

# Agilent IO Libraries M.01.xx or higher



**Installation Instructions for  
use with the Agilent  
ChemStation Rev. B.03.01 or  
higher**



**Agilent Technologies**

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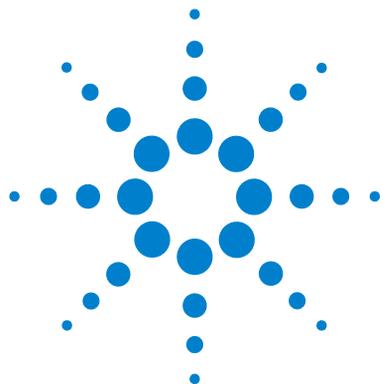
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A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

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## Contents



# 1 General Information

To use the GPIB 82350A or 82350B board, or as well for the 82357 USB-GPIB Interface, it is necessary to install or upgrade the corresponding driver and configuration software, located in the “\IO\_Libs” directory on the Agilent ChemStation CD-ROM (CD1 Installation) or the Agilent GP-IB Libraries for Instrument control CD-ROM. To install the I/O Libraries proceed according to the steps described in this manual.

The Agilent ChemStation B.03.01 and greater requires version M.01.01.04 of the I/O Libraries. These libraries are supported under Windows XP Professional.

Be sure to follow the correct installation description.

## NOTE

Before installing the GPIB Interface Driver, verify that this communication component is supported for your instrument in use, see manual “Installing your ChemStation” of your appropriate instrument or in the table below.

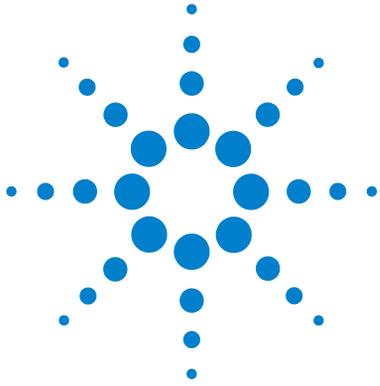
**Table 1** Supported devices with the 82357A USB-GPIB Interface

Instrument		Supports 82357A USB-GPIB Interface
• Capillary	Electrophoresis	Yes
• HP	1090 LC system	Yes
• HP	1046 FLD Detector	Yes



## 1 General Information

<b>Instrument</b>		<b>Supports 82357A USB-GPIB Interface</b>
• HP	1049 ECD Detector	Yes
• Agilent	1200/1100 modules	No
• Agilent	GC Systems	No
• Agilent	A/D Systems	No
• Agilent	LC/MS Systems	No
• Agilent	GC/MS Systems	No



Installation Instructions for use with the Agilent ChemStation Rev.  
B.03.01 or higher

## 2 Configuring the Agilent 82350 GPIB Interface Drivers under Windows XP Professional

Installing New IO Libraries

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## Installing New IO Libraries

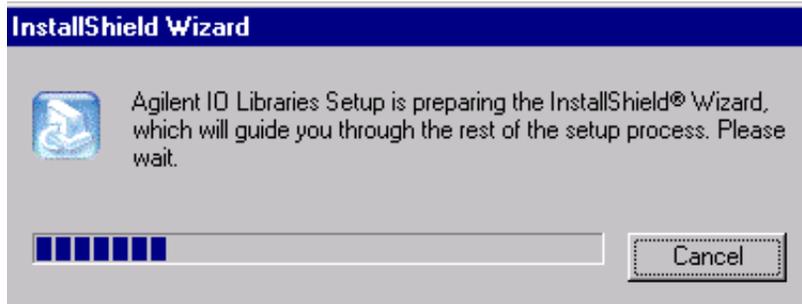
- 1 Turn the Computer ON. As Windows XP Professional has started, the user is notified about new detected hardware via tool tip in the right corner of the task bar. The **Found New Hardware Wizard** will start some while later. At this moment, select **Cancel** (see Figure 1 on page 8).



**Figure 1** Found New Hardware Wizard

- 2 Using the Windows Explorer, locate and start 'm0101.exe' in the \IO\_Libs directory of your ChemStation CD-ROM (CD 1 Installation). Follow the instructions in the installation Wizard. This will install the Standard Interface Control Library (SICL) on your computer, update the registry and add a new Program Group called "Agilent I/O Libraries".

The InstallShield Wizard opens and starts the IO Libraries installation.

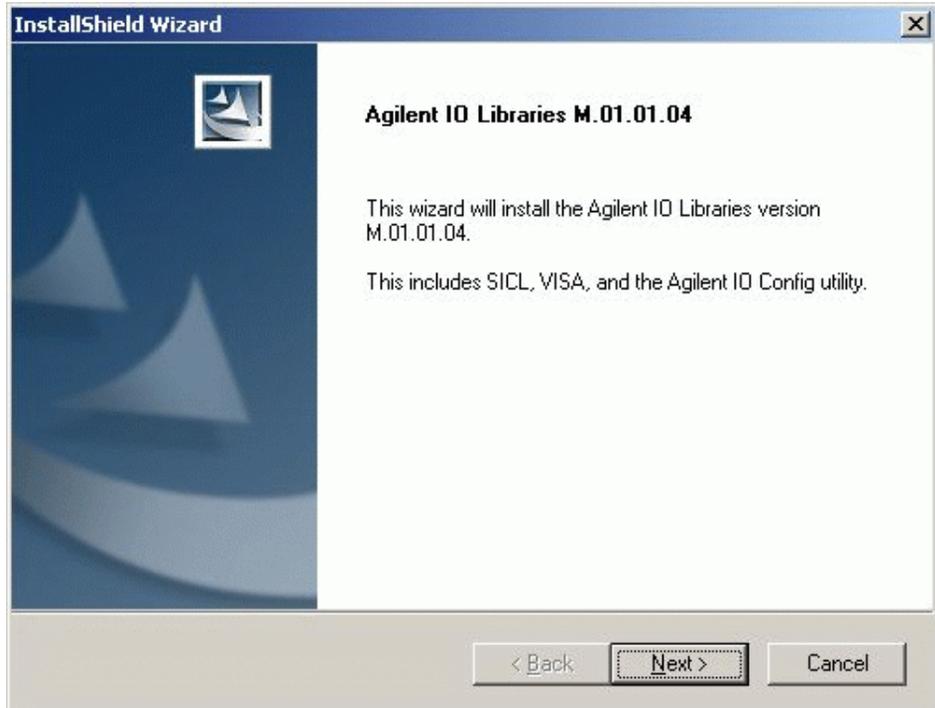


**Figure 2** Install Shield Wizard

- 3 When the title screen appears (see [Figure 3](#) on page 10), click **Next** to go the License Agreement screen and then click **Yes** to accept the licenses terms and to display the Readme Information.

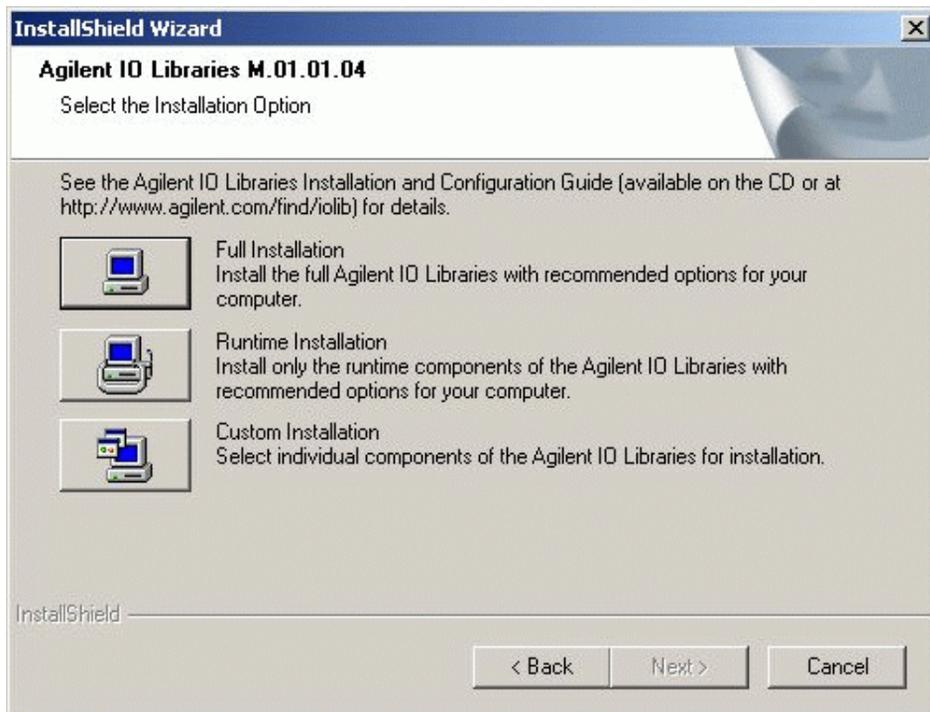
## 2 Configuring the Agilent 82350 GPIB Interface Drivers under Windows XP Professional

### Installing New IO Libraries



**Figure 3** Installation screen IO Libraries

- 4 Click **Next** to display the Select Type of Installation screen.
- 5 Choose installation option **Full Installation**, for an installation of both the SICL libraries and VISA components. The System will go to the next screen and display the current settings (see [Figure 4](#) on page 11).



**Figure 4** Installation options

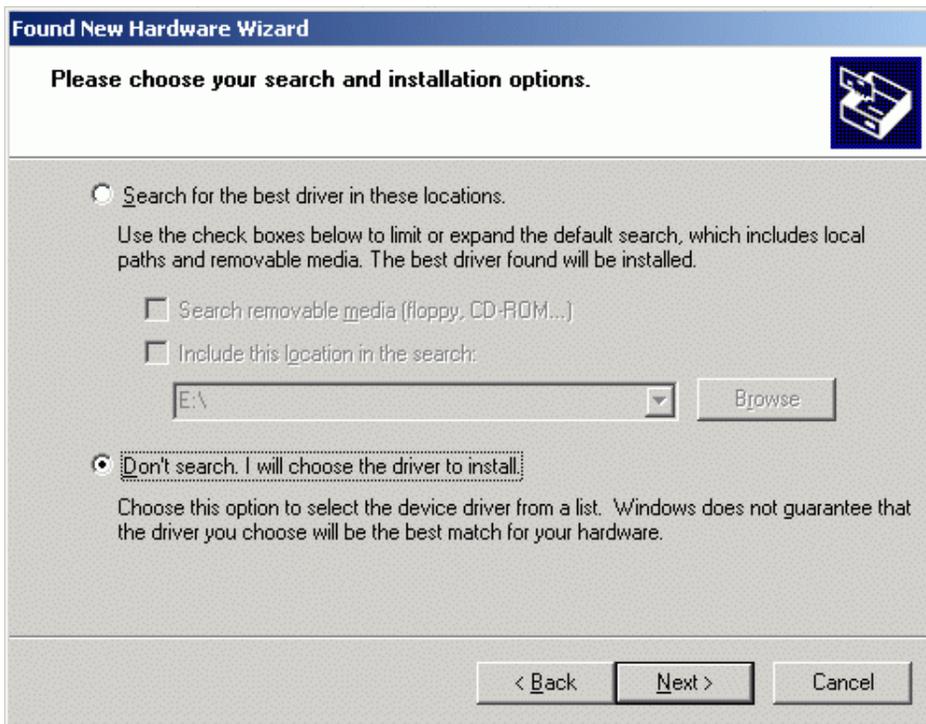
- 6 By default SICL is installed in C:\Program Files\Agilent\IO libraries. VISA is installed by default in C:\Program Files\VISA\winnt. Click **Next** if you accept the default setting, or go back to set the directory you want via Custom Installation option. By clicking **Next** the IO Libraries will be installed.
- 7 The IO Libraries have been successfully installed now. Finish the installation without viewing the Readme file and without running the IO Config. Leave the screen with **Finish** and reboot the system.
- 8 As Windows XP Professional starts after power cycling, a tool tip will notify about new hardware and the **Found New Hardware Wizard** will start again. Select **Option 2** and click **Next** (see [Figure 5](#) on page 12).

## 2 Configuring the Agilent 82350 GPIB Interface Drivers under Windows XP Professional Installing New IO Libraries



**Figure 5** Found New Hardware Wizard

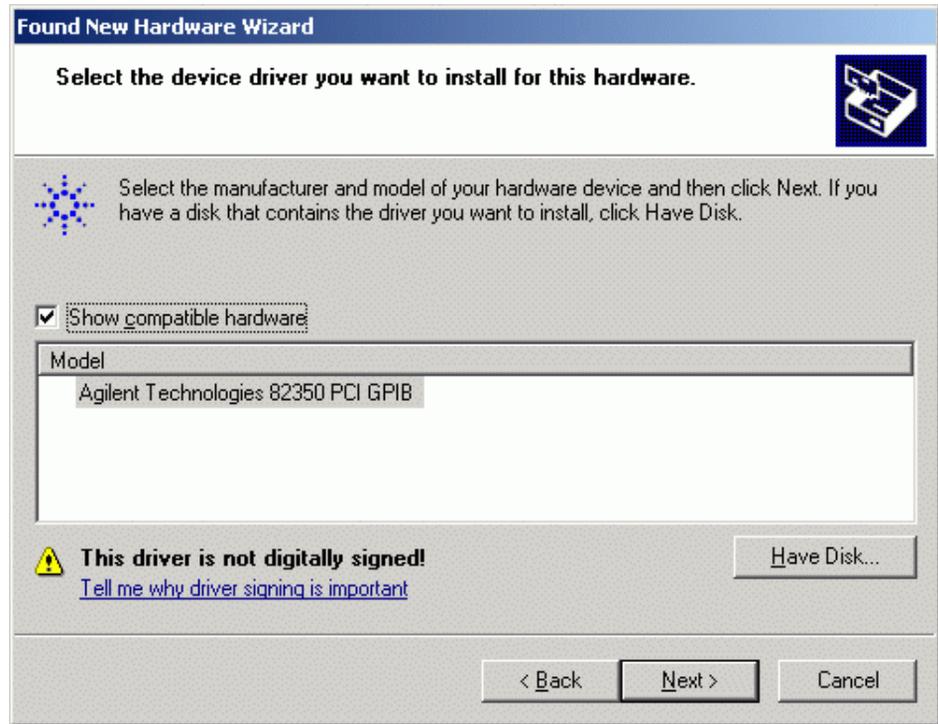
**9** Select **Option 2** and click **Next** (See [Figure 6](#) on page 13).



**Figure 6** Install Hardware Device Drivers

**10** Select 82350 PCI and click **Next** (see [Figure 7](#) on page 14). The installation of the device driver will start.

## 2 Configuring the Agilent 82350 GPIB Interface Drivers under Windows XP Professional Installing New IO Libraries



**Figure 7** Select a Device Driver

**11** Select **Finish** (see [Figure 8](#) on page 15). The user will get a notification by the task bar that the hardware is installed and ready to use. Also the IO Config Utility will be placed now in the task bar.

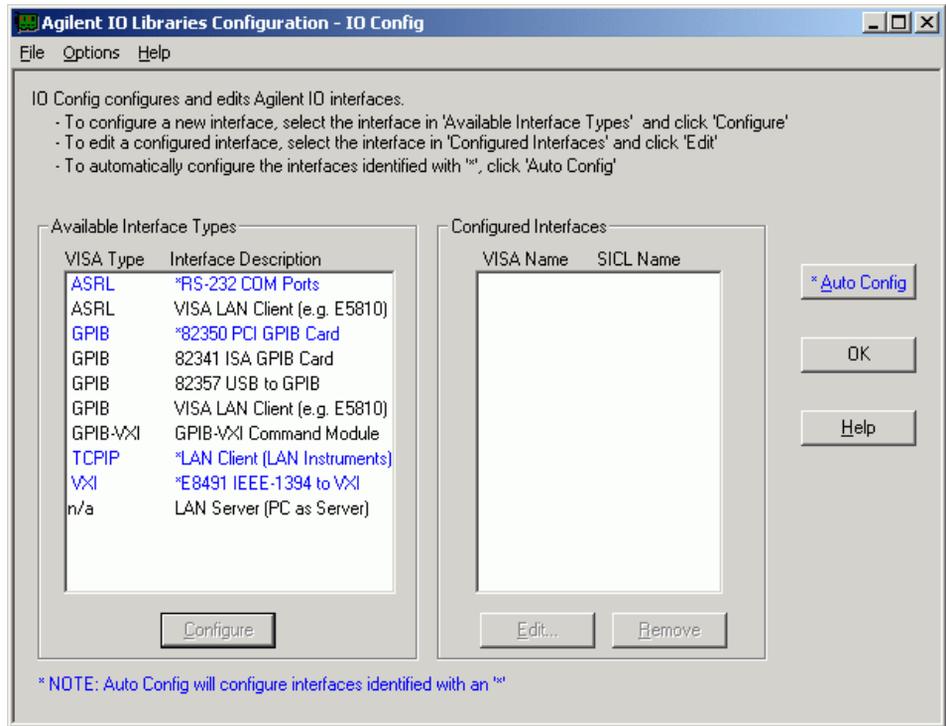


**Figure 8** Finish Installation GPIB card

**12** Start the IO Config Utility by clicking in the Icon  12:57 PM and choose *Run IO Config*.

**13** From the list of available interface types choose the appropriate one, i.e. **82350 PCI GPIB** in case you have the Agilent 82350 board installed (see [Figure 9](#) on page 16).

## 2 Configuring the Agilent 82350 GPIB Interface Drivers under Windows XP Professional Installing New IO Libraries



**Figure 9** IO Libraries Configuration

- 14** Select **Configure**. The configuration utility now attempts to detect the selected GPIB interface in the PC in order to assign the correct resources to the card.
- 15** Set the SICL Interface Name to **hp82341**, the Bus Address to **30** and the **System Controller** flag as shown in [Figure 10](#) on page 17. Please note that the appearance of the dialog slightly differs depending on the type of GPIB board installed.

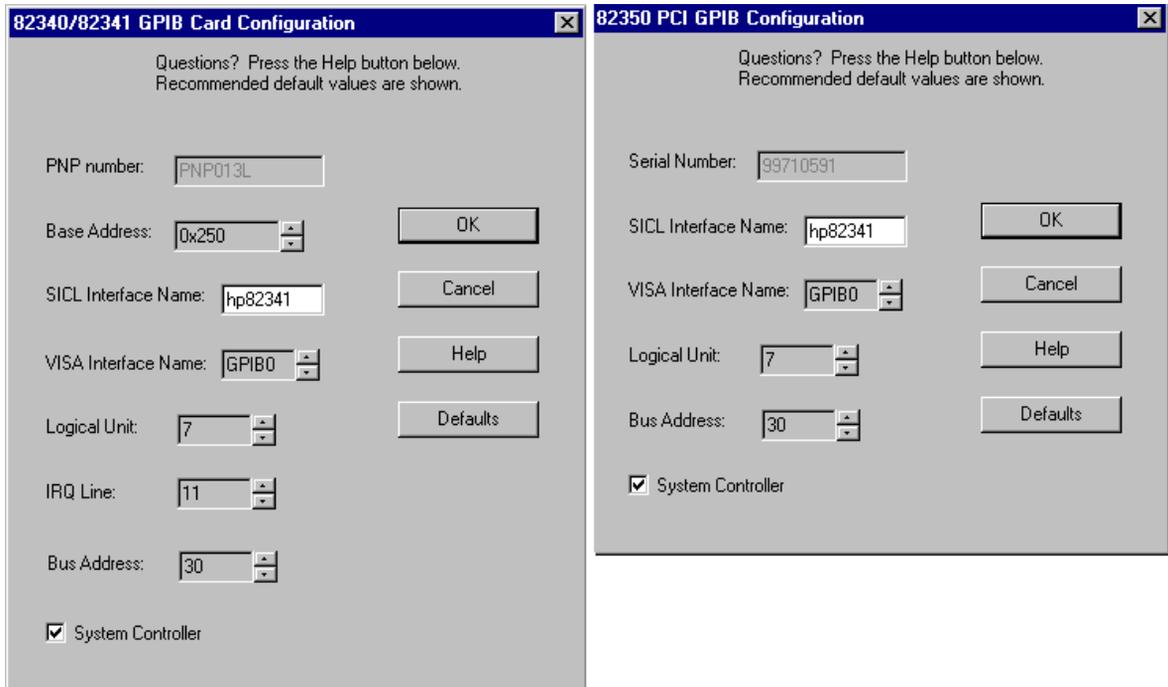


Figure 10 Configuring GBIB Cards

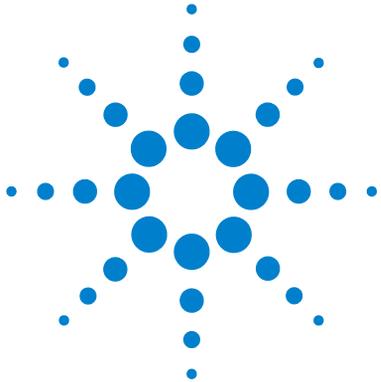
**NOTE**

You need to type in the SICL interface name hp82341 with lower case letters for both cards.

**16** Select OK. The configured GPIB board should now be listed under **Configured Interfaces** in the Interface Configuration Screen. Close the window by clicking OK. The installation is complete. Note that you must restart to initialize the IO Libraries.

## **2 Configuring the Agilent 82350 GPIB Interface Drivers under Windows XP Professional**

### **Installing New IO Libraries**



Installation Instructions for use with the Agilent ChemStation Rev.  
B.03.01 or higher

### 3 **Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional**

Installing New IO Libraries for USB - GPIB Interface on Windows XP  
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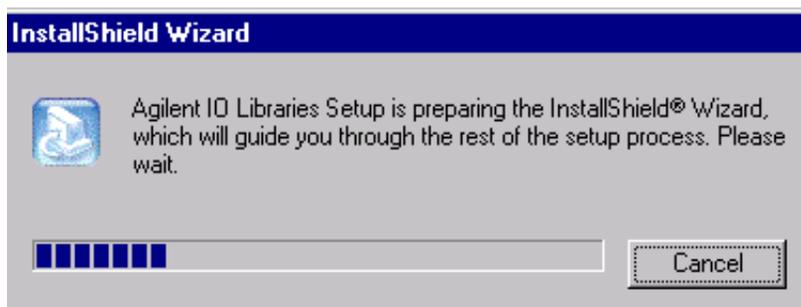


## Installing New IO Libraries for USB - GPIB Interface on Windows XP

The USB-GPIB Interface driver (IO libraries) needs to be installed prior to the connection of the Interface device.

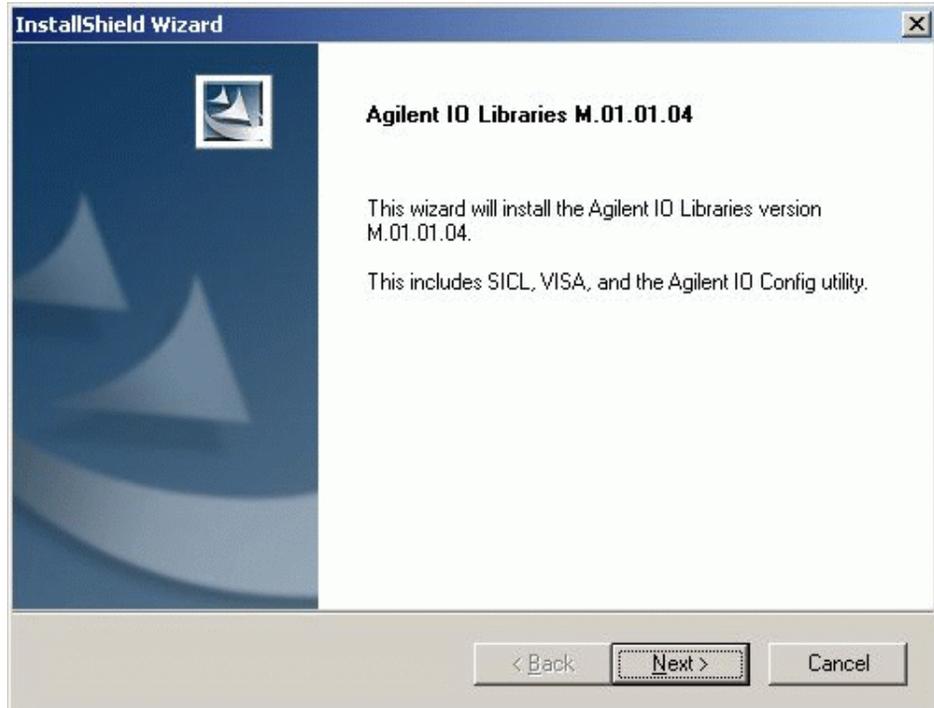
- 1 Using the Windows Explorer, locate and start 'm0101.exe' in the \IO\_Libs directory of your ChemStation CD-ROM (CD1 Installation). Follow the instructions in the installation Wizard. This will install the Standard Interface Control Library (SICL) on your computer, update the registry and add a new Program Group called "Agilent I/O Libraries".

The InstallShield Wizard opens and starts the IO Libraries installation.



**Figure 11** Install Shield Wizard

- 2 When the title screen appears (see [Figure 3](#) on page 10), click **Next** to go to the License Agreement screen and then click **Yes** to accept the licenses terms and to display the Readme Information.

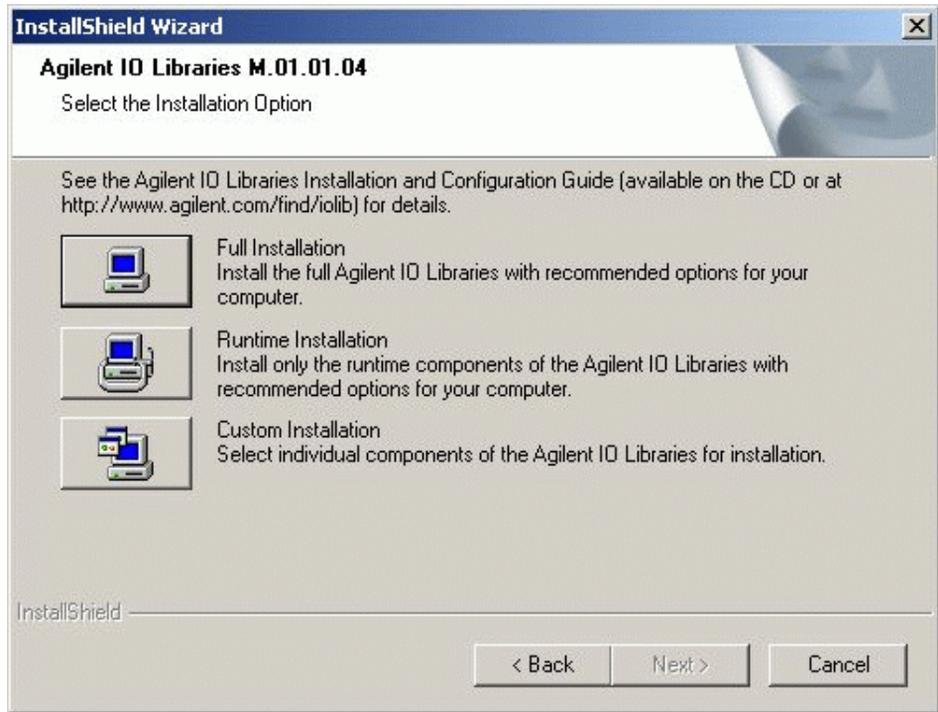


**Figure 12** Installation screen IO Libraries

- 3** Click **Next** to display the Select Type of Installation screen.
- 4** Choose installation option **Full Installation**, for an installation of both the SICL libraries and VISA components. The System will go to the next screen and display the current settings (see [Figure 4](#) on page 11).

### 3 Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional

#### Installing New IO Libraries for USB - GPIB Interface on Windows XP



**Figure 13** Installation options

- 5 By default SICL is installed in C:\Program Files\Agilent\IO libraries. VISA is installed by default in C:\Program Files\VISA\winnt. Click **Next** if you accept the default setting, or go back to set the directory you want via Custom Installation option. By clicking **Next** the IO Libraries will be installed.
- 6 The IO Libraries have been successfully installed now. Finish the installation without viewing the Readme file and without running the IO Config. Leave the screen with **Finish** and reboot the system.
- 7 Plug the 82357A USB-GPIB Interface into the GPIB connector of the GPIB card of the instrument. If a GPIB cable is used to connect multiple modules (e.g. HP 1090 mainframe and DAD), the USB Interface device needs to be plugged into the GPIB connector (see [Figure 14](#) on page 23).



**Figure 14** 82357A USB-GPIB Interface on e.g. HP 1090/DAD

- 8** Connect the USB connector of the 82357A USB-GPIB interface into the USB port of your Computer. The hardware wizard detects a USB device and the **Found New Hardware Wizard** will start (see [Figure 15](#) on page 24).
- 9** Select **Option 1** and click **Next** and the installation will start (see [Figure 15](#) on page 24).

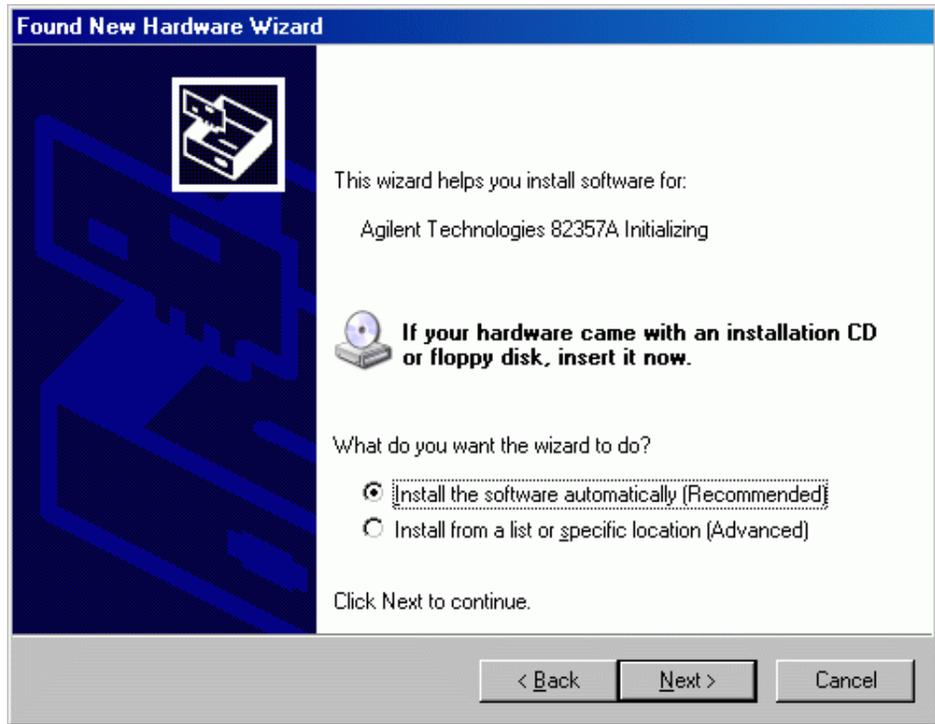
### 3 Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional

Installing New IO Libraries for USB - GPIB Interface on Windows XP



**Figure 15** Found New Hardware Wizard Windows XP, first detection

**10** To initialize the interface select **Option 1** and click **Next** and the initialization will start (see [Figure 16](#) on page 25).

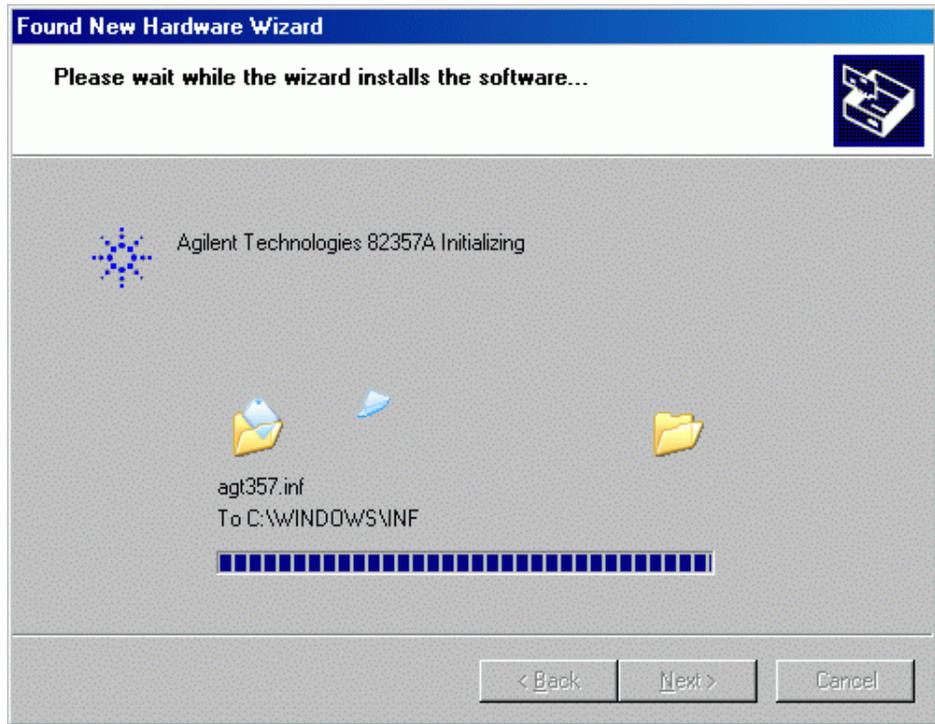


**Figure 16** Found New Hardware Wizard Windows XP, first detection

**11** The system will initialize the USB device. This might take some seconds (see [Figure 17](#) on page 26).

### 3 Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional

Installing New IO Libraries for USB - GPIB Interface on Windows XP



**Figure 17** Initializing the 82357A USB-GPIB Interface in Windows XP, first detection

**12** Select **Finish** to close the wizard after the initialization Hardware driver(see [Figure 18](#) on page 27). The initialization of the USB device is finished, the installation still needs to be done.



**Figure 18** Finish Device Driver Installation in Windows XP

**13** The hardware wizard detects now the USB-GPIB device for a second time and the **Found New Hardware Wizard** starts again (see [Figure 19](#) on page 28).

**14** Select **Option 1** and click **Next** (see [Figure 19](#) on page 28).

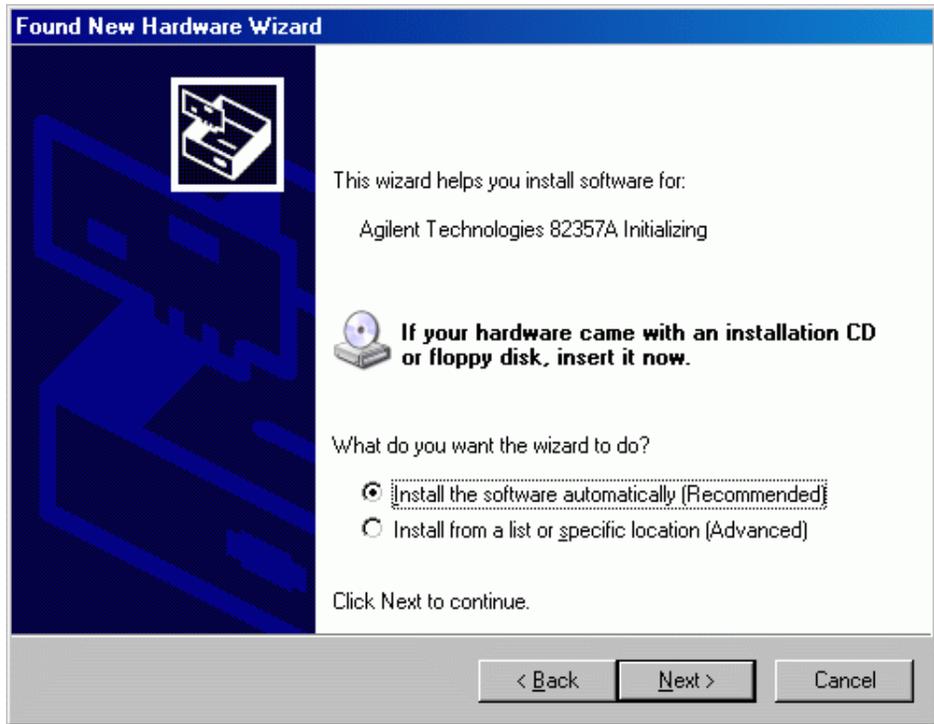
### 3 Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional

#### Installing New IO Libraries for USB - GPIB Interface on Windows XP



**Figure 19** Found New Hardware Wizard Windows XP, second detection

**15** Select **Option 1** and click **Next** to start the installation (see [Figure 20](#) on page 29).

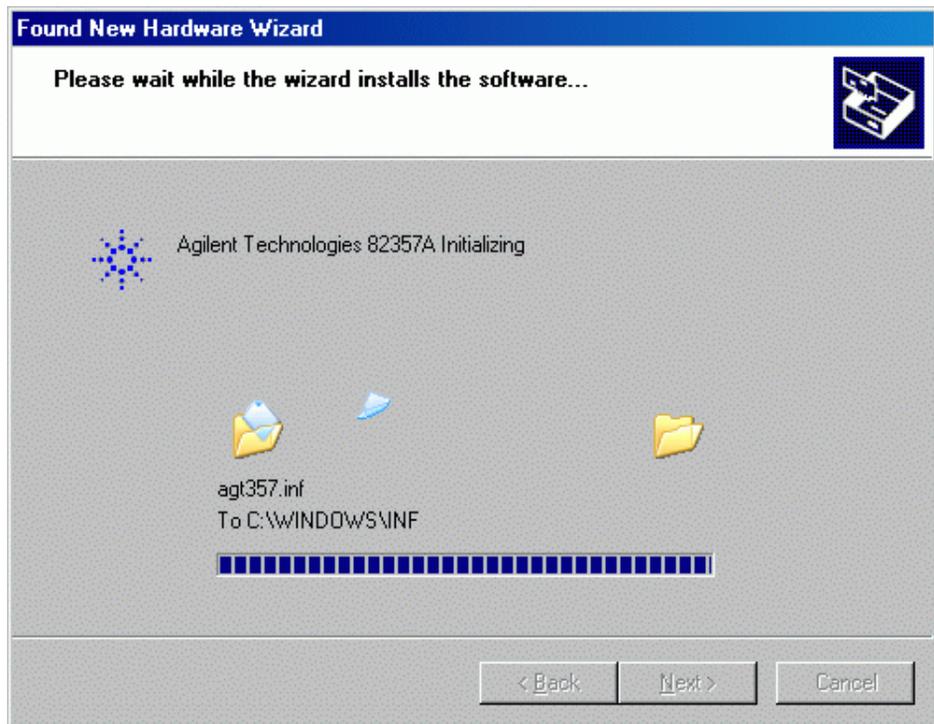


**Figure 20** Found New Hardware Wizard Windows XP, second detection

**16** The system initializes the 82357A USB-PGIB Interface device. This might take some seconds (see [Figure 21](#) on page 30). Please wait until the configuration screen appears, see step 14.

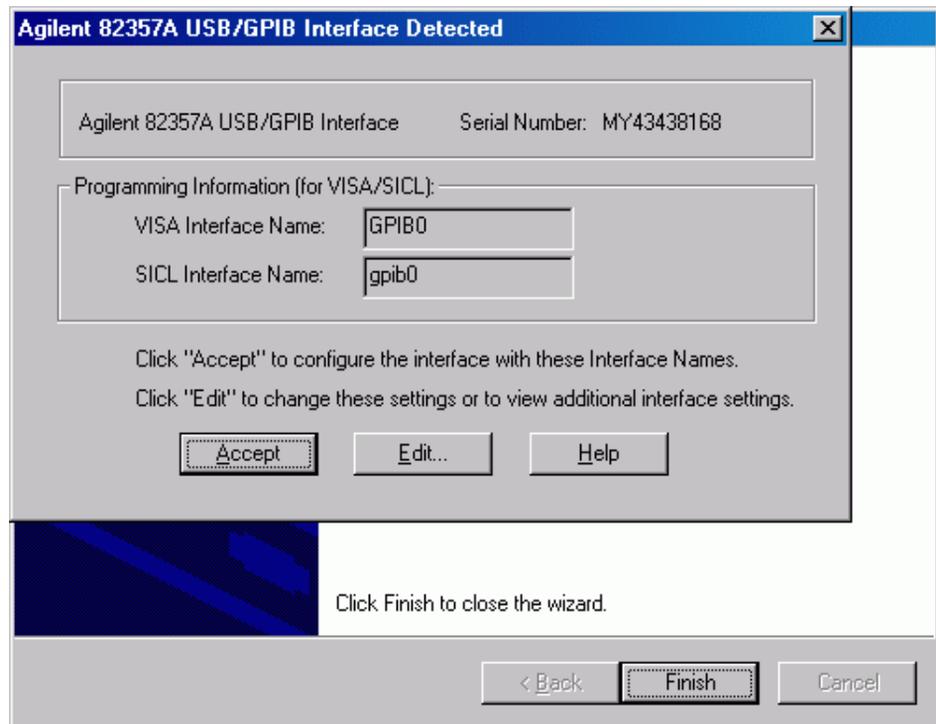
### 3 Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional

Installing New IO Libraries for USB - GPIB Interface on Windows XP



**Figure 21** Installing the 82357A USB-GPIB Interface in Windows XP, second detection

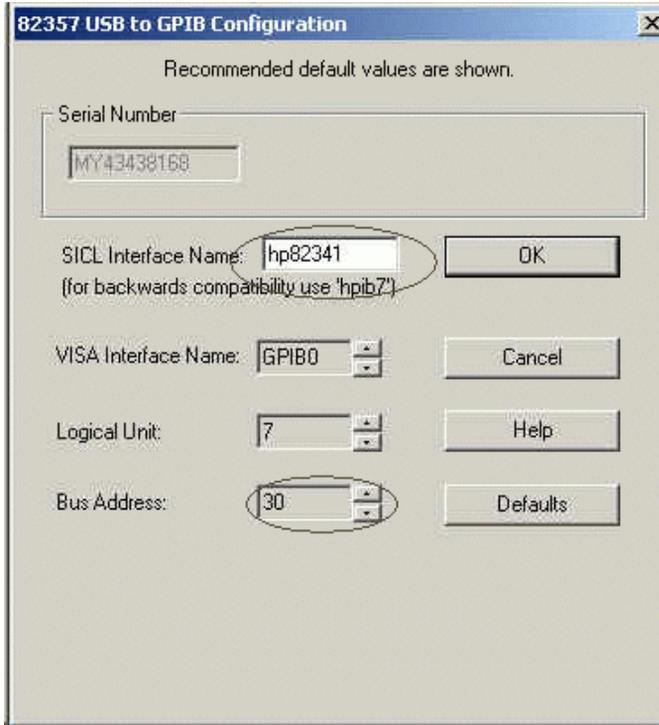
**17** The system automatically detects the installed USB-GPIB Interface. Select **Accept** to start the IO Configuration Utility (see [Figure 22](#) on page 31).



**Figure 22** USB- GPIB Interface detected

**18** Set the SICL Interface Name to **hp82341** and the Bus Address to **30** as shown in [Figure 23](#) on page 32. Press OK to finish the configuration.

### 3 Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional Installing New IO Libraries for USB - GPIB Interface on Windows XP



**Figure 23** Configuring 82357A USB-GPIB Interface

#### NOTE

You need to type in the SICL interface name hp82341 with lower case letters.

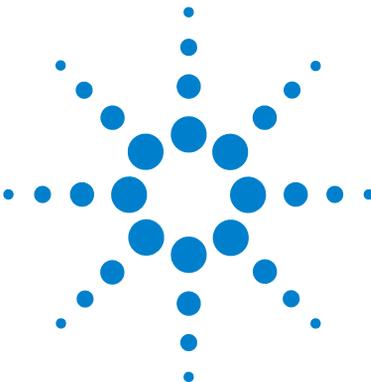
**19** Select **Finish** to close the wizard after the installation of the Hardware driver(see [Figure 24](#) on page 33). The installation of the USB device is finished, the new hardware wizard will show a taskbar message in the right hand corner of the Windows XP system: “Your new Hardware is found and ready to use”.



**Figure 24** Finish Device Driver Installation in Windows XP

### **3 Configuring the Agilent 82357 USB - GPIB Interface Driver under Windows XP Professional**

#### **Installing New IO Libraries for USB - GPIB Interface on Windows XP**



Installation Instructions for use with the Agilent ChemStation Rev.  
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## 4 Upgrading Existing IO Libraries

Upgrading IO Libs under Windows XP

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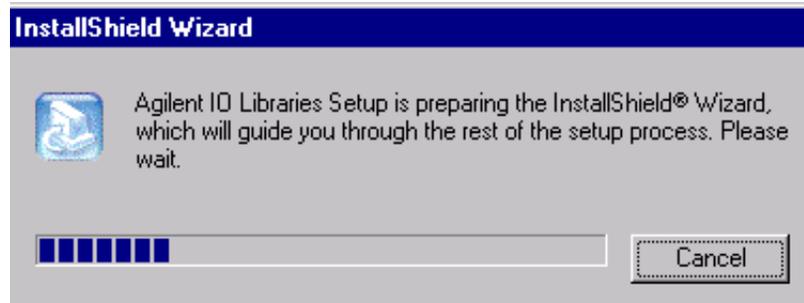


## Upgrading IO Libs under Windows XP

To upgrade the IO Libraries please follow the outlined steps below:

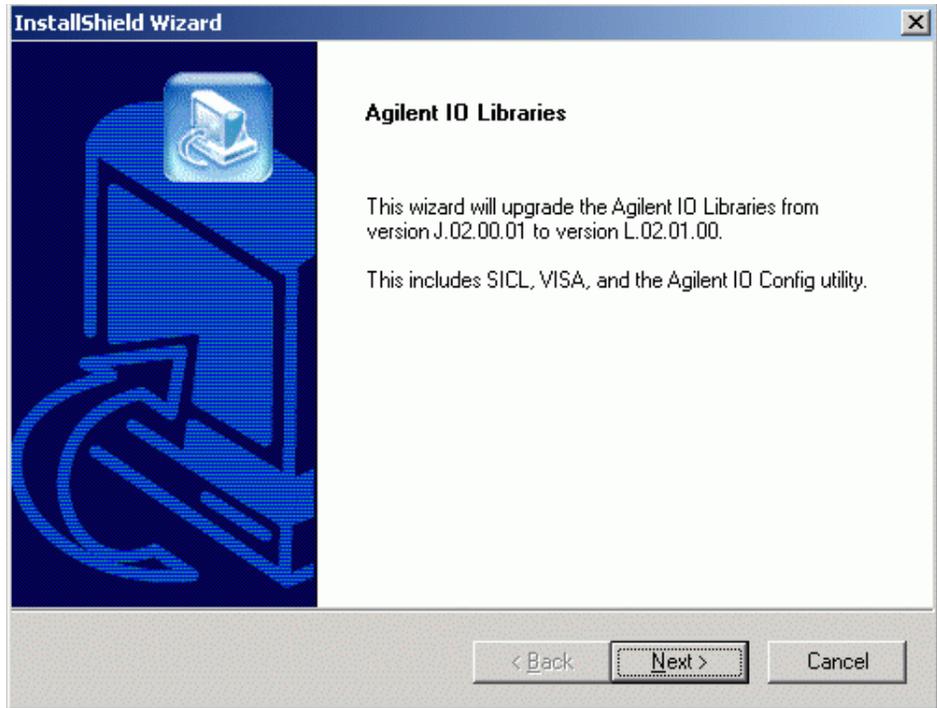
- 1 Using the Windows Explorer, locate and start **m0101.exe** in the \IO\_Libs directory of your ChemStation CD-ROM (CD 1 Installation). Follow the instructions in the installation Wizard. This will upgrade the Standard Interface Control Library (SICL) on your computer, update the registry and update the Program Group called “Agilent I/O Libraries”.

The InstallShield Wizard opens and starts the IO Libraries upgrade.



**Figure 25** Install Shield Wizard

- 2 An upgrade screen appears that shows the current version installed and the new version that will be installed (see [Figure 26](#) on page 37).



**Figure 26** Upgrade IO drivers screen

- 3** When the upgrade screen appears, click **Next** to continue to the License Agreement screen and then click **Yes** to accept the license terms, click **Next** to display the Readme Information and click **Next** again to get to the current settings.
- 4** By clicking **Next** the system installs the SICL libraries and VISA components.

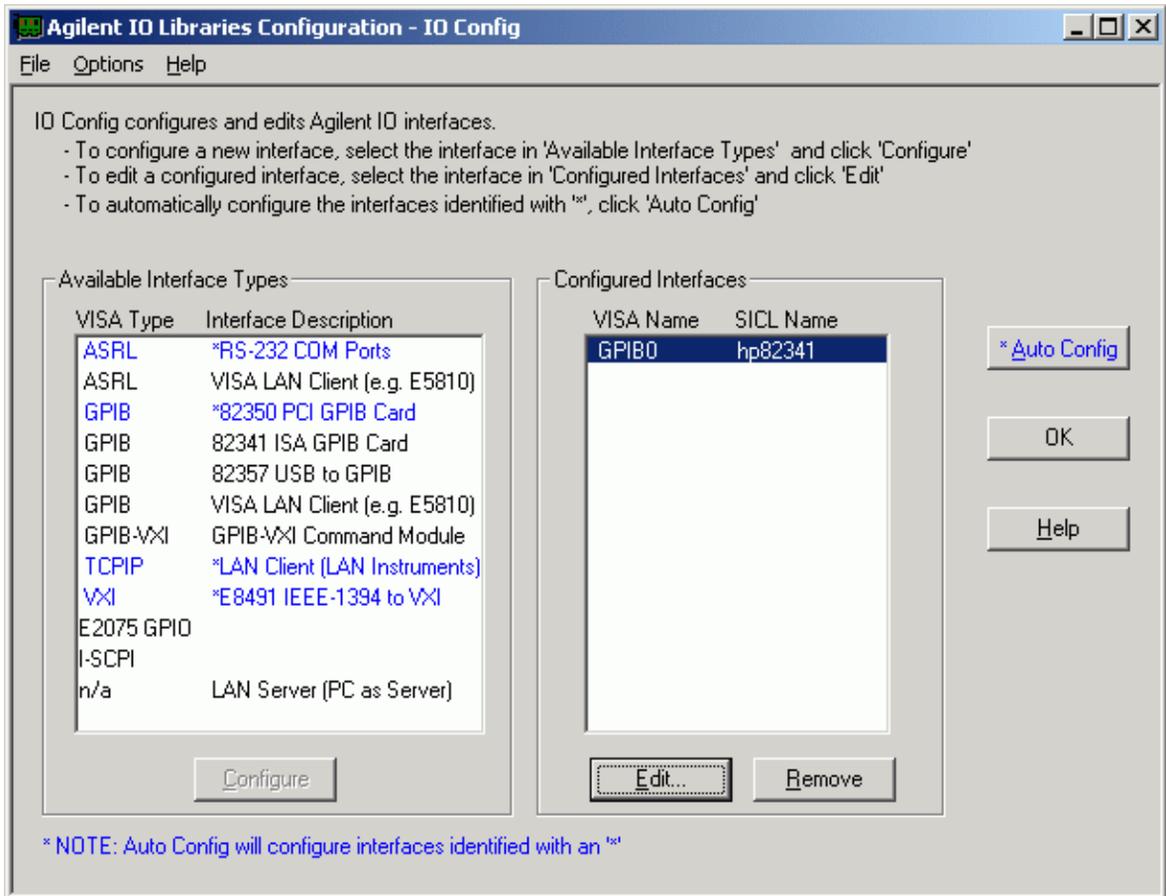
## 4 Upgrading Existing IO Libraries

### Upgrading IO Libs under Windows XP



**Figure 27** SICL libraries and VISA components

- 5 Select **Run IO Config** to check configuration of the interface card (see [Figure 27](#) on page 38).
- 6 The installed interface card or the USB-GPIB Interface appears already in the Configured Interface List. Please verify VISA Name GBPIO and SICL Name hp82341. Otherwise select the configured interface and enter via *Edit* (see [Figure 28](#) on page 39).

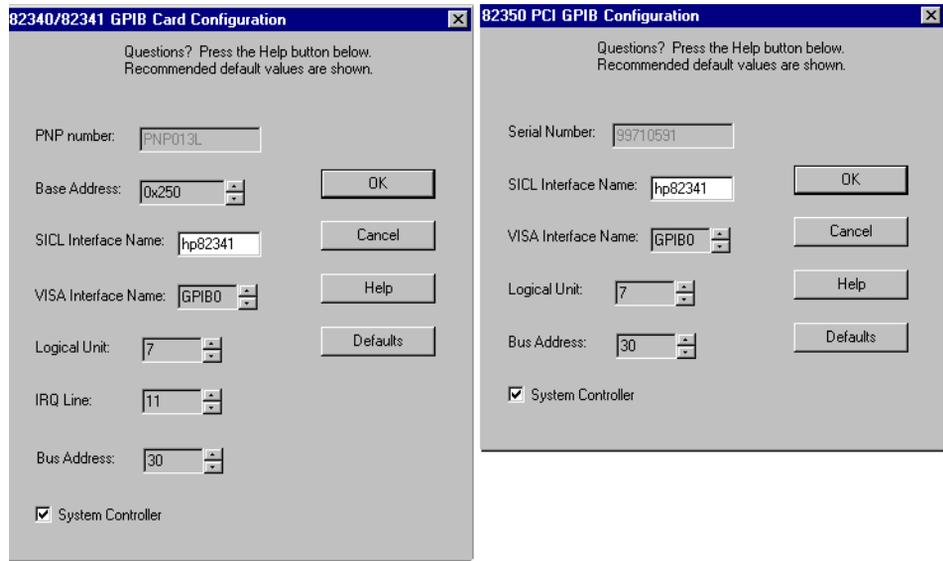


**Figure 28** IO Libraries Configuration

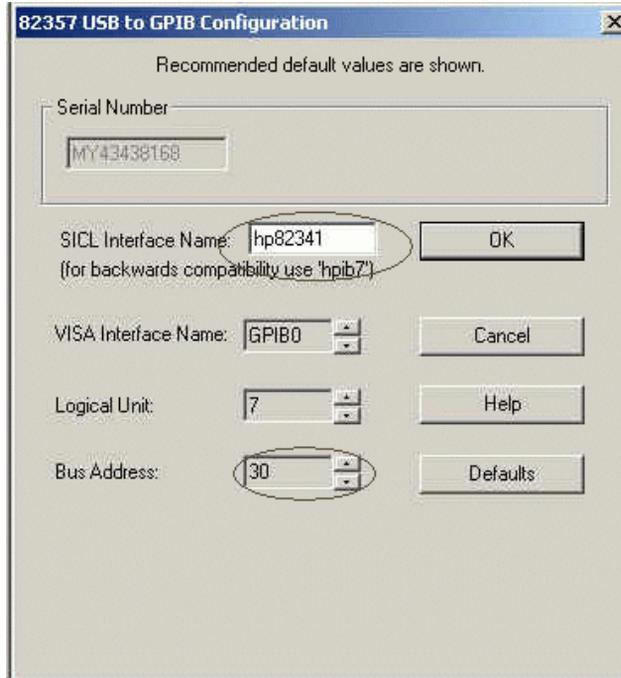
- 7 If necessary set the SICL Interface Name to **hp82341**, the Bus Address to **30** and in case of the 82350A/B GPIB cards set the **System Controller** flag. Please note that the appearance of the dialog differs slightly depending on the type of GPIB board installed.

## 4 Upgrading Existing IO Libraries

### Upgrading IO Libs under Windows XP



**Figure 29** Configuration screens for 82350A/B GPIB cards



**Figure 30** Configuration screens for 82357A USB-GPIB Interface

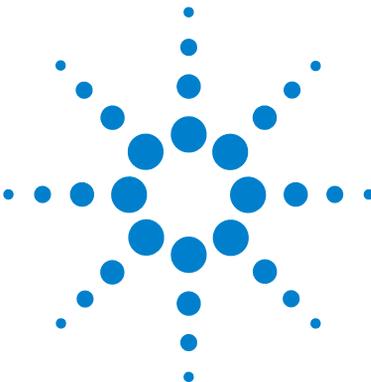
**NOTE**

You need to type in the SICL interface name hp82341 with lower case letters for all cards as well for the USB-GPIB Interface.

- 8 When installation is complete, leave the screen with **OK**. Note that you must restart to initialize the IO Libraries for the GPIB cards.

## **4 Upgrading Existing IO Libraries**

### **Upgrading IO Libs under Windows XP**



Installation Instructions for use with the Agilent ChemStation Rev.  
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## 5 Working with your Agilent I/O Libraries

What has been changed by the Installation?

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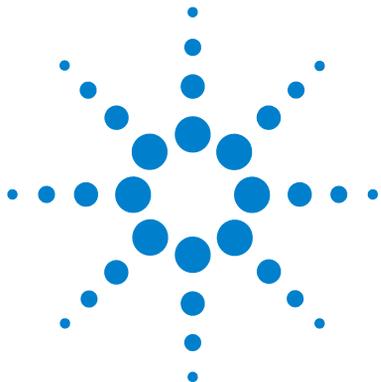
## What has been changed by the Installation?

Depending on the installation option you selected, SICL and/or VISA were installed and several program icons were created. In addition, an Agilent IO Libraries Control was created.

During installation, the Agilent IO Libraries program group was created.



**Figure 31** Agilent IO Libraries program group



## 6 Troubleshooting

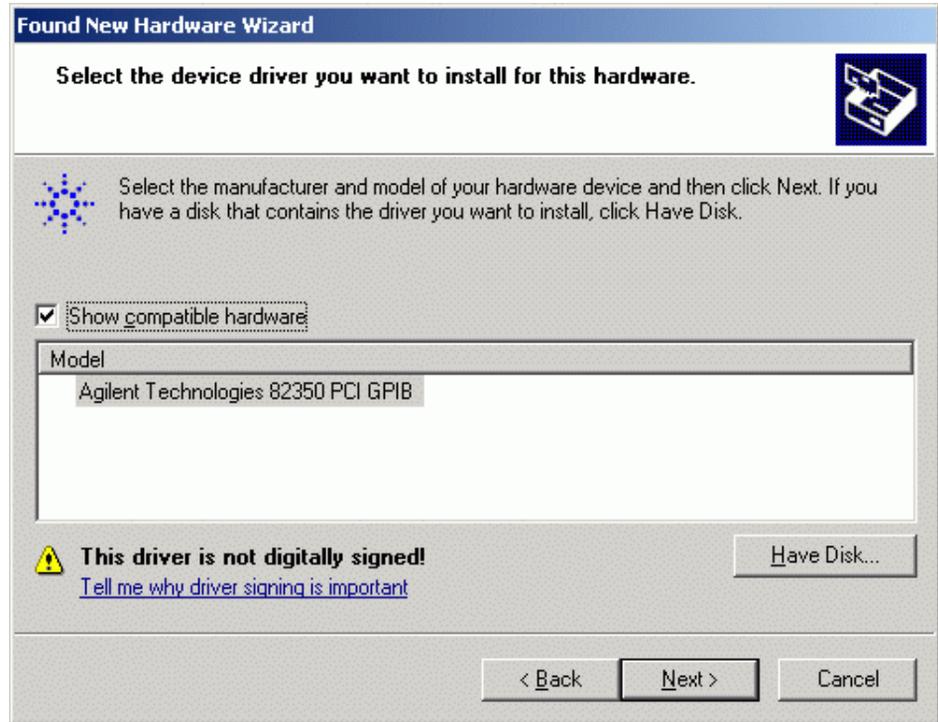
Missing files during installation	46
Problems with Plug and Play option GPIB cards	51
Problems with Plug and Play option using 82357A USB-GPIB Interface	52



## Missing files during installation

During installation it might be possible that the system is looking for some IO installation files which are not copied during the installation process. In this case the system will ask you to manually locate the files during the installation process.

- 1 The manual process might take place during the installation of the driver, after choosing *next* to start installation (see [Figure 32](#) on page 46).



**Figure 32** Driver Installation Screen

- 2 The wizard asks for the file **agtgplibclass.dll** as shown in [Figure 33](#) on page 47.

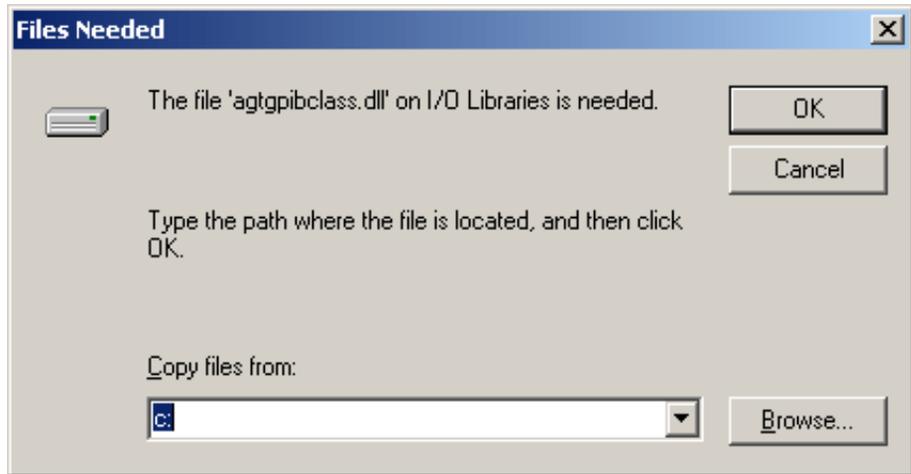


Figure 33 Searching for file

- 3 Browse to C:\windows\system32\ and click **OPEN** (See Figure 34 on page 47).

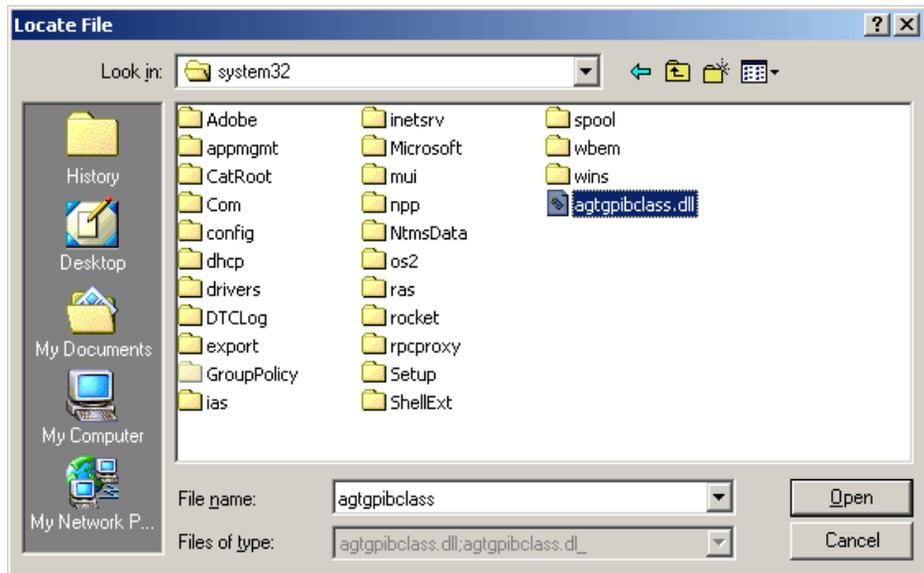
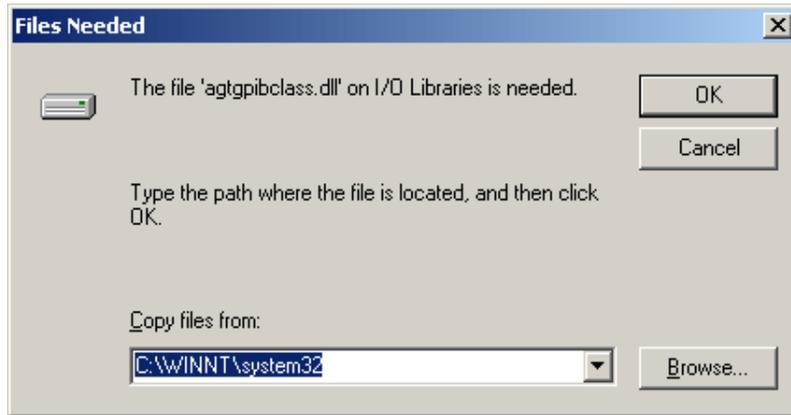


Figure 34 File Location

## 6 Troubleshooting

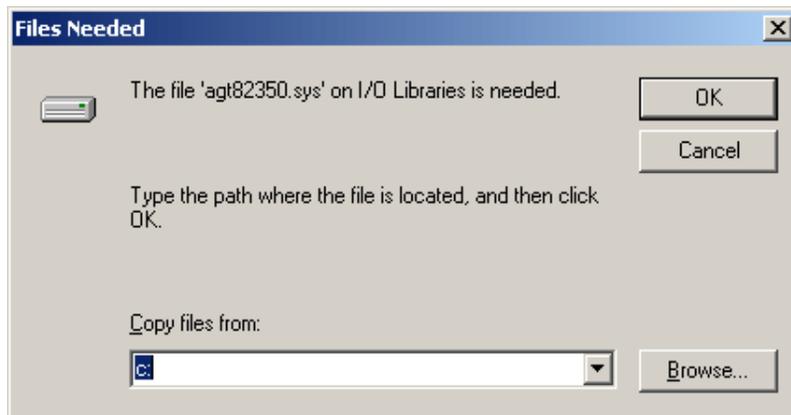
### Missing files during installation

- 4 Select **OK** as shown in [Figure 35](#) on page 48.



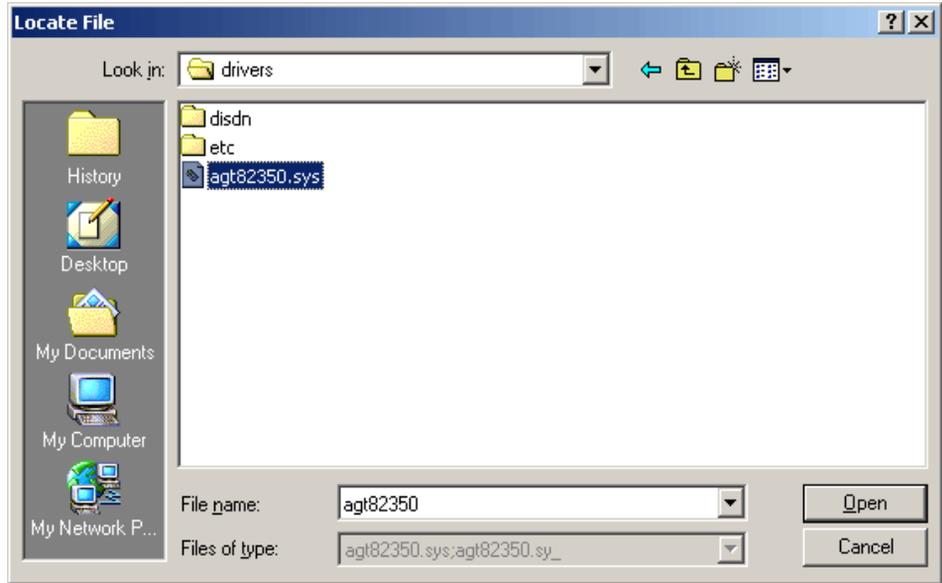
**Figure 35** Choosing file

- 5 The wizard asks for the file **agt82350.sys** when an Agilent 82350 card is installed as shown in [Figure 36](#) on page 48.



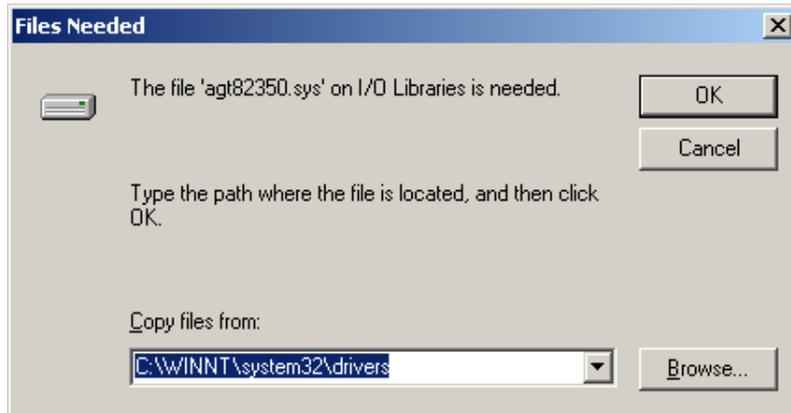
**Figure 36** Searching for file agt82350.sys

- 6 Browse to `C:\windows\system32\drivers\` and click **Open** (See [Figure 37](#) on page 49).



**Figure 37** File location

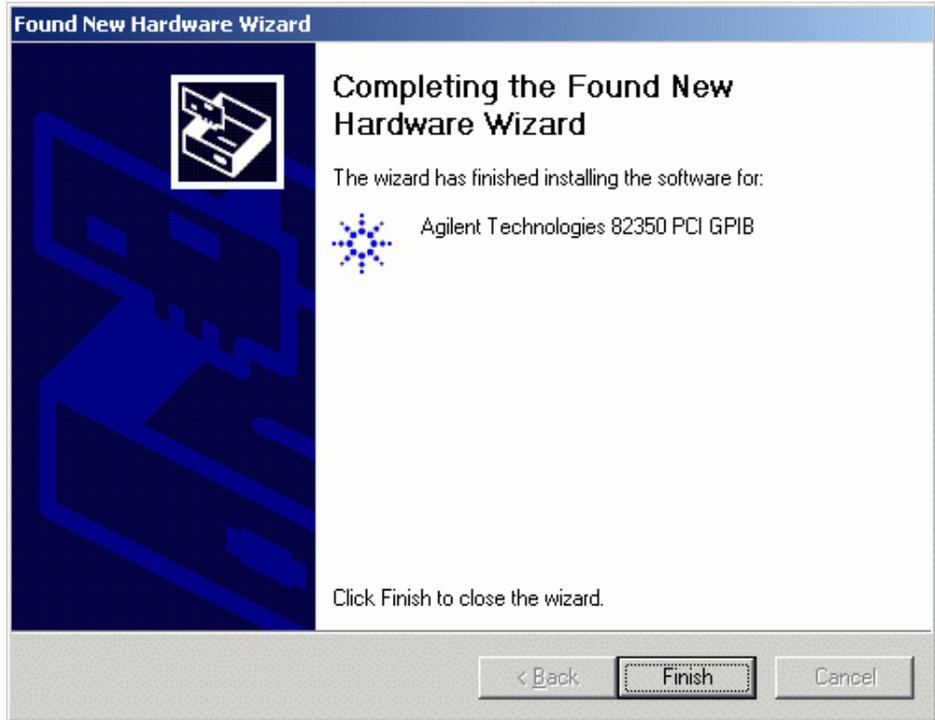
7 Select **OK** as shown in [Figure 38](#) on page 49.



**Figure 38** Select file

**6 Troubleshooting**  
Missing files during installation

- 8 After the driver installation is completed press *Finish*. The configuration of the driver can be done using the IO Config Utility described in the installation procedures.



**Figure 39** Finishing installation

## Problems with Plug and Play option GPIB cards

Operation systems using Plug and Play may show problems during the installation of the appropriate drivers for the GPIB (PCI) cards.

In order to overcome plug and play related problems please follow the steps to install the card successfully.

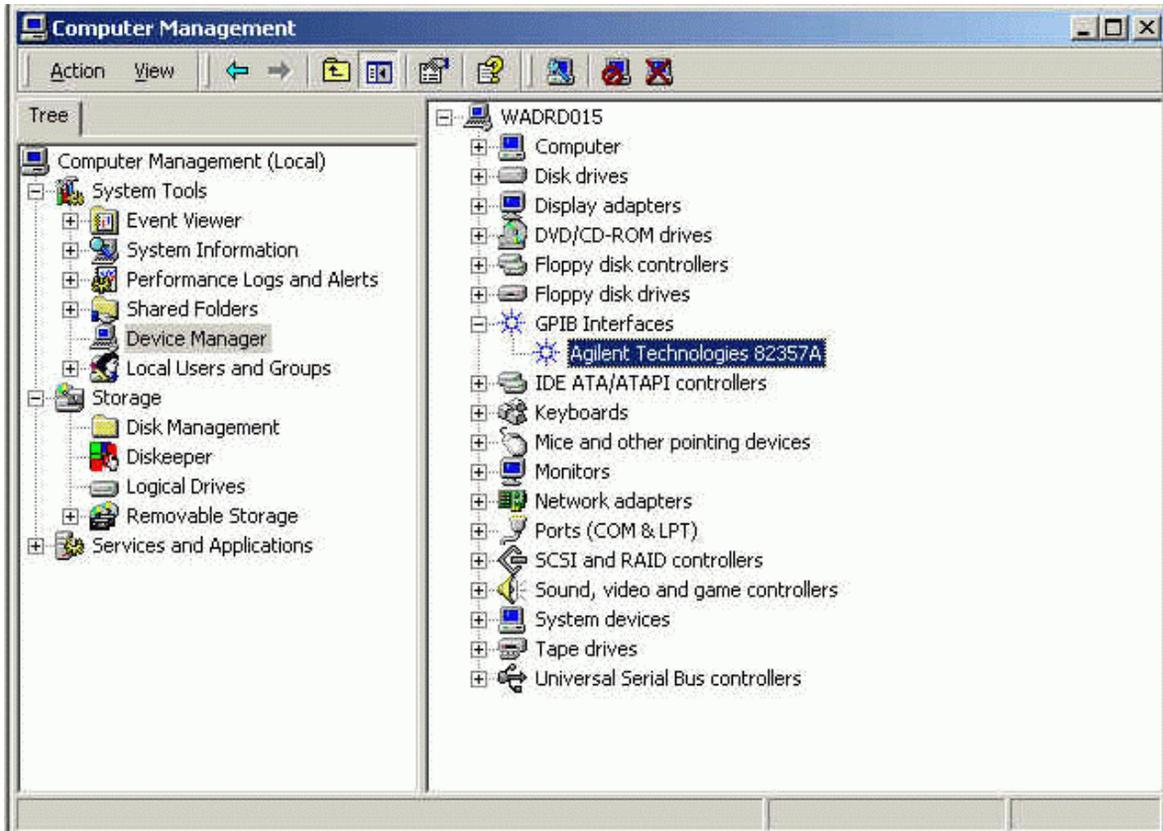
- 1 If already installed, uninstall the Agilent IO Libraries from **Control Panel, Add/Remove Programs**.
- 2 Remove the GBIB Interfaces (if installed) listed under the Device Manager and shut down the computer. For Windows XP: **Control Panel, double-click System, Hardware Tab, Device Manager, GPIB Interfaces**
- 3 Physically remove the GPIB card from the computers PCI Interface.
- 4 Restart the computer and log on to the system. Install the Agilent IO Libraries revision M.01.01.04. Do not configure the card this time and shut down the computer.
- 5 Install the GPBI card again and turn on the computer - the new hardware found wizard will indicate that a PCI card is found. Select the second choice to search from a list of known devices and there select the option for Agilent Technologies, since the IO Libraries are already installed.
- 6 If the new hardware wizard does not run, check the device manager to verify that the GPIB interfaces is listed and installed correctly.
- 7 To configure the GPIB card please follow the instructions stated in the first sections of this booklet. Continue at step 13.
- 8 Start the IO Config Utility by clicking in the Icon  12:57 PM and choose *Run IO Config*.

# Problems with Plug and Play option using 82357A USB-GPIB Interface

Operating systems using Plug and Play may show problems during the installation of the appropriate drivers for the USB-GPIB Interface.

In order to overcome problems related to Plug and Play, please follow the steps to install the card successfully.

- 1 Verify the status of the USB-GPIB Interface in the Device Manager: **Start, Settings, Control Panel**, double-click **System, Hardware Tab, Device Manager, GPIB Interfaces**:

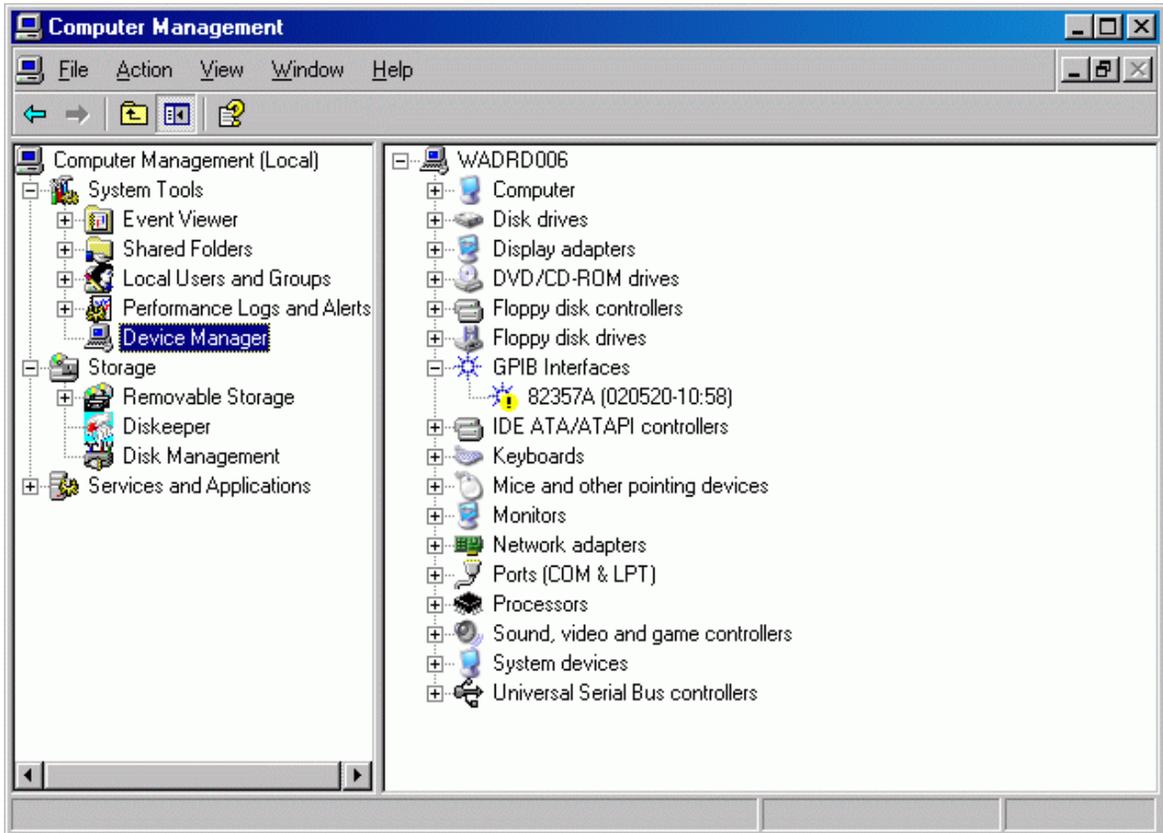


**Figure 40** Device Manager Windows XP USB-GPIB Interface, correctly installed

- 2 If a yellow exclamation mark is attached to the USB-GPIB Interface (see [Figure 41](#) on page 54) the driver needs to be installed a second time as in “[Installing New IO Libraries for USB - GPIB Interface on Windows XP](#)” on page 20.

## 6 Troubleshooting

### Problems with Plug and Play option using 82357A USB-GPIB Interface



**Figure 41** Device Manager Windows XP after first installation of USB-GPIB Interface

- 3 After the second installation, the system detects the USB device automatically and allows you to configure the device properly. Select **Accept** to start the IO Configuration Utility (see [Figure 42](#) on page 55).

Problems with Plug and Play option using 82357A USB-GPIB Interface

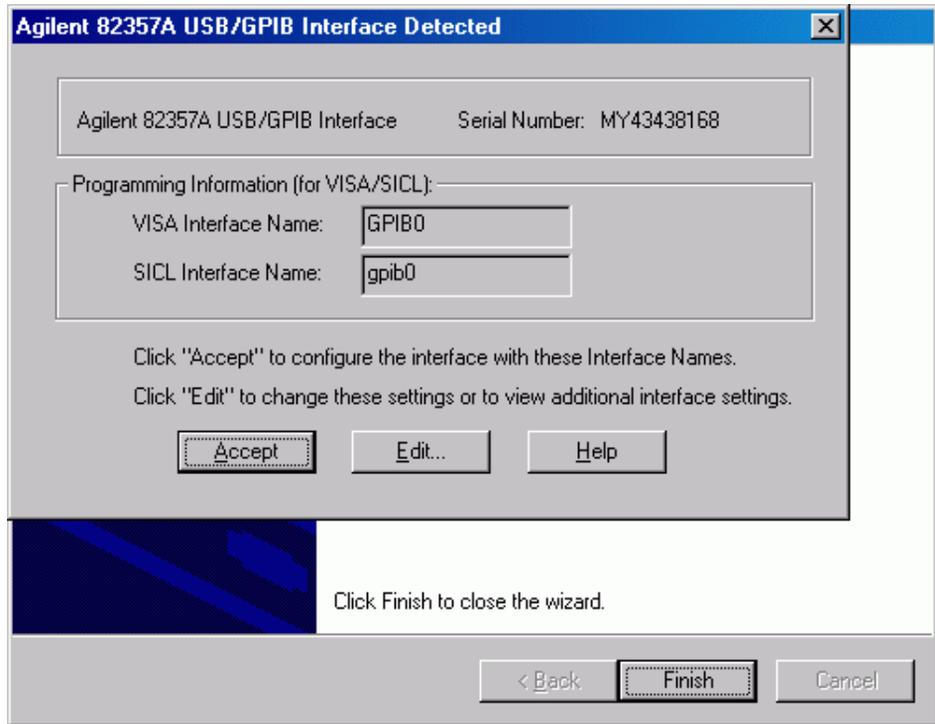
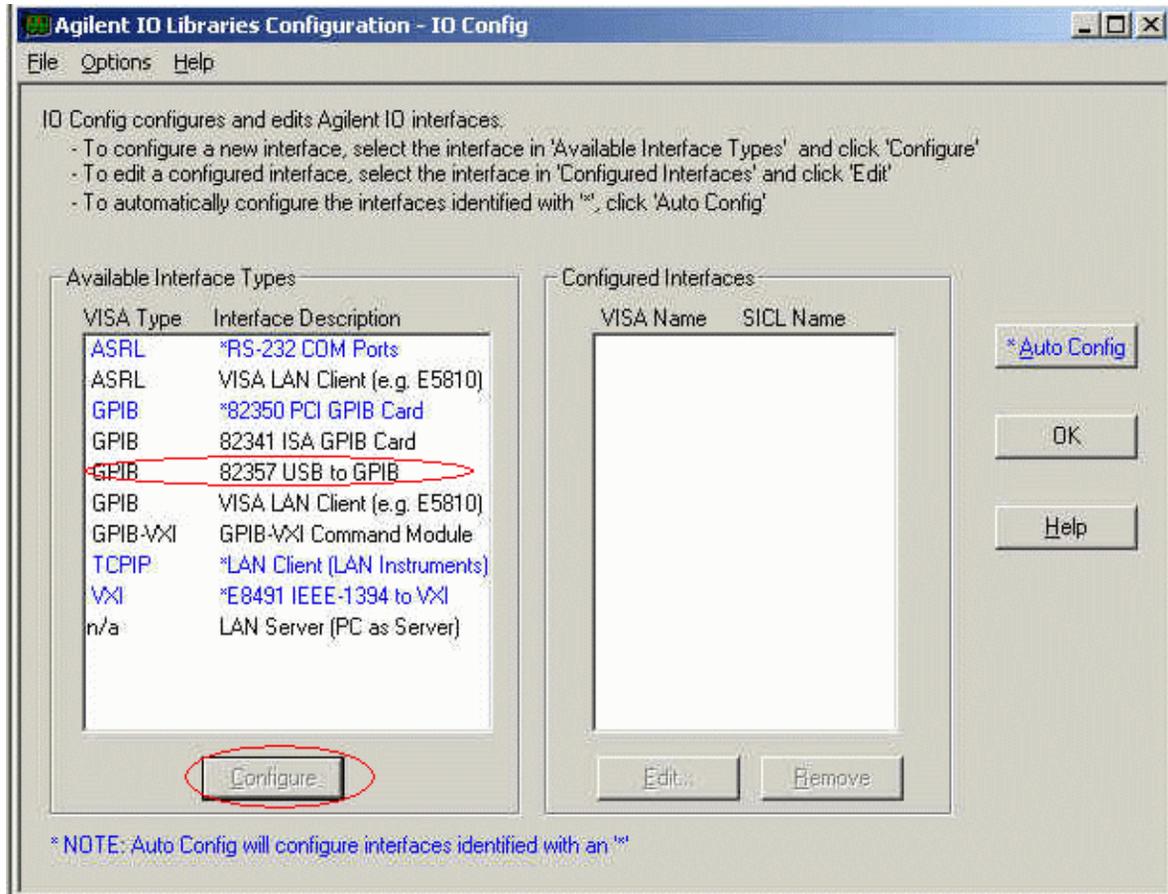


Figure 42 USB-GPIB Interface detected

- 4  12:57 PM to start the IO Config Utility by clicking in the Icon and choose *Run IO Config*.
- 5 From the list of available interface types, choose the **82357 USB to GPIB** (see [Figure 43](#) on page 56).

## 6 Troubleshooting

### Problems with Plug and Play option using 82357A USB-GPIB Interface



**Figure 43** IO Libraries Configuration

- 6 Select **Configure**. The configuration utility attempts to detect the selected USB-GPIB interface in the PC in order to assign the correct resources to the card.
- 7 Verify the correct settings mentioned in step 13 of the USB-GPIB Interface Installation for Windows XP:
  - SICL Interface Name to **hp82341**
  - Bus Address to **30**
- 8 Leave the 82357A USB/GPIB configuration screen with OK.
- 9 Leave the IO Library configuration screen with OK.

**Problems with Plug and Play option using 82357A USB-GPIB Interface**

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