

VXIplug&play SOFTWARE KIT NI-VISA™ FOR WINDOWS 95/NT: WIN95, GWIN95, WINNT, AND GWINNT FRAMEWORKS

Thank you for purchasing a National Instruments VXIplug&play-compliant controller. To comply with VXIplug&play specifications, a VXI controller must provide the VISA I/O driver library standardized by VXIplug&play. VISA ensures that your controller can run all VXIplug&play-compatible software now and in the future, while NI-VXI and NI-488.2 ensure that your controller can run the installed base of drivers and applications. The NI-VXI and/or NI-488.2 driver software components are included with your controller, and the documentation that accompanies your controller describes how to install and use them. This VXIplug&play software kit includes NI-VISA, which is the National Instruments implementation of VISA, and related documentation. This document describes how to use the Setup program to install your NI-VISA software.

The NI-VISA software in this kit is compatible with the WIN95/GWIN95 and WINNT/GWINNT frameworks. With NI-VISA installed on your computer, you can run any VXIplug&play software compatible with these frameworks. This includes instrument drivers and executable soft front panel software included with VXIplug&play-compatible instruments from a variety of vendors.

Refer to the `readme.txt` file included with your software for the most up-to-date information about this release of NI-VISA, including support for the recently announced PXI interface.

Contents

What Do You Have?.....	2
Software.....	2
Acrobat (Online) Documentation	2
New Utilities	4
Supported Application Development Environments	4
Where Do You Start?	5
Step 1. Install LabVIEW and/or LabWindows/CVI.....	5
Step 2. Install Your NI-VXI/NI-488.2 Driver Software.....	5
Step 3. Install Your NI-VISA Software	6
Start the Setup Program.....	6
Updating the NI-VISA Setup	7

What Do You Have?

Your kit contains the following software and documentation.

Software

The *VXIplug&play* disks are labeled **NI-VISA for Windows 95/NT** and contain the following software components.

- VISA Dynamic Link Library
- VISA Microsoft C and Borland C Import Libraries
- VISA Microsoft Visual Basic Support Files
- VISA GPIB-VXI Component
- VPP-6 Compliant Windows 95/NT Installer

Acrobat (Online) Documentation

In addition to this *Read Me First* document, your kit includes two manuals that are not in printed form. These are available as Adobe Acrobat version 3.0 portable document format (PDF) files. You can view these manuals online, navigate through them, and print them from your computer. You must have at least Acrobat Reader 3.0 to view these documents. You can get the latest version of the reader directly from Adobe.

Adobe maintains a Bulletin Board Service (BBS), which you can use to upload files to Adobe Technical Support and download certain Adobe files. The number for the Adobe BBS is 206-623-6984. It is located in Seattle, Washington, which is in the Pacific time zone. If you live outside the United States or Canada, you are welcome to connect to the BBS, but may first

want to try Adobe's Web site (<http://www.adobe.com/>) or FTP site (<ftp://ftp.adobe.com/>), which may be accessible at a significantly lower connection cost.

The following list shows the path and filenames of the Acrobat manuals that are available after you install your software (where Winxx is either Win95 or WinNT):

- /VXIpnP/Winxx/NIvisa/Manuals/NI-VISAUsersMan.pdf
This is the *NI-VISA User Manual*, which describes how to program using VISA.
- /VXIpnP/Winxx/NIvisa/Manuals/NI-VISAProgrammersMan.pdf
This is the *NI-VISA Programmer Reference Manual*, which describes in detail the attributes, events, and operations you use in NI-VISA.

Here are some tips on using PDF files efficiently:

- To view and print the online documentation, launch the Acrobat Reader and open the PDF documents. You can assemble your own printed documentation by printing out either the entire document or only the sections relevant to your application.
- 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. When you open your PDF documents, the bookmarks show. A bookmark with a triangle in front of it has bookmarks within it. To reveal the next level, click on the triangle. To collapse to a higher level, click on the triangle.
- You can change the magnification of the documents either by selecting the magnifying glass tool in the toolbar and clicking anywhere on the manual page or by using the various options in the **View** menu.
- You can quickly find and go to every occurrence of any word or phrase in the entire document. Select the **Tools»Find...** option and type in the key word or phrase you want to find.
- 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 shown in the bottom center of the page is for printed documents only.

New Utilities

This release of NI-VISA for Windows 95/NT includes two new utilities to help you configure, develop, and debug your system quickly: T&M Explorer and NI Spy.

You can use T&M Explorer to view your entire T&M system and configure various components. When you launch T&M Explorer, a list of your VXI, PXI, GPIB, and Serial devices appears on your screen. To view the properties of each device (such as logical address, address space used, and primary address), right-click on the device in the list. When you view the properties of a National Instruments device, you can configure the hardware settings directly from the properties list.

T&M Explorer replaces many earlier utilities, such as VXIedit and VISAconf, and integrates with the NI-DAQ Configuration Utility (for VXI-DAQ instruments). T&M Explorer also has new features, such as an option to run Resource Manager at startup, and troubleshooting to guide you through configuration conflicts and errors.

NI Spy tracks the calls your application makes to National Instruments T&M drivers, including NI-VXI, NI-VISA, and NI-488.2. It highlights functions that return errors, so you can quickly determine which functions failed during your development. NI Spy can also log your program's calls to these drivers, so you can check them for errors at your convenience.

Supported Application Development Environments

This release of NI-VISA for Windows 95/NT supports the following Application Development Environments (ADEs):

- LabVIEW version 4.x
- LabWindows™/CVI version 4.x
- Borland C/C++ version 4.5.x
- Microsoft Visual C/C++ version 4.x, 5.x
- Microsoft Visual Basic version 4.x, 5.x



Note:

Although NI-VISA has been tested and found to work with these ADEs, other ADEs or higher versions of the ADEs listed above may also work.

Where Do You Start?

Step 1. Install LabVIEW and/or LabWindows/CVI

If you want to use LabVIEW and/or LabWindows/CVI as VISA application development environments, install them first. The NI-VISA installer will detect them and install the appropriate support files automatically.

If you install LabVIEW and/or LabWindows CVI after you install VISA, rerun the NI-VISA installer to get the latest VISA support files installed correctly.

Step 2. Install Your NI-VXI/NI-488.2 Driver Software

The installation method varies depending on the type of controller you purchased, as shown in the following table. Refer to the documentation that came with your controller for detailed installation instructions.

Controller	Installation
VXI-PCI8000 MXI Controller VXIpc 800/700 Series	The NI-VXI/VISA kit installs both the NI-VXI and NI-VISA driver software. You do not need to install this package separately. Refer to the <i>NI-VXI/VISA Read Me First</i> document for more information.
VXIpc-486 embedded controller	NI-VXI and NI-488.2 are already installed on your hard drive.
VXI-AT2010 MXI Controller	Install the NI-VXI for Windows 3.x/NT software. See Note.
VXI-AT4000 MXI Controller	Install the NI-VXI for Windows 3.x software. See Note.
GPIO-VXI/C controller or any National Instruments GPIO board that has a Windows 95/NT driver	Install the NI-488.2 for Windows 95/NT software.

You can also use a National Instruments serial board that works along with the serial ports on your computer. If you are only using serial I/O, you do not need to install NI-VXI or NI-488.2.



Note:

Because this implementation of VISA is a 32-bit driver, it looks for 32-bit versions of NI-VXI and/or NI-488.2. If you are installing NI-VISA on Windows 95 and have only 16-bit drivers, please contact National Instruments to request the NI-VXI Upgrade for Windows 95 or the Compatibility Release for NI-488.2.

Step 3. Install Your NI-VISA Software

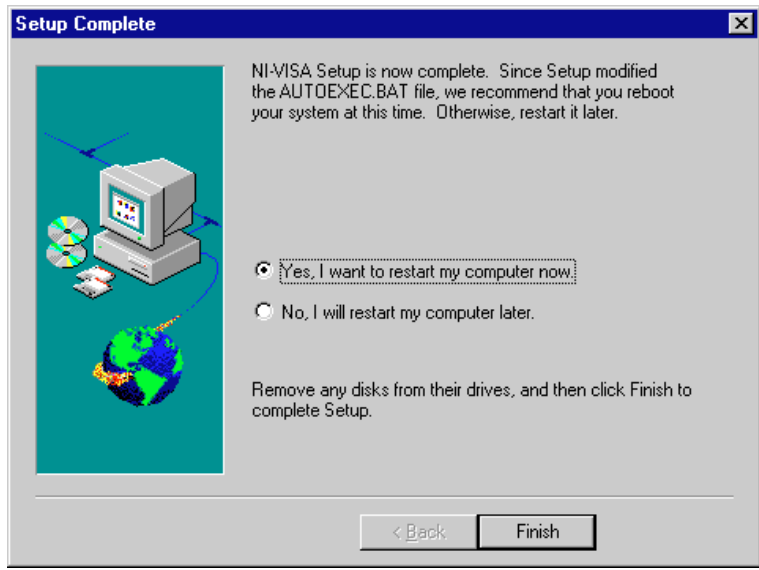
Controller	Installation
VXIpc embedded controller	<p>New VXIpc controllers: NI-VISA is already installed on your hard drive. The remainder of this document applies only if you want to use the Setup program to make changes to your software.</p> <p>Upgrades: If you received this kit to upgrade your VXIpc, continue with the remainder of this document to install the NI-VISA software.</p>
All other cases	Install the NI-VISA software. The remainder of this document describes how to use the Setup program to install your software.

Start the Setup Program

Insert the NI-VISA diskette into your disk drive. Under Windows 95 or Windows NT 4.0, you can run `SETUP.EXE` either from a DOS prompt or from the **Start»Run** menu. Under Windows NT 3.5x, you can run `SETUP.EXE` from a DOS prompt or from the Program Manager **File»Run** menu.

The installer prompts you for the desired installation type. If you choose an option other than **Express**, the installer guides you with a series of prompts for additional information, including the components you want to install and the target directory.

After the installation completes successfully, if any system file has been modified, the following screen appears.



You can either reboot the computer now so that the changes take effect immediately, or you can reboot the computer at a later time. However, do not use the NI-VISA software until you reboot your computer.

Updating the NI-VISA Setup

You can run the Setup program again to make changes to your software. The same screens and messages are displayed as when you installed the software. Select the **Custom** option to configure any changes.



321217D-01

Sep97