# WellCAD Basic

Wells are a tangible knowledge asset in the Geoscience Industry. WellCAD lets you integrate all data acquired from a well into a single document.

WellCAD handles the entire data loading, log editing, analysis and presentation workflow without the need to use a separate package for each task.

The support of more than 30 standard and proprietary file formats and unrivalled capabilities to insert data interactively using the powerful digital core description add-on provide enormous data loading flexibility.

Being designed as a fully graphically driven standard Windows™ application.''WellCAD is easy to use and the learning curve is short.

The modular architecture of WellCAD allows users to activate expert modules at any time with ease to build a package tailored to their exact requirements and keep it economically very interesting.
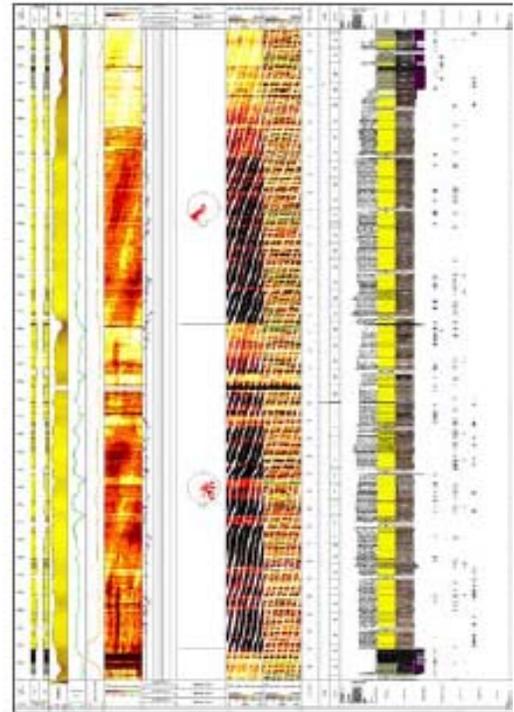
❯ Data presentation
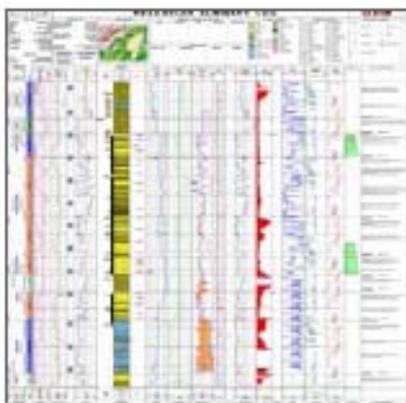
- Display of curves, patterns (e.g. lithology), symbols (e.g. fossils), text, formation marker, hierarchical stratigraphic columns, image data (e.g. FMI, ATV, OTV), photographs, operational symbols (e.g. DSTs, RFTs, Mud Data, Survey Data, etc.)

- An unlimited number of data containers, of which 25 different types exist to host single point (continuous and discontinuous), interval or array data, can be freely positioned on the workspace and combined for complex WYSIWYG plot formatting.

- Audit trail for each data container and processing step (i.e. Log History).

- No restriction to a certain number of tracks or maximum number of curves to be plotted or superimposed.

- Comprehensive sets of formatting styles are available for each data container type-pen type, pen thickness, pen colour, fonts, shading, curve style (e.g. point-to-point, step or bar) and many more.

- Scale and appearance of vertical grids can be customized using individual classification schemes (e.g. Wenthworth scale, Phi scale).

- Depth may be referenced to MD, TVD, TVDSS or any other depth (or date & time) system due to capabilities of non linear depth matching. Support of depth and elevation display.

- Libraries of customizable and scalable patterns and symbols (e.g. lithology, physical structure, fossils, pore types,) are provided. The freely distributed LithCAD application allows design and import of new patterns and symbols.

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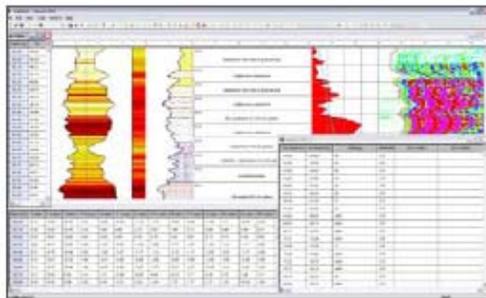
> Data management

Data Formats - Import

- WellCAD is capable of loading data in a number of standardized and customized file formats: LIS, TIFF-LIS, DLIS, LAS (v2.0), ASCII (TXT, CSV, ASC, WA#), AppleCore ASCII, BMP, TIF, GIF, JPEG and numerous proprietary formats provided by logging hardware manufacturers.

Data Formats - Export

- Any data contained in the workspace can be exported in one of the following formats: LIS, LAS (2.0, 3.0), ASCII (TXT, ASC).
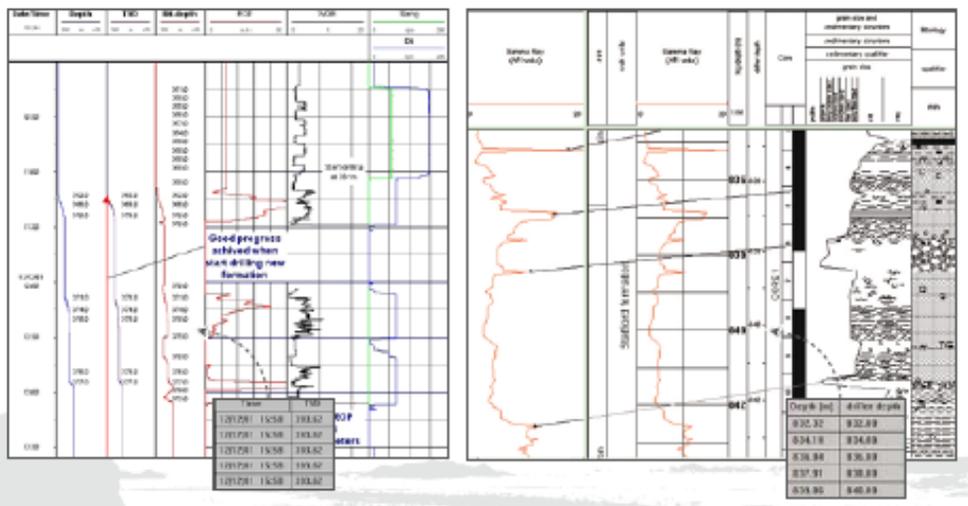- The plot itself can be exported as EMF or CGM file.

Database Connection

- In order to gain maximum flexibility when connecting to any ODBC compatible database the ODBC Connector add-on module for WellCAD uses an integrated SQL interpreter to manage connection and data upload/download via SQL scripts.
- The WellCAD API allows third party DBMS vendors to write code to connect to WellCAD and download / upload log and header data.
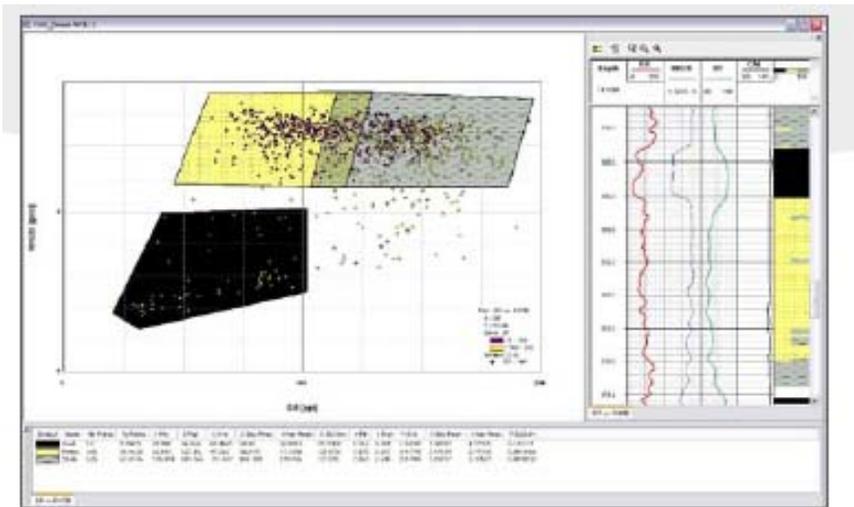

> Multiple depth management

WellCAD provides a multiple depth management system (time, depth, TVD). The depthmatching tool allows you to fine tune your data (e.g calibrate core description data to the wireline logs.) All correlations will be saved in a new depth log helping you to assess the match.

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Crossplot

Crossplot main window with clustered data set, cluster statistics and log preview

- Superposition of multiple plots (e.g. main and repeat run, multiple wells)
- Drawing window with log view of crossplotted depth interval
- Interactive investigation (clustering) of data series to define lithoclasses
- Output of clustered data points (lithoclasses) as Percentage Log
- Statistic summary of clustered data in spread sheet view (with option to export)
- Creation of customized cross plot templates
- Powerful regression toolbox with direct conversion of derived equation into Formula Log
- Customized axis and text labels, annotations and legends
- Zoom option for fast investigation of user selected crossplot areas
- Highlight tool to identify log data intervals within crossplot

Statistics

- Tracking bar to investigate log values in details.
- Statistics Bar to compute statistics over user defined intervals.
- Block Processing on user defined intervals, formations or lithology blocks with text and graphic output.
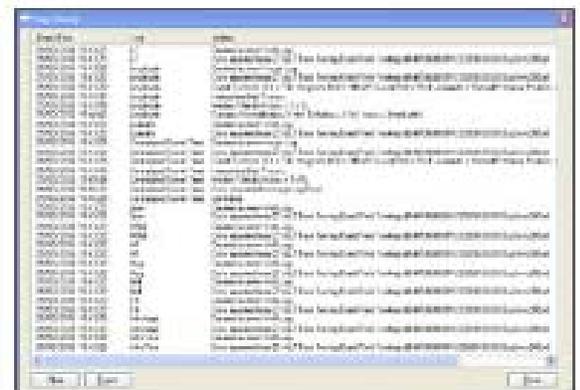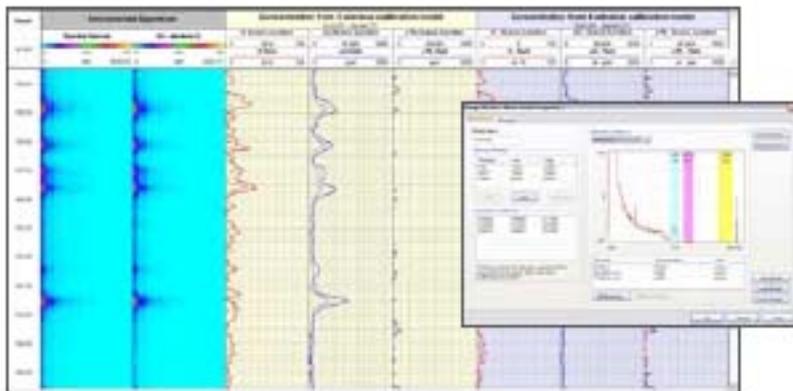
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> Specific processing

Total Gamma Processing

- The general Borehole Condition Correction process allows correction of logging data with simple chart derived factors or equations over user defined depth intervals.
- Calibration and grade thickness computations.

Spectral gamma processing

- Besides algorithms to stack traces and perform data corrections (e.g. dead time and channel drift) the total count rate (and min, max, mean and median) can be read out of a user defined window. For experienced users it is possible to perform a master calibration and set up a calibration model containing reference spectra, energy windows and stripping coefficients to convert count rates into concentration or weight percent.

Other processes

- Calculation of Northing, Easting, TVD, Dog leg severity closure distance and closure angle
- Volume calculation

> Log history

Log History view for single log

Log History view for multiple logs, sort by date/time or log name

The Log History stores the type of action and processing parameters executed on a log along with a date/time string.

The specifications are not contractual and are subject to modification without notice.