TerraNotes

*Current TerraStation II version: v7.480*

Featured In This Edition….

3D Frequency Plot (Under Crossplot)

Another way of visualizing data is available via the 3D Frequency crossplot option. An example is shown below…

Well Name: L.A.S.E.R. SHOW DEMONSTRATION WELL
Depth: 11000.00 to 12400.00 by 0.5 feet
Constraints: None
Curve Aliasing: Function Match: Highest; Version Match: Highest
Frequency plot. Cutoff = 0
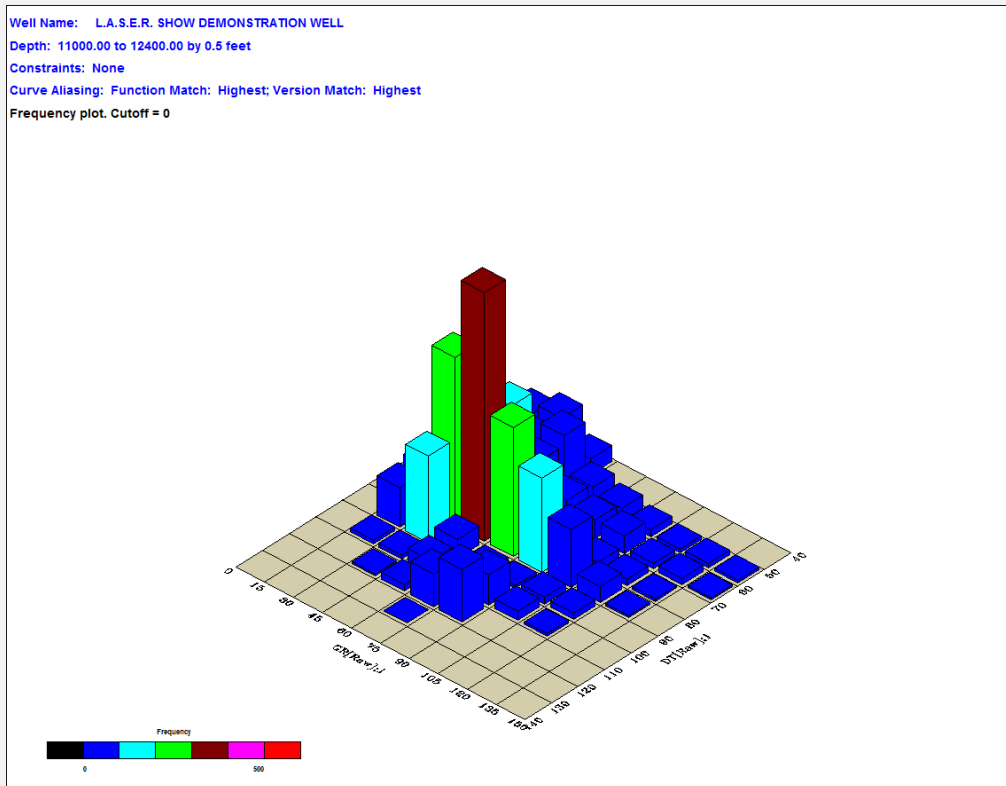
This is part of the Base TerraStation capabilities to which everyone has access. To use the function, under the **Petrophysical Analysis** menu option, click on the **Crossplot** button.

Select the **Crossplot Type** to be **3D Frequency Plot**.
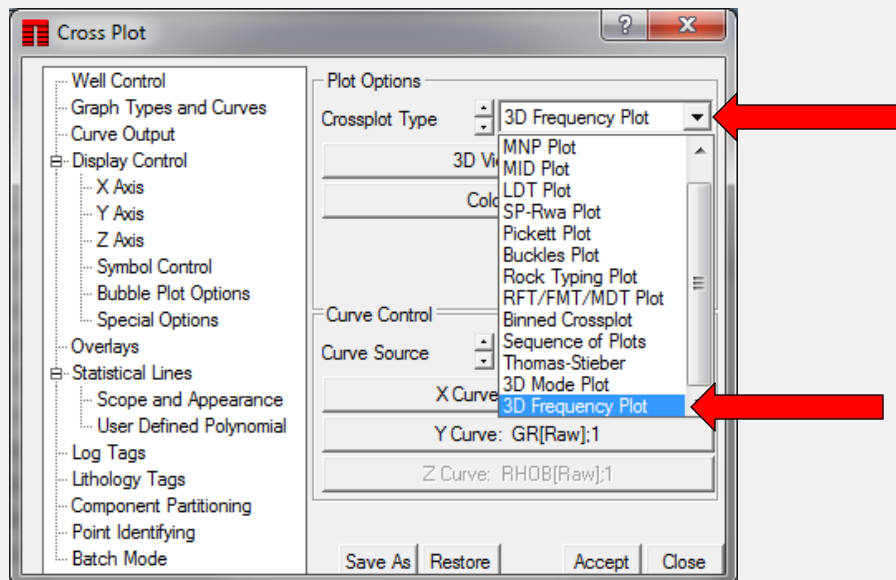
Next select the two curves you wish to use by pressing the **X Curve** button and selecting a curve, followed by the **Y Curve** button and selecting a second curve.

Click on the **Symbol Control** item on the left hand list.
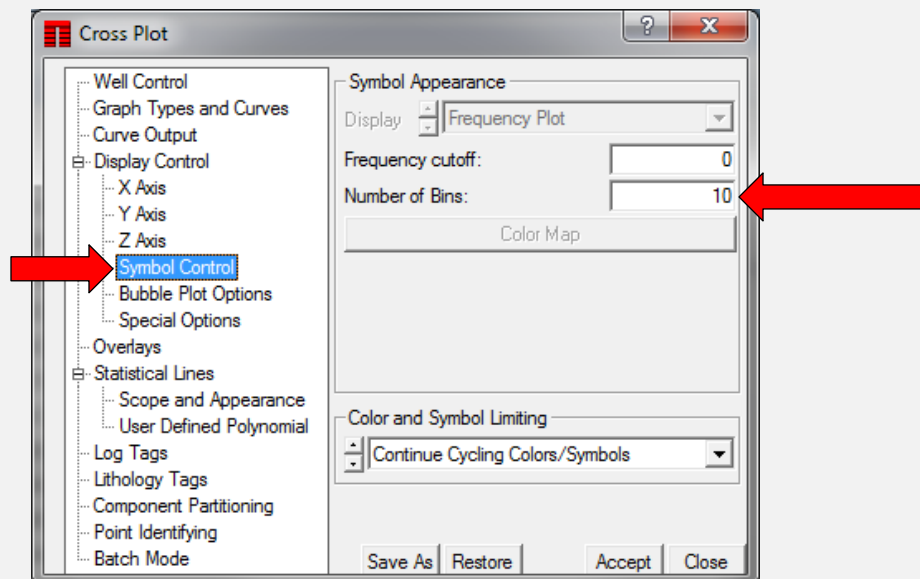
Set the **Number of Bins** entry to the desired number of groups. The number applies to both axes.

Press the **Accept** button and the plot should be created on the screen. You can use the various other controls and settings to control how the display appears, such as the color coding of the bars.

IMAGELog Color Coded Curve Track

We recently added another shading control setting (**Mirror Outside**) to the color coded curve track. It is intended to allow easier display of a caliper curve to show a borehole profile display.
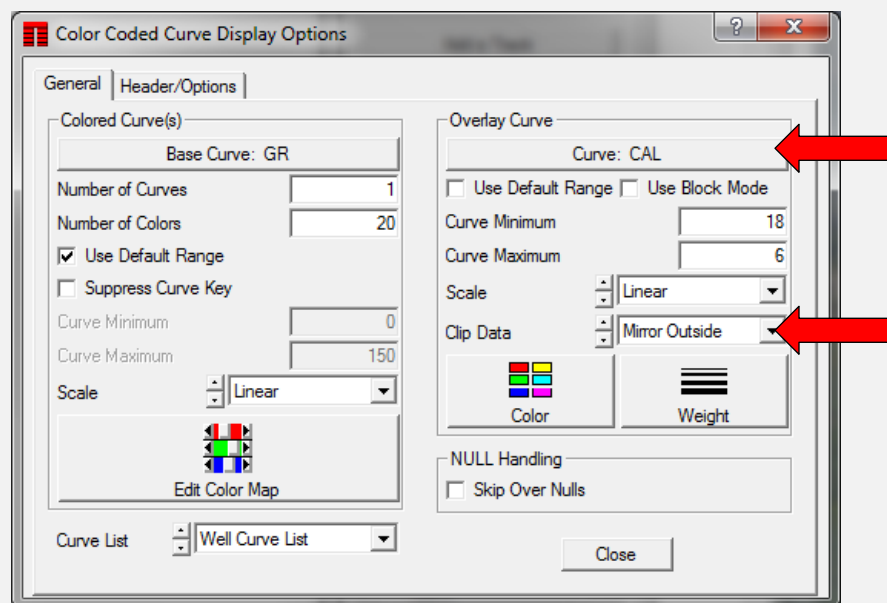

1) Set the **Overlay Curve** to be the caliper curve you wish to use.

2) Next set the **Clip Data** setting to **Mirror Outside**.

3) Finally, check off the **Use Default Range** box, and set the **Curve Minimum** and **Curve Maximum** to values that give you the look you want. Note that the minimum value should be larger than the maximum value to obtain the display with the borehole shown as the central, "empty" area. In this example we set the minimum value to 18 and the maximum value to 6.

The color coding down the outer edges is using a Gamma Ray curve to indicate the sand and shales through which the borehole is passing. This is set by pressing the **Base Curve** button on the control panel.
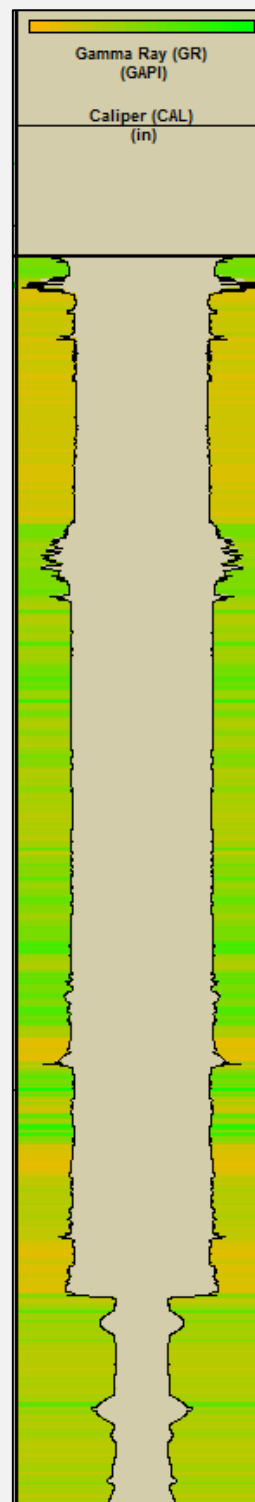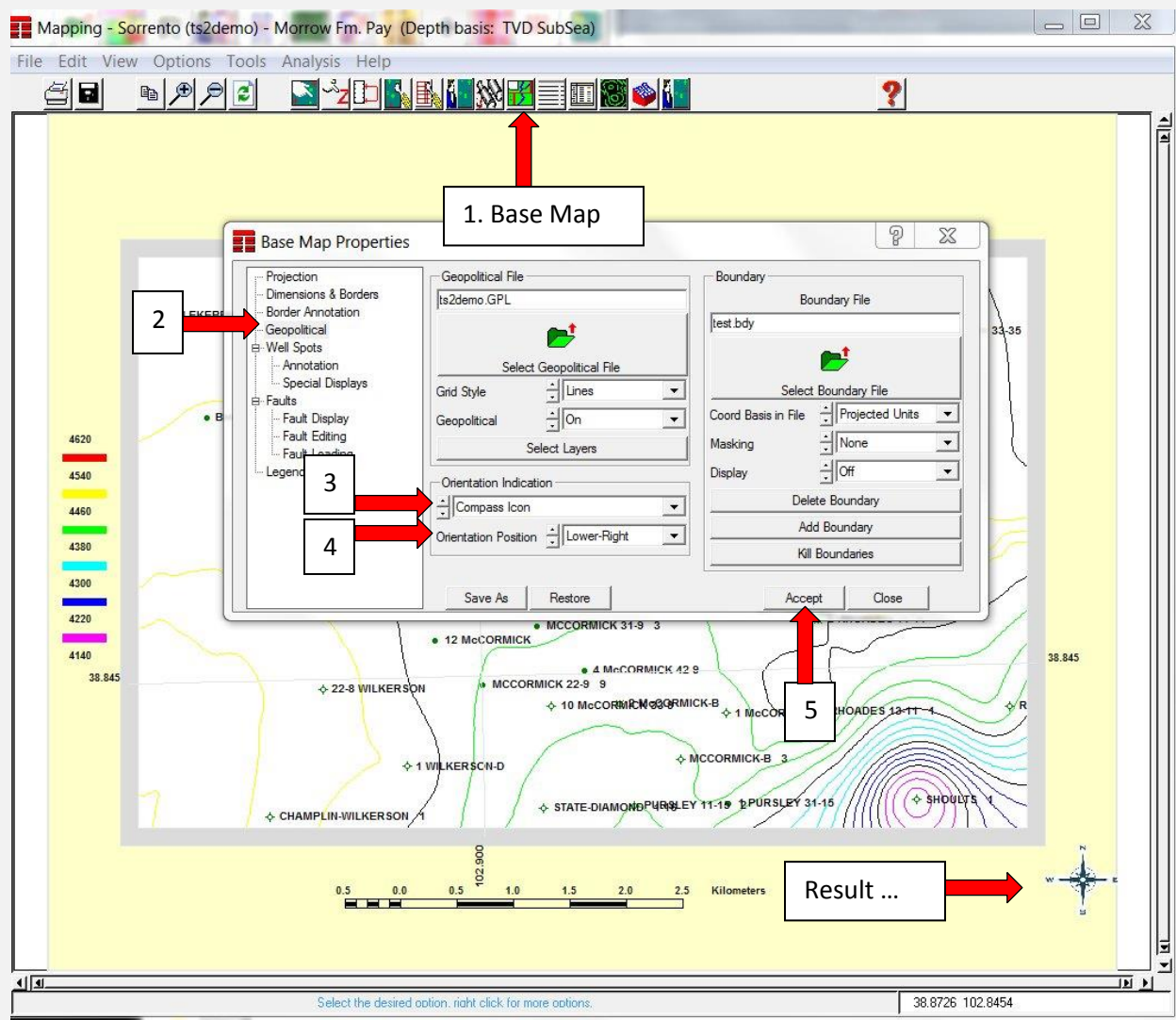
Compass Display for Maps

In order for this to function, you should have a file called 'compass.jpg' in your 'userdata' folder. This file should be a graphic of your desired compass-like image. It should be in JPEG format. An example is shown here...
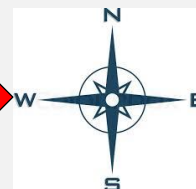
Display your map. Then press the **Base Map** icon on the power bar.

Click on the **Geopolitical** item in the left hand list.

Change the **Orientation Indication** setting to **Compass Icon**.

Set the **Orientation Position** to one of the four allowed locations.

Press the **Accept** button.

In the example you can see the compass at the lower right of the map border area. Note if the margin area is too small then the compass may not be drawn. The margins of the map are controlled on the **Dimensions & Borders** page of the **Base Map Properties** window.

TCL Plot Output Controls

We have added a series of commands for generating output plots using IMAGELog templates. The purpose of this set of commands is to allow you to quickly generate the outputs you want without having to do so one plot at a time.

The command set includes specifying the vertical scale to be used, the type of output you want, the IMAGELog template file to use, and so on. The commands are:

    SET PLOT DEPTH_BASIS
    SET PLOT FOOTER
    SET PLOT FORMAT
    SET PLOT HEADER
    SET PLOT ILG
    SET PLOT SCALE

and finally…

    CREATE PLOT

This command set allows you to quickly generate your final plot sets for one, two, or many wells.

For example we have a client that always generates PDF's at 1:20, 1:50, and 1:200 of their final well composite displays…

```
SET PLOT DEPTH_BASIS    MD
SET PLOT FOOTER  NONE
SET PLOT FORMAT   PDF
SET PLOT HEADER CENTER_FIT  'clientX.hdr'
SET PLOT ILG  'main_composite.ilg'
SET PLOT SCALE 20
CREATE PLOT
SET PLOT SCALE 50
CREATE PLOT
SET PLOT SCALE 200
CREATE PLOT
```

This command sequence accomplishes that. The 3 PDF's are created all using the header file 'ClientX.hdr' and the IMAGELog template file 'main_composite.ilg' . There is no footer file provided. The arguments to the commands are highlight in red in the above sequence.

Note that the CREATE PLOT command in this example has no argument. In this case the output PDF files have a name automatically generated comprising the well name and well UWI (API#) along with the vertical scale and the appropriate file extension. For example:

Sutton_Fields_3H_32215600012_1to200.PDF

Well Name

Well UWI

Scale

Extension
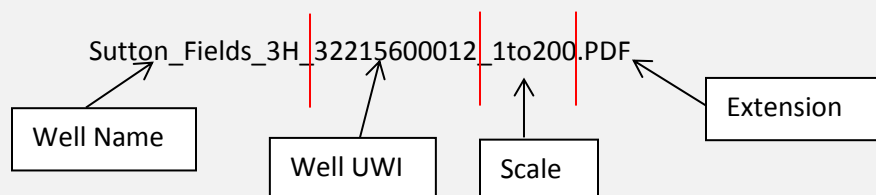
In the case of long and complex plots, especially those using borehole images, having the ability to set up a process that you can run overnight to generate your plots makes better use of your time.

If you want to name the output plot yourself, just include it as an argument to the CREATE PLOT command. For example, CREATE PLOT 'test_plot_1.pdf'. The desired name should be in single quotes.

You must have a license to the TCL module to make use of this. Contact your friendly TERRASCIENCES sales person for information if you are interested in improving your efficiency of plot generation.

Stratigraphy Track Text Color

We have added the ability to customize the text color in individual geological age units. This allows you to make text more legible when displaying it on a filled background that might otherwise make it difficult to read. For example, in the display on the right, the second column actually has two units in it, the "Upper" unit is easy to read as the text color was changed to white, whereas beneath it, the "Lower" unit text is almost impossible to make out.

To edit the text color for a unit, simply right-click on the unit and choose **Edit Entry** from the menu. Use the newly added **Text Color** button to change the text color for this unit.
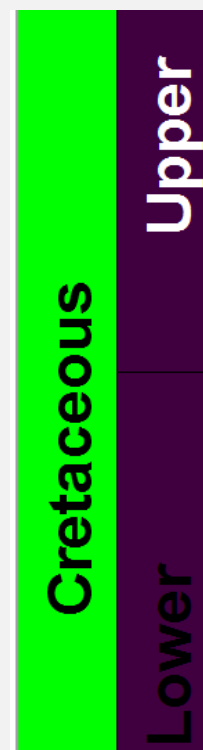
A Bonus TCL Moment

Finally, we added a command to the TCL output commands to allow you better control over how text is spaced out when generating your own reports. The command is called **OUTPUT SPACE** and is followed by a number. The number is the number of spaces to be added to the output stream. If the number is not present then one space will be added. For example…

OUTPUT SPACE 10
OUTPUT TEXT Well Name:
OUTPUT SPACE
OUTPUT WELLNAME
PRINT OUTPUT

Would result in:

```
          Well Name: example_well_name
```

By using this command you can choose how things are lined up when outputting a report.

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