TerraStation II Overview

TERRASCIENCES provides one of the most advanced, yet easy to use packages for the display and analysis of borehole data available today. You have the capability to perform anything from a simple quick-look analysis of a single well, to a detailed field study of several thousand wells. The TerraStation II system has functionality for a wide variety of users and disciplines, including geologists, petrophysicists, reservoir engineers, sedimentologists and structural geologists.

Data Preparation and Quality Control

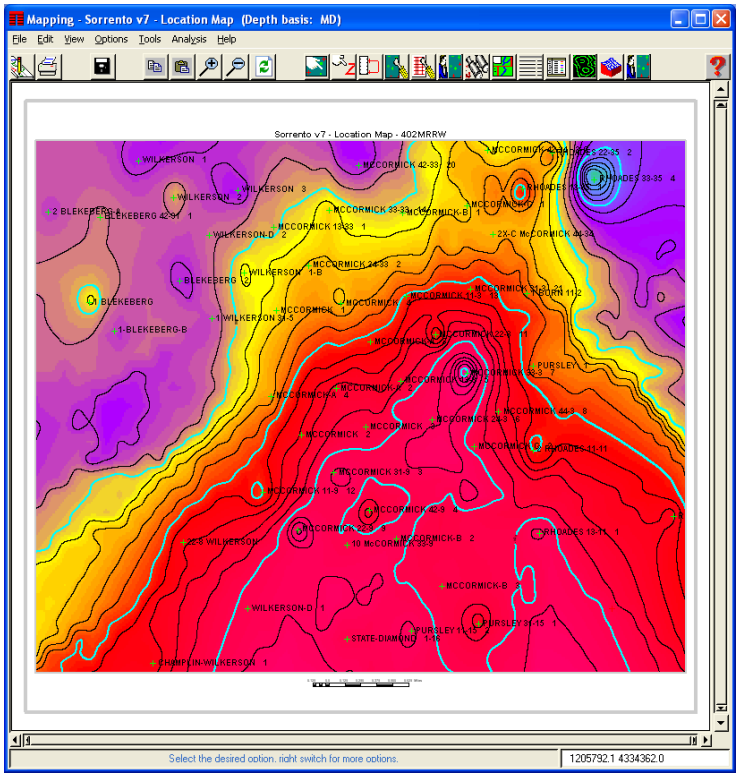
Data can be loaded from industry standard data sources, including LIS, DLIS, LAS, ASCII, and OpenSpirit™ enabled data stores. A library of curve utilities and functions are at your disposal to QC your data. These include graphical displays to allow interactive curve splicing, curve editing, baseline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

Cross Sections

Display cross section of both straight hole and deviated wells. Correlate geological and other markers interactively on the sections. You can display any composite log data on the sections, including perforated zones, core points, DST's and other engineering data, core photo's borehole images. Structural and stratigraphic sections are supported.

Mapping

Surfaces can be gridded and contoured to provide another level of data analysis. Options exist to quickly generate maps of curve data, such as mean density, minimum Sw, and many other functions. Contour maps can also be generated using triangulation or kriged grids. A geostatistical analysis package is present within the module for doing Q-Q plots, P-P plots, probability plots, and more.



Petrophysics

A full suite of deterministic analysis options is available, including a "quick look" analysis option. In addition there is a probabilistic package and a statistical analysis package. Users may also define their own equations, algorithms and simple routines to provide the ultimate in flexibility. Borehole correction and data normalizing capabilities are also provided. Crossplots, histograms, ternary diagrams are available in single or multiple well modes.

Composite Log Displays

TerraStation II provides a highly flexible, composite well display generation capability. These composite display "templates" can also be used in cross sections. Over thirty types of tracks are available, including curve tracks, depth reference tracks, lithology, dipmeter, imaging, well history, geological time scale, core photographs, text comments, synthetic seismograms, SCAT, hole shape and many more.

Borehole Imaging

TerraStation II can process, display and analyze all borehole imaging tools, including LWD tools. Both resistivity and sonic based images can be quality controlled, speed corrected, displayed and interpreted. A user configurable interpretation display and pick category scheme can be utilized.

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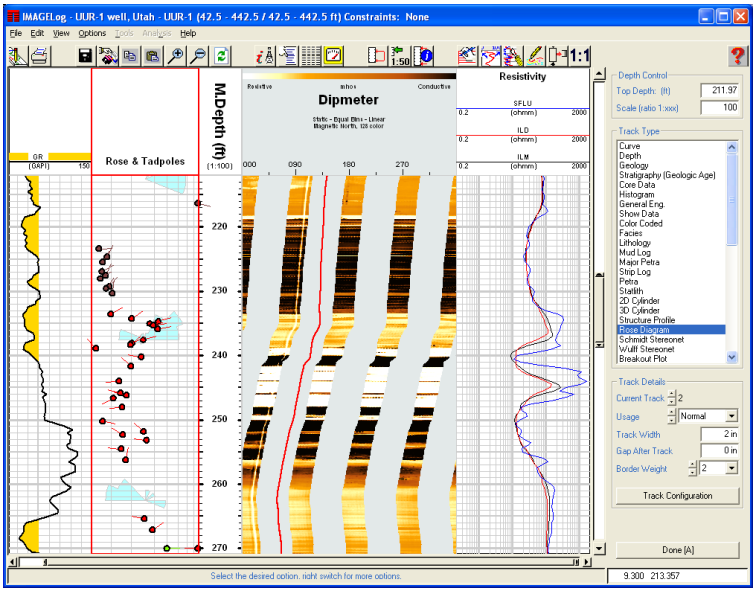
Dipmeter Analysis

4, 6, or 8 arm dipmeter devices are supported. Users can pick dips manually or have dips automatically computed. Stereonet analysis module provides Schmidt and Wulff nets for plotting and analyzing data. SCAT Plots and cumulative dip displays are also provided.



Synthetic Seismograms

Generation of synthetic seismograms from sonic logs . Numerous wavelet options are available. Checkshot data can be loaded and used to correct the sonic log. Time based outputs are generated and may be used for cross section generation.

Organic Geochemistry from Wireline

A module for computing a full suite of organic geochemical values from a simple suite of wireline logs. The results include S1, S2, S3, TOC, Ro, and many more. The output complements lab data by giving a much more complete data set, as well as providing data in areas where cuttings may not be available or have been rendered useless by bit induced metamorphism and other down-hole situation. Van Krevelen, TOC vs S2, and other cross plots are provided.

Sonic Waveform Analysis

Display and analysis of sonic waveform data is possible. Display data as raw or instantaneous amplitude, or instantaneous phase or frequency. Coherence maps of any depth can be generated. Computation of shear, compressional and Stoneley arrivals is supported.

Fault Seal Analysis

Wireline data is used to analyze a well for potential fault sealing or leaking using a variety of methods, including Clay Smear Potential. Single and multiple fault displacement options are present in the module.

Multi well, multi zone processing

A highly flexible command language is provided for performing multi-well processing. Using our well collection capability, the command files can be run on any number of wells over any number of selected depth intervals. These well collections can be built, saved, and restored. In addition many of the display capabilities provide multi-well display capability. Well collections can also be used for crossplot, histogram, ternary, and bar graph displays.

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.

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