

# PRODUCT SHEET



## EasyTrace™

Well Log Analysis

EasyTrace™ is an advanced 1D data analysis tool, featuring within a very productive package a wide range of functionalities for geologists, geophysicists, petrophysicists and reservoir engineers.

### Integrated log processing

Well data are often acquired in different formats, with different sampling rates, requiring appropriate processing for modern geological modeling. Geophysical and geological reservoir characterization both require specific log processing and editing, for example rock-typing from logs and cores, seismic signature analysis, and AVO feasibility analysis.

EasyTrace™ benefits from a true spreadsheet environment that offers advanced 1D data editing, analysis and processing functionalities to help geoscientists in their daily work.

### Workflows

EasyTrace™ is used in many geoscientific workflows such as:

- Well log interpretation;
- Seismic reservoir characterization;
- Electrofacies and Rock-typing;
- Gross environmental deposition;
- Source rock evaluation.

### Data management

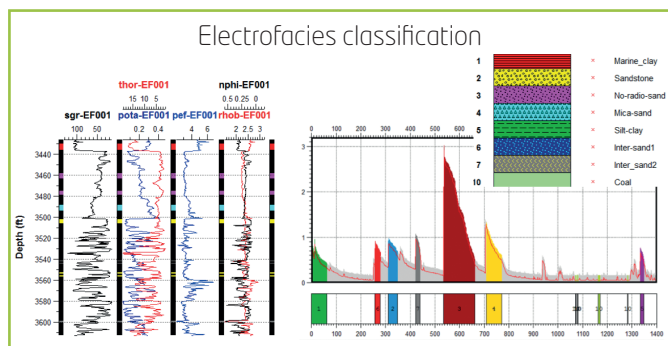
- Manipulation of any kind of 1D data: continuous and discrete logs, core data (CCAL & SCAL), fracture data, markers, in time and depth domain;
- Easy data edition with a large panel of functionalities;
- Direct data exchange link with OpenFlow Suite (including TemisFlow™ and FracaFlow®) and InterWell™;
- Data display with high interactivity between graphs, histograms and cross-plots.

### Main functionalities

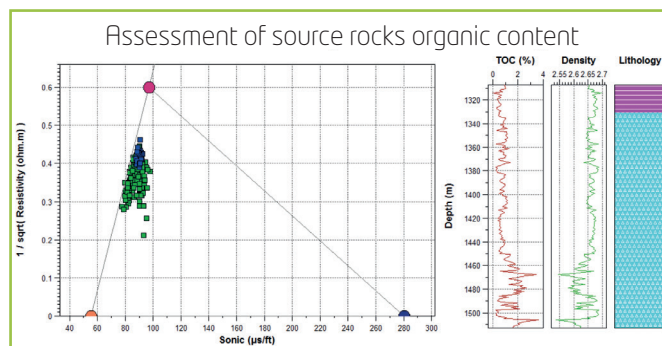
- Geophysical applications including:
  - Sonic log calibration with checkshots or VSP data;
  - AVO/AVA analysis and modeling;
  - Signal simulation;
  - Pore pressure prediction;
  - Rock physics and Biot-Gassmann fluid substitution.
- Petrophysical applications including:
  - Well log and core interpretation;
  - Electrofacies and rock-type classification;
  - Principal Component Analysis;
  - Saturation height modeling;
  - Total Organic Carbon estimation using conventional logs.

### Key benefits

- Powerful toolbox for multi-well 1D data analysis and processing
- Machine Learning and Deep Learning Open-source libraries thank to Direct Communication between EasyTrace and Python
- Unmatched versatility and ease-of-use
- Innovative and patented machine learning classification for electrofacies and rock-typing
- Accurate reservoir characterization thanks to seamless integration of well data with other petrophysical measurements
- Advanced Petro-elastic modeling & log substitution



Facies classification can be performed with or without a priori information. The non-supervised approach with the estimated density function is shown above. We assign the same electrofacies code to series of samples that lie in the same high density region. The samples that receive an electrofacies code are then used as the training population to build the assignment function.



Estimate the Total Organic Carbon (TOC) of a set of samples in a table from measures of their sonic transfer time (DT) and resistivity (Rt) using the CARBOLOG method. On the left, the samples are displayed on a DT-1/Rt<sup>1/2</sup> diagram. The matrix, shale and organic matter (OM) pole positions are also displayed on this diagram for the current sample selection.