# TerraNotes

The official newsletter of TERRASCIENCES

Current TerraStation II version: v7.418

New Data Analytics Module - CLARITY

We announce a new addition to the TerraStation suite of software modules. **CLARITY** is a module for the rapid data analysis of TerraStation project data. It is located under the Tools menu of the main TerraStation menu bar. An introductory document can be found in the **Client Center => Guide Sheets** section of the web site.

This module is part of the Base TerraStation and is free to all clients with current maintenance and rental agreements. Thank you for your loyalty to the TerraStation brand through these difficult times.
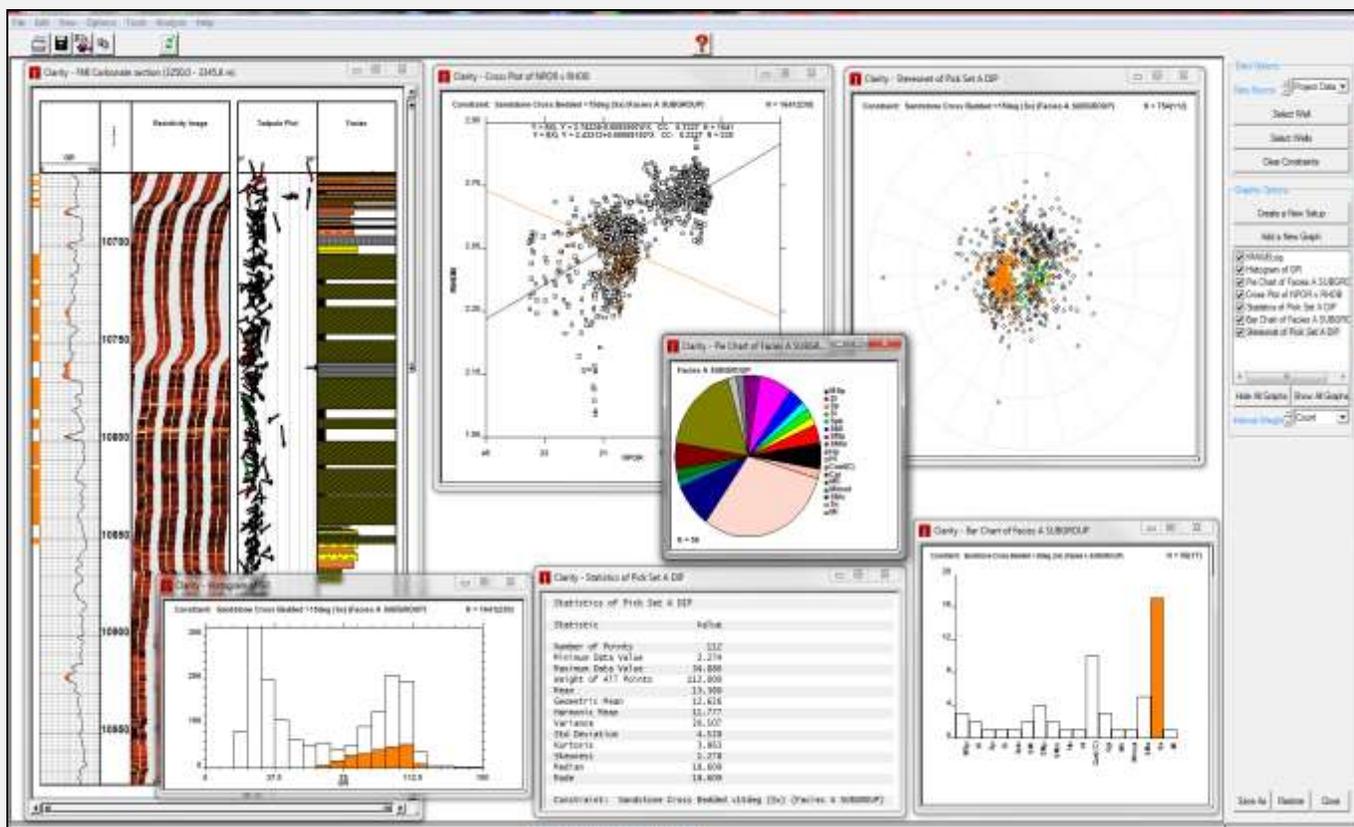

In the above snapshot, the highlighted data is shown in orange on the various displays

Using Clarity you can rapidly highlight trends in data on crossplots, stereonets, histograms and other displays and see where those data appear within the well (or wells). An example is seeing where the PERF zones are in a set of wells and if they tend to fall into specific facies, or in areas where fractures trend in a specific direction. All the windows immediately update as you highlight ranges of data, specific data items, depth intervals, and so on using the mouse.

As an added bonus, the module can also be used to analyze non TerraStation project data loaded as a simple tab delimited ASCII flat file such as can easily be exported from EXCEL.

Pick Intersection Option in Correlation

This is located in the Correlation module. Once you have a section displayed it is on the **Well Display – Dip Display** panel.
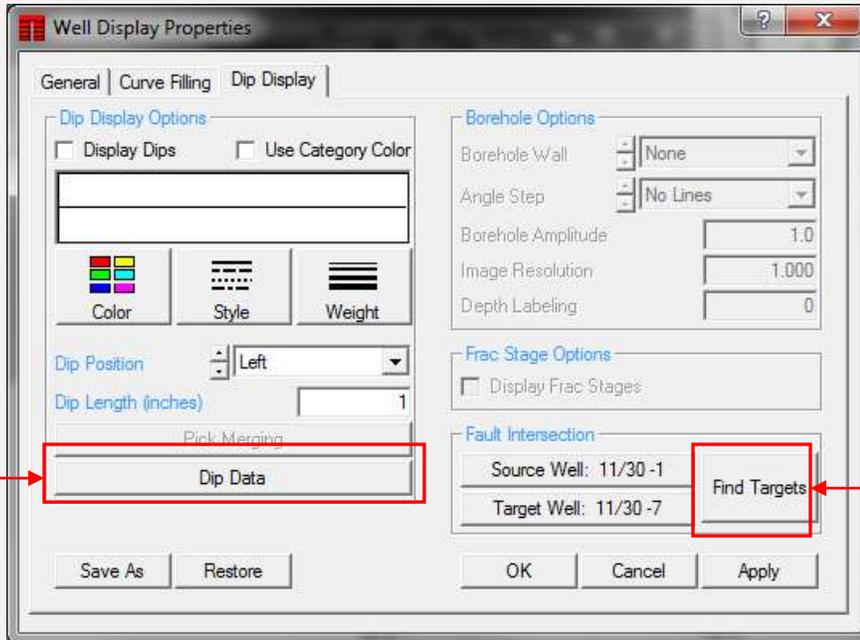
The word "picks" in this instance refers to the dip/azimuth features in one of the four Pick Sets. These are normally added by users interpreting borehole image data. It does NOT refer to the structures or tops that are stored in the map file.

This allows you to obtain a report on whether picks in one well (source well) will be intersected in another well (target well). Once source and target well are defined, press the **Find Targets** button to generate the report. The report shows the original pick in the source well (MD, Dip and Azimuth), the location in the target well (MD, TVDSS, XDEV and YDEV), and the absolute position in x, y, and z coordinates – usually in UTM and meters.
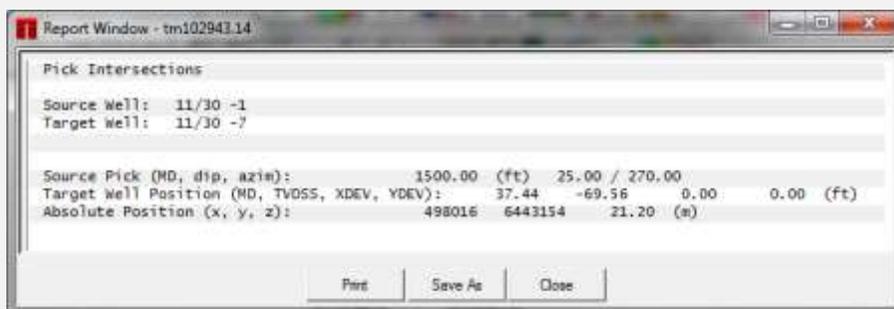
It is intended to help in the planning process of new wells, in order to see if things such as faults, or fractures in an existing well may potentially be intersected (or not) by a new well. Use the **Dip Data** button to access options to select what features you want to be reported.

Newsletter Archive

Just a brief reminder that you can access any of the past editions of TerraNotes on our website. Simply click on the **Client Center** menu and choose **Newsletters**. There are many technical tips and articles on features in the software that may be of use.

Interface Enhancements

ESC key function
To behave more in line with other Windows software, we have added the ability to close popup control windows by simply hitting the ESC key.

This closes property sheets, some smaller popup display windows and other control windows – for example the Track Configuration control window in IMAGELog. It does not apply to the main display windows.

Zooming using the mouse wheel
We have also added the ability to zoom in and out vertically by using the mouse 'wheel' found on most mouse devices. **You must also hold the CTRL key while doing this.** This works in most places where there are is a large slider down the right hand side of the window – IMAGELog, cross sections, etc.

It does only zoom vertically. In effect it is like grabbing and moving the bottom arrow of the large vertical slider seen on the window's right hand edge.

Note: if you have a mouse without a wheel then this function is not available to you.

# Image Flattening and Sand Counting

In order to obtain a more accurate sand count from borehole images, it is may be necessary to remove structural dip prior to performing the analysis.

This can be done using the **Image Analysis ►Image Flattening** function…

Set the **Source of Structures** to the location of your structural dip information. This can be one of several options. Fixed values, values for a specific pick category or sub category, curves, and so on.

Specify the structural dip pick category in this case.

Now perform the Sand Count operation.
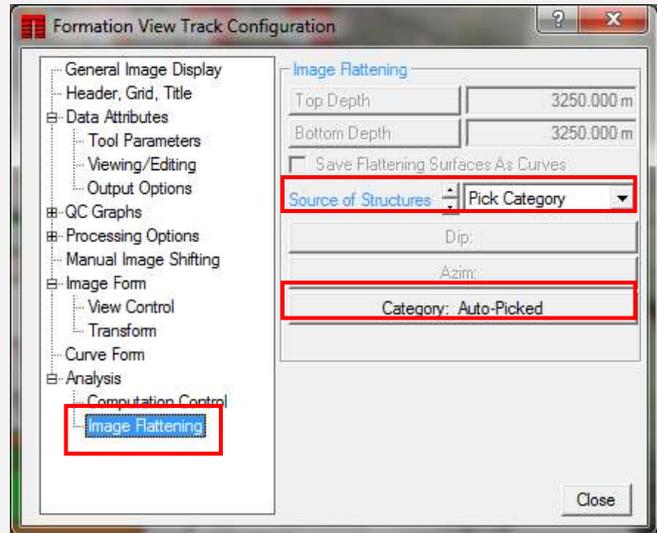
Below is an example of the effect flattening has on the computation. The structural dip is shown by the black picks in the left track.
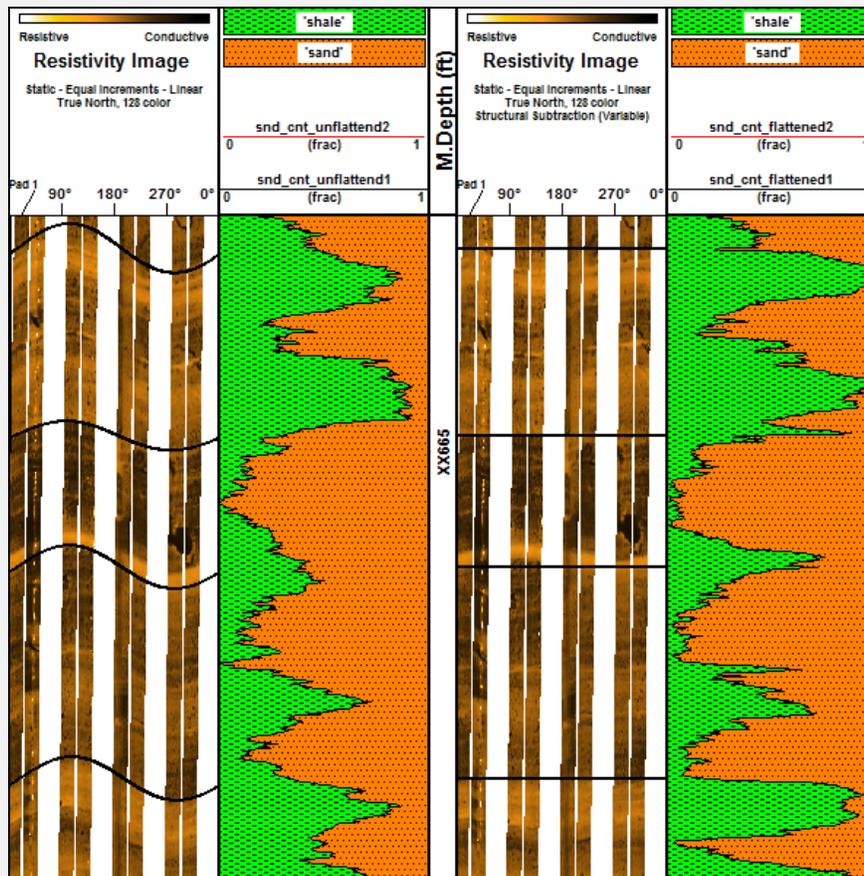
Notice how in the sand count result on the right (flattened result) the distinction between 'shale' and 'sand' beds is more pronounced. When the structural dip is removed the averaging algorithm is more likely to count values from the same unit as it scans horizontally across the data.

## Digitizing Old Tadpole Data with TerraStation

Several versions ago we added a mechanism for digitizing the dip/azimuth values from old paper copies of tadpole plots. It requires a little work, but if you need to retrieve usable digital data of this kind then we now give you that opportunity. A detailed document on how to do it can be found on our web site under the **Guide Sheets** section of the **Client Center** menu. Look in the IMAGELog section of this page.

Alternatively, you can follow this link:

http://www.terrasciences.com/index.php?option=com_docman&task=doc_download&gid=293&Itemid=

Image Naming When Exporting Circumferential Images to DLIS

In order to allow certain third party software packages to display borehole images from pad based tools, it is sometimes necessary to supply them as simple circumferential images. This is due to the inability of some systems to take into account individual pad geometries. TerraStation allows the export of such images. In the past the user had little control over the name of these exported images within the DLIS file. We now allow the name of the image to be the Slot Name. That is you can set the name of the image within TerraStation by using **Set Slot Name** on the **Track Configuration ►Viewing/Editing** panel. This name will then be used for the image data array on the DLIS file.
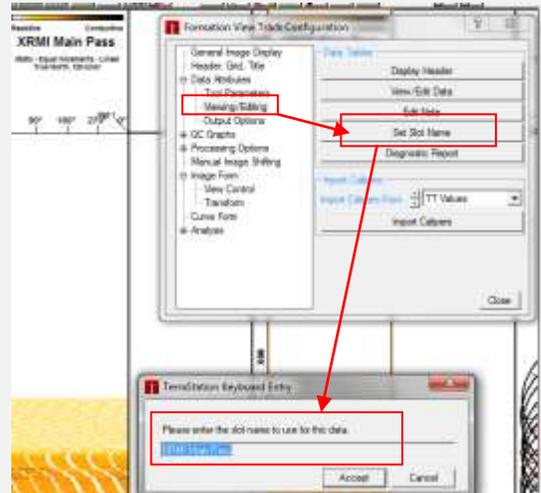
2016 Trade Shows

Just a note on this year's trade show participation. Due to a combination of location and the current poor state of the upstream industry, we decided to curtail our trade show involvement for this year.

Calgary (AAPG) and Iceland (SPWLA) did not make much sense for us as a company, even without the downturn in the industry. Rest assured we are still very much in business and hope to resume our trade show presence once market conditions improve and the show locations fit better with our overall requirements.

PETEX in London is still a possibility but we will be evaluating our participation in that show closer to the time (November 2016).