



WiSpry Test Framework – User Guide

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1. Installation
2. Setup
3. Running tests
4. Results and result handling
5. Tools
6. Trouble-shooting

1. Installation

- Option 1: Installer
- Launch setup.exe and follow the instructions in the wizard
- Option 2: Executable
- Install LabVIEW 2017 SP1 Runtime 64bit
 - Available at:
<https://www.ni.com/en-us/support/downloads/software-products/download.labview-runtime.html#310821>
- Launch executable

Bench > Installer > WiSpry Test Framework installer > Volume

Name	Date modified	Type
bin	6/2/2020 6:57 AM	File
license	3/23/2020 2:45 PM	File
supportfiles	6/2/2020 6:58 AM	File
hidist.id	6/2/2020 6:58 AM	ID F
setup.exe	2/28/2019 3:30 PM	App
setup.ini	6/2/2020 6:58 AM	Cor

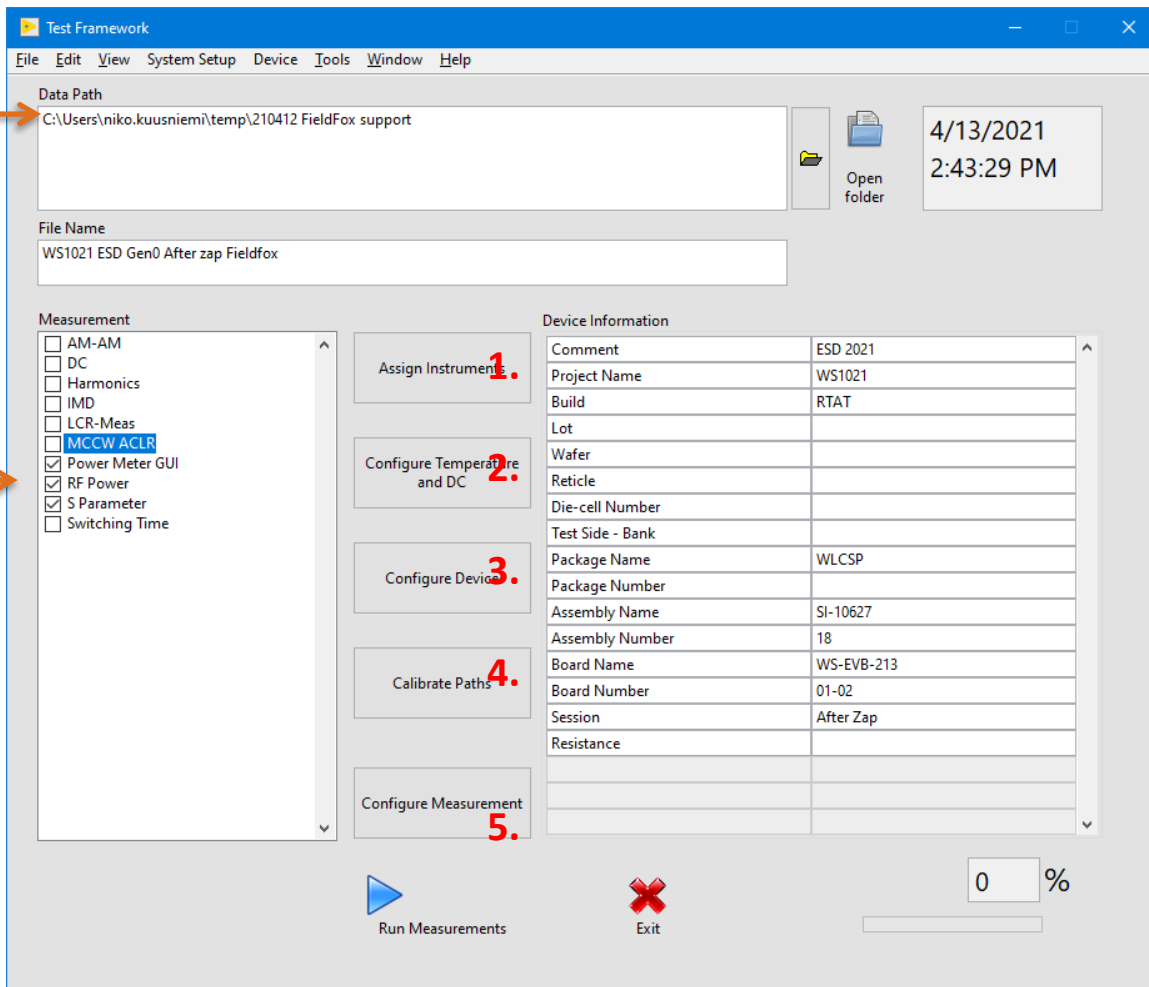
ndbox > RF Bench > Installer > WiSpry Test Framework executable >

Name	Date modified
data	6/2/2020 6:38 AM
Devices	3/26/2020 11:06 AM
Ini files	6/2/2020 6:38 AM
Instruments	3/26/2020 11:06 AM
Measurements	3/26/2020 11:06 AM
Error Log.txt	6/1/2020 11:11 AM
WiSpry Test Framework.aliases	6/2/2020 6:41 AM
WiSpry Test Framework.exe	6/2/2020 6:41 AM
WiSpry Test Framework.ini	6/2/2020 6:41 AM

2. Setup

Location for the results (folder)

- Click to select/unselect
- Double-click to configure



The screenshot shows the 'Test Framework' application window. It includes a menu bar (File, Edit, View, System Setup, Device, Tools, Window, Help), a 'Data Path' field, a 'File Name' field, a 'Measurement' list, a 'Device Information' table, and a bottom panel with 'Run Measurements' and 'Exit' buttons. Annotations 1 through 5 point to specific UI elements: 1. 'Assign Instrument' button, 2. 'Configure Temperature and DC' button, 3. 'Configure Device' button, 4. 'Calibrate Paths' button, and 5. 'Configure Measurement' button.

Data Path
C:\Users\niko.kuusniemi\temp\210412 FieldFox support

File Name
WS1021 ESD Gen0 After zap Fieldfox

Measurement

- ☐ AM-AM
- ☐ DC
- ☐ Harmonics
- ☐ IMD
- ☐ LCR-Meas
- ☒ MCCW ACLR
- ☒ Power Meter GUI
- ☒ RF Power
- ☒ S Parameter
- ☐ Switching Time

Device Information

Comment	ESD 2021
Project Name	WS1021
Build	RTAT
Lot	
Wafer	
Reticle	
Die-cell Number	
Test Side - Bank	
Package Name	WLCSP
Package Number	
Assembly Name	SI-10627
Assembly Number	18
Board Name	WS-EVB-213
Board Number	01-02
Session	After Zap
Resistance	

Annotations:

- Assign Instrument
- Configure Temperature and DC
- Configure Device
- Calibrate Paths
- Configure Measurement

Bottom Panel:

Run Measurements (blue play button) Exit (red X button)

Progress bar: 0 %

-
- The screenshot shows the 'Assign Instruments' dialog in the NI Test Framework. The 'Found Instruments' pane on the left contains a search bar with 'Signal Generator 1' and 'Power Supply' entered. Below the search bar is a table of found instruments:
- | Interface | IDN |
|-----------|-----------------|
| Manual | PSU, Virtual |
| Virtual | PSU, Virtual |
| Manual | Switch, Virtual |
| Virtual | Switch. Virtual |
- The 'Instruments for tests' pane on the right lists various instruments. The 'Vector Network Analyzer' is selected and highlighted in yellow. An orange arrow points from the 'Vector Network Analyzer' row to the 'Found Instruments' pane, with the text 'Drag and drop' overlaid. Below the list of instruments are buttons for 'Add', 'Remove', 'Clear selected', and 'Clear all'. At the bottom of the dialog are 'Done' and 'Cancel' buttons.

2. Setup – 2. Temp and DC

Test Framework.lvclass:Configure Environment.vi

Available PSU's

OFF	<input checked="" type="radio"/> Voltage <input type="radio"/> Current	Voltage (V) 3	Voltage sweep (V) 3.3	Current limit (A) 0.1	PSU Alias PSU1	KEITHLEY INSTRUMENTS INC., MODEL 2400	Address GPIB0::2::INSTR	Channel 1
OFF	<input checked="" type="radio"/> Voltage <input type="radio"/> Current	Voltage (V) 3	Voltage sweep (V) 3.3	Current limit (A) 0.1	PSU Alias PSU2	KEITHLEY INSTRUMENTS INC., MODEL 2400	Address GPIB0::3::INSTR	Channel 1
OFF	<input checked="" type="radio"/> Voltage <input type="radio"/> Current	Voltage (V) 0	Voltage sweep (V) 3.3	Current limit (A) 0.1	PSU Alias PSU2	Agilent Technologies, E3647A	Address GPIB0::5::INSTR	Channel 1
OFF	<input checked="" type="radio"/> Voltage <input type="radio"/> Current	Voltage (V) 0	Voltage sweep (V) 3.3	Current limit (A) 0.1	PSU Alias PSU2	Agilent Technologies, E3647A	Address GPIB0::5::INSTR	Channel 1
OFF	<input checked="" type="radio"/> Voltage <input type="radio"/> Current	Voltage (V) 0	Voltage sweep (V) 3.3	Current limit (A) 0.1	PSU Alias PSU2	Agilent Technologies, E3647A	Address GPIB0::5::INSTR	Channel 1

Temperature (C)

25

Temperature (C)

25

e.g. "25,85,-40"

Soak time (min)

0

✓

Done

✗

Cancel

Temperature mode

Off

DC-Power mode

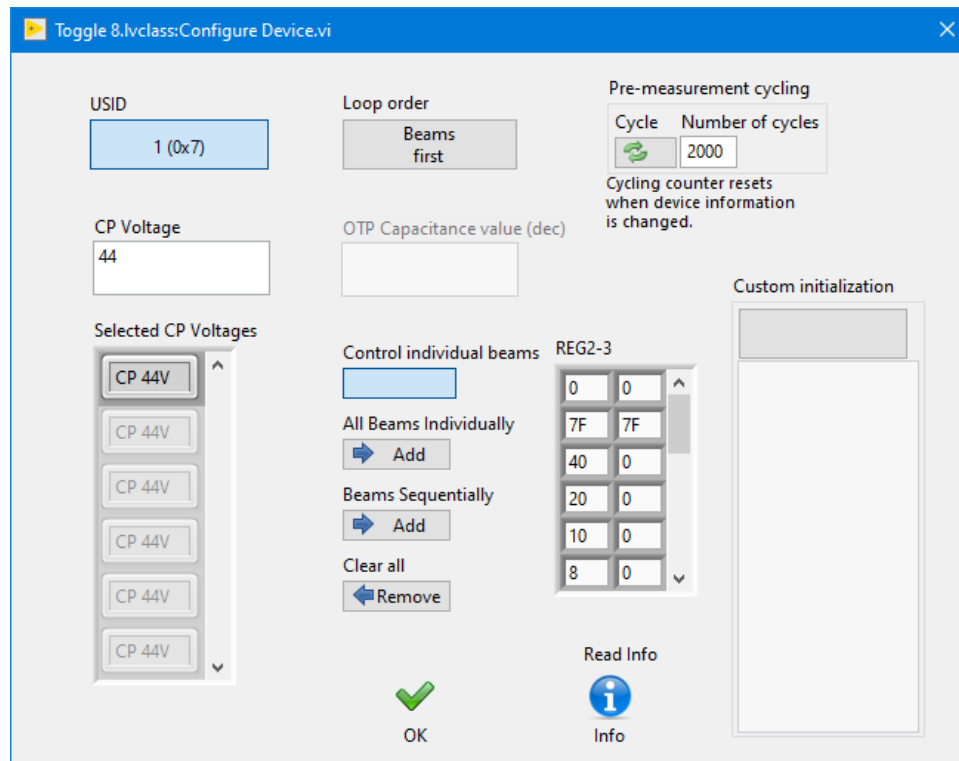
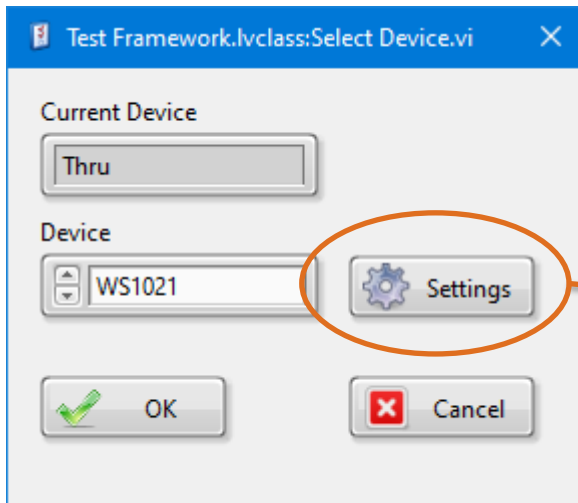
Automatic

PSU sweep mode

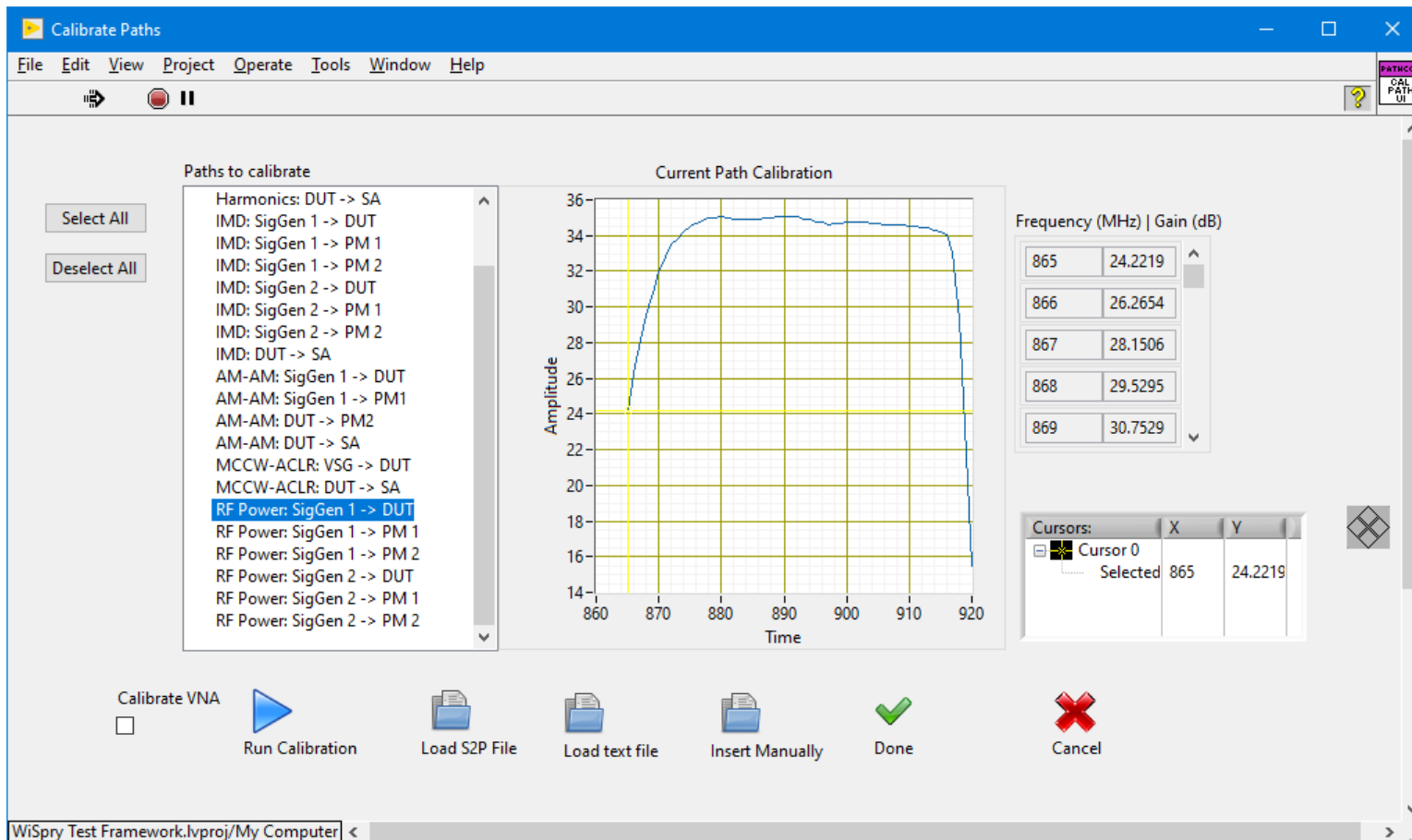
Nested loop

Turn off after measurement

2. Setup – 3. DUT control



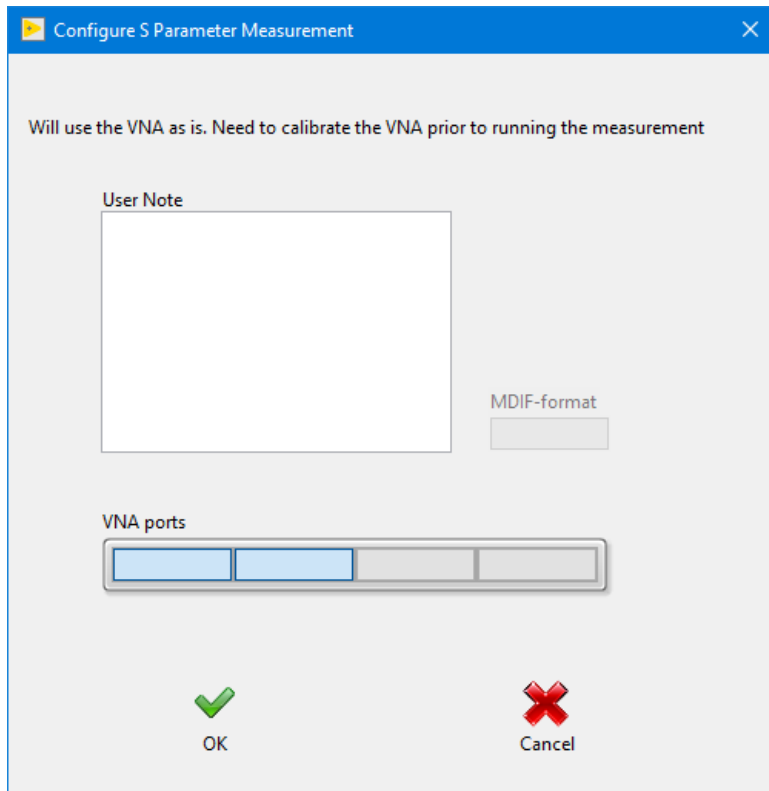
2. Setup – 4. Path calibration



2. Setup – 5. Measurement parameters

E.g. S-Parameters

Harmonics



Configure S Parameter Measurement

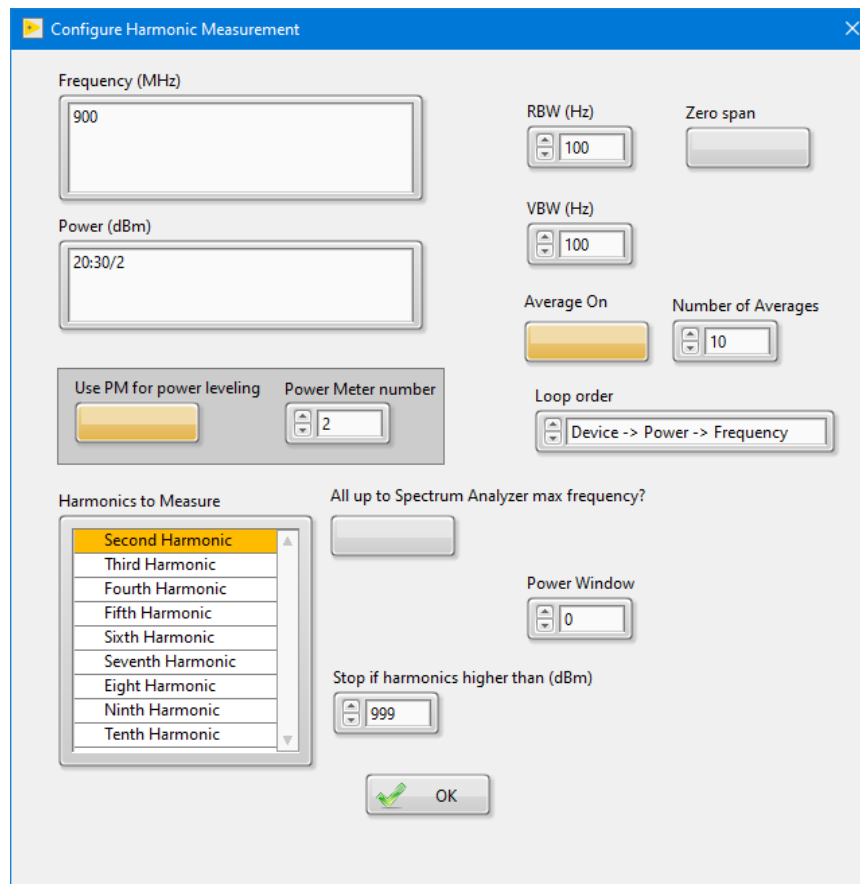
Will use the VNA as is. Need to calibrate the VNA prior to running the measurement

User Note

MDIF-format

VNA ports

OK Cancel



Configure Harmonic Measurement

Frequency (MHz)

Power (dBm)

RBW (Hz)

VBW (Hz)

Average On

Number of Averages

Loop order

Use PM for power leveling

Power Meter number

Harmonics to Measure

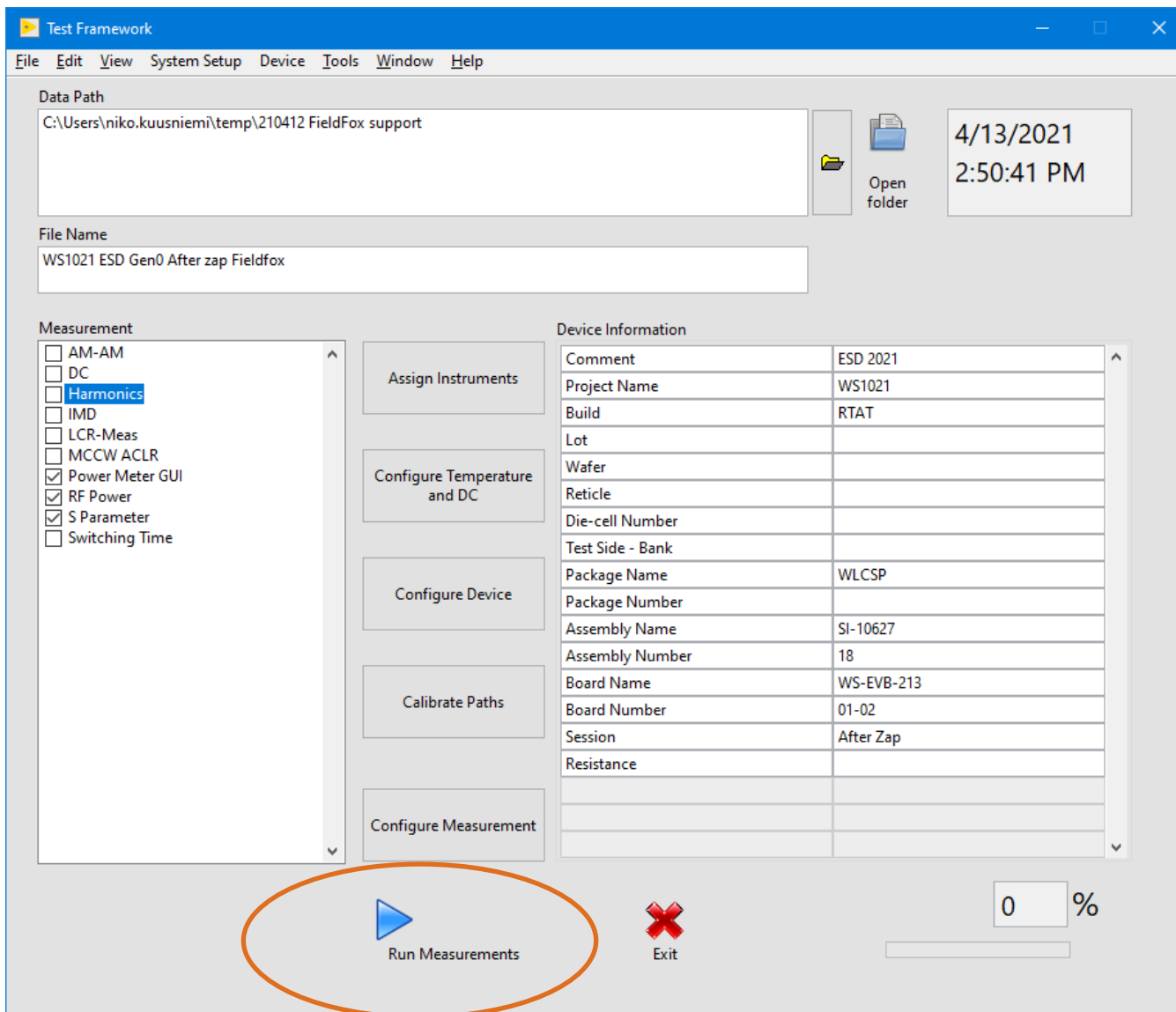
All up to Spectrum Analyzer max frequency?

Power Window

Stop if harmonics higher than (dBm)

OK

3. Running tests



4. Results and result handling

5. Tools

6. Troubleshooting

- Delete setup file
 - Exit the program
 - Delete setup file, TestFrameWork.xml
 - Located in “%APPDATA%\Wispry\TestFramework” -folder
 - Restart the program. It will now start with default settings.

Contact WiSpry, Inc.
www.wispry.com

