

Data Management Services

VISUAL LOG

PETROPHYSICAL AND IMAGELOG ANALYSIS

Visual Log is capable of managing the entire workload of data editing, analysis, management and presentation options in a single package. As a Windows-based application, Visual Log comes complete with all the data inputs and file formats to meet your needs. The application includes a Base program and 4 additional Modules.

The Base:

- O Read LAS, CSV, DLIS, LIS files
- O Save LAS, DLIS, CSV files
- Data merge
- Data slicing
- O Depth- and time-based log plots
- O WITS Level 0
- WITS-ML
- TVD calculation
- O Depth unit conversion (MD to TVD and vice versa)
- O Time-depth conversion for several customer binary data formats
- O Metric and imperial depth scales for display and plotting
- O Data manipulation

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Basic Display

Azimuthal Fill	Data Edit					
Math Functions	Visual Edit					
Curve Statistics	Up and Down-sampling					
Azimuthal Up-Sampling	Fill Gap (Hold Up, Hold Down, Interpolate)					
Depth Shift (Constant, Linear, Cubic Spline)	Array Statistics					
Filter (Nearest, Exponential, Gaussian, Median, Triangle, Boxcar, Smooth, Adaptive)						

- O Common mode filters (Median, Mean, Kalman)
- Linear regression
- Segmented Linear Regression
- Cross plots
- Polar plots
- Ternary plots
- Column plot
- Scripting
- Log headers
- O Visual tool diagram with sensor distances
- Printing

Data Management Services

AVAILABLE MODULES

1. Data Processing:

- Gamma ray Corrections
- Density corrections
- Neutron corrections
- Resistivity corrections
- Spectral gamma ray processing and corrections
- Elemental processing (windows and spectral decomposition)
- Sonic porosity
- Density porosity
- Pseudo density (from neutron porosity and sonic/ultrasonic data)
- Mechanical properties from sonic data
- O Borehole caliper from ultrasonic and density data
- O TOC calculations from density, gamma ray, and uranium data
- O Zone identification using parameter optimization
- Frequency analysis (sonic, vibration, rpm, etc.)
- Pulsed neutron processing
- O Cement bond evaluation from sonic data
- O Dogleg severity calculations
- O Stick/slip calculations
- Custom corrections
- O Calculators: water resistivity, mud slowness, material density

Borehole Imaging:

- Borehole image display (VDL and wiggle plotting)
- Image array editing (filter, fill-gap, up-sampling)
- Image rotation
- O Dynamic normalization
- O Dip picking and classification (reference to MTF, corrected MTF, HSTF)

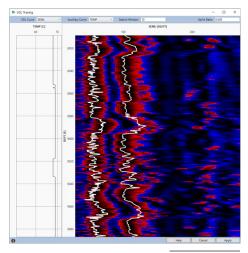
3. Sonic and Ultrasonic Processing:

Sonic Processing:

- Waveform editing (stacking, filter, fill-gap, up-sampling)
- Semblance processing
- VDL tracing
- O STC, slowness-time-coherence plots
- SFC, slowness-frequency-coherence plots
- SEC, slowness-energy-coherence plots
- O 2-D forward model



Curve Attritributes



Sonic VDL Tracing

Data Management Services

AVAILABLE MODULES

- O Ultrasonic Processing:
- Waveform editing (stacking, filter, fill-gap, up-sampling)
- Ultrasonic waveform processing
- O Ultrasonic standoff/caliper from travel time
- O Ultrasonic eccentricity correction
- O 2-D forward model

Resistivity Modeling:

- o-D anisotropy modeling
- 1-D layered bed forward modeling
- O 2-D forward modeling
- o 1-D inversion

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