Realize the full potential of azimuthal seismic data with our advanced seismic reservoir characterization.

Anisotropic Inversion is exclusive **Jason** seismic inversion software that applies new analysis technology for effective well design and optimum production. **Anisotropic Inversion** is built on proven **RockTrace®** technology and seamlessly integrates within the GeoSoftware platform. This includes the key components, **Jason® Workbench** and **PowerLog®**.

The anisotropic inversion workflow derives reservoir anisotropy measures using advanced **Jason** technology to:

- Perform AVO inversions of seismic data for each azimuth sector

- Model the inversions to determine reservoir anisotropy

The **Jason**-patented relation between elastic dependence and anisotropy allows Quantitative Interpretation (QI) teams to more accurately characterize reservoirs that have significant anisotropy. Oil companies can now take advantage of the reservoir information in azimuthal seismic surveys to define optimum reservoir drilling locations:

- Build advanced predictive reservoir models

- Understand premature water breakthrough in shale and fractured carbonate reservoirs

- Improve well planning in shale and in fractured carbonate reservoirs

Key Analysis Features

A number of new quality control and visualization tools are now available to support azimuthal inversion. These include:

- Common Offset – Common Azimuth (COCA) plots

- Rose diagrams

- Necklace plots

- Vector map plots

- Azimuthal fold plots
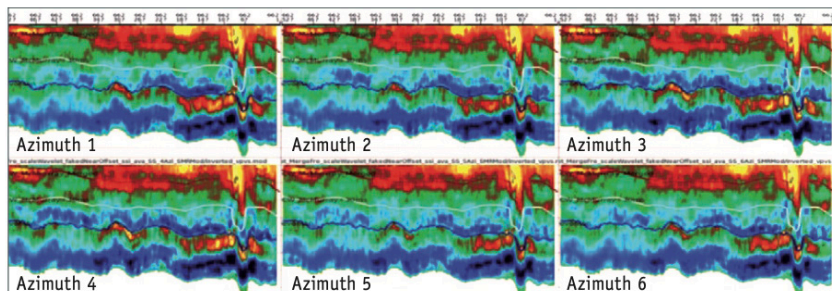
- Anisotropic synthetics

- Vector anisotropy plots
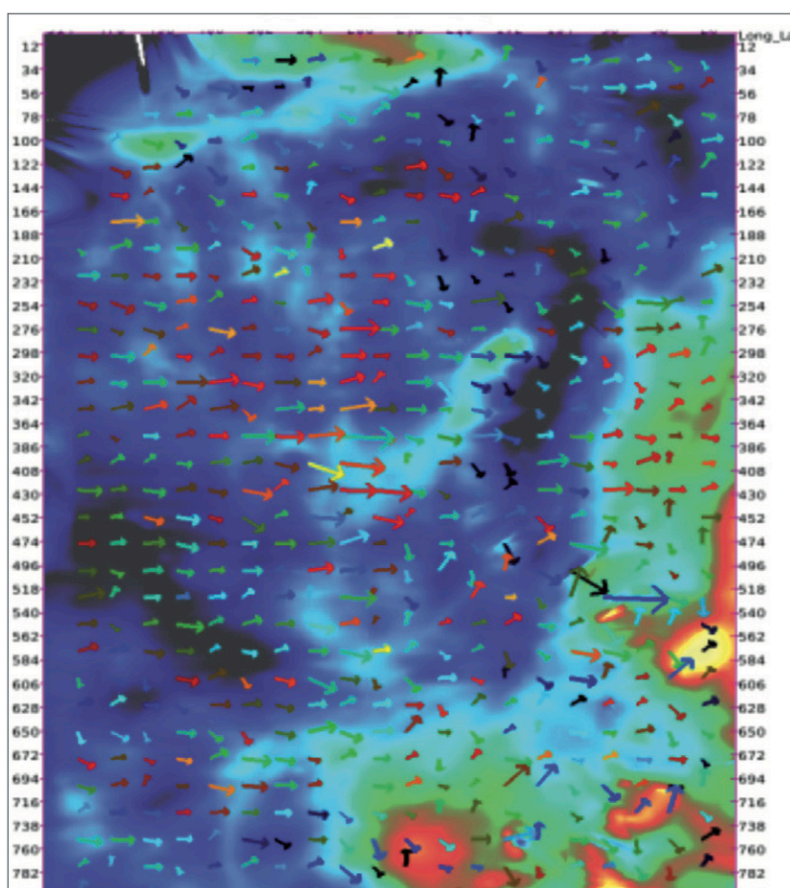
The arrows indicate the magnitude and direction of anisotropy. The color of the arrows represents the maximum value of the azimuth-dependent Vp/Vs from which the anisotropy is obtained. The background color shows the time structure of the anisotropic layer.

GeoSoftware™
www.GeoSoftware.com

Set of azimuth-dependent Vp/Vs volumes from inversion.

When azimuth-oriented offset or angle gathers are available, **RockTrace** is used to produce a set of elastic volumes – one for each azimuth. For typical acquisition scenarios, Vp/Vs is the key output (see figure above) although density can also be used.

User Benefits

- Wavelet-compensated anisotropy property measures
- Critical reservoir anisotropy imaging for optimum well planning

Jason Anisotropic Inversion Features

- Estimates key reservoir anisotropic properties
  - Magnitude and orientation
  - Fracture density
  - Rock weaknesses
  - Extends **Jason** VTI (Vertical Transverse Isotropy) patent to HTI (Horizontal Transverse Isotropy)