



# ***GeoGraphix® Beta 2019.3***

## ***New Features***

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# New Features in 2019.3 - Beta Release

## GVERSE® Petrophysics

### Graphical Curve Splice

Graphically splice curve data for different runs in a well by combining two or more curves logged on different depth ranges to form a continuous composite curve.

### Survey Curves

Display the Survey Curves in GVERSE Petrophysics using the Azimuth and Inclination survey data from WellBase. Use the Survey Curves as discriminator curve or as equations in UDE and display them in cross sections.

### Filter Wells with Curves in Zone

Define a Wells with Curves in Zone filter to refine the inventory that focuses on only the wells with curves lying fully or partially in the corresponding zones.

### Data Sorting

Attribute management is made easier with sorted list of Well with Computed Curve Sets in Assign Field Data and Delete Computed Curves feature.

### Alphanumeric LAS Import

GVERSE Petrophysics integrates many types of data and starting from this release the user can easily import LAS files with alphanumeric text.

### UDE Enhancement

Bringing together all the important actions into one place with a right-click gesture. Manage your input controls in UDE using a context menu.

### Filter Image Names

Efficiently retrieve and highlight the Image Names in the Image List using key words in Depth Registration Default and Alias Image Names feature. Use the filtered images in Image Track of Log Template in GVERSE Petrophysics.

# GVERSE® Geomodeling

## Add XSection Cross Section

A new workflow, where it is possible to set up the loading of XSection cross sections in the active interpretation.

## Aerial Cross Section

Select multiple wells in the Map View and create well to well spatial cross sections in either North-South, East-West direction or in Ascending Order of Well ID's.

## Polygonal Selection

The Polygonal Selection Tool allows you to quickly generate a polygon around the desired wells in Map View to include the selected wells for cross section creation.

## Distance between Wells in Cross Section

Manage the well distance postings in a projected cross section based on the surface and TD projections. This functionality enables you to align the distance annotations at the surface or bottom-hole location in the Cross Section View.

## Add or Remove Modeled Zones from the Geomodel

An additional option inside the GeoSurface Model Properties dialog box to toggle On/Off the modeling of zones, thereby, allowing you to include or exclude the zones from the active model.

## Surface Well Intersections

You can now turn on the surface well intersections from the GVERSE Geomodeling toolbar that displays intersection points as (pies) on the wells intersecting the active surface in the Map View. This is very useful in removing the unnecessary wells from the model or cross-sections.

## Open GeoAtlas Map

This new functionality aims to introduce a workflow of adding a GeoAtlas map in the active interpretation.

## Show/Hide Projected Tops

A new option to hide projected tops has been added, which looks for the projected tops (white triangles) in a projected cross section and hides them while keeping the projected surfaces visible.

## Perforation, DST and IP Calculation in Selected Zones

Calculate Perforations, Drill Stem Test and Instantaneous Potential within a defined zone by using the check boxes found in the Calculate Well(s) in Zone dialog box.

## Export smartSTRAT Interwell Points

smartSTRAT now supports the export of all the tie points and fault offsets to a (.csv) file format.

## Refresh All Views

Perform refreshing of views in couple of seconds to quickly update the data changes in the geomodel.

## Reload Surface

Reload surface in matter of few seconds after adding and modifying well points in the Database.

### Reload Well

Reload well in couple of seconds after updating the well or log data.

### Cosmo 10 Upgrade

Geomodeling engine for GVERSE Geomodeling has been upgraded. The latest version results in better performance and stability. It also provides better structural interpretation in highly faulted areas.

## GVERSE® Geophysics

### Create End-to-End Synthetic Seismograms

Work with synthetics in a sleek new interface. Extract wavelets, edit and calibrate curves and work seamlessly with deviated wells. Fine-tune changes with undo-redo capability, drift analysis, correlation between synthetic and seismic and powerful power spectrums.

### Do More with Geobodies

Map geobody surfaces and thickness, create IsoMap layers, convert to horizons, compute attributes on geobodies and view depth-converted geobodies in Virtual Depth mode. Limit tracking between horizons and edit geobody seed picks.

### Detect Faults Automatically

Auto-pick faults individually or in bulk. Use Rose diagram for rapid fault analysis. Project faults on unpicked sections. Adjust your picks with advanced editing and batch actions.

### Crossplot Volumes and Attributes

Create scatter plots for seismic volumes, attribute surfaces and well data. Plot for seismic sections, horizons, well locations or a volume. Annotate data and trends, and view anomalies on maps or 3D.

### Pick and Edit Well Tops

Add new or adjust existing picks for formations and faults in a well directly from the GVERSE Geophysics 3D Module. View and interact with multiple observations in a well.

### Balance 2D Lines Effortlessly

Add, edit and search shifts for all 2D lines in one location. Import and export shift values. Use the new interactive line balancing tool to match lines easily and auto calculate shifts.

### Build Better Velocity Models

Create velocity models from seismic velocity data. Incorporate multiple observations for accurate gridding. Build more reliable models with improvements in triangulation algorithm.

### Use AI for Facies Classification

Classify facies on horizons using AI and neural networks with automatic waveform classification by a self-organizing maps algorithm.

### Visualize Even More in 3D

Display microseismic data, crossplot points, attribute surfaces, multiple observations for formations/faults and a lot more in 3D. Make features pop with the new lighting interface.

### Improve Efficiency

Increase overall productivity with a ton of usability enhancements such as a redesigned navigation bar, improved default color palette controls and a lot more.

## GeoAtlas™

### Support for ESRI ArcGIS 10.7.x

All GeoGraphix applications support the latest ESRI ArcGIS 10.7.x versions.

### Go To XY Tool

Specify the location with more precision by using the Go To XY tool. Type in x,y coordinates using a desired coordinate system and navigate to them on the map.

### Export Map

GeoAtlas now supports the export of maps in Geospatial Image File Format - GeoTIFF (\*.tif).

### Ability to Search Well Data by Zone

Efficiently search and update the scout field data using Filter by Zone option. This is useful in applying the conditional pies on the wells lying in the selected zones and satisfying the search criteria.

## ProjectExplorer™

### GGX Server Configuration

GeoGraphix has implemented a server configuration tool that can be used by IT engineers to easily configure the GeoGraphix without manually configuring the DCOM settings with every server installation of GeoGraphix.

## QueryBuilder

### Easy-to-Navigate User Interface

Working with data in QueryBuilder is made easier with the introduction of interactive tabs with relevant features grouped together for better user experience. Customized Quick Access Toolbar, data filtering tools, and print options, all become easily accessible with the latest QueryBuilder user interface.

### Filtering Wells Using Dipmeter Data

For WellBase data, a new table, Dipmeter Data is added enabling users to create filters based on the wells containing dipmeter data.



# WellBase

## WellBase application updated to 64-bit

Work effortlessly in WellBase with larger datasets, including formation tops and deviation surveys, in the 64-bit environment.

## Easy-to-Navigate User Interface

WellBase database management system navigation is made easier with the introduction of interactive tabs with relevant features grouped together for better user experience. Customized Quick Access Toolbar, WellBase tools, Data Managers, Import/Export options, and Layer creation and update options, all become easily accessible with the latest WellBase user interface.

## GeoGraphix Integration with Spotfire Analytics

With the TIBCO® Spotfire® Analyst AI solutions visualize GeoGraphix data, arranged in different templates, for data mining, analysis and QC. GeoGraphix integration with Spotfire Analytics helps you:

- View GeoGraphix wells along with their complete information in Spotfire.
- Filter abnormal values in different data types and clean your well data.
- Create WellBase filter(s) based on different parameters determined after data analysis.
- Add zone attributes in Spotfire.

## Grid Convergence Angle Calculation

Calculate the grid convergence angle in WellBase for well surveys in bulk from the Tools tab or for individual wells in a survey.

## Survey Grid Updated

Survey page in WellBase Information Manager displays the Survey projection for well(s) after the calculation of the grid convergence angle.

## Delete Duplicate Data

Delete duplicate data from perforation (perfs), drill stem tests (DSTs), initial potentials (IPs), cores, and completions tables for certain wells using the Delete Duplicate Data option in the Bulk Update menu on the Well tab in WellBase.

## GVERSE Planner

### Customized Coordinate Conversion

Export the Survey Easting and Northing to a custom Coordinate System using the Convert to Custom Coordinate System option on the Survey tab in GVERSE Planner window.

## ZoneManager

### Create Interpolated Tops

Create interpolated tops from the intersection of an IsoMap surface with wells in a selected filtered list to accurately determine the amount of depth-related data (perforations, cores, DSTs etc.) associated with ZoneManager zones.

### Update Zone Data

With a click of a button, update the data in the database tables for the selected zone after successful creation or import of new well data.

## Utilities

### ESRI ArcGIS Auto-Configuration Utility

The ArcGISConfigurationTool utility is provided for IT support teams to automatically configure GeoGraphix for network users with the installed ESRI ArcGIS Runtime engine. The support personnel will not be required to go to each machine for manual ArcGIS configuration.