygon on map" button was clicked before finalising changes to a polygon already being created on the map canvas.

Fixed inline/xline range fields in the Display 3D seismic survey window
<small>41535</small>

A bug has been fixed, which prevented the fields used to limit the range of inlines and xlines when displaying a 3D Seismic Bin Grid from being shown correctly.

Importing polygons to a prospect now uses the correct CRS
<small>42782</small>

Importing prospect polygons from a polygon file now correctly uses the CRS read from the polygon file. Previously, a bug meant that the project default CRS was used during the import, rather than the CRS from the polygon file.

Mapsheet creation from data extent now works correctly with reference Mapsheet selected
<small>42861</small>

Creating a Mapsheet using the data extent option (/Mapsheet/New/Data Extent...) now works correctly when a reference Mapsheet has been selected. This fixes a bug introduced in 17.4, which meant this option was inoperable when opting to use a reference Mapsheet.

Mapsheet/Title block contents now edits the correct title block
<small>41466</small>

The option Mapsheet/Title Block Contents, available from the main menu of the Mapping application, now displays the correct title block when used. Previously, selecting this option would always open the Petrosys default title block, regardless of the title block used by the current map sheet.

Shift values now applied correctly to SeisWorks 2D lines with mixed case names
<small>42432</small>

SeisWorks shift values from .bsa files are now applied correctly to 2D seismic data. Previously, shift values would only be applied if line names were written in upper case.

Petrel plugin   Bug Fixes

Administrative installation of Petrosys 64 bit with Petrel plugin now performed correctly
<small>42880</small>

The Petrel plugin is now installed correctly when performing an administrative installation of the 64 bit edition of Petrosys. Previously, an inconsistency in the installation process meant the wrong plugin was being unpacked and then installed. This then caused the Petrosys-Petrel plugin to fail for 64 bit versions of Petrel.

Petrel plugin no longer causes benign exception message on start up
<small>41781</small>

Petrel plugin no longer logs an exception event in the Ocean log file at plugin start up. Previously an exception message was recorded in the Ocean log file from the Petrosys-Petrel plugin each time Petrel started. The exception message had no negative affect on either Petrel or the Petrosys-Petrel plugin, but could be distracting when attempting to diagnose Petrel issues.

Project Selector   Bug Fixes

Fixed support for absolute paths in the Project Selector Move option
<small>38135</small>

The Move option in the Project Selector will now move the selected project to the directory specified in the New Location field. Previously, a bug introduced in 17.3 meant that any directory specified in this field would be appended to the existing project directory, effectively moving the project to a directory beneath the current directory. This made it impossible to specify the new directory using an absolute path, necessitating the use of relative paths.

Projects can now be moved if they are the only project in the current list
<small>42168</small>

A bug has been fixed, which prevented a project from being moved if it was the only project in the current project list.

Surface Modeling   Bug Fixes

First line defines column names option now updated correctly when changing between spreadsheets   40517

A bug has been fixed when creating a format for an Excel spreadsheet which prevented the "First line defines column names" option form being updated when changing between spreadsheets. This could result in the values from certain columns being incorrectly recognised when attempting to use the format.

GIP editor now correctly saves GIP files after modification   41984

The GIP editor no longer creates a corrupted GIP file after adding points and then either changing values, deleting points or undeleting points.

Surface Modeling now correctly handles task files containing missing information   41338

A crash has been fixed in Surface Modeling, which was triggered by opening a task file containing missing information from certain fields.

Temporary files used by Phantom gridding now removed upon task completion   39947

Temporary files created by Phantom gridding are now removed when no longer required. Previously, certain files created by this process would not be removed, cluttering up the current project directory and needlessly using disk space.

Enhancements

Petrosys release 17_4 [128 entries]

3D Viewer

16681   Added support for angled clipping planes
41046   Increased performance when displaying wells with directional surveys
16599   Point data now supported by the 3D Viewer
32311   Upgraded OpenInventor to 9.2.1

Client specific

37713   Added support for identifying a preferred directional survey for a well - PPDM 3.8 only
37589   Adjusted number of decimal places used for values in Statics reports generated by StatX - Santos only
34575   Increased range of the stiff plot axis - Santos only
34617   Wells Import Wizard now loads more well depth datum information when importing to WDF - Santos only

Configuration

35903   Improved support for configuring file selector bookmarks (for sites, users and projects)
36852   Modified font and theme configuration settings now immediately applied to all applications in the current session
38726   Removed Petrosys legacy installer support

Configuration/Database Connections

24205   Added ability to filter connection entries in connections.xml based on platform and/or computer name

Configuration/License Keys

39576   Test License Server option now checks for the correct license version
21096   Upgraded FLEXlm to version 11.11

Connections, import and export

37906   Added option for importing Esri ASCII Grid Files directly to a Petrosys grid
35603   Added sort and filtering options to list in dbMap import 2D seismic - Edit/Selected lines/Assign
24489   Added support for import of Time/Depth data (checkshots) from third-party data sources to WDF
40210   Added support for reading larger 3D seismic surfaces from thirdparty data sources
36405   Added support for text files with quoted text spanning multiple lines
11948   Added support for ZMap polyline vertex files to the Spatial Data Translator

38193   Checkshot surveys can now be written to dbMap/PPDM using the Wells Import Wizard
24253   Copy WDF now copies all checkshot data
37780   CRS code is now verified before connecting to data source
35604   dbMap import 2D seismic - Load database coordinates now retains the selected Geographic CRS
37249   Enabled SeisWorks fault polygon functionality on Windows
41660   ODM - Improved method for selecting formation tops with multiple data types
38314   Output directory can now be specified when importing a SeisWorks 3D horizon
37011   Performance improvements reading large GeoGraphix datasets
38571   Performance improvements when writing to Petrosys culture files using the Spatial Data Translator
37867   Polygon name can now be specified by attribute when exporting from text/Excel to a Petrosys polygon file
37634   Removed support for OpenWorks R2003.12 connections
34613   Renamed buttons to save Zone/Formation mapping in Wells Import Wizard
39741   Renamed Kingdom and Petra options to include the prefix "IHS"
36409   Spatial Data Translator now includes input metadata when writing to Petrel
39134   Updated ODM default queries to match new ODM data model

dbMap

40917   Added dbMap SQL function to return CRS of current map sheet / output grid
35884   Added new dbMap SQL function - PS_TO_CHAR
35602   Added option to dbMap import 2D seismic for creating new surveys
27026   Oracle runtime library used in Petrosys has been upgraded to version 11.2.0.1

dbMap - User interface

36368   Added columns to the options in "Add columns to display list"
39014   Added Text/Excel export options to main menu in Mapping Query and Report Lists
36611   All table names now displayed in the title bar when running a reference table lookup
36649   Runtime parameter dialogs now have help strings showing dependencies
38785   Seismic Survey Alias dialog is now configurable and includes alias type and value
16972   User now prompted for run-time parameters when selecting a query

ESRI plugin

40410   Added support for Esri desktop 10.2 to Petrosys Esri plugin

General

39854   CRS associated with text and Excel data now saved using well known text method
38054   Improved error reporting for printing on Windows
40181   Minimum supported version of Windows now Windows Vista Service Pack 2
25836   Petrosys available as a 64 bit application for Windows and Linux
33253   Updated GDAL version to 1.9.2

General - graphics

38196   Significantly improved gradient handling

General - User interface

28873   Added an orange tint to the background of fields requiring the specification of a value

37747   Changed name of scrolled list right mouse button menu option "Export to ASCII file" to "Export to Text File"

38172   Current selection in tables now highlighted more clearly

38836   Fill style colour picker now shows colour number and RGB value on mouse hover

36261   Improved rendering of charts in resized dialogs

37236   Performance improvement for text console output

37502   Scrolled lists now retain previously applied filter

34330   Superfluous zeros after decimal point in numeric fields now removed by default

Graphics/Plotting and Hardcopy

37288   File/Export/PDF and Raster now available more widely throughout Petrosys

35698   Print preview added to various print and export dialogs

Help

38980   Added help documentation for dbMap Security options

38169   Help documentation for Wells Import Wizard now covers transfer of formation tops to dbMap

16901   Improved help documentation covering the configuration of publication options in Petrosys

16902   Improved help documentation for publication options available in Petrosys

38222   Re-structured dbMap documentation

38224   Revised Well Tie help documentation

29339   Updated help documentation for Gridding Methods

Mapping

30641   Added RMB option for creating a color bar from Mapping layers using a gradient

39470   Added RMB option for running FaultRisk fault statistics tool

31522   Improved group creation in the Mapping Display List

20917   Prompt for username/password no longer displayed if server does not contain required service types

Mapping/2D Seismic

15754   Added reporting options for seismic lines stored in IHS Kingdom

Mapping/Bubble Maps

36834   Added support for Excel to Display Bubble Map and improved support for text files

Mapping/Editors

39392   Added FaultRisk DPT entry point to CFP editor

11111   Polygon area report now includes total area as well as area for individual polygons

Mapping/Map Sheets

27020   Added ability to post geographic corner annotations on map sheets with rectangular borders

16585   Automatic layer adjustment to different map sheet scales

16650   Support added for dynamic map sheets that automatically adjust to displayed data

Mapping/Spatial

32880   Added support for Esri File Geodatabase on RedHat Enterprise Linux 5

36919   Added support for spatialized drilling opportunities to Display GIS

39729   Improved point data selector column detection for Easting/Northing columns

Mapping/Wells

37725   Added metric/imperial switch to GeoGraphix well header

37714   Added support for identifying preferred checkshot survey for a well

38491   Added support for SeisWare 8.0

36353   Fixed formatting issues with dbMap Well Report output text files

37108   Improvements in the amount of memory used when displaying well items on a Map

Paradigm-Epos plugin

28105   Support for Paradigm 2011.3 added on Linux and Windows

Petrel plugin

35352   Connection manager now displays the active Petrel connection

37834   Enabled Petrel plugin diagnostic logging to ACE log file

Project Selector

37199   Project description in the Project Selector now includes information about custom columns

39059   Project list in the Project Selector is now more responsive

Seismic data

28951   Added a warning to Stacking velocity import if input file will cause the output SDF to exceed 2GB

38536   Added standard format definition file for Diskos v98 to Stacking Velocity Import

30570   Added support for SEGY format to Stacking Velocities Import

11939   SDF horizons now created automatically during all direct connect imports

Surface Modeling

35200   Added file path functions to workflow scripting

35187   Added path name and file name scripting fields for looping over files

35910   Added shape file suffix to the available Files of Type when looping over files

38572   Added text/Excel export options to the list of tasks in the current workflow

38712   Grid Statistics now generates a default description when creating a task

22242   Improved assignment of fault polygon Apex and Top/Bottom flags

37877   Increased length of UID field in Print Comment

41040   Increased performance when running grid statistics inside polygons

37894   Velocities/Calculate From Stacking can now be run in batch processing

Surface Modeling/Contouring

23141	Automatic contour file naming under the Grid/Create options now preserves the file path when selecting different grids

Surface Modeling/Grid Operations

28327	Added ability to re-size the formula entry area in Grid Process Arithmetic
28120	Added ability to save user-defined formula text in Grid Process Arithmetic
26627	Added support for user defined formula templates to Grid Process Arithmetic
28140	Formula templates in Grid Process Arithmetic can now be sorted by column value and searched
38075	Grid/Merge/Blend is now CRS enabled

Surface Modeling/Gridding

36635	Added a NONE option to the horizon selector for SDF data
39916	Added support for reading Oracle Spatial data using a projected CRS to grid creation panel
37337	Changed text buttons to icon buttons in grid input data list
31685	Improved accuracy of Minimum curvature gridding algorithm near faults trending NE-SW or NW-SE
35399	Improved validation of input data when gridding from a WDF
14858	Minimum and maximum difference between input point data and input grid now reported by the well tie methods tab
39623	Performance improvements when creating grids containing detailed fault data and a large number of input points
37436	Remove sampled data now defaults to "Outside" when using the Polygon method in Well Tie and Phantom
37529	Reporting parameters in various gridding options now scriptable
37524	Warning now displayed if GIP data is edited when creating a Well tie mistie report
37753	Well Tie mistie report now allows the specification of the number of decimal places displayed

Surface Modeling/Volumetrics

28010	Changed default XML style for Grid Based Slices Volumetrics report to Web page - light background
37917	Error information is more detailed when top and base grids have different geometries in Volumetrics

Web map server

40294	Updated WMS server licensing for 17.4

Well data

35465	Changed default Files of Type filter in general WDF Import
39009	WDF internal database upgraded

Bug Fixes

Petrosys release 17_4 [110 entries]

3D Viewer

35814   Bounding box Z values now visible from all viewing angles

40050   Connections to seismic data sources requiring a replacement connection string now re-established when re-opening a 3dm file

37601   Reference and clipping planes now re-sized according to the extent of the bounding box

35594   Right mouse button menu now only appears in the viewport

39391   Set home view button now restores the correct view point after Z value inversion/scaling

Client specific

38261   Fixed a problem computing BH coordinates - Chevron only

35890   Fixed crash on maps with two display layers containing Drilling Opportunities - Santos only

39426   Formation Codes now used instead of Formation Names in various options - Origin only

38688   Palaeo/Paly screen no longer becomes out of sync or fails to display data - Santos only

Configuration

36979   Columns displayed in Project Selector now correctly determined by configuration

40074   Path mapping configuration option now works correctly in 3D Viewer

Connections, import and export

37841   Duplicate well names now handled correctly when importing OpenWorks well data to WDF and culture files

39266   Fixed instance of seismic navigation data not being read in full from SeisWorks connections

40455   Import Landmark ASCII Faults now correctly appends imported faults to a new group

40306   Import Spreadsheets to WDF File no longer crashes if a log file is not set

38586   Imported Petrel clockwise oriented grids now displayed in correct location

38007   Improved handling of very long string attributes by the Spatial Data Translator

39200   Removed the need to specify an SDF when importing SeisWorks fault polygons

38111   Spatial Data Translator supports writing NULL values to File Geodatabase feature classes

dbMap

29486   Fixed a crash which could occur when using a read-only SQLite primary database

34965   Fixed behaviour of next/previous arrow buttons in Edit List dialogs

26139   Fixed Display, Edit and Delete of formation codes stored in the formations reference table

40192   Well Formation dialog TVD Subsea field now updated correctly for PPDM 3.8 databases

dbMap - User interface

37797   Dialogs will now behave according to the specified "Windows z-order policy"

34956   Dragging menu items to a custom tool bar no longer prevents the menu from being opened (Exceed only)

40888   Font buttons in "Display/3D Seismic Bin Grid" now the show font size

General

37408   License server failures now handled more gracefully

37511   Temporary files are cleaned up more robustly

General - graphics

38114   Fixed crash when using ECW images on certain Linux computers

General - User interface

30737   Dialogs containing re-sizeable areas now correctly restored to the previous size upon re-entry

37583   Disabled tool bar options can now be dragged onto a custom tool bar

31374   Fill details text now displayed correctly for black fill styles

38995   Gradient control point values now saved correctly

38897   Gradient editor minimum and maximum values now reflect specified values

18909   Help/About dialog now shows up to date copyright notice

36949   List filtering dialog now attached to parent window

26964   Previously active tab now restored on entering a dialog

38247   Radio buttons now display default setting when un-modified

40849   Scrolled list filter popup dialog now labelled using the correct column name

38233   Scrolled list filtering now handles white-space correctly

38234   Scrolled list filters are no longer cleared when selection is changed

38824   The numeric keypad `+` key now works in combination with the Ctrl key to enlarge dialog font sizes

38635   Tool tips associated with file selection fields now displayed in full

Graphics/Plotting and Hardcopy

37637   Disabled ZGF export option on Windows

40307   Fixed EasyCopy post plot scripts

40093   Limited height and width of exported raster images to maximum support values

38879   PDF Export now allows dimensions of output to be determined by Map Sheet

40342   xpplot now allows output filename to be set

Help

37110   Improved "Help/Whats This?" option

Mapping

38488   Gradient used by GIP data now updated correctly when changed

39971   Increased minimum symbol size of displayed grid values

| 37972 | Polygons using a translucent fill now correctly added to map legend |
| 41156 | Removed Use all points option from FaultRisk Displacement Profile Tool in Mapping |

Mapping/2D Seismic

37883	Fixed querying IHS Kingdom seismic data using RMB menu option
37271	Petrel no longer listed as a 2D Seismic data source on Linux
18312	Reset map area now works for IHS Kingdom data sources

Mapping/Bubble Maps

| 39264 | Multiple improvements to the ease of use and general robustness of Bubble Maps |
| 16465 | Templates available in Display/Bubble Maps now restricted based on user permissions |

Mapping/Editors

15615	Display Asset links on Edit/Surveys screen now supported on Windows
37282	Fixed a crash in the Polygon Editor when merging polygon data with inconsistently set "mean" attribute
38659	Gradient Editor no longer crashes when Mapping is closed

Mapping/Images

| 38060 | Display Raster now supports re-projection of images using the EPSG:3857 (Pseudo Mercator) CRS |

Mapping/Map Sheets

| 37593 | Improved load time of dbm files associated with large sheet.def files |

Mapping/Spatial

39941	Added support for projected Oracle Spatial SDO point data and SDE multi point data to Display GIS
35505	Annotation settings now retained if Display annotations is disabled
37995	Display GIS now handles SDE null values correctly
38055	Display GIS now includes feature class description for Oracle Spatial layers
34474	Display list now uses different descriptions for dbMap GIS and Oracle Spatial layers added using Display GIS
39262	Improved visualization of Geology Dips displayed with polygon data
40584	Oracle ST_GEOMETRY Layers are now fully supported

Mapping/Surfaces

37779	Fixed a crash which occurred when displaying a 3D seismic surface from SeisWare
36954	Petrel surfaces with trailing spaces are now accessible by Petrosys
37467	Query report now updated correctly when querying 3D Seismic Bin Grids

Mapping/Wells

38489	Busy cursor now displayed when drawing layers containing well data
30951	Fixed bug preventing well information dialogs from being opened correctly
40150	Fixed data selection using form for ODM well data

25242	Isopach values displayed from a WDF as opaque text now drawn correctly
35911	OpenWorks well header screen now shows depths with correct units
37761	WDF well header edit dialog is now updated to reflect the currently selected well
30508	Well reports from dbMap using AOI clipping are now updated if the map sheet is changed

Project Selector

| 36812 | "Only show selected tags" option in the Project Manager now retained |
| 37215 | Operations in the Project Selector now prohibited correctly according to current permissions |

Seismic data

| 23266 | SDF now requires the entry of unique horizon names and abbreviations |

Surface Modeling

38099	An error message is displayed when a Petrosys fault file is unable to be opened in read only mode
36655	Draw Map now prompts for required third party connections at the start of the workflow run
20212	Fixed interactive scripting of attribute and formation names during back interpolation to a WDF
37398	Fixed re-sizing and general layout of panel used to add wells to a gridding task
35987	No longer possible to use the same name for correction and tied grids during Well Tie
25999	Overpost corrections now retained when drawing a map from a template as part of a workflow

Surface Modeling/Contouring

22576	Contour/Grid (By Cell) now correctly creates contours to the edge of cells when adjacent cells have no valid Z values
33941	Fixed memory leak in Contour/Grid (by cell)
39483	Surface Modeling contour menu options now display the correct panels

Surface Modeling/Grid Operations

33226	Converting grid coordinates now retains list of input data sources in the grid header
38058	Dump to Fault File no longer deletes other surfaces and groups from output fault file
35876	Fixed visual display in Grid Merge Regrid
35874	Temporary files created by Grid/Merge/Regrid now removed on task completion

Surface Modeling/Gridding

37412	Changed multiple references to Data Source when adding well data to a gridding task
41468	Fixed error produced by Grid Merge Overlay
37745	Improved error reporting for the POLYGON method in Well Tie and Phantom gridding
37762	Messages intended for the text log no longer displayed in the console when performing a Well Tie with GIP creation enabled

27235   Polygon clipping in Well Tie and Phantom gridding now applied to the correction grid

37663   SDF description in Input Data tab now displays horizon abbreviation if SDF file does not exist

37040   Well point extractor no longer returns incorrect status

Surface Modeling/Volumetrics

34628   Correct volumes now reported by Volumetrics - Grid Based Slices after disabling polygon clipping

30771   Map visualisation now displayed in volumetrics reports generated with the Display Map option enabled

16857   Volumetrics using top/base grid now correctly honors specified reference levels

Well data

39347   Fixed crash when importing checkshot data using well checkshot detail screen

34887   Fixed sporadic UT:2584 error when using well zone selections

40075   Import SeisX option in WDF Editor now launches the correct panel

37842   Wells Import Wizard now honors the chosen well selection file

Detailed Release Notes

Petrosys release 17_4 [238 entries]

3D Viewer — Enhancements

Added support for angled clipping planes   16681

Clipping planes in the X and Y dimensions can now be rotated either manually, by specifying an angle in the display properties; or interactively, by clicking and dragging the cylinder in the middle of the plane in the display.

Increased performance when displaying wells with directional surveys   41046

Marked performance improvements have been made when displaying and interacting with wells associated with large directional surveys.

Point data now supported by the 3D Viewer   16599

Point data can now be displayed in the 3D Viewer. Supported data sources include text files (CSV), Excel spreadsheets, shape files, Petrosys sampled data files (GIP) and Petrosys culture files.

Upgraded OpenInventor to 9.2.1   32311

The OpenInventor toolkit used for rendering content in the 3D Viewer has been upgraded to version 9.2.1. This update provides improved performance and stability, and better support for some graphics cards..

3D Viewer — Bug Fixes

Bounding box Z values now visible from all viewing angles   35814

Z axis annotation added to the bounding box is now visible from all possible viewing angles. Previously, annotations may have only been visible when viewed from a specific direction.

Connections to seismic data sources requiring a replacement connection string now re-established when re-opening a 3dm file   40050

3D Seismic Surfaces displayed from database connections and saved to a 3dm file will now be re-established correctly when that file is re-opened. Previously, a new connection string needing to be derived from an older style of string would cause the re-connection to fail.

Reference and clipping planes now re-sized according to the extent of the bounding box   37601

Clipping planes and reference planes are now dynamically resized to fit the extent of the bounding box.

Right mouse button menu now only appears in the viewport 35594

The right mouse button menu can now only be launched from within the viewport, making it consistent with the behaviour of other right mouse button menus throughout the Petrosys application. Previously, the right mouse button menu could be triggered in various other places, which could cause problems with the GUI.

Set home view button now restores the correct view point after Z value inversion/scaling 39391

Clicking the "Set home view" button after inverting or scaling the Z values used by one or more display layers in the current scene will now restore the view point to the correct position. Previously, using the button under these circumstances would result in all or part of the data being displayed off screen.

Client specific   Enhancements

Added support for identifying a preferred directional survey for a well - PPDM 3.8 only 37713

It is now possible to select a wells preferred directional survey. This feature has been added to the directional survey screen as an editable field for each survey. It should be noted that it is only possible to have one preferred directional survey selected per well.

Adjusted number of decimal places used for values in Statics reports generated by StatX - Santos only 37589

The number of decimal places for statics and velocity values in statics reports generated by StatX has been adjusted.

Increased range of the stiff plot axis - Santos only 34575

The Axis extension for Santos Water Analysis Stiff Plot is now configurable. The default value is 120.

Wells Import Wizard now loads more well depth datum information when importing to WDF - Santos only 34617

Importing well header data from dbMap into WDF using the Wells Import Wizard now sets the depth datum type (KB, DF, GL, etc.) of the well. The associated well depth field is also populated.

Client specific   Bug Fixes

Fixed a problem computing BH coordinates - Chevron only 38261

A bug has been fixed which was stopping a user from not being able to calculate bottom hole coordinates when using the calculator dialog on the well header dialog.

Fixed crash on maps with two display layers containing Drilling Opportunities - Santos only 35890

A crash which could occur on maps with two layers containing Santos drilling opportunities has been fixed.

Formation Codes now used instead of Formation Names in various options - Origin only 39426

Formation codes will now be used instead of formation names when creating new formations and posting formation information to a map. Additionally, the creation of formations when importing formation data into dbMap using the Wells Import Wizard has been disabled.

Palaeo/Paly screen no longer becomes out of sync or fails to display data - Santos only
<small>38688</small>

A bug has been fixed which caused the Paleontology and Palynology screen to become out of sync with PALYNOLOGY_DETAILS data in the database, or fail to display data altogether.

Configuration   Enhancements

Improved support for configuring file selector bookmarks (for sites, users and projects)
<small>35903</small>

Bookmarks used by the standard file selector dialog can now be customised, providing an easy way to navigate to frequently used directories. Bookmarks appear as folder icons in the standard file selector dialog, and may be configured individually for sites, users or projects in the Configuration tool under Path Mapping/File Selector.

Modified font and theme configuration settings now immediately applied to all applications in the current session
<small>36852</small>

When the theme or font style is applied in the Configuration Tool, the changes are reflected in all other applications running as part of the same session. In previous versions, applications had to be restarted for the change to be visible.

Removed Petrosys legacy installer support
<small>38726</small>

The Petrosys Legacy installer package was deployed on PCs that have versions of Petrosys versions 16.2 or earlier installed. This package was designed to allow those earlier versions to continue to run in a scenario where version of Petrosys 16.3 or greater was installed and then uninstalled (with no other later version also installed). Petrosys 16.3 was released in 2008, so it is considered unlikely that users will encounter this situation in the future.

Configuration   Bug Fixes

Columns displayed in Project Selector now correctly determined by configuration
<small>36979</small>

The "Last Modified" and "Last Accessed" columns in the Project Selector are now hidden when the configuration option "Display extra columns in Project Selector" is disabled.

Path mapping configuration option now works correctly in 3D Viewer
<small>40074</small>

Selecting the Path Mapping option in 3D Viewer will now launch the correct option. This corrects a bug, introduced in 17.3, which meant that selecting this option launched a second instance of the 3D Viewer application, instead of the requested configuration panel.

Configuration/Database Connections   Enhancements

Added ability to filter connection entries in connections.xml based on platform and/or computer name
24205

Connections added to the connections.xml configuration file may now be filtered by the platform and/or operating system associated with the connection.

Configuration/License Keys   Enhancements

Test License Server option now checks for the correct license version
39576

The "Test License Server" option, which is available during license configuration when installing Petrosys, has been updated to check for licenses using the latest version supported by Petrosys. In addition, the validation performed by this option has been improved to provide more information in the event that it fails.

Upgraded FLEXlm to version 11.11
21096

The FLEXlm license manager used by Petrosys has been upgraded to version 11.11

Petrosys license servers must be updated to this latest version before they can be used in conjunction with Petrosys 17.4.

In addition, a new set of license codes must be installed for Petrosys 17.4.

Connections, import and export   Enhancements

Added option for importing Esri ASCII Grid Files directly to a Petrosys grid
37906

It is now possible to directly import an ASCII Esri Arc Grid file as a Petrosys grid file. The option is available by selecting /Import/ESRI/ArcGrid (ASCII)... from the main menu of the Petrosys Launcher.

Added sort and filtering options to list in dbMap import 2D seismic - Edit/Selected lines/Assign
35603

The screen for selecting surveys to assign to seismic lines has been converted to the new style of scrolled list. This style of list supports sorting and filtering, which makes it easier to find surveys.

Added support for import of Time/Depth data (checkshots) from third-party data sources to WDF
24489

Time/depth curves (checkshot data) can now be imported into a Petrosys WDF from IHS Kingdom, OpenWorks, Petrel, Paradigm and dbMap/PPDM.

Added support for reading larger 3D seismic surfaces from thirdparty data sources
40210

With the introduction of Petrosys 17.4 (64-bit), it is now possible to read larger grids and surfaces previously available in earlier versions of the application. The limit on how big a grid or surface that can be read is now based entirely on the available resources of the machine on which Petrosys is running.

Added support for text files with quoted text spanning multiple lines
36405

Support for text files containing quoted text spanning multiple lines has been added to the following options:

- Mapping/Display/GIS
- Mapping/Display/Bubble Map
- Surface Modeling/Grid/Create Grid input
- Spatial Data Translator input
- 3DViewer/Display/Point Data

Added support for ZMap polyline vertex files to the Spatial Data Translator
11948

The Spatial Data Translator now supports ZMap polyline vertex files as both an input and output data source. All supported input and output data sources supported by the Spatial Data Translator can be used in conjunction with ZMap polyline vertex files.

Checkshot surveys can now be written to dbMap/PPDM using the Wells Import Wizard
38193

It is now possible to import checkshot survey data to dbMap using the Wells Import Wizard. Checkshot data may be transferred from any of the input data sources supported by the wizard.

Copy WDF now copies all checkshot data
24253

The WDF copy option now supports the transfer of checkshot survey data between Petrosys Well Data Files. Checkshot data was not previously supported by this option.

CRS code is now verified before connecting to data source
37780

The CRS code of any data sources which are referenced by a dbm are now verified before a connection is established. If the code is not recognized, a prompt will be displayed allowing the CRS to be changed. Previously, old dbm files containing references to connections using invalid CRS codes could cause problems when the data from those connections was loaded into Mapping.

dbMap import 2D seismic - Load database coordinates now retains the selected Geographic CRS
35604

The last Geographic CRS used when importing 2D seismic from text files into dbMap is now remembered between runs.

Enabled SeisWorks fault polygon functionality on Windows
37249

It is now possible to import fault polygons using SeisWorks on Windows using a dispatch server. This is in addition to functionality already available for displaying fault polygons on a map and using them during gridding directly from SeisWorks on Windows.

ODM - Improved method for selecting formation tops with multiple data types
41660

The selection of formation information from ODM has been extended to include the formations data type. This will allow for correct selection of a formation when it has data for multiple data types.

Output directory can now be specified when importing a SeisWorks 3D horizon
38314

When importing a SeisWorks 3D horizon as either a Petrosys grid or XYZ file (using the option /Import/Landmark/SeisWorks - Save 3D horizon interpretations as grids/XYZ files) it is now possible to define the directory where the output files will be created. Previously, output files would always be created in the current project directory.

Performance improvements reading large GeoGraphix datasets
37011

The amount of memory used and time taken when reading large amounts of well data from GeoGraphix has been improved. The reading of directional survey data from GeoGraphix databases is now significantly quicker, and the amount of memory used is much less.

Performance improvements when writing to Petrosys culture files using the Spatial Data Translator
38571

Transferring spatial data to Petrosys culture files using the Spatial Data Translator is now much faster, in some cases by as much as 200%.

Polygon name can now be specified by attribute when exporting from text/Excel to a Petrosys polygon file
37867

When exporting text/Excel data to a Petrosys polygon file, the name of the polygons created in the output polygon file can now be specified using an attribute value from the input text/Excel data. If an attribute value is not used to determine the names of the polygons in the output file, polygons will be named according to the format POLYGON_X, where X is an integer (non-decimal numerical) value used to denote the order of the polygon in the input data source.

Removed support for OpenWorks R2003.12 connections
37634

Connections to OpenWorks R2003.12 projects are no longer available. Petrosys continues to maintain support for OpenWorks R5000.

Renamed buttons to save Zone/Formation mapping in Wells Import Wizard
34613

The buttons to save Zone/Formation mappings in the Wells Import Wizard have been renamed from "Save/Load Pick Map" to "Save/Load Zone/Formation selections". Either the word Zone or Formation is used depending on the type of data and the input data source.

Renamed Kingdom and Petra options to include the prefix "IHS"
39741

References to both "Kingdom" and "Petra" in Petrosys have been replaced with "IHS Kingdom" and "IHS Petra" respectively.

Spatial Data Translator now includes input metadata when writing to Petrel
36409

The Spatial Data Translator now writes metadata from the input data source to Petrel Settings/Info tab when spatial data is imported into Petrel.

Updated ODM default queries to match new ODM data model
39134

The default set of SQL queries which can be used with ODM have been updated to take advantage of the new ODM data model.

Connections, import and export   Bug Fixes

Duplicate well names now handled correctly when importing OpenWorks well data to WDF and culture files
37841

Duplicate well names are now handled correctly when importing OpenWorks well data to a Petrosys WDF or culture file. Previously, only unique well names from OpenWorks were imported, meaning that if more than two or more wells shared the same name, only one of those wells would be imported.

Fixed instance of seismic navigation data not being read in full from SeisWorks connections
39266

2D navigation data from SeisWorks is now read from the SeisWorks DevKit, rather than directly from the OpenWorks database. This is to correct an anomaly which occurred when the trace range of the data stored in SeisWorks did not match the range of the navigation data stored in OpenWorks, which could result in the lines drawn from the navigation data appearing as shorter than expected.

This change re-instates the method used to read SeisWorks data prior to 17.3.4, which may result in a slight performance decrease. Performance should, however, be better than that seen prior to 17.3.4, owing to improvements in the implementation of the SeisWorks DevKit.

Import Landmark ASCII Faults now correctly appends imported faults to a new group
40455

A bug has been fixed which was preventing Landmark ASCII faults (/File/Import/Landmark/ASCII Faults...) from being imported to a Petrosys fault file. The bug occurred when importing faults to a new group, where the "Overwrite mode" was set to "Append".

Import Spreadsheets to WDF File no longer crashes if a log file is not set
40306

Failing to specify a log file when using the "Import Spreadsheets to WDF file" option in the WDF Editor will no longer result in a crash.

Imported Petrel clockwise oriented grids now displayed in correct location
38586

Imported Petrel clockwise oriented grids are now displayed correctly. These grids were previously displayed with an incorrect rotation angle.

Improved handling of very long string attributes by the Spatial Data Translator
38007

The Spatial Data Translator now handles File Geodatabase string attributes more robustly. Previously, File Geodatabase string attributes with values longer than 256 characters could result in a crash.

Removed the need to specify an SDF when importing SeisWorks fault polygons
39200

It is now possible to import fault polygons using the SeisWorks to SDF import dialog without having to have a SDF selected.

Spatial Data Translator supports writing NULL values to File Geodatabase feature classes
38111

In previous versions, a NULL value was written as 0 for numeric variables and as a blank string for string variables.

dbMap Enhancements

Added dbMap SQL function to return CRS of current map sheet / output grid
40917

A new dbMap SQL function has been created - ps_mapsheet_crs() - which returns the CRS code of of the current map sheet. This can be used in conjunction with the existing functions "ps_crs_convert_x" and "ps_crs_convert_y" to convert coordinates returned by queries to the CRS of the current mapsheet.

Added new dbMap SQL function - PS_TO_CHAR
35884

A new dbMap SQL function 'PS_TO_CHAR' has been added which allows you to apply Oracle TO_CHAR style formatting to the results of other dbMap SQL functions. This allows query writers to format queries with a specific number of decimal places.

For example: SELECT PS_TO_CHAR(1234.56789, '999,999.999') as FORMATTED_RESULT FROM DUAL

Added option to dbMap import 2D seismic for creating new surveys
35602

It is now possible to create a new Seismic survey directly from the Mapping/Admin/dbMap data transfer/Import/Seismic... preview screen. It is available from "Edit/Create new survey...".

Oracle runtime library used in Petrosys has been upgraded to version 11.2.0.1
27026

The Oracle runtime library used by Petrosys has been updated to version 11.2.0.1. This upgrade has fixed a crash which occurred when LDAP was used to centrally manage database service and net service name entries; and has added support for authentication using LDAP/Active Directory.

As part of this change, the method of configuring the Oracle TNS_ADMIN and NLS_LANG has changed. The preferred method to set these is via the Configuration/Databases/Oracle panel.

dbMap Bug Fixes

Fixed a crash which could occur when using a read-only SQLite primary database
29486

A crash has been fixed which occurred in some situations when attempting to write data to a read only SQLite primary database. This has been fixed, and an appropriate error message is now displayed.

Fixed behaviour of next/previous arrow buttons in Edit List dialogs
34965

The behaviour of the arrow buttons used to switch between records in the Edit List panels has been fixed. The icons can now be used to cycle through the records in a database (wells, seismic lines/surveys, etc.) in the order that they are listed. Previously, the behaviour of these buttons meant that entries were not being cycled through in the order listed by the software, giving the appearance that the buttons were randomly cycling through records in the current database.

Fixed Display, Edit and Delete of formation codes stored in the formations reference table
26139

The formations reference table has been upgraded to allow all fields to be populated, and for the editing/deletion of formation records to function correctly.

Well Formation dialog TVD Subsea field now updated correctly for PPDM 3.8 databases
40192

The TVD Subsea field on the Well Formation dialog now updates with the correct value for dbMap databases based off the PPDM 3.8 model

dbMap - User interface   Enhancements

Added columns to the options in "Add columns to display list"
36368

More columns have been added to the options in "Add columns to display list" in general and client specific dbMap edit list configuration files e.g. OPERATOR, COUNTRY, PROVINCE_STATE, COUNTY, GEOLOCIAL_PROVINCE.

Added Text/Excel export options to main menu in Mapping Query and Report Lists
39014

Text/Excel export options have been added to the /File menu of the Query and Report list windows in Mapping. These options have always been available in these dialogs, but only as a right mouse button menu option.

All table names now displayed in the title bar when running a reference table lookup
36611

When running a reference table lookup, the name of the current reference table will always be displayed in the title bar. Previously, the name of the table would only be displayed if it began with "R_" or was "PETROSYS CODE_LIST".

Runtime parameter dialogs now have help strings showing dependencies
36649

Runtime parameter queries can be written in such a way that the parameters require user responses in a particular order and/or require the entering of a response in order to run a query to enter other responses. These dependencies can now be clearly seen by looking at the short help tooltips that are available on each of the response fields in the runtime parameter dialogs.

Seismic Survey Alias dialog is now configurable and includes alias type and value
38785

The Seismic Survey Alias dialog is now configurable and has had the alias type and value added to the screen.

User now prompted for run-time parameters when selecting a query
16972

If a user-defined query requiring run-time parameters is selected, a prompt is now displayed allowing those parameters to be specified. It has also been made easier to see what previous parameters have been used in conjunction with the selected query. Previously, these parameters could not be defined until a later stage.

dbMap - User interface

Bug Fixes

Dialogs will now behave according to the specified "Windows z-order policy" 37797

All dialogs will now behave according to the setting of the "Windows z-order policy" option in the configuration tool, which is used to control how child dialogs are shown with respect to their parent dialogs. Previously, a certain class of dialog would not respect the order specified by this option.

Dragging menu items to a custom tool bar no longer prevents the menu from being opened (Exceed only) 34956

A bug has been fixed which caused menu options added to custom toolbars on the Linux edition of Petrosys to become in-operable under some circumstances. Previously, if accessing the Linux edition of Petrosys via Exceed, dragging a menu option onto a custom toolbar would prevent that option from being opened using the toolbar.

Font buttons in "Display/3D Seismic Bin Grid" now the show font size 40888

The font buttons in the Mapping option "Display/3D Seismic Bin Grid" now show the font size as the first number displayed instead of the font color index number. The size is also annotated with "mm" to make it clear that it is a size and the units used.

ESRI plugin

Enhancements

Added support for Esri desktop 10.2 to Petrosys Esri plugin 40410

The Petrosys Esri plugin now supports and will work correctly with Esri 10.2 products.

General Enhancements

CRS associated with text and Excel data now saved using well known text method 39854

When saving a display list to a dbm, the CRS associated with text and Excel data will now be written to the dbm using the WKT (well known text) format. This allows for wider cross-compatibility and ensures the correct CRS will be associated with text/Excel data when the dbm is re-opened.

Improved error reporting for printing on Windows 38054

The error displayed when printing fails on Windows has been improved, to give as much information about the cause and context of the problem as possible.

Minimum supported version of Windows now Windows Vista Service Pack 2 40181

Petrosys has updated the minimum supported Windows version to Windows Vista Service Pack 2, which is in line with Microsoft support policy.

Petrosys available as a 64 bit application for Windows and Linux 25836

Petrosys version 17.4 is available as a native 64-bit application on both Windows and Linux. Benefits of the 64-bit application include:

➢ ability to handle massive data sets, in particular accessing and modeling of large 3D surveys
➢ faster rendering of complex scenes (e.g. wells with complex directional surveys)

Petrosys continues to be available as a 32-bit application for all supported platforms, and both 32-bit and 64-bit applications can be installed side-by-side without conflict. Petrosys 64-bit is backwards compatible with previous versions of Petrosys in the same manner as Petrosys 32-bit.

Updated GDAL version to 1.9.2 33253

The version of GDAL used by Petrosys has been updated from version 1.6.1 to 1.9.2. The upgrade will see improvements to CRS handling for raster images and added support for raster images using CRSs from more recent EPSG CRS databases.

Please refer to http://trac.osgeo.org/gdal/wiki for a more detailed overview of the changes in version 1.9.2.

General Bug Fixes

License server failures now handled more gracefully 37408

The application will now handle the disappearance of the license server more robustly. Previously the application could crash if the license server disappeared (due to a dropped connection or some other interference) or ceased operating.

Temporary files are cleaned up more robustly 37511

The removal of temporary files is handled more stringently by Petrosys 17.4, and should occur in situations where previously they weren't. Temporary files, which are created in a range of contexts, will only be removed when they are no longer required by the software.

General - graphics
Enhancements

Significantly improved gradient handling
38196

Petrosys 17.4 introduces a number of significant improvements to gradient (color ramp) handling.

An "Exact" gradient type has been introduced to allow precise, absolute values to be specified for gradient control points. This makes it easier to set up gradients for specific data and to get desired colour transitions.

In addition, the colour resolution of gradients has been increased from 180 individual colours to over 60000, which gives much smoother transitions between colours and much greater colour definition.

Finally, the colour calculated for a particular Z-value is now always consistent with the gradient control points. Previously, in some contexts, rounding could result in this not being the case.

General - graphics
Bug Fixes

Fixed crash when using ECW images on certain Linux computers
38114

A crash has been fixed, which occurred while attempting to access an ECW image on the Linux edition of Petrosys after certain system libraries had been upgraded. The crash would typically occur on Red Hat Enterprise Linux 5 or 6 (rhel5/6).

General - User interface
Enhancements

Added an orange tint to the background of fields requiring the specification of a value
28873

Fields requiring the specification of a value are now tinted orange. This enables new interfaces to be used more effectively, and for the identification of missing information to be performed faster.

Changed name of scrolled list right mouse button menu option "Export to ASCII file" to "Export to Text File"
37747

The right mouse button menu item "Export to ASCII file..." has been renamed "Export to text file...", which is a better reflection of the functionality, and makes the terminology consistent with other areas of the software.

Current selection in tables now highlighted more clearly
38172

Items selected in tables will now be highlighted more clearly. Previously, certain Windows desktop configurations could result in highlighted items being drawn in a subtle, lightly shaded color, making it difficult to determine which rows were selected.

Fill style colour picker now shows colour number and RGB value on mouse hover
38836

Hovering the mouse cursor over any of the colors in the Color Select dialog will now show the number and RGB value associated with that color.

Improved rendering of charts in resized dialogs
36261

Chart resizing has been improved to make font size independent of the overall size of the chart.

Performance improvement for text console output
37236

The console used for the log in Surface Modeling and other parts of the application that display a text log of progress is now much faster in situations where a lot of output was streamed to the screen. This can improve the run time of some workflow and import/export operations.

Scrolled lists now retain previously applied filter
37502

Scrolled lists in version 17.4 have been enhanced to save and restore any filtering options previously applied.

Superfluous zeros after decimal point in numeric fields now removed by default
34330

Extra trailing zeros (occurring after a decimal point) have been removed from numeric values in most dialogs. Zeros have only been removed where they do not affect the information conveyed by the value (e.g. 200.00 will now be displayed as 200).

General - User interface   Bug Fixes

Dialogs containing re-sizeable areas now correctly restored to the previous size upon re-entry
30737

Dialogs containing multiple, re-sizeable areas (separated by a handle which can be used to re-size each area) are now correctly restored to the previously specified size upon re-entry. Previously, if any of the areas in a dialog were re-sized, they would need to be re-sized again after exiting and re-entering the dialog.

Disabled tool bar options can now be dragged onto a custom tool bar
37583

Disabled tool bar options (options which are "greyed out" and cannot be selected) can now be dragged and dropped onto custom tool bars. Previously, only active tool bar options could be dragged and dropped onto a custom toolbar.

Fill details text now displayed correctly for black fill styles
31374

The details text for solid black fill styles is now displayed correctly over the fill style button in the corresponding selection panel. Previously, this text was always displayed in black, and hence was not visible against solid black fill styles.

Gradient control point values now saved correctly
38995

The value specified for a control point along a gradient in the Gradient Editor will now always be saved correctly. In previous versions, it was possible for control point values to be altered slightly after being saved.

Gradient editor minimum and maximum values now reflect specified values
38897

The gradient minimum and maximum values shown in the gradient editor will now reflect the actual values from the gradient. In previous versions, under certain circumstances, this was not always the case.

Help/About dialog now shows up to date copyright notice
18909

Previous versions of Petrosys showed a copyright date that wasn't reflective of the ongoing development of the software.

List filtering dialog now attached to parent window
36949

The position of the list filtering dialog is now relative to the parent window from which it was opened. Previously, this dialog was moved independently of its parent, making it hard to keep track of in some situations.

Previously active tab now restored on entering a dialog
26964

When re-entering a dialog containing "tabs", the active tab will be based on the tab which was previously selected when the dialog was last open. This functionality was previously available prior to 17.0, and has been restored in 17.4.

Radio buttons now display default setting when un-modified
38247

Groups of radio buttons are now displayed with the default option selected. Previously, radio buttons would initially appear as if no option had been selected, making it difficult to determine whether a default value would be applied.

Scrolled list filter popup dialog now labelled using the correct column name
40849

The dialog used to view and create filters in scrolled lists will now be labelled using the name of the column from which the dialog was launched. Previously, the dialog would not always be named correctly, potentially causing confusion.

Scrolled list filtering now handles white-space correctly
38233

Improvements have been made to the way in-line filtering for scrolled lists handles white-space. Previously, any list items containing white-space (space characters for example) could cause unexpected and seemingly incorrect results when filtered.

Scrolled list filters are no longer cleared when selection is changed
38234

Changing the current selection in a scrolled list (where allowed) will now retain any filtering which has been applied to that list. Previously, changing the selection (using the "Select all" or "Select none" options for example) would clear any filtering options applied to the list.

The numeric keypad `+` key now works in combination with the Ctrl key to enlarge dialog font sizes
38824

The numeric keypad '+' key now works in combination with the Ctrl key to enlarge the font size used by text in dialogs throughout the application. This functionality can also be triggered by using the Ctrl key in combination with the '+' key on the main keyboard.

Tool tips associated with file selection fields now displayed in full
38635

Tool tips associated with file selection fields will now be displayed in full. Previously, only a sub-set of the tool tips associated with these options would be displayed, making the tip appear incomplete.

Graphics/Plotting and Hardcopy Enhancements

File/Export/PDF and Raster now available more widely throughout Petrosys
37288

The raster and PDF export options have been moved under the /File/Export menu, allowing them to be used in a number of Petrosys applications including Volumetrics Charts.

Print preview added to various print and export dialogs
35698

The File/Print (on Windows), File/Export/PDF and File/Export/Raster options now include a preview of the output, which shows the layout of the output from the print or export operation, including width, height and surrounding margins. In most cases the actual map will be shown, but in certain situations this is not readily available and a placeholder image sized appropriately is shown instead. Additionally better control over the scaling of the output has been added with the 'Fit to page' option.

Graphics/Plotting and Hardcopy Bug Fixes

Disabled ZGF export option on Windows
37637

The option to export to ZGF files using the /File/Export/CGM option has been removed from the Windows edition of Petrosys. Petrosys does not support writing to ZGF on the Windows platform. ZGF files may still be exported using the Linux edition of Petrosys.

Fixed EasyCopy post plot scripts
40307

The Petrosys to EasyCopy (http://myeasycopy.com/) plot driver will now work correctly. Previously an environmental conflict, introduced by changes made in version 17, was causing the driver to malfunction. This has now been fixed.

Limited height and width of exported raster images to maximum support values
40093

Images exported via the Export Raster Image option in Mapping (/File/Export/Raster Image) have been limited to a maximum height and width of 32767 pixels. This limit has been imposed as it is the current maximum supported internally by Petrosys.

PDF Export now allows dimensions of output to be determined by Map Sheet
38879

A "Map Sheet Size" option has been added to the PDF Export dialog in Mapping (/File/Export/PDF...) which allows the size of the current map sheet to determine the extent of the output PDF. Previously, the size of the output PDF was locked to A4, causing some content to be clipped in the output file.

xpplot now allows output filename to be set
40342

The output file name used by the xpplot utility may now be specified, making it possible to plot using the application. A problem has also been fixed where plotter properties were not able to be shown.

Help   Enhancements

Added help documentation for dbMap Security options
₃₈₉₈₀

Help documentation has been added for the dbMap security options which are available in the Mapping application (/Admin/Database/Security). The new documentation is available in the online help, under /dbMap/Administration/Security.

Help documentation for Wells Import Wizard now covers transfer of formation tops to dbMap
₃₈₁₆₉

Information has been added to the help documentation for the Wells Import Wizard covering the transfer of formation tops from supported input data sources to dbMap. This functionality was originally added in Petrosys 17.3.

Improved help documentation covering the configuration of publication options in Petrosys
₁₆₉₀₁

Help documentation covering the configuration of publication options in Petrosys has been improved. Central to this improvement is a re-structuring of the material covering the "Graphics Drivers" which are used by Petrosys to produce visual content in a wide range of formats. New and existing material covering all supported drivers has been collected and and indexed correctly under the "Graphics Technology" section of the online help. In addition, help documentation covering the configuration of printing and publishing options has also been revised.

Improved help documentation for publication options available in Petrosys
₁₆₉₀₂

Help documentation covering the configuration and use of publication options in Petrosys has been improved. Publication options include the Print and Export options in Mapping and the "Graphics Drivers" used throughout the software to publish content in a range of file formats.

Re-structured dbMap documentation
₃₈₂₂₂

Help documentation covering dbMap functionality within the Mapping application has been re-structured under the heading "dbMap", which appears as a new section in the online help.

Revised Well Tie help documentation
₃₈₂₂₄

The help documentation for the Well Tie option in Surface Modeling has been significantly revised. This material is now up to date and covers all recent changes which have been made since 17.0.

Updated help documentation for Gridding Methods
₂₉₃₃₉

Documentation of the gridding methods used by Petrosys Surface Modeling has been improved. The online help now includes more detailed descriptions of each of the methods used by Petrosys, and contains recommendations for when each method should be used.

Help   Bug Fixes

Improved "Help/Whats This?" option
₃₇₁₁₀

The "Help/What's This?" option is a special mode that allows help to be displayed on menu items, tool bar buttons or panel controls by selecting items of interest. This option has been improved in 17.4 in a number of ways:

- The correct help page is shown when using "What's This?" mode on sub menus.
- Selecting a menu item selected in "What's this?" mode finds an appropriate help topic if nothing is explicitly set.
- The option now works as expected for tool bar buttons
- Always shows corresponding online help (in some situations a tooltip was previously shown)
- "What's this?" is no longer available from the right mouse button context menu for panel user interface elements

Mapping   Enhancements

Added RMB option for creating a color bar from Mapping layers using a gradient
30641

Color bars can now be created directly from any layer in Mapping using a color gradient by right clicking the layer in either the map canvas or the display list and selecting "Display color bar".

Added RMB option for running FaultRisk fault statistics tool
39470

The FaultRisk Statistics tool can now be launched from the selected fault layer in Mapping using the RMB option "Run FaultRisk Stats...".

Improved group creation in the Mapping Display List
31522

Group creation has been improved in Mapping, and will now behave differently depending on the item which is selected from the Display List. If a single group is selected, a new group will be created within that group (as a child of the selected group). If multiple layers are selected, all of the selected layers will be added to the new group, allowing an existing "flat" display list to be more quickly organized into a collection of groups.

Additionally, after creating a new group, the name of the group will immediately be editable.

Prompt for username/password no longer displayed if server does not contain required service types
20917

When connecting to a dispatch server, a username/password prompt will only be displayed if the dispatch server contains the required server types. This removes the need to specify a username and password for servers which do not contain the required services, potentially speeding up the connection process.

Mapping   Bug Fixes

Gradient used by GIP data now updated correctly when changed
38488

After selecting a new gradient for a display layer containing GIP data, the change will now be immediately applied to the data in the map canvas. Previously, any changes to the gradient would not appear until the display list was saved to a dbm, then re-opened.

Increased minimum symbol size of displayed grid values
39971

The minimum symbol size of values displayed via the option /Display/Grid/Values has been increased. Previously the minimum size was such that, on smaller scale map sheets, the symbols still appeared quite large.

Polygons using a translucent fill now correctly added to map legend
37972

The fill style for translucent polygons added to Mapping will now appear in the map legend (displayed via the /Display/Legend option). Previously, the fill style for translucent polygons was not correctly recorded by the legend, and would appear as blank.

Removed Use all points option from FaultRisk Displacement Profile Tool in Mapping
41156

The "Use all points" option, available after launching the FaultRisk Displacement Profile Tool from Mapping, has been removed. The option could, in some cases, pass faults which were missing Z values to FaultRisk.

Mapping/2D Seismic   Enhancements

Added reporting options for seismic lines stored in IHS Kingdom
15754

It is now possible to generate a report from lines stored in Kingdom data sources.

Mapping/2D Seismic   Bug Fixes

Fixed querying IHS Kingdom seismic data using RMB menu option
37883

The "Query seismic" option, which is available after right clicking seismic data displayed from IHS Kingdom, will now query the selected data correctly. Previously, this option behaved inconsistently, and could not be used to reliably query data from the map canvas.

Petrel no longer listed as a 2D Seismic data source on Linux   **37271**

Petrel has been removed as a data source from the Display seismic lines option on Linux.

Reset map area now works for IHS Kingdom data sources   **18312**

The "Reset map area" option now works correctly for IHS Kingdom data sources. This option is available from the /Edit menu in the 2D seismic line edit list.

Mapping/Bubble Maps   Enhancements

Added support for Excel to Display Bubble Map and improved support for text files
36834

Bubble maps (/Display/Bubble Map...) have been enhanced to support direct display of data from Excel. In addition, support for drawing bubble maps from text files has been standardised, which allows a wider variety of text formats to be used and makes text file support more robust.

Mapping/Bubble Maps   Bug Fixes

Multiple improvements to the ease of use and general robustness of Bubble Maps
39264

The Display Bubble Map option (Display/Bubble Map...) has been significantly improved in 17.4, with a large number of bugs and limitations fixed. Notable fixes include:

- ➢ Spaces may now be inserted into filters and formula by enclosing them in single or double quotation marks.
- ➢ Mixed case variables are now matched correctly, and no longer cause filters and formula to fail.
- ➢ Improved error checking means that illegal formula syntax will be reported immediately after the OK or Apply button is pressed.
- ➢ Negative values are now supported and will be drawn correctly.
- ➢ Missing values are no longer drawn.
- ➢ Added support for data selection for database data sources.
- ➢ Improvements to the handling of cached data within the interface mean the "Update Selected" and "Update All" display list options now clear cached bubble map data as expected.

Templates available in Display/Bubble Maps now restricted based on user permissions
16465

On the Display/Bubble Maps screen, users were previously able to see all templates - even if they were private templates created by another user. Template selection is now correctly limited to the following templates:

- ➢ Private templates owned by the current user
- ➢ Public templates
- ➢ Default templates created by Petrosys and shipped with the software.

Mapping/Editors   Enhancements

Added FaultRisk DPT entry point to CFP editor
39392

The FaultRisk Displacement Profile Tool can now be launched for individual faults using the Contours, Faults, and Polygons Editor in Mapping.

Polygon area report now includes total area as well as area for individual polygons
11111

A polygon area report now contains the total area of all polygons stored in the selected file, as well as the area of individual polygons. A polygon area report can be run from Mapping by selecting /Edit/Polygon, or by selecting /Edit//Report Area in the Polygon header editor in the CFP Editor.

Mapping/Editors   Bug Fixes

Display Asset links on Edit/Surveys screen now supported on Windows
15615

The Display Asset links option on the Edit/Surveys screen is now fully supported by the Windows edition of Petrosys.

Fixed a crash in the Polygon Editor when merging polygon data with inconsistently set "mean" attribute
37282

A crash has been fixed which occurred when attempting to merge Petrosys polygon data where some, but not all, of the polygons in the input data had the "mean" attribute specified. The mean attribute is applied to certain polygon files as part of Surface Modeling.

Gradient Editor no longer crashes when Mapping is closed
38659

A bug has been fixed which caused a crash if the Mapping application was closed while the Gradient Editor was open with unsaved changes. The Gradient Editor will now be closed along with Mapping, and a prompt will be displayed allowing any changes to be saved before the editor is terminated.

Mapping/Images   Bug Fixes

Display Raster now supports re-projection of images using the EPSG:3857 (Pseudo Mercator) CRS
38060

The EPSG:3857 (Pseudo Mercator) CRS is now supported by Display Raster in Mapping. Previously, attempting to load image files using this CRS would result in a re-projection error.

Mapping/Map Sheets   Enhancements

Added ability to post geographic corner annotations on map sheets with rectangular borders
27020

Geographic corner annotations can now be posted on map sheets using rectangular borders. The reverse behaviour (posting rectangular annotations on map sheets with geographical borders) is not supported, to avoid potential over-posting issues.

Automatic layer adjustment to different map sheet scales
16585

Petrosys 17.4 includes new functionality in Mapping to scale symbology when changing to a map sheet of a different scale. Petrosys requires heights and offsets to be specified in absolute units (i.e. millimetres on the map sheet) for Mapping layers. When changing to a map sheet of a different physical size and/or scale, this previously resulted in a change to the relative size of label heights or symbols requiring a map to be in effect recreated by adjusting sizes. In Petrosys 17.4, this is performed automatically (when the map sheet scale change is within a certain tolerance).

Support added for dynamic map sheets that automatically adjust to displayed data
16650

A dynamic map sheet has been added to Mapping, which is defined automatically as data is added to the display list. This allows for the visual exploration of data prior to finalising an area of interest, as well as removing the need to create a map sheet before displaying data. The dynamic map sheet can be saved as a traditional "fixed" map sheet for use in a presentation map after the area of interest has been finalised.

The dynamic map sheet is enabled by default for new projects and can also be selected via the MapSheet menu (including MapSheet/Open).

Mapping/Map Sheets   Bug Fixes

Improved load time of dbm files associated with large sheet.def files
37593

Improvements have been made to the way map sheets are loaded by Mapping. This means that dbm files associated with map sheets stored in very large sheet definition (sheet.def) files will now be loaded much faster.

Mapping/Spatial   Enhancements

Added support for Esri File Geodatabase on RedHat Enterprise Linux 5
32880

The Esri File Geodatabase library used by Petrosys has been updated to version 1.3. This version comes with added support for RedHat Enterprise Linux 5 meaning the format, which was previously only available in the Windows edition of Petrosys, is now available in Linux.

In addition, the minimum operating system required by File Geodatabases in the Windows edition of Petrosys is now Windows 7. As such, Windows Vista (and all earlier editions of the Windows operating system) can no longer be used to access the File Geodatabase format.

Added support for spatialized drilling opportunities to Display GIS
36919

Support for displaying and querying spatialized drilling opportunities stored in dbMap has been added to the Display GIS option. Spatialized versions of data - including 2D seismic, well locations and other data types - are stored in dbMap, and can be displayed/queried using Display GIS.

Improved point data selector column detection for Easting/Northing columns
39729

The algorithm for detecting Excel and Text data with columns named Easting/Northing was improved. In addition, columns named UTM_X and UTM_Y are recognised as easting and northing columns.

Mapping/Spatial   Bug Fixes

Added support for projected Oracle Spatial SDO point data and SDE multi point data to Display GIS
39941

Projected Oracle Spatial SDO point data and SDE multi point data are now supported by the Display GIS option. In previous versions data of this type could be displayed without error, but nothing would be shown on the map.

Annotation settings now retained if Display annotations is disabled
35505

The display settings specified under the Annotations tab in Display GIS will no longer be cleared if the Display annotations option is disabled. Previously, disabling annotation display would clear all display settings specified under this tab, and they would need to be re-entered manually.

Display GIS now handles SDE null values correctly
37995

Display GIS now handles SDE numeric attributes with NULL values more robustly. Previously, the NULL value would be displayed as 0 for numeric variables. It will now be drawn as blank

Display GIS now includes feature class description for Oracle Spatial layers
38055

The feature class description will now be correctly displayed for Oracle spatial layers in Display GIS. Previously, a bug introduced in 17.0 meant that feature class descriptions for Oracle spatial layers were not being correctly displayed.

Display list now uses different descriptions for dbMap GIS and Oracle Spatial layers added using Display GIS
34474

The description text associated with dbMap GIS and Oracle Spatial layers added to the Display List using the Display GIS option has been changed, to better reflect the differences between these two data sources. Previously, these layer types had similar descriptions, making it difficult to differentiate between the two.

Improved visualization of Geology Dips displayed with polygon data
39262

Geology Dips will now be drawn correctly when displayed with polygon data. Previously, a problem with the list of polygons to display in the Display geology dips panel meant the displayed data didn't always correspond to the chosen settings.

Oracle ST_GEOMETRY Layers are now fully supported
40584

A bug has been fixed which prevented Oracle ST_GEOMETRY spatial data type layers from being selected via an Oracle-Spatial connection. Layers of this type are now fully supported, and will be read correctly across any active Oracle-Spatial connection.

Mapping/Surfaces   Bug Fixes

Fixed a crash which occurred when displaying a 3D seismic surface from SeisWare
37779

A crash has been fixed which occurred when displaying a single horizon from a SeisWare 3D seismic surface.

Petrel surfaces with trailing spaces are now accessible by Petrosys
36954

Petrel seismic surfaces with trailing spaces in names can now be accessed using Petrosys.

Query report now updated correctly when querying 3D Seismic Bin Grids
₃₇₄₆₇

After querying a 3D seismic bin grid displayed in Mapping, selecting additional seismic surveys or lines on the map canvas will now add the information relating to the selected surveys/lines to the query report. Previously, selecting additional lines/surveys from the map canvas after performing a query would not update the query report.

Mapping/Wells   Enhancements

Added metric/imperial switch to GeoGraphix well header
₃₇₇₂₅

A Metric/Imperial button has been introduced to the GeoGraphix well header, which can be used to switch the Final TD (Subsea TVD) between metric and imperial units. These values will be reported in feet (imperial) by default.

Added support for identifying preferred checkshot survey for a well
₃₇₇₁₄

It is now possible to select a wells preferred checkshot survey. This feature has been added to the checkshot survey screen as an editable field for each survey. It should be noted that it is only possible to have one preferred checkshot survey selected per well.

Added support for SeisWare 8.0
₃₈₄₉₁

Petrosys now supports SeisWare 8.0 projects. The key change was supporting the new directional survey structure.

Fixed formatting issues with dbMap Well Report output text files
₃₆₃₅₃

A range of formatting issues have been addressed in the text reports produced by dbMap Wells Reports.

Fixed-field reports are now generated with column headers. Previously, these were not present in the output report.

Formatted reports now contain the correct number of rows in the output file. Previously, an extra row was being added to each page, in addition to what was specified in the Page size field.

The header in Tab-delimited and Comma-delimited reports is now generated correctly. Previously, the header of these report types contained a superfluous delimiter at the beginning of the header row.

Improvements in the amount of memory used when displaying well items on a Map
₃₇₁₀₈

An effort has been made to reduce the amount of memory used when displaying wells and well data in Mapping. This includes using less memory (upwards of 35% in some cases) when redrawing a map and releasing memory back for use when starting a new map from an existing one.

Mapping/Wells

Bug Fixes

Busy cursor now displayed when drawing layers containing well data
38489

The busy cursor will now be displayed when display layers containing well data are being drawn. Previously a bug, introduced in 17.3, was preventing the cursor from being changed to the busy state, potentially giving the impression that the program had hung.

Fixed bug preventing well information dialogs from being opened correctly
30951

A bug has been fixed which prevented well information dialogs (Directional Surveys, Formation Tops, etc.) from being opened correctly when the Wells edit list was empty.

A bug has been fixed where an empty Wells edit list was causing well information dialogs (e.g. Directional Surveys and Formation Tops) from being opened correctly.

Fixed data selection using form for ODM well data
40150

ODM well data selection using the well id attribute now functions correctly. Previously, this functionality was not working because of the way in which the data type of the well id attribute was being treated by the software.

Isopach values displayed from a WDF as opaque text now drawn correctly
25242

Isopach values which are displayed from a Petrosys WDF as opaque text are now drawn correctly. This fixes an issue which caused these values to be drawn as transparent even if specified as opaque.

OpenWorks well header screen now shows depths with correct units
35911

All depths in the OpenWorks well header screen will now be displayed in the correct units. Previously, it was possible for depth values to be displayed with the wrong units.

WDF well header edit dialog is now updated to reflect the currently selected well
37761

The well header edit dialog for WDF data displayed in Mapping will now be updated according to the well currently selected on the map canvas. The well header edit dialog can be opened by right clicking any well displayed from a WDF file, then selecting "Well header". Previously, opening this window prevented any items from being selected on the map canvas while it was open.

In Mapping when displaying wells from a WDF and then using the right mouse button option "Well header" to display the selected well's header edit dialog, you are now able to click on other wells in the map window to update the header dialog to the selected well. Previously you were blocked from clicking in the map window whilst the well header edit window was open.

Well reports from dbMap using AOI clipping are now updated if the map sheet is changed
30508

Well reports created from dbMap using AOI clipping are now updated if the map sheet is changed. The contents of the report will change to include all data from the new map sheet.

Paradigm-Epos plugin   Enhancements

Support for Paradigm 2011.3 added on Linux and Windows   **28105**

Paradigm 2011.3 (Epos 4.1) is now supported as a data source in all features that previously supported Paradigm 2011 (Epos 4.1) data. Paradigm 2011.3 (Epos 4.1) can now also be used in all supported features in the Windows edition of Petrosys.

Both Paradigm (Epos 4) and Paradigm 2011 (Epos 4.1) will continue to be supported as data sources.

Petrel plugin   Enhancements

Connection manager now displays the active Petrel connection   **35352**

The connection manager now displays the version number of the active Petrel connection. This information is also logged into the connection diagnostic file.

Enabled Petrel plugin diagnostic logging to ACE log file   **37834**

Diagnostic information generated by the Petrel plugin will now be logged to the file psvr_petrel_USER_ipc,log (where USER corresponds to the name of the current user). The file will be created and may be accessed from the current project directory.

Project Selector   Enhancements

Project description in the Project Selector now includes information about custom columns
37199

The project description text, displayed at the bottom of the Project Selector, now includes information about any custom column data which has been included in the selected project.

Project list in the Project Selector is now more responsive
39059

Improved caching of project information has resulted in a faster and more responsive user interface when refreshing the project list.

Project Selector   Bug Fixes

"Only show selected tags" option in the Project Manager now retained
36812

The "Only show selected tags" option in the Project manager is now retained after being set. Previously, this option would default to enabled each time the Project Selector was re-launched.

Operations in the Project Selector now prohibited correctly according to current permissions
37215

The Project Selector has been fixed to prevent the following operations from being performed when permissions do not allow them:

➢ Using keyboard shortcuts to modify User Group properties
➢ User Group "Advanced" option disabled when current user is changed to a group with no permission to access it
➢ Adding new projects via drag-and-drop onto the project selector list

Seismic data   Enhancements

Added a warning to Stacking velocity import if input file will cause the output SDF to exceed 2GB
28951

When importing stacking velocities, a warning will now be displayed if the selected input file will potentially cause the output SDF to exceed the maximum size of two gigabytes.

Added standard format definition file for Diskos v98 to Stacking Velocity Import
38536

A new stacking velocity format for Diskos v98 has been created. Text files using this format will now be recognized and read correctly by the Stacking Velocities Import dialog.

Added support for SEGY format to Stacking Velocities Import *30570*

Stacking velocities stored in SEGY files can now be imported to an SDF using the Stacking Velocities Exchange tool. The format used to read data from SEGY files is fully customisable, and may be changed to suit the requirements of a particular file. Petrosys ships with a range of pre-defined SEGY formats which can be used to read most commonly distributed variations of SEGY files.

SDF horizons now created automatically during all direct connect imports
11939

When importing seismic data from a direct connection to a third-party data source, horizons in the output SDF are now create automatically. Horizon abbreviations and long names will automatically be added to the seismic import panel, and corresponding horizons will be created in the output SDF when the import is initiated. Previously, importing data required all horizons in the output SDF to be pre-defined, meaning it was necessary to go through the often laborious task of manually defining the required horizons in an SDF before any data could be imported.

Seismic data   Bug Fixes

SDF now requires the entry of unique horizon names and abbreviations
23266

When creating horizons in an SDF, the associated panel now enforces the entry of unique names. If the abbreviation or long name associated with a horizon matches that of another horizon, an error will be displayed, and the abbreviation/long name will need to be changed.

Surface Modeling   Enhancements

Added file path functions to workflow scripting   35200

Workflow scripting has been extended with file functions to make scripting with files easier. The new functions are getFileName, getFileExtension, getFilePath, getParentFolder.

Added path name and file name scripting fields for looping over files   35187

Two new scripting parameters - Base file name and File path - are now available when looping over files using task scripting. These parameters will automatically be available for use in scripting.

Added shape file suffix to the available Files of Type when looping over files   35910

The shape file suffix has been added to the Files of Type drop-down in the file selector used to specify the input files when looping over a task.

Added text/Excel export options to the list of tasks in the current workflow   38572

The list of tasks in the current workflow can now be exported to either a text (CSV) or Excel file using options which have been added to the right mouse button menu, allowing workflows to be exported in these formats.

Grid Statistics now generates a default description when creating a task   38712

A default description (the value added to the "Description" field in the workflow) is now added to Grid Statistics (/Grid/Statistics/Grid...) tasks when created.

Improved assignment of fault polygon Apex and Top/Bottom flags   22242

The automatic assignment of fault apex flags and the identification of the upthrown/downthrown sides of the fault has been improved. This has fixed problems with unrealistic fault symbols being produced, such as the display of symbols on both sides of a fault

Increased length of UID field in Print Comment   37877

The UID (Unique Identifier) field in the "Print Comment" option (available under /Tools/Print Comment...) has been extended from 19 to 80 characters.

Increased performance when running grid statistics inside polygons   41040

The amount of sub-division performed when running grid statistics within a polygon has been reduced, preventing cases where the sub-division (which is used to determine which values lie inside the selected polygon) would continue for too long, making it appear as if the task had become non-responsive.

Velocities/Calculate From Stacking can now be run in batch processing   37894

An overwrite flag has been added to the /Velocity/Calculate From Stacking dialog, so that there is no interactive prompting as to whether to overwrite or replace an already existing velocity value. Previously, the prompt to overwrite/replace an existing value would interrupt the current workflow, making automating as part of a looped workflow impossible.

Surface Modeling   Bug Fixes

An error message is displayed when a Petrosys fault file is unable to be opened in read only mode   38099

An error message is now displayed when failing to open a Petrosys fault file for reading. These errors will be seen when displaying a map, performing /Fault/Statistics and exporting a fault file to a polygon file, using an unreadable fault file.

Draw Map now prompts for required third party connections at the start of the workflow run   36655

When running a Draw Map (/Tools/Draw Map...) task in Surface Modeling, if the template dbm contains display items requiring third party connections to be made, the user is now prompted to supply the them at the beginning of the workflow. Previously, the Draw Map task would fail.

Fixed interactive scripting of attribute and formation names during back interpolation to a WDF   20212

Interactively scripting attributes and formation names while back interpolating from a grid to a WDF has been fixed, and now works correctly. Previously, this option was unstable and typically caused a crash if used.

Fixed re-sizing and general layout of panel used to add wells to a gridding task   37398

The panel used to add wells to a gridding task has been revised, to make the spacing between fields and options more consistent, and improve the behaviour of the panel when re-sized.

No longer possible to use the same name for correction and tied grids during Well Tie
35987

It is no longer possible to enter the same file name for both the output tied grid and output correction grid in the Well Tie option.

Overpost corrections now retained when drawing a map from a template as part of a workflow
25999

When drawing a map as part of a workflow (using the Draw Map option available from the /Tools menu) if a template is used which contains overpost corrections, those corrections will now be retained. Previously, overpost corrections would not be retained in the output map, even if present in the template.

Surface Modeling/Contouring   Enhancements

Automatic contour file naming under the Grid/Create options now preserves the file path when selecting different grids
23141

When creating a grid, the path assigned to the output contour file (if contouring is enabled) will now be preserved if the name of the output grid is changed. Previously, when the name of the output grid was changed, both the name and path of the output contour file would be updated to match that of the grid. In 17.4, the name of the output contour file will be updated to match the new output grid name, but the path will be preserved.

Surface Modeling/Contouring   Bug Fixes

Contour/Grid (By Cell) now correctly creates contours to the edge of cells when adjacent cells have no valid Z values
22576

Contours are now generated correctly for grids contains regions of missing data. Previously, contours on the right and top sides of the regions could potentially have been excluded.

An issue has also been fixed which, in some rare cases, prevented contours from being written to the output file. This issue occurred if the contour was confined within a single cell on the input grid.

Fixed memory leak in Contour/Grid (by cell)
33941

A memory leak has been fixed in the contouring option Grid (by cell). The leak occurred when contouring a Petrel grid file, and would result in a steady decrease in performance each time the task was run. This has now been fixed, meaning the performance of this option when using Petrel grids should be on par with other input data sources.

Surface Modeling contour menu options now display the correct panels
39483

The options /Contour/Convert/File and /Contour/Edit Contour Header available from the main menu of Surface Modeling will now launch the correct panel. Previously, a bug introduced in 17.3 was causing these options to trigger the wrong panel.

Surface Modeling/Grid Operations   Enhancements

Added ability to re-size the formula entry area in Grid Process Arithmetic
28327

The formula entry field in Grid Process Arithmetic can now be re-sized by clicking and dragging the horizontal bar between the formula entry area and the tabbed dialogs below. The formula entry area can also be maximized (to occupy the entire Grid Process Arithmetic panel) by clicking the "Maximize formula area" button. The panel can be returned to its original state by clicking the "Minimize formula area" button.

Added ability to save user-defined formula text in Grid Process Arithmetic
28120

It is now possible to save the text entered in the formula text area as a formula template. These saved formula templates may then be inserted at a later time.

Added support for user defined formula templates to Grid Process Arithmetic
26627

Support for user defined formula templates has been added to the Arithmetic option (available under /Grid/Processes/). Custom formula templates can be created, edited and deleted from within the Arithmetic panel; and may be stored and accessed in either the project or site areas in the current Petrosys installation.

Formula templates in Grid Process Arithmetic can now be sorted by column value and searched
28140

It is now possible to search the list of formula templates in Grid Process Arithmetic. Templates may also be sorted by column value.

Grid/Merge/Blend is now CRS enabled
38075

Petrosys Grid Blend (/Grid/Merge/Blend...) will now apply the appropriate CRS conversions when the input grid data utilizes multiple coordinate reference systems. The CRS of the first grid specified in the panel will be assigned to the output grid. Subsequent grids will be converted to the CRS of the first grid, if the CRS is different.

Surface Modeling/Grid Operations   Bug Fixes

Converting grid coordinates now retains list of input data sources in the grid header
33226

The list of input data sources used to create a grid, which is stored in the grid header, will now be retained if the grid is processed using the Convert Coordinates option (/Grid/Convert Coordinates). In previous versions, this information would not be present in the output grid produced by this option.

Dump to Fault File no longer deletes other surfaces and groups from output fault file
38058

Existing fault surfaces and groups are now retained when using the "Dump Fault File" option (/Grid/Dump Fault File...). Previously, using this option would remove all existing data from the output fault file before writing any of the input data.

Fixed visual display in Grid Merge Regrid
35876

The visual display for the Regrid option (/Grid/Merge/Regrid) will now be displayed correctly if enabled. The visual display can be enabled under the Reporting tab.

Temporary files created by Grid/Merge/Regrid now removed on task completion
35874

The temporary files created by Grid/Merge/Regrid are now deleted after the associated task has been completed. Previously, these files would not be removed, causing files of the form xyz<more text>.tmp to build up in the project directory.

Surface Modeling/Gridding   Enhancements

Added a NONE option to the horizon selector for SDF data   36635

A NONE option has been added to the horizon selector for SDF data, which is displayed when specifying an input horizon either during grid creation, or when displaying 2D seismic data in Mapping. The option is used to clear the currently selected horizon, and return the specified horizon to an empty selection. The selection can also be cleared from either of the horizon selection fields by right clicking.

Added support for reading Oracle Spatial data using a projected CRS to grid creation panel   39916

Oracle Spatial data using a projected CRS can now be used in Workflow Gridding. Note that only standard EPSG CRSs are supported.

Changed text buttons to icon buttons in grid input data list   37337

Text buttons to the right of the list of input data sources in grid creation have been changed to icon buttons. The icons are based on standard graphics used throughout the Petrosys application, and are intended to make the appearance of the software more consistent.

Improved accuracy of Minimum curvature gridding algorithm near faults trending NE-SW or NW-SE   31685

Improvements made to the minimum curvature gridding algorithm mean that faulted regions trending NE-SW or NW-SE will now be modelled more accurately.

Improved validation of input data when gridding from a WDF   35399

The validation of input data used when gridding from a WDF has been improved. Before adding the data source to the task, checks will now be performed for missing zone names, attribute names and computed formula.

Minimum and maximum difference between input point data and input grid now reported by the well tie methods tab   14858

On the well tie methods tab, it is now possible to scan the current input data sources and determine the minimum and maximum difference in Z values between the input point data and the input grid. This is useful for the extrapolated, distance and polygon methods as it allows a reasonable minimum and maximum correction value to be applied if desired.

Performance improvements when creating grids containing detailed fault data and a large number of input points   39623

The speed of running gridding tasks using a large number of input points and faults containing many coordinates has been significantly improved.

Remove sampled data now defaults to "Outside" when using the Polygon method in Well Tie and Phantom   37436

The default value of the "Remove sampled data" option, which is available in Well Tie and Phantom Gridding when using the "POLYGON" method, has been changed to "Outside".

Reporting parameters in various gridding options now scriptable   37529

Reporting parameters can now be used in workflow scripting. These options are available under the "Reporting" tab in Grid Creation (/Grid/Create Grid), Well Tie (/Grid/Well Tie), Phantom (/Grid/Phantom), Blend (/Grid/Merge/Blend) and Regrid (/Grid/Merge/Regrid).

Warning now displayed if GIP data is edited when creating a Well tie mistie report   37524

A warning is now displayed if "Sampled Data file action" is set to "Create and edit" when generating a mistie report during a well tie. Editing the sampled data means that well metadata (the well name, number and UWI) cannot be propagated to the mistie report, and will therefore not be present in the report produced by the well tie. To generate a report containing well metadata, set the "Sampled Data file action" to "Don't-Create" or "Create", as stated by the error.

Well Tie mistie report now allows the specification of the number of decimal places displayed   37753

A new option - "Decimal places for Z values" - has been added to the "Mistie" options under the "Report" tab when performing a Well Tie. It can be used to specify the number of decimal places to which Z values will be displayed in the output mistie report.

Surface Modeling/Gridding   Bug Fixes

Changed multiple references to Data Source when adding well data to a gridding task   37412

On the panel used for adding well data to a gridding task, the drop-down used to select the part of a WDF from which data will be extracted for gridding has been re-named "Data type". Previously, it was labelled "Data source", which could easily be confused with the second Data source drop-down at the top of the panel.

Fixed error produced by Grid Merge Overlay   41468

The option /Grid/Merge/Overlay no longer produces a spurious error regarding invalid grid extents. This error was preventing the option from being launched.

Improved error reporting for the POLYGON method in Well Tie and Phantom gridding
37745

If a non-existent polygon file is specified when using the "POLYGON" method in Well Tie and Phantom gridding, a single error will now be raised and the task will fail. Previously, it was possible to run the Well Tie/Phantom task, after which a range of errors were displayed before the task finally failed.

Messages intended for the text log no longer displayed in the console when performing a Well Tie with GIP creation enabled
37762

Status messages intended for the text log message window will now no longer be displayed in the console. Previously, it was possible for these messages to be displayed in the console when running a Well Tie task with GIP creation (sampled data) enabled.

Polygon clipping in Well Tie and Phantom gridding now applied to the correction grid
27235

Enabling polygon clipping in the Well Tie and Phantom options will now apply the specified clipping parameters to the correction grid, as well as the output grid. Previously, polygon clipping parameters would only be applied to the output grid.

SDF description in Input Data tab now displays horizon abbreviation if SDF file does not exist
37663

If a missing SDF (an SDF which cannot be located in the specified path) is used as an input data source, the description of the data source under the "Input Data" tab will now display the abbreviation of the horizon which is being extracted from the SDF. Attempting to execute the task will result in an error being displayed, due to the missing data source. Previously, a string of non-sense characters would be displayed if the SDF could not be found, and an error would be displayed each time the task was edited.

Well point extractor no longer returns incorrect status
37040

The Well point extractor now returns the correct status (false) if the extraction process is cancelled while the software is getting a list of wells. A crash, which could also occur when this process was cancelled, has also been fixed.

Surface Modeling/Volumetrics   Enhancements

Changed default XML style for Grid Based Slices Volumetrics report to Web page - light background
28010

The default XML style for reports generated from the Grid Based Slices Volumetrics option has been changed to Web page - light background. This enables a report generated using default output settings to be displayed in a more elegant format.

Error information is more detailed when top and base grids have different geometries in Volumetrics
37917

When using top and base grids with different geometries to perform a volumetrics calculation, the error message which is displayed will now give a more precise account of the differences between the two grids.

Surface Modeling/Volumetrics   Bug Fixes

Correct volumes now reported by Volumetrics - Grid Based Slices after disabling polygon clipping
34628

Disabling polygon clipping in Volumetrics - Grid Based Slices will now generate the correct output report. Previously, running this option after disabling polygon clipping would result in a report containing zero volumes.

Map visualisation now displayed in volumetrics reports generated with the Display Map option enabled
30771

A map visualization will now be displayed on volumetrics reports generated with the "Display Map" option enabled. Previously, if this option was enabled, the report would be generated correctly, but a map would not be displayed.

Volumetrics using top/base grid now correctly honors specified reference levels
16857

Volumetrics using a top and base grid now correctly accounts for the specified reference levels. Previously, the volume would be computed from the area of the polygons specified when setting up the task, and the reference levels would be ignored.

Web map server Enhancements

Updated WMS server licensing for 17.4   <small>40294</small>

Licensing of the Petrosys WMS server has changed so that licenses are shared if you are run multiple WMS servers on a single machine.

Well data Enhancements

Changed default Files of Type filter in general WDF Import   <small>35465</small>

The default value of the "Files of Type" filter in the file selector used to select an input data source in the general WDF Import option (/File/Import/General...) has been changed from "Ascii file (*.asc)" to "All files (*.*)". This is meant to reflect the wider array of input file types available when using this option.

WDF internal database upgraded   <small>39009</small>

The internal database storage for WDFs has been upgraded from CTree to SQLite. This gives better performance, multiple access and 64-bit support. However, it means that all WDF files must be upgraded prior to use in 17.4, and, once upgraded, will be inaccessible in previous versions of Petrosys. A backup of the existing WDF will be taken prior to upgrading.

Well data Bug Fixes

Fixed crash when importing checkshot data using well checkshot detail screen   <small>39347</small>

When importing checkshot points from a file using the Well Checkshot details screen, it was possible for a crash to occur when an invalid line was encountered. This is has now been fixed and a message is displayed informing the user of the number of invalid lines found during the import process.

Fixed sporadic UT:2584 error when using well zone selections   <small>34887</small>

An error has been fixed which displayed the message UT:2584 "Error creating temporary XML for writing". This error occurred sporadically when using well zone selections and formation files. The code that could cause this error has now been rewritten to avoid the condition that could trigger this.

Import SeisX option in WDF Editor now launches the correct panel   <small>40075</small>

The Import SeisX option (/File/Import/SeisX) in the WDF Editor now functions correctly. Previously a bug, introduced in 17.3, meant that sometimes the Define File Format panel would be launched instead of the requested Import panel.

Wells Import Wizard now honors the chosen well selection file
37842

Well selection files, used to narrow the selection of wells stored in a Petrosys WDF, will now be honored correctly by the Wells Import Wizard. Previously, a bug in the wizard meant that attempting to use a well selection file in conjunction with a WDF would result in there being no wells selected from the specified WDF.