TRANSFER VI

The Virtual Instrument (VI) as currently set-up is a basic device that will plot one voltage input vs. another, and output those data points to a file that can be read by MS Excel.

In order to set up the vi to read, you will have to be familiar with the Screw Terminal Panels (the green cards attached to all the computers). Three of the connectors are of particular interest: Pin 17 (or 18), Pin 32, and Pin 33.

Pins 17 and 18 are analog ground.

Pin 33 is the connector for channel 00.

Pin 32 is the connector for channel 01.

As you may want to add further channels to the vi as the semester goes along, the remaining channels are set up as shown in figure 1.
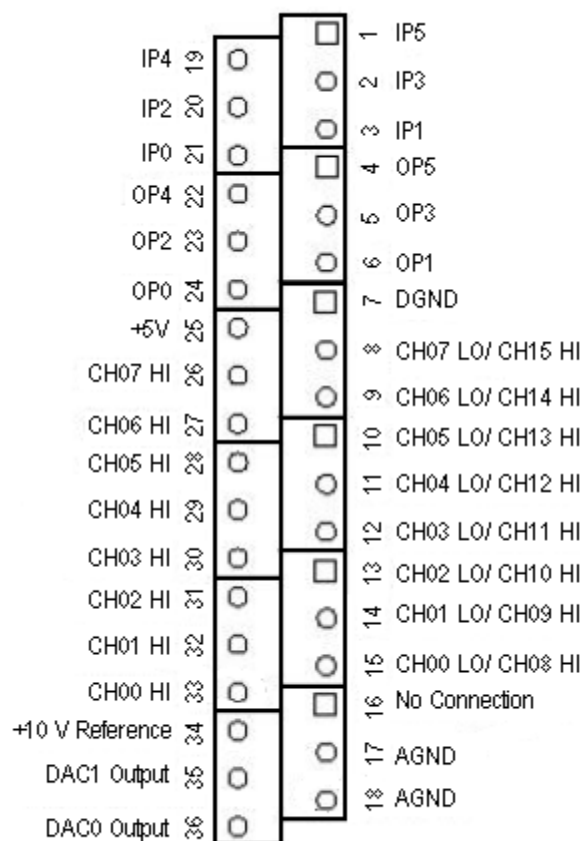

Figure 1.

Currently, the vi is set up to read channel 00 as the x value and channel 01 as the y value. The channel 00 values will be in the first column of the spreadsheet, and channel 01 values in the second.

RUNNING THE VI

To run the vi, open it in LabView and press the *on* arrow key in the toolbar. The vi will the collect data until you press the stop button in the vi itself. **None of the data will be displayed until you press the stop button.**

Once the stop button is pressed, the data will be displayed and you will be asked for a file name to store the collected data.

EXTRA STUFF

This is a very generic system. Feel free to add to it as you see fit.

One example would be adding a spot to enter resistance values and use those values to compute the current from the measured voltage.

WARNINGS

Don't input more than ±10 volts into the terminal card. This is beyond the range that the Keithley DAQ card can handle, and will cause damage to it.