Manual

VCI - Virtual CAN Interface

VCI-V3 Installation Manual

Software Version 3

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1 Overview

The VCI is a universal CAN driver for all CAN interfaces from IXXAT and already included in the scope of supply of the CAN interface. As a DLL for Windows 2000/XP/Vista/7/8, it forms the interface between the user application and the various IXXAT CAN interfaces. A special feature is its uniform programming interface, which allows a change between various interface types without adapting the user software.

The version 3 of the VCI supports all current IXXAT CAN interfaces. A detailed summary is available within the support area of the IXXAT website (www.ixxat.com).

Installation of the VCI consists of two steps:

(1) Installation of the software

(2) Installation of the hardware

This manual provides instructions on carrying out these two steps under **Windows 2000, Windows XP, Windows Vista, Windows 7** and **Windows 8**.

2 Support

For more information on our products, FAQ lists and installation tips, please refer to the support section of our website (http://www.ixxat.com), which also contains information on current product versions and available updates.

If you have any further questions after studying the information on our website and the manuals, please contact our support department. The support section on our website contains the relevant forms for your support request. In order to facilitate our support work and enable a fast response, please provide precise information on the individual points and describe your question or problem in detail.

If you would prefer to contact our support department by phone, please also send a support request via our website first, so that our support department has the relevant information available.

3 Installation of the driver software VCI_V3

Tip: Since the VCI driver software is constantly improved and expanded, we recommend to check if a newer version of the driver is available. The latest version can always be found on our website (www.ixxat.com) in the support area.

Installation from CD-ROM

Insert the IXXAT driver and demo CD-ROM into the CD drive.

Windows automatically starts a menu in which you first select the language. In the following dialog, click on "Driver" and start the installation of the VCI driver software.

If the CD menu is not automatically displayed, start the installation manually by running the file VCI_3_*.exe in the "Drivers" directory on the CD-ROM.

Follow the instructions in the installation program.

4 Windows 2000

Attention: With Windows 2000, the user must be logged in with administrator rights in order to carry out the hardware installation!

Tip: Install the VCI software before you install the IXXAT CAN interface, this facilitates configuration of the new IXXAT hardware under Windows. The driver is thus automatically found and does not have to be copied from an external data carrier.

4.1 Installation of CAN interfaces

Installation is carried out via the automatically started hardware assistant, which detects the newly installed interface.

(1) Install your IXXAT interface board. At this, please pay attention to the instructions in your hardware manuals.

(2) The first time Windows 2000 is booted after installing the CAN-Interface the hardware assistant is automatically started. The Hardware Wizard dialog appears, which you acknowledge with "Next".

(3) Windows finds a driver for the new CAN interface and displays it in a corresponding dialog. Acknowledge the dialog with "Next".

(4) Windows copies the driver thus found and indicates success with a last dialog. Finish the installation by clicking on the "Finish" button.

After the successful installation the interface is visible in the Windows Device Manager and ready for use.

4.2 Installation of PC/104 (ISA) boards

Before installing an ISA-card, it is absolutely essential to first find a free address space in the working memory and a free IRQ. For this, open the "System Informations" (Accessories | System Tools) and search for a free address space and a free IRQ under "Hardware Resources".

Note: The address settings on the card are made by means of 16-bit DOS segment addresses (e.g. D200) which are also described in the hardware manual. 32-bit Windows operating systems don't work with DOS segment/offset addressing; instead they address the memory in a linear way. Therefore the board's segment address (e.g. D200…D3FF) is declared as a linear address under Windows (e.g. D2000…D3FFF).

The free address and the IRQ found are then set on the card by means of jumpers and dipswitches (see hardware manual). The IRQ is to be reserved in the Bios for ISA-cards.

4.2.1 Installation

(1) Start the Hardware Wizard.
This is found in the Start menu under "Control Panel"

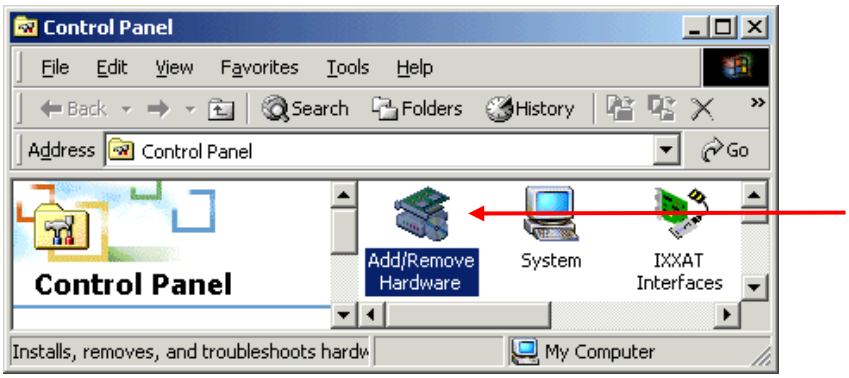

Figure 4.2-1: Starting the hardware wizard

(2) The welcome dialog of the Hardware Wizard appears. Acknowledge this with the "Next"-button.

(3) Mark the button for installing new hardware and acknowledge the dialog with the "Next"-button.

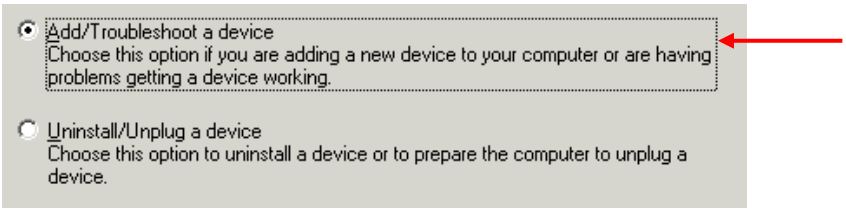

Figure 4.2-2: Selection of the Wizard task

(4) The Hardware Wizard lists all hardware previously installed. Select the entry to add a new device and continue with the "Next" button.

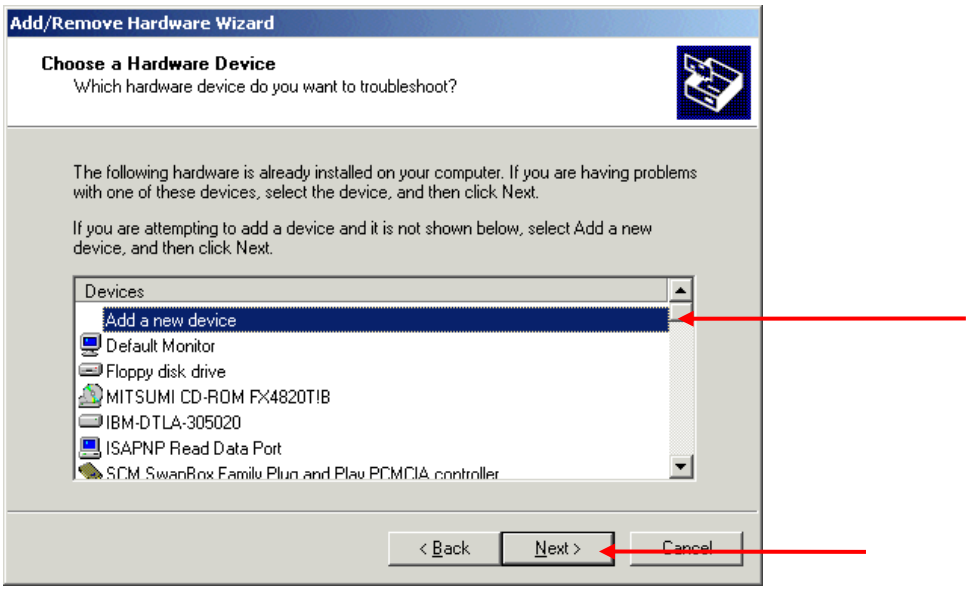

Figure 4.2-3: Selection for installing new hardware

(5) The Hardware Wizard asks whether further hardware should be searched for. This is not the case. Continue with the "Next"-button.

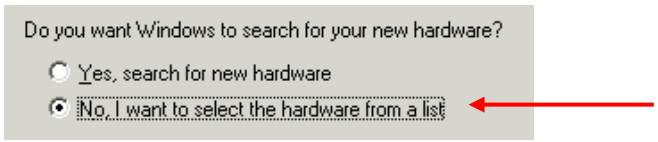

Figure 4.2-4: Do not search for hardware

(6) If the VCI-software was installed before the hardware installation, you can select "IXXAT VCI V3 Interfaces" in the list of the known hardware types and continue with pressing via the "Next" button.

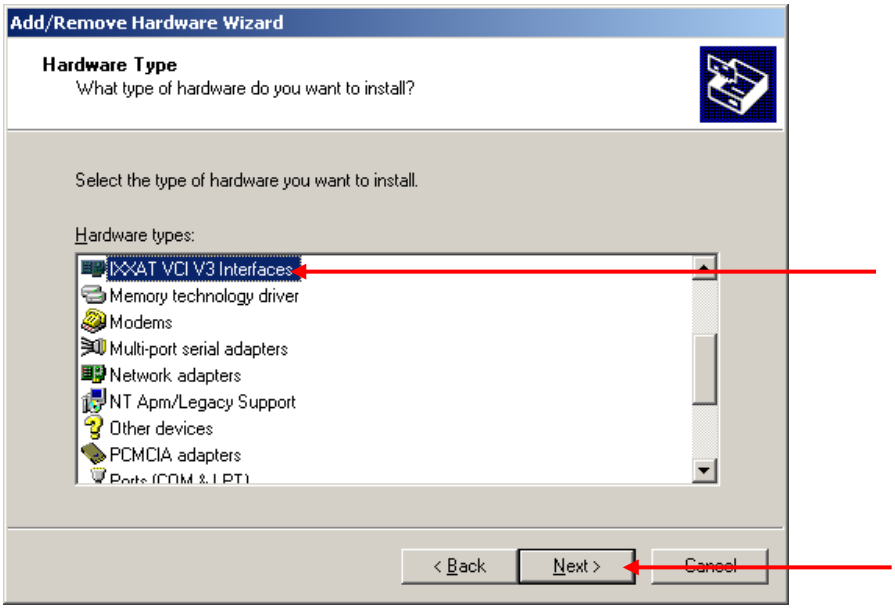

Figure 4.2-5: Selection of the hardware type

(7) The hardware wizard now provides a selection of drivers. Select your CAN-interface and continue the installation with "Next".

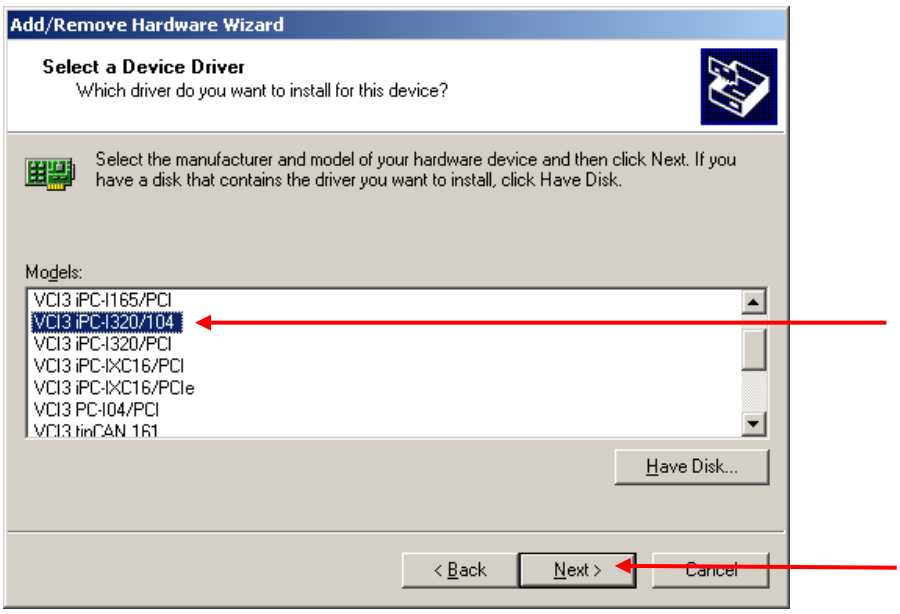

Figure 4.2-6: Selection of the driver to be installed

(8) Windows has now installed the CAN-interface with default settings. If these do not match the Address and IRQ set by you on the hardware, you can alter them later in the hardware settings (see Section 4.2.2). However, you must first accept the recommended settings and go on with "Next".

(9) Installation of the new component is now complete and can be ended with "Finish". Windows now asks you to restart the computer.

If the recommended settings do not match the values set on the card (check in the Device Manager if necessary), you should adjust these before restarting. Please read Section 4.2.2 for this.

4.2.2 Changing the Default settings

An ISA-card is always installed by the hardware wizard with the default settings (address and IRQ). If these settings do not correspond to the values set on the card via jumpers and dipswitches, they must be altered as described in this section.

(1) Start the "System"-Applet in the Control Panel.

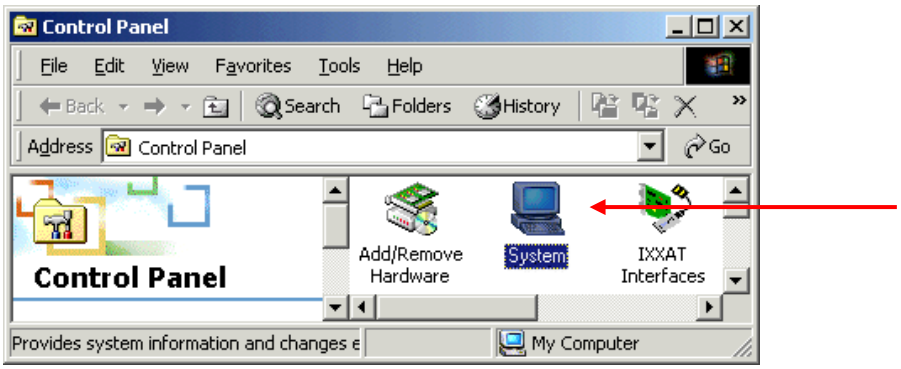

Figure 4.2-7: Starting the System Applet

(2) Start the Device Manager via the "Device Manager" button.

Figure 4.2-8: Starting the Device Manager

(3) Select the installed CAN-Interface in the Device Manager.
Open the properties of the CAN-Interface whose settings you will change.

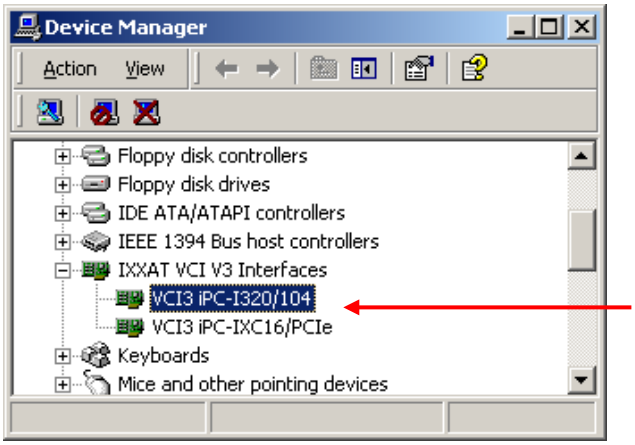

Figure 4.2-9: The Device Manager

(4) Changing the settings:
If you now switch to the "Resources" tab in the hardware properties dialog, you will see the settings entered by Windows during the installation.

According to the settings made by you on the CAN-Interface for Address and Interrupt, you must adjust the Resource settings here.

Your alterations are adopted with "OK".

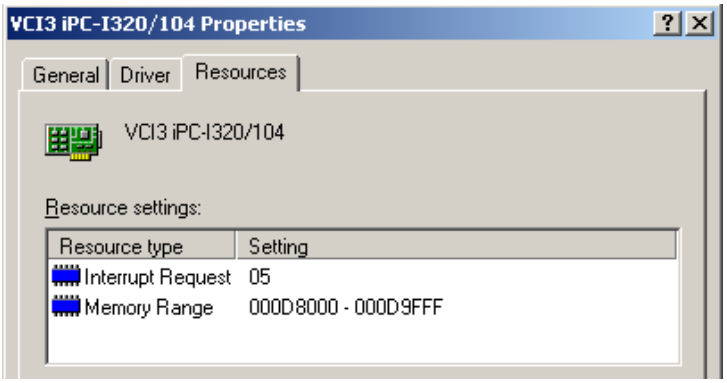

Figure 4.2-10: Changing the CAN-interface settings

4.3 Installation of CAN@net II

The installation is made with the aid of VCI3 Device Server Control which can be found in the start menu. With start the device is announced to the VCI_V3, but is not in use until a VCI_V3 or VCI_V2 application opens it.

(1) To open the VCI3 Device Server Control navigate in the start menu to Start → All programs → IXXAT → VCI 3.x and than open the link to VCI3 Device Server Control. After the first start following program with empty lists will be displayed.

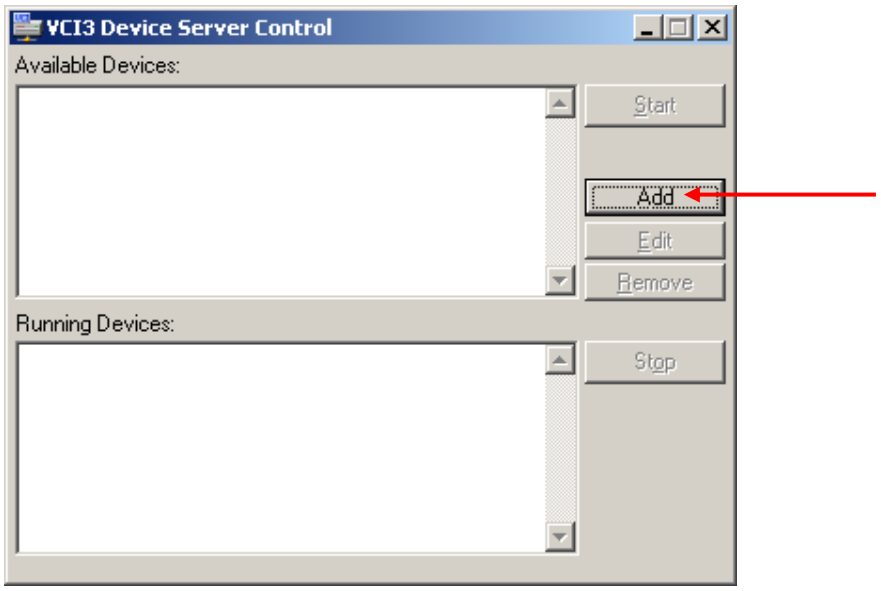

Figure 4.3-1: VCI3 Device Server Control

(2) Click once on "Add" to add a new device.

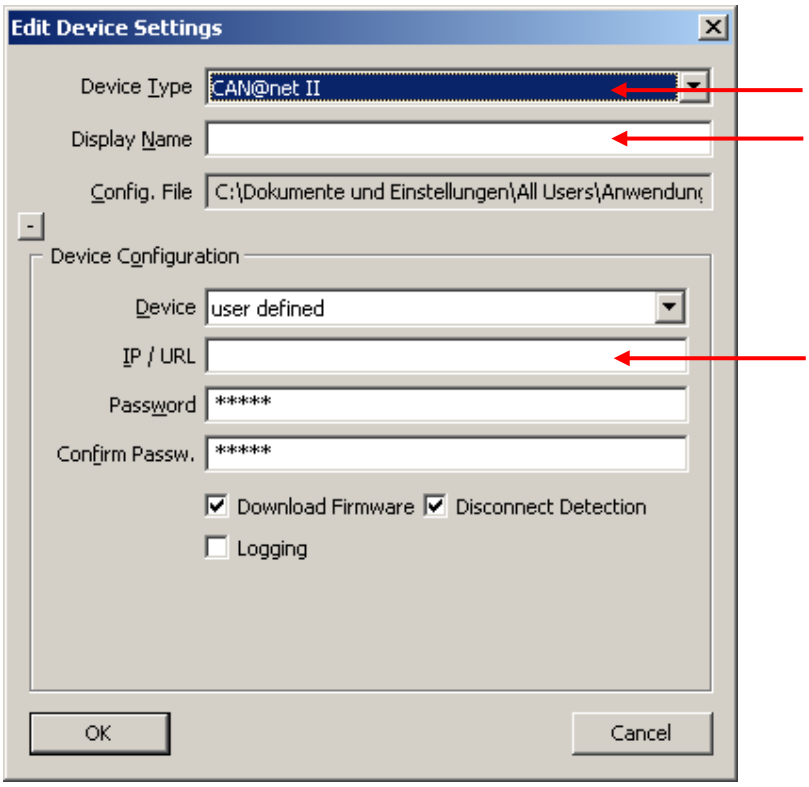

Figure 4.3-2: VCI3 Device Server Control – Modify Device Settings

(3) Select the Device Type "CAN@net II".

(4) Now enter a name for the new device. The name will be displayed later in the VCI3 Device Server Control and can be chosen freely.

(5) Enter the IP-Address of the CAN@net II in the field "IP / URL". The IP can be determined with the "CAN@net II Configurator" which is to be found at the same place in the start menu. To configure the CAN@net II please read the hardware manual of the CAN@net II.

(6) Enter the password in the field "Password" and "Confirm Password". If you have not changed the password it reads "IXXAT". This password will already be entered after the creating a new device in the dialog.

(7) If you do not need special settings you can proceed with step (11), all necessary configurations are made now.

(8) With the option "Download Firmware" you can specify if the firmware of the CAN@net II is downloaded on the device on every start. When using slow connections e.g. VPN it could be better if the firmware is flashed permanently on the CAN@net II. Therefore you need a flash programming software which is available from the support at IXXAT.

(9) With the option "Logging" you can specify to store debugging information during the usage of the CAN@net II. These logging files may contain the transferred CAN

messages. Enabling this option is only necessary if you have trouble with the device and the support at IXXAT needs these logging files.

(10) With the option "Disconnect Detection" you can enable TCP/IP connection monitoring. If the option is enabled a cyclically check will be performed whether the connection between PC and CAN@net II is still established. If the connection breaks down it will be recognized after approximately 15-20 seconds. As result the CAN@net II is removed from the VCI_V3 and it is tried to re-establish the connection. As soon as the device is successfully found it is announced to the VCI_V3 and is available for VCI applications. With this the CAN controller and filter settings will be lost.

(11) After you have configured the settings to your needs you now can confirm the settings by pressing OK.

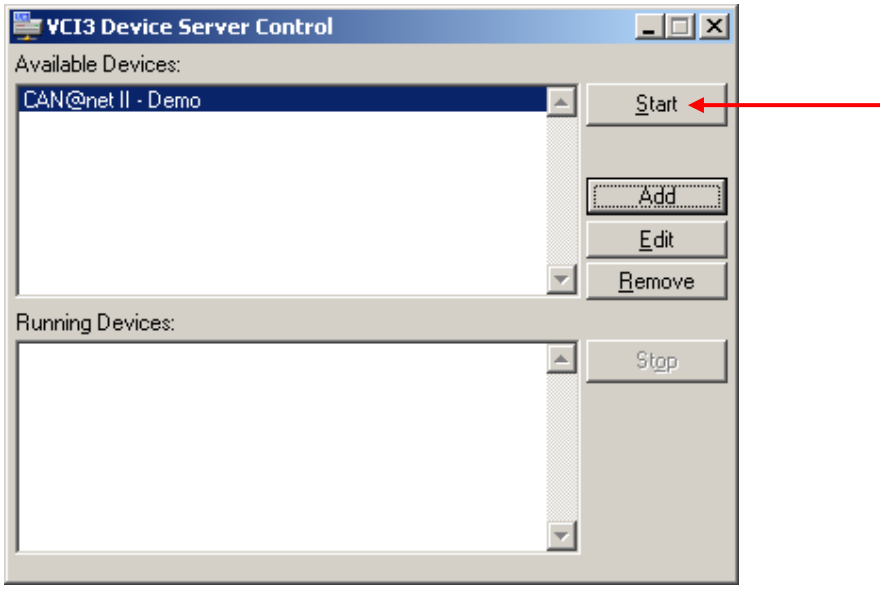

Figure 4.3-3: VCI3-Device-Server Control

(12) Now select the desired device from the list of available devices and press "Start". The device will now be announced to the VCI_V3 and can be used with VCI_V3 application.
Tip: If you do not wish to make any further changes you can close the VCI3 Device Server Control. The running device will stay announced to the VCI_V3 and will be re-announced by the Windows Service "IXXAT VCI V3 Device Server Service" on next system start.

(13) If you want to stop a running device, select the device to stop in the list of running devices and press "Stop". After the device is stopped it changes to the list of available devices and can be edited or removed.

(14) To configure an existing device, select it from the list of available devices and press "Edit".

(15) To remove an existing device, select it from the list of available device and press "Remove". Confirm the security message with "Yes".

Note: The program VCI3 Device Server Control is only used for configuring the VCI_V3 devices. The real announcement and removal is done by the Windows Service "IXXAT VCI V3 Device Server Service". The devices are controlled by INI-files which are stored in the folder "Documents and Settings\All Users\Application Data\IXXAT \VCI \3.x". You find further information to the INI-files in the Readme.txt in folder "Program Files\IXXAT\VCI 3.5\DeviceServer\".

5 Windows XP

Attention: With Windows XP, the user must be logged in with administrator rights in order to carry out the hardware installation!

Tip: Install the VCI software before you install the IXXAT CAN interface, this facilitates configuration of the new IXXAT hardware under Windows. The driver will be found automatically and must not be copied from an external data carrier.

5.1 Installation CAN interfaces

Installation is carried out via the automatically started hardware assistant, which detects the newly installed interface.

(1) Install your IXXAT interface board. At this, please pay attention to the instructions in your hardware manuals.

(2) The first time Windows XP is booted after installing the CAN interface the hardware assistant is started automatically. The following dialog appears, which you acknowledge with "Next".

Figure 5.1-1: New USB-to-CAN compact found

(3) Windows finds a driver for the new CAN interface and the following dialog appears (here for a USB-to-CAN compact):

Figure 5.1-2: Driver found

Finish the installation by clicking on the "Finish" button.

After successful installation, the CAN interface (here USB-to-CAN compact) is now visible in the Windows Device Manager and ready for use.

5.2 Installation of PC/104 (ISA) boards

Before installing an ISA-card, it is absolutely essential to first find a free address space in the working memory and a free IRQ. For this, open the "System Informations" (Accessories|System Tools) and search for a free memory address space and a free IRQ under "Hardware Resources".

The address settings on the card are made by means of 16-bit DOS segment addresses (e.g. D200) which are also described in the hardware manual. 32-bit Windows operating systems don't work with DOS segment/offset addressing; instead they address the memory in a linear way. Therefore the board's segment address (e.g. D200...D3FF) is declared as a linear address under Windows (e.g. D2000...D3FFF).

The free address and the IRQ found are then set on the card by means of jumpers and dipswitches (see hardware manual). Afterwards install the CAN card into your PC.

The IRQ is to be reserved in the Bios for ISA-cards.

5.2.1 Installation

(1) Open the category "Printers and Other Hardware" in the Control Panel.

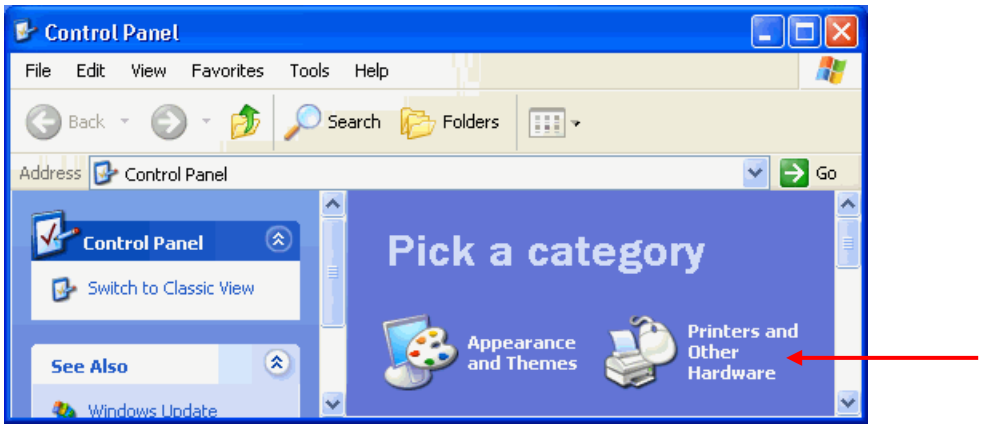

Figure 5.2-1: Opening Control Panel category

(2) Start the Hardware Wizard via the icon "Add Hardware".

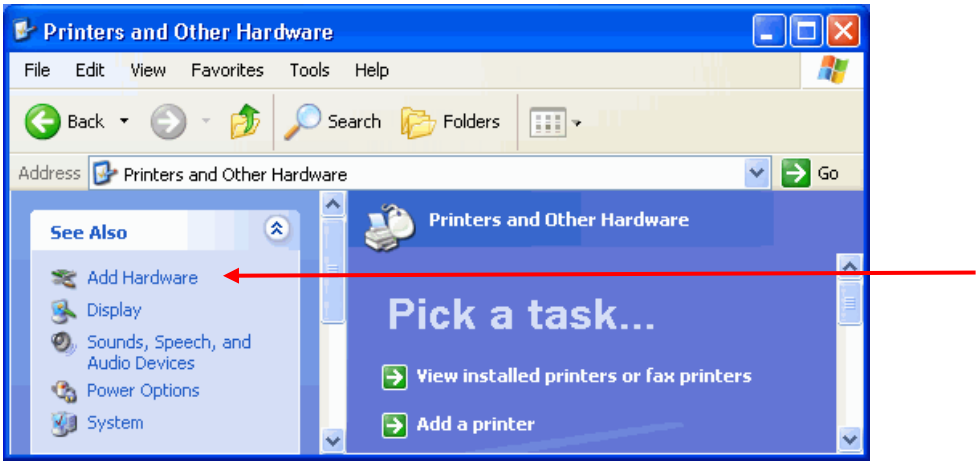

Figure 5.2-2: Starting the hardware wizard

(3) The welcome dialog of the Hardware Wizard appears. Acknowledge this with the "Next"-button.

Figure 5.2-3: The started Hardware Wizard

(4) Because the new hardware is already connected you may acknowledge the following dialog with the "Next"-button.

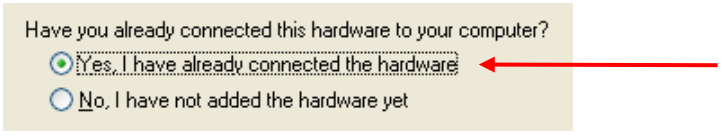

Figure 5.2-4: Selection of the Wizard task

(5) The Hardware Wizard lists all previously installed hardware. Select the entry to add a new device and continue with the "Next" button.

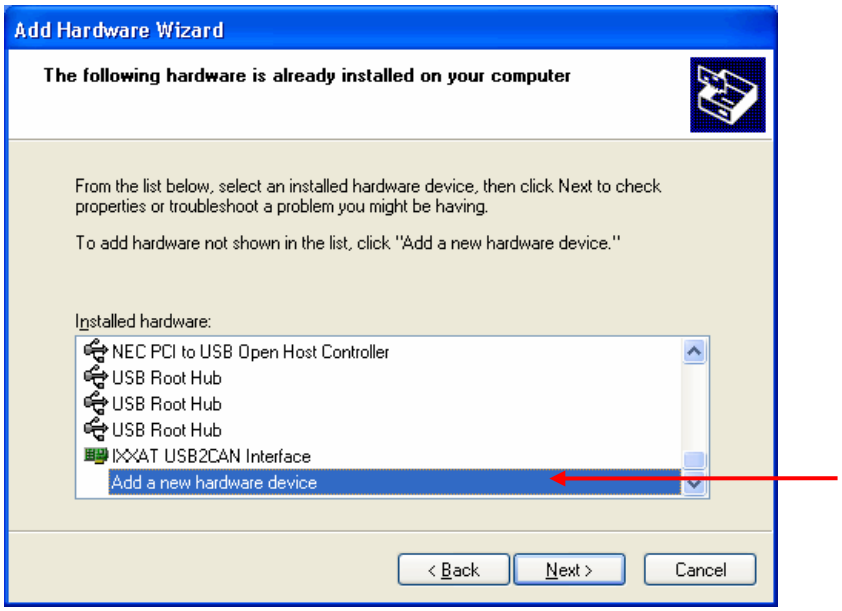

Figure 5.2-5: Selection for installing new hardware

(6) The Hardware Wizard asks whether hardware should be searched for. This is not the case. Continue with the "Next"-button.

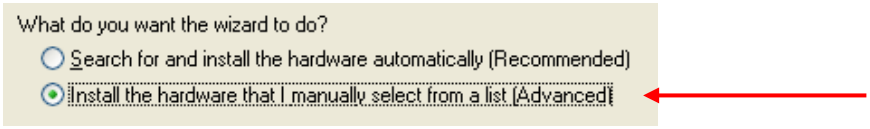

Figure 5.2-6: Manually select hardware from a list

(7) The Hardware Wizard lists the common hardware types. Select the entry to show all devices and continue with the "Next" button.

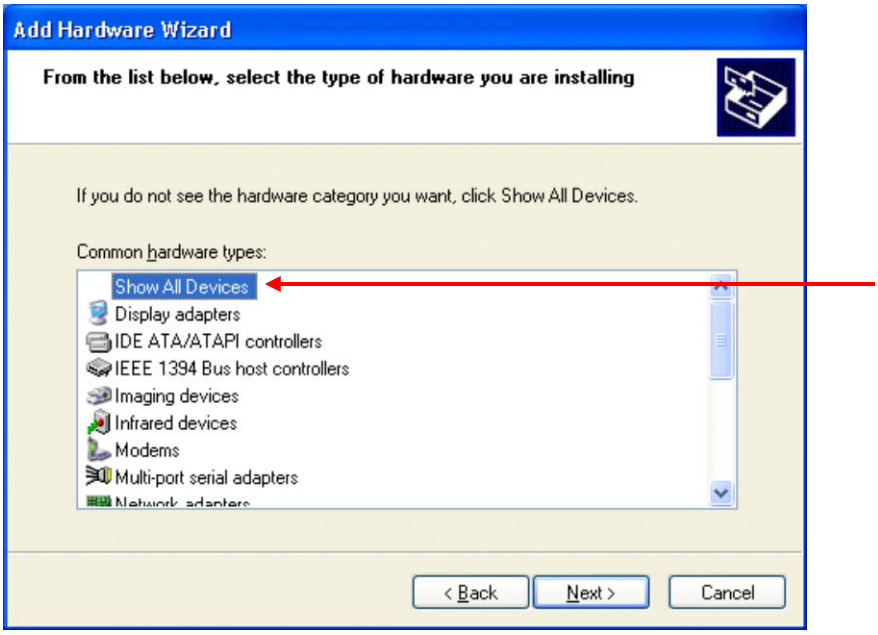

Figure 5.2-7: Show all devices

(8) If the VCI-software was installed before the hardware, you can select "IXXAT Automation GmbH" in the list. Then select the CAN interface board and continue via the "Next" button.

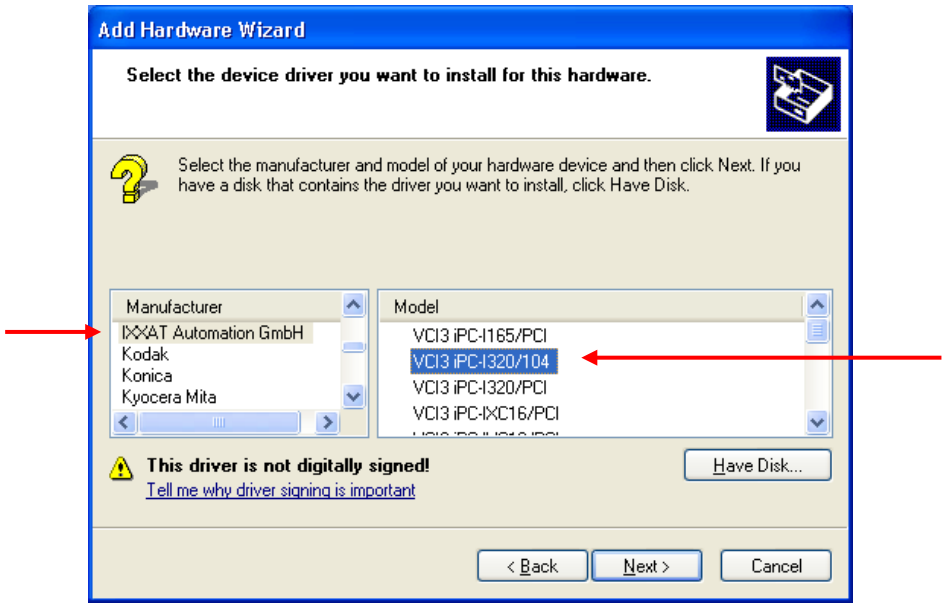

Figure 5.2-8: Selection of the driver to be installed

(9) Windows now confirms your selection, which you acknowledge with the "Next" button.

The selected driver will be installed. This may take some time!

(10) Windows has now installed the CAN-interface with default settings. Click on "View or change resources for this hardware" to adapt the default settings to the settings on the board.

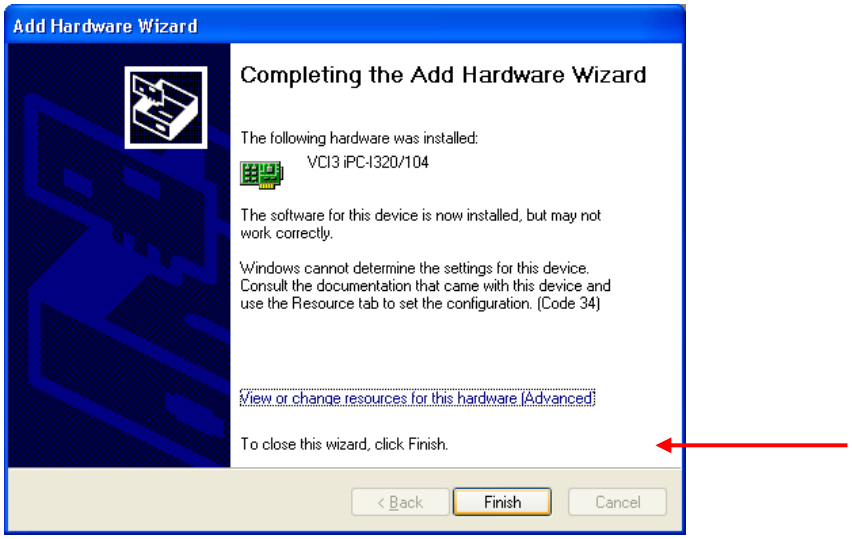

Figure 5.2-9: Hardware driver installed

(11) If the default settings conflict with existing resource configuration Windows will show the following error message. Use the button "Set Configuration Manually" to adapt the settings.

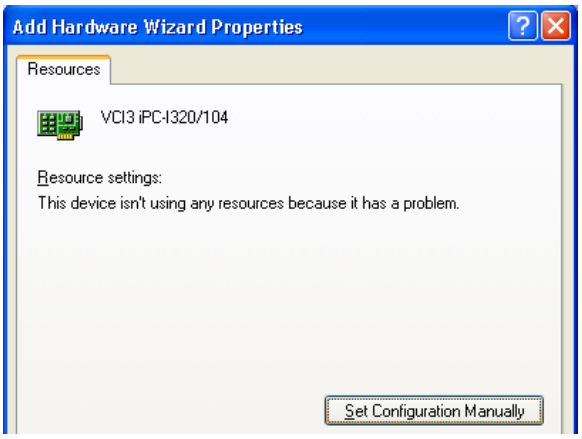

Figure 5.2-10: Notification about resource conflicts

(12) Changing the settings:

According to the settings made by you on the CAN-interface for address and interrupt, you must adjust the Resource settings here. Your alterations are adopted with "OK".

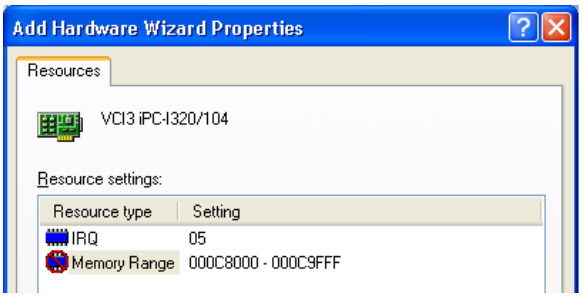

Figure 5.2-11: Adaptation of settings

(13) Conclude the installation with the "Finish" button.

5.2.2 Changing the settings

In case of resource conflicts with other hardware components you must modify the settings for address and/or IRQ as described in this chapter. Of course the new settings must first be set on the CAN-Interface itself and in the bios.

(1) Start the applet "System" within the Control Panel category "Printers and Other Hardware".

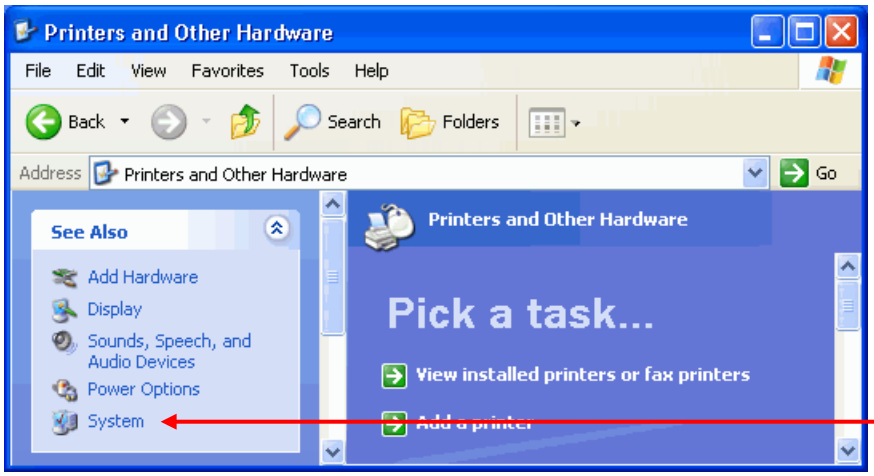

Figure 5.2-12: Starting the System Applet

(2) Start the Device Manager via the "Device Manager" button.

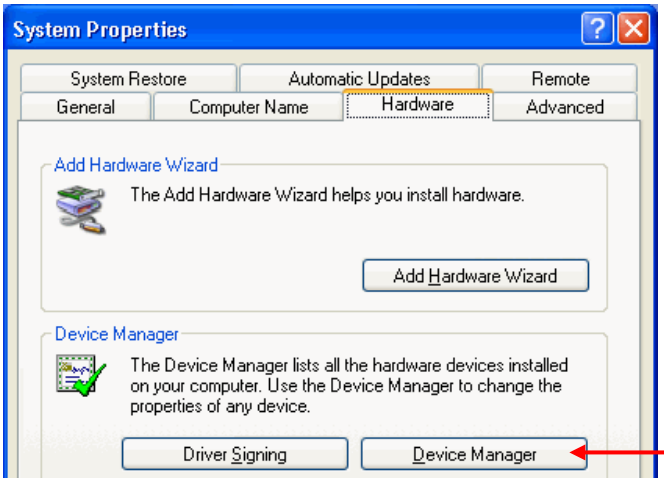

Figure 5.2-13: Starting the Device Manager

(3) Select the installed CAN-interface in the Device Manager.
Open the properties of the CAN-interface whose settings you wish to change.

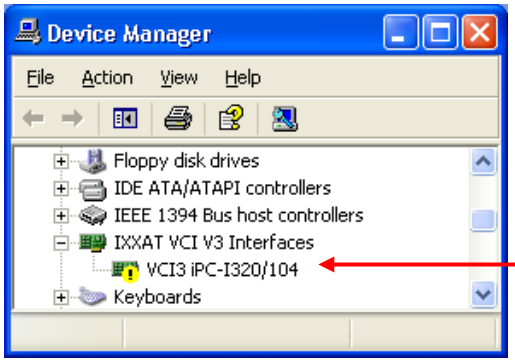

Figure 5.2-14: The Device Manager

(4) If the settings conflict with existing resource configuration Windows will show the following error message. Use the button "Set Configuration Manually" to adapt the settings.

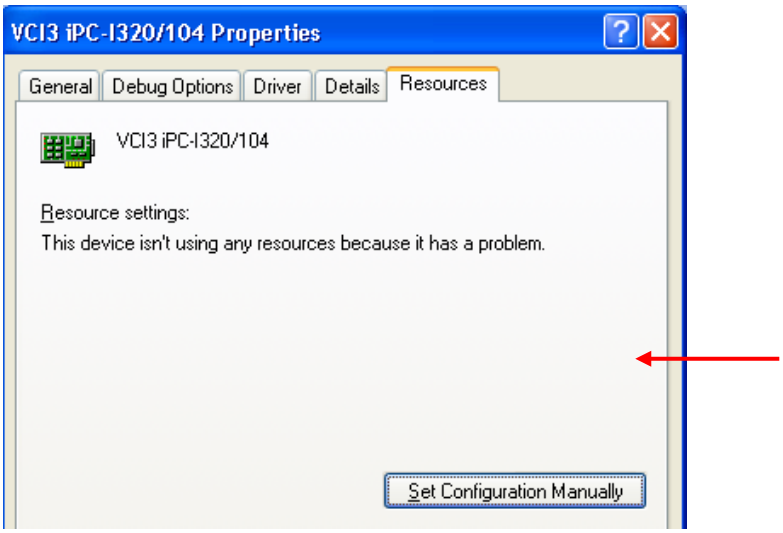

Figure 5.2-15: Notification about resource conflicts

(5) Changing the settings:

Now you see the settings entered during the installation.

Set the resources according to the settings made by you on the CAN-interface for address and interrupt.

Your alterations are adopted with "OK".

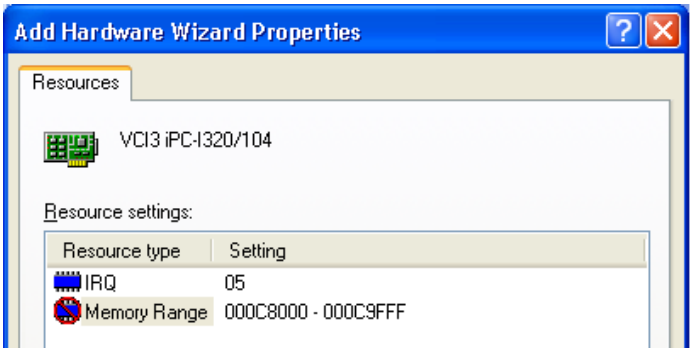

Figure 5.2-16: Adaptation of settings

5.3 Installation of CAN@net II

The installation is made with the aid of VCI3 Device Server Control which can be found in the start menu. With start the device is announced to the VCI_V3, but is not in use until a VCI_V3 or VCI_V2 application opens it.

(1) To open the VCI3 Device Server Control navigate in the start menu to Start → All programs → IXXAT → VCI 3.x and than open the link to VCI3 Device Server Control. After the first start following program with empty lists will be displayed.

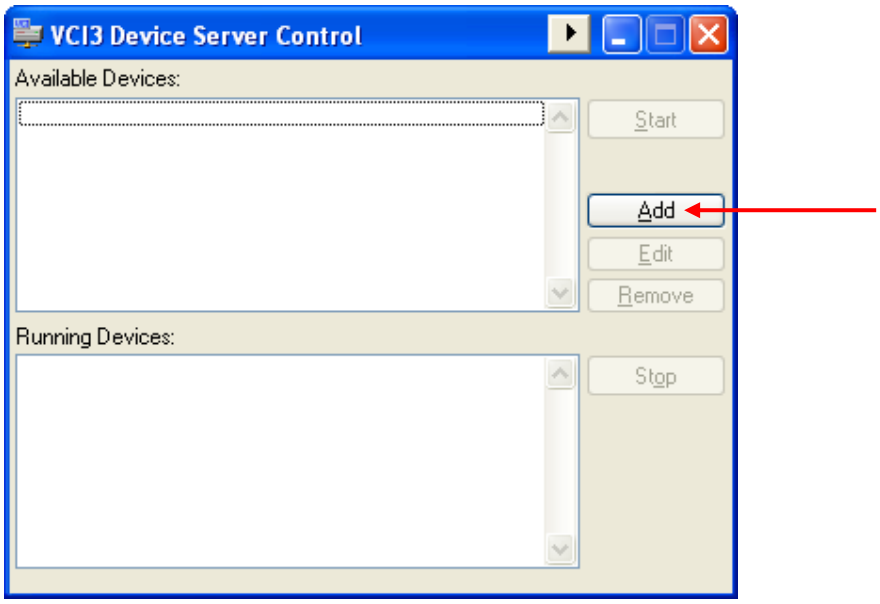

Figure 5.3-1: VCI3 Device Server Control

(2) Click once on "Add" to add a new device.

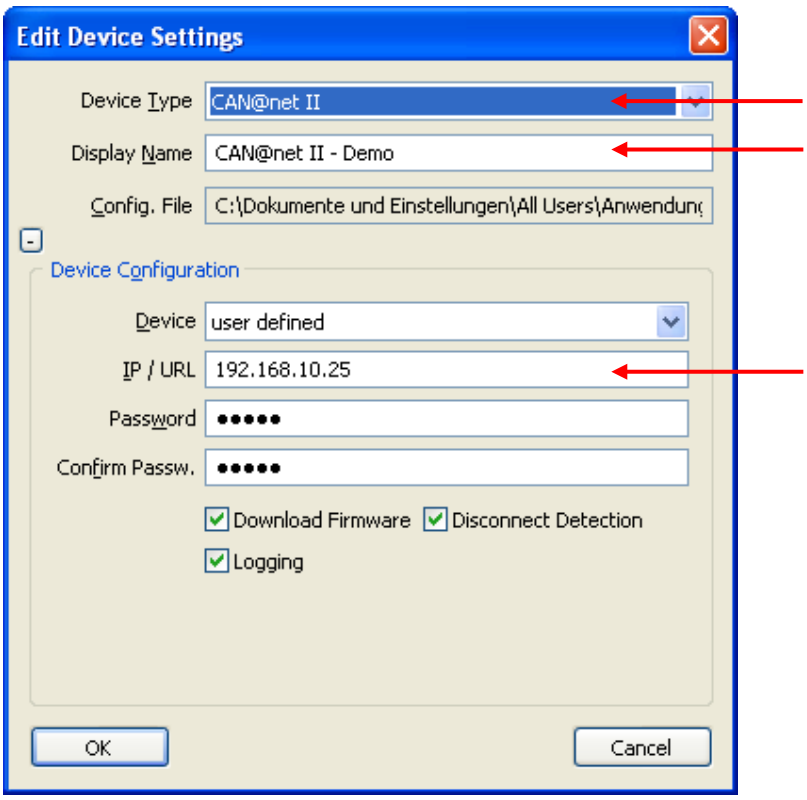

Figure 5.3-2: VCI3 Device Server Control – Modify Device Settings

(3) Select the Device Type "CAN@net II".

(4) Now enter a name for the new device. The name will be displayed later in the VCI3 Device Server Control and can be chosen freely.

(5) Enter the IP-Address of the CAN@net II in the field "IP / URL". The IP can be determined with the "CAN@net II Configurator" which is to be found at the same place in the start menu. To configure the CAN@net II please read the hardware manual of the CAN@net II.

(6) Enter the password in the field "Password" and "Confirm Password". If you have not changed the password it reads "IXXAT". This password will already be entered after the creating a new device in the dialog.

(7) If you do not need special settings you can proceed with step (11), all necessary configurations are made now.

(8) With the option "Download Firmware" you can specify if the firmware of the CAN@net II is downloaded on the device on every start. When using slow connections e.g. VPN it could be better if the firmware is flashed permanently on the CAN@net II. Therefore you need a flash programming software which is available from the support at IXXAT.

(9) With the option "Logging" you can specify to store debugging information during the usage of the CAN@net II. These logging files may contain the transferred CAN messages. Enabling this option is only necessary if you have trouble with the device and the support at IXXAT needs these logging files.

(10) With the option "Disconnect Detection" you can enable TCP/IP connection monitoring. If the option is enabled a cyclically check will be performed whether the connection between PC and CAN@net II is still established. If the connection breaks down it will be recognized after approximately 15-20 seconds. As result the CAN@net II is removed from the VCI_V3 and it is tried to re-establish the connection. As soon as the device is successfully found it is announced to the VCI_V3 and is available for VCI applications. With this the CAN controller and filter settings will be lost.

(11) After you have configured the settings to your needs you now can confirm the settings by pressing OK.

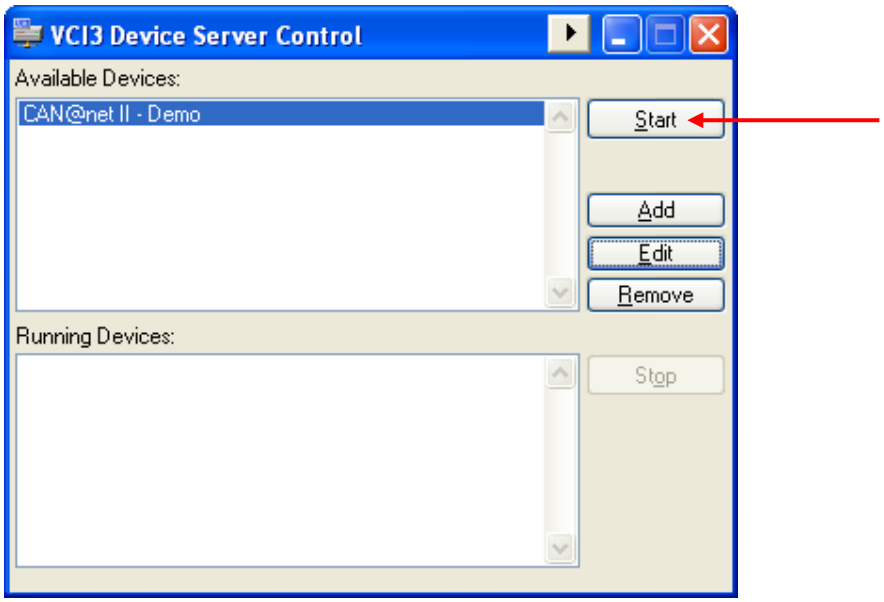

Figure 5.3-3: VCI3-Device-Server Control

(12) Now select the desired device from the list of available devices and press "Start". The device will now be announced to the VCI_V3 and can be used with VCI_V3 application.
Tip: If you do not wish to make any further changes you can close the VCI3 Device Server Control. The running device will stay announced to the VCI_V3 and will be re-announced by the Windows Service "IXXAT VCI V3 Device Server Service" on next system start.

(13) If you want to stop a running device, select the device to stop in the list of running devices and press "Stop". After the device is stopped it changes to the list of available devices and can be edited or removed.

(14) To configure an existing device, select it from the list of available devices and press "Edit".

(15) To remove an existing device, select it from the list of available device and press "Remove". Confirm the security message with "Yes".

Note: The program VCI3 Device Server Control is only used for configuring the VCI_V3 devices. The real announcement and removal is done by the Windows Service "IXXAT VCI V3 Device Server Service". The devices are controlled by INI-files which are stored in the folder “Documents and Settings\All Users\Application Data\IXXAT \VCI \3.x”. You find further information to the INI-files in the Readme.txt in folder “Program Files\IXXAT\VCI 3.5\DeviceServer\”.

5.4 Installation of CANblue II

The installation is made with the aid of VCI3 Device Server Control which can be found in the start menu. With start the device is announced to the VCI_V3, but is not in use until a VCI_V3 or VCI_V2 application opens it.

(1) To open the VCI3 Device Server Control navigate in the start menu to Start → All programs → IXXAT → VCI 3.x and than open the link to VCI3 Device Server Control. After the first start following program with empty lists will be displayed.

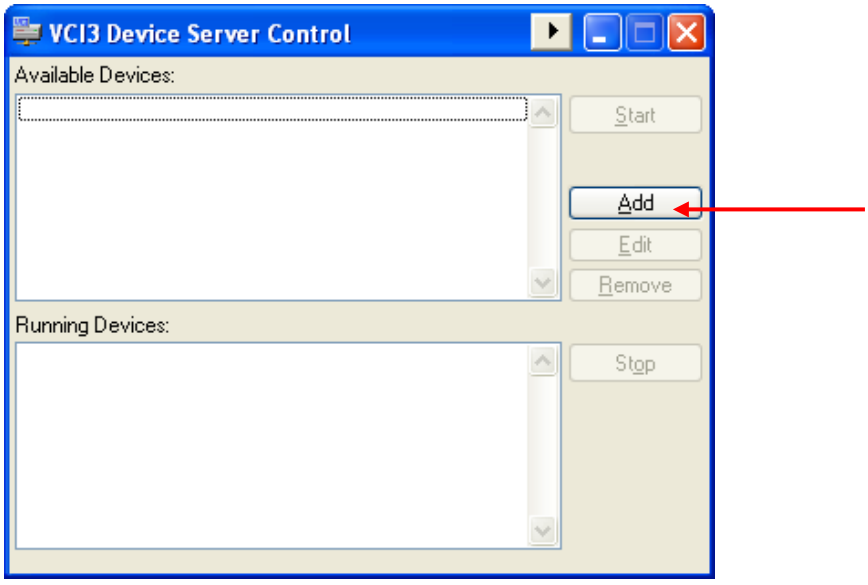

Figure 5.4-1: VCI3 Device Server Control

(2) Click once on "Add" to add a new device.

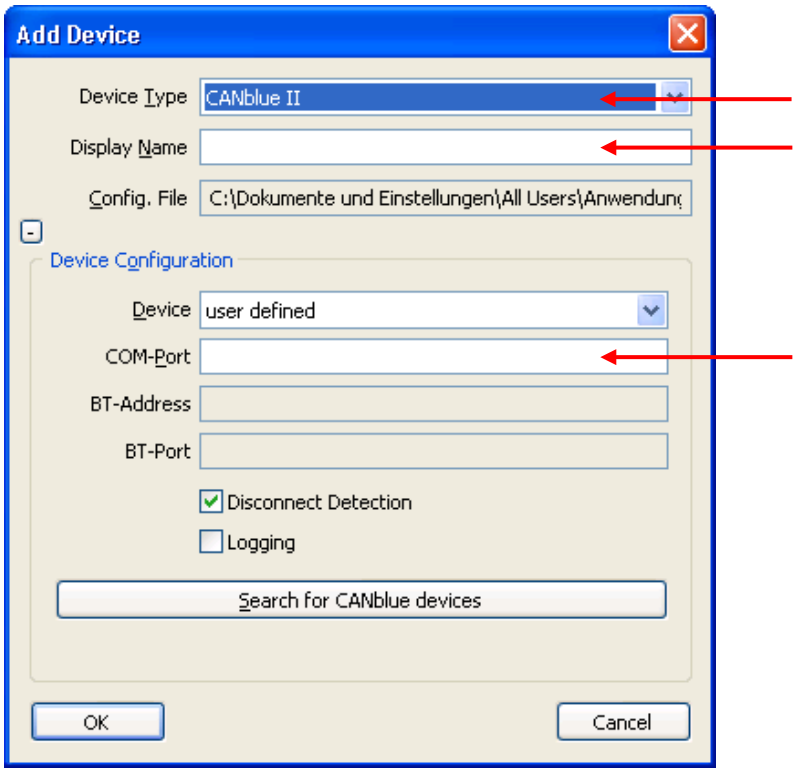

Figure 5.4-2: VCI3 Device Server Control – Modify Device Settings

(3) Select the Device Type "CANblue II".

(4) Now enter a name for the new device. The name will be displayed later in the VCI3 Device Server Control and can be chosen freely.

(5) If you use the Windows Bluetooth Stack you have the choice between a COM-Port defined device and a Bluetooth defined device. Please select “used defined” nearby device and proceed with step (6), if you prefer the COM-Port defined device or you do not use the Windows Bluetooth Stack, otherwise proceed with step (8).

(6) At first you have to search for the CANblue II device using your Bluetooth Stack software. After you have found your device assign a COM-Port to the Bluetooth service “Serial port (SPP)” named “Config”. Enter this COM-Port into the “COM-Port” field of the “Add- Device” dialog window. The detailed instruction how to assign a COM-Port to the CANblue II device can be found in the hardware manual shipped with the CANblue II.

(7) If you do not need special settings you can proceed with step (12), all necessary configurations are made now. You can find further settings starting with step (10).

(8) To search the environment for CANblue devices please press the button “Search for CANblue devices”. After a few seconds a list of found device with name and MAC address will appear. In the case your device is not in the list ensure your device is switched on and within range. Search for your device once again. The fields “BT-Address” and “BT-Port” are filled automatically after you have chosen a device from the list.

Note: CANblue devices of the first generation will also be displayed in the list. CANblue Generic devices are supported with limitations. CANblue VCI devices will still be supported by the VCI_V2 only. The CANblue Generic of the first generation does not support selfreception and timestamps. The timestamps will be reproduces on the PC.

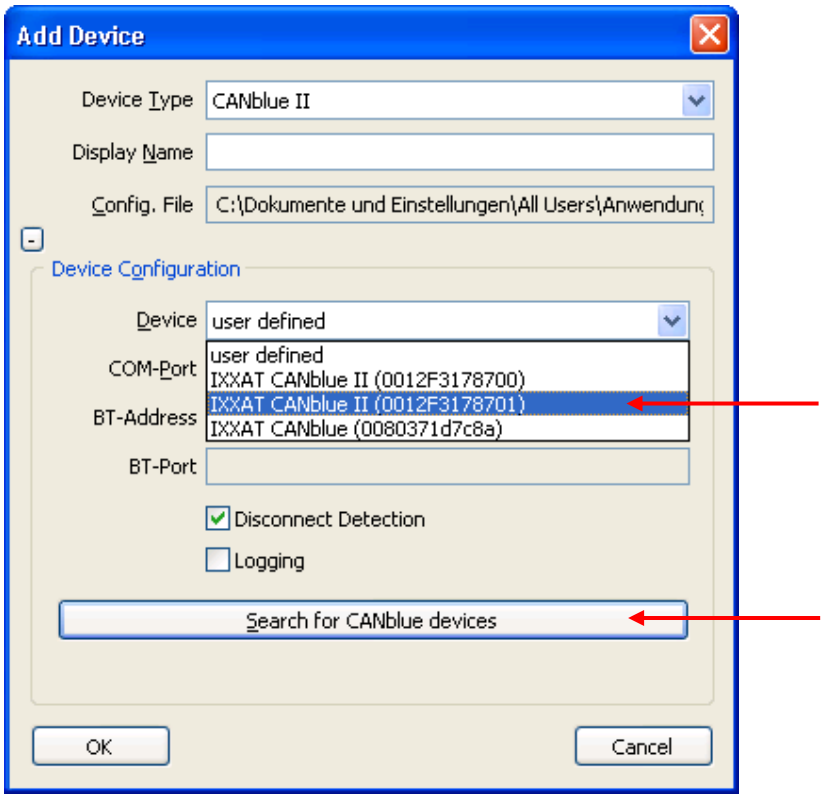

Figure 5.4-3: VCI3-Device-Server Control – Found Devices

(9) If you do not need special settings you can proceed with step (12), all necessary configurations are made now.

(10) With the option "Logging" you can specify to store debugging information during the usage of the CANblue II. These logging files may contain the transferred CAN messages. Enabling this option is only necessary if you have trouble with the device and the support at IXXAT needs these logging files.

(11) With the option "Disconnect Detection" you can enable Bluetooth connection monitoring. If the option is enabled a cyclically check will be performed whether the connection between PC and CANblue II is still established. If the connection breaks down it will be recognized after approximately 30-40 seconds. As result the CANblue II is removed from the VCI_V3 and it is tried to re-establish the connection. As soon as the device is successfully found it is announced to the VCI_V3 and is available for VCI applications. With this the CAN controller and filter settings will be lost.

(12) After you have configured the settings to your needs you now can confirm the settings by pressing OK.

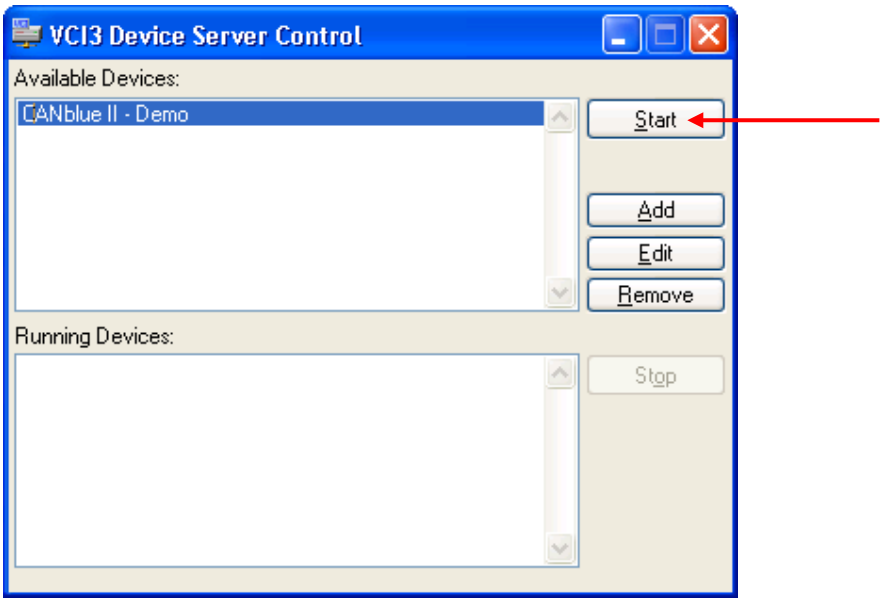

Figure 5.4-4: VCI3-Device-Server Control

(13) Now select the desired device from the list of available devices and press "Start". The device will now be announced to the VCI_V3 and can be used with VCI_V3 application.
Tip: If you do not wish to make any further changes you can close the VCI3 Device Server Control. The running device will stay announced to the VCI_V3 and will be re-announced by the Windows Service "IXXAT VCI V3 Device Server Service" on next system start.

(14) If you want to stop a running device, select the device to stop in the list of running devices and press "Stop". After the device is stopped it changes to the list of available devices and can be edited or removed.

(15) To configure an existing device, select it from the list of available devices and press "Edit".

(16) To remove an existing device, select it from the list of available device and press "Remove". Confirm the security message with "Yes".

Note: The program VCI3 Device Server Control is only used for configuring the VCI_V3 devices. The real announcement and removal is done by the Windows Service "IXXAT VCI V3 Device Server Service". The devices are controlled by INI-files which are stored in the folder “Documents and Settings\All Users\Application Data\IXXAT \VCI \3.x”. You find further information to the INI-files in the Readme.txt in folder “Program Files\IXXAT\VCI 3.5\DeviceServer\”.

6 Windows Vista

Attention: With Windows Vista, the user must be logged in with administrator rights in order to carry out the hardware installation!

Tip: Install the VCI software before you install the IXXAT CAN interface. This facilitates configuration of the new IXXAT hardware under Windows. The driver will be found automatically and must not be copied from an external data carrier.

6.1 Installation of CAN interfaces

Installation is carried out via the automatically started hardware assistant, which detects the newly installed CAN-Interface.

(1) Install your IXXAT interface board. At this, please pay attention to the instructions in your hardware manuals.

(2) The first time Windows Vista is booted after installing the CAN-Interface the hardware assistant is started automatically. The following dialog appears, which you acknowledge with the selection of "Locate and install driver".

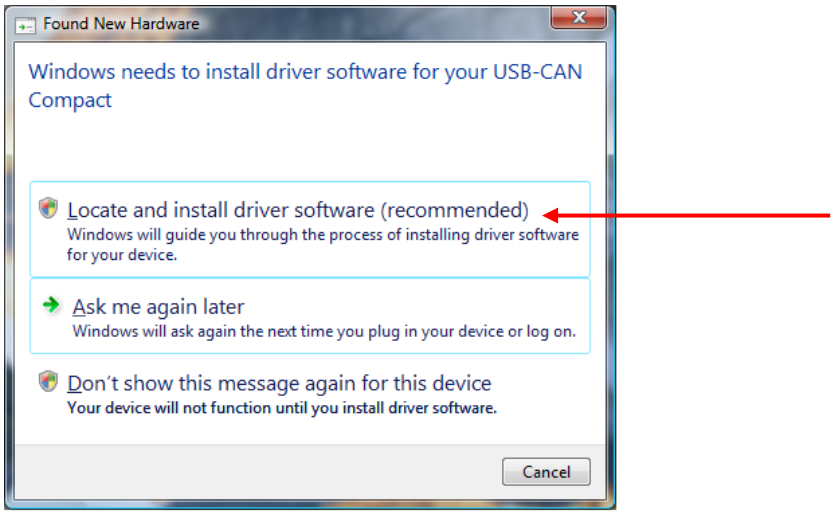

Figure 6.1-1: New USB-to-CAN compact found

(3) Windows finds a driver for the new CAN interface and the following dialog appears (here for a USB-to-CAN compact):

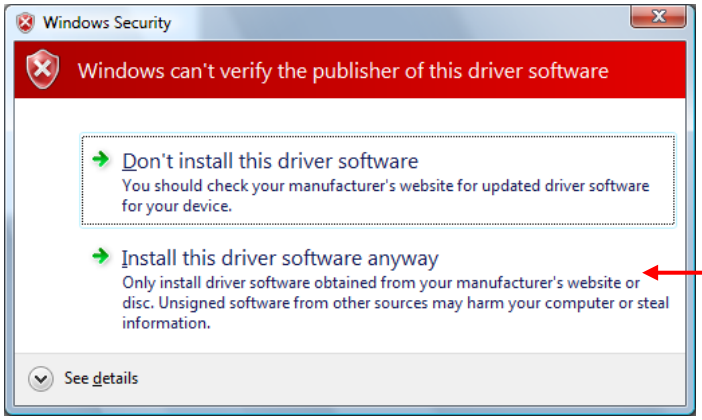

Figure 6.1-2: Driver found

This dialog appears only on the installation of drivers which are not signed by the publisher.

After selecting 'Install this software anyway" the installation of the driver starts.

After successful installation, the CAN interface (here USB-to-CAN compact) is visible in the Windows Device Manager and ready for use.

6.2 Installation of PC/104 (ISA) boards

Before installing an ISA-card, it is absolutely essential to first find a free address space in the working memory and a free IRQ. For this, open the "System Informations" (Accessories|System Tools) and search for a free memory address space and a free IRQ under "Hardware Resources".

The address settings on the card are made by means of 16-bit DOS segment addresses (e.g. D200) which are also described in the hardware manual. 32-bit Windows operating systems don't work with DOS segment/offset addressing; instead they address the memory in a linear way. Therefore the board's segment address (e.g. D200...D3FF) is declared as a linear address under Windows (e.g. D2000...D3FFF).

The free address and the IRQ found are then set on the card by means of jumpers and dipswitches (see hardware manual). Afterwards install the CAN card into your PC.

The IRQ is to be reserved in the Bios for ISA-cards.

6.2.1 Installation

(1) Start the Device Manager via the icon "Hardware and Sound/Device Manager".

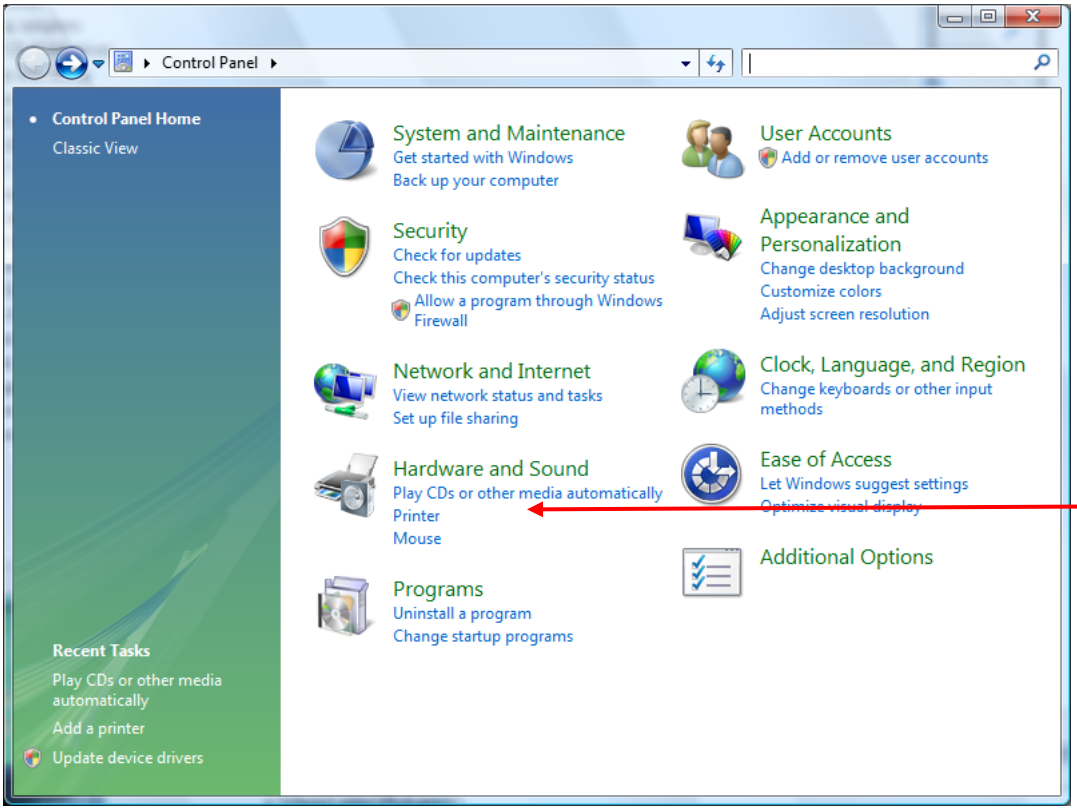

Figure 6.2-1: Starting the hardware wizard

(2) Start the hardware assistant by selecting "Add legacy hardware"

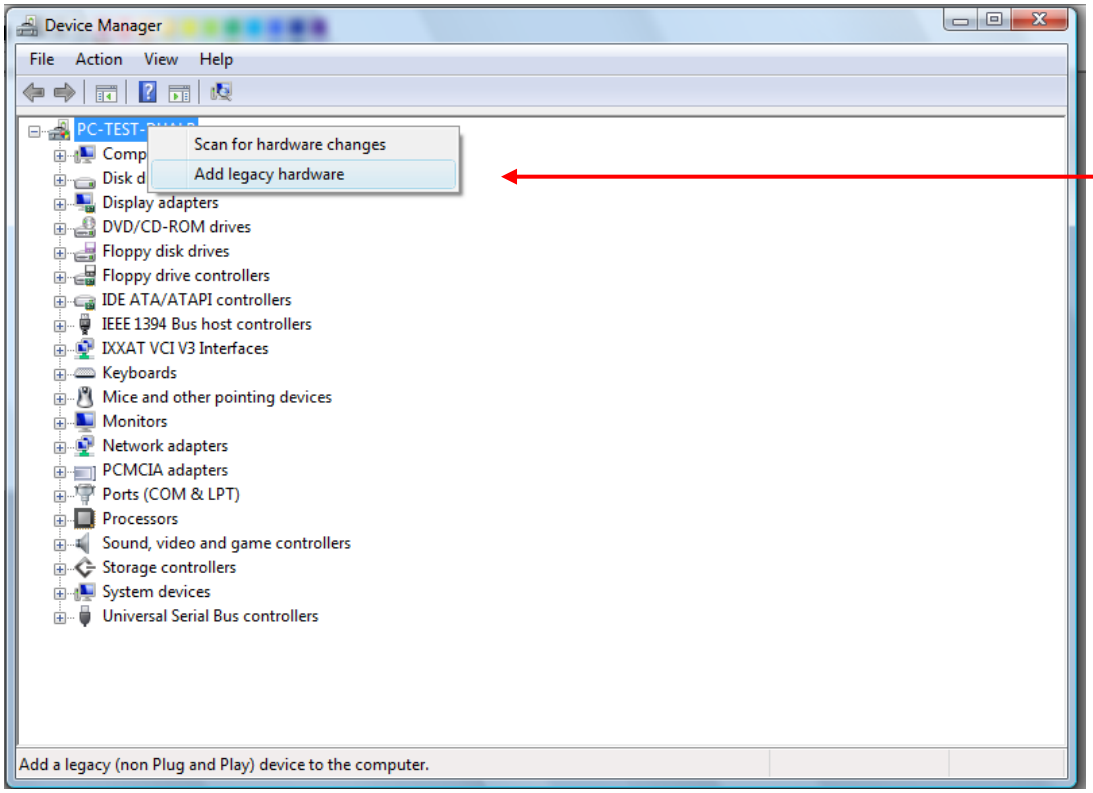

Figure 6.2-2: Start the Hardware Wizard

(3) The welcome dialog of the Hardware Wizard appears. Acknowledge this with the "Next"-button.

(4) Now the Hardware Wizard asks whether he should search for a new hardware. Please select "*Install the hardware that I manually select from a list (Advanced)*" and continue the installation with pressing the "Next" button.

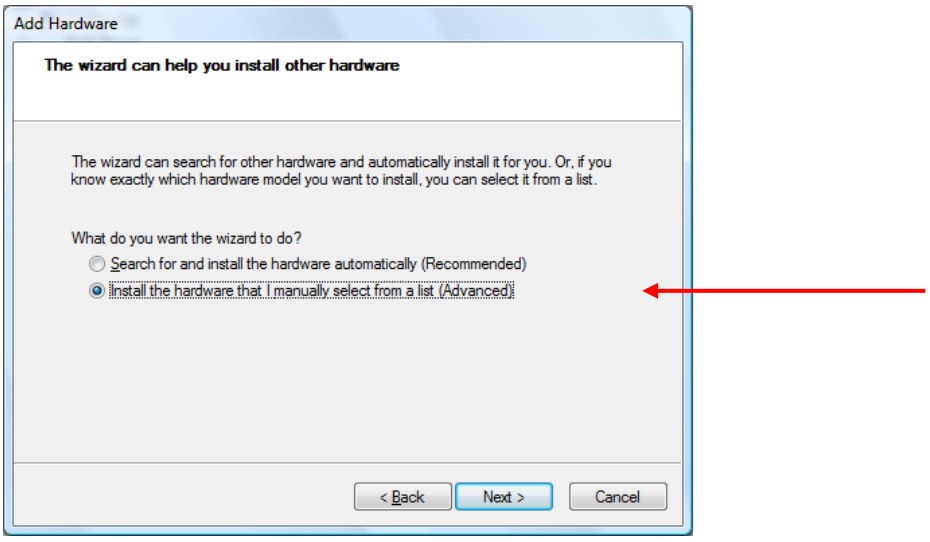

Figure 6.2-3: Manually select hardware from a list

(5) Because the VCI-software was installed before the hardware, you can select "IXXAT VCI V3 Interfaces" in the list of the known hardware types and continue via the "Next" button.

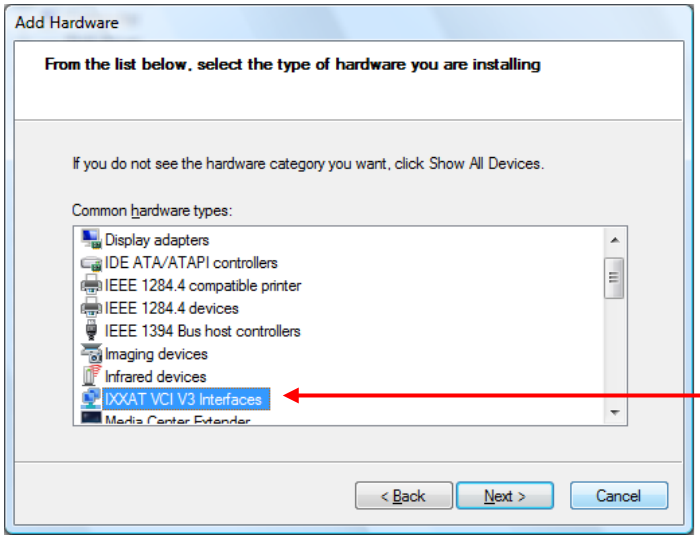

Figure 6.2-4: Selection of the hardware type

(6) The hardware wizard now provides a selection of drivers. Select your CAN-interface and continue the installation with "Next".

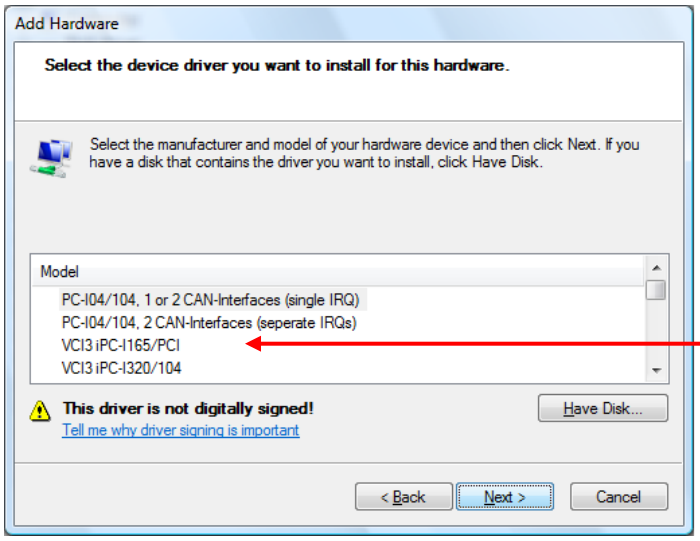

Figure 6.2-5: Selection of the driver to be installed

(7) Windows now confirms your selection, which you acknowledge with the "Next" button.

The selected driver will be installed. This may take some time!

(8) Windows has now installed the CAN-interface with default settings. Click on "*View or change resources for this hardware*" to adapt this settings to the settings on the board.

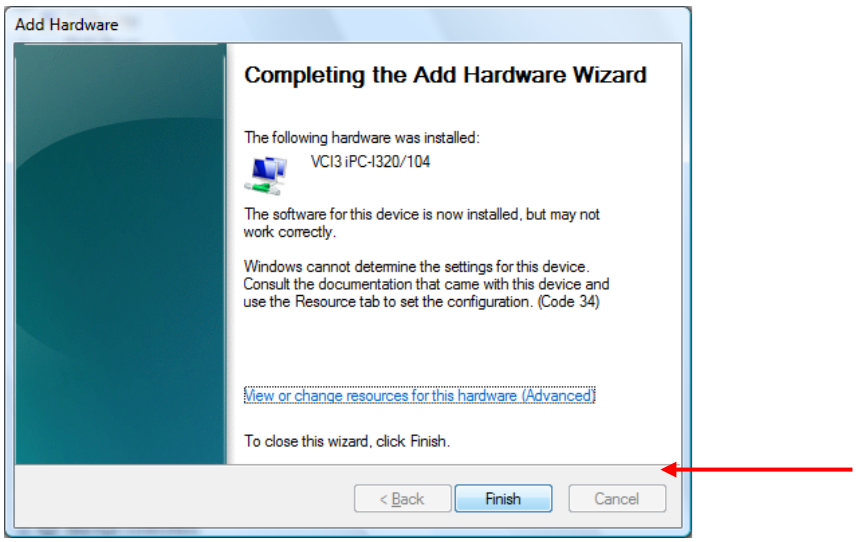

Figure 6.2-6: Hardware driver installed

(9) If the default settings are in conflict with existing resource configuration, Windows will show the following error message. Use the button "*Set Configuration Manually*" to adapt the settings.

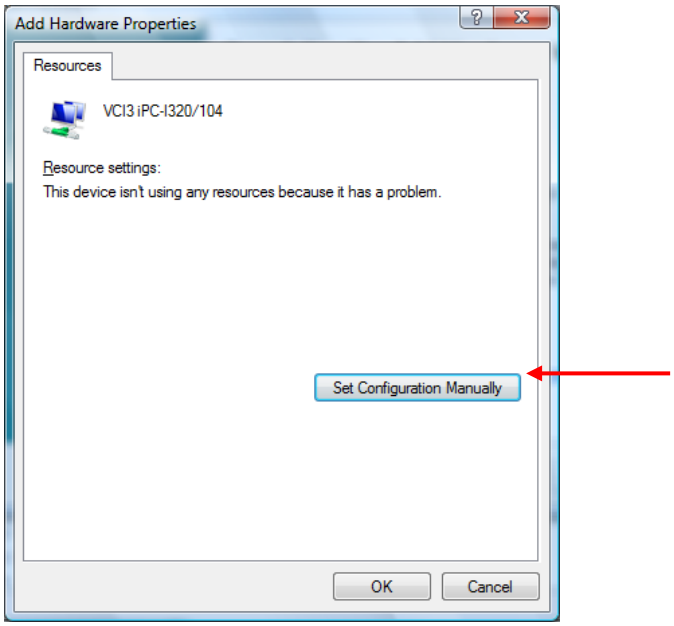

Figure 6.2-7: Notification about resource conflicts

(10) Changing the settings:

According to the settings made by you on the CAN-interface for address and interrupt, you must adjust the Resource settings here. Your alterations are adopted with "OK".

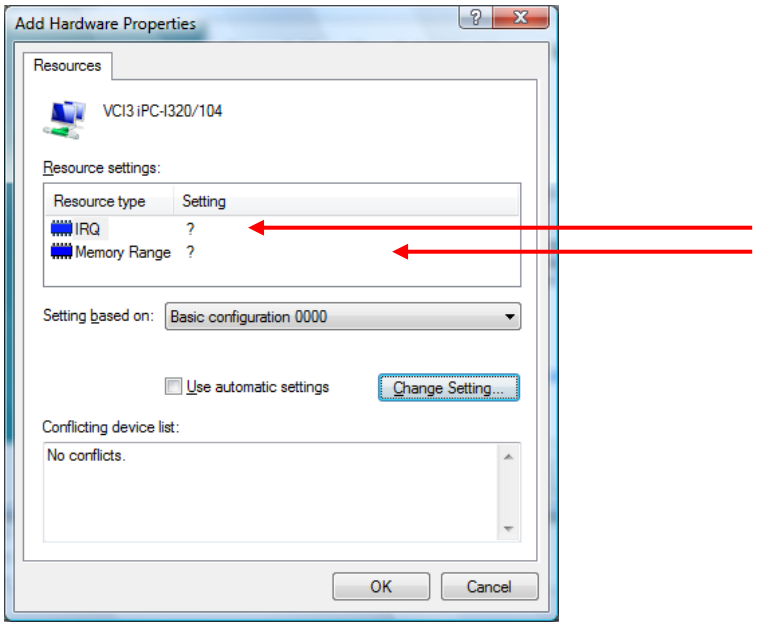

Figure 6.2-8: Adaptation of settings

(11) Conclude the installation with the "Finish" button.

6.2.2 Changing the settings

In case of resource conflicts with other hardware components you must modify the settings for address and/or IRQ as described in this chapter. Of course the new settings must first be set on the CAN-Interface itself and in the bios.

(1) Start the applet "System" within the Control Panel category "Hardware and Sound".

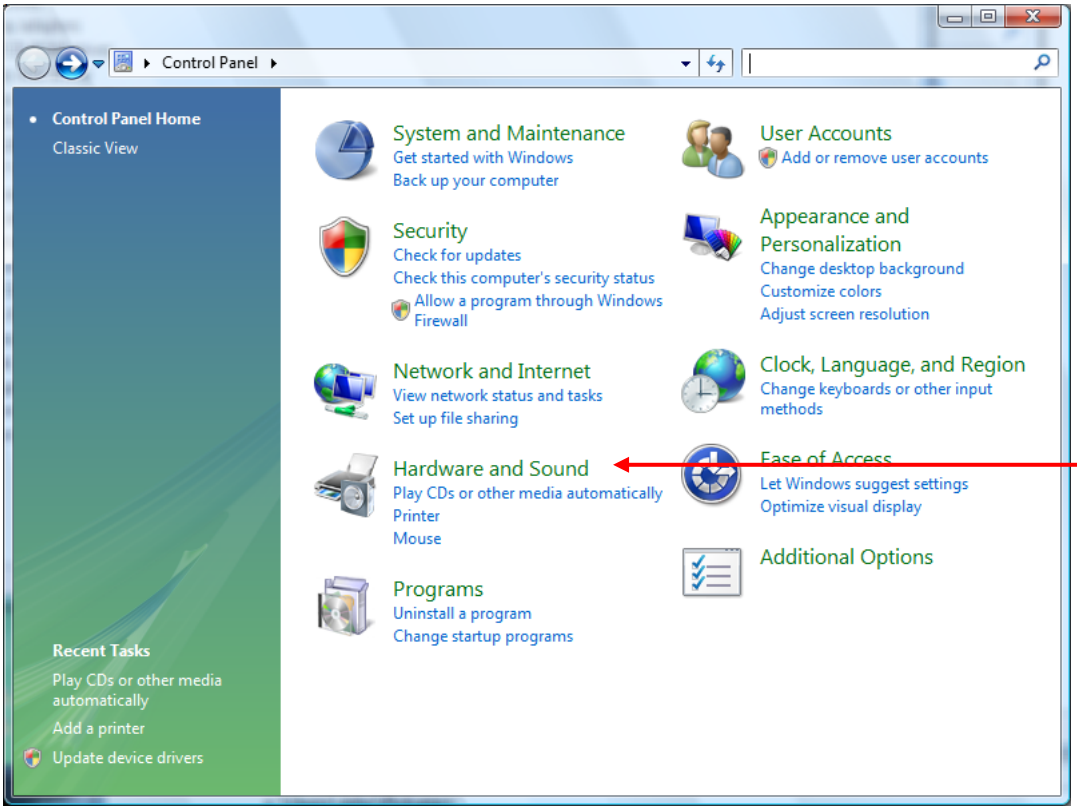

Figure 6.2-9: Starting the System Applet

(2) Select the installed CAN-interface in the Device Manager.
Open the properties of the CAN-interface whose settings you want to change.

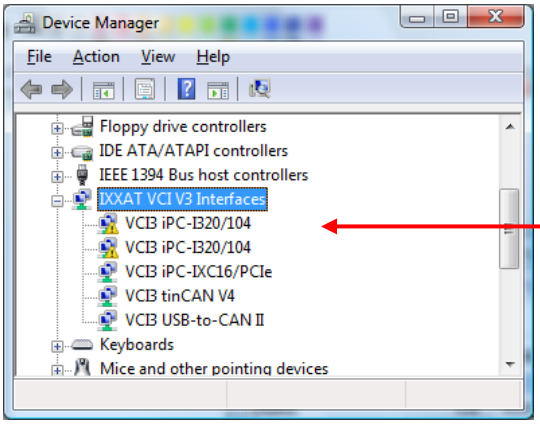

Figure 6.2-10: The Device Manager

(3) If the settings conflict with existing resource configuration Windows will show the following error message. Use the button "*Set Configuration Manually*" to adapt the settings.

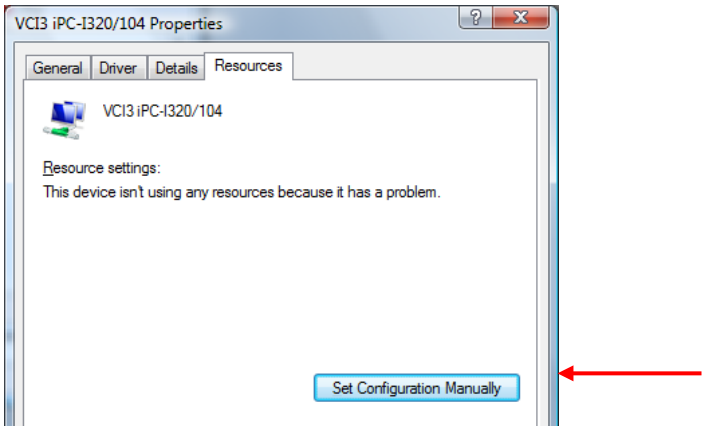

Figure 6.2-11: Notification about resource conflicts

(4) Changing the settings:
Now you see the settings entered during the installation.
Set the resources according to the settings you have made on the CAN-interface for address and interrupt.
Your alterations are adopted with "OK".

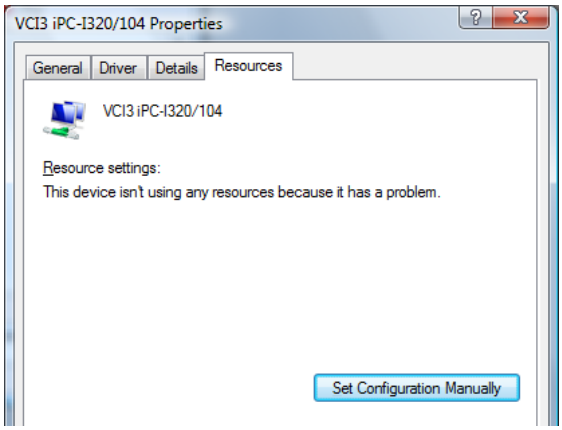

Figure 6.2-12: Adaptation of settings

6.3 Installation of CAN@net II

For the installation under Windows Vista please read the analogical installation instruction for Windows 7. Therefore refer to chapter 7.3 Installation of CAN@net II.

6.4 Installation of CANblue II

For the installation under Windows Vista please read the analogical installation instruction for Windows 7. Therefore refer to chapter 7.4 Installation of CANblue II.

7 Windows 7/8

Attention: With Windows 7 and Windows 8, the user must be logged in with administrator rights in order to carry out the hardware installation!

Tip: Install the VCI software before you install the IXXAT CAN interface. This facilitates configuration of the new IXXAT hardware under Windows. The driver will be found automatically and must not be copied from an external data carrier.

Tip: Please activate the check box “Always trust software from IXXAT Automation GmbH”, then you will not get this request dialog for each driver.

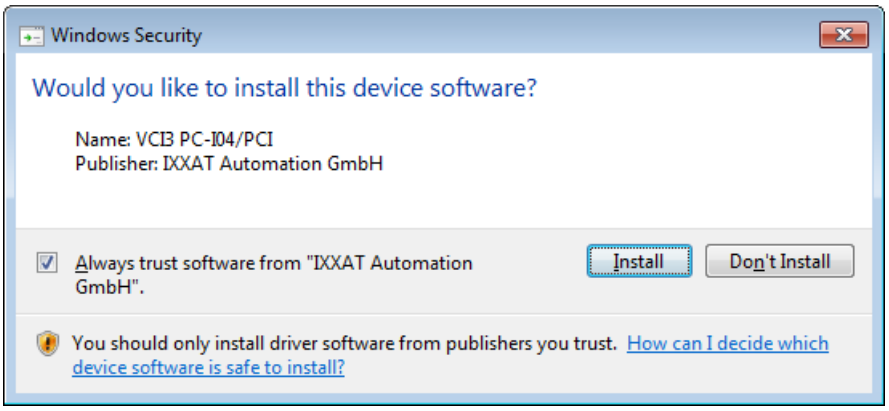

Figure 7-1: Driver installation

7.1 Installation of CAN interfaces

Installation is carried out via the automatically started hardware assistant, which detects the newly installed CAN-Interface.

(1) Install your IXXAT interface board. At this, please pay attention to the instructions in your hardware manuals.

(2) The first time Windows 7/8 is booted after installing the CAN-Interface the hardware assistant is started automatically.

(3) Windows finds a driver for the new CAN interface automatically.

After successful installation, the CAN interface is visible in the Windows Device Manager and ready for use.

7.2 Installation of PC/104 (ISA) boards

Before installing an ISA-card, it is absolutely essential to first find a free address space in the working memory and a free IRQ. For this, open the "System Informations" (Accessories|System Tools) and search for a free memory address space and a free IRQ under "Hardware Resources".

The address settings on the card are made by means of 16-bit DOS segment addresses (e.g. D200) which are also described in the hardware manual. 32-bit Windows operating systems don't work with DOS segment/offset addressing; instead they address the memory in a linear way. Therefore the board's segment address (e.g. D200…D3FF) is declared as a linear address under Windows (e.g. D2000…D3FFF).

The free address and the IRQ found are then set on the card by means of jumpers and dipswitches (see hardware manual). Afterwards install the CAN card into your PC.

The IRQ is to be reserved in the Bios for ISA-cards.

7.2.1 Installation

(1) Start the Device Manager via the icon "Hardware and Sound" and then Device Manager".

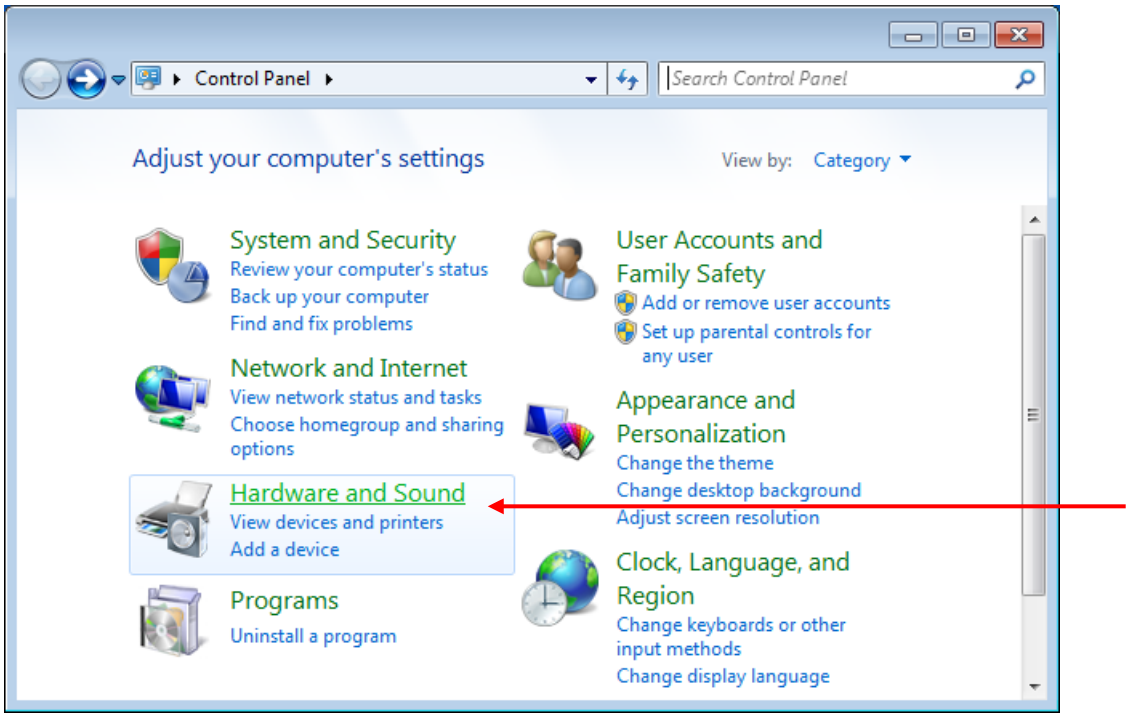

Figure 7.2-1: Starting the hardware and sound

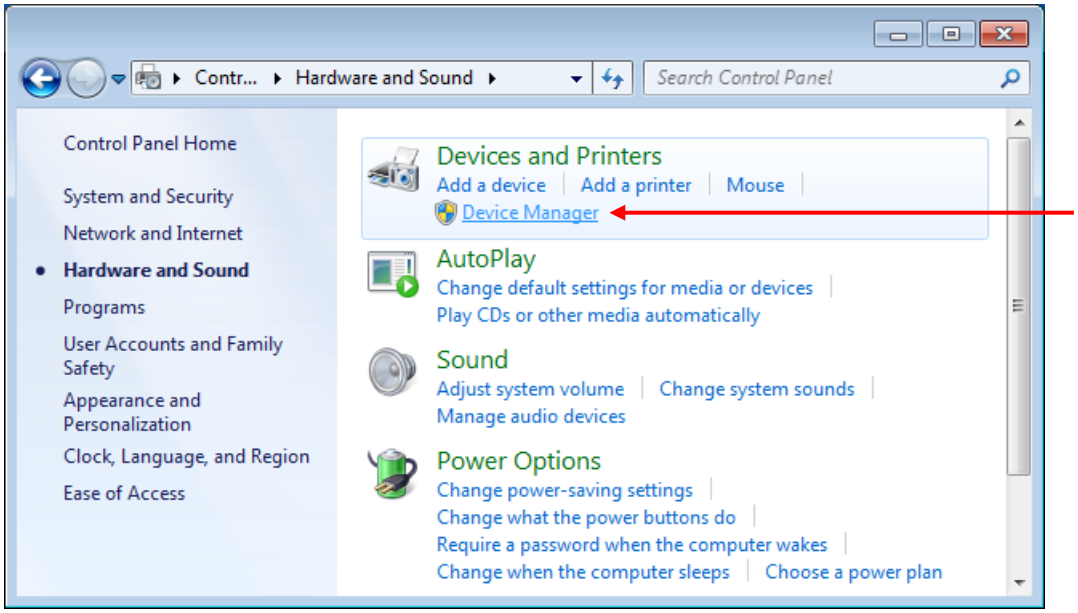

Figure 7.2-2: Starting the device manager

(2) Start the hardware assistant by selecting "Add legacy hardware"

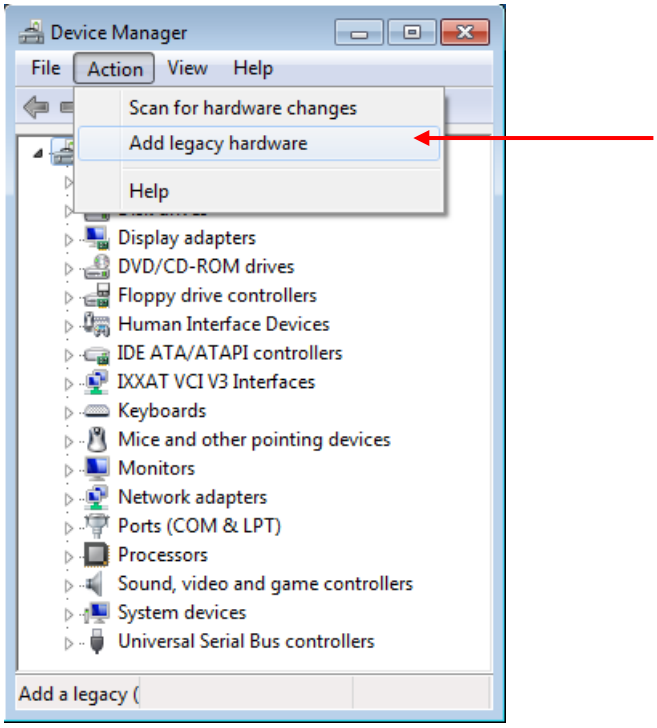

Figure 7.2-3: Start the Hardware Wizard

(3) The welcome dialog of the Hardware Wizard appears. Acknowledge this with the "Next"-button.

(4) Now the Hardware Wizard asks whether he should search for a new hardware. Please select "*Install the hardware that I manually select from a list (Advanced)*" and continue the installation with pressing the "Next" button.

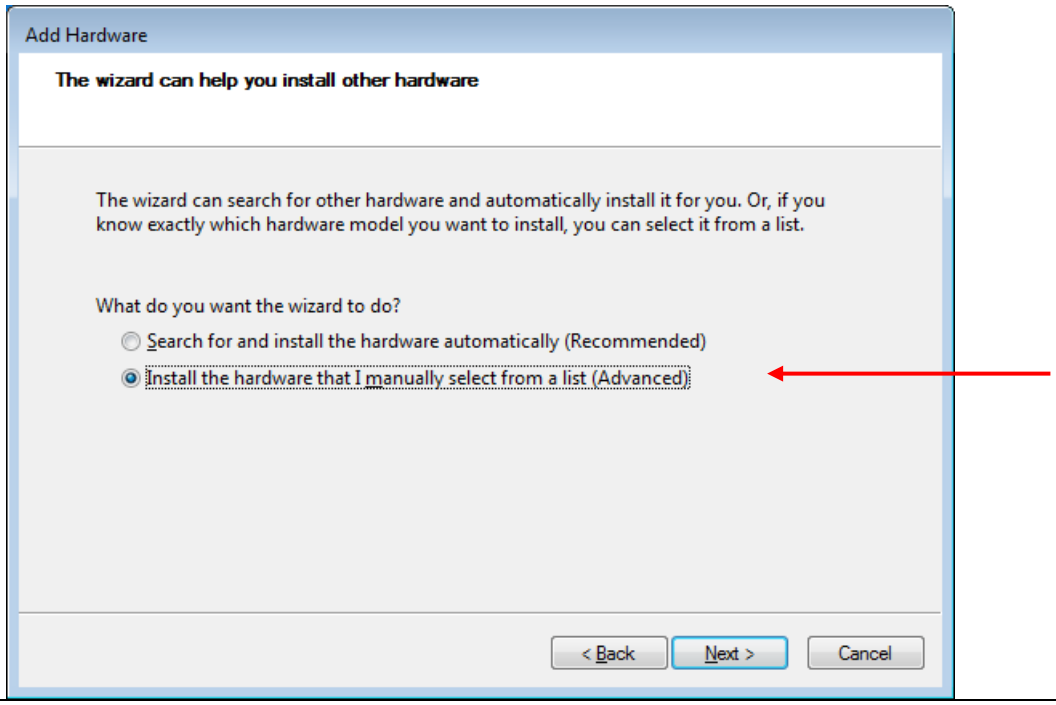

Figure 7.2-4: Manually select hardware from a list

(5) Because the VCI-software was installed before the hardware, you can select "IXXAT VCI V3 Interfaces" in the list of the known hardware types and continue via the "Next" button.

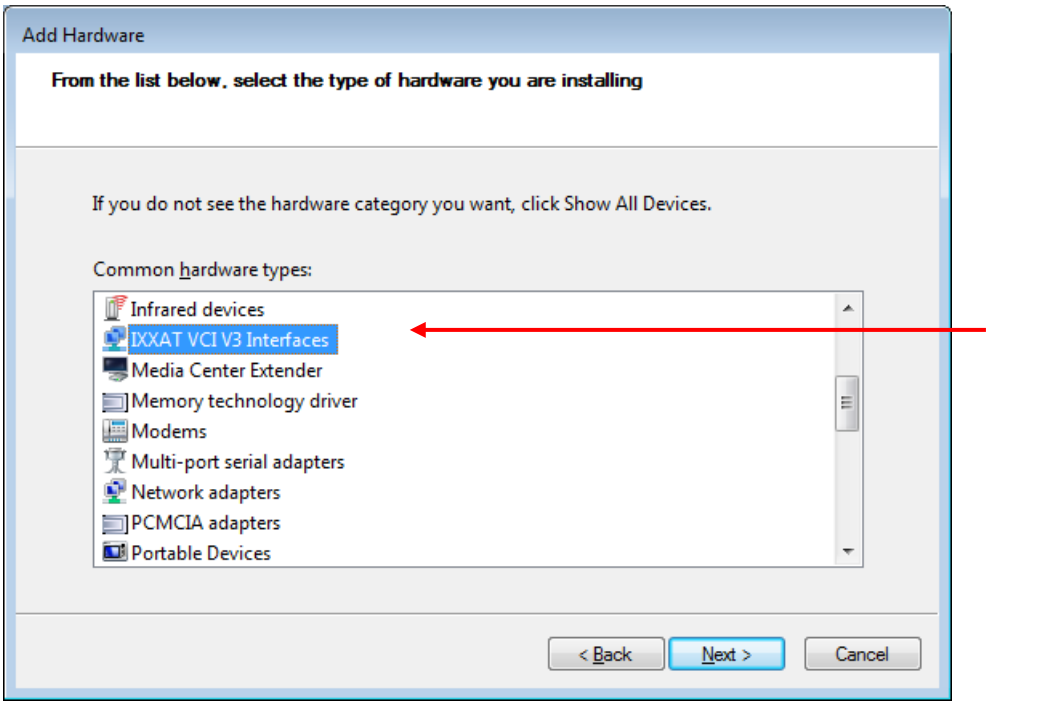

Figure 7.2-5: Selection of the hardware type

(6) The hardware wizard now provides a selection of drivers. Select your CAN-interface and continue the installation with "Next".

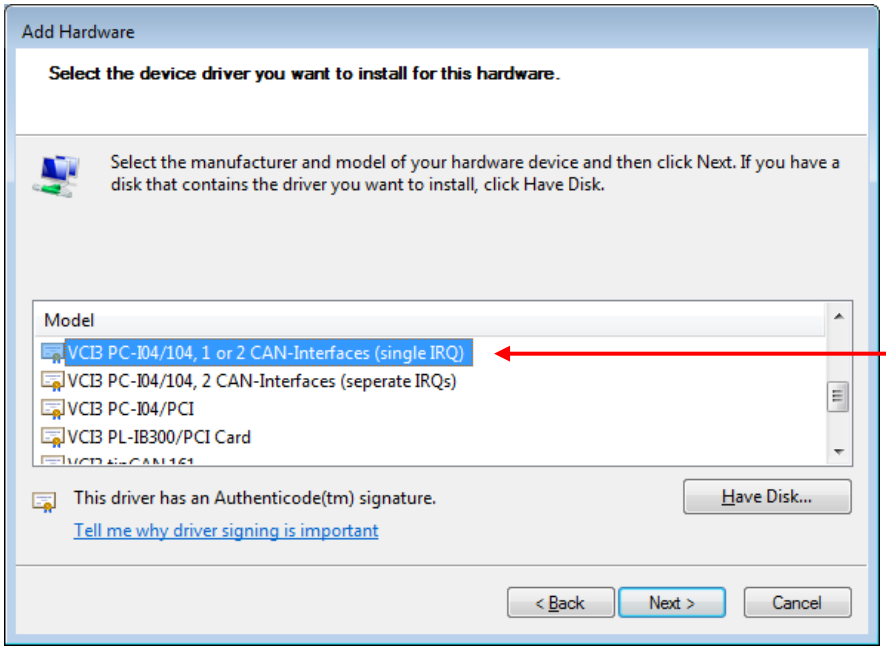

Figure 7.2-6: Selection of the driver to be installed

(7) Windows now confirms your selection, which you acknowledge with the "Next" button.

The selected driver will be installed. This may take some time!

(8) Windows has now installed the CAN-interface with default settings. Click on "*View or change resources for this hardware*" to adapt this settings to the settings on the board.

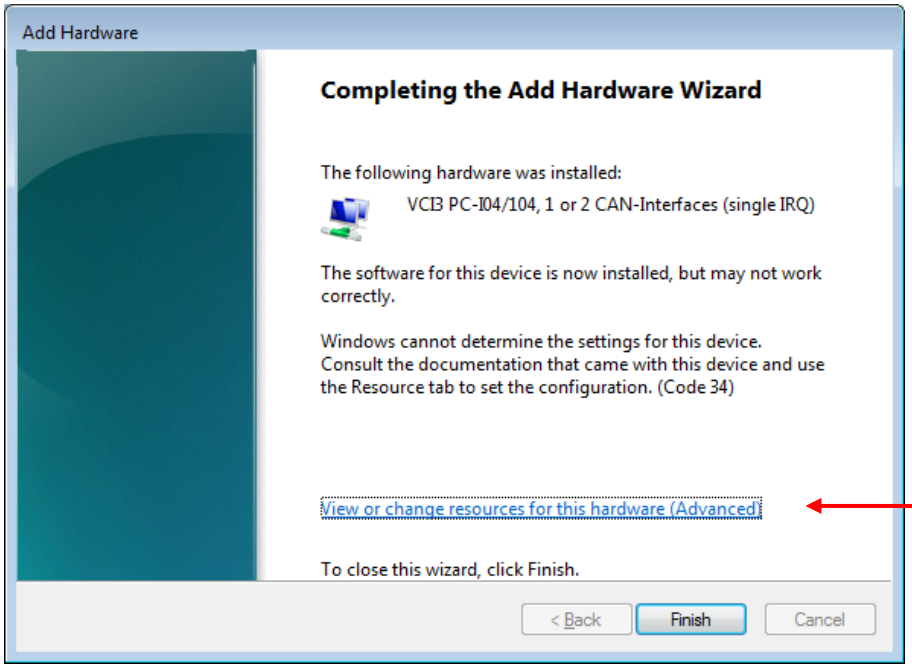

Figure 7.2-7: Hardware driver installed

(9) If the default settings are in conflict with existing resource configuration, Windows will show the following error message. Use the button "*Set Configuration Manually*" to adapt the settings.

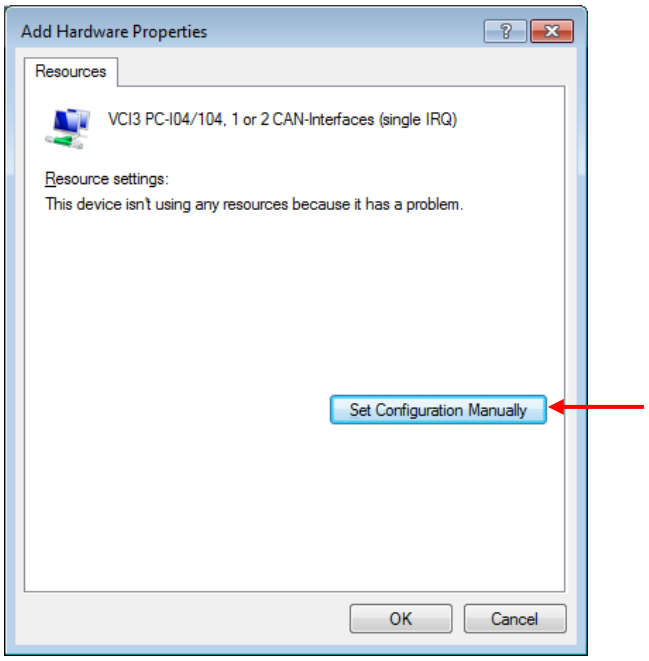

Figure 7.2-8: Notification about resource conflicts

(10) Changing the settings:

According to the settings made by you on the CAN-interface for address and interrupt, you must adjust the Resource settings here. Your alterations are adopted with "OK".

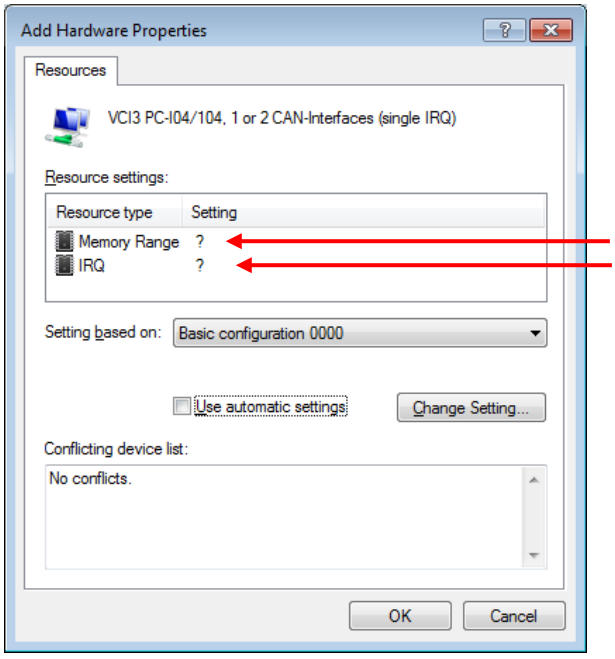

Figure 7.2-9: Adaptation of settings

(11) Conclude the installation with the "Finish" button.

7.2.2 Changing the settings

In case of resource conflicts with other hardware components you must modify the settings for address and/or IRQ as described in this chapter. Of course the new settings must first be set on the CAN-Interface itself and in the bios.

(1) Start the applet "System" within the Control Panel category "Hardware and Sound".

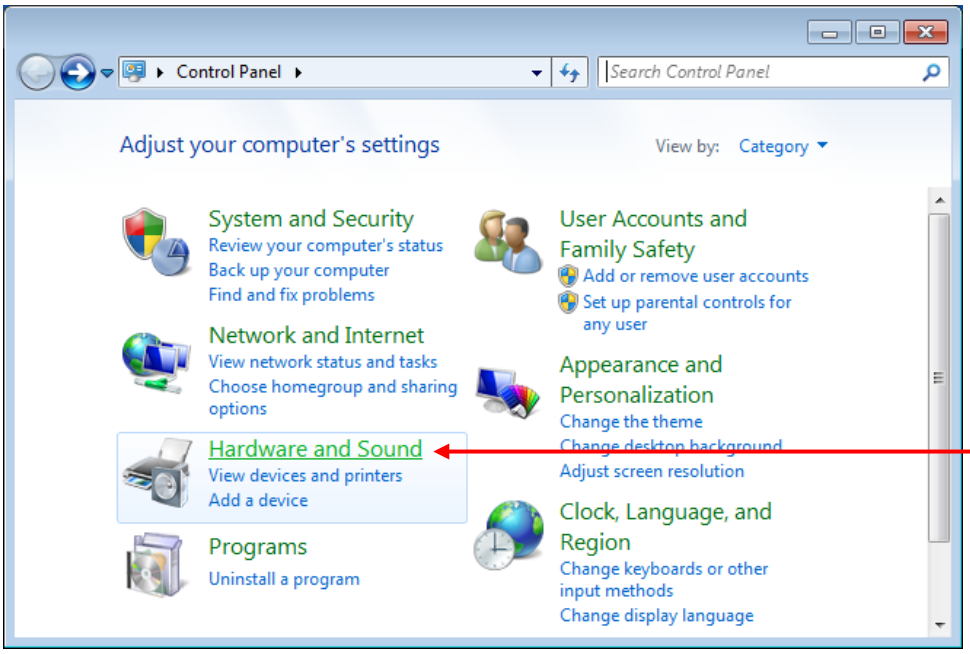

Figure 7.2-10: Starting the hardware and sound

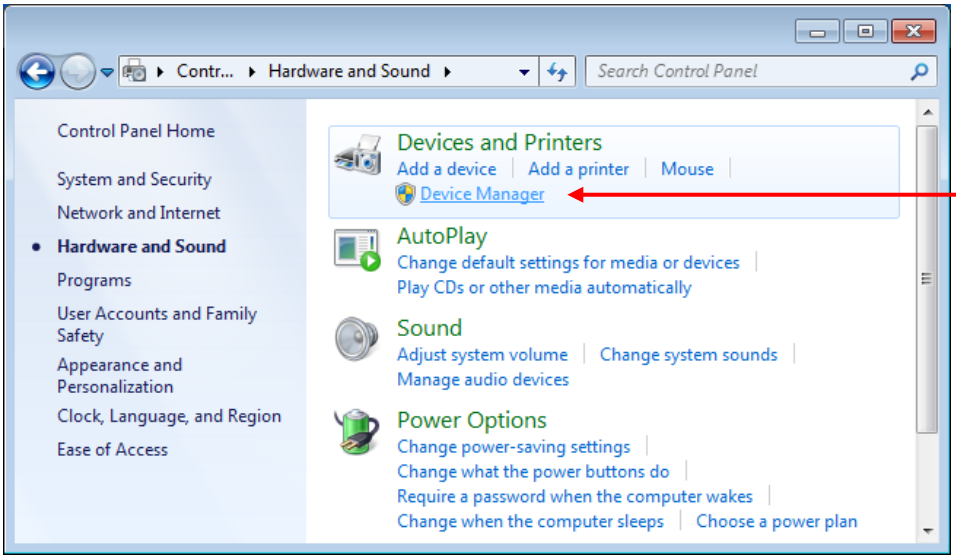

Figure 7.2-11: Starting the device manager

(2) Select the installed CAN-interface in the Device Manager.
Open the properties of the CAN-interface whose settings you want to change.

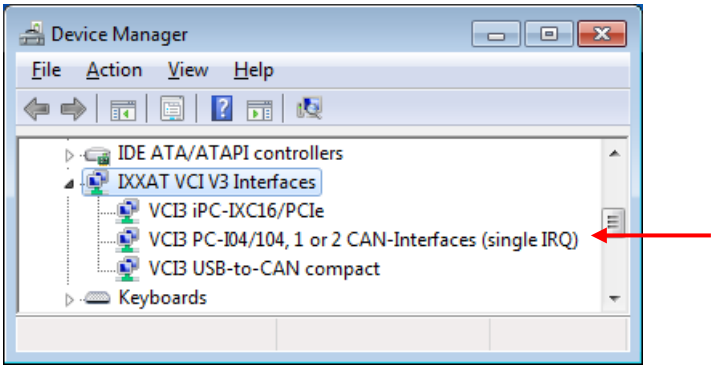

Figure 7.2-12: The Device Manager

(3) If the settings conflict with existing resource configuration Windows will show the following error message. Use the button "*Set Configuration Manually*" to adapt the settings.

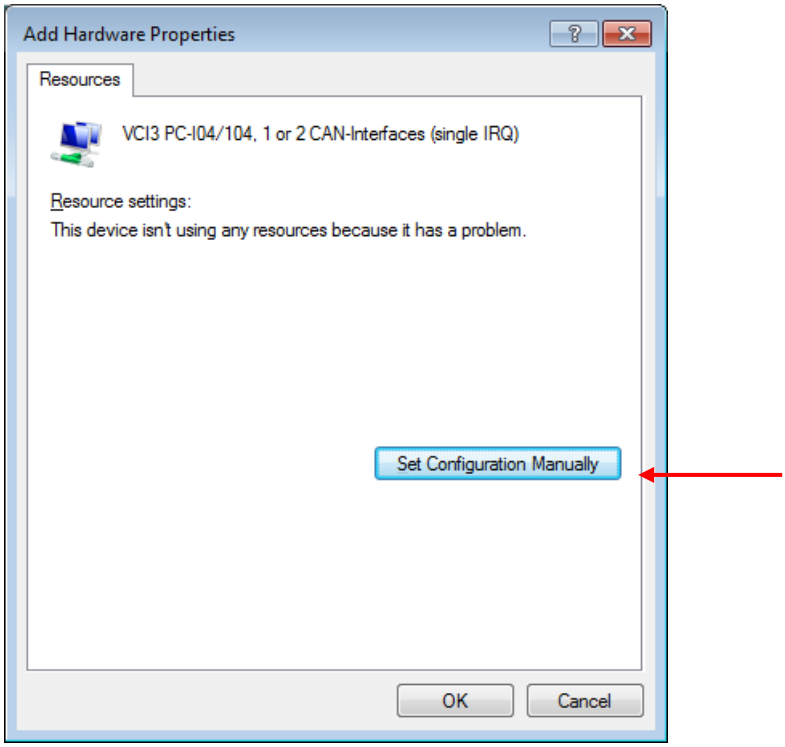

Figure 7.2-13: Notification about resource conflicts

(4) Changing the settings:
Now you see the settings entered during the installation.
Set the resources according to the settings you have made on the CAN-interface for address and interrupt.
Your alterations are adopted with "OK".

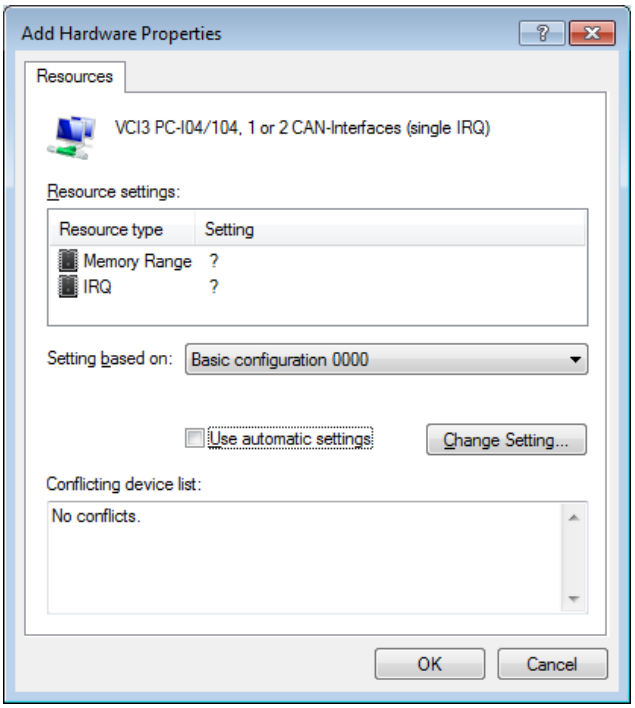

Figure 7.2-14: Adaptation of settings

7.3 Installation of CAN@net II

The installation is made with the aid of VCI3 Device Server Control which can be found in the start menu. With start the device is announced to the VCI_V3, but is not in use until a VCI_V3 or VCI_V2 application opens it.

(1) To open the VCI3 Device Server Control navigate in the start menu to Start → All programs → IXXAT → VCI 3.x and than open the link to VCI3 Device Server Control. After the first start following program with empty lists will be displayed.

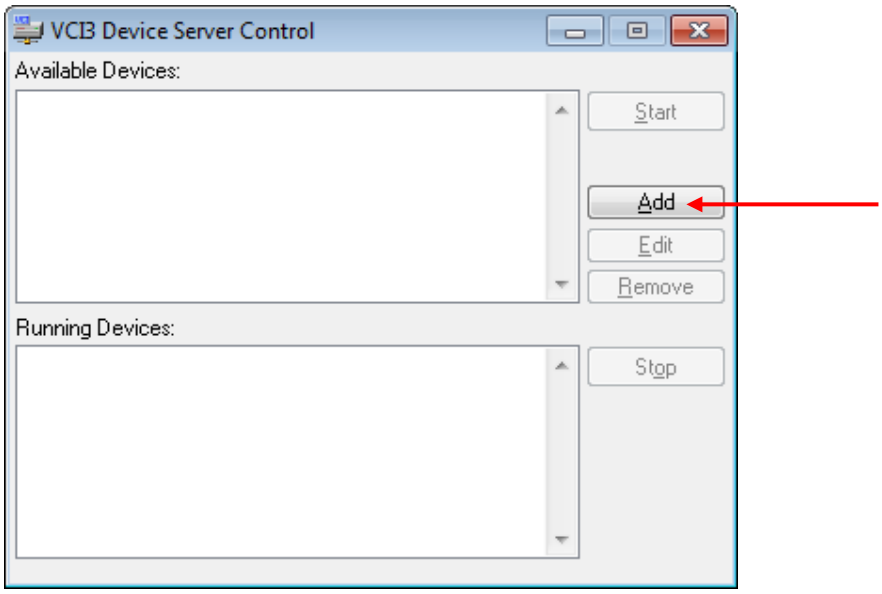

Figure 7.3-1: VCI3 Device Server Control

(2) Click once on "Add" to add a new device.

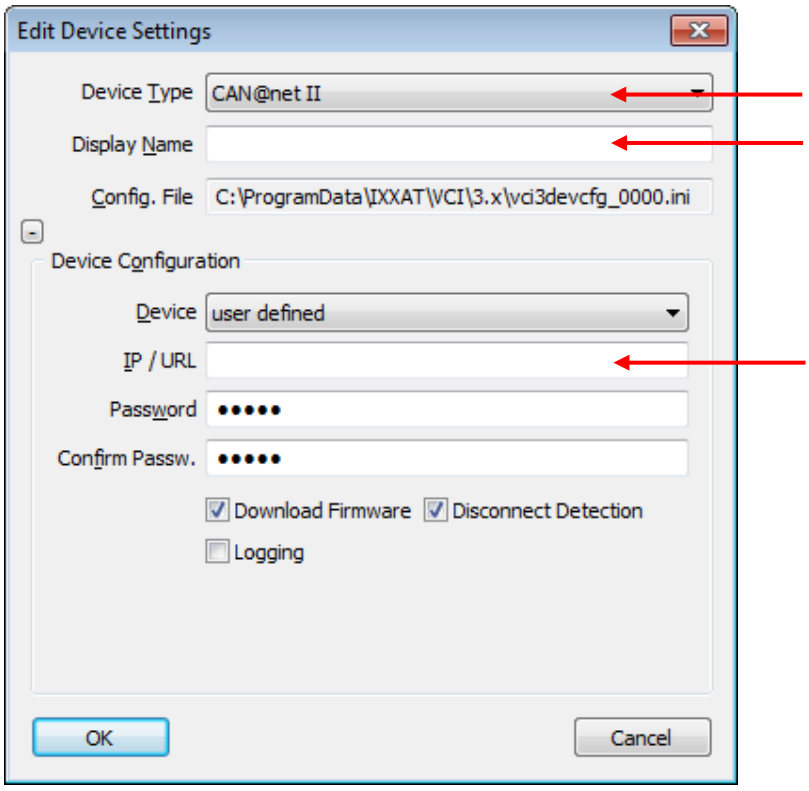

Figure 7.3-2: VCI3 Device Server Control – Modify Device Settings

(3) Select the Device Type "CAN@net II".

(4) Now enter a name for the new device. The name will be displayed later in the VCI3 Device Server Control and can be chosen freely.

(5) Enter the IP-Address of the CAN@net II in the field "IP / URL". The IP can be determined with the "CAN@net II Configurator" which is to be found at the same place in the start menu. To configure the CAN@net II please read the hardware manual of the CAN@net II.

(6) Enter the password in the field "Password" and "Confirm Password". If you have not changed the password it reads "IXXAT". This password will already be entered after the creating a new device in the dialog.

(7) If you do not need special settings you can proceed with step (11), all necessary configurations are made now.

(8) With the option "Download Firmware" you can specify if the firmware of the CAN@net II is downloaded on the device on every start. When using slow connections e.g. VPN it could be better if the firmware is flashed permanently on the CAN@net II. Therefore you need a flash programming software which is available from the support at IXXAT.

(9) With the option "Logging" you can specify to store debugging information during the usage of the CAN@net II. These logging files may contain the transferred CAN messages. Enabling this option is only necessary if you have trouble with the device and the support at IXXAT needs these logging files.

(10) With the option "Disconnect Detection" you can enable TCP/IP connection monitoring. If the option is enabled a cyclically check will be performed whether the connection between PC and CAN@net II is still established. If the connection breaks down it will be recognized after approximately 15-20 seconds. As result the CAN@net II is removed from the VCI_V3 and it is tried to re-establish the connection. As soon as the device is successfully found it is announced to the VCI_V3 and is available for VCI applications. With this the CAN controller and filter settings will be lost.

(11) After you have configured the settings to your needs you now can confirm the settings by pressing OK.

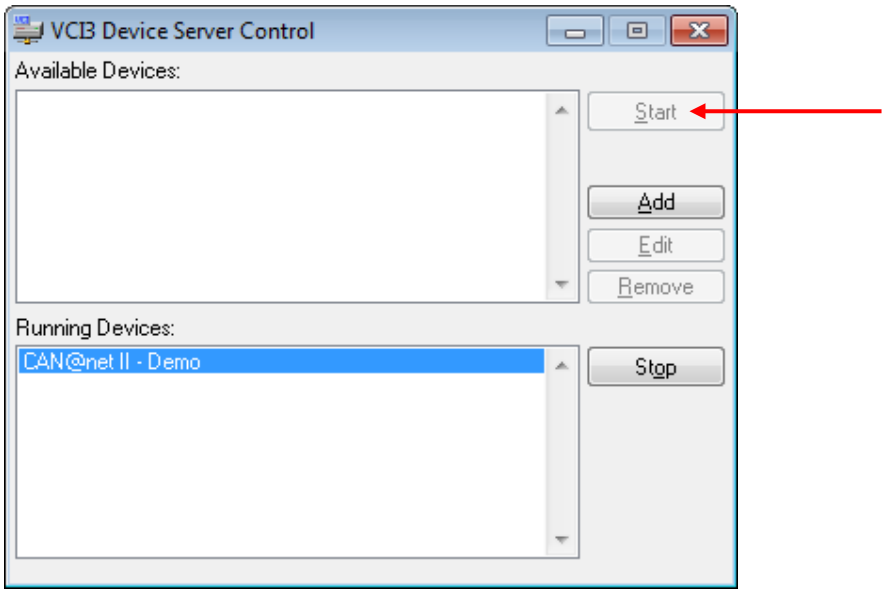

Figure 7.3-3: VCI3-Device-Server Control

(12) Now select the desired device from the list of available devices and press "Start". The device will now be announced to the VCI_V3 and can be used with VCI_V3 application.
Tip: If you do not wish to make any further changes you can close the VCI3 Device Server Control. The running device will stay announced to the VCI_V3 and will be re-announced by the Windows Service "IXXAT VCI V3 Device Server Service" on next system start.

(13) If you want to stop a running device, select the device to stop in the list of running devices and press "Stop". After the device is stopped it changes to the list of available devices and can be edited or removed.

(14) To configure an existing device, select it from the list of available devices and press "Edit".

(15) To remove an existing device, select it from the list of available device and press "Remove". Confirm the security message with "Yes".

Note: The program VCI3 Device Server Control is only used for configuring the VCI_V3 devices. The real announcement and removal is done by the Windows Service "IXXAT VCI V3 Device Server Service". The devices are controlled by INI-files which are stored in the folder "ProgramData\IXXAT\VCI\3.x\". You find further information to the INI-files in the Readme.txt in folder "Program Files\IXXAT\VCI 3.5\DeviceServer\".

7.4 Installation of CANblue II

The installation is made with the aid of VCI3 Device Server Control which can be found in the start menu. With start the device is announced to the VCI_V3, but is not in use until a VCI_V3 or VCI_V2 application opens it.

(17) To open the VCI3 Device Server Control navigate in the start menu to Start → All programs → IXXAT → VCI 3.x and than open the link to VCI3 Device Server Control. After the first start following program with empty lists will be displayed.

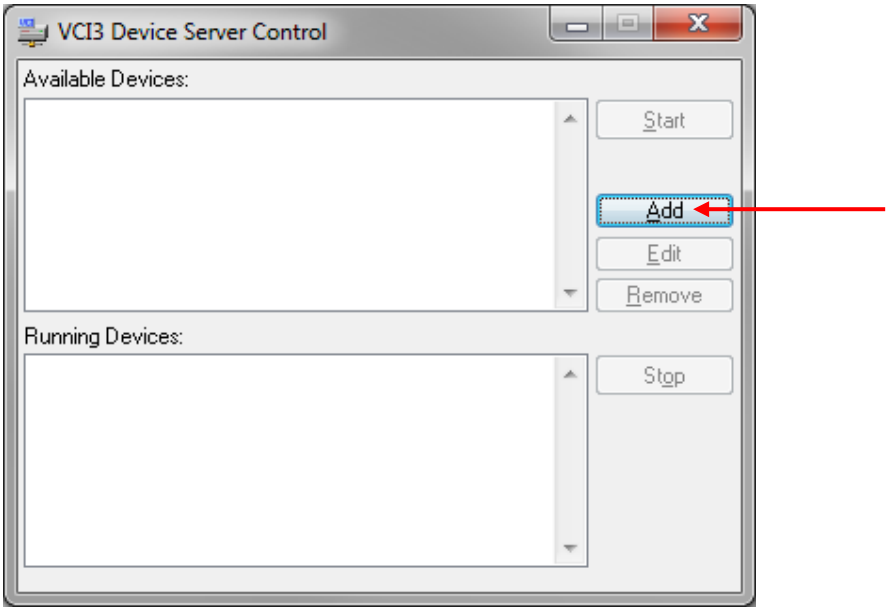

Figure 7.4-1: VCI3 Device Server Control

(18) Click once on "Add" to add a new device.

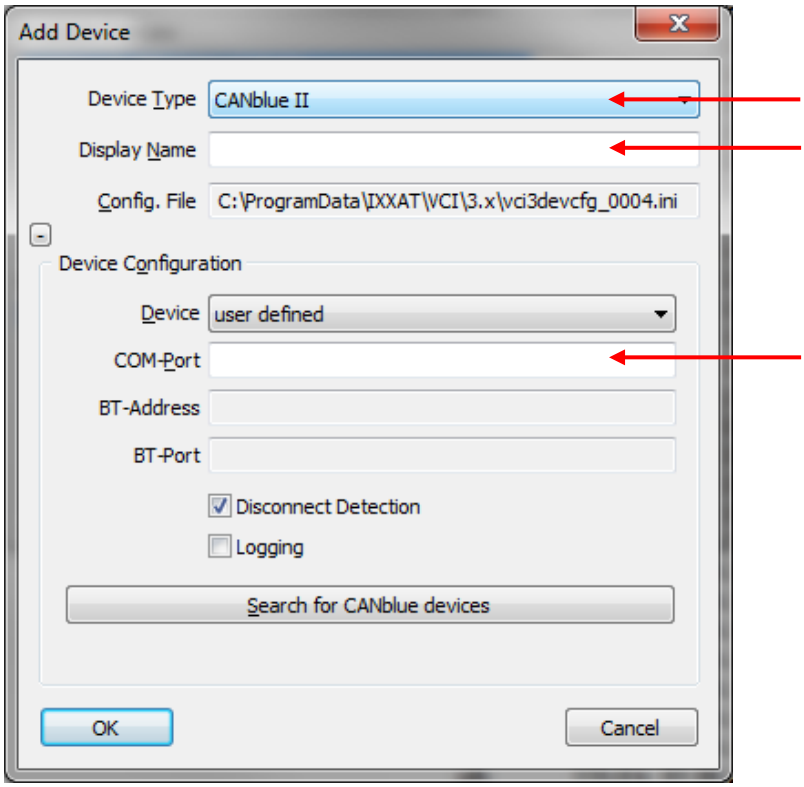

Figure 7.4-2: VCI3 Device Server Control – Modify Device Settings

(19) Select the Device Type "CANblue II".

(20) Now enter a name for the new device. The name will be displayed later in the VCI3 Device Server Control and can be chosen freely.

(21) If you use the Windows Bluetooth Stack you have the choice between a COM-Port defined device and a Bluetooth defined device. Please select "used defined" nearby device and proceed with step (6), if you prefer the COM-Port defined device or you do not use the Windows Bluetooth Stack, otherwise proceed with step (8).

(22) At first you have to search for the CANblue II device using your Bluetooth Stack software. After you have found your device assign a COM-Port to the Bluetooth service "Serial port (SPP)" named "Config". Enter this COM-Port into the "COM-Port" field of the "Add- Device" dialog window. The detailed instruction how to assign a COM-Port to the CANblue II device can be found in the hardware manual shipped with the CANblue II.

(23) If you do not need special settings you can proceed with step (12), all necessary configurations are made now. You can find further settings starting with step (10).

(24) To search the environment for CANblue devices please press the button "Search for CANblue devices". After a few seconds a list of found device with name and MAC address will appear. In the case your device is not in the list ensure your device is switched on and within range. Search for your device once again. The fields "BT-Address" and "BT-Port" are filled automatically after you have chosen a device from the list.

Note: CANblue devices of the first generation will also be displayed in the list. CANblue Generic devices are supported with limitations. CANblue VCI devices will still be supported by the VCI_V2 only. The CANblue Generic of the first generation does not support selfreception and timestamps. The timestamps will be reproduces on the PC.

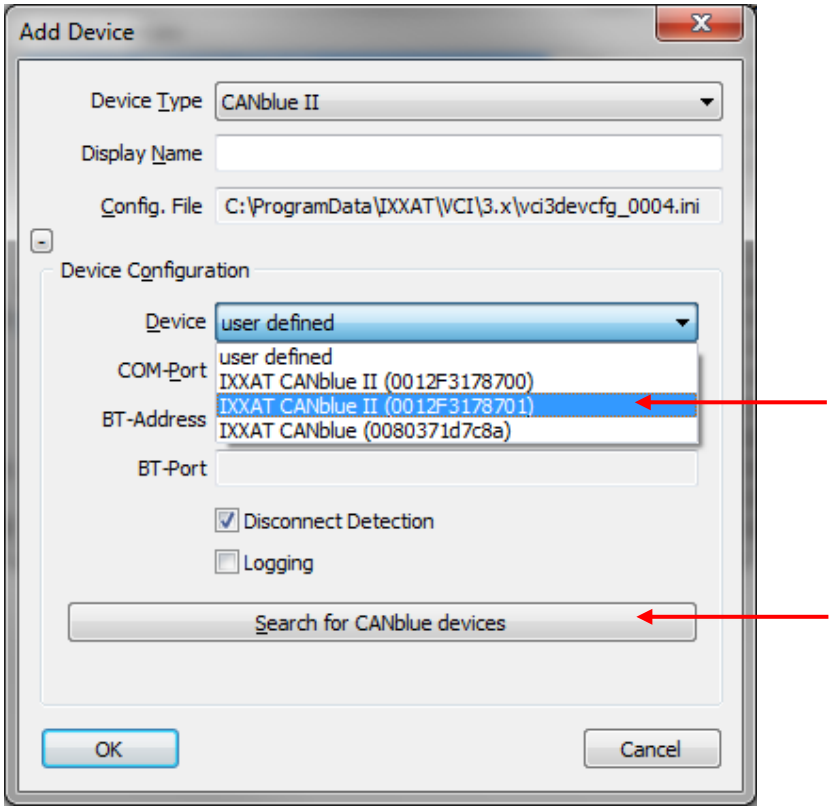

Figure 7.4-3: VCI3-Device-Server Control – Found Devices

(25) If you do not need special settings you can proceed with step (12), all necessary configurations are made now.

(26) With the option "Logging" you can specify to store debugging information during the usage of the CANblue II. These logging files may contain the transferred CAN messages. Enabling this option is only necessary if you have trouble with the device and the support at IXXAT needs these logging files.

(27) With the option "Disconnect Detection" you can enable Bluetooth connection monitoring. If the option is enabled a cyclically check will be performed whether the connection between PC and CANblue II is still established. If the connection breaks down it will be recognized after approximately 30-40 seconds. As result the CANblue II is removed from the VCI_V3 and it is tried to re-establish the connection. As soon as the device is successfully found it is announced to the VCI_V3 and is available for VCI applications. With this the CAN controller and filter settings will be lost.

(28) After you have configured the settings to your needs you now can confirm the settings by pressing OK.

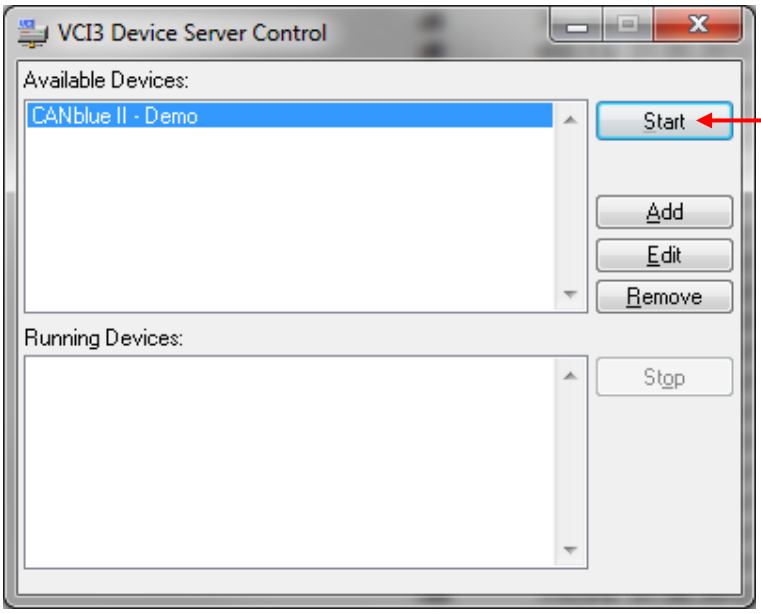

Figure 7.4-4: VCI3-Device-Server Control

(29) Now select the desired device from the list of available devices and press "Start". The device will now be announced to the VCI_V3 and can be used with VCI_V3 application.
Tip: If you do not wish to make any further changes you can close the VCI3 Device Server Control. The running device will stay announced to the VCI_V3 and will be re-announced by the Windows Service "IXXAT VCI V3 Device Server Service" on next system start.

(30) If you want to stop a running device, select the device to stop in the list of running devices and press "Stop". After the device is stopped it changes to the list of available devices and can be edited or removed.

(31) To configure an existing device, select it from the list of available devices and press "Edit".

(32) To remove an existing device, select it from the list of available device and press "Remove". Confirm the security message with "Yes".

Note: The program VCI3 Device Server Control is only used for configuring the VCI_V3 devices. The real announcement and removal is done by the Windows Service "IXXAT VCI V3 Device Server Service". The devices are controlled by INI-files which are stored in the folder "ProgramData\IXXAT\VCI\3.x\". You find further information to the INI-files in the Readme.txt in folder "Program Files\IXXAT\VCI 3.5\DeviceServer\".

8 Important information

8.1 Updating to a new VCI version

To update to a newer version of VCI_V3, please first uninstall the old version with the aid of the control panel / software.

Uninstallation of VCI_V2 is described in detail in the installation manual of VCI_V2 section 7.

After that carry out the new VCI installation.

8.2 Plug&Play hardware installed before VCI installation

If you already have installed your IXXAT PCI interface under Windows 2000/XP/Vista/7/8 before the VCI was installed, Windows will starts the automatic hardware assistant after booting. This requires the location of the relevant INF file, as described in this installation manual.

These INF files are not available in unpacked form. Therefore, abort the automatically started hardware installation and proceed as follows:

(1) Install the VCI. The necessary INF files are installed with the VCI.

(2) Restart Windows. Your Plug&Play hardware is now automatically detected and configured.

8.3 Installation of INF file via the right-hand mouse button

The INF files of the driver CD should not be directly installed via the right-hand mouse button in the Explorer. Correct installation can only be carried out via the hardware assistant.

8.4 Parallel usage of VCI_V3 and VCI_V2

The VCI_V3 can be used in parallel to a VCI_V2.18 and earlier installation without any problems. Starting with VCI_V3.4 and VCI_V2.20 the VCI_V2 is only a compatibility layer based on the VCI_V3. By that it is possible to use older VCI_V2 Applications on 64bit versions of Windows. Furthermore the parallel usage of one interface with VCI_V2 and VCI_V3 is possible without switching the drivers.