WellCAD™ Software

mountsopris.com/wellcad

Mount Sopris offers WellCADTM log acquisition and processing software, the most intuitive and comprehensive user interface in the industry. Combining excellent display, editing and analysis capabilities, WellCADTM has become the standard log composite software in mining, natural resource, geotechnical, and other communities. WellCAD is a trademark of Mount Sopris partner, <u>Advanced Logic Technology</u>.



WellCAD™ 5.3 is now Released!

The basic WellCAD™ Version 5.3 package includes <u>WellCAD</u> Reader and Crossplot modules, and incorporates all features and tools necessary to import, edit, process and display your Well data. The software is delivered with a set Templates, Header, Dictionaries customized for specific application. You can easily modify existing ones or create you own. Single-user licenses, as well as network licenses available. For more information on licensing types, please see the <u>Licensing Options</u> document.

Find out What's New in WellCAD™ 5.3!

WellCAD™ 5.3 - release fact sheet

25.06.2019

Highlights

New in WellCAD Basic

- · Collection of Groundwater Processes
- · Flowmeter Workspace
- · Log Templates

- · LAS 3.0 Support
- · Enhanced Tabular Editor
- · Improved Log Summary Bar

New in CoreCAD

· Full review and extension of the core descriptions workspace

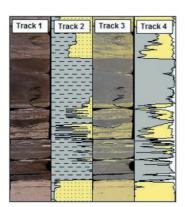
New in ISI & CoreCAD

· Core Image Cropper tool

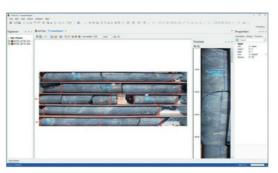
Core Image Cropper

The new and fully embedded core image cropping tool provides an intuitive and easy to use instrument to get more value from your core images

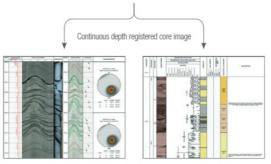
- Extract images from core box or slabbed core photographs
- Depth registration through interactive labeling and box calibration
- · Combination into a continuous core image column
- Seamless integration as RGB or OLE log into WellCAD Borehole Documents
- · Alternatively export into standard graphic file format
- Full digitalization of data and availability to Color Classification or Color Component Extraction processes



Example of Color Classification process applied to cropped core images (Track 1). Track 2 shows the hand logged Clay- Sand composition, Track 3 the color classified core image and Track 4 the computed Clay – Sand composition



Core Image Cropper Workspace



Application examples

Optical televiewer vs. core image (left) supports structure interpretation and provides depth reference to match core and wireline data; core image used as depth reference in digital core description workspace CoreCAD (right)



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Core Description Workspace - CoreCAD

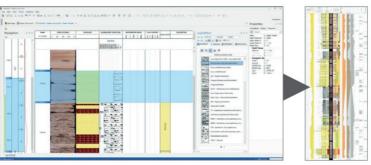
The revised Digital Core Description add-on comes with a new innovative workspace allowing the generation of visually attractive core descriptions (with the look of hand-drawn core sheets) and the acquisition of detailed digital data valuable for petrophysical analysis and reservoir modeling.

The new CoreCAD provides an intuitive and easy to use graphical user interface (GUI) to navigate between core runs and data columns, acquire data by free-hand drawing or interval based data capture and offers the unrivalled flexibility to import, add and export additional data.

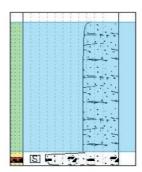
Being fully integrated into the WellCAD platform the user has access to all functionalities like Core Image Cropper, Cross Plotting, Color Classification and many more analysis features.

- Innovative and intuitive workspace for core, outcrop and sample logging
- Graphical logging and simultaneous data digitization
- Detailed digital core data is available in each individual data column
- · Visually attractive graphical reports.
- Flexible in layout, data organization and logging preference (e.g. free hand or interval based)
- Easy import of additional data columns or generation from Log Templates





CoreCAD Workspace with Navigation bar (left), Data Acquisition view (center) and Log Edition bar (right); simultaneous creation of visually attractive graphical report (far right)





Visually attractive, easy to log, readily available digital data



Log column-by-column or drag a reference interval, enter the desired data or paste for example an entire sedimentary facies,

- Support of multiple depth reference systems (MD, Core Depth, TVD, ...)
- Full integration in WellCAD allowing seamless combination with wireline, image and laboratory data
- Generation of PDF and standard graphical file formats
- Comprehensive data export options for integration of the data into other software



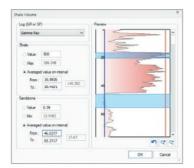
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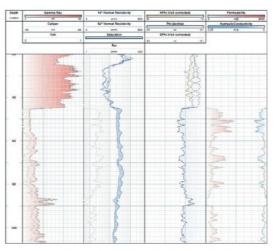
Collection of Groundwater Processes

A new Groundwater section with a number of processing tools has been added to the Common Processes menu of WellCAD v5.3.

- Salinity estimation
- Shale Volume Estimation
- · Sonic Porosity (Wyllie, Raymer-Hunt)
- Density Porosity (with and without shale correction)
- Porosity estimation using Archie
- · Neutron porosity shale correction
- · Permeability estimation
- · Hydraulic Conductivity



Shale Volume Estimation



Example of ELog correction, Shale Volume, Porosity with Shale Correction, Permeability and Hydraulic Conductivity processes applied

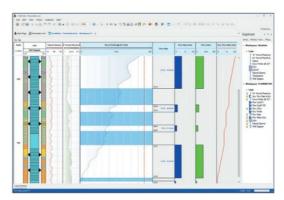
Flowmeter Data Processing Workspace

This first version of the Flowmeter Workspace has been designed to support the interpretation of impeller flowmeter curves.

After initializing the workspace the user can interactively pick identified No Flow zones. The contribution of the flow zones will automatically be computed and displayed as percentage, absolute and cumulated values in text as well as in graphic form.

Additional data such as geophysical logs, lithology columns or well sketches can be added as reference logs to the workspace aiding the interpretation.

Templates can be saved and applied when initializing a new workspace to save valuable time.



Flowmeter Workspace with reference logs (left), flowmeter curve (center) and interval flow answer products (right)



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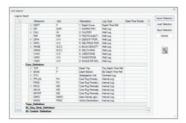
Log Templates

This powerful new feature allows maintaining data display standards easily. Stored layout presets can be applied to individual logs in the Borehole Document without rearranging its entire layout through a document template.

Any log layout can be added as log template to the repository. For easier handling multiple repositories (e.g. for wireline and core description logs) can be dealt with at the same time



Unformatted log (left), log template selection (center), formatted log (right)



LAS 3.0 Import Dialog Box

LAS 3.0 Syntax Support

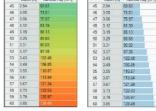
WellCAD v5.3 fully supports the import / export of the LAS v3.0 syntax. In a comfortable twostep process all Meta Data as well as depth or time based data can be imported.

Different sections are detected automatically and WellCAD log types can be assigned to point depth or interval based data.

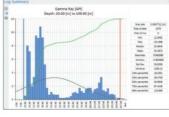
Tabular Editor Review

A first revision of the tabular editor offers row numbers, new display styles, No Data value highlighting, precision settings and saves all formatting options with each individual log.

A wild card supporting Find & Replace option will make data manipulation tasks easier.



LAS 3.0 Import Dialog Box



Log Summary Bar

Log Summary Bar

New options have been added to the Log Summary Bar display:

- Valuable statistics of the data (such as sample step, number of data, min, max, percentiles and many more)
- Gauss distribution and cumulated frequency overlays
- Interactively to adjust Low / High Scale discriminators
- · Export and print options



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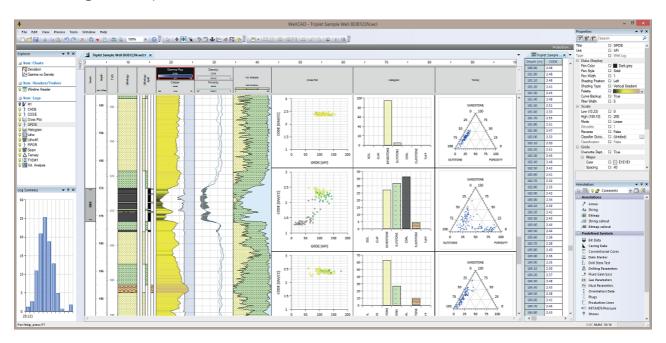


Zoom 100%

Software Summary

Since its first release in 1993, WellCAD™ has become a valuable tool for thousands of geoscientists dealing with borehole data. WellCAD™ handles the entire data loading, log editing, analysis and presentation workflow for drilling, wellsite, core and logging data – independent of the industry sector.

The modular architecture of WellCAD™ allows users to easily activate advanced modules to build a package tailored to their requirements and make it an attractive solution for small scale companies as well as large multinational corporations. (USB dongle for 32/64 bit version of WellCAD™, installation CD, documentation)



Product Overview

Rich Graphical Display

- Fully graphical driven standard Windows* software
- Real-time data display generated from the depth / time based information held in the data repository
- Display of curves, patterns, symbols, text, formation markers, image data, photographs,...
- Comprehensive sets of formatting styles (point, bar, curve style, color, thickness, fonts, shading,...)
- Editor for custom symbols, patterns, header & trailer design
- 3D Borehole Display

Comprehensive Interpretation Tools

- Common Data Processing Tools : resampling, filtering, single-, block- or multi curve statistics, equation editor,...
- Specialized Workspaces for Image & Structure Interpretation, FWS data, core description, multi-well correlation,...

- Cased Hole Interpretation Workspace (available in 2016)
- Cross plotting workspace and chart log
- Application Programming Interface for batch processing scripts or advanced algorithm development

Intuitive Data Management

- Choose from 28 different data container types to host single point, interval or array data
- New intuitive user interface to manage data and properties
- Powerful templates for automatic plot formatting
- Alias tables for mnemonic management and standardization
- Automatic audit trail of changes made to each data container

Mobility

- WellCAD works on PCs, laptops and tablets with Windows OS (32 and 64bit compatible, supported by Windows XP, Vista, 7, 8, 8.1 and 10)
- Completely portable through hardlock protection or server license borrowing
- Does not require a connection to a database system

Global Support Team

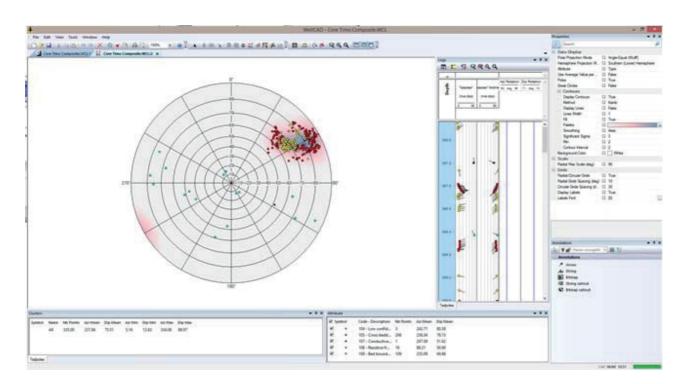
Rely on effective support from the WellCAD team and partners in offices worldwide

Name	Туре	Description		
WellCAD™ Basic	Main Application	The Basic version provides the foundation for data management, analysis and presentation. It allows creation of comprehensive log displays and is the base to activate any Expert Modules.		
CoreCAD™	Add-on	Interactive digital core description workspace for WellCAD™.		
ISI (Image & Structure Interpretation) Workspace	Add-on	Single, build for purpose workspace combining manual and automated structure picking, classification, correction and interpretation into a single workflow.		
FWS	Add-on	A collection of pre build processes for the processing of Full Waveform Sonic data.		
Deviation	Add-on	A collection of 2D and 3D display options for survey data.		
Automation	Add-on	An application programming interface allowing to use objects, methods and properties exposed by WellCAD™ in VBS, VBA, VB, VC++, C# program code.		
MultiWell	Add-on	2D multi-well correlation add on seamlessly integrated into WellCAD™		
Browser	Add-on	Connects WellCAD™ to your LoggerSuite data acquisition software to receive the currently logged data in real time.		
Reader	Viewer	Free data viewer for WellCAD™ files with ability to change depth scale and to print continuous or page by page.		

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 28 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 number of tracks or number of curves to be plotted or superimposed.

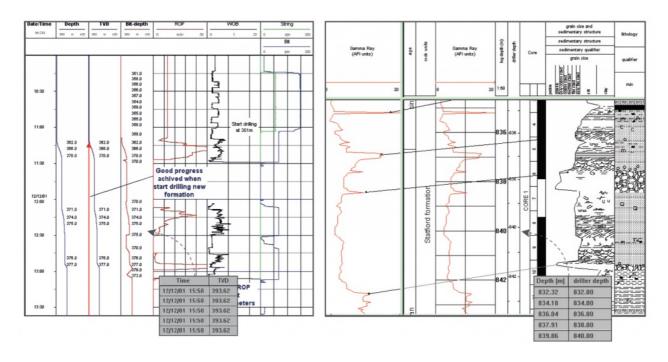
- Comprehensive sets of formatting styles are available for each data container type pen type, pen thickness, pen color, fonts, shading, curve style (e.g. point-to-point, step or bar) and many more.
- Scale and appearance of vertical grids can be customized using individual classification schemes (e.g. 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 scaleable 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.



Dips Workspace (Polar/Rose/Stereonet)

Data Management

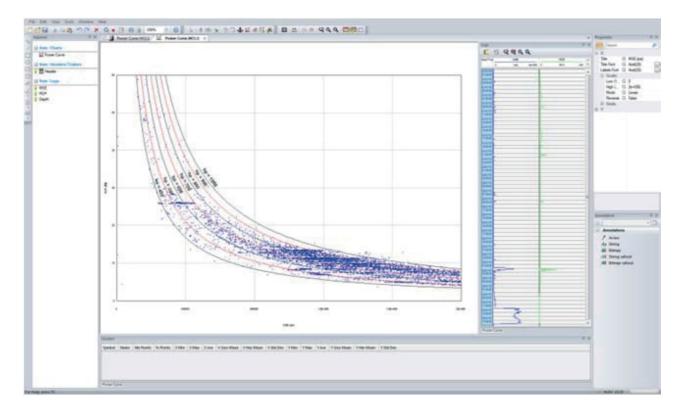
- Data Formats Import (LIS, DLIS, LAS, ASCII, EXCEL, WITSML, JPEG, AGS,...)
- Data Formats Export (LIS, DLIS, LAS, ASCII, CGM, JPEG, EXCEL, Petrel compatible ASCII,...)



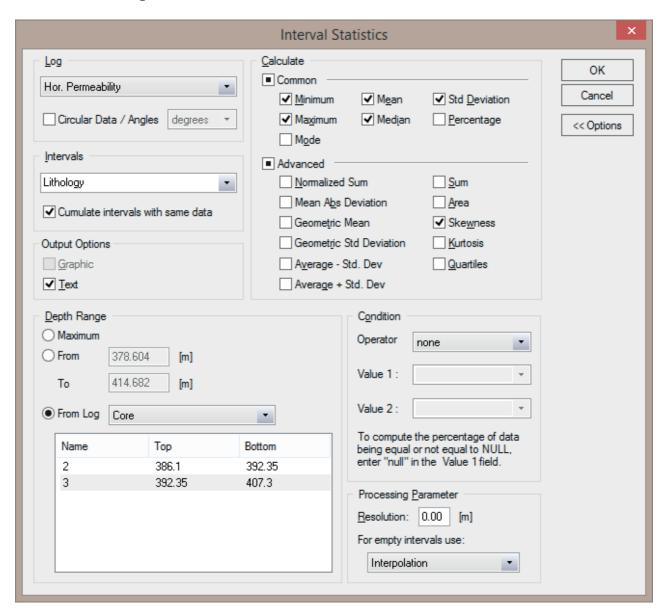
Depth Management

Multiple Depth Management

WellCAD™ provides a multiple depth management system (date/time, depth, TVD,...). The depth matching 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.



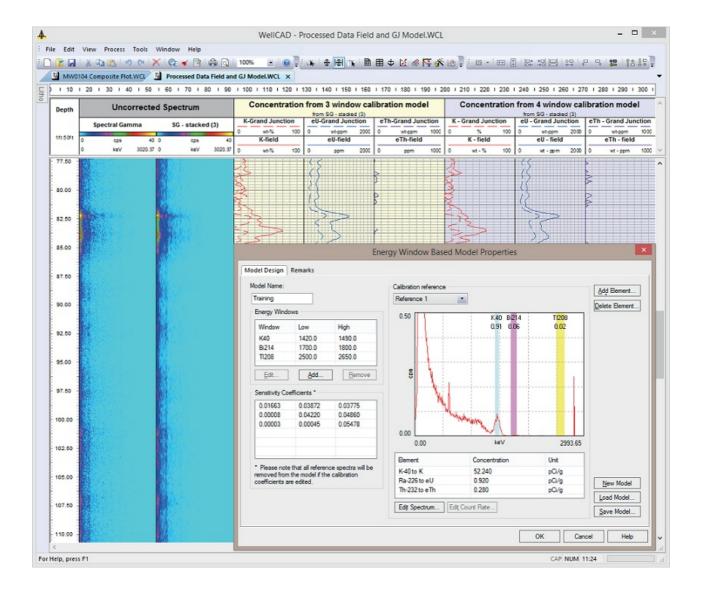
Cross Plot Workspace



Interval Statistics

Data Interpretation

- Cross plotting workspace (up to 4 components, clustering, overlay and regression options).
- Chart Log for cross plots, ternary diagrams and histograms as part of the report.
- Workspace for dip data (rose, polar projection, walkout and woodcock diagrams).
- Tracking and statistic bars for interactive determination of statistical information.
- Interval and multi-log statistics.
- Interactive input and editing of data (in spreadsheet editor and graphic layout).
- Sophisticated annotation options including operational symbols for wellsite geologists.



Spectral Gamma Processing

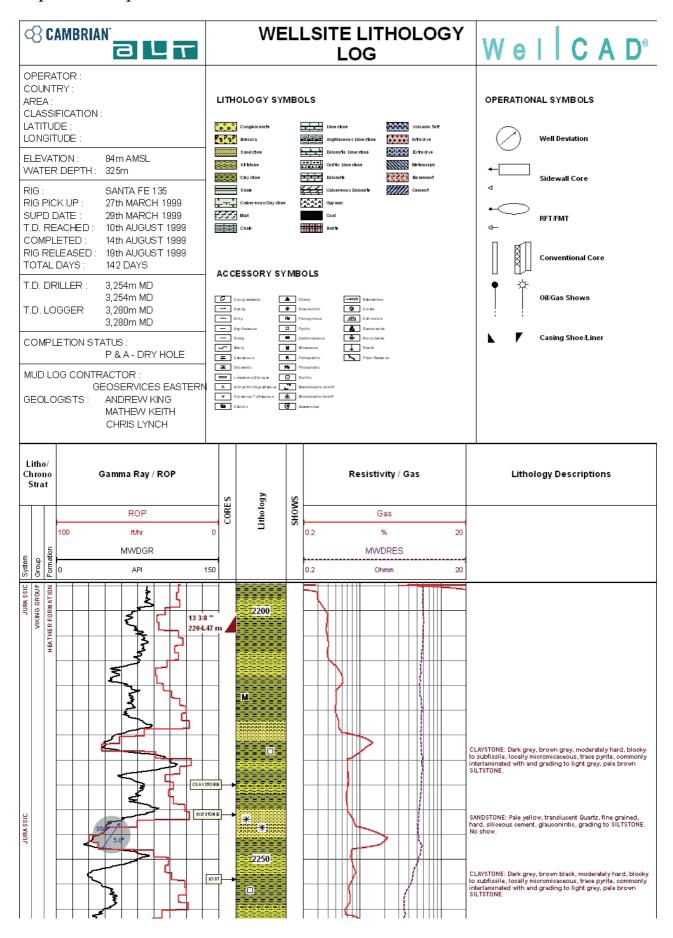
Common processes

- Filter, resampling and data interpolation options.
- Custom equation editor
- Zonation
- Computation of borehole deviation data (azimuth, tilt, northing, easting, TVD and more).
- Borehole condition corrections.
- Total & spectral gamma processing (window stripping and full spectrum analysis).
- Borehole volume calculations.
- Multi log statistics.

Annotations and Operational Symbols

Annotations (arrows, text or bitmap callouts,...) and a large number of specific operational symbols (oil & gas shows, sidewall cores, RFT/MDT/pressure test, casing

data, ...) can be added to the graphical report by drag & drop or using the annotation editor. All annotations and operational symbols have real data assigned to it and can be imported or exported.



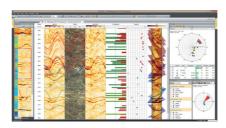
Additional processing and analysis modules include:

- <u>Image & Structure Interpretation (ISI)</u> workspace for image processing.
- <u>FWS (Full Waveform Sonic)</u> Module for Sonic log processing, semblance, CBL, etc.
- <u>Multiwell Module</u> for fence diagrams, log cross-sections, etc.
- <u>Deviation Module</u> for 3D deviation plots.
- <u>CoreCAD Module</u> for wellsite logging of cuttings and drill bit returns.
- <u>LIS/DLIS Import-Export Module</u> for FMI data import & export.
- <u>Automation Module</u> for enhanced data processing.
- <u>Browser Module</u> for real-time logging into WellCAD Window.

<u>Accedi</u>			

WellCAD Software Categoria: Negozio > WellCAD Software





New Software and Modules

<u>Upgrades</u>

Mostra 1-0 di 0 risultati Vedi come: Griglia Elenco Tabella Ordina per

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Mount Sopris **fully supports WellCAD users** with our **Support & Maintenance package**. Please review these **Frequently Asked Questions** to learn more!

Please **Contact Us** if you are interested in a **Demonstration version of WellCAD**.

To download Version 5.3 please visit the ALT Download page.

To purchase upgrades to the latest version or purchase new software or modules, please visit our <u>Online Store</u>.

To **download older versions** of the WellCAD software, please contact <u>tech.support@mountsopris.com</u>.

Download the **Complete WellCAD Brochure Here**.