

Using EasyScope X to retrieve Average Waveform Data

October 24, 2017

Waveform averaging can be a useful method to decrease noise in a particular signal.

The SIGLENT SDS series of oscilloscopes can easily collect average waveform data using EasyScope X software.

NOTE: At this time, average waveform data is not able to be saved in CSV format via the front panel USB connection to a USB memory stick.

Initial Setup

– Download NI-VISA Runtime Engine that matches your operating system, if your computer does not already have the VISA library.

It can be downloaded from National Instruments: <http://bit.ly/2pw5gQW>

– VISA library installed. This is the communication library used by EasyScope X software to communicate with the instrumentation

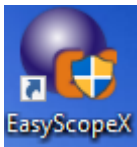
– Download EasySpectrum Software from the SSA3000X Product Page on the SIGLENT America website: <http://bit.ly/2okc8wG>

Connect and Collect

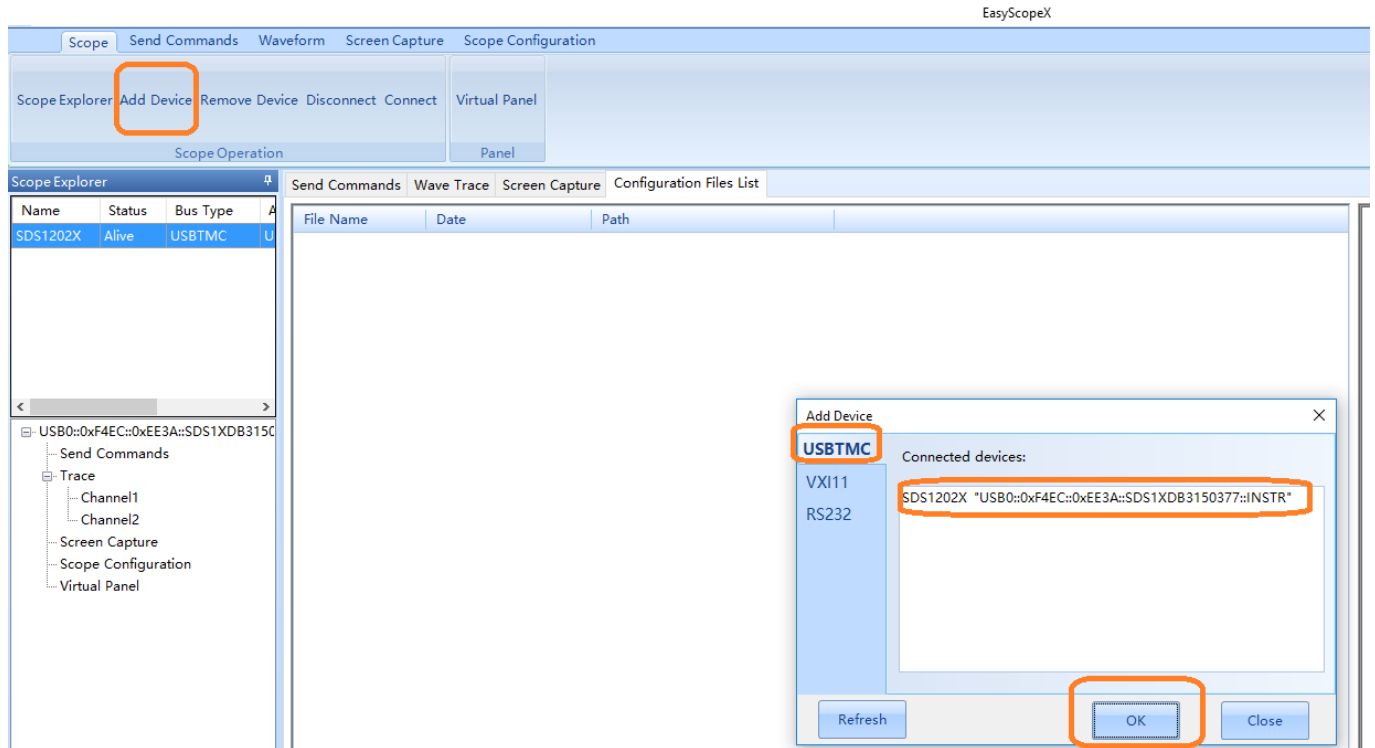
1. Connect the scope to the computer using a USB or LAN connection and power it on.

NOTE: This example uses a USB connection for communication between the scope and computer.

2. Open an instance of EasyScopeX by clicking on the desktop icon:

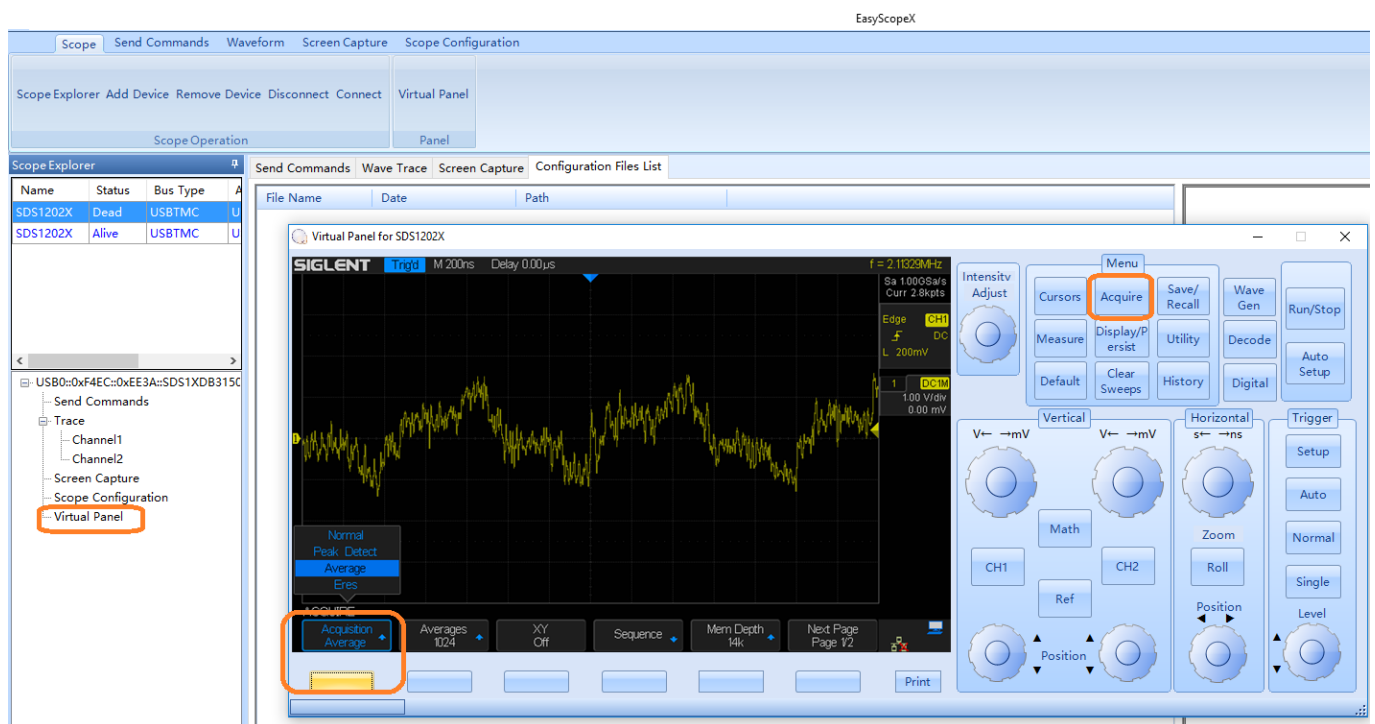


3. Add Device and select the session address for the instrument you wish to connect:



4. Configure the instrument to capture the signal of interest. You can perform this manually on the front panel, or you can use the Virtual Panel control.

Select Virtual Panel > Acquire > and press the button labeled Acquisition until the type = Average:




5. Select Waveform, and use the Play/Pause button to acquire the waveform of interest. Then, select Save > select the channel of interest > select the type of CSV to save > Press Save to open a file dialog box.

EasyScopeX

Scope Send Commands **Waveform** Screen Capture Scope Configuration

Channel Auto Refresh
☒ CH1 ☐ CH3 Time Interval 0.5s
☐ CH2 ☐ CH4

Refresh  Save Save Frames Print Preview Print

Horizontal Vertical Reset
☒ Horizontal ☒ Vertical

Channel CH1 X Y Reset
☐ X ☐ Y

Measure Properties Clear
 parameters

Refresh File/Print Zoom/Pan Cursors

Scope Explorer

Name	Status	Bus Type	Address
SDS1202X	Dead	USBTMC	U
SDS1202X	Alive	USBTMC	U

Send Commands Wave Trace Screen Capture Configuration Files List

USB0::0xF4EC::0xEE3A::SDS1XDB315C

Send Commands

Trace

- Channel1
- Channel2

Screen Capture

Scope Configuration

Virtual Panel

Save waveform

☒ CH1

Total 2800 Start 0 End 2799 Step 1

☐ CH2 ☐ CH3 ☐ CH4

☒ Show Properties ☒ Show Column Header ☒ Show Time Column

☒ Single CSV File ☐ A CSV File Per Channel

Save Cancel



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