Using the Geoteric Link for Petrel

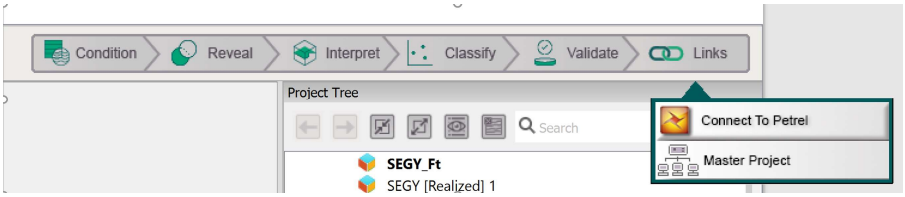
Prerequisites

- Geoteric installed
- Petrel installed (Current supported versions are 2021, 2022 and 2023)
- Valid Geoteric license

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

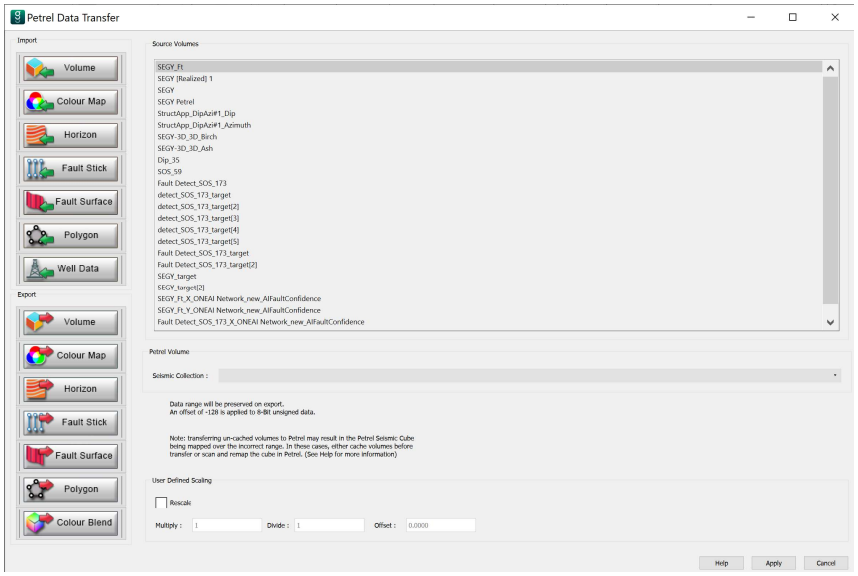
⚠Do not have more than one instance of Geoteric open at one time during the transfer of objects between projects, since this may result in objects transferring to the wrong project.

To begin transferring data, click on the Links button and select “Connect to Petrel”.



Open the Link for Petrel

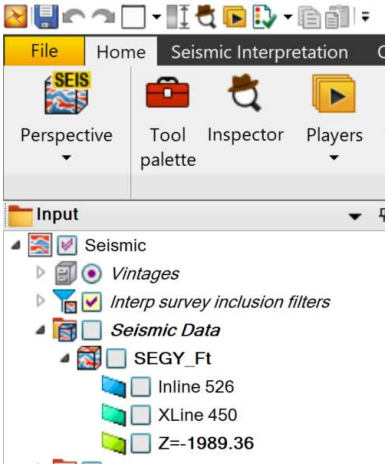
This will open the data transfer window:



Transfer Window

Geoteric to Petrel volume transfer

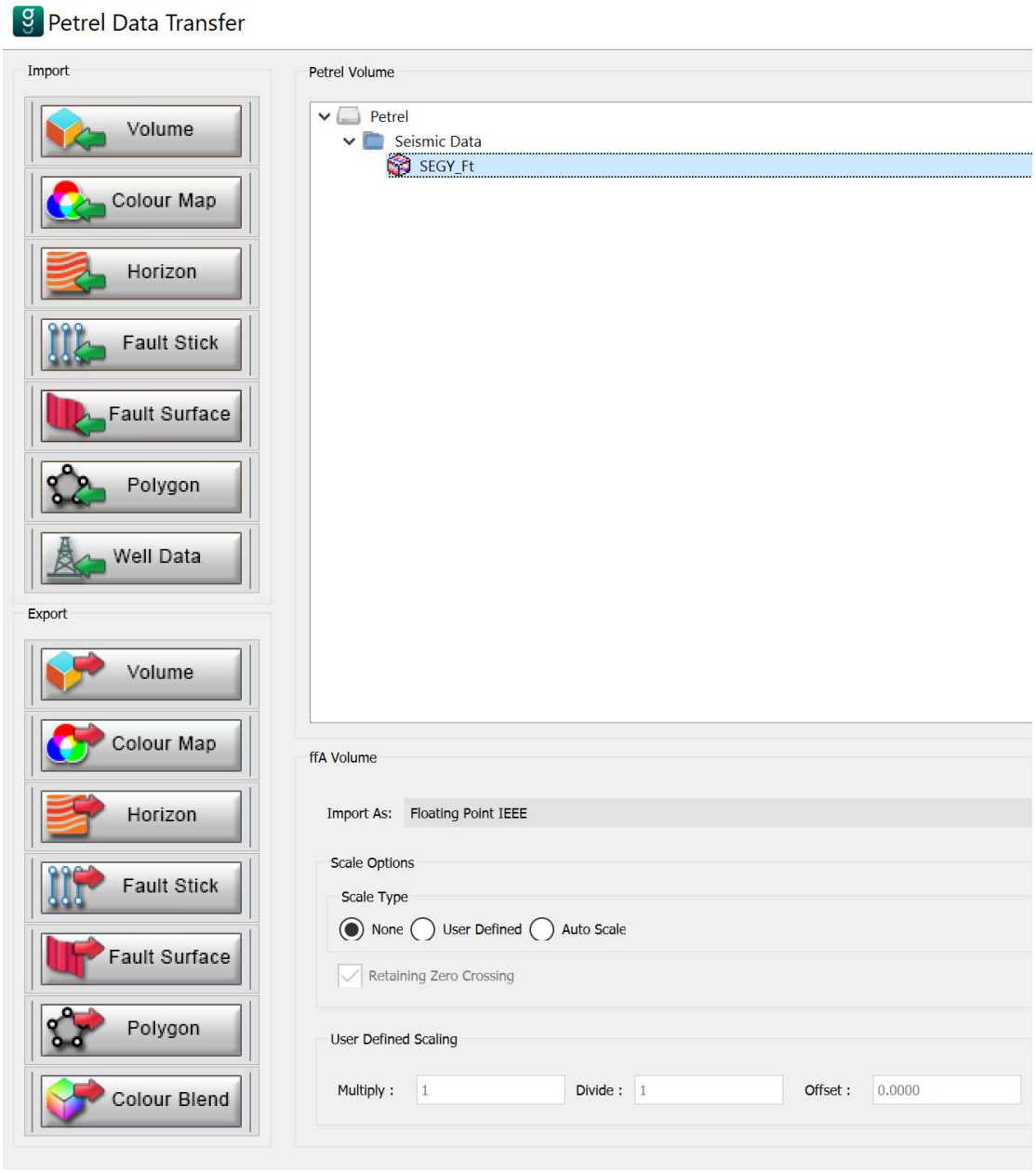
To export a seismic volume to Petrel, in the “Export” section select the “Volume” button. Select the volume to be transferred to Petrel by highlighting it from the list of volumes. Select a relevant folder from the drop-down menu for the Seismic Collection and click on the “Apply” button to begin the 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, in the “Import” section select 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).



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

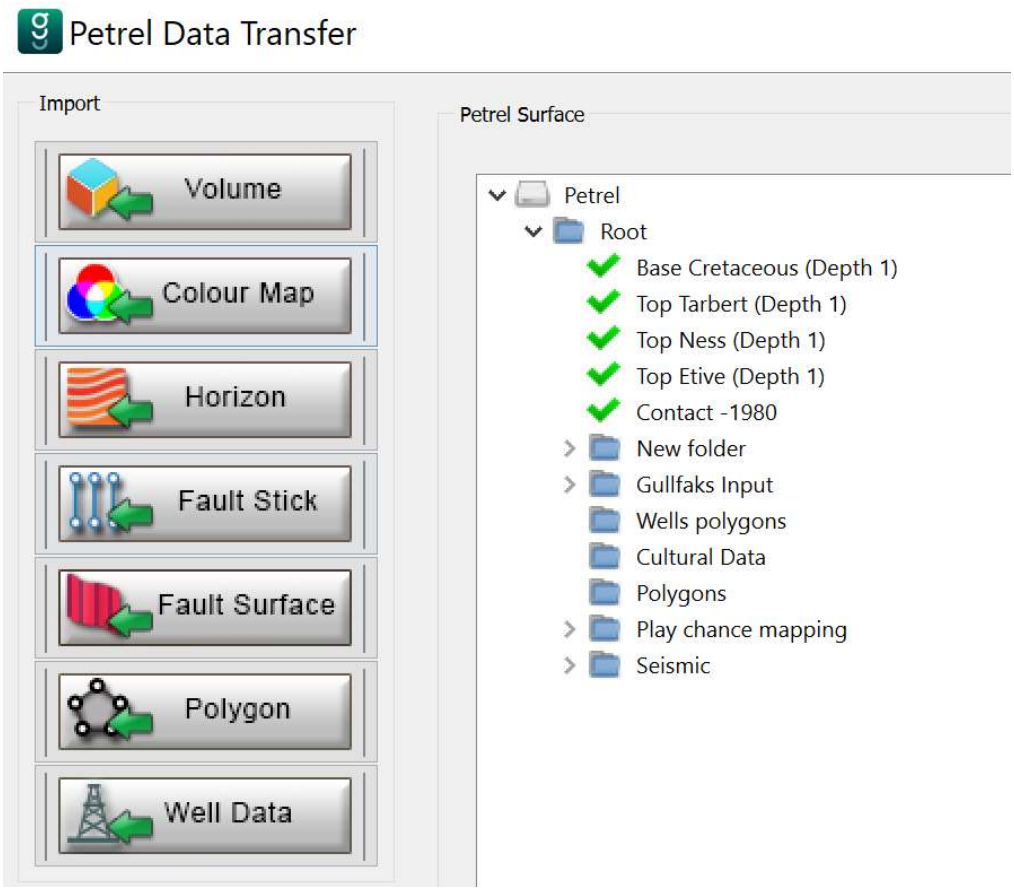
After selecting the “Horizon” button, highlight the appropriate surface(s) in the list and select the interpretation folder you wish the surface to be exported into and click “Apply”.

Surfaces selection for transfer from Geoteric to Petrel

Petrel to Geoteric surface transfer

After selecting the “Horizon” button, 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).



Surfaces selection for transfer from Petrel to Geoteric

Petrel to Geoteric well transfer

In the Import tab, 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

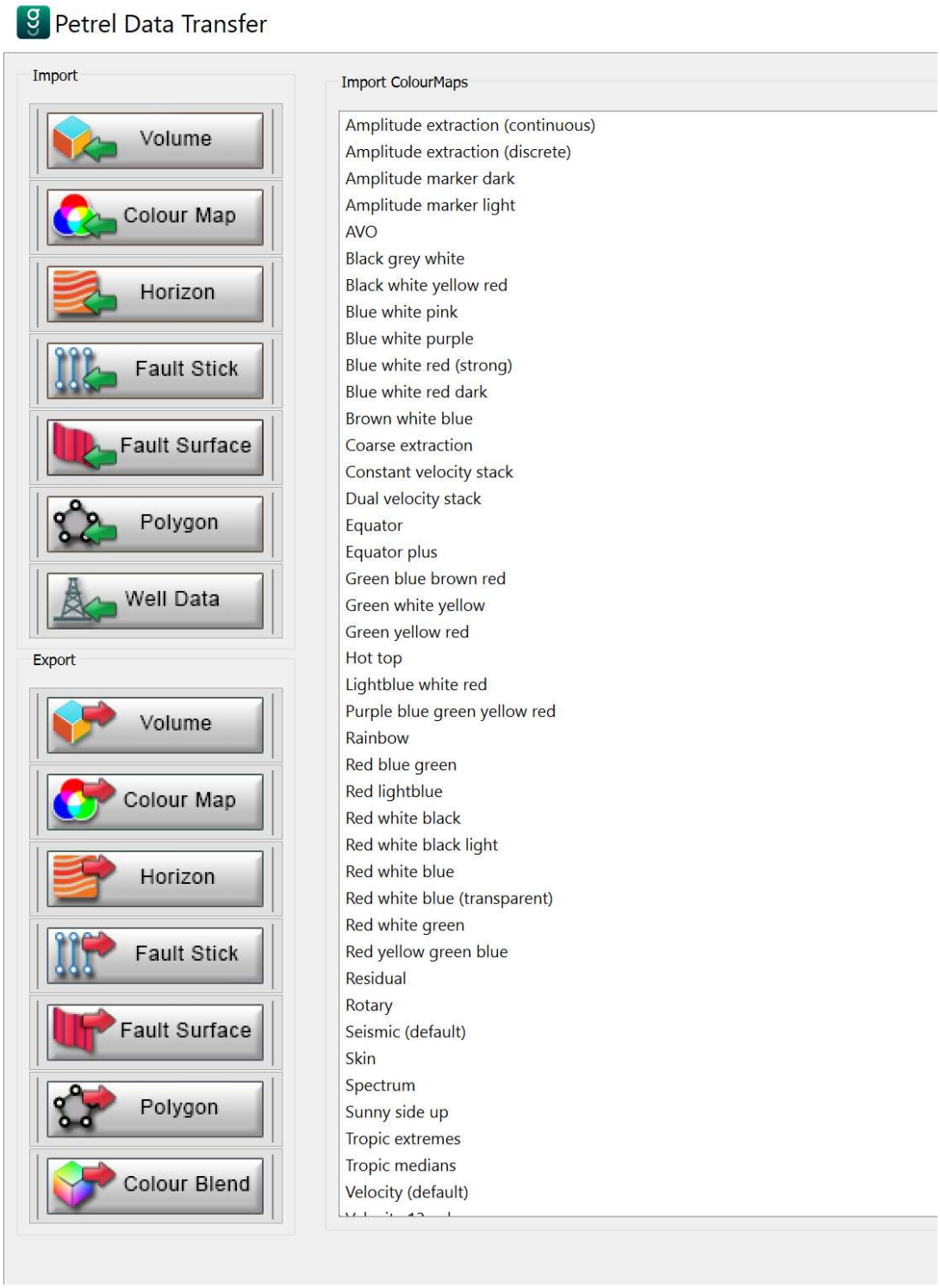
Geoteric to Petrel colour map transfer

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.

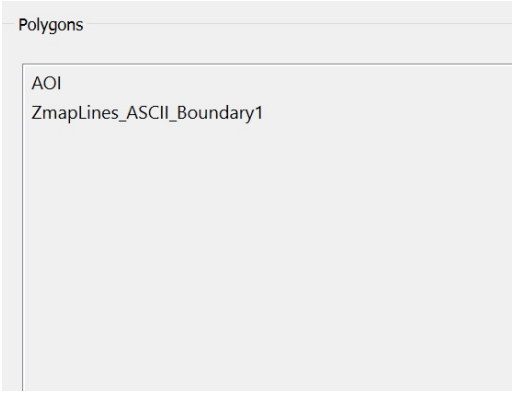


Colour Map selection for transfer from Petrel to Geoteric

Geoteric to Petrel polygons transfer

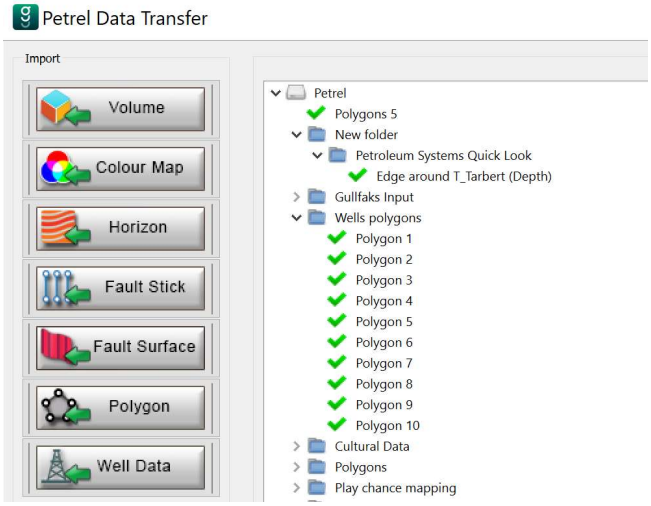
You can export polygons drawn in Geoteric into Petrel using the Link in this tab. Polygons in Geoteric will be listed here. You can block select or select individual polygons to transfer. They are transferred into a newly created folder in the root of the Petrel survey called “Geoteric Polygons.”

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].

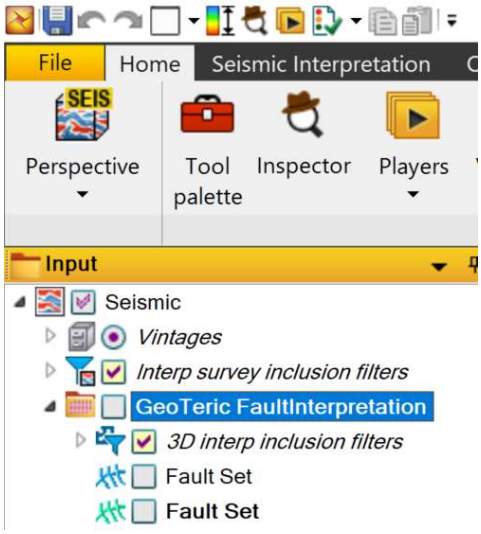


Polygon selection for transfer from Petrel to Geoteric

Geoteric to Petrel faults transfer (fault surfaces and fault sticks)

You can export both fault surfaces and fault stick sets using the “Fault Stick” and the “Fault Surface” buttons. You can block-select or select individual faults to transfer through the Link.

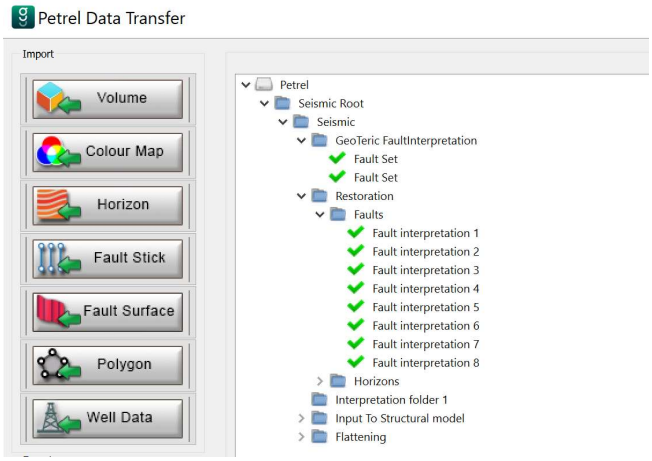
Fault sticks are transferred into a folder called “Geoteric FaultInterpretation” which is created when the transfer begins.
Fault surfaces are transferred into a folder called “GeoTeric Fault Surface” located at the bottom of the Petrel input tree.



Transferred fault sticks in the Petrel Project Input Tree

Petrel to Geoteric faults transfer (fault surfaces and fault sticks)

You can import both fault surfaces and fault stick sets using the “Fault Stick” and the “Fault Surface” buttons. 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 at the bottom of 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]



Fault stick selection for transfer from Petrel to Geoteric