

LAB Assignment #1 for CMPE 650

Assigned: Fri., Feb. 8th

Due: Fri., Feb. 15th

Description: Write a LABVIEW VI to set horizontal and trigger parameters on the TDS 3054B Oscilloscope and read and display a waveform using LABVIEW.

Connect the oscilloscope to the GPIB port on the computer using a GPIB cable. Set up the signal generator to drive a SINE wave at 1 MHz and 1 V amplitude on channel 1 of the scope. Set the trigger channel manually to channel 1. I have the 3054B PROGRAMMING manual on my webpage. You'll need this to get the correct syntax for the commands. You can also retrieve a copy from <http://www.tek.com>, e.g.,

http://www.tek.com/site/mn/mnfinder_detail/1,1096,,00.html?id=2137&pn=071038102

Several useful commands for the oscilloscope are:

- HORIZONTAL SCALE
- TRIGGER A LEVEL

This lab gives you the opportunity to explore LABVIEW while doing something meaningful with the test and measurement equipment.

Laboratory Requirements:

- 1) NO laboratory report is necessary for this lab.
- 2) Be prepared to do a live demo of your code.

Grading:

70% Correctness

20% Neatness

10% Comments

THE LABS ARE INDIVIDUAL EFFORTS: INSTANCES OF CHEATING WILL RESULT IN A FAILING GRADE FOR THE LABORATORY AND COURSE.