



# Attributes 2019.2

High resolution seismic attributes on the fly



## GVERSE® Attributes

### High resolution 3D seismic attributes

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 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

Using this software, you can compute attributes on-the-fly using the GPU; allowing seismic interpreters to quickly see the results in an integrated viewer for a selected inline, crossline or timeslice and also easily adjust attribute parameters to optimize their results.

**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

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attribute for the entire dataset and load the resulting volume into GVERSE Geophysics (or an 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, the users can view probes, arblines, and horizon surfaces with attributes applied on them in real time to gain useful information faster and more efficiently.

**Reduced Time and Effort for Attribute Analysis:** 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. This allows users to resume their work from where they left off, and also share their workspace with others. The workspace contains 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.

**Seamless integration with GeoGraphix® Discovery:** The application integrates seamlessly with GeoGraphix Discovery as it reads seismic amplitude data from GVERSE Geophysics, and exports generated volumes to GVERSE Geophysics.

## 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 2GB dedicated GDDR5 VRAM
- Solid state hard disk
- 1920 x 1080 screen resolution

### Software

- Microsoft® .NET 4.5
- Nvidia Driver version 347.62 or higher
- GeoGraphix Discovery 2019.2 is required for integrated mode only

### Operating System(s)

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

### Licenses

- GVERSE Attributes license version 2019.2
- GeoGraphix license version 2019.2. It is required for integrated mode only.

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