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APPLICATION NOTE NO. 55

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GPIB Interface Board FAQs

How do I configure the National Instruments GPIB Interface for Windows 98/95?

The following example is for a PCI-GPIB interface card. The configuration for other National Instruments GPIB cards is similar.

- 1. Install the GPIB board software.
- 2. Install the GPIB Interface board.
- 3. Verify the configuration.
 - a. Open the Control Panel.
 - b. Select System.
 - c. Select Device Manager tab.
 - d. Select the National Instruments GPIB Interface.

System Properties ? 🗙
General Device Manager Hardware Profiles Performance
View devices by type View devices by connection
Computer
Ere Floppy disk controllers Ere Hard disk controllers
E-et Keyboard E-■ Monitor E-∞ Mouse
E System devices
Properties Refresh Remove Print
OK Cencel

e. Click on Properties

4. If you want to run the DOS version of SEASAVE; under the General Tab, check the 'Enable Support for DOS GPIB Applications' check box, as shown below.

National Instruments GPIB Interfaces Properties	? ×
General Device Templates	
GPIB Interfaces	
I Enable Support for DDS GFIB Applications	
ОК (Cancel

5. Select the Device Templates tab. It should be configured as shown below.

National Instruments	GPIB Interfaces Properties	? ×
General Device Tem	plates	
National In	struments GPIB Interfaces	
Device Name DEV1 DEV2 DEV3 DEV3 DEV4	•	
Interface GPIB Address Primary 1 Secondary NDNE	Termination Methods ✓ Send EOI at end of Write ☐ Terminate Read on EOS ☐ Set EOI with EOS on <u>W</u> rite ☐ <u>8</u> -bit EOS Compare 0 EOS <u>B</u> yte	Timeouts I/ <u>0</u> 10sec • Serial Pol! 1sec •
	0	K Cancel

6. Once configured, select OK.

7. Select the model of GPIB card listed under National Instruments GPIB Interfaces and either double click or select Properties.

System Properties 🔗 🔀
General Device Manager Hardware Profiles Performance
Yiew devices by type O View devices by gomection
Computer Computer CDROM CDROM Disk drives Disk drives Display adapters Hard disk controllers Hard disk controllers Hard disk controllers Hard disk controllers Mouse Mouse National Instruments GPIB Interfaces National Instruments GPIB Interfaces Network adapters Ports (COM & LPT) Ports (COM & LPT) System devices
Properties Refresh Remove Pript
OK Cancel

8. Configure the GPIB interface, under the GPIB settings tab, as shown below, then click OK.

PCI-GPIB Properties	?	×
General GPIB Settings D	river Resources	
PCI-GPIB		
PCI Serial Number 00AEE	44D	
Interface Name	Termination Methods	
GPIB0 -	Send EOI at end of Write	
GPIB Address	<u>I</u> erminate Read on EOS	
Primary	Set EOI with EOS on <u>W</u> rite	
	E 8-bit EOS Compare	
Secondary	EOS Byte	
I/ <u>0</u> Timeout 10sec ▼ ▼ System <u>C</u> ontroller	Advanced	
	OK Cancel	

How do I find the current drivers?

It is recommended to use the latest version of the driver due to updates to the driver. The drivers and the manuals in Adobe Acrobat form can be found at http://www.ni.com/support/reference.htm. Once you have the correct NI-488.2M driver and manuals, follow the next step to correctly install the GPIB board and driver.

How do I install my GPIB-PCII/IIA driver software and GPIB board?

The correct method to install a GPIB board is to install the driver software and then install the board. To install the driver software you should run setup on disk 1. (If you downloaded the executable, launch the executable and it will install the driver automatically).

Note: *Do not* install the Analyzer part of the driver (GPIB Analyzer Software) when asked during installation, since the GPIB-PCII/IIA board does not have analyzer capabilities.

Before installing the GPIB-PCII/IIA board, use the **Add New Hardware Wizard** to inform Windows 98/95 about the new hardware you are about to install in your system.

- 1. Select Start » Settings » Control Panel.
- 2. Launch the Add New Hardware Wizard by double-clicking the Add New Hardware icon.
- 3. Click on the Next button in the first Add New Hardware Wizard dialog box.
- 4. In the next **Add New Hardware Wizard** dialog box, you must check **No** instead of **Yes** (Recommended). Because the GPIB-PCII/IIA is a legacy board, Windows 98/95 is unable to detect its presence. Click on the **Next** button to continue.
- 5. The next Add New Hardware Wizard dialog box lets you select the type of hardware you want to install. Select the Other Devices item. You may select the National Instruments GPIB Interfaces item instead, if it appears in the dialog box. Click on the Next button to continue.
- 6. The next **Add New Hardware Wizard** dialog box lets you select the manufacturer and model of your hardware. Select **National Instruments** as the manufacturer and **GPIB-PCII/IIA** as the model, and click on the **Next** button to continue. Windows 98/95 attempts to assign non-conflicting resources to the GPIB-PCII/IIA. If Windows 98/95 is able to assign resources successfully, the next **Add New Hardware Wizard** dialog box describes the resources assigned to the GPIB-PCII/IIA.
- 7. Write down the conflict-free resources that Windows 98/95 assigned to the GPIB-PCII/IIA.
- 8. Select **Shut Down...** from the **Start** menu. In the **Shut Down Windows** dialog box, select the **Shut down the computer**? Option and click on the **Yes** button.
- 9. Configure your GPIB-PCII/IIA jumper and dip switch settings to match the resources you wrote down in step 7 and install the board in the computer. You can obtain information on how to configure your board by reading the "Getting Started with Your Non Plug and Play GPIB Hardware and Software for Windows 95" manual. You can also use the online hardware reference database.

After installing the NI-488.2M driver and GPIB board, verify the installation by running the GPIB Diagnostics.

Do I have a 488.1 or 488.2 compliant GPIB-PCII/IIA board?

National Instruments' (NI) 488.1 GPIB controllers have been obsolete for nearly a decade and were never supported under Windows 3.x, much less Windows 95, or Windows NT. These boards were only supported under DOS and can not be used with current NI-488.2 driver software.

To determine which type of controller you have, please locate the assembly number on the GPIB board itself. It will have the format of 18xxxx-xx.

• If the assembly number takes the form of 180xxx-xx, then your board is obsolete and only 488.1 compliant. In this case, NI recommends that you upgrade to a 488.2 compliant controller. In the USA and Canada, NI is currently offering a hardware upgrade program where you may exchange your obsolete 488.1 GPIB-PCII/IIA for a new 488.2 GPIB-PCII/IIA, NI-488.2 Windows 3.x driver software, complete documentation, and a new 2 year warranty for about 50% off the list price. For complete details including pricing information, download the US upgrade or Canadian upgrade order form. Or you may call the NI faxback server at (800) 329-7177 or (512) 418-1111 and request document number 2520 (USA) or 2570 (Canada).

If you are outside the USA and Canada, please contact your international NI branch office or distributor for details on upgrading your GPIB controller.

If you are unable to upgrade at this time, the last obsolete NI-488.1 DOS driver for the GPIB-PCII/IIA is still available on the NI FTP site.

• If the assembly number takes the form of 181xxx-xx, then your board is 488.2 compliant and fully supported.

Which National Instruments GPIB boards are compatible with WIN 95/98/NT?

Operating System: Windows 98/95			
Model Name	Computer Platform/Bus		
PCI-GPIB for Windows 98/95	PCI		
PCMCIA-GPIB for Windows 98/95	PCMCIA		
AT-GPIB/TNT for Windows 98/95	EISA/ISA/AT		
GPIB-PCII/IIA	EISA/ISA/AT		

Operating System: Windows NT		
Model Name	Computer Platform/Bus	
PCI-GPIB for Windows NT	PCI	
PCMCIA-GPIB for Windows NT	PCMCIA	
AT-GPIB/TNT for Windows NT	EISA/ISA/AT	