

Quick Start

for PISO/PEX-730 Series

English/ Feb. 2017/ Version 1.2

1

Shipping Package

The package includes the following items:

❶ PISO/PEX-730 Series Card x1



PISO-730U
PISO-730U-5V



PEX-730

❷ Quick Start (This Document) x1



❸ Software CD x1



❹ CA-4002 D-Sub Connectorx1

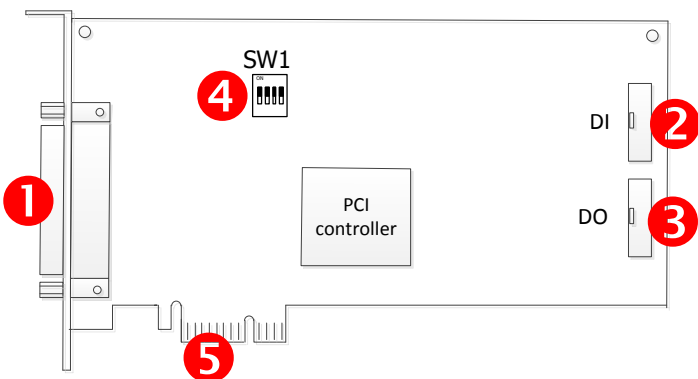


2

配置圖

- ❶ **CON1**: Isolated DIO channel 0-15.
- ❷ **CON2**: 5V/TTL DI channel 0-15.
- ❸ **CON3**: 5V/TTL DO channel 0-15.
- ❹ **SW1**: Card ID Setting
- ❺ **PCI Bus**: for PISO-730U/PISO-730U-5V
PCI Express: for PEX-730

✘ For more detailed SW1 information, please refer to manual Section 2.4 Card ID Switch Settings.
(CD:\NAPDOS\PCI\PISO-DIO>manual\)



3

Installing windows Driver

- 1 Setup the Windows driver, which can be obtained from either the companion CD-ROM or the ICP DAS web site:

The UniDAQ driver supports 32-/64-bit Windows XP/2003/7/8/10; it is recommended to install this driver for new user.



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

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

The PISO-DIO series classic driver supports Windows 98/NT/2K and 32-bit XP/2003/7/8/10. Recommended to install this driver for have been used PISO-730 series



boards of regular user, please refer to :

<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/piso-dio/manual/quickstart/classic/>

- 2 Click the **“Next>”** button to start the installation.
- 3 Check your I/O Card is or not on supported list, then click the **“Next>”** button.
- 4 Select the installed folder, the default path is **C:\ICPDAS\UniDAQ** , confirm and click the **“Next>”** button.
- 5 Check your I/O Card on list, then click the **“Next>”** button.
- 6 Click the **“Next>”** button on the Select Additional Tasks window.
- 7 Click the **“Next>”** button on the Download Information window.
- 8 Select **“No, I will restart my computer later”** and then click the **“Finish”** button.

For more detailed information about how to install the UniDAQ driver, refer to **“Section 2.2 Install UniDAQ Driver DLL”** of the UniDAQ Software Manual, which can be found in the

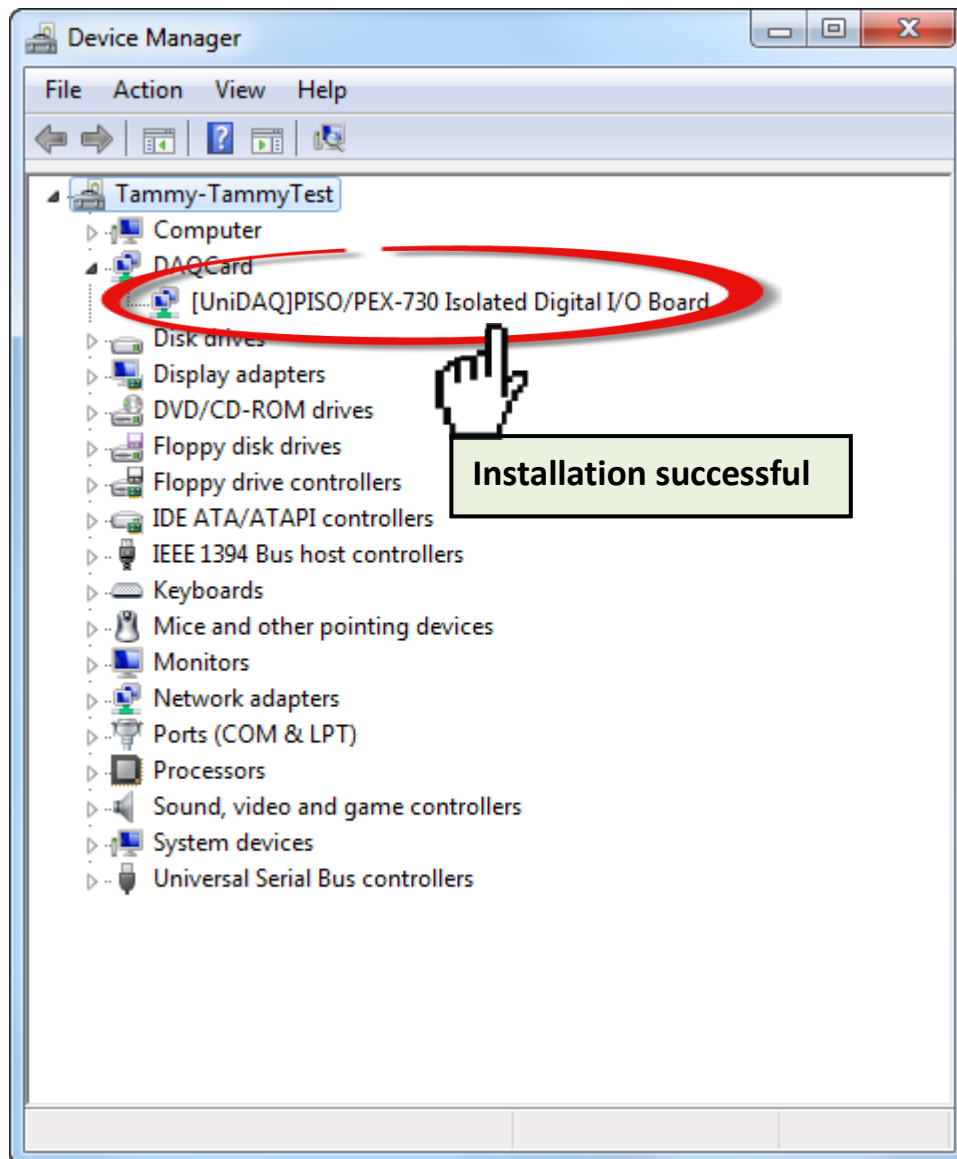
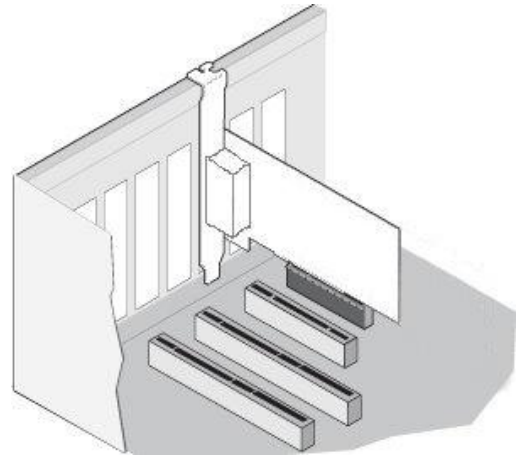
\NAPDOS\PCI\UniDAQ\Manual folder on the companion CD, or can be downloaded from:

<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/manual/>

4

Installing Hardware on PC


- ❶ Shut down and power off your computer.
- ❷ Remove the cover from the computer.
- ❸ Select an unused PCI/PCI Express slot.
- ❹ Carefully insert your I/O card into the PCI/PCI Express slot.
- ❺ Replace the PC cover.
- ❻ Power on the computer.
- ❼ Follow the prompt message to finish the Plug & Play steps.
- ❽ Please open the **“Device Manager”** to verify the I/O card is correctly listed in the Device Manager.



5


Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
IDI_0	01	20 IDI_1
IDI_2	02	21 IDI_3
IDI_4	03	22 IDI_5
IDI_6	04	23 IDI_7
IDI_8	05	24 IDI_9
IDI_10	06	25 IDI_11
IDI_12	07	26 IDI_13
IDI_14	08	27 IDI_15
EI.COM1	09	28 EI.COM2
EO.COM1	10	29 IGND
IDO_0	11	30 IDO1
IDO_2	12	31 IDO3
IDO_4	13	32 IDO5
IDO_6	14	33 IDO7
IDO_8	15	34 IDO9
IDO_10	16	35 IDO11
IDO_12	17	36 IDO13
IDO_14	18	37 IDO15
EO.COM2	19	




CON1

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



CON2

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



CON3

6

Self-Test

➤ Prepare for device:

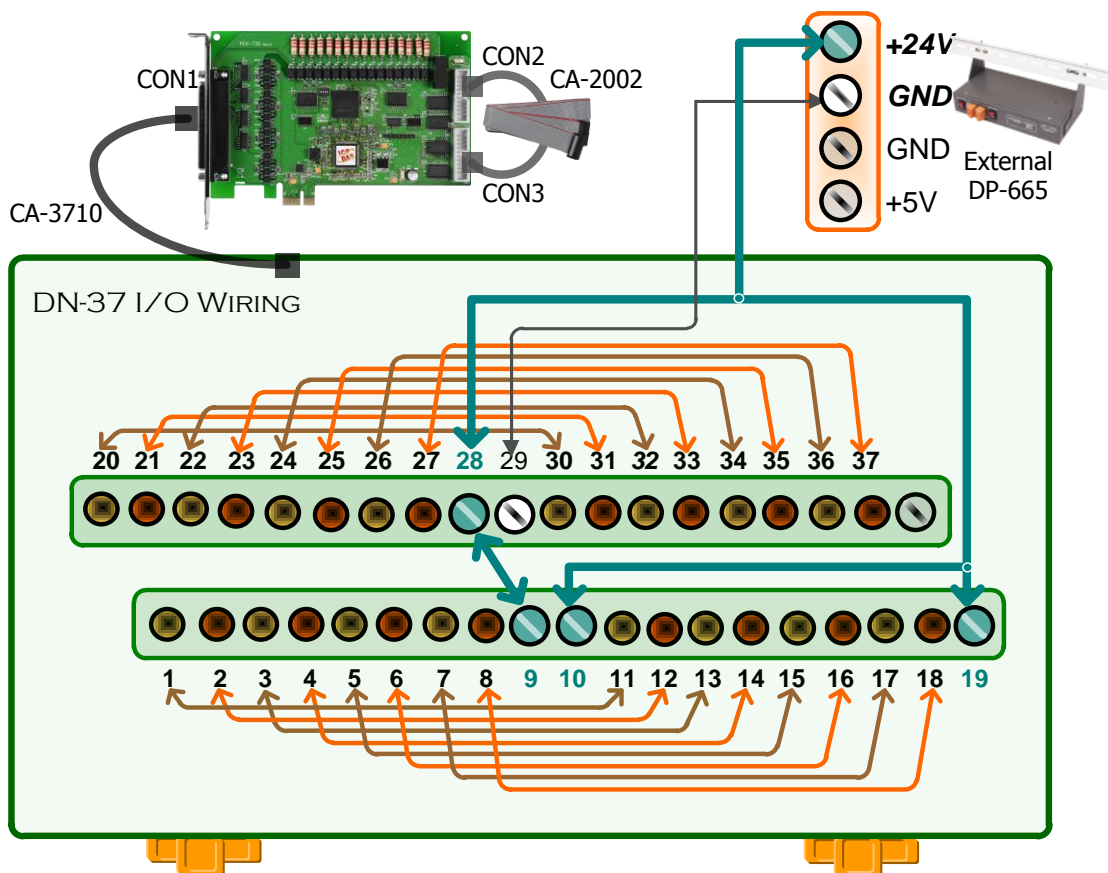
- ☑ DN-37 (optional) wiring terminal board
- ☑ Exterior power supply device. For example: DP-665 (optional)
- ☑ CA-3710 (optional) cable and CA-2002 (optional) cable

➤ Self-test wiring as follows:

- ❶ Use **CA-2002** to connect the **CON2** with **CON3** on board.
- ❷ Use the **DN-37** to connect the **CON1** on board.
- ❸ Connect the **CON1.IDI (0-15)** with **CON1.IDO (0-15)**.
(Pin1 connects to Pin11 Pin27 connects to Pin37)

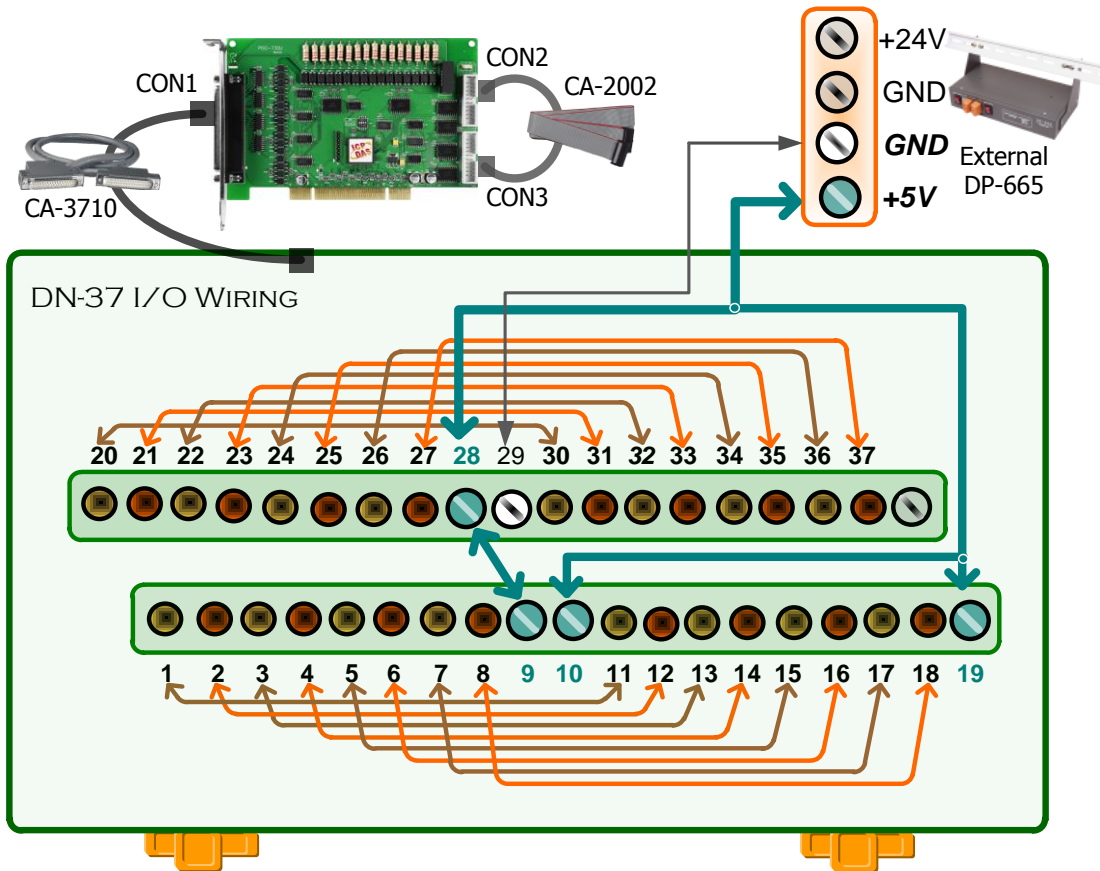
➤ PISO-730U/PEX-730 External Power +9 V ~ + 30 V Wiring:

- ❹ **External Power +24 V** connect to **EO.COM1 (Pin10)** and **EO.COM2 (Pin19)**
External Power +24 V connect to **EI.COM1 (Pin9)** and **EI.COM2 (Pin28)**
External Power GND connect to **IGND (pin29)**



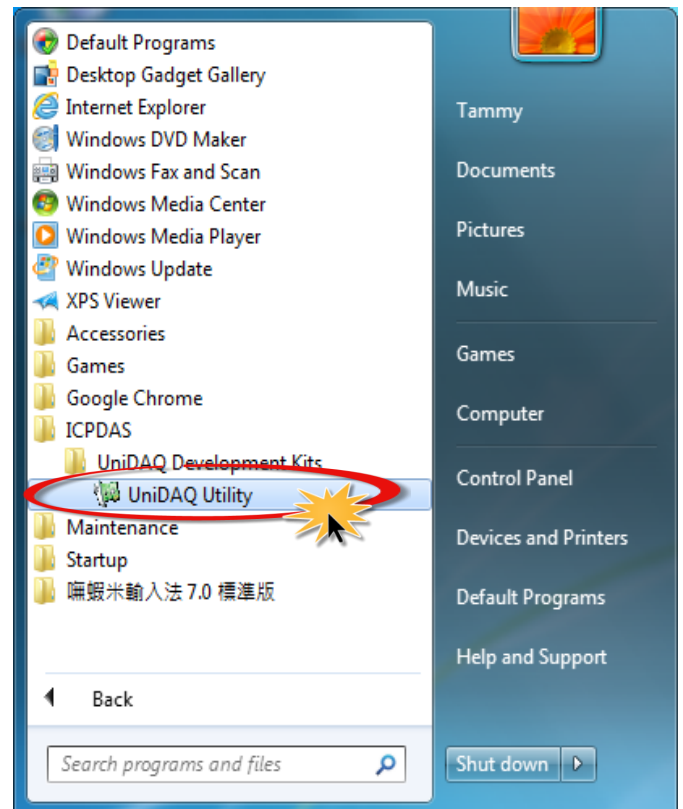
➤ **PISO-730U-5V External Power +5 V ~ + 12 V Wiring:**

- ④ **External Power +5 V** connect to **EO.COM1 (Pin10)** and **EO.COM2 (Pin19)**
- External Power +24 V** connect to **EI.COM1 (Pin9)** and **EI.COM2 (Pin28)**
- External Power GND** connect to **IGND (pin29)**



Execute the UniDAQ Utility as follows:

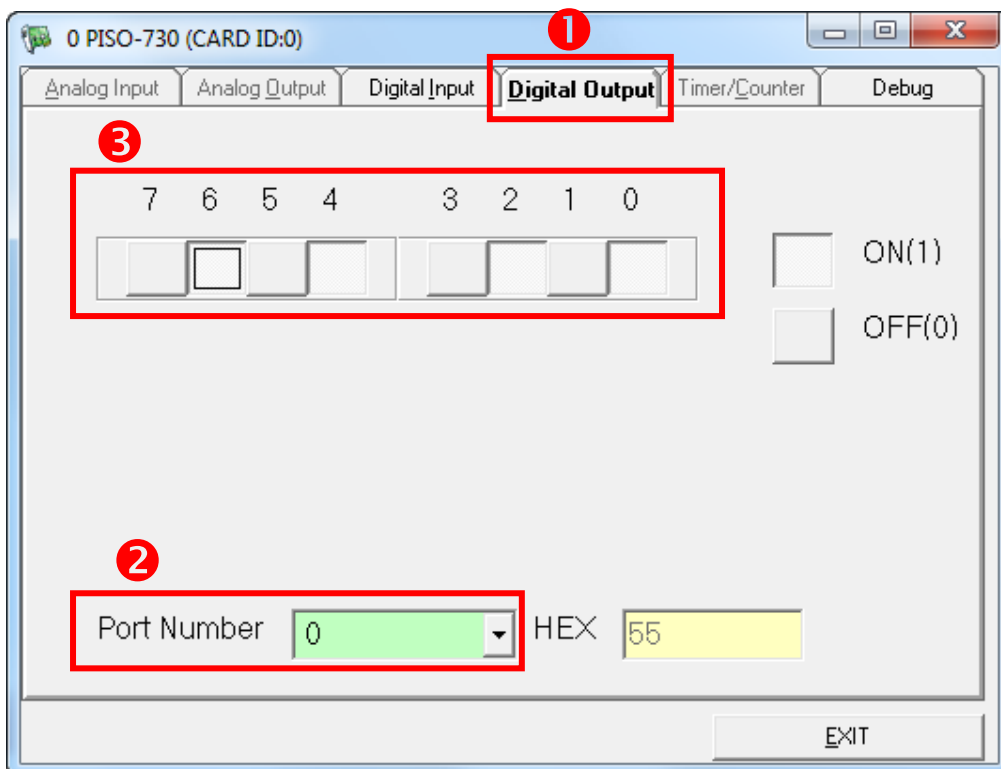
① In Windows 7, click the “Start” button, point to “All Programs”, and then click the “ICPDAS” folder. Point to “UniDAQ Development Kits” and then click the “UniDAQ Utility” to execute the UniDAQ Utility Program.



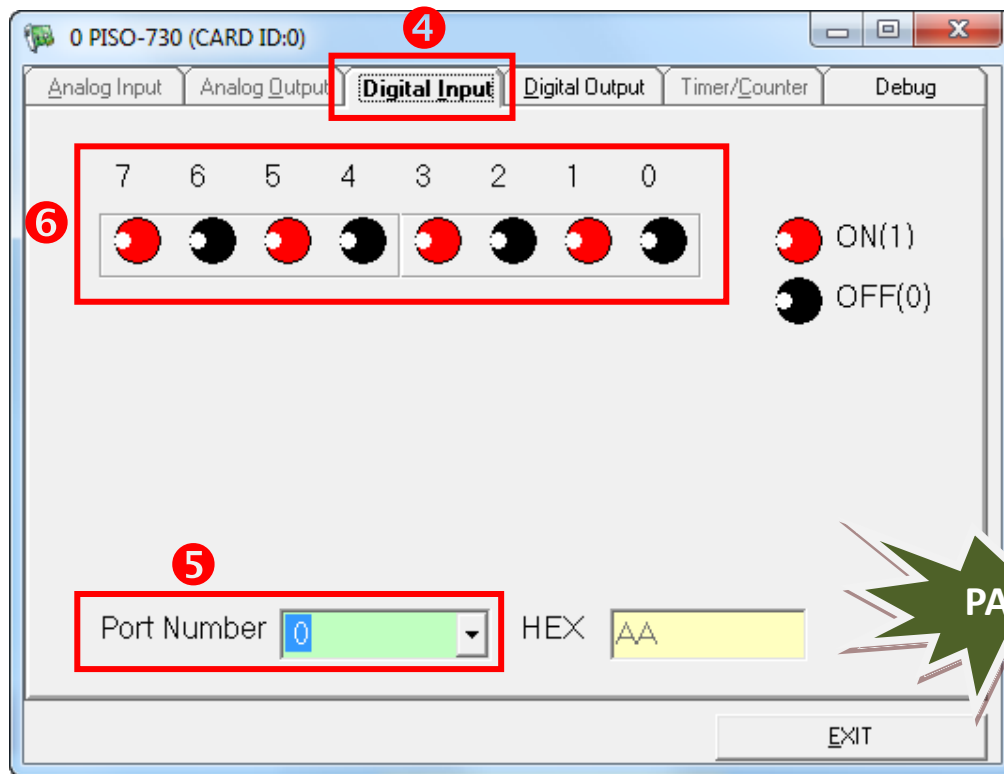
- ③ Confirm that PISO-730 Series card has been successfully installed in the host system. Note that the device numbers start from 0.
- ④ Click the “TEST” button to start the test.



- ⑤ 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.
 - ⚠ *Note: Port0/1 is isolated digital input/output (IDI/IDO), Port2/3 is non-isolated digital input/output (DI/DO).*
 3. Check the checkboxes for **channels 0, 2, 4 and 6**.



4. Click the “Digital Input” tab.
5. Select “Port0” from the “Port Number” drop-down menu.
6. The DI indicators will turn **black** when the corresponding DO channels 0, 2, 4 and 6 are **ON**. **⚠️ Note: Port0/1 IDI is the reverse logic, so the red light means low status (Logic 0) and the black light means high status (Logic 1).**



7

Related Information

- PISO/PEX-730 series card product page:
http://www.icpdas.com/root/product/solutions/pc_based_io_board/pci/piso-730.html
- DN-37, CA-3710, CA-2002 and DP-665 page (optional):
http://www.icpdas.com/products/DAQ/screw_terminal/dn_37.htm
http://www.icpdas.com/products/Accessories/power_supply/dp-665.htm
http://www.icpdas.com/products/Accessories/cable/cable_selection.htm
- Documentation and Software:
 CD:\NAPDOS\PCI\UniDAQ\
<http://ftp.icpdas.com/pub/cd/iocard/pci/napdos/pci/unidaq/>