

Quick Data Collection from the DSA800 series using UltraSigma software

- 1. Download and install UltraSigma software
- 2. Physically connect instrument to LAN network and get IP address. You can check the IP address by pressing SYSTEM > IO SETTING > LAN

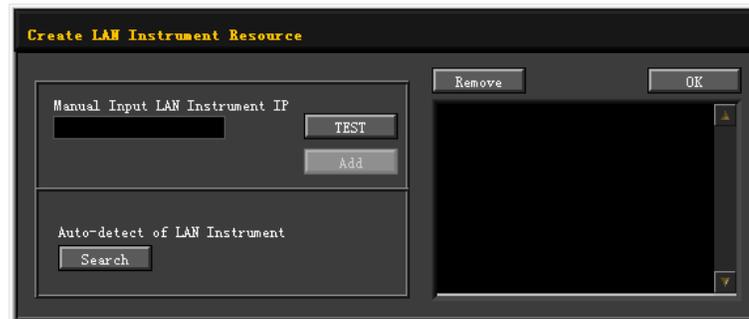


Here the base IP address and the VISA Resource ID are highlighted

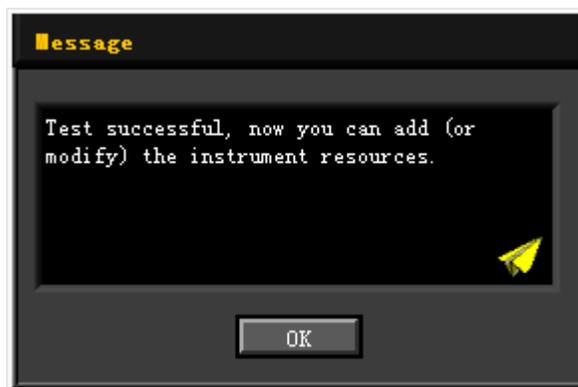
- 3. Open the UltraSigma software and Select LAN

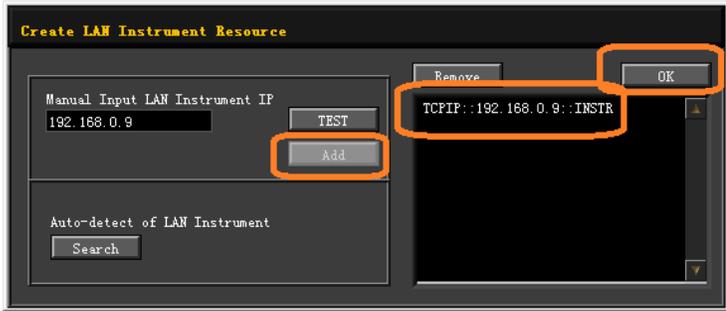


- From here, you can search for instruments or specify the IP address of an instrument that you would like to connect to. On closed systems (without firewalls), you can try an Auto search for Rigol Instruments that are connected to the LAN by selecting the Search button



- If your Search does not produce any connection, try entering the IP address in the Manual Input area. Press Test to check the connection.

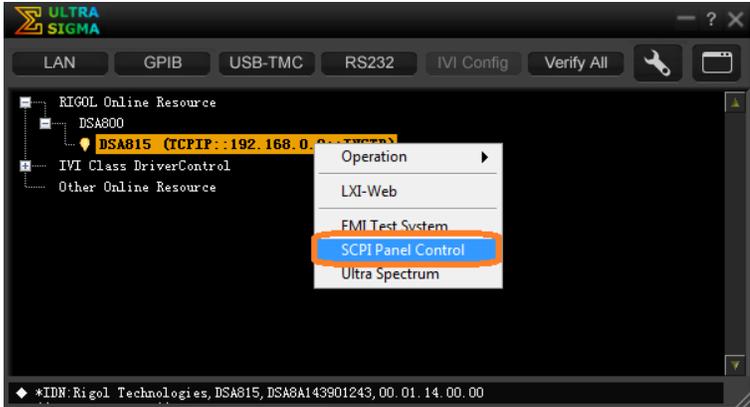




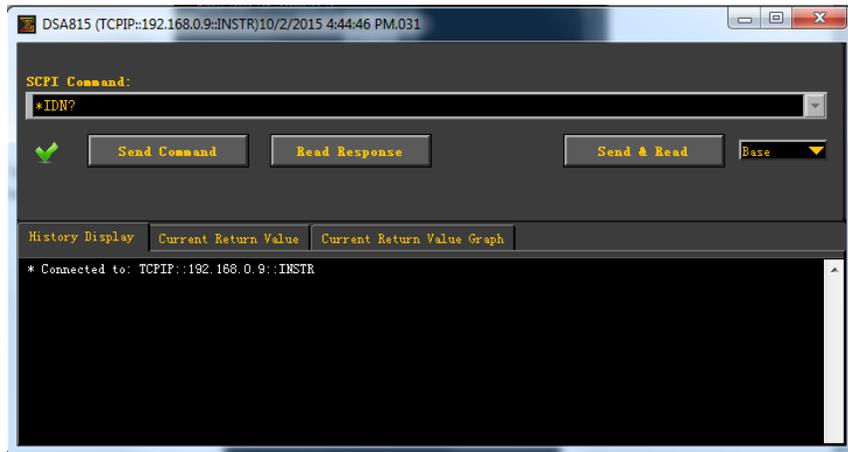
6. After selecting the VISA resource, UltraSigma will display the DSA800 VISA ID as shown below:



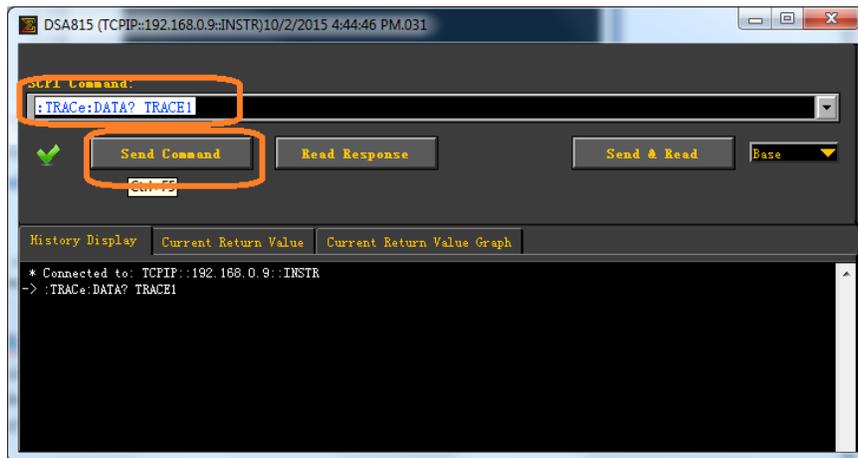
7. Right-Click on the resource you wish to control, and select SCPI Panel Control



8. SCPI panel control provides an area to send single commands and return response strings from the instrument that you are connected to.



9. To collect trace data from the DSA800, type the string ":TRACe:DATA? TRACe1" in the text box and press Send Command:



10. Now, press Read Response to bring back the data

The screenshot shows a software window titled "DSA815 (TCPIP::192.168.0.9::INSTR)10/2/2015 4:44:46 PM.031". The interface includes a "SCPI Command:" field with the text ":TRACe:DATA? TRACE1". Below this are three buttons: "Send Command", "Read Response" (highlighted with an orange box), and "Send & Read". A "Base" dropdown menu is also visible. The "History Display" tab is active, showing the command and its response. The response is a long list of floating-point numbers in scientific notation, enclosed in an orange box. A warning message at the bottom of the response states: "(!Warning!The number of bytes transferred is equal to the requested input count. More data might be available.)".

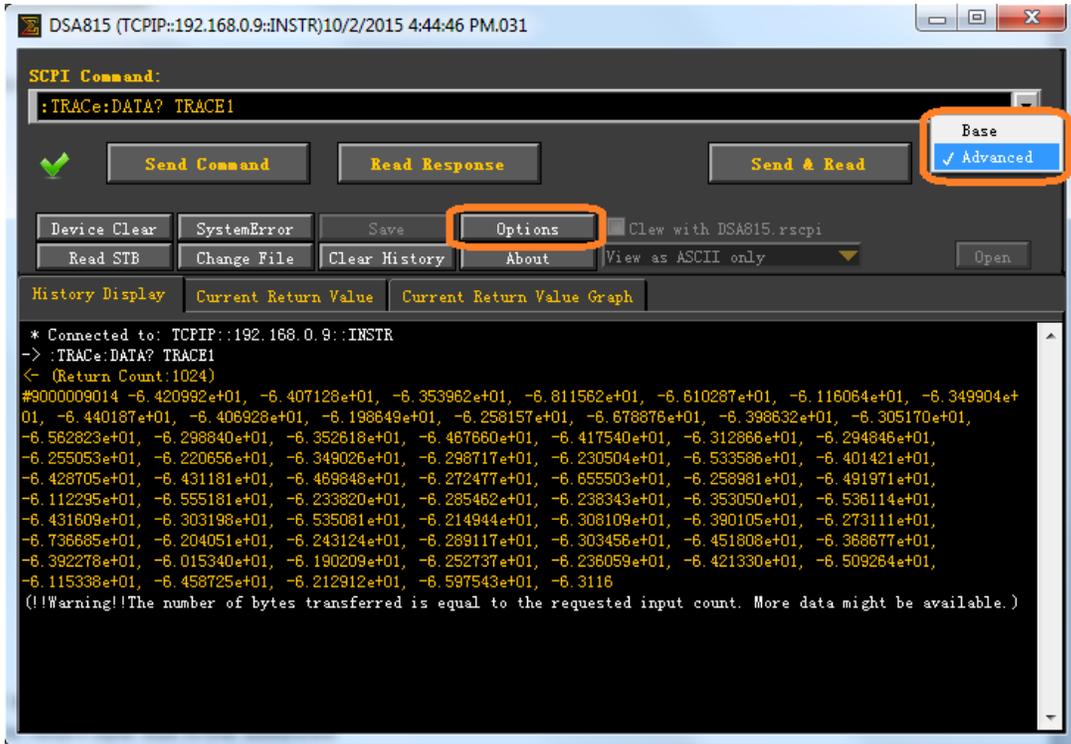
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SCPI Command:
:TRACe:DATA? TRACE1

Send Command Read Response Send & Read Base

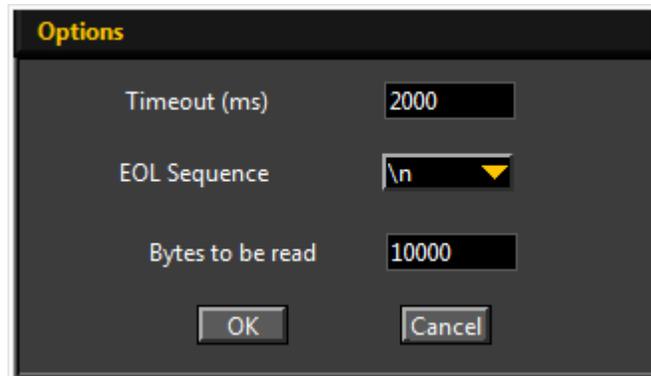
History Display Current Return Value Current Return Value Graph

* Connected to: TCPIP::192.168.0.9::INSTR
-> :TRACe:DATA? TRACE1
(Return Count:1024)
#9000009014 -6.420992e+01, -6.407128e+01, -6.353982e+01, -6.811562e+01, -6.610287e+01, -6.116064e+01, -6.349904e+
01, -6.440187e+01, -6.406928e+01, -6.198649e+01, -6.258157e+01, -6.678876e+01, -6.398632e+01, -6.305170e+01,
-6.562823e+01, -6.298840e+01, -6.352618e+01, -6.467660e+01, -6.417540e+01, -6.312866e+01, -6.294846e+01,
-6.255053e+01, -6.220656e+01, -6.349026e+01, -6.298717e+01, -6.230504e+01, -6.533586e+01, -6.401421e+01,
-6.428705e+01, -6.431181e+01, -6.469848e+01, -6.272477e+01, -6.655503e+01, -6.258981e+01, -6.491971e+01,
-6.112295e+01, -6.555181e+01, -6.233820e+01, -6.285462e+01, -6.238343e+01, -6.353050e+01, -6.536114e+01,
-6.431609e+01, -6.303198e+01, -6.535081e+01, -6.214944e+01, -6.308109e+01, -6.390105e+01, -6.273111e+01,
-6.736685e+01, -6.204051e+01, -6.243124e+01, -6.289117e+01, -6.303456e+01, -6.451808e+01, -6.368677e+01,
-6.392278e+01, -6.015340e+01, -6.190209e+01, -6.252737e+01, -6.236059e+01, -6.421330e+01, -6.509264e+01,
-6.115338e+01, -6.458725e+01, -6.212912e+01, -6.597543e+01, -6.3116
(!Warning!The number of bytes transferred is equal to the requested input count. More data might be available.)
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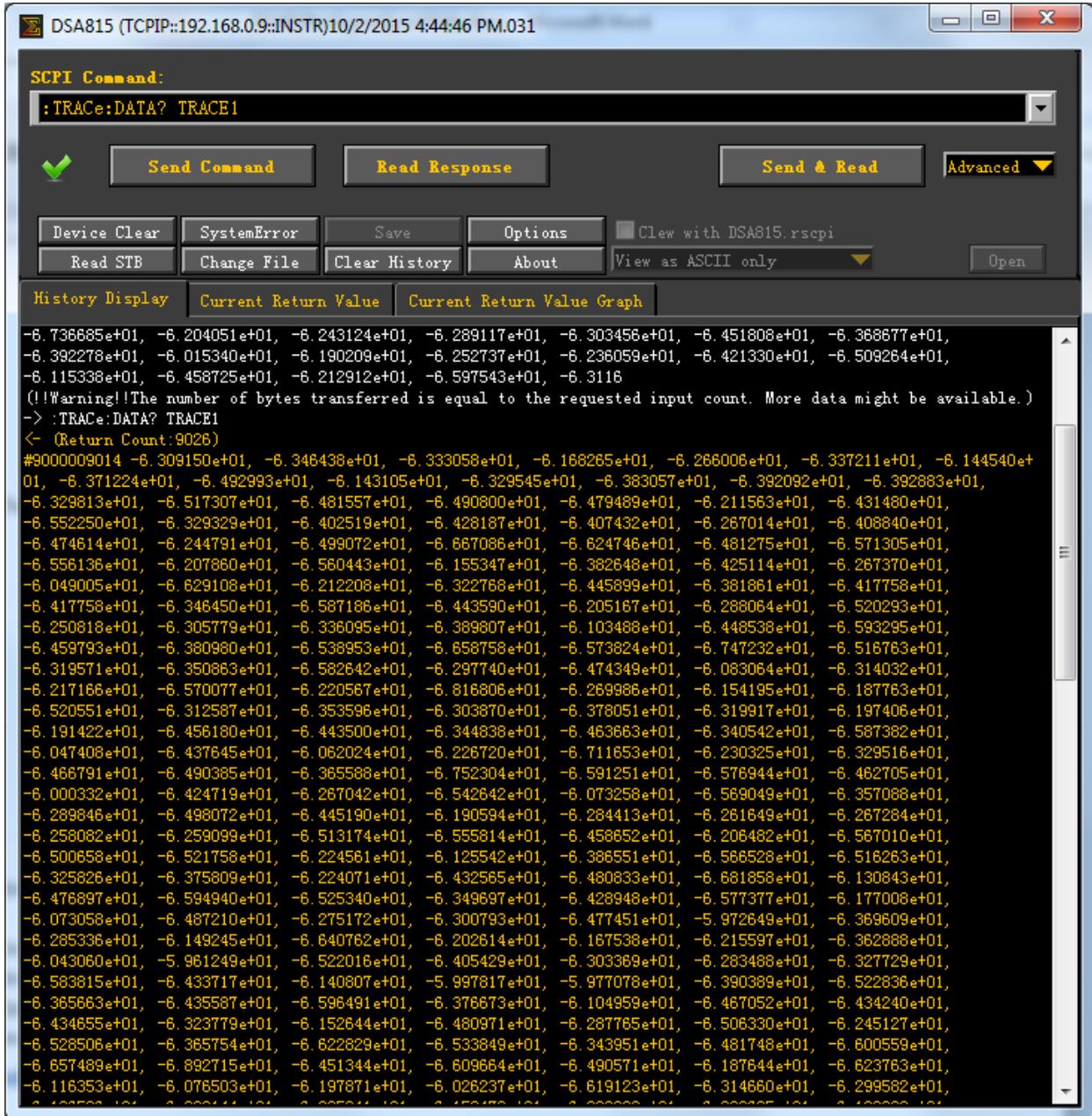
11. If the data set is larger than the bytes returned, you can increase the return buffer size by changing the return byte size in the advanced tab as shown below:



12. Change the Bytes to be read and press OK

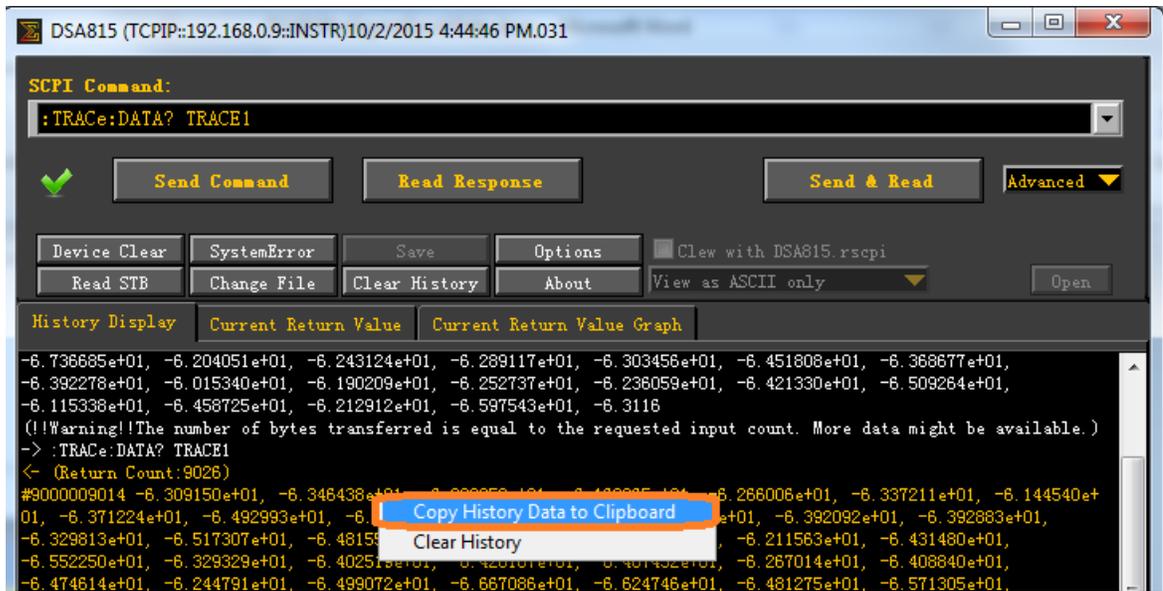


13. Now, press Send Command again to send “TRACe:DATA? TRACe1” and then read the response:

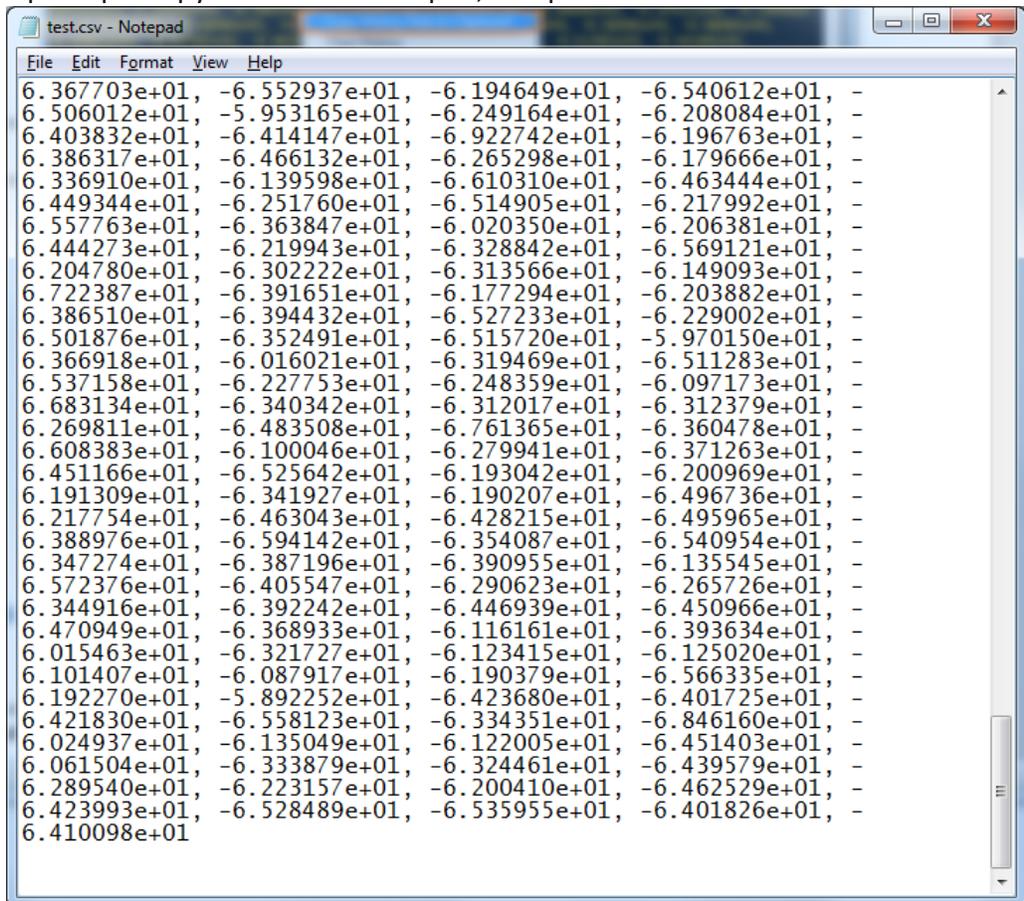


14. You can scroll down to see that the entire data set has been transferred.

15. Now, right-click on the data and Copy to Clipboard:



16. Open up a copy of Word or Notepad, and paste the data.



17. Save data as a CSV.

