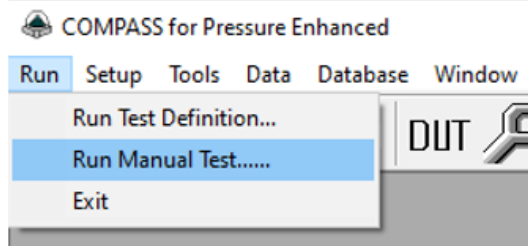


How to Run a Manual Test with Data Acquisition

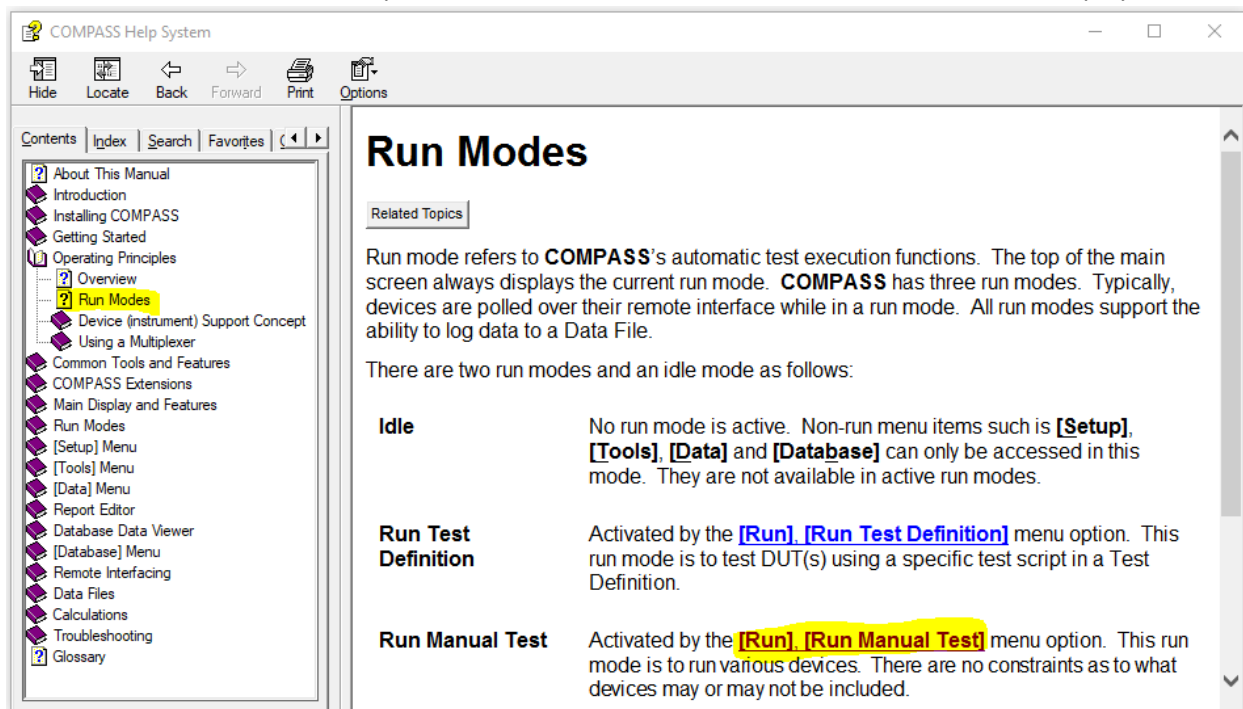
03 December 2021

M. Daniels

COMPASS for Pressure is an excellent tool for automating pressure calibration tests and enabling automated data acquisition. It is also a great tool for simply collecting data from a device – without running a test definition. Any device that is defined in COMPASS as either a Support Device, DUT, or Piston Gauge can be used in a non-test definition run mode. Data collection tools can be enabled to remotely acquire data from the device(s). This mode is known as “Run Manual Test”.



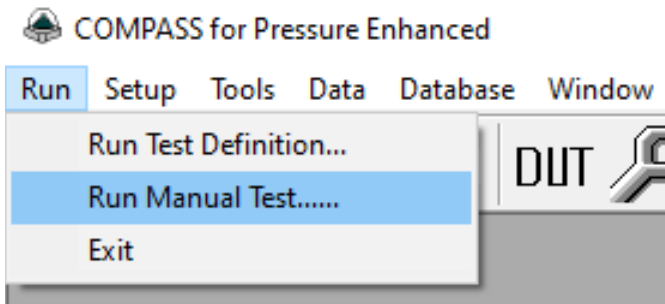
For more information on this topic, search for “Run Modes” from within the COMPASS Help System:



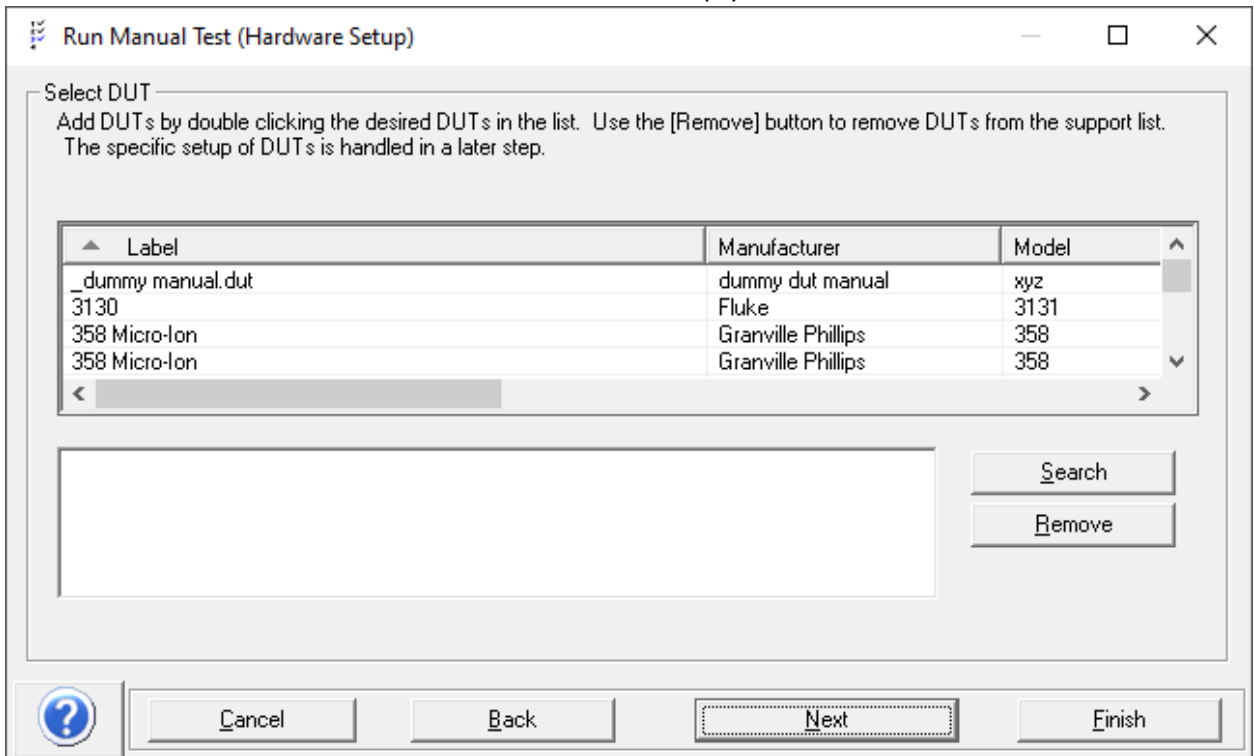
Example: How to collect data from a PMM in a 6270A:

In this example I have a 6270A defined as a Support Device and it has four PMMs (Pressure Measuring Module) installed it. I want to log data from a specific PMM for an extended period of time and I want it logged to a data file.

1. Select Run Manual Test...



2. Select the Unit of Measure and select the “Clear Previous Selections” button.
3. I do not want to use a DUT so this selection will remain empty.



4. Select the 6270A as both the Reference Pressure and Test Pressure Control device:

Run Manual Test (Hardware Setup)

Configure Device (1 / 1) 6270A Tech Support

Manufacturer: Fluke Calibration
Model: 6270A
Serial Number: 0
Identification:

Customer ID:
RS232 Settings: COM10:9600,N,8,1
Parameter ID:
Load Settings

Reference Pressure Output Label: RPT Measurement
Customize Output

Min (inHg): 0.000
Max (inHg): 590.601
Measurement Mode: Absolute
6270A Ranges: 3) PM500-BG2M SN:44570002
Enable Auto Zero:

Head Height: 0.0 mm
Medium: N2

? Cancel Back Next Finish

5. Configure the 6270A to select the desired PMM to be used:

Run Manual Test (Hardware Setup)

Configure Device (1 / 1) 6270A Tech Support

Manufacturer: Fluke Calibration
Model: 6270A
Serial Number: 0
Identification:

Customer ID:
RS232 Settings: COM10:9600,N,8,1
Parameter ID:
Load Settings

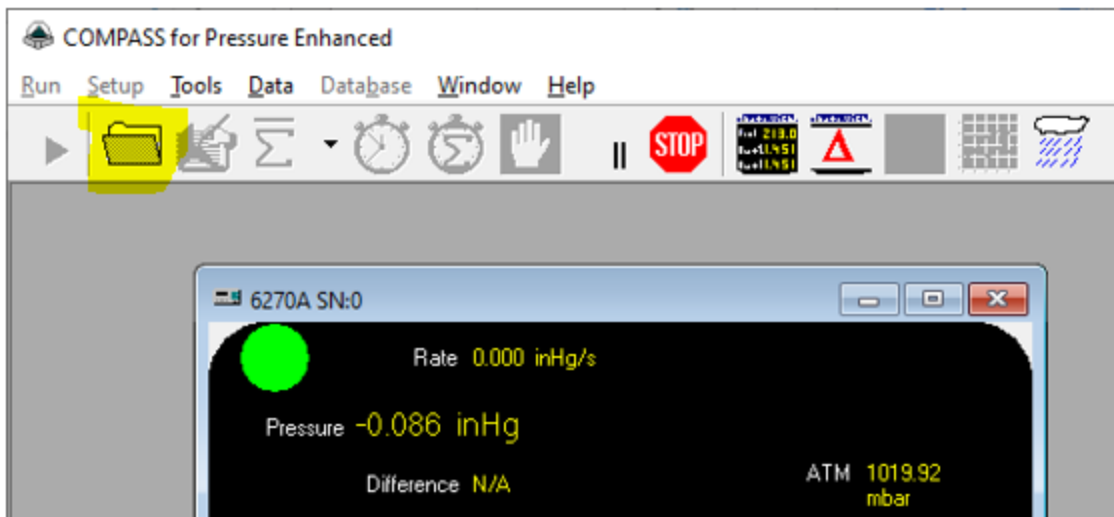
Reference Pressure Output Label: RPT Measurement
Customize Output

Min (inHg): 0.000
Max (inHg): 590.601
Measurement Mode: Absolute
6270A Ranges: 3) PM500-BG2M SN:44570002
Enable Auto Zero:

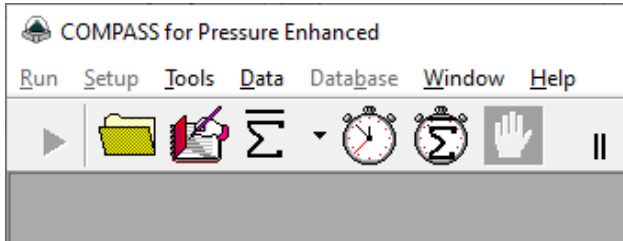
Head Height: 0.0 mm
Medium: N2

? Cancel Back Next Finish

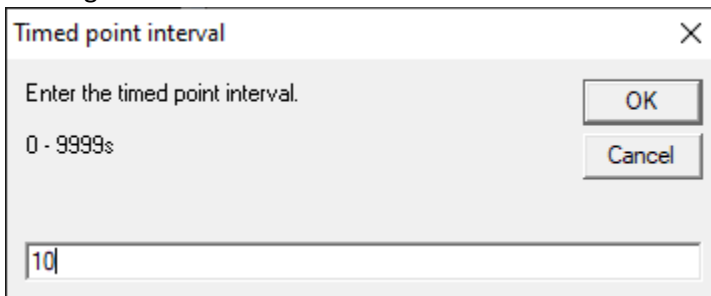
6. Click "Finish" for the Run Manual Test selections and this launches the main COMPASS run window. In this mode COMPASS is active but the data logging tools remain disabled. Click on the "file folder" button to enable the logging tools:



7. The data logging tools are now enabled in the toolbar:



8. The “Stopwatch” button allows for collecting data at timed intervals. Clicking the button opens a dialog box to define the time interval:



9. The data file path is shown in the top of the data grid screen:

C:\DHI\COMPASS for Pressure\Data\20211203_000.dat

| Point | Reference Min Pressure (inHg) | Reference Max Pressure (inHg) | Reference StnDev Pressure (inHg) | Reference Samples | Refere |
|-------|-------------------------------|-------------------------------|----------------------------------|-------------------|--------|
| 1 | 30.138 | 30.138 | | 1 | |
| 2 | 30.138 | 30.138 | | 1 | |
| 3 | 30.137 | 30.137 | | 1 | |

Manual Test Auto Point 1s

Conclusion: The above steps provide an example for collecting data from a 6270A at a recurring 10 second interval. The data collection will continue until the Abort Active Point (“hand” button) is clicked or the test is stopped. There are other data collection tools available such as the single point log, an averaging option, and an averaging option on a recurring basis.