

Well Log Correlation Software

GeoGraphix[®] smartSECTION[®] is a 3D geomodeling application that combines the industry's most intuitive log correlation capabilities with advanced tools for 3D surface modeling, sequence stratigraphy, structural analysis, and horizontal well correlation. Unlike conventional interpretation tools, it supports high-volume, geologic interpretations and boosts productivity. Its ease-of-use, combined with an advanced geological tool set, affords users a significant competitive advantage.

As an integrated solution, GeoGraphix[®] smartSECTION[®], Framebuilder[™], smartSTRAT[™], and advanced 3D visualization rank as the industry's premier geological interpretation system for both conventional and unconventional resource plays.

Benefits

Fast, Intuitive Well Log Correlation and Interpretation

Assess a geomodel in cross section view for an accurate and efficient interpretation. Build well-to-well and/or projected cross sections, and correlate both raster and vector well logs quickly and efficiently using paper-based correlation simulation tools. For fast, interactive well log correlation, use Quick Pick Mode to suspend geomodeling until picks are ready to be committed to the database and to the geomodel. Quick Pick Mode also supports multi-level Undo/Redo of picks (prior to saving). Use Batch Model Update mode to delay applying the geomodeling tools until the interpreter is ready to commit the changes all together.

Unconformity, Fault Plane, and Fault Intersection Identification

Use predicted correlations and unconformity trimming toolsets to execute powerful, sequence stratigraphic workflows to unveil subtle stratigraphic relationships often indicative of hydrocarbon accumulations. Easily interpret faults and fault network relationships with or without vertical separation values.

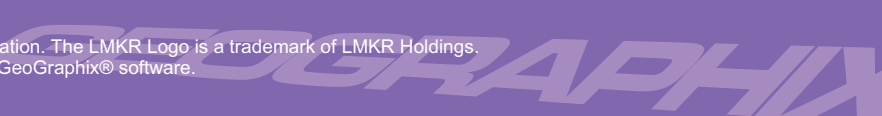
Geophysical and Geological Interpretation Integration

Source surfaces and faults from well picks and IsoMap[™] grids/data points, or from depth-converted SeisVision[™] surfaces. On-the-fly, depth-converted seismic backdrops, dynamically scaled to individual cross sections, help ensure a comprehensive and accurate interpretation.

Features

Geosteering Correlation Tool

- Within the context of a live geomodel, hang type logs at correlation points along the wellbore to correlate horizontal wells
- Display multiple type logs anywhere along the horizontal wellbore



Surface-Based Interpretation

- Enjoy simple and intuitive surface modeling of formations, unconformities, channels, fault surfaces and intersections
- Combine data from WellBase, IsoMap™, or SeisVision surfaces for a comprehensive and complete interpretation
- Perform fault offsets and unconformity intersection trimming in 2D cross section slices of a 3D model
- Instantly map formation/unconformity intersections with the Framebuilder mapping module
- Interpret workflows with dynamic geomodeling to increase interpretation speed and geological accuracy
- Simulate paper-log correlation (log dragging, slipping, and track clipping); instantly hang logs structurally or stratigraphically with highly efficient log-correlation workflows

LMKR Well Planner Integration

- Design mechanically drillable well plans on vertical sections in smartSECTION® and automatically store them as proposed surveys in WellBase
- Take advantage of all of the smartSECTION® cross section features to ensure an accurately targeted well plan

Dynamic Depth-Converted Seismic Surfaces and Backdrop

- Combine geological and geophysical workflows by displaying on-the-fly, depth-converted seismic horizons and faults with a seismic backdrop in cross section view and based upon the active velocity model in SeisVision
- Update the SeisVision velocity model by incorporating inter-well points into the velocity control

Surface Prediction with Conformance Mapping

- Design formation-to-formation thickness maps to model and predict deep structures on surfaces with few control points
- View constrained surfaces as contour maps with Framebuilder

Fault Gapping for Structural Analysis Workflows

- Restore deleted sections (removed due to faulting) and pick missing tops with fault gapping
- Use vertical separation values to constrain surface offsets across faults

Unconformity Gapping for Stratigraphic Analysis

Workflows

- Use unconformity gapping to support sequence stratigraphic workflows
- Use interactive unconformity gapping and missing/restored surface modeling to support highly accurate subcrop maps

Fault and Unconformity Hierarchy

- Use unconformity networks to model complex, sequence stratigraphic relationships and to help reconstruct stratigraphic geometries in cross section view
- Utilize faulting networks to support cross cutting age relationships among intersecting faults

Requirements

Hardware (MINIMUM)

- 2.4GHz 64-bit Intel class or better
- 4GB RAM
- 1,024 x 768 graphics resolution
- CD-ROM drive
- 19-inch monitor

Hardware (RECOMMENDED)

- Quad 2.4 GHz 64-bit Intel class or better
- 16 GB RAM or greater
- NVIDIA GeForce or Quadro - 2GB video RAM
- DVD-RW drive
- Dual 21+-inch monitors

Software

- Microsoft® .NET 4.5
- Microsoft® DirectX 11

Operating System(s)

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