Experiment 3

myDAQ Programming

Objectives

In this experiment students will familiarize themselves with the data acquisition and signal generation capabilities of MyDAQ

Material Required

Laptop with LabView installed.
myDAQ

Files Provided

Battery Meter.ctl

Prelab

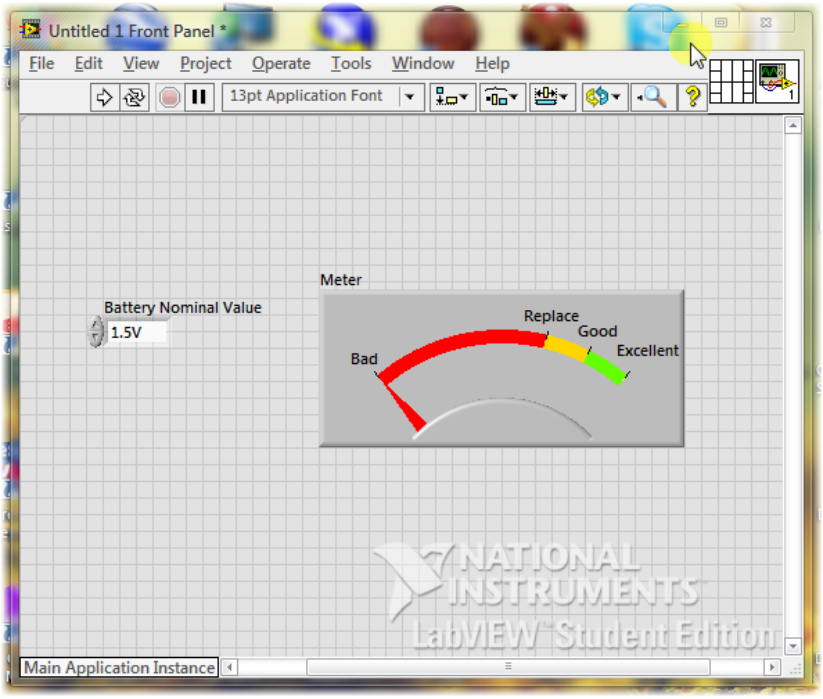
The following must be completed before the Lab session:

Go to the website https://decibel.ni.com/content/docs/DOC-11624 Go over Unit 4 - DAQ: Lesson 1.

Then go over the measuring voltage tutorial in http://zone.ni.com/devzone/cda/epd/p/id/6436

Lab

Part I



Write a battery tester program using LabView and myDAQ as an acquisition device. The battery tester should work for three nominal values of batteries: 1.5V, 6V and 9V. The batteries are considered dead for voltage values 20% or under the nominal. Between 20% and the nominal value the batteries are in a warning area, and for values above the nominal the batteries are OK. Your interface should be similar to the one shown above. A custom control accepting inputs from 0 to 120 has been created under the name **Battery Meter.ctl**

Part II

Use the LabView program that you wrote in Experiment 2 to generate a 50% duty cycle square wave signal. Output your signal through one of the myDAQ's analog channels and read the signal using the myDAQ oscilloscope function to verify the generated signal. Print two examples using the scopes automatic measurements.