Attributes 2016.1.1
On the fly high resolution seismic attributes in 3D

GVERSE™ Attributes

High resolution seismic attributes in 3D

GVERSE Attributes enables geoscientists to harness the full power of seismic attributes by drastically reducing the time, effort and disk space required for attribute analysis. Fast, on-the-fly computation, and real-time visualization of seismic attributes in a multi-pane viewer or in a 3D environment lets interpreters perform detailed, in-depth attribute analysis quickly and efficiently, maximizing the value of their seismic data.

The multi-paned viewing environment, unmatched by any software in the industry, along with streamlined workflows and high resolution 3D seismic attributes help boost performance. The value of seismic data for seamless interpretation is maximized by fast, on the fly visualization of seismic attributes which allows for in-depth attribute analysis with immediate feedback.

Benefits

Real-time Visualization of Results: Having intensively minimized processing time, GVERSE Attributes offers an integrated viewer to display attributes for the selected IL/XL/TS computed on-the-fly using GPU. After adjusting attribute parameters and seeing results in real-time, the user can generate the attribute for the entire dataset and load the resulting volume into SeisVision (or equivalent interpretation software).

Fast, Powerful 3D Engine: View on-the-fly attributes in 3D to gain deeper insight in your attribute analysis. In addition to computing attributes on inlines, crosslines and timeslices, users can view probes, arblines and horizon surfaces with attributes applied on them in real time to gain more useful information faster and more efficiently.

Effort and Time saving: As compared to traditional tools, GVERSE Attributes allows geoscientists to harness the full power of seismic attributes by drastically reducing the time, effort and disk space required for attribute analysis. Attributes are computed on-the-fly on controlled input data to let users view attributes results before they commit to creating volumes, saving both processing and analysis time. Attribute volumes are created on-demand eliminating the need for intermediate volumes and significantly reducing data and disk management.

Flexibility: Features like the ability to save parameters for all available attributes and saving the complete state of the workspace to a file saves user's time as the user can resume work from where he left off and also be able to share his/her workspace with others. The workspace can contain all the information in the application including the input files, any subsets, the view state (all view panels, attributes displayed on those panels, the seismic IL/XL/TS opened, and the parameters for the attributes displayed) along with any other data.

Integration: The application integrates seamlessly with GeoGraphix Discovery as it reads seismic amplitude data from SeisVision and exports volume to SeisVision.

Key Features

- On-the-fly attributes for any inline, crossline, timeslice, or for probes, horizons and arblines using GPU
- Compare attributes and parameters quickly and efficiently in multiple panes or in 3D space
- Compute over 50 physical and geometric attributes, including frequency-tuned attributes using the patented CAPS technique
- Level of Detail (LOD) encoding for faster performance on large datasets
- Define mathematical expressions to combine existing attributes and create custom attributes
- Automatic Fault Extraction attributes to highlight faults
- Structure Oriented Smoothing to enhance structural features in seismic
- Change and edit color palette, view histograms and assign default palettes for attributes
- Co-blending and RGB blending to visualize multiple attributes simultaneously
- Generate volumes for selected attributes
- Loss-less compression of SEG-Y datasets for optimized performance.
- Seamless integration with SeisVision.

Requirements

Hardware (Minimum)

- 2.4 GHz 64-bit processor
- 8 GB RAM
- Graphics card NVidia GeForce 430 or higher with minimum 1GB Dedicated VRAM
- DirectX 11 compatibility of graphics card is required
- 1,366 x 768 screen resolution

Hardware (Recommended)

- Quad 3.2 GHz 64-bit
- 32 GB RAM or greater
- High-end NVidia GeForce GTX Graphics card X70 - X95 (where X represents GeForce Series 400 onwards) with minimum 2 GB dedicated GDDR5 VRAM
- Solid State Drive (SSD)
- 1920 x 1080 screen resolution

Software

- Microsoft® .NET 4.5
- NVidia Driver version 347.62 or higher
- GeoGraphix® Discovery 2015.1/2016.1 is required (for integrated mode only)

Operating System(s)

- Windows® 7 Professional x64
- Windows® 7 Enterprise x64
- Windows® 7 Ultimate x64

Disclaimer