

Quick Start

Low Cost USB DAQ training kit

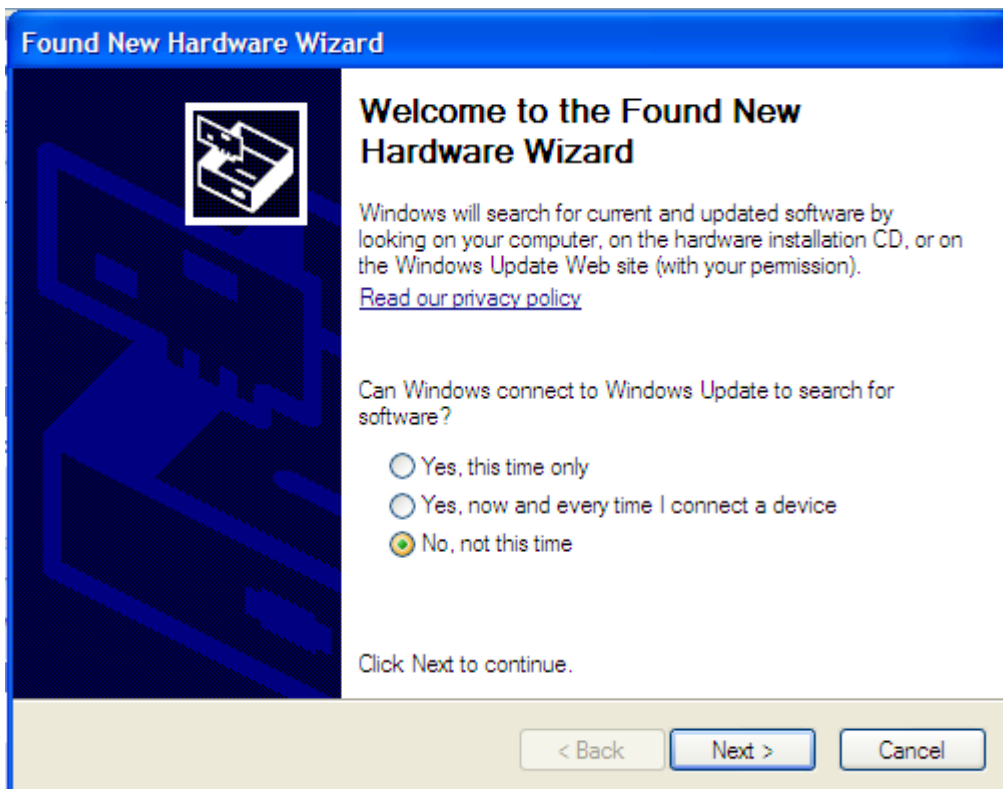
1. You must have already installed the IDE you wish to use. This could be Visual Studio 2003 (or the individual C++, C# or VB IDE), SharpDevelop, Visual Studio 2005 or LabVIEW (ver 7.0 or later).
2. Based on the IDE installed, copy the appropriate folder that comes with EMANT300 (either from the CD or downloaded from www.emant.com) to your computer. Note the folder where you have copied the files. Close all running applications.
 - LabVIEW folder contains LabVIEW related files
 - EmantCS2003 folder contains Visual C# 2003 related files
 - EmantSDCS folder contains SharpDevelop C# related files
 - EmantCS2005 folder contains Visual C# 2005 related files
 - EmantVB2003 folder contains Visual Basic 2003 related files
 - EmantVB2005 folder contains Visual Basic 2005 related files
 - EmantVC2003 folder contains Visual C++ 2003 related files
 - EmantVC2005 folder contains Visual C++ 2005 related files
3. Copy the *USB Driver for Windows* folder
4. If you have the Light Application Adaptor, connect it to the EMANT300

Warning: Always connect any application adaptors to the EMANT300 before connecting the EMANT300 to the computer USB port. If the application adaptor has external power, power should be applied only after the EMANT300 is connected to the USB port. When disconnecting the EMANT300 from the USB port, disconnect external power (if any) first. Remove any application adaptor only after the EMANT300 has been removed from the USB port. Failure to observe this sequence may damage the EMANT300.

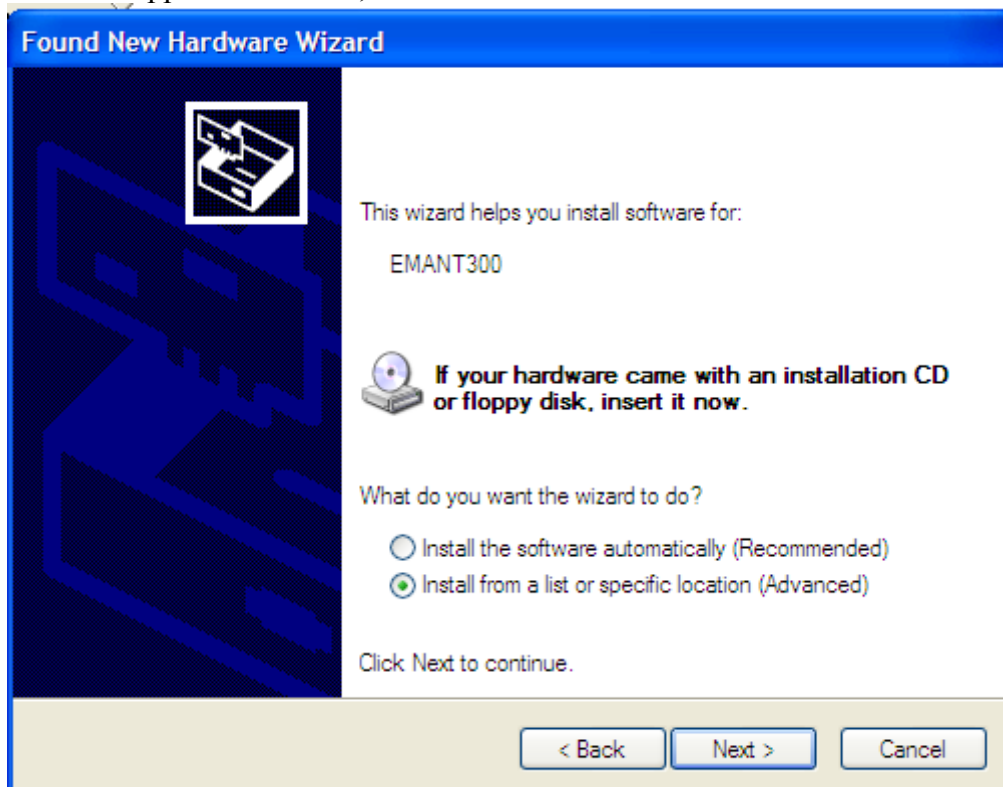


5. Install the USB Drivers

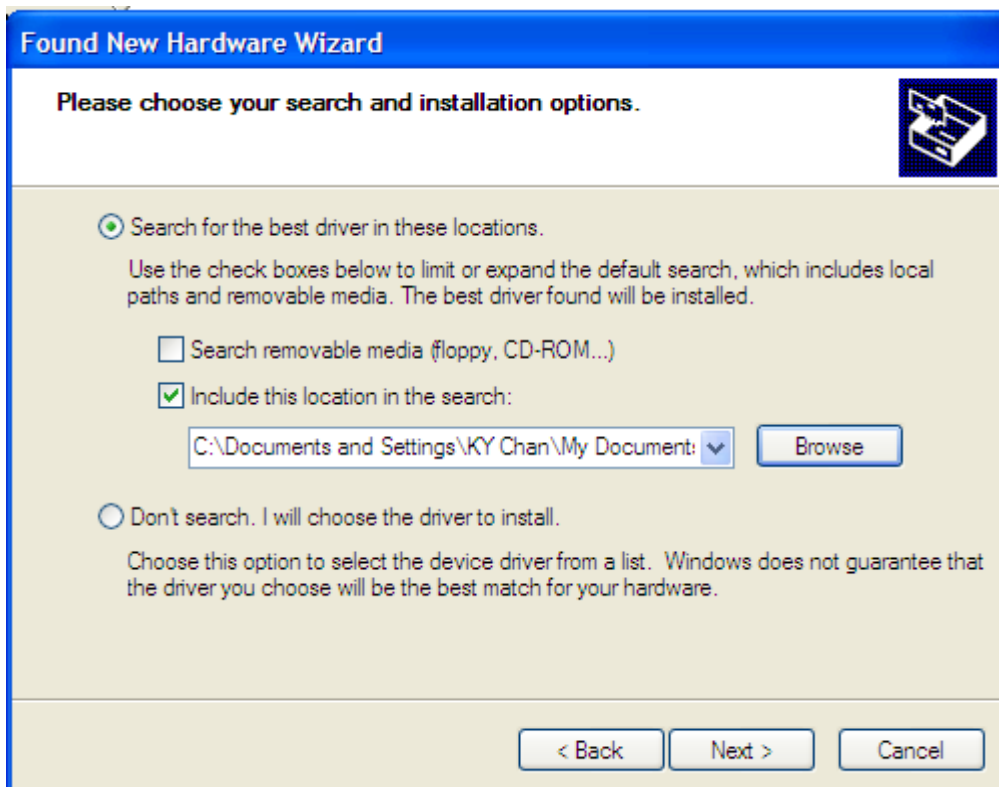
You will need **administrator's rights** to install this driver. Please note that two drivers will be installed. Using the USB cable, connect the EMANT300 to the PC. When you first plug the EMANT300 into the USB port, you will be notified by Windows XP that the EMANT300 has been found.



a) When the wizard appears select **No, not this time** and click **Next**

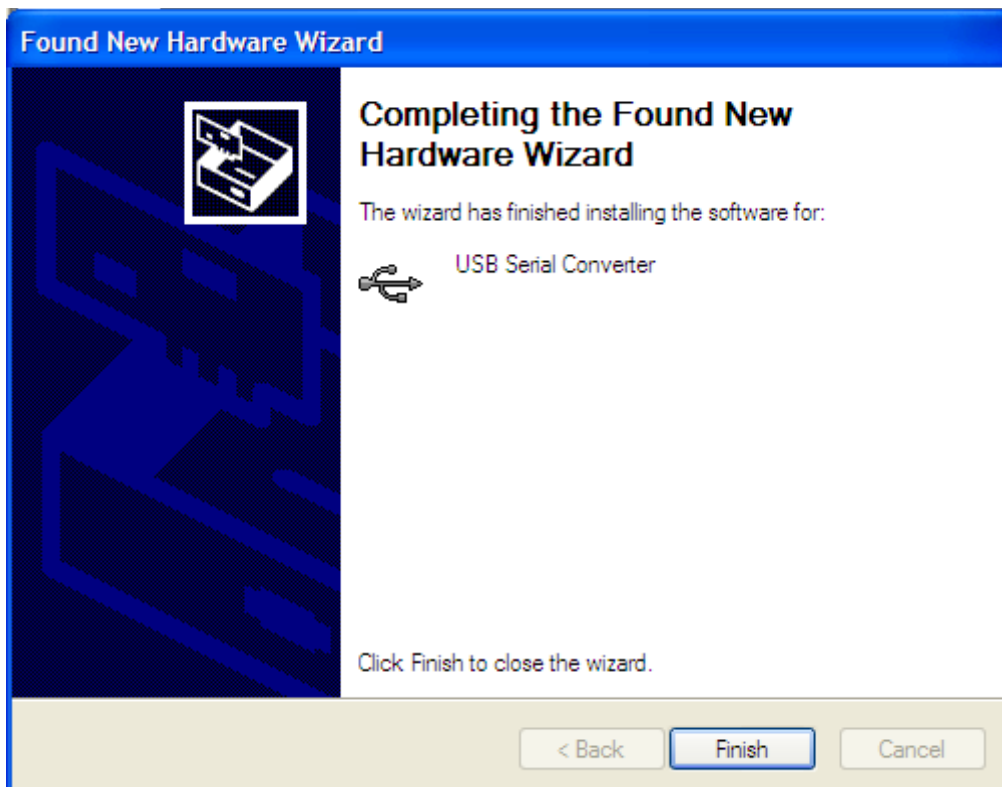


b) Select **Install from a list or specific location** and click **Next**



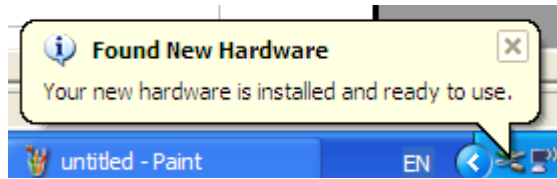
c) Select **Include this location in the search** and click the **Browse** button. Choose the USB driver for Windows folder that you have copied earlier. Click on **Next**

d) The Hardware Wizard will now install the first driver. When it completes, the following dialog is displayed. The Dialog will show the **USB Serial Converter** has been installed. Click **Finish**



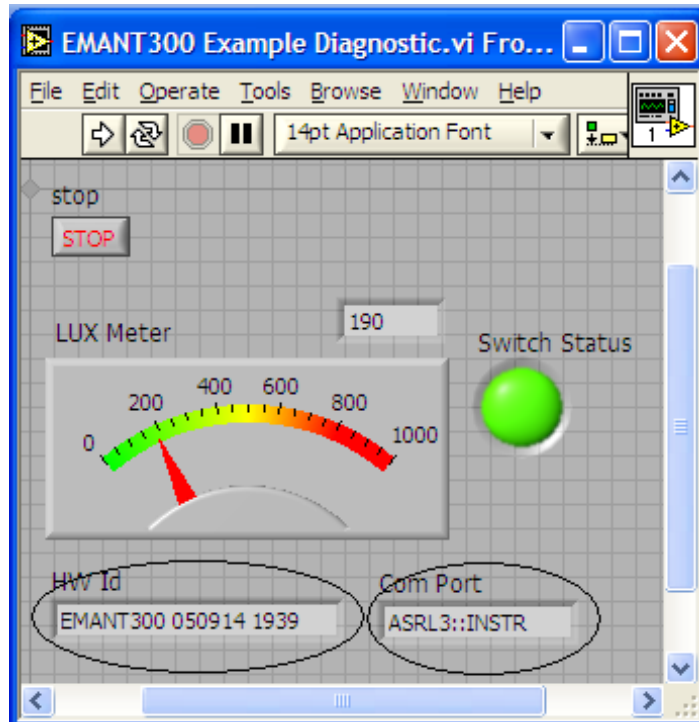
Another Hardware Found message will be displayed. This is normal as two drivers must be installed. This time you will install the USB Serial Port driver. **Repeat the above steps a to d.**

If both drivers are correctly installed, you will see the following message



Using USB DAQ Training Kit with LabVIEW

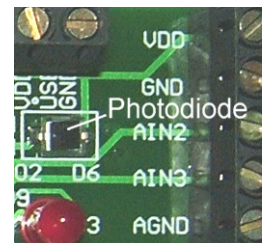
1. If you are using LabVIEW, it must be ver 7.0 or later. **NI-VISA must also be installed because the EMANT300 uses the serial communication VI from the VISA library. Please refer to the LabVIEW installation instructions for installing VISA**
2. Run the diagnostic LabVIEW program
 - Goto to folder where you can copied the contents of the EMANT300 files.
 - Browse the *LabVIEW->Driver & Example VI* folder.
 - Run the *EMANT300 Example Diagnostic.VI* inside this folder.



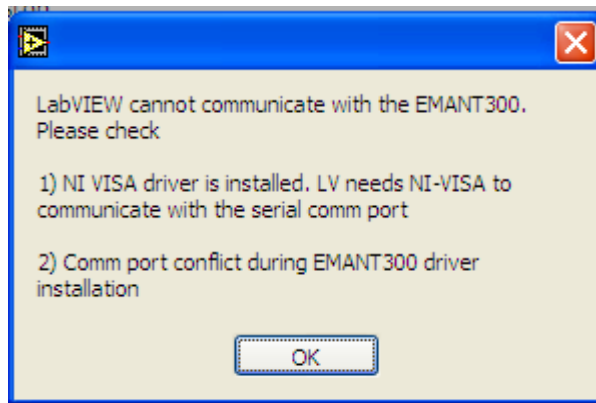
If the drivers are correctly installed, the program runs. The Hardware Id and the Virtual Com Port will be displayed.

If you have the **Light Application Adaptor**, you can run the following checks

- shine a light or block the photodiode (BPW34). The LUX Meter will display the changed light intensity
 - The Light Application Adaptor LEDs will light up in sequence
 - When you press the switch, the LabVIEW LED will turn from Green to Red.
3. Close LabVIEW. The drivers for EMANT300 are correctly installed.
 4. If you are new to LabVIEW and DAQ, proceed to the instruction guide *Build a Light Intensity Logger*.
 5. Before you start on your project, refer to the connection pinout and schematics found in the product specifications and application notes.



If you received the following dialog box instead, close all programs. Install NI VISA if you have not done so. Rerun the diagnostic.VI



If you still see the error dialog box, see the troubleshooting guide

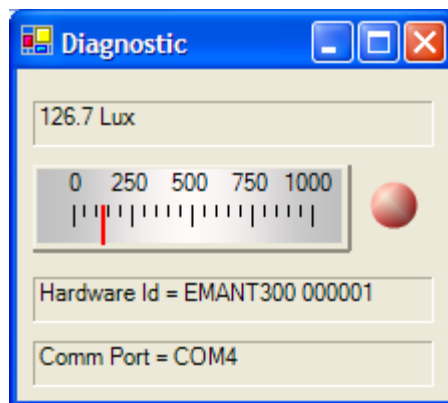
LabVIEW is a trademark of National Instruments

Using USB DAQ Training Kit with .NET languages

1. If you are using the .NET languages, it must be running on the .NET Framework 1.1 or later. If you have not installed the .NET languages IDE (Visual Studio 2003, 2005 or SharpDevelop), do it NOW. The following diagnostic program will not run if the IDE is not installed.

2. Run the diagnostic .NET program.

- Goto to folder where you can copied the contents of the EMANT300 files.
- Browse the folder that corresponds to the IDE that you are using. Example – browse *EmantCS* folder if you are using .NET Framework 1.1 and *EMANTCS2005* folder if you are using .NET Framework 2.0
- Click on *Diagnostic.exe* to run the program.




If the drivers are correctly installed, the program runs. The Hardware Id and the Virtual Com Port will be displayed.

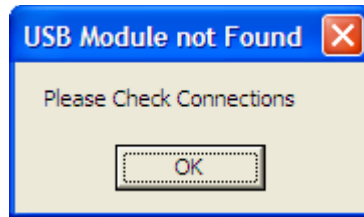
If you have the **Light Application Adaptor**, you can run the following checks

- shine a light or block the photodiode (BPW34). The LUX Meter will display the changed light intensity
- The Light Application Adaptor LEDs will light up in sequence
- When you press the switch, the program's LED will turn from Green to Red



3. Close the Diagnostic program by clicking on . The drivers for EMANT300 are correctly installed.
4. If you are new to .NET programming and DAQ, proceed to the instruction guide Build a Light Intensity Logger.
5. Before you start on your project, refer to the connection pinout and schematics found in the product specifications and application notes.

If you see the following dialog box instead, click OK. Check your connections and rerun the diagnostic program.

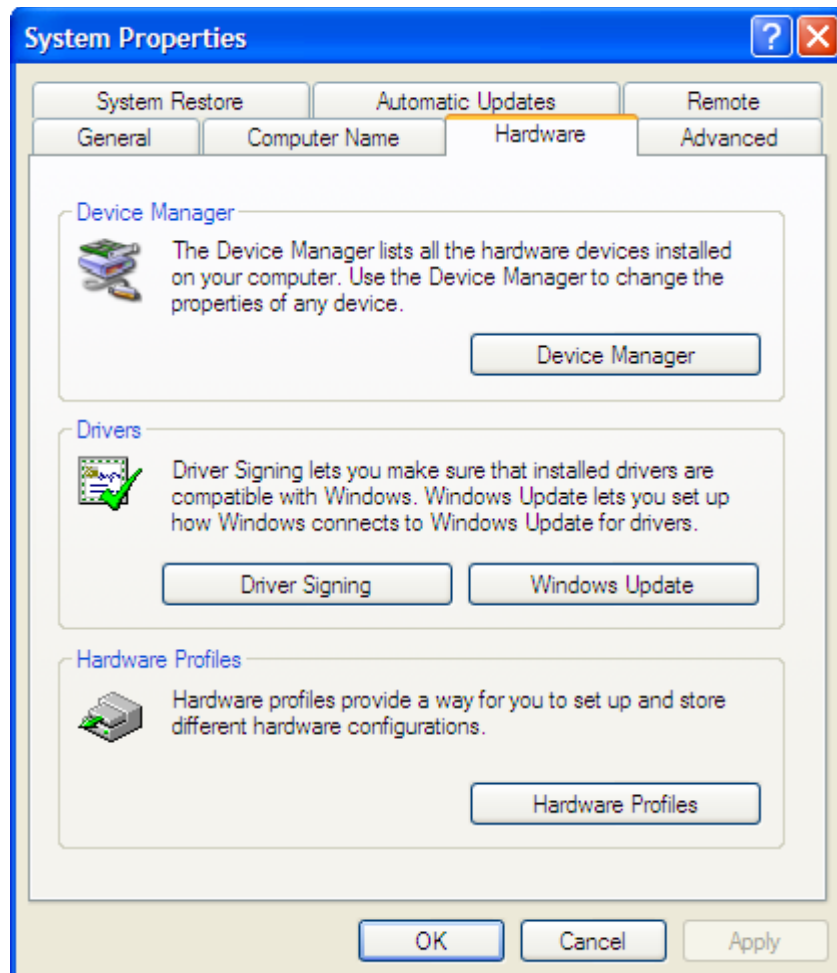


If you still see the error dialog box, see the troubleshooting guide
Visual Studio is a trademark of Microsoft

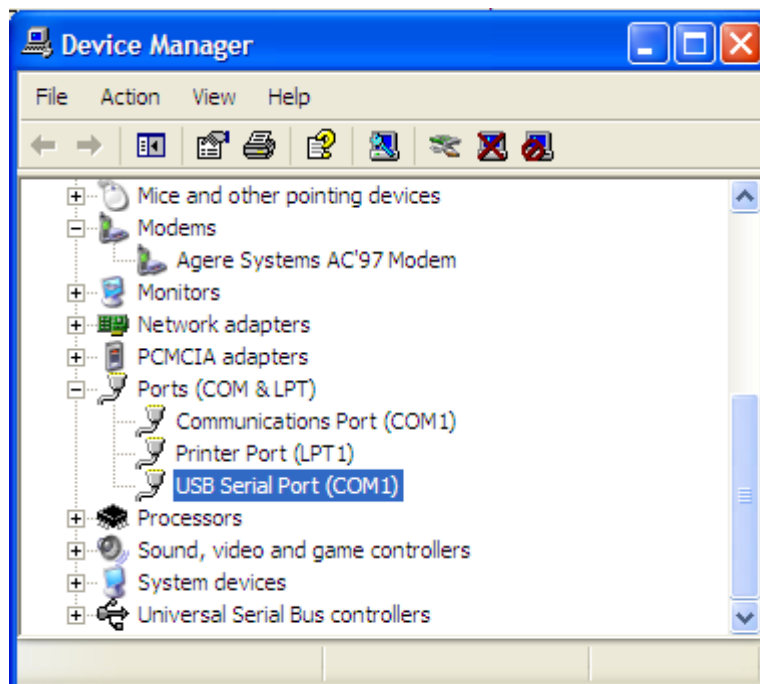
Troubleshooting guide

1. Sometimes, a comm port conflict can occur if you have other hardware in your PC with improper comm drivers. To resolve this

- click on Windows->Start
- choose My Computer
- click View System Information



- Click on Hardware Tab->Device Manager



- Click on USB Serial Port and change from the conflicting port number to another free COM port. In the above example, change from COM1 to COM2.
- Rerun your diagnostic programs.