Terra Station | - Versatile, fully integrated software for exploration and production

Synthetic Seismograms

TERRASCIENCES provides one of the most advanced, yet easy to use, packages for the display and analysis of well data available today, including a synthetic seismogram capability.

Data Preparation and Quality Control

Data can be loaded from a variety of industry standard data sources, including LIS, DLIS, LAS, and ASCII. A library of curve utilities and functions are at your disposal to QC your data. These include graphical displays to allow interactive curve splicing, curve editing, baseline shifting, normalizing and much more.

Checkshot Correction

Checkshot data can be loaded from ASCII files and used to correct the input sonic data. You can interactively edit the checkshots within a display that includes a checkshot drift curve for reference. Four different methods of computing the correction are provided.

Wavelet Control

A number of wavelets are available, including Type 1,2, and 3 Ricker wavelets, a Bandpass (Ormsby) filter, and the ability to enter you own wavelets. Phase angle, amplitude and other parameters are

DREW POINT #1 Well Name: Ricker wavelet - type 1 requency: 30.00 Hz, zero phas Two way time (secs) Two way time (secs) M. Depth Ē Refl. Density Velocity coeffs GR A 0.0 0.0 134.0 0.1 0.1 404.0 0.2 0.2 688.6 0.4 0.4 1329 5 0.5 0.5 1702. 0.6 0.6 0.7 0.7 2511. 0.8 0.8 2932.4 0.9 0.9 3360.7 1.0 1.1 1.1 4273.0 1.2 1.2 4759.5 1.3 5260.8 1.4 5799. 1.5 1.5 6377.1 1.6 1.6 6948.0

Franchistic Seismogram - North Slope - NPR USGS Data - DREW POINT #1 (100.0 - 7938.0 / 100.0 - 7938.0 f...

controllable by the user. Wavelet can also be input from SEGY file.

Display Options

You can select to display a reference curve along with the sonic curve, and density curve if it is used. The vertical scale is completely under user control and can be specified in either inches/second or cm/second. An optional automatic gain control can be applied of a user defined window size. If you have map data present, then you can select to display any of your formation tops on the synthetic display.

Additional capabilities

The Synthetic Seismogram option automatically computes and stores both one-way and two-way travel times. These can be used as a vertical reference within the cross section package to display wells on a time basis. Also, the IMAGELog module allows you to compute and display multiple synthetics using different wavelet parameters on the same display.

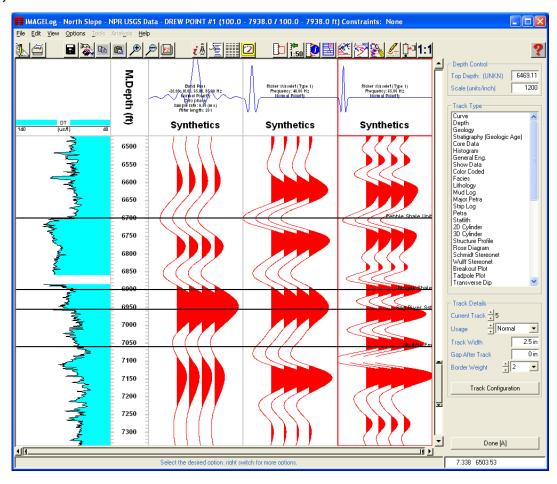
Support and Training

TERRASCIENCES provides immediate telephone and email support by trained earth science professionals. A regularly updated web site, electronic newsletter, and training courses are also available. All product upgrades are included in the maintenance and support fee.

Product Specifications



- Data loading from all common formats including LIS, DLIS, LAS, and other ASCII files.
- Data can be analyzed and quality controlled using crossplots, histograms, and a variety of log templates.
- ☑ Checkshot entry, editing and correction.
- Interpolation of gaps, filtering, normalizing, and other editing of input logs.
- Select from a number of wavelet types Ricker, Bandpass (Ormsby) and more, or load from SEGY file.
- ✓ User definable vertical scale for output.
- Automatic gain control option.
- Display of formation tops from the Mapping and Correlation (cross section) Modules.
- Synthetics can be shown as a track in log templates used in cross sections.
- ✓ Time (one or two way) or depth (MD, TVD) can be used as vertical scale in cross sections.
- Quick display of SEGY line data. Display a SEG-Y wavelet within the synthetic display.
- Output synthetic to SEG-Y file.





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