

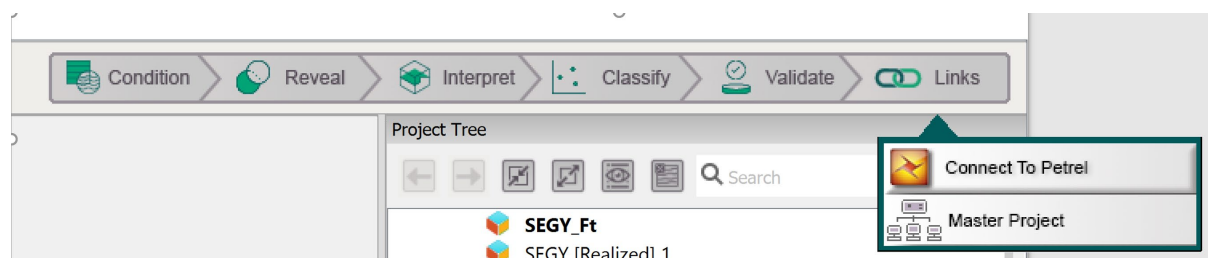
Using the Link for Petrel

Prerequisites

- Geoteric installed
- Petrel installed (Current supported versions are 2017, 2018, 2019 and 2020)
- Valid Geoteric license

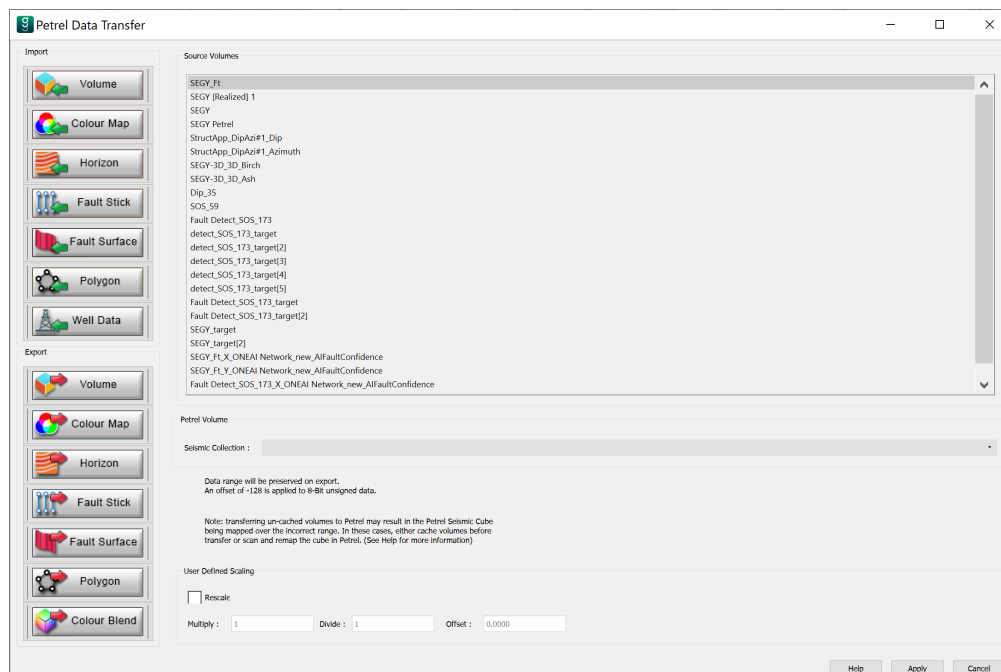
The Link for Petrel connects automatically when it detects Petrel is running.

To begin transferring data, click on the links button and select **Connect to Petrel**.



Open the Link for Petrel

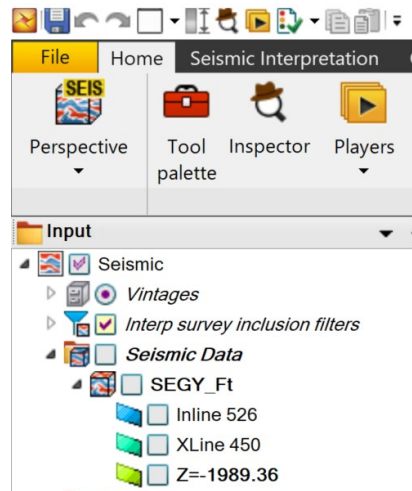
This will open the data transfer window:



Transfer Window

Geoteric to Petrel Volume Transfer

To export a Volume to Petrel select the **Export** section and the **Volume** button. Select the volume to be transferred to Petrel by highlighting it from the list of volumes. Select a relevant folder from the drop-down menu for the Seismic Collection and click on the **Apply** button to begin the transfer. Select multiple volumes by holding the Control (Ctrl) key or a block of volumes using the Shift key. Whilst the transfer is in progress, you will see the Geoteric task window showing the transfer. Once the task is complete, the transferred volumes will appear within the Petrel project tree under the Seismic Collection you have specified in the Link for Petrel.

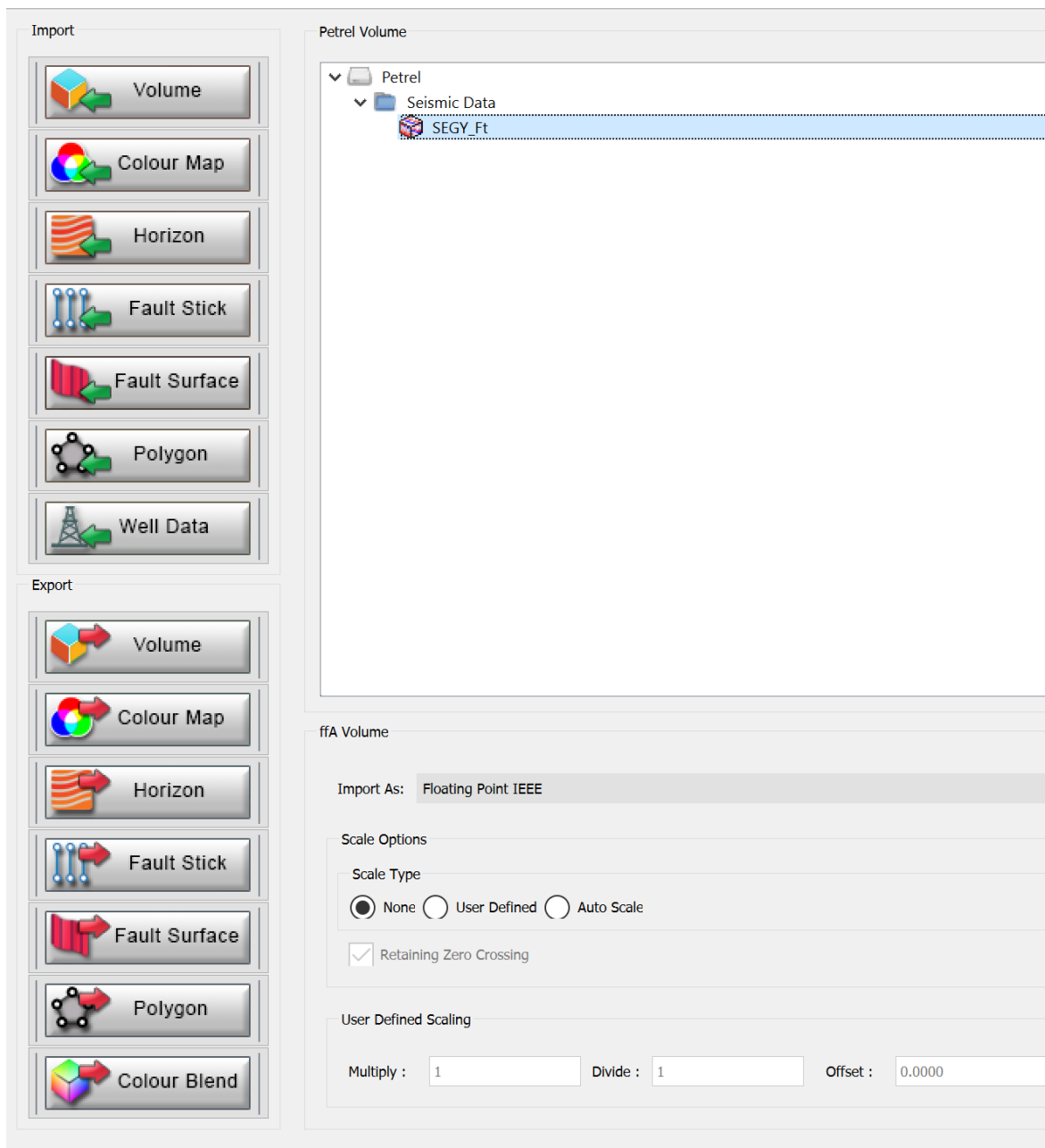


Transferred volumes in the Petrel Project Input Tree

Petrel to Geoteric Volume transfer

To import a Volume from Petrel, select the **Import** section and the **Volume** button. In the appropriate Seismic Collection, expand the Petrel project tree and highlight the Petrel volume(s) to be imported to Geoteric. If an imported volume name already exists in Geoteric, the application will automatically add, or increment, a number after the name (e.g. volume[n+1] where n is the volume number already in Geoteric).

Petrel Data Transfer



The interface is divided into several sections:

- Import:** A vertical stack of buttons with icons for Volume, Colour Map, Horizon, Fault Stick, Fault Surface, Polygon, and Well Data.
- Export:** A vertical stack of buttons with icons for Volume, Colour Map, Horizon, Fault Stick, Fault Surface, Polygon, and Colour Blend.
- Petrel Volume:** A file tree view showing a folder structure: Petrel > Seismic Data > SEG_Y_Ft. The SEG_Y_Ft file is selected.
- ffA Volume:** A section for configuring the volume transfer.
 - Import As:** Floating Point IEEE
 - Scale Options:**
 - Scale Type:** Radio buttons for None (selected), User Defined, and Auto Scale.
 - ☒ Retaining Zero Crossing
 - User Defined Scaling:**
 - Multiply:** 1
 - Divide:** 1
 - Offset:** 0.0000

Volume selector for transfer from Petrel to Geoteric

Data type and scaling available

Choose from:

- 8 bit unsigned
- 16 bit signed
- 32 bit signed (DEFAULT)

There is a choice to either automatically cache, or to not automatically cache the volume once it has transferred to Geoteric.

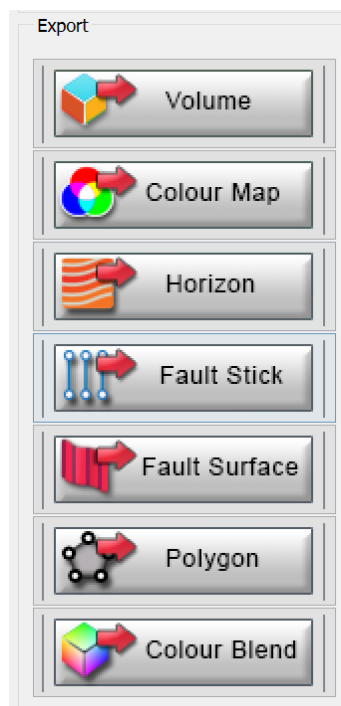
Click on **Apply** to perform the transfer.

Once the transfer is complete, the volume will appear in the Geoteric project within the volumes folder. To visualise it, double click on the volume name.

Geoteric to Petrel Colour Blend transfer

Choose the Geoteric Colour Blend(s) to be exported to Petrel and choose an appropriate Seismic Collection. Both RGB and CMY Colour Blends are supported. The Geoteric taskbar will appear, and the blend will be available in Petrel where it was specified.











Colour Blends can be exported to Petrel, but not imported from Petrel to Geoteric.



Export to Petrel options available in the Link, including the Colour Blend

Geoteric to Petrel Surface Transfer

Highlight the appropriate surface(s) in the list and select the interpretation folder you wish the surface to be exported into and click **Apply**.

Import	Source Surfaces
<div>  <div>Volume</div> </div>	<div> <div>Contact -1980</div> <div>Surface at -1800</div> <div>Surface_0m</div> <div>Contact at 2000 m</div> <div>Geobody[3]_Top</div> <div>Geobody[3]_Bottom</div> <div>Geobody[2]_Top</div> <div>Geobody[2]_Bottom</div> <div>Surface at xx</div> <div>Surface at 1840_30m</div> <div>Contact at 1890 m</div> <div>Top Reservoir</div> <div>Base Reservoir</div> <div>Top Reservoir_surface_interpretation</div> <div>Contact at 1880 m</div> <div>Geobody_Top</div> <div>Geobody_Bottom</div> <div>Geobody[2]_Top[2]</div> <div>Geobody[2]_Bottom[2]</div> <div>Geobody[3]_Top[2]</div> <div>Geobody[3]_Bottom[2]</div> <div>Top Reservoir_surface_interpretation[2]_surface_interpre</div> </div>
<div>  <div>Colour Map</div> </div>	
<div>  <div>Horizon</div> </div>	
<div>  <div>Fault Stick</div> </div>	
<div>  <div>Fault Surface</div> </div>	
<div>  <div>Polygon</div> </div>	
<div>  <div>Well Data</div> </div>	
<div>Export</div>	
<div>  <div>Volume</div> </div>	
<div>  <div>Colour Map</div> </div>	
<div>  <div>Horizon</div> </div>	
<div>  <div>Fault Stick</div> </div>	
<div>  <div>Fault Surface</div> </div>	
<div> <div>Polygon</div> </div>	
<div> <div>Colour Blend</div> </div>	<div> <div>Petrel Interpretation</div> <div> <div>Interpretation Collections:</div> <div>Seismic/Restoration</div> </div> </div>

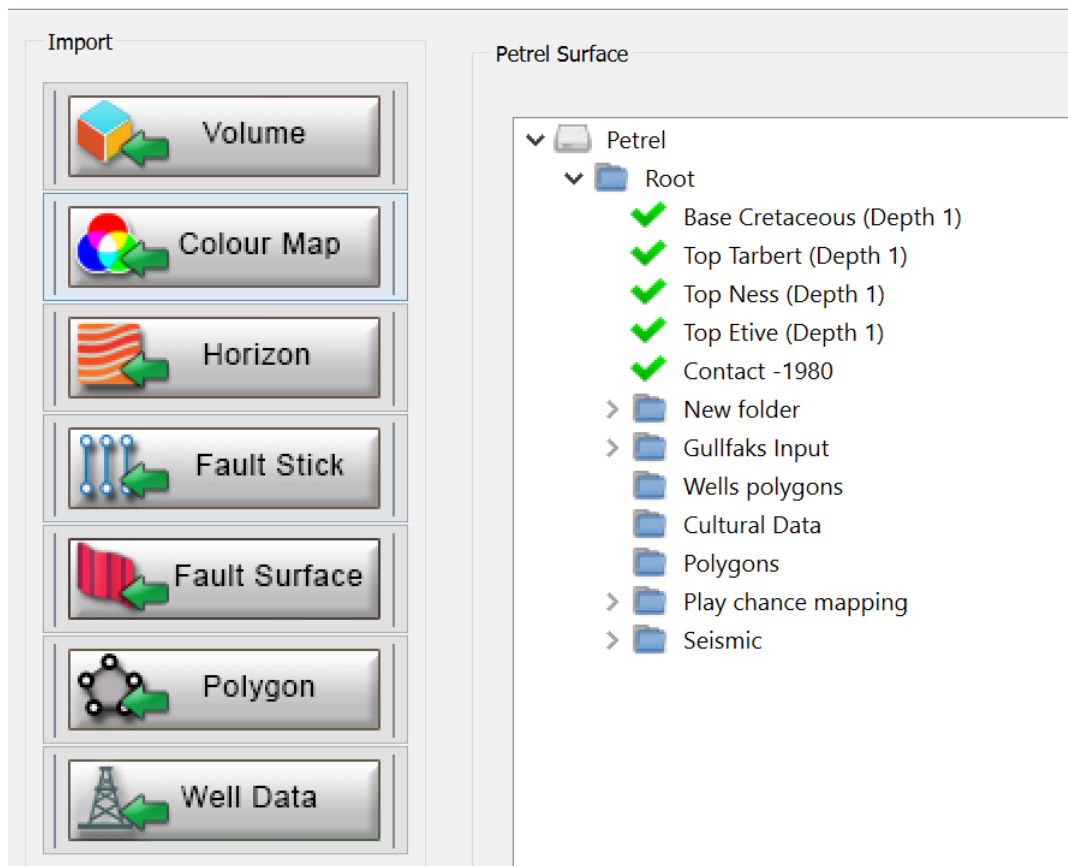
Surfaces selection for transfer from Geoteric to Petrel

Petrel to Geoteric Surface Transfer

Select the surface(s) you wish to import into Geoteric from the list and click on the **Apply** button. The Geoteric task window will be displayed while the surface is transferred into the Horizons section of the project manager.

Note: Only Petrel gridded surfaces can be imported into Geoteric. If an imported Surface name already exists in Geoteric, the application will automatically add, or increment, a number after the name. (e.g. surface[n+1] where n is the surface number already in Geoteric).

Petrel Data Transfer



Surfaces selection for transfer from Petrel to Geoteric

Petrel to Geoteric Well Transfer

Select the Import Surface tab and select the Well(s) you wish to import into Geoteric from the list and click the **Apply** button. They will now appear in the Wells folder in the Geoteric project tree. Geoteric will automatically apply the checkshot to the well/s if they have one and will do the same with any logs.

It is not possible to transfer wells from Geoteric to Petrel

Geoteric to Petrel Colour Map Transfer

Select the Colour Map you wish to export from the drop-down menu. You can rename this before the transfer if you would like it to appear in Petrel as another name and click **Apply**.



Colour Map selection for transfer from Geoteric to Petrel

Petrel to Geoteric Colour Map Transfer

This tab will populate with all the available colour maps in Petrel that you can import into Geoteric. You can block select by selecting one and holding down Shift and selecting another, or you can choose individual colour maps using the control button and left-click.

Petrel Data Transfer

Import

Volume

Colour Map

Horizon

Fault Stick

Fault Surface

Polygon

Well Data

Export

Volume

Colour Map

Horizon

Fault Stick

Fault Surface

Polygon

Colour Blend

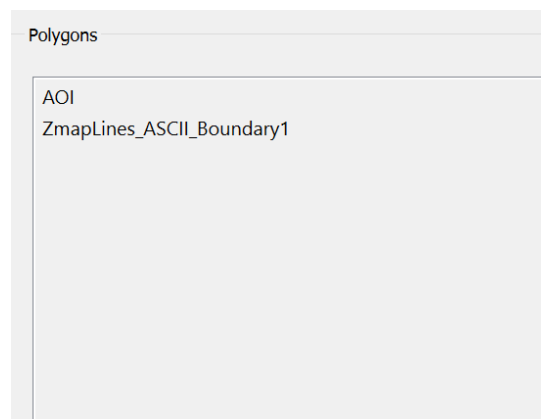
Import ColourMaps

Amplitude extraction (continuous)
Amplitude extraction (discrete)
Amplitude marker dark
Amplitude marker light
AVO
Black grey white
Black white yellow red
Blue white pink
Blue white purple
Blue white red (strong)
Blue white red dark
Brown white blue
Coarse extraction
Constant velocity stack
Dual velocity stack
Equator
Equator plus
Green blue brown red
Green white yellow
Green yellow red
Hot top
Lightblue white red
Purple blue green yellow red
Rainbow
Red blue green
Red lightblue
Red white black
Red white black light
Red white blue
Red white blue (transparent)
Red white green
Red yellow green blue
Residual
Rotary
Seismic (default)
Skin
Spectrum
Sunny side up
Tropic extremes
Tropic medians
Velocity (default)
Velocity 43

Colour Map selection for transfer from Petrel to Geoteric

Geoteric to Petrel Polygons Transfer

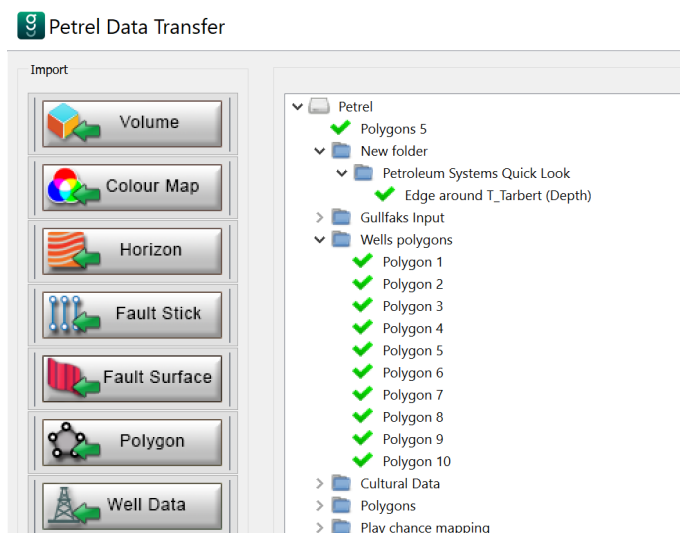
You can export polygons drawn in Geoteric into Petrel using the Link using this tab. Polygons in Geoteric will be listed here. You can block select or select individual polygons to transfer through the Link. They are transferred into a newly created folder in the root of the Petrel survey called "Geoteric Polygons."



Polygon selection for transfer from Geoteric to Petrel

Petrel to Geoteric Polygons Transfer

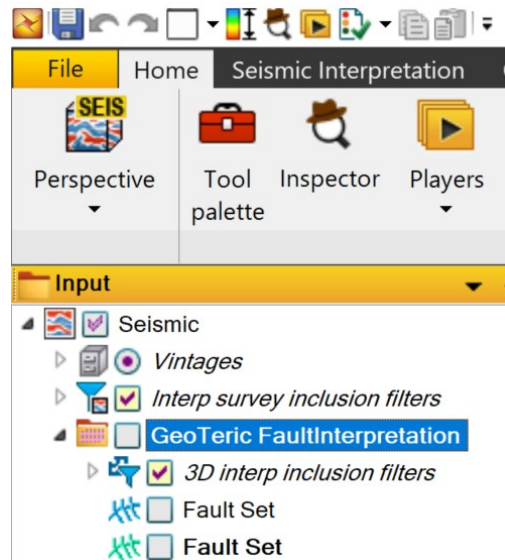
You can import polygons from Petrel to Geoteric on this tab. If you navigate to the location of the Polygon, you wish to import, select the Polygon and click **Apply**. A progress bar will quickly appear and disappear on completion of the transfer, and the Polygon will be imported into the Polygons folder in the Geoteric project tree. If the name is the same as an existing polygon, then it will be automatically renamed so that it has a numerical value in square brackets, for example, Polygon[3][1].



Polygon selection for transfer from Petrel to Geoteric

Geoteric to Petrel Faults Transfer

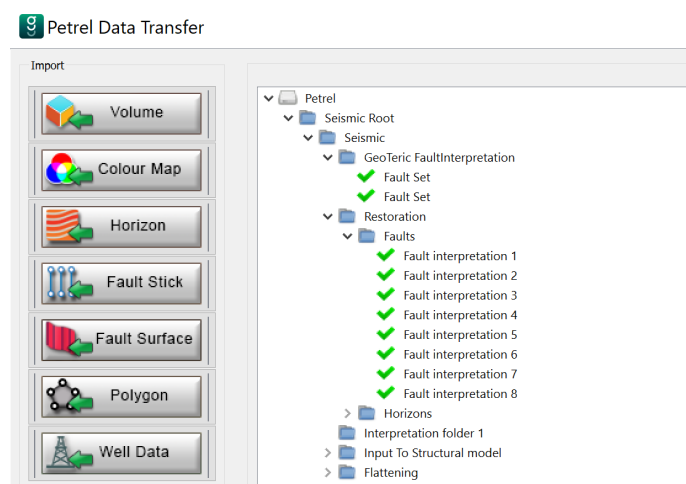
You can export fault sets from the Export Faults. You can block-select or select individual faults to transfer through the Link. They are transferred into a folder called "Geoteric FaultInterpretation" which is created when the transfer begins.



Transferred faults in the Petrel Project Input Tree

Petrel to Geoteric Faults Transfer

You can import faults from Petrel using this tab. Navigate to the path of the fault you wish to import and then select it (you can multi-select) and click **Apply** to import it into Geoteric. When imported, they appear in the Faults folder in the Geoteric project tree. If the name is the same as an existing fault set, then it will be automatically renamed so that it has a numerical value in square brackets, for example, Fault Set[3][1]



Faults selection for transfer from Petrel to Geoteric