

TheGlobe for Petrel

Petrel currently limits projects and data to a singular Cartographic Projection. Map projections are not well suited to represent data that are collected with different references or cover large geographic areas. We therefore complement Petrel with an alternative world:

- a Globe object
- a Global viewer
- a set of geodetic tools
- some project management features
- an API that extends Ocean for TheGlobe

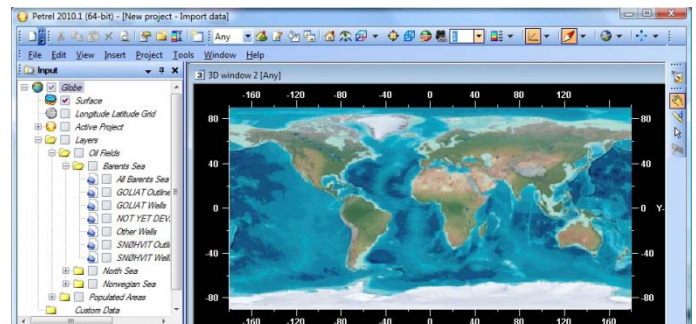
TheGlobe Object is inserted into the Petrel input tree. It is defined in the horizontal geographic Coordinate Reference System WGS84 and the vertical EGM96. Data objects can be attached to the Globe if they are defined in or are bound to a cartographic transformation to WGS84.

TheGlobe Viewer is a new spatial viewer that differs from the traditional 3D viewer in that the render coordinates are ellipsoidal and not projected. Objects attached to TheGlobe are used for interactions and visualization. The viewer's scene graph uses a spatial hierarchy and the renderers implement three levels of detail.

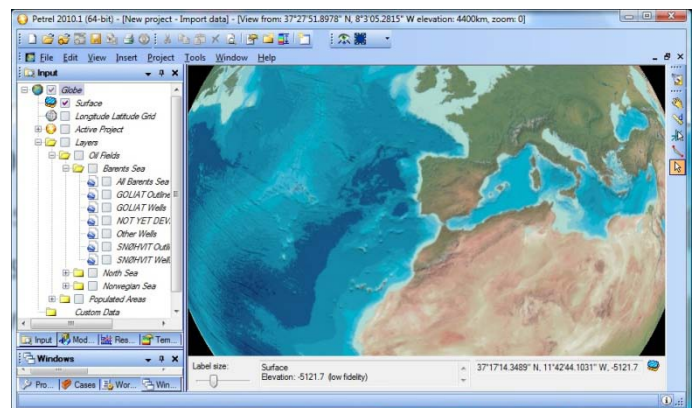
Geodetic tools with dual domain worlds we are able to introduce a new class of tools for exploring the world of geodesy, and aid in the process of analyzing the effects and limitations of forcing all data into a singular map projection.

API TheGlobe has an extension API that interoperates with, and honours the style and conventions of Ocean for Petrel. Ocean programmers can implement ellipsoidal renderers using Inventor and have their data objects participate in TheGlobe world.

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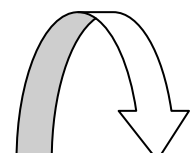


Classic 3D window, flat world



New Globe window, ellipsoidal world

Ocean and Petrel are trademarks of Schlumberger



Some Highlights

Who needs it?

- Managers of large scale projects
- Technicians of spatial activities
- Users annotating and presenting

A global world

- Add data in geographic coordinates
- Work in a global context

Tables

- Efficient handling of large number of places
- A geographic spreadsheet, search and filter
- Import place-marks from
 - <tab> separated text files
 - .kml files
- Hierarchical styles for text and symbols
- URL column for linking external resources

Geo-referenced documents

- Import any document and anchor it spatially
- Anchor project (.pet) files within container projects
- Open the document from the context menu

Geomatics

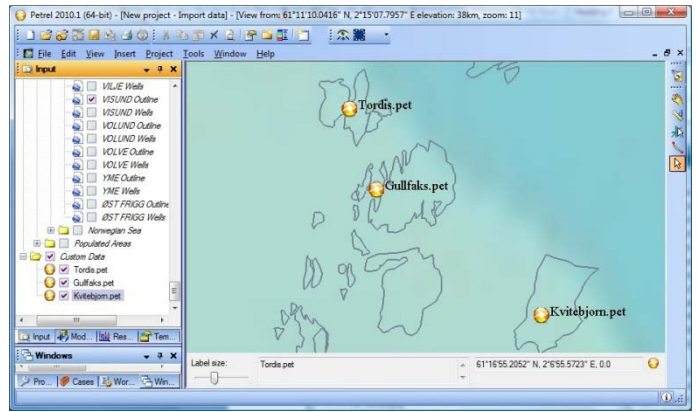
- Ellipsoid geodesics (distance in lat/long space)
- Distance in true 3D using ECEF
- World picking in projected, geographic and geocentric coordinates
- Re-projection distortion estimation

Viewing and picking

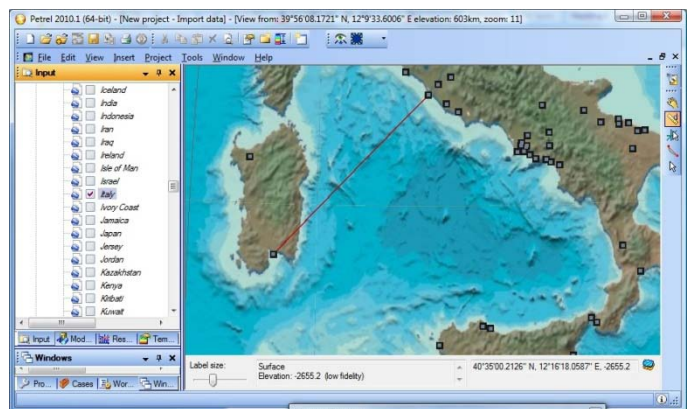
- Petrel data in TheGlobe window (seismic 2D & 3D well head & borehole)
- Globe data in the 2D, 3D & Map windows
- Multi-resolution rendering
- Smooth interactions independent of scale
- Zoom to object and fly to places

Ocean Petrel

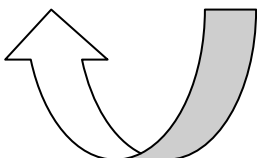
- Integrated and compliant, same look and feel
- Participates in project life cycle and events
- Stores its data within the Petrel project
- Extends the Ocean API



Filter	Name	Latitude	Longitude	Elevation	Url	Drilling Operator	Wellbore Content
1	34/10-A-10	61°10'32.1001" E	2°11'16.5281" N	82	http://www.npd.no/	Den norske stats olj	OIL
2	34/10-A-11	61°10'32.0301" E	2°11'16.6081" N	82	http://www.npd.no/	Den norske stats olj	WATER
3	34/10-A-13	61°10'31.8601" E	2°11'16.9981" N	82	http://www.npd.no/	Den norske stats olj	GAS
4	34/10-A-14	61°10'33.1602" E	2°11'16.6780" N	82	http://www.npd.no/	Den norske stats olj	OIL
5	34/10-A-15	61°10'31.7801" E	2°11'16.6981" N	82	http://www.npd.no/	Den norske stats olj	WATER
6	34/10-A-16	61°10'33.2702" E	2°11'15.3780" N	82	http://www.npd.no/	Den norske stats olj	NOT AVAILABLE
7	34/10-A-17	61°10'32.1101" E	2°11'16.8981" N	82	http://www.npd.no/	Den norske stats olj	OIL
8	34/10-A-18	61°10'33.0502" E	2°11'15.2480" N	82	http://www.npd.no/	Den norske stats olj	WATER
9	34/10-A-16	61°10'33.2702" E	2°11'15.3780" N	82	http://www.npd.no/	Den norske stats olj	OIL
10	34/10-A-19	61°10'32.0701" E	2°11'16.7481" N	82	http://www.npd.no/	Den norske stats olj	NOT AVAILABLE
11	34/10-A-17	61°10'32.1101" E	2°11'16.8981" N	82	http://www.npd.no/	Den norske stats olj	WATER
12	34/10-A-10	61°10'32.1001" E	2°11'16.5281" N	82	http://www.npd.no/	Den norske stats olj	OIL
13	34/10-A-19	61°10'32.0701" E	2°11'16.7481" N	82	http://www.npd.no/	Den norske stats olj	OIL
14	34/10-A-15	61°10'31.7801" E	2°11'16.6981" N	82	http://www.npd.no/	Statol ASA (old)	NOT AVAILABLE
15	34/10-A-12	61°10'33.2302" E	2°11'15.2280" N	82	http://www.npd.no/	Den norske stats olj	WATER
16	34/10-A-1	61°11'02.9730" E	2°13'09.2695" N	23	http://www.npd.no/	Den norske stats olj	OIL



Measure Distance	
Geographic Coordinates	Geocentric Coordinates
Start point (latitude, longitude, elevation): [m]	
39°12'26.5842" N, 9°8'04.6198" E, 80.2	
End point (latitude, longitude, elevation):	
41°43'55.6487" N, 12°16'35.5286" E, 80.0	
<input checked="" type="radio"/> DD MM SS <input type="radio"/> Decimal	
Distance	
Geographic (2D) [m]:	Geocentric (3D) [m]:
386720.6	386669.1
Ellipsoidal Distance	



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