

Petrel – The Asset Team Solution

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Petrel is an integrated Windows based software solution that enables you to solve your subsurface challenges from seismic interpretation through to reservoir simulation and on to drilling. Petrel eliminates the communication problems that exist between different software packages and associated technical disciplines. All work processes in Petrel contribute to developing and refining the same reservoir model, static to dynamic.

Integration, usability, and repeatability are the key differentiators of Petrel software. The common environment and workflow automatically captures your knowledge as your work progresses. This eliminates the information mismatch or information loss that is common when using individual applications. The geoscientist can easily integrate new data, rapidly update earth models and lower the overall risk.

Benefits

- All tools from seismic interpretation to simulation are integrated in one application, eliminating import and export problems and promoting collaboration and the flow of data and ideas.
- Strong visualization capabilities give you instant quality control of all data in 3D.
- Models can be updated instantly when new data arrives to make quicker and more reliable decisions.
- All results can be copy-pasted to any Windows application making it quick and easy to report and present your latest results.
- Petrel has a familiar Windows user interface, undo/redo functionality, and stores modeling history, making it easy to use and learn.

The Petrel seismic toolkit allows for rapid 2D & 3D seismic interpretation. Sample your seismic data directly into your 3D reservoir model to predict pay, and bias reservoir property distribution using a geostatistical approach. An extensive library of attributes and volume rendering techniques can help identify hydrocarbon indicators and fracture patterns.

Identifying and recovering hydrocarbons requires an accurate, high resolution geological model of the reservoir structure and stratigraphy. The geology capabilities found within Petrel allow the geologist to accurately define the reservoir structure, including faulting, and reservoir properties.

With your reservoir model in place, use the Petrel reservoir engineering workflow to perform simulation, reduce uncertainty and assist in future well planning. Advanced up-scaling techniques, including local grid refinement, allow you to recreate geologically accurate models for full reservoir simulation.

The Osprey Risk plug-in and Petrel well design modules revolutionize the way geoscientists and drilling engineers manage well engineering. Design wells interactively by digitizing the path directly in the 3D window, while minimizing the total cost of your drilling program. You can pick targets, identify surface locations, and interactively design trajectories in your reservoir model to find the optimal solution. Watch those locations become actual wells with the real time drilling functionality.

This talk will investigate how geophysicists, geologists, reservoir engineers, and drilling engineers can work across domains in the powerful Petrel application for subsurface interpretation and modeling to achieve seamless integration and flow of data and ideas across domains.

References

Schlumberger Information Solutions, <http://www.sis.slb.com>