

RM-17 Certification using RS-703 with RS-940

1. Mount the RM-17-01 Socket Adaptor DUT to the RM-TS.
2. Insert the RD-TJ into the RM-17's socket jaws.
3. Connect the RD-TJ's current leads to the RD-23's current input ports.
4. Connect the Lemo connector from the RM-17 Handheld to the port on the RM-17 socket adaptor.
5. Connect the RM-TS auxiliary power cable to the auxiliary power connection on the RD-23.
6. Connect the auxiliary power cable to the auxiliary power connection on the RD-23. Do not plug into wall outlet at this time.
7. Use cable shorting adaptor and short the current output lead of the RS-733 connection panel.
8. Connect the voltage output cable from the RS-733 to the potential input of the RD-23.
9. Connect the RD-TJ's potential leads to the RD-23's potential input port.
10. Using a BNC Cable, connect the RD-23 BNC port 1 to the RS-940 BNC port 1.
11. Using an RJ-45 communications cable, connect the RD-23 RS-232 port to the RS-940 serial port one on the front panel.
(Note: The RD can be attached to any available port of the RS-940 as long as the serial port and RJ-45 communication port connections are matched on the front panel.)
12. Using a BNC cable, connect the RM-17 handheld's INPUT / OUTPUT port to the RS-940 BNC port 2.
13. Connect the RM-PCA communications adaptor serial connector to one of the serial ports on the back of the RS-940.
14. Connect the RM-PCA communications adaptor lemo connector to the RM-17's PRINTER / PCA port.
15. Plug in the auxiliary power cable.
16. Ensure that the RM-PCA communications adaptor's version selection switch is set to version 2.
17. Turn on the RM-PCA communications adaptor.
18. Turn on the RM-17 Handheld.

Test Procedure

1. From the RM-17 handheld's **main menu**, select 4 PREFERENCES.
2. From the **preferences menu**, select 1 PCA-Mode.
3. If not already on, use the key switch and turn on the RS703 system.
4. At power up, the RS-940 begins initializing itself and then continues to initialize the additional modules in the system. This process can take a few minutes.
5. Open the RS933 control software application.
6. Select the system tab and then the configuration tab.
7. Scroll down to System Connection. If not already entered, enter the IP address of the RS-940 Data Collection module.
8. Click the connect button. The word Disconnected should change to Connected and the system is ready to use. If the RS system has not completed its initialization process, the software will not be able to connect to the RS-940 and a prompt will appear. Try to connect again after a short while.
9. Once connected, select the tab Define Channels and then Channel Configuration.
10. Select refresh to have the RS-940 search for connected devices. All known serial attached devices will automatically populate on the Channel Configuration window. Figure 2 shows the devices as they were automatically added to the Channel Configuration window.

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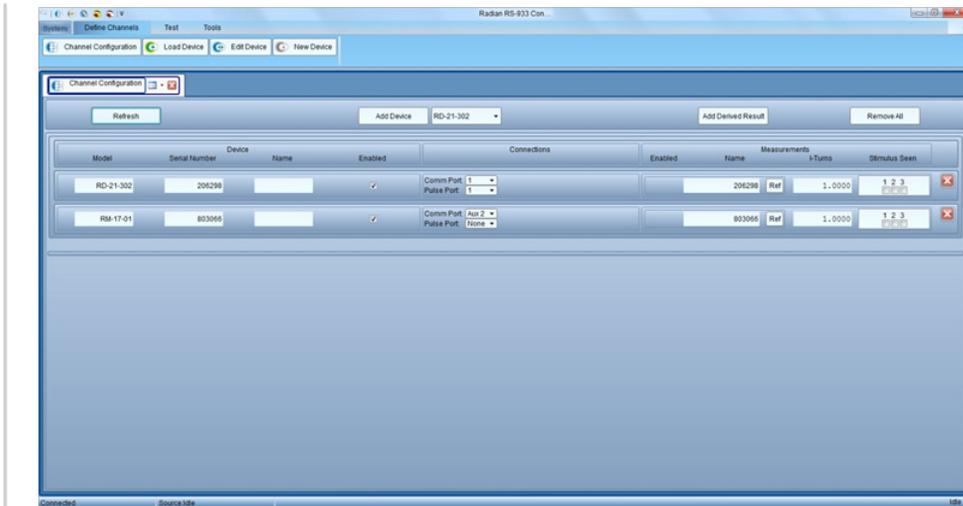


Figure 2:
Channel Configuration Window Automatically populated

11. In the connections section of the Channel Configuration, select the BNC pulse port that is connected to the BNC input/output port of the RM-17 hand held controller. In this example it is attached to port 2.
12. In the Measurements section, select 1 for both devices under the stimulus seen. This configures the software to use only the phase 1 signal source.
13. In the Measurements section, change the I-turns for the RD-23 to 2.0000.
14. In the Measurements section, select the Ref button next the Name of the RM-17. Below the name a dropdown box appears. Select Measured Value. See figure 3 for an example.

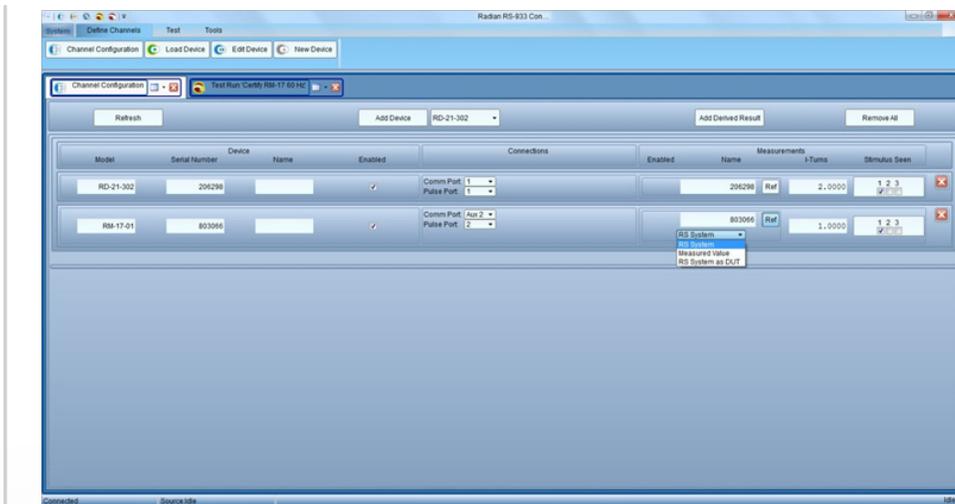


Figure 3

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- Under the Measured Value selection, another drop down box appears. Select the name/serial number of the RD-23 reference standard being used with this RM-17 under test. See Figure 4. The Channel Configuration is now complete for this test.

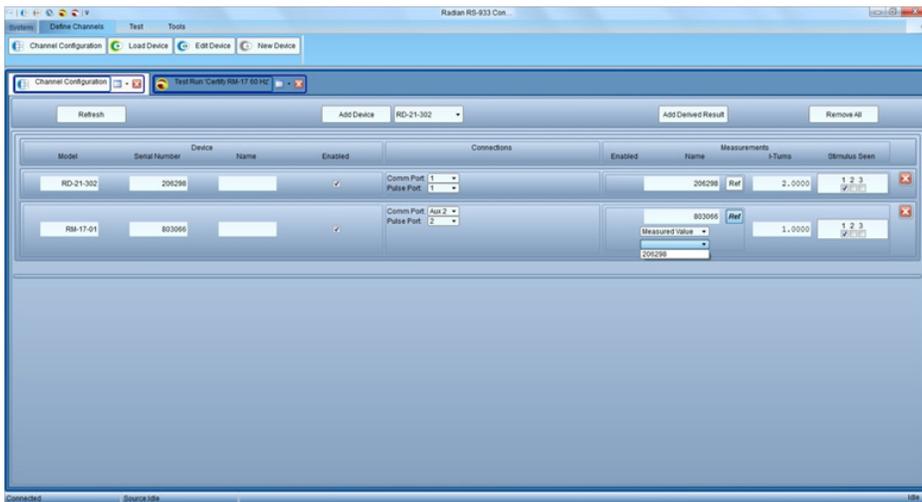


Figure 4

- Select the Test tab and then Load test. If not already there, browse to C:\Documents and Settings\All Users\Application Data\Radian Research\RS-933 Control Application\Tests and load the test Certify RM-17 60 Hz.tst. See figure 5.

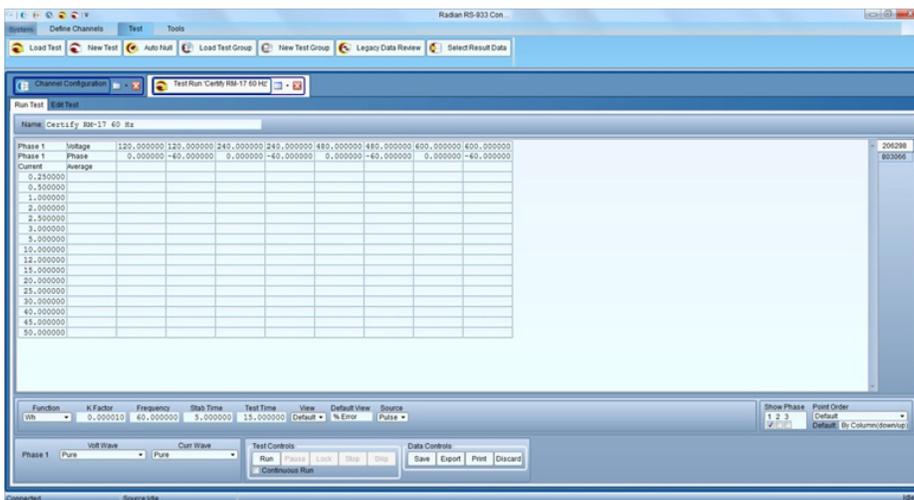


Figure 5:
Certify RM-17
60Hz test sheet

- On the right hand side the Name of each device from the channel table appears. Since we did not enter a Name for the devices, by default the software uses the serial number of the device.
- Select Run to run the test.

Limited resources or need a solution quickly?

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