

# WellCAD

Newsletter N°7, summer 2007

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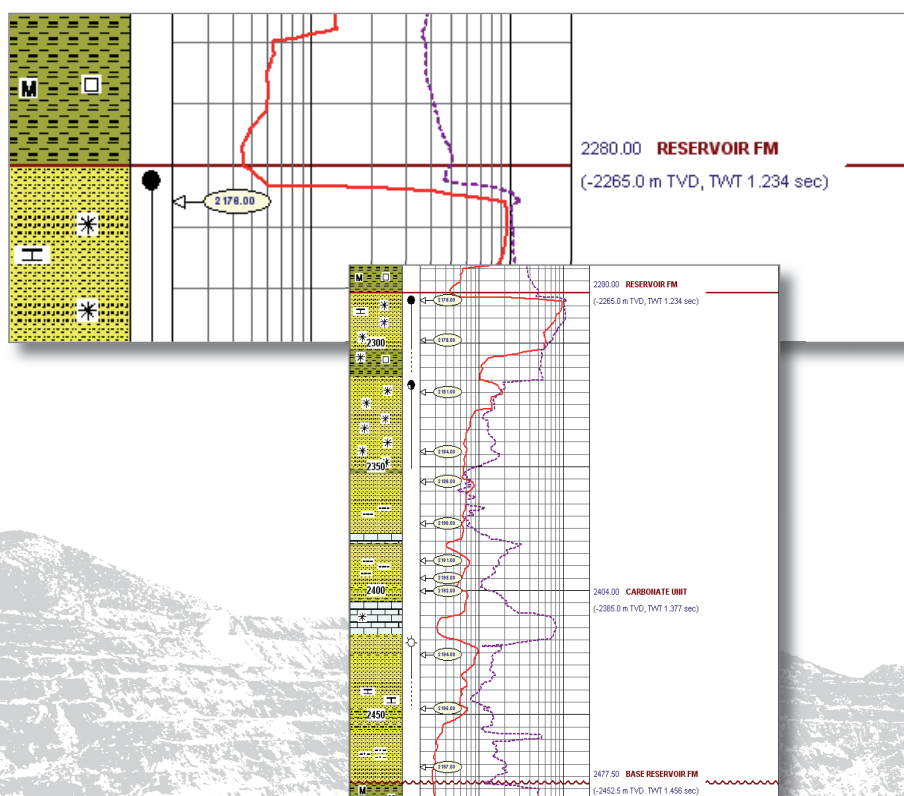
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Dear WellCAD User,

One year in the making, version 4.2 of WellCAD is now available. A new Formation Marker Log Type, the ability to measure and record fracture aperture, CGM export and WellCAD Automation are just a few highlights of the latest in composite log software released by ALT.

## Marker Log

Insert, display and store your formation markers using the new Marker Log. As an alternative to the existing Strata Log the new Marker Log takes a single depth, the name (or unique identifier) of your marker, an optional description and a contact style as data. The ability to both organize and reload markers in LTH libraries adds another level of comfort to this easy to use log. Different presentation styles have been implemented to meet your needs.



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# Multi Well Auto Correlation

## WellCAD Automation

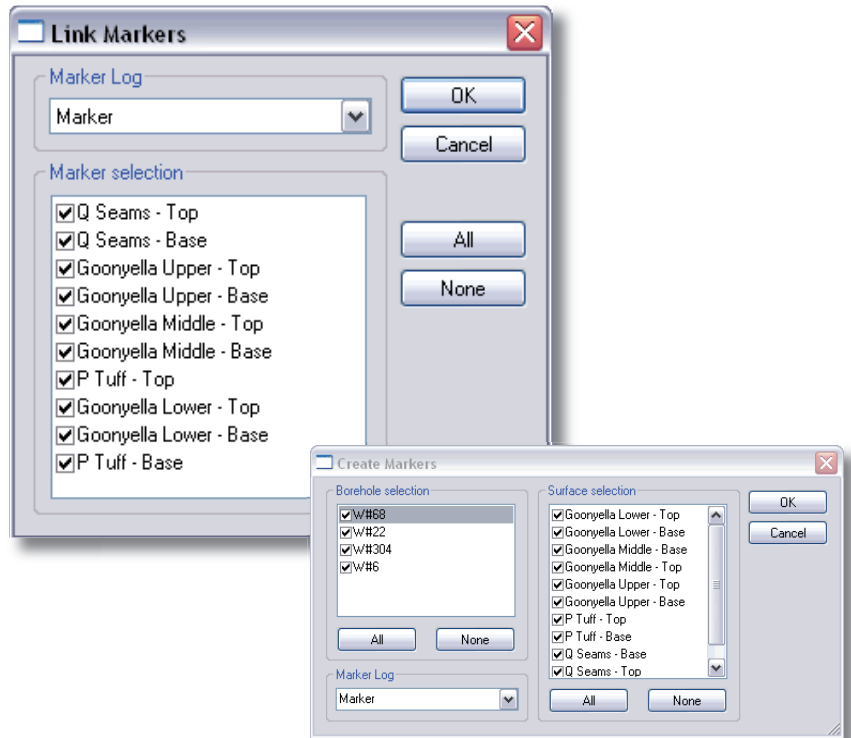
Certain Windows applications such as MS Excel, MS Access and now WellCAD expose COM components (Component Object Model). Instances of COM classes, so called objects, can be created in program or script code to access methods and properties of these applications. E.g. a WellCAD. Application object can be created through a call from a simple VBS script to start WellCAD remotely and trigger the execution of a batch process.

WellCAD v4.2 now exposes almost all processes available from the WellCAD menus in the new WellCAD Automation module. Methods for file import, template application, printing, log creation and data processing are available.

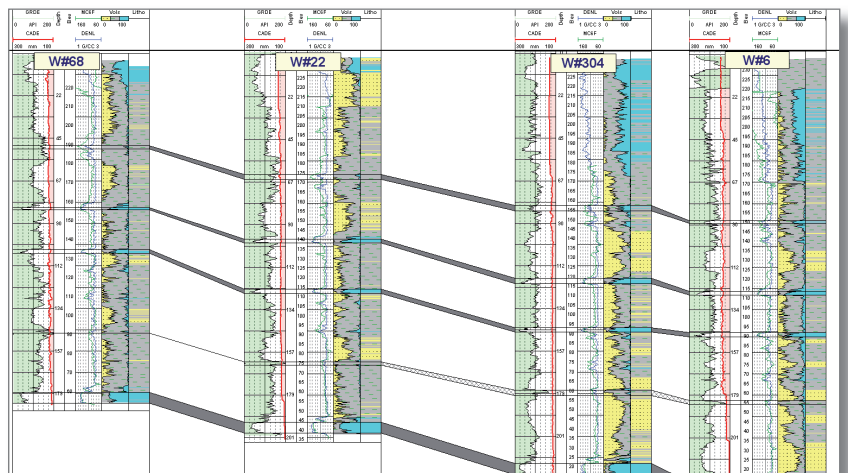
A set of sample scripts demonstrating an automated batch file import and data processing, batch printing and automated casing thickness processing come with the new WellCAD v4.2. If you want to write your own scripts a simple text editor is all you need. The Windows Scripting Host installed with your MS Windows operating system provides the tools to execute your scripts. If you are experienced in Visual Basic or Visual C++ programming you can incorporate WellCAD Automation objects in your application. Alternatively we can help in fulfilling your wishes.

```
1 'WclOpen.vbs
2 'This script loads all WCL files from an input folder
3 'applies a template to each file
4 'and saves each file as a new WCL in an output folder
5 'Author: Timo Korth
6 '-----
7
8 'Definition of input and output path
9 Const INPUTPATH = "C:\Automation\input"
10 Const OUTPUTPATH = "C:\Automation\Output\"
11
12 'Get a WellCAD handle
13 Set WCAD = CreateObject("WellCAD.Application")
14 WCAD.ShowWindow()
15
16 'Get access to the files in the input folder and open loop
17 Dim FSO, obFolder, obFile
18 Set FSO = CreateObject("Scripting.FileSystemObject")
19 Set obFolder = FSO.GetFolder(INPUTPATH)
20 For Each obFile In obFolder.Files
21 *****LOOP START*****
22
23 'Open a WCL file
24 Set obBhole = WCAD.OpenBorehole(INPUTPATH & "\" & obFile.Name)
25
26 'Apply a borehole document template stored in the output folder
27 obBhole.ApplyTemplate OUTPUTPATH & "Template.WDT"
28
29 'Set output file name and save it
30 strOutFile = "New " & obFile.Name
31 obBhole.SaveAs OUTPUTPATH & strOutFile
32
33 'Close current borehole document
34 WCAD.CloseBorehole FALSE
35
36 Next
37 *****LOOP END*****
38
39 MsgBox("Process Finished!")
40
```

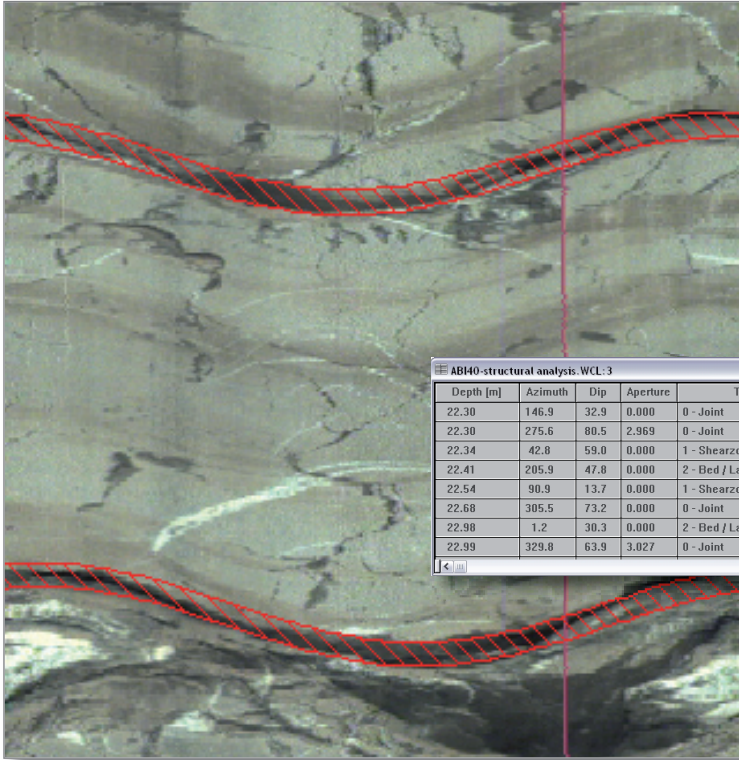
display of a typical VBS script



A very powerful application of the Marker Log has been added to the Multi Well Module. With just a single click the user can auto correlate all his markers and create new surfaces in the multi well views. If required a new Marker Log can be created from existing surfaces in the Multi Well module and added to your borehole document.



# New Image Module



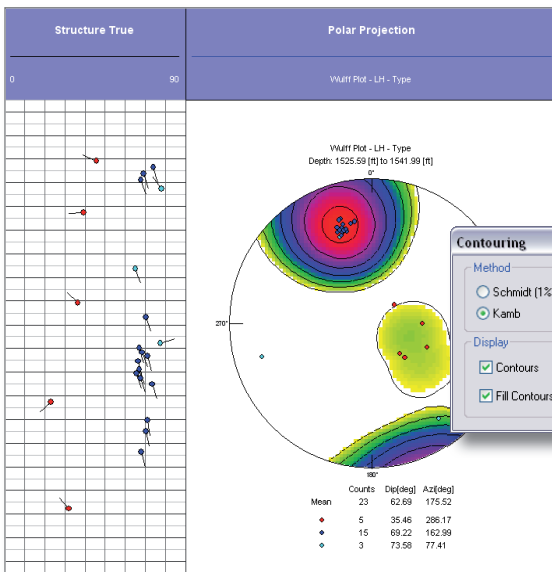
open fracture pick

The Structure Log type has undergone a major renovation. It is now possible to interactively determine and store the aperture of joints along with their dip and dip direction. By dragging a fitted sinusoid the user can determine the apparent aperture as shown on the data display. Besides depth, dip and azimuth the true aperture is stored in the new Structure Type data format.

Depth [m]	Azimuth	Dip	Aperture	Type	Form	Condition	Remark
22.30	146.9	32.9	0.000	0 - Joint	3 - Parting	1 - Rough	2 - Tight
22.30	275.6	80.5	2.969	0 - Joint	1 - Planar	0 - Smooth	0 - Open
22.34	42.8	59.0	0.000	1 - Shearzone	2 - Stepped	1 - Rough	2 - Tight
22.41	205.9	47.8	0.000	2 - Bed / Lamina	1 - Planar		
22.54	90.9	13.7	0.000	1 - Shearzone	2 - Stepped	1 - Rough	2 - Tight
22.68	305.5	73.2	0.000	0 - Joint	1 - Planar	0 - Smooth	2 - Tight
22.98	1.2	30.3	0.000	2 - Bed / Lamina	1 - Planar		
22.99	329.8	63.9	3.027	0 - Joint	1 - Planar	2 - Weathered	1 - Open / Loose

Tabular Editor with new Structure Log format

To add more flexibility when classifying joints the user is no longer restricted to a Class and Description field. A user defined number of custom attributes such as Type, Form, Condition, Filling can be assigned. For each attribute a TAD library can be loaded which allows a convenient and time saving classification workflow. The new WellCAD comes with a number of libraries containing standard classification attributes.



Polar Projection Contour Plot

For those who want to classify their structure picks out of the Polar Projection Plot a new interactive cluster functionality has been added. This new option allows the user to select a number of points from the Polar Projection diagram, to assign a new ranking attribute and to update the linked structure log.

**Contouring**

Method

Schmidt (1% area)

Kamb

Display

Contours .1 mm

Fill Contours Palette...

Options

Smoothing: Exponential

Signif. Sigma: 3

Min. Contour: 2

Contour Interval: 2

**Select category**

Attribute	Value
Type	0 - Joint - Joint
Form	1 - Planar - Planar
Condition	0 - Smooth - Smooth
Remark	0 - Open - Open

Line width .5 mm

Apply changes to all similar structures

Structure Classification Dialog

Polar Projection Diagrams of the Polar & Rose Log can be displayed as contour or color density plots using Kamb's or Schmidt's Method. Detailed options are provided to expert users and the color palette is completely customizable.

## What's new

- Optional UNDO in WellCAD, HeadCAD, LithCAD and ToadCAD
- Depth axis can be displayed as elevation axis (positive up)
- OLE Log displays pictures without third party viewer
- CGM file export using Larson Software Technology
- Find & Replace functionality in Tabular Editor
- Export of clustered data points out of the Cross Plot Module
- Depth Matching and Depth Log creation in a single step
- Automatic recognition of top and bottom depth from file name when importing picture files.
- A new Structure Log can be directly created from selected Well or mud Logs
- Structure Logs can be used in the CoreCAD Workspace
- CoreCAD for PDA allows logging from the bottom upwards against an elevation axis.
- New presentation style of WellCAD on XP and Vista systems.

## How to upgrade

The upgrade to WellCAD 4.2 is not free. **Please contact ([sales@alt.lu](mailto:sales@alt.lu)) for further information.**

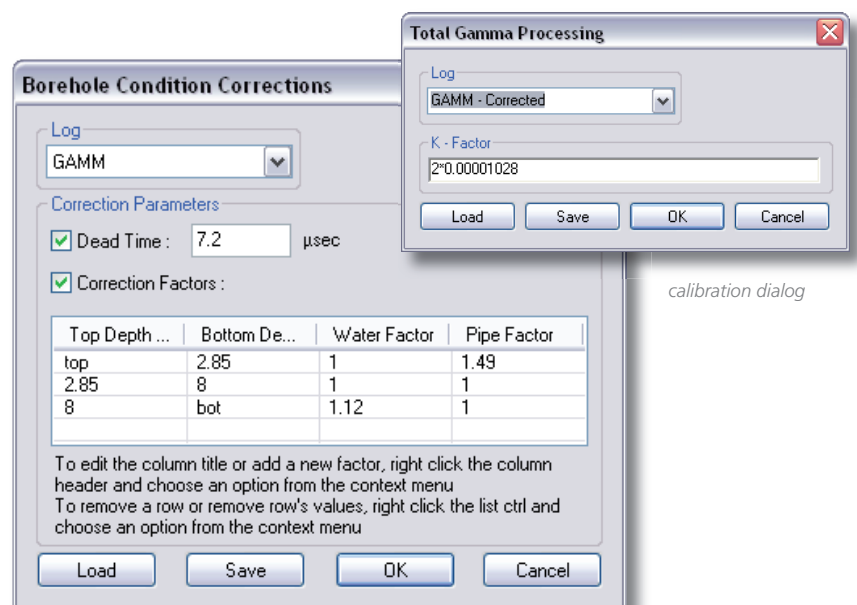
You can download the new WellCAD 4.2 version from our homepage. Two versions are available: A full version including a set of sample files and context sensitive help system, and a light version without samples and help.

Install WellCAD 4.2 and start the program. At the first startup two key codes will be provided. **Send these key codes to ALT ([support@alt.lu](mailto:support@alt.lu))** in order to receive an activation code.

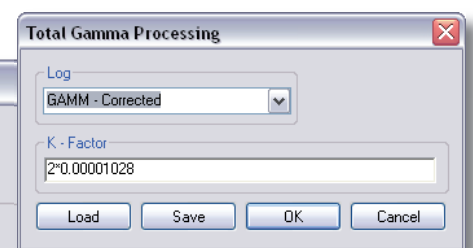
## Total Gamma Processing

WellCAD v4.2 will contain two new common processes to serve our customers in the uranium exploration business. The Total & Spectral Gamma Correction process has been added to allow quick and easy correction of total gamma measurements for dead-time and borehole conditions (e.g. pipe factor and water factor). The user can define any number of correction factors or equations to be applied to the data. The processing parameters can be saved and organized in individual configuration files (e.g. one per probe).

The second process - Total Gamma Calibration – can be used to apply calibration factors or equations to corrected gamma counts facilitating for example the computation of ore grade. Whether a K-Factor is used or an equation has been determined from a cross-plot, the user can add the calibration information to a tool specific configuration file and recall it when needed.



corrections dialog



calibration dialog

