Jason® Workbench

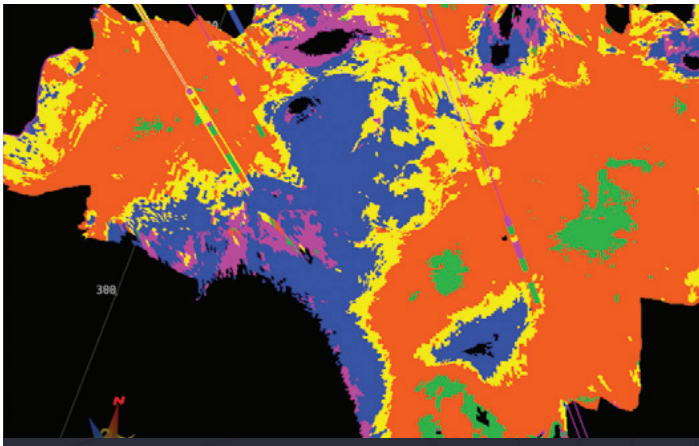
Advanced Seismic Reservoir Characterization

GeoSoftware™

www.GeoSoftware.com

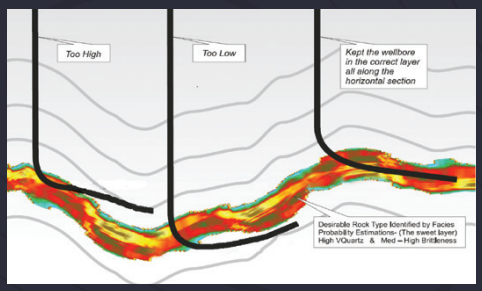
Produce A Clear View Of Difficult Reservoirs

The advanced seismic reservoir characterization workflows within **Jason**® yield timely answers for critical decisions. Clients can optimize field development, reservoir management and well planning using advanced technology in seismic inversion and reservoir characterization. **Jason** software is based on proprietary industry-leading algorithms for deterministic and geostatistical inversion and facies identification. With its integrated velocity calibration tools, reservoir characterization results are delivered in depth and match the well information. In both Deterministic and Geostatistical analyses, uncertainty can be estimated and incorporated into the reservoir characterization analysis.



Address the most difficult exploration and development challenges

- Define the best drilling and fracturing programs in unconventional shale gas and oil reservoirs
- Locate and produce thin reservoirs most effectively
- Unravel tuning and AVO effects to map the true geologic character of complex reservoirs

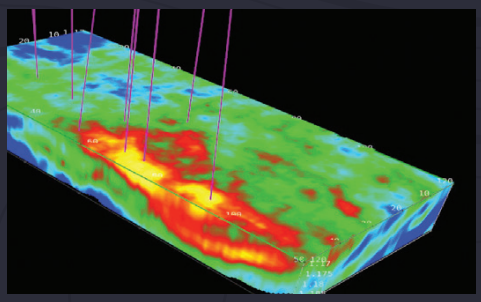


Preplan wellbore trajectories to stay within the layer possessing the best petrophysical and mechanical properties throughout the length of the horizontal section

Improve accuracy with built-in quality controls

For both conventional and unconventional projects, built-in quality controls provide greater confidence to estimate reservoir properties and extract maximum value from seismic investments.

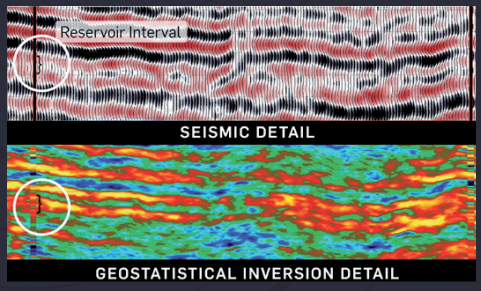
> *Our ultimate aim is to help energy companies drill fewer and more productive wells so they can achieve their exploration and production goals. For our clients, this translates into a greater return on their assets.*



RockTrace - Vp/Vs from Simultaneous AVO Inversion images hydrocarbon-bearing sandstone channels

Clearer picture for asset teams

Jason makes it easy to understand and analyze the subsurface. Multiple layers of data including wells, horizons, faults, seismic and rock property volumes can be simultaneously visualized. **Jason** helps asset teams create reliable field development plans, optimize reservoir management strategies, and improve reservoir surveillance. Using a unique approach to integrating engineering and geoscience workflows, **Jason** provides a clearer picture of the reservoir — ultimately minimizing risk and improving productivity.



RockMod - Combine seismic with geologic knowledge for better detection of thin layers

Value in unconventional plays

Jason offers exceptional value to companies facing challenges in shale reservoirs. **Jason** technology combines industry-standard deterministic and geostatistical workflows with exclusive anisotropic inversion software. This helps measure critical reservoir properties, determine optimal zones for hydraulic fracturing and avoid water incursion into the reservoir. As a result, clients can maximize production and cut costs though more efficient use of frac fluid. In steam- assisted gravity drainage (SAGD) heavy oil plays, more reliable reservoir characterization translates into reduced steam-to-oil (SOR) ratios.

Geostatistical reservoir characterization to reveal thin layers

- Integrate quantitative facies and fluids information from seismic into reservoir models
- Produce multiple plausible representations of the reservoirs, for reliable and tangible measurements of uncertainty
- Invert facies and elastic properties jointly for optimal prediction of reservoir geobodies and properties
- Invert directly for engineering properties through rock physics models that include uncertainties between properties

Innovation technology advancements

- Anisotropic inversion analysis technology that delivers anisotropy property estimates calibrated to well control, crucial for effective well design and optimum production
- Unique depth inversion technology that allows direct use of depth seismic in well tie, wavelet estimation and inversion processes to deliver results calibrated to the well depth
- Multi-stack, multi-well wavelet estimation for more stable wavelets
- Centralized synthetics capabilities, including full waveform and anisotropic synthetics
- More predictive reservoir models for dynamic modeling and simulation through the use of 3D facies probability trend models

Enhancing the user experience

- Automated 3D body capture and ranking to fully extract the value of geostatistical inversion from multiple realizations
- Fast and efficient transfer and upscaling of selected geostatistical inversion realizations to the corner point grid
- Multi-volume alignment for more accurate AVO inversions
- Improved usability and user interface with fewer mouse clicks, fewer pop-up windows, and enhanced 3D visualization
- Wide range of quality control capabilities for checking consistency at every step

GeoSoftware™

GeoSoftware provides the industry's preferred comprehensive set of software products and support for E&P multi-disciplinary teamwork.

High-end, cross-product workflows enable a better understanding of reservoir properties and how they evolve through the life of the field.

GeoSoftware helps reduce reservoir risk and uncertainty in seismic reservoir characterization, velocity modeling, advanced interpretation, petrophysics, rock physics, AVO and geological modeling. The GeoSoftware portfolio includes **HampsonRussell**, **Jason**, **PowerLog, InsightEarth**, and **VelPro**.

TO LEARN MORE, VISIT:
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Gain greater reservoir insights!
Optimize your E&P workflows with innovative geoscience technology.

HampsonRussell
GEOPHYSICAL INTERPRETATION TOOLS

Jason
ADVANCED SEISMIC RESERVOIR CHARACTERIZATION

PowerLog
MULTI-WELL LOG ANALYSIS

InsightEarth
ADVANCED 3D INTERPRETATION

VelPro
POST-STACK VELOCITY MODELING