

## **48x7 LabVIEW Library Instruction Notes**

### **Introduction**

This Readme file describes the functions of the VIs included in the 48x7 LabVIEW Driver Library. They are designed to be incorporated into your program to control an ICS 48x7 GPIB Data Acquisition and Control Board Assembly or Module. The 48x7 LabVIEW Driver Library is generated in LabView revision 5.1.

### **Supplied VIs**

The library contains the following Top Level Editable VIs:

DACDemo.vi	Controls DAC channels 1 and 2. ADC readback of channels 1 and 2 with a graphical displays.
DACDemo2.vi	Controls a selected DAC output and displays ADC readback on a graphical display. Checks readback against upper and lower limits.
Demo_Byte2_Digin.vi	Makes byte 2 all inputs and shows status of lines CH9 to 16.
DigitalDriver_Demo.vi	Turns relay drivers On and Off. The DigitalDriver_Demo.vi uses only the IDN subVI. The controls for all 6 driver channels are contained individually on the wiring diagram. The user can edit this file very easily.
Driver_Demo_New.vi	Turns relay drivers On and Off. The Driver_Demo_New.vi contains two subVIs:IDN.vi and Driver6.vi. This format creates the most compact (read:cleanest) wiring diagram. Otherwise it is the same as the previous DigitalDriver_Demo.vi and can be easily edited by the user.
Temp_Demo.vi	Reads and displays temperature channel readings.
IDN.vi	Reads IDN message from an IEEE-488.2 compatible GPIB device.

The library contains the following Sub-VIs:

ADC_Read.vi	Reads an ADC channel
DAC_1.vi	Outputs to DAC 1
DAC_2.vi	Outputs to DAC 2

Driver6.vi	Driver6 is a subVI that allows you to access all 6 digital driver channels from 1 subVI. Its control inputs are Error In, GPIB address, and the front panel On/Off switch connections. The On/Off switches can be any of LabView's front panel binary switches. It outputs the IDN message and the Error Out indicator. This subVI can serve as a stand alone VI because it contains the IDN subVI.
DriverChan.vi	The DriverChan subVI has as control inputs: Error In, GPIB ADDR, Channel, and On/Off Switch. It outputs only the Error Out indicator. The channel control can be a thumb wheel selector (1 -6) or a single numerical channel number. The On/Off switch can be any of LabView's front panel binary switches. This subVI can not operate without first performing the IDN initialization function somewhere in your routine. But if you only need to control one driver output stage this is the one to use. It can be reused anytime for single channel control; just add the channel number and the state toggle switch.
1CS4861Wait.vi	Used after every GPIB call to add a slight delay

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