How to configure a DMM scan using EasyDMM

September 19, 2018

The SIGLENT SDM3055-SC and SDM3065-SC instruments are digital multimeters with switch cards that allow for up to 12 voltage-function measurements (and an additional separate 4 current measurement channels).

SIGLENTs EasyDMM software provides easy instrument control and data collection.

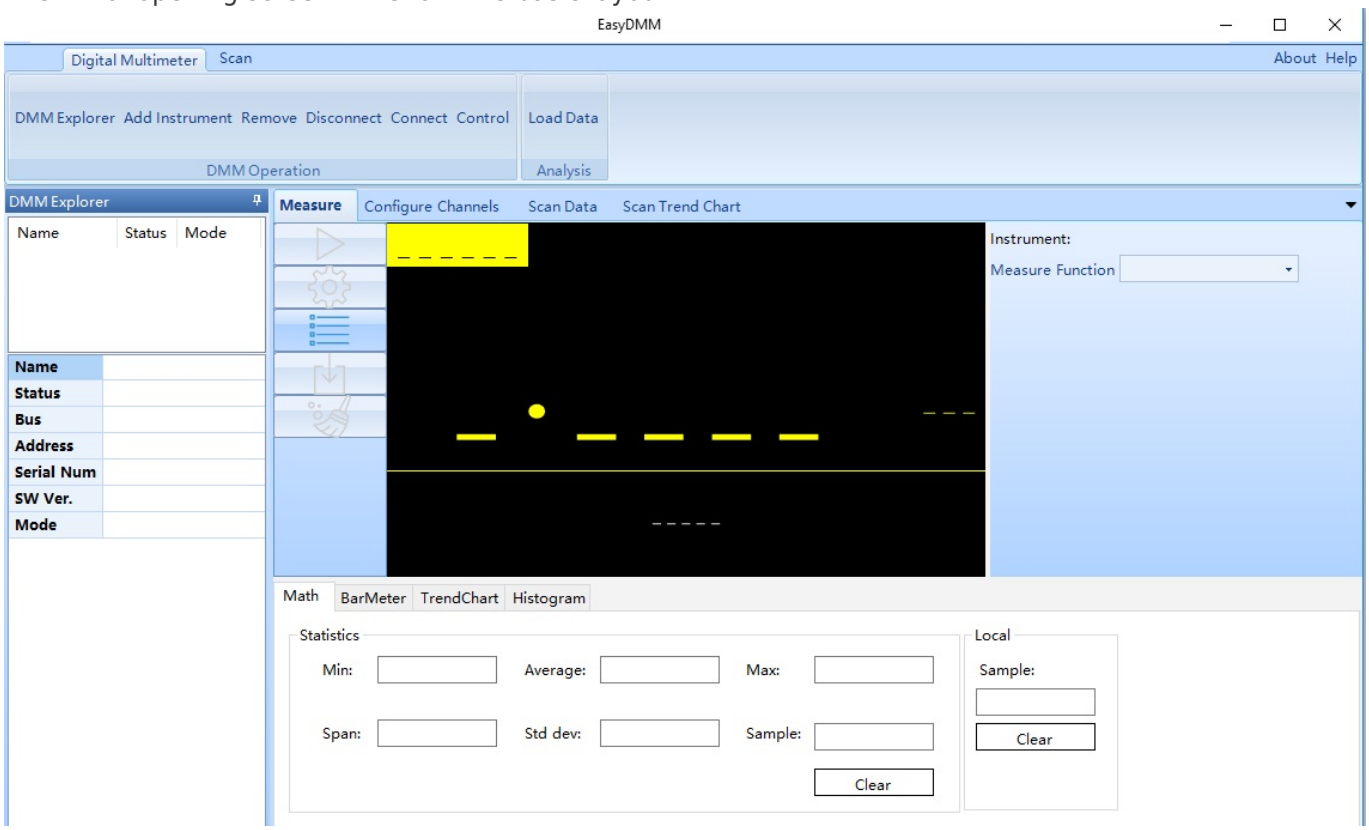
In this note, we will show how to configure EasyDMM to perform a scan

1. Download and install EasyDMM. You can find the download instructions and files here: DMM Software

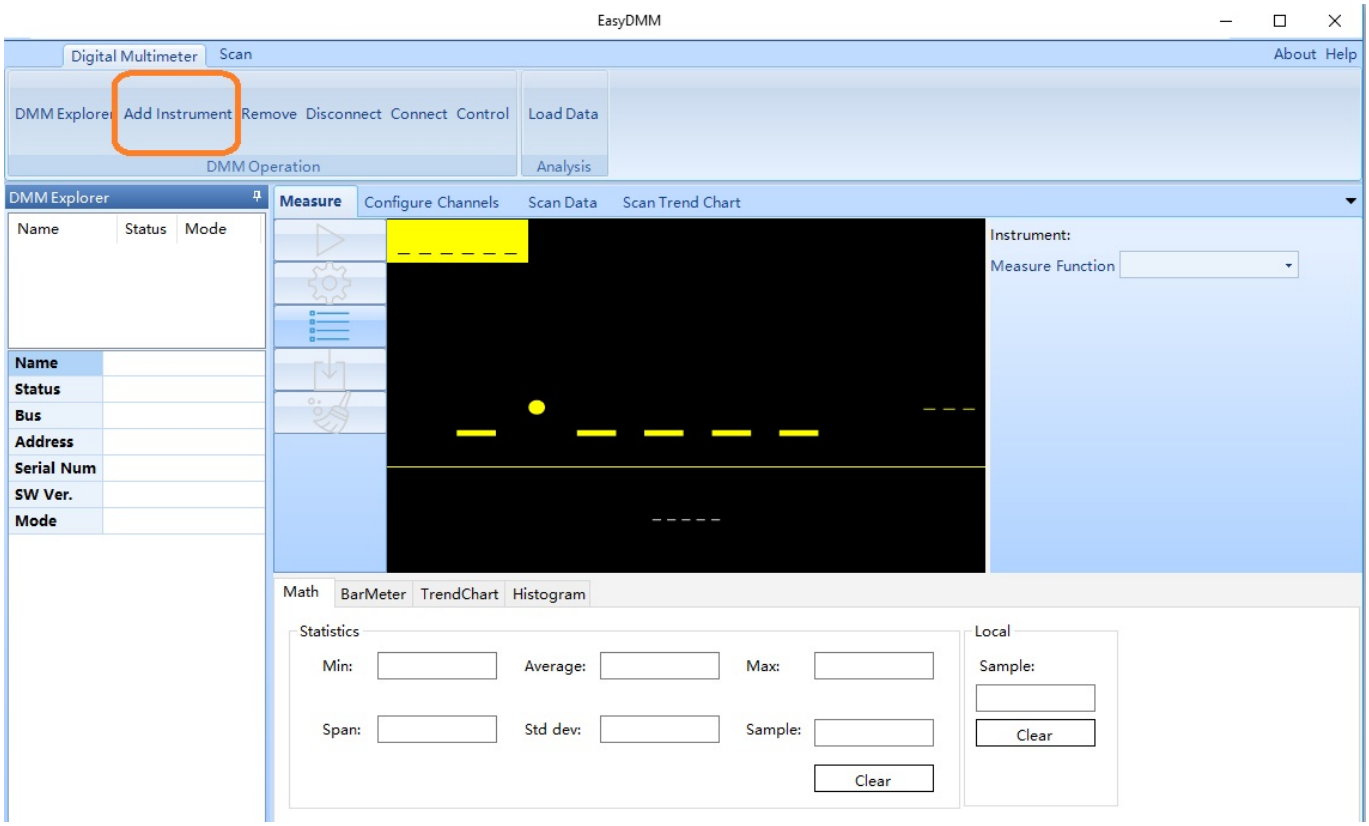
2. Connect the SDM to the controlling computer or network. The SDMs have USB and LAN connections. In this note, we are using a USB connection

3. Open EasyDMM by clicking on the desktop icon or running the executable from the start menu.

The initial opening screen will show this basic layout:



4. Now, click on Add Instrument, select the USB device you wish to control (USBTMC as shown), and click OK:


EasyDMM
Digital Multimeter
Scan
About Help
DMM Explorer
Add Instrument
Remove
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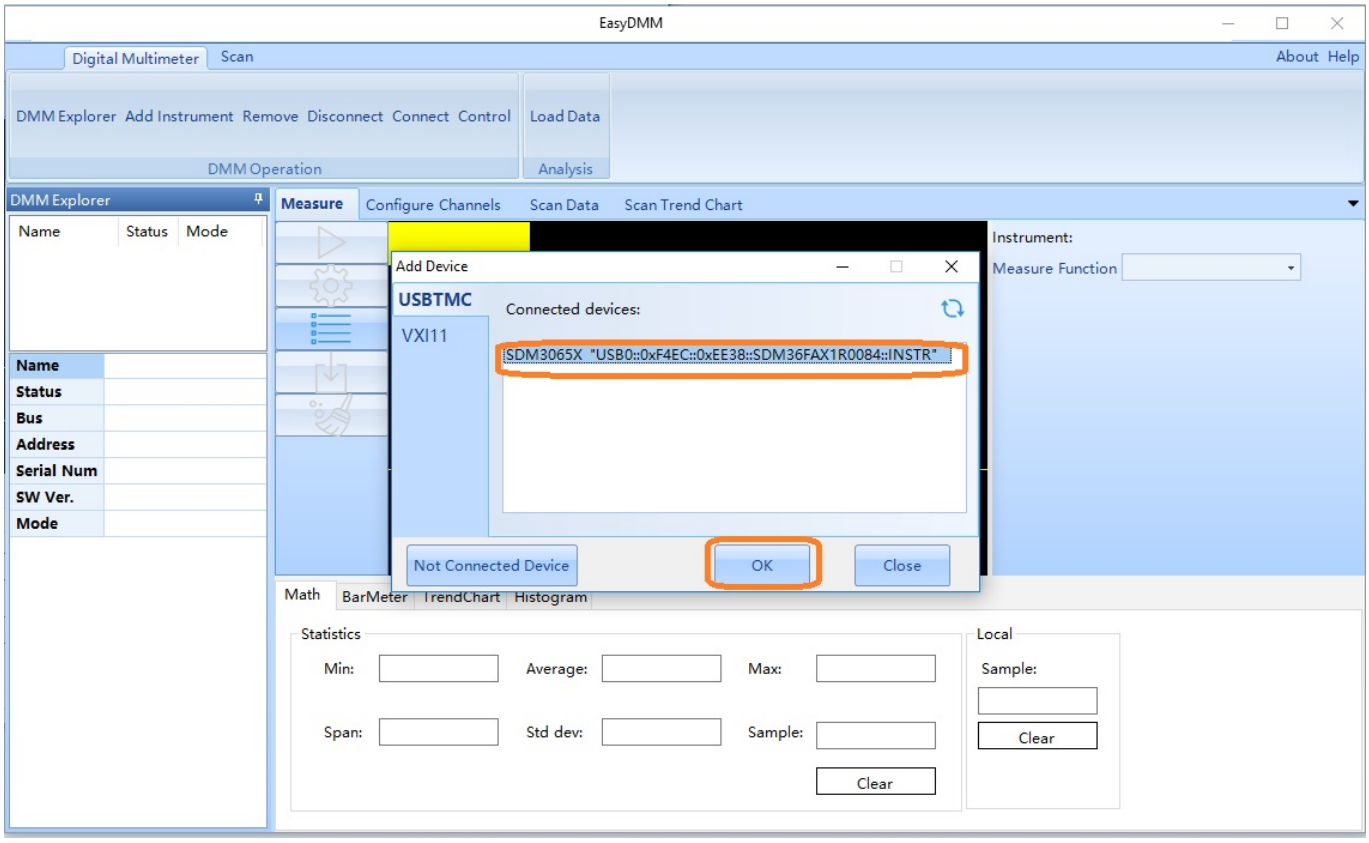
DMM Operation
Load Data
Analysis
DMM Explorer
Name
Status
Mode
Measure
Configure Channels
Scan Data
Scan Trend Chart
Instrument:
Measure Function
Name
Status
Bus
Address
Serial Num
SW Ver.
Mode
Math
BarMeter
TrendChart
Histogram
Statistics
Min:
Average:
Max:
Span:
Std dev:
Sample:
Clear
Local
Sample:
Clear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Name
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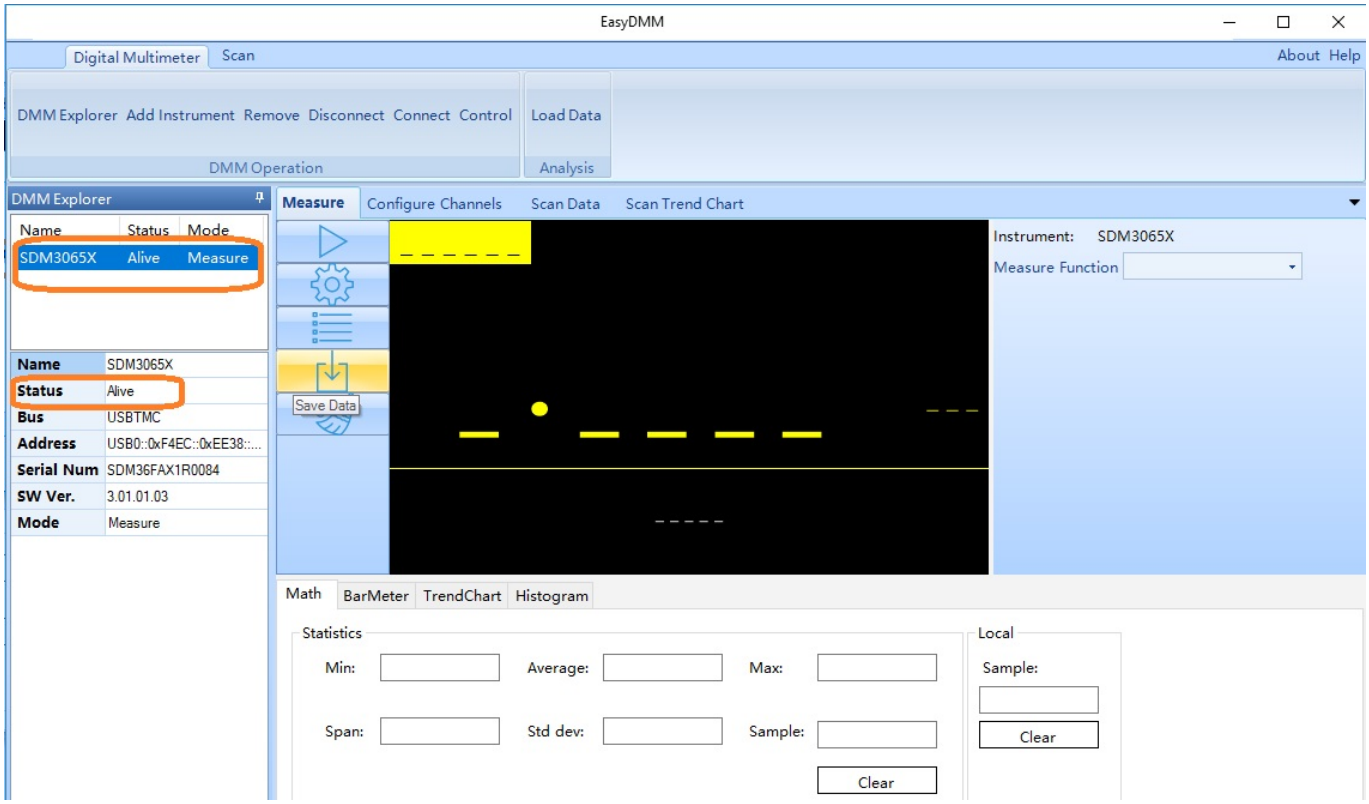
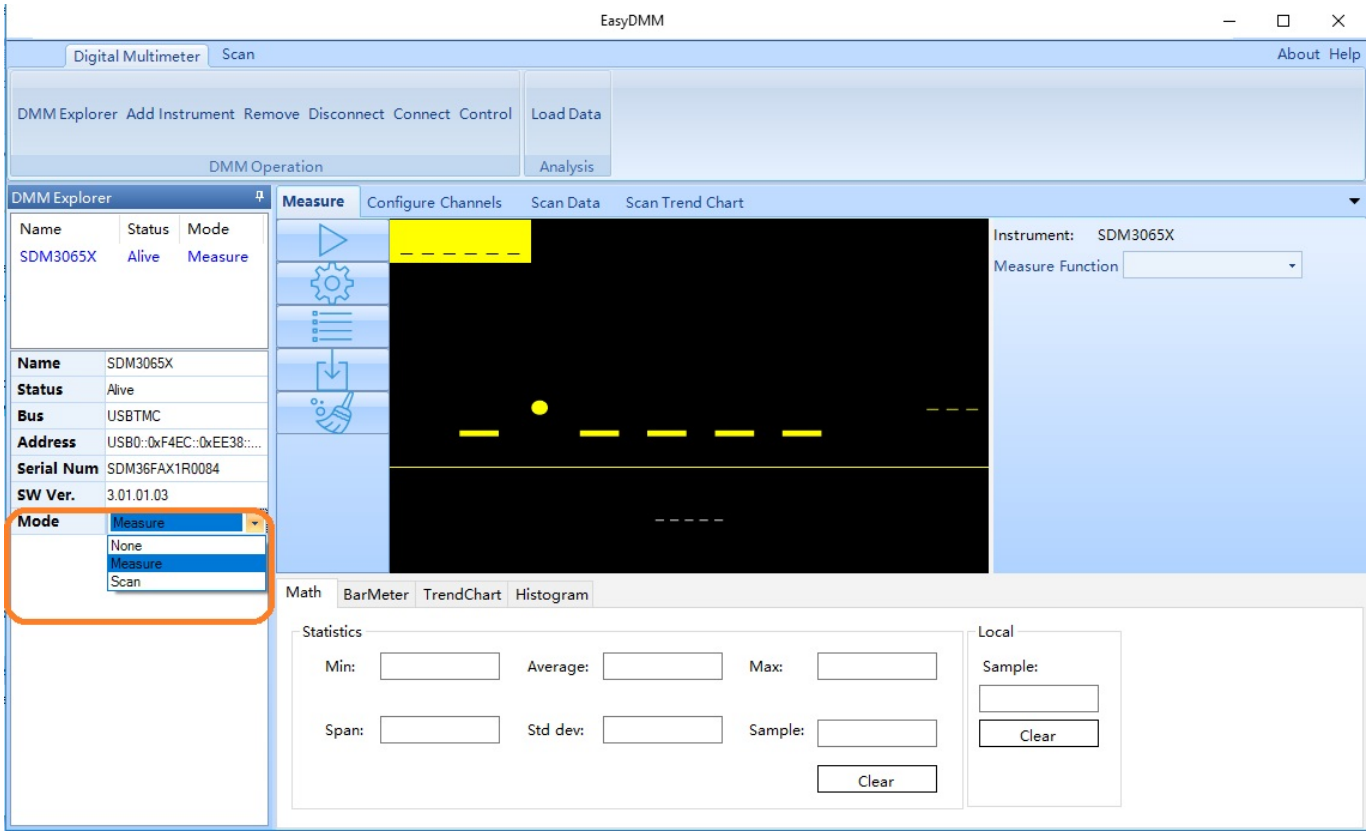
Scan Trend Chart
Instrument:
Measure Function
Add Device
USBTMC
VXI11
Connected devices:
SDM3065X "USB0::0xF4EC::0xEE38::SDM36FAX1R0084::INSTR"
Not Connected Device
OK
Close
Name
Status
Bus
Address
Serial Num
SW Ver.
Mode
Math
BarMeter
TrendChart
Histogram
Statistics
Min:
Average:
Max:
Span:
Std dev:
Sample:
Clear
Local
Sample:
Clear

It’s ALIVE!!!!



5. Now, select Scan Mode. Note that the Scanner field appears: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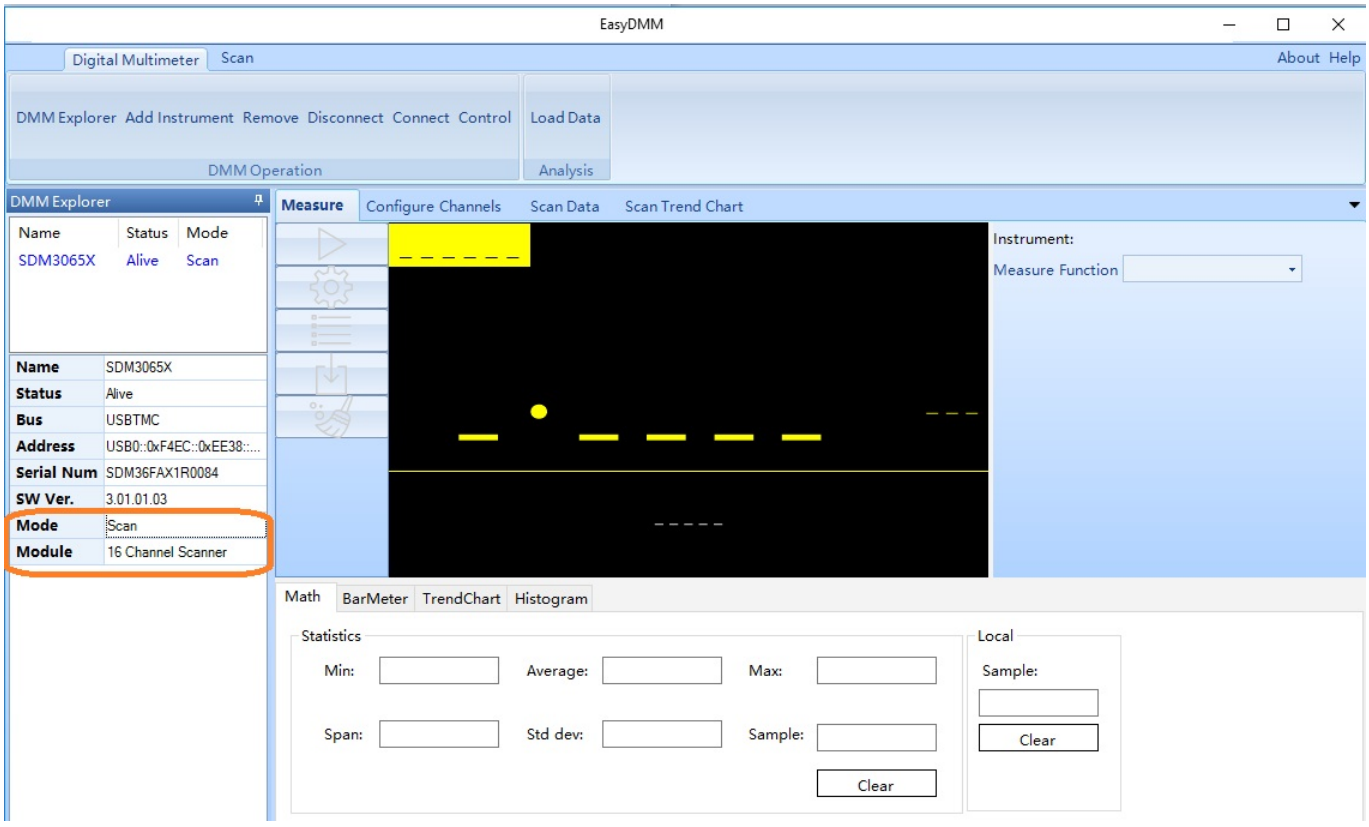
DMM Explorer
Name
Status
Mode
SDM3065X
Alive
Measure
Name SDM3065X
Status Alive
Bus USBTMC
Address USB0::0xF4EC::0xEE38::...
Serial Num SDM36FAX1R0084
SW Ver. 3.01.01.03
Mode Measure
None
Measure
Scan
Measure
Configure Channels
Scan Data
Scan Trend Chart
Instrument: SDM3065X
Measure Function
Math
BarMeter
TrendChart
Histogram
Statistics
Min:
Average:
Max:
Span:
Std dev:
Sample:
Clear
Local
Sample:
Clear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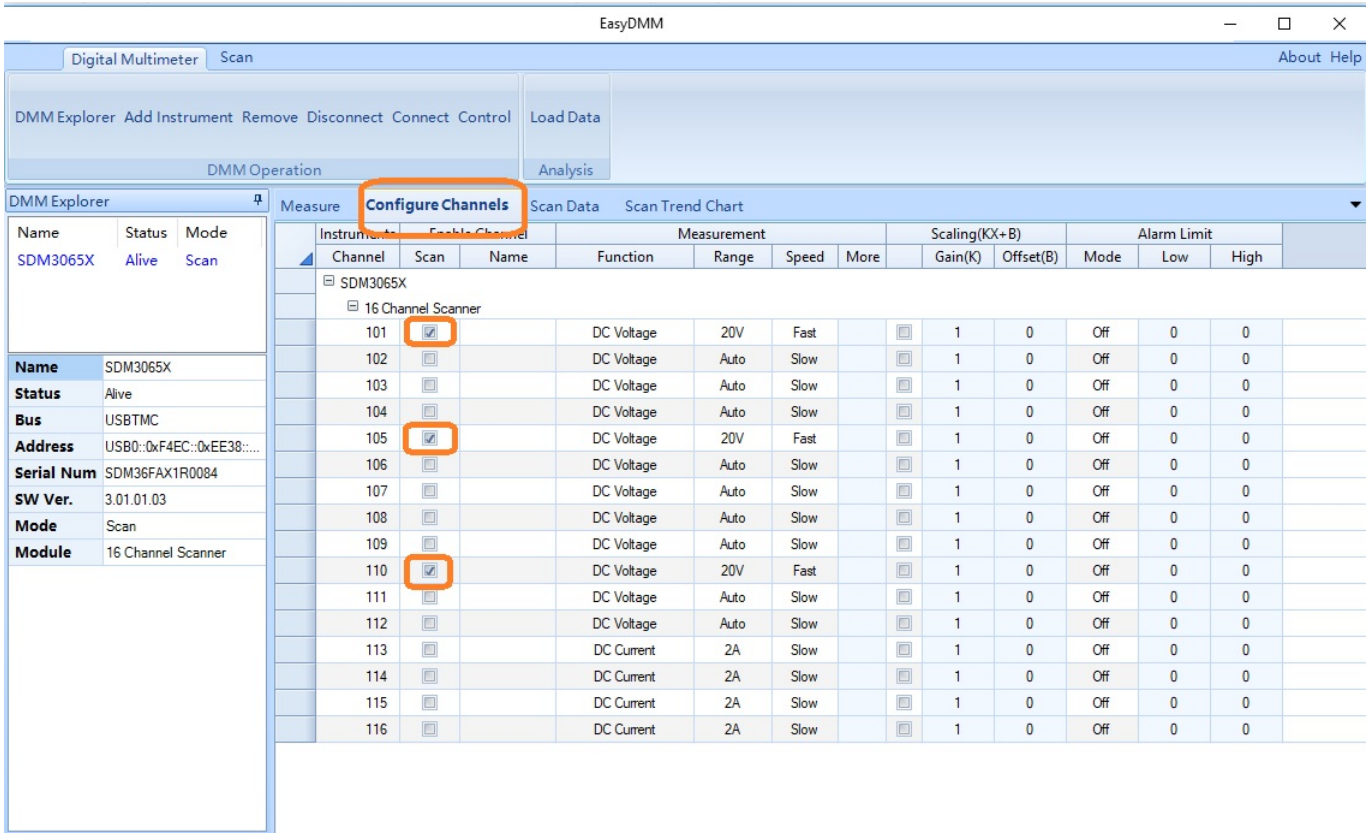
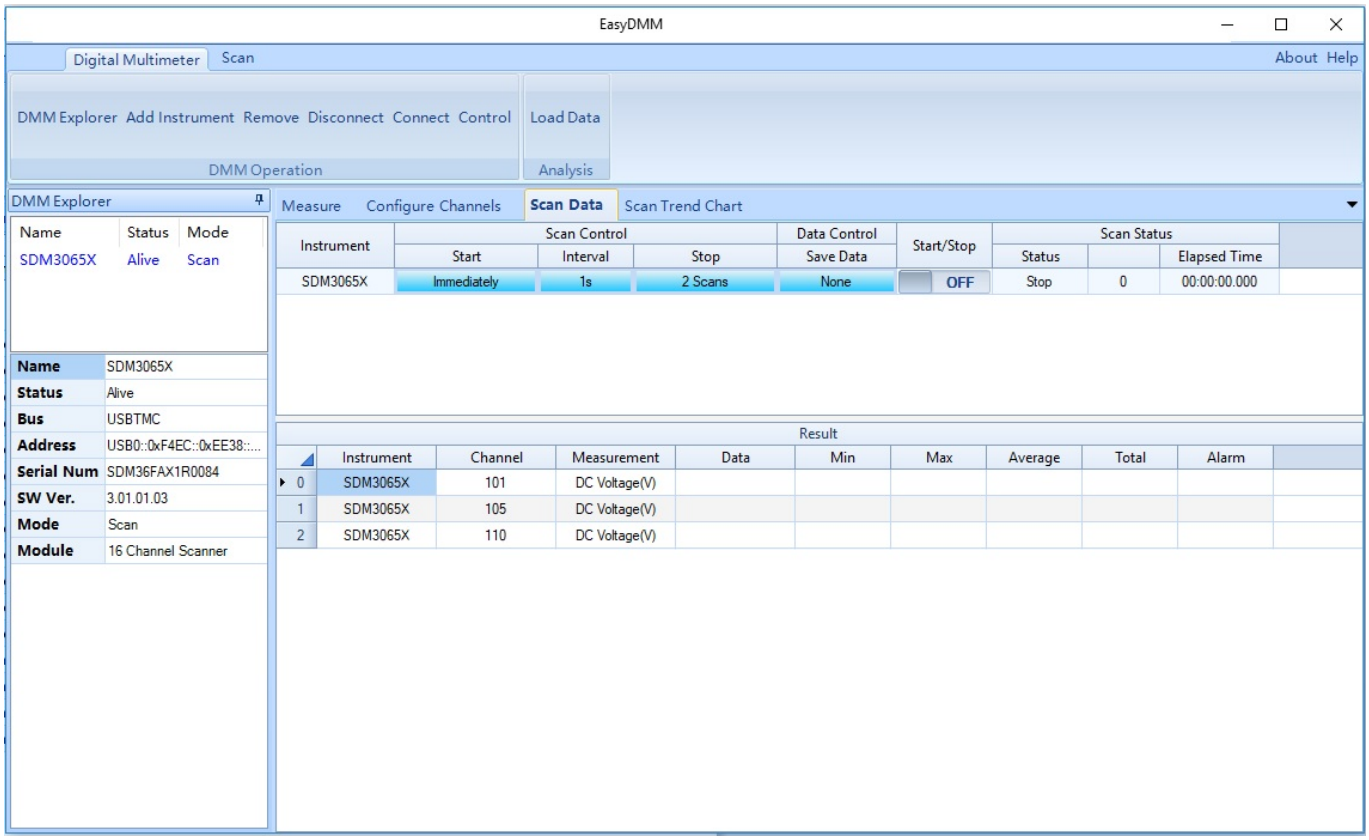
Status
Mode
SDM3065X
Alive
Scan
Name SDM3065X
Status Alive
Bus USBTMC
Address USB0::0xF4EC::0xEE38::...
Serial Num SDM36FAX1R0084
SW Ver. 3.01.01.03
Mode Scan
Module 16 Channel Scanner
Measure
Configure Channels
Scan Data
Scan Trend Chart
Instrument:
Measure Function
Math
BarMeter
TrendChart
Histogram
Statistics
Min:
Average:
Max:
Span:
Std dev:
Sample:
Clear
Local
Sample:
Clear

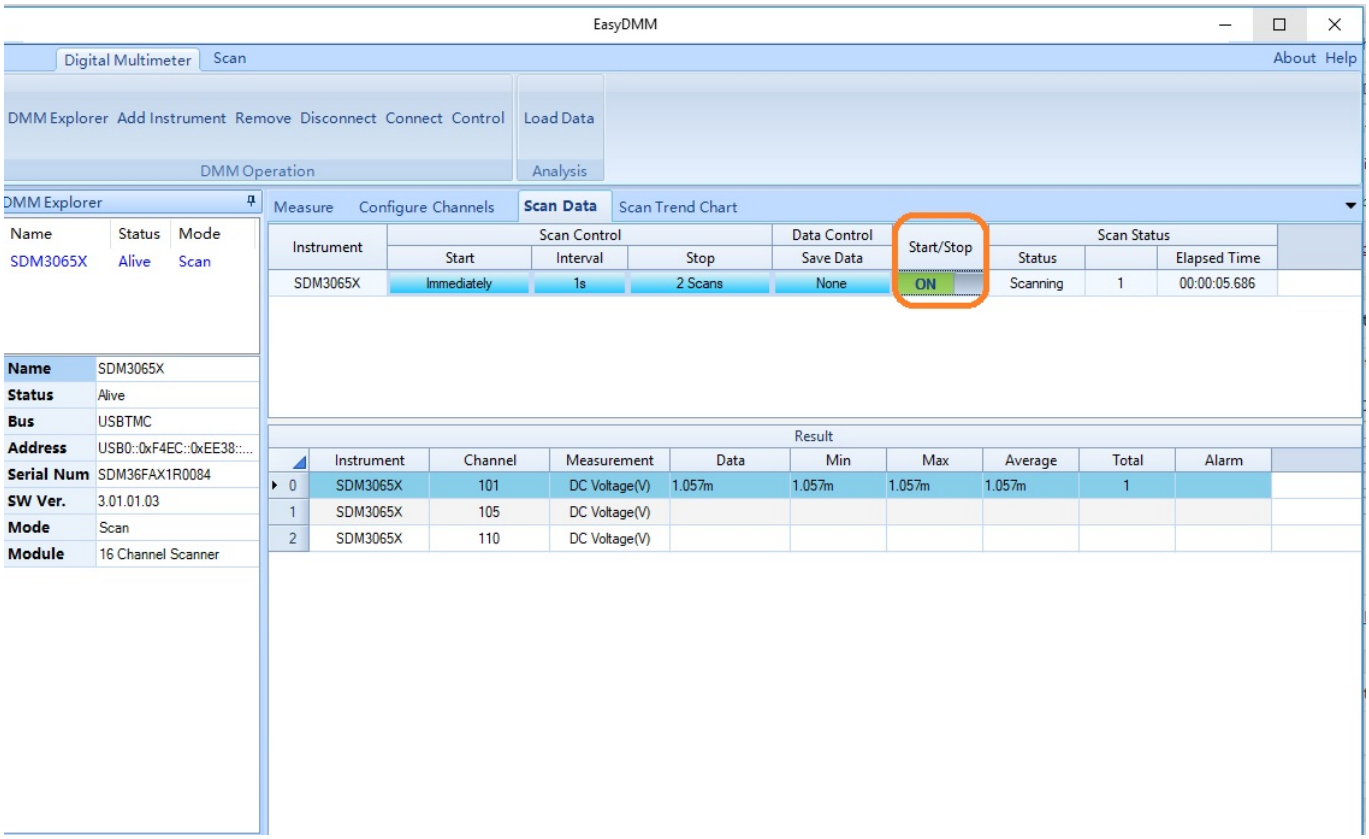
6. Select Configure Channels. Select the channels you wish to control using the checkbox. Also select the function, range, etc...:



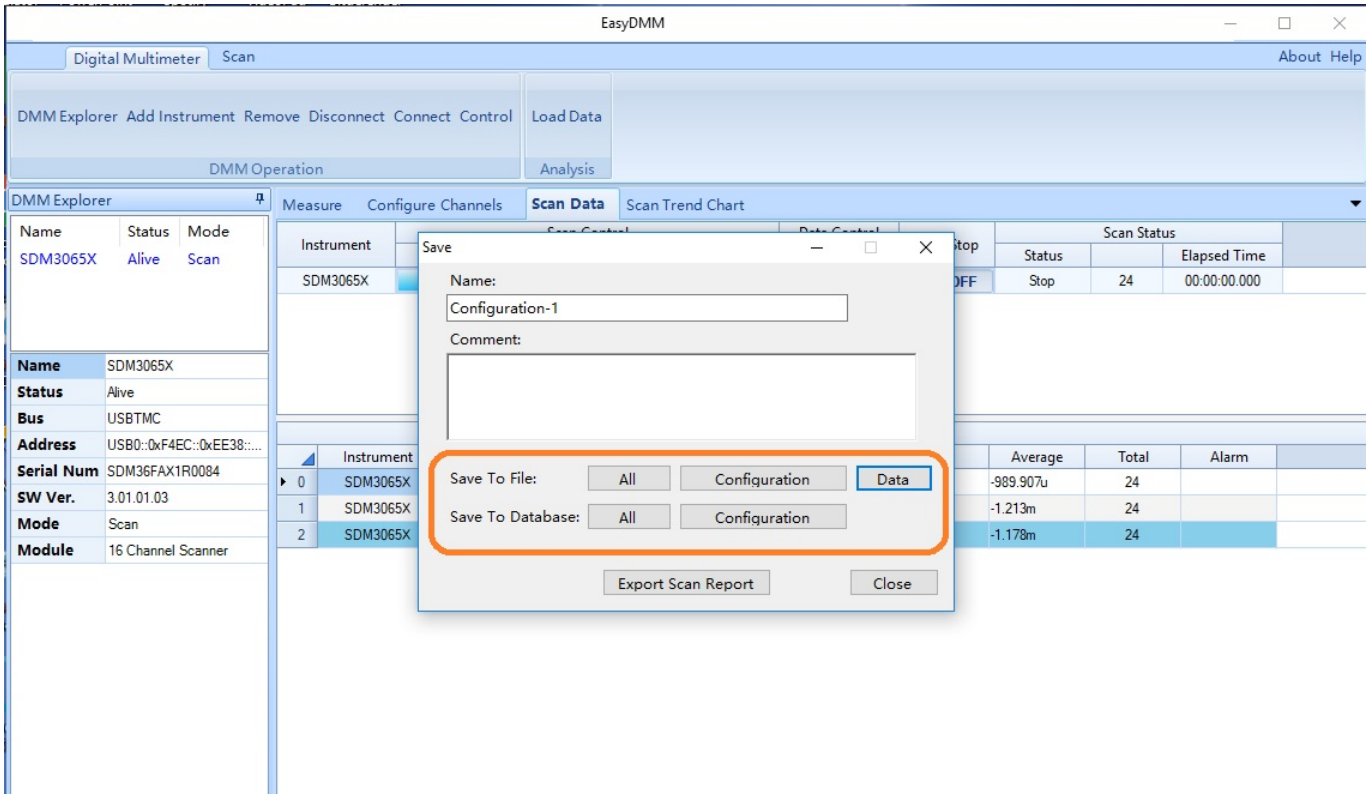
7. After configuring the channels, select Scan Data and set the start, interval, stop, and data control values:

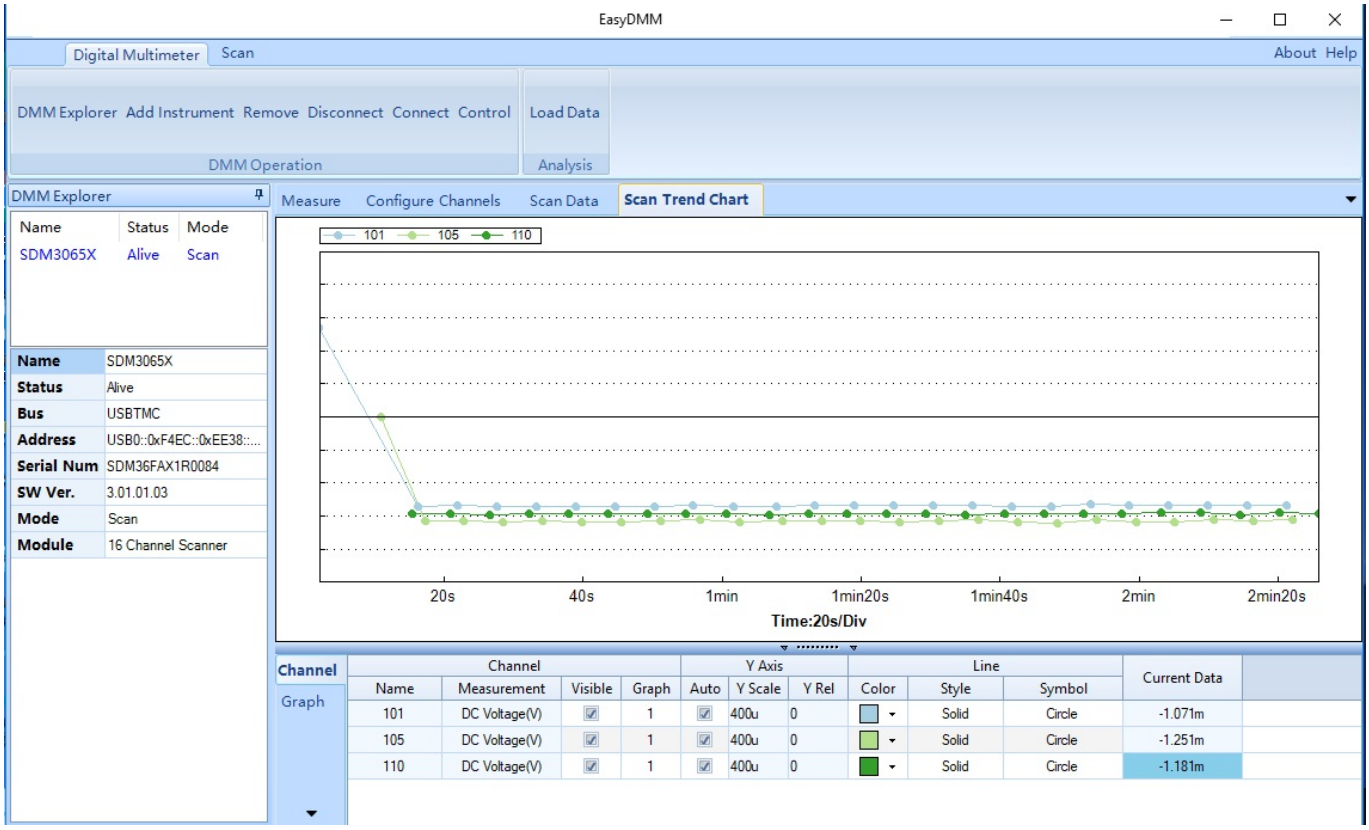


8. When you want to start the scan, click on the Start/Stop slider as shown:



After the scan is complete, you can save the data or view using the Scan Trend Chart:

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Bus USBTMC
Address USB0::0xF4EC::0xEE38::...
Serial Num SDM36FAX1R0084
SW Ver. 3.01.01.03
Mode Scan
Module 16 Channel Scanner
Measure
Configure Channels
Scan Data
Scan Trend Chart
101
105
110
20s
40s
1min
1min20s
1min40s
2min
2min20s
Time:20s/Div
Channel
Graph
Channel
Y Axis
Line
Current Data
Name
Measurement
Visible
Graph
Auto
Y Scale
Y Rel
Color
Style
Symbol
101 DC Voltage(V) 1 400u 0 Solid Circle -1.071m
105 DC Voltage(V) 1 400u 0 Solid Circle -1.251m
110 DC Voltage(V) 1 400u 0 Solid Circle -1.181m

North American Headquarters

SIGLENT Technologies NA
6557 Cochran Rd Solon, Ohio 44139
Tel: 440-398-5800
Toll Free:877-515-5551
Fax: 440-399-1211
info@siglent.com
www.siglentamerica.com/

European Sales Offices

SIGLENT TECHNOLOGIES GERMANY GmbH
Staetzlinger Str. 70
86165 Augsburg, Germany
Tel: +49(0)-821-666 0 111 0
Fax: +49(0)-821-666 0 111 22
info-eu@siglent.com
www.siglenteu.com

Asian Headquarters

SIGLENT TECHNOLOGIES CO., LTD.
Blog No.4 & No.5, Antongda Industrial Zone,
3rd Liuxian Road, Bao'an District,
Shenzhen, 518101, China.
Tel:+ 86 755 3661 5186
Fax:+ 86 755 3359 1582
sales@siglent.com
www.siglent.com/ens