SeisVision™

Seismic Interpretation Software
Powerful, 2D and 3D seismic interpretation system for rapid prospect generation

SeisVision™ software is a powerful, fully integrated 2D and 3D seismic interpretation system that provides 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 uses the many tools of SeisVision to achieve these otherwise challenging tasks.

A standard module of the LMKR GeoGraphix® suite, SeisVision database and project management tools, when combined with the entire, LMKR GeoGraphix software system, connect data for a complete interpretation without need for inter-application data transfers.

Benefits

Faster, More Informed Decisions
Sharing of geological and geophysical interpretation ensures a more efficient asset team; their resulting decisions are faster and more informed, qualities essential to today's fast-paced, E&P environment.

Ease-of-Use
Intuitive and familiar Windows®-based interface is easy to navigate and requires little training; efficiency is increased as a result.

True Mobility
LMKR GeoGraphix applications support remote, desktop and mobile environments; they easily accommodate some of the industry's largest regional projects while reducing need for IT support.

Key Features

Data Loading and Management
- 64-bit support for rapid interpretation in large projects
- 2D or 3D data in standard SEG-Y format; data loads effortlessly with the wizard-based data loading tools
- Batch loading of 2D data; to prevent information loss, the EBCDIC character header is stored as data loads
- 2D, 3D or combination projects
- 2D seismic surveys; program groups along with multiple versions of each survey ensure easy, survey management
- Automatic calculation of phase, gain, and time relationships between seismic lines and surveys: 2D/2D, 2D/3D and 3D/3D
- Various versions of multiple, 3D surveys enhance projects

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Horizon Interpretation

- Supported picking methods: manual, 2D auto-picking, polygon picking and drag-picking modes
- Advanced 3D horizon-tracking using correlation or interpolation-based auto-pick methods with validation options (included with SeisVision at no additional cost)
- 2D, data-supported multi-Z horizons for thrust-faulted area interpretation
- Full set of horizon operations: copy, smooth, snap, merge and dip/azimuth calculation

Fault Interpretation

- Fault interpretation on vertical or 3D views with arbitrary lines or time slices
- Automatic fault surface interpolation using improved fault triangulation delivers accurate and reliable results
- Fault segment correlation and assignment on vertical view, time slice, map view, or in 3D
- Automatic fault heave calculation with fault polygons as heaves are calculated

Mapping

- Multiple base maps, each with its own, unique set of display parameters and color palette
- Contour maps or color density maps of time, depth, velocity or seismic attributes
- Gridding and contouring with minimum curvature gridding or inverse distance algorithm for quick, interpretation maps
- Access to the full set of gridding operations when mapping data with geophysical and geological integration (requires GeoAtlas & IsoMap software)
- Planimeter and linear distance tools on map view

Time-to-Depth Conversion

- Straightforward and accurate time-to-depth workflows with unique, three-component horizons: time, velocity and depth
- Time-to-depth conversion of seismic data using a velocity model based on velocity surveys, or on interpolated well tops and horizon times from well control
- Velocity Manager for creation and management of multiple velocity models; select from three, different methods to create velocity models for average or interval velocities
- Dynamic, depth conversion through integration with smartSECTION® incorporates formation pick changes into the velocity model

- Horizon time-to-depth using one of five options, each tailored to the problem: average velocity, interval velocity, velocity surveys, Vo and KZ (using a geological datum)
- Automatic velocity calculation at a well location using formation-depth/horizon-time relationships
- Interwell velocity interpolation control to manage velocity interpolation; seismic horizons structurally guide the model creation
- Velocity QC functions with velocity survey graphs comprising overlays

Attribute and Surface Calculations

- User-friendly, attribute and surface calculator comprises 21 attribute options
- Attributes calculated within a time window, between horizons or about a selected horizon
- Attributes derived from seismic data are extracted at the well locations and integrated with rock properties
- 2D- and 3D-supported horizon-to-horizon or surface-to-surface calculations

Optional, Add-on Modules

pSTAx® Post-Stack Processing Software

Perform post-stack processing flows directly from the desktop. With pSTAx software, geoscientists perform post-stack processing flows directly from the desktop, no external reprocessing necessary. pSTAx can be used as a standalone application supporting SEG-Y formatted seismic data, or in conjunction with SeisVision, as geoscientists accomplish input and output using bricked formats.

Standard, post-stack processing functions, such as amplitude scaling, correlations, convolution, filtering, and phase rotation, build an ideal desktop environment for the quick and easy evaluation of the effects of new processing flows.
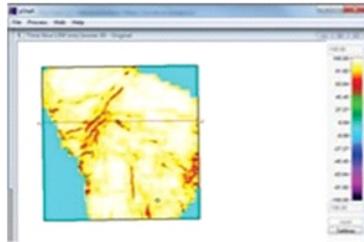
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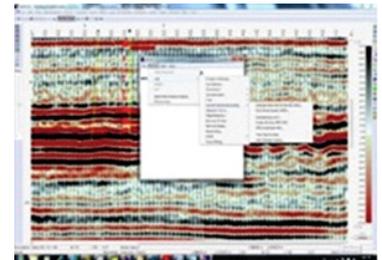
SCAN™

SCAN™ software is an optional extension of the seismic processing module pSTAx. SCAN calculates Event Similarity Prediction (ESP) similarity volumes as well as Structure Cubes from the input data.

With SCAN™, the geoscientist readily identifies subtle discontinuities in the seismic data potentially related to geological features. This tool provides a cost-effective alternative to project outsourcing.

Key Features

- Easy identification of linear features such as faults, fractures, reefs and channels
- Interpretation of subtle discontinuities in seismic data
- Identification of subtle stratigraphic changes such as channel thickening

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

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