PowerLog®

Comprehensive Petrophysical Interpretation

PowerLog® is the benchmark for petrophysics, rock physics, facies analysis and statistical mineralogy. The **PowerLog** suite enables asset teams to locate and evaluate zones in well bores and provides sophisticated tools to quantify the commercial potential of these intervals.

Greater insight into subsurface rock and fluid properties allows E&P companies to reduce their costs and risks while drilling and completing more effective wells.

Proven Technology

Introduced to the oil and gas community more than 35 years ago, **PowerLog** has evolved to become one of the most user-friendly, yet sophisticated solutions available. **PowerLog** lets you work on thousands of wells with data located anywhere in the world, as an individual or as part of a team.

Faster and easier than ever, it does the heavy lifting so you get more work done.

Project Collaboration

Efficient multi-user functionality lets petrophysicists analyze logs, geologists pick tops, and engineers create zones for an integrated reservoir characterization workflow. A collage of powerful visuals, automatically updated by dynamic viewers, presents field data for review. **PowerLog** provides robust data management, improved asset team collaboration and streamlined workflows.

Sandboxes increase interpretation speed and help guarantee the integrity of a company's log database by allowing individual users to transfer wells to local projects, interpret the wells, and then transfer results back to the central database.
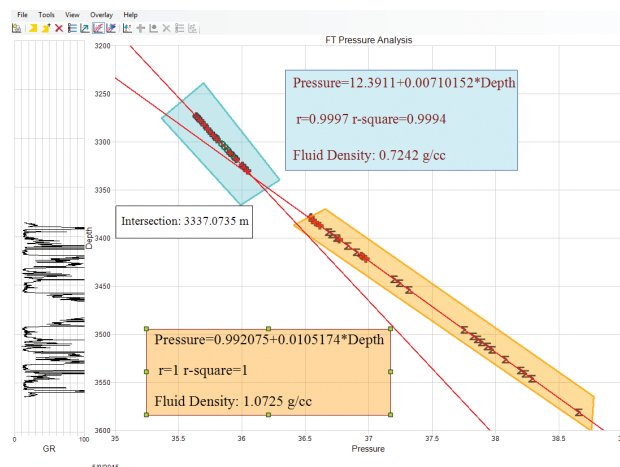
Multi-Well Formation Testing (FT) crossplots can determine fluid densities and fluid contact depths.

Capillary Pressure

The **Capillary Pressure** module evaluates core plugs integrated with wireline logs from multiple wells and zones to quantify pore throat sizes and distribution, determine irreducible water saturation as a function of height above free water, and compute water saturations at proposed drilling locations. With this additional knowledge, reservoir engineers can identify reservoir compartments, select perforation depths, and plan secondary recovery to optimize asset value.

StatMin

StatMin is a stochastic modeling package used to determine lithology, porosity and fluid content. This approach enables interpretation of complex lithological formations using forward modeling algorithms with known measured and computed curve responses for predicted minerals. **StatMin** is used extensively in unconventional reservoirs where deterministic methods cannot handle the large number of minerals, and when accuracy in computing porosity and water saturation is critical in evaluation of the reservoirs.

FaciesID

FaciesID™ is the most user-friendly and interactive electrofacies determination module in the oil and gas industry. The user selects seed points from logplots and/or crossplots and defines the facies of the seed points selected. These seed points then serve to define clusters of facies based on the k-nearest neighbor (kNN) algorithm. Block curves of facies are generated from the seed points as they are picked to serve as an interactive quality control tool.
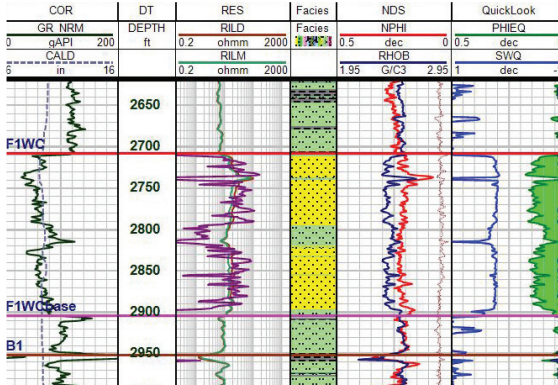
Rock Physics Module (RPM)

RPM builds rock physics models from log data and petrophysical interpretation results. This combination of high-quality petrophysics and sophisticated rock physics makes **RPM** uniquely powerful.

RPM has an extensive library of current rock physics models including DEM, Xu-White, grain-supported, matrix-supported and a host of others along with tables of rock and fluid properties. **PowerLog** crossplots and logplots are used for quality control and visualization of model results.

PowerLogFrac™

PowerLogFrac is a fit-for-purpose version of PowerLog combined with **FracRAT** to facilitate the generation of 1D mechanical earth models.

Completions engineers use the outputs to design better hydraulic fracturing projects and improve well performance.
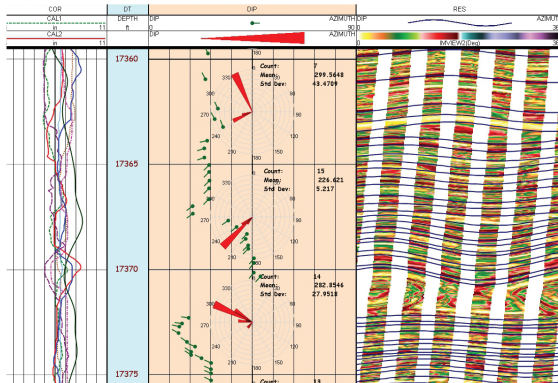
FracRAT (1D Mechanical Earth Modeling)

FracRAT was developed in partnership with Baker Hughes and Taurus Engineering to compute elastic rock (including anisotropic) and fluid properties for fracture simulation.

FracRAT processors use petrophysical curve data in empirical and deterministic algorithms to compute rock stresses, static moduli, stiffness matrix constants and Thomsen parameters while estimating the fluid properties required for accurate fracture simulation.

Python Extensions

Python Extensions is an open-source distribution of Python in PowerLog that is used to build modules to perform any advanced processing.

This integrated package for 3D displays, interpretation and processing connects to any version of Python being used. **Python Extensions** can perform machine and deep learning to help solve your toughest petrophysical challenges.

Logplot displays for examining data and interpretations.
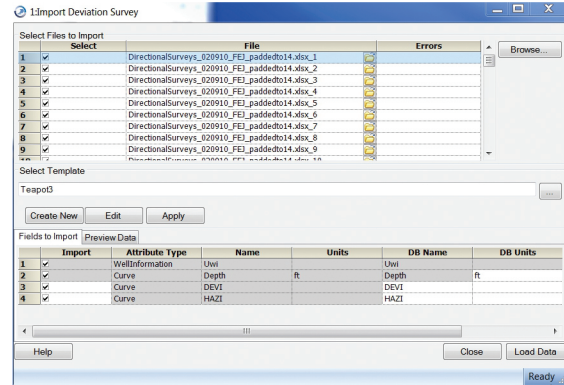
Smart and easy-to-use data loaders minimize time spent on essential, but mundane tasks.

Image interpretation with Rose diagrams.
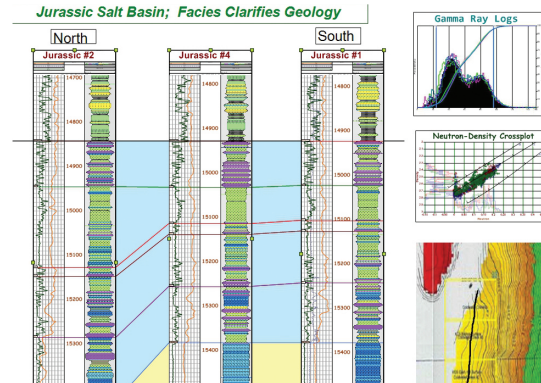
Collage displays aid in understanding geology.

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