

# How to configure a DMM scan using EasyDMM

September 19, 2018

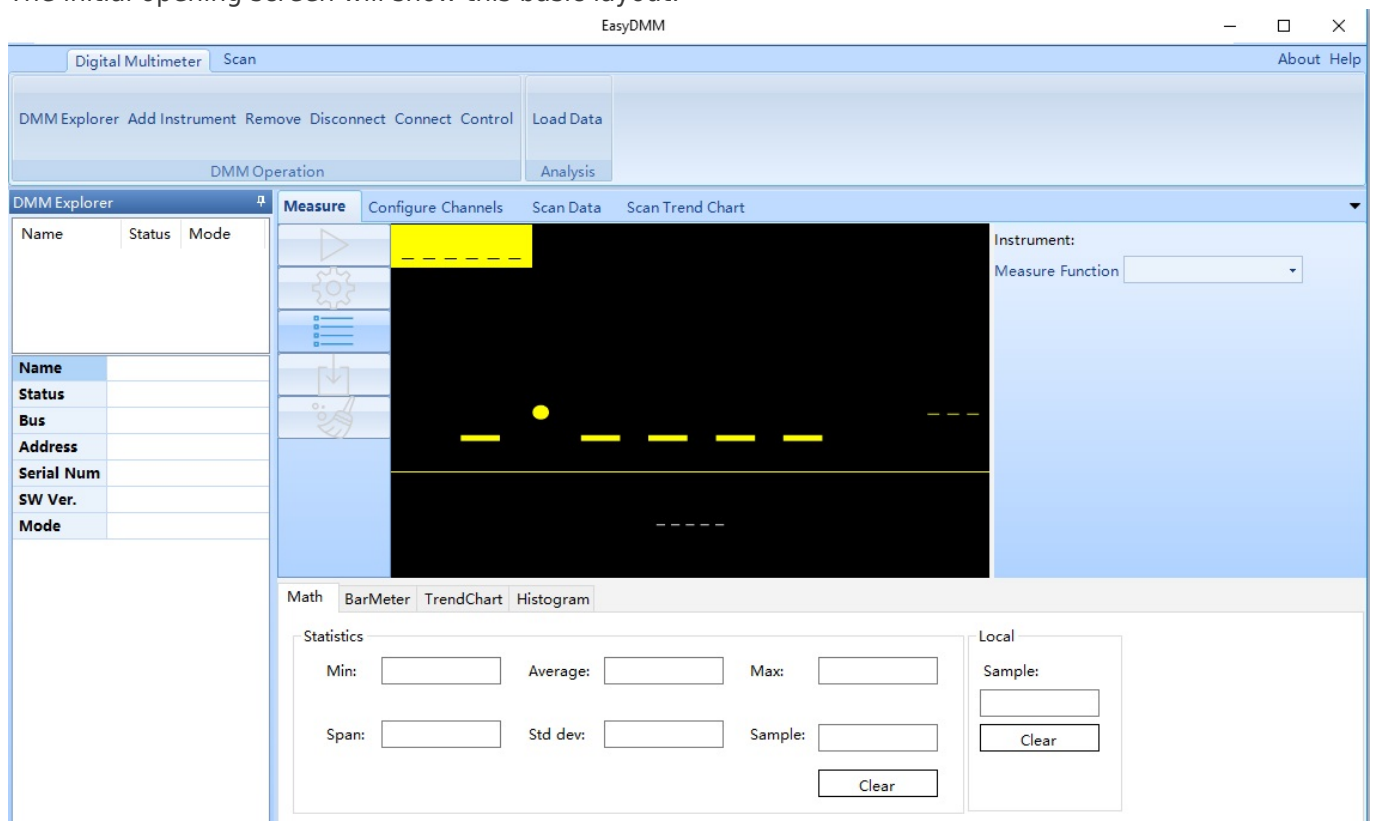
The SIGLENT SDM3055-SC and SDM3065-SC instruments are digital multimeters with switch cards that allow for up to 12 voltage-function measurements (and an additional separate 4 current measurement channels).

SIGLENT's EasyDMM software provides easy instrument control and data collection.

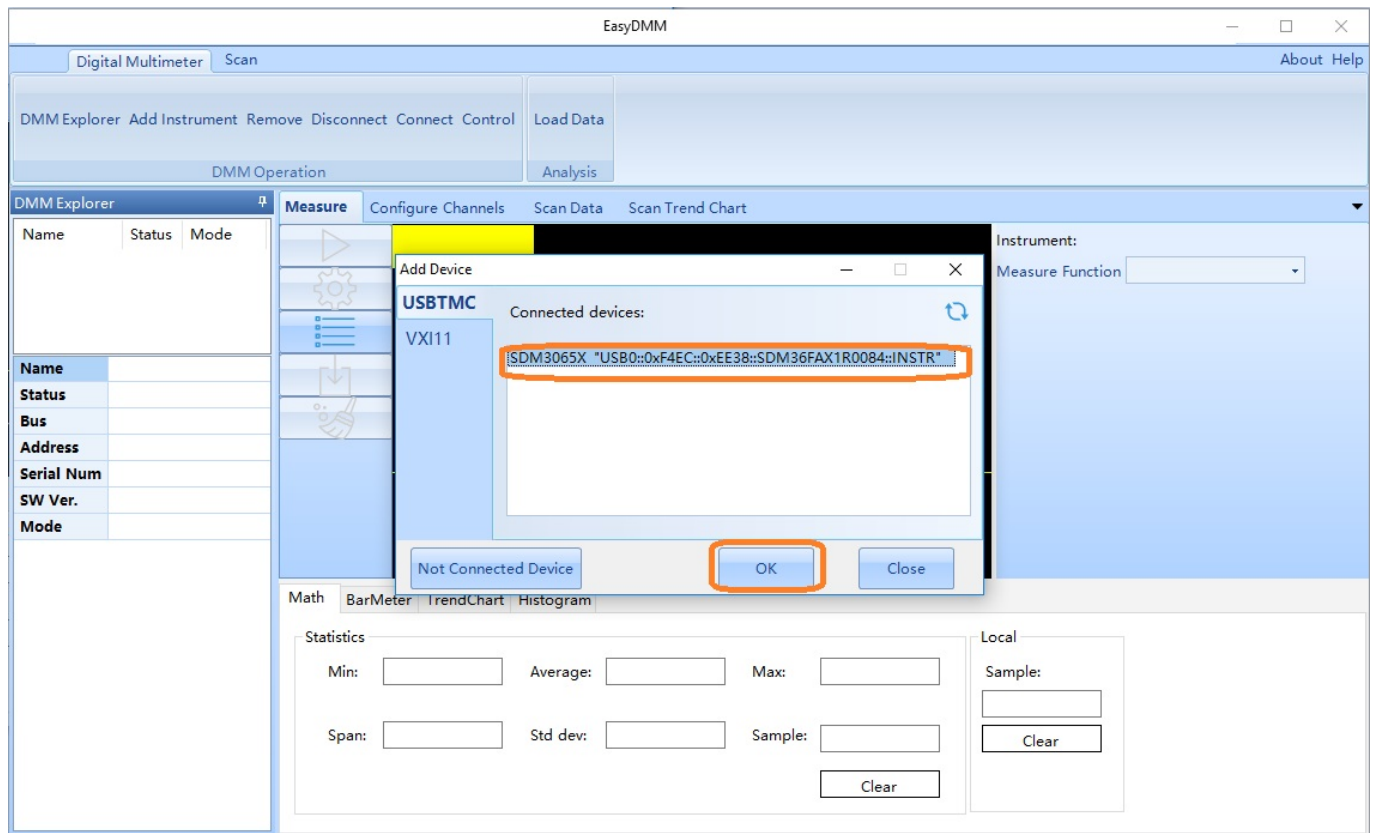
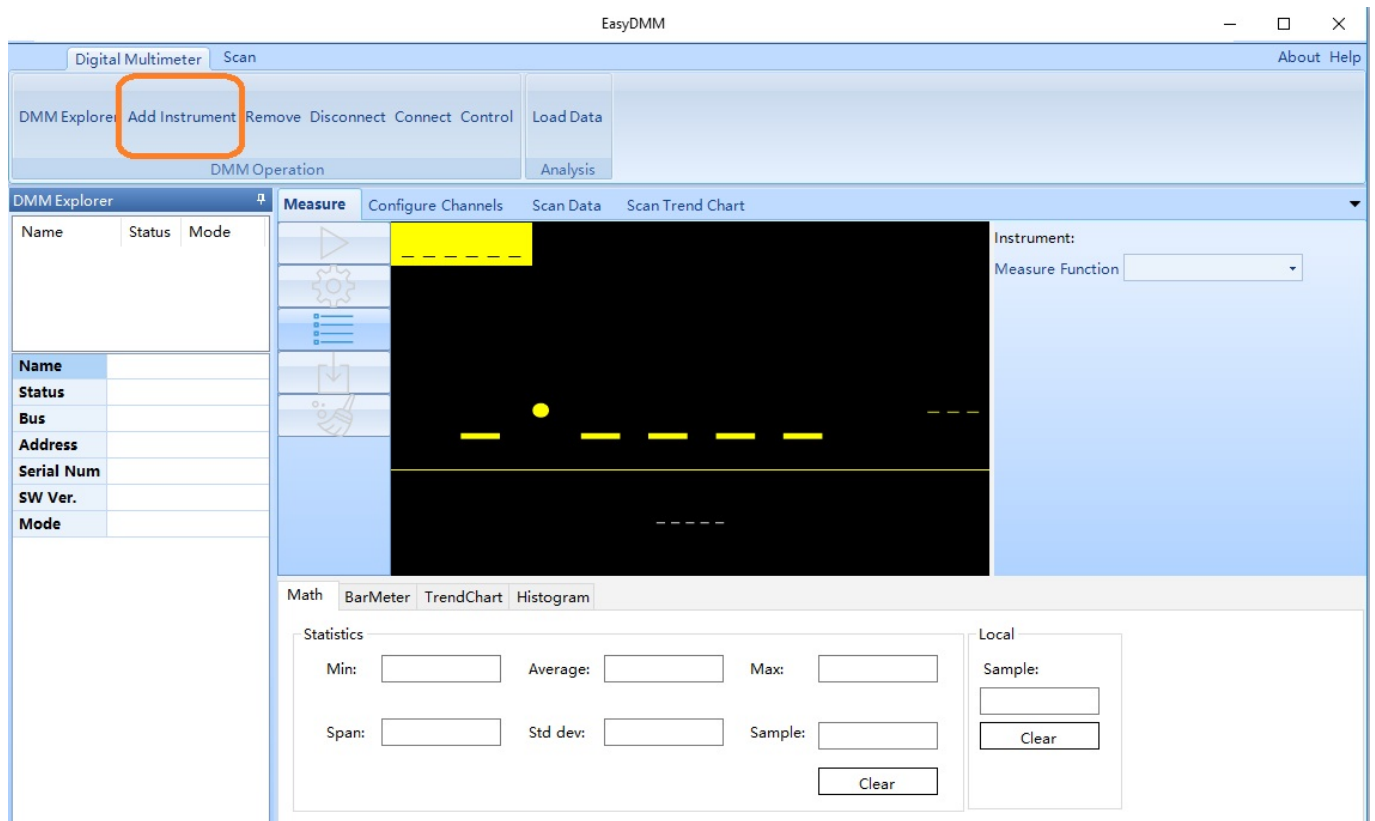
In this note, we will show how to configure EasyDMM to perform a scan

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.

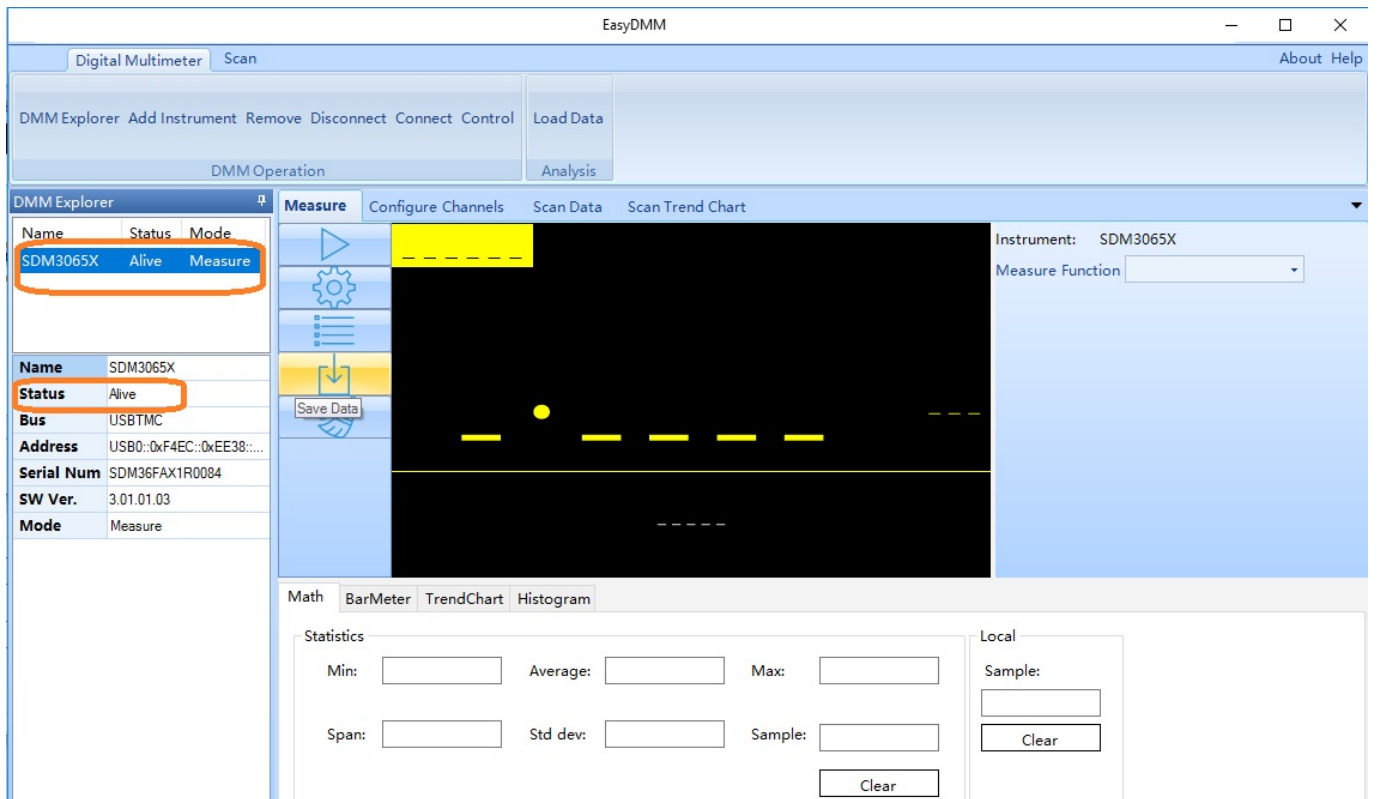
The initial opening screen will show this basic layout:



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



It's ALIVE!!!!



5. Now, select Scan Mode. Note that the Scanner field appears:

EasyDMM

Digital Multimeter Scan About Help

DMM Explorer Add Instrument Remove Disconnect Connect Control Load Data

DMM Operation Analysis

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

Instrument: SDM3065X  
Measure Function

Math BarMeter TrendChart Histogram

Statistics

Min:  Average:  Max:

Span:  Std dev:  Sample:

Local

Sample:

EasyDMM

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DMM Operation Analysis

DMM Explorer

Name	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

Instrument:   
Measure Function

Math BarMeter TrendChart Histogram

Statistics

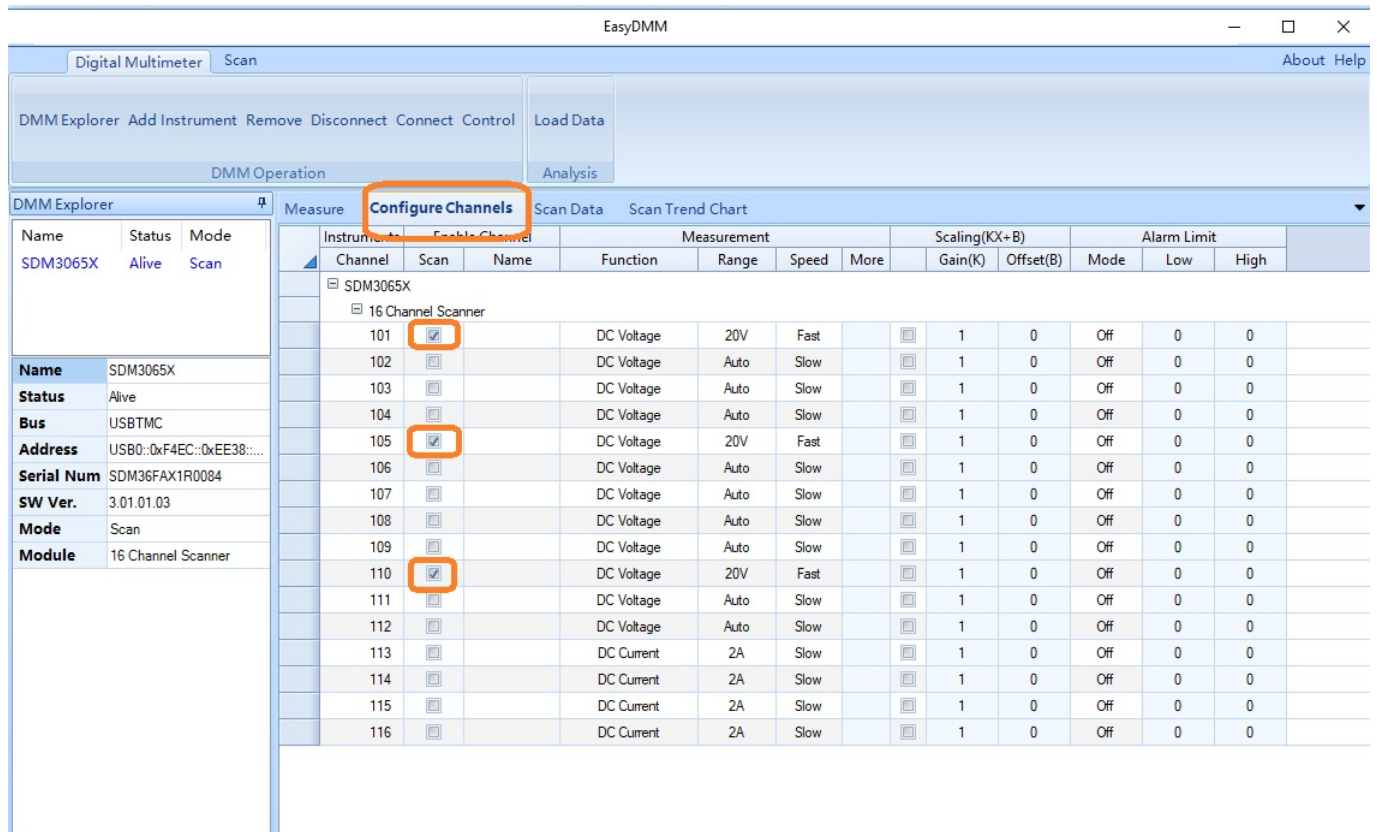
Min:  Average:  Max:

Span:  Std dev:  Sample:

Local

Sample:

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



The screenshot shows the 'EasyDMM' software interface. The 'DMM Explorer' panel on the left displays the following information for the 'SDM3065X' device:

- 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

The main window is in the 'Configure Channels' tab. It displays a table with 16 channels for configuration. The columns are: Channel, Scan, Name, Function, Range, Speed, More, Scaling(KX+B), and Alarm Limit. The 'Scan' column contains checkboxes for each channel. Channels 101, 105, and 110 have their checkboxes checked.

Channel	Scan	Name	Function	Range	Speed	More	Scaling(KX+B)	Alarm Limit
101	<input checked="" type="checkbox"/>		DC Voltage	20V	Fast		1 0	Off 0 0
102	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
103	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
104	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
105	<input checked="" type="checkbox"/>		DC Voltage	20V	Fast		1 0	Off 0 0
106	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
107	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
108	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
109	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
110	<input checked="" type="checkbox"/>		DC Voltage	20V	Fast		1 0	Off 0 0
111	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
112	<input type="checkbox"/>		DC Voltage	Auto	Slow		1 0	Off 0 0
113	<input type="checkbox"/>		DC Current	2A	Slow		1 0	Off 0 0
114	<input type="checkbox"/>		DC Current	2A	Slow		1 0	Off 0 0
115	<input type="checkbox"/>		DC Current	2A	Slow		1 0	Off 0 0
116	<input type="checkbox"/>		DC Current	2A	Slow		1 0	Off 0 0

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

EasyDMM

Digital Multimeter Scan About Help

DMM Explorer Add Instrument Remove Disconnect Connect Control Load Data

DMM Operation Analysis

DMM Explorer

Name	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

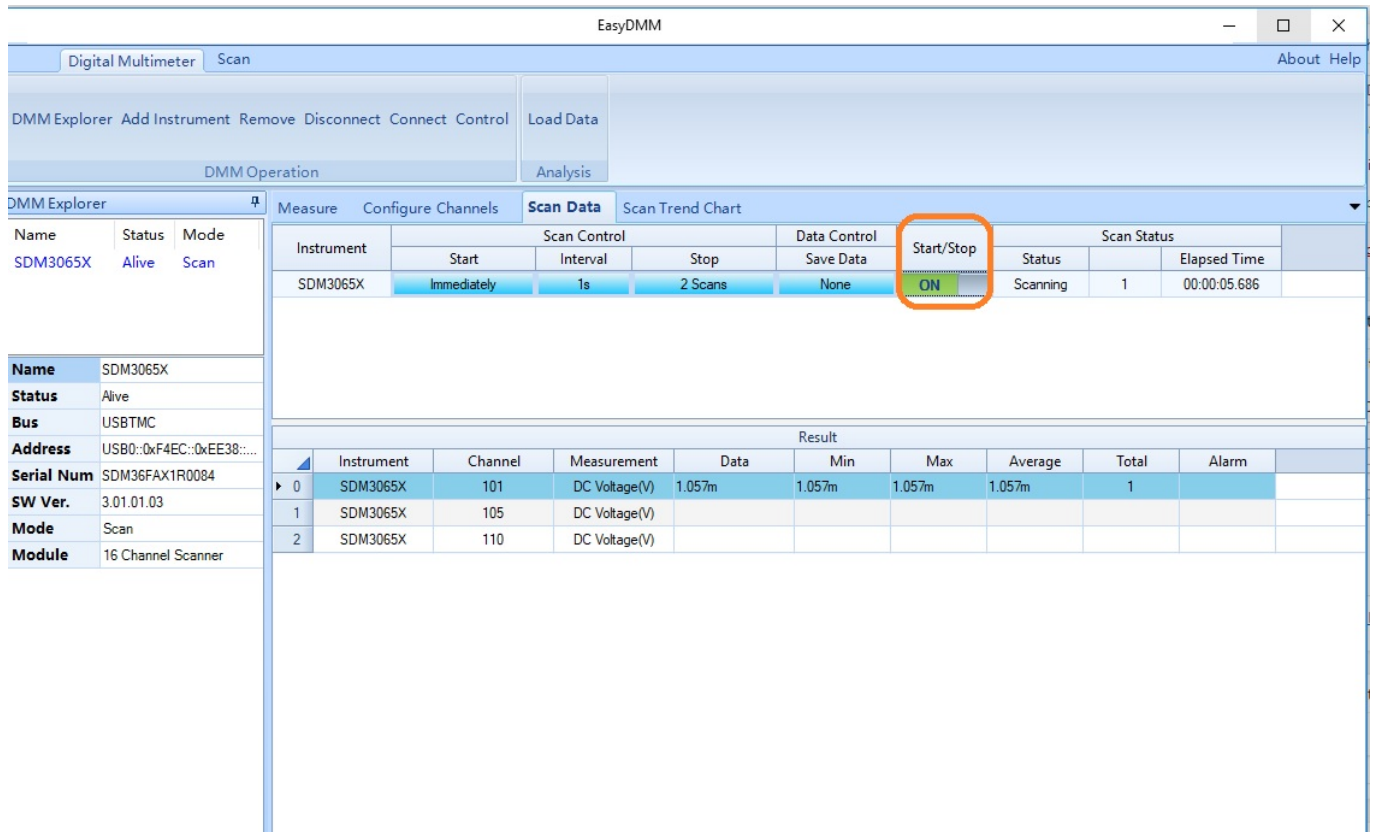
Measure Configure Channels **Scan Data** Scan Trend Chart

Instrument	Scan Control			Data Control	Start/Stop	Scan Status		
	Start	Interval	Stop	Save Data		Status	Elapsed Time	
SDM3065X	Immediately	1s	2 Scans	None	OFF	Stop	0	00:00:00.000

Result

	Instrument	Channel	Measurement	Data	Min	Max	Average	Total	Alarm
0	SDM3065X	101	DC Voltage(V)						
1	SDM3065X	105	DC Voltage(V)						
2	SDM3065X	110	DC Voltage(V)						

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

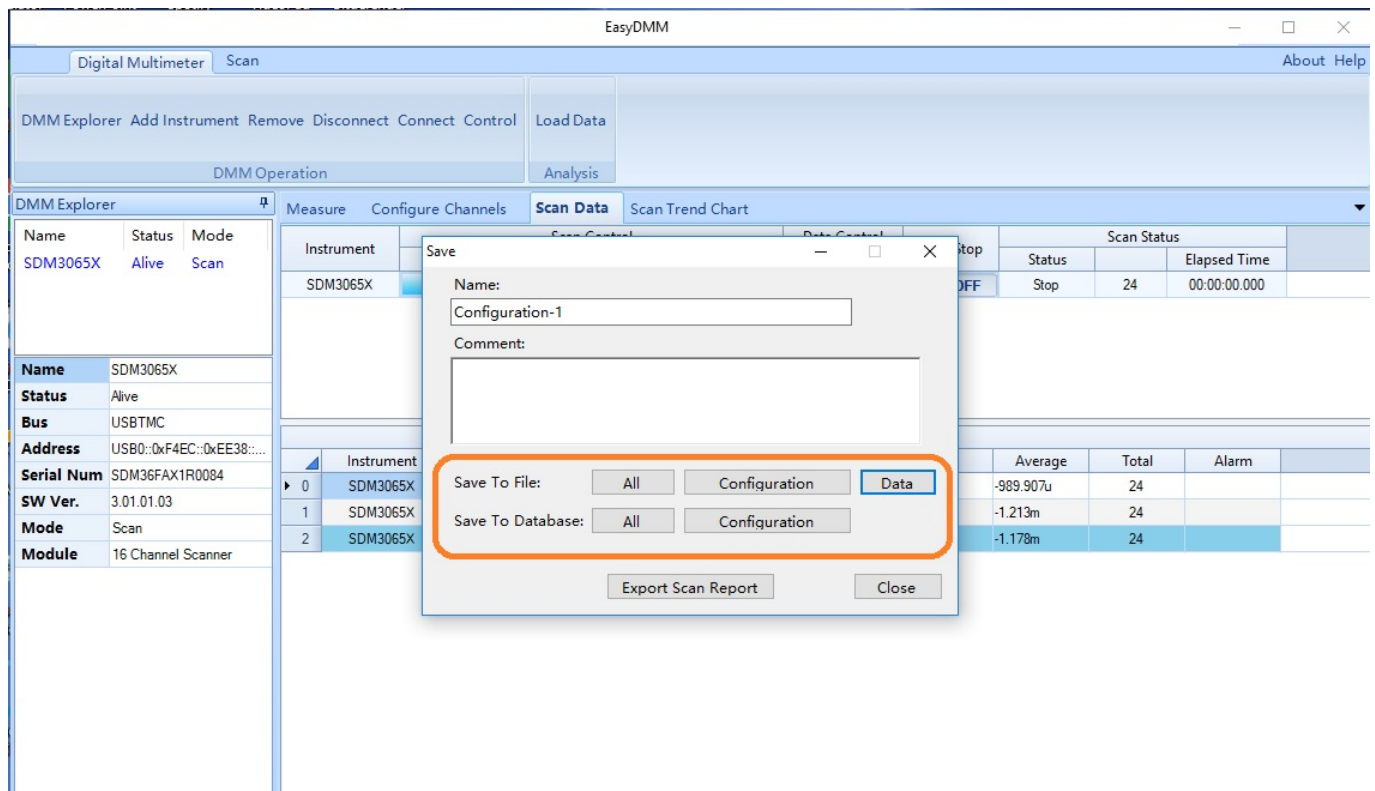


The screenshot shows the EasyDMM software interface. The 'Scan Data' tab is selected, and the 'Start/Stop' button is highlighted with an orange circle. The interface includes a 'DMM Explorer' panel on the left, a 'Measure' panel at the top, and a 'Scan Data' table in the center.

Instrument	Start	Interval	Stop	Data Control	Start/Stop	Status	Scan Status	Elapsed Time
SDM3065X	Immediately	1s	2 Scans	None	ON	Scanning	1	00:00:05.686

	Instrument	Channel	Measurement	Data	Min	Max	Average	Total	Alarm
0	SDM3065X	101	DC Voltage(V)	1.057m	1.057m	1.057m	1.057m	1	
1	SDM3065X	105	DC Voltage(V)						
2	SDM3065X	110	DC Voltage(V)						

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

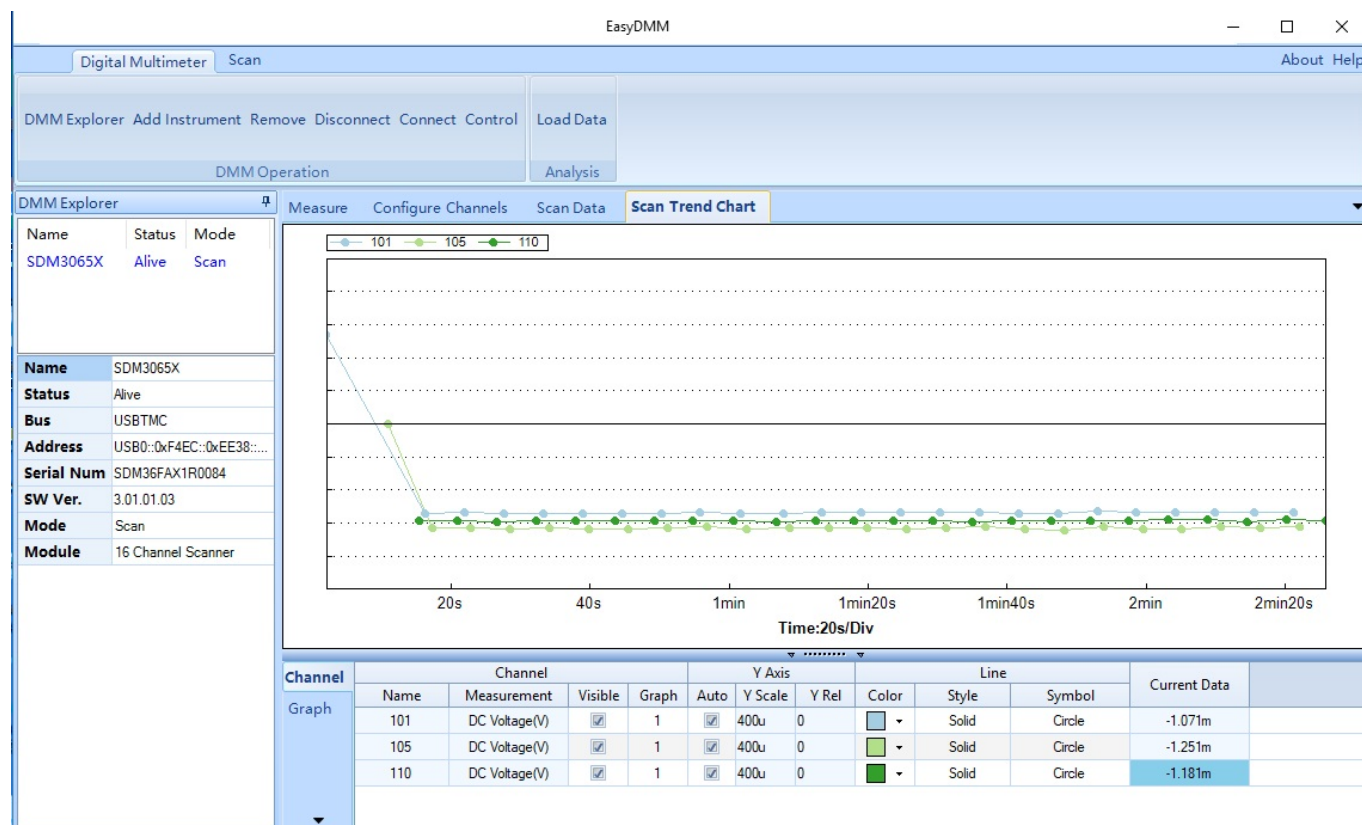


The screenshot shows the EasyDMM software interface with a 'Save' dialog box open. The 'Data' button is highlighted with an orange circle. The dialog box contains fields for 'Name' and 'Comment', and buttons for 'Save To File' and 'Save To Database'.

Instrument	Start	Interval	Stop	Data Control	Start/Stop	Status	Scan Status	Elapsed Time
SDM3065X	Immediately	1s	2 Scans	None	OFF	Stop	24	00:00:00.000

	Instrument	Channel	Measurement	Data	Min	Max	Average	Total	Alarm
0	SDM3065X	101	DC Voltage(V)	1.057m	1.057m	1.057m	1.057m	1	
1	SDM3065X	105	DC Voltage(V)						
2	SDM3065X	110	DC Voltage(V)						









### **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](mailto:info@siglent.com)  
[www.siglentamerica.com/](http://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](mailto:info-eu@siglent.com)  
[www.siglenteu.com](http://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](mailto:sales@siglent.com)  
[www.siglent.com/ens](http://www.siglent.com/ens)