Data Acquisition in Labview with NI-DAQ

Presented by

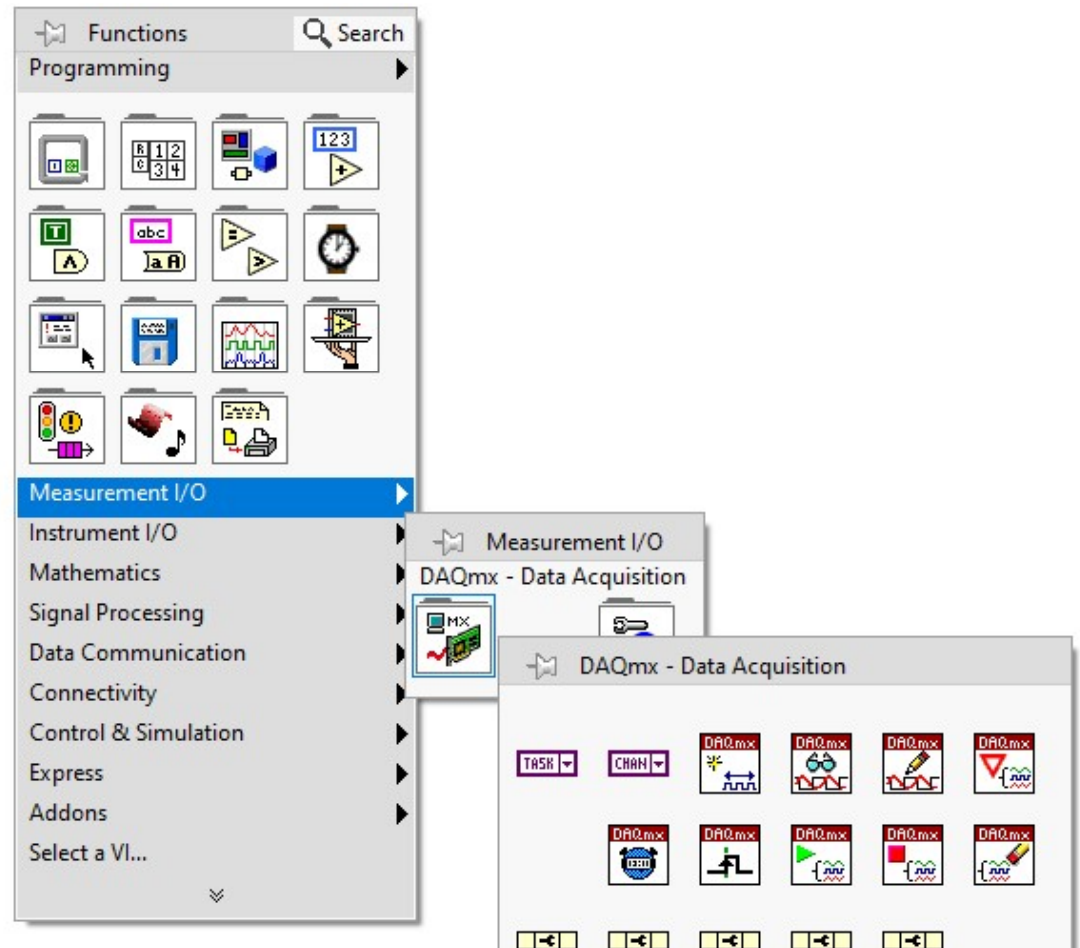Dr. Ayad Jasim Mohammed

Motivations

- Data Acquisition
- Use Labview built in Signal Processing Tool to process the acquired signal
-

What do we Need ?

- Software

  - Install Labview

  - Install NI-DAQmx

- Hardware

  – NI DAQ (NI usb DAQ 6009)

NI-DAQmx Toolbox

- Labview- function

- Measurment I/O

- DAQmx Data Acqui.
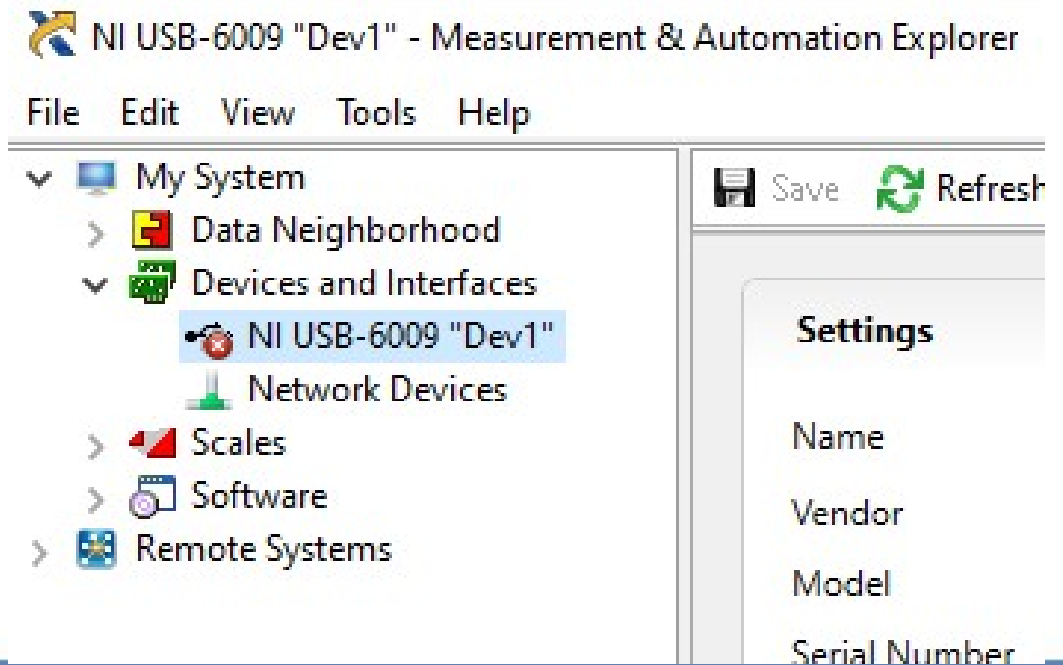
Hardware : NI USB 6009

- Low-Cost USB Data Acquisition
  - 8 Analog Input, 2 Analog Output
  - 12 Digital Lines
  - 1 Counter
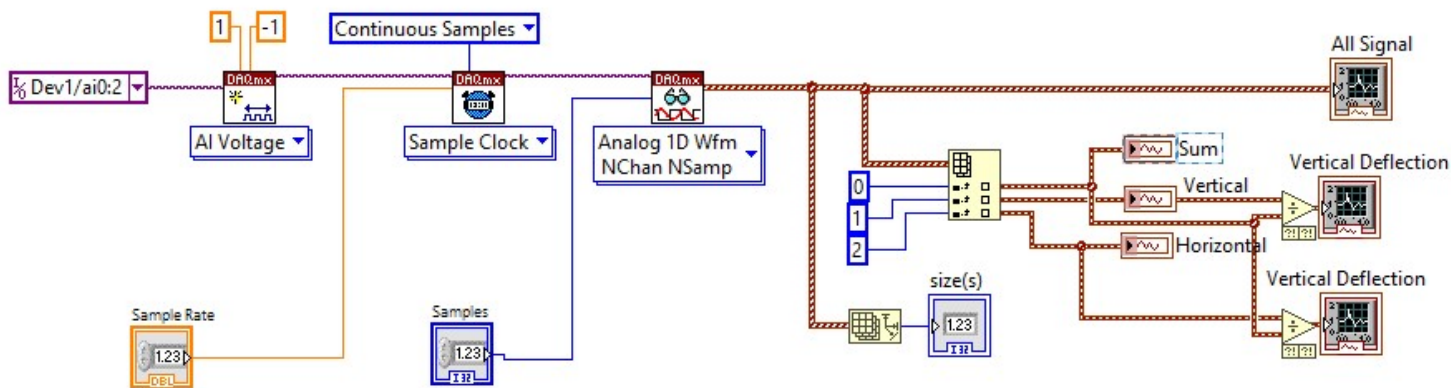 - 48 kS/s at 14-bit resolution

What is MAX?

- MAX stands for Measurement & Automation Explorer.

- MAX configures and organizes all your National Instruments DAQ, PCI/PXI instruments, GPIB, IMAQ, IVI, Motion, VISA, and VXI devices.

- Used for configuring and testing devices.

Icon Found on

Windows Desktop

Measurement & Automation

NI USB-6009 "Dev1" - Measurement & Automation Explorer

File Edit View Tools Help

- My System
  - Data Neighborhood
  - Devices and Interfaces
    - NI USB-6009 "Dev1"
    - Network Devices
  - Scales
  - Software
  - Remote Systems

Save   Refresh

Settings

Name

Vendor

Model

Serial Number

Example

- **Sensor** *Signal captured by* **NI DAQ USB 6009 and** *processed through* **Labview 2018**

  -Sample rate *1000 Samples/sec*

- **Data Acquisition in Labview**

- *- NI DAQ USB-6009*

Questions?