ReadMe for DriveWindow 2

Contents

Note! *For you convenience, this ReadMe is distributed in two formats, HTML and PDF. HTML-format (ReadMe.htm) can be read by any browser. PDF-format (README.pdf) can be read by Acrobat Reader, and is the preferred format for printing. Note also that the HTML version consists of many files. Images reside in separate (GIF) files, for example.*

Introduction

This document contains installing/uninstalling information about DriveWindow 2.

DriveWindow is an easy-to-use 32 bit Windows Application for commissioning and maintaining ABB premium drives equipped with fiber optic communication.

Hardware and Software Requirements

Computer

- IBM compatible PC
- Pentium 150 MHz or a faster processor recommended
- 64 MB RAM
- At least 50 MB free hard disk space
- CD drive
- free ISA, PCI or PCMCIA-slot

The PCI slot can be used only for PCI/PCMCIA adapter.

DDCS Communication

- NISA-03 ISA card, or
- NDPA-02 PCMCIA-card (PCMCIA-slot or PCI-slot with PCI/PCMCIA adapter)
- DDCS cabling
- Network adapter when using remote connection

If DriveWindow is used only as a remote client, just the network adapter is required.

Software

- Win NT, or
- Win 2000, or
- Win XP
- Internet Explorer 6 (or newer) for printing other than graphs

Win 2000 and Win XP

Since version 2.01, DriveWindow can be used also under Windows 2000 and Windows XP.

What is Included in DriveWindow

DriveWindow consists of the actual program and several modules, which handle System Software backup, restore, and download. These modules are:

- DriveLoader.dll: The main system software handler.
- Conversion.dll: Contains file conversion utilities.
- Crusher.dll: Package handling utilities.

They are always installed into "Program Files\Common Files\DriveWare\DriveLoader".

In addition, DriveOPC is included. DriveOPC is also sold as a separate product. When installed with DriveWindow, only parts needed by DriveWindow with some basic documentation is installed.

DriveOPC documentation and some utilities are installed into <Installation directory>\..\DriveOPC.

DriveOPC actually contains two servers: In-process server (SMP.DLL) and local server (SMP.EXE). The latter can be configured to be used remotely. The servers are always installed into "Program Files\Common Files\DriveWare\DriveOPC".

Also the OPC Foundation OPCPROXY.DLL is included as well as the Drive Communication Libraries (DWC_COMM.DLL, DWC_DDCP.DLL, DWC_DDCS.DLL). They are always installed into Windows SYSTEM32 directory.

Since version 2.10, DriveWindow can be used also off-line. OfflineOPC (OfflineOPC.dll) is an in-process OPC server, which makes this possible. It can save data about drives, when DriveWindow is on-line, and "simulate" drives using the saved data when DriveWindow is off-line. The server is always installed into "Program Files\Common Files\DriveWare\OfflineOPC".

Since version 2.20, DriveWindow can print also parameters, parameter differences, items, and faults. Printing is done with help of DWPrintHTML.DLL module, which is always installed into "Program Files\Common Files\DriveWare\DWPrintHTML". The module requires Internet Explorer version 6 (or newer) for direct printing.

DriveWindow documentation resides in the installation directory and its sub-directories. It consists of user manual ("User Manual.pdf"), this ReadMe (in HTML and PDF-formats), instructions for configuring and handling of parameters ("Saving and Restoring Parameters.pdf"), and a document for administrating DriveWindow 2 ("Administrating DriveWindow.pdf", separate versions for WinNT, Win2000, and WinXP).

The user manual is essentially the same as on-line help (DRIVEWINDOW.HLP).

The included DriveOPC documentation includes a document that explains OPC Item Syntax ("User Manual.pdf").

Installing Acrobat Reader

To be able to read PDF files on the installation CD you need to have Adobe Acrobat Reader installed. If you have not, you can install it from the installation CD.

After installing Acrobat Reader, you can open and read the PDF-files by double clicking them in the File Manager, for example.

Note! *You must have Administrator privileges to be able to do the installing.*

To prevent autorun starting installation of DriveWindow instead of Acrobat Reader:

- Log off.
- Insert the DriveWindow installation CD into your CD drive.
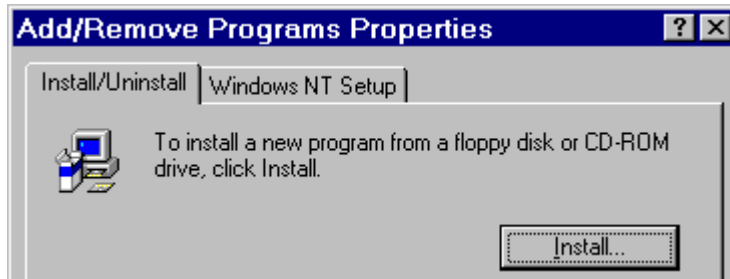- Log on.

The details of installing Acrobat Reader depend on the operating system.

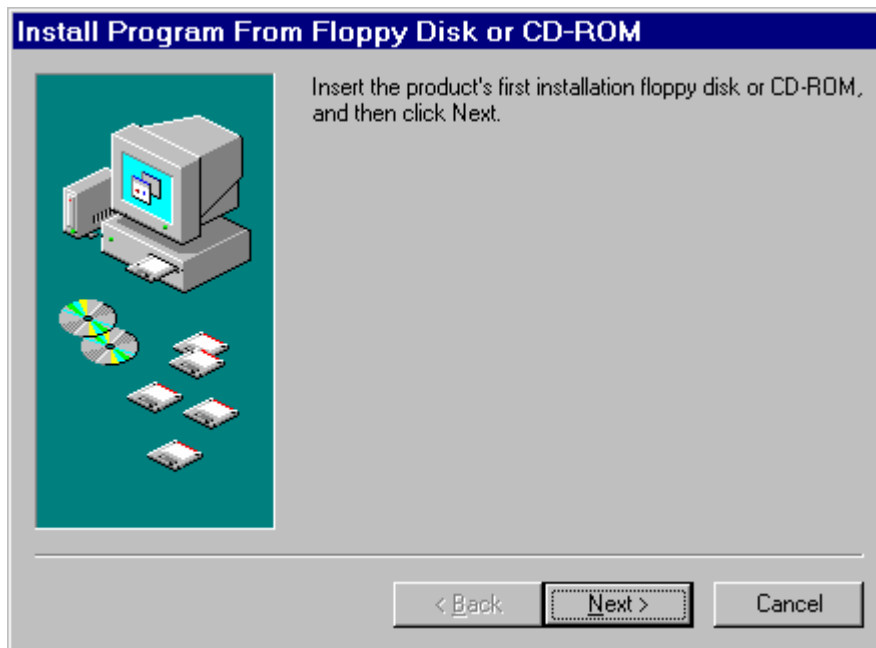### Installing Acrobat Reader under Windows NT

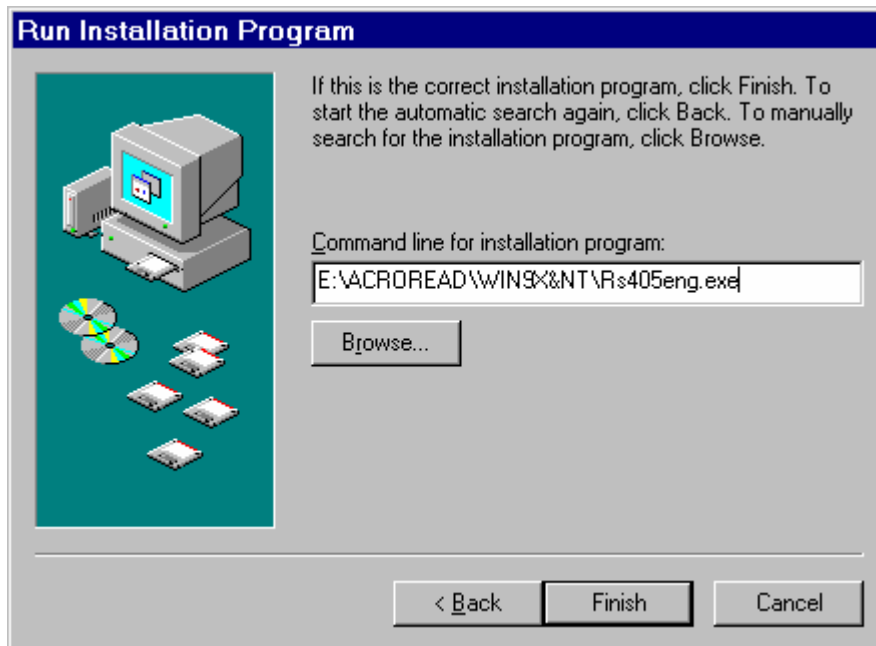Start the Control Panel program and double click Add/Remove Programs.

Select Install/Uninstall tab and click the Install... button.

If you do not have it already in your CD drive, insert the DriveWindow installation CD into your CD drive now (you may need to cancel DriveWindow installation, if you have autorun enabled). When you are ready, click the Next > button.
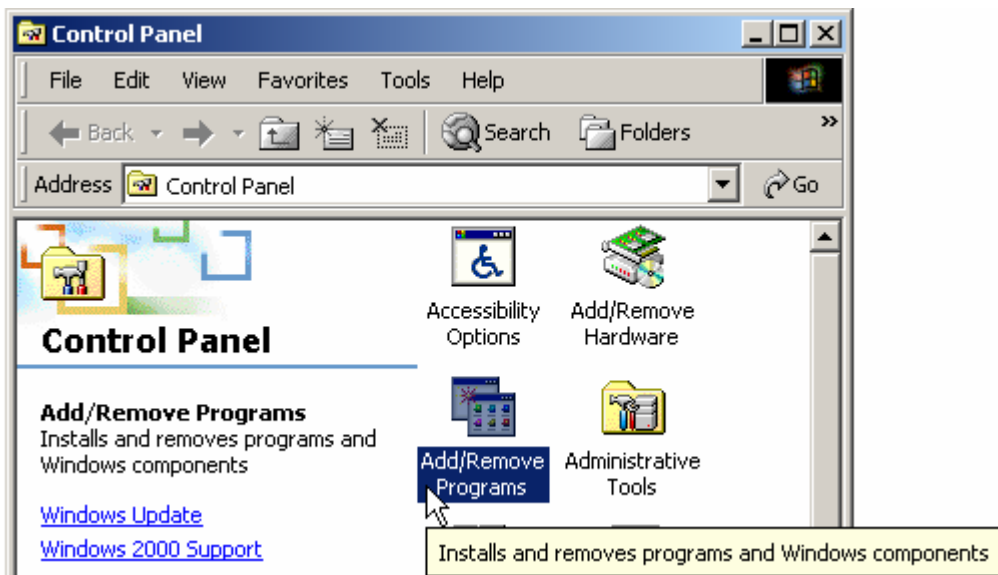
Do not accept the setup program found. Instead, assuming E: is your CD drive, enter E:\ACROREAD\WIN9X&NT\Rs405eng.exe into the Command line for installation program, or click the Browse... button and select the program by browsing. Finally click the Finish button.
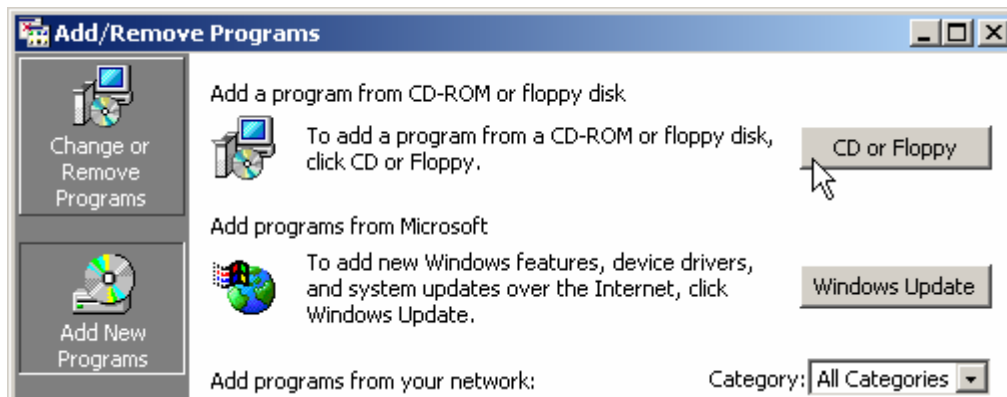

Answer the questions and follow the instructions given by the installation program.

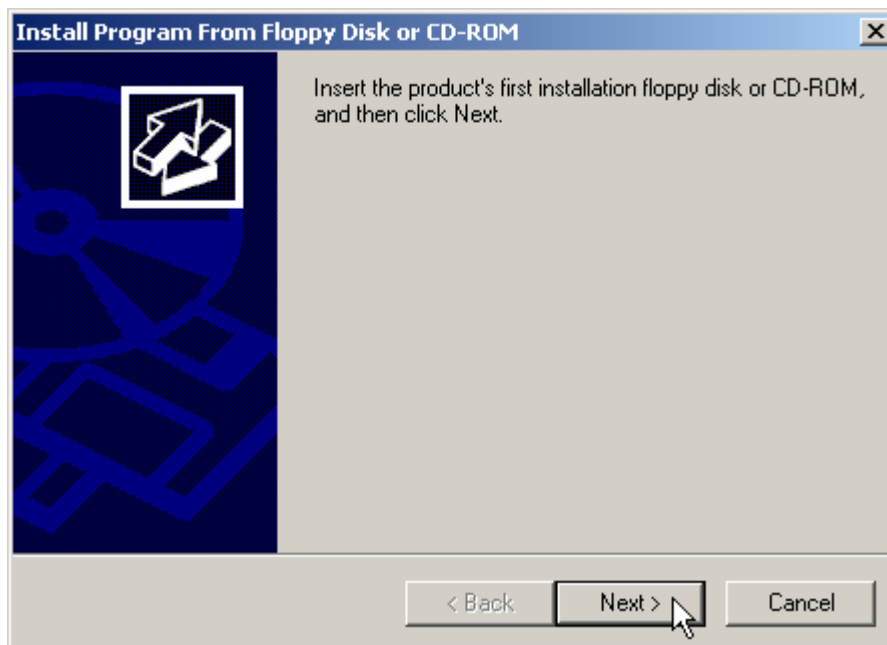## Installing Acrobat Reader under Windows 2000

Start the Control Panel program and double click Add/Remove Programs.

Select Add New Programs and click the CD or Floppy button.

If you do not have it already in your CD drive, insert the DriveWindow installation CD into your CD drive now (you may need to cancel DriveWindow installation, if you have autorun enabled). When you are ready, click the Next > button.

Do not accept the setup program found. Instead, assuming E: is your CD drive, enter
E:\ACROREAD\WIN9X&NT\Rs405eng.exe into the Open field, or click the Browse... button and select
the program by browsing. Finally click the Finish button.

Answer the questions and follow the instructions given by the installation program.

Installing Acrobat Reader under Windows XP

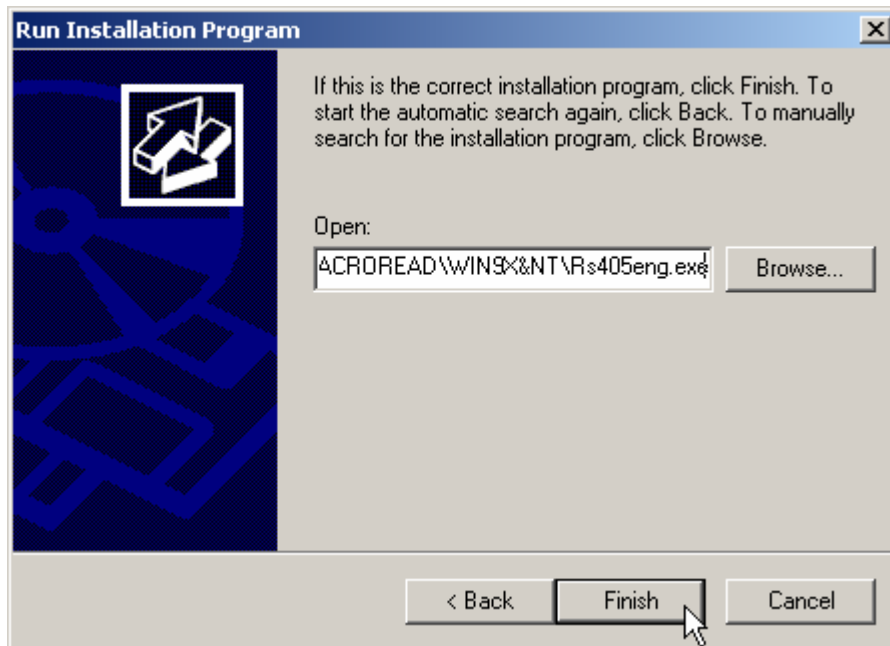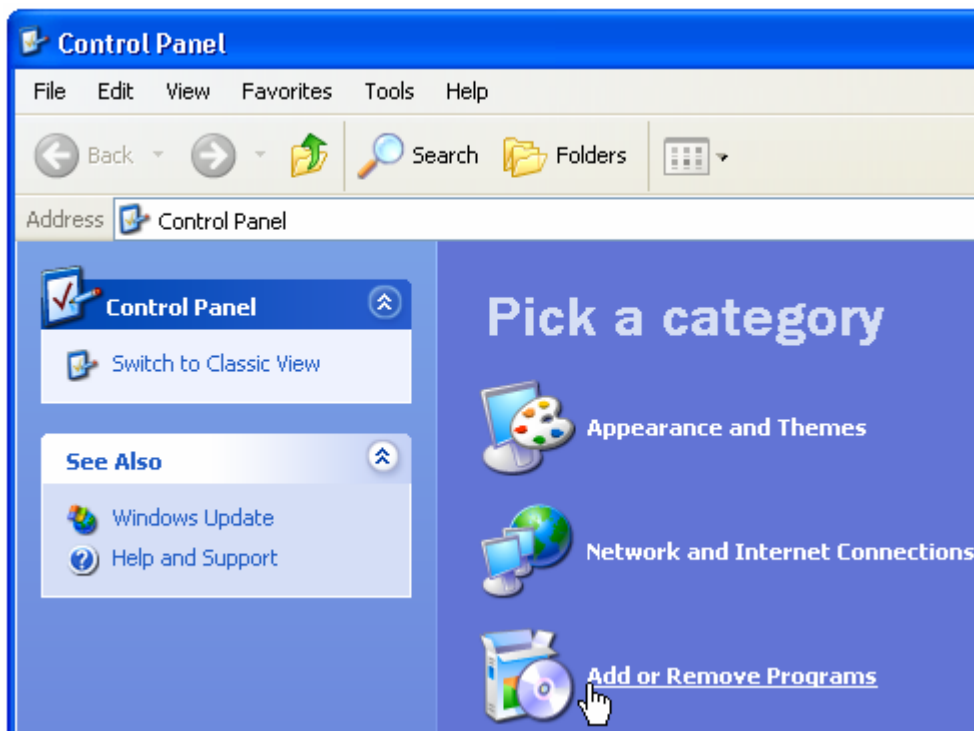Start the Control Panel program and click Add or Remove Programs.

Select Add New Programs and click the CD or Floppy button.

If you do not have it already in your CD drive, insert the DriveWindow installation CD into your CD drive now (you may need to cancel DriveWindow installation, if you have autorun enabled). When you are ready, click the Next > button.

Install Program From Floppy Disk or CD-ROM

Insert the product's first installation floppy disk or CD-ROM, and then click Next.

< Back   Next >   Cancel

Do not accept the setup program found. Instead, assuming E: is your CD drive, enter E:\ACROREAD\WIN9X&NT\Rs405eng.exe into the Open field, or click the Browse... button and select the program by browsing. Finally click the Finish button.
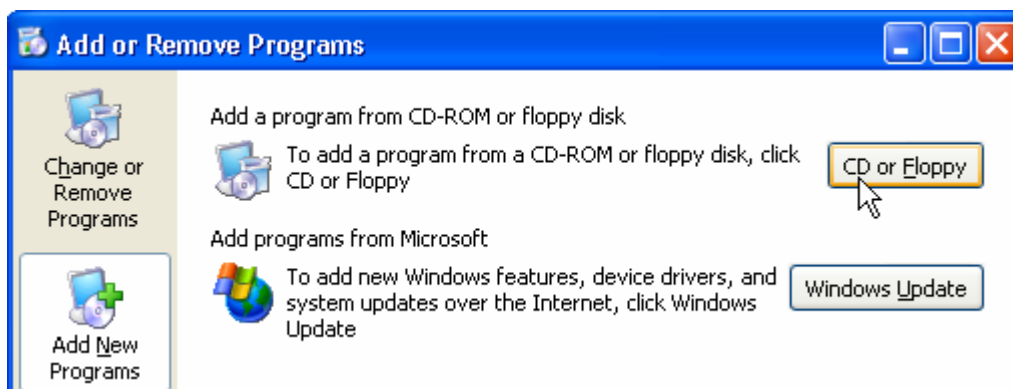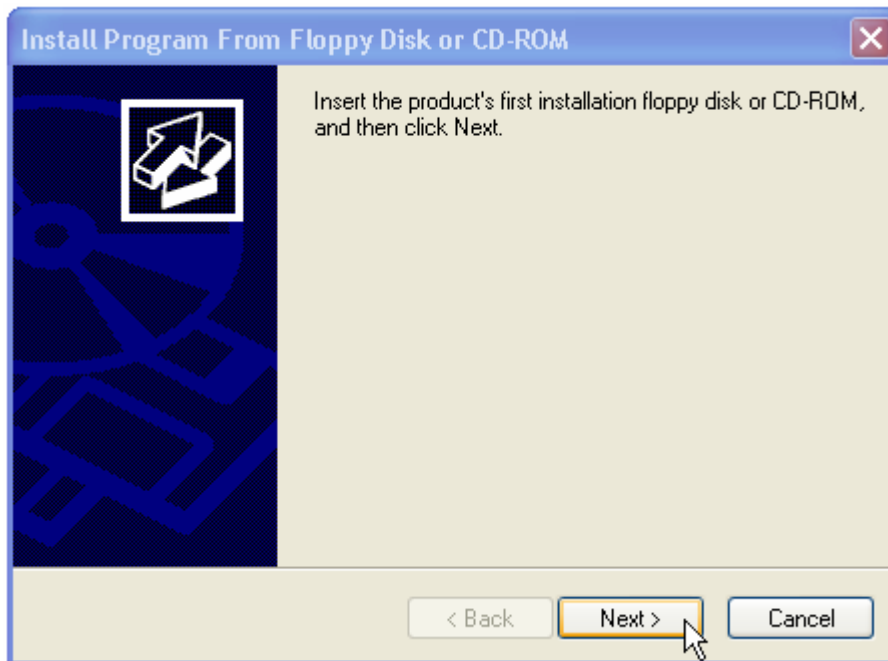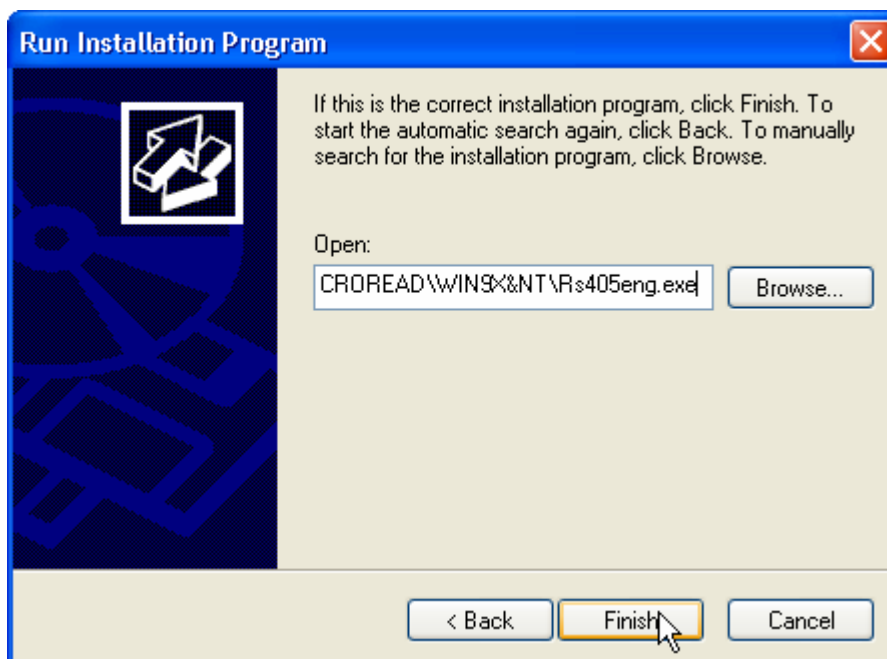
Run Installation Program

If this is the correct installation program, click Finish. To start the automatic search again, click Back. To manually search for the installation program, click Browse.

Open:

CROREAD\WIN9X&NT\Rs405eng.exe   Browse...

< Back   Finish   Cancel

Answer the questions and follow the instructions given by the installation program.

Contents of the Installation CD

The DriveWindow installation CD contains:

- ReadMe file in HTML (ReadMe.htm) and PDF (README.pdf) formats.
- Licence agreement in HTML (Licence.htm) and PDF (Licence.pdf) formats.
- Release notes in PDF-format.
- User Manual in PDF-format.
- DriveWindow installation program (Setup.exe).
- Acrobat Reader installation program.
- All DriveWindow files as if they were installed.

The detailed contents of the CD can be found in the file CONTENTS.TXT, which resides in the root directory.

Installing DriveWindow

Please read carefully the licence agreement (Licence.pdf or Licence.htm) before installing DriveWindow.

We recommend that you install DriveWindow before installing any hardware (NDPA-02 DDCS/PCMCIA and/or NISA-03 DDCS/ISA boards).

You should quit all applications before starting the SETUP. We recommend that you uninstall all previous versions of DriveOPC or DriveWindow 2 before installing. It is not necessary to uninstall DriveWindow 1.x.

Note! *You must have Administrator privileges to be able to do the installing.*

If you have autorun enabled:

- Log on.
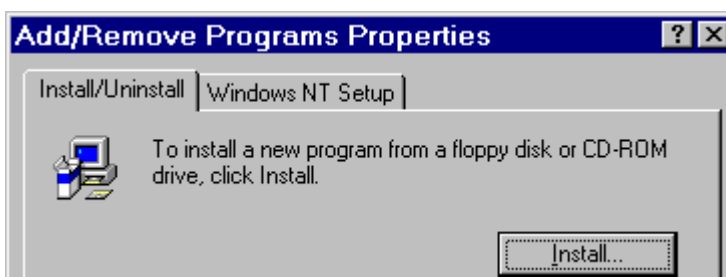- Insert the DriveWindow installation CD into your CD drive and the SETUP starts automatically.

If you do not have autorun enabled, or if you already had the DriveWindow installation CD in your CD drive when you logged on, you have to start the SETUP manually. The details of starting the SETUP depend on the operating system.

## Installing DriveWindow under Windows NT

If inserting of the DriveWindow installation CD into your CD drive did not start the SETUP, start the Control Panel program and double click Add/Remove Programs.

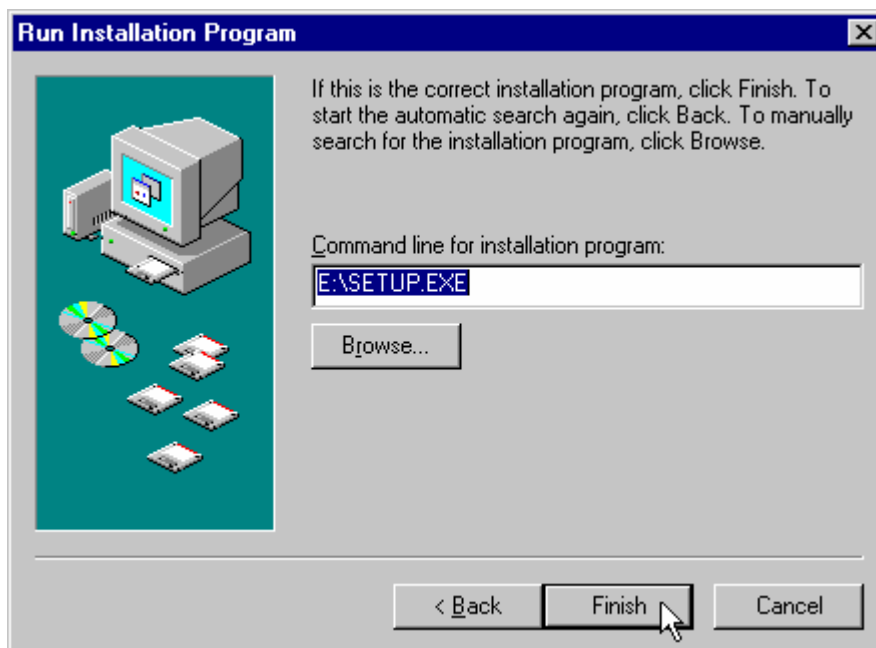Select Install/Uninstall tab and click the Install... button.

If you do not have it already in your CD drive, insert the DriveWindow installation CD into your CD drive now. When you are ready, click the Next > button.
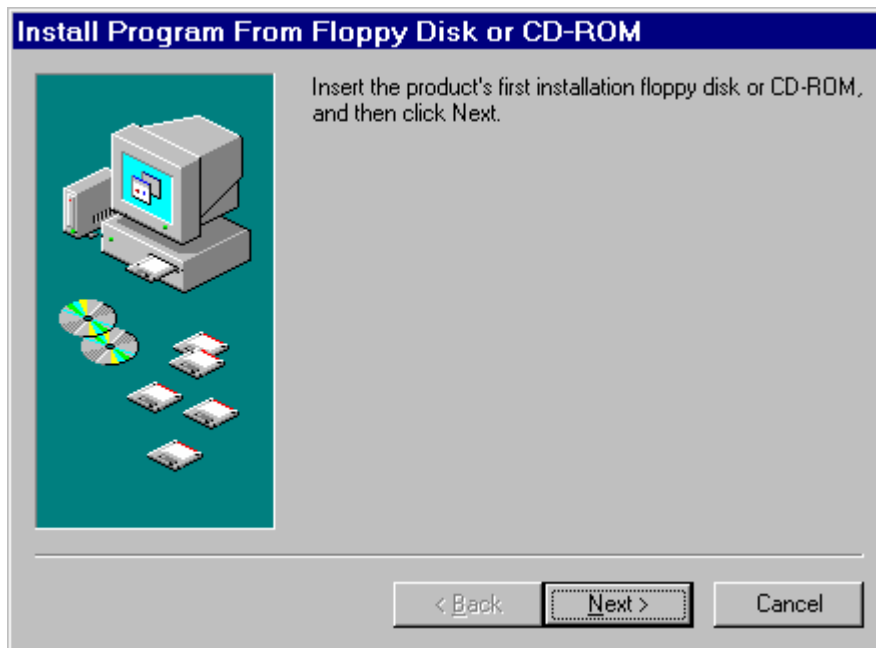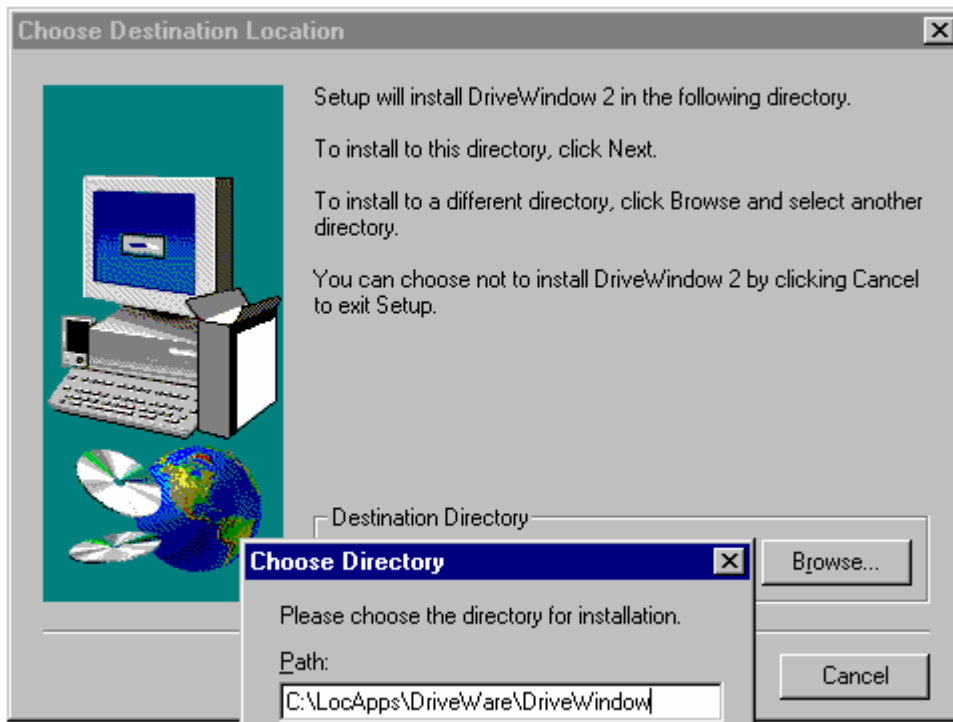

If the proper SETUP was not found automatically, enter E:\SETUP.EXE into the Command line for installation program (assuming E: is your CD drive), or click the Browse... button and select the program by browsing.

Finally click the Finish button, which starts the SETUP.

Whether SETUP started automatically, or you started it manually, answer the questions asked and follow the instructions given by the installation program.
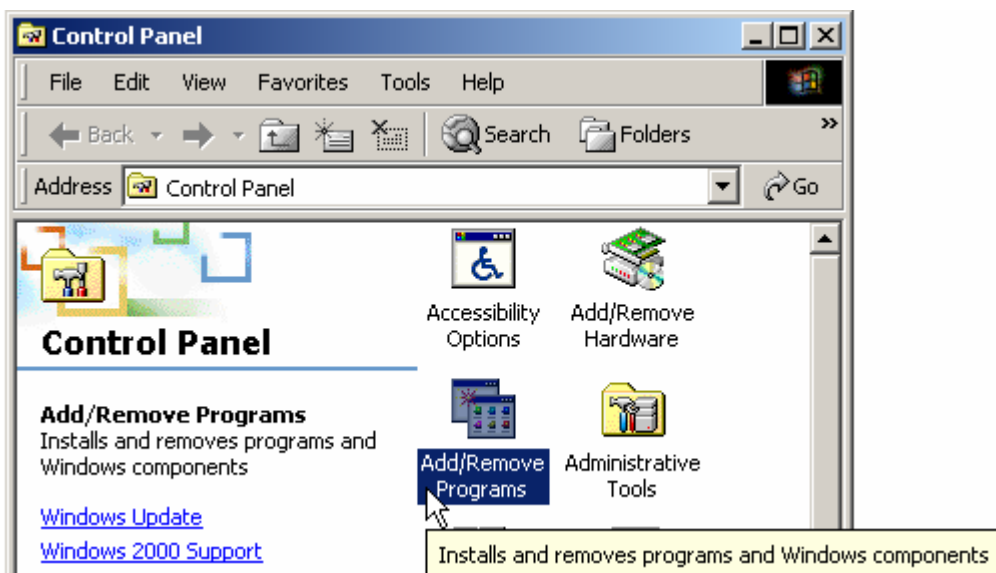
If you are installing DriveWindow into a computer having an ABB Way NT configuration, we recommend to do the installation into directory C:\LocApps\DriveWare\ DriveWindow instead of the default installation directory.
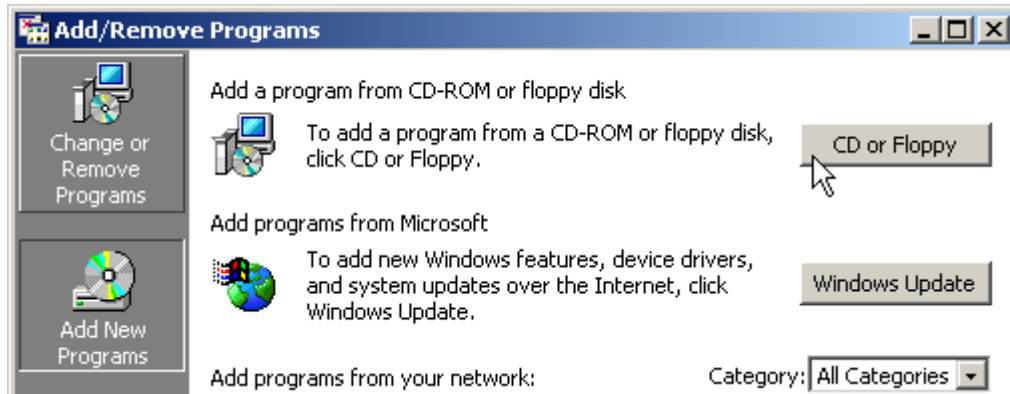

Installing DriveWindow installs all of DriveWindow. You have no options to select what is to be installed.
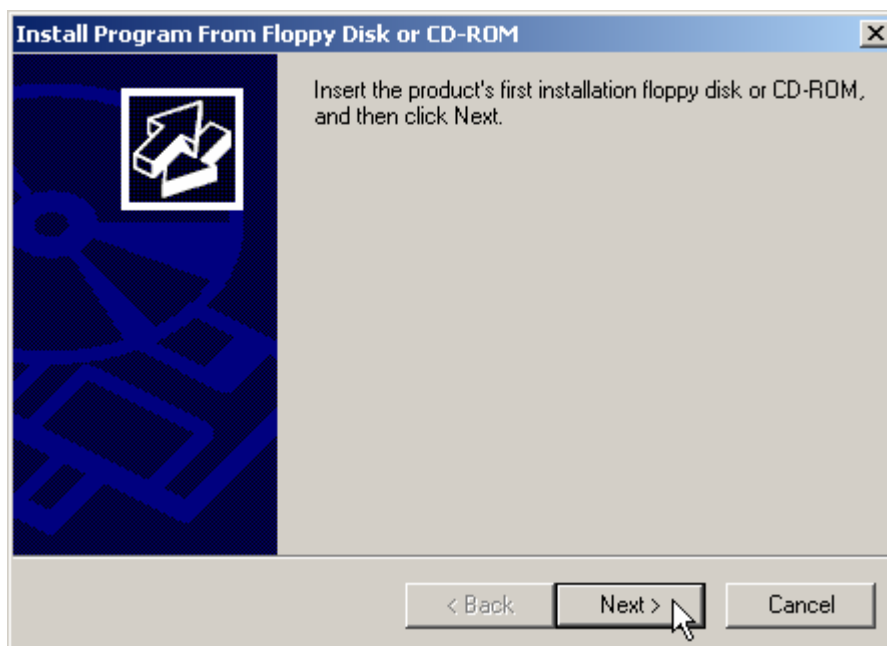
Installing DriveWindow under Windows 2000

If inserting of the DriveWindow installation CD into your CD drive did not start the SETUP, start the Control Panel program and double click Add/Remove Programs.

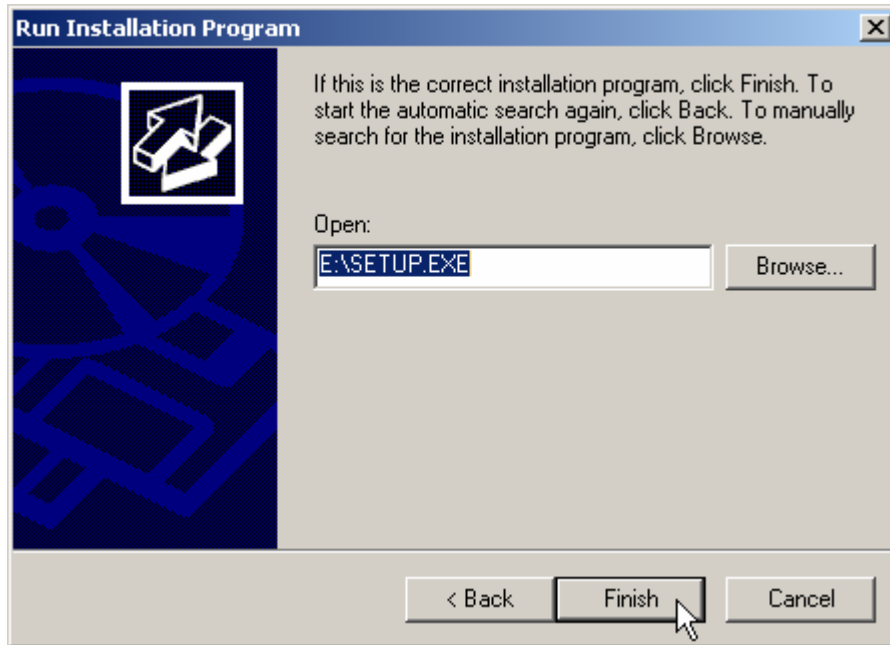Select Add New Programs and click the CD or Floppy button.

If you do not have it already in your CD drive, insert the DriveWindow installation CD into your CD drive now. When you are ready, click the Next > button.
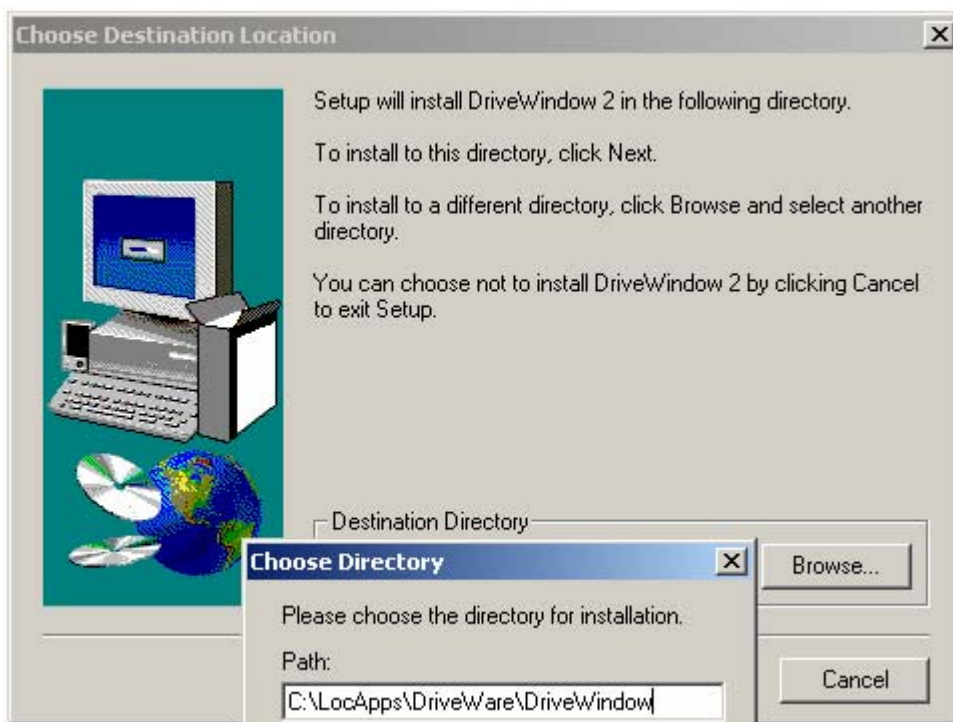

If the proper SETUP was not found automatically, enter E:\SETUP.EXE into the Open field (assuming E: is your CD drive), or click the Browse... button and select the program by browsing.

Finally click the Finish button, which starts the SETUP.

Whether SETUP started automatically, or you started it manually, answer the questions asked and follow the instructions given by the installation program.

If you are installing DriveWindow into a computer having an ABB Way NT configuration, we recommend to do the installation into directory C:\LocApps\DriveWare\ DriveWindow instead of the default installation directory.

Installing DriveWindow installs all of DriveWindow. You have no options to select what is to be installed.

Note that installing DriveWindow requests the Windows plug and play system to re-install the NDPA-02 DDCS/PCMCIA board and NISA-03 DDCS/ISA board drivers, if they have already been installed.

It means that when you log on the first time, you may see the "Found New Hardware" message for each board present. Such a message can be seen even for NISA-03 DDCS/ISA boards, which are not plug and play boards. Their driver is plug and play compatible, however.
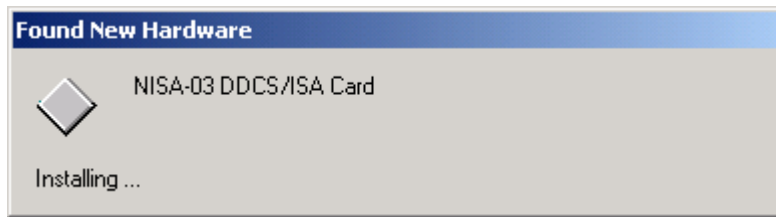

Another of the consequences is that you may have to do additional restarting of your computer. This happens in case NISA-03 DDCS/ISA board I/O range conflicts with a plug and play board. With NDPA-02 DDCS/PCMCIA boards this should never happen.

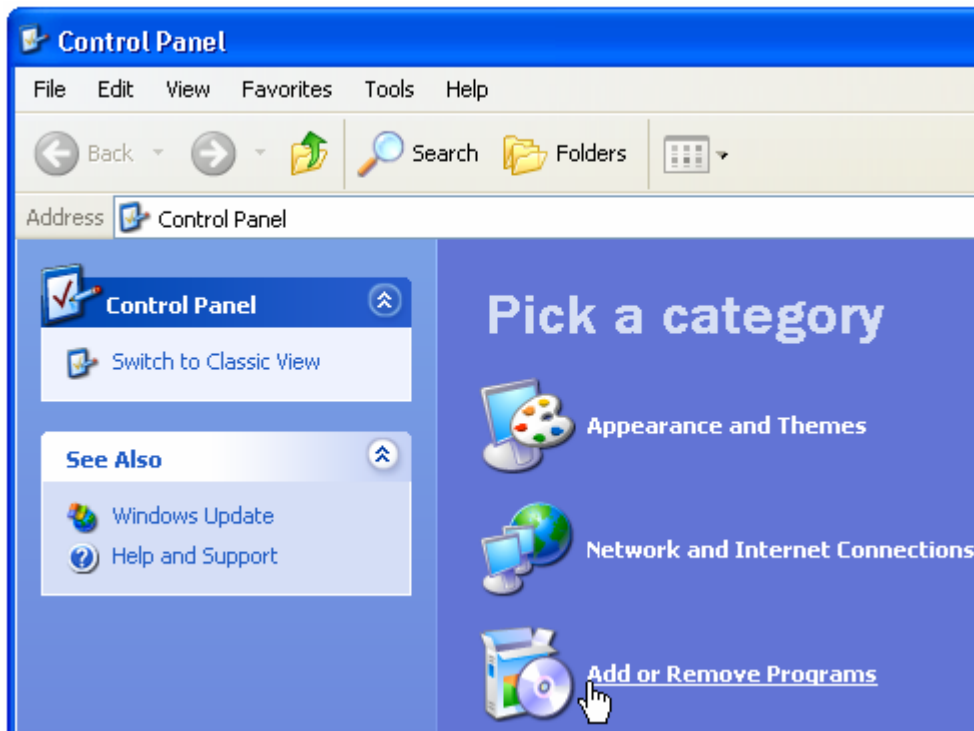The Windows plug and play system informs you about each conflicting board.
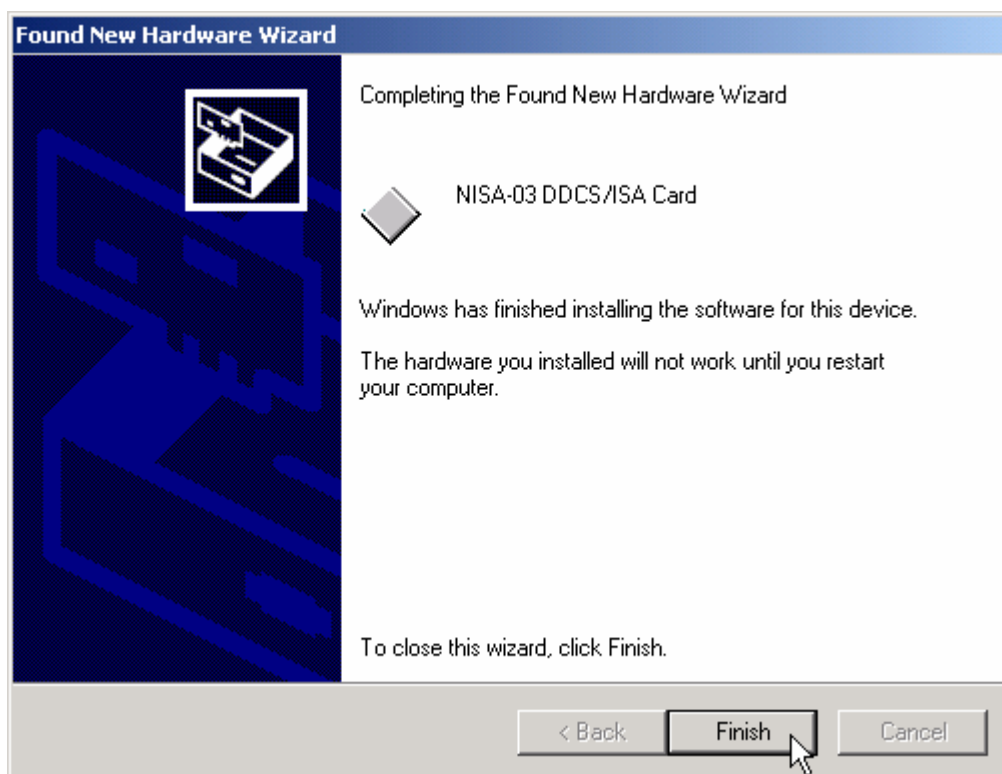
After all drivers have been re-installed and conflicts were found, Windows plug and play system asks you to confirm restarting of your computer.
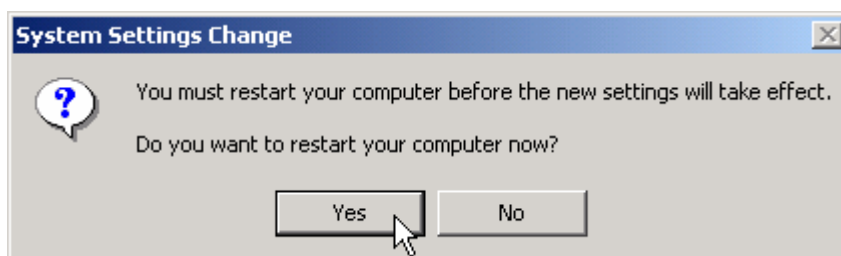
Note that conflicts of I/O ranges can be avoided, if you configure the conflicting plug and play board not use automatic settings, but select the I/O range manually instead.
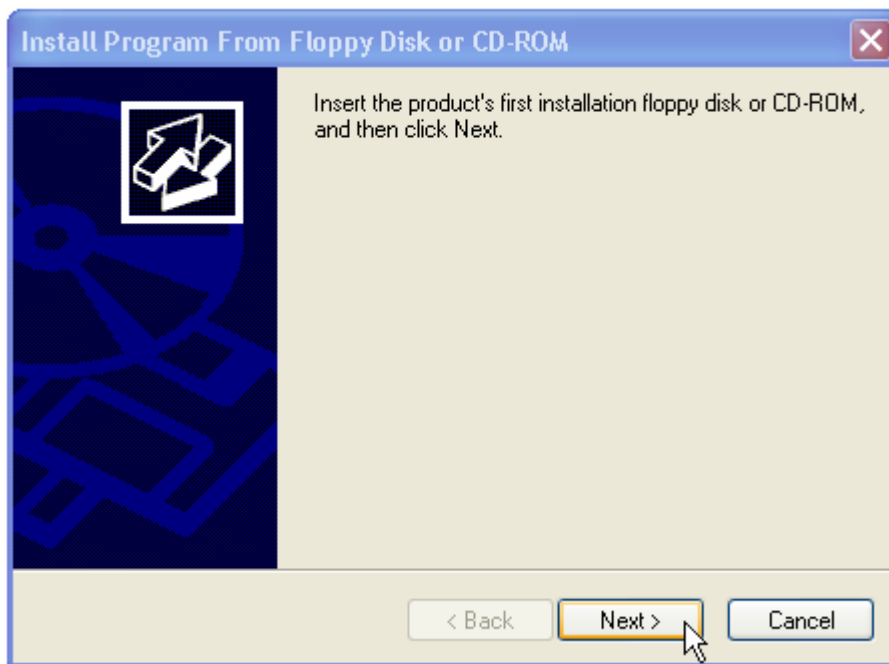
Installing DriveWindow under Windows XP

If inserting of the DriveWindow installation CD into your CD drive did not start the SETUP, start the Control Panel program and click Add or Remove Programs.

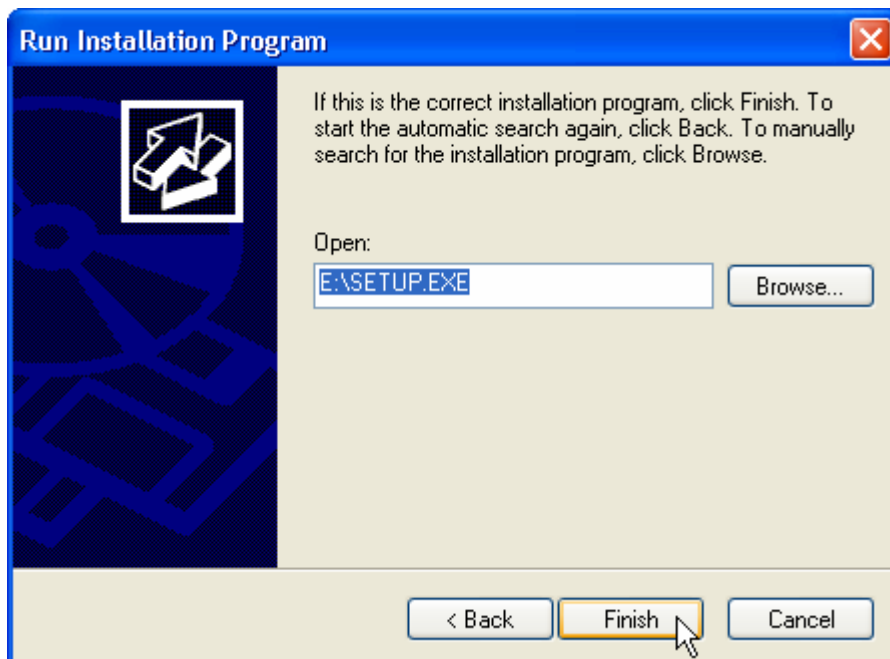Select Add New Programs and click the CD or Floppy button.

If you do not have it already in your CD drive, insert the DriveWindow installation CD into your CD drive now. When you are ready, click the Next > button.

If the proper SETUP was not found automatically, enter E:\SETUP.EXE into the Open field (assuming E: is your CD drive), or click the Browse... button and select the program by browsing.

Finally click the Finish button, which starts the SETUP.

Whether SETUP started automatically, or you started it manually, answer the questions asked and follow the instructions given by the installation program.

Installing DriveWindow installs all of DriveWindow. You have no options to select what is to be installed.

Note that installing DriveWindow requests the Windows plug and play system to re-install the NDPA-02 DDCS/PCMCIA board and NISA-03 DDCS/ISA board drivers, if they have already been installed.

It means that when you log on the first time, you the "Found New Hardware Wizard" may start for each board present. The wizard starts even for NISA-03 DDCS/ISA boards, which are not plug and play boards. Their driver is plug and play compatible, however.

Please select Install the software automatically (Recommended) and click Next. Wait while the driver is being installed.

When the driver has been installed, click Finish.

Another of the consequences is that you may have to do additional restarting of your computer. This happens in case NISA-03 DDCS/ISA board I/O range conflicts with a plug and play board. With NDPA-02 DDCS/PCMCIA boards this should never happen.

After all drivers have been re-installed and conflicts were found, Windows plug and play system asks you to confirm restarting of your computer.
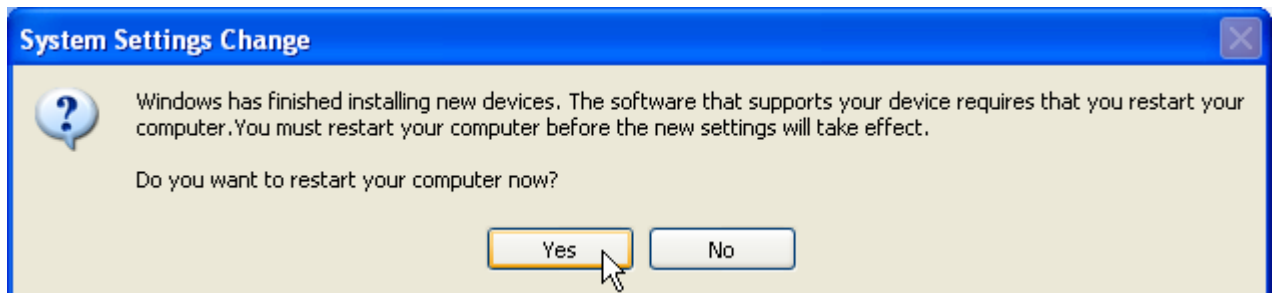
Note that conflicts of I/O ranges can be avoided, if you configure the conflicting plug and play board not use automatic settings, but select the I/O range manually instead.

Installing NDPA-02

We recommend that you install DriveWindow before installing any hardware.

Installing hardware consists actually of two phases:

- Installing of the board driver
- Installing of the board

When you install DriveWindow, the drivers are copied to your hard disk, but they are not yet installed.

DriveWindow supports two types of DDCS communication boards:

- NDPA-02 DDCS/PCMCIA board
- NISA-03 DDCS/ISA board

Details of their installation are presented separately.

NDPA-02 DDCS/PCMCIA is a PC Card, which inherently is a plug and play type of board. Your computer must have a free PCMCIA slot for the board.

Since version 2.02 of DriveWindow (actually version 2.03 of DriveOPC, which is included in version 2.02 of DriveWindow), Windows 2000 and Windows XP support more than one NDPA-02 DDCS/PCMCIA boards. Windows NT supports only one.

Details of installation depend on the operating system.

Windows NT

If you are going to use an NDPA-02 DDCS/PCMCIA board under Windows NT, you must not have any plug and play software running.

Before inserting the NDPA-02 DDCS/PCMCIA board you should check that the I/O range configured for use of the board is not already in use. You can do it by using NISADUMP.EXE (see Troubleshooting).

If the default I/O range (0320 - 032F) is not free, you have to change the range used by NDPA-02 DDCS/PCMCIA.

First you have to find a free I/O range. Check NisaDump.txt, which was created by NISADUMP.

Changing can be done by using NISAREG.EXE, which resides in the same directory as NISADUMP.EXE. In the command prompt, change to the installation directory and type command `NISAREG 300`, for example, if I/O range 0300 - 030F is free.

You can change the I/O range also by using a registry editor. Change the value IoBaseAddress under the key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Ddcc+1\Parameters.

Note that installing of any Drive*Ware*® software, which includes the DDCS driver (Nisa.sys), restores the default I/O range. So, you need to make the change again after such an installation. If you have made such a change, we also recommend that you install Drive*Ware*® products only while the NPDA-02 DDCS/PCMCIA board is not inserted.

We recommend that you insert and remove the NDPA-02 DDCS/PCMCIA board only when you computer is shut down. If you insert the board on the fly, your computer has to be restarted anyway before the driver is able to detect it.

Windows 2000

DriveWindow includes Windows 2000 plug and play driver for NDPA-02 DDCS/PCMCIA. The driver is copied into the hard disk when DriveWindow is installed.

Windows 2000 plug and play system starts installing the driver the first time an NDPA-02 DDCS/PCMCIA board is found in a PCMCIA slot.

We recommend that you install DriveWindow before the NDPA-02 DDCS/PCMCIA board. If you do it the other way round, the driver is not available at a proper place. It means that the driver installation

either fails at that moment, or Windows 2000 tells that the driver is not working properly. However, installing DriveWindow should force Windows 2000 to reinstall the driver the next time it finds an NDPA-02 DDCS/PCMCIA board.

Although not absolutely necessary, we recommend that you always shut down your PC when inserting or removing an NDPA-02 DDCS/PCMCIA board.

Since version 2.02 of DriveWindow (actually version 2.03 of DriveOPC, which is included in version 2.02 of DriveWindow), more than one NDPA-02 DDCS/PCMCIA board is supported under Windows 2000.

Driver Installation

We assume here that you have already installed DriveWindow. If you have not, the Found New Hardware Wizard starts. We recommend that you click the Cancel button in the Found New Hardware Wizard and install DriveWindow.

When Windows 2000 plug and play system finds the first time an NDPA-02 DDCS/PCMCIA board in a PCMCIA slot, it installs the driver without requiring user intervention. Note that you do not need the DriveWindow installation CD while the driver is installing.
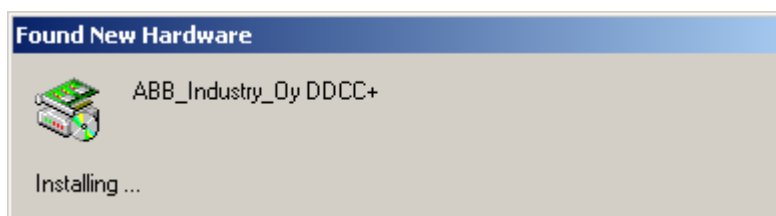
Windows XP

DriveWindow includes Windows XP plug and play driver for NDPA-02 DDCS/PCMCIA. The driver is copied into the hard disk when DriveWindow is installed.

Windows XP plug and play system starts installing the driver the first time an NDPA-02 DDCS/PCMCIA board is found in a PCMCIA slot.

We recommend that you install DriveWindow before the NDPA-02 DDCS/PCMCIA board. If you do it the other way round, the driver is not available at a proper place. It means that the driver installation either fails at that moment, or Windows XP tells that the driver is not working properly. However, installing DriveWindow should force Windows XP to reinstall the driver the next time it finds an NDPA-02 DDCS/PCMCIA board.

Although not absolutely necessary, we recommend that you always shut down your PC when inserting or removing an NDPA-02 DDCS/PCMCIA board.

Since version 2.02 of DriveWindow (actually version 2.03 of DriveOPC, which is included in version 2.02 of DriveWindow), more than one NDPA-02 DDCS/PCMCIA board is supported under Windows XP.

Driver Installation

We assume here that you have already installed DriveWindow. If you have not, we recommend that you click the Cancel button in the Found New Hardware Wizard and install DriveWindow.

When Windows XP plug and play system finds the first time an NDPA-02 DDCS/PCMCIA board in a PCMCIA slot, it starts the Found New Hardware Wizard.

Note that you do not need the DriveWindow installation CD while installing the driver.

Check that Install the software automatically (Recommended) is selected, and click the Next > button.

Wait while Windows XP searches the driver and installs it. When the installation is complete, click the Finish button.
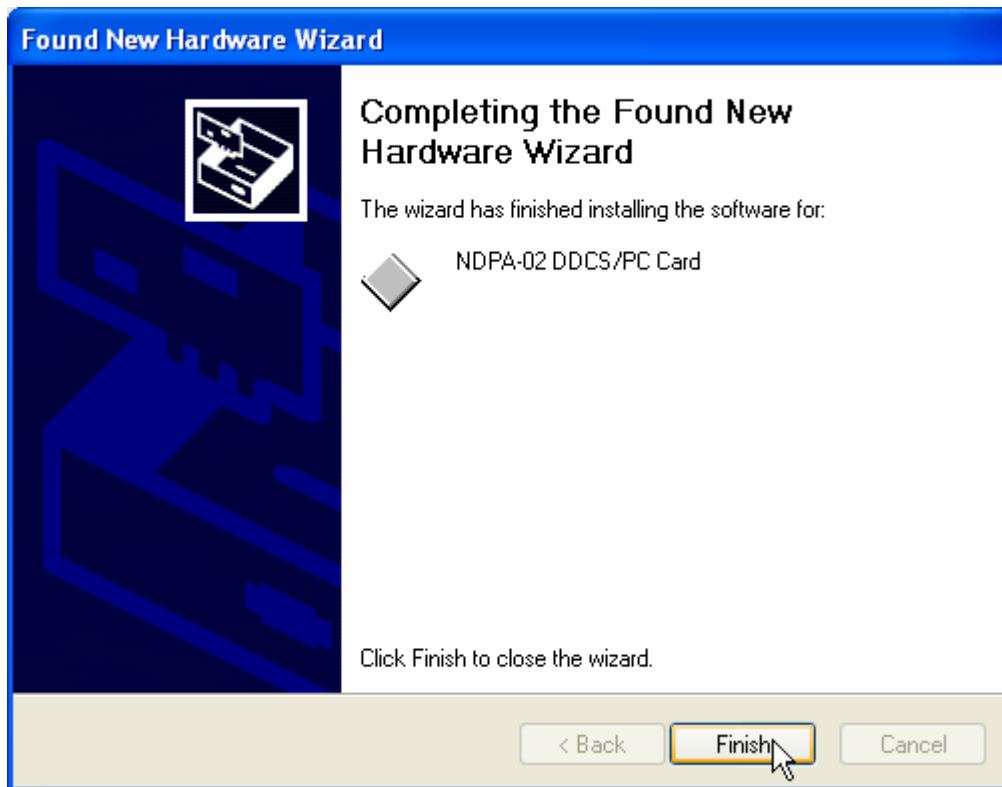
Installing NISA-03

We recommend that you install DriveWindow before installing any hardware.

Installing hardware consists actually of two phases:

- Installing of the board driver
- Installing of the board

When you install DriveWindow, the drivers are copied to your hard disk, but they are not yet installed.

DriveWindow supports two types of DDCS communication boards:

- NDPA-02 DDCS/PCMCIA board
- NISA-03 DDCS/ISA board

Details of their installation are presented separately.

NISA-03 DDCS/ISA is a ISA board, which is not a plug and play type of board. However, since version 2.02 of DriveWindow (actually version 2.03 of DriveOPC, which is included in version 2.02 of DriveWindow), its driver is plug and play compliant. It means the Windows plug and play system is capable of detecting and even avoiding I/O range conflicts with it after the driver (hardware) is installed.

Your computer must have ISA bus and a free ISA slot for the board. There can be most two boards installed.
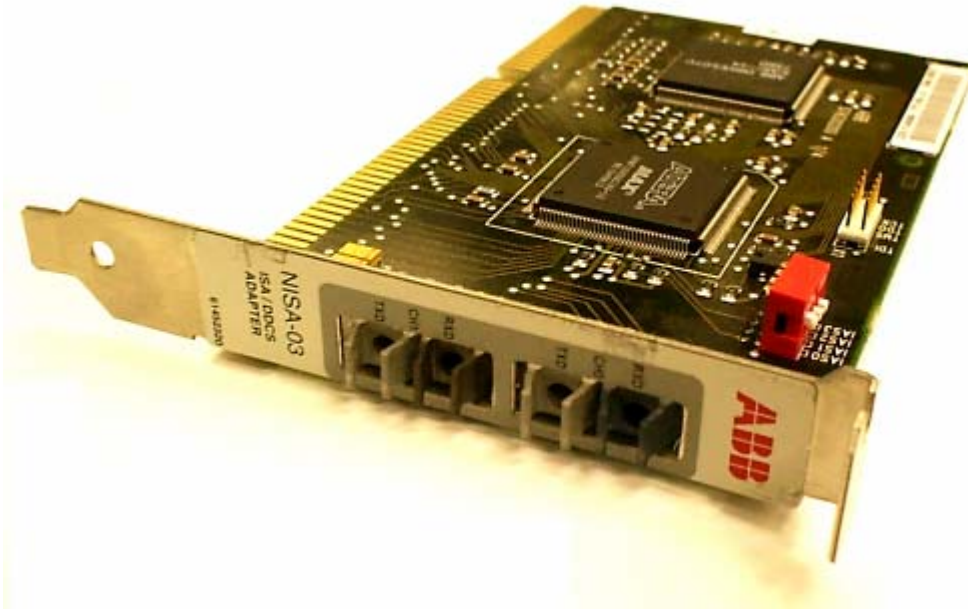
By changing the DIP switches, the board can be configured to use one of two I/O ranges.

Factory setting (configuration 0000) uses I/O range 0280 - 029F:
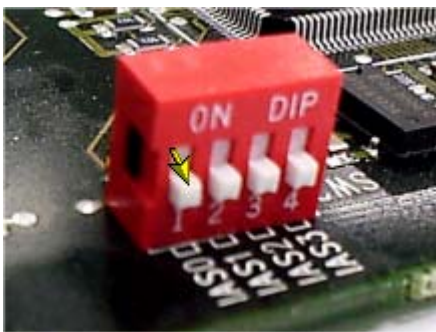
The other configuration (0001) uses I/O range 02A0 - 02BF:
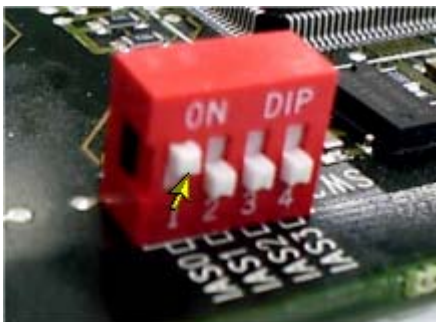
Details of installation depend on the operating system.

Windows NT

Before inserting the NISA-03 DDCS/ISA board you should check that the I/O ranges reserved for the boards (0280 – 029F and 02A0 – 02BF) are not already in use. You can do it by using NISADUMP.EXE (see Troubleshooting).

Note that even if you have no NISA-03 DDCS/ISA boards, DriveWindow scans the I/O ranges by reading them. If some other board is using any of the addresses, and if the board is sensitive about extra reads, you may end up with a Blue Screen.

If there are conflicting devices, even in I/O range you are not going to use, you should reconfigure such a devices.

Windows 2000

DriveWindow includes Windows 2000 plug and play compatible driver for the NISA-03 DDCS/ISA board. The driver is copied into the hard disk when DriveWindow is installed.

However, because NISA-03 DDCS/ISA board is not a plug and play board, Windows 2000 plug and play system cannot detect presence of the hardware. Instead, you have to tell its presence manually.

We recommend that you install DriveWindow and tell the board presence before installing the NISA-03 DDCS/ISA board physically.

Note that installing Drive*Ware*® software that includes the plug and play compatible driver requests the Windows plug and play system to re-install the NISA-03 DDCS/ISA board drivers, if they have already been installed.

It means that when you log on the first time, you may see the "Found New Hardware" message even for NISA-03 DDCS/ISA boards.
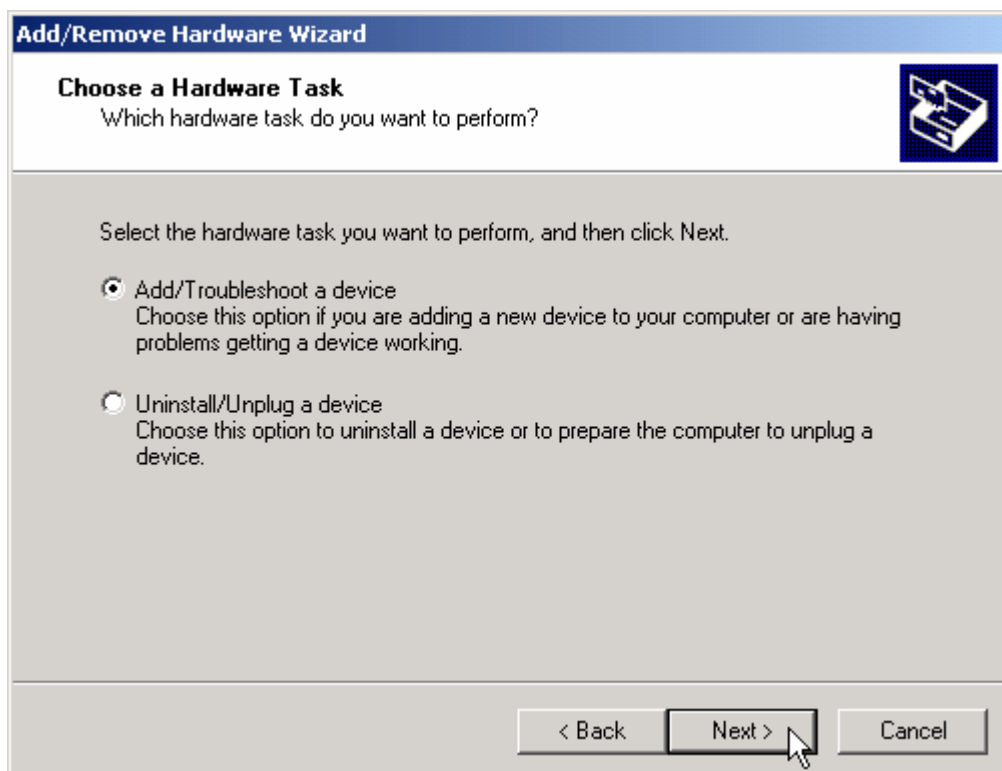
Driver Installation

To tell the Windows plug and play system about the presence of an NISA-03 DDCS/ISA board, start first the Control Panel program and double click Add/Remove Hardware.
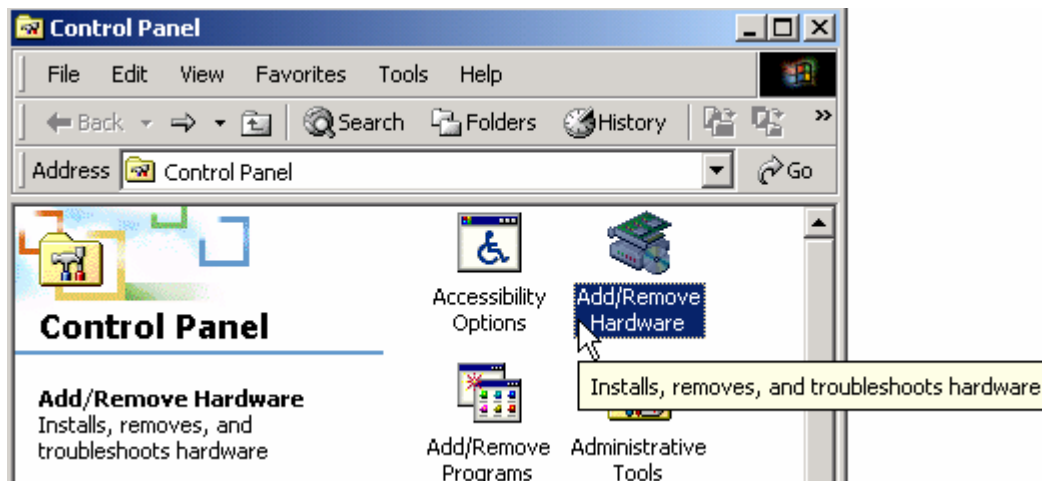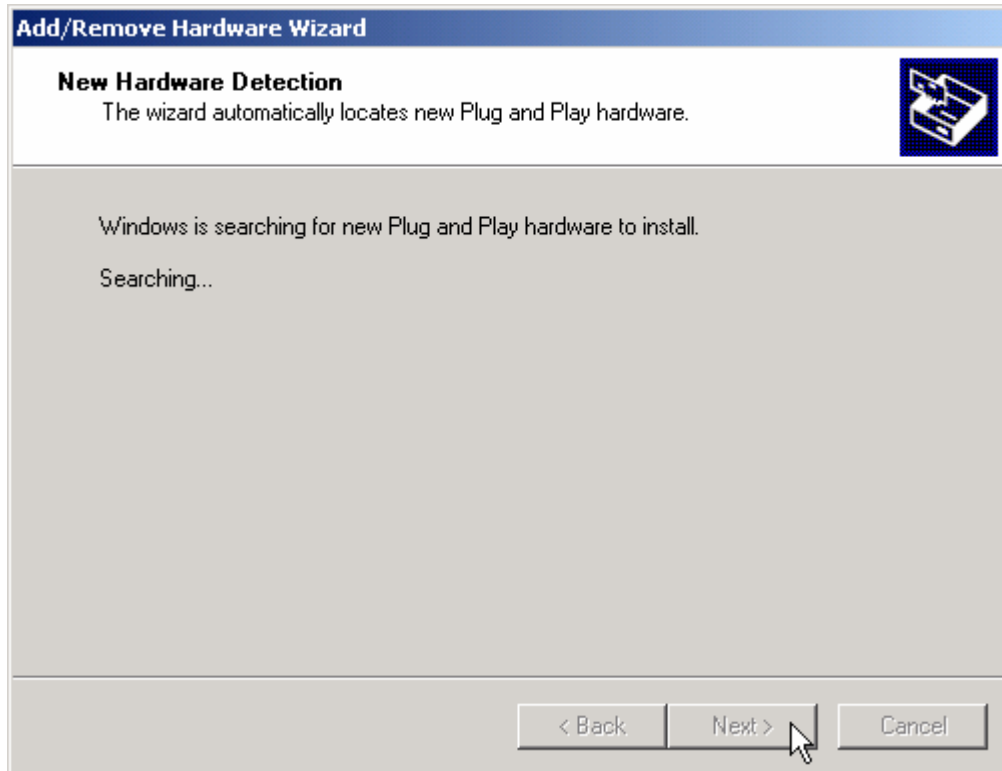
The Add/Remove Hardware Wizard starts. Click Next.

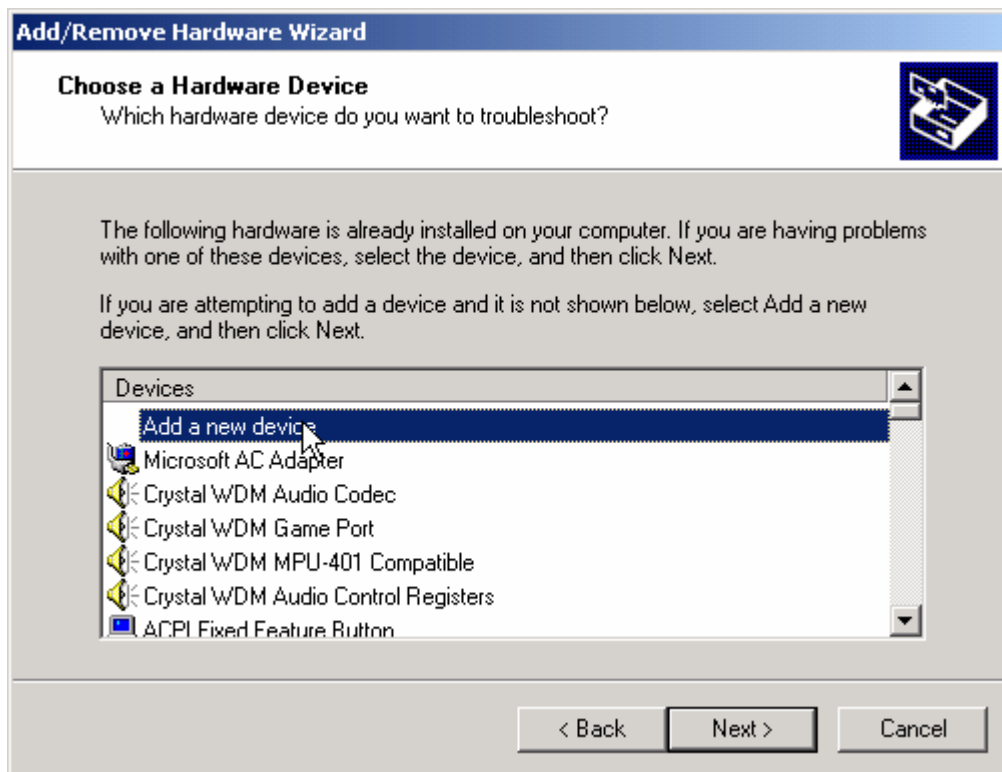Select Add/Troubleshoot a device and click Next.

Wait while the wizard is searching for new plug and play devices.

Add/Remove Hardware Wizard

New Hardware Detection
The wizard automatically locates new Plug and Play hardware.

Windows is searching for new Plug and Play hardware to install.

Searching...

< Back   Next >   Cancel

If a new plug and play device was found, you have to install it before you can install the NISA-03 DDCS/ISA board driver.

If no new plug and play driver was found, the wizard asks you to choose a device. Please select Add a new device and click Next.

Add/Remove Hardware Wizard

Choose a Hardware Device
Which hardware device do you want to troubleshoot?

The following hardware is already installed on your computer. If you are having problems with one of these devices, select the device, and then click Next.

If you are attempting to add a device and it is not shown below, select Add a new device, and then click Next.

Devices
Add a new device
Microsoft AC Adapter
Crystal WDM Audio Codec
Crystal WDM Game Port
Crystal WDM MPU-401 Compatible
Crystal WDM Audio Control Registers
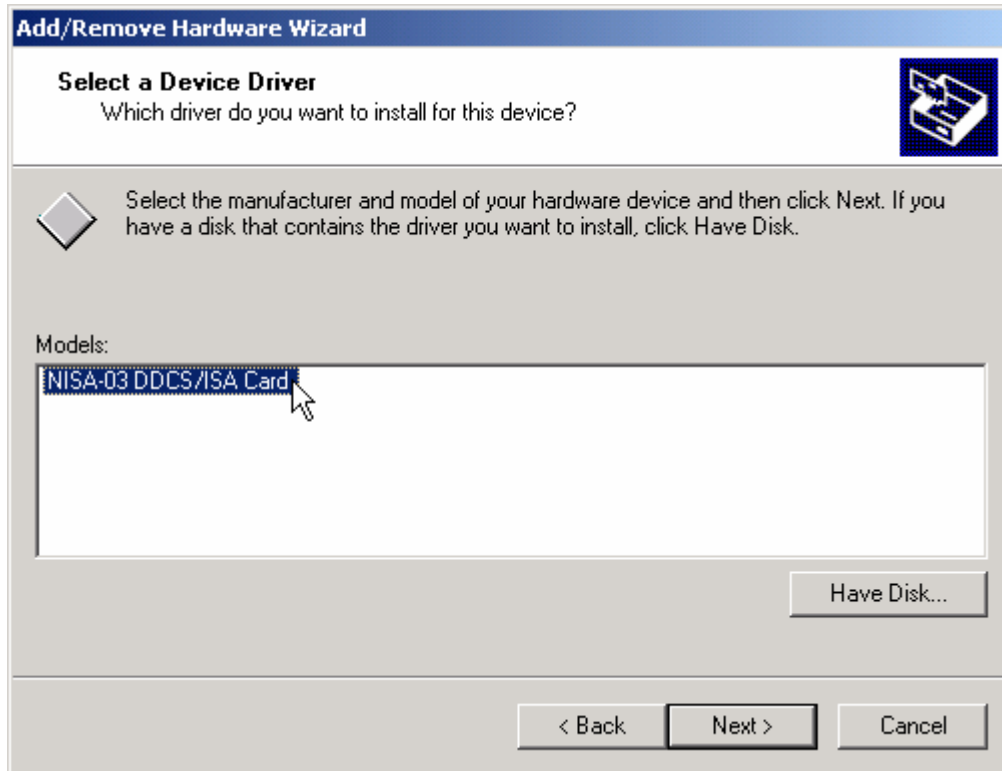ACPI Fixed Feature Button

< Back   Next >   Cancel

Because NISA-03 DDCS/ISA board is not a plug and play device, please select No, I want to select the hardware from a list. Click Next.
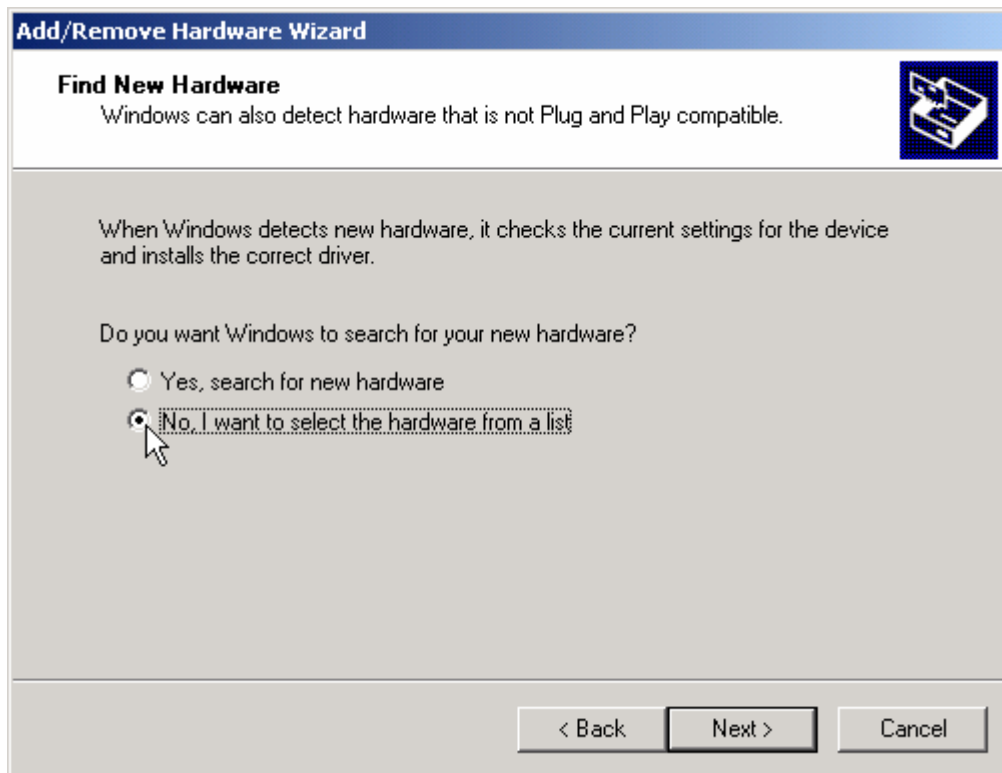
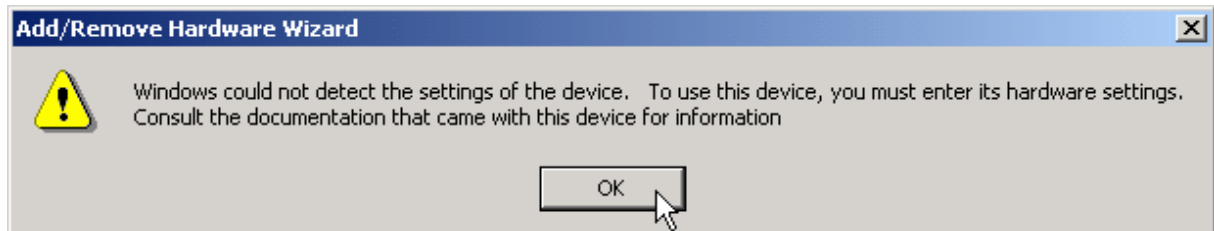
Select Hardware type ABB DDCS and click Next.
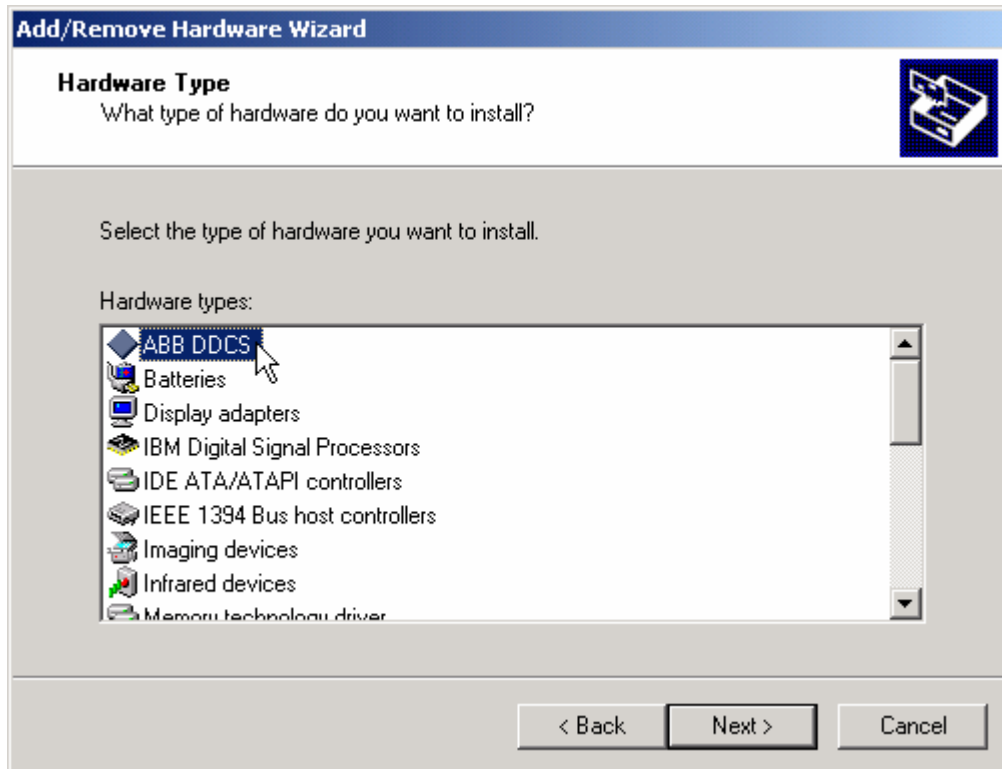
Select the hardware model NISA-03 DDCS/ISA Card and click Next.

Because NISA-03 DDCS/ISA board is not a plug and play device, the wizard tells you that it cannot determine settings of the device. Click OK.

The wizard shows you now resources of NISA-03 DDCS/ISA board. If there are no conflicts in I/O range 0280 – 029F, click OK. If there is a conflict with a plug and play device, Windows plug and play system probably resolves it in the next restart of your computer. So, you can still click OK. Otherwise you have either to use another configuration (0001) or reconfigure the conflicting device. Please see Troubleshooting for details of handling device conflicts.
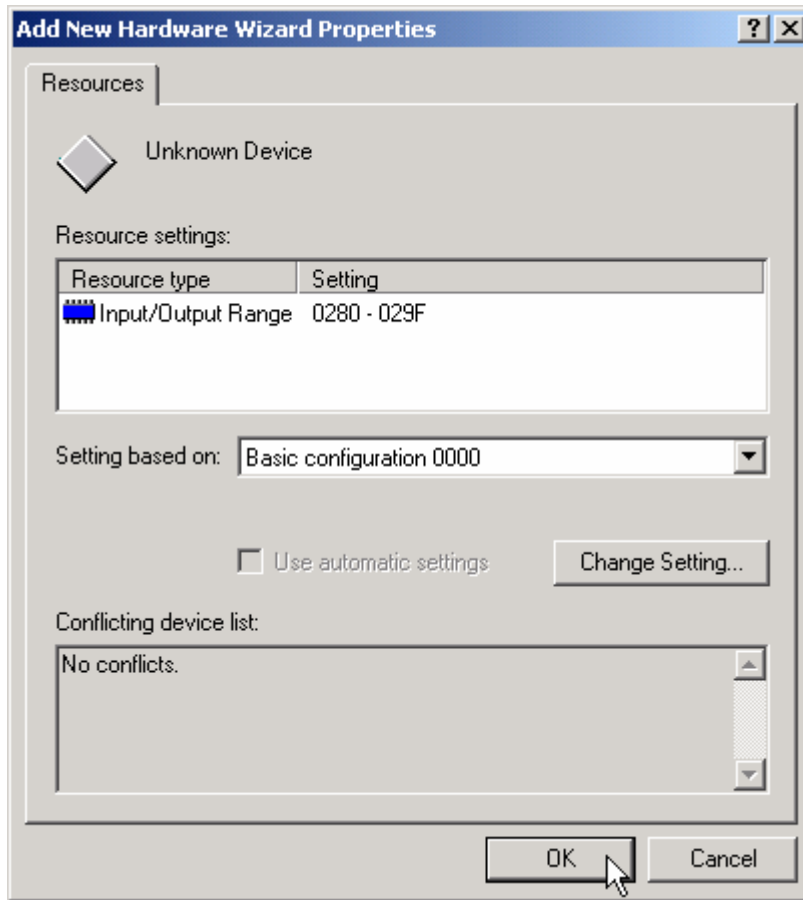
The wizard asks your permission to install the driver. Click Next.
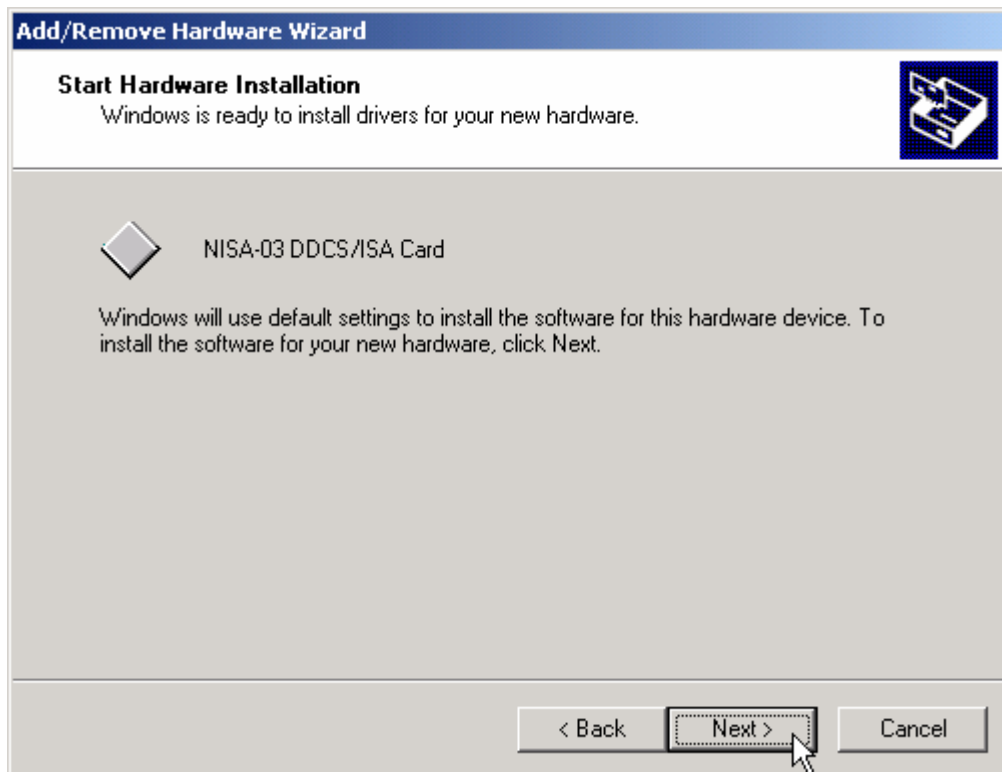
When installing of the driver is finished, you have still the opportunity to view or change the I/O range. When you are done, click Finish.
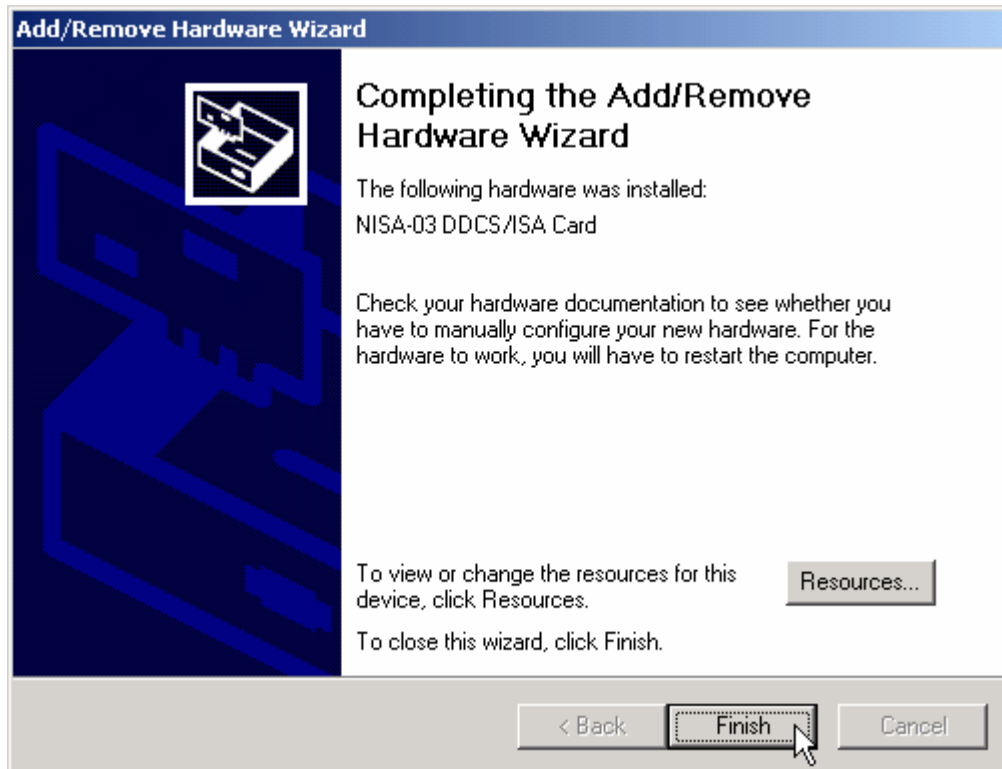
Finally, the Windows plug and play system request your confirmation to restart your computer.
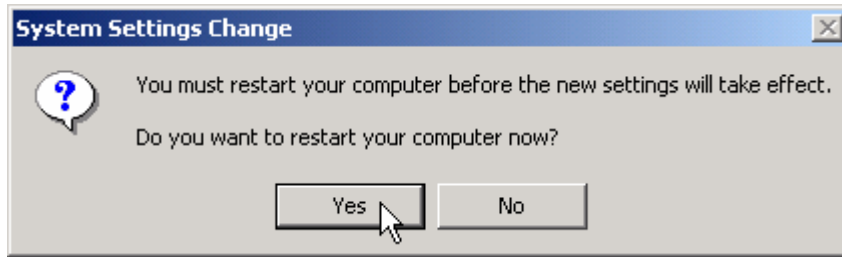
We recommend that before installing the physical hardware you let your computer to restart. After that you should check that the driver has no problems. You can do it by using the Device Manager (see Troubleshooting). If there are no problems, you can shut down your computer, change the DIP switches on the NISA-03 DDCS/ISA board, if necessary, and install the board into your computer.

Windows XP

DriveWindow includes Windows XP plug and play compatible driver for the NISA-03 DDCS/ISA board. The driver is copied into the hard disk when DriveWindow is installed.

However, because NISA-03 DDCS/ISA board is not a plug and play board, Windows XP plug and play system cannot detect presence of the hardware. Instead, you have to tell its presence manually.

We recommend that you install DriveWindow and tell the board presence before installing the NISA-03 DDCS/ISA board physically.

Note that installing Drive*Ware*® software that includes the plug and play compatible driver requests the Windows plug and play system to re-install the NISA-03 DDCS/ISA board drivers, if they have already been installed.
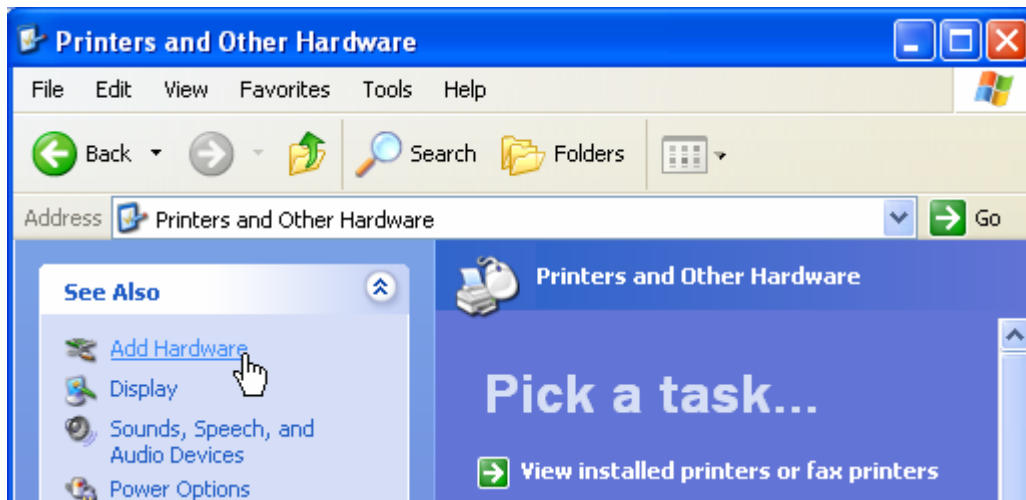
It means that when you log on the first time, you may see the "Found New Hardware" message even for NISA-03 DDCS/ISA boards.

Driver Installation

To tell the Windows plug and play system about the presence of an NISA-03 DDCS/ISA board, start first the Control Panel program and click Printers and Other Hardware.
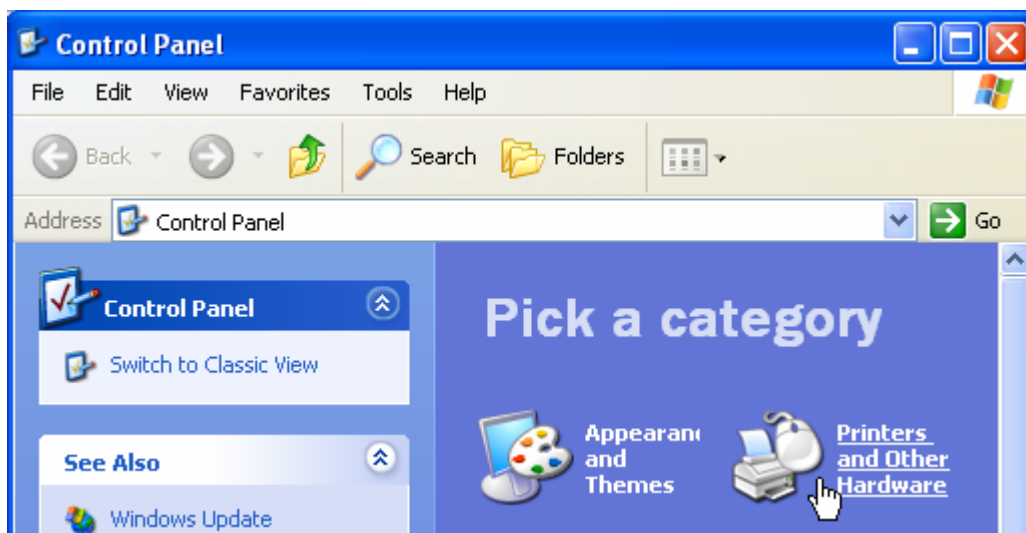
Click Add Hardware.

The Add Hardware Wizard starts. Click Next.

Wait while the wizard is searching for new plug and play devices.

If a new plug and play device was found, you have to install it before you can install the NISA-03 DDCS/ISA board driver.
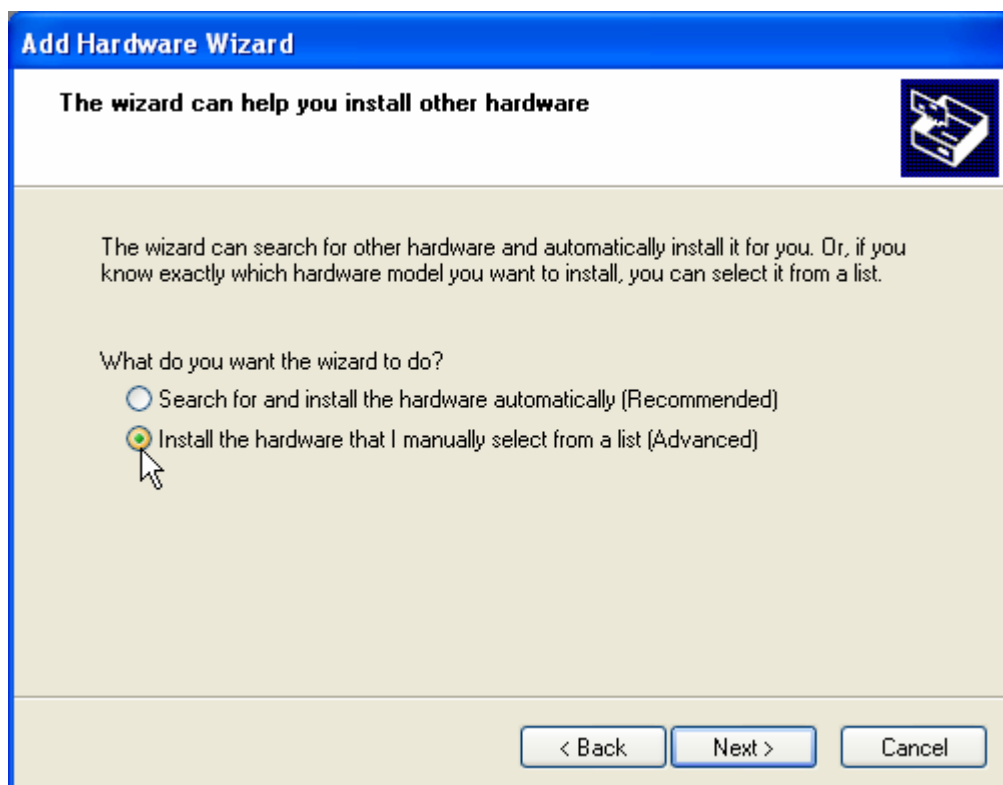
If no new plug and play driver was found, the wizard asks you, if the hardware is connected. Please select Yes, I have already connected the hardware. Do it even if you have not done it, which is quite typical. Click Next.
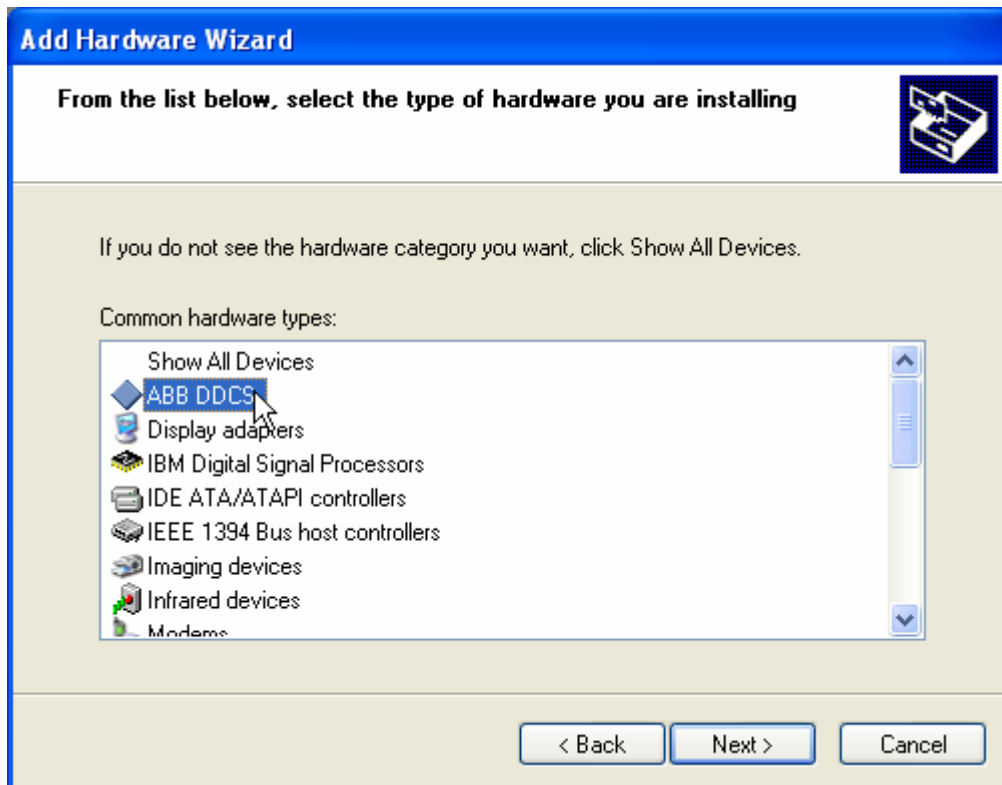
Please scroll the list of installed hardware and select Add a new hardware device. Click Next.
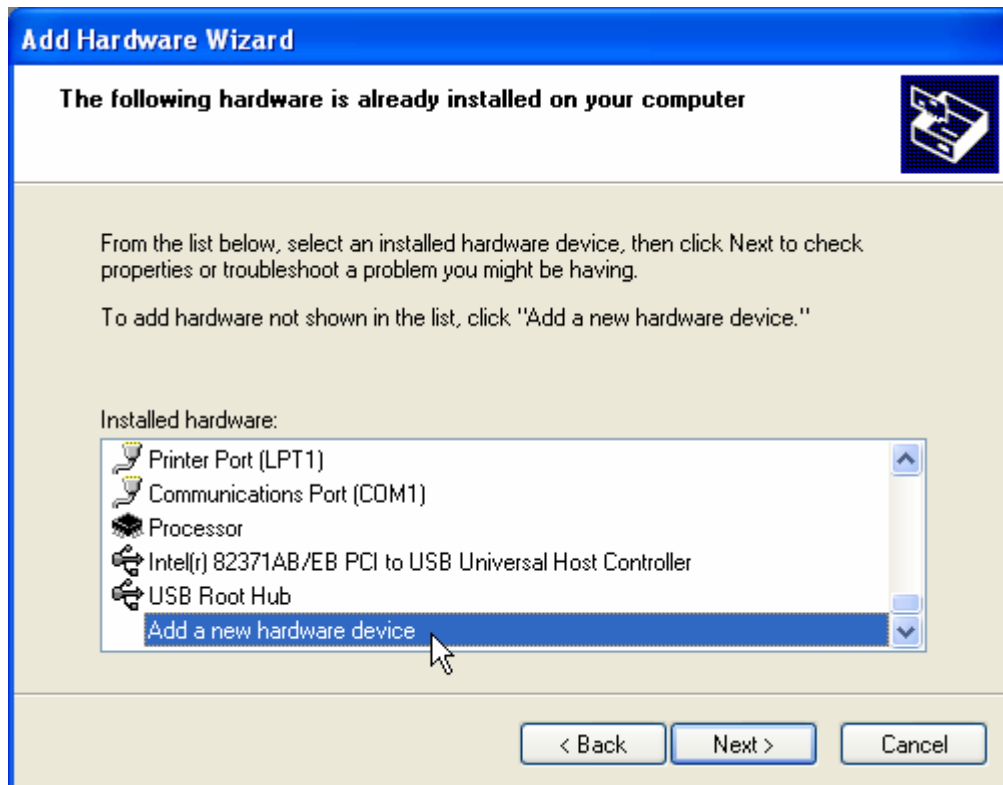
Because NISA-03 DDCS/ISA board is not a plug and play device, please select Install the hardware that I manually select from a list (Advanced). Click Next.
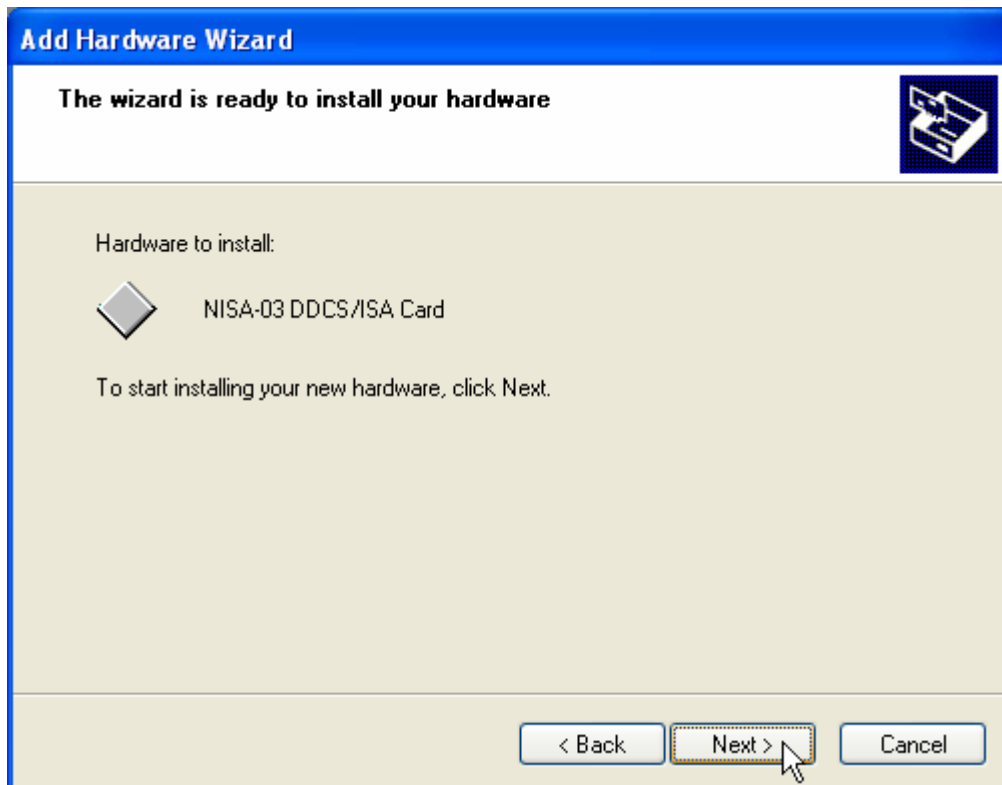
Select hardware type ABB DDCS and click Next.

Add Hardware Wizard

From the list below, select the type of hardware you are installing

If you do not see the hardware category you want, click Show All Devices.

Common hardware types:

Show All Devices
ABB DDCS
Display adapters
IBM Digital Signal Processors
IDE ATA/ATAPI controllers
IEEE 1394 Bus host controllers
Imaging devices
Infrared devices
Modems

< Back   Next >   Cancel

Select the model NISA-03 DDCS/ISA Card and click Next.

Add Hardware Wizard

Select the device driver you want to install for this hardware.

Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.

Model

NISA-03 DDCS/ISA Card

⚠ **This driver is not digitally signed!**
Tell me why driver signing is important

Have Disk...

< Back   Next >   Cancel
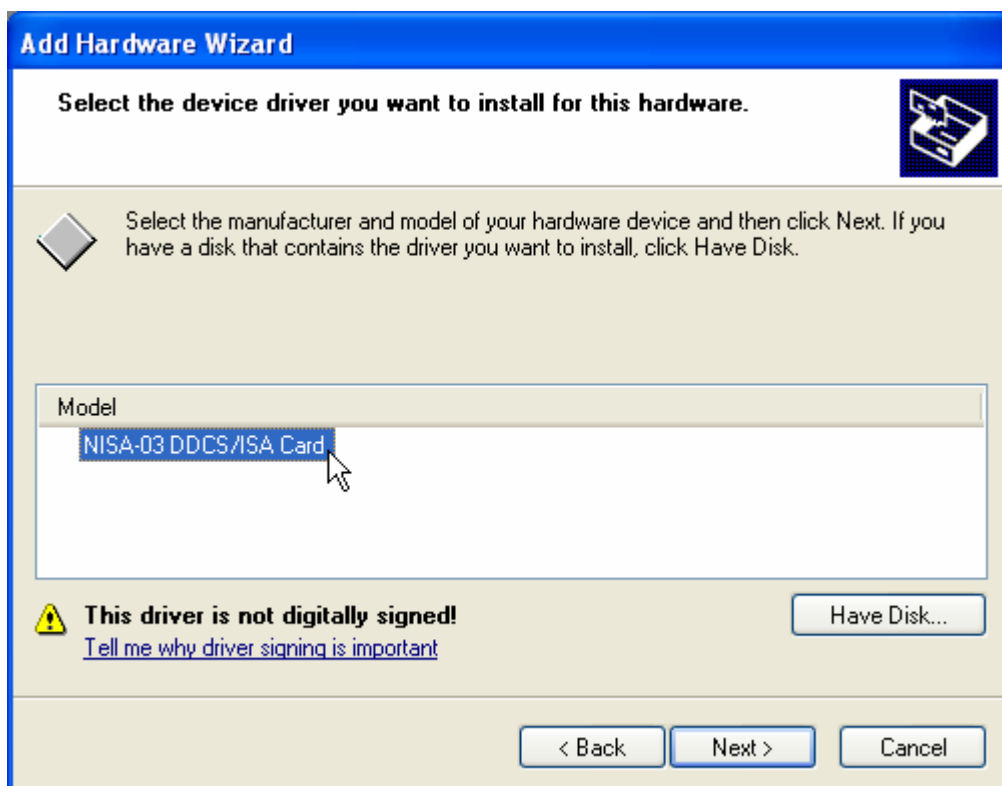
Now the wizard is ready to install the driver. Click Next.

Because NISA-03 DDCS/ISA board is not a plug and play device, the wizard tells you that it cannot determine settings of the device. Click View or change resources for this hardware (Advanced).
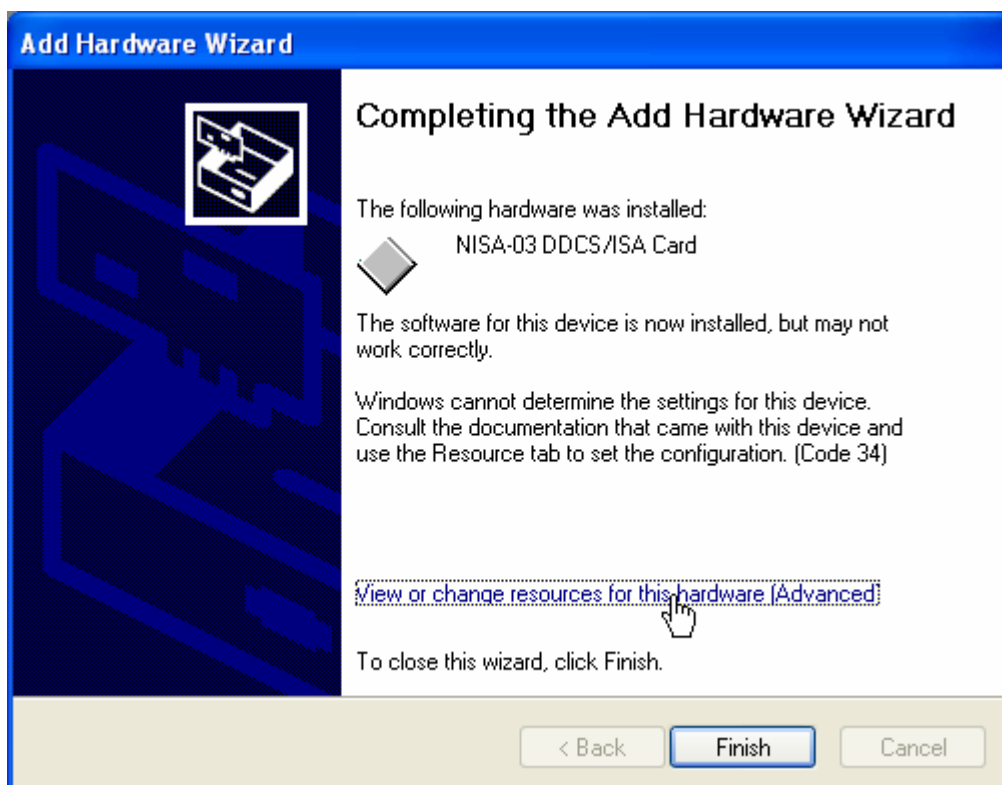
To set the configuration (I/O range) of the NISA-03 DDCS/IS board, click Set Configuration Manually.
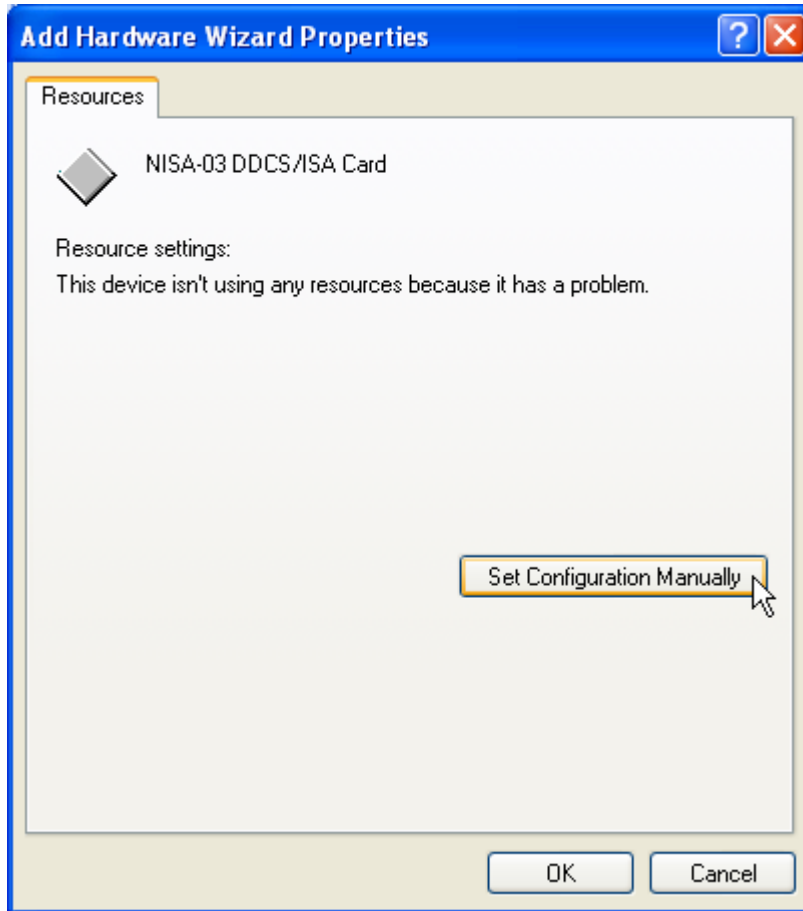
The wizard shows you now resources of NISA-03 DDCS/ISA board. If there are no conflicts in I/O range 0280 – 029F, click OK. If there is a conflict with a plug and play device, Windows plug and play system probably resolves it in the next restart of your computer. So, you can still click OK. Otherwise you have either to use another configuration (0001) or reconfigure the conflicting device. Please see Troubleshooting for details of handling device conflicts.
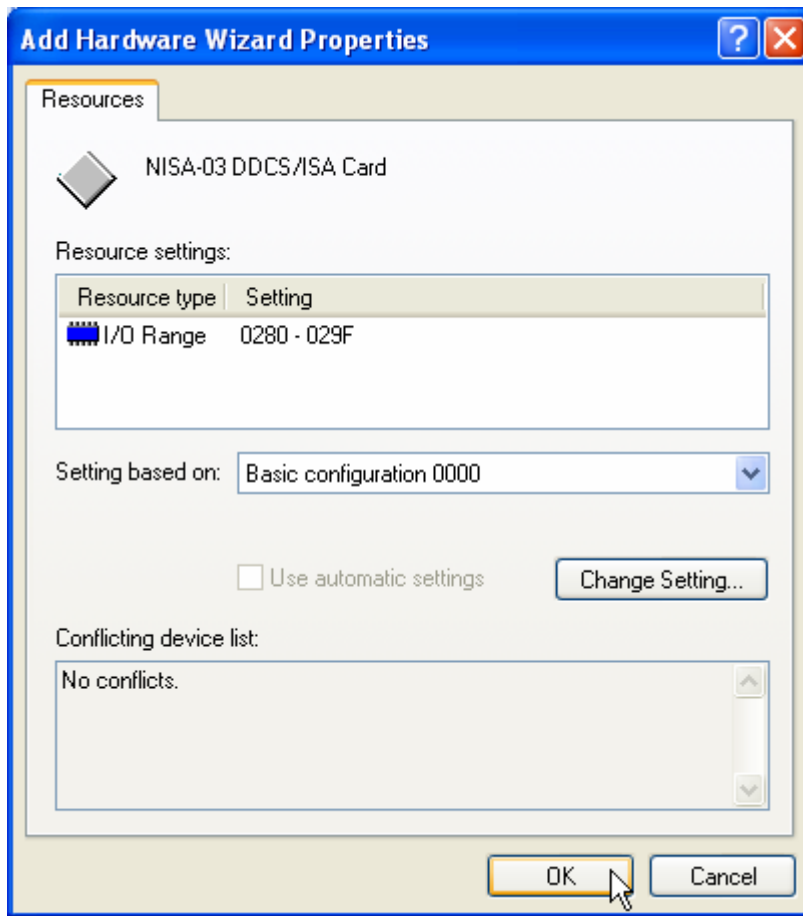
Now that the configuration has been selected, you can click Finish.

Finally, the Windows plug and play system request your confirmation to restart your computer.
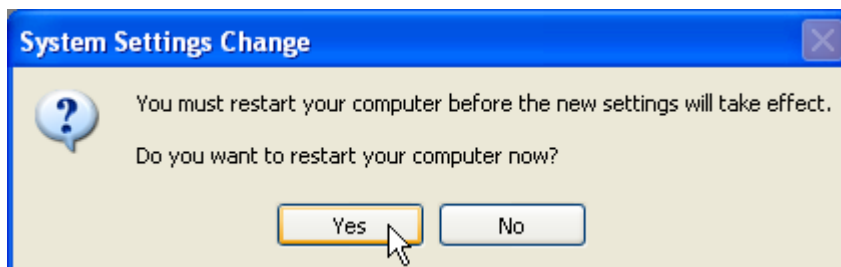
We recommend that before installing the physical hardware you let your computer to restart. After that you should check that the driver has no problems. You can do it by using the Device Manager (see Troubleshooting). If there are no problems, you can shut down your computer, change the DIP switches on the NISA-03 DDCS/ISA board, if necessary, and install the board into your computer.

Troubleshooting

How to troubleshoot (mainly device conflicts) depends on the operating system.

Windows NT

You can use NISADUMP.EXE (version 2.0), which can be found in the directory DriveOPC, to do troubleshooting. Directory DriveOPC is a sub-directory of the parent of the installation directory, typically C:\Program Files\DriveWare\DriveOPC.

Because under Windows NT, NISADUMP reads I/O ranges, some of which can be occupied by boards sensitive to reading, NISADUMP may end up with a Blue Screen.

Note that NISADUMP.EXE uses the driver, which thus must have been installed and running. In Windows NT, the driver is installed and starts running, when the computer is restarted at the end of DriveWindow installation.

To start NISADUMP (assuming it has been installed into C:\Program Files\DriveWare\DriveOPC):

- Start Command Prompt
- If current drive is not C, type command `C:`
- Type command `CD "\Program Files\DriveWare\DriveOPC"`
- Type command `NISADUMP | MORE`

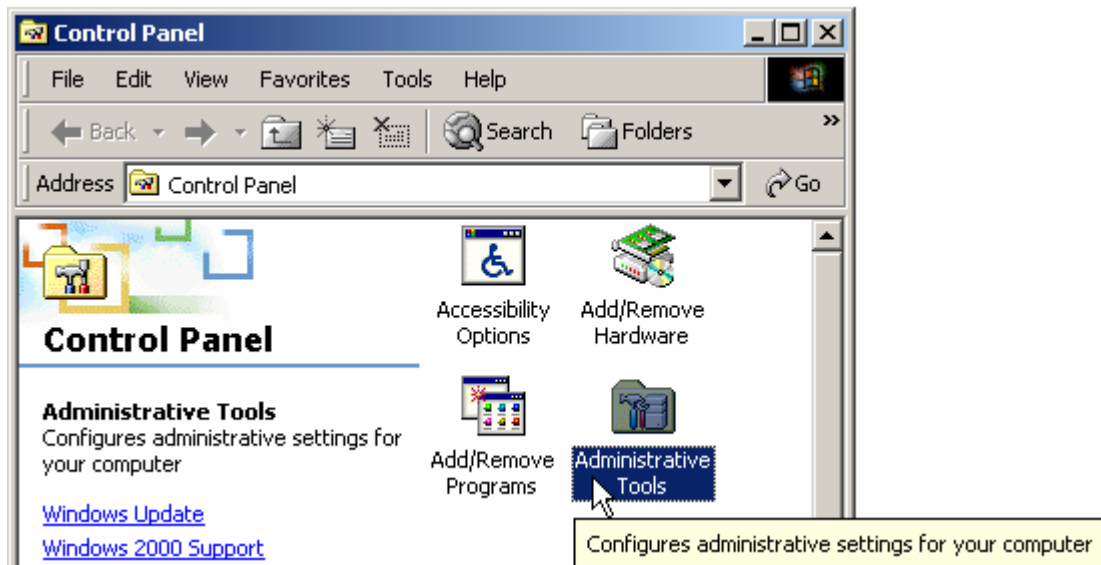Note that the text shown on the screen is also written to the file NisaDump.txt.

If an I/O range contains only FFs, it is probably free. Otherwise, the area is occupied by some board.

At the end of the displayed text you will find information about the I/O ranges reserved for NISA-03 DDCS/ISA boards and the currently configured I/O-range of the NDPA-02 DDCS/PCMCIA board.

Windows 2000

In Windows 2000, you typically use the Device Manager to check device status, check resource (I/O range) conflict, change resource (I/O range) settings, and uninstall device drivers.

To start the Device Manager, start first the Control Panel program and double click Administrative Tools.
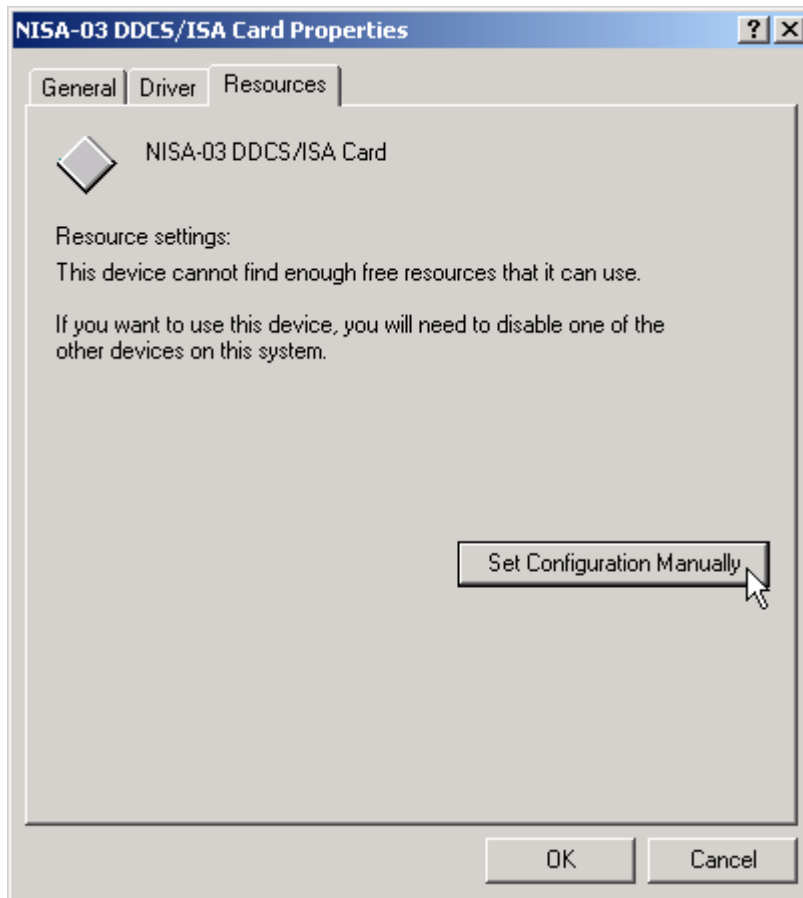

Double click Computer Management.

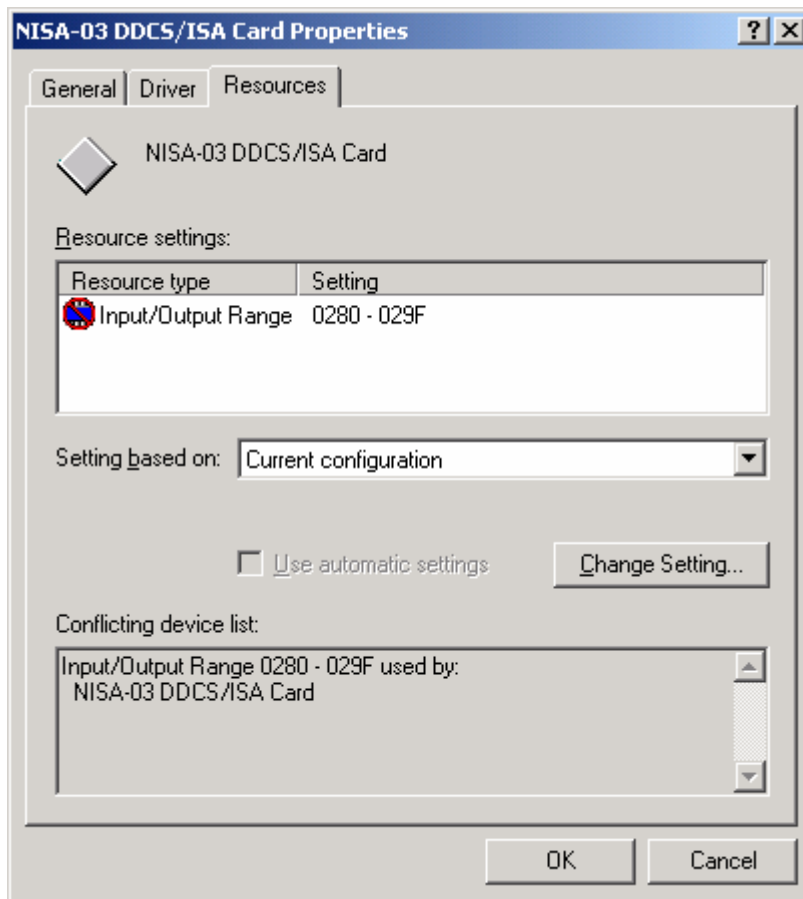From the tree in the left pane, select Device Manager.

All DDCS devices are under ABB DDCS. Note that ABB DDCS is not shown, if no NISA-03 DDCS/ISA board has been installed and no NDPA-02 DDCS/PCMCIA board is inserted. You can see the list of DDCS devices by clicking the plus sign in front of ABB DDCS (the list may be expanded already, if any of the devices has some kind of trouble).

If the icon in front of a device contains an exclamation mark, the device is not working correctly. Double click the device to see its properties. Usually a resource (I/O range) conflict is the trouble. Click the Resources tab and, if no resources have yet allocated, click Set Configuration Manually.

Now you are able to see, which device is conflicting.

There are several possibilities to get rid of the conflict. Note that you do not need to have (and actually should not have) the hardware physically installed yet.

Conflict with a non plug and play device

If the conflicting device is not a plug and play device (although its driver should be plug and play compatible), and you do not want to change NISA-03 DDCS/ISA board I/O range (perhaps because you have two of them), you have to change the configuration of the conflicting device (may require changing of its switches), disable the device, or uninstall it.

Changing NISA-03 DDCS/ISA configuration

If the conflicting board is another NISA-03 DDCS/ISA board, or if you are going to use only one NISA-03 DDCS/ISA board and you are willing to change configuration of the board, you can check, if the I/O range of another configuration is free. To do so, select Basic configuration 0000, if current I/O range is 02A0 - 02AF, and select Basic configuration 0001, if current I/O range is 0280 - 028F.
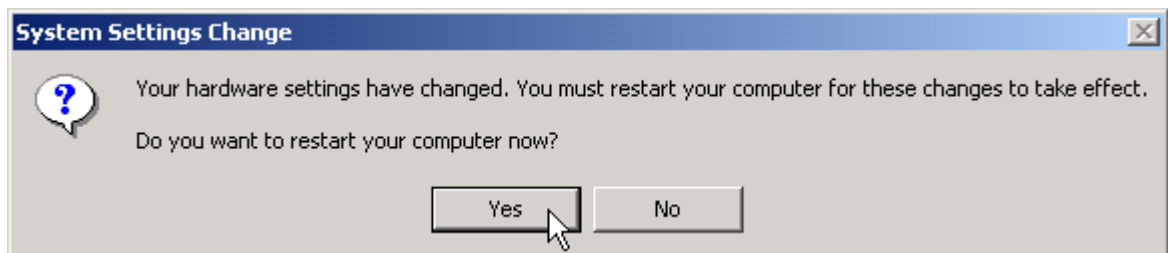
If the selected configuration has no conflicts, click OK.

Note that changing configuration of an NISA-03 DDCS/ISA board requires that the DIP switches on the board are changed accordingly (see Installing NISA-03).

Finally, the Windows plug and play system asks your confirmation to restart your computer.

Conflict with a plug and play device

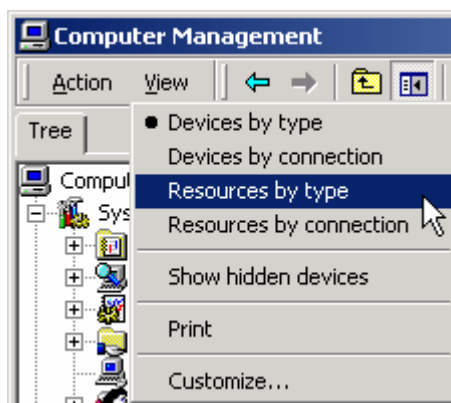If the conflicting device is a plug and play device, the conflict may disappear, when you just restart your computer.

However, the situation may reappear, if you install some Drive*Ware*® product, which includes the DDCS drivers. In such a case an additional restarting of your computer is possibly required. Restarting would be avoided, if the Windows plug and play system does not use automatic setting of configuration for the device.

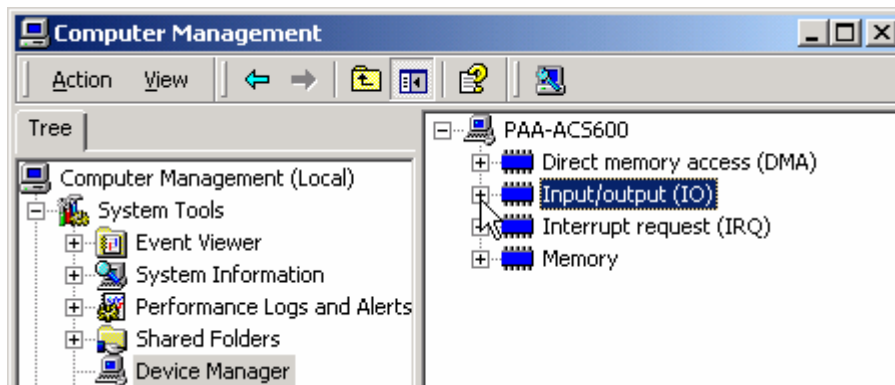We show here as an example, how to reconfigure a conflicting plug and play device.

If you have difficulties to find the device from the Device Manger, you can find it, for example, by changing the way that the Device Manager displays the devices.
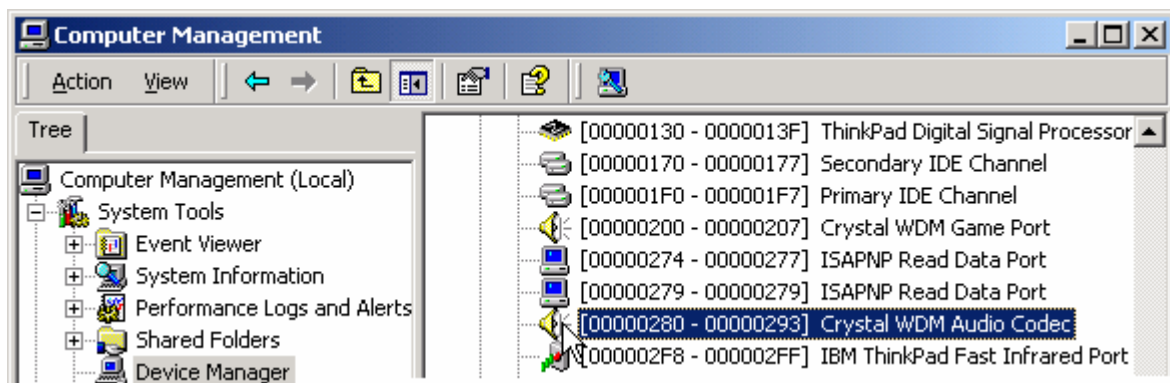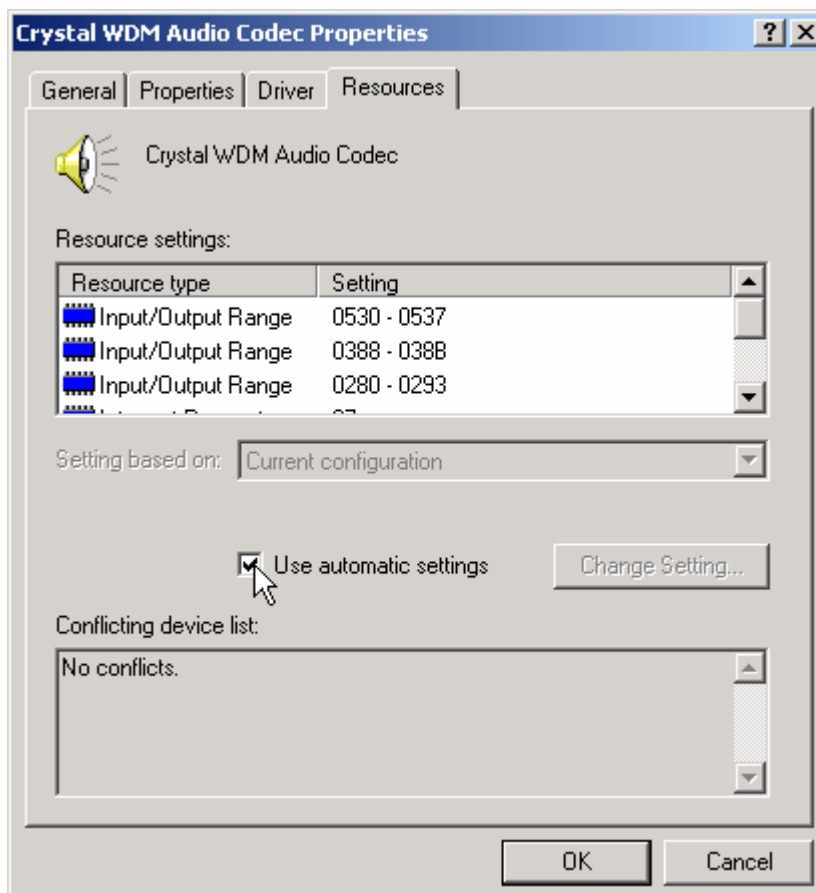
Select Resources by type from the View menu.

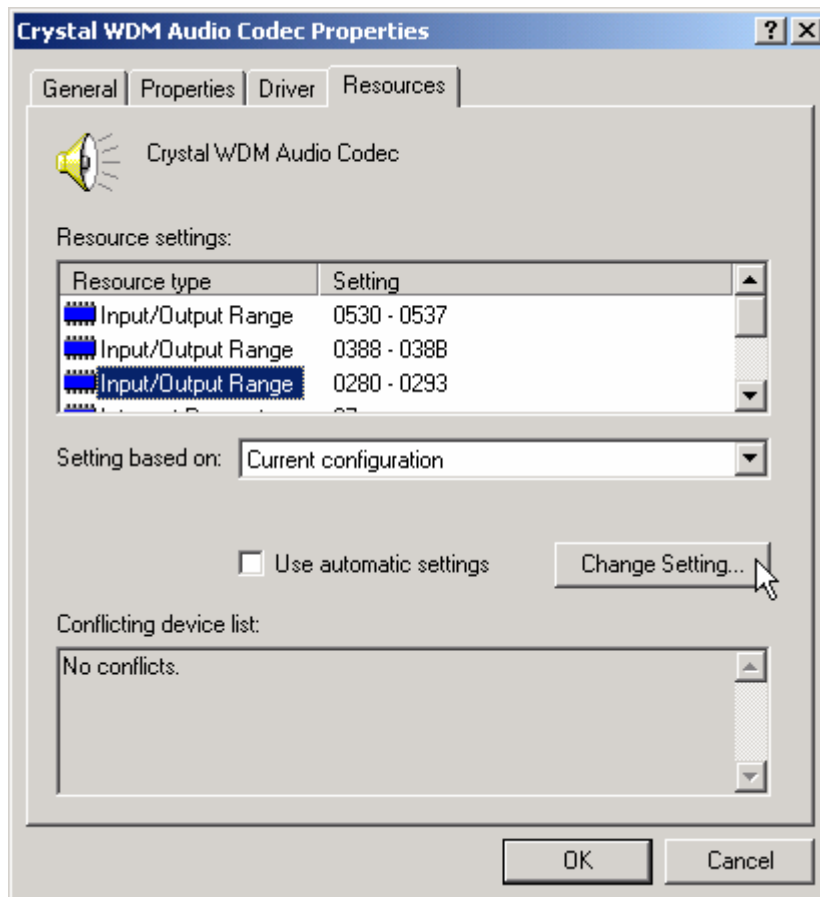Click the plus sign in front of the Input/output (IO) to expand the I/O addresses.

Scroll until you see the conflicting I/O range and double click to see properties of the conflicting device.
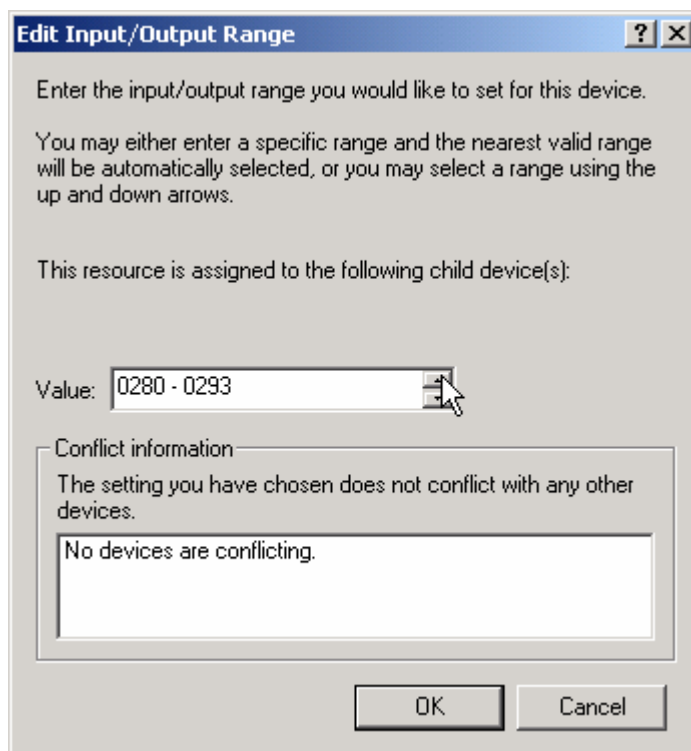

Whatever was the way you got the properties of the conflicting device, click the Resources tab and unselect Use automatic settings.
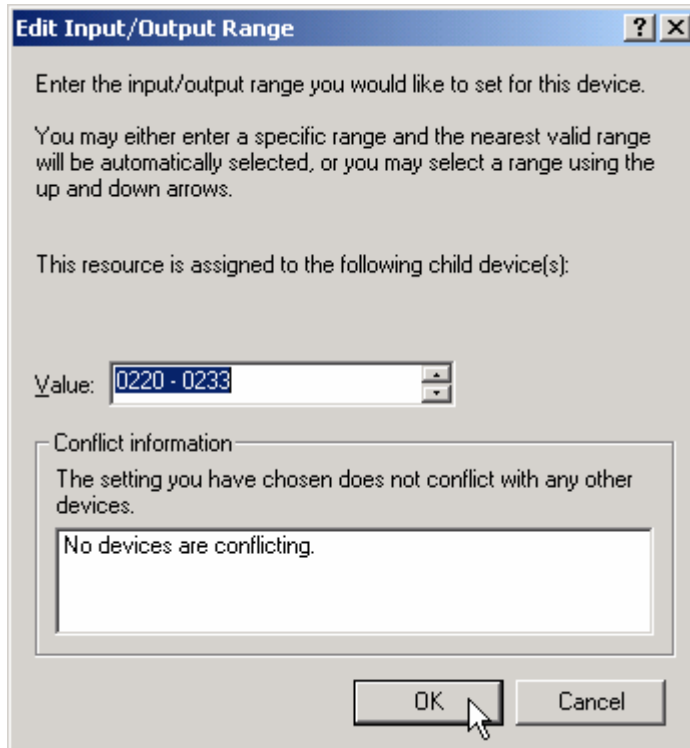
Select the conflicting Input/Output Range from Resource setting and click Change Setting.
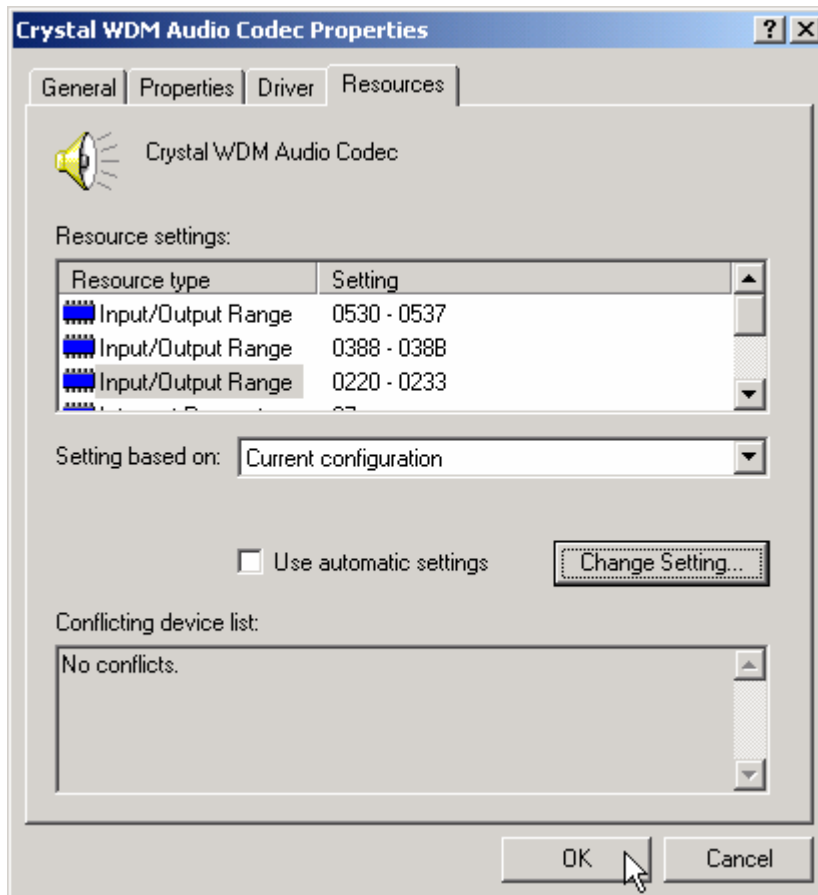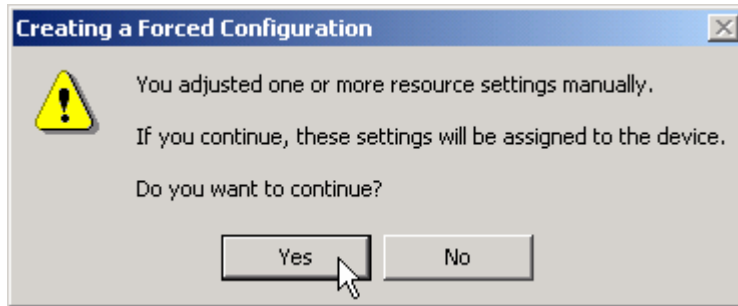

Scroll for another I/O range.

Check that there are no conflicts and click OK.

Edit Input/Output Range

Enter the input/output range you would like to set for this device.

You may either enter a specific range and the nearest valid range will be automatically selected, or you may select a range using the up and down arrows.

This resource is assigned to the following child device(s):

Value: 0220 - 0233

Conflict information

The setting you have chosen does not conflict with any other devices.

No devices are conflicting.

OK   Cancel

Now that you are back in the properties, click OK to make the changes.

Crystal WDM Audio Codec Properties

General | Properties | Driver | Resources

Crystal WDM Audio Codec

Resource settings:

Resource type	Setting
Input/Output Range	0530 - 0537
Input/Output Range	0388 - 038B
Input/Output Range	0220 - 0233

Setting based on: Current configuration

☐ Use automatic settings   Change Setting...

Conflicting device list:

No conflicts.

OK   Cancel

Finally, Windows wants you to confirm that you really want to adjust the settings manually.

Usually, no restarting of the computer is required.

Using NISADUMP

NISADUMP.EXE, as explained in Windows NT section, can also be used in troubleshooting. However, under Windows 2000, NISADUMP is able to show only those I/O ranges, which are actually reserved by the drivers. If, for example, no NISA-03 DDCS/ISA driver (hardware) has been installed, the I/O ranges reserved for them cannot be displayed.
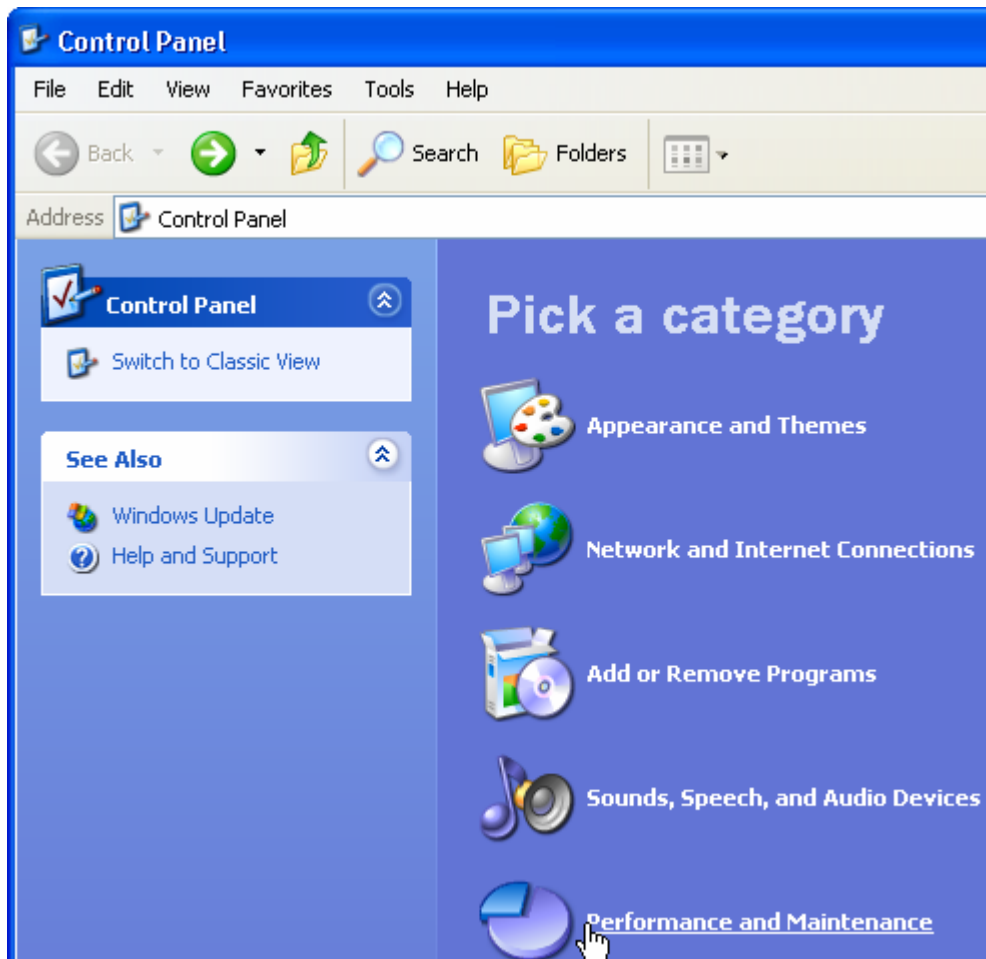
However, note that it is enough (and typical) to install the NISA-03 DDCS/ISA driver (first) without the actual hardware being (yet) present.

I/O ranges of all the NDPA-02 DDCS/PCMCIA, which are inserted, are displayed by NISADUMP.

Windows XP

In Windows XP, you typically use the Device Manager to check device status, check resource (I/O range) conflict, change resource (I/O range) settings, and uninstall device drivers.
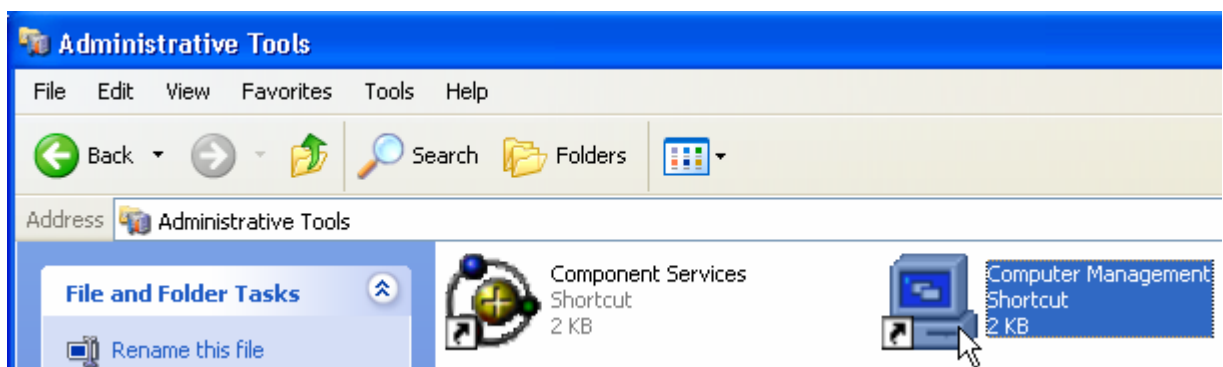
To start the Device Manager, start first the Control Panel program click Performance and Maintenance.
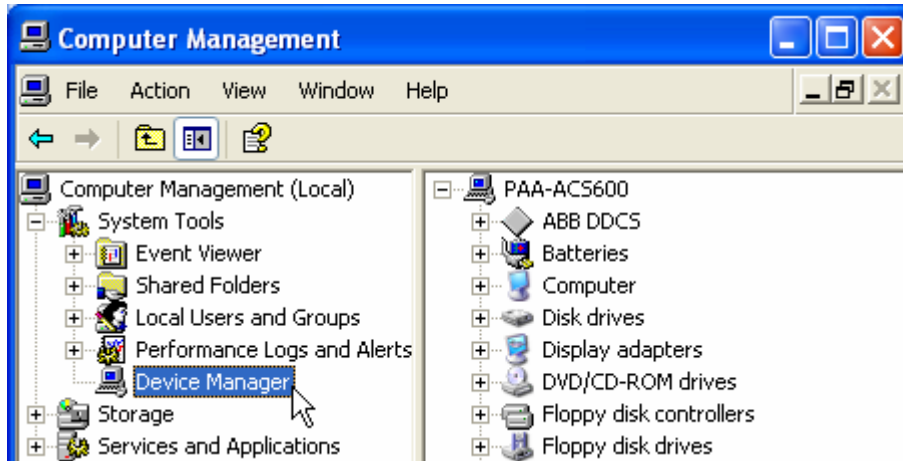
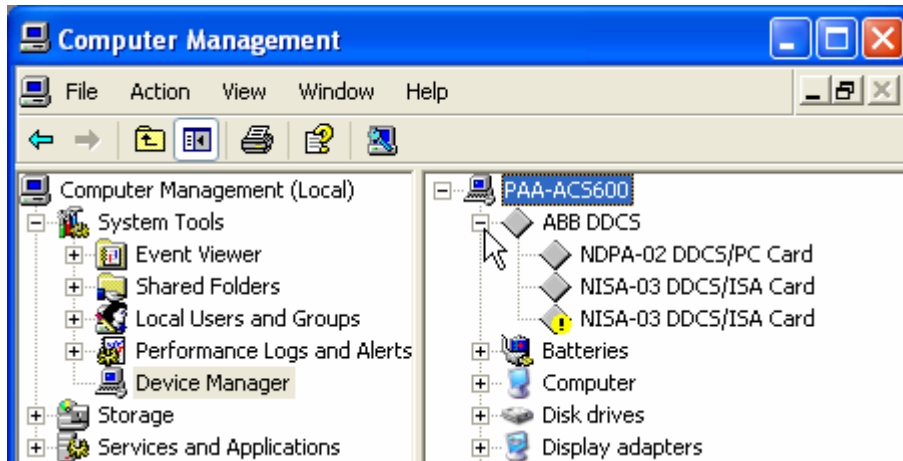Click Administrative Tools.

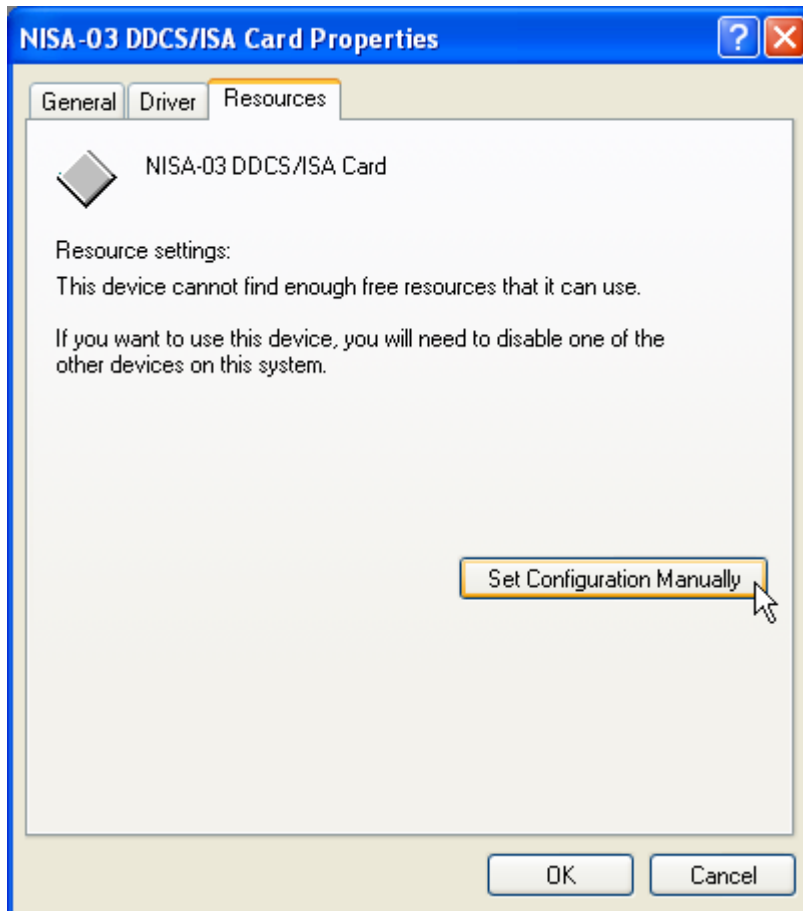Double click Computer Management.

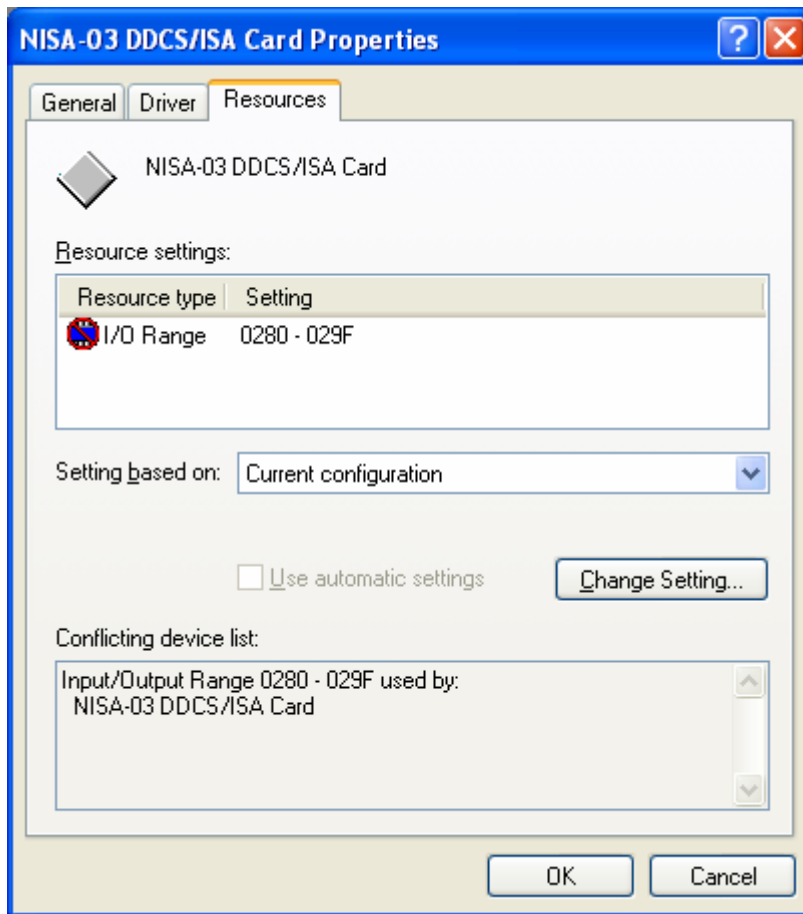From the tree in the left pane, select Device Manager.

All DDCS devices are under ABB DDCS. Note that ABB DDCS is not shown, if no NISA-03 DDCS/ISA board has been installed and no NDPA-02 DDCS/PCMCIA board is inserted. You can see the list of DDCS devices by clicking the plus sign in front of ABB DDCS (the list may be expanded already, if any of the devices has some kind of trouble).

If the icon in front of a device contains an exclamation mark, the device is not working correctly. Double click the device to see its properties. Usually a resource (I/O range) conflict is the trouble. Click the Resources tab and, if no resources have yet allocated, click Set Configuration Manually.

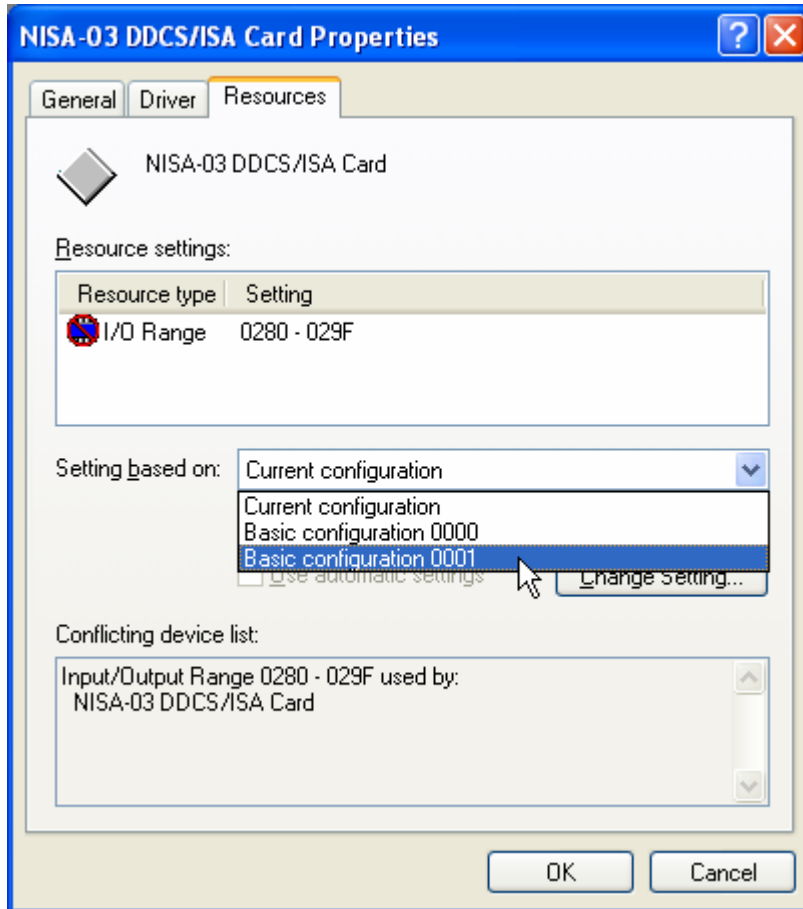Now you are able to see, which device is conflicting.

There are several possibilities to get rid of the conflict. Note that you do not need to have (and actually should not have) the hardware physically installed yet.

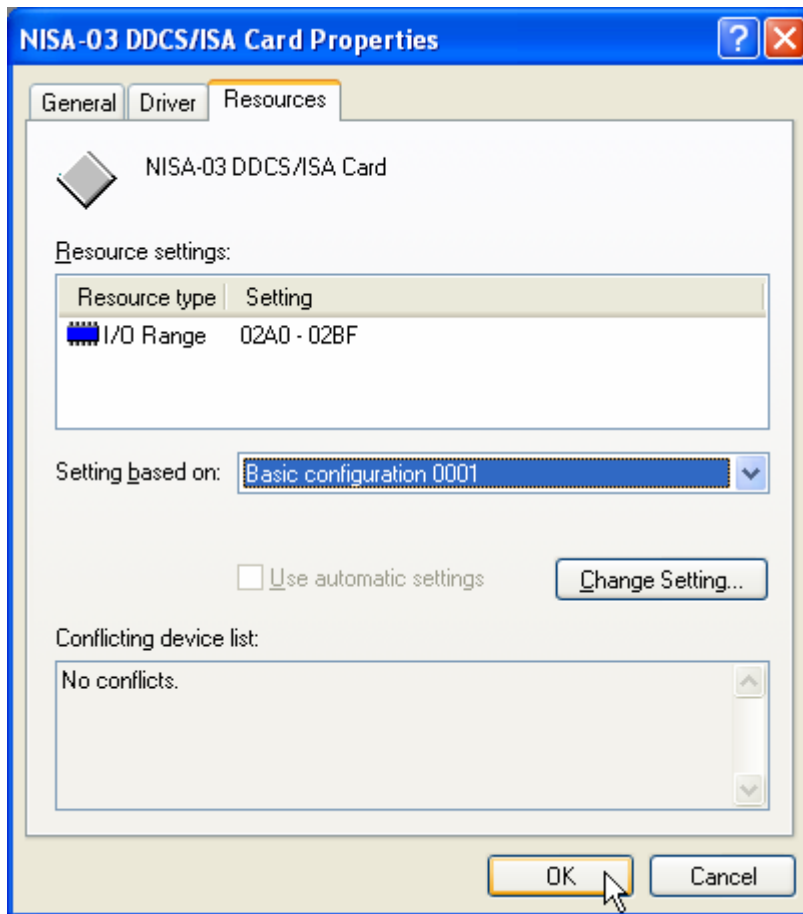**Conflict with a non plug and play device**

If the conflicting device is not a plug and play device (although its driver should be plug and play compatible), and you do not want to change NISA-03 DDCS/ISA board I/O range (perhaps because you have two of them), you have to change the configuration of the conflicting device (may require changing of its switches), disable the device, or uninstall it.

Changing NISA-03 DDCS/ISA configuration

If the conflicting board is another NISA-03 DDCS/ISA board, or if you are going to use only one NISA-03 DDCS/ISA board and you are willing to change configuration of the board, you can check, if the I/O range of another configuration is free. To do so, select Basic configuration 0000, if current I/O range is 02A0 - 02AF, and select Basic configuration 0001, if current I/O range is 0280 - 028F.
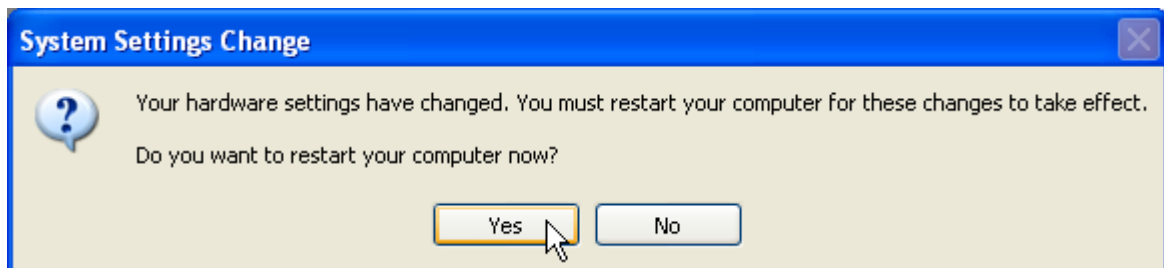
If the selected configuration has no conflicts, click OK.

Note that changing configuration of an NISA-03 DDCS/ISA board requires that the DIP switches on the board are changed accordingly (see Installing NISA-03).

Finally, the Windows plug and play system asks your confirmation to restart your computer.
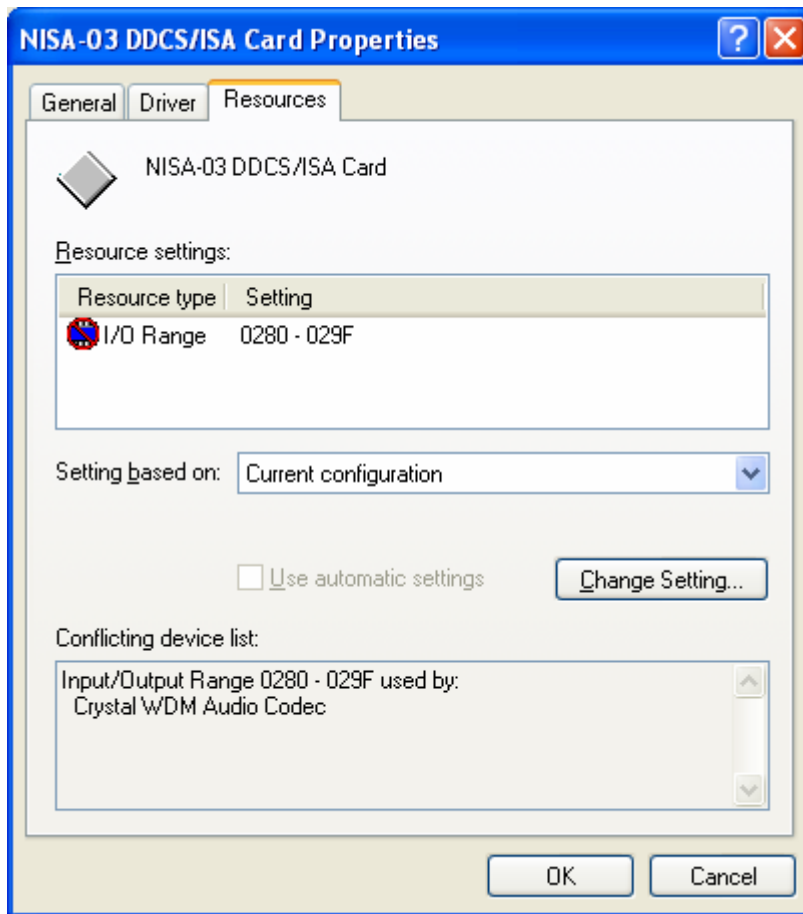

Conflict with a plug and play device

If the conflicting device is a plug and play device, the conflict may disappear, when you just restart your computer.

However, the situation may reappear, if you install some Drive*Ware*® product, which includes the DDCS drivers. In such a case an additional restarting of your computer is possibly required. Restarting would be avoided, if the Windows plug and play system does not use automatic setting of configuration for the device.

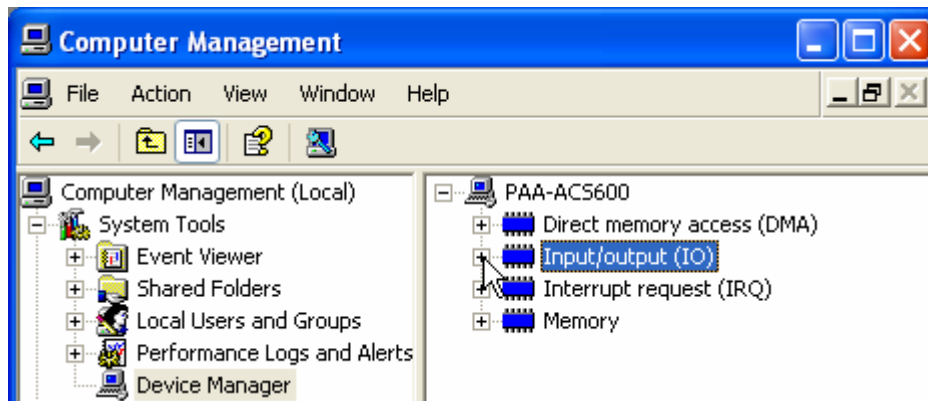We show here as an example, how to reconfigure a conflicting plug and play device.

If you have difficulties to find the device from the Device Manger, you can find it, for example, by changing the way that the Device Manager displays the devices.
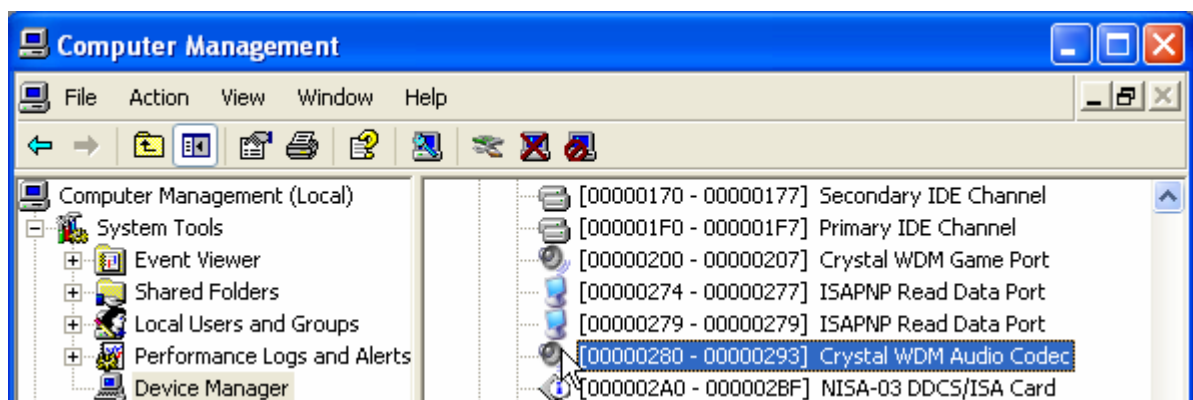
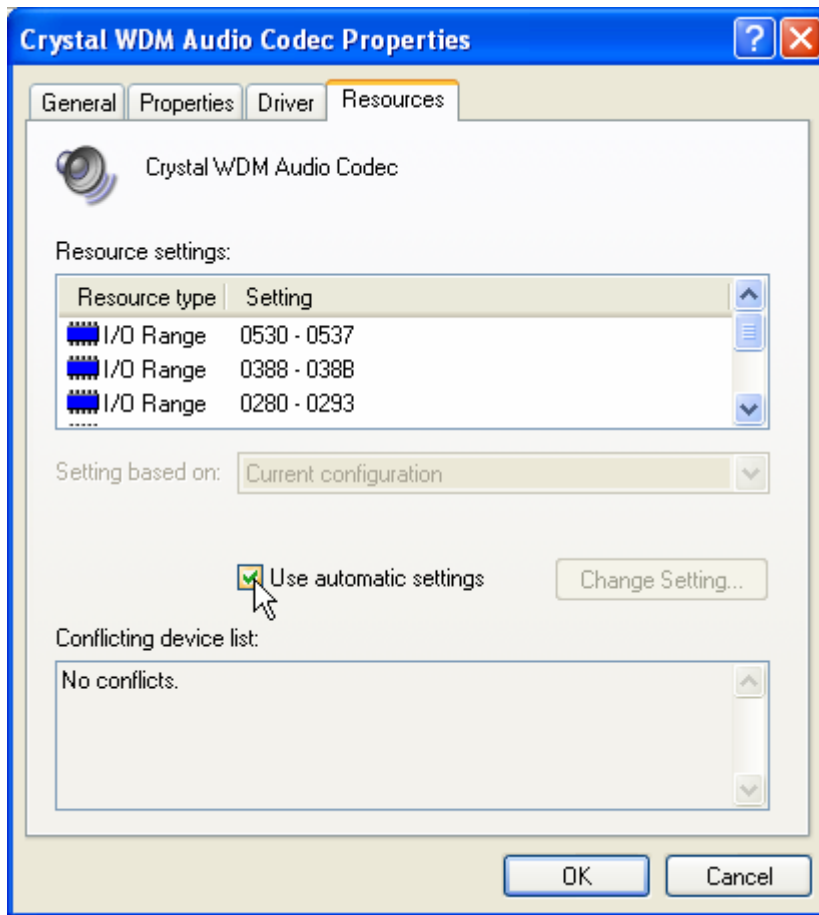Select Resources by type from the View menu.

Click the plus sign in front of the Input/output (IO) to expand the I/O addresses.
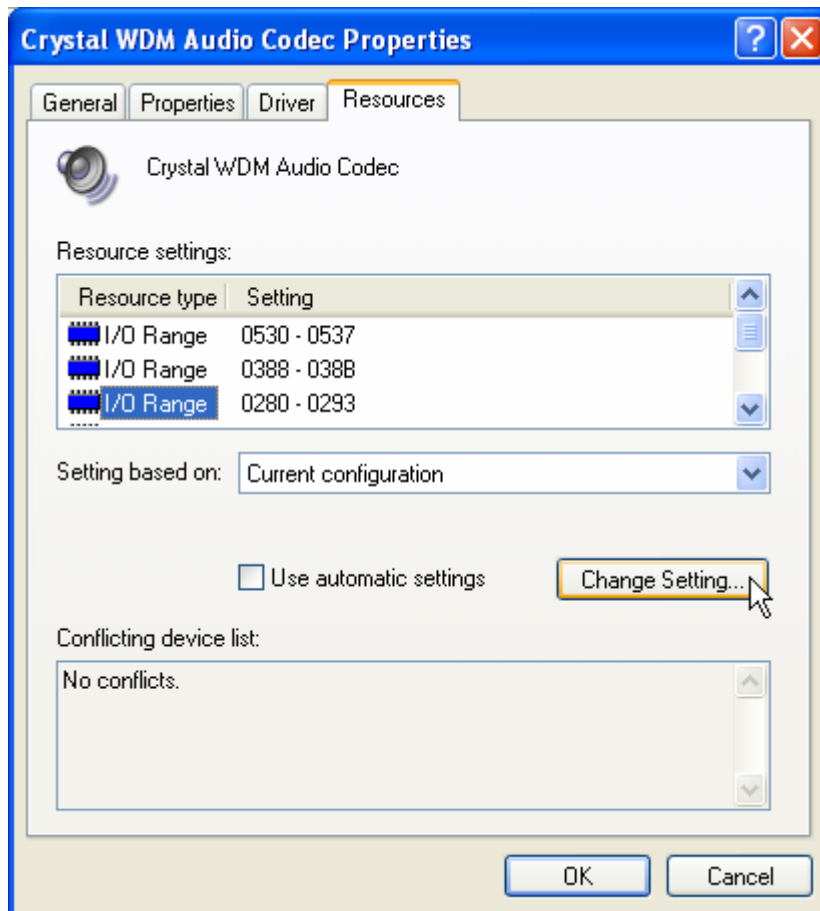

Scroll until you see the conflicting I/O range and double click to see properties of the conflicting device.
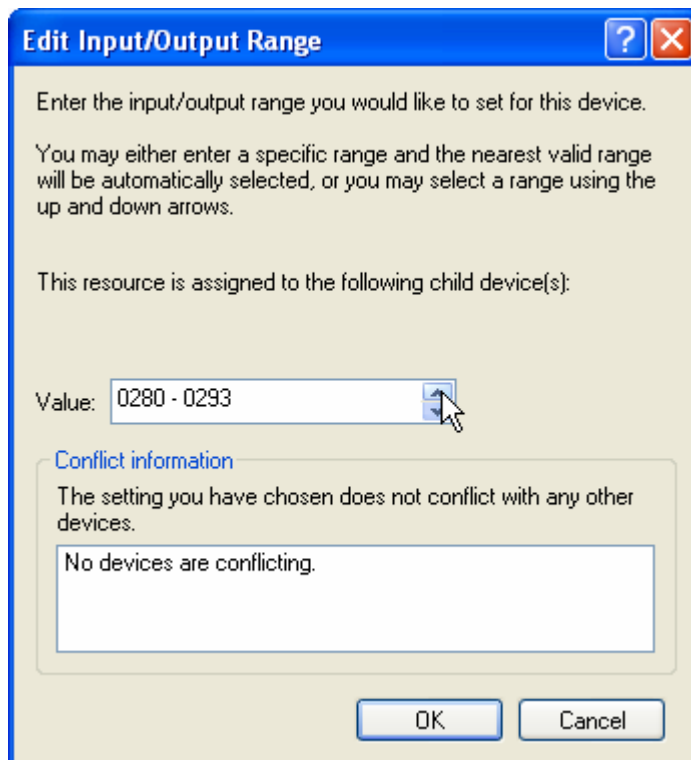
Whatever was the way you got the properties of the conflicting device, click the Resources tab and unselect Use automatic settings.
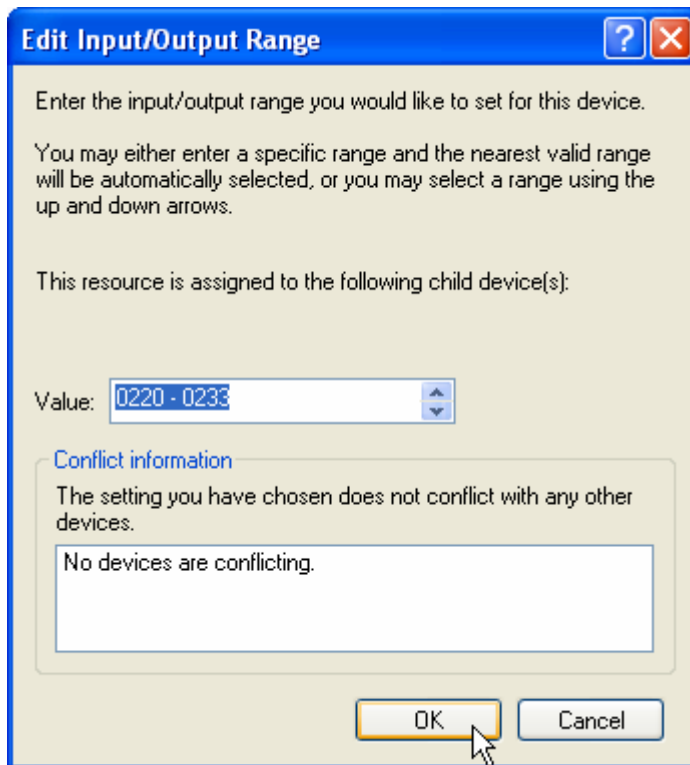
Select the conflicting Input/Output Range from Resource setting and click Change Setting.
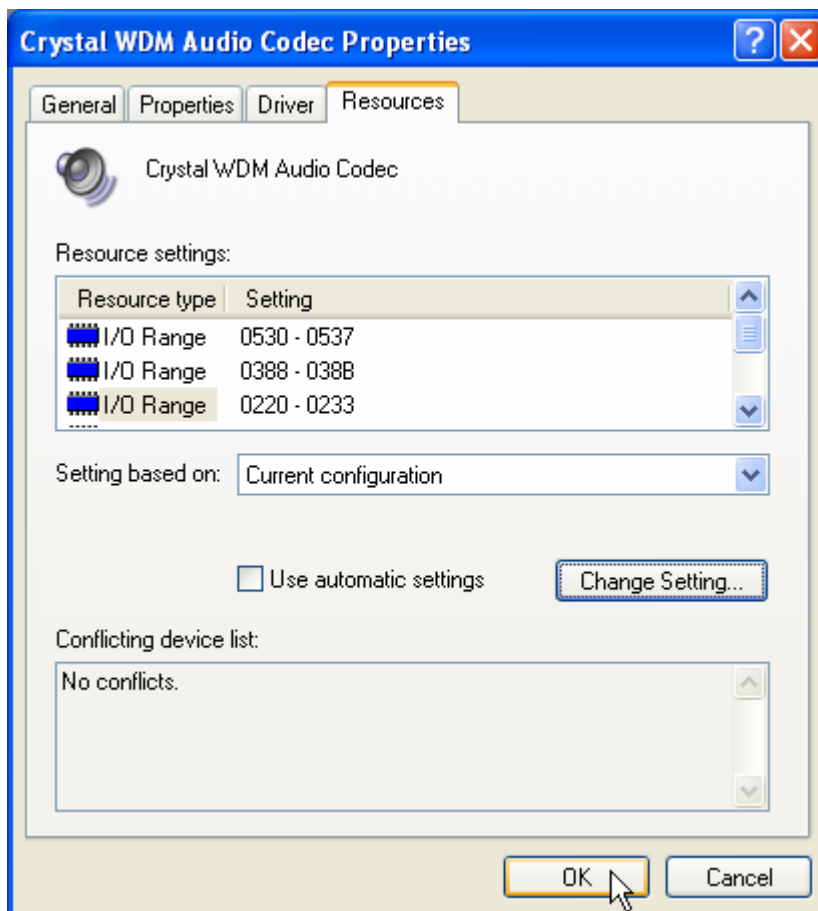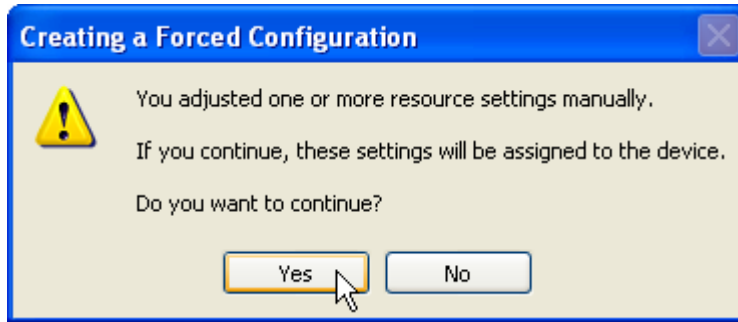

Scroll for another I/O range.

Check that there are no conflicts and click OK.

Now that you are back in the properties, click OK to make the changes.

Finally, Windows wants you to confirm that you really want to adjust the settings manually.

Usually, no restarting of the computer is required.

Using NISADUMP

NISADUMP.EXE, as explained in Windows NT section, can also be used in troubleshooting. However, under Windows XP, NISADUMP is able to show only those I/O ranges, which are actually reserved by the drivers. If, for example, no NISA-03 DDCS/ISA driver (hardware) has been installed, the I/O ranges reserved for them cannot be displayed.

However, note that it is enough (and typical) to install the NISA-03 DDCS/ISA driver (first) without the actual hardware being (yet) present.

I/O ranges of all the NDPA-02 DDCS/PCMCIA, which are inserted, are displayed by NISADUMP.

Uninstalling the Drivers

The details of uninstalling the NDPA-02 DDCS/PCMCIA plug and play driver and the NISA-03 DDCS/ISA plug and play compliant driver depend on the operating system.

Windows NT

The Windows NT driver, which handles both NDPA-02 DDCS/PCMCIA and NISA-03 DDCS/ISA, cannot be uninstalled. However, uninstalling DriveWindow may remove the driver (Nisa.sys) from your hard disk. It means that the driver, although appearing in Windows registry, is no more functional. Note that the removal is done, when the last application using the driver is uninstalled.

Windows 2000

DriveWindow includes Windows 2000 plug and play driver for NDPA-02 DDCS/PCMCIA and plug and play compliant driver for NISA-03 DDCS/ISA. The drivers are copied into the hard disk when DriveWindow is installed.
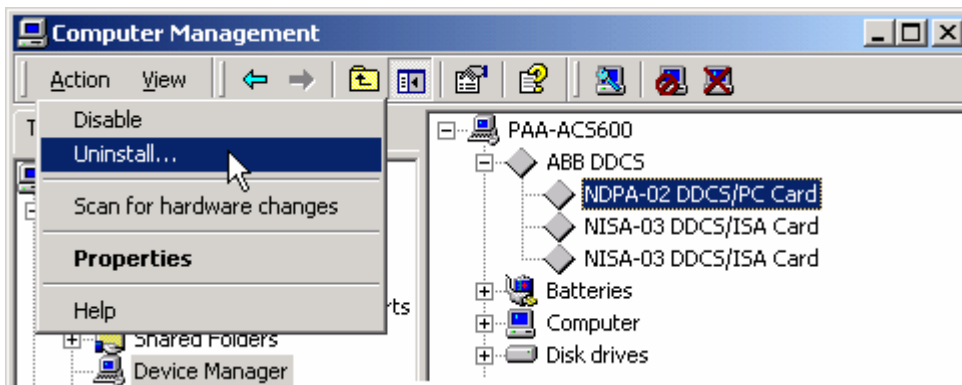
Windows 2000 plug and play system starts installing the NDPA-02 DDCS/PCMCIA driver the first time an NDPA-02 DDCS/PCMCIA board is found in a PCMCIA slot. Installing of the NISA-03 DDCS/ISA driver must be requested manually.

If you ever uninstall DriveWindow, it is the last application requiring the NDPA-02 DDCS/PCMCIA or NISA-03 DDCS/ISA board, and either or both of the drivers have been installed (by inserting the NDPA-02 DDCS/PCMCIA board into a PCMCIA slot or started manually for NISA-03 DDCS/ISA board), the installed drivers should be uninstalled before uninstalling DriveWindow.
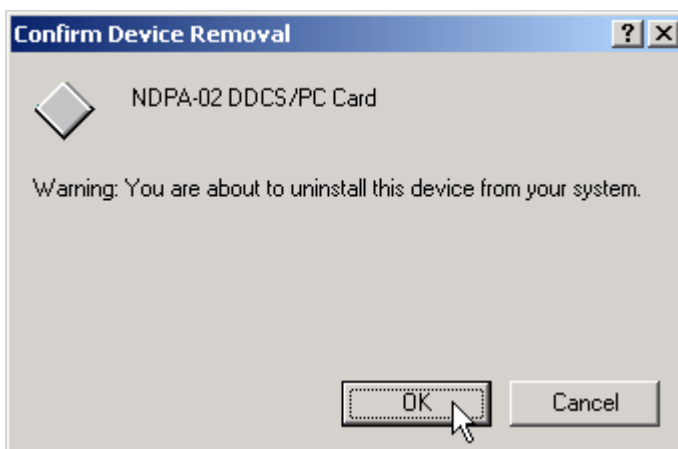
To be able to uninstall the plug and play driver, you must have all NDPA-02 DDCS/PCMCIA boards inserted in PCMCIA slots.

Each of the drivers is uninstalled by using the Device Manager. See Troubleshooting for instructions, how to start the Device Manager and how to see all DDCS devices.

From the list of ABB DDCS devices, select the NDPA-02 DDCS/PC Card or NISA-03 DDCS/ISA Card, which you want to uninstall. Select Uninstall... from the Action menu.
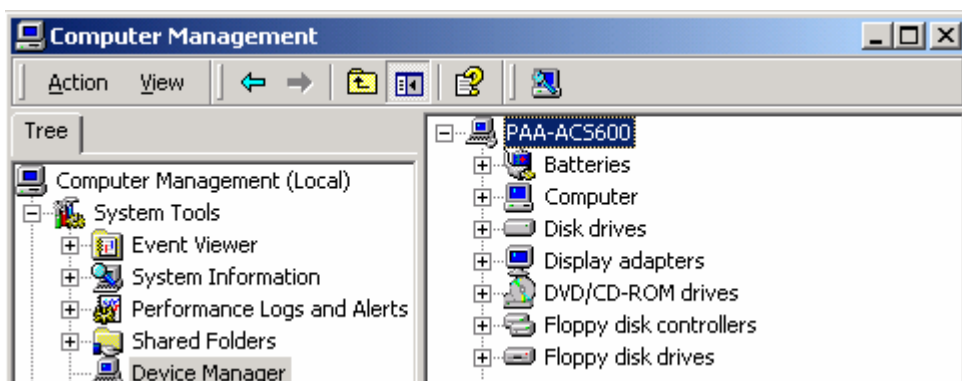

Confirm device removal and Windows 2000 uninstalls the driver.

The uninstalled device disappears from the ABB DDCS device list.

After you have repeated the uninstalling procedure for each of the ABB DDCS devices, the list disappears totally.

If you are going to uninstall DriveWindow as well, continue doing it.

Finally, shut down you PC and remove the NDPA-02 DDCS/PCMCIA and NISA-03 DDCS/ISA boards from your computer.

Windows XP

DriveWindow includes Windows XP plug and play driver for NDPA-02 DDCS/PCMCIA and plug and play compliant driver for NISA-03 DDCS/ISA. The drivers are copied into the hard disk when DriveWindow is installed.
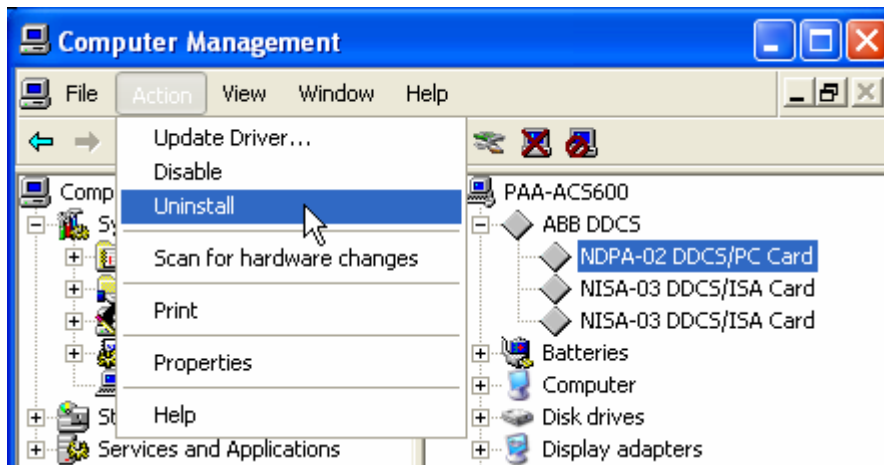
Windows XP plug and play system starts installing the NDPA-02 DDCS/PCMCIA driver the first time an NDPA-02 DDCS/PCMCIA board is found in a PCMCIA slot. Installing of the NISA-03 DDCS/ISA driver must be requested manually.

If you ever uninstall DriveWindow, it is the last application requiring the NDPA-02 DDCS/PCMCIA or NISA-03 DDCS/ISA board, and either or both of the drivers have been installed (by inserting the NDPA-02 DDCS/PCMCIA board into a PCMCIA slot or started manually for NISA-03 DDCS/ISA board), the installed drivers should be uninstalled before uninstalling DriveWindow.

To be able to uninstall the plug and play driver, you must have all NDPA-02 DDCS/PCMCIA boards inserted in PCMCIA slots.

Each of the drivers is uninstalled by using the Device Manager. See Troubleshooting for instructions, how to start the Device Manager and how to see all DDCS devices.

From the list of ABB DDCS devices, select the NDPA-02 DDCS/PC Card or NISA-03 DDCS/ISA Card, which you want to uninstall. Select Uninstall... from the Action menu.
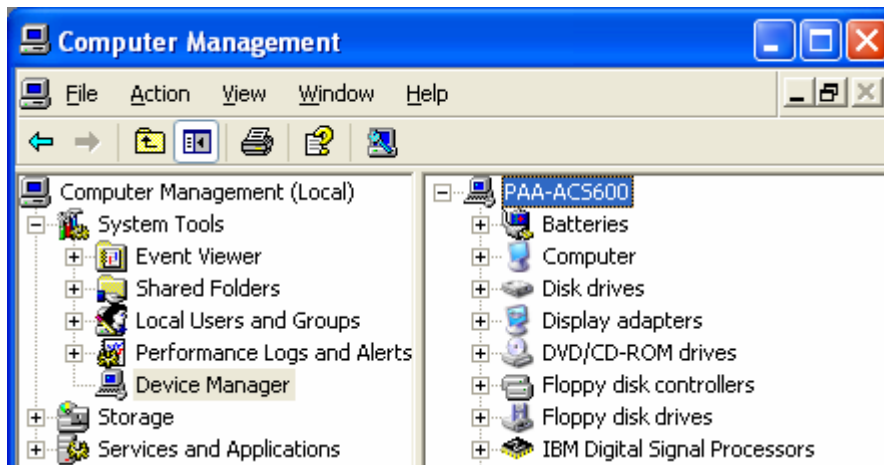

Confirm device removal and Windows XP uninstalls the driver.
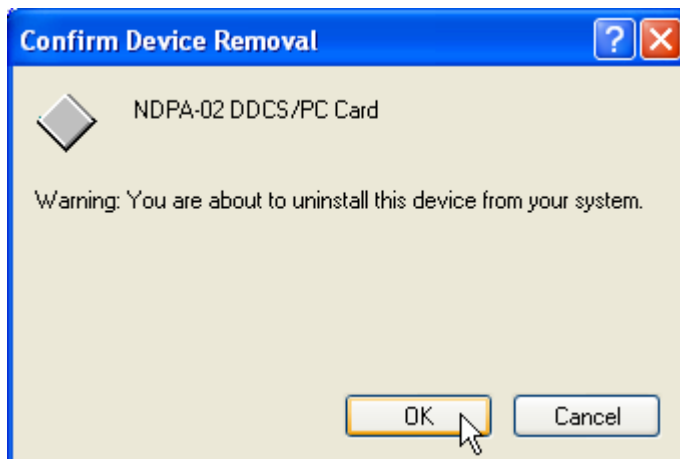
The uninstalled device disappears from the ABB DDCS device list.

After you have repeated the uninstalling procedure for each of the ABB DDCS devices, the list disappears totally.

If you are going to uninstall DriveWindow as well, continue doing it.

Finally, shut down you PC and remove the NDPA-02 DDCS/PCMCIA and NISA-03 DDCS/ISA boards from your computer.

Uninstalling DriveWindow

The details of uninstalling DriveWindow depend on the operating system.

Windows NT

While in the Add/Remove Programs Properties dialog box of the Control Panel, select Install/Uninstall. Browse for DriveWindow, select it by clicking, and click Add/Remove... button.
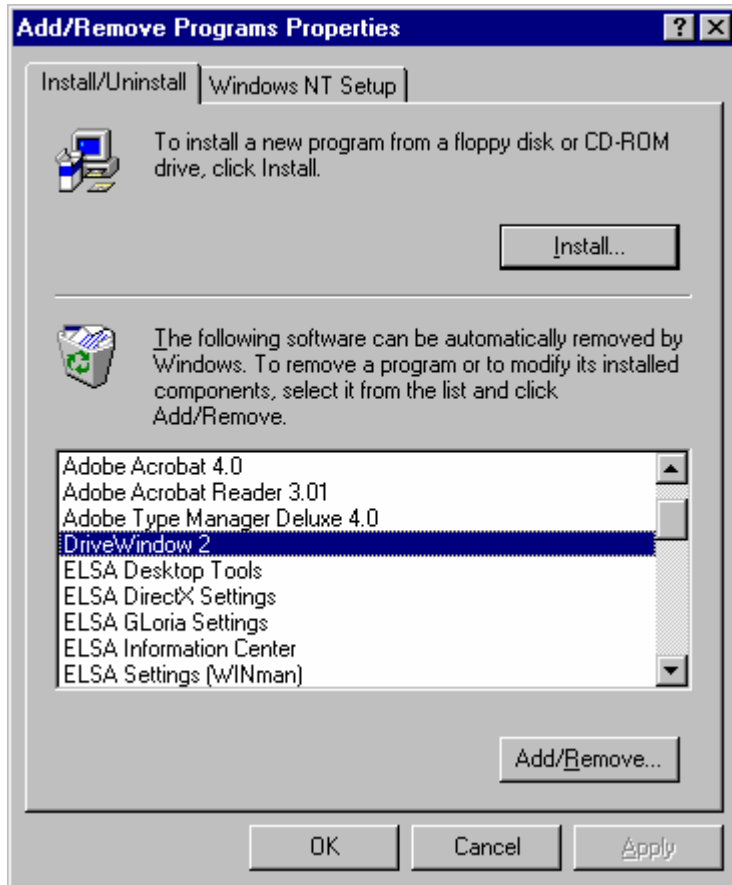
After you have confirmed file deletion, uninstalling starts. You may still be requested, whether to delete some shared files included in DriveWindow, which are no longer used. They can be deleted, if you wish.
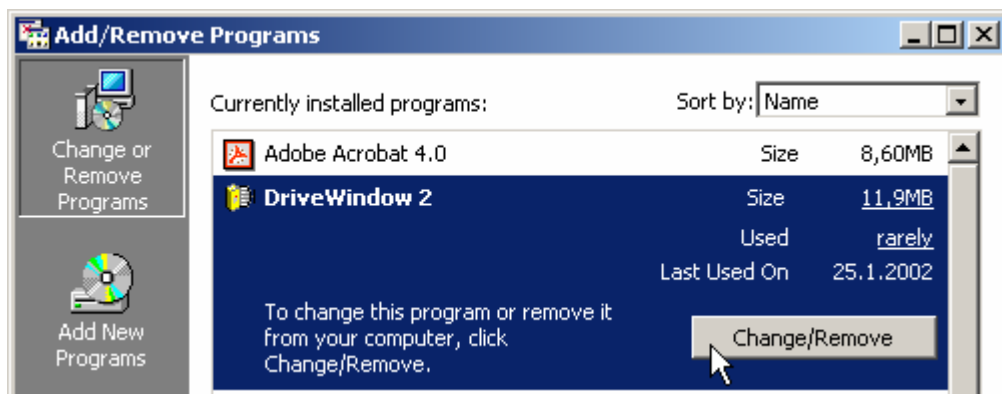
If you have added files into the installation directory or into its sub-directories, there is a message in the Remove Programs From Your Computer dialog box telling that some elements could not be removed.
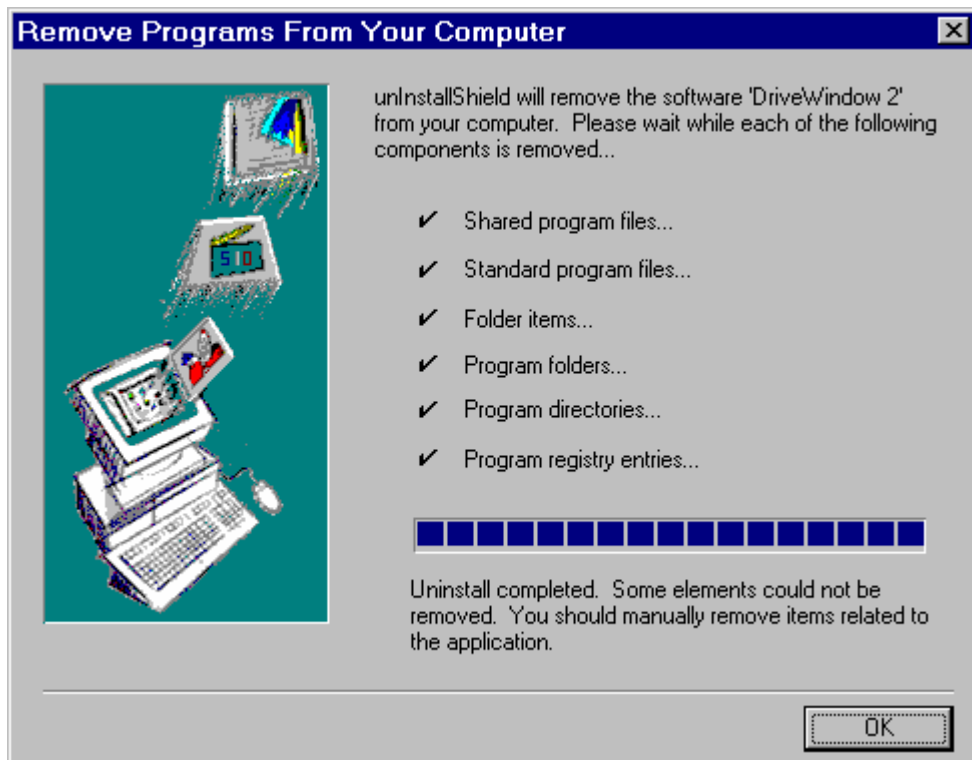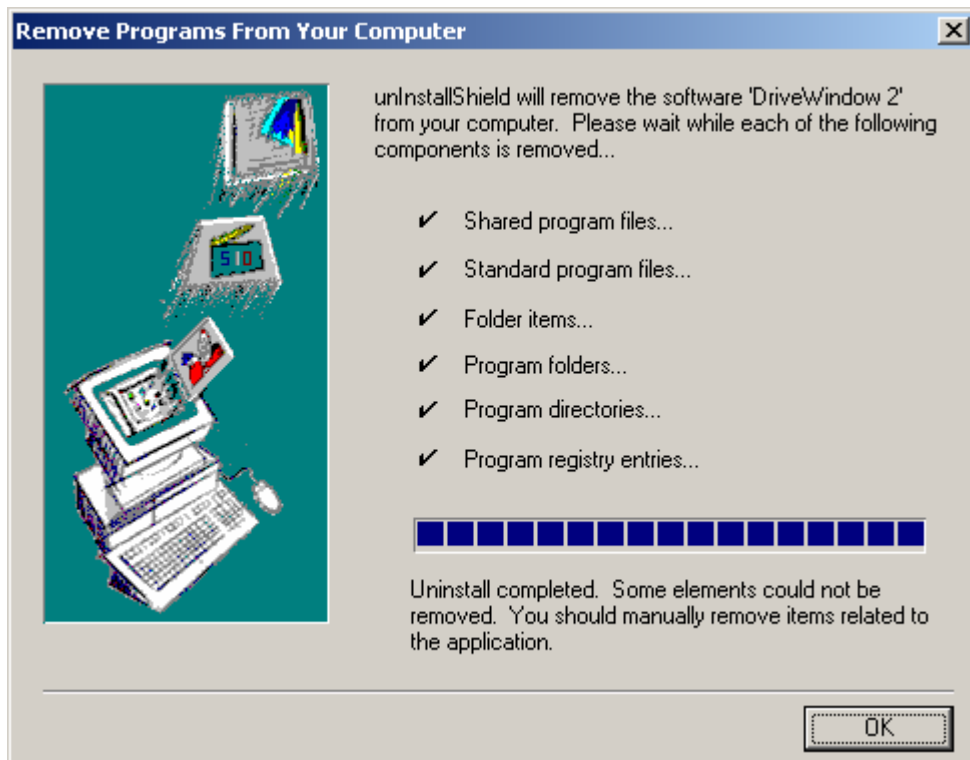

Windows 2000

If DriveWindow is the last installed application, which uses the NDPA-02 DDCS/PCMCIA and NISA-03 DDCS/ISA boards, you should uninstall the their drivers before uninstalling DriveWindow.

While in the Add/Remove Programs dialog box of the Control Panel, select Change or Remove Programs. Browse for DriveWindow, select it by clicking, and click Change/Remove button.

After you have confirmed file deletion, uninstalling starts. You may still be requested, whether to delete some shared files included in DriveWindow, which are no longer used. They can be deleted, if you wish.
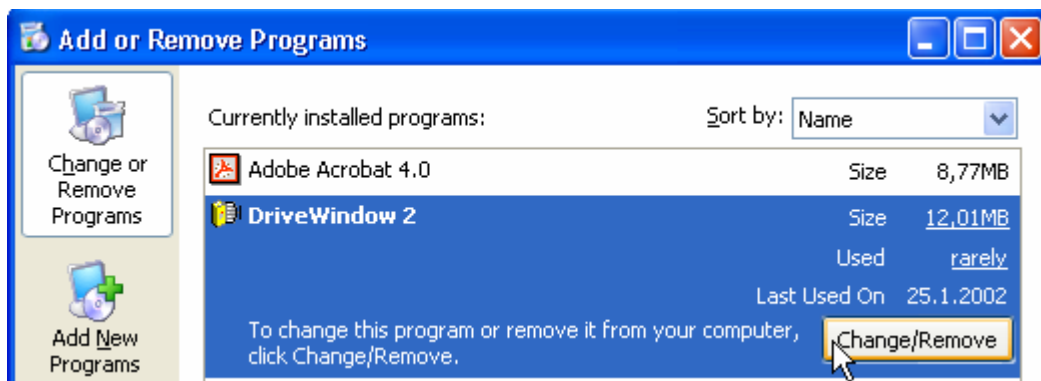
If you have added files into the installation directory or into its sub-directories, there is a message in the Remove Programs From Your Computer dialog box telling that some elements could not be removed.


Windows XP

If DriveWindow is the last installed application, which uses the NDPA-02 DDCS/PCMCIA and NISA-03 DDCS/ISA boards, you should uninstall the their drivers before uninstalling DriveWindow.

While in the Add or Remove Programs dialog box of the Control Panel, select Change or Remove Programs. Browse for DriveWindow, select it by clicking, and click Change/Remove button.

After you have confirmed file deletion, uninstalling starts. You may still be requested, whether to delete some shared files included in DriveWindow, which are no longer used. They can be deleted, if you wish.

If you have added files into the installation directory or into its sub-directories, there is a message in the Remove Programs From Your Computer dialog box telling that some elements could not be removed.
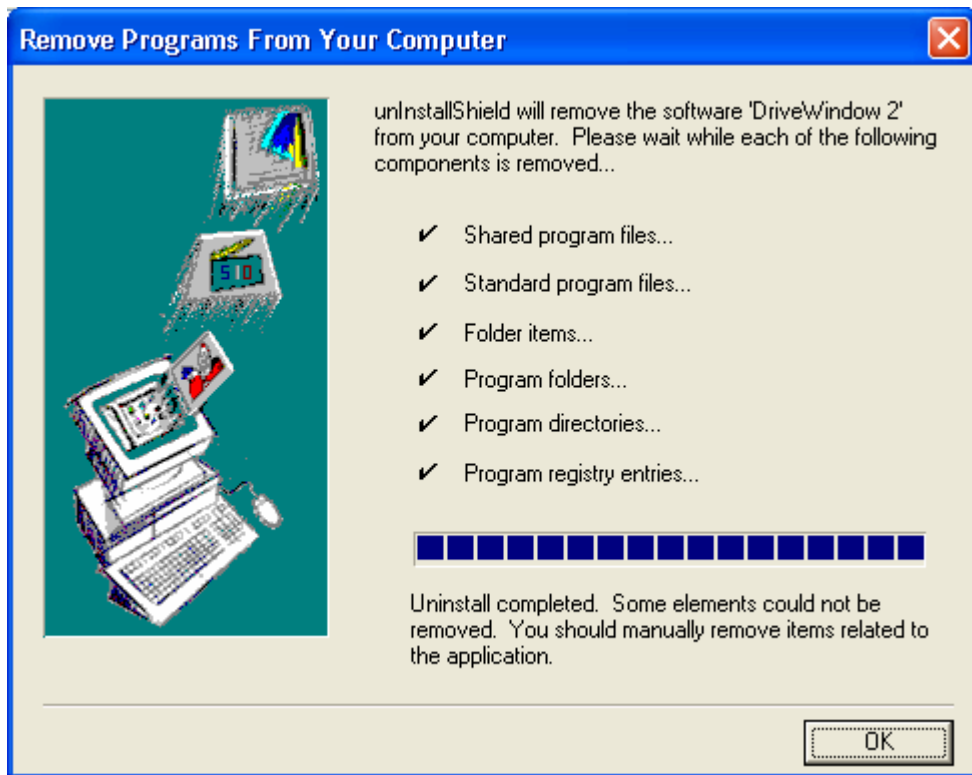
Known Problems

If you reinstall DriveWindow 2.0 beta 4 (or older), the older version of DriveOPC included in it will take over the newer one.

If you install DriveWindow or DriveOPC without uninstalling DriveWindow 2.0 beta 4 (or older beta), uninstalling of DriveWindow 2.0 or later may not remove all installed files. Also, you have to reinstall DriveOPC if you want to continue its use, otherwise you should uninstall DriveOPC as well.

If you have a multiboot PC and a DriveWindow 1.x installed in Win 3.1x, it may be that DriveWindow 1.x does not work any more, even if you uninstall DriveWindow (and/or DriveOPC). In that case, after uninstalling DriveWindow (and/or DriveOPC), delete files DWC_COMM.DLL, DWC_DDCP.DLL, and DWC_DDCS.DLL from Windows SYSTEM32 directory.