

## How to digitize a section of log from a scanned image using IMAGELog.

Note: This workflow assumes you are familiar with the basic operation of TerraStation in general and the IMAGELog module in particular.

Although IMAGELog was not designed with this capability in mind, it is possible with a little effort to perform on screen digitizing of a curve from a scanned image file. The scanned image must be in TIFF, JPEG, or BMP format.

### Step 1 is to get the scanned image into IMAGELog

Open an **IMAGELog** window with the desired well selected.

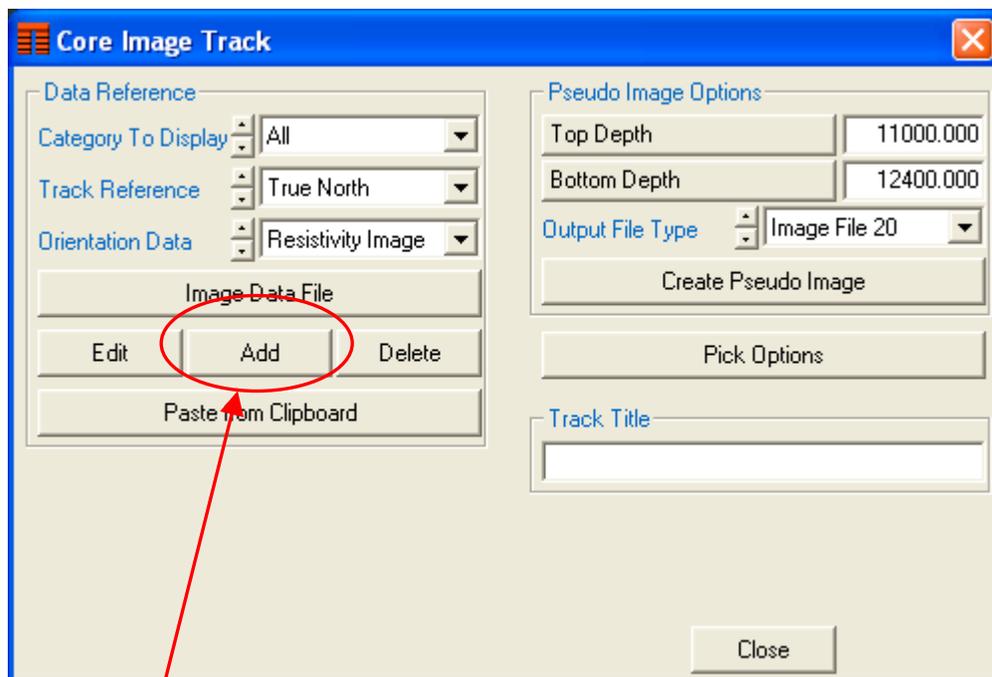
Create a new IMAGELog template by pressing **Create New Image** (or select an existing one using **Restore Image**).

Now press **Track Setup**.

Now left click on the track to make it the 'active' track. Once this is done move down the list of track types over on the right hand side panel until you find one called **Core Image Data**. Click on this once to set the track to that type.

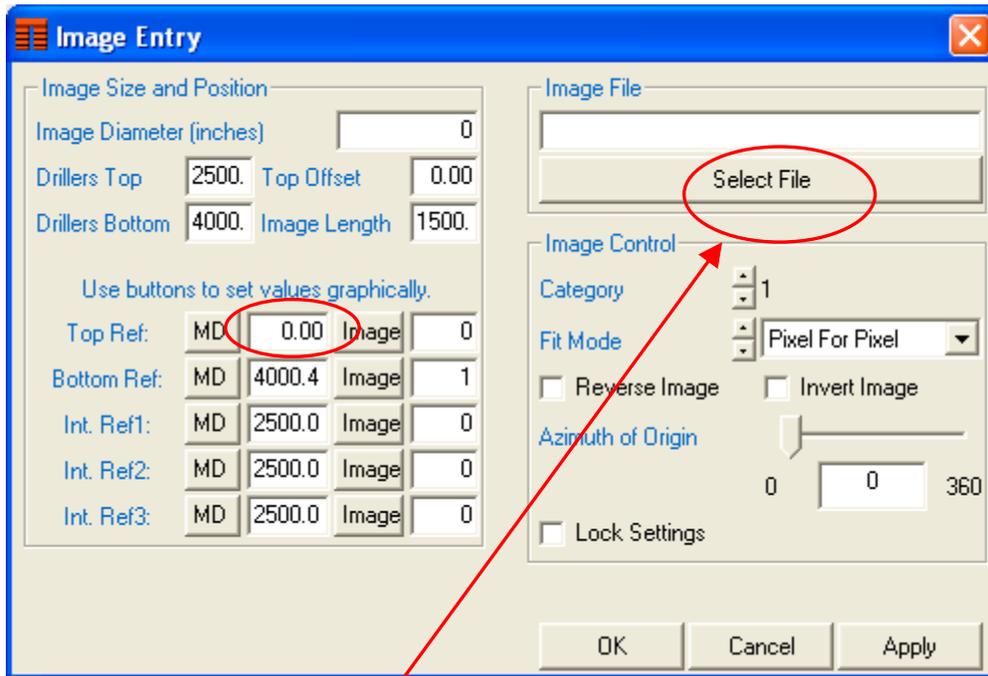
Add a second track and set this to be a track type of **Depth**. Set the horizontal grid to **Tick**, and set a depth label frequency that is fairly dense (perhaps 10 feet intervals). You will need to have the **Automatic Scaling Frequency** switched off to do this.

Now right click on the Core Image track and select **Track Configuration** from the menu. A small window should appear. (See below)



Press the **Add** button on this window.

This causes the **Image Entry** window to appear. (see below).



First press the **Select File** button.

Now set the Top Depth reference point by press the **Top Ref MD** button. Move the cursor onto the track and click on the scanned image.

Do the same for the Bottom Reference depth, using the **Bottom Ref MD** button.

Note: You do not have to get this exact first time, as you can adjust these positions as much as you like.

Now, this initially assumes that your top reference depth is the top of the image file, and the bottom is the bottom. Obviously this is not always the case. So you can adjust the position at which these depths point to. This is done as follows:

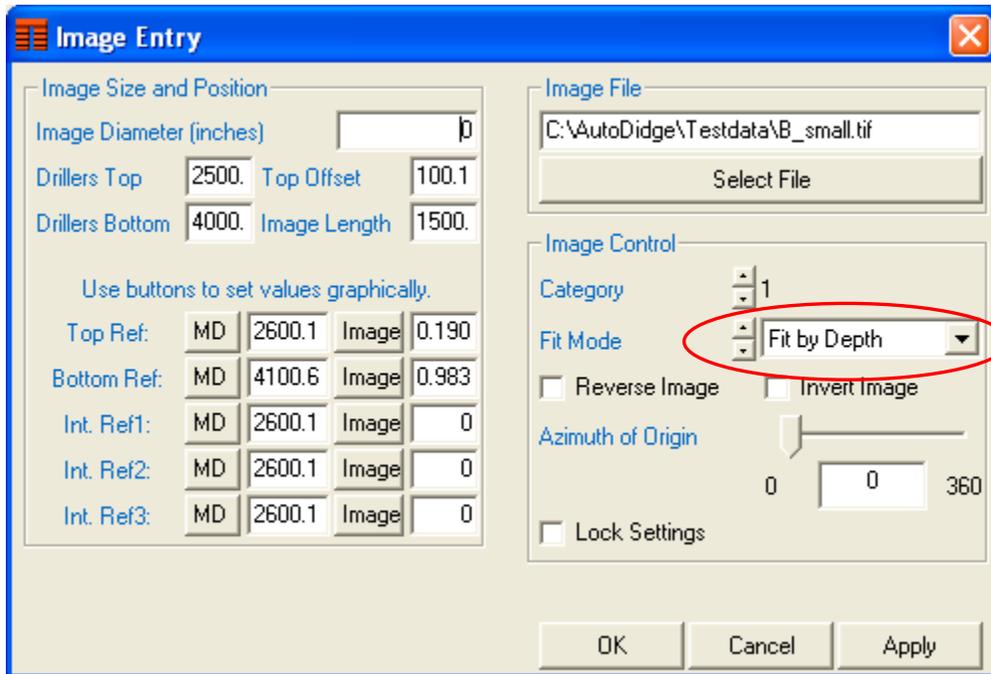
Let us adjust the position of the Top Ref Depth point. You do this by clicking on the button labeled **Image** that is to the right of the **Top Ref MD** value. See below..



Now over on the image, click where you want the reference point to be. Repeat for the bottom reference if desired.

The values you see for the image points are ranged from 0 (the top) to 1 (the bottom). So if you make the top depth ref image point be 20% from the top of the image, you will see the value 0.2 in this box. The boxes allow you to type in these values if you do not want to click on the image.

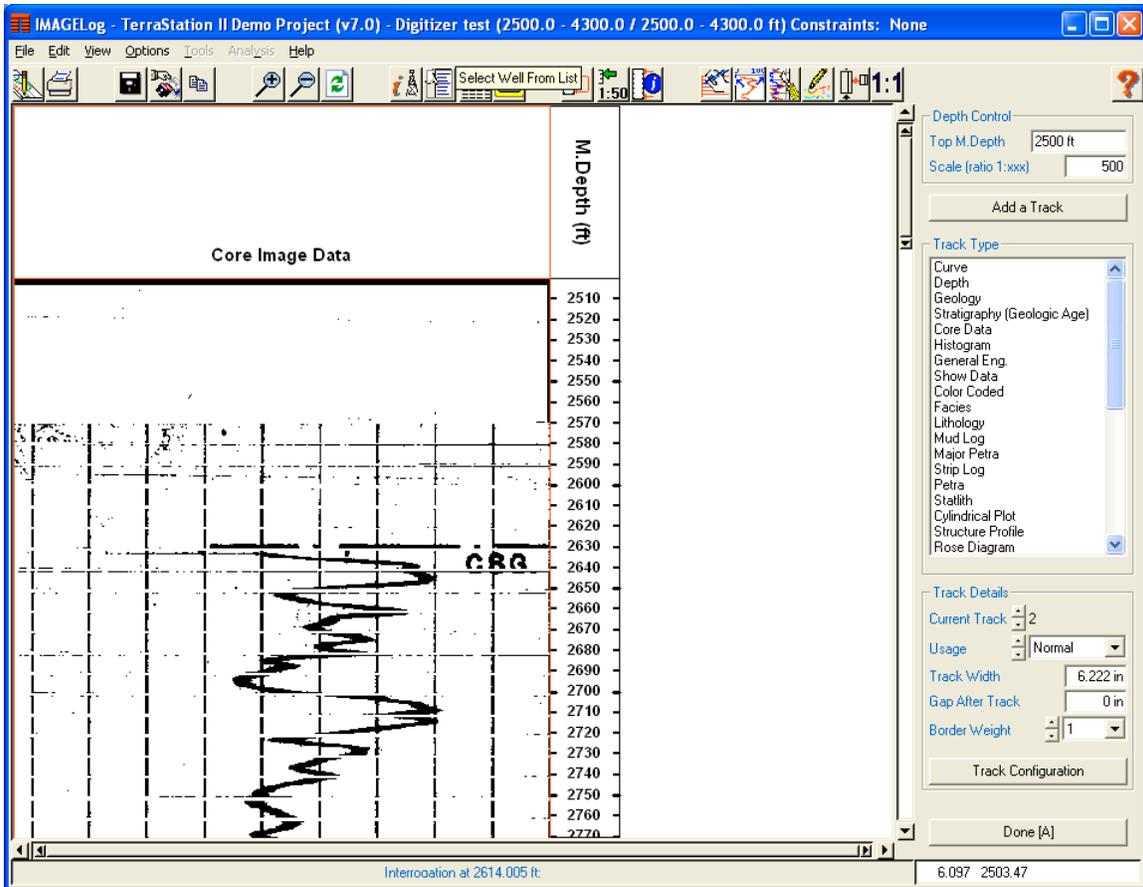
Finally, you need to adjust the **Fit Mode** (shown circled below) for the image. In this case it should be set to **Fit by Depth and Clip**.



Press **OK** when done registering this IMAGE. Then Close the Track Configuration panel.

Now adjust the track width so you can 'clip' of any extraneous part of the scanned image on the right. Simply left click and hold on the track border and move the mouse. When you let go the display is redrawn.

At this point you should have a display that looks something like this. Obviously the image in the Core Image track will be different from the one used here.



Important points to note are that the depths on the scanned image match the depths in the depth track. Putting the ticks on in the depth track helps with aligning the image.

The other thing to note is that we need to decide what left and right scale we need to use when digitizing the curve. Note in this example that by tweaking the track width (and using **the Fit mode: Fit by Depth and Clip**) the image only contains the curve track we want to digitize.

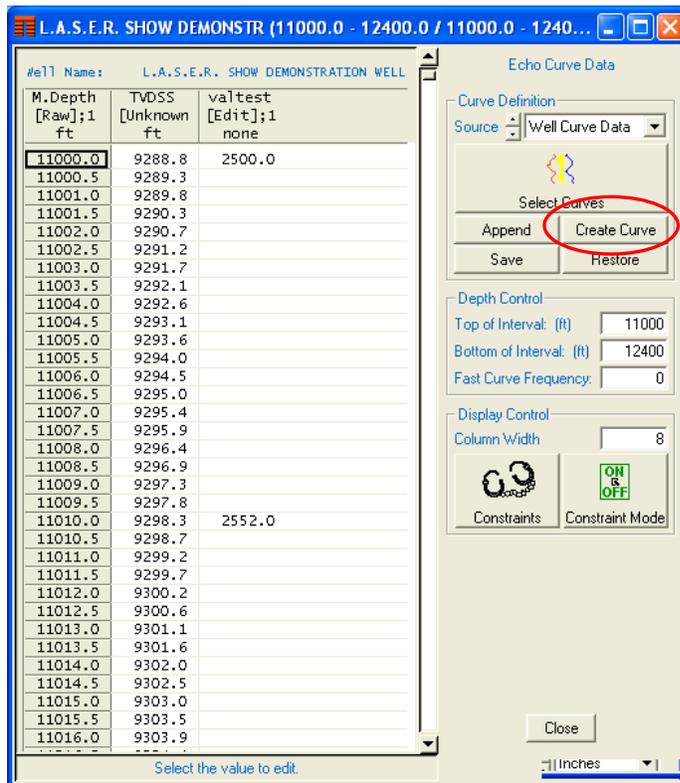
This is the trickiest part of the whole exercise .... getting the image set up correctly for digitizing.

## Create a new curve for storing the result of the digitizing.

In order to digitize curve data we need to define curves for the information to be sent to. The easiest way to do this from within IMAGELog is to use the **Echo** function found on the power bar. It is shown circled below.



When the **Echo** window appears, simply press the **Create Curve** button on the right hand side.



At the prompt (shown below), enter the curve name you wish to use and press **Accept**.



Now simply press the **Close** button to remove the **Echo** window. This small diversion into Echo is necessary in order to create the curve for the results of the digitizing.

## Setup the rest of the template needed for digitizing

Right click on the **Core Image Data** track and select **Insert track** from the menu. This should create an empty track of the same width as the core image track to the left of the core image track.

Now click on **Curve** in the **Track Type** list to make this a curve track.

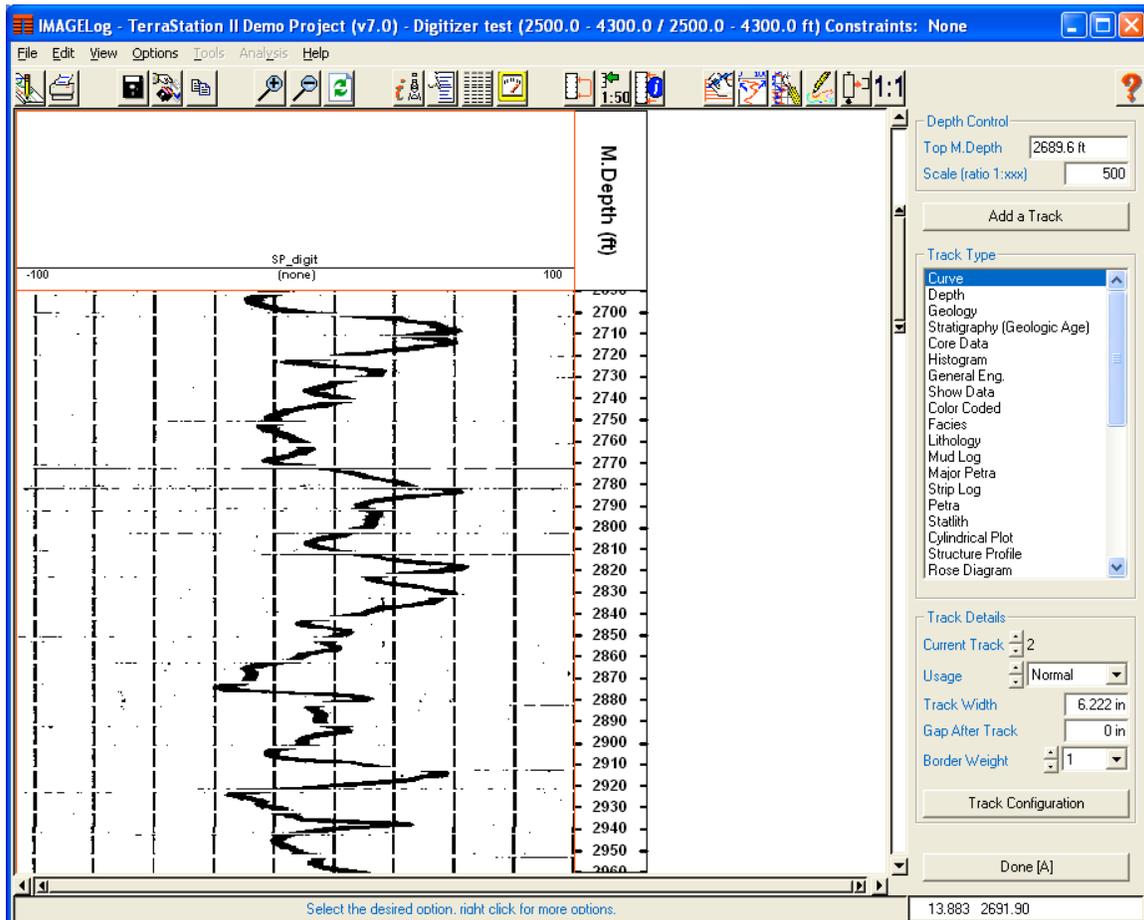
Press the **Track Configuration** button.

On the **Curve Display options** window, press the **Select Curves** button. From the list of curves, select the one you created earlier.

Click on the **Display Attributes** tab and check the **Use Default Range** box off. Now set the **Left Scale and Right Scale Values** to be what you want them to be. For example -100 and 100.

Press **Close** to close the **Curve Display Options** window.

Now right click on the Core Image Data track and select **Overlay Track** from the menu. This should you a display something like this. Note the name of the curve in the track header.



We are now ready to begin the digitizing procedure.

## Digitizing the curve

Press the **Edit Curve** button on the power bar (shown circled below).

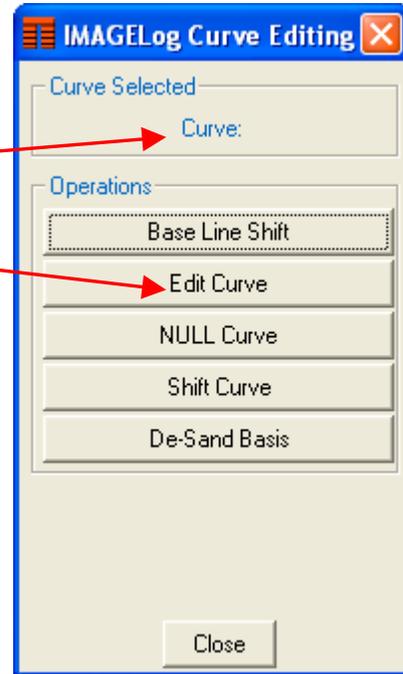


A small window appears ...

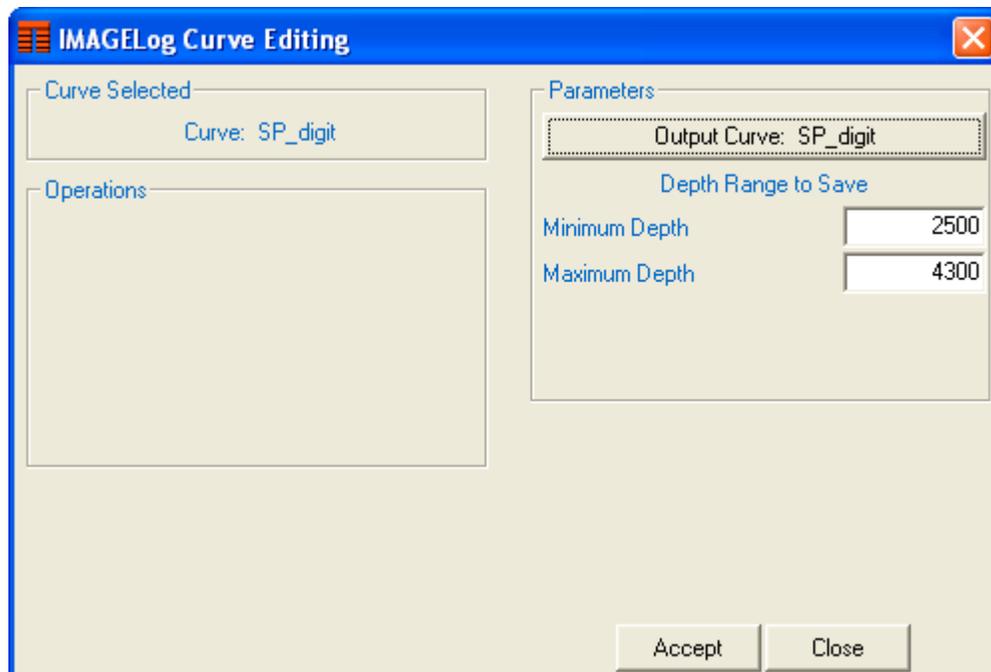
Over in the track header area of the main display, click once on the name of the curve you are going to digitize.

The name of this curve should appear here.

Now press the **Edit Curve** button on this panel.



The panel is replaced with one like this ....



Press the **Output Curve:** button and select the output curve to be the same as the one you created earlier. If you do not, the system will create a new version of it, which just means a bit more book keeping about afterwards.

Now simply begin digitizing the curve by clicking on the image where you think it starts and clicking at each inflection point. As you click, you will see a purple colored line joining your points together. When you want to save your work, simply press the **Accept** button on the control panel, or alternatively, right click the mouse and select **Accept** from the short menu that appears.

It is actually quite useful to add a second curve track (after the depth track and select to display the output curve in this track too. This allows you to see the result of the digitizing effort whenever you press the **Accept** button to accept the work you have done. This way you can periodically check your efforts. For example ....

