



NEW FEATURES

T7.410 UPDATE

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INTRODUCTION

This document describes the new features and enhancements that make up the T7.410 update release and differentiate it from the latest T7.400 releases. T7.410 is distributed as a patch and must be installed onto an existing 7.40x installation as a patch. For a full description of the new features please refer to the relevant sections in the T7 user-manual. This document and the end-user manual use the term "T7" and "TrapTester" when referring to the current release version of the software.

Important Notes:

- 1) T7 license feature versions are "7.4". T7.4 will not function with a T7.3 (or earlier) license. Please send T7.4 license requests to support@badleys.co.uk.
- 2) T7.4 uses FlexNet 11.19.8 for its licensing. The installation includes the 11.19.8 version of the FlexNet license manager daemon, lmgrd.
- 3) Once installed, T7 will need to run a database upgrade on existing projects when they are accessed. **Please backup you projects before using them with T7.4.** Once a project has been upgraded it will not be accessible older versions of T7.
- 4) After a project has been upgraded, the Volume Editor default shortcut file (defining hotkeys) will be replaced with an updated set of hotkeys and shortcuts. The original shortcut definition file will be renamed to "default.7.4xx".

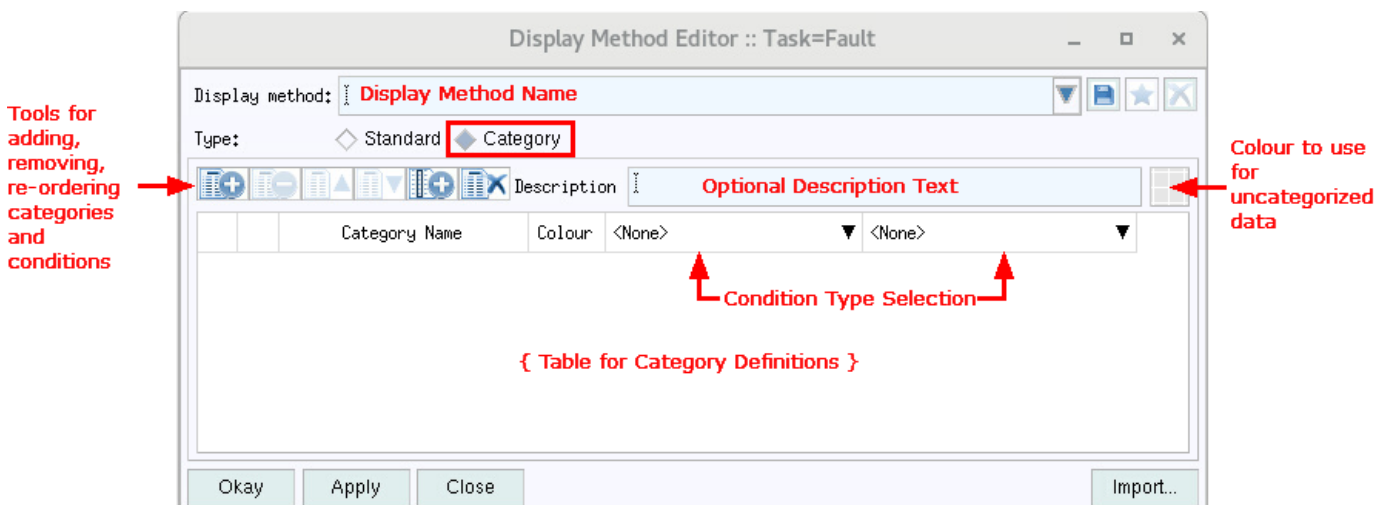
MAIN FEATURES

Category-Based Display Methods

T7 uses Display Methods to render attributes upon various types of geological objects, such as fault and horizon surfaces, represented in the Volume Editor 3D system. Standard Display Methods result in a colour image which is drawn onto the host object or used to colour specific facets or cells of a host object. That image is generated by mapping a nominated attribute through a colourmap and applying an optional filter. A standard Display Method can be configured to blend the results of multiple attributes, colourmaps and filters to compose complex images or montages.

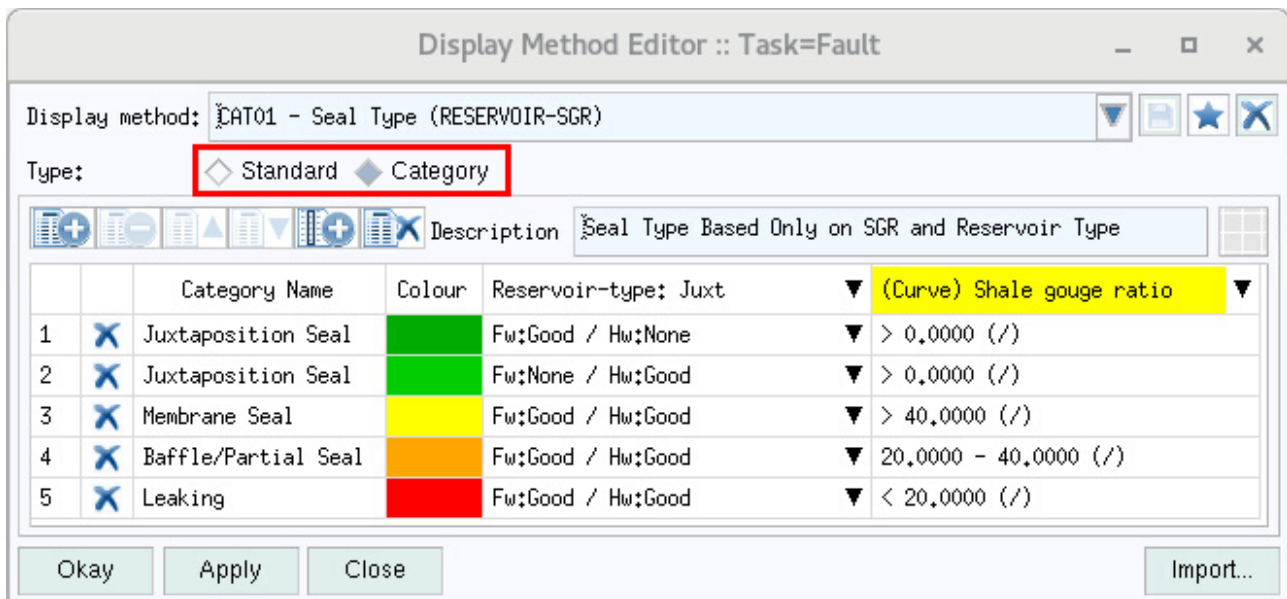
In contrast, a Category-Based Display Method (referred to as a Category Method) provides a means of generating the colour image based on single-colour categories. A category Method can define up to 16 categories, and each can contain up to 8 conditions that must be satisfied for it to be represented in the resultant image.

Both Standard and Category Display Methods are accessed and managed using the Display Method Editor. A new option in the Display Method Editor switches between Standard and Category modes. The below image shows the Display Method Editor controls available in Category mode.



Note the toolbar containing controls to add and remove category rows and to add extra condition columns. The condition columns are headed with a drop-down attribute selection. As condition columns are added, the default attribute selection is set to <None>. The type of attribute selected will define how the conditions per category can then be set. Indexed-type attributes (such as Litho-type, Reservoir-type etc) support conditions that are a simple selections from a drop-down list, while continuous-type attributes (such as Shale gouge ratio, V-shale etc) support a text-based expression defining a range of values.

There are a number of default Category-based Display Methods that are part of the T7.4.10 base templates – these are copied to the project as part of the T7.410 project upgrade process. The image below shows the Display Method Editor window set up with a Category Method for Fault Surfaces.

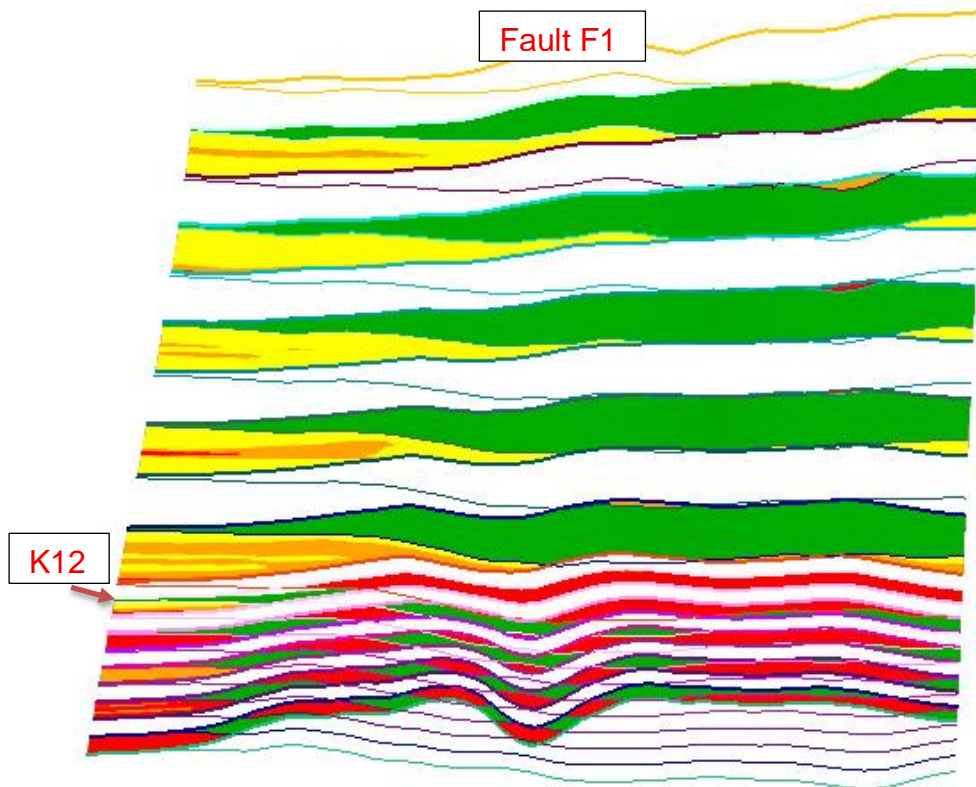


The above example shows a set of rules that define fault seal type based on reservoir juxtaposition and SGR. There are five categories. Each category has the following columns:

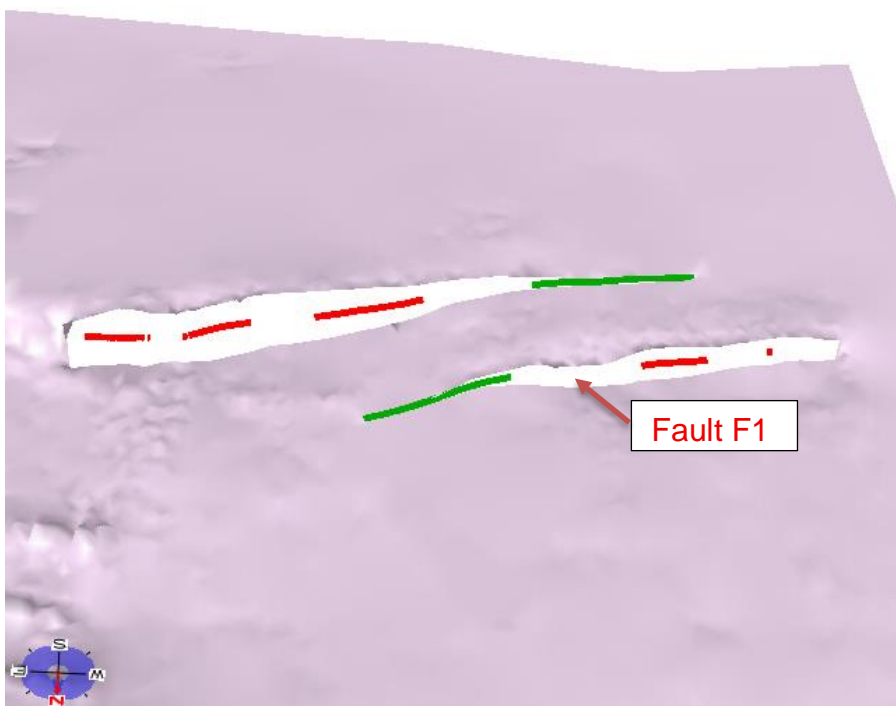
- 1) category number (not editable).
- 2) a delete button to remove that category.
- 3) category name – to be set as required.
- 4) category colour – to be set as required.
- 5) category condition: set to “Reservoir-type: Juxt” – here the user is able to set the footwall (Fw) and hanging wall (Hw) juxtaposed reservoir type (Good, Poor, None – as assigned to each defined horizon) required for each category.
- 6) A second condition has been added and is set to use the “(Curve) Shale gouge ratio” fault attribute. Each category defines a specific value or range of values that must be met.

All conditions for a given category must be met for that category to be represented in the results for a given fault (or other object).

The image below shows the results of the above display method applied to a fault (F1). The image also includes the footwall and hanging wall polygons for the relevant intervals.



Note that, in this example, the intervals are set with a reservoir quality of either “Good” or “None” - the Display Method has no category that caters for the “None” against “None” case so any data that falls into this condition falls back to using the colour set for uncategorized data – in this case – transparent.



It is also possible to apply Category Methods to Polygon Centre-lines using options in the Volume Editor’s Style controls.

The image to the left shows the above Display Method applied to centre-lines at the K12 horizon.

Displays such as this can be used as stop-go maps to assess potential migration pathways.

The following images show some examples of Fault-based Category Method templates provided with the 7.4.10 installation. These templates are provided as guides and should be edited to suite project-specific circumstances.

CAT01 - Seal Type (RESERVOIR-SGR)

Category Name	Colour	Reservoir-type: Juxt	(Curve) Shale gouge ratio
Juxtaposition Seal - FW Trap	Green	Fw:Good / Hw:None	> 0,0000 (/)
Juxtaposition Seal - HW Trap	Light Green	Fw:None / Hw:Good	> 0,0000 (/)
Membrane Seal	Yellow	Fw:Good / Hw:Good	> 40,0000 (/)
Baffle/Partial Seal	Orange	Fw:Good / Hw:Good	20,0000 - 40,0000 (/)
Leaking	Red	Fw:Good / Hw:Good	< 20,0000 (/)

CAT03 – Seal Type (VSH-SGR)

Category Name	Colour	(Curve) V-shale: F-wall	(Curve) V-shale: H-wall	(Curve) Shale gouge ratio
Fully Sealing - FW Trap	Dark Green	0,0000 - 0,4000 (/)	> 0,4000 (/)	> 0,0000 (/)
Fully Sealing - HW Trap	Light Green	> 0,4000 (/)	0,0000 - 0,4000 (/)	> 0,0000 (/)
Membrane Seal	Yellow	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)	> 40,0000 (/)
Baffle/Partial Seal	Orange	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)	20,0000 - 40,0000 (/)
Leaking	Red	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)	< 20,0000 (/)
Shale on Shale	Grey	> 0,4000 (/)	> 0,4000 (/)	> 0,0000 (/)

CAT07 – Litho-type Juxtapositions

Category Name	Colour	Litho-type: F-wall	Litho-type: H-wall
Sand-Sand	Yellow	Sandstone	Sandstone
Sand-Shale (FW-HW)	Grey	Sandstone	Shale
Shale-Sand (FW-HW)	Grey	Shale	Sandstone

CAT08 - VSH-based Juxtapositions

Category Name	Colour	(Curve) V-shale: F-wall	(Curve) V-shale: H-wall
Low VSH Overlaps	Yellow	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)
Low FW - High HW VSH Overlap	Cyan	0,0000 - 0,4000 (/)	> 0,4000 (/)
High FW - Low HW VSH Overlap	Blue	> 0,4000 (/)	0,0000 - 0,4000 (/)

CAT12 – Seal Containment (VSH-SGR-20mHCH)

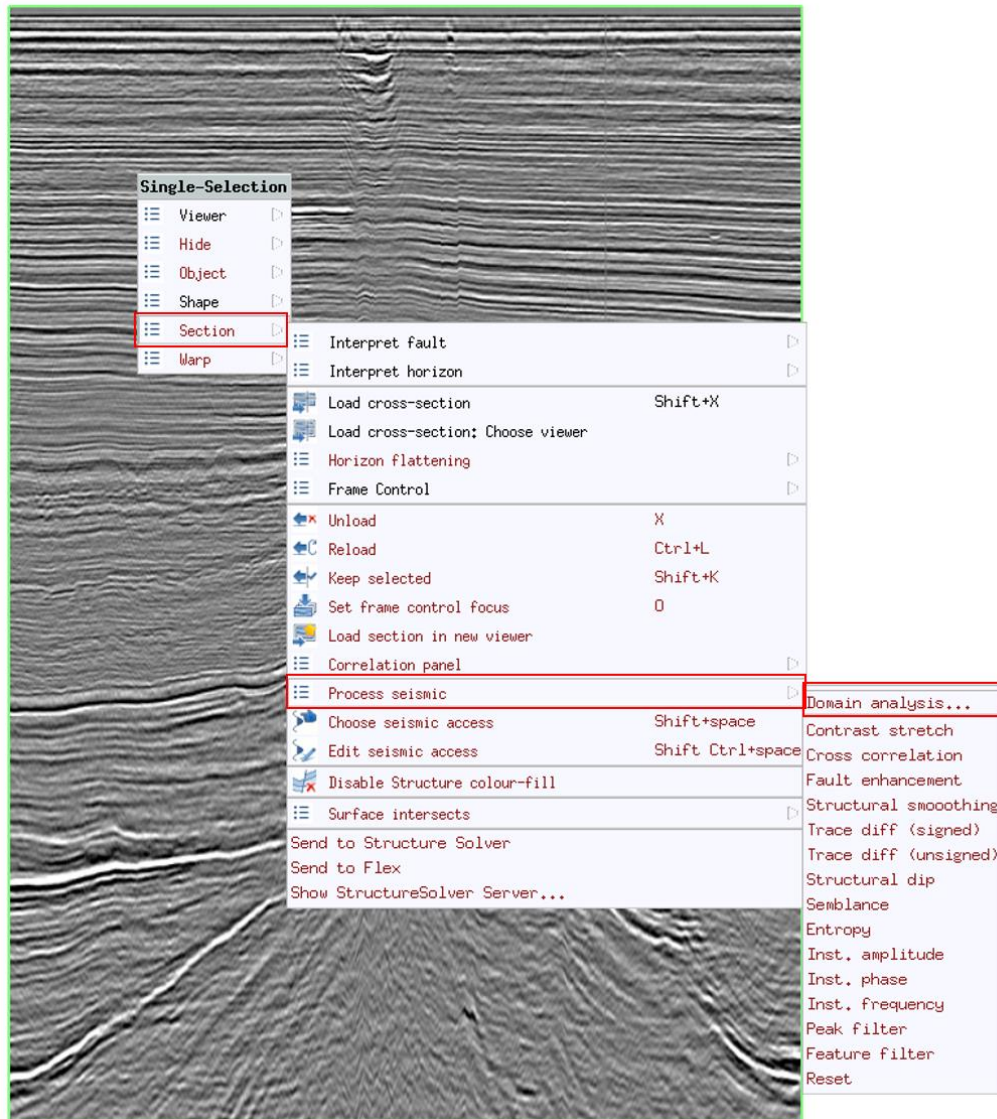
Category Name	Colour	(Curve) V-shale: F-wall	(Curve) V-shale: H-wall	(Curve) Shale gouge ratio	Hydrocarbon column height (Y)
FW Trap - Juxt Seal	Dark Green	0,0000 - 0,4000 (/)	> 0,4000 (/)	> 0,0000 (/)	> 0,00 (m)
HW Trap - Juxt Seal	Light Green	> 0,4000 (/)	0,0000 - 0,4000 (/)	> 0,0000 (/)	> 0,00 (m)
Low VSH - High SGR - HCH>20m	Yellow	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)	> 30,0000 (/)	> 20,00 (m)
Low VSH - Low SGR - HCH>20m	Orange	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)	0,0000 - 30,0000 (/)	> 20,00 (m)
Low VSH - High SGR - HCH<20m	Light Orange	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)	> 30,0000 (/)	< 20,00 (m)
Low VSH - Low SGR - HCH<20m	Red	0,0000 - 0,4000 (/)	0,0000 - 0,4000 (/)	0,0000 - 30,0000 (/)	< 20,00 (m)
High VSH Overlaps	Grey	> 0,4000 (/)	> 0,4000 (/)	> 0,0000 (/)	> 0,00 (m)

AI Seismic Domains

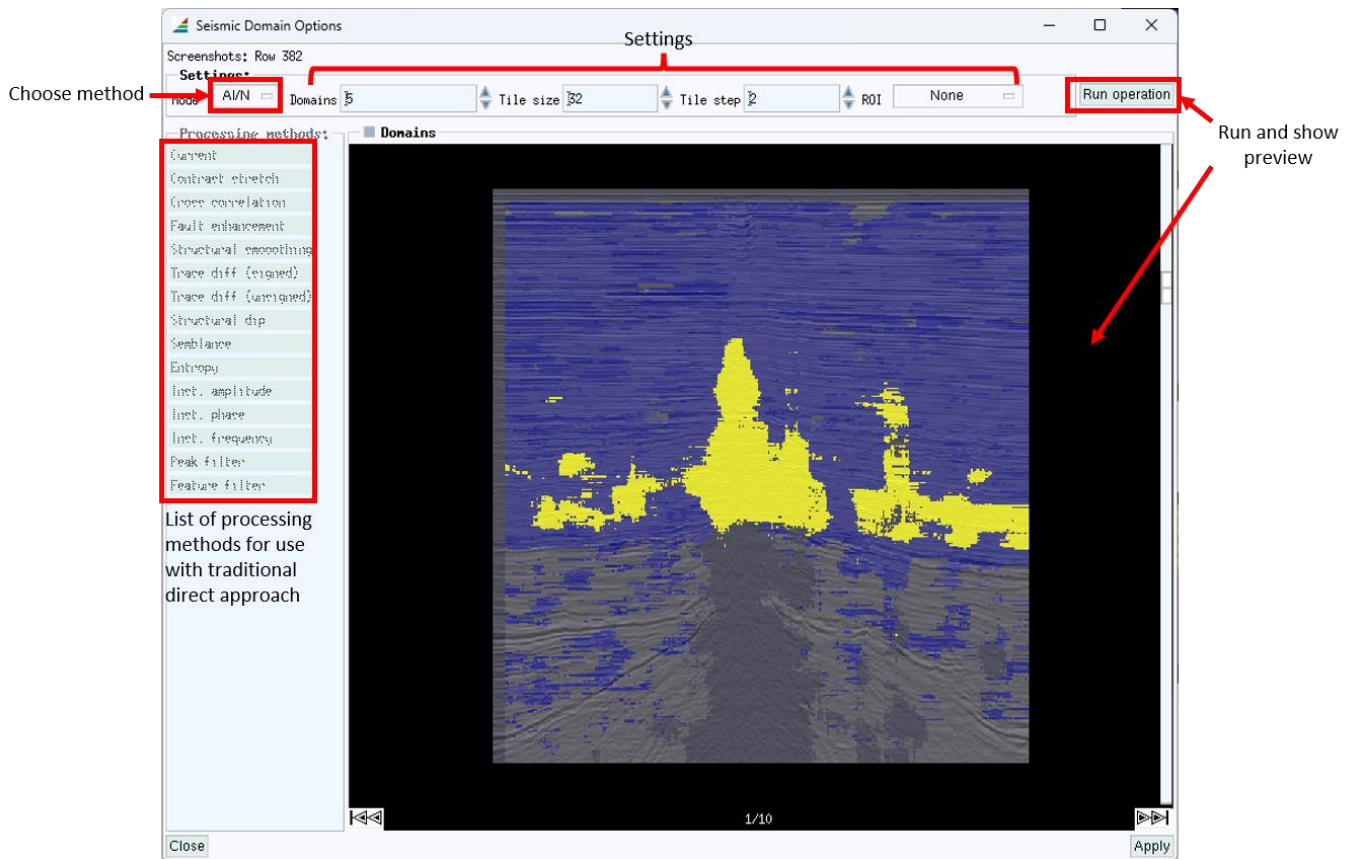
A new BGL proprietary AI technology is introduced in T7.410. This is an unsupervised deep learning method that automatically learns how to segment a section/volume according to a requested number of seismic domains. Seismic domains are simply regions that share similar seismic motifs. In short, the technology highlights areas of subtle signal changes that can be imprecisely perceived but not quantified and therefore mapped. A fuller explanation of the technology is outlined in [Dillon, 2026](#). The method has already found commercial application. A [second technical](#) note illustrates its potential utility with respect to a fractured reservoir.

2D Seismic Domain Analysis

Seismic sections can be analysed and segmented according to shared seismic signal motifs using the Seismic Domain Options dialog. To access the tool, select a section (it operates on a single section at a time) and use the <MB3> popup menu option: *Section -> Process seismic -> Domain analysis*.



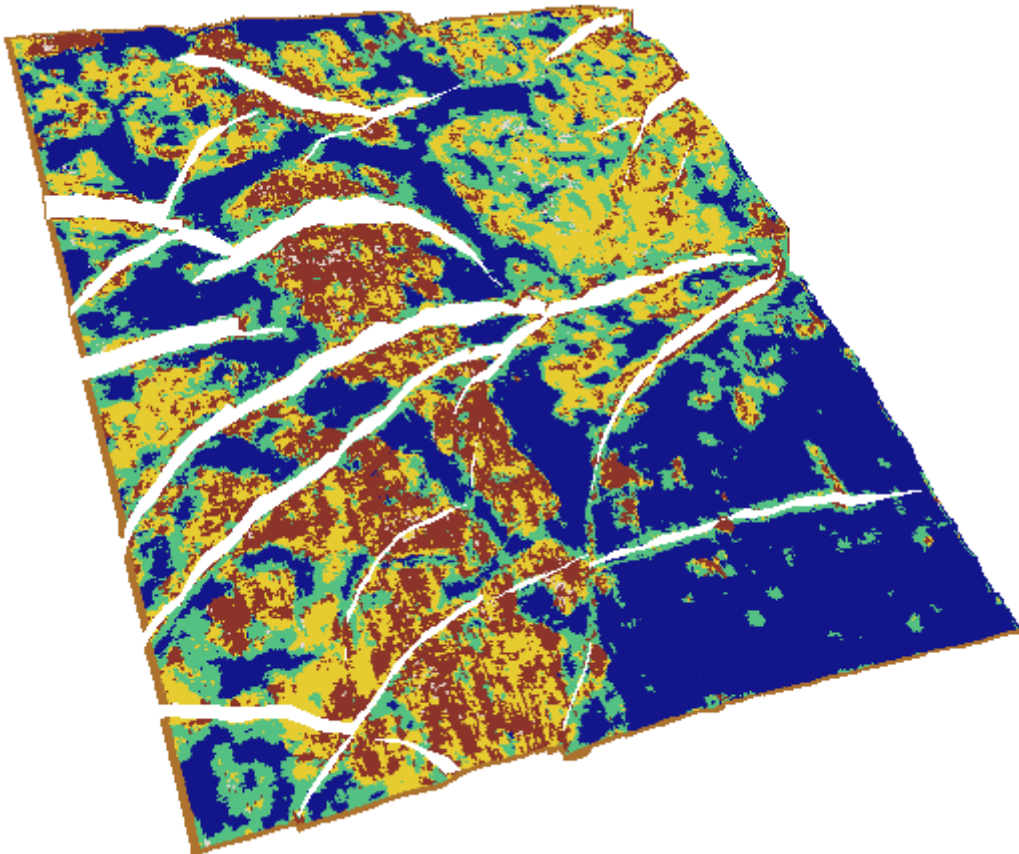
The Seismic Domain Options window will open. This enables the user to define the resolution (tile size and step) as well as number of requested domains during analysis. The user can also use it to define polygonal regions - in its viewer – that are of special interest. Once everything is set up the chosen method of segmentation can be run by pressing the “Run operation” button. When the process is finished the results are displayed as a preview overlay (see below). Once the user is happy with the results, the domain map can be displayed on the original section by pressing “Apply”.



Note a number of methods are available (under the Mode menu). The principal one (and recommended) is AI/N which uses the new AI technology in order to segment the section in terms of seismic frequency information alone – variations in amplitude are removed prior to analysis. As a post-processing step, the AI/A reintroduces amplitude to enrich the domain data with additional contextual information. Finally, the “Direct” method applies a traditional ML-based segmentation method using one or more processed versions of the amplitude data (listed under processing methods).

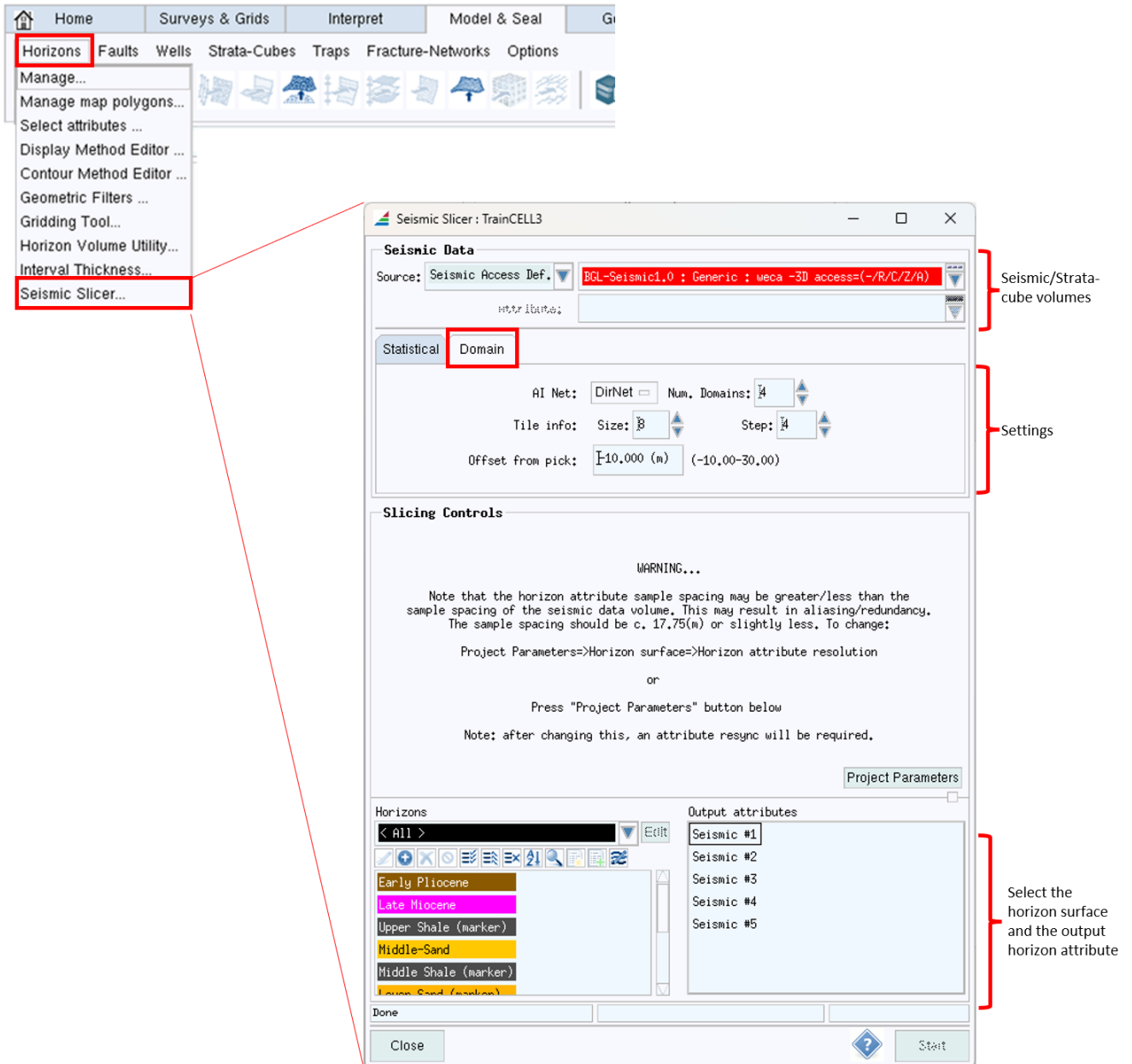
3D Seismic Domain Analysis

The seismic surface sampling tool (Seismic Slicer) has been extended to include 3D seismic domain analysis. As with the 2D version outlined above, this employs BGL's proprietary AI technology to segment seismic volumes, fixed about a horizon surface, into regions with similar signal motifs (domains). The results are presented as textured attributes on the horizon surface:



Results from AI domain analysis of seismic data within a fluvial-dominated stratigraphic unit (4 domains were requested)

As stated, the system is an extension to the existing Seismic Slicer tool which is available in Volume Editor. The most direct method to launch Seismic Slicer is via the Model & Seal ribbon (see below).



The existing functionality remains relatively unchanged and can be accessed under the "Statistical" tab. Under the domain tab are several settings. The first is the "AI Net." menu which provides the user with the choice of two deep learning network architectures: DirNet and Distill. "DirNet" is more efficient and tends to be good at finding macro-scale changes in seismic motifs while "Distill" is better at finding less obvious finer detailed trends. Tile "Size" and "Step" determine resolution - the process is time-consuming so lowering the resolution can speed up the process significantly. The "Num. of Domains" tells the system how many domains to look for. The "Offset from pick" value determined where the sampling should start as a vertical offset from the surface-volume intersections.

When finished a display method may need to be created in order to view the outputs on the selected horizon surface. Note, that currently, the method is not implemented for fault surfaces.

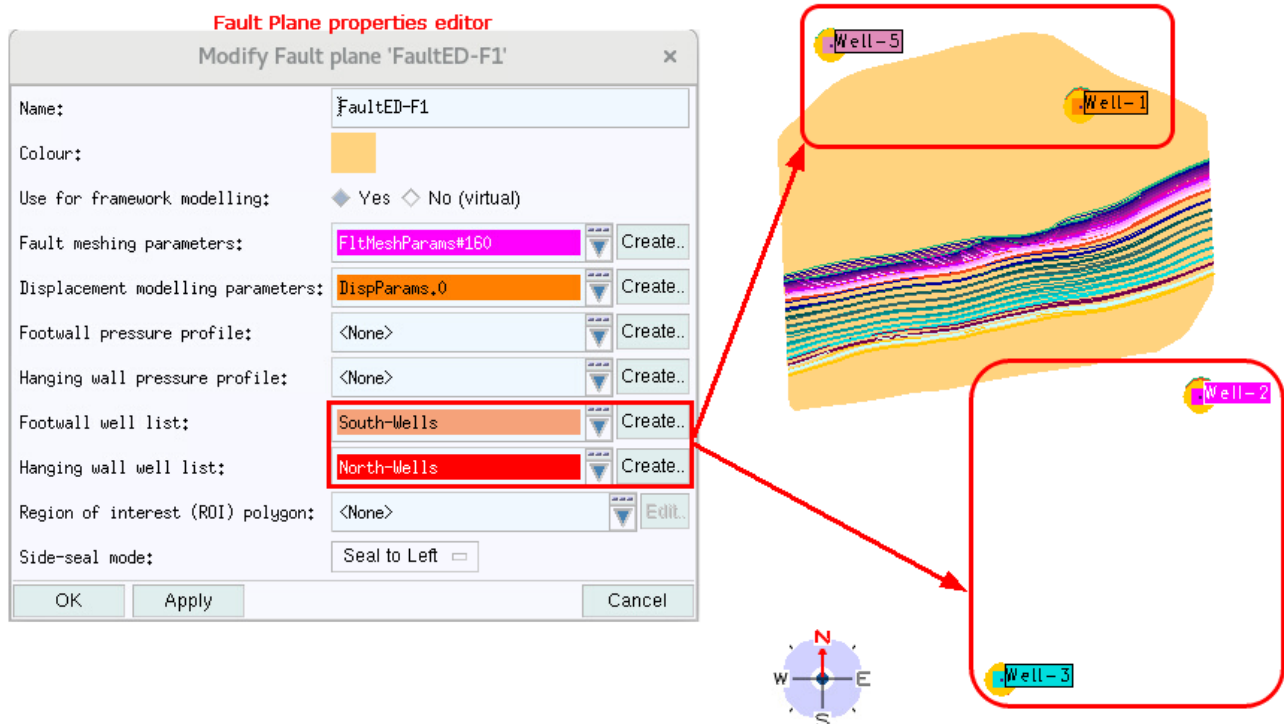
Fault-Wall-Specific Well Lists

Prior to this release, when computing well-based attributes on fault surfaces in the Volume Editor, the procedure only used data from the wells that were loaded at that time. Now it is possible to independently define a list of wells for the footwall and hanging wall of a fault. Not only does this mean that the referred wells are not required to be loaded in the Volume Editor but, more importantly, it enables the use of specific well data each side of a fault. This latter feature is especially useful where the stratigraphy and/or lithology differs significantly across the fault.

The default configuration is for faults not to have any well-lists defined. This is the standard case and will fall back to using the wells loaded in the Volume Editor at the time that attributes are computed. A well-list may be set for just one wall of a fault whereby the remaining wall will use the data from wells loaded in the Volume Editor.

Fault-specific well-lists are set in the Fault Plane properties Editor or in the Fault Plane manager table – both are accessible in the Database Explorer tool.

The image below shows the Fault Plane properties editor with the new well-list settings. The example shows a fault to the right in map view with Well-1 & Well-5 forming a well list “North Wells” assigned to the hanging wall and Well-2 & Well-3 forming well list “South Wells” assigned to the footwall.

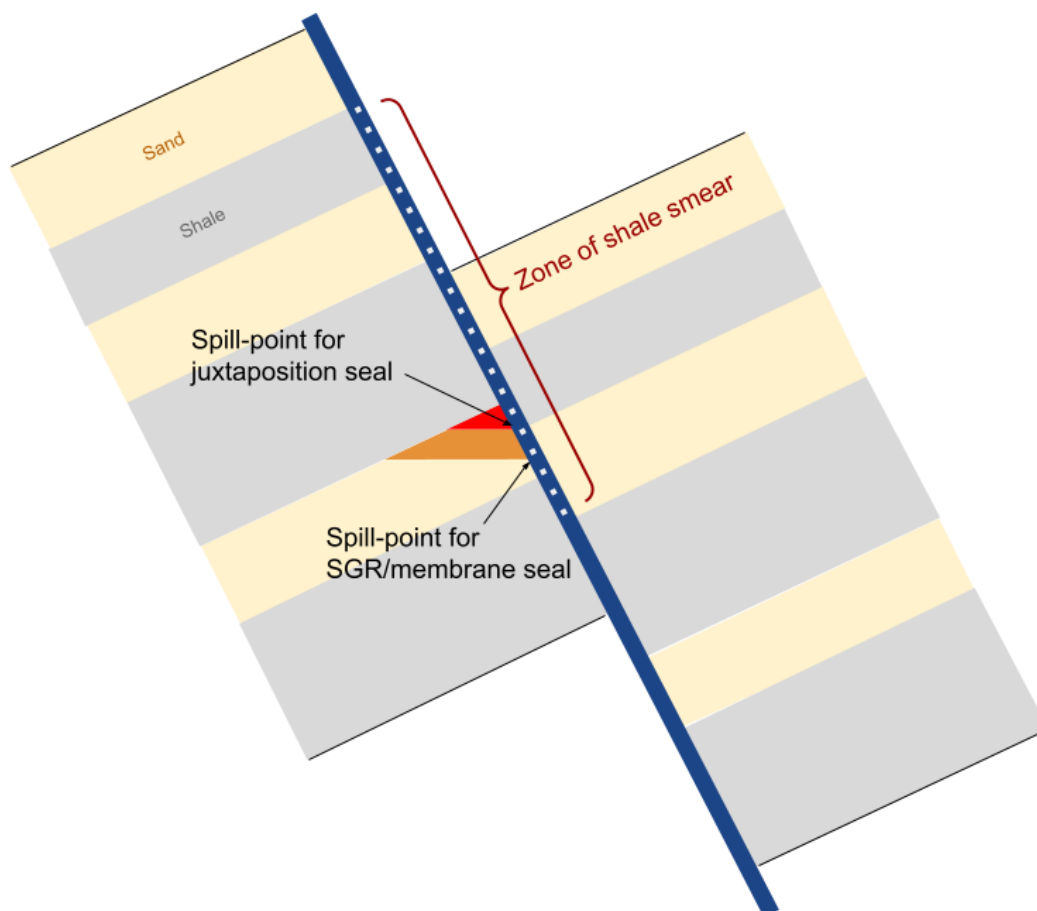


In this example, V-shale log data from Well-5 and Well-1 will be used to calculate the v-shale distribution in the hanging wall, while log data from Well-2 and Well-3 will be used for the footwall.

Fill-Spill Fault Surface Attributes

The T7.4 release included a new system for assessing Fault Seal Uncertainty (FSU). As part of the FSU data gathering process, a new type of fault surface attribute was required which effectively summarised the potential reservoir hydrocarbon (or CO₂) fill-to-spill levels for both juxtaposition sealing and membrane (SGR) sealing mechanisms. It was during this process that it became apparent how useful these new attributes were in a more general sense outside of the FSU system. The 7.4.10 release now includes a new set of optional fault surface “Fill-Spill” attributes.

The diagram below illustrates the concept of the juxtaposition and membrane seal fluid fill levels for a reservoir interval at a fault cross-section. The T7 Fill-Spill attributes take this concept and compute the potential reservoir fill levels supported at the fault surface down from the crest of the reservoir as seen on the fault.



By default, the lateral extents of the fault are treated as structural spill points if a shallower point has not been reached elsewhere along the fault. If a particular reservoir is known to be sealed at one or both lateral extents (where it connects to another fault, for example), the “*Side seal mode*” option in the Fault Plane properties editor can be set to enforce this.

In the example image above, a footwall reservoir sand is partially juxtaposed against a sealing shale unit – this provides a potential fluid fill down to the base of the shale in the hanging wall (the red triangle area); any deeper than this point, fluids will leak to the hanging wall sand immediately beneath the shale. In the case where SGR may play a role in forming a potential seal, the spill point can extend deeper than the juxtaposition seal. The above example shows such a case; the point at which the SGR-related seal is breached is determined by the depth at which the fluid buoyance pressure exceeds the

capillary entry pressure of the fault rock. This SGR-related spill point is indicated in the above diagram by the orange region.

The Fill-Spill fault attributes available for computation are listed in the table below.

Attribute name	Fault wall	Reservoir definition	V-shale source	Seal-type
(Zonal) Fill-Spill: F-wall Juxt-only res=GRQ	Fw	Good	n/a	Juxt-only
(Zonal) Fill-Spill: F-wall Juxt-only res=Vsh-cutoff	Fw	Good + Vsh < cutoff	Zonal	Juxt-only
(Zonal) Fill-Spill: F-wall Juxt+SGR (Yielding et al)	Fw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Zonal) Fill-Spill: F-wall Juxt+SGR (Bretan et al)	Fw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Zonal) Fill-Spill: F-wall Juxt+SGR (Sperrevik et al)	Fw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Zonal) Fill-Spill: F-wall Juxt+SGR (Karolyte et al)	Fw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt-only res=Vsh-cutoff	Fw	Good + Vsh < cutoff	Curve	Juxt-only
(Curve) Fill-Spill: F-wall Juxt+SGR (Yielding et al)	Fw	Good + Vsh < cutoff	Curve	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt+SGR (Bretan et al)	Fw	Good + Vsh < cutoff	Curve	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt+SGR (Sperrevik et al)	Fw	Good + Vsh < cutoff	Curve	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt+SGR (Karolyte et al)	Fw	Good + Vsh < cutoff	Curve	Juxt+SGR
(Zonal) Fill-Spill: F-wall Juxt-only res=GRQ	Hw	Good	n/a	Juxt-only
(Zonal) Fill-Spill: F-wall Juxt-only res=Vsh-cutoff	Hw	Good + Vsh < cutoff	Zonal	Juxt-only
(Zonal) Fill-Spill: F-wall Juxt+SGR (Yielding et al)	Hw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Zonal) Fill-Spill: F-wall Juxt+SGR (Bretan et al)	Hw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Zonal) Fill-Spill: F-wall Juxt+SGR (Sperrevik et al)	Hw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Zonal) Fill-Spill: F-wall Juxt+SGR (Karolyte et al)	Hw	Good + Vsh < cutoff	Zonal	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt-only res=Vsh-cutoff	Hw	Good + Vsh < cutoff	Curve	Juxt-only
(Curve) Fill-Spill: F-wall Juxt+SGR (Yielding et al)	Hw	Good + Vsh < cutoff	Curve	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt+SGR (Bretan et al)	Hw	Good + Vsh < cutoff	Curve	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt+SGR (Sperrevik et al)	Hw	Good + Vsh < cutoff	Curve	Juxt+SGR
(Curve) Fill-Spill: F-wall Juxt+SGR (Karolyte et al)	Hw	Good + Vsh < cutoff	Curve	Juxt+SGR

The columns in the above table are explained as follows.

FAULT WALL:

This defines the fault wall for which the attribute is computed. **Fw** = footwall, **Hw** = hanging wall.

RESERVOIR DEFINITION:

This identifies the intervals as mapped on the fault surface that are treated as reservoirs. A value of “**Good**” = those with a horizon reservoir property set to “Good” (as opposed to “Poor” or “None”). A value of “**Vsh < cutoff**” = those with a horizon reservoir property set to “Good” but only where, within that interval, there is mapped V-shale value less than the cutoff defined in the Project Parameters (see below).

V-SHALE SOURCE:

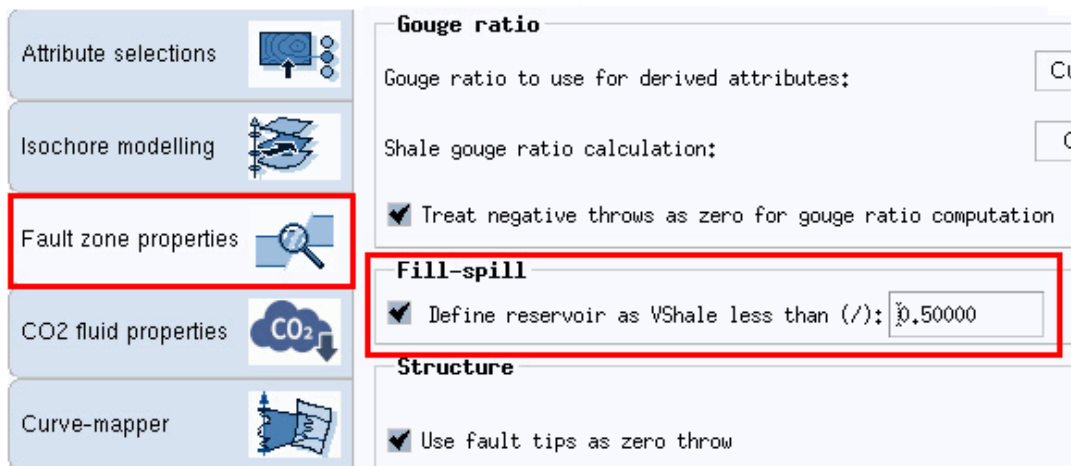
Zonal = uses zonal V-shale data from nominated wells (i.e. a fixed value per interval). **Curve** = uses curve-mapped v-shale log from nominated wells (i.e. log curves mapped to intervals on the fault surface using CurveMapper rules).

SEAL-TYPE:

Juxt-only = only processes seal based on reservoir juxtapositions. **Juxt+SGR** = processes seal based on reservoir juxtapositions and SGR-based maximum supported column heights.

PROJECT PARAMETERS

The Fault Zone Properties tab in the Project Parameters holds the new Fill-spill V-shale cutoff value. This defaults to 0.5



WELL DATA

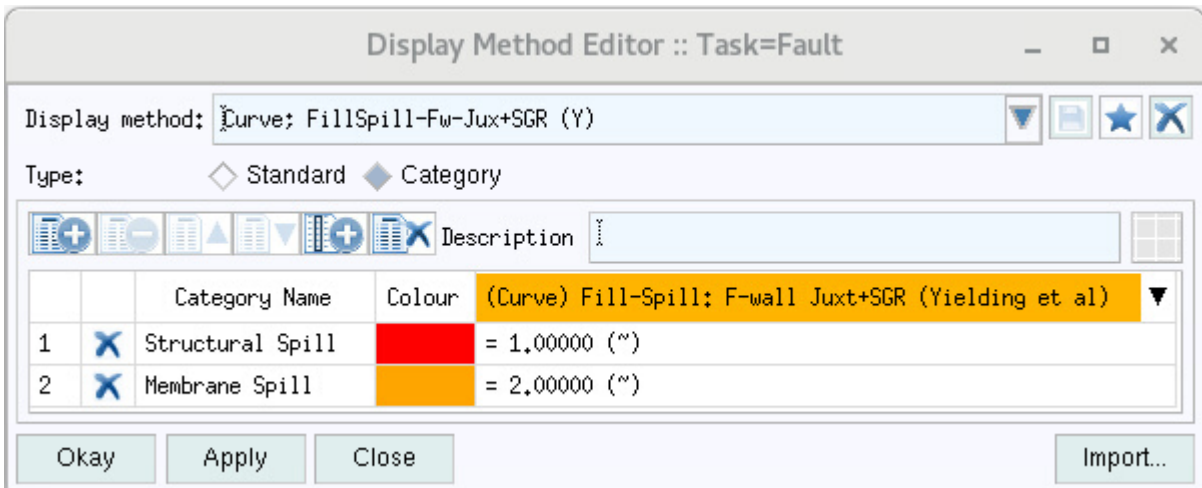
The well data used for the mapping of V-shale data on to the fault surfaces is controlled by the wells loaded in the Volume Editor at the time. Alternatively, this can be controlled on a per-fault basis using the new fault-specific well lists described earlier.

ROI POLYGONS AND SIDE SEAL MODE

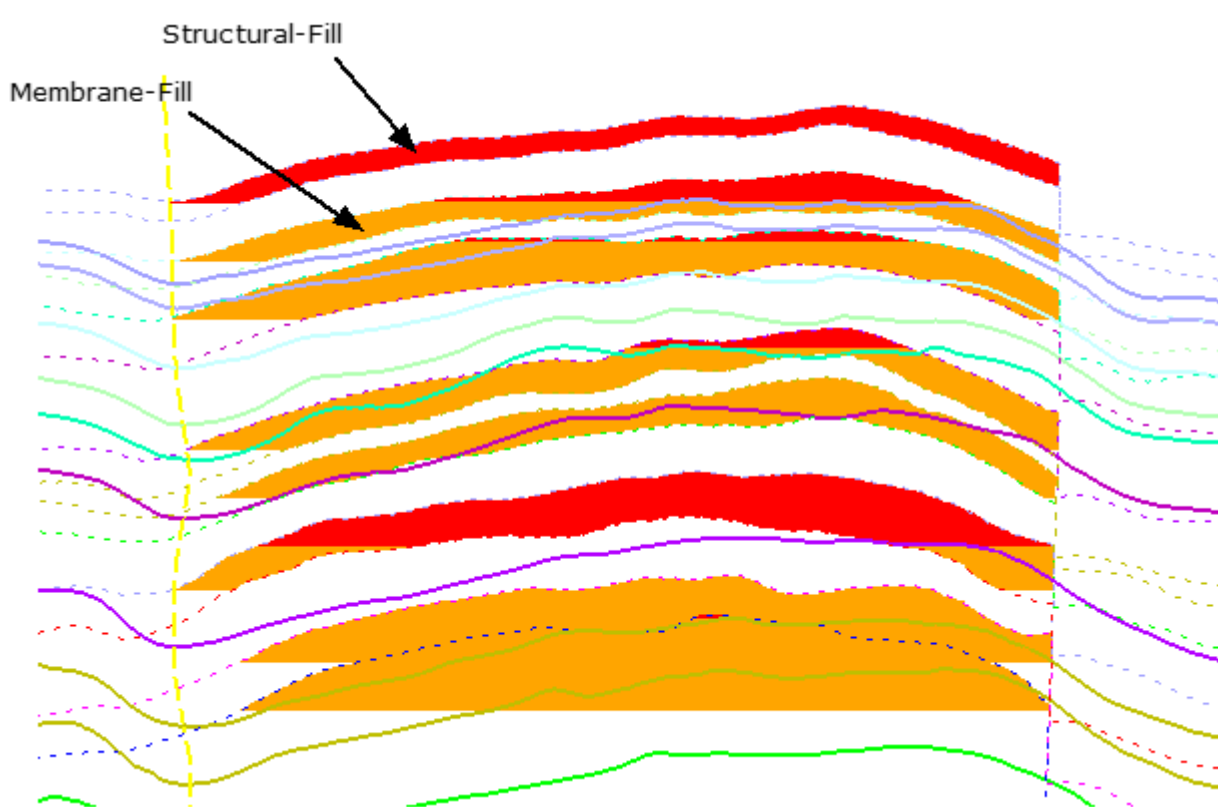
All Fill-Spill properties may be constrained by a Region of Interest (ROI) polygon and are subject to the Side seal mode, if set, for a given fault.

DISPLAY METHODS

Each Fill-Spill fault attribute has a corresponding category-based Display Method that can be used to show the property on fault surfaces. An example display method in the Display Method Editor is shown below.



Notice that an attribute value of 1.0 indicates the fluid fill within a reservoir down to the structural spill point (measured from the crest of the structure as seen at the fault). A value of 2.0 then indicates the fill level that extends down to the potential spill level controlled by SGR/membrane seal. The Display method above allocates red and orange colours to these two categories. The image below shows the results of the above display method applied to a fault with a sequence of stacked reservoirs.



FUNCTIONAL ENHANCEMENTS

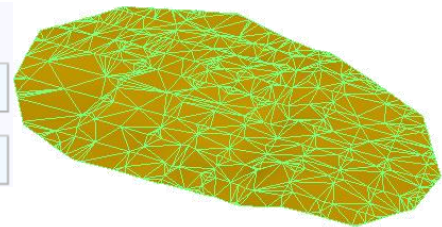
Horizon Surface Modelling Using All Vertices

The manner in which horizon surface tri-meshes are created in T7 has been extended with an explicit option (in Project Parameters and in the Horizon Meshing Parameters), where all input raw data (i.e. 2D and 3D survey interpretation in the form of horizon data volumes, point-set data and well horizon picks) are used as vertices in the modelled tri-mesh. The same result was effectively achievable before by setting the maximum number of vertices to be greater than the number of raw data points. The following descriptions summarise the horizon meshing options that are now present and show their effect on a horizon tri-mesh patch.

Maximum vertices

Vertices will be added to the tri-mesh until the maximum number of points has been reached.

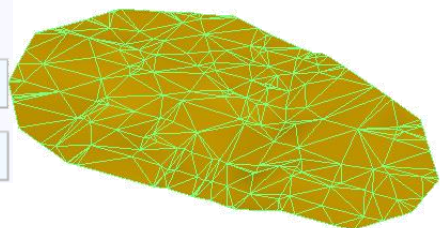
Modelling strategy:	Maximum vertices <input type="checkbox"/>
Maximum data points:	10000
Maximum difference (m):	10.000



Maximum residual

Vertices will be added to the tri-mesh until: (a) the maximum vertical distance between the remaining input vertices and the current tri-mesh is less than or equal to the specified "maximum difference", or (b) the maximum number of points has been reached.

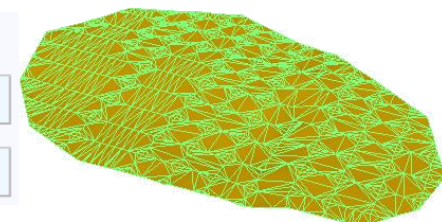
Modelling strategy:	Maximum residual <input type="checkbox"/>
Maximum data points:	10000
Maximum difference (m):	10.000



All vertices [new]

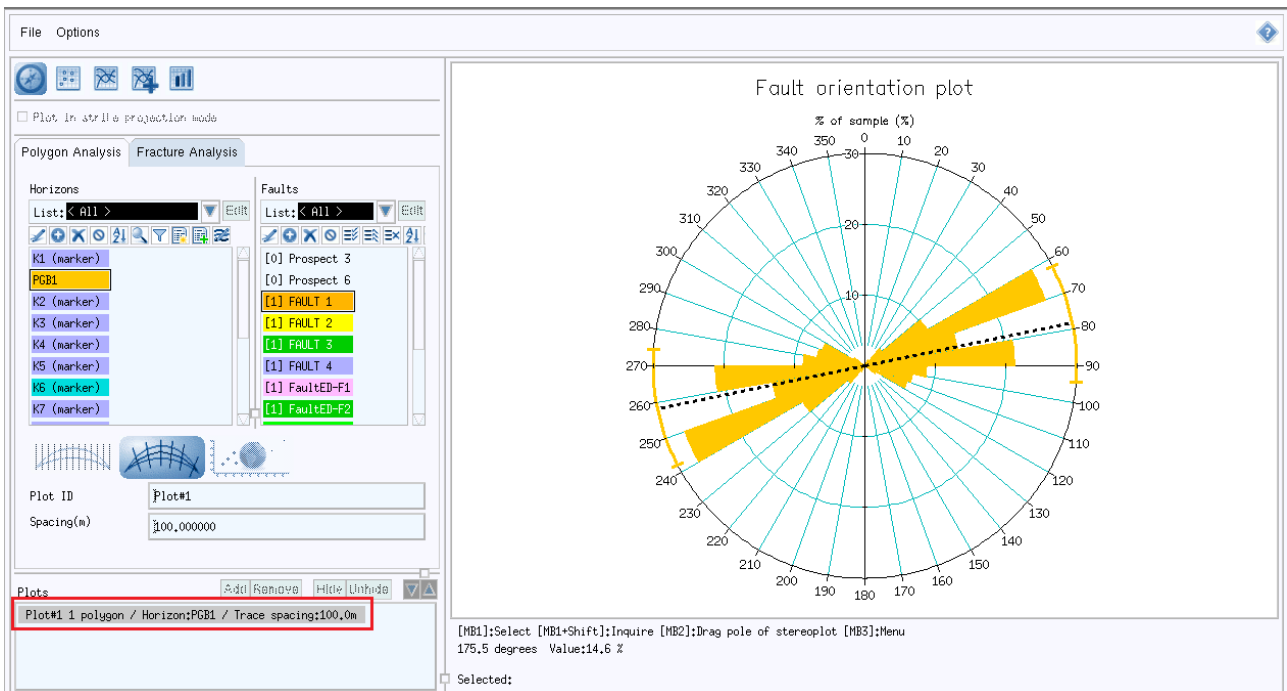
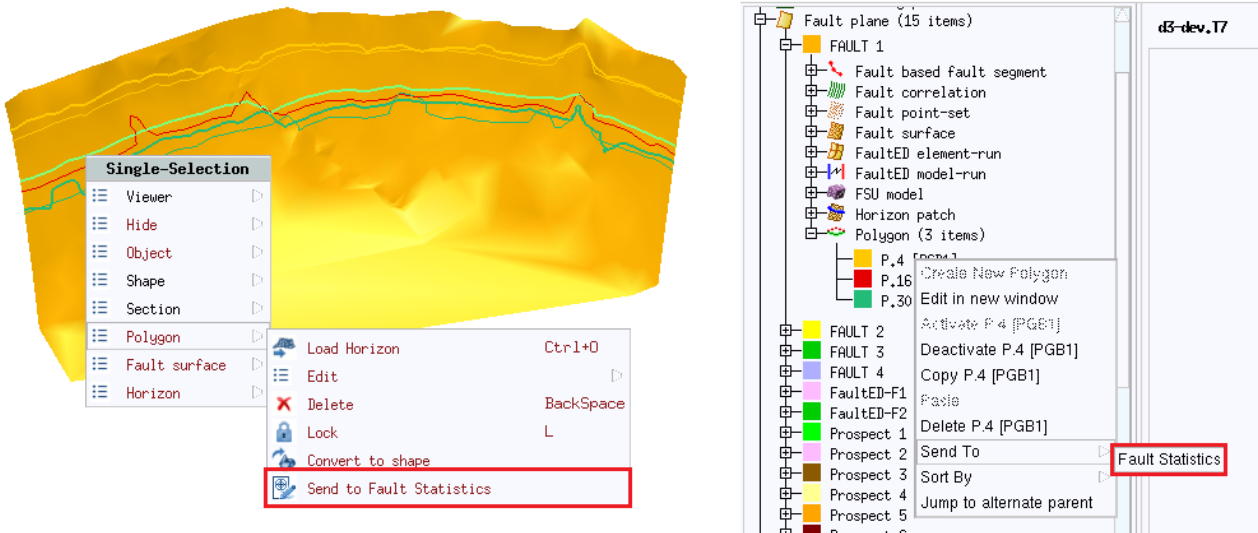
All input vertices are used to create the final tri-mesh.

Modelling strategy:	All vertices <input type="checkbox"/>
Maximum data points:	10000
Maximum difference (m):	10.000



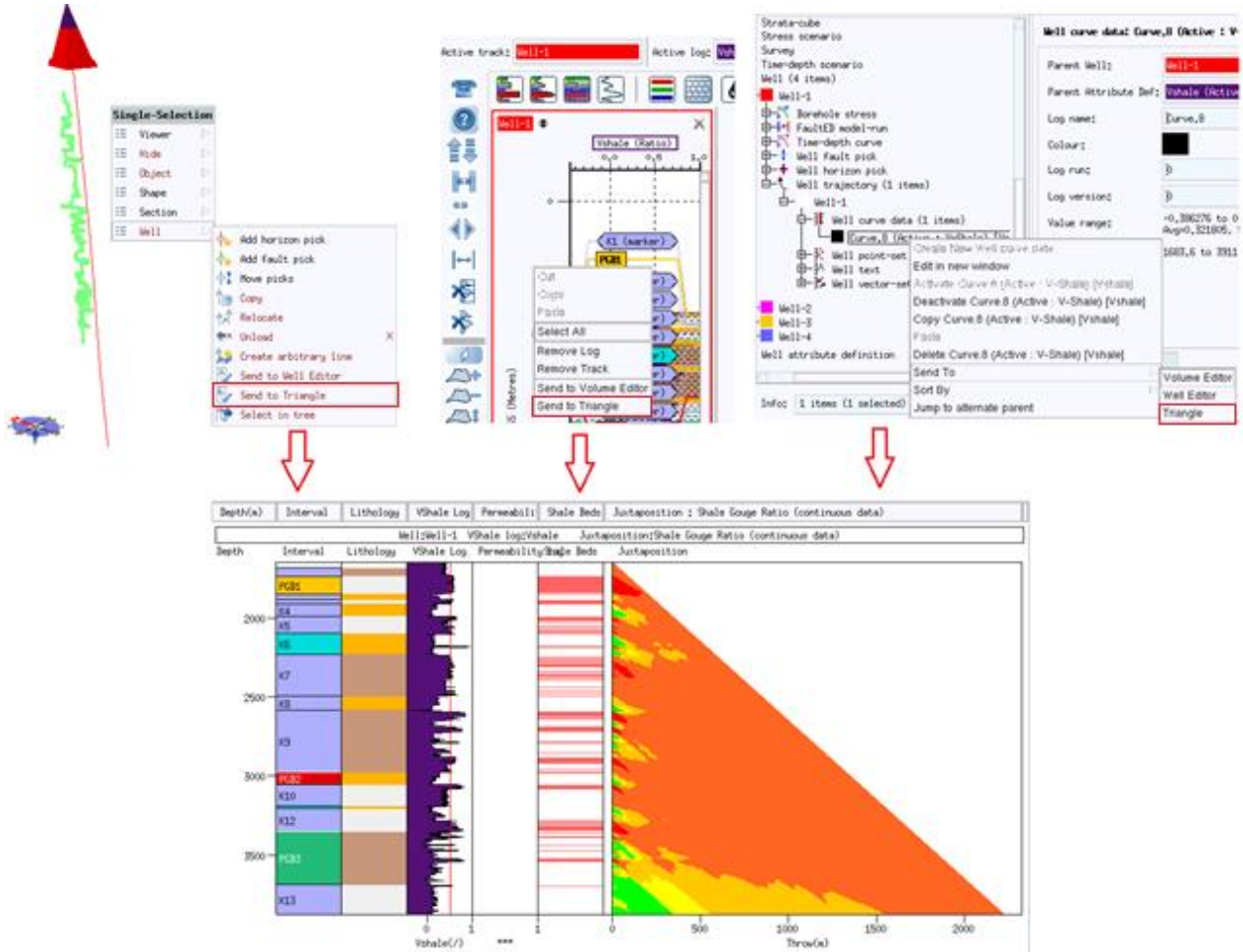
Access Fault Stats directly from Polygons and Fractures

Polygons and Fractures may now be sent from Volume Editor and Database Explorer into the Fault Statistics tool (FASIT), launching the application if necessary.



Access Triangle Directly from Well Logs

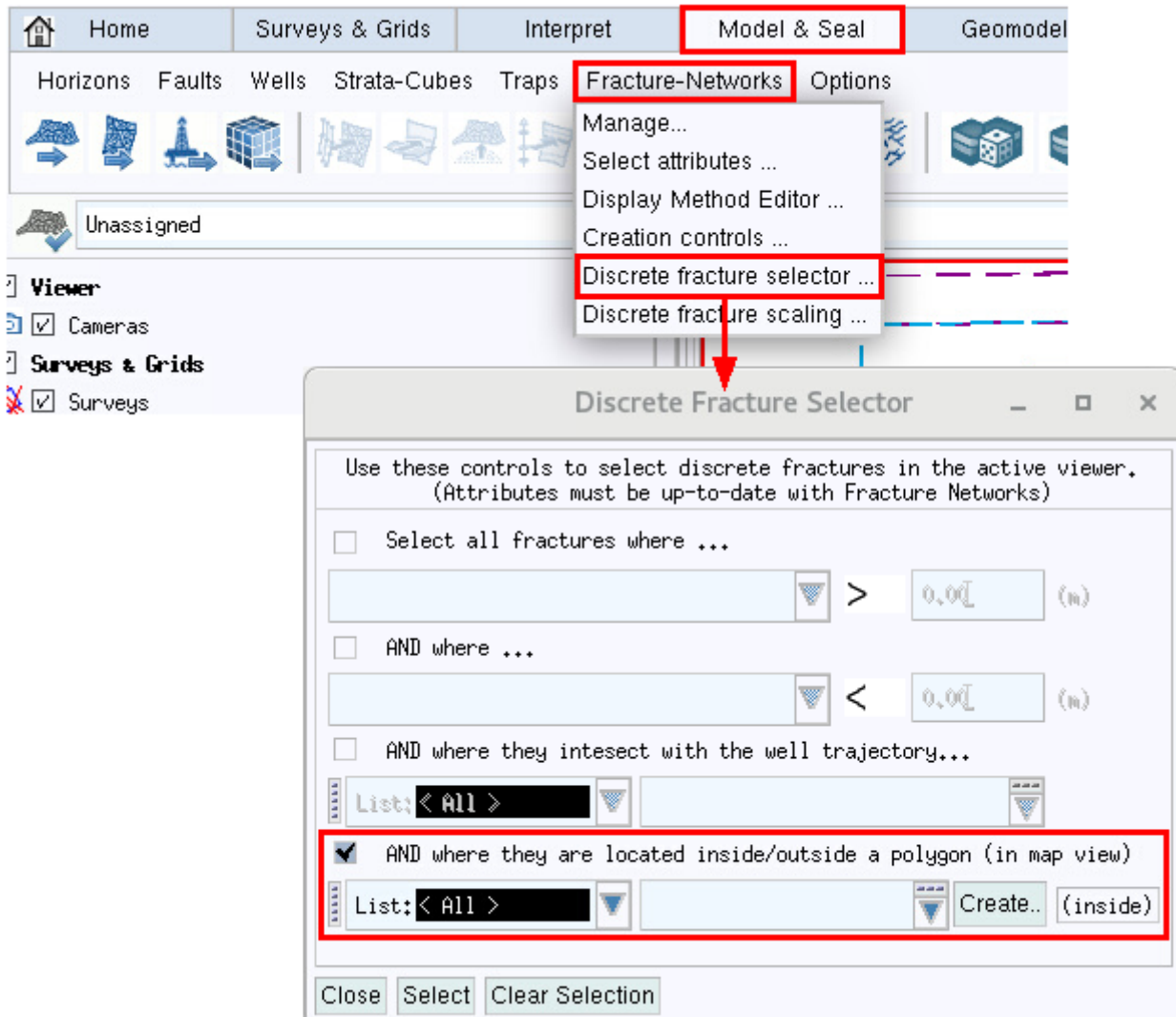
VShale and Permeability well logs may now be sent from Volume Editor, Well Editor and Database Explorer into the Triangle application, launching the application if necessary.



Discrete Fracture Selection by Polygon

The system for allowing the selection of discrete fractures that are part of a Fracture Network has been extended to cater polygon-based filtering.

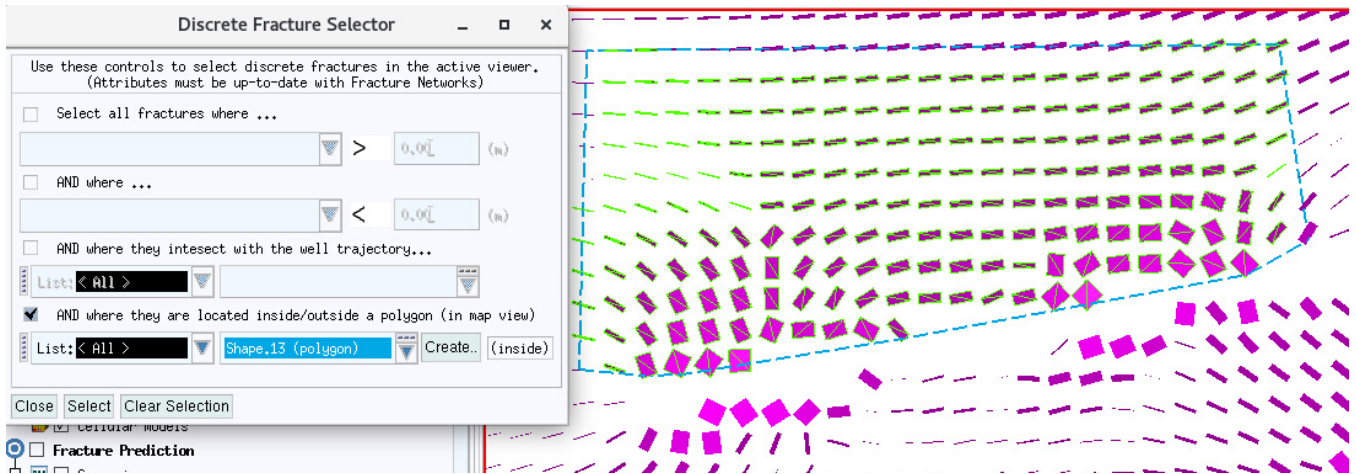
Discrete fractures can be selected manually using the usual selection procedures in the Volume Editor (i.e. single & multiple selection, box selection). Alternatively the Discrete Fracture Selection Tool can be used. This is accessed from the Model & Seal menu as shown below.



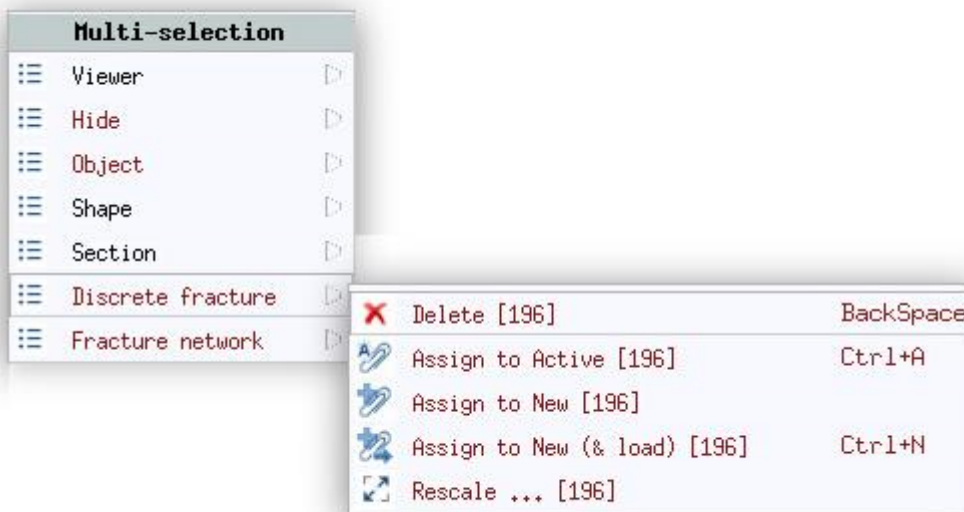
The new option for using a polygon (or polygon-set) shape is shown above. Select an existing polygon (or polygon-set) from the drop-down list or use the “Create..” button to digitize a polygon in the viewer.

Use the “(inside)” or “(outside)” option to selected fractures that lie inside or outside the chosen polygon.

The following image shows a set of discrete fractures that have been selected on the basis that they fall within the bounds of the chosen polygon.

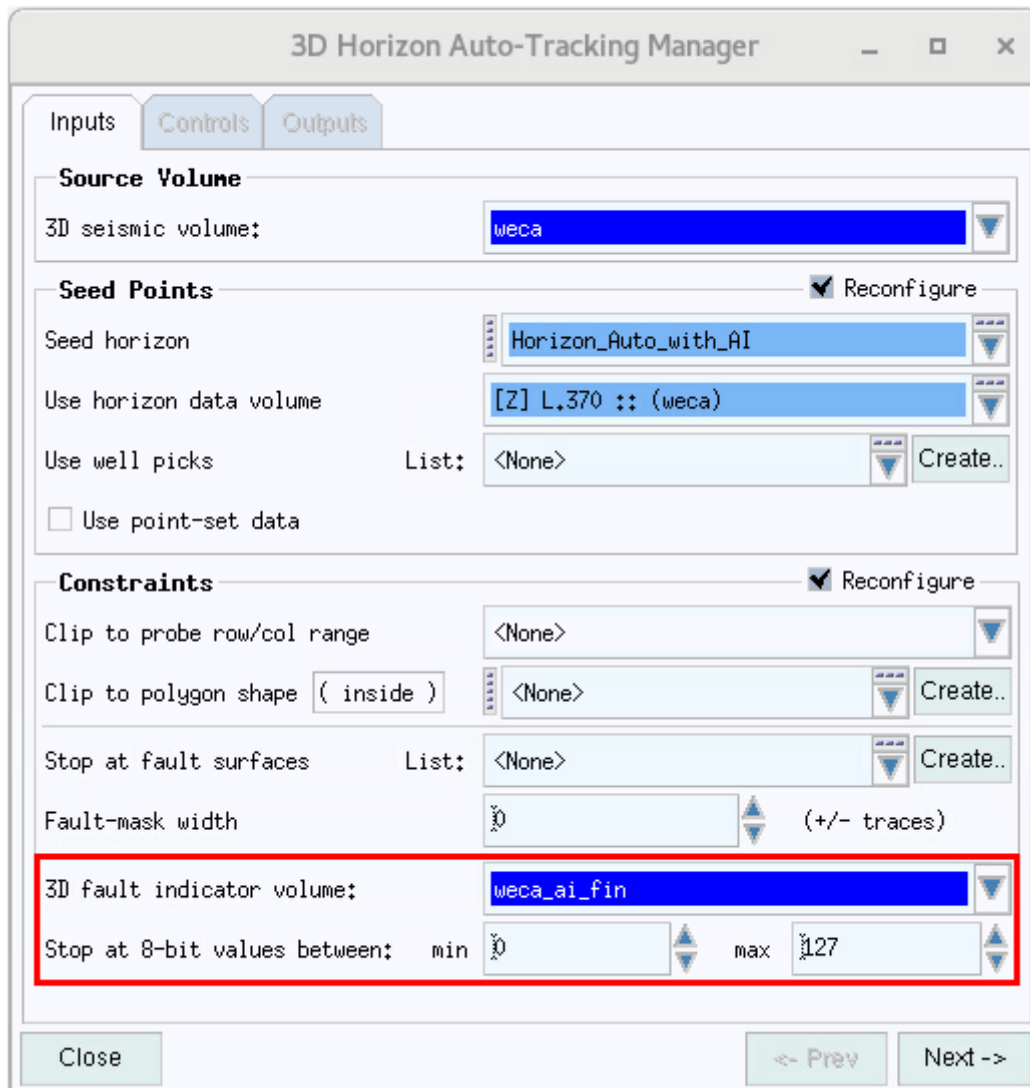


The selected discrete fractures can then be further manipulated using the options in the right mouse button menu such as deletion, reassignment, rescaling etc.



3D Horizon Auto-Tracker Option to Use Fault Indicator Data

The 3D horizon auto-tracker in the Volume Editor is a powerful part of the T7 interpretation toolkit. It has been extended with the option to use a fault indicator volume as a means of improving the tracking results around faults. The fault indicator volume can be one created in T7 or it can be one created elsewhere. The fault indicator volume must be loaded as a volume in the Volume Editor's Interpret module to be available in the auto-tracking system. The image below shows the first tab in the 3D horizon auto-tracker and highlights the new option.



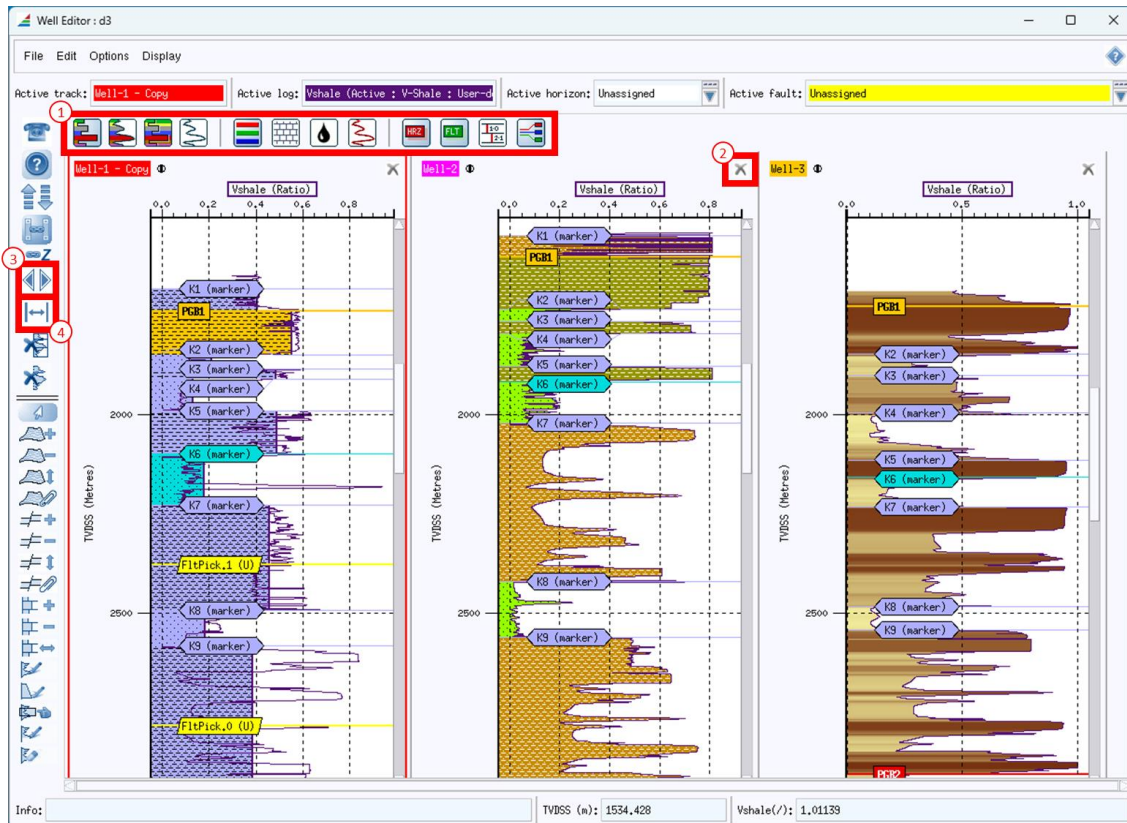
Note that when the fault indicator volume is loaded, the data will be reduced to be 8-bit and will take on a range of values between -128 to 127. For the auto-tracker to be able to identify faults in the indicator volume it is necessary to define the 8-bit range that represents fault data. In the above example, the range is set to 0 to 127.

During the tracking process, proposed tracking locations will be dropped if they lie on points that are identified as "fault". Clearly, if there are gaps in the indicator data that should be treated as fault data, the auto-tracker may "leak" through. Also, if the indicator data results in isolated regions of non-fault data, then these will only be tracked if there are seed data within them.

USABILITY IMPROVEMENTS

Well Editor Improved Toolbar and New UI Functions

The Well Editor interface has been updated with several new features as described below.




1. WELL TRACK TOOLBAR

The well track toolbar (that controls the display of the well track) has been moved from the top of each well track to a single toolbar above the loaded well tracks. This toolbar is updated based on the active/selected well track.


2. CLOSE WELL TRACK

Each loaded well track now has a close button in the top right corner. Activating this button removes the well track and all loaded logs associated with it.

3. MOVE WELL TRACK

Two buttons  have been added to the Well Editor left toolbar. These buttons allow the selected well track to be moved one position to the left or right.

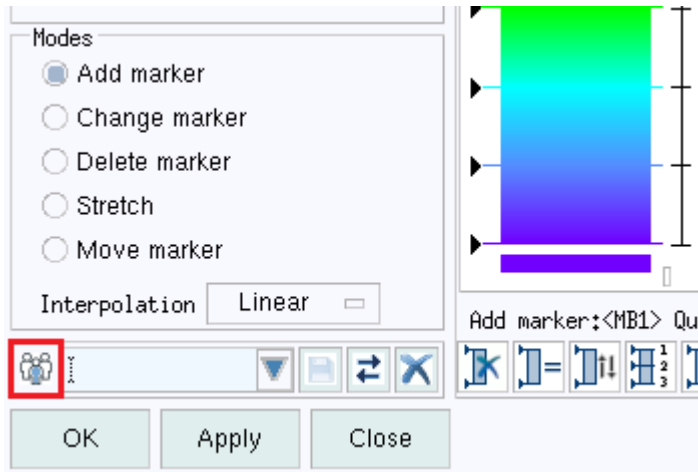
4. REGULARIZE TRACK WIDTH

The  button, located in the Well Editor left toolbar, re-sizes the width all tracks to be the same as that of the selected/active track (the active track is denoted by a red border box).

Colourmap Editor Support for Shared Colourmaps

The Volume Editor's Colourmap Editor now has the ability to save colourmaps to a user-specific location shared by all T7 projects.

The option is shown as a toggle button to the left of the colourmap file combo box:




The default behaviour remains the same as previous versions of T7; colourmaps are listed and saved to the project only.

Clicking the toggle button switches to listing and saving colourmaps to the shared colourmaps area.



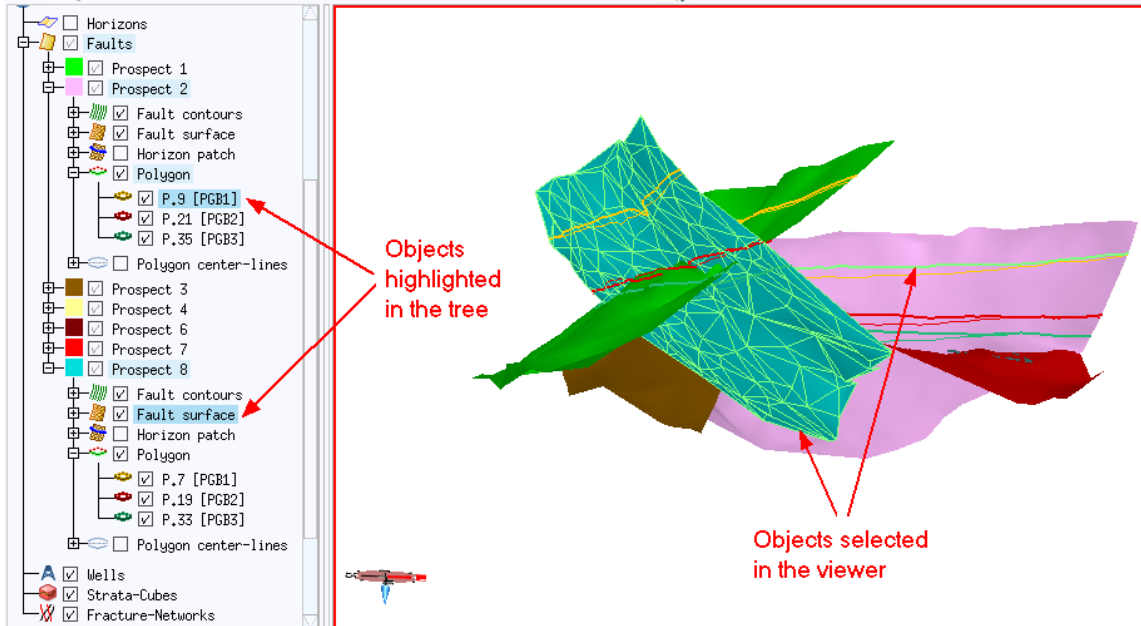
To save an existing project colourmap to the shared colourmaps area.

1. Select the desired colourmap from the project colourmap list
2. Switch to displaying shared colourmaps. The  save icon will enable
3. Click the save icon to save the colourmap to the shared colourmap area.

The colourmap can then be used from any T7 project opened by the same user.

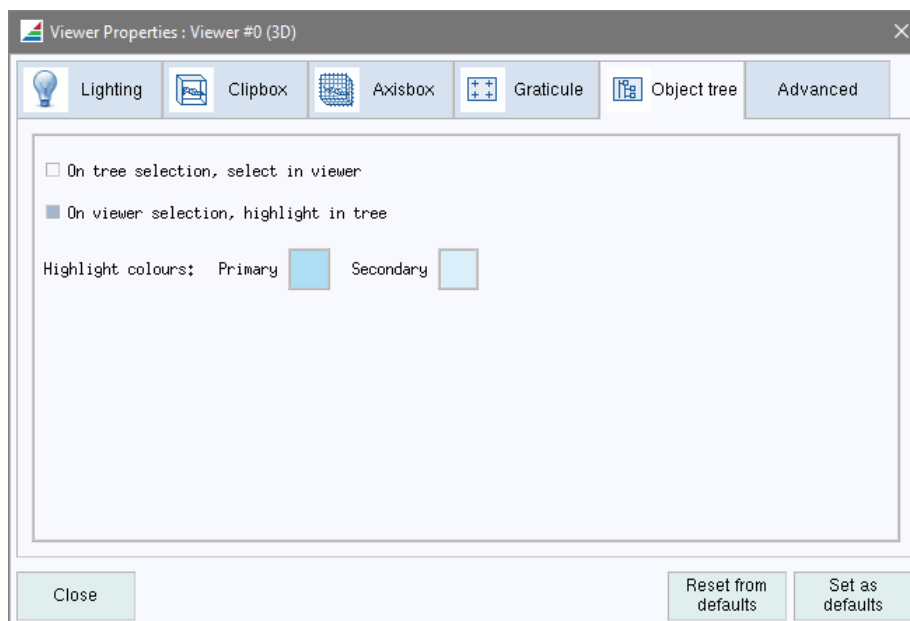
Volume Editor Viewer Selection Highlight in Tree View

To help associate objects in viewers and the object tree, selections in the viewer are now shown with a corresponding highlight in the object tree:



In the image above, a fault surface and polygon are selected in the viewer. In the tree, associated nodes are coloured with the primary blue highlight. A secondary light blue highlight is used to indicate parent nodes indirectly included in the selection.

The Viewer Properties dialog now includes an Object Tree tab that allows customisation of the highlighting feature:



The highlight feature may be disabled by checking off the “On viewer selection, highlight in tree” check box.

The colours for the primary and secondary highlight may be changed using the associated colour pickers.

A further option enables selection in the object tree to be mirrored in the viewer. This option was previously available on the object tree context menu and is off by default.

Viewer Properties project level defaults

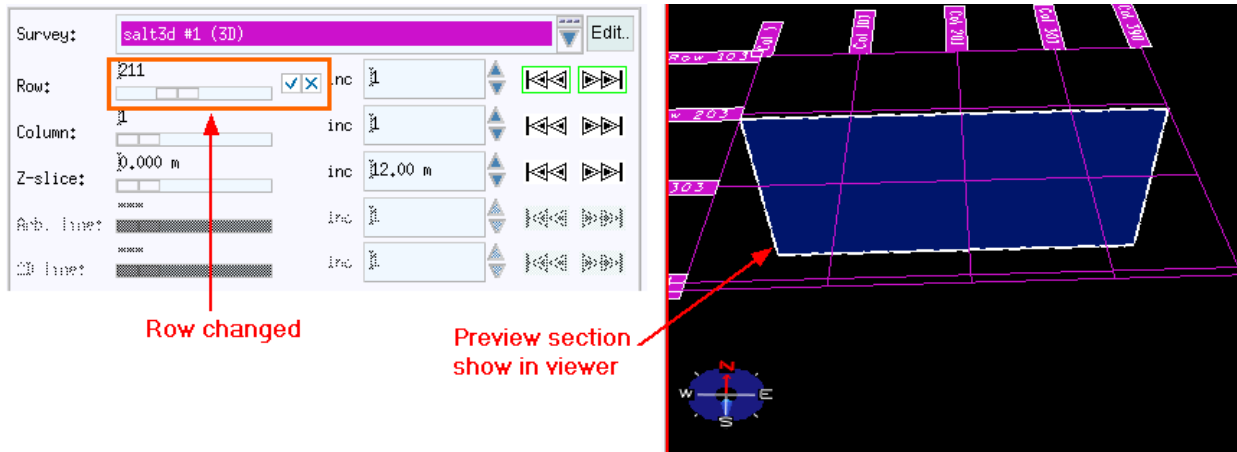
As a further refinement to the Viewer Properties dialog, it is now possible to save the current viewer properties as project defaults.

Once project defaults have been set, any new Volume Editor session will use the stored defaults in preference to the initial defaults determined by the application.

The “Reset from defaults” allows the stored defaults to be applied to any existing session.

Volume Editor Optional Preview Section in Additional Viewers

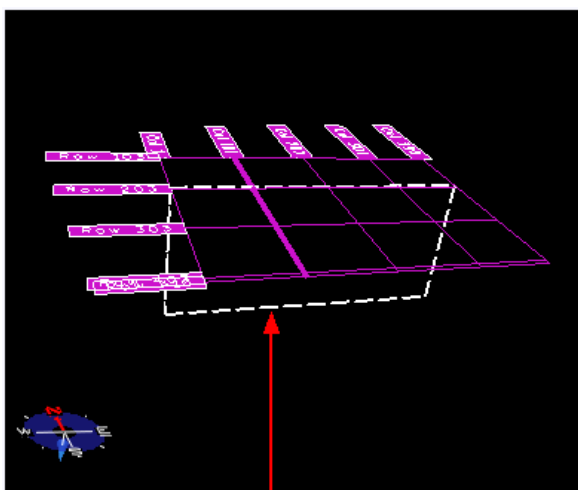
T7 has always shown a preview section in Volume Editor whilst using the section sliders in the Frame Controller dialog:



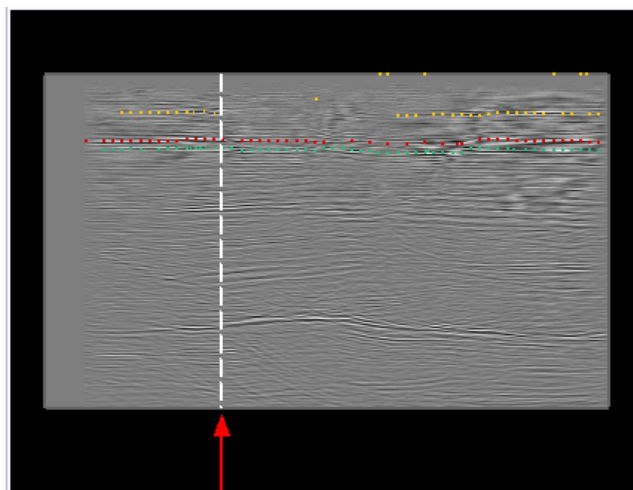
Row changed

Preview section show in viewer

In this update to the software, previews are now optionally displayed in other 3D and Section viewers:



Section preview in secondary 3D viewer



Section preview shown as cross section on secondary Section viewer

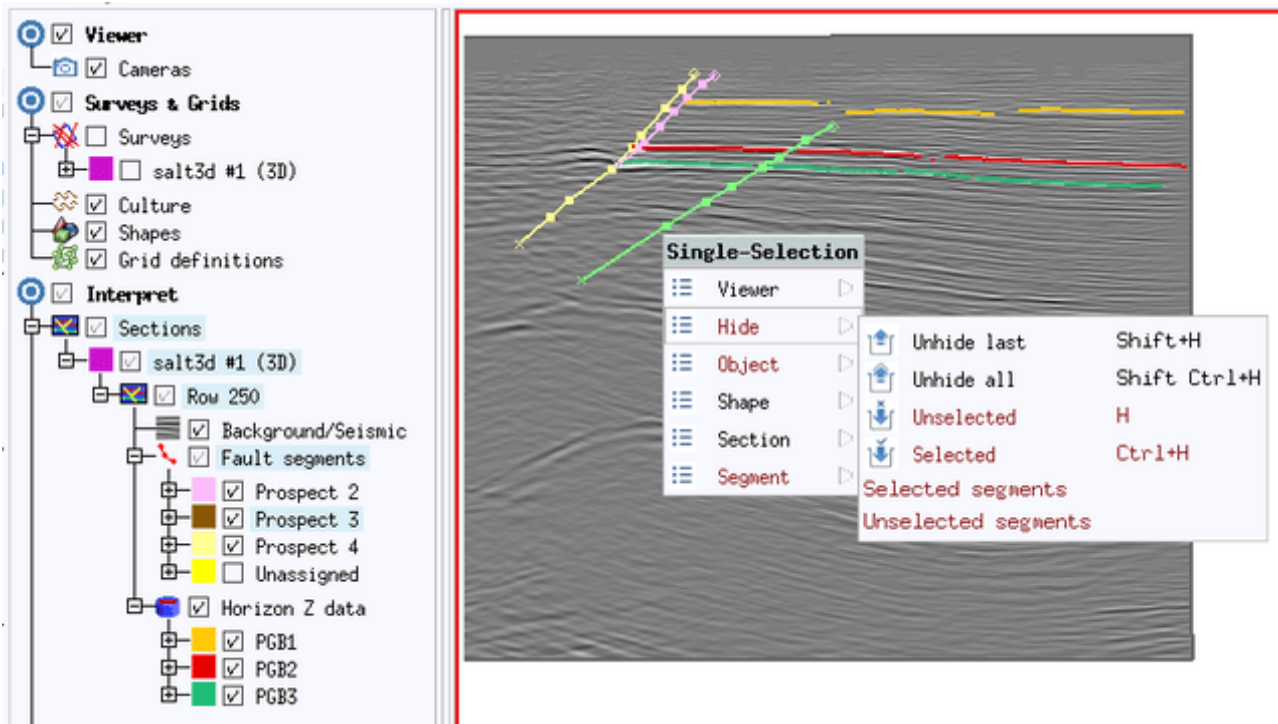
The default white colour shown above for preview sections is derived from the “Foreground” colour option in the Style Editor “Intepret” tab. If the Volume Editor background colour is also changed to white, it is necessary to change the foreground colour for preview sections to be visible.

The functionality can be disabled using an option in the Frame Controller:



Volume Editor Hideable Section Interpretation

It is now possible to hide individual fault segments and horizon Z data on a section, using either the viewer or the object tree:



The above image shows a section with unassigned fault segments hidden (un-checked in the tree) and viewer hide menu options for a selected fault segment.

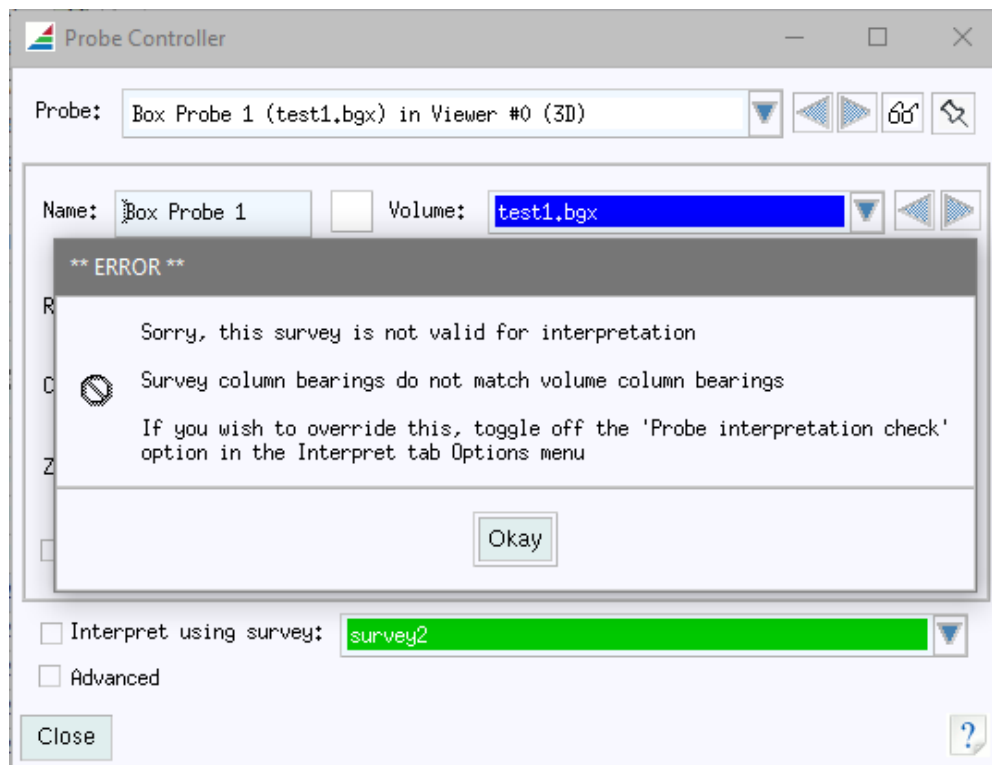
In addition, it is also now possible to toggle the display of seismic on a section using the new “Background/Seismic” node in the section node of the object tree.

Volume Editor Improved Interpretation Compatibility Checks

Enabling interpretation on a box or planar probe involves specifying a survey from which to load interpretation. Only surveys that are compatible with the probe volume are suitable for enabling interpretation. For example, a survey with differing row/column bearings from the probe volume is not suitable.

Previously the Probe Controller interpretation combo box simply filtered out surveys without indicating why they were unsuitable.

In the new update, all 3D surveys are listed and selecting an unsuitable survey will instead display a dialog box which includes the reason, as below:



In addition, the suitability test can be disabled in the Interpret tab menu, although this may cause interpretation issues if the survey and volume geometry are disparate.

Shape Editor Improvements

The Shape Editor now includes an editable table in addition to the existing image representation:

Point data

5 points

Vertex	X (m)	Y (m)	Z (m)
1	409857,02	3186618,08	1667,785
2	409240,38	3184264,17	1784,203
3	411062,86	3183938,71	3442,867
4	412696,84	3186889,36	3994,948
5	411378,27	3186170,53	3340,712

Preview (nap-view)

Z=1667.78 to 3994.95 m

The table is available for all shape types, excluding tri-mesh

Values in the table may be edited to correct any minor issues with the shape. For example, to set all the Z values the same:

Point data

5 points

Vertex	X (m)	Y (m)	Z (m)
1	409857,02	3186618,08	1667,785
2	409240,38	3184264,17	1784,203
3	411062,86	3183938,71	3442,867
4	412696,84	3186889,36	3994,948
5	411378,27	3186170,53	3340,712

→

Point data

5 points

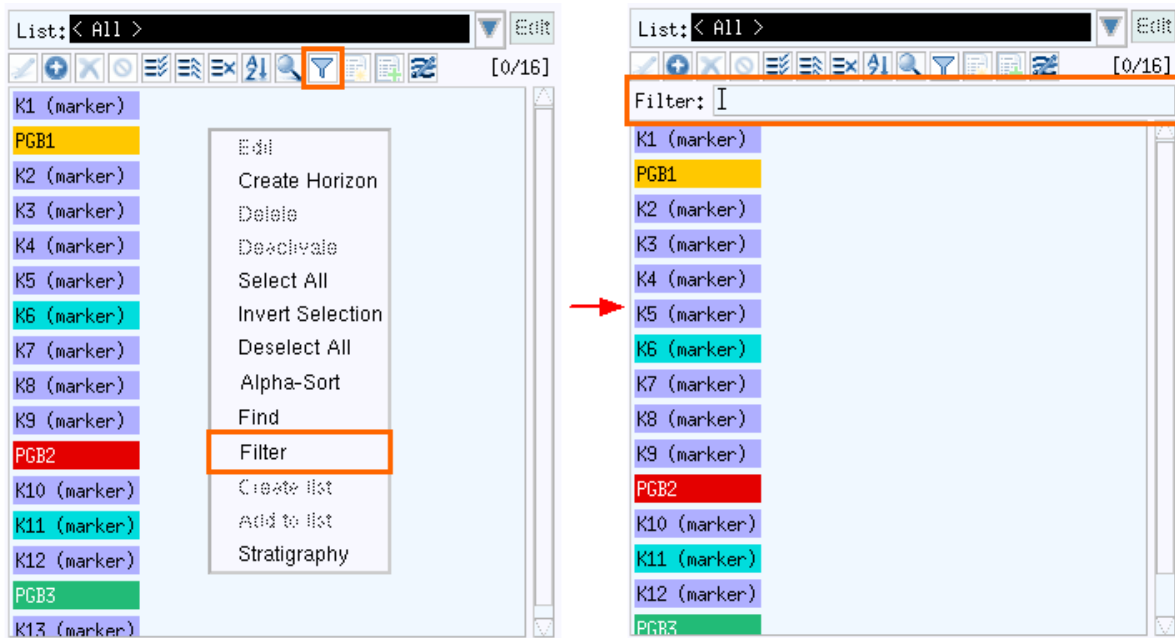
Vertex	X (m)	Y (m)	Z (m)
1	409857,02	3186618,08	1667,785
2	409240,38	3184264,17	1667,785
3	411062,86	3183938,71	1667,785
4	412696,84	3186889,36	1667,785
5	411378,27	3186170,53	1667,785

Changes made to the table are reflected immediately in the preview image to the right.

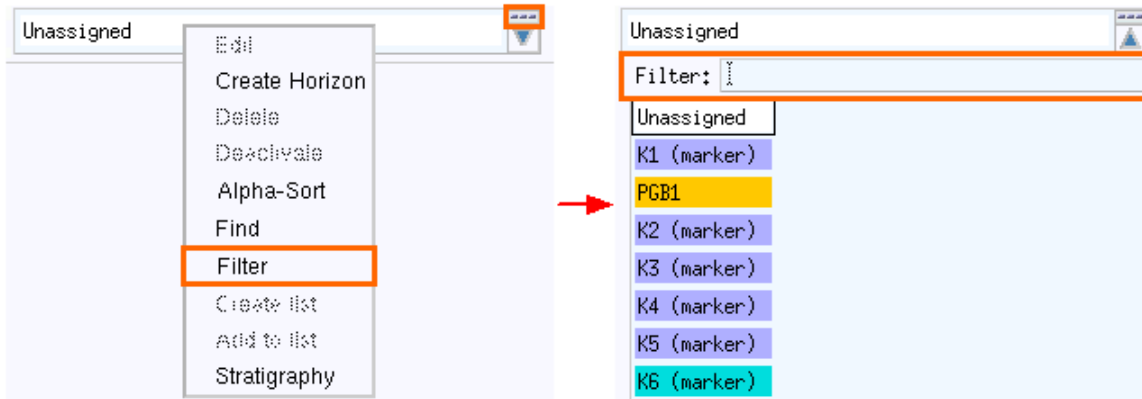
Once all the necessary changes are complete, the Apply button is used to commit them to the database.

List Filtering

Object lists in T7 now have a filter function to restrict the items shown to those that match user-defined filter text. The filter is enabled in standard lists via the toolbar icon or context menu:



It is also available for drop down object lists by clicking the “...” above the drop arrow or via the context menu:



Editing the filter field will limit the items displayed to those containing the filter text:

