Two-Channel General-Purpose Data Acquisition Program User Manual

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About

   This program is a general-purpose data acquisition virtual instrument (VI) capable of obtaining two channels of analog voltage data. Its features include the scaling, display, and storing of data to a text file. The program consists of two windows, the front panel and block diagram. Upon opening of the VI, the immediate view is the front panel which consists of the user interface that the user operates for general data acquisition. You must use this panel to run the program.
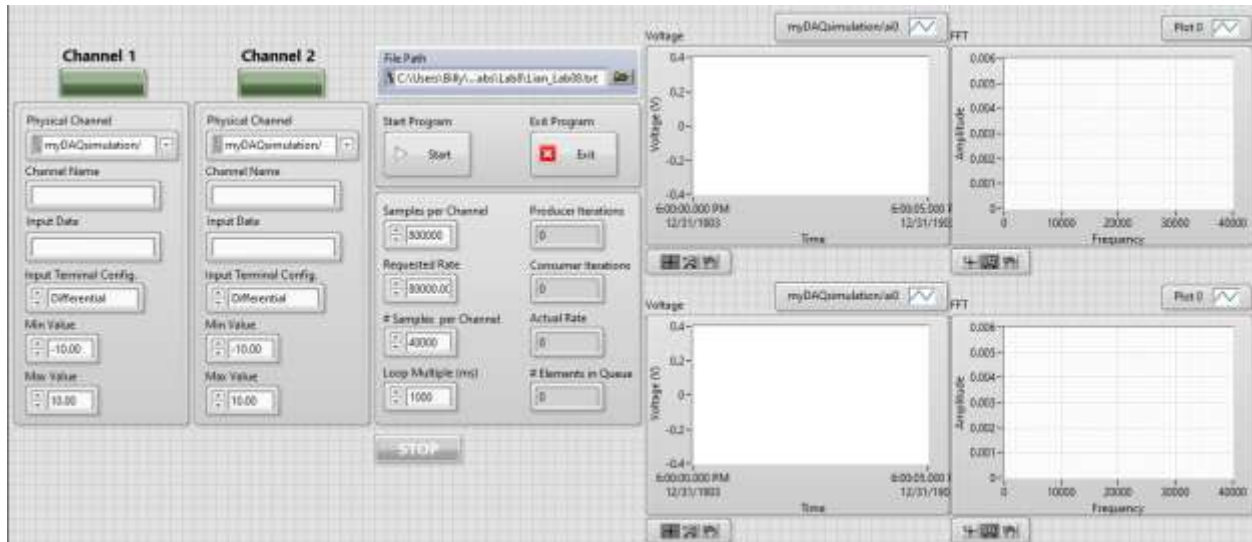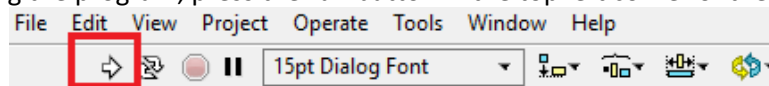

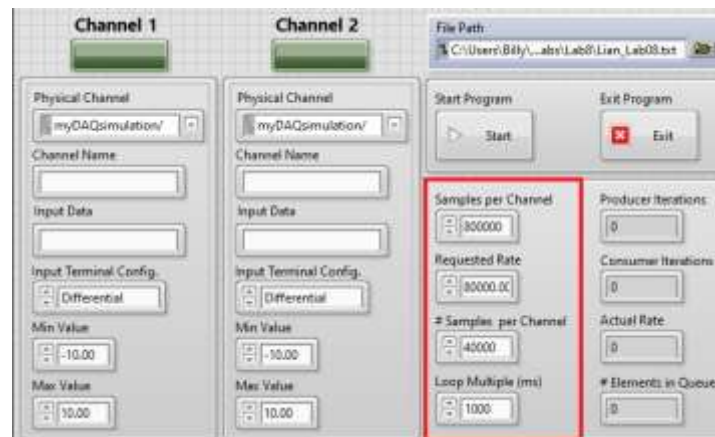*Figure 1. Sample front panel view*

Instructions

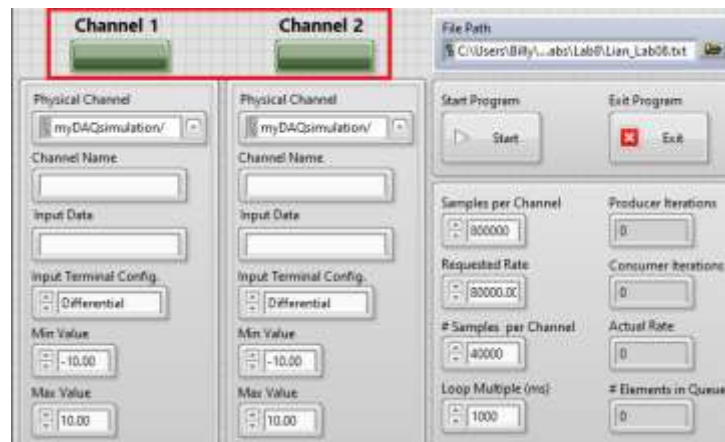1. To begin running the program, press the run button in the top left corner of the front panel.

2. Input information and parameters for desired channels in the channel settings blocks.
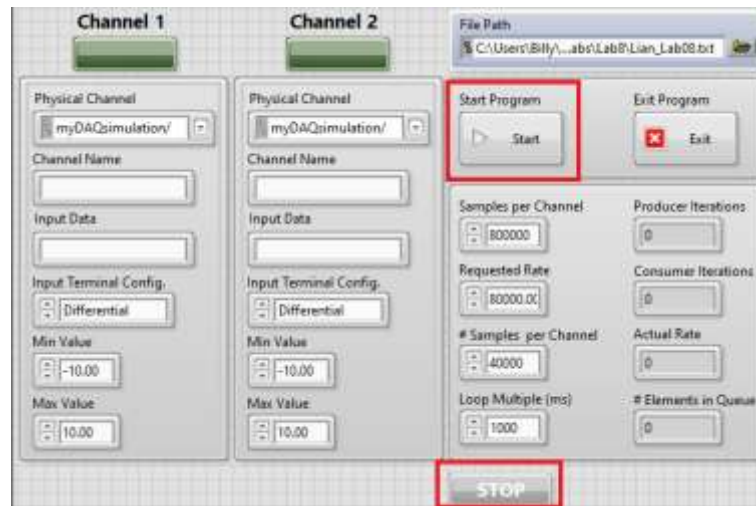
a. Select the physical channels from which to acquire data. Note that they will be from the same DAQ device.

b. Enter the channel name. This will be header for different channels of data in requested text files of recorded data.

c. Enter the input data. This will be the name of the data in each chart and will be reflected in the upper right corner of each graph.

d. Select the correct configuration for your setup.

e. Carefully set the correct maximum and minimum value of voltage for your DAQ device. Check with the user manual of your device for specs.

f. Repeat for multiple channels of acquisition accordingly.

3. Assign the appropriate values for buffer size, sampling rate, acquisition rate, and loop multiple in the bottom right corner. Use caution as the wrong settings will result in data loss or errors.
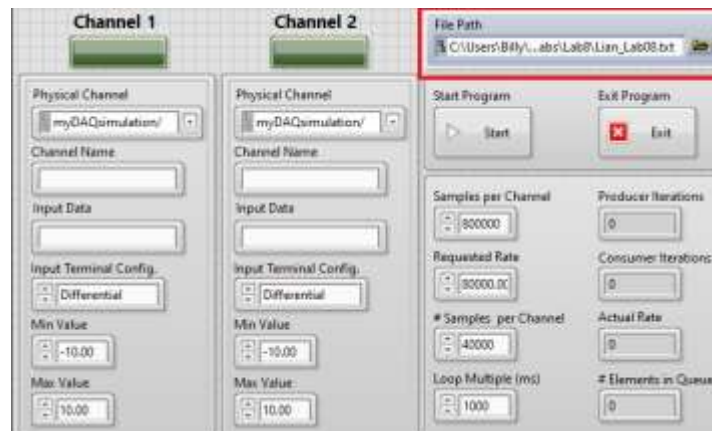

4. Enable the LED above each channel settings blocks to enable acquisition of the respective channels.

5. To begin acquisition, press the Start Program button in the upper right corner. To quit your run of acquisition, press the stop button.

6. If you wish to manually save your data, select the correct file path and click the folder icon in the top right corner.

7. Finally, to quit the program, select the Exit Program next to the Start Program.