Instructions for Running the ESC_Test Harness

Required equipment

- PXI
- Ni VST 5646

Required Software

- Windows 7 or higher
- LabVIEW 2017

Download the ESC_Test_Harness-master
Copy the up-zipped file to a computer hosting LabVIEW and PXI.

Three steps: Start Python Server, start LabVIEW Web server and run web browser (Fire fox)

1) To initiate the Python server, navigate to:
   C:\ ESC_Test_Harness-masterLV2017\ESC_Test_Harness-master\ESC_Test_Harness\ESC_Server\ESC_TestHarness_WS.py as in figure 1.

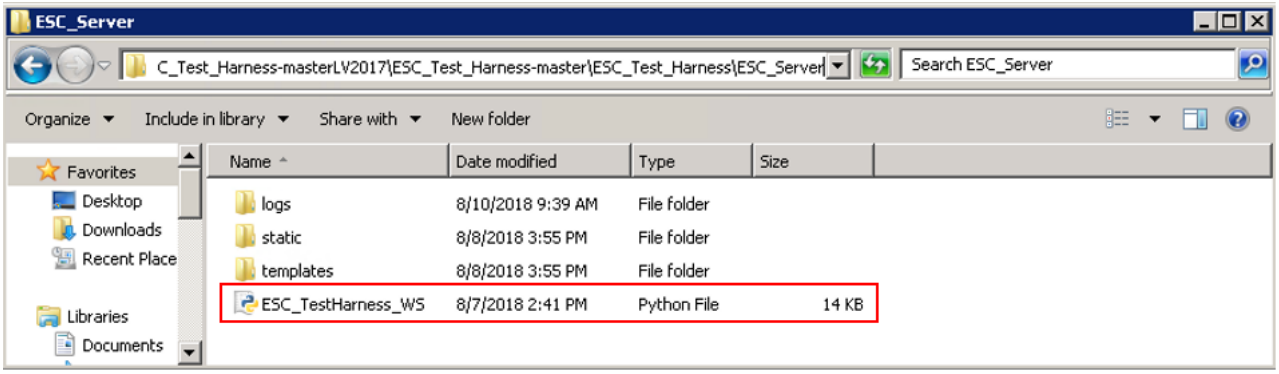

Fig.1

Double click on "ESC_TestHarness_WS.py" you will see the Python status window appear as in figure 2.

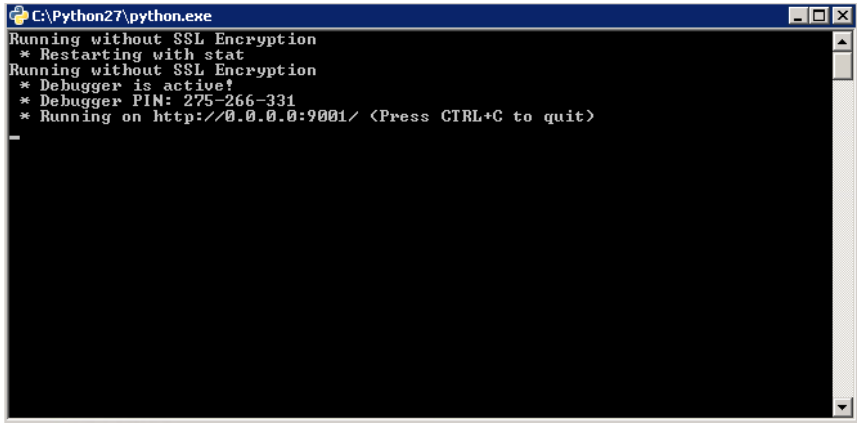

Fig.2

Note: To stop the web server select the running command screen. Select "Cntrl + C"

1) To initiate the LabVIEW web server, navigate to: **C:\ ESC_Test_Harness-masterLV2017\ESC_Test_Harness-master\ESC_Test_Harness\ESC_Waveform_Player\ESC_Waveform_Player.proj** as in figure 3.

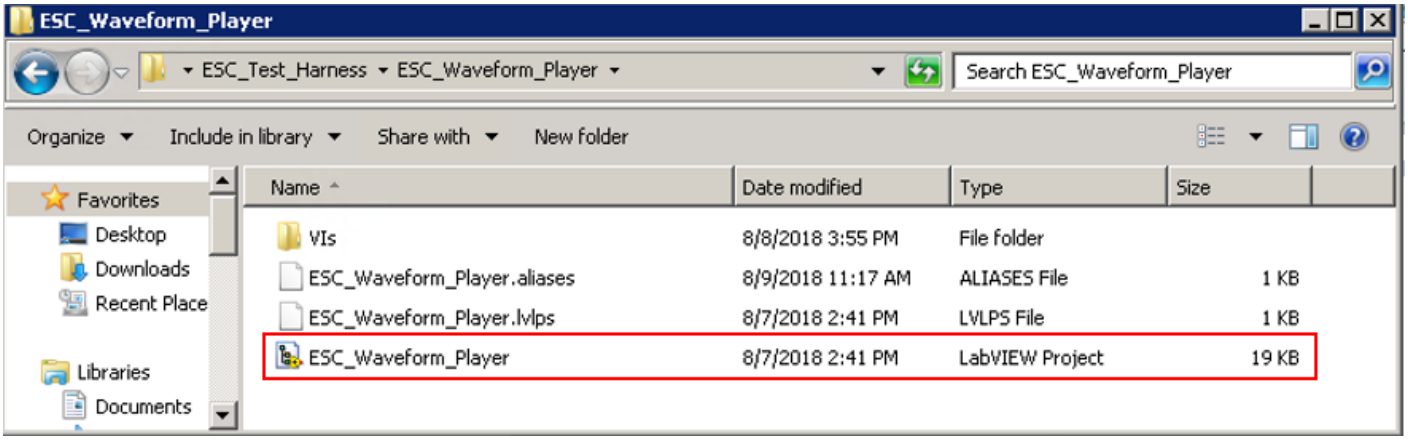

Fig. 3

Double click on "**ESC_Waveform_Player.proj**" you will see the LabVIEW Project Explorer opens as in figure 4a.

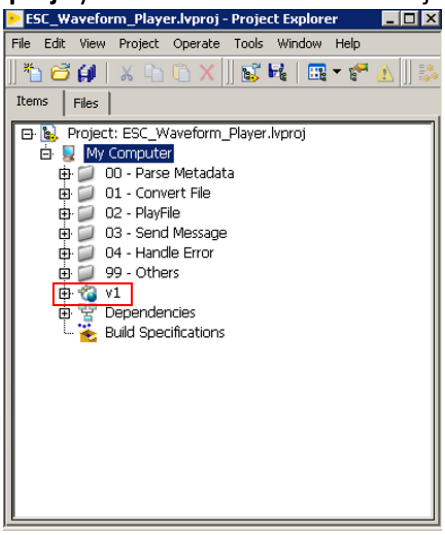

Fig. 4a

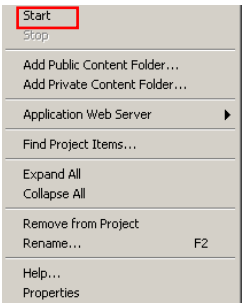

Fig. 4b

Right click on "v1" as in figure 4a. A dropdown window will appear as in figure 4b. Select "Start" to initiate the session. You will see Debug Web service windows appears as in figure 5. Click "OK".

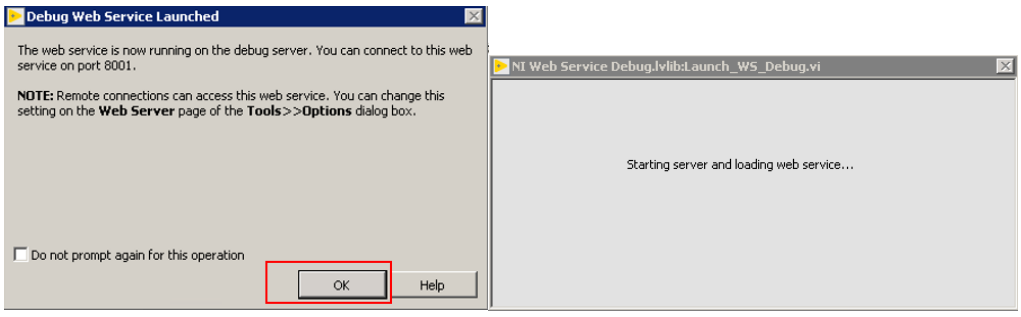

Fig.5

3) Launch Firefox web browser and enter "localhost:9001" in the URL textbox. The ESC Test Harness interface will appear as in figure 6. Press "log in". the default user name and password are "admin" and "default".

Enter the full path of your custom file into the “Input File Location” and press “Input_From_File” to play the waveforms. See step 4 for creating a custom file.

Note: the waveforms can be viewed on your spectrum analyzer. See step 5 for configuring your spectrum analyzer.

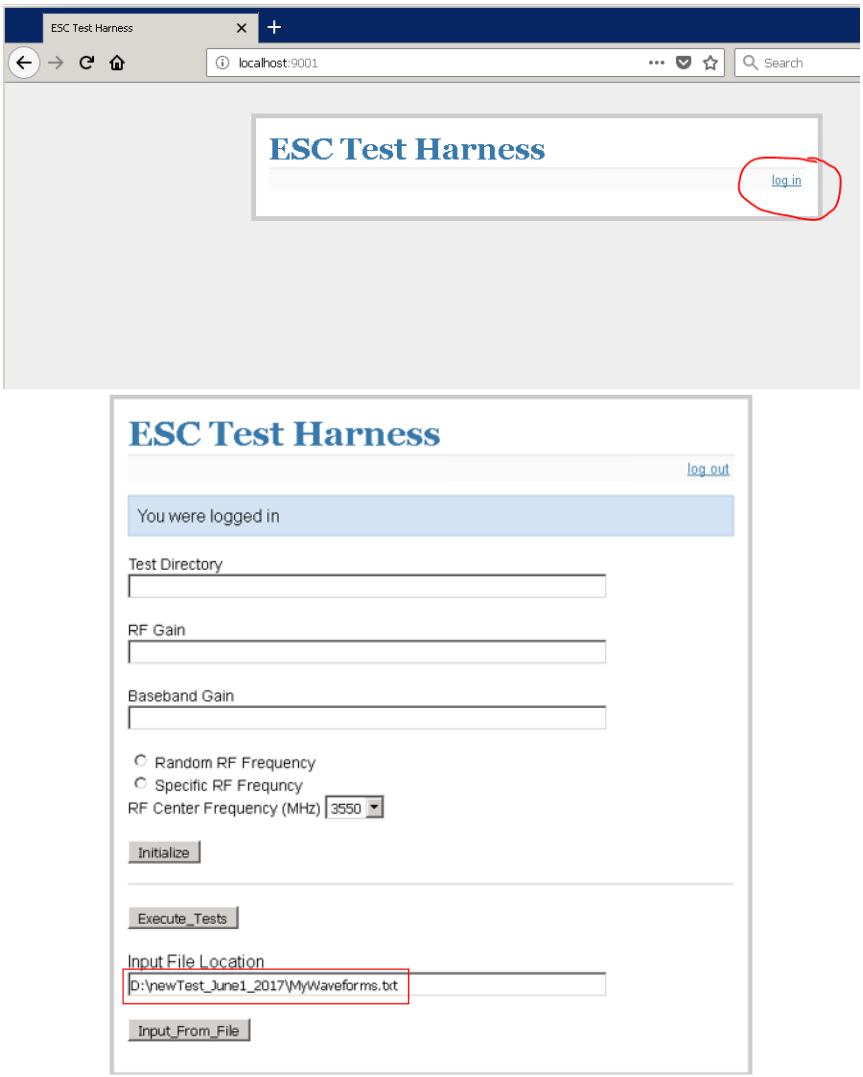

Fig.6

4) Creating a custom file

You will need to supply your own waveforms in binary (.dat) format as in figure 7a. For example, figure 7a shows the directory of the waveforms that I want to play. The text file “MyWaveforms.txt” contains the paths of the waveforms.

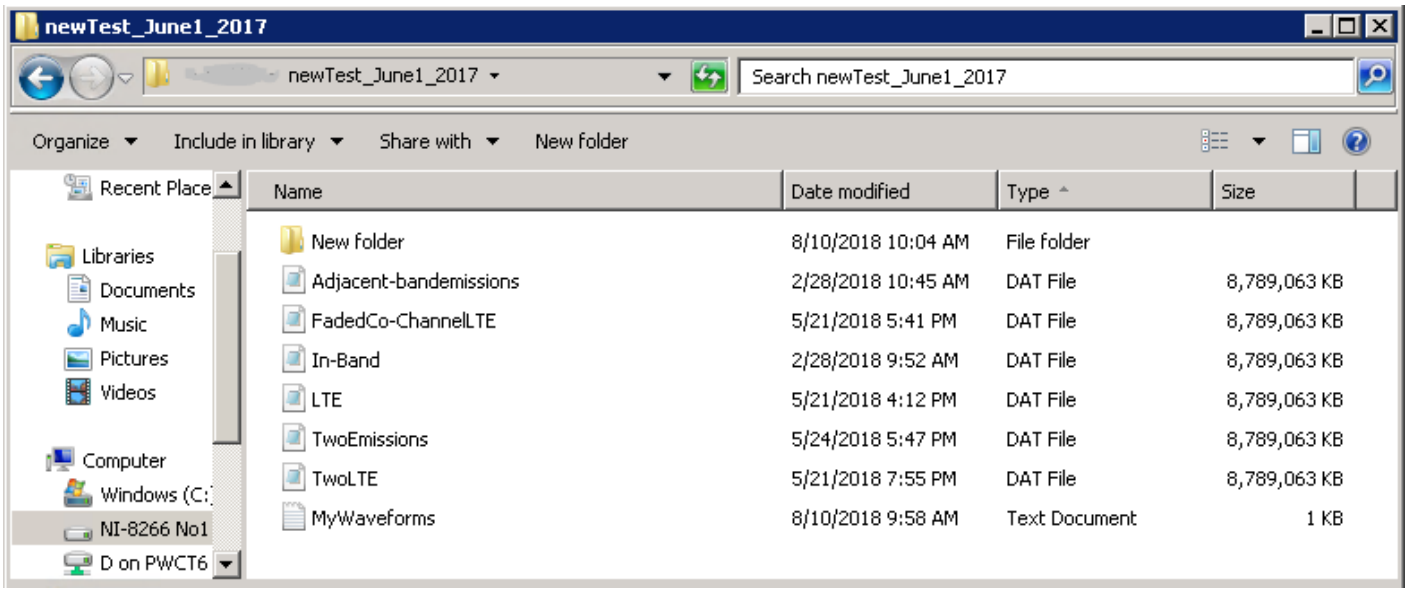

Fig. 7a

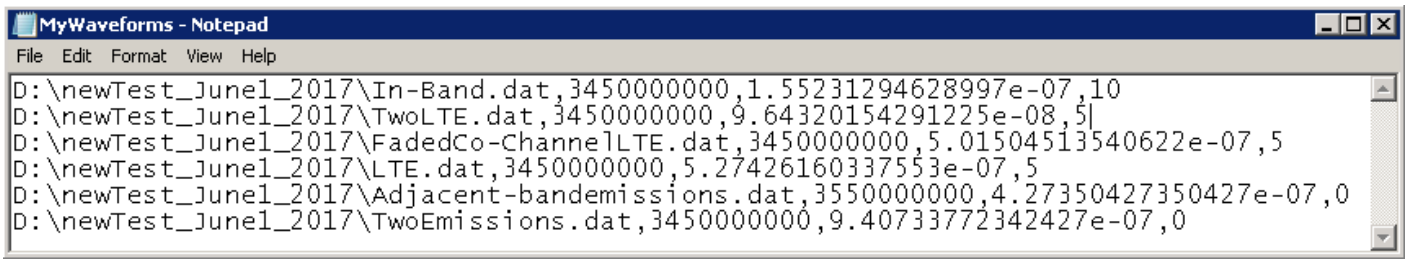

Fig. 7b

5) Configuring your spectrum analyzer

The spectrum analyzer settings are controlled with Standard Commands for Programmable Instruments (SCPI) commands. The address for the VISA connection will need to be changed. To change the VISA address, go to the LabVIEW Project Explorer, expand the Dependencies tab. Locate and open the "SpectrumAnn SCPI commands.vi". Enter the VISA string for your instrument in the LabVIEW graph.

If you prefer manual configurations, the "local" key on the spectrum analyzer will end the remote session.

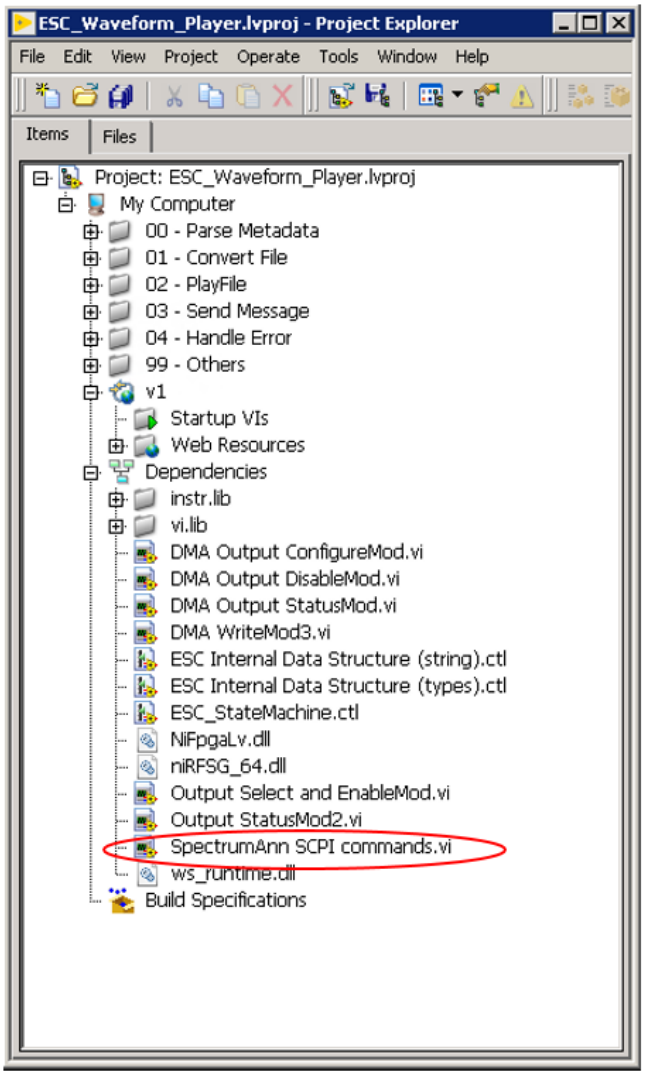

Fig. 8a

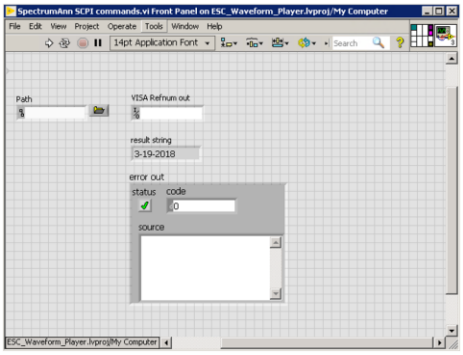

Fig. 8b

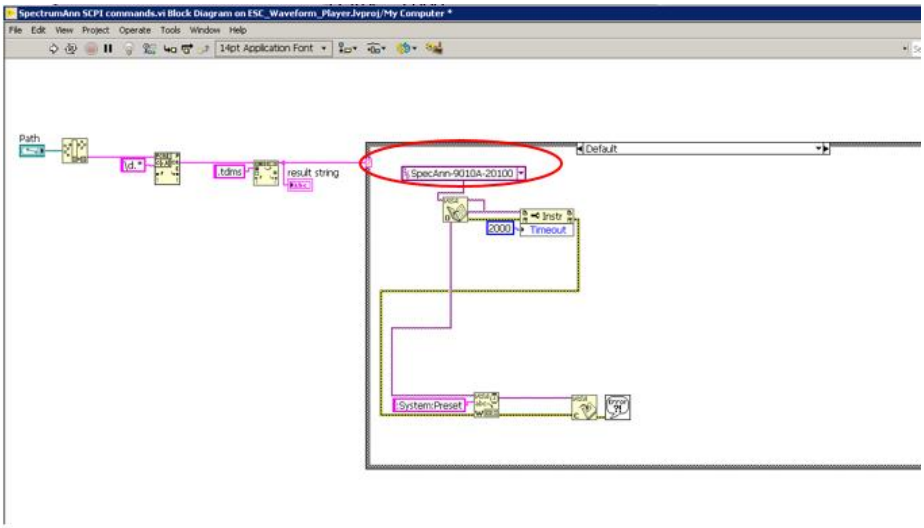

Fig. 8c