

Using the Geoteric Link for Petrel

Prerequisites

- Geoteric installed
- Petrel installed (Current supported versions are 2022, 2023 and 2024)
- Valid Geoteric license

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

ADo 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:

Petrel Data Transfe	er	-		>
mport	Source Volumes			
Volume	SEGY_Ft			^
	SEGY (Realized) 1			
-	SEGY			
Colour Map	SEGY Petrel			
	StructApp_DipAzi#1_Dip			
	StructApp_DipAzi#1_Azimuth			
Horizon	SEGY-3D_3D_Birch			
	SEGY-3D_3D_Ash			
000	Dip 35			
Fault Stick	S05_59			
	Fault Detect_SOS_173			
Early Ourface	detect_SOS_173_target			
Fault Surface	detect_SOS_173_target[2]			
	detect_SOS_173_target[3]			
Polygon	detect_SOS_173_target[4]			
Polygon	detect_SOS_173_target[5]			
	Fault Detect_SOS_173_target			
A Well Data	Fault Detect_SOS_173_target[2]			
Real Well Data	SEGY_target			
	SEGV_target[2]			
port	SEGY_FLX_ONEAI Network_new_AlFaultConfidence			
	SEGY_FLY_ONEAI Network_new_AlFaultConfidence			
Volume	Fault Detect_SOS_173_X_ONEAI Network_new_AlFaultConfidence			`
Colour Map	Petrol Volume			
	Setomic Collection :			
Horizon				
	Data range will be preserved on export. An offset of -126 is applied to select unsigned data.			
Fault Stick	An onest of -120 is applied to order unsigned data.			
add Tault Stick				
	Note: transferring un-cached volumes to Petrol may result in the Petrol Selamic Cube being mapped over the incorrect range. In these cases, other cache volumes before			
Fault Surface	transfer or soan and remark the cube in Petral. (See Help for more information)			
0	User Defined Scaling			
Polygon				
9.9	Resole			
Colour Blend	Multiply: 1 Divide: 1 Offset: 0.0100			
		Help App	w/c	Can

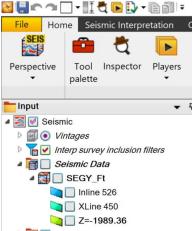
Transfer Window



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).



_	
g	Petrel Data Transfer

Import	Petrel Volume
Volume	✓
Colour Map	
Horizon	
Fault Stick	
Fault Surface	
Polygon	
Well Data	
Export	
Volume	
Colour Map	ffA Volume
Horizon	Import As: Floating Point IEEE
Fault Stick	Scale Options Scale Type
Fault Surface	None User Defined Auto Scale Retaining Zero Crossing
Polygon	User Defined Scaling
Colour Blend	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 Floating Point IEEE (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".



	Source Surfaces
Volume	Contact -1980
	Surface at -1800
	Surface_0m
Colour Map	Contact at 2000 m
Colour map	Geobody[3]_Top
1	Geobody[3]_Bottom
Horizon	Geobody[2]_Top
	Geobody[2]_Bottom
	Surface at xx
Fault Stick	Surface at 1840_30m
	Contact at 1890 m
	Top Reservoir
Fault Surface	Base Reservoir
	Top Reservoir_surface_interpretation
	Contact at 1880 m
Polygon	Geobody_Top
	Geobody_Bottom
	Geobody[2]_Top[2]
Nell Data	Geobody[2]_Bottom[2]
	Geobody[3]_Top[2]
	Geobody[3]_Bottom[2]
	Top Reservoir_surface_interpretation[2]_surface_interp
Maluma	Contact at 2000 m[2]
Volume	Contact at 2010 m
	Contact at 2020 m
Colour Map	Contact at 1000 m
ooloar map	Contact at 3000 m
	Contact at 2200 m
Horizon	Contact at 1800 m
Fault Stick	
Fault Surface	
Deluser	
Polygon	
	Petrel Interpretation
Colour Blend	
server prone	

💡 Petrel Data Transfer

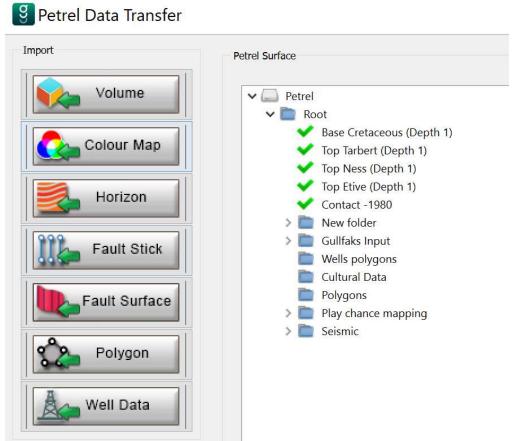
Surfaces selection for transfer from Geoteric to Petrel

geoteric

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".

9 Petrel Data Transfer		-	×
Import	Colourmap		
Volume	BlockMitteRed		•
Colour Map			
Horizon	Petrel ColourMap		
Fault Stick	Output Name : BlueWhiteRed		
Fault Surface			
Polygon			
Well Data			
Export			
Volume			
Colour Map			

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.



9 Petrel Data Transfer

Import	Import ColourMaps
	Amplitude extraction (continuous)
Volume	Amplitude extraction (discrete)
	Amplitude marker dark
Colour Map	Amplitude marker light
	AVO
	Black grey white
Horizon	Black white yellow red
	Blue white pink
	Blue white purple
Fault Stick	Blue white red (strong)
	Blue white red dark
	Brown white blue
Fault Surface	Coarse extraction
	Constant velocity stack
	Dual velocity stack
Polygon	Equator
	Equator plus
	Green blue brown red
Well Data	Green white yellow
	Green yellow red
Export	Hot top
	Lightblue white red
	Purple blue green yellow red
Volume	Rainbow
	Red blue green
Colour Man	Red lightblue
Colour Map	Red white black
	Red white black light
Horizon	Red white blue
	Red white blue (transparent)
	Red white green
Fault Stick	Red yellow green blue
add Fudit Ottol	Residual
	Rotary
Fault Surface	Seismic (default)
	Skin
	Spectrum
Polygon	Sunny side up
00	Tropic extremes
	Tropic medians
Colour Blend	Velocity (default)

Colour Map selection for transfer from Petrel to Geoteric



Geoteric to Petrel polygons transfer

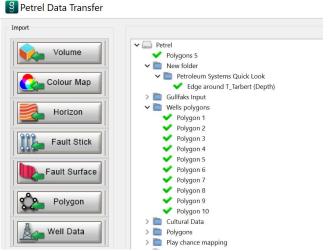
You can export polygons drawn in Geoteric into Petrel using the Link in this tab. Polygons in Geoteric will be listed here. You can block select or select individual polygons to transfer. They are transferred into a newly created folder in the root of the Petrel survey called "Geoteric Polygons."

Polygon selection for transfer from Geoteric to Petrel

olygons	\$				
AOI				 	
Zmapl	Lines_AS	SCII_Bour	ndary1		

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, Polygon3[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.

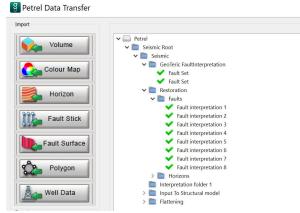
Fault surfaces are transferred into a folder called "GeoTeric Fault Surface" located at the bottom of the Petrel input tree.



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[1]



Fault stick selection for transfer from Petrel to Geoteric