# DAQ PCI Board Install Guide

**PCI-766; PCI-800 Series; PCI-703 Series; PCI-773; PCI-14B/C**

**www.eagledaq.com**
**www.waveview.co.za**

**For your record:**

**Board Model Nr:** _____
**Board Serial Nr:** _____
**Date of Purchase:** _____

## Contact Details

**Eagle Technology**
**Email:** eagle@eagle.co.za
**Web:** www.eagledaq.com
**Tel:** +27 21 423 4943
**Fax:** +27 21 424 4637
**Address:** 31-35 Hout Street, Cape Town, 8001, South Africa

# Contents



## 1. General

The DAQ PCI Quick Install Guide describes how to install your DAQ hardware and software. Our PCI boards are Windows 98 and up compatible. For any other queries or if you have any difficulty visit our website **www.eagledaq.com** or email us at **eagle@eagle.co.za**

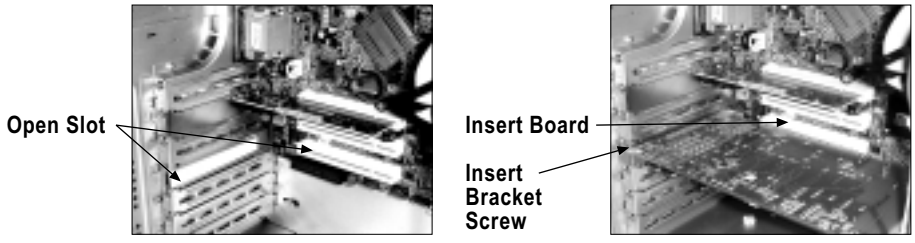
## 2. Hardware Installation

**Installation**
Follow these steps to install your PCI board into your computer.

**1.** Switch off the computer and disconnect from power socket.

**WARNING : Failure to disconnect all power cables could result in hazardous conditions, as there may be dangerous voltage levels present in externally connected cables.**

**2.** Remove the cover of the PC.
**3.** Choose any open PCI slot and insert PCI board.
**4.** Insert bracket screw and ensure that the board sits firmly in the PCI socket.
**5.** Replace the cover of the PC.
**6.** Reconnect all power cables and switch the power on.
**7.** The hardware installation is now complete.



# 3. Software Installation

### Windows 98/2000/ME

Installing the Windows 98/2000/ME device driver is a very straightforward task. Because it is plug and play, Windows will auto detect the PCI board as soon as it is installed and the computer is switched on. No setup is necessary. You only have to supply Windows with a device driver.

**Wait until Windows detects the new hardware**

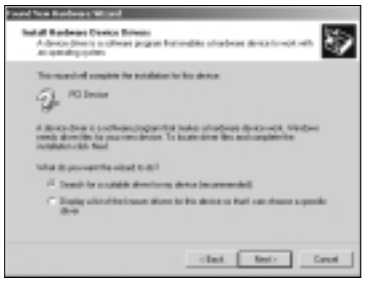
**1**


**Select NEXT**

**2**

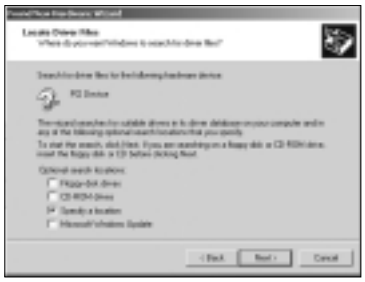
**Insert supplied CD into CD-Rom drive and close CD-Rom**

**3**



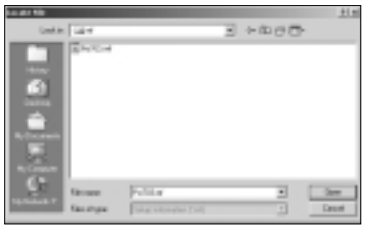
**Select "Search for a suitable driver for my device..." and select NEXT**

**4**



**Make sure only "Specify a location" is selected and select NEXT**

**5**



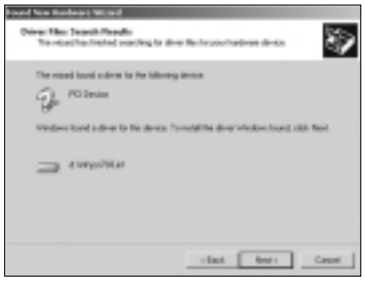
**Select the browse button and search for the appropriate driver on the Eagle CD**
Example: Pci703.inf

**6**

**The driver is located in this directory: <CDROM DRIVE>:\EDRE\DRIVERS\WDM**

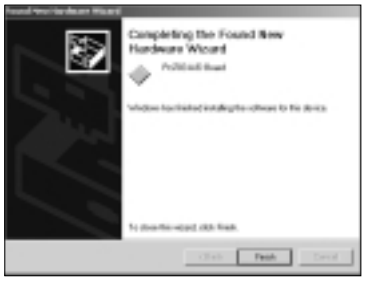
**Select NEXT when driver is found.**

**7**



**Select NEXT**

**8**



**When done it is advisable to restart your computer.**

### Post Installation

When driver installation is complete the device manager can be opened to ensure the installation was successful. For any software queries : **software@eagle.co.za**

1. Ensure that the driver is working properly by opening the Device Manager.
2. Check under the Eagle Data Acquisition list if your board is listed and working properly (fig.1).
3. Once you are sure that the PCI device is listed and working properly, you can further open the control panel and then the EagleDAQ folder. This dialog should list all installed hardware. Verify your board's properties on this dialog (fig.2).
4. Now the first part of your installation is complete and now the EDR Enhanced Software Development Kit can be installed.
5. Run ***edreapi.exe*** found on the Eagle CD-Rom and follow the on screen instructions.

*fig.1*


*fig.2*

### Windows NT

Windows NT does not require any special setup procedure. The Windows NT driver does not support plug and play. If Windows 2000 detects a new device simply install a default driver, or so called placeholder. This will disable the device in the plug and play manager.

To install the Windows NT drivers simply run ***edrewinnt.exe*** on the Eagle CD-Rom. This will automatically install the device drivers. Restart your computer when done. Open the *EagleDAQ* folder in the control panel to check if your installation was successful.

# 4. WaveView for Windows Guide

### Introduction

WaveView For Windows is a powerful data acquisition and analysis package for the pci 700 and pci 800 range of boards. The boards supported are the PCI-703-16/64, PCI-836A/C, PCI-848A/C, PCI-896A/C and PCI-8192A/C.

**Possible applications for WaveView For Windows include:**
- 1-64 Channel digital storage scope
- Strip chart data logger
- High speed streaming (up to 64 channels)
- Continuous process monitoring

Data can be streamed to disk at full 400kHz throughput of the pci-703-16/64 on a reasonably fast machine and disk.

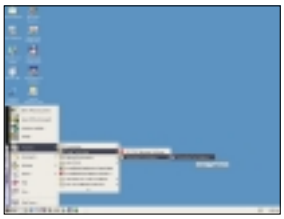
### Installing software

1. Make sure that one of the above mentioned boards installed in your machine and is working properly. For board installation please refer to the board's installation manual.
2. The first part of your installation has been completed you are ready to install the EDREnhanced Software Development Kit. Run edreapi.exe found on the Eagle CD-Rom and follow the on screen instructions.
3. You are now ready to install the Wave View For Windows application package. Run wvfwsetup.exe also found on the Eagle CD-Rom (d:\edre\apps\wvfw*.*) and follow the on screen instructions.

All the latest software versions are available on our website **www.eagledaq.com**

### Getting Started

You should find the WVFW icon in your menu bar.



**Menu bar**

### Hardware Setup

To use the Oscilloscope, Power supply or the Signal Generator, you will have to do a hardware setup first. In then dialog box that appears you will be able to assign the serial number of one of the boards to an application. You will only be able to run the application if there is a board assigned to it.

**Hardware Setup**

### Oscilloscope

When the oscilloscope application is loaded, a default configuration is loaded.
To setup the program to suit your need, you can open the configuration dialog box by going to settings in the menu bar. The configuration can be save for later use(File=>Save Config As).

To stream data to hard drive, simply go to File=>New. Enter the new file name, click the 'Activate stream to file' icon and click '>' Start. If you want to view the data that you save to disk, simply go to Mode=>View File. You will be asked to select a file that you would like to view.

The chart view can be exported to a bitmap picture at any time by go to Export=>Graph to File.

Data that has been saved to file can be exported to an Excel spreadsheet for use in reports or for future reference by again going to Export=>Data to Excel.

### Power Supply

The power supply application can generate a voltage from +10 to –10 volts.

Ten different values can be saved in memory by pushing the STO button and then a number from 0 to 9. The value that is saved in each memory position is shown at the bottom. These values can be used again just as easily. Push the RCL button and the position where the value is saved.

### Signal Generator

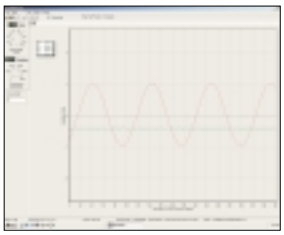
This application can generate three different signal patterns, a Square wave, Sine wave and a Saw tooth waveform. Both digital to analog channels can be configured individually.

All you have to do after setting up the configuration you want is push 'build' and then 'start'. To reconfigure, simply push 'stop', build it again and start it.

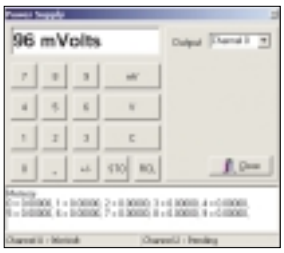
### Chart Recorder

The chart recorder was designed for sampling and saving data to disk over long periods of time. It can record data at a rate of a sample per second to as slow as a sample every 10 hour.

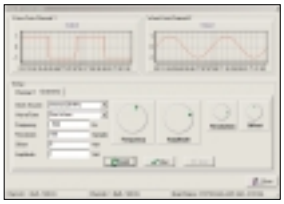
The chart recorder can record a wide range of data inputs, namely analog, digital, counters and even temperature.



**Oscilloscope**




**Power Supply**



**Signal Generator**

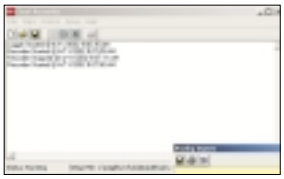
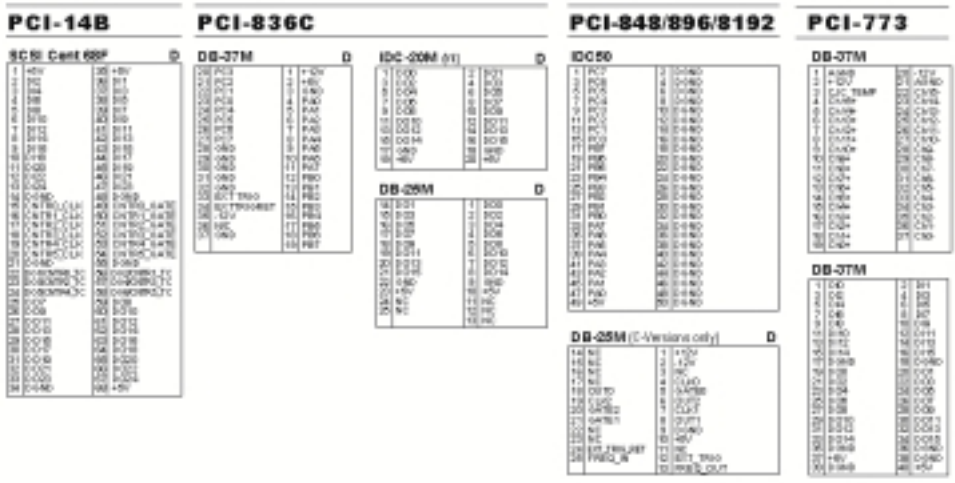


**Chart Recorder**

# 5. Reference Section

### Pin Connectors

For any hardware queries: **workshop@eagle.co.za**

## Hardware Accessories

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