ADLINK TECHNOLOGY INC.

DAQ Card Driver and Software Installation Guide for Windows®

Manual Rev. 2.00

Revision Date: April 26, 2007

Recycled Paper

Advance Technologies; Automate the World.

Disclaimer

The information in this document is subject to change without prior notice in order to improve reliability, design, and function and does not represent a commitment on the part of the manufacturer.

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

Trademark Information

NuDAQ is a registered trademark of ADLINK Technology Inc.

Product names mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies.

Getting service

Customer satisfaction is our top priority. Contact us should you require any service or assistance.

ADLINK TECHNOLOGY INC.

Web Site	http://www.adlinktech.com
Sales & Service	service@adlinktech.com
Telephone No.	+886-2-8226-5877
Fax No.	+886-2-8226-5717
Mailing Address	9F No. 166 Jian Yi Road, Chungho City, Taipei Hsien 235, Taiwan, ROC

ADLINK TECHNOLOGY AMERICA, INC.

Sales & Service	info@adlinktech.com
Toll-Free	+1-866-4-ADLINK (235465)
Fax No.	+1-949-727-2099
Mailing Address	8900 Research Drive, Irvine, CA 92618, USA

ADLINK TECHNOLOGY EUROPEAN SALES OFFICE

Sales & Service	emea@adlinktech.com
Toll-Free	+49-211-4955552
Fax No.	+49-211-4955557
Mailing Address	Nord Carree 3, 40477 Düsseldorf, Germany

ADLINK TECHNOLOGY SINGAPORE PTE LTD

Sales & Service	singapore@adlinktech.com
Telephone No.	+65-6844-2261
Fax No.	+65-6844-2263
Mailing Address	84 Genting Lane #07-02A, Cityneon Design Center, Singapore 349584

ADLINK TECHNOLOGY INDIA LIAISON OFFICE

Sales & Service	india@adlinktech.com
Telephone No.	+91-80-57605817
Fax No.	+91-80-26671806
Mailing Address	No. 1357, Ground Floor, "Anupama", Aurobindo Marg JP Nagar (Ph-1) Bangalore - 560 078

ADLINK TECHNOLOGY BEIJING

Sales & Service	market@adlinkchina.com.cn
Telephone No.	+82-2-20570565
Fax No.	+82-2-20570563
Mailing Address	4F, Kostech Building, 262-2, Yangjae-Dong, Seocho-Gu, Seoul, 137-130, Korea

ADLINK TECHNOLOGY BEIJING

Sales & Service	market@adlinkchina.com.cn
Telephone No.	+86-10-5885-8666
Fax No.	+86-10-5885-8625
Mailing Address	Room 801, Building E, Yingchuangdongli Plaza, No.1 Shangdidonglu, Haidian District, Beijing, China

ADLINK TECHNOLOGY SHANGHAI

Sales & Service	market@adlinkchina.com.cn
Telephone No.	+86-21-6495-5210
Fax No.	+86-21-5450-0414
Mailing Address	Floor 4, Bldg. 39, Caoheting Science and Technology Park, No.333 Qinjiang Road, Shanghai , China

ADLINK TECHNOLOGY SHENZHEN

Sales & Service	market@adlinkchina.com.cn
Telephone No.	+86-755-2643-4858
Fax No.	+86-755-2664-6353
Mailing Address	C Block, 2nd Floor, Building A1, Cyber-tech Zone, Gaoxin Ave. 7.S, High-tech Industrial Park S., Nanshan District, Shenzhen, Guangdong Province, China

Using this manual

Audience and scope

This manual guides you when installing the card and software drivers for ADLINK PCI/cPCI and DAQ-2000 Series DAQ cards and high-speed waveform generator and digitizer cards in Windows. This manual also describes how to use the NuDAQ Configuration Utility to register the card drivers and set the allocated memory buffer.

How this manual is organized

This manual is organized as follows:

Chapter 1 Installing Device Drivers: This chapter guides you when installing the DAQ card drivers in Windows.

Chapter 2 Installing Software Drivers: This section provides detailed instructions on how to install the PCIS-DASK, D2K-DASK, and WD-DASK software drivers to a Windows-based system. It also provides information on how to distribute the applications.

Chapter 3 Using NuDAQ Configuration Utility: This chapter describes the functions of the NuDAQ Configuration Utility.

Conventions

Take note of the following conventions used throughout the manual to make sure that you perform certain tasks and instructions properly.

NOTE	Additional information, aids, and tips that help you perform particular tasks.

IMPORTANT	Critical information and instructions that you MUST perform to complete a task.

WARNING	Information that prevents physical injury, data loss, module damage, program corruption etc. when trying to complete a particular task.

Related documentation

The following product and/or software documentation may be used as reference when using the D2K-DASK function reference manual:

1. **PCIS-DASK User's Manual**. ADLINK Technology Inc., March 2007.
2. **WD-DASK User's Manual**. ADLINK Technology Inc., April 2007.
3. **D2K-DASK User's Manual**. ADLINK Technology Inc., 2007.

Table of Contents

DAQ Card Driver and Software
Installation Guide for Windows

1 Installing Device Drivers

The plug and play capabilities of ADLINK PCI and CompactPCI data acquisition cards work well with Windows® 98, Windows® 2000, Windows® XP, and Windows Vista™.

After starting Windows, the native plug and play function searches and locates all newly-installed PCI/CompactPCI DAQ cards. The system prompts you to install the device drivers when this is the first time that Windows operated with the installed card(s) or when you have not installed the software drivers (PCIS-DASK, D2K-DASK, WD-DASK, etc.).

NOTE Windows® NT does not support plug and play. For Windows NT systems, refer to section 3.1.

1.1 System Requirements

Before you install the device drivers, make sure your system meets the following requirements:

- IBM PC/AT or any compatible system
- Windows 98/2000/XP/Vista operating system
- Installed ADLINK PCI or cPCI DAQ card
- Optical disk drive (CD-/DVD-ROM)
- ADLINK All-in-One CD

1.2 Windows 98

Follow these instructions to install the device drivers for PCI/cPCI DAQ cards under Windows 98.

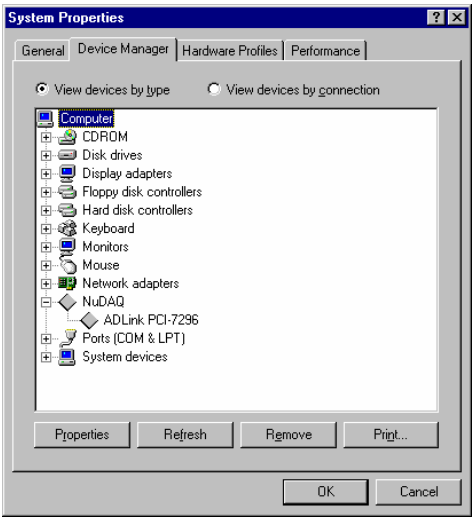
1. Turn on the system, then place the ADLINK All-in-One CD in the optical drive.
2. Windows prompts you to install the drivers for the installed device. Click **Next**.

3. When prompted to locate the device drivers, point to the information files in this All-In-One CD directory: `X:\Inf\DASK98Inf`.

The INF and driver files are copied into appropriate directories in the system. With the device information (.INF) and driver files (.SYS) installed, Windows 98 can automatically identify and initiate the data acquisition card during system startup.

To check if the device driver is correctly installed:

1. Restart the system.
2. Click on **Start** > **Settings** > **Control Panel** > **System**, then select the **Device Manager** tab.



3. From the Device Manager tab, expand the NuDAQ item, then double-click on the device under it.
4. Click the **Resources** tab and check if the I/O port and IRQ resources for the device are properly allocated.

1.3 Windows 2000/XP

Follow these instructions to install the device drivers for PCI/cPCI DAQ card under Windows 2000/XP.

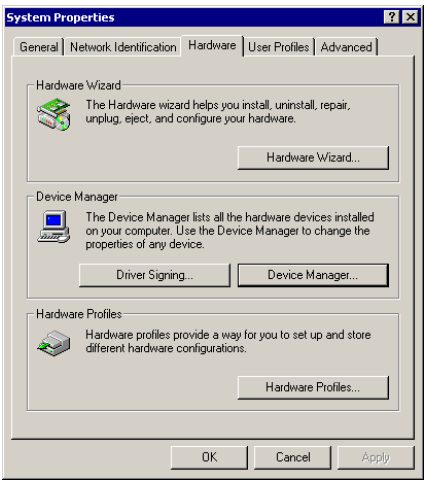
1. Turn on the system, then place the ADLINK All-in-One CD in the optical drive.
2. Windows detects the card and the Found New Hardware Wizard appears. Click **Next**.

3. When prompted to locate the device drivers, point to the information files in this All-In-One CD directory: `X:\Inf\DASK2000Inf`.

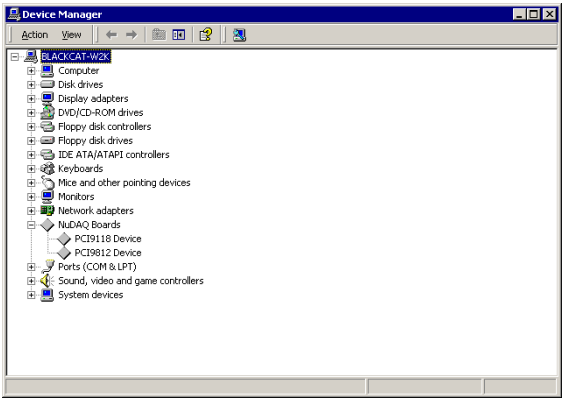
The INF and driver files are copied into appropriate directories in the system. With the device information (.INF) and driver files (.SYS) installed, Windows 2000/XP can automatically identify and initiate the data acquisition card during system startup.

To check if the device driver is correctly installed:

1. Restart the system.
2. Click on **Start** > **Settings** > **Control Panel** > **System > Hardware** tab, then click on the **Device Manager** button.



3. From the Device Manager window, expand the NuDAQ Boards item, then double-click on the device under it.



4. Click the **Resources** tab and check if the I/O port and IRQ resources for the device are properly allocated.

1.4 Windows Vista

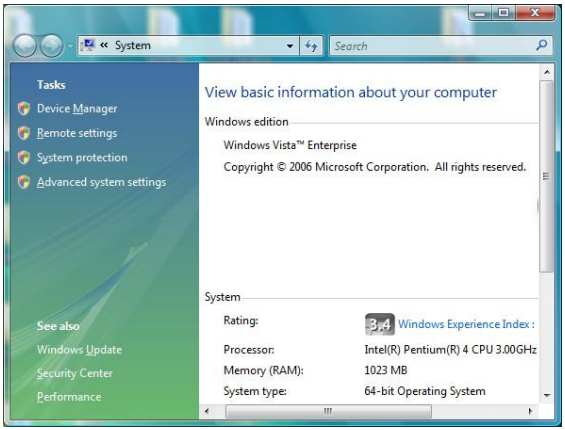
Follow these instructions to install the device drivers for PCI/cPCI DAQ cards under Windows Vista.

1. Turn on the system, then place the ADLINK All-in-One CD in the optical drive.
2. Windows detects the card and the Add Hardware Wizard appears. Click **Next**.

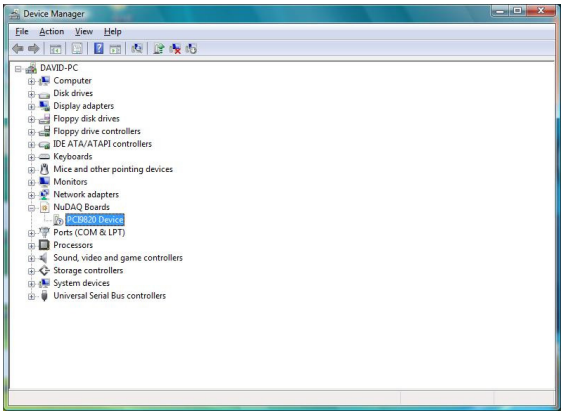
In Windows Vista 32-bit edition, the INF and driver files are copied into appropriate directories in the system. In Windows Vista 64-bit edition, the files related with the driver signature are pre-installed in `%systemroot%\System32\DriverStore\` after installing the ADLINK software driver. With the device information (.INF) and driver files (.SYS) installed, Windows Vista can automatically identify and initiate the data acquisition card during system start-up.

To check if the device driver is correctly installed:

1. Restart the system.
2. Click on **Start**, right-click on **Computer**, then select **Properties.**
3. From the **Tasks** list, click on **Device Manager**.



4. From the **Device Manager** window, expand the NuDAQ Boards item, then double-click on the device under it.



5. Click the **Resources** tab and check if the I/O port and IRQ resources for the device are properly allocated.

2 Installing Software Drivers

This chapter provides the installation instructions for ADLINK card software drivers including:

- **PCIS-DASK**: Windows Driver API for ADLINK PCI/PCI Express®/cPCI Series DAQ cards
- **WD-DASK**: Windows Driver API for ADLINK DAQ/DAQe/ PXI-2000 Series cards
- **D2K-DASK**: Windows Driver API for ADLINK PCI/PXI-9820 high-speed digitizers

NOTE Windows® NT does not support plug and play. For Windows NT systems, refer to section 3.1.

2.1 System Requirements

Before you install the device drivers, make sure your system meets the following requirements:

- IBM PC/AT or compatible system
- Windows NT/98/2000/XP/Vista operating system
- Hard disk drive with enough disk space to install the software driver
- Optical disk drive or 3.5-inch floppy disk drive (1.44 MB)
- Application development system (any Windows programming language that allows calls to a DLL, such as Visual C/ C++, Visual Basic, etc.)
- PCI/cPCI series or DAQ-2000 series data acquisition cards that the software driver supports

2.2 Installing DLL Drivers

This section tells you how to install the Windows 98/NT/2000/XP/Vista DLL drivers for the ADLINK software. Unless otherwise specified, the following cards were used for illustration: PCI-7230/cPCI-7230, DAQ-2010, and PCI-9820. Other PCI DAQ cards follow the same installation procedures.

The software packages are available from the ADLINK All-In-One CD or from the ADLINK website (http://www.adlinktech.com).

To install the DLL drivers:

1. Place the ADLINK All-In-One CD to the optical disk drive or point to the downloaded software package. The installation automatically starts when Autorun is enabled in the system.

NOTE If Autorun is disabled, explore the contents of the CD, then click on **Setup.exe**. Skip this test if you have the PCIS-DASK, D2K-DASK, or WD-DASK package.

2. Locate the drivers.

▶ For PCI-7230/cPCI-7230, select

```
Driver Installation > NuDAQ PCI > PCI-7230 >
     Win98/NT/2000/XP/Vista
```

to set up the NuDAQ PCI DLL driver (PCIS-DASK). If you have the PCIS-DASK package, double-click on the PCIS-DASK setup.exe to set up the driver.

▶ For DAQ-2010, select

```
Driver Installation > DAQ-2000 series > DAQ-2010
     > Win98/NT/2000/XP/Vista
```

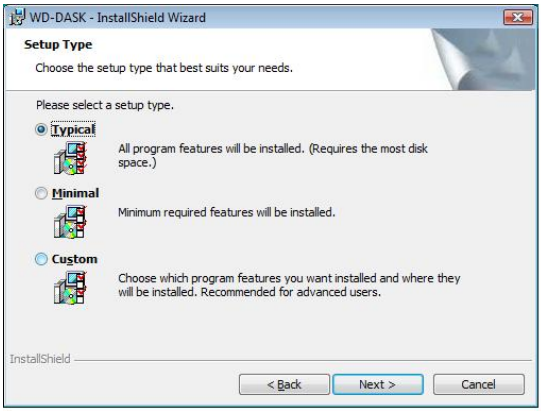
to set up the DAQ-2000 Series DLL driver (D2K-DASK). If you have the D2K-DASK package, double-click on the D2K-DASK setup.exe to set up the driver.

- For PCI-9820, select

  `Driver Installation > NuDAQ PCI > PCI-9820 > Win98/NT/2000/XP/Vista`

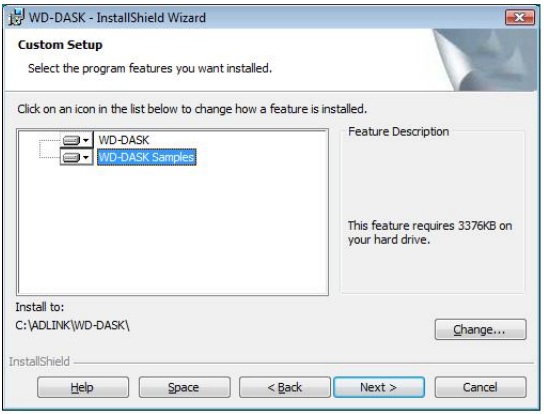
to set up the high-speed waveform generators and digitizers DLL driver (WD-DASK). If you have the WD-DASK package, double-click on the WD-DASK setup.exe to set up the driver.

3. Select the installation option, then click **Next** to proceed. You may install the PCIS-DASK/D2K-DASK/WD-DASK using any one of these options:



- **Typical**. Installs all files to the hard disk drive, including INF files (Windows 98/2000/XP/Vista only), DLL files, driver files, and all sample programs.
- **Compact**. Installs a minimum set of files to the hard disk drive. Only INF files (Windows 98/2000/XP/Vista only), DLL files, and driver files are installed.

- **Custom**. Displays a Custom Installation dialog box for selection of sample programs for the cards you want to install. The Custom Installation dialog box is shown below.



4. When you selected **Custom**, choose the library and sample program components. Refer to the illustration above.

NOTE For trouble-free PCIS-DASK, D2K-DASK, or WD-DASK operation, library components are required and must always be selected.

5. Click **Next**, then follow screen instructions to complete installation.
6. When the software component installation process is completed, Setup launches the DAQ Configuration Utility (PciUtil for PCIS-DASK, D2k_DevUtil for D2K-DASK, or WD_DevUtil for WD-DASK). This utility enables you to configure the card. Refer to Chapter 3 for more details.

2.3 Driver Location

When you choose **Typical** installation, the installation directory should contain the following files and sub-directories:

File or Sub-directory	Description
LIB <DIR>	Import library and DLL: Pci-Dask.lib, D2K-Dask.lib, or WD-Dask.lib for Visual C/C++; Pdask_bc.lib, D2kDask_bc.lib, or wddask_bc.lib for Borland C++.
INCLUDE <DIR>	Application programming files: DASK.BAS, D2KDASK.BAS, or WD- DASK.BAS for Visual Basic; DASK.H, D2KDASK.H, or WD-DASK.H for C/C++; DASK.PAS, D2KDASK.PAS,or WD-DASK.PAS for Delphi.
HELP <DIR>	Online help files.
MANUAL <DIR>	PDF manual files, including User Guide and Function Reference.
UTIL <DIR>	Driver Registry/Config utility.
SAMPLES <DIR>	Sample programs browser, Examples.exe, and various sub-directories with sample programs.

NOTE ADLINK periodically updates the PCIS-DASK, D2K-DASK, and WD-DASK to support new DAQ cards. Refer to the Readme file in the PCIS-DASK/D2K-DASK/WD-DASK folder to know the devices that the PCIS-DASK/ D2K-DASK/WD-DASK currently supports.

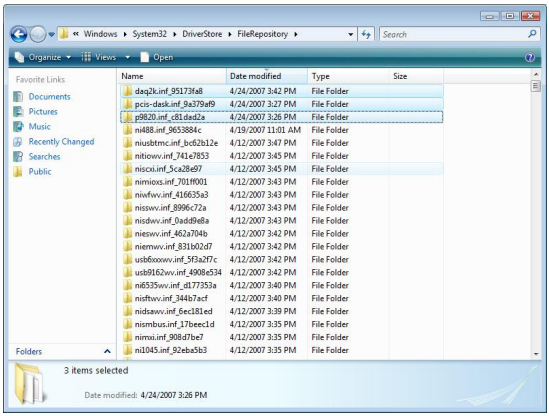
Windows 98/2000 and Windows XP/Server 2003/Vista 32-bit Edition

The INF and driver files are copied to the appropriate directories.

Windows XP/Server 2003/Vista 64-bit Edition

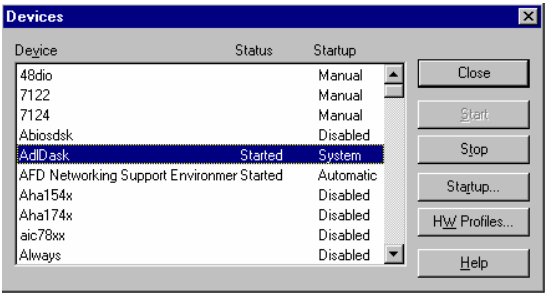
After the driver packages passed integrity checks, these are copied to the driver store including the .inf files and files referenced by .inf files. With the installed device information (.INF) and device driver files (.SYS), Windows XP/Server 2003/Vista can now automatically identify and initiate the installed DAQ card during system

startup. The driver packages installed in the driver store are highlighted in the illustration below.



Windows NT 4.0

After installing the card(s) and loading Windows NT, make sure that the PCIS-DASK/D2K-DASK/WD-DASK device drivers that correspond to the card(s) is started. For the PCIS-DASK/D2K-DASK/WD-DASK to communicate with the card(s), the card(s) device driver (for example: PCI6208, PCI7200, DAQ2010, PCI9820, etc.) must be started. To check the card status, open the **Control Panel**, then double-click on **Devices**. A Devices window appears.



Check the status column for the driver information. If the device status is blank, select the device, then press **Start**.

2.4 Distributing Applications

To install an application using PCIS-DASK/WD-DASK/D2K-DASK on another computer, you must install the necessary driver files and supporting libraries on the target machine. You can create an automatic installer to install your program and all of the file needed to run that program or you can manually install the program and program file. Whicshever installation method you choose, you must install the following files.

PCIS-DASK

Required support DLL:

- PCIS-DASK.dll

Driver files

- Windows 98
  - The corresponding driver files in **PCIS-DASK\redist\W98 \drivers**, for example: pci9112.sys for PCI-9112. These files should be copied to the **%systemroot%\system32\drivers** directory.
  - The corresponding INF files in **PCIS-DASK\redist\W98\inf**, for example: pci9112.inf for PCI-9112. These files should be copied to **%system-root%\inf directory**.
  - Device configuration utility in **PCIS-DASK\redist\W98\util.**
- Windows NT 4.0
  - The corresponding driver files in **PCIS-DASK\redist\Wnt \drivers**, for xample: pci9112.sys for PCI-9112. These files should be copied to **%system-root%\system32\drivers** directory.
  - Device configuration utility in **PCIS-DASK\redist\Wnt\util**.

- Windows 2000 and Windows XP/Server 2003/Vista (32-bit Editions)
  - The corresponding driver files in **PCIS-DASK\redist\W2000\drivers**, for example: pci9112.sys for PCI-9112. These files should be copied to **%system-root%\system32\drivers** directory.
  - The corresponding INF file in **PCIS-DASK\redist\W2000\inf**, for example: pci9112.inf for PCI-9112. These files should be copied to **%system-root%\inf** directory.
  - Device configuration utility in **PCIS-DASK\redist\W2000\util**.
- Windows XP/Server 2003/Vista (64-bit Editions)
  - Place the driver package to the driver store of the local system. The signed driver package is in the **PCIS-DASK\redist\X64 \signed drivers**. Execute **DPInst.exe** to pre-install these files to **%system-root%\system32\DriverStore**.
  - The corresponding files in **PCIS-DASK\redist\X64\firm-ware**. These files should be copied to **%system-root%\system32 \drivers** directory.
  - Device configuration utility in **PCIS-DASK\redist\X64\util**.

WD-DASK

Required support DLL

- WD-DASK.dll

Driver files

- Windows 98
  - The corresponding driver files in **WD-DASK\redist\W98\drivers**, for example: pci9820.sys for PCI-9820. These files should be copied to %systemroot%\system32\drivers directory.
  - The corresponding INF files in **WD-DASK\redist\W98\inf**, for example: pci9820.inf for PCI-9820. These files should be copied to **%systemroot%\inf** directory.
  - Device configuration utility in **WD-DASK\redist\W98\util**.
- Windows NT 4.0
  - The corresponding driver files in **WD-DASK\redist\Wnt\drivers**, for example: pci9820.sys for PCI-9820. These files should be copied to **%systemroot%\system32\drivers** directory.
  - Device configuration utility in **WD-DASK\redist\Wnt\util**.
- Windows 2000 and Windows XP/Server 2003/Vista (32-bit Editions
  - The corresponding driver files in **WD-DASK\redist\W2000\drivers**, for example pci9820.sys for PCI-9820. These files should be copied to **%systemroot%\system32\drivers** directory.
  - The corresponding INF file in **WD-DASK\redist\W2000\inf**, for example: pci9820.inf for PCI-9820. These files should be copied to **%systemroot%\inf** directory.
  - Device configuration utility in **WD-DASK\redist\W2000\util**.

- Windows XP/Server 2003/Vista (64-bit Editions)
  - Place the driver package to the driver store of the local system. The signed driver package is in **WD-DASK\redist\X64 \signed drivers**. Execute **DPInst.exe** to pre-install these files to the **%system-root%\system32\DriverStore**.
  - The corresponding files in **WD-DASK\redist\X64\firm-ware**. These files should be copied to **%system-root%\system32 \drivers** directory.
  - Device configuration utility in **WD-DASK\redist\X64\util**.

D2K-DASK

Required support DLL

- D2K-DASK.dll

Driver files

- Windows 98
  - The corresponding driver files in **D2K-DASK\redist\W98\drivers**, for example: daq2010.sys for DAQ-2010. These files should be copied to **%system-root%\system32\drivers** directory.
  - The corresponding INF files in **D2K-DASK\redist\W98\inf**, for example daq2010.inf for DAQ-2010. These files should be copied to **%system-root%\inf** directory.
  - Device configuration utility in **D2K-DASK\redist\W98\util**.
  - Device calibration utility in **D2K-DASK\redist\W98\util**.
- Windows NT 4.0
  - The corresponding driver files in **D2K-DASK\redist\Wnt\drivers**, for example: daq2010.sys for DAQ-2010. These files should be copied to **%system-root%\system32\drivers** directory.
  - The dio driver file: **dio.sys**, in **D2K-DASK\redist\Wnt\drivers**. The file should be copied to **%systemroot%\system32\drivers** directory.
  - **Dioserv.exe**, registry and starting utility for dio service, in **D2K-DASK\redist\Wnt\drivers**. The file should be executed after dio.sys is copied to **%system-root%\system32\drivers** directory.
  - Device configuration utility in **D2K-DASK\redist\Wnt\util**.
  - Device calibration utility in **D2K-DASK\redist\Wnt\util**.

- Windows 2000 and Windows XP/Server 2003/Vista (32-bit Editions)
  - The corresponding driver files in **D2K-DASK\redist\W2000\drivers**, for example: daq2010.sys for DAQ-2010. These files should be copied to **%systemroot%\system32\drivers** directory.
  - The corresponding INF file in **D2K-DASK\redist\W2000\inf**, for example: daq2010.inf for DAQ-2010. These files should be copied to **%systemroot%\inf** directory.
  - The dio driver file, **dio.sys**, in **D2K-DASK\redist\W2000 \drivers**. The file should be copied to **%systemroot% \system32\drivers** directory.
  - **Dioserv.exe**, registry and starting utility for dio service, in **D2K-DASK\redist\W2000\drivers**. The file should be executed after dio.sys is copied to **%systemroot% \system32\drivers** directory.
  - Device configuration utility in D**2K-DASK\redist\W2000\util**.
  - Device calibration utility in **D2K-DASK\redist\W2000\util**.
- Windows XP/Server 2003/Vista (64-bit Editions)
  - Place the driver package to the driver store of the local system. The signed driver package is in **D2K-DASK\redist\X64 \signed drivers**. Execute **DPInst.exe** to pre-install these files to **%system-root%\system32\DriverStore**.
  - The corresponding files in **D2K-DASK\redist\X64\firmware**. These files should be copied to **%system-root%\system32\drivers** directory.
  - The dio driver file, **adldio64.sys**, in **D2K-DASK\redist\X64 drivers**. The file should be copied to **%systemroot% \system32\drivers** directory.

- **Dioserv.exe**, registry and starting utility for dio service, in **D2K-DASK\redist\X64\drivers**. The file should be executed after adldio64.sys is copied to **%system-root%\system32\drivers** directory.
- Device configuration utility in **D2K-DASK\redist\X64\util**.
- Device calibration utility in **D2K-DASK\redist\X64\util**.

2.5 Removing the Software

You may easily uninstall any ADLINK software drivers using the the Add/Remove Programs command in Windows.

To uninstall a software driver:

1. Open the **Control Panel**, then double-click on the **Add/ Remove Programs** icon
2. Select the software you want to remove from the list, then click **Remove**.
3. Follow screen instructions until the software is removed from the system.

3 Using NuDAQ Configuration Utility

The DAQ configuration utilities — **PciUtil**, **WDUtil**, and **D2kUtil** — allow you to register the card drivers and set or modify the allocated buffer sizes for continuous analog input, analog output, digital input, and digital output operations.

To launch the configuration utilities:

- **PciUtil**: Click **Start** > **Programs** > **ADLINK** > **PCIS-DASK** > **PCIS-DASK Configuration Utility**
- **WDUtil**: Click **Start** > **Programs** > **ADLINK** > **WD-DASK** > **WD-DASK Configuration Utility**
- **D2kUtil**: Click **Start** > **Programs** > **ADLINK** > **D2K-DASK** > **D2K-DASK Configuration Utility**

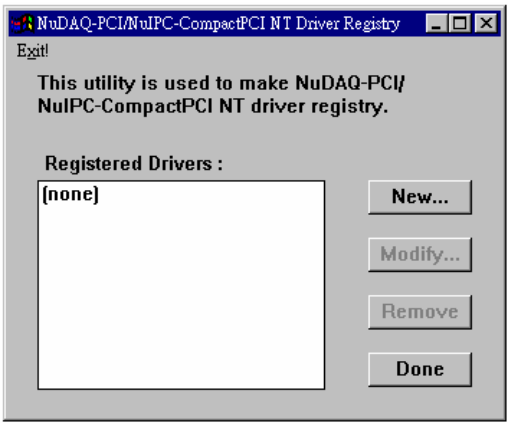
3.1 Registering a Card Driver

Windows NT 4.0

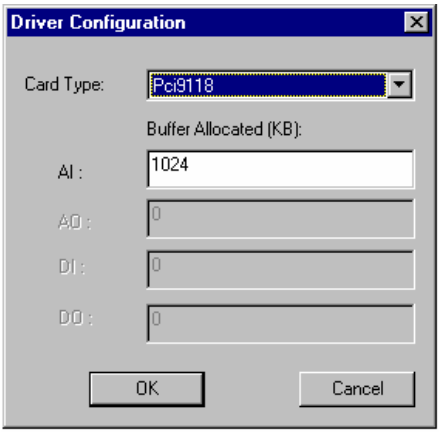
The NuDAQ Configuration Utility main window for Windows NT 4.0 allows you to register the card drivers manually as Windows NT does not support plug and play.

To register a new card driver:

1. Click **New…** from the NuDAQ NT Driver Registry window. A Driver Configuration window appears.



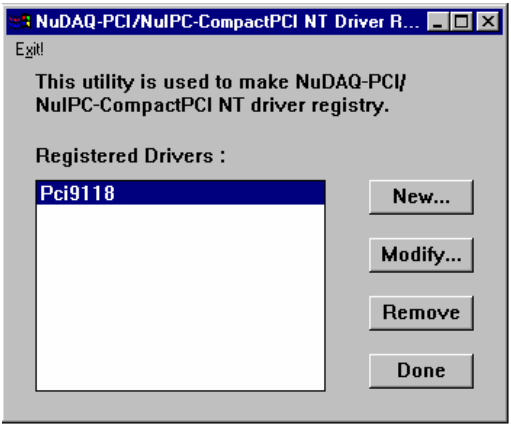
2. Select the device from the **Card Type**.



3. Enter the size of allocated buffer in the box after each supported DAQ operation depending on your application. The allocated buffer for AI, AO, DI, and DO represents the size of the contiguous initially allocated memory for that operation. The unit is in Kbytes or 1024 bytes.

NOTE The device driver tries to allocate the memory size at system startup time. If the system is not able to provide the specified memory size, the device driver allocates the largest possible size. You can usethe AI/DI/DO InitialMemoryAllocated function to retrieve the memory size allocated. The size of the initially allocated memory is the maximum memory size the DMA or interrupt transfer can perform. Errors occur when the DMA or interrupt transfer exceeds the initially allocated size.

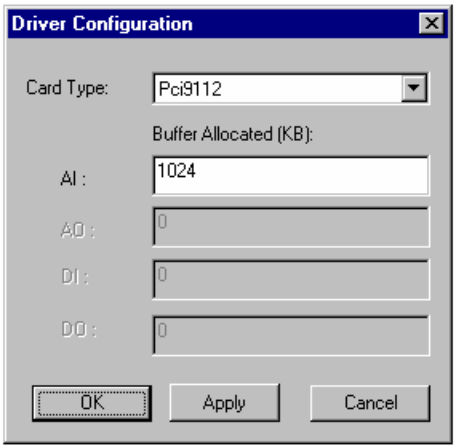
4. Click **OK** to register the driver and return to the main window. The registered driver is now listed in the main window.



5. Click **Exit** to close the registration utility or click **Done**.
6. Restart the system to activate the registered drivers.

Windows 98/2000/XP/Vista

Windows 98/2000/XP/Vista automatically detects the card drivers and displays the Driver Configuration window after you launch any of the NuDAQ Configuration Utilities. You may use this window to select the device you want to register and adjust the size of allocated buffer.



To register a new card driver:

1. Select the device from the **Card Type**.
2. Enter the size of allocated buffer in the box after each supported DAQ operation depending on your application. The allocated buffer for AI, AO, DI, and DO represents the size of the contiguous initially allocated memory for that operation. The unit is in Kbytes or 1024 bytes.

NOTE The device driver tries to allocate the memory size at system startup time. If the system is not able to provide the specified memory size, the device driver allocates the largest possible size. You can usethe AI/DI/DO InitialMemoryAllocated function to retrieve the memory size allocated. The size of the initially allocated memory is the maximum memory size the DMA or interrupt transfer can perform. Errors occur when the DMA or interrupt transfer exceeds the initially allocated size.

3. Click **OK** to register the driver and return to the main window. Click **Exit** to close the registration utility or click **Done**.
4. Restart the system to activate the registered drivers.