ReadMe for DriveWare SP 0407

Contents

Introduction

This document contains installing information about DriveWare SP (Service Pack) 0407.

This service pack replaces the service packs DriveWare SP 0202, DriveWare SP 0205, and DriveWare SP 0401. It also replaces DriveWare SP 0303, except DriveWare SP 0303 is still needed, if you want to upgrade DriveWindow version 2.0x to version 2.02

The Service Pack is distributed as a single executable file (DWSP0407.EXE). It is used to upgrade already installed Drive*Ware*® application programs.

Note! *Under Windows 2000 and Windows XP, using of an NISA-03 DDCS/ISA board requires now that it is introduced to the operating system (Add Hardware).*

What is Included in DriveWare SP 0407

DriveWare SP 0407 contains almost all, possibly upgraded, components of the service packs DriveWare SP 0202, DriveWare SP 0205, DriveWare SP 0303, and DriveWare SP 0401, too.

Missing is upgrade of DriveWindow from version 2.0 or 2.01 to 2.02. That upgrade can be done by installing DriveWare SP 0303. It is not possible to use a service pack to upgrade DriveWindow 2.0x to 2.1x.

However, DriveWare SP 0407 can be used to upgrade DriveWindow 2.10 or 2.11 to 2.12.

DriveWare SP 0407 contains the following:

- Upgraded Windows 2000 and Windows XP plug and play driver for NDPA-02 DDCS/PCMCIA. Now more than one board is supported.
- Plug and play compatible NISA-03 DDCS/ISA driver for Windows 2000 and Windows XP.
- Upgraded plug and play enabled communication library for Windows 2000 and Windows XP. It also solves the problem of slow communication in some power saving portable PCs. Under Windows 2000 and Windows XP power saving is inhibited (if possible) while the library is running.
- Upgrade of DriveAP from version 1.0 to 1.01, which corrects a bug concerning spaces in the name of a block. Also, there are no more problems in writing changes of constants to drive.
- Patch for DriveDebug 2.8, which solves the slow communication problem, found in some Windows 2000 and Windows XP installations. The patch monitors the communication speed and, if it finds it to be slow, does some timer reprogramming. Note that the communication speed can be low for a few seconds before the patch detects it and does a corrective action.
- Upgrade of DriveOPC COM modules from version 2.0, 2.01, 2.02, 2.03, or 2.04 to 2.05, which is also compatible with the new communication library.
- Upgrade of DriveWindow from version 2.10 or 2.11 to 2.12.
- Upgrade of DriveWindow helper modules DriveLoader and Crusher from version 2.00 or 2.11 to 2.12, Conversion from version 2.00 to 2.12, and OfflineOPC from version 1.00 or 1.01 to 1.02.

Note! *Most of the documentation is not updated, just the programs.*

Reasons for Installing DriveWare SP 0407

If you have already installed DriveWare SP 0205 or DriveWare SP 0303, you have the following reasons to install DriveWare SP 0407:

- You want to upgrade DriveOPC from version 2.03 or 2.04 to 2.05.
- You want to upgrade DriveWindow from version 2.10 or 2.11 to 2.12.
- Your DriveDebug 2.8 installation has the slow communication problem.

Otherwise, we recommend that you install DriveWare SP 0407 (or DriveWare SP 0303), if your operating system is Windows 2000 or Windows XP. You also need to have one or more of the following Drive*Ware*® applications installed (even if you already have installed DriveWare SP 0202):

- DriveDebug 2.8 or 2.8 (Rev. B)
- DriveAP 1.0 or 1.01
- DriveOPC 2.0, 2.01, 2.02
- DriveWindow 2.0 or 2.01

The reason is that they include Windows NT version of the NISA-03 DDCS/ISA board driver, which is not plug and play compatible. It means that I/O-address conflicts are not detected. Also, their communication library uses the addresses reserved for the NISA-03 even if another device has reserved them. This may cause DriveDebug to crash, for example, even if no NISA-03 is installed.

Also, if your operating system is Windows NT and you want to use DriveWindow as a remote client for an OPC Server (DriveOPC), which runs under Windows 2000 or Windows XP, and:

- You have DriveWindow 2.0 installed at the client end.
- You have DriveOPC and communication hardware installed at the remote end, operating system of which is Windows 2000 or Windows XP.
- You have not installed DriveWare SP 0202 or DriveWare SP 0205.

You can install the service pack also, if the bugs in DriveWindow 2.1x, DriveOPC or DriveAP, which are now corrected, are bothering you, and:

- You have DriveOPC (version 2.0, 2.01, 2.02, 2.03, or 2.04), DriveWindow 2.1x (version 2.10 or 2.11), or DriveAP 1.0 installed.

The release notes (ReleaseNotes.pdf) of DriveOPC and DriveWindow 2.1x are upgraded. They contain information about the enhancements and bug corrections made into the new versions.

If you have DriveWindow 2.0 or 2.01 installed, you need to install DriveWare SP 0303, if you want to upgrade to version 2.02. It is not possible to upgrade DriveWindow 2.0x to 2.1x with a service pack. However, you can install DriveWare SP 0407 even if you have DriveWindow 2.0x installed. This way you can get bugs related with DriveOPC and helper components corrected.

Compatibility

Note! *Upgrading of DriveOPC 2.0 may cause compatibility problems in clients.*

The following bug corrections may cause compatibility problems, if the client program is not robust enough:

- Bug 2.00.100.09: Consistency of error code when quality is bad. Bad values read from a device do not return errors any more. The quality is just marked bad.
- Bug 2.00.100.17: Enumerated values not starting from one. The lower bound is not always zero any more but is the value corresponding the first string. Also, the value corresponding the first string was always one (other kinds of enumerations were not accepted). In the new release, the lower bound is one in this case.

Required Disk Space

In addition to the extra space (max. 2.2 MB) required by the upgraded or new files, the DriveWare SP 0407 installation requires about 40 MB hard disk free space for temporal files.

Installing DriveWare SP 0407

You should quit all applications before running the executable DWSP0407.EXE.

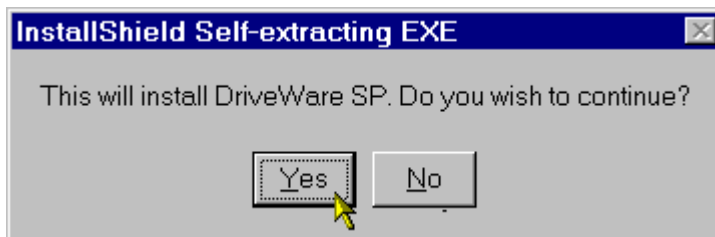**Note!** *You must have Administrator privileges to be able to do the installing.*

Copy the executable into you hard disk, into directory C:\WINNT\TEMP, for example, and select Run from the Start menu.
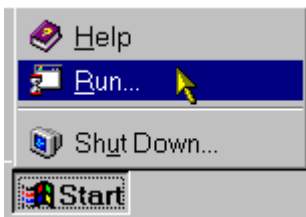
Enter C:\WINNT\TEMP\DWSP0407.EXE into the Open field of the Run dialog and click OK.

When the Setup program displays an installation confirmation message box, click the Yes button.

Follow the instructions given by the installation program.
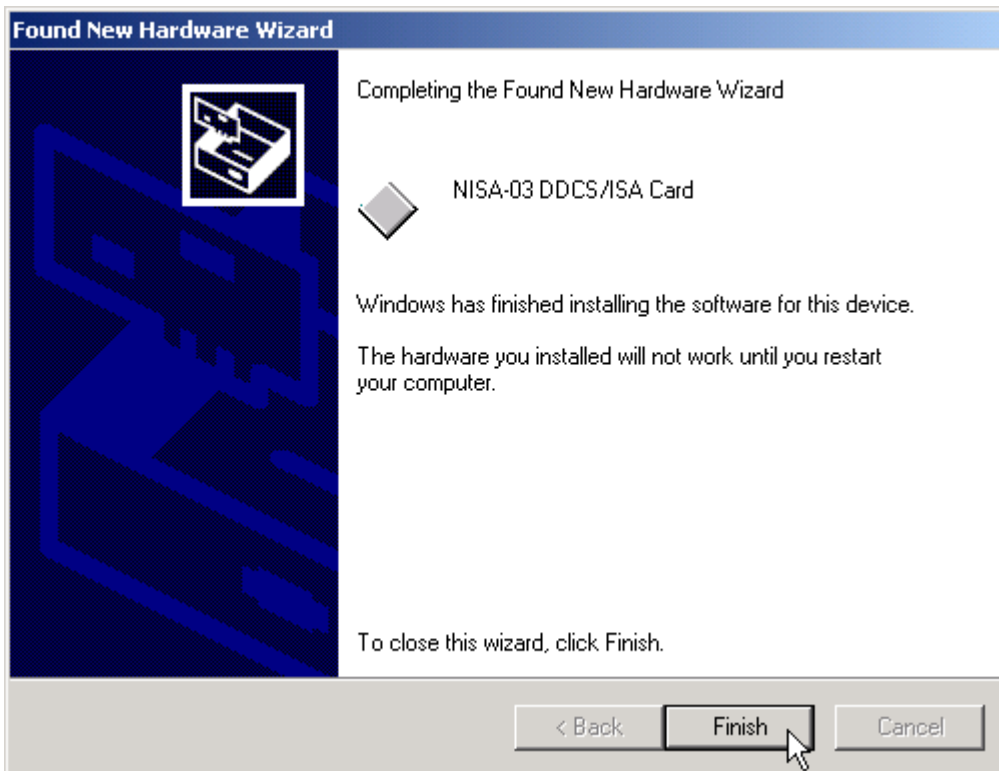
Special Notes for Windows 2000

Note that installing DriveWare SP 0407 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.
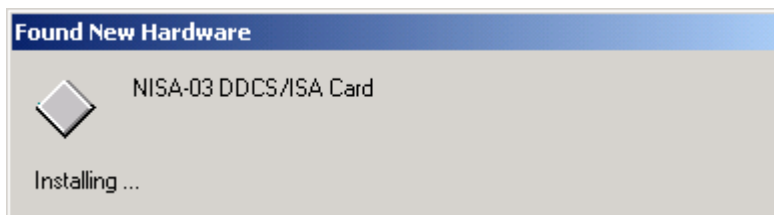
Another of the consequences is that you may have to do additional restarting of your computer. This happens in case NISA-03 DDCS/ISA board I/O range conflicts with a plug and play board. With NDPA-02 DDCS/PCMCIA boards this should never happen.

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.
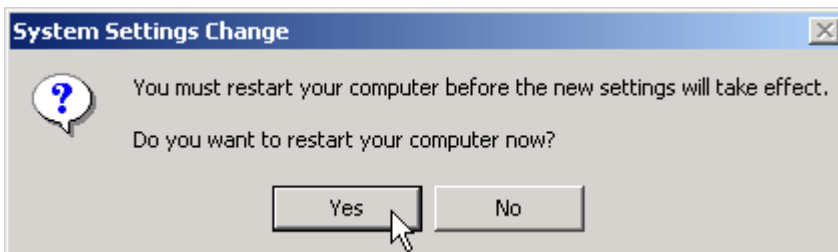
Note that conflicts of I/O ranges can be avoided, if you configure the conflicting plug and play board not use automatic settings, but select the I/O range manually instead.

Special Notes for Windows XP

Note that installing DriveWare SP 0407 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.
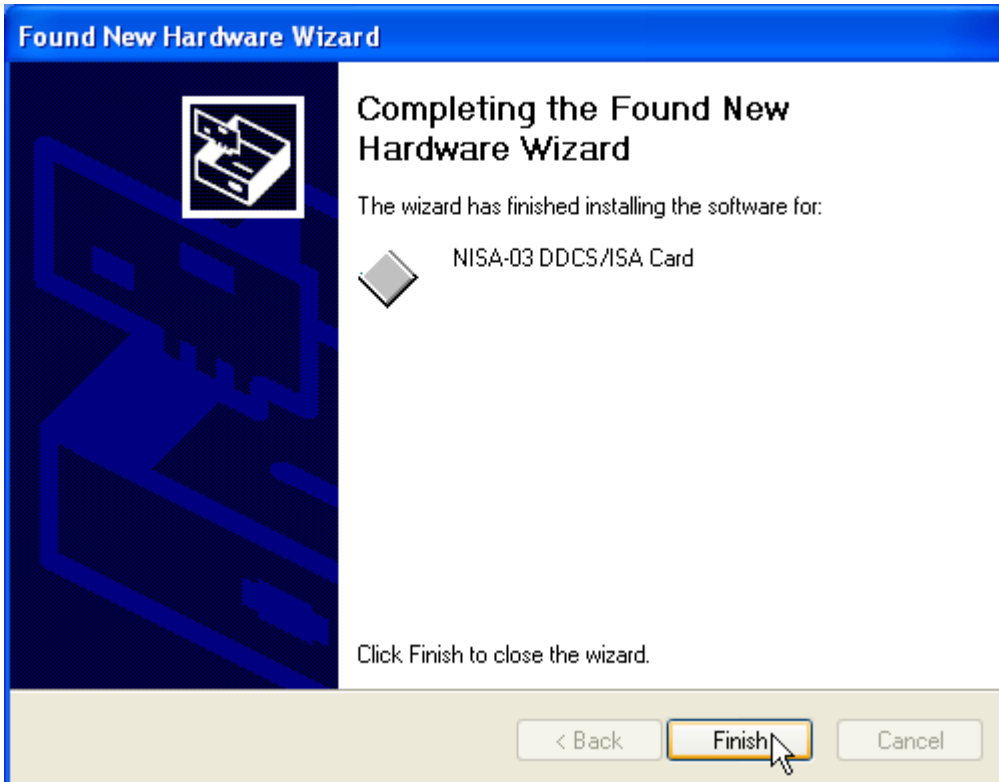
Another of the consequences is that you may have to do additional restarting of your computer. This happens in case NISA-03 DDCS/ISA board I/O range conflicts with a plug and play board. With NDPA-02 DDCS/PCMCIA boards this should never happen.

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.

Detecting Installation Problems

Installation of DriveWare SP 0407 creates a file named DWInstSP.log into the Windows directory. Logging (tracing) information about the installation is appended in it.

In case of installation problems, the file can be used to solve them.

Installing NDPA-02

We recommend that you install DriveWare SP 0407before installing any hardware.

Installing hardware consists actually of two phases:

- Installing of the board driver
- Installing of the board

When you install DriveWare SP 0407, the drivers are copied to you hard disk, but they are not yet installed.

DriveWare SP 0407 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, version 2.03 of DriveOPC, version 1.01 (Rev. B) of DriveAP, version 2.8 (Rev. C) of DriveDebug, and DriveWare SP 0303, 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

DriveWare SP 0407 includes Windows 2000 plug and play driver for NDPA-02 DDCS/PCMCIA. The driver is copied into the hard disk when DriveWare SP 0407 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 the DriveWare SP 0407 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 DriveWare SP 0407 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, version 2.03 of DriveOPC, version 1.01 (Rev. B) of DriveAP, version 2.8 (Rev. C) of DriveDebug, and DriveWare SP 0303, more than one NDPA-02 DDCS/PCMCIA board is supported under Windows 2000.

Driver Installation

We assume here that you have already installed DriveWare SP 0407. If you have not, the Found New Hardware Wizard may start. We recommend that you click the Cancel button in the Found New Hardware Wizard and install DriveWare SP 0407.

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 DriveWare SP 0407 while the driver is installing.
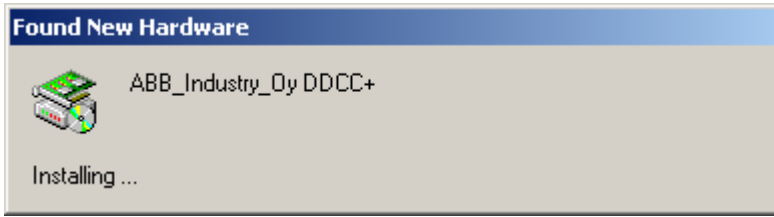
Windows XP

DriveWare SP 0407 includes Windows XP plug and play driver for NDPA-02 DDCS/PCMCIA. The driver is copied into the hard disk when DriveWare SP 0407 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 DriveWare SP 0407 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 DriveWare SP 0407 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, version 2.03 of DriveOPC, version 1.01 (Rev. B) of DriveAP, version 2.8 (Rev. C) of DriveDebug, and DriveWare SP 0303, more than one NDPA-02 DDCS/PCMCIA board is supported under Windows XP.

Driver Installation

We assume here that you have already installed DriveWare SP 0407. If you have not, we recommend that you click the Cancel button in the Found New Hardware Wizard and install DriveWare SP 0407.

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 DriveWare SP 0407 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.
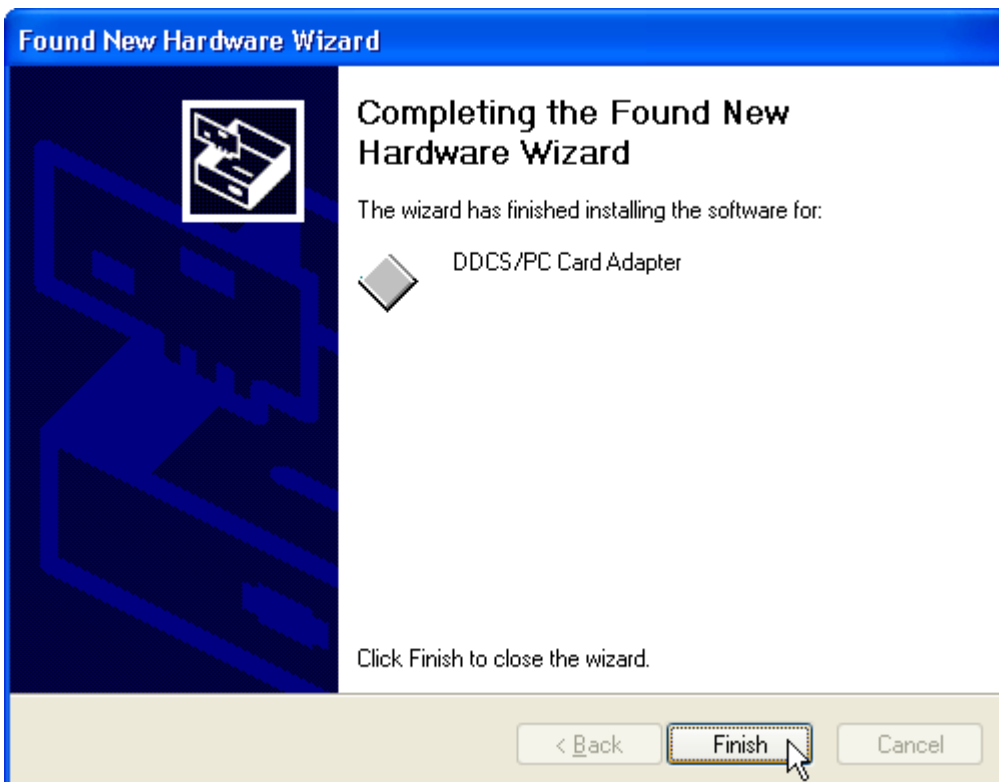
Installing NISA-03

We recommend that you install DriveWare SP 0407 before installing any hardware.

Installing hardware consists actually of two phases:

- Installing of the board driver
- Installing of the board

When you install DriveWare SP 0407, the drivers are copied to you hard disk, but they are not yet installed.

DriveWare SP 0407 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 an ISA board, which is not a plug and play type of board. However, since version 2.02 of DriveWindow, version 2.03 of DriveOPC, version 1.01 (Rev. B) of DriveAP, version 2.8 (Rev. C) of DriveDebug, and DriveWare SP 0303, 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:
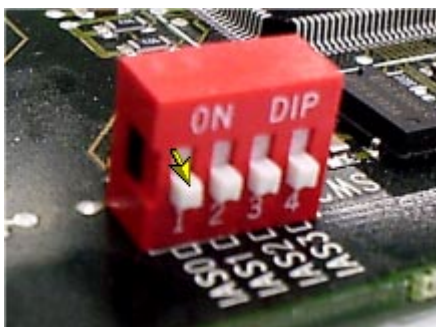
The other configuration (0001) uses I/O range 02A0 – 02BF:
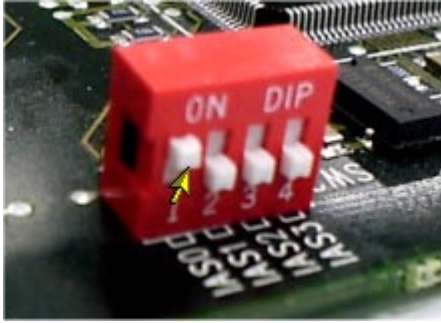
Details of installation depend on the operating system.

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, a Drive*Ware*® application 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

DriveWare SP 0407 includes Windows 2000 plug and play compatible driver for the NISA-03 DDCS/ISA board. The driver is copied into the hard disk when DriveWare SP 0407 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 DriveWare SP 0407 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.
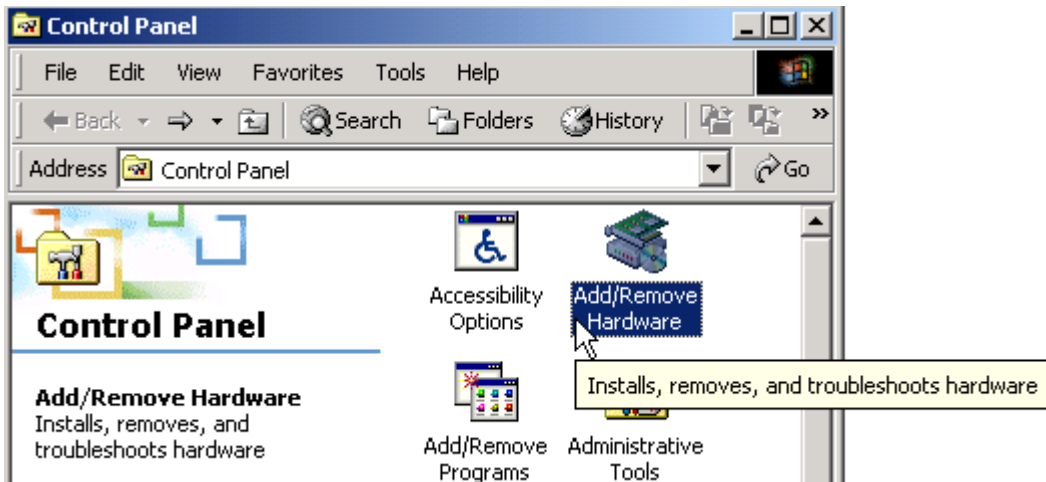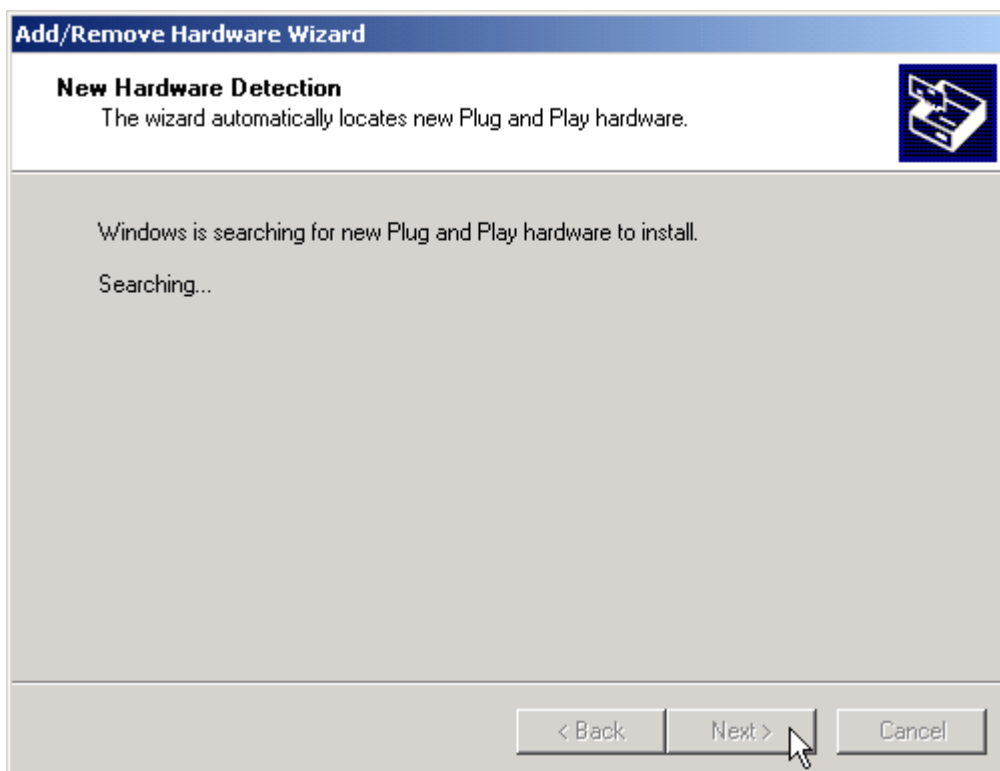

The Add/Remove Hardware Wizard starts. Click Next.

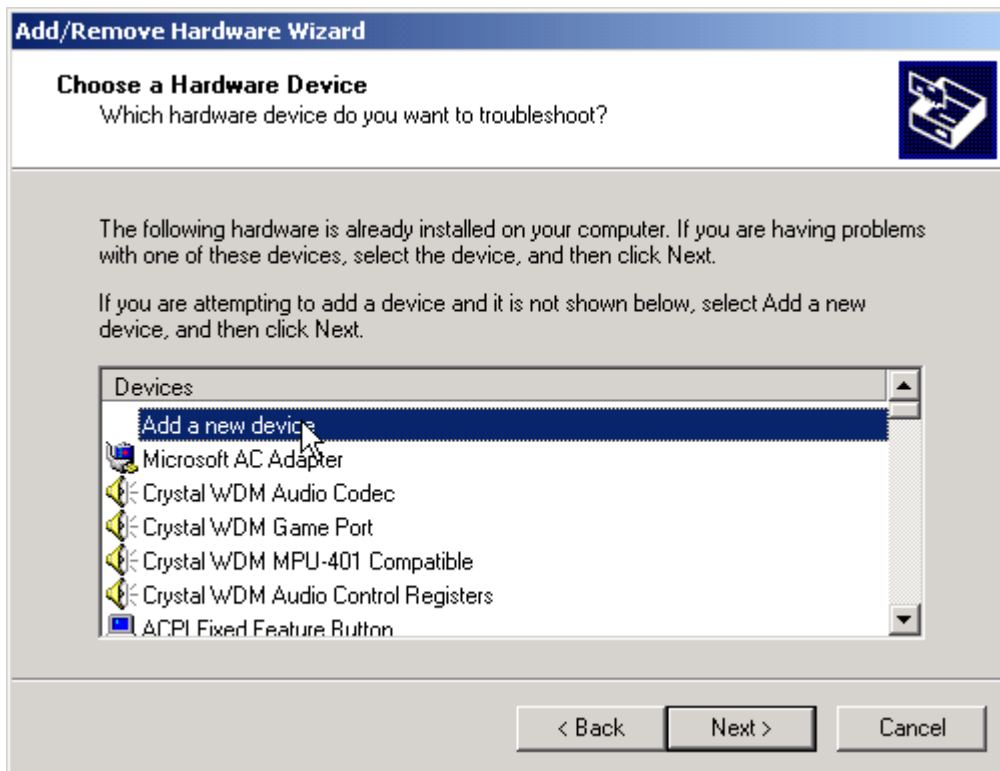Select Add/Troubleshoot a device and click Next.
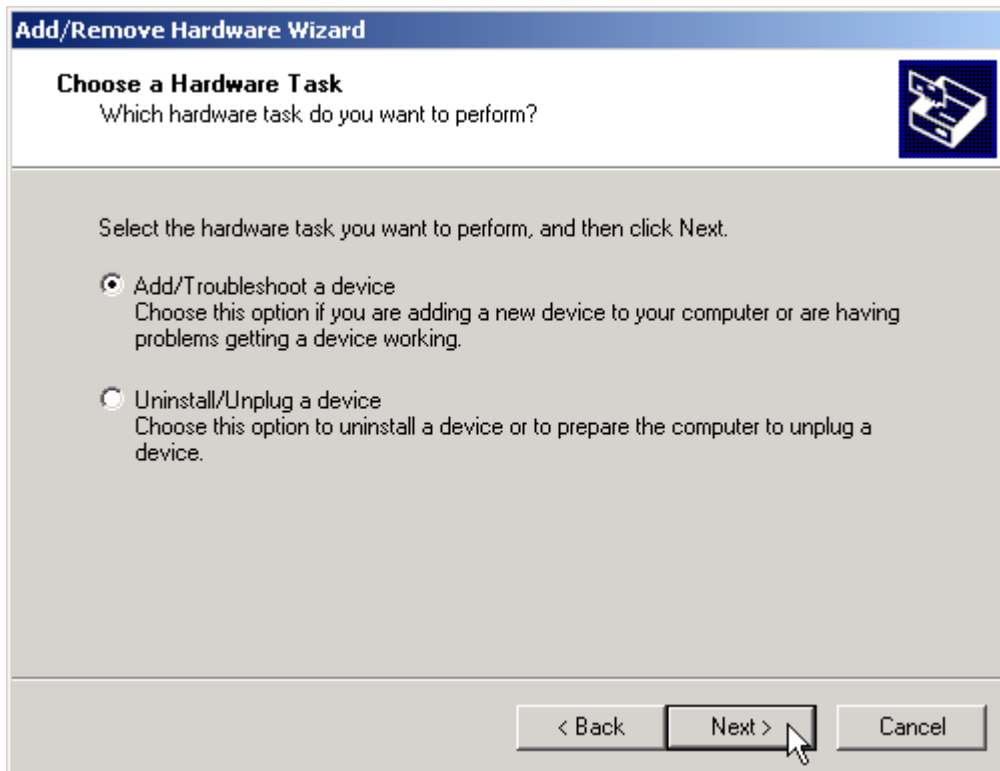
Wait while the wizard is searching for new plug and play devices.

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.

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.
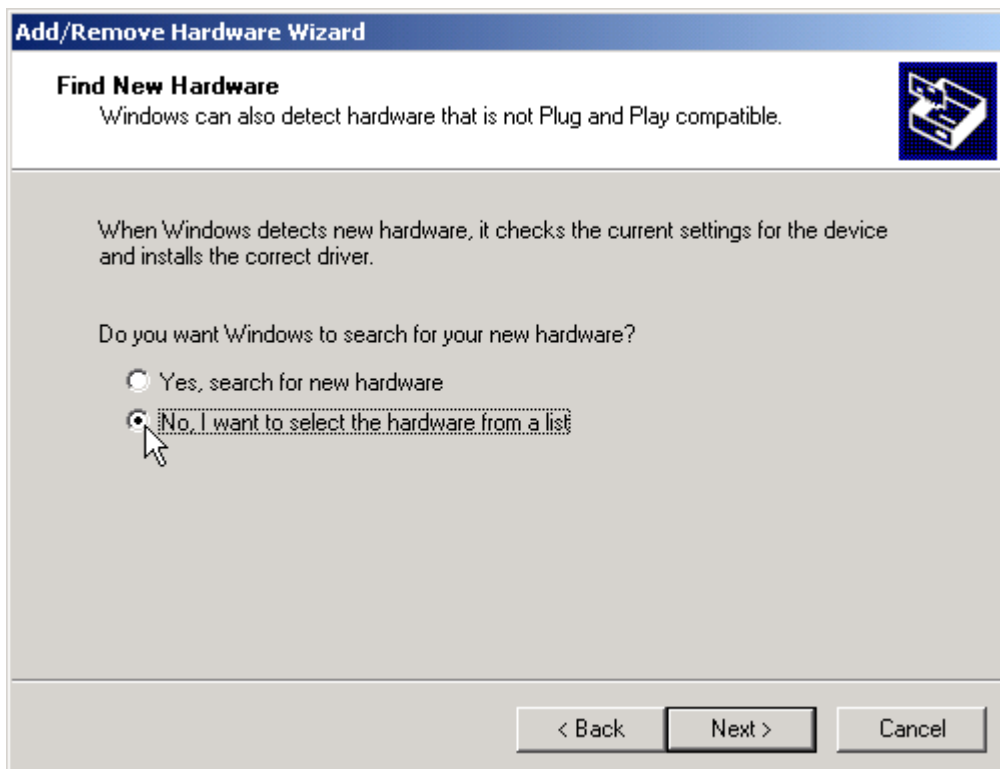
Select Hardware type ABB DDCS and click Next.
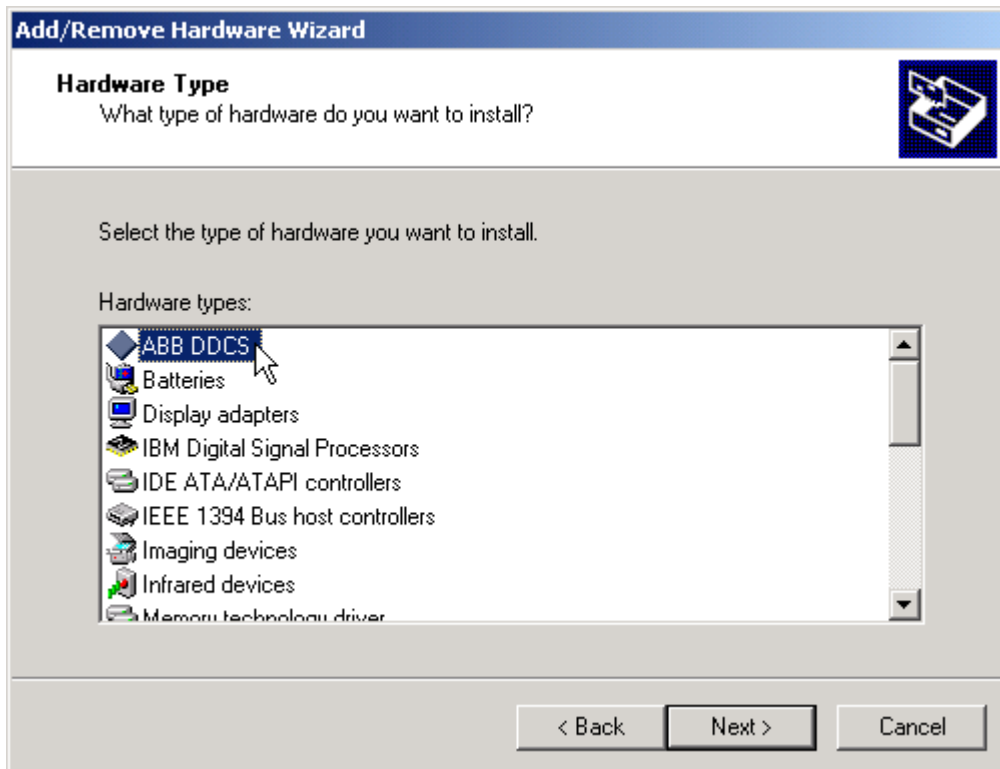
Select the hardware model NISA-03 DDCS/ISA Card and click Next.
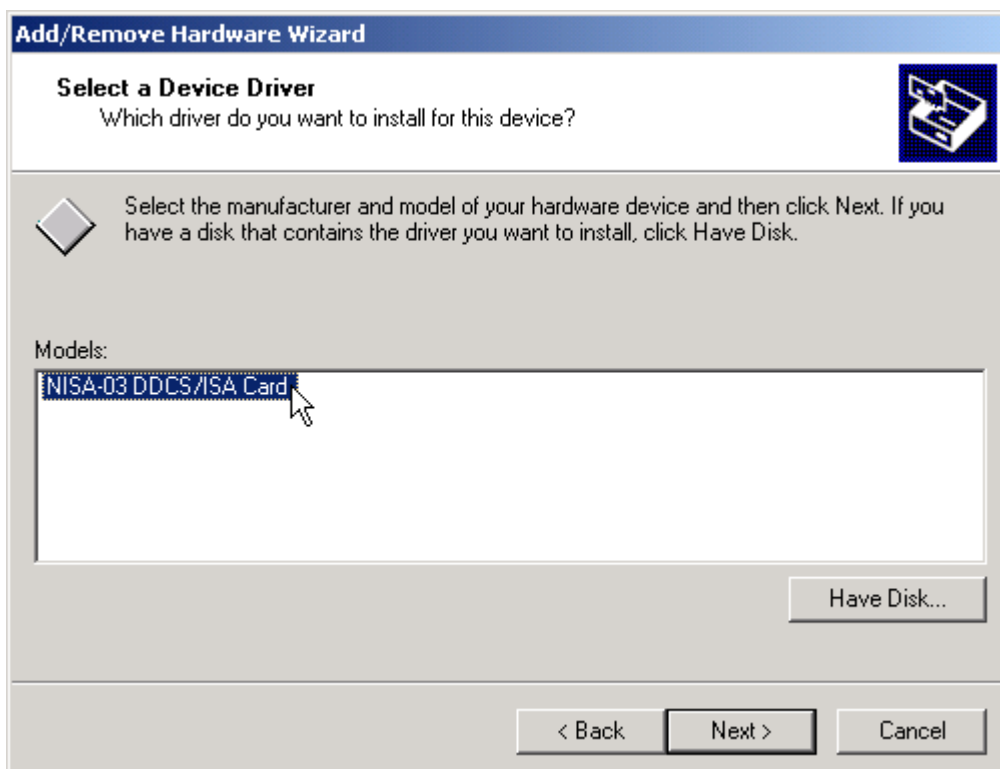
Because NISA-03 DDCS/ISA board is not a plug and play device, the wizard tells you that it cannot determine settings of the device. Click OK.
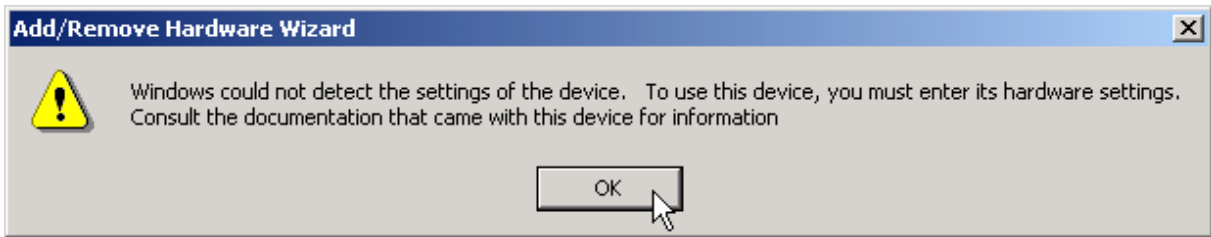
The wizard shows you now resources of NISA-03 DDCS/ISA board. If there are no conflicts in I/O range 0280 – 029F, click OK. If there is a conflict with a plug and play device, Windows plug and play system probably resolves it in the next restart of your computer. So, you can still click OK. Otherwise you have either to use another configuration (0001) or reconfigure the conflicting device. Please see Troubleshooting for details of handling device conflicts.
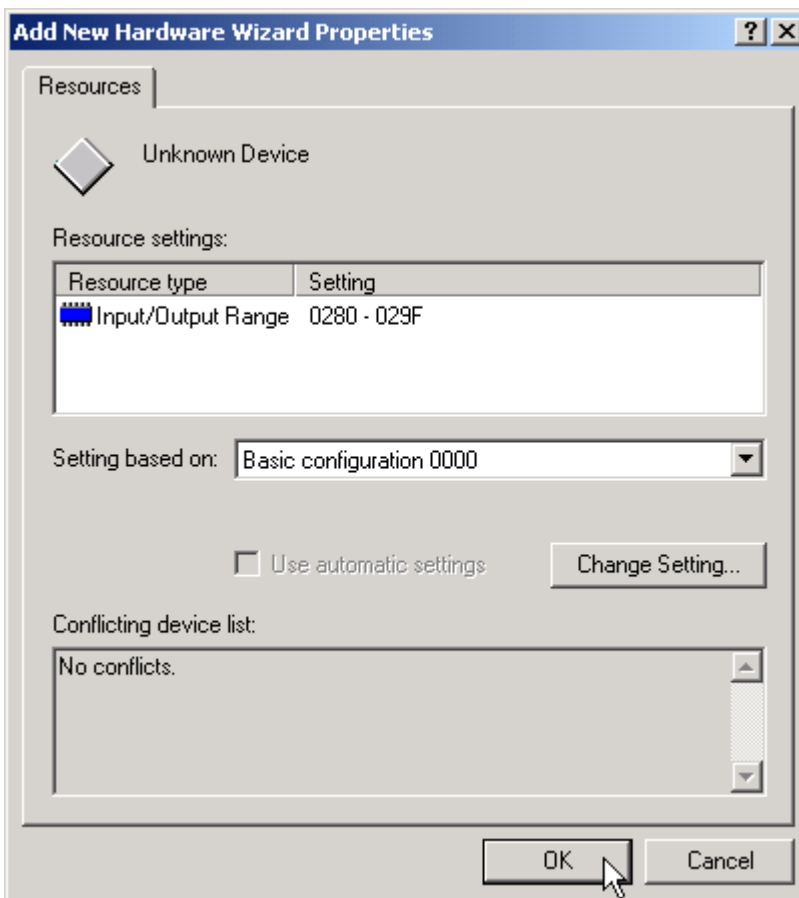
The wizard asks your permission to install the driver. Click Next.

Add/Remove Hardware Wizard

Start Hardware Installation
Windows is ready to install drivers for your new hardware.

NISA-03 DDCS/ISA Card

Windows will use default settings to install the software for this hardware device. To install the software for your new hardware, click Next.

< Back   Next >   Cancel
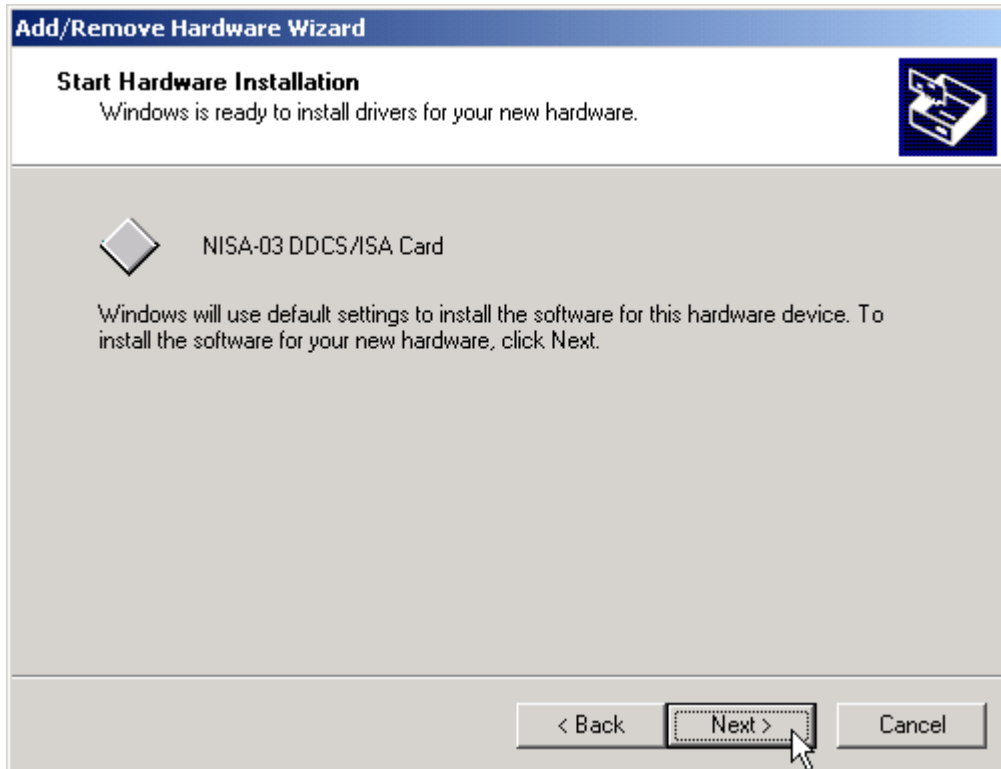
When installing of the driver is finished, you have still the opportunity to view or change the I/O range. When you are done, click Finish.
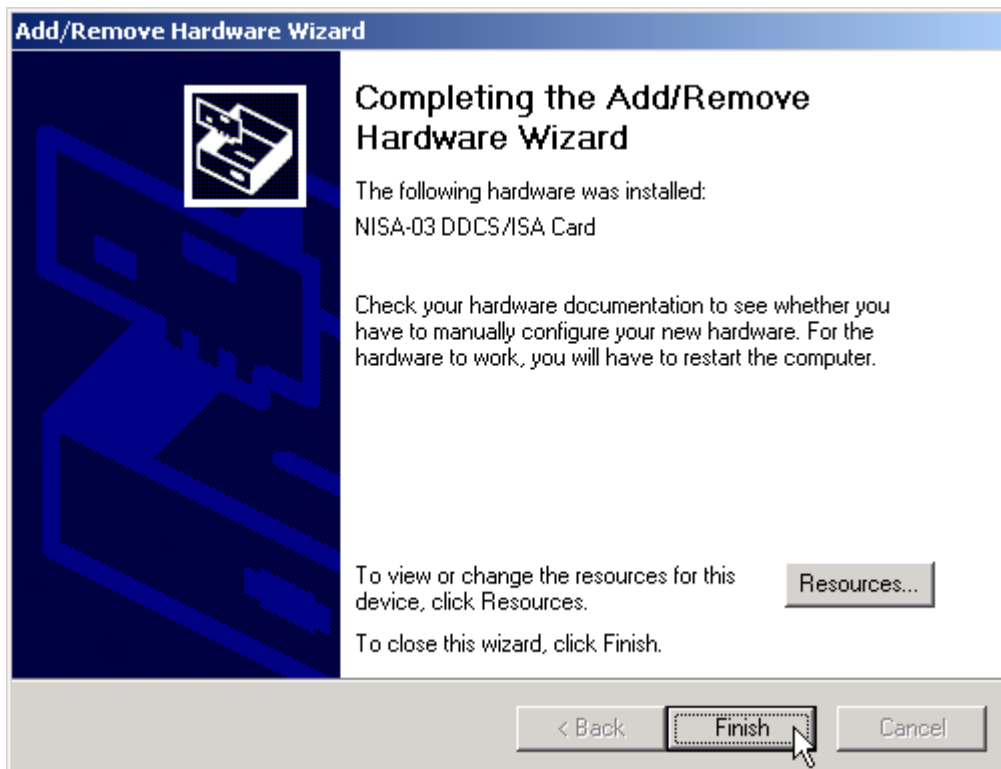
Add/Remove Hardware Wizard

Completing the Add/Remove Hardware Wizard

The following hardware was installed:
NISA-03 DDCS/ISA Card

Check your hardware documentation to see whether you have to manually configure your new hardware. For the hardware to work, you will have to restart the computer.

To view or change the resources for this device, click Resources.

Resources...

To close this wizard, click Finish.

< Back   Finish   Cancel

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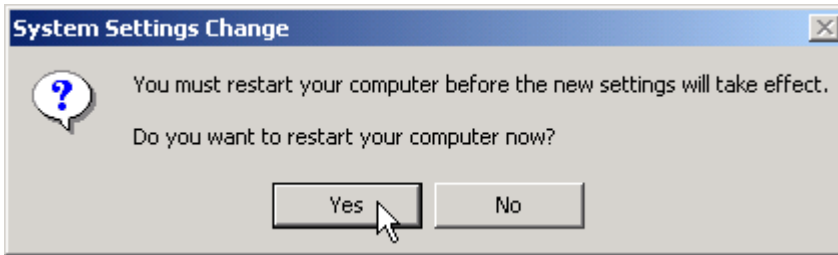
We recommend that before installing the physical hardware you let your computer to restart. After that you should check that the driver has no problems. You can do it by using the Device Manager (see Troubleshooting). If there are no problems, you can shut down your computer, change the DIP switches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

Windows XP

DriveWare SP 0407 includes Windows XP plug and play compatible driver for the NISA-03 DDCS/ISA board. The driver is copied into the hard disk when DriveWare SP 0407 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 DriveWare SP 0407 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.
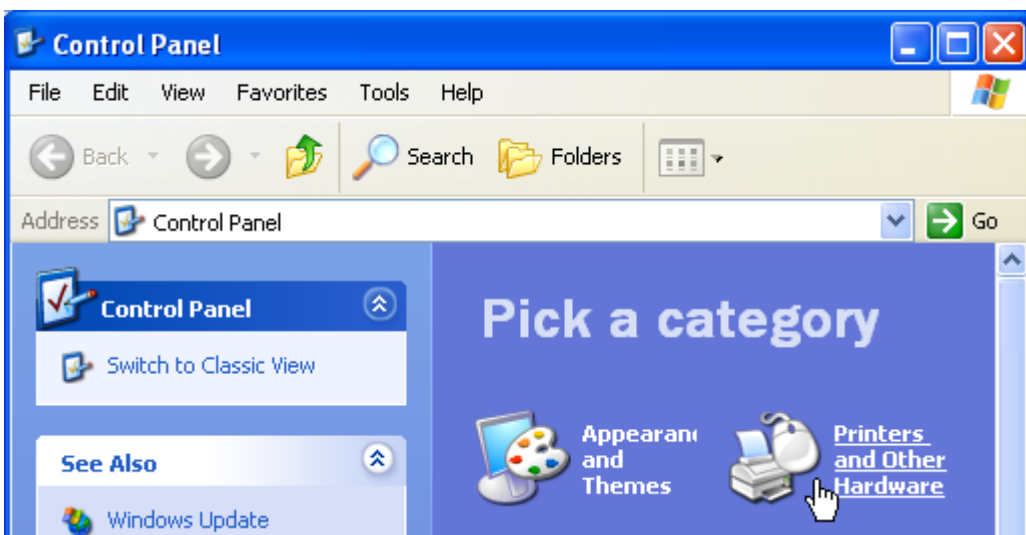
Click Add Hardware.
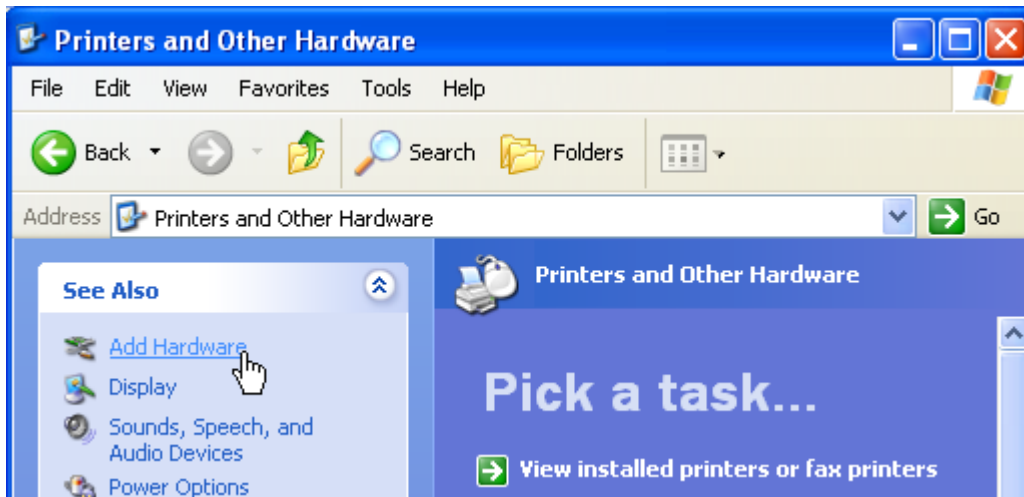
The Add Hardware Wizard starts. Click Next.

Wait while the wizard is searching for new plug and play devices.
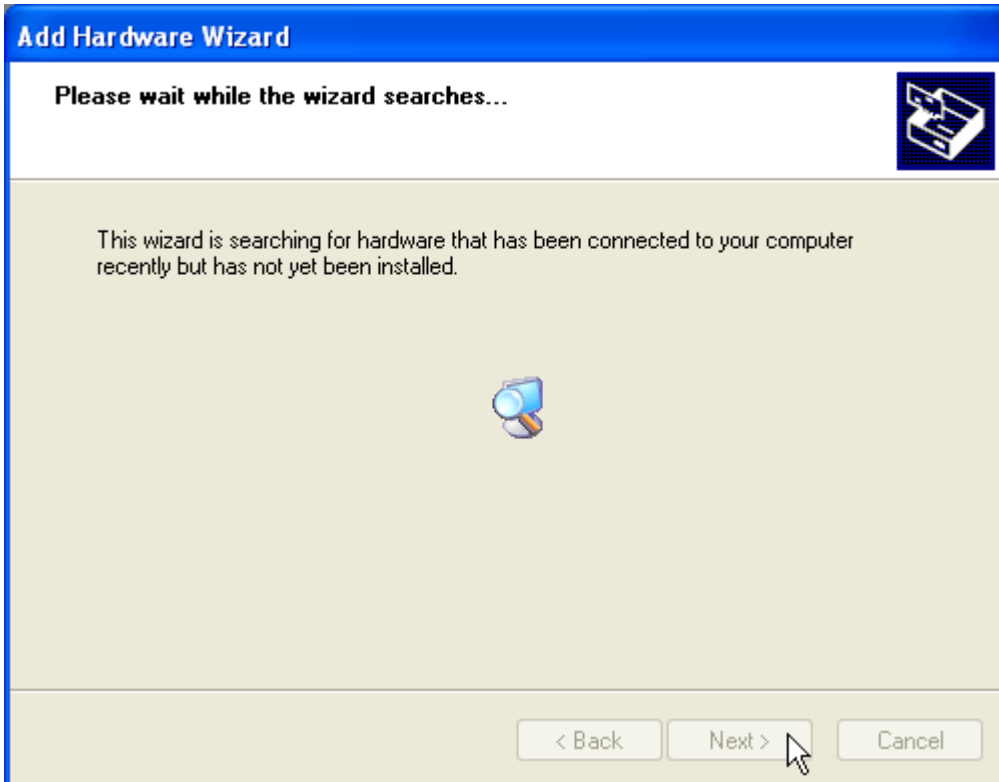
If a new plug and play device was found, you have to install it before you can install the NISA-03 DDCS/ISA board driver.

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.
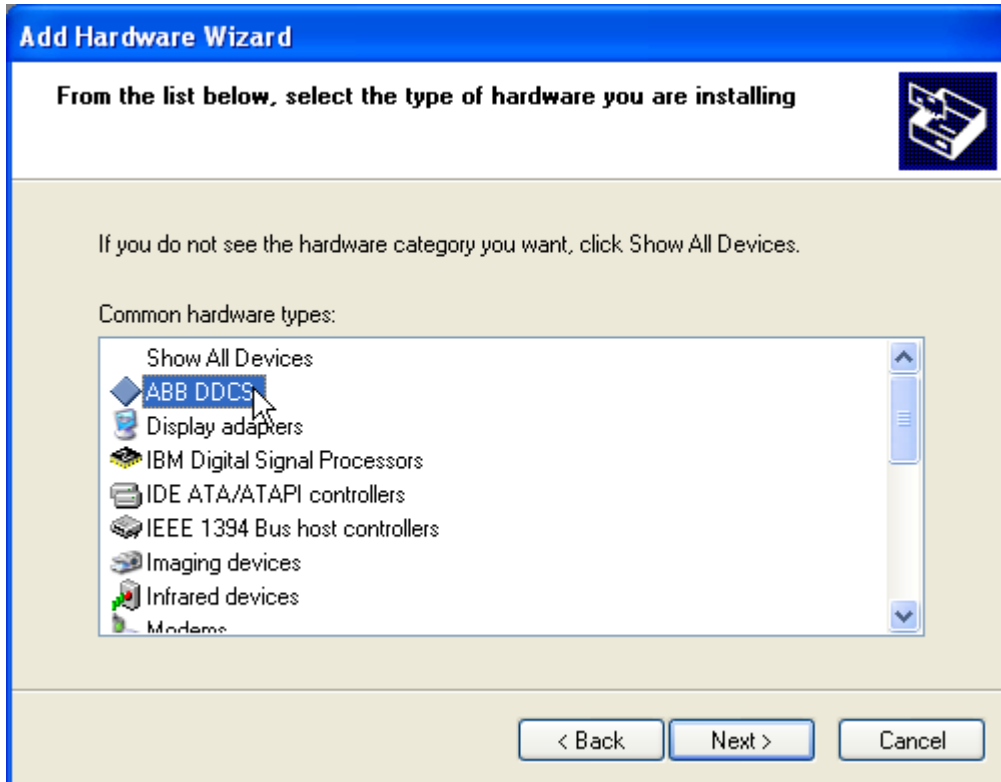
Please scroll the list of installed hardware and select Add a new hardware device. Click Next.
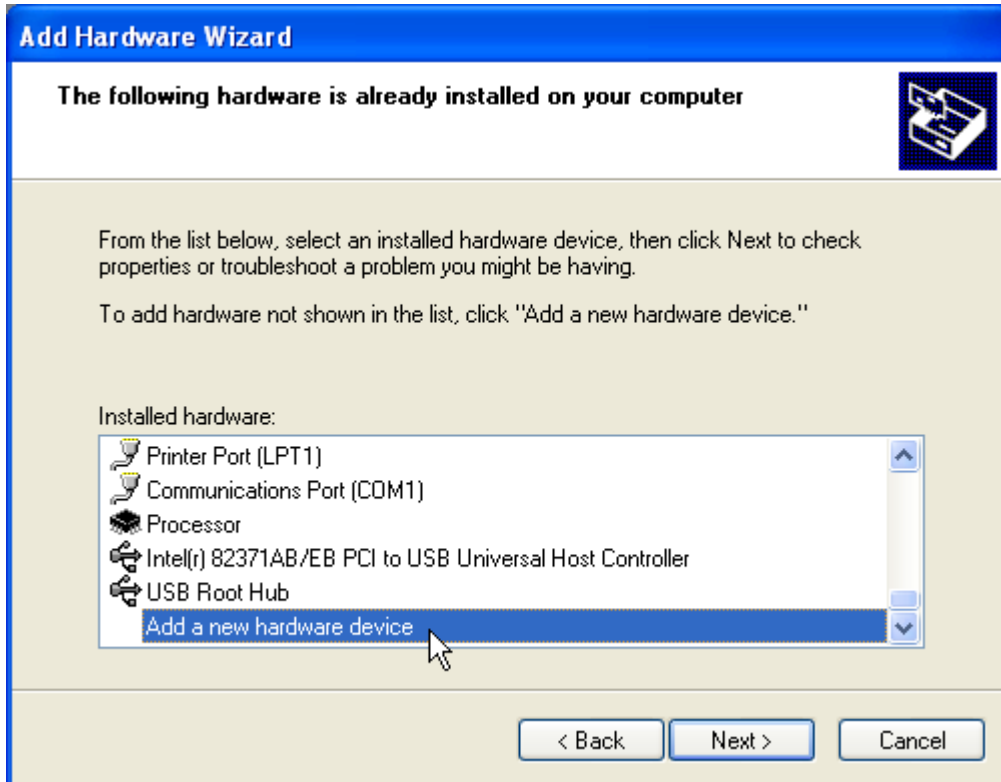
Because NISA-03 DDCS/ISA board is not a plug and play device, please select Install the hardware that I manually select from a list (Advanced). Click Next.
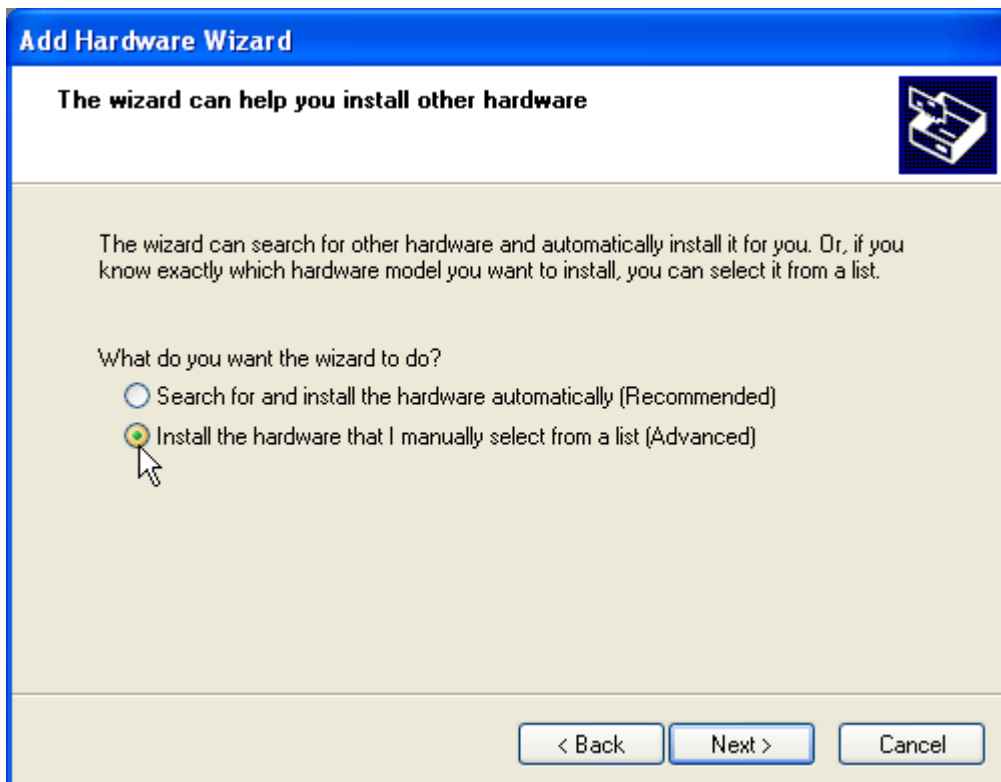
Select hardware type ABB DDCS and click Next.

Select the model NISA-03 DDCS/ISA Card and click Next.
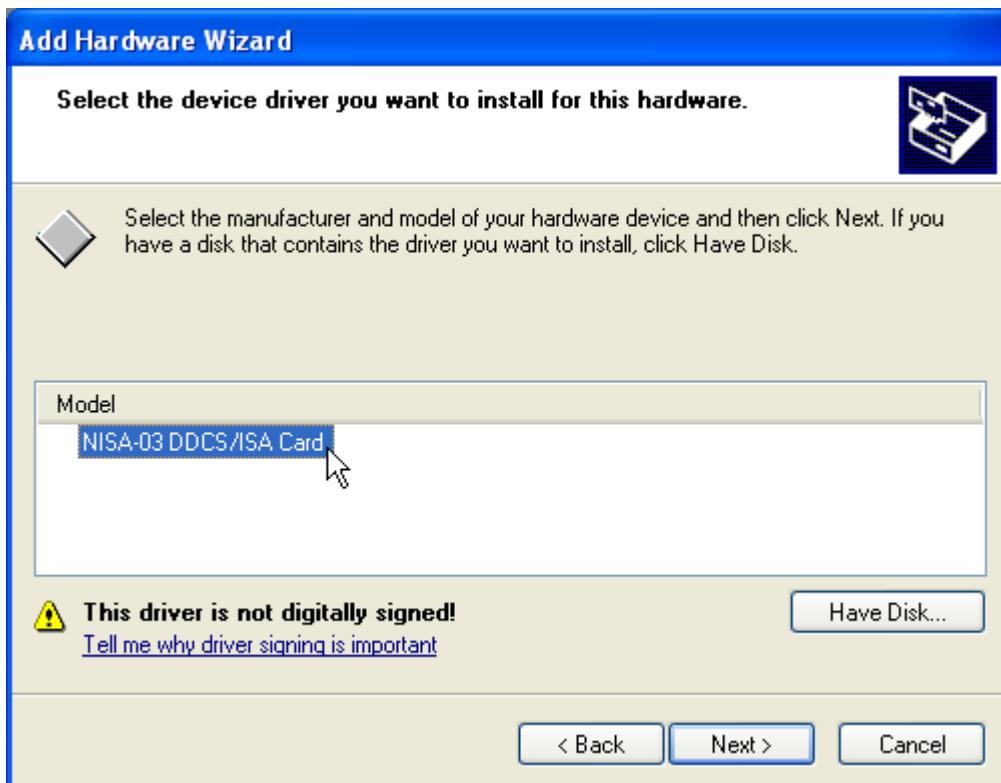
Now the wizard is ready to install the driver. Click Next.
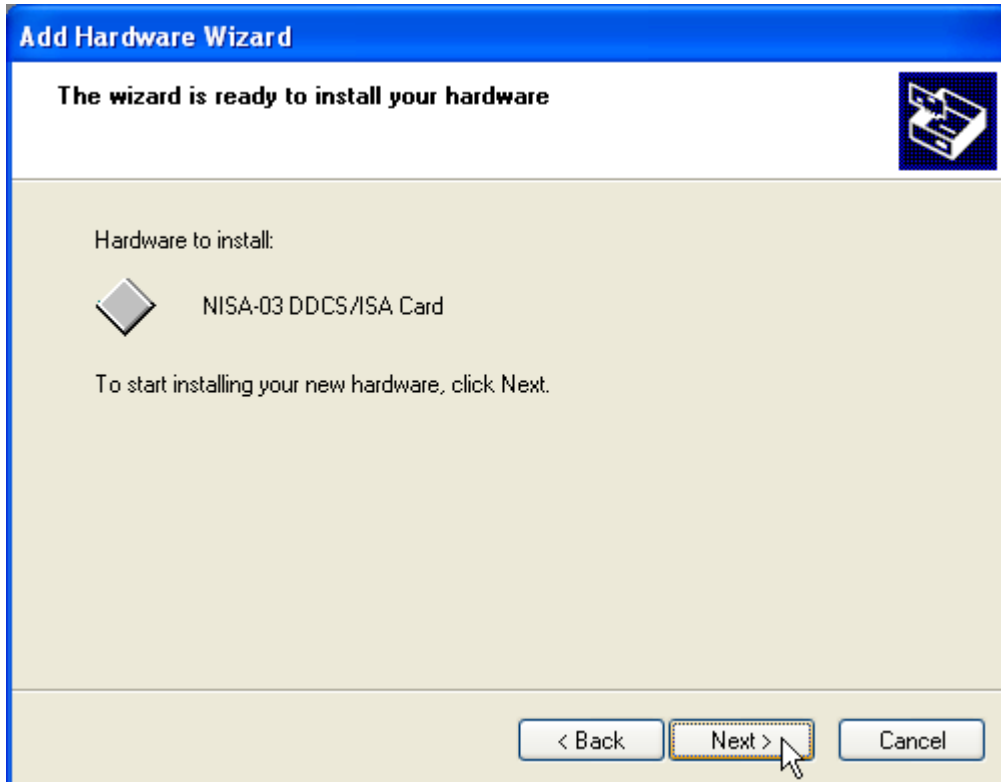
Because NISA-03 DDCS/ISA board is not a plug and play device, the wizard tells you that it cannot determine settings of the device. Click View or change resources for this hardware (Advanced).

To set the configuration (I/O range) of the NISA-03 DDCS/IS board, click Set Configuration Manually.
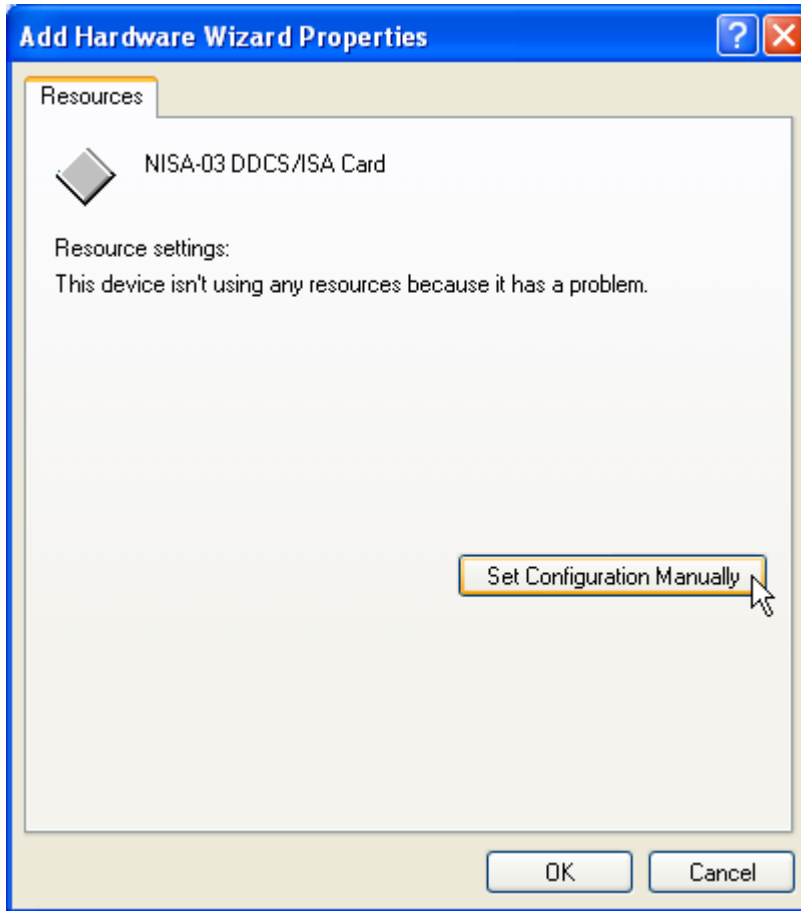
The wizard shows you now resources of NISA-03 DDCS/ISA board. If there are no conflicts in I/O range 0280 – 029F, click OK. If there is a conflict with a plug and play device, Windows plug and play system probably resolves it in the next restart of your computer. So, you can still click OK. Otherwise you have either to use another configuration (0001) or reconfigure the conflicting device. Please see Troubleshooting for details of handling device conflicts.
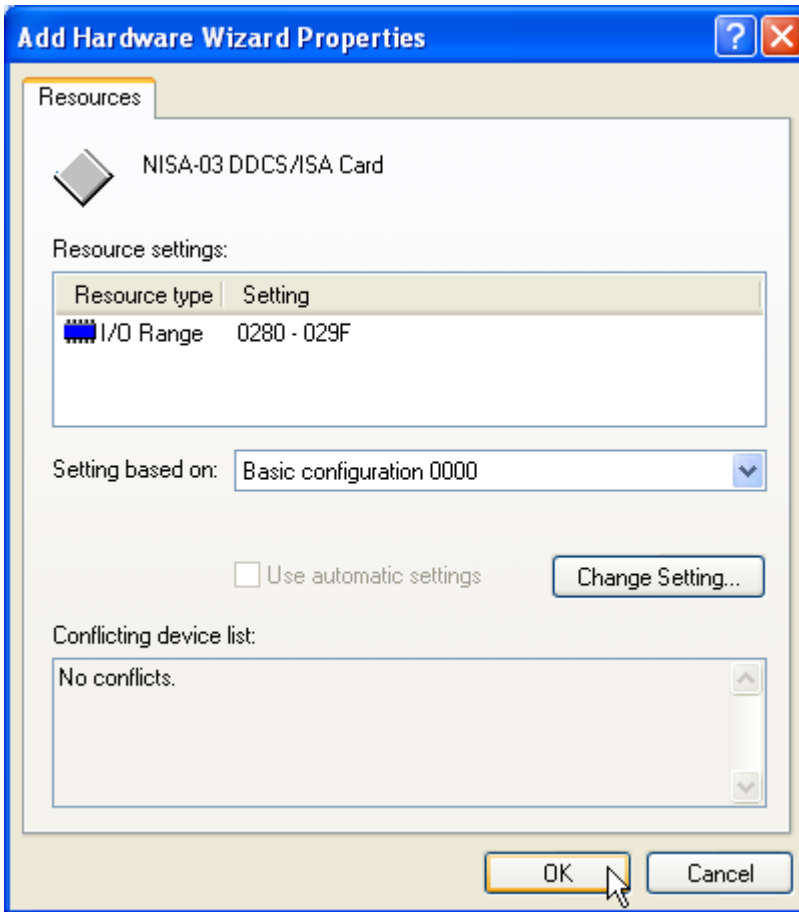
Now that the configuration has been selected, you can click Finish.

Finally, the Windows plug and play system request your confirmation to restart your computer.
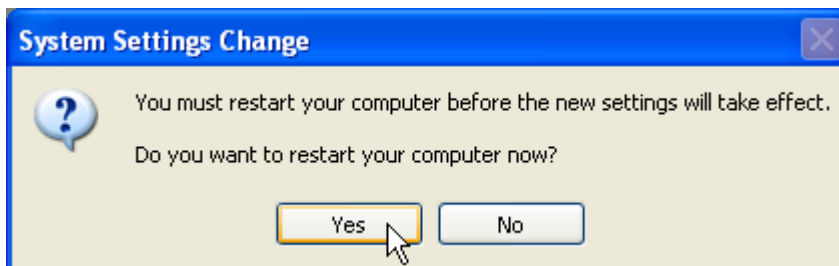
We recommend that before installing the physical hardware you let your computer to restart. After that you should check that the driver has no problems. You can do it by using the Device Manager (see Troubleshooting). If there are no problems, you can shut down your computer, change the DIP switches 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 2.11) to do troubleshooting. NISADUMP.EXE can be found in the installation directory, in one of its sub-directories, or in the directory DriveOPC. Directory DriveOPC is a sub-directory of the parent of the DriveWindow installation directory, typically C:\Program Files\DriveWare\DriveOPC. Note that NISADUMP.EXE is not installed with DriveDebug.

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 DriveWare SP 0407 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.
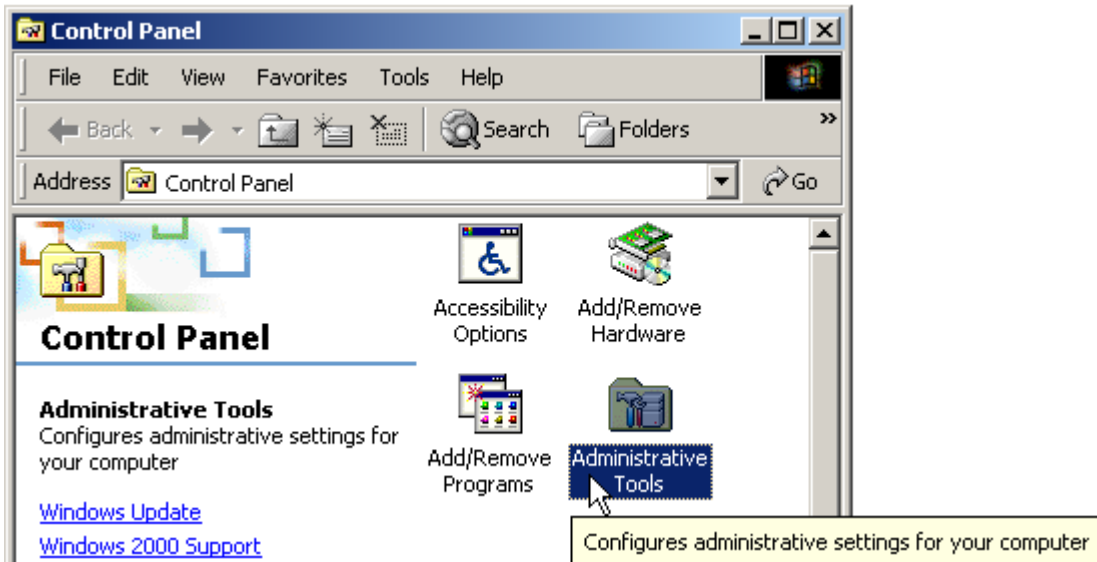
If an I/O range contains only FFs, it is probably free. Otherwise, the area is occupied by some board.

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.
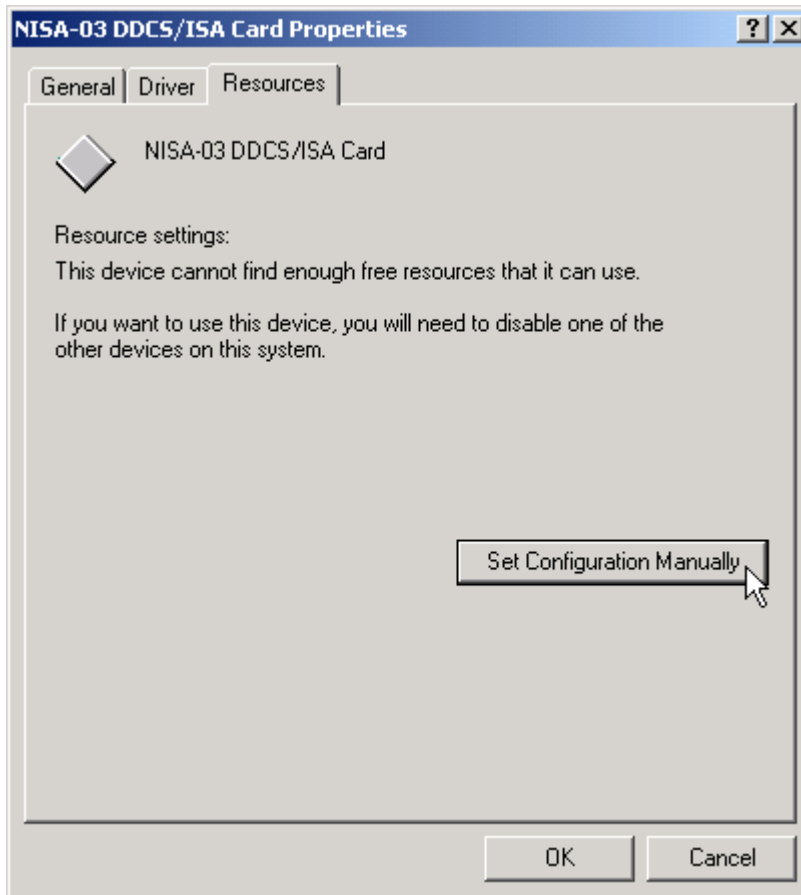

Double click Computer Management.

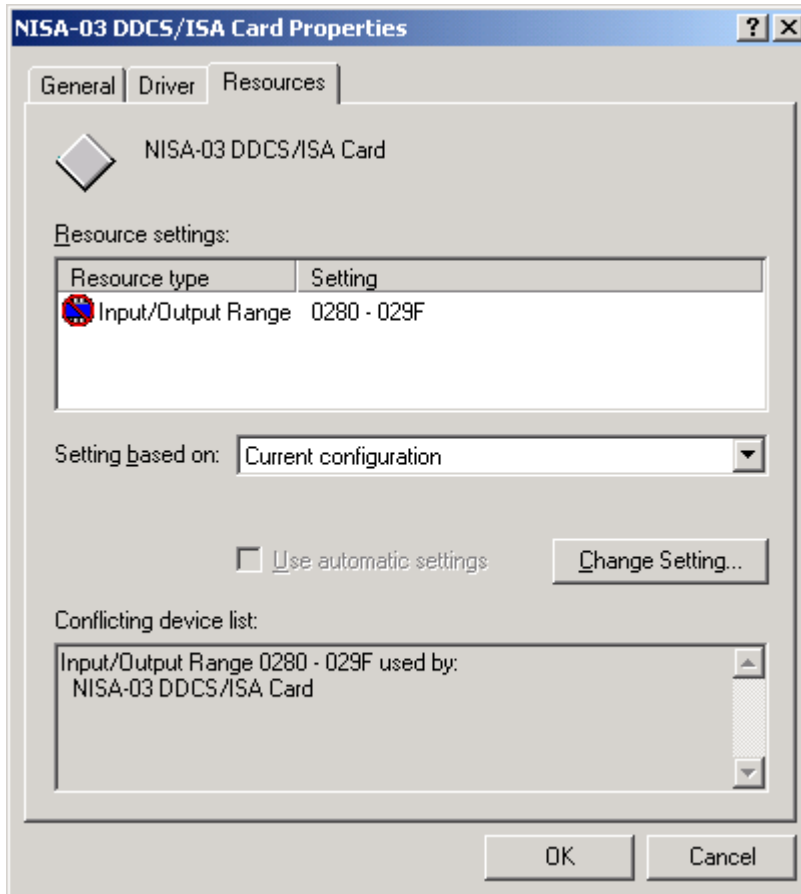From the tree in the left pane, select Device Manager.

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.

NISA-03 DDCS/ISA Card Properties

General | Driver | Resources

NISA-03 DDCS/ISA Card

Resource settings:
This device cannot find enough free resources that it can use.

If you want to use this device, you will need to disable one of the
other devices on this system.

Set Configuration Manually

OK   Cancel

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.
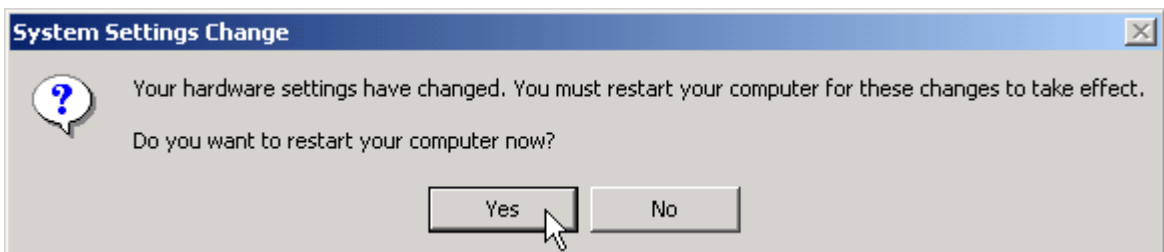
If the selected configuration has no conflicts, click OK.

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

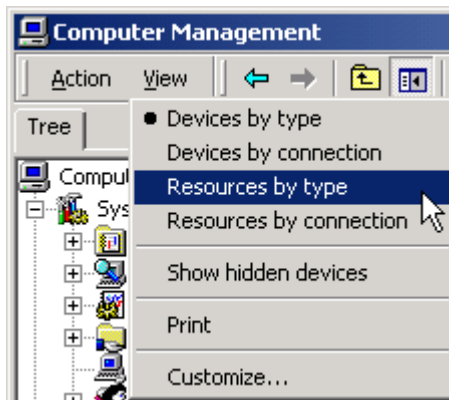If the conflicting device is a plug and play device, the conflict may disappear, when you just restart your computer.

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.

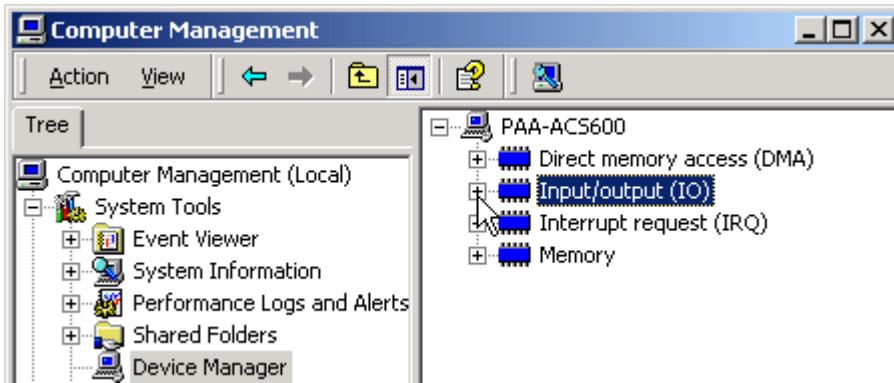We show here as an example, how to reconfigure a conflicting plug and play device.

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.
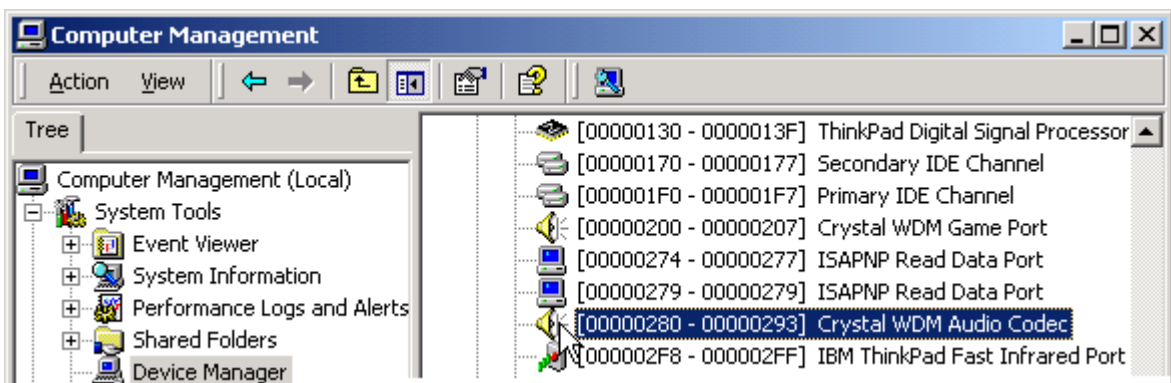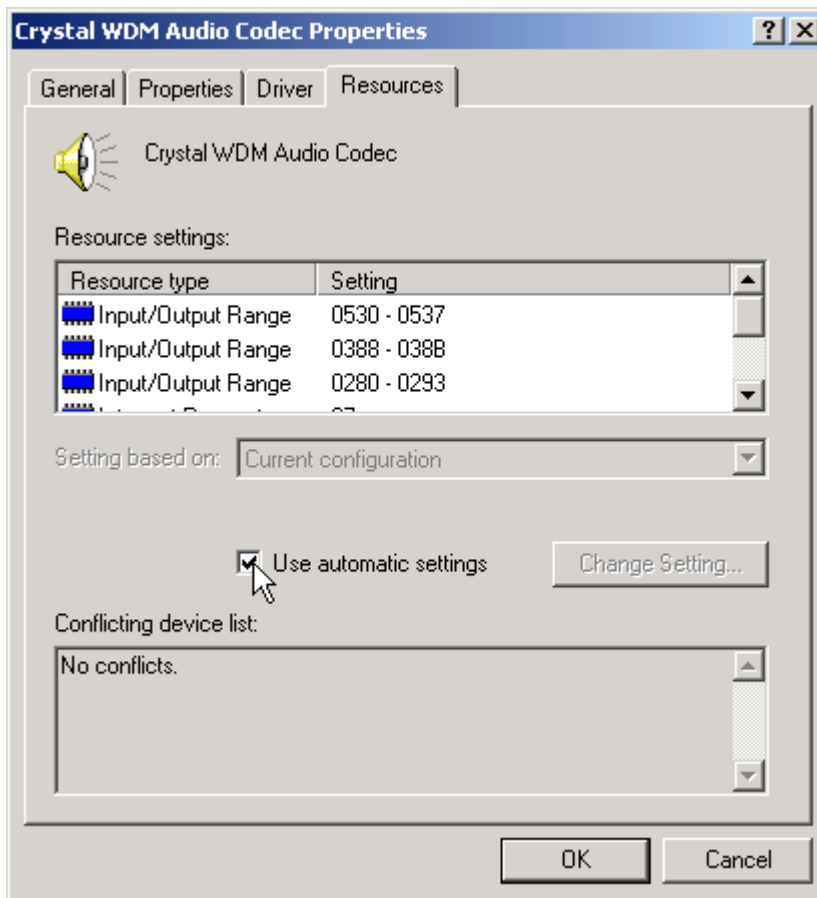
Select Resources by type from the View menu.

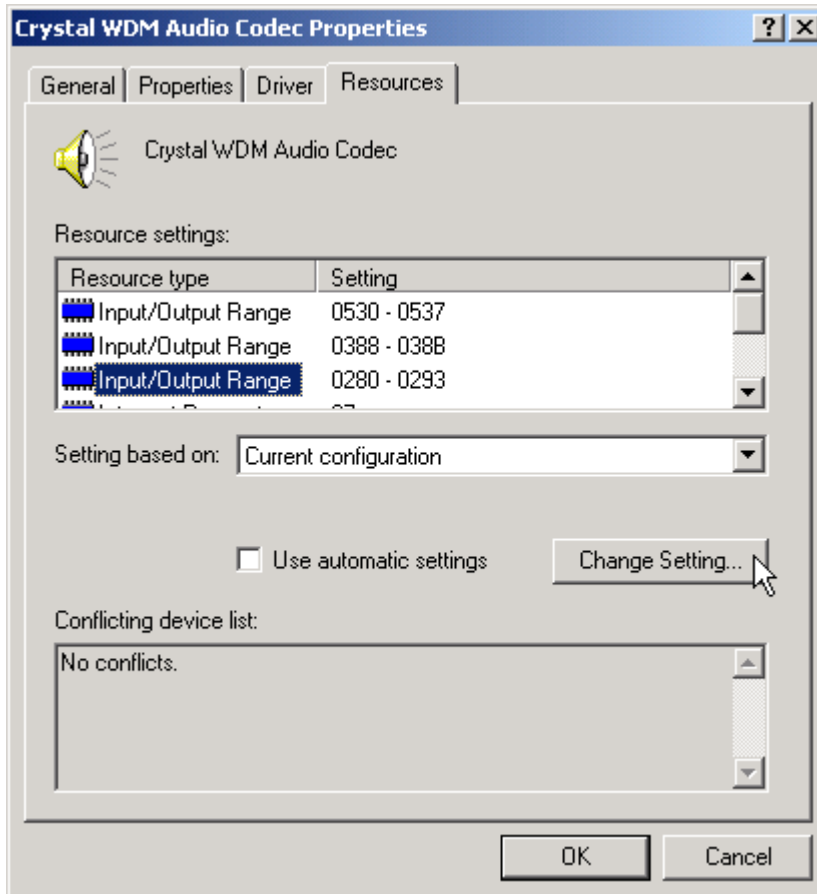Click the plus sign in front of the Input/output (IO) to expand the I/O addresses.

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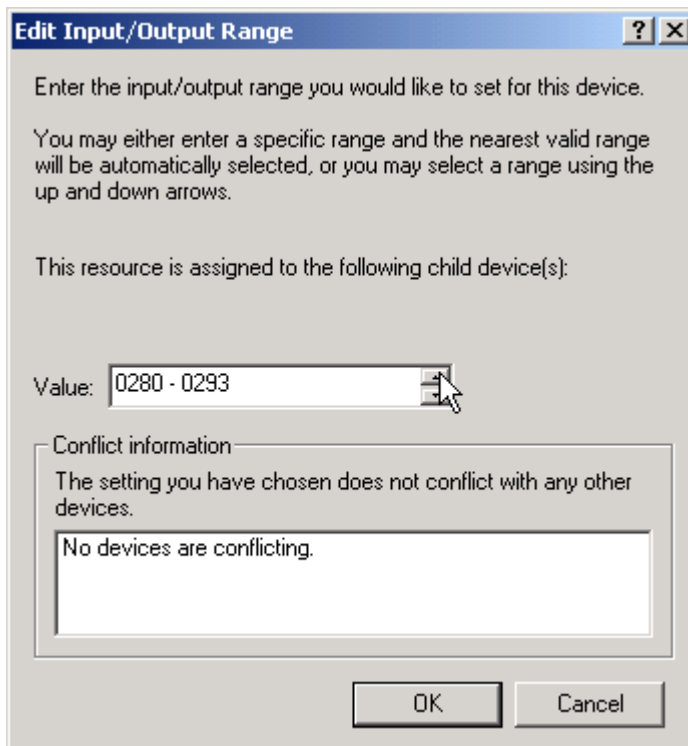
Whatever was the way you got the properties of the conflicting device, click the Resources tab and unselect Use automatic settings.
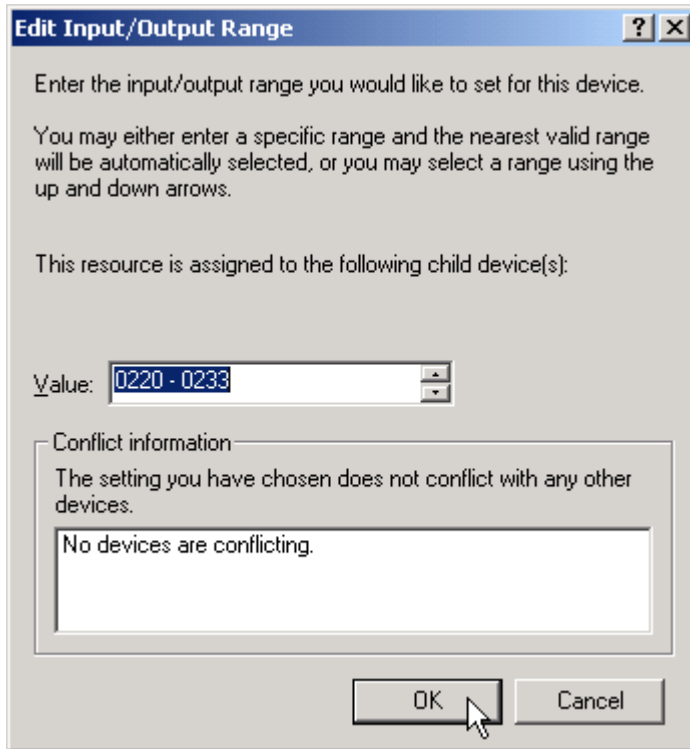
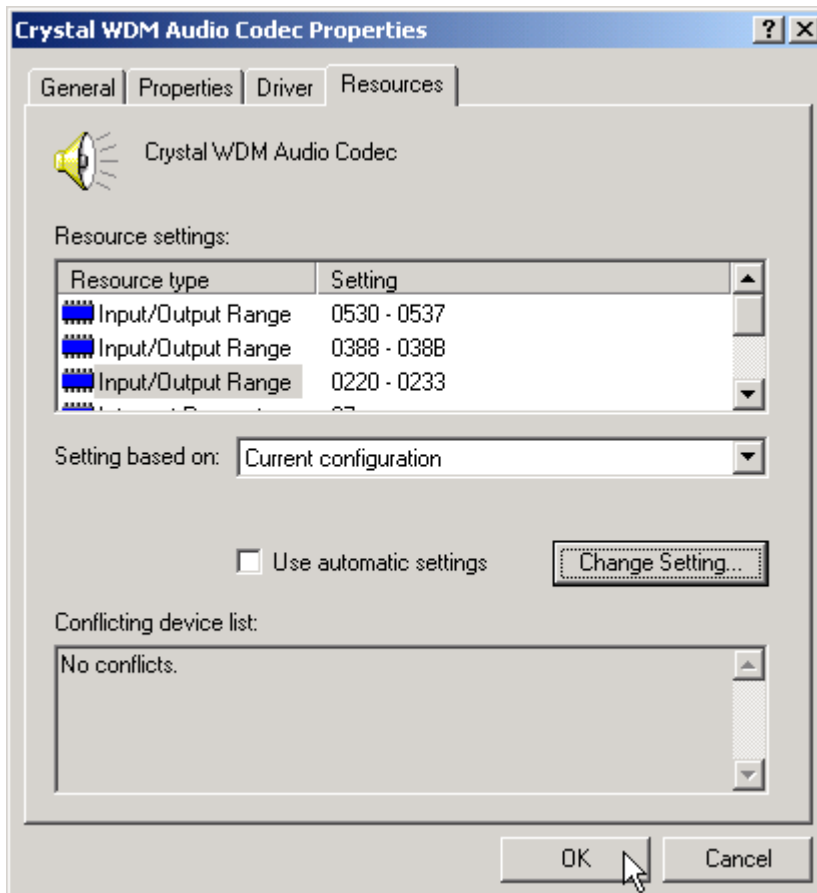Select the conflicting Input/Output Range from Resource setting and click Change Setting.
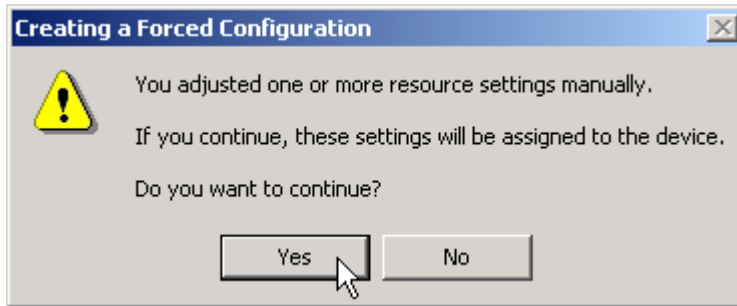

Scroll for another I/O range.

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.
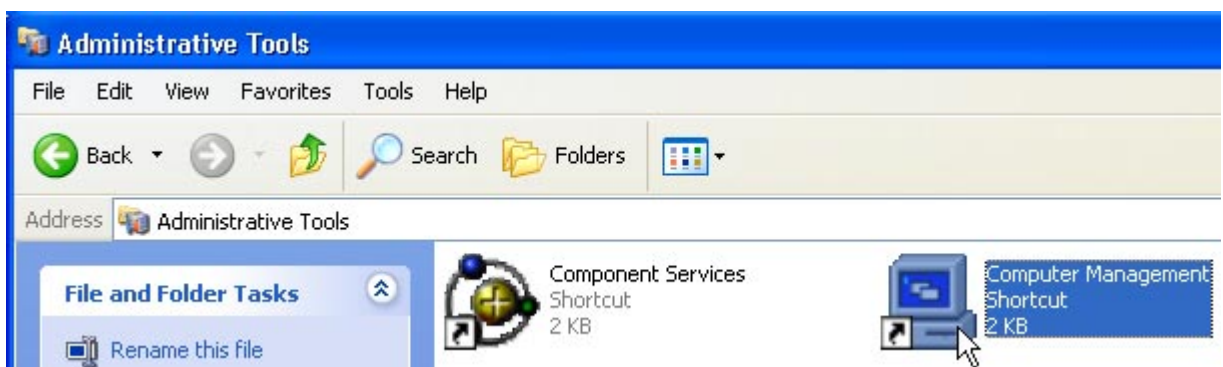
To start the Device Manager, start first the Control Panel program, and then click Performance and Maintenance.
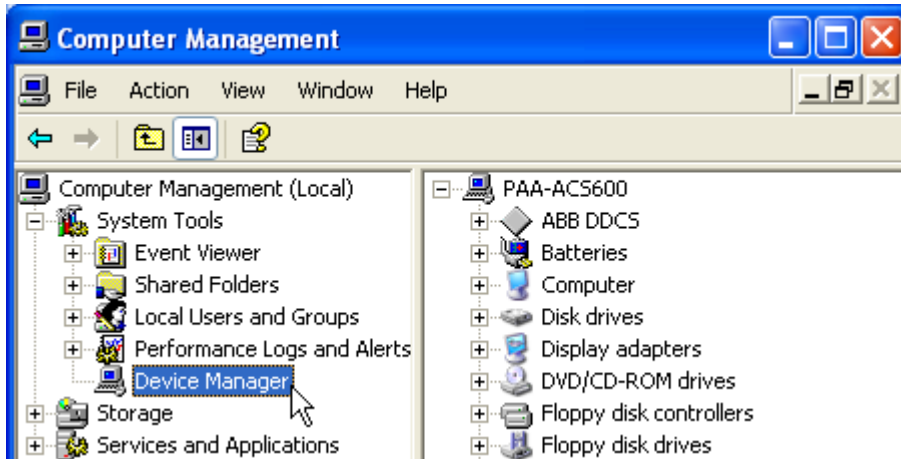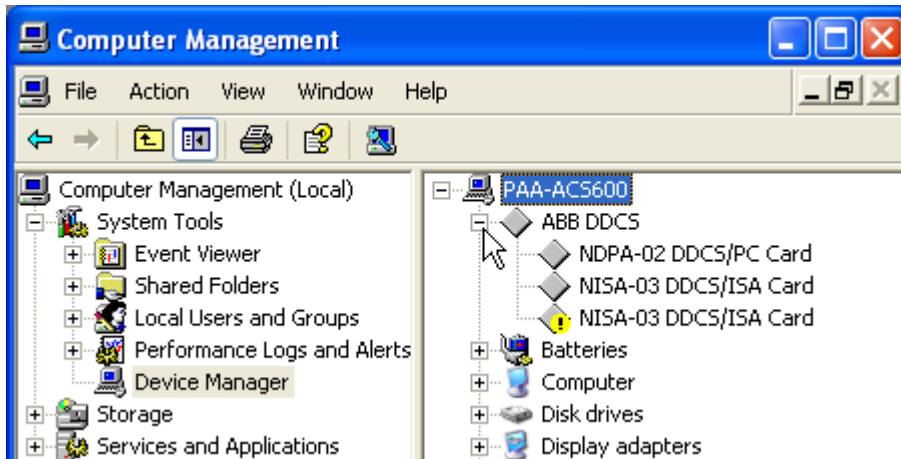
Click Administrative Tools.
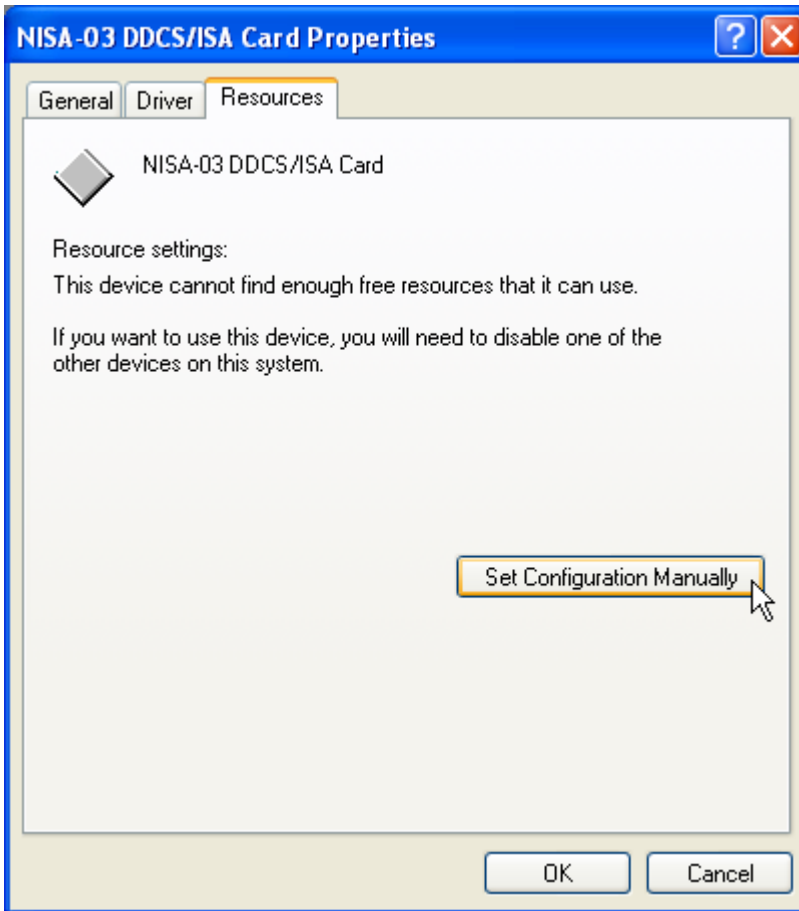

Double click Computer Management.

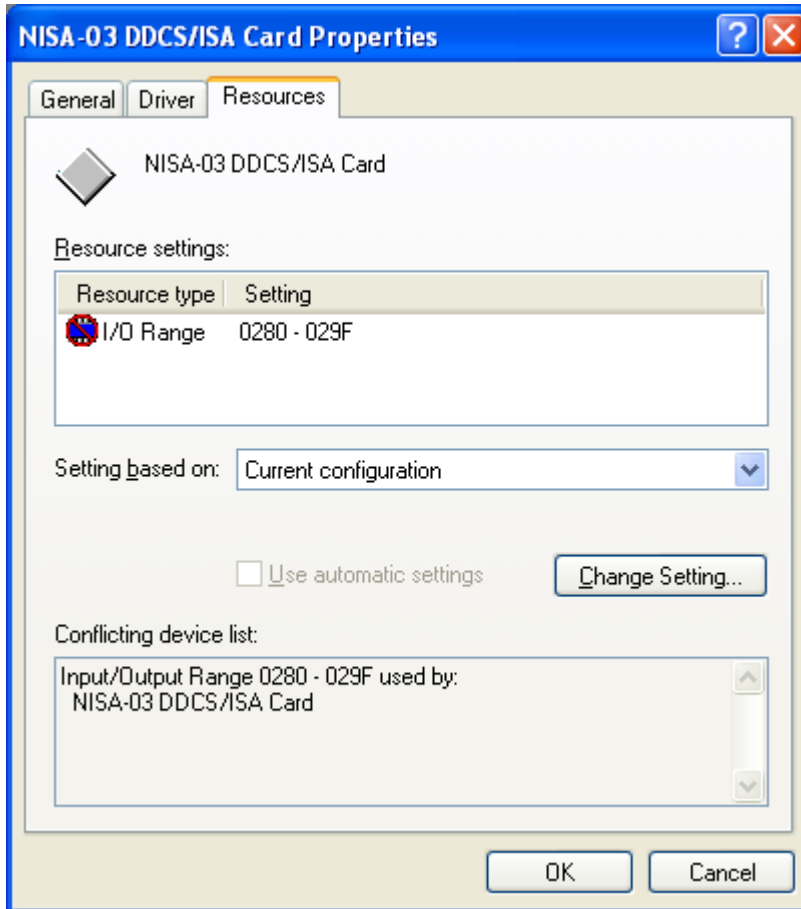From the tree in the left pane, select Device Manager.

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.

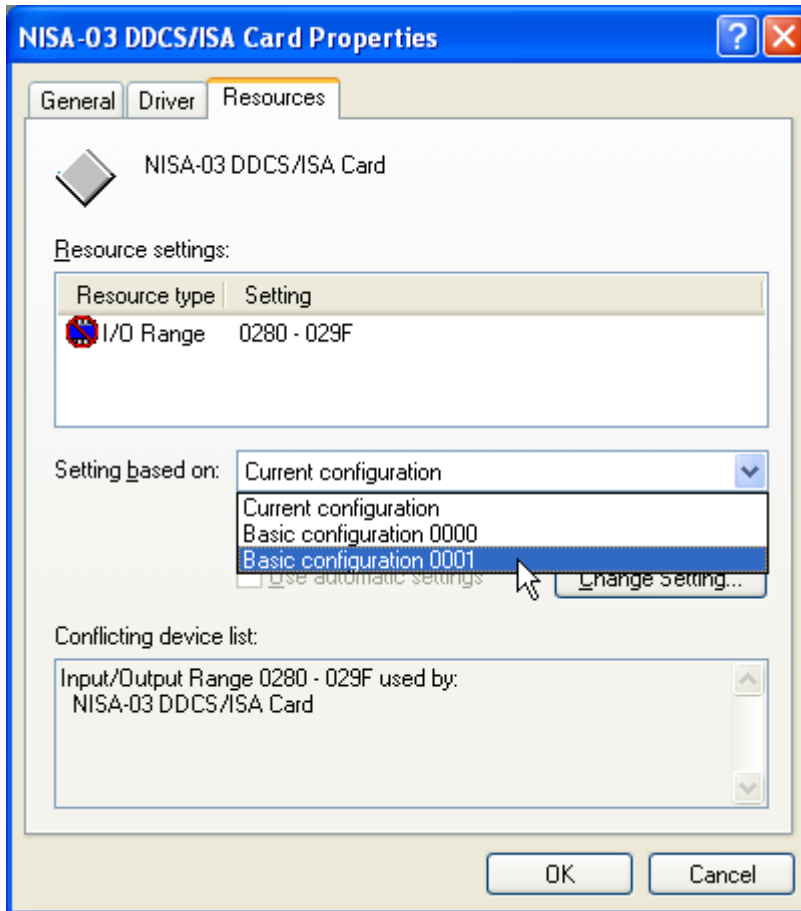Now you are able to see, which device is conflicting.

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.

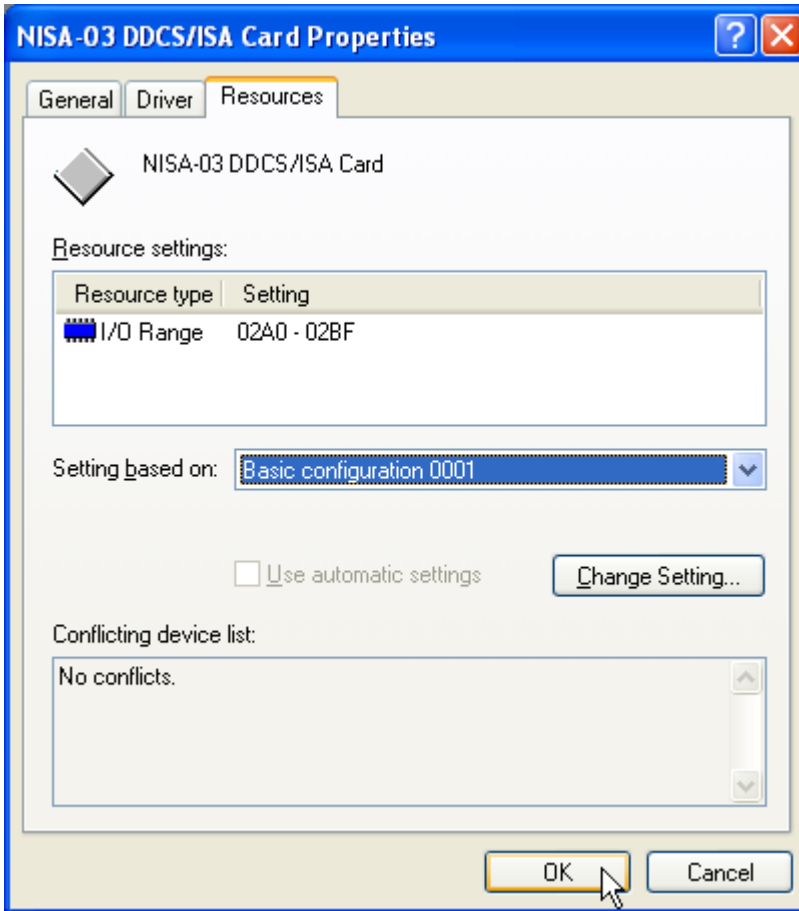**Conflict with a non plug and play device**

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.
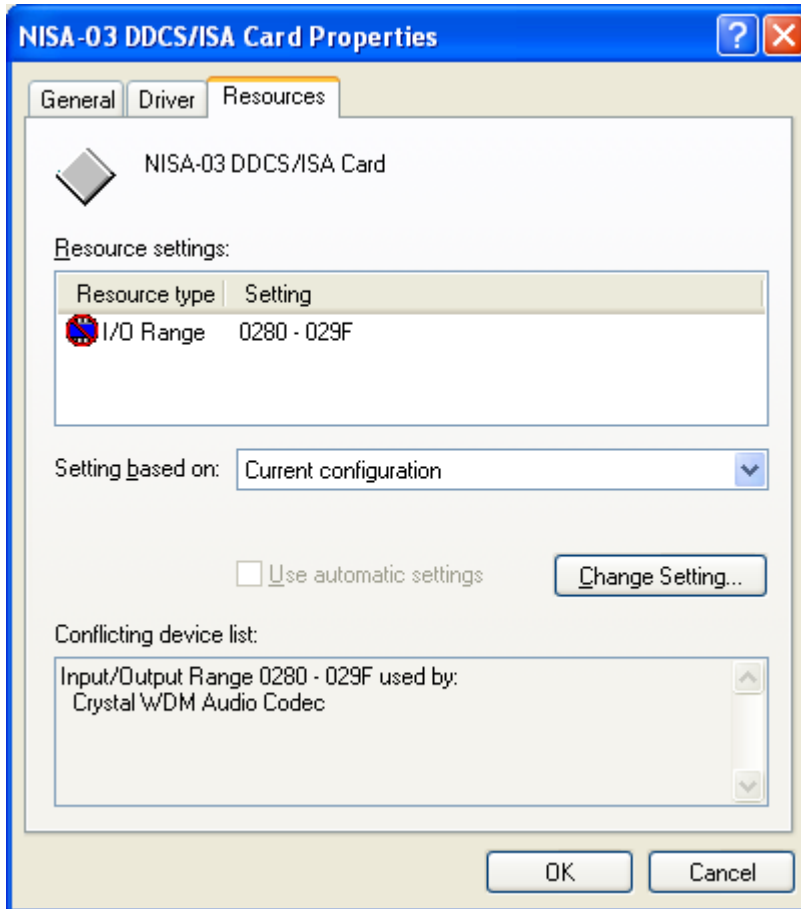

Conflict with a plug and play device

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.

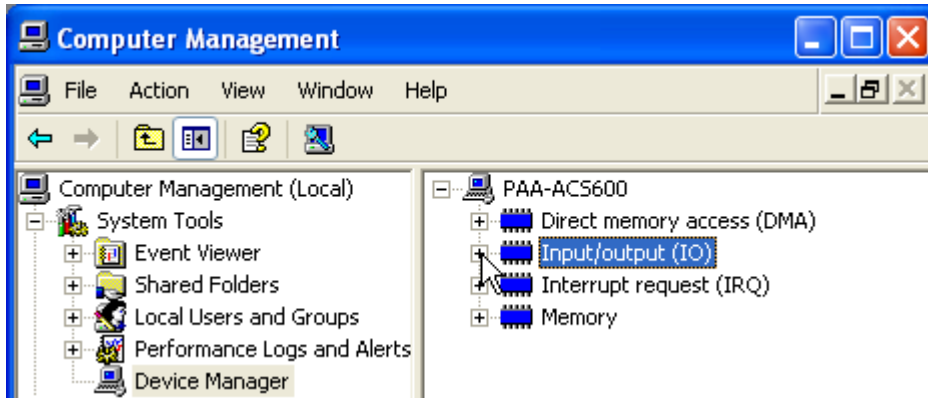We show here as an example, how to reconfigure a conflicting plug and play device.

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.

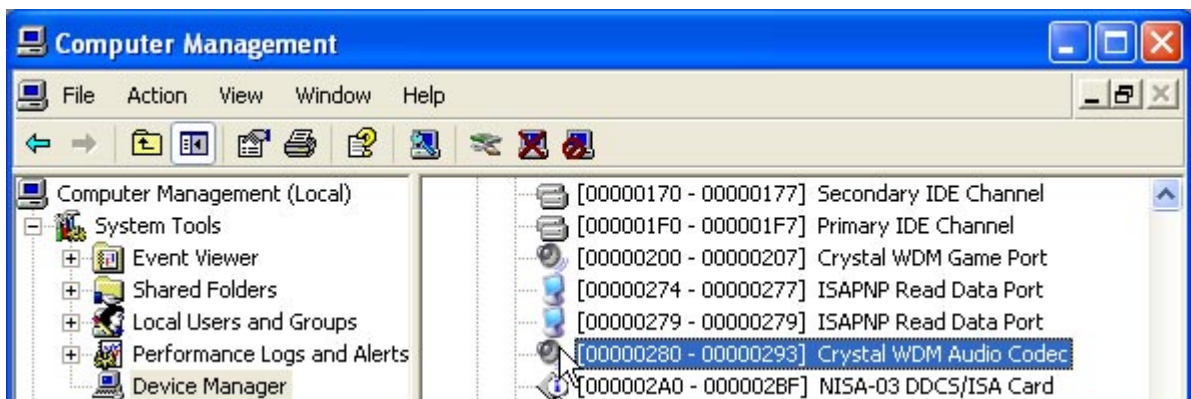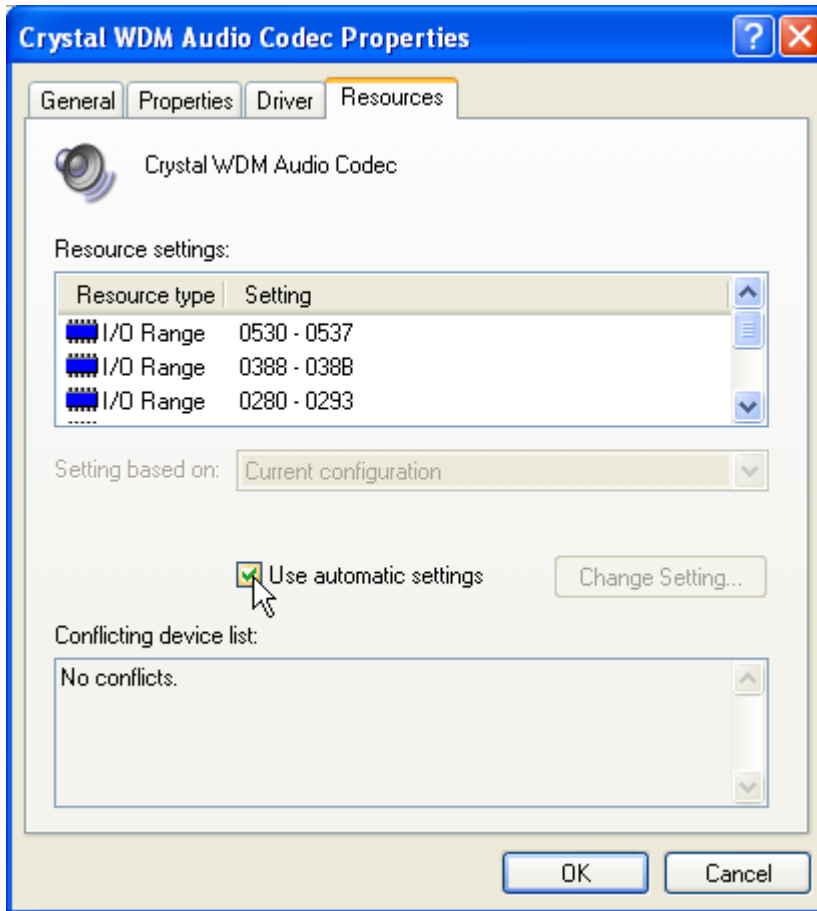Select Resources by type from the View menu.

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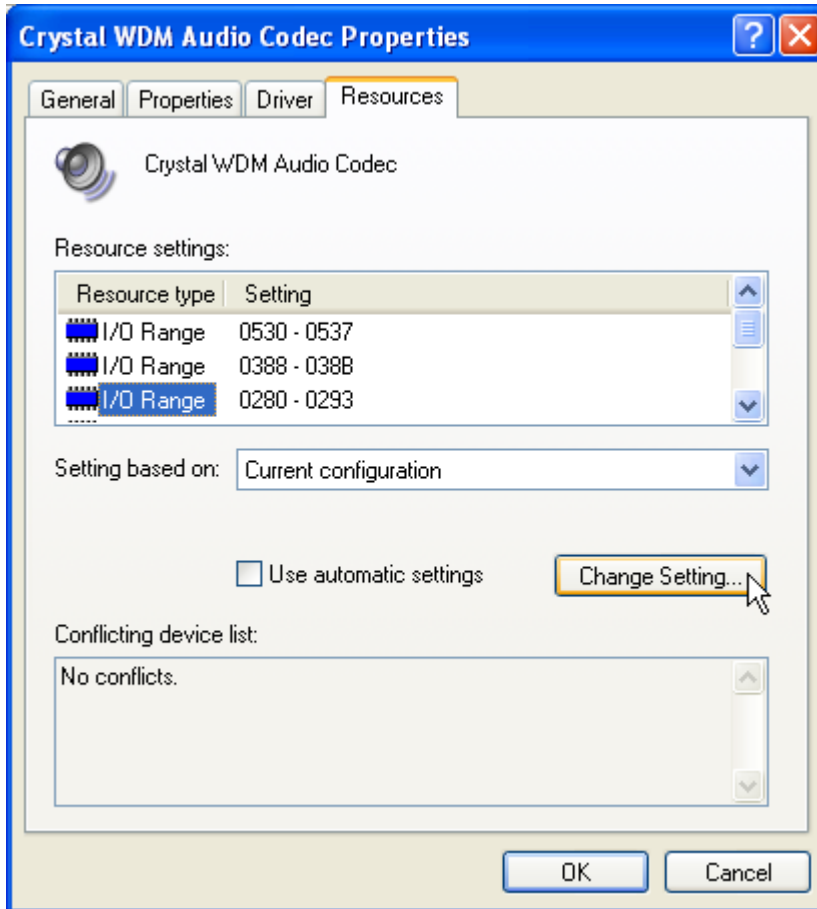

Scroll until you see the conflicting I/O range and double click to see properties of the conflicting device.
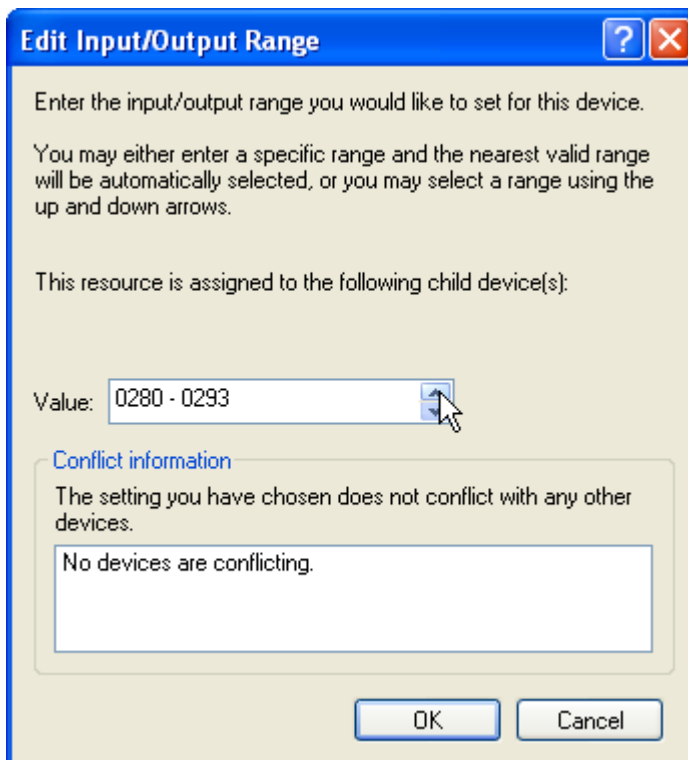
Whatever was the way you got the properties of the conflicting device, click the Resources tab and unselect Use automatic settings.
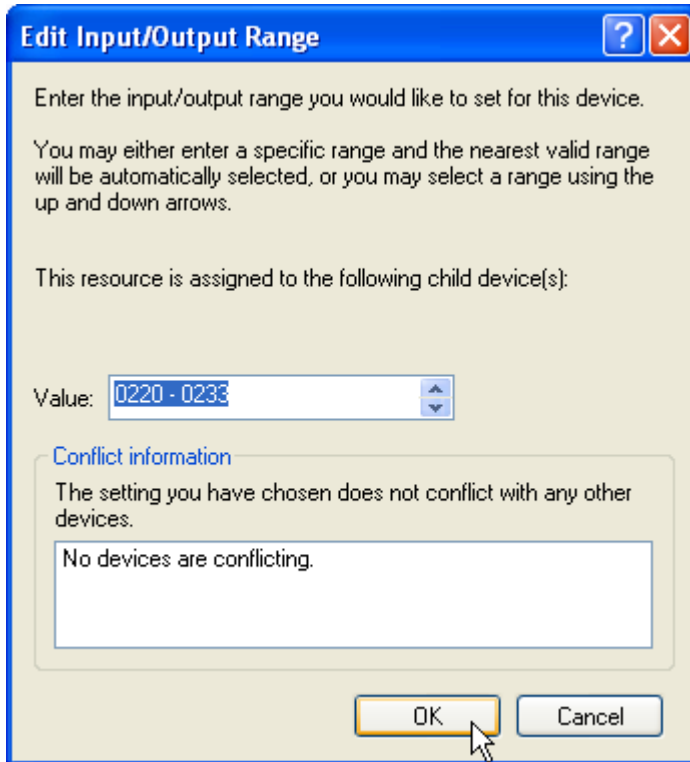
Select the conflicting Input/Output Range from Resource setting and click Change Setting.
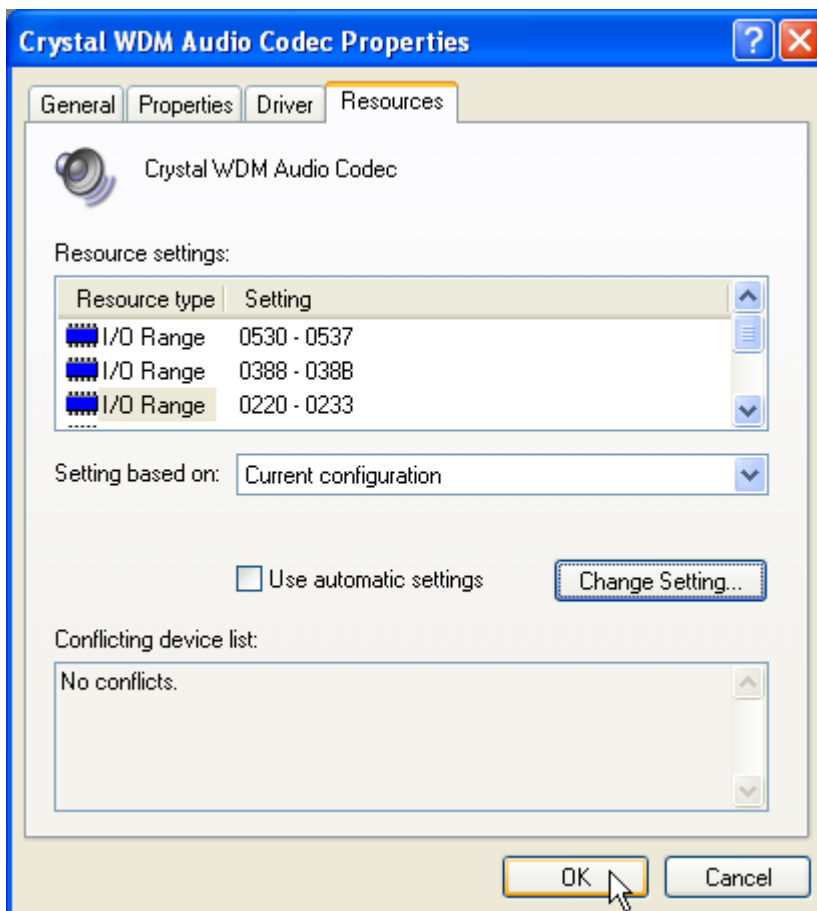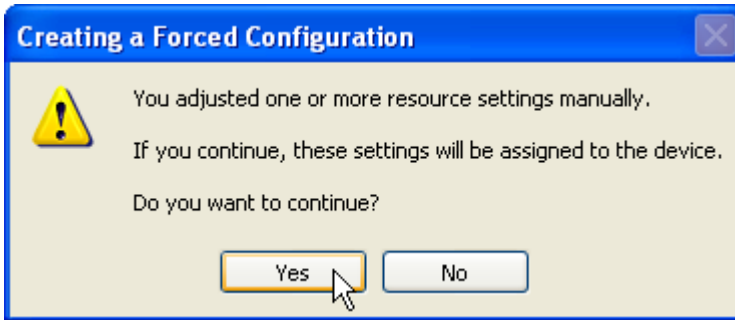

Scroll for another I/O range.

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 a Drive*Ware*® application 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

DriveWare SP 0407 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 DriveWare SP 0407 is installed.
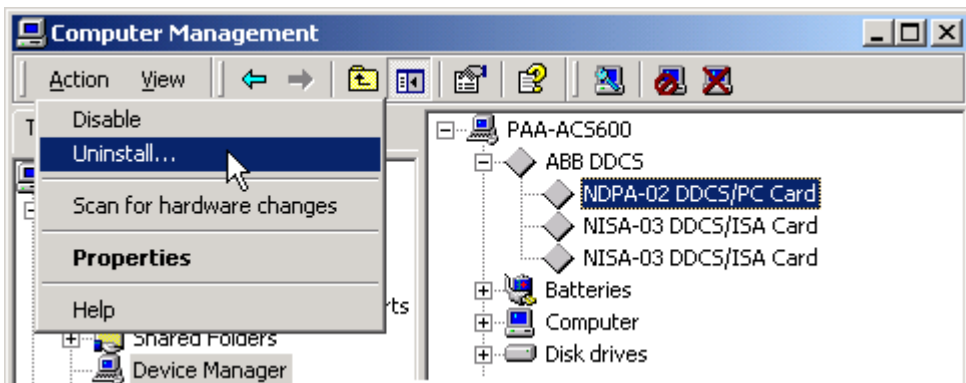
Windows 2000 plug and play system starts installing the NDPA-02 DDCS/PCMCIA driver the first time an NDPA-02 DDCS/PCMCIA board is found in a PCMCIA slot. Installing of the NISA-03 DDCS/ISA driver must be requested manually.

If you ever uninstall a Drive*Ware*® application, 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 the Drive*Ware*® application.
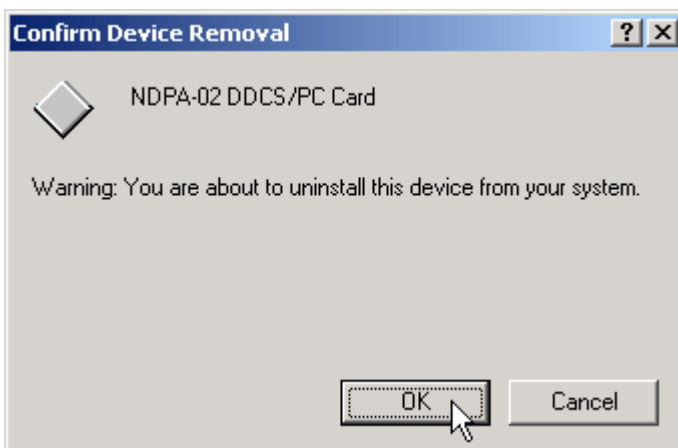
To be able to uninstall the plug and play driver, you must have all NDPA-02 DDCS/PCMCIA boards inserted in PCMCIA slots.

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.
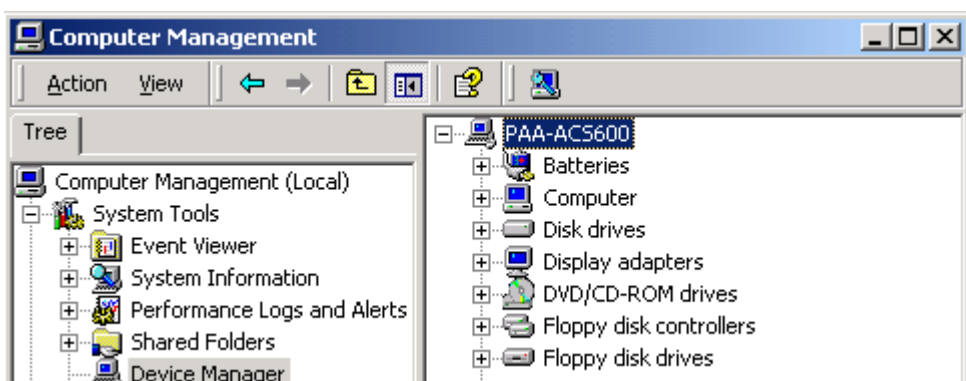

Confirm device removal and Windows 2000 uninstalls the driver.

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 the DriveWare® application 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

DriveWare SP 0407 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 DriveWare SP 0407 is installed.
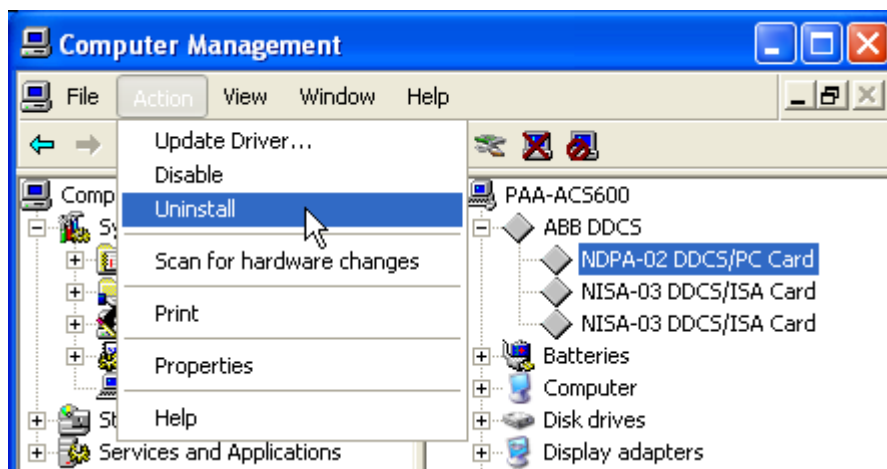
Windows XP plug and play system starts installing the NDPA-02 DDCS/PCMCIA driver the first time an NDPA-02 DDCS/PCMCIA board is found in a PCMCIA slot. Installing of the NISA-03 DDCS/ISA driver must be requested manually.

If you ever uninstall a Drive*Ware*® application, 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 the Drive*Ware*® application.

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.
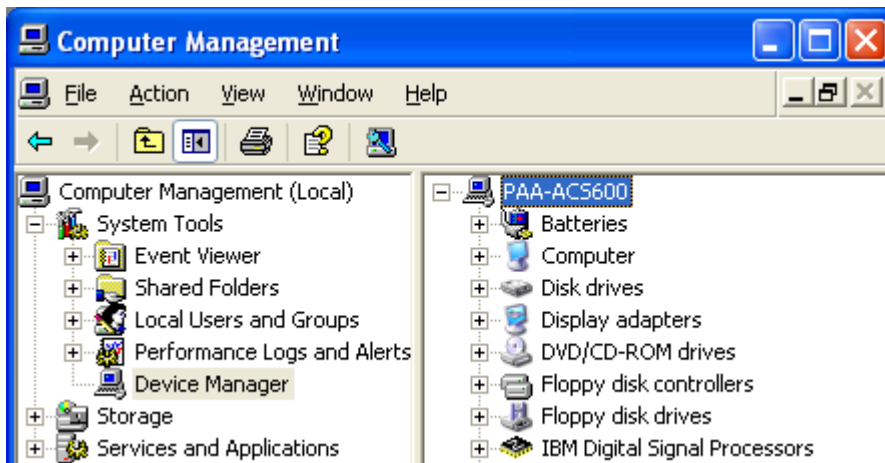

Confirm device removal and Windows XP uninstalls the driver.
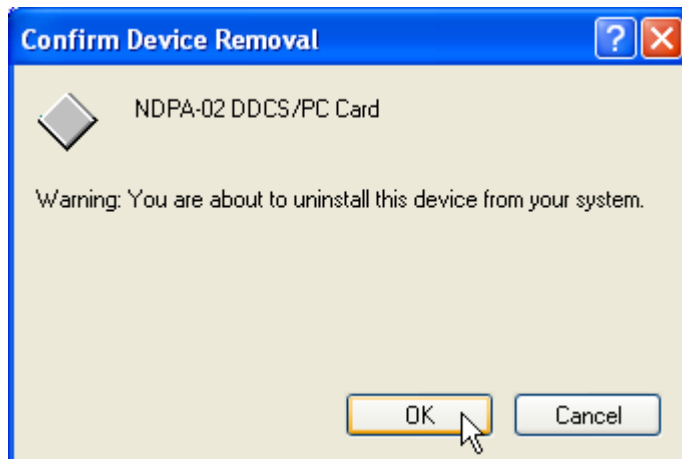
The uninstalled device disappears from the ABB DDCS device list.

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

If you are going to uninstall the Drive*Ware*® application 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 DriveWare SP 0407

It is not possible to uninstall DriveWare SP 0407.

DriveWare SP 0407 files are uninstalled, when the upgraded Drive*Ware*® application programs are uninstalled, except possibly one or more of the following files (which you have to delete manually in case you want to uninstall them):

- NDPA.INF and NISA.INF in Windows INF directory (Windows 2000 and Windows XP).
- NDPA.SYS and NISA.SYS in Windows SYSTEM32\drivers directory (Windows 2000 and Windows XP).
- ReleaseNotes.pdf in DriveWindow installation directory.
- ReleaseNotes.pdf in sub-directory DriveOPC under the parent of DriveWindow installation directory.
- User Manual.pdf in DriveWindow installation directory.
- ReleaseNotes.pdf in DriveOPC installation directory.
- Tech Note.pdf in DriveOPC installation directory.
- Template.ap in DriveAP 1.0 installation directory.

If you are uninstalling the last Drive*Ware*® application program, which uses the NDPA-02 DDCS/PCMCIA boards or NISA-03 DDCS/ISA boards, you should uninstall the drivers before uninstalling such a program.