

Manual

Installation Instructions

Version 2.6

English

Imprint

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Table of contents

1	Introduction	3
1.1	About this User Manual	4
1.1.1	Access Help and Conventions	4
1.1.2	Certification	5
1.1.3	Warranty	5
1.1.4	Support	5
1.1.5	Registered Trademarks	5
2	Notes	7
2.1	Minimum Requirements	8
2.2	Driver Setup	9
2.3	Vector Hardware Configuration	11
2.4	Further Notes	13
2.4.1	Measurement Applications	13
2.4.2	Device Manager	13
2.4.3	Power Manager	13
3	Operating Test and Troubleshooting	15
3.1	Loop Test	16
3.1.1	CAN	16
3.1.2	FlexRay	19
3.1.3	MOST	20
3.2	Checking Installation	21
3.3	Correction of Driver Installation	21
4	Appendix A: Addresses	23

1 Introduction

In this chapter you find the following information:

1.1	About this User Manual	page 4
	Access Help and Conventions	
	Certification	
	Warranty	
	Support	
	Registered Trademarks	

1.1 About this User Manual

1.1.1 Access Help and Conventions

To find information quickly







The user manual provides you the following access help:

- At the beginning of each chapter you will find a summary of the contents,
- In the header you can see in which chapter and paragraph you are ((situated)).

Conventions

In the two following charts you will find the conventions used in the user manual regarding utilized spellings and symbols.

Style	Utilization
bold	Blocks, surface elements, window- and dialog names of the software. Accentuation of warnings and advices. [OK] Push buttons in brackets File Save Notation for menus and menu entries
Windows	Legally protected proper names and side notes.
Source code	File name and source code.
Hyperlink	Hyperlinks and references.
<STRG>+<S>	Notation for shortcuts.

Symbol	Utilization
	This symbol calls your attention to warnings.
	Here you can find additional information.
	Here is an example that has been prepared for you.
	Step-by-step instructions provide assistance at these points.
	Instructions on editing files are found at these points.
	This symbol warns you not to edit the specified file.

1.1.2 Certification

Certified Quality Management System Vector Informatik GmbH has ISO 9001:2008 certification. The ISO standard is a globally recognized standard.

1.1.3 Warranty

Restriction of warranty We reserve the right to change the contents of the documentation and the software without notice. Vector Informatik GmbH assumes no liability for correct contents or damages which are resulted from the usage of the user manual. We are grateful for references to mistakes or for suggestions for improvement to be able to offer you even more efficient products in the future.

1.1.4 Support

You need support? You can get through to our support at the phone number
+49 711 80670-200 or by fax
+49 711 80670-111
E-Mail: support@vector.com

1.1.5 Registered Trademarks

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→ **Windows, Windows XP, Windows Vista, Windows 7** are trademarks of the Microsoft Corporation.

2 Notes

In this chapter you find the following information:

2.1	Minimum Requirements	page 8
2.2	Driver Setup	page 9
2.3	Vector Hardware Configuration	page 11
2.4	Further Notes	page 13
	Measurement Applications	
	Device Manager	
	Power Manager	

2.1 Minimum Requirements

Hardware

CPU	Pentium 4 or higher
Memory	512 MB or more
Interfaces	CANcardXL : PCMCIA CANcardXLe : ExpressCard 54 CANboardXL PCI : PCI CANboardXL PCIe : PCI Express 1x CANboardXL PXI : Compact PCI/PXI CANcaseXL : USB CANcaseXL log : USB VN2610 : USB VN3300 : PCI VN3600 : USB VN7600 : USB VN8910 : USB

Software

Operating system	Windows XP SP3 Windows Vista SP1 Windows 7
Driver version	7.x



Info: Please note that you will need **Administrator Rights** for the following steps.



Info: In *Windows Vista* and *Windows 7* it is **not** possible to install the drivers from a network drive. If you got your update from the Vector product page in the internet, please copy the files to your local hard drive.

2.2 Driver Setup

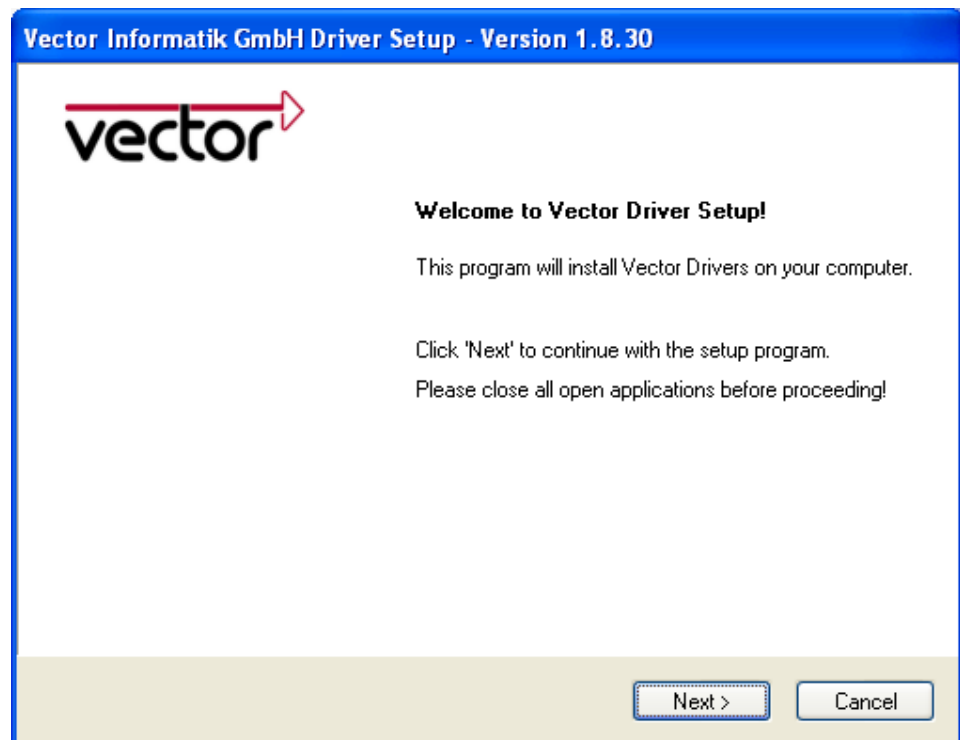
General information The Vector Driver Disk V7.3 or higher offers a new driver setup which allows the installation or the removal of Vector device drivers:



1. Execute **Driver Setup** from the autostart menu or directly from `\Drivers\32_Bit\setup.exe` (for Windows 7, Vista and XP 32 bit) and `\Drivers\64_Bit\setup.exe` (for Windows 7 64 bit) respectively.

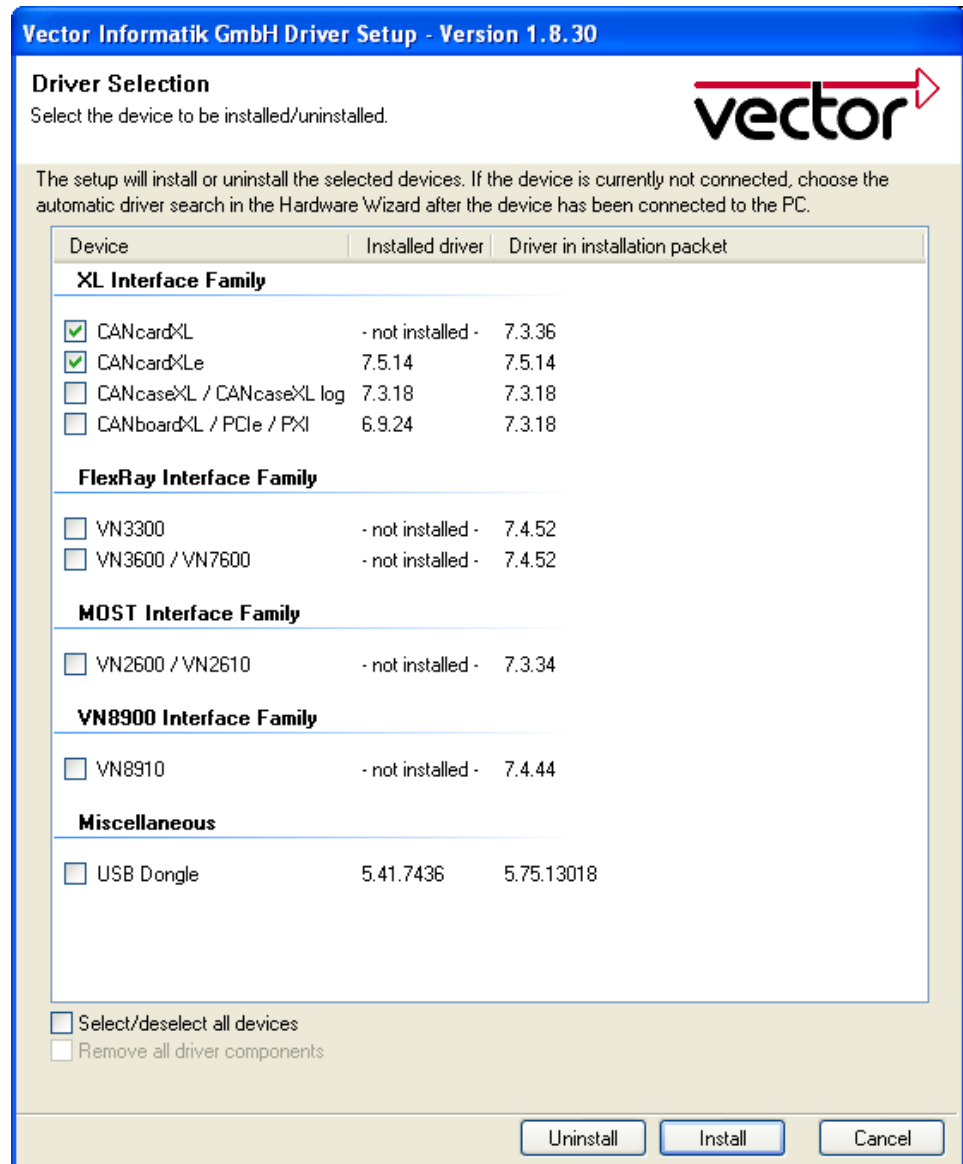


Note: A list of supported operating systems can be found in:
`\Documentation\Important_Notes.pdf`



2. Click **[Next]** in the driver setup dialog. The initialization process starts.

- In the driver selection dialog select your devices to be installed (or to be uninstalled). Also ensure that those devices are connected with the PC. Otherwise the drivers are only pre-installed by the Vector Driver Setup.



- Click **[Install]** to execute the driver installation, or **[Uninstall]** to remove existing drivers.
- A confirmation dialog appears. Click **[Close]** to exit.



Info: It is also possible to pre-install the drivers if the hardware is currently not connected. In this case the installation of the driver has to be completed with the **Windows found new Hardware** wizard after connecting the device. Use the option for automatic driver search then.

2.3 Vector Hardware Configuration

Executing Vector Hardware Config

After successful installation you will find the configuration application **Vector Hardware** in the Control Panel. The tool gives you information about the connected and installed Vector devices. There are also several settings that can be changed.

Windows XP

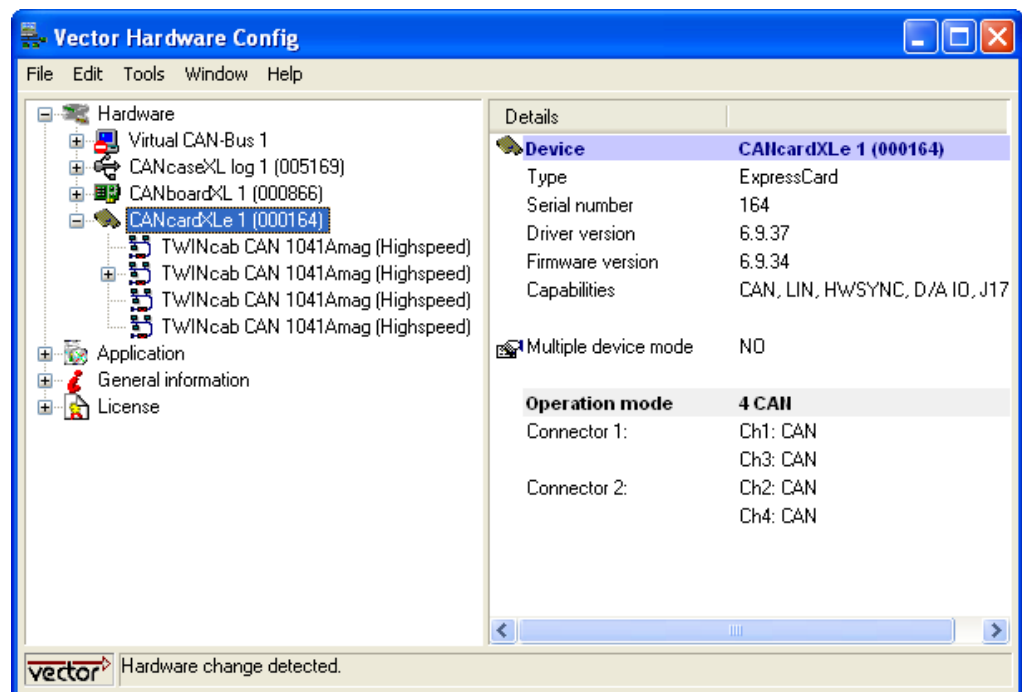
- Category view
Start | (Settings) | Control Panel, click in the left part of the window for further Control Panel options followed by **Vector Hardware**.
- Classic view
Start | (Settings) | Control Panel, click **Vector Hardware** in the list.

Windows Vista

- Category view
Start | (Settings) | Control Panel, click in the right part of the window for Additional Options followed by **Vector Hardware**.
- Classic view
Start | (Settings) | Control Panel, click **Vector Hardware** in the list.

Windows 7

- Category view
Start | Control Panel | Hardware and Sound, click **Vector Hardware** in the list.
- Symbols view
Start | Control Panel, click **Vector Hardware** in the list.



The tool is split into two windows. The left window lets you access the installed Vector devices, the right window displays the details of the selection. The following nodes are available in the left window:

Hardware

Each installed Vector device is shown in **Hardware**. Additional details of available channels are shown in a tree view. Status information on the device components and channels are also shown in this dialog.

Application

In **Application** all available applications are shown with their configured channels. If you click on an application, all of its channels are displayed in the right pane on the screen.

General information

The **General information** section contains general information on Vector devices and applications.

License

Information on all currently valid licenses is displayed in **License**. You can look there to see which tools and applications are currently licensed.



Note: You will find a detailed description of **Vector Hardware Config** in the online help ([Help](#) | [Contents](#)).

2.4 Further Notes

2.4.1 Measurement Applications

Compatible software The device can be run with several applications from Vector (e.g. **CANape**, **CANoe**) or with measurement applications from other companies. Therefore the device must have a related license. A license for applications based on the **XL Driver Library** is not required.

2.4.2 Device Manager

Windows XP → Category view
Start | (Settings) | Control Panel | Performance and Maintenance | System | Hardware | Device Manager

→ Classic view
Start | (Settings) | Control Panel | System | Hardware | Device Manager

Windows Vista → Category view
Start | (Settings) | Control Panel | Performance and Maintenance | System | Device Manager

→ Classic view
Start | (Settings) | Control Panel | System | Hardware | Device Manager

Windows 7 → Category view
Start | Control Panel | System and Security | Device Manager

→ Symbols view
Start | Control | Device Manager

2.4.3 Power Manager

Timing requirements Many desktop PCs have power managers which block the CPU for a specific time. This impairs accuracy of the time system. If your application has stringent timing requirements (e.g. time-driven sending of messages or time-driven evaluations), you must deactivate these power managers.

Power management settings may be contained:

→ in the BIOS setup,

→ on the Control Panel of **Windows XP / Vista / Windows 7** (e.g. Power options).

No further mention will be made of the power manager in this document.

3 Operating Test and Troubleshooting

In this chapter you find the following information:

3.1	Loop Test CAN FlexRay MOST	page 16
3.2	Checking Installation	page 21
3.3	Correction of Driver Installation	page 21

3.1 Loop Test

Operating test The test described here can be performed to check the functional integrity of drivers and hardware. This test is identical for **Windows XP**, **Windows Vista**, **Windows 7** and independent of the application being used.

3.1.1 CAN

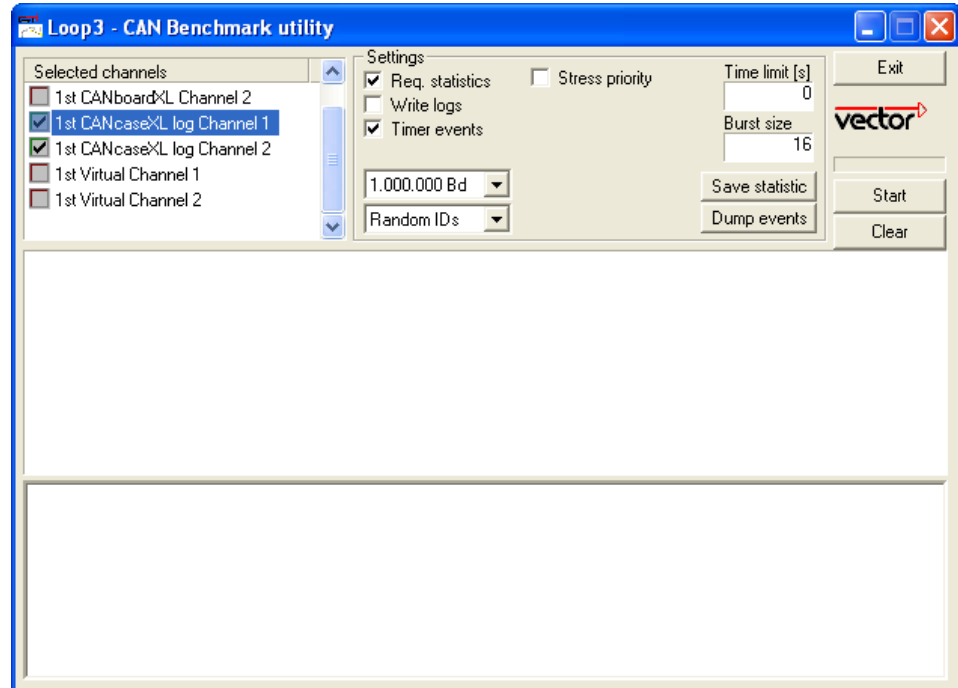
Device test The operating test for CAN can be executed with the following devices:

- CANcardXL
- CANcardXLLe
- CANcaseXL
- CANcaseXL log
- CANboardXL Family
- VN7600

Loop3.exe Either two High-Speed or two Low-Speed transceivers are necessary for this functional test:

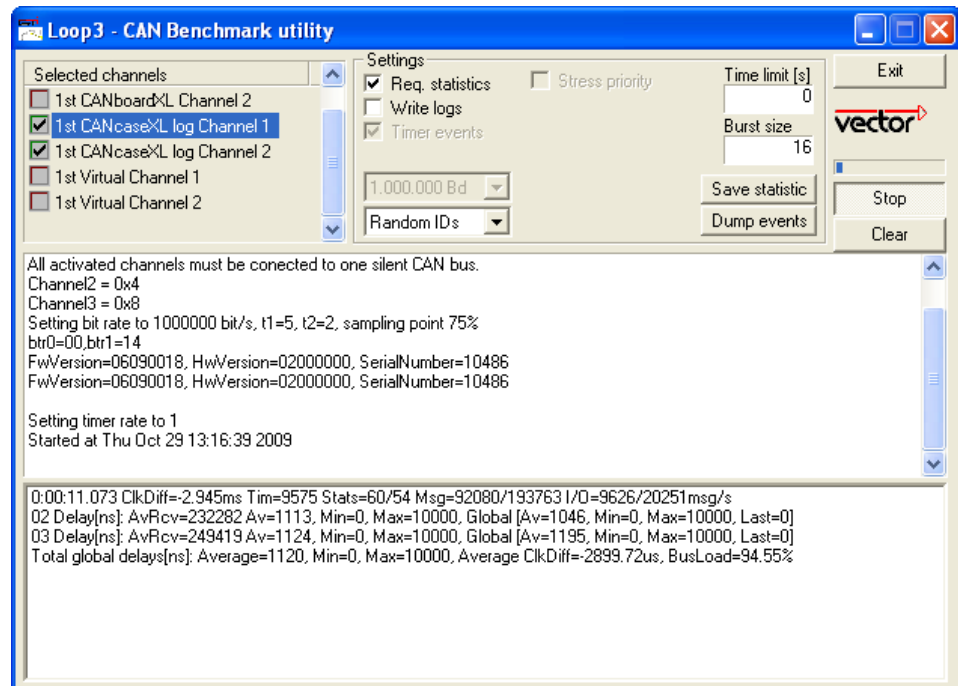


1. Connect both channels with a suitable cable. If two High-Speed transceivers are being used, we recommend our **CANcable 1**, and **CANcable 0** for Low-Speed transceivers.
2. Start `\Drivers\...\CommonFiles\Loop3.exe` from the driver CD. This program accesses the hardware and transmits CAN messages.
3. Select Channel 1 and Channel 2 (Selected channels) of the hardware to be tested.
4. Set the appropriate baudrate (Settings) depending on the transceiver being used (High-Speed max. 1,000,000 Bd, Low-Speed max. 125,000 Bd).
5. Click **[Start]**.

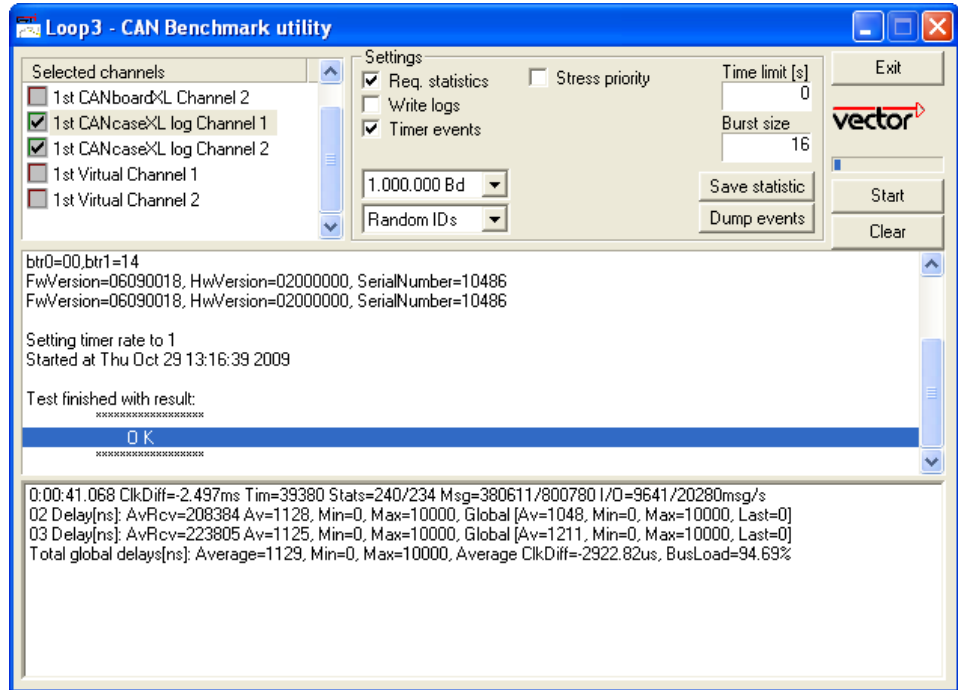


- Once the system has been configured properly, you will see in the lower window of the test software statistical data about the hardware being used.

Loop3 Application



- The test procedure is terminated by **[Stop]**. After a successful test an **OK** message is printed in the upper text window.



Note: If the functional test could not be performed successfully (**FAILED** error message in the upper window of the test software), please refer to section **Checking Installation** on page 21.

3.1.2 FlexRay

Device test

The operating test for FlexRay can be executed with the following devices:

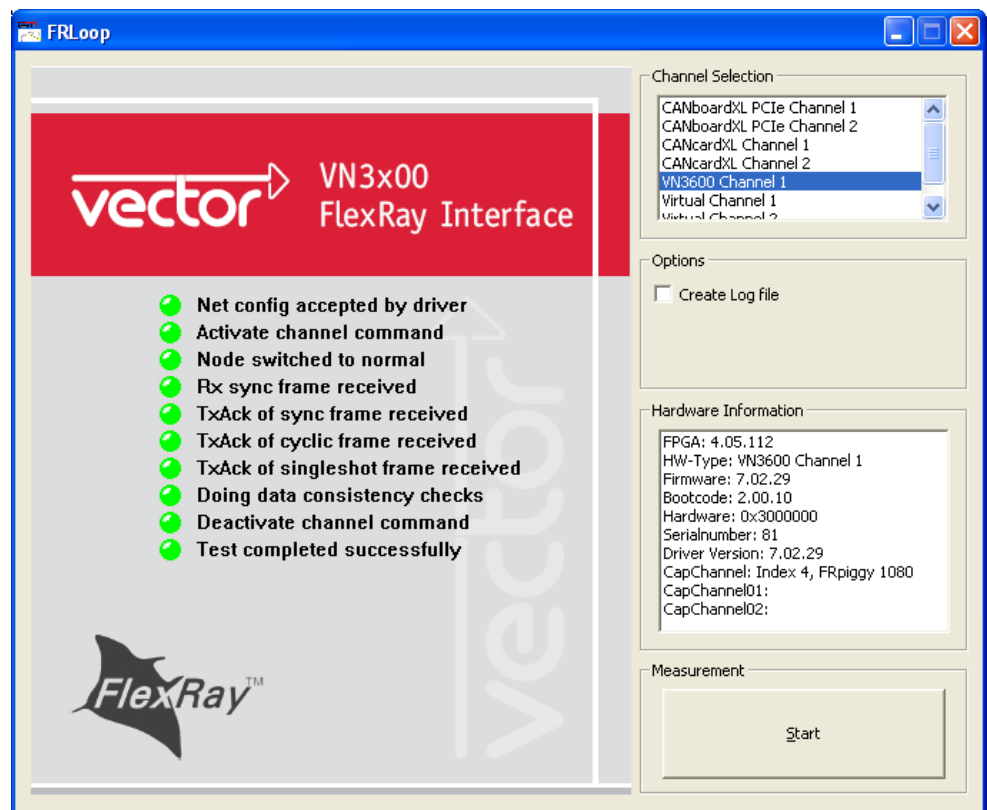
- VN3300
- VN3600
- VN7600

FRLoop.exe

This operating test requires a FlexRay Interface with an FRpiggy, which is plugged to the PC and installed. Remove the FlexRay cable if plugged.



1. Start \Drivers\...\CommonFiles\FRLoop.exe from the driver CD.
2. Execute the test.
3. If no error messages occur, the operating test was successful.



Note: If the functional test could not be performed successfully, please refer to section [Checking Installation](#) on page 21.

3.1.3 MOST

Device test

The operating test for MOST can be executed with the following device:

→ VN2610

MLoop.exe

For this functional test a MOST fiber optic cable and a fiber coupler for HFBR connectors is required.



1. Start `\Drivers\...\CommonFiles\MLoop.exe` from the driver CD. This program accesses the hardware and switches the VN2610 to **Master** mode (deactivated bypass).
2. Select the VN2610 to be tested from the list of detected devices.
3. Click **[Twinkle]** and check if the power LED of VN2610 is blinking at least 1 second.
4. Connect the MOST fiber optic cable with the VN2610 device, select **Master** mode and check if the program displays status **Unlock**. Check if red light comes out of the Tx fiber of the MOST fiber optic cable.
5. Connect both ends of the fiber with one fiber coupler to a ring and check if the program displays status **Lock**.
6. Exit `MLoop.exe` with **[Exit]**.



Note: If the functional test could not be performed successfully, please refer to section [Checking Installation](#) on page 21.

3.2 Checking Installation



To perform the following test steps, the device must be inserted in the PC or connected.

- Open the Device Manager.
- Check to see whether the device is shown in the group **Vector-Hardware**. If this device is not listed, the device driver is not or improperly installed. In this case open the **Other Components** item that is marked with a yellow ? in the Device Manager.
- If you find an entry for **Vector <device>** here, the driver is improperly installed. Correct the driver installation as described in section 3.3.
- If you do not find the entries for the device, the device driver has not been installed yet.

3.3 Correction of Driver Installation



- If the driver is improperly installed, the entry **Vector <device>** appears in **Other Components** of the **Device Manager**. To solve this problem, connect the device with the PC and restart the Vector Driver Setup.

4 Appendix A: Addresses

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