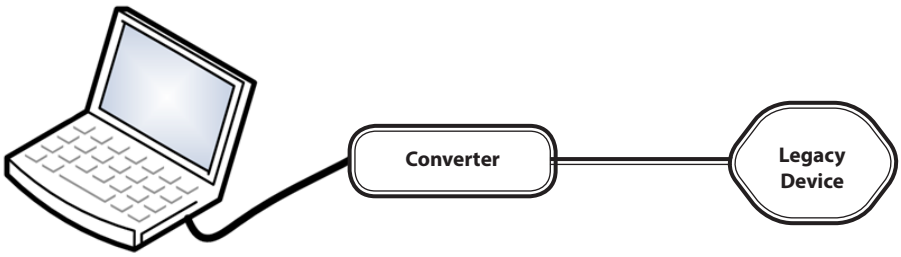
Data Industrial®

USB to DIC Converter



Badger Meter

CVT-UM-00208-EN-03 (June 2013)

Installation Data

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INTRODUCTION

The USB to DIC (Data Industrial Corporation) Converter facilitates the connection of legacy (RS-232) devices to the modern USB-equipped computer, for the purposes of configuration and data logging. Peripherals used with the USB to DIC Converter include the host computer and the connected legacy device. Legacy devices include a variety of flow sensors and signal transmitters. The USB to DIC Converter is typically connected during the configuration of a sensor or transmitting device.

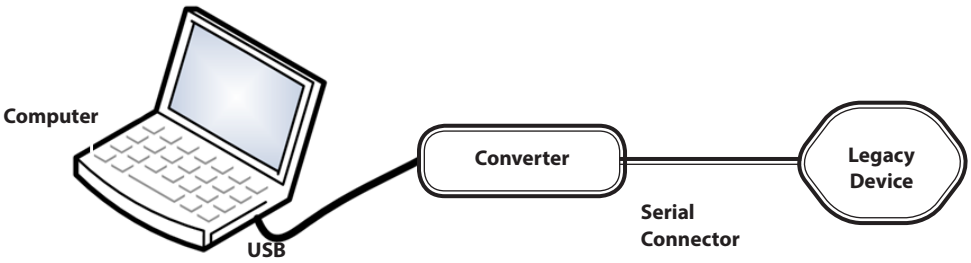

Figure 1: USB to DIC Converter Connections

ITEMS REQUIRED

- Computer with a USB port
- Badger Meter USB to DIC Converter featuring a DIC serial interface
- USB cable with ferrite beads (signal interference filter) with a connector to mini-USB
- Current release of Badger Meter DIC product software
- Access to FTDI drivers within the Windows® driver base or from the FTDI site

SOFTWARE INSTALLATION

Badger Meter DIC Product Software Installation

1. Download the Badger Meter DIC product software from http://www.badgermeter.com/Badger-Files/Program-Executables/Industrial/350_setup.exe and save it (*Save As*) to a preferred location on the computer's hard drive.
2. Open the installer file (350_setup.exe) from that location and follow the subsequent prompts. Administrative privileges may be required. When completed, a "DataIndustrial.exe" file will appear in the same preferred location, as in Step 1.

FTDI Driver Installation

1. From the FTDI website (http://www.ftdichip.com/Drivers/VCP.htm), click on the appropriate *Processor Architecture* link for the appropriate computer platform and operating system.
2. To download the driver files, click **Save As** to save the files to a convenient storage location. These files will be needed for the driver installation process.
3. Plug the USB cable from the USB to DIC Converter to a USB port on the computer.

4. When prompted about the Windows Update driver installation, select **Yes, this time only**, then click **Next**.

Figure 2: Driver Installation from the Internet

5. Select **Install the software automatically (Recommended)**, then click **Next.**

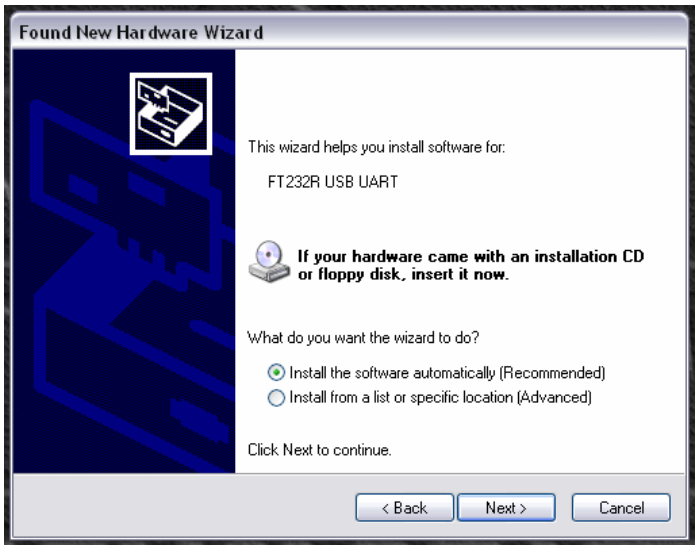

Figure 3: Automatic Driver Installation

6. If the computer is running a pre-XP version of a Windows operating system or cannot connect to the Internet, use a newer, Internet-connected computer to download the FTDI driver package to a flash drive, CD-ROM, floppy disk or other storage device.

   Refer to Steps 7 and 8 for FTDI driver installation from a storage device. Steps 9 through 15 are the same for Internet and storage drive installation.

7. Select **No, not this time** to the Windows update prompt, then click **Next.**

Figure 4: Driver Selection from a Storage Device

8. Select **Install from a list or specific location (Advanced)**, then click **Next.**

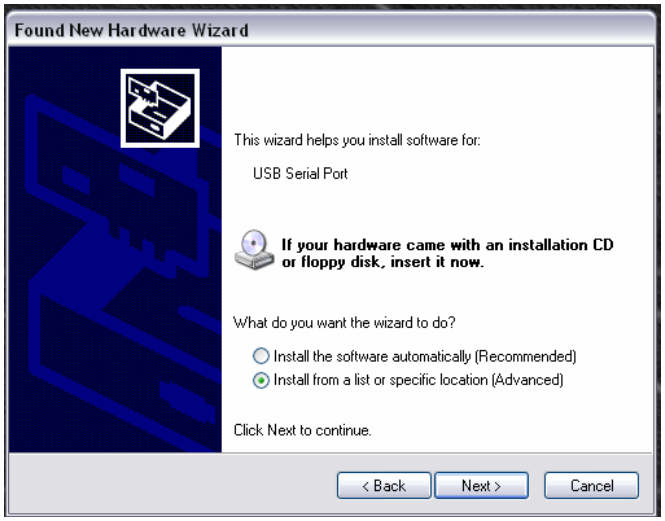

Figure 5: Select the Specific Location Option

9. Using Windows Explorer, navigate to the FTDI driver package, then right-click on the zip file to extract the files.
10. Check the boxes labeled **Search removable media (floppy, CD-ROM...)** and **Include this location in the search**.
11. Click the **Browse** button to find the location of the FTDI driver package.

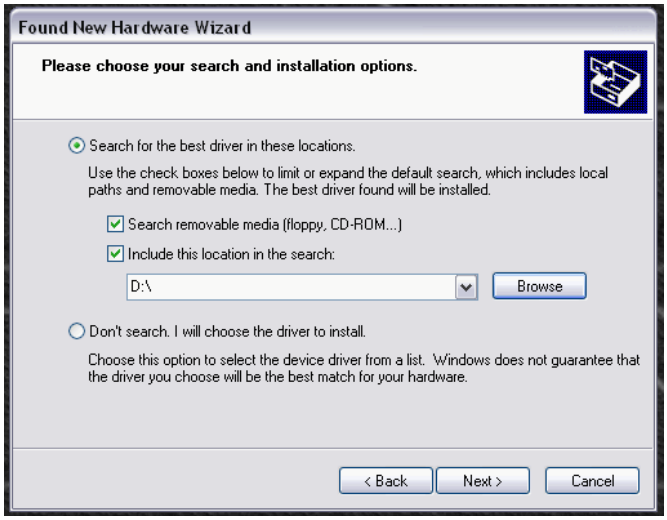

Figure 6: Include a Relevant Search Path

12. Browse to the folder location of the extracted FTDI driver files, then click **Next**.

NOTE: Clicking the *Next* button in Step 12 copies the .inf (descriptor file for the USB device) to the Windows driver directory.

13. If a prompt appears warning about the lack of Windows logo testing, select **Continue Anyway**.

    A status bar will indicate that the driver files are being copied to the required destination. The final prompt will appear indicating that the process was successful, as shown in Figure 7 on page 9.

Figure 7: Finish the Driver Installation

14. An additional driver installation prompt may appear requesting the installation of a "USB Serial Port" driver. If that installation prompt appears, the installation process must be repeated.
    To repeat the process, start again at Step 1under "FTDI Driver Installation" on page 5.
15. To complete the driver installation process, click **Finish**.

SOFTWARE CONFIGURATION

Prior to using the DIC product software, the proper communications (COM) port number must be established.

1. Open the Device Manager by selecting the **Start** button, then type "Run" in the search field, then press the keyboard **Enter** key and then type "devmgmt.msc" in the *Open* field.

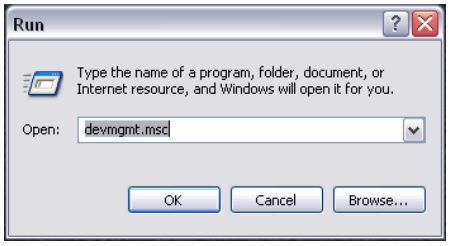

Figure 8: Starting the Device Manager from the Run Dialog

2. Click the **OK** button to open the *Device Manager* window.

The COM port number assigned to the USB serial port is indicated under the *Ports (COM & LPT)* heading. The port assignment shown below is COM16. On other computers, the port assignment number may be different.

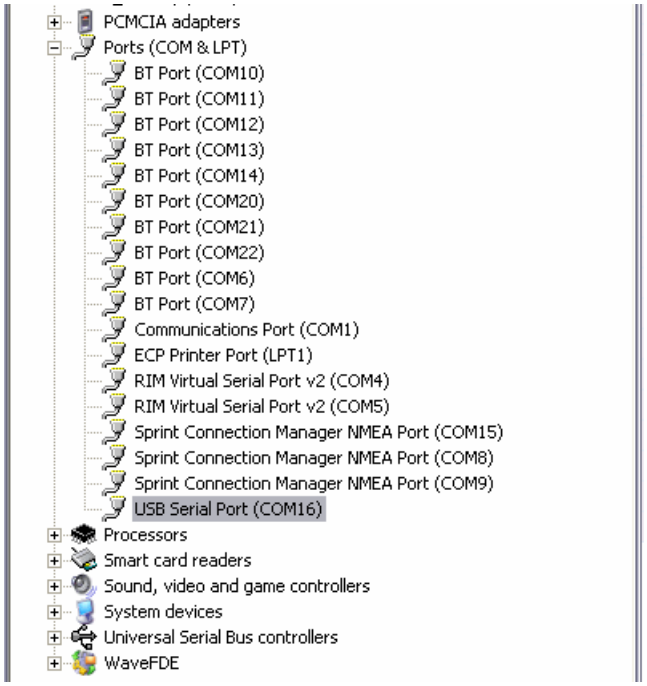

Figure 9: Device Manager Port Listings

3. Open the "DataIndustrial.exe" file from Step 2 of the "Badger Meter DIC Product Software Installation" on page 5.

   The Badger Meter DIC Product Software (version 3.12) is configured to use the communications port number of the USB serial port, per Step 2, on page 10.

4. Select the **Set Comm Port** menu option, from the *Configuration* menu, per Figure 10.
5. Click on the **Comm Settings** drop-down menu, then select the appropriate port number from that menu.

NOTE: The USB serial port number (Figure 9) and the *Comm Settings* number (Figure 11) must be the same number.

6. Click **OK** to complete the connection configuration.

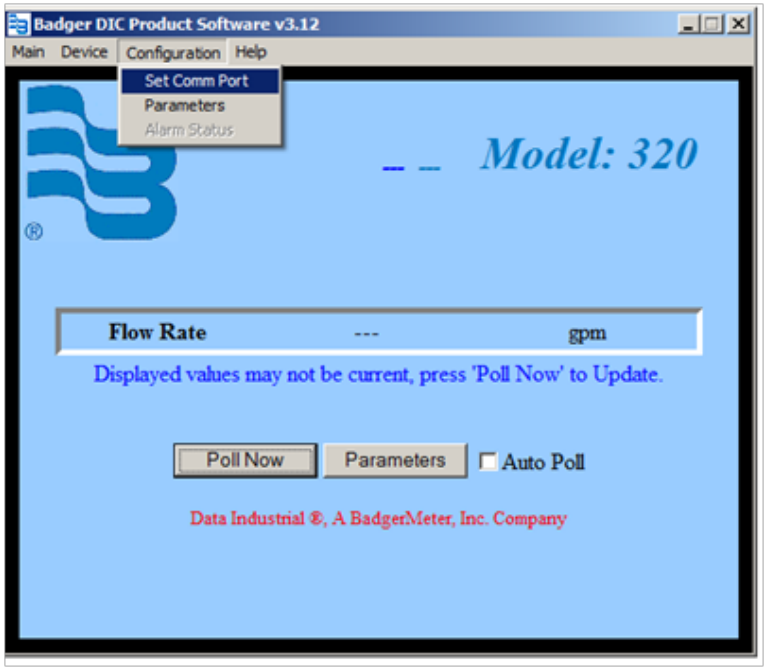

Figure 10: Select "Set Comm Port"

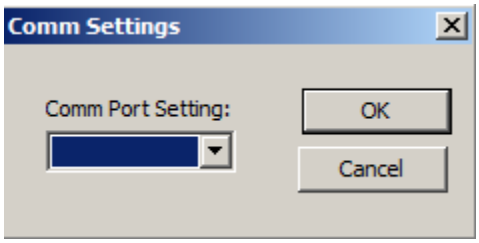

Figure 11: Matching COM Port Settings

7. Select the appropriate device from the *Device* menu in Figure 10.
8. Set the appropriate parameters from the *Configuration* menu in Figure 10 or click the **Parameters** button.

The Badger Meter DIC Product Software is now ready for use with the USB to DIC Converter and legacy devices.

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