Quick Start

- 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 <u>www.emant.com</u>) 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 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.

| Found New Hardware Wizard | |
|---------------------------|--|
| | Welcome to the Found New Hardware Wizard |
| | Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). <u>Read our privacy policy</u> |
| | Can Windows connect to Windows Update to search for software? |
| | Yes, this time only Yes, now and every time I connect a device No, not this time |
| | Click Next to continue. |
| | < Back Next > Cancel |

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

| Found New Hardware Wizard | | |
|---------------------------|--|--|
| | This wizard helps you install software for: EMANT300 If your hardware came with an installation CD or floppy disk, insert it now. What do you want the wizard to do? | |
| | Install the software automatically (recommended) Install from a list or specific location (Advanced) Click Next to continue. | |
| | < Back Next > Cancel | |

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

| Found New Hardware Wizard | | |
|--|--|--|
| Please choose your search and installation options. | | |
| Search for the best driver in these locations. | | |
| Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed. | | |
| Search removable media (floppy, CD-ROM) | | |
| ✓ Include this location in the search: | | |
| C:\Documents and Settings\KY Chan\My Document: 🗸 🛛 Browse | | |
| O Don't search. I will choose the driver to install. | | |
| Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware. | | |
| | | |
| < Back Next > Cancel | | |

- 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.

| EMANT300 Example | Diagnostic.viFro 🔳 🗖 🗙 |
|---|--------------------------|
| File Edit Operate Tools E 수 관 🕘 💷 14p | Browse Window Help |
| stop STOP | |
| LUX Meter | 190 Switch Status |
| 200 400 600 200 400 100 100 0 400 100 100 | 800 |
| HW 10 EMANT300 050914 1939 | Com Port ASRL3::INSTR |
| < | |

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.

| 💀 Diagnostic |
|-------------------------------|
| 126.7 Lux |
| 0 250 500 750 1000 |
| Hardware Id = EMANT300 000001 |
| Comm Port = COM4 |

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

| System Properties |
|--|
| System Restore Automatic Updates Remote General Computer Name Hardware Advanced |
| Device Manager The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device. Device Manager |
| Drivers Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers. Driver Signing Windows Update |
| Hardware Profiles Hardware profiles provide a way for you to set up and store different hardware configurations. |
| OK Cancel Apply |

• 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.