NI-DAQ™ FOR PC COMPATIBLES VERSION 6.1

These notes contain information you must know before installing NI-DAQ for PC Compatibles, version 6.1. They explain how to install your NI-DAQ 6.1 driver software on Windows 95 and Windows NT. They also contain instructions on how to install and use your electronic documentation set.

NI-DAQ 6.1 ships on CD. To obtain diskettes for NI-DAQ 6.1, please contact National Instruments and request part number 777389-01.

Operating System Compatibility Issues

If you are using Windows 3.*x* or DOS, you will need to use different versions of NI-DAQ or DOS drivers, as follows:

♦ Windows 3.*x*

If you are using Windows 3.*x*, you must use NI-DAQ 5.0.6 or earlier because NI-DAQ 6.1 does not support Windows 3.*x*. NI-DAQ 5.0.6 is included on the NI-DAQ 6.1 CD and will be installed if you run the installer in Windows 3.*x*. To obtain diskettes for NI-DAQ 5.0.6, please contact National Instruments and request part number 777568-01.

♦ DOS

NI-DAQ 6.1 does not include drivers for DOS applications or DOS programming languages. To obtain DOS drivers, please contact National Instruments and request NI-DAQ for DOS version 4.8.0, part number 777170-01.

What Is Different about Version 6.*x*

Among the new features of NI-DAQ 6.*x* are support for new hardware products, new NI-DAQ examples, NI-DAQ Remote Device Access (RDA), and the DAQ-OPC Server.

To learn more about new functions and newly supported hardware, refer to the readme.doc or the localized readmej.doc, readmed.doc, and readmef.doc files in your NI-DAQ software before installation. If you have already installed NI-DAQ, select the **NI-DAQ Readme File** in the **Start»Programs»NI-DAQ for Windows** menu to access this information.

The NI-DAQ Configuration Utility

As of NI-DAQ 5.0, the NI-DAQ Configuration Utility has a new interface. As a result, when you upgrade from NI-DAQ 4.9.0 or earlier to NI-DAQ 6.1, you will lose all of your configuration information.

☞ **Note**   *If you are currently using a data acquisition (DAQ) device with an NI-DAQ version earlier than version 5.0, please make a note of all of your hardware settings for your DAQ devices and SCXI modules before upgrading to NI-DAQ 6.1. After you have installed NI-DAQ 6.1, this information will be overwritten and you will need to reenter the configuration information manually. For example, note the gains, filter settings, and terminal block information for SCXI modules and the IRQ, DMA, and I/O address for DAQ devices. If you are upgrading from NI-DAQ version 4.9.0 or earlier, you can get some of this information from the* wdaqconf.txt *file located in your* Windows *directory. Additional configuration information may be recorded in the configuration form or technical support form at the back of your hardware user manual.*

NI-DAQ 6.1 Replaces LabVIEW 4.*x* or Higher VI Libraries

If you are using LabVIEW versions 4.*x* or higher, the following library files will be replaced:

*   VI.LIB\UTILITY\error.llb (the error handler VIs in the **Time and Dialog** palette)
*   All library files in VI.LIB\DAQ (all VIs on the DAQ palettes)
*   All library files in EXAMPLES\DAQ (all the DAQ Example VIs)

If you have saved VIs into any of these libraries, you should quit the installer, launch LabVIEW, copy any such VIs to another place, quit LabVIEW, and restart the installer.

DAQ-OPC Server

The DAQ-OPC Server provides an interface between National Instruments DAQ products and OLE for Process Control (OPC), the new industrial automation standard. By installing the DAQ-OPC Server, you can use any software that supports OPC with National Instruments DAQ devices and software. Because the OPC specification supports both local and remote applications, you can use the DAQ-OPC Server to access DAQ devices remotely across a network.

For information on how to install and configure your DAQ-OPC Server, see the *DAQ-OPC Server Installation* section later in these notes.

NI-DAQ RDA

The NI-DAQ RDA feature lets you use National Instruments DAQ devices plugged into other computers on your network on your computer. This feature works only with programs written in LabVIEW. Your programs need no modifications to use this feature. Access to the remote devices are transparent to your program.

Installation for Windows 95/NT

Because all system architectures are different, each one requires a different device configuration procedure. However, in most cases you follow the same general steps:

1. Install your application software (LabVIEW or LabWindows/CVI, for example).

2. Install your NI-DAQ driver software and the appropriate support files.

3. Install your DAQ hardware device.

4. Configure your device using the NI-DAQ Configuration Utility.

5. If desired, configure your channels with the DAQ Channel Wizard.

The NI-DAQ driver software that ships with your hardware is the latest version of NI-DAQ. In some cases, National Instruments application software will install an older version of the NI-DAQ driver software. In such cases, you should install the NI-DAQ software that shipped with your hardware after you have installed your application software.

☞ **Note**   *In all cases, install your NI-DAQ software prior to installing your DAQ hardware.*

Windows NT 4.0 Support

NI-DAQ now supports all National Instruments DAQ products in Windows NT 4.0. To facilitate this support, NI-DAQ 6.1 now uses 16-bit integers in many function parameters, as compared to the 32-bit integers used in NI-DAQ version 4.9.0 and earlier. Therefore, if you have existing code that uses an old version of NI-DAQ and you want to upgrade the code to use NI-DAQ 6.1 with Windows NT 4.0, you need to change the appropriate function parameters to 16-bit integers.

Windows NT 4.0 assumes that a driver will support only one PC Card (PCMCIA card) at a time. Therefore, you cannot use more than one DAQ PC Card at a time on Windows NT 4.0.

NI-DAQ 6.1 for Windows NT 4.0 is not compatible with LabVIEW 3.1.1. To use NI-DAQ 6.1 with LabVIEW on Windows NT 4.0, you must upgrade to LabVIEW 4.0 or higher.

Installing for Windows NT

To install devices for Windows NT, you must log into Windows NT as an administrator or as a user with administrator privileges. NI-DAQ 6.1 works with Windows NT 4.0 and later.

ISA Devices

To use ISA Plug and Play devices (for example, AT E Series devices), you must install the Windows NT 4.0 ISA Plug and Play driver and your NI-DAQ driver software before you install your DAQ hardware. The ISA Plug and Play driver is not installed by default. Follow these steps to install the drivers:

1. Insert your Windows NT 4.0 CD.

2. Go to the `\Drvlib\Pnpisa\X86` directory.

3. Right-click once on the `Pnpisa.inf` file, select the **Install** option, and follow the instructions.

4. Insert your NI-DAQ CD. Then install your NI-DAQ driver software and the appropriate support files.

5. After you have installed the `Pnpisa.inf` file and your NI-DAQ driver software, restart your system.

6. Shut down and install your DAQ hardware device.

For more information about installing NI-DAQ in Windows NT, read the *Device Configuration* section in Chapter 1, *Introduction to NI-DAQ*, of the *NI-DAQ User Manual for PC Compatibles.* Also, refer to the *Using the Online Documentation Set* section later in this note.

After you complete the NI-DAQ installation, you must install and configure your DAQ devices. The help file has useful information on installing DAQ hardware. You can access the NI-DAQ help file and `readme.doc` file under the **Start»Program»NI-DAQ for Windows**, **LabVIEW**, or **LabWindows/CVI»NI-DAQ Online Help** and **NI-DAQ Readme File** items.

Windows 95 Support

If you have NI-DAQ for Windows 95 version 4.8.5 installed on your machine, you need to perform the following steps to correct a problem with the `uninstall` program. If you installed NI-DAQ 4.8.5 over an earlier version of NI-DAQ, calling `uninstall` can delete the contents of your `autoexec.bat` and `system.ini` files.

Do not uninstall NI-DAQ 4.8.5. To remove the files that were installed by NI-DAQ 4.8.5, select and delete them manually. Alternately, you can have your files updated by installing NI-DAQ 6.1 in the same folder. You will have to manually remove the **Start Menu** items relating to NI-DAQ 4.8.5.

Follow these steps to remove the **Start Menu** items:

1. Open the **Properties** page for the taskbar by right-clicking on the taskbar.

2. Select the **Start Menu Programs** tab. Click on the **Advanced** button.

3. Delete the NI-DAQ 4.8.5 program group.

☞ **Note**   *NI-DAQ 6.1 does not support 16-bit programs under Windows 95.*

DAQ-OPC Server Installation

To install the DAQ-OPC Server, select the NI-DAQ OPC checkbox from the NI-DAQ installer's **Select Components** screen. To use the DAQ-OPC Server, you must also install the NI-DAQ driver files.

For DAQ-OPC configuration details, refer to the **NI-DAQ Readme File**.

☞ **Note**   *If you are running Windows 95, you must install DCOM for Windows 95 before installing the DAQ-OPC Server. You can download this software from the Microsoft web site at* `http://microsoft.com/com/dcom95`*.*

Using the Online Documentation Set

After you install your NI-DAQ 6.1 software, you can access the NI-DAQ documentation on your software CD or diskettes. The NI-DAQ for PC Compatibles documentation set includes four online help files—the NI-DAQ Configuration Utility online help file (`NIDAQCFG.HLP`), the DAQ Channel Wizard online help file (`CHANWIZ.HLP`), the NI-DAQ Function Reference online help file (`NIDAQPC.HLP`) and the LabVIEW/DAQ online help file (`LVDAQ.HLP`)—and three Adobe Acrobat version 3.0 portable document format (PDF) files.

The NI-DAQ installer automatically installs the online help files. To view the online help files, double-click on the file you want to use. The NI-DAQ installer prompts you to install any or all of the PDF files—`nidaqum.pdf`, `nidaqfrm.pdf`, and `daqhwov.pdf`. These files are online versions of the *NI-DAQ User Manual for PC Compatibles*, the *NI-DAQ Function Reference Manual for PC Compatibles*, and the *DAQ Hardware Overview Guide*. NI-DAQ 6.1 also ships with online versions of National Instruments hardware user manuals. You can read all the PDF files with the Adobe Acrobat Reader.

☞ **Note**   *If you are using an earlier version of NI-DAQ, you may need to install Acrobat Reader version 3.0 or later to read the PDF files that ship with NI-DAQ 6.1.*

To install the Acrobat Reader, launch the `Ar32e30.exe` file from the `Acrobat` folder on the NI-DAQ CD.

The PDF files are electronic duplicates of the printed documentation. However, unlike the printed document, the PDF file assigns consecutive numbers to each page throughout the document and displays this page number in the lower left corner of the Acrobat window. When you choose the **View»Go To Page...** option or are printing pages, you must use the page numbers in the lower left corner of the window, not the number displayed at the bottom center of each manual page or listed in the contents and index. The number in the bottom center of the page is for printed documents only.

To use hypertext links, click on any entry in the table of contents to jump directly to that topic's page. You can jump to major sections within each manual quickly and easily by clicking on the bookmarks.

If you would like to purchase the printed NI-DAQ documentation, please contact National Instruments and request part number 777171-01. (LabVIEW, ComponentWorks, and VirtualBench users do not need the NI-DAQ documentation.) The printed documentation set includes the *NI-DAQ User Manual for PC Compatibles* and the *NI-DAQ Function Reference Manual for PC Compatibles* but does not include the *DAQ Hardware Overview Guide*. This guide is available only as a PDF file.