

ME 104
Pre-lab 3
(Rev 2009)

Build the following VIs prior to this lab:

1. **yourname_lab3_1Channel.vi**

Write a VI to acquire and display a voltage signal (hint: refer to DAQ exercise from Lab 1). Your VI should contain the following functions and features:

- a. Acquire analog voltage from Analog Input Channel 0, using Referenced Single-Ended (RSE) terminal configuration.
- b. Acquire analog voltage until stopped by the user
- c. Acquire analog voltage at a sampling frequency specified by the user. Set the sampling rate to 20 Hz. (NOTE: **yourname_lab1_DAQ.vi** asks the user to specify a Delay Time. Modify the VI such that the user specifies a sampling frequency instead.)
- d. Display the acquired voltage on a chart as well as on a digital indicator.
- e. Track errors and indicate if an error occurs.

Also, modify your VI as specified below

- a. Set the input voltage range (maximum and minimum voltages) to +/- 10 V.
- b. Change the Waveform Chart label to "Analog Input Chart".
- c. Change the digital indicator label to "Analog Input Value," set to 3 Digits of Precision.
- d. Save VI as **yourname_lab3_1Channel.vi**