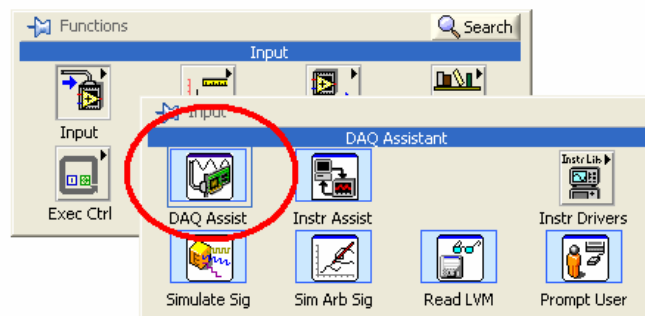


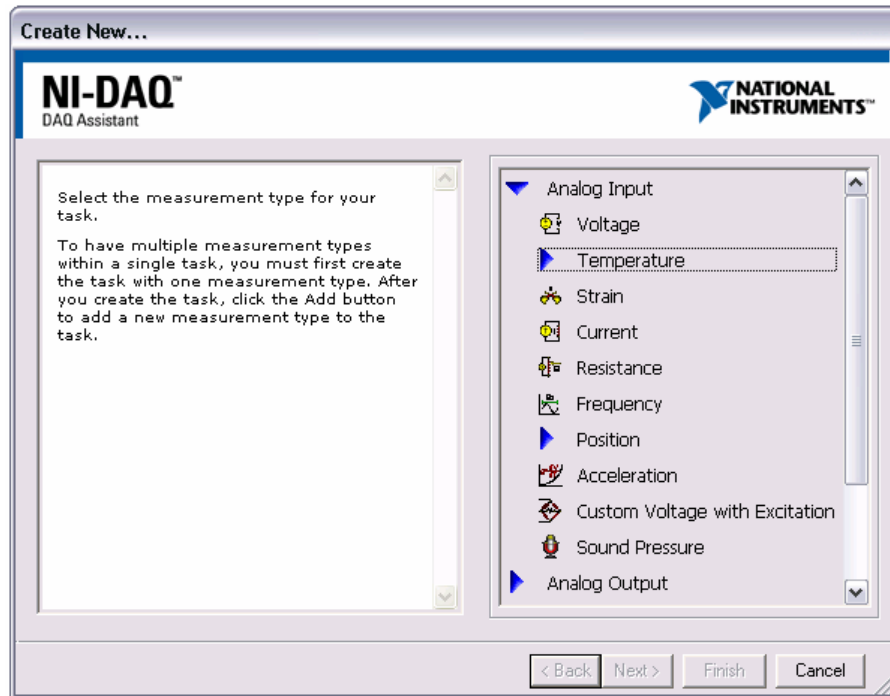
Step-by-Step Data Acquisition Part II Exercise 1: Measuring Temperature with Thermocouples

In this exercise, you configure and measure a thermocouple in LabVIEW using the DAQ Assistant. With the DAQ Assistant, no programming is required for data acquisition tasks.

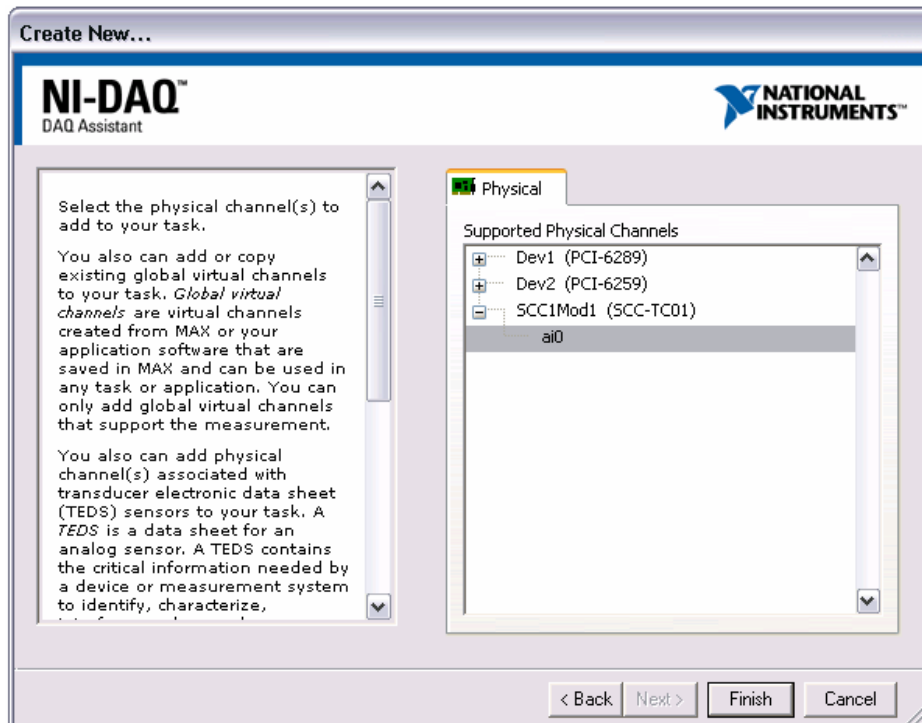
1. Visit <http://ni.com/trylabview> and click on the **Try LabVIEW Online** link to access the LabVIEW Online Evaluation. Once your browser has been tested, click Continue and you will be directed to the remote desktop.
2. If you have just logged on to the LabVIEW Online Evaluation, you will first need to configure your measurement system. Refer to Part I, Exercise 1 Configuring a DAQ System in Measurement & Automation Explorer (MAX).
3. Launch LabVIEW from the desktop.
4. Click **New** to start a new program. At the next splash screen, select **Blank VI** and click **OK**.
5. Press <Ctrl-E> to switch to the LabVIEW Block Diagram.
6. Pull up the **Functions** Palette by right-clicking on white space in the LabVIEW Block Diagram.
7. Move your mouse over the **Input** palette, and click the DAQ Assist Express VI. Click again on the white space of the LabVIEW Block Diagram to place the DAQ Assistant VI.



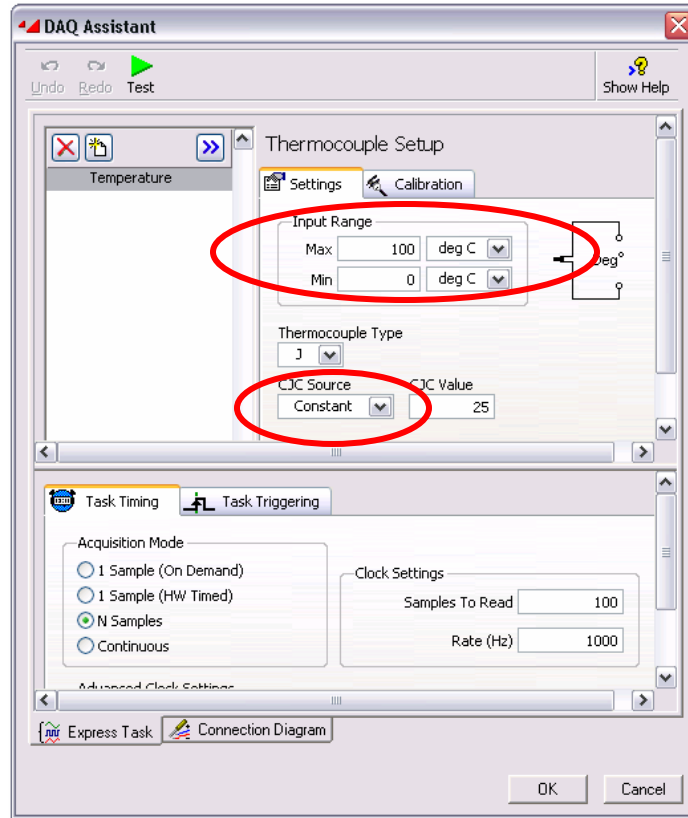
The following screen should appear.



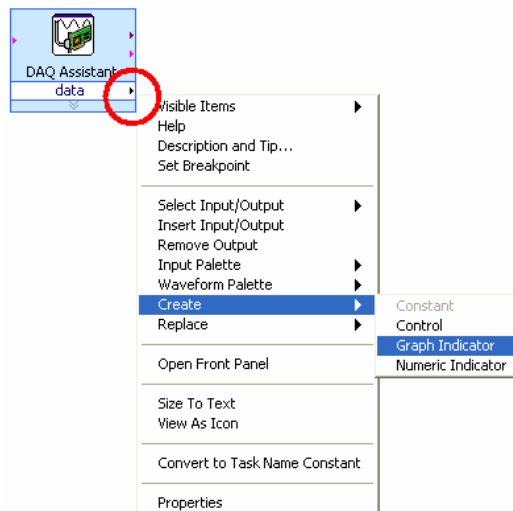
8. To configure a thermocouple measurement, click the **Analog Input** button. In the following screens, click the **Temperature** button and then the **Thermocouple** button. Click the + sign next to the SCC1Mod1 (SCC-TC01), highlight channel **ai0**, and click the **Finish** button.



- In the next window, set the **Input Range** from 0 to 100 °F. Set the CJC Source to **Built-in** and click the **OK** button.



- Right-click the **data** terminal of the DAQ Assistant Express VI (the blue output arrow on the right side) and select **Create»Graph Indicator**.



- Press <Ctrl-E> to toggle to the Front Panel of the VI. Notice the graph. This was created from the Block Diagram when you selected to create a graph indicator.

12. Click the white **Run** arrow in the upper left-hand corner of the Front Panel to run the VI. Verify the thermocouple measurement on the temperature graph.

Note: The LabVIEW task you created was configured to sample 100 points in 0.1 seconds.

13. Close the VI.

End of Part II Exercise 1