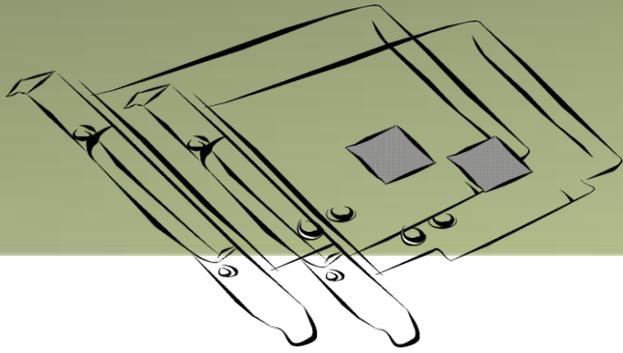


I/O CARD QUICK START GUIDE



For PCI-FC16U

English/Oct. 2015/Version 1.1

1

Check the Supplied Items

The shipping package includes the following items:



PCI-FC16U



Software Utility CD
(V6.2 or later)



Quick Start Guide
(This Document)



CA-4002 D-Sub
Connector

2

Installing the Windows Driver

The UniDAQ driver supports Windows 2000 and 32/64-bit versions of Windows XP/2003/2008/7/8. The driver installation package for PCI-FC16U board can be found on the companion CD-ROM, or can be obtained from the ICP DAS FTP web site. The driver is located at:

CD: \NAPDOS\PCI\UniDAQ\DLL\Driver

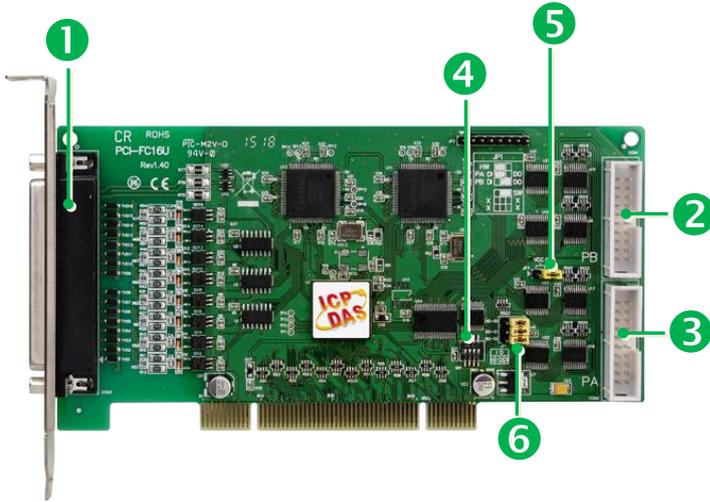
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidag/dll/driver/>

To install the UniDAQ driver, follow the procedure described below.

- Step 1:** Double-click the **UniDAQ_Win_Setupxxx.exe** icon to begin the installation process.
- Step 2:** When the “Welcome to the ICP DAS UniDAQ Driver Setup Wizard” screen is displayed, click the “**N**ext>” button to start the installation.
- Step 3:** On the “Information” screen, verify that the DAQ card is included in the list of supported devices, then click the “**N**ext>” button.
- Step 4:** On the “Select Destination Location” screen, click the “**N**ext>” button to install the software in the default folder, **C:\ICPDAS\UniDAQ**.
- Step 5:** On the “Select Components” screen, verify that the DAQ Card is in the list of device, and then click the “**N**ext>” button to continue.
- Step 6:** On the “Select Additional Tasks” screen, click the “**N**ext>” button.
- Step 7:** On the “Download Information” screen, click the “**N**ext>” button
- Step 8:** Once the installation has completed, click “**No, I will restart my computer later**”, and then click the “**F**inish” button.

Note: For detailed information about the driver installation, refer to Chapter 2 “Install UniDAQ Driver DLL” of the UniDAQ SDK User Manual.

3 Board Layout



Note: For more details regarding the Card ID and Jumper settings, refer to the PCI-FC16U User Manual.

- 1. CON3 Connector**
(See Section 6 Pin Assignments)

- 2. CON1 Connector**
(See Section 6 Pin Assignments)

- 3. CON2 Connector**
(See Section 6 Pin Assignments)

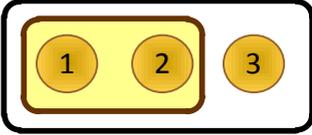
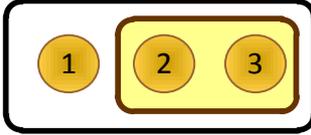
- 4. SW1: Card ID Switch**
(The default setting is 0x0.)

- 5. JP3: DI Pull-high/low Settings**
(The default setting is pull-low.)

- 6. JP1: Digital I/O Mode Settings**
(See Section 4 Jumper JP1 Settings)

4 Jumper JP1 Settings

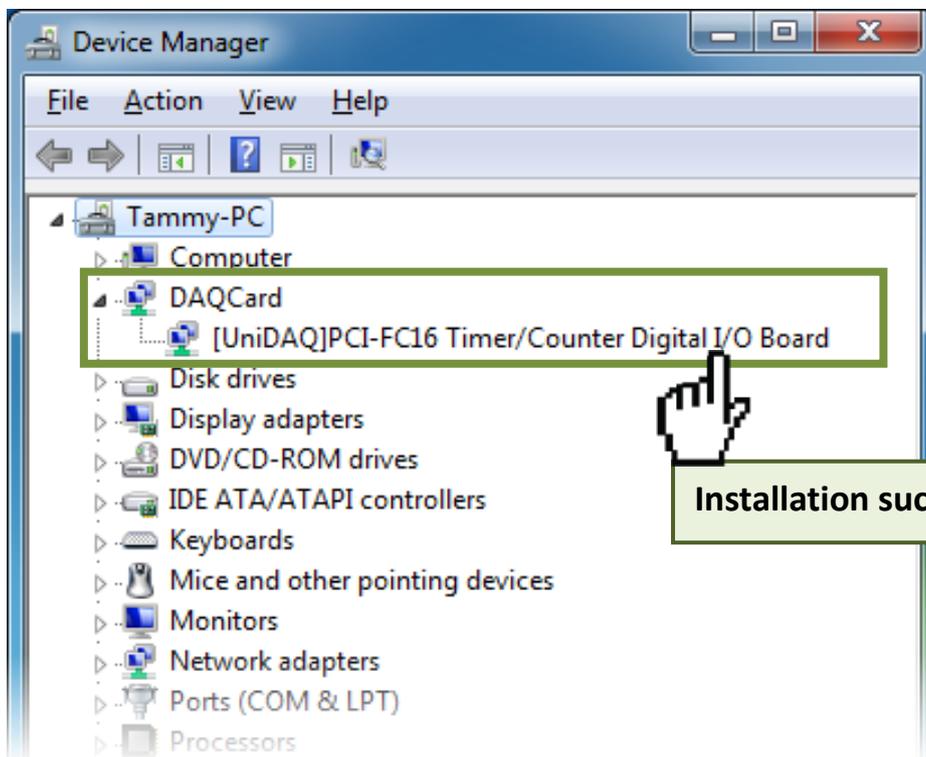
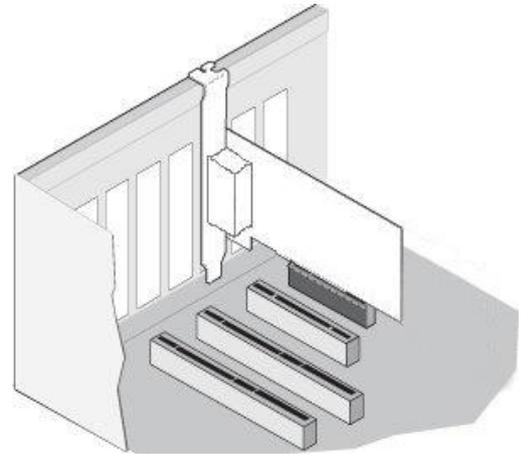
Jumper JP1 is used to configure the Digital I/O direction mode. Please make sure JP1 jumper set to **“SW” position (short pins 2 and 3)** before self-test, as follows:

JP1	Jumper Selectable (Default)	<input checked="" type="checkbox"/> Software Programmable
DIO-S0	HW  SW	HW  SW

Note that the DIO-S1 and DIO-S2 jumpers are not used when the DIO-S0 jumper is set to “Software Program” Mode. Refer to PCI-FC16U User Manual for more detail information.

5 Installing the Hardware

- Step 1:** Shut down and power off the computer.
- Step 2:** Remove all the covers from the computer.
- Step 3:** Select an unused PCI slot.
- Step 4:** Carefully insert the PCI-FC16U board into the PCI slot and secure the board in place.
- Step 5:** Replace the covers on the computer.
- Step 6:** Reconnect the power supply and power on the computer.
- Step 7:** Once the computer reboots, follow any messages that may be displayed to complete the Plug and Play installation procedure.
- Step 8:** Open the “**Device Manager**” in the Control Panel and verify that the PCI-FC16U board is listed correctly, as illustrated below.



6 Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
C0+	01	20 C0-
C1+	02	21 C1-
C2+	03	22 C2-
C3+	04	23 C3-
C4+	05	24 C4-
C5+	06	25 C5-
C6+	07	26 C6-
C7+	08	27 C7-
N.C.	09	28 N.C.
C8+	10	29 C8-
C9+	11	30 C9-
C10+	12	31 C10-
C11+	13	32 C11-
C12+	14	33 C12-
C13+	15	34 C13-
C14+	16	35 C14-
C15+	17	36 C15-
N.C.	18	37 N.C.
N.C.	19	



CON3

Pin Assignment	Terminal No.	Pin Assignment
PB 0	01	02 PB 1
PB 2	03	04 PB 3
PB 4	05	06 PB 5
PB 6	07	08 PB 7
PB 8	09	10 PB 9
PB 10	10	12 PB 11
PB 12	12	14 PB 13
PB 14	14	16 PB 15
GND	16	18 GND
+5V	18	20 +12V



CON1

Pin Assignment	Terminal No.	Pin Assignment
PA 0	01	02 PA 1
PA 2	03	04 PA 3
PA 4	05	06 PA 5
PA 6	07	08 PA 7
PA 8	09	10 PA 9
PA 10	11	12 PA 11
PA 12	13	14 PA 13
PA 14	15	16 PA 15
GND	17	18 GND
+5V	19	20 +12V



CON2

7

Self-Test

➤ Wiring for the Digital Input/Output Test:

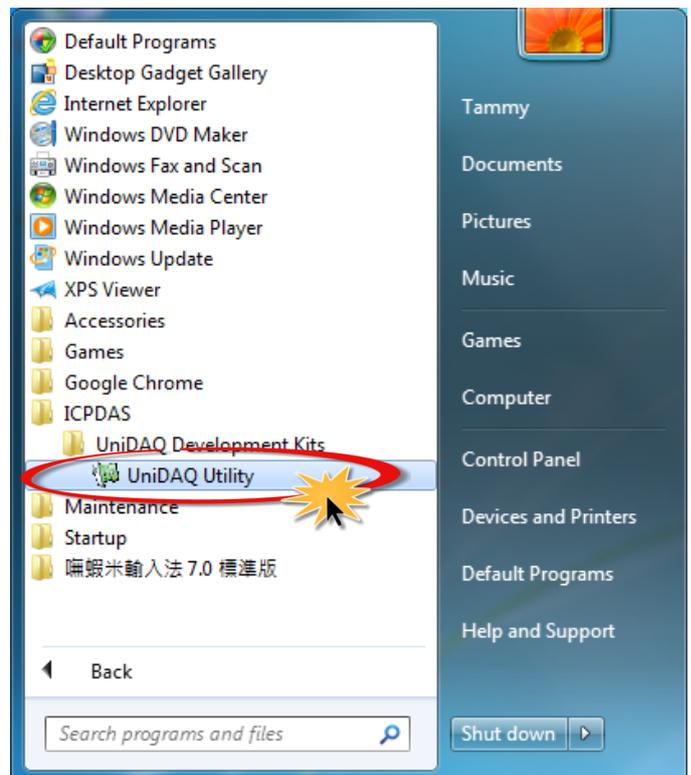
Step 1: Keep set the JP1 jumper to “SW” position (See Section 4 Jumper Settings).

Step 2: Connect the **CON1** to **CON2** on the PCI-FC16U board using the CA-2002 cable (optional).



➤ Execute the UniDAQ Utility Program:

Step 3: In Windows 7, click the “Start” button, point to “All Programs”, and then click the “ICPDAS” folder. Point to “UniDAQ Development Kits” and then click the “UniDAQ Utility” to execute the UniDAQ Utility Program.



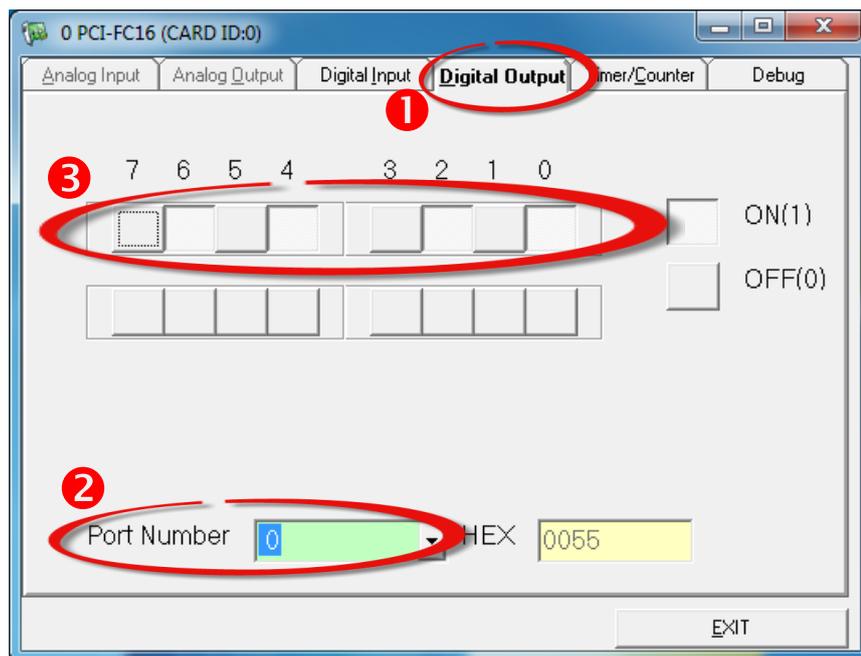
Step 4: Confirm that the PCI-FC16U board has been successfully installed in the Host system. Note that the device numbers start from 0.

Step 5: Click the “**TEST**” button to start the test.

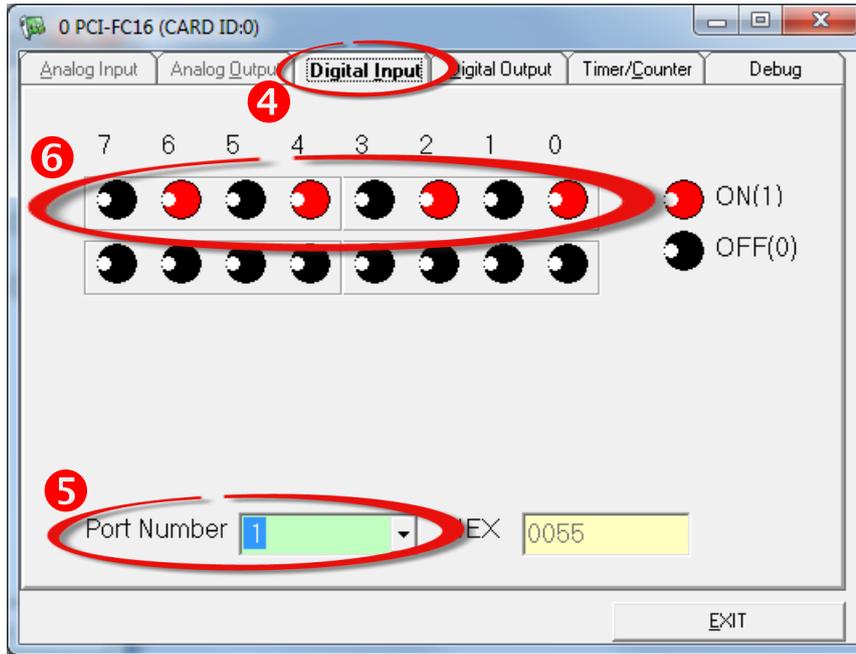


Step 6: Check the results of the **Digital Input/Output** functions test.

1. Click the “**Digital Output**” tab.
2. Select “**Port0**” from the “**Port Number**” drop-down menu.
3. Check the checkboxes for **channels 0, 2, 4 and 6**.



4. Click the “Digital Input” tab.
5. Select “Port1” from the “Port Number” drop-down menu.
6. The DI indicators will turn red when the corresponding DO channels 0, 2, 4 and 6 are ON.



8 Related Information

- PCI-FC16U Series Board Product Page:
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/pci-fc16u.html
- CA-2002 Product Pages (optional):
http://www.icpdas.com/products/Accessories/cable/cable_selection.htm
- UniDAQ Documentation and Software:
 CD:\NAPDOS\PCI\UniDAQ\
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidag/>