



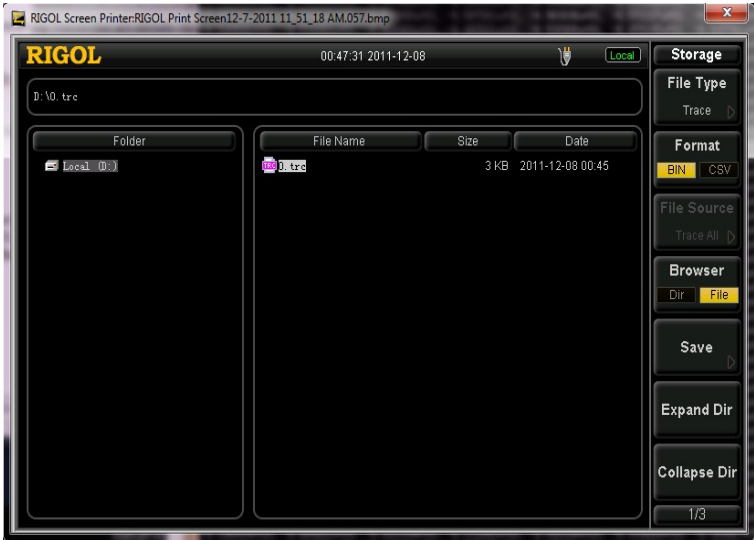
DSA and UltraSigma: How to Retrieve and Save Stored Files

Date:12.07.2011

Solution: Here are some simple steps for retrieving Traces that are already stored on your DSA.

These steps require that you have Rigol UltraSigma software installed on your controlling computer.

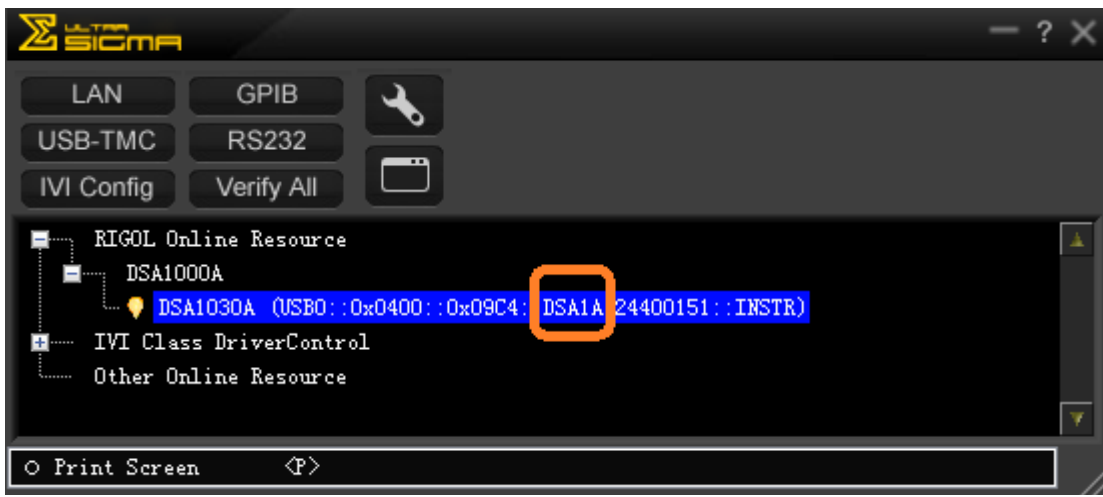
- 1. Save the trace of interest to your DSA using the Storage menu button.



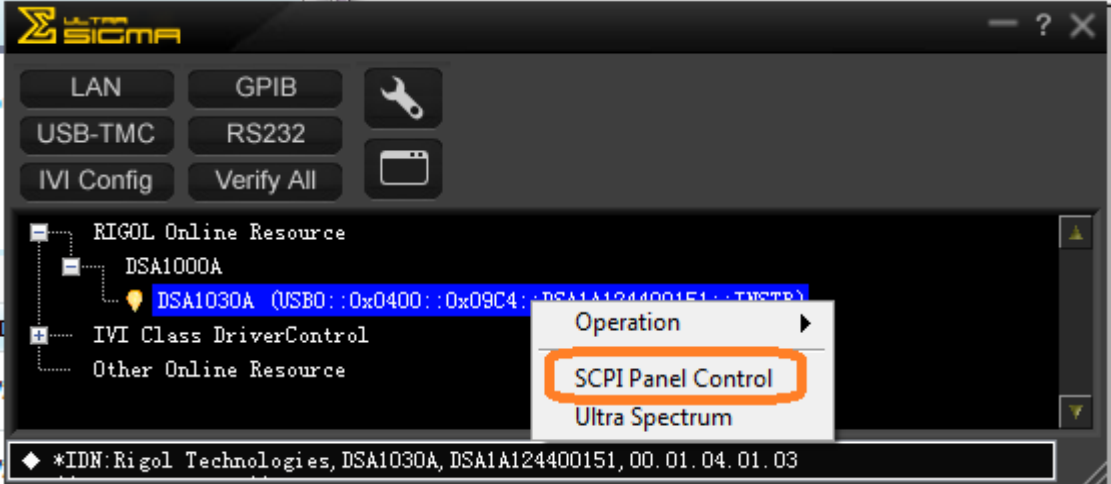


- File Type = Trace
 - Format = BIN
 - Browser = Local (D:)
 - Press Save > Enter file name by selecting letters and press Select button. We recommend using simple numerals (0, 1, 2...) to save time.
 - You should see “Filename”.trc on the DSA screen as above.
2. Connect the DSA to the controlling computer and start UltraSigma.
 3. Select the correct VISA address for your DSA.

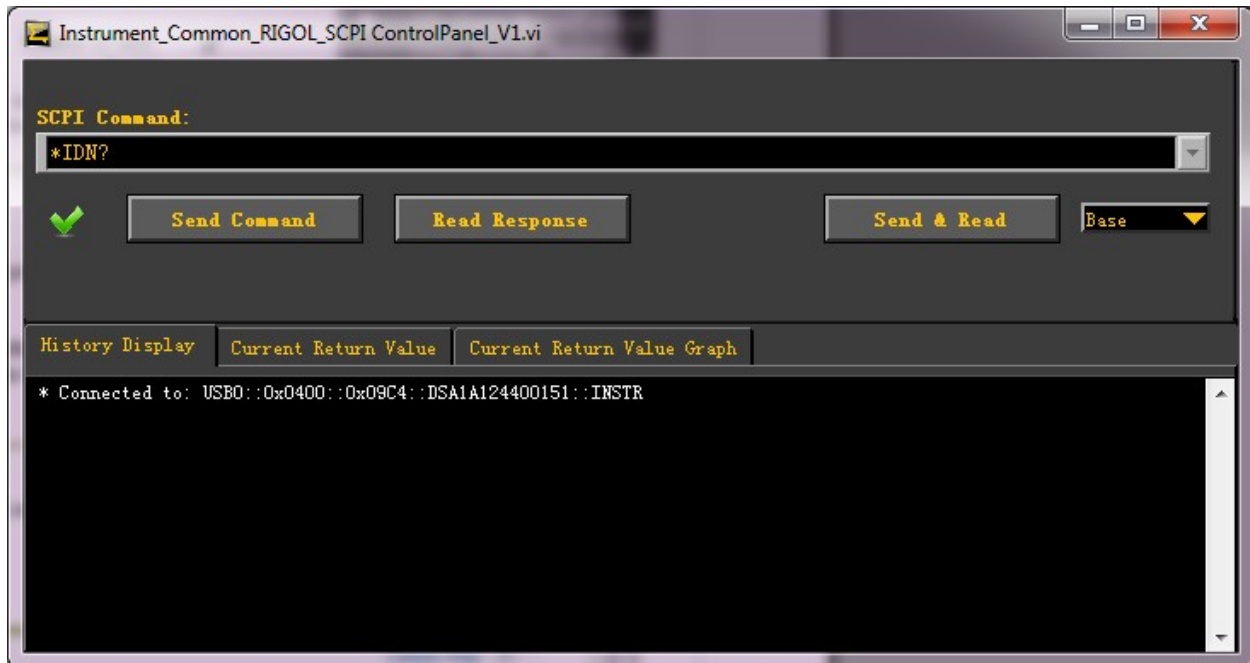
NOTE: The DSA series will have an address with “DSA” within.. as below.



4. Right-click on the address and select “SCPI Control”



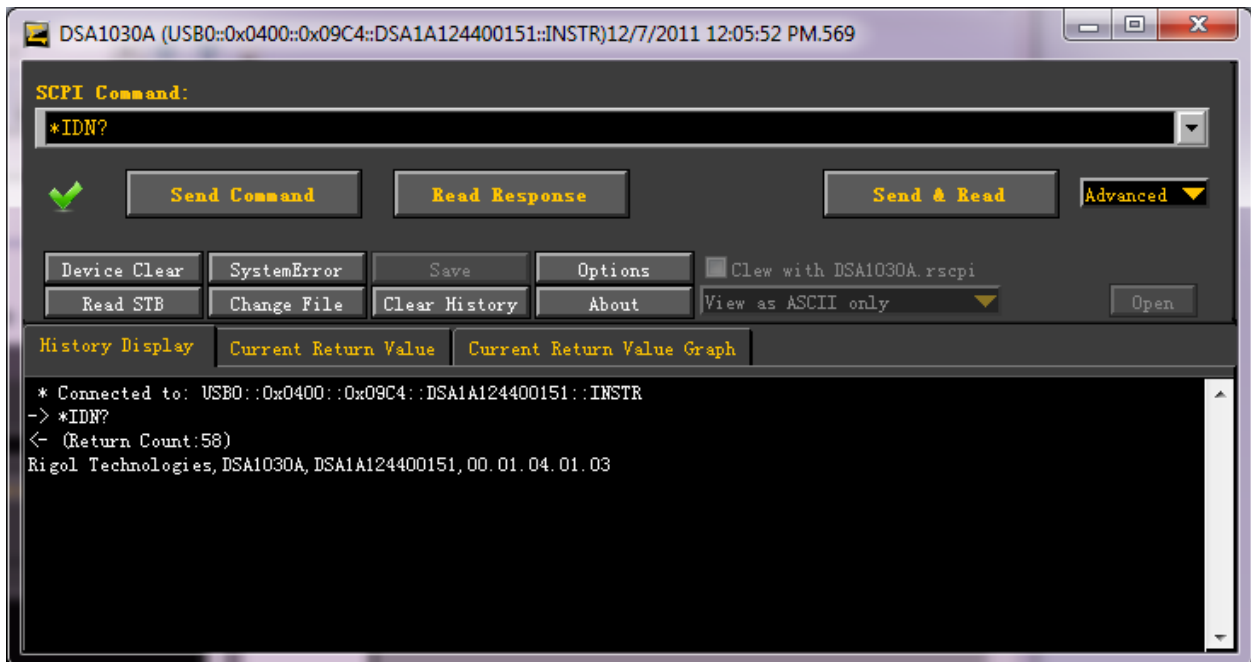
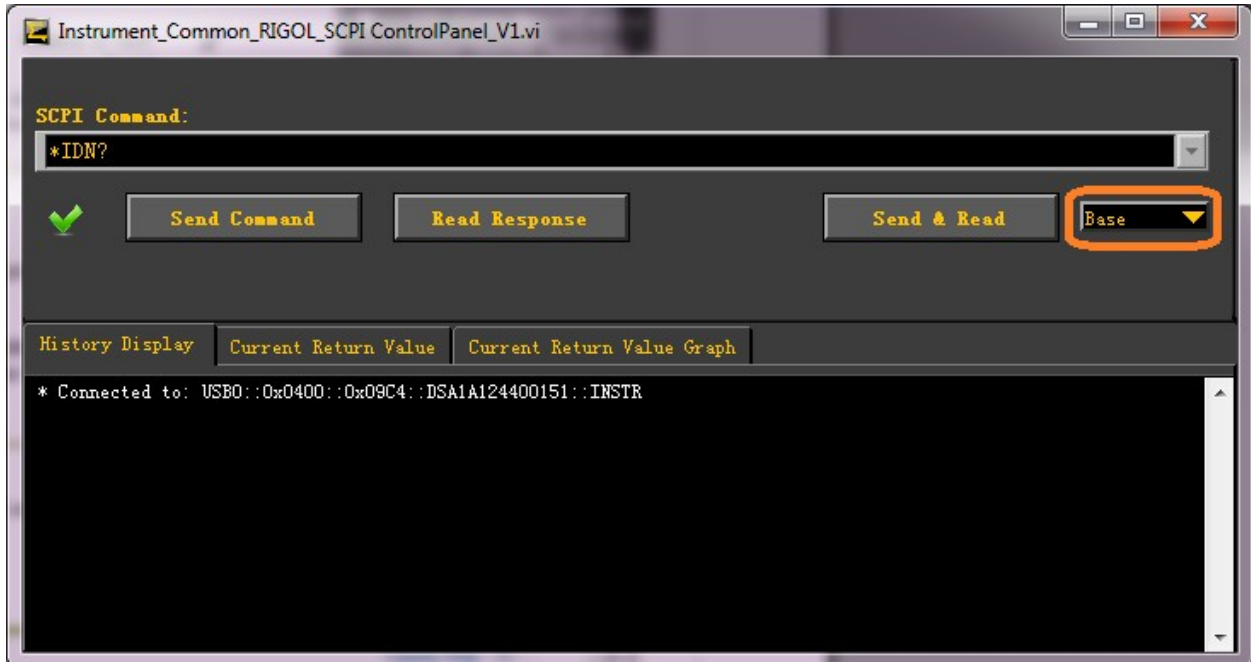
5. This will bring up a simple command line window that will allow you to send and receive commands from the instrument.
6. To test the program, just press “Send/Receive” with “*IDN?” in the command window.



- The command in the window is sent using the Send button.
- Any command terminated with a “?” or Query sign will need to be “read”. To read the instrument, press the Read button. Alternately, you can press the Send & Read button to send and receive queries in one step.

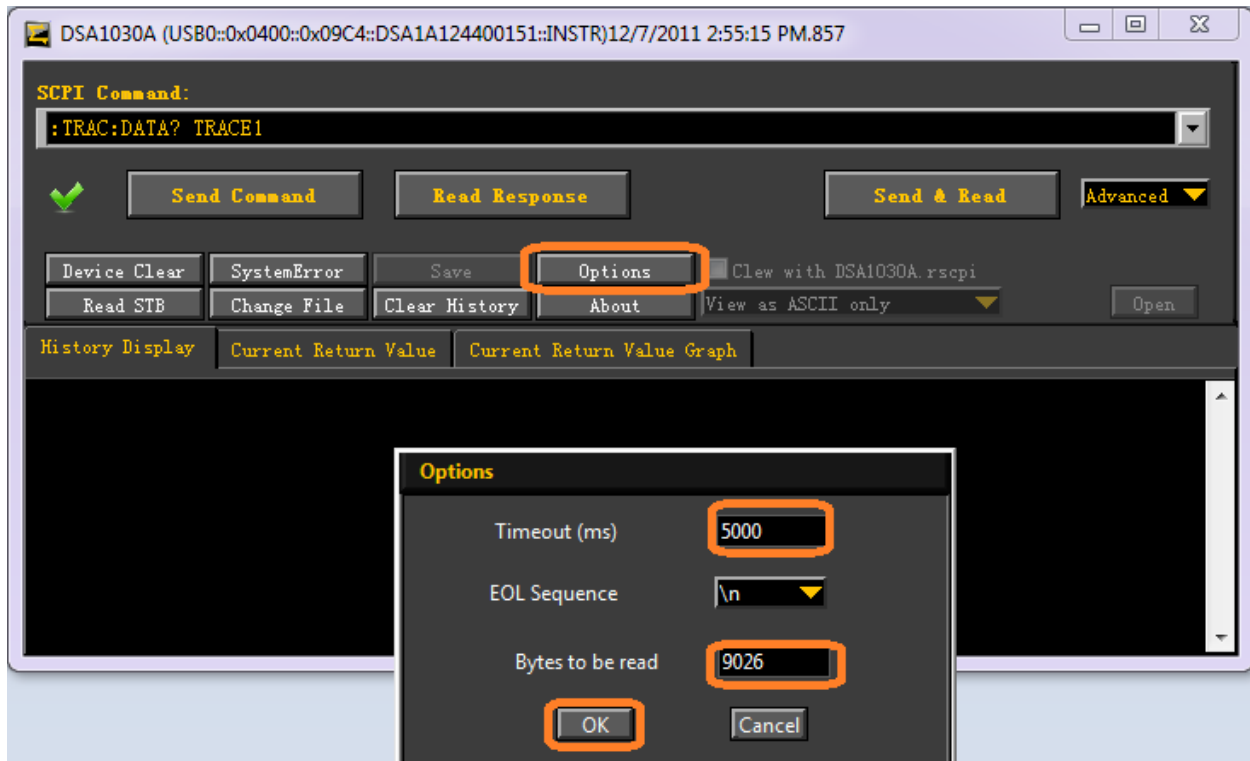


7. Change the view to “Advanced” by selecting the mode



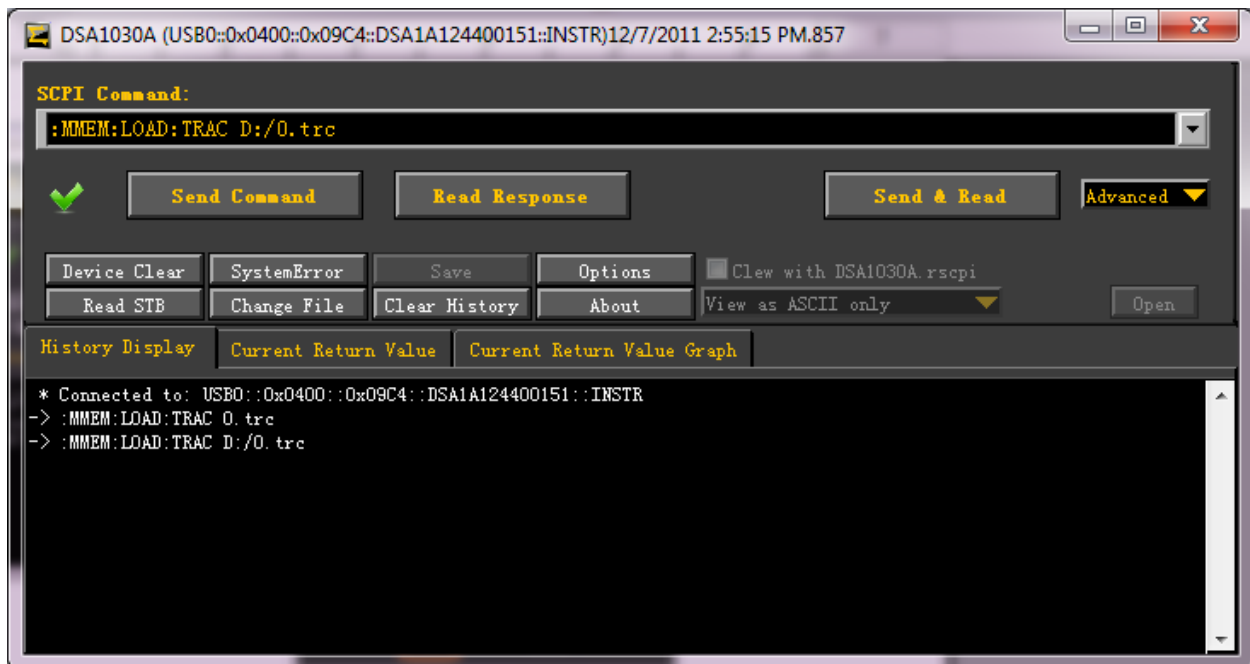
8. The DSA will bring back a large amount of data. This can take a few seconds. In order to ensure that we have a long enough time to retrieve the data, we must change the timeout for communications and change the return buffer size.

- Select Options > change timeout from 2000 to 5000ms.
- Change Bytes to be Read from 2000 to 10000.



9. Recall a saved trace to the display of the DSA.

- Type the following text into the SCPI command window (between “ “):
 - “:MMEMory:LOAD:TRACe <file_name>”, where <file_name> is equal to the trace file that you would like to recall to the display
 - As an example, if the DSA has a trace file named “0.trc” stored to the internal drive (D:), we would enter the following:





10. Now we can retrieve the data from the instrument by entering “:TRAC:DATA? TRAC1” and pressing Send & Read.

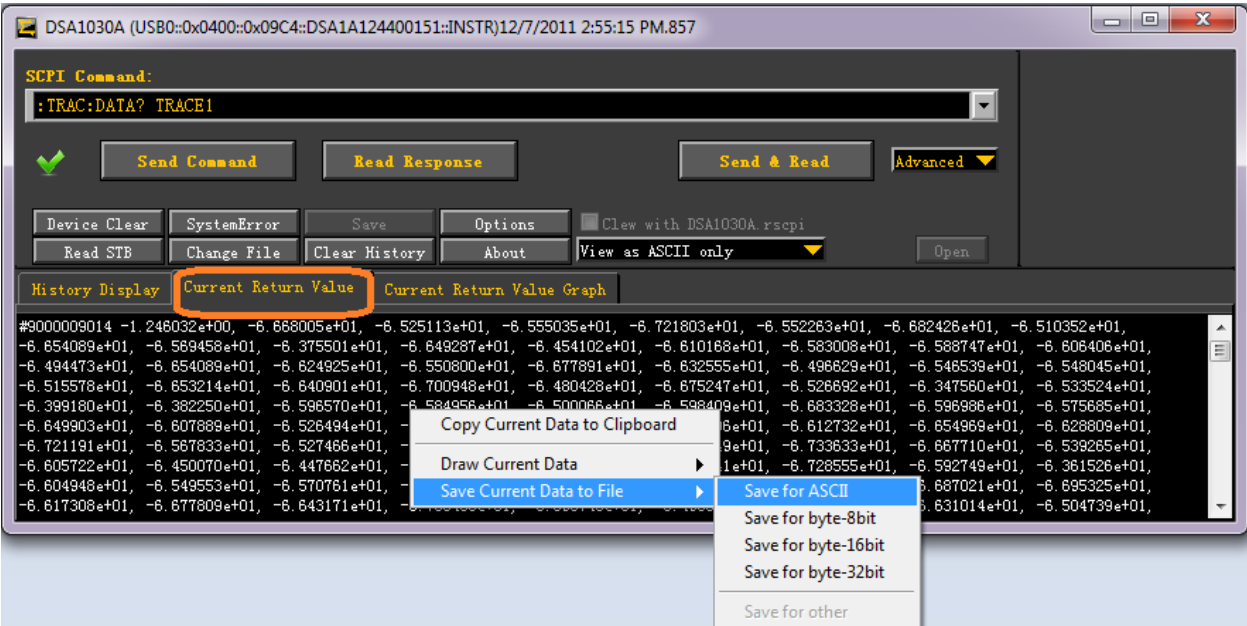
The screenshot shows a software window titled "DSA1030A (USB0:0x0400:0x09C4::DSA1A124400151::INSTR)12/7/2011 2:55:15 PM.857". The "SCPI Command:" field contains ":TRAC:DATA? TRAC1". Below the command field are buttons for "Send Command", "Read Response", and "Send & Read". The "Send & Read" button is highlighted. The output area shows the following text:

```
-> :TRAC:DATA? TRAC1
<- (Return Count:9026)
#9000009014 -1.246032e+00, -6.668005e+01, -6.525113e+01, -6.555035e+01, -6.721803e+01, -6.552263e+01, -6.682426e+01, -6.510352e+01,
-6.654089e+01, -6.589458e+01, -6.375501e+01, -6.649287e+01, -6.454102e+01, -6.610168e+01, -6.583008e+01, -6.588747e+01, -6.606406e+01,
-6.494473e+01, -6.654089e+01, -6.624925e+01, -6.550800e+01, -6.677891e+01, -6.632555e+01, -6.496629e+01, -6.546539e+01, -6.548045e+01,
-6.515578e+01, -6.653214e+01, -6.640901e+01, -6.700948e+01, -6.480428e+01, -6.675247e+01, -6.526692e+01, -6.347560e+01, -6.533524e+01,
-6.399180e+01, -6.382250e+01, -6.596570e+01, -6.584956e+01, -6.500066e+01, -6.598409e+01, -6.683328e+01, -6.596986e+01, -6.575685e+01,
-6.649903e+01, -6.607889e+01, -6.526494e+01, -6.700494e+01, -6.521707e+01, -6.495406e+01, -6.612732e+01, -6.654969e+01, -6.628809e+01,
-6.721191e+01, -6.587833e+01, -6.527466e+01, -6.610200e+01, -6.489510e+01, -6.658949e+01, -6.733633e+01, -6.667710e+01, -6.539265e+01,
-6.605722e+01, -6.450070e+01, -6.447662e+01, -6.765305e+01, -6.365110e+01, -6.488241e+01, -6.726555e+01, -6.592749e+01, -6.361526e+01,
```




11. The data can be saved to a Text File by the following:

- Selecting the Current Return Value tab
- Right-click and select Save Current Data to File > Save to ASCII
- The data can now be saved and imported into a spreadsheet program for further analysis.





12. To view the data as a graph:

- Selecting the Current Return Value tab
- Right-click and select Draw Current Data > Draw for ASCII
- A graph of the data should appear

