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K-1ChannelOscilloscope5x.vi : a LabVIEW ver 5 example program
1ch scope acquire & update 1.vi : sub VI in LabVIEW 5.0 format used by K-1ChanelOscilloscope5x.vi

K-1ChannelOscilloscope6x.vi : a LabVIEW ver 6 example program
1ch scope acquire & update 2.vi : sub VI in LabVIEW 6.0 format used by K-1ChanelOscilloscope6x.vi

Hardware Requirements:

An analog input board capable of Interrupt or DMA mode acquisition, DriverLINX driver

Use Considerations:

The requested timebase setting used for graphing is also used to program the analog input board's sample rate. A complete display frame is 500 samples. Therefore, each of the 10 time divisions represents 50 samples (data points). So, if you have requested 500 us per division, the 50 data points within that division equates to a sample rate of 100,000 samples a second ($1/500\text{usec} * 50 = 100 \text{ KHz}$).

For example, if you have a KPCI-3108 Series card and attempt to run this example, you will be limited to a timebase no faster than 500 us since the board can not sample faster than 100 KHz. If you request a timebase faster than your hardware supports, the VI will generate the following error:

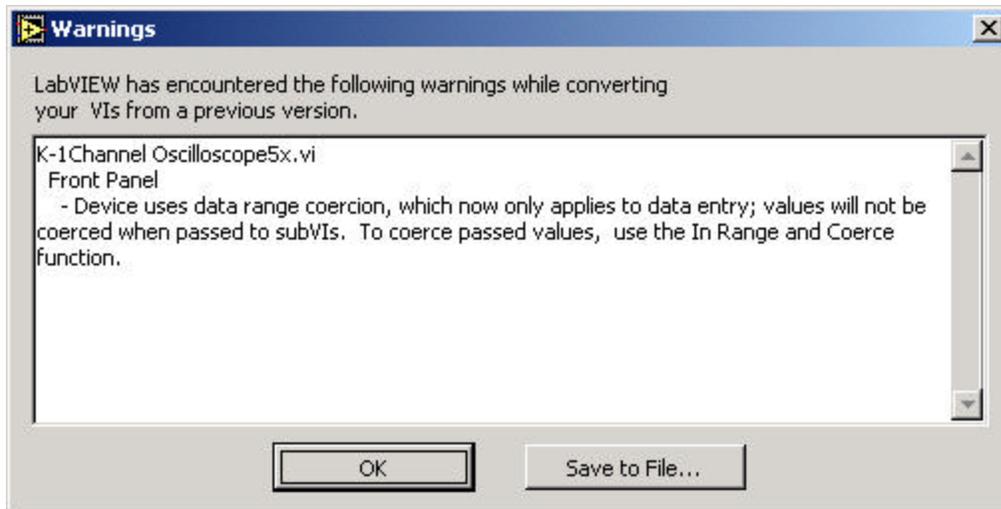


If your application requires a faster sample rate, Keithley offers other KPCI cards. For example, 200 us timebase would require a card (KPCI-3116) that could sample at 250,000 samples per second; while 50 us timebase would require a card (KPCI-3110) that could sample at 1 million samples per second.

The other noticeable features are:

1. the signal "Polarity" option for Unipolar or Bipolar selection will only work with Volts per div set lower than 2 Volts. At higher Volt per div settings, the Polarity button has no effect and the board is operated in bipolar mode
2. the example defaults to Channel 0 of your data acquisition card
3. the device number is set to 1 and requires this LabVIEW device number assignment in the DriverLINX Configuration Panel (LabVIEW tab) for your installed DriverLINX device

If you open the 5.x version of the example in LabVIEW 6.x, the following error will result:



Therefore, a customized version 6.x example has been provided. If you still have a need for more information on the above topic, National Instruments' web site has two relevant documents (Document ID 202G75XC and 203FKJXC) that cover available workarounds for version related LabVIEW issues.

Please Note: This example program was developed and tested by a Keithley Applications Engineer for technical support purposes. This code may not be completely tested and verified with each new revision of LabVIEW and DriverLINX software drivers.