

**GVERSE**<sup>®</sup>  
**GeoGraphix**<sup>®</sup>  
Potential to Production



# GVERSE GEOPHYSICS

Seismic Interpretation  
Software

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# A COMPLETE GEOSCIENCE PLATFORM



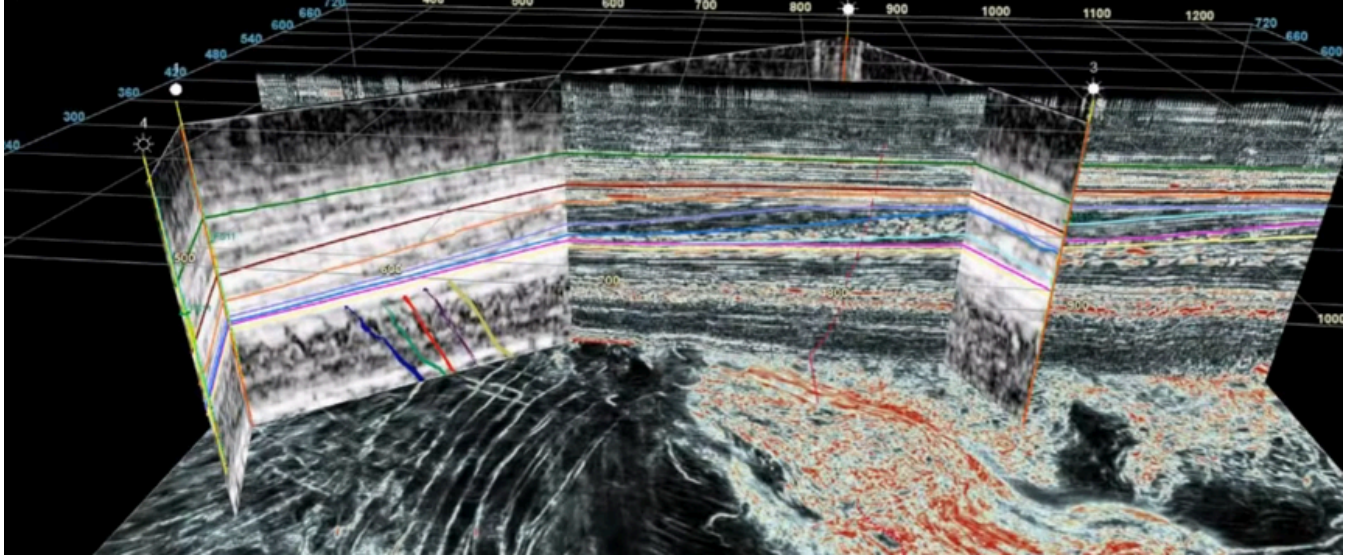
## Streamline Exploration and Production Workflows

Our comprehensive GVERSE GeoGraphix solution integrates geological, geophysical, petrophysical, and data management tools allowing geoscience teams to collaborate and make rapid, accurate decisions.

**GVERSE Geophysics** software is a fully integrated 2D and 3D seismic interpretation system with a full range of fit-for-purpose interpretation capabilities, attribute analysis, and mapping tools. Whether exploring complex structural areas, or looking for subtle stratigraphic traps, today's geoscientist can employ the many tools available in GVERSE Geophysics to solve these otherwise challenging problems.

# Define Future Plays with GVERSE Geophysics

*Powerful 2D and 3D Seismic Interpretation System for Rapid Prospect Generation.*



## Key Benefits

### Full Integration

Maximize your investment with full integration between our geological, geophysical and, mapping tools. Access most everyday workflows within the base package & license.

### Superior Visualization

Gain deeper insights into subsurface structures and data in with our specialized 2D & 3D viewers. Our fast and highly intuitive viewers offer all tools for efficient interpretation workflows.

### Speed & Performance

Work with large seismic files and hundreds of thousands of wells without compromising performance, even on off-the-shelf hardware.

### Accuracy and Reliability

Make quick and accurate structural or stratigraphic interpretations with an extensive toolset for horizon, fault, and geobody interpretation.

### On-the-Fly Attributes

Obtain a better understanding of your seismic data with on-the-fly attribute computation.

### Ease of Use

Leverage a simple, intuitive UI to focus solely on making decisions that matter.

Benefits

Key Features

Release Highlights

Technical Specifications

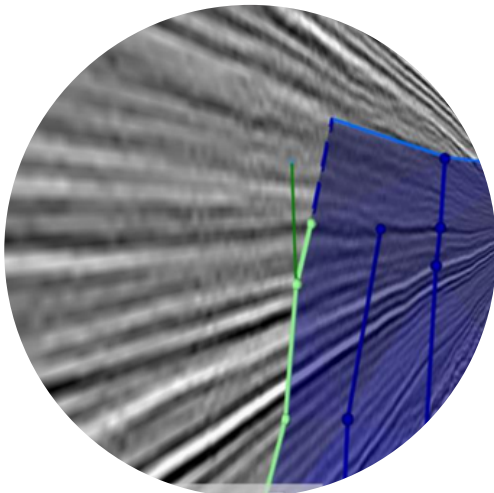
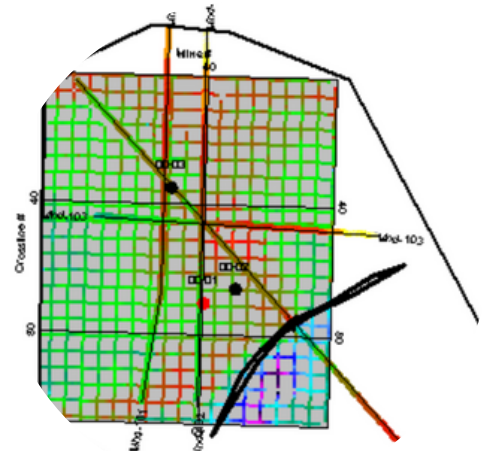
## Key Features

### Seismic Interpretation

#### *In-Depth Horizon Interpretation*

Access multiple picking modes to mark picks & track horizons across multiple 2D & 3D surveys.

- QC features like confidence, pick order, pick type, & pick relationships.
- Multi-Z horizon picking for 2D data.
- Auto-pick events across intersecting 2D lines.
- Snapping, smoothing, merging, dip & azimuth calculations, and other operations.



#### *Rapid Fault Picking & Analysis*

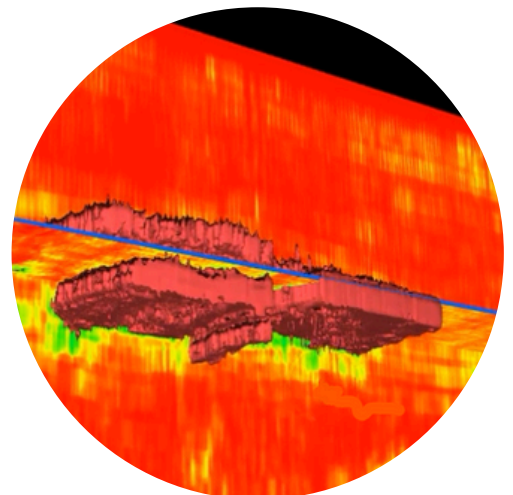
Detect and automatically pick all faults in a volume or pick manually with flexible picking and editing tools for vertical, horizontal, & three-dimensional seismic displays.

- Analysis tools like rose diagrams & stereonet for faster analysis & decisions.
- Correlation windows & fault projection to assist picking in noisy data.
- Fault polygons & heave calculations.

#### *Cutting Edge Geobody Analysis*

Pick structures on seismic volumes as geobodies. Interpolate picks, track signatures, or automatically detect & extract geobodies from seismic data.

- Calculate volumetrics and map thicknesses, convert to horizons, and compute attributes.
- Drape data on geobodies or show intersections on sections.
- Create layers to bring geobodies to other GeoGraphix apps.



Benefits

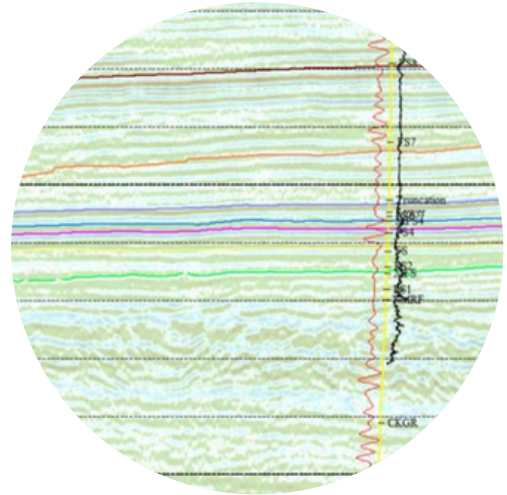
Key Features

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### Integrated Well Top Picking

Add new or adjust existing picks for formation tops and fault cuts in a well directly from the Geophysics app. View & interact with multiple observations for each formation or fault in a well.

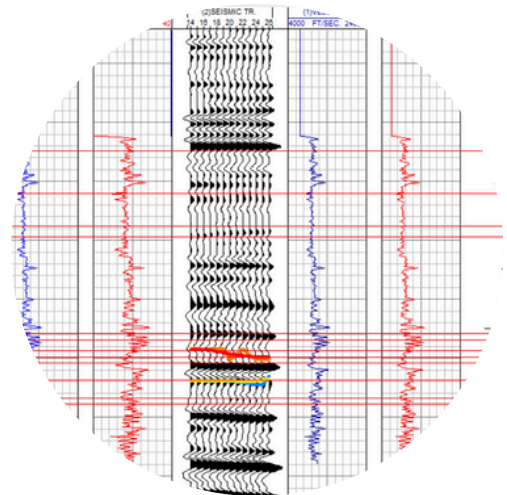


### Time-Depth Workflows

#### Comprehensive Synthetic Modeling

Create or edit synthetic seismograms in SynView – an integrated synthetic editor with no additional license requirement.

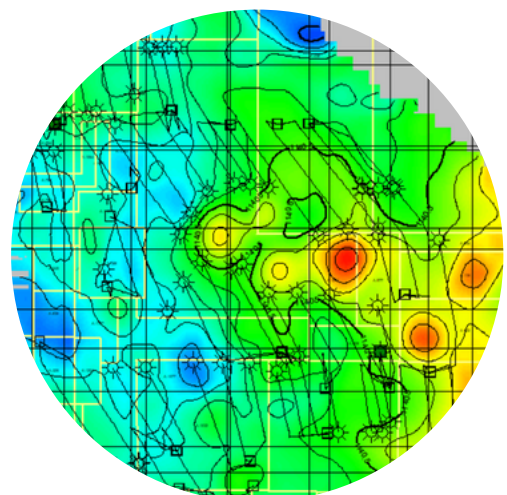
- Adjust & update synthetic with undo-redo in SynView or in 3D.
- Create & edit wavelets or extract from seismic.
- Calibrate, estimate, process & edit input curves.
- Drift, correlation & spectrum analyses to calculate optimum time & phase shifts.
- Work with deviated wells



#### Robust, Reliable Depth Conversion

Experience fast & reliable depth conversion with an extensive set of options suitable for all your depth conversion requirements.

- Half-a-dozen types of velocity models including the ability to use velocity cubes as models.
- Unique three-component horizons & comprehensive conversion options.
- Dynamic depth conversion to keep backdrops in GVERSE Geo+ up-to-date.
- Depth Mode to instantly convert time scenes including all seismic, horizons, faults and geobodies to depth.
- Variety of velocity QC tools.



Benefits

Key Features

Release Highlights

Technical Specifications

## Data Management & Visualization

### Effortless Data Management

Perform rapid interpretation in large 2D, 3D, or combination projects with our 64-bit architecture. Versatile SEG-Y readers handle all scenarios.

### Interactive Mistie Analysis

Easily balance 2D, 3D, and 2D-3D datasets and auto-calculate phase, gain & time relationships.

- Add, edit & search shifts in a single location.
- Import and export shift values.
- Interactive line balancing to match lines quickly & easily.

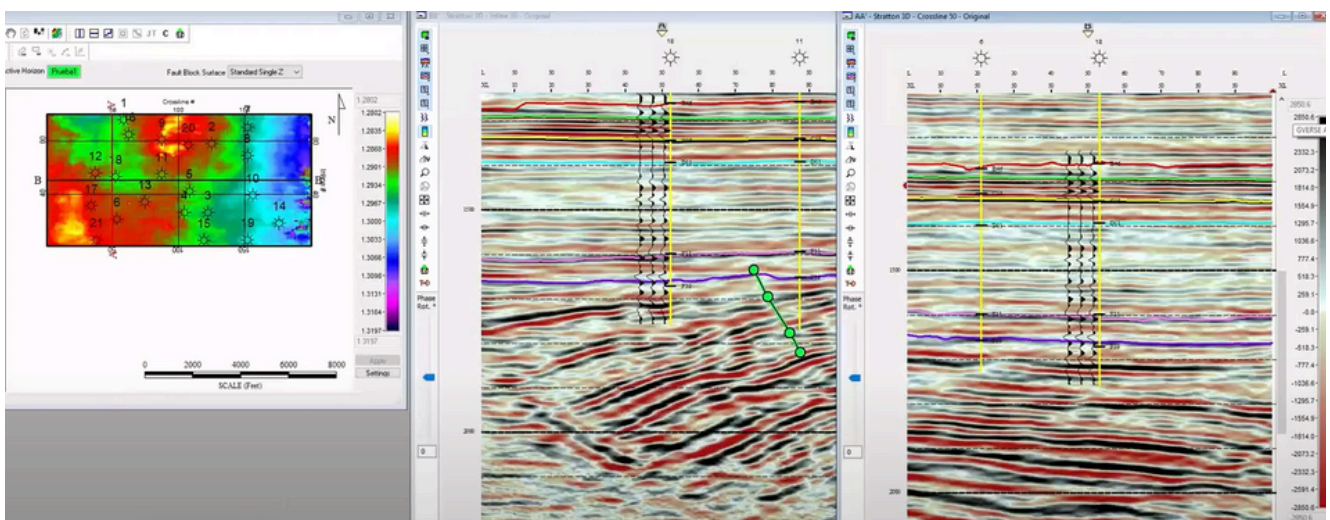
### Blazing Fast 3D

Use an engine built for subsurface data to view your seismic, wells, and other data in 3D. The LOD format does not compromise performance even with very large seismic files. Voxels, blending, selective transparency and other advanced features let you visualize structures for deeper insights and better decisions for your play.

### Versatile Seismic & Well Displays

Feature-rich vertical, horizontal, & three-dimensional seismic viewers with detailed well data posting.

- Load data into RAM for faster visualization.
- Wiggles, power spectrums, phase rotation, filters & other processing tools.
- Default color palettes based on data type.
- Use GVERSE Petrophysics log templates to display logs and related well data.
- Display wellbores, tops & observations, well logs, production data, microseismic, and more.



## Interpretation and Analysis

### Attribute & Surface Calculations

Compute attributes with multiple options in an easy-to-use interface.

- Flexible windowing options.
- Integration with ZoneManager.
- Surface-to-surface calculations.
- Extract seismic data at well locations.

### Crossplot Seismic, Attributes, & Logs

Create scatter plots for seismic, surfaces and well logs for insight into relationships between data.

- Crossplots for sections, horizons, wells or volumes.
- Select and display anomalies on maps & 3D.
- Complete annotation toolset.

### Intelligent Facies Classification

Use the power of machine learning and neural networks to classify facies on horizons with automatic waveform classification by a self-organizing maps algorithm.

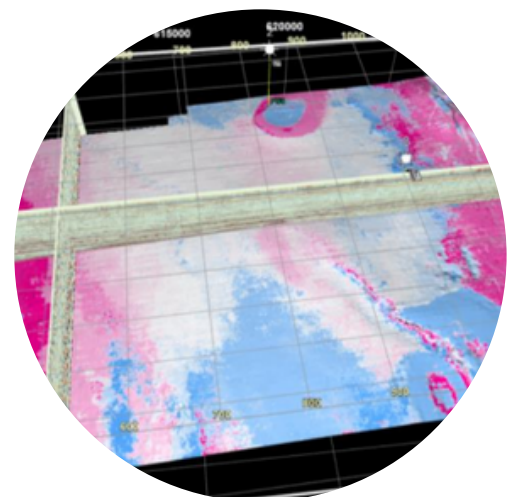
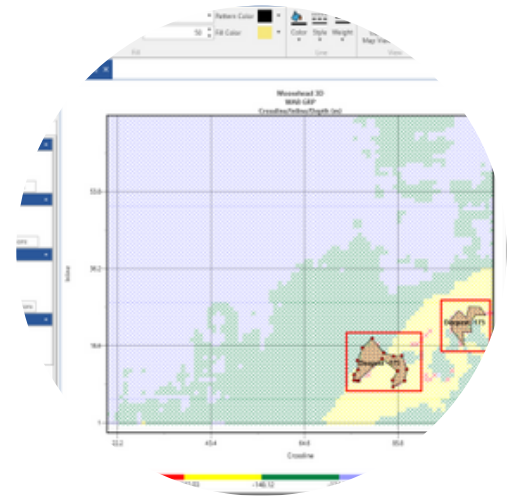
### Indigenous Mapping Capability

Fulfill most of your mapping needs with a built-in mapping framework or leverage the full capabilities of our mapping tools with seamless integration with GeoAtlas.

- Multiple base maps with unique set of display parameters and color palettes.
- Comprehensive gridding and contouring options for maps and surfaces.
- Export or import layers to and from other GVERSE GeoGraphix apps.

### Ease of Use & True Mobility

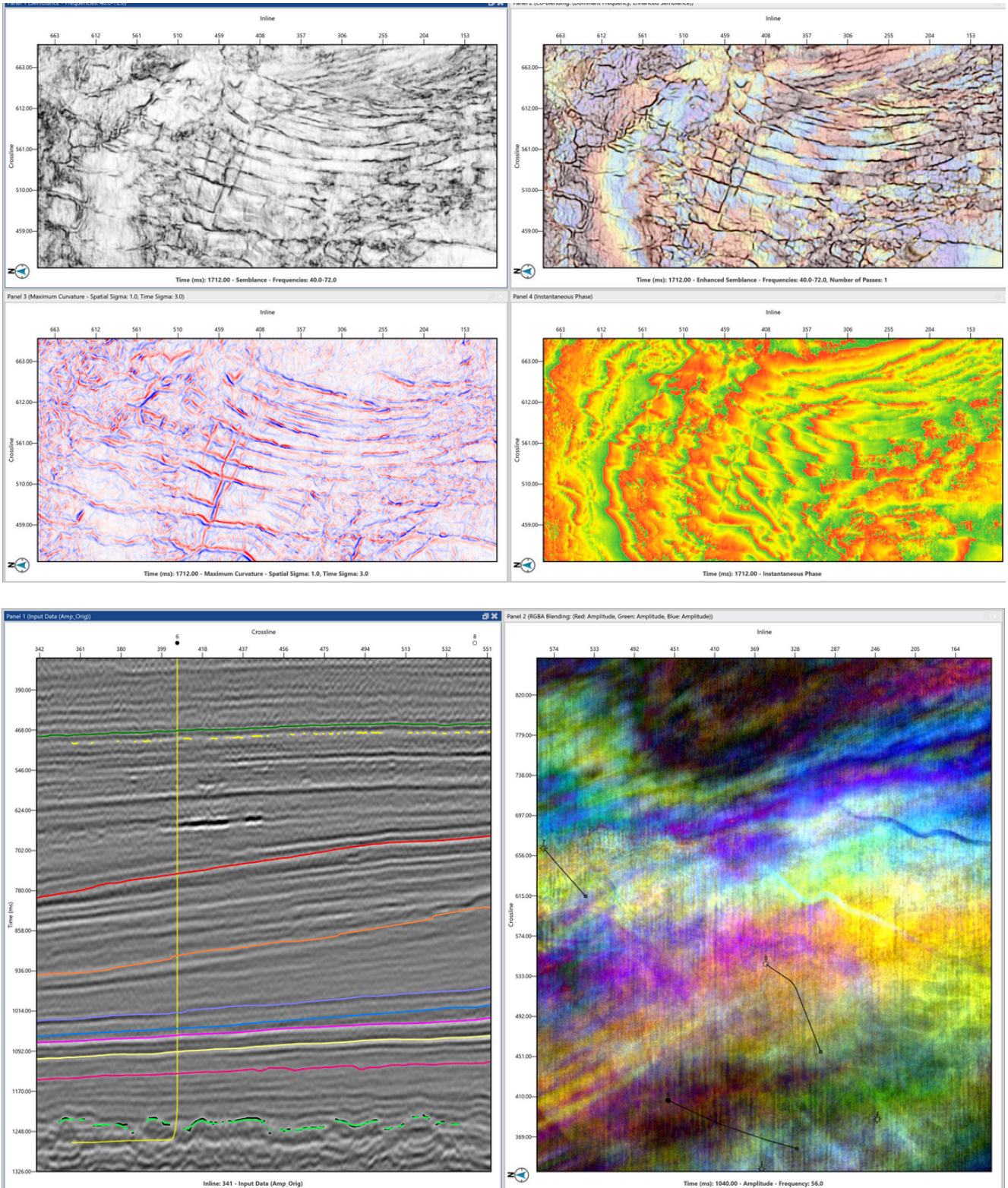
Focus on what's important and minimize the learning curve with a multi-screen, ribbon-based interface, keeping essential tools at your fingertips. It supports remote, desktop, and mobile environments, enabling you to handle large regional projects with minimal IT support.



## Release Highlights 2024.1

### On-The-Fly Seismic Attributes

Calculate, display, and compare seismic attributes on-the-fly in the new Multi View window. Add horizons, faults, and wells to your displays to gain deeper insights. Attach output volumes directly to your interpretation.



Benefits

Key Features

Release Highlights

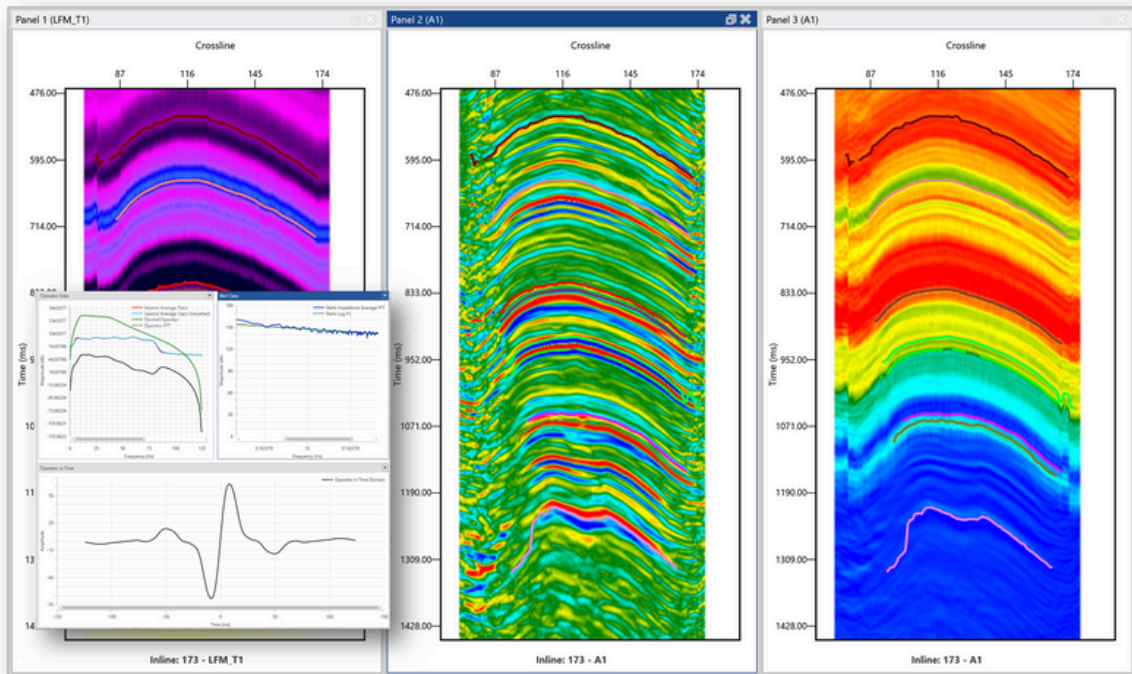
Technical Specifications



## Release Highlights 2024.1

### Invert Seismic to Generate Impedance Volumes

Analyze seismic and well data spectrums to create suitable inversion operators. Apply operators to input seismic in the new Multi View window. Incorporate horizon data to create low frequency models for absolute impedance calculations. Generate relative or absolute volumes and attach directly to your interpretation.



Benefits

Key Features

Release Highlights

Technical Specifications

## Technical Specifications

The following sections list the system requirements for the GVERSE Geophysics:

### Minimum

- 2.4GHz 64-bit Intel class or better
- 8 GB RAM
- Any DirectX 11.1 capable card comparable with NVIDIA® GeForce GTX 1030 with 6GB VRAM. (DirectX is not shipped with GeoGraphix 2024.1. You must download and install it separately.)
- 1,366 x 768 graphics resolution

### Recommended

- Quad 3.2 GHz 64-bit Intel class or better
- 32 GB RAM
- Any DirectX 11.1 capable card comparable with NVIDIA® GeForce GTX 3080 with 6GB VRAM. (DirectX is not shipped with GeoGraphix 2024.1. You must download and install it separately.)
- NVIDIA GeForce or Quadro - 2GB VRAM
- Solid-state Drive (SSD)
- 1920 x 1080 screen resolution

### Software

- Microsoft® .NET 4.5
- Microsoft DirectX 11

**Note:** *It is recommended to use the latest Microsoft® service packs and security patches*

### Operating System(s)

- Windows® 10 Professional x64
- Windows® 10 Enterprise x64
- Windows® 11 Professional x64
- Windows® 11 Enterprise x64

### Licenses

*The following licenses are required to run the application:*

- GVERSE® GeoGraphix license version 2024.1
- GVERSE® Geophysics license version 2024.1
- License Management Tool version 2024.1