



Inversion

Enhanced interpretation, reservoir prediction and geosteering*

*Powered by
FracGeo



intelligent
geoscience
solutions

GVERSE™ Inversion

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This plug-in is a colored inversion solution that provides a rapid, yet robust way to derive geological details in the form of a relative impedance (rock hardness). When geosteering through a reservoir, the high resolution impedances calculated by the colored inversion ensure that the well is drilled through ideal reservoir. GVERSE Inversion is completely integrated with the GeoGraphix® suite of products.

GVERSE Inversion is accessed from within the SeisVision application. The plug-in receives seismic and well data from SeisVision, processes it, and returns the inverted volume to SeisVision. To launch the plug-in, open the SeisVision module, and then select Tools >> GVERSE Inversion.

Benefits

High Resolution Results for Better Well Planning, Geosteering, and Completions

The resulting impedance (rock hardness) data provides a high resolution view of the reservoir and landing zone with the spatial resolution that inherently comes with seismic data. This information can be used to determine the best wells to drill, the optimum landing zones, and provide a better understanding of where and how completions should take place along a well.

Simple, Fast, and Robust Algorithm

The only inputs for this inversion are the acoustic impedance logs and seismic data to use. With this information, an inversion operator is constructed to quickly transform the seismic amplitude into impedance volume.

Capability of GeoGraphix with FracGeo Technology

Integration of GVERSE Inversion into GeoGraphix allows one to easily create and view the resulting impedance volume and use the derived reservoir information to easily adjust any well locations and geosteering or completion plans.

Key Features

Data Loading and Management

- Direct access to the required well data and seismic data from your GeoGraphix projects
- Resulting impedance volume can be saved into GeoGraphix project database

Colored Inversion

- Minimizes the input required from user
- Calculates an operator to transform the seismic data to impedance data using the selected seismic data and acoustic impedance equivalent impedance cubeReal-time inversion operator calibration by : Displaying the amplitude spectrums of the seismic data and acoustic impedance logs used to construct the colored inversion operator
- Preview the resulting impedance volume on a given inline, crossline, or closest line to a selected well before launching the calculation over the area of interest.

Requirements

Hardware (Minimum)

- 2.4 GHz 64-bit processor
- 8 GB RAM
- NVidia GeForce 400 series
or ATI Radeon HD 5000 Series
or Intel HD Graphics in Intel Haswell processors
- 19-inch monitor

Hardware (Recommended)

- Quad 3.1 GHz 64-bit Intel class or better
- 16 GB RAM or greater
- NVidia GeForce GTX 970
- Dual 21-inch monitors

Software

- GeoGraphix 2015

Operating System(s)

- Windows[®] 7 Professional x64
- Windows[®] 7 Enterprise x64
- Windows[®] 7 Ultimate x64
- Windows[®] 10 Professional x64
- Windows[®] 10 Enterprise x64
- Windows[®] 10 Ultimate x64