GeoGraphix® Framebuilder™, an add-on module to GeoGraphix smartSECTION®, is an advanced, topological, 3D geomodeling engine that allows geologists to create real-time maps depicting complex, structural and stratigraphic frameworks from relationships interpreted in smartSECTION® cross sections. Combined with the GeoGraphix advanced 3D visualization module, the geological framework is viewed in 3D to define prospects quickly and more accurately and to gain better insight into hard-to-reach assets.

During the interpretation process, interpreters use Framebuilder’s map view to see their earth models created on-the-fly. Interactive adjustments of interpretations based on instantaneous feedback of well log correlations, cross section picks, fault picks, and ensuing mapping geometries afford the interpreter the unique advantage of real-time access to a fully integrated and interactive 3D geologic model, garnering a quicker and more accurate interpretation.

**Benefits**

**Rapid, Subsurface Interpretation and Model Development**
Exploration geologists can accelerate workflows within a highly integrated environment of synchronized map and cross-section views. Surface modeling and framework-building architecture supports interpretation in the context of a 3D geomodel. Geoscientists pick tops and faults in smartSECTION® and build multi-surface frameworks with accurate, intersecting geometries. Each change to the interpretation (i.e., when a top is added or edited) triggers a multi-surface framework update, offering the interpreter instantaneous feedback in map and cross-section views. This highly interactive and iterative feedback from the live geomodel ensures additional accuracy in interpretation.

**Superior Structure Mapping and Forecasting**
Use of this powerful, multi-surface conformance technology facilitates deep-basin prospecting. The conformance mapping tool permits the instantaneous creation of structurally accurate, target surfaces for unconventional plays and enables the projection of structural information found in shallow subsurface to deeper horizons. Well-sampled, shallow surfaces serve as suitable constraining surfaces, allowing the conformance tool to add...
formation-to-formation thickness maps for deep structure modeling and prediction on surfaces with few control points. A feature such as this enhances the understanding of stratigraphic geometries in the interwell space away from shallow well control.

Framework Building
GeoGraphix Framebuilder™ technology is built upon an advanced topology engine which allows rapid surface-to-surface intersection detection. Intersection detection facilitates surface-to-surface truncation and trimming operations useful in 3D structural and stratigraphic model building. Combine both well data and seismic data sources to model a surface comprehensively and completely and to integrate with other, geological and geophysical applications. Easily integrate mapped surfaces in cross section views and quickly refine stratigraphic and fault geometries.

Features
Modeling from Multiple Sources
Create Framebuilder™ surfaces from virtually any source. The interpreter can model data from WellBase data or from SeisVision™ horizons and faults for dynamic, on-the-fly interpretations. Surfaces sourced from IsoMap™ grids or data points integrate XYZ data from any internal or external data source.

3D Surface Offset Modeling
- Segregate and independently model a project into, and truncate well picks against a fault plane
- With the smartSECTION™ 3D model, automatically calculate fault plane offset values and the resulting geometries, and adjust fault offset estimates to honor vertical separation data

Sequence Stratigraphic Model Building
- Detect formation-to-unconformity surface intersections and trim the appropriate portion of the formation surface based on predetermined age relationships configured within the Stratigraphic Column Manager
- For a competitive advantage in prospecting, identify subtle trap geometries and play trends with modeled subcrop and structural relationships
- To obtain cross section views of previously unseen interwell geometries and stratigraphic relationships, utilize projected sections to cut through the 3D geomodel

Framebuilder™ Model Visualization
- As interpretations occur in cross section views, visualize and dynamically update Framebuilder's unconformable, surface-to-surface and fault-to-surface intersections (when used with GeoGraphix® advanced 3D visualization)
- As data is added and interpreted within the 3D geomodel context, easily visualize fault geometries in map view and interactively edit in both map and cross section views. To enhance understanding of reservoir geometries and attributes, integrate IsoMap™ attribute grids and smartSECTION's well-based, interpreted surfaces
- For a competitive advantage in prospecting, identify previously overlooked interwell trap geometries and play trends with modeled subcrop and structural relationships

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