Appendix A

USB Communication Interface Setup

Summary:

1. Obtain the appropriate USB Virtual COM Port Driver .zip file for your PC operating system.

2. Install the Virtual COM Port Driver.

3. Determine USB Virtual COM Port setting

Detailed Instructions:

Step 1. Obtain the appropriate USB Virtual COM Port Driver .zip file for your PC operating system.
Future Technology Devices International (FTDI) provides drivers for the USB communications interface contained in your data logger. The USB driver files can be obtained from the FTDI web site.

The latest available USB Virtual COM Port driver for your operating system can be found at the FTDI Virtual COM Port Driver web page:

http://www.ftdichip.com/Drivers/VCP.htm

See **Figure A-1**. Download and save the file appropriate to your operating system to a location on your PC. Extract the contents fo the appropriate zip file to a folder on your computer. Note the location of the folder.

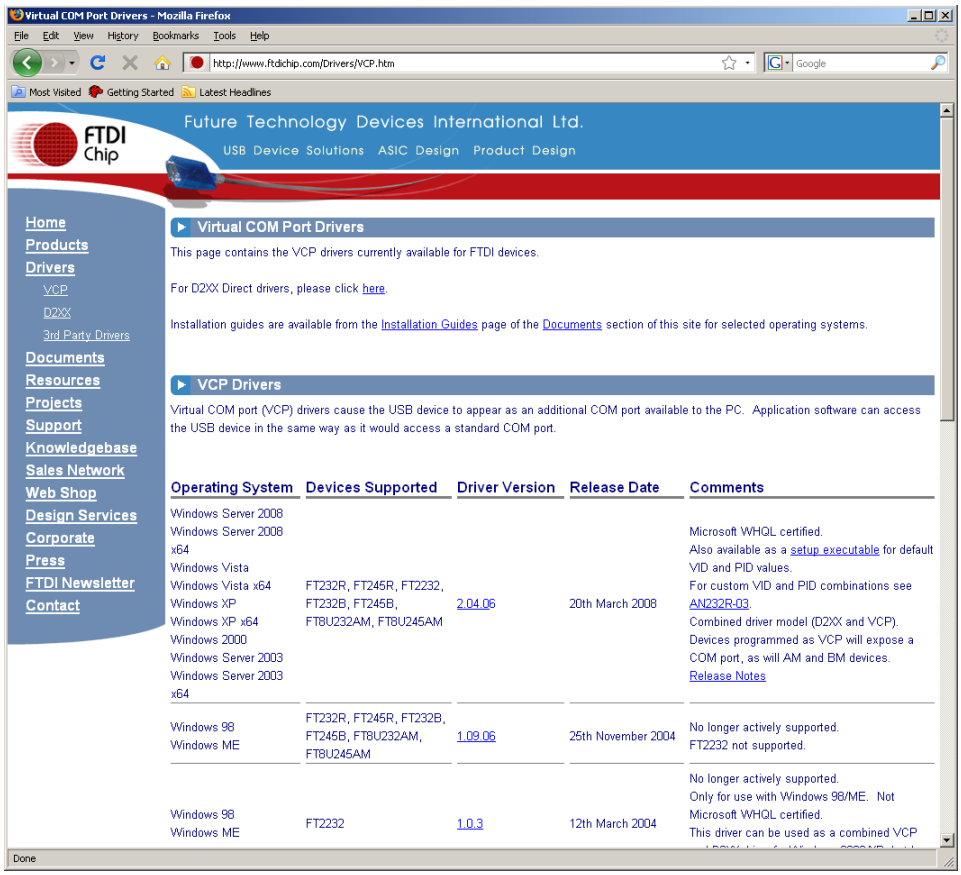

Figure A-1

Step 2. Install the Virtual COM Port Driver.

For convenience a concise and brief guide for installation of the USB Virtual COM Port driver utilizing the *Windows XP Found New Hardware Wizard* is contained below.

Thorough installation guides for *Windows XP*, *Windows 2000*, *Windows 98*, *Windows ME*, and *Mac OSX* platforms are also available at the FTDI website at

http://www.ftdichip.com/Drivers/VCP.htm

Via a USB cable, connect a USB port on the PC to the Com Port on the Q-DL-2100 panel. (The data logger power does not need to be on during this step, although it is ok if it is).

When using *Windows XP*, the *Found New Hardware Wizard* should activate and display a window as shown below in **Figure A-2**.

Figure A-2.

To the question "Can Windows connect to Windows Update to search for software?" Select the "No, not this time" option as shown, and click Next.

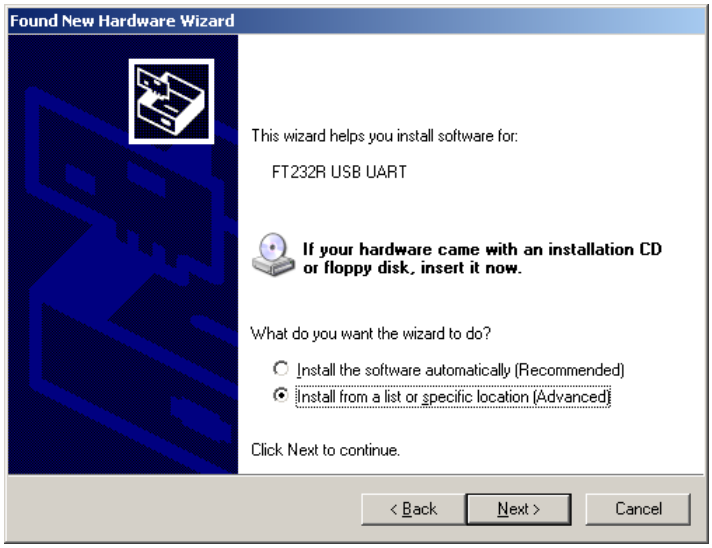

Figure A-3

The window shown in **Figure A-3** should now be displayed. Select "Install from a list or specific location (Advanced), and click Next. The window shown below in **Figure A-4** should appear.

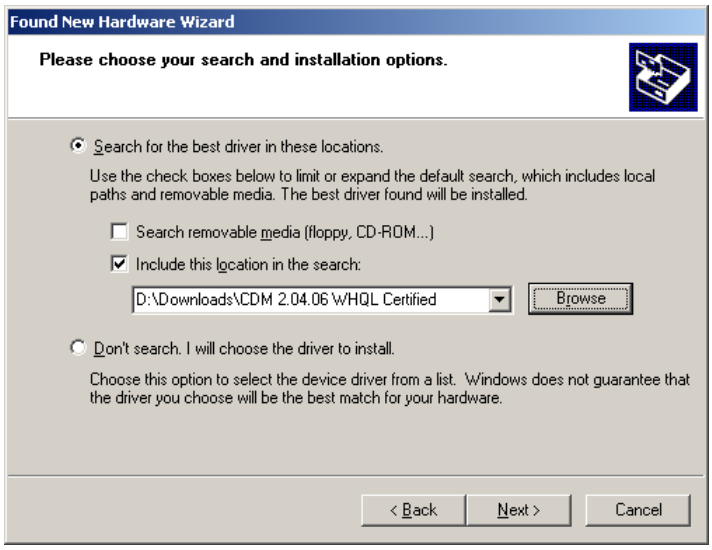

Figure A-4

Select the option button "Search for the best driver in these locations". Then clear the checkbox "Search removable media (floppy, CD-ROM…)" and select the "Include this location in the search" checkbox. Use the Browse button to select the folder where the USB FTDI drivers were extracted in Step 1 above, and then click Next.

The installation of the drivers will begin. A window as shown in **Figure A-5** will appear confirming successful installation of the USB Virtual COM Port drivers (called a USB Serial Converter by *Windows*).

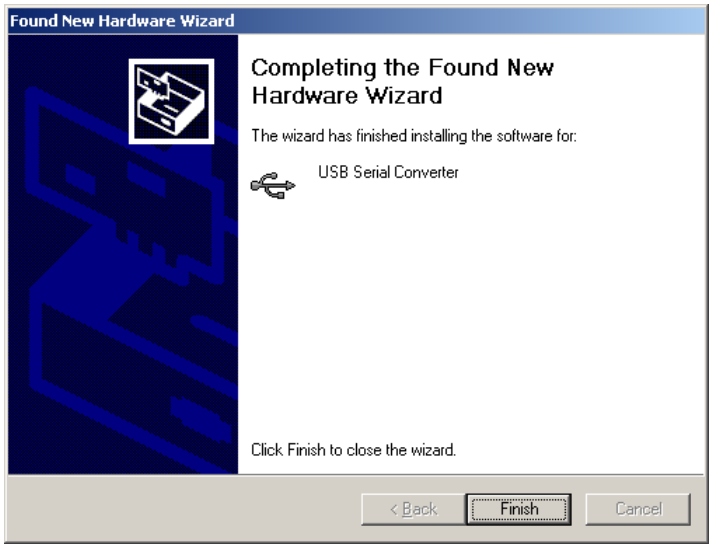

Figure A-5

Step 3. Determine USB Virtual COM Port setting.
After Step 2 is complete, the USB Virtual COM Port should be installed. This will make the USB connection to the data logger behave as a *Windows* serial port,

otherwise known as a COM port. To verify this, leave the USB port on the PC connected to the COM connector on the data logger. Now go to the *Windows* Control Panel (accessible from the Start Menu). In the Classic View mode, the Control Panel window will look something like that shown in **Figure A-6**.

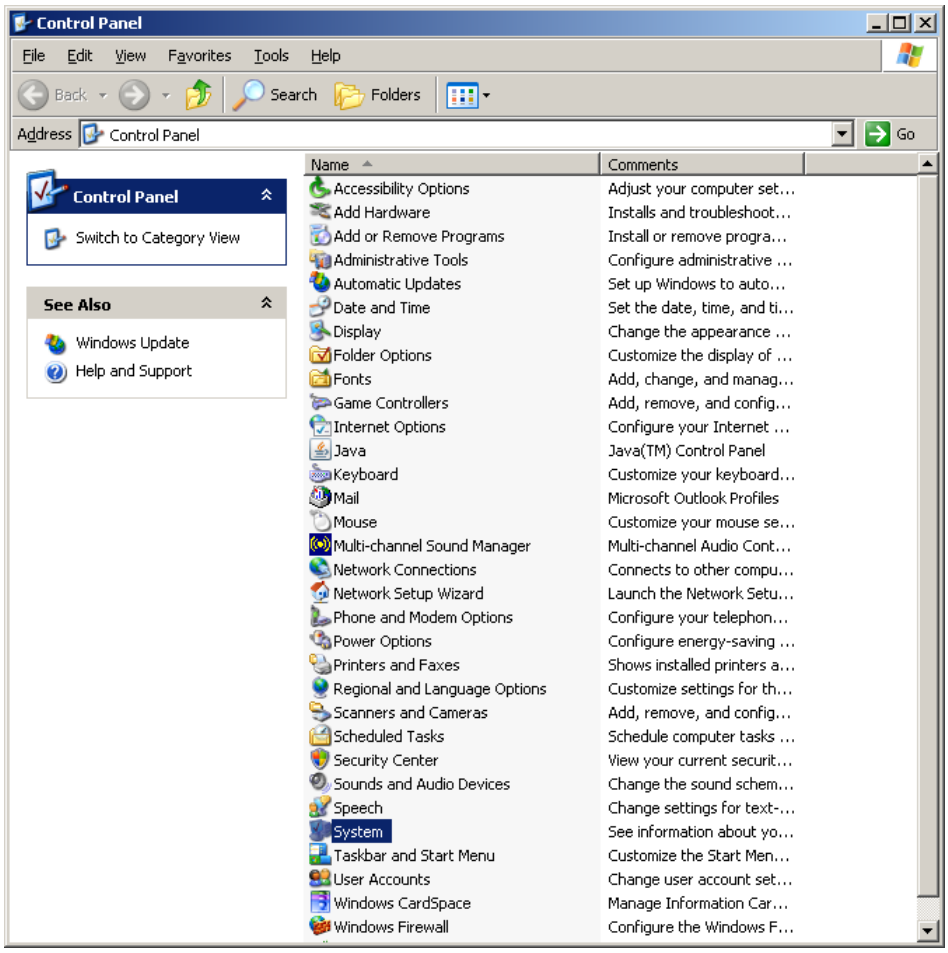

Figure A-6

Select System to open up the System Properties window, shown in **Figure A-7.**

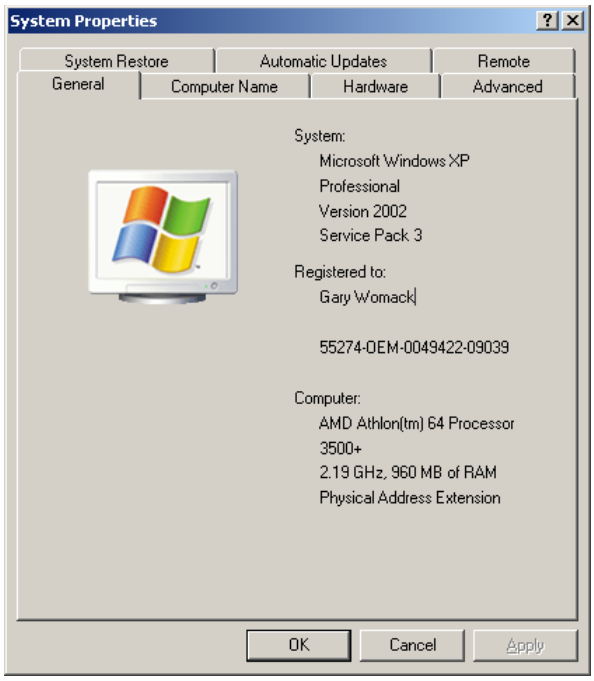

Figure A-7

Select the Hardware tab to reveal a window of the form shown in **Figure A-8**.

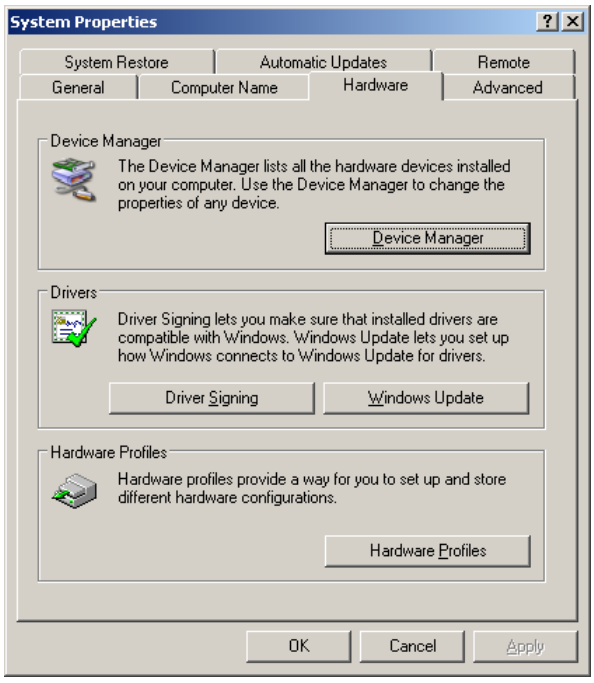

Figure A-8

Select Device Manager and look for an entry under Ports (COM & LPT) which corresponds to the USB Virtual COM Serial Port. It will look like any other COM port, but usually will be assigned a number higher than 2. i.e., COM3 in **Figure A-9** below.

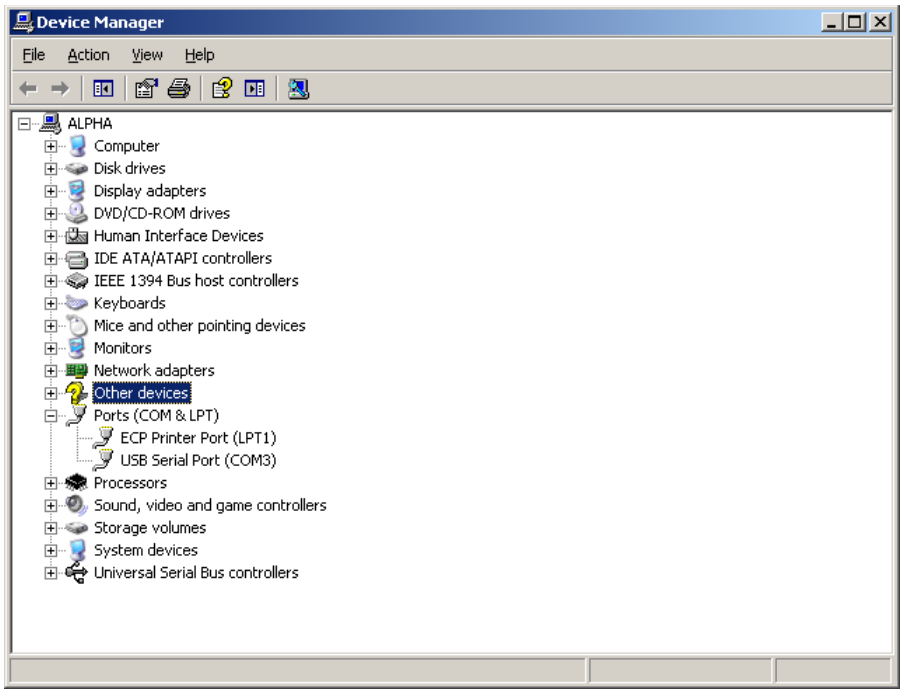

Figure A-9

If multiple serial ports show up, unplug the USB cable from the COM port on the Q-DL-2100 data logger and identify which COM port number disappears. It should reappear when the USB cable is plugged in again.

Note the COM Port number assigned to the data logger USB interface.

To communicate with the data logger you will need to make use of PC based terminal emulation software such as *Windows HyperTerminal* or *Tera Term Pro*. See **Appendix B** for setup instructions for these programs.