



VCI Driver for Windows

INSTALLATION GUIDE

4.02.0250.20010 2.3 ENGLISH

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1 User Guide

Please read the manual carefully. Make sure you fully understand the manual before using the product.

1.1 Related Documents

Document	Author
VCI .NET-API Software Design Guide	HMS
VCI C++ Software Design Guide	HMS
VCI C-API Programmers Manual (for VCI Software Version 3)	HMS

1.2 Document History

Version	Date	Description
2.0	May 2016	Revised and edited in new design
2.1	August 2016	Added Manufacturer address
2.2	November 2016	Merged installation guides for software version 3 (VCI V3) and 4 (VCI V4), renamed installation guide <i>VCI Driver</i> .
2.3	March 2017	Minor corrections, adjusted folder structure of driver, minor changes of Device Server Control V4, removed step-by-step instructions for Windows XP

1.3 Conventions

Instructions and results are shown in the following way:

- ▶ instruction 1
- ▶ instruction 2
 - ➔ result 1
 - ➔ result 2

Lists are shown in the following way:

- item 1
- item 2

Bold typeface indicates interactive parts such as connectors and switches on the hardware, or menus and buttons in a graphical user interface.

```
This font is used to indicate program code and other  
kinds of data input/output such as configuration scripts.
```

This is a cross-reference within this document: [Conventions, p. 4](#)

This is an external link (URL): www.hms-networks.com



This is additional information which may facilitate installation and/or operation.



This instruction must be followed to avoid a risk of reduced functionality and/or damage to the equipment, or to avoid a network security risk.

2 Features

The VCI is an universal driver for all IXXAT-Interfaces and already included in the scope of delivery of the interface. As a DLL for Windows XP/7/8/10 it forms the interface between the user application and the various IXXAT-Interfaces. A special feature is its uniform programming interface, which allows a change between various interface types without adapting the user software.

The VCI supports all current IXXAT-Interfaces. Information about supported interfaces and version of the VCI driver is available within the support area on www.ixxat.com.

This installation guide applies for various VCI driver software versions. When the VCI driver is installed, the names of the automatically installed folders and files correspond to the software version in use. In the following sections the names are referred to the VCI software version 4. If software version 3 is installed the names differ corresponding to the version number.

3 Install Driver Software



Make sure old version is uninstalled before updating to newer version.



Check correct VCI version for interface in use within support area on www.ixxat.com.



VCI driver software is constantly improved and expanded!

Check if a newer version of driver is available and valid for the interface in use within support area on www.ixxat.com.

- ▶ Make sure all other IXXAT programs are closed.
- ▶ Insert CD-ROM into CD drive.
- ▶ Open file `VCI_4_*.exe` in drivers directory on CD-ROM.
 - ➔ Installation wizard starts.
- ▶ In welcome dialog click button **Next**.
- ▶ Accept licence agreement.
- ▶ In window **Select Components** select the components to be installed.



It is possible to select only certain interfaces or full installation.

- ▶ Follow instructions in installation program.

4 Install Hardware

The installation of the hardware is different depending on the operation system in use.

4.1 Windows XP

For the driver installation under Windows XP follow the analogical installation instructions for Windows 7/8 (see [Windows 7/8, p. 6](#)).

4.2 Windows 7/8



Make sure to be logged in with administrator rights in order to install the hardware.

4.2.1 Install Interface

- ▶ Make sure that VCI driver is installed.
- ▶ Install interface (see *User Manual* of hardware in use).
- ▶ Boot Windows.
 - ➔ Hardware wizard starts automatically.
- ▶ In welcome dialog click button **Next**.
 - ➔ Windows finds driver for new interface.
- ▶ To finish installation click button **Finish**.
 - ➔ Interface is visible in Windows Device Manager and ready to use.



If driver is not found see [Troubleshooting, p. 20](#).

4.2.2 Install CAN@net II

- ▶ Go to **Start menu — All programs — HMS — IXXAT® VCI 4.0** and open **VCI Device Server Control**.

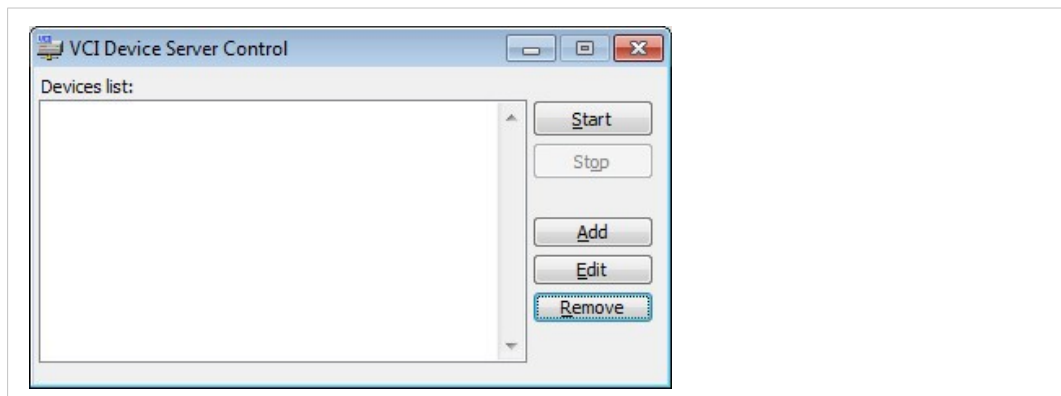


Fig. 1 VCI Device Server Control V4

i With VCI V 3 two lists are shown: **Available Devices** and **Running Devices**.

- ▶ To add new device click button **Add**.
 - ➔ Window **Add Device** is opened.

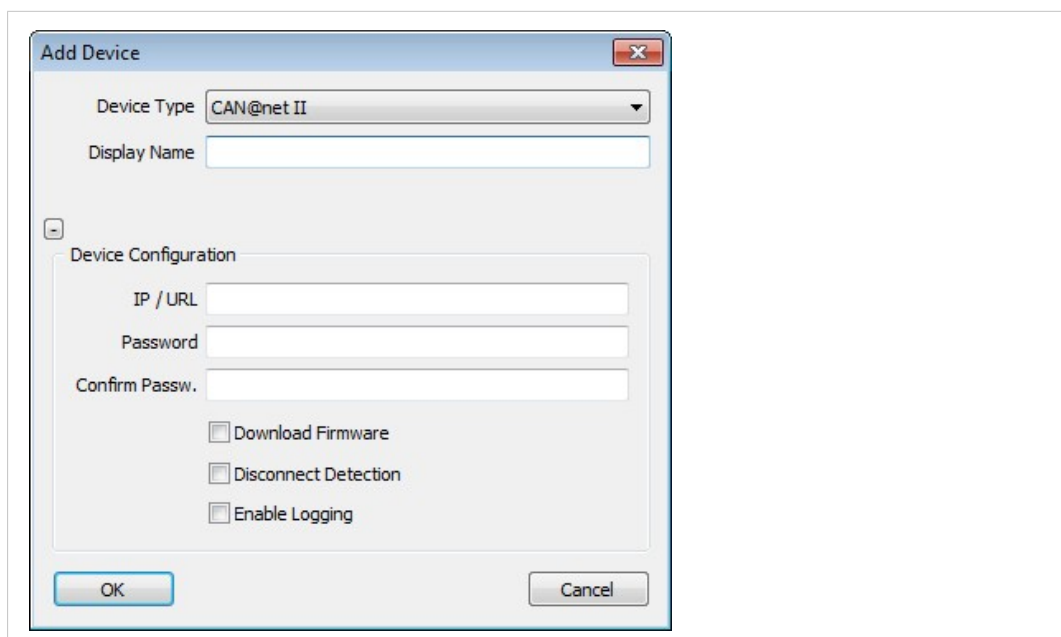


Fig. 2 Add Device

- ▶ Select in field **Device Type** CAN@net II.
- ▶ Chose name for new device and enter it in field **Display Name**.

i The name of the device will be displayed in the VCI Device Server Control.

Determine IP-address with CAN@net II Configurator:

- ▶ Go to **Start menu — All programs — HMS — IXXAT® VCI 4.0** and open **CAN@net II Configurator**.



Scanning problems caused by different Ethernet ports!

If device is not found, connect device to main (first) Ethernet port.

- ▶ Make sure that CAN@net II and network interface are located in the same IP address domain (IP and subnet), e.g. PC Ethernet port 192.168.1.55 / CAN@net 192.168.1.xxx.

Edit settings:

- ▶ In field **IP/URL** enter IP-address of CAN@net II.
- ▶ In field **Password** enter password. The preset password is IXXAT.
- ▶ In field **Confirm Passw.** enter password again.
- ▶ Adjust special settings if necessary.

Special settings

Setting	Enabled	Disabled
Download Firmware	Firmware of the device is downloaded on the device every start.	Useful when using slow connections. Firmware has to be flashed permanently on the device with flash programming software (see support area on www.ixxat.com).
Logging	Debugging information is stored during usage of the device. Necessary if HMS Industrial Networks support needs logging files.	Debugging information is not stored.
Disconnect Detection	Enables TCP/IP connection monitoring. Cyclically checks if the connection between computer and the device is still established. A connection breakdown is recognized after approximately 15-20 seconds. The device is then removed from VCI and the reestablishment of the connection is attempted. When device is successfully found it is announced to VCI and is available for VCI applications. CAN controller and filter settings will be lost.	

- ▶ Click button **OK** to confirm.
- ➔ Device is shown in **Devices list**.

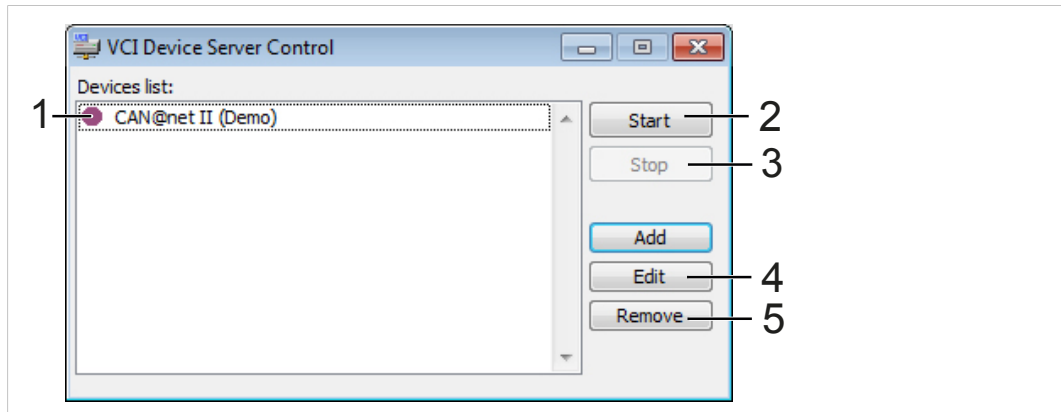




Fig. 3 VCI Device Server Control V4

i With VCI V 3 devices are displayed in two lists: **Available Devices** and **Running Devices** (instead of the symbols in VCI V4).

- ▶ Select device in list (1) and click button **Start** (2).
 - ➔ Device is announced to VCI (indicated by green symbol .
 - ➔ When device is ready to use with the VCI application, symbol  is shown.

i To test if connection succeeded, start canAnalyser Mini. All started devices are shown in the list of available CAN channels.

- ▶ To stop a running device select device in list and click button **Stop** (3).
 - ➔ Selected device is ready to edit or remove.
- ▶ To configure an existing device select device in list and click button **Edit** (4).

To remove an existing device:

- ▶ Select device in list.
- ▶ Click button **Remove** (5).
- ▶ Confirm security message with **Yes**.

i VCI Device Server Control is only used for configuring VCI devices. Announcement and removal is done by IXXAT VCI V4 Device Server Service. Devices are controlled by INI-files stored in folder Documents and Settings/Application Data/IXXAT/VCI/4.x. For further information read Readme.txt in folder Program Files/HMS/IXXAT VCI 4.0/Device Server.

4.2.3 Install CANblue II

- ▶ Make sure, that CANblue II is connected (see User Manual *CANblue II*).
- ▶ Go to **Start menu — All programs — HMS — IXXAT® VCI 4.0**.
- ▶ Right-click on **VCI Device Server Control** and execute it with administrator rights.



The Bluetooth connection can only be established if **VCI Device Server Control** is executed with administrator rights (although there is no visible difference when starting as normal user).

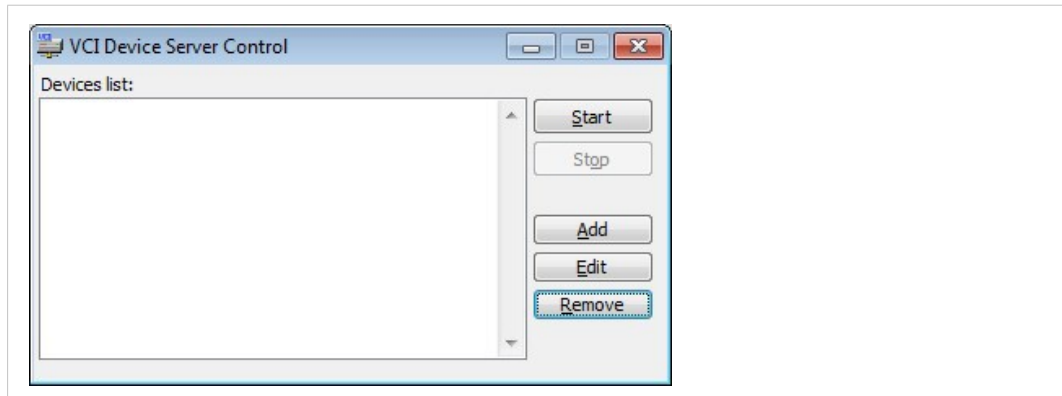


Fig. 4 VCI Device Server Control V4



With VCI V 3 two lists are shown: **Available Devices** and **Running Devices**.

- ▶ To add new device click button **Add**.
 - ➔ Window **Add Device** is opened.

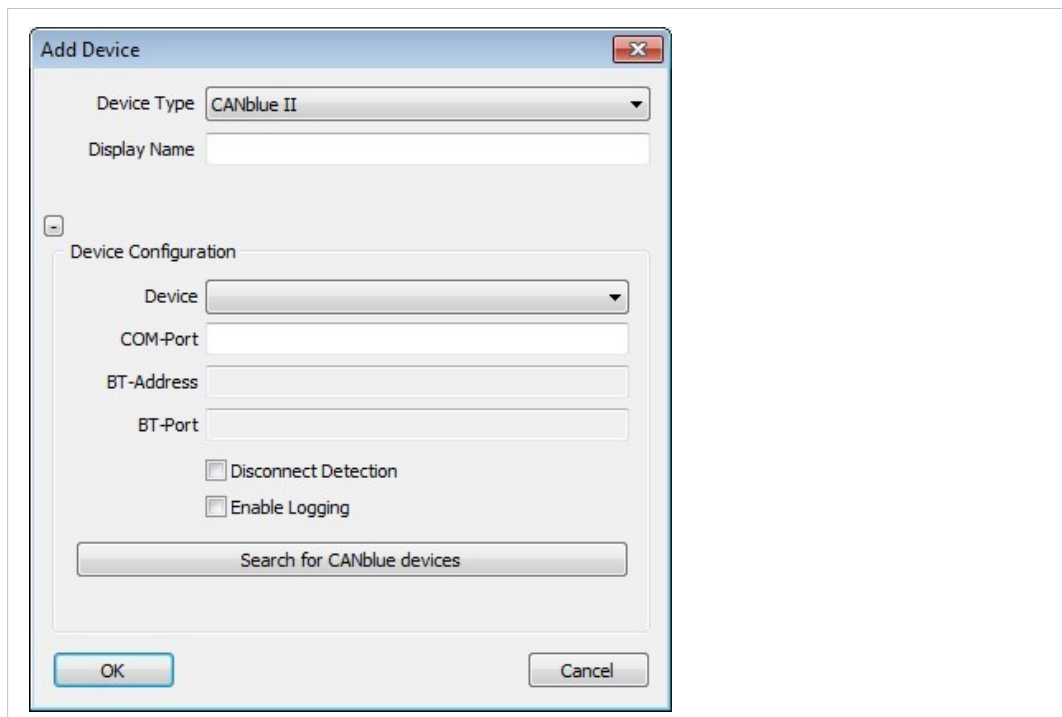


Fig. 5 Add Device

- ▶ Select in field **Device Type** CANblue II.

- ▶ Chose name for new device and enter it in field **Display Name**.



The name of the device will be displayed in the VCI Device Server Control.

Define device using Bluetooth address:

- ▶ Click button **Search for CANblue devices**.
 - ➔ Detected devices are listed in drop-down list **Device**.
- ▶ If device is not found make sure that device is switched on and within range.
- ▶ Click button **Search for CANblue devices** again.
- ▶ Select device in use in list **Device**.
 - ➔ Fields **BT-Address** and **BT-Port** are completed automatically.

Define device using COM-Port:

- ▶ In field **Device** select **user defined**.
- ▶ Search for device using Bluetooth stack software.
- ▶ Assign COM-Port to Bluetooth service **Serial Ports (SPP)** named **Config** (for detailed instruction see *CANblue II* User Manual).
- ▶ In field **COM-Port** enter COM-Port.

Further settings

- ▶ Adjust special settings if necessary.

Special settings

Setting	Enabled	Disabled
Logging	Debugging information is stored during usage of the device. Necessary if IXXAT support needs logging files.	Debugging information is not stored.
Disconnect Detection	Enables Bluetooth connection monitoring. Cyclically checks if the connection between computer and the device is still established. A connection breakdown is recognized after approximately 30-40 seconds. The device is then removed from VCI and the reestablishment of the connection is attempted. When device is successfully found it is announced to VCI and is available for VCI applications. CAN controller and filter settings will be lost.	

- ▶ Click button **OK** to confirm.
- ▶ Device is shown in **Devices list**.

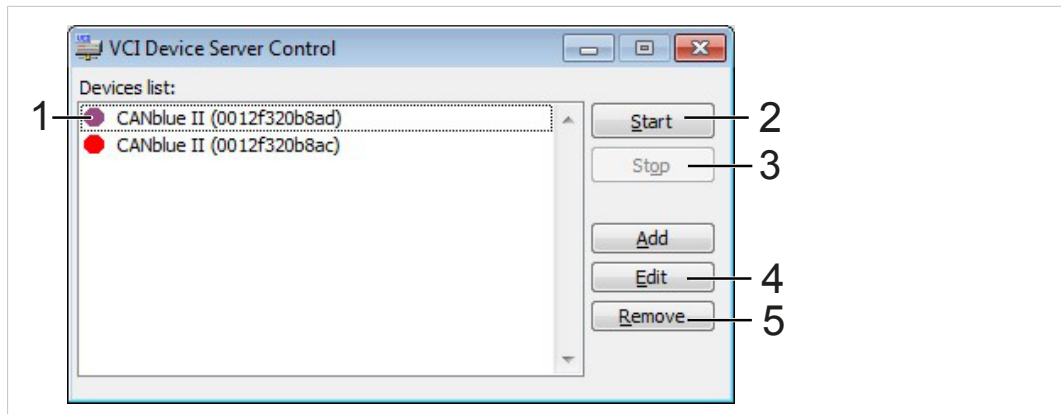


Fig. 6 VCI Device Server Control V4

i With VCI V 3 devices are displayed in two lists: **Available Devices** and **Running Devices** (instead of the symbols in VCI V4).

- ▶ Select device in list (1) and click button **Start** (2).
 - ➔ Device is announced to VCI (indicated by green symbol ●).
 - ➔ When device is ready to use with the VCI application, symbol ✓ is shown.

i To test if connection succeeded, start *canAnalyser Mini*. All started devices are shown in the list of available CAN channels.

- ▶ To stop a running device select device in list and click button **Stop** (3).
 - ➔ Selected device is ready to edit or remove.
- ▶ To configure an existing device select device in list and click button **Edit** (4).

To remove an existing device:

- ▶ Select device in list.
- ▶ Click button **Remove** (5).
- ▶ Confirm security message with **Yes**.


i VCI Device Server Control is only used for configuring VCI devices. Announcement and removal is done by IXXAT VCI V4 Device Server Service. Devices are controlled by INI-files stored in folder Documents and Settings/Application Data/IXXAT/VCI/4.x. For further information read *Readme.txt* in folder Program Files/HMS/IXXAT VCI 4.0/Device Server.

4.3 Windows 10

 *Make sure to be logged in with administrator rights in order to install the hardware.*

4.3.1 Install Interface

- ▶ Make sure that VCI driver is installed.
- ▶ Install interface (see *User Manual* of hardware in use).
- ▶ Boot Windows.
 - ➔ Hardware wizard starts automatically.
- ▶ In welcome dialog click button **Next**.
 - ➔ Windows finds driver for new interface.
- ▶ To finish installation click button **Finish**.
 - ➔ Interface is visible in Windows Device Manager and ready to use.

 *If driver is not found see [Troubleshooting, p. 20](#).*

4.3.2 Install CAN@net II

- ▶ Go to **Start menu — All programs — HMS — IXXAT@VCI 4.0** and open **VCI Device Server Control**.

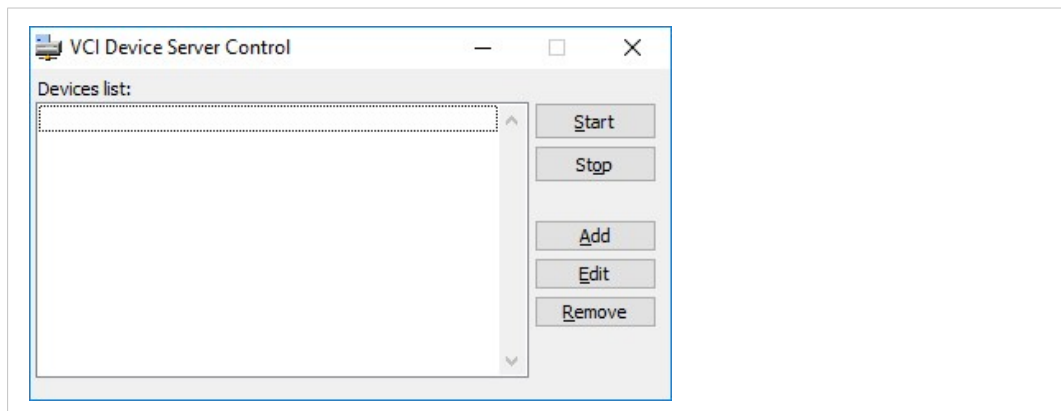


Fig. 7 VCI Device Server Control V4

i With VCI V 3 two lists are shown: **Available Devices** and **Running Devices**.

- ▶ To add new device click button **Add**.
 - ➔ Window **Add Device** is opened.

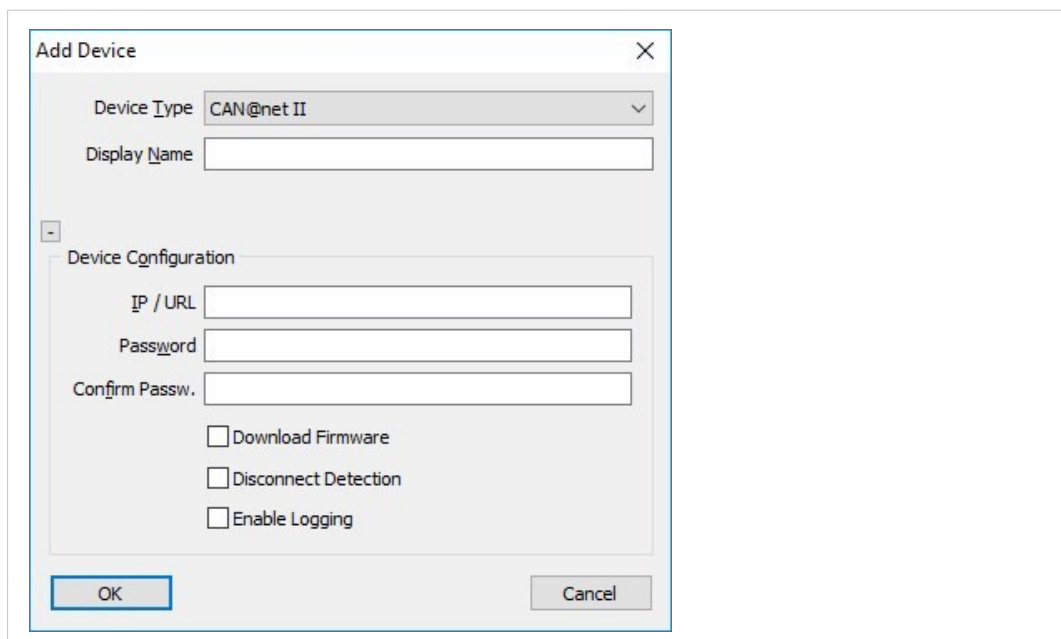


Fig. 8 Add Device

- ▶ Select in field **Device Type** CAN@net II.
- ▶ Chose name for new device and enter it in field **Display Name**.

i The name of the device will be displayed in the VCI Device Server Control.

Determine IP-address with CAN@net II Configurator:

- ▶ Go to **Start menu — All programs — HMS — IXXAT® VCI 4.0** and open **CAN@net II Configurator**.



Scanning problems caused by different Ethernet ports!

If device is not found, connect device to main (first) Ethernet port.

- ▶ Make sure that CAN@net II and network interface are located in the same IP address domain (IP and subnet), e.g. PC Ethernet port 192.168.1.55 / CAN@net 192.168.1.xxx.

Edit settings:

- ▶ In field **IP/URL** enter IP-address of CAN@net II.
- ▶ In field **Password** enter password. The preset password is IXXAT.
- ▶ In field **Confirm Passw.** enter password again.
- ▶ Adjust special settings if necessary.

Special settings

Setting	Enabled	Disabled
Download Firmware	Firmware of the device is downloaded on the device on every start.	Useful when using slow connections. Firmware has to be flashed permanently on the device with flash programming software (see support area on www.ixxat.com).
Logging	Debugging information is stored during usage of the device. Necessary if HMS Industrial Networks support needs logging files.	Debugging information is not stored.
Disconnect Detection	Enables TCP/IP connection monitoring. Cyclically checks if the connection between computer and the device is still established. A connection breakdown is recognized after approximately 15-20 seconds. The device is then removed from VCI and the reestablishment of the connection is attempted. When device is successfully found it is announced to VCI and is available for VCI applications. CAN controller and filter settings will be lost.	

- ▶ Click button **OK** to confirm.
- ➔ Device is shown in **Devices list**.

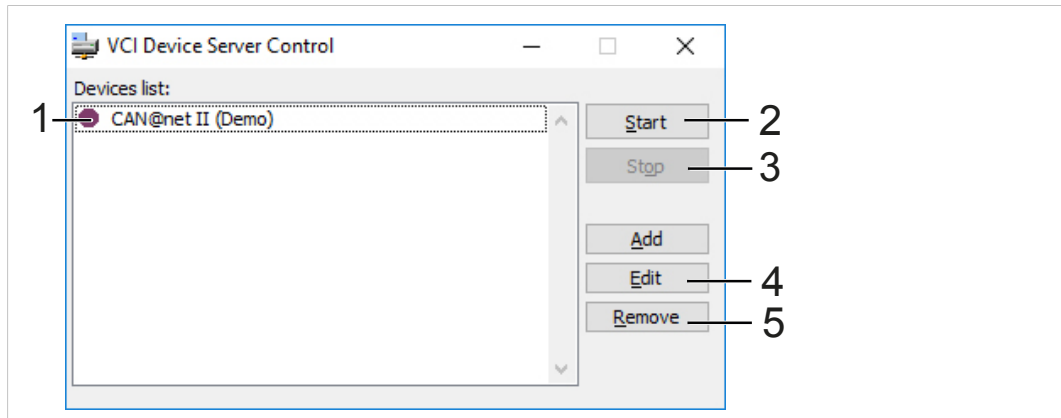


Fig. 9 VCI Device Server Control V4

i With VCI V 3 devices are displayed in two lists: **Available Devices** and **Running Devices** (instead of the symbols in VCI V4).

- ▶ Select device in list (1) and click button **Start** (2).
 - ➔ Device is announced to VCI (indicated by green symbol 🟢).
 - ➔ When device is ready to use with the VCI application, symbol ✓ is shown.

i To test if connection succeeded, start *canAnalyser Mini*. All started devices are shown in the list of available CAN channels.

- ▶ To stop a running device select device in list and click button **Stop** (3).
 - ➔ Selected device is ready to edit or remove.
- ▶ To configure an existing device select device in list and click button **Edit** (4).

To remove an existing device:

- ▶ Select device in list.
- ▶ Click button **Remove** (5).
- ▶ Confirm security message with **Yes**.

i VCI Device Server Control is only used for configuring VCI devices. Announcement and removal is done by IXXAT VCI V4 Device Server Service. Devices are controlled by INI-files stored in folder Documents and Settings/Application Data/IXXAT/VCI/4.x. For further information read *Readme.txt* in folder Program Files/HMS/IXXAT VCI 4.0/Device Server

4.3.3 Install CANblue II

- ▶ Make sure, that CANblue II is connected (see User Manual *CANblue II*).
- ▶ Go to **Start menu — All programs — HMS — IXXAT® VCI 4.0**.
- ▶ Right-click on **VCI Device Server Control** and execute it with administrator rights.



The Bluetooth connection can only be established if **VCI Device Server Control** is executed with administrator rights (although there is no visible difference when starting as normal user).

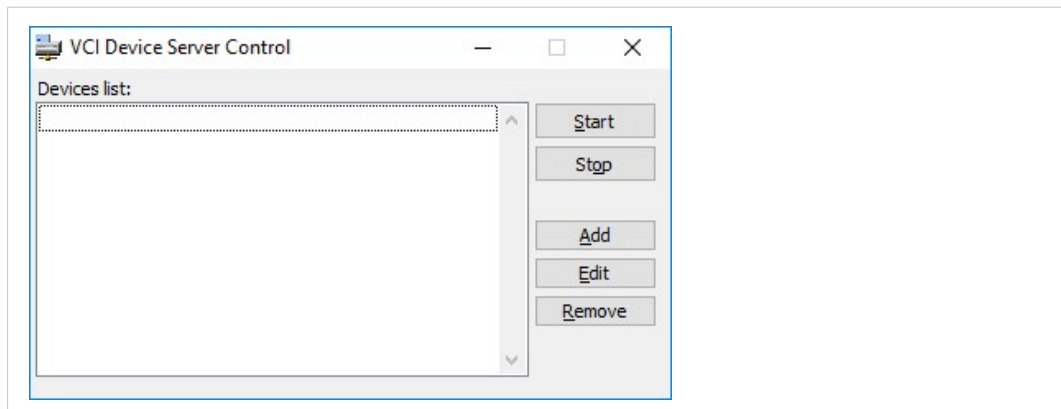


Fig. 10 VCI Device Server Control V4



With VCI V 3 two lists are shown: **Available Devices** and **Running Devices**.

- ▶ To add new device click button **Add**.
 - ➔ Window **Add Device** is opened.

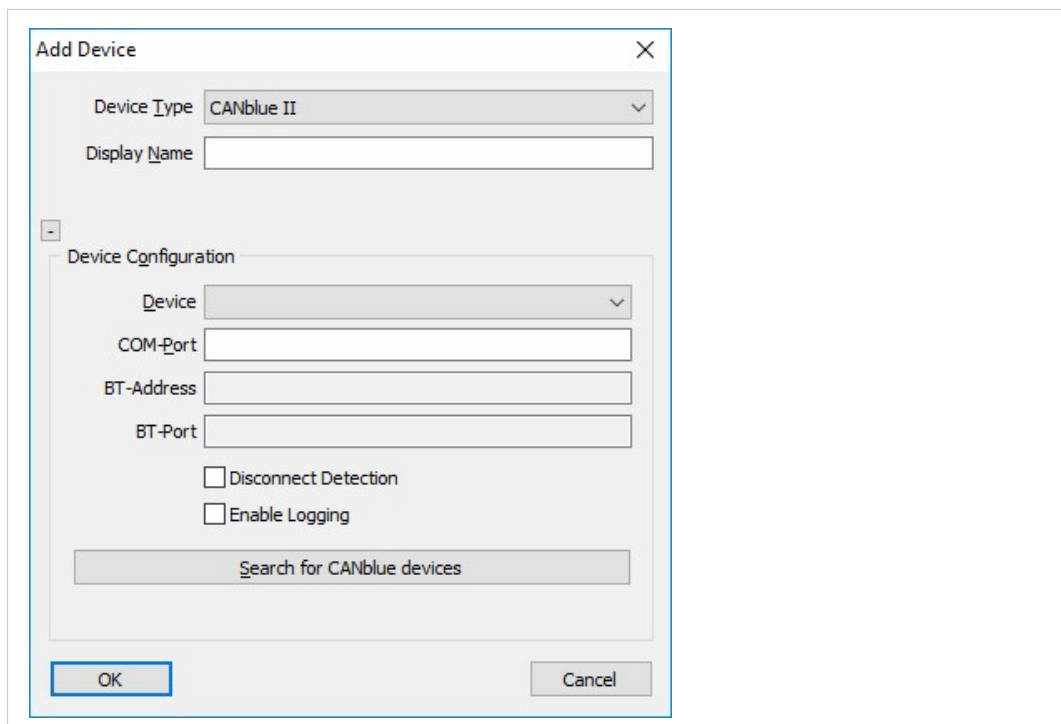


Fig. 11 Add Device

- ▶ Select in field **Device Type** CANblue II.
- ▶ Chose name for new device and enter it in field **Display Name**.



The name of the device will be displayed in the VCI Device Server Control.

Define device using Bluetooth address:

- ▶ Click button **Search for CANblue devices**.
 - ➔ Detected devices are listed in drop-down list **Device**.
- ▶ If device is not found make sure that device is switched on and within range.
- ▶ Click button **Search for CANblue devices** again.
- ▶ Select device in use in list **Device**.
 - ➔ Fields **BT-Address** and **BT-Port** are completed automatically.

Define device using COM-Port:

- ▶ In field **Device** select **user defined**.
- ▶ Search for device using Bluetooth stack software.
- ▶ Assign COM-Port to Bluetooth service **Serial Ports (SPP)** named **Config** (for detailed instruction see *CANblue II User Manual*).
- ▶ In field **COM-Port** enter COM-Port.

Further settings

- ▶ Adjust special settings if necessary.

Special settings

Setting	Enabled	Disabled
Logging	Debugging information is stored during usage of the device. Necessary if HMS Industrial Networks support needs logging files.	Debugging information is not stored.
Disconnect Detection	Enables Bluetooth connection monitoring. Cyclically checks if the connection between computer and the device is still established. A connection breakdown is recognized after approximately 30-40 seconds. The device is then removed from VCI and the reestablishment of the connection is attempted. When device is successfully found it is announced to VCI and is available for VCI applications. CAN controller and filter settings will be lost.	

- ▶ Click button **OK** to confirm.
 - ➔ Device is shown in list **Available Devices (2)**.

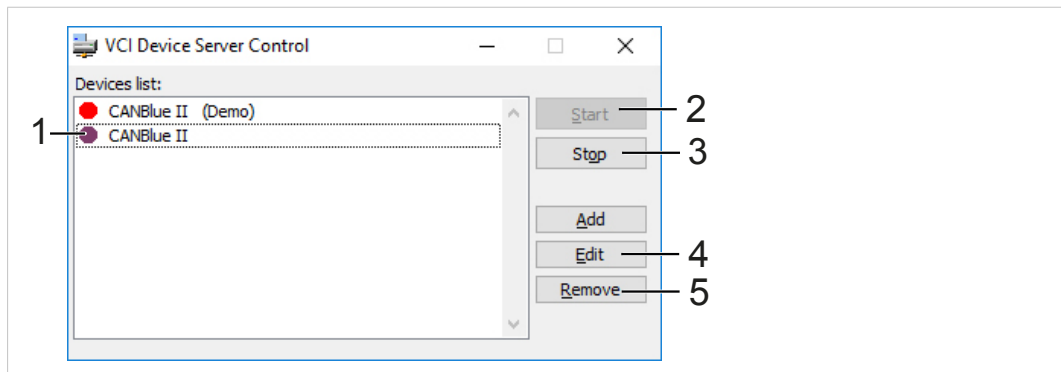




Fig. 12 VCI Device Server Control V4

i With VCI V 3 devices are displayed in two lists: **Available Devices** and **Running Devices** (instead of the symbols in VCI V4).

- ▶ Select device in list **(1)** and click button **Start (2)**.
 - ➔ Device is announced to VCI (indicated by green symbol .
 - ➔ When device is ready to use with the VCI application, symbol  is shown.

i To test if connection succeeded, start canAnalyser Mini. All started devices are shown in the list of available CAN channels.

- ▶ To stop a running device select device in list and click button **Stop (3)**.
 - ➔ Selected device is ready to edit or remove.
- ▶ To configure an existing device select device in list and click button **Edit (4)**.

To remove an existing device:

- ▶ Select device in list.
- ▶ Click button **Remove (5)**.
- ▶ Confirm security message with **Yes**.

i VCI Device Server Control is only used for configuring VCI devices. Announcement and removal is done by IXXAT VCI V4 Device Server Service. Devices are controlled by INI-files stored in folder Documents and Settings/Application Data/IXXAT/VCI/4.x. For further information read *Readme.txt* in folder Program Files/HMS/IXXAT VCI 4.0/Device Server.

5 Update to Newer Driver Version

- ▶ Uninstall old version.
- ▶ Install new version without reboot.
- ▶ After successful installation reboot computer.

6 Troubleshooting

6.1 Interface Installation: Driver Not Found

Possible cause of failure:

- Hardware was installed before VCI installation
- INF files of driver CD were installed via right-hand mouse button

For hardware installation the location of the relevant INF file is required. INF files aren't available in unpacked form and must be installed via the hardware wizard.

Remedial actions:

- ▶ Abort hardware wizard.
- ▶ Install VCI Driver.
- ▶ Restart Windows.
 - Hardware is automatically detected.
 - Hardware-wizard starts automatically.

7 Parallel Usage of Different Driver Versions

VCI V2 and V3

VCI V2.20 is a compatibility layer for VCI V3.5. By that it is possible to use VCI V2 applications on 64 bit versions of Windows. Furthermore the parallel usage of one interface with VCI V2 and VCI V3 is possible without switching the drivers.

VCI V2 and V4

The parallel usage of VCI V2.20 and VCI V4 is not possible. For information about the support of VCI V2.20 by VCI V4 see www.ixxat.com/support.

VCI V3 and V4

The parallel usage of one interface with VCI V3 and one with VCI V4 is not possible.

8 Support

Observe the following information in the support area on www.ixxat.com:

- information about products
 - FAQ lists
 - installation notes
 - updated product versions
 - updates
-
- ▶ Fill in the support form in support area on www.ixxat.com.
 - ▶ If required use support phone contacts on www.ixxat.com.

