



Operating Instruction Manual
cifX Device Driver
Installation and Operation
V 1.0.x.x

Hilscher Gesellschaft für Systemautomation mbH

www.hilscher.com

DOC060601DRV06EN | Revision 6 | English | 2010-07 | Released | Public

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1 Introduction

1.1 About this Manual

This manual contains a description of the installation of the **cifX Device Driver** for cifX cards under Windows® 2000/Windows® XP/Windows® Vista/Windows® 7. You can set and configure the **cifX Device Driver** via the **cifX Driver Setup Utility** user interface.

1.1.1 List of Revisions

Index	Date	Version	Chapter	Revisions
1	05.05.06	0.9.0.0	all	created
2	16.05.07	0.9.2.1	3.4.6 4.2	Descriptions Warmstart Parameters actualized and completed for SERCOS III Slave removed
3	27.05.09	0.9.3.6	all	aktualized
4	29.01.10	0.9.5.1	all	Slot Number and DMA added
5	14.06.10	1.0.x.x	all	aktualized
6	07.07.10	1.0.x.x	1.1.2, 4.1, 4.2, 4.5	Windows® Vista/ Windows® 7 added, Section <i>Reference on Driver</i> added, Sections <i>Device Identification via Device and Serial Number</i> , <i>Device Identification via Slot Number</i> , <i>Global Driver Settings</i> revised and completed.

Table 1: List of Revisions

1.1.2 Reference on Driver



Note: The **cifX Device Driver** up to version **0.94x** identifies cifX cards via its device and serial number. For the device exchange service respectively a manual intervention is required. The **cifX Device Driver** from version **0.950** on identifies cifX cards alternatively via its **Slot Number (Card ID)**.

Driver	Version
cifX Device Driver cifX Device Driver Setup.exe	1.0.x.x
Bootloader (is included in the cifX Device Driver Setup)	V1.3.x.x

Table 2: Reference on Driver and Bootloader

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1.2.1 Copyright

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1.3 Conventions in this Manual

Operation instructions, a result of an operation step or notes are marked as follows:

Operation Instructions:

➤ <instruction>

Or

1. <instruction>

2. <instruction>

Results:

↪ <result>

Notes:



Important: <important note>



Note: <note>



<note, were to find further information>

2 Installing Software

2.1 Installing the cifX Device Driver via Setup

You can install the cifX device driver via the cifX device driver Setup before the hardware has been installed.



Note: If the driver is installed via the cifX Device Driver Setup, that means, **the driver gets installed first and only then the hardware**.

To install the **cifX device driver** before the hardware is installed, proceed as described hereafter:

1. Start the **cifX Device Driver Setup**.
 - Put the cifX installation DVD into the DVD drive of your PC.
 - In the netX startup screen click to the menu *Software and Tools > cifX Drivers*.
 - Click to the *Windows* folder.

Or

- On the CIFX DVD open the directory *[drive letter]:\Driver\Windows*.
 - Start the setup by double-clicking to the setup file *cifX device driver setup.exe*.
 - ↻ The window **Select a language** is displayed.
2. Select the language.
 3. Install the **cifX Device Driver**.
 - Therefore follow to the instructions on the screen.
 - ↻ The **cifX Device Driver InstallShield Wizard** guides you through the installation.

2.2 Installing cifX Device Driver



Note: If the hardware gets installed at the PC before the cifX Device Driver Installation has been done, the Windows® Found New Hardware Wizard is started and the operating system Windows® asks for the driver. This is the mode, if **the hardware is installed first and only then the driver.**



For more information to the hardware installation, please refer to the corresponding user manual of your device.

To install the **cifX Device Driver** after the hardware was installed, proceed as described hereafter:

1. After installation of the cifX card restart your PC.
 - Windows® 2000, Windows® XP, Windows® Vista and Windows® 7 recognize the PCI based cifX card automatically.
 - The message **Found New Hardware** is displayed and the **Found new Hardware Wizard** is started.
2. Select **No, not this time.**
 - Click to **Next >**.
3. Select **Install from a list or specific location (Advanced).**

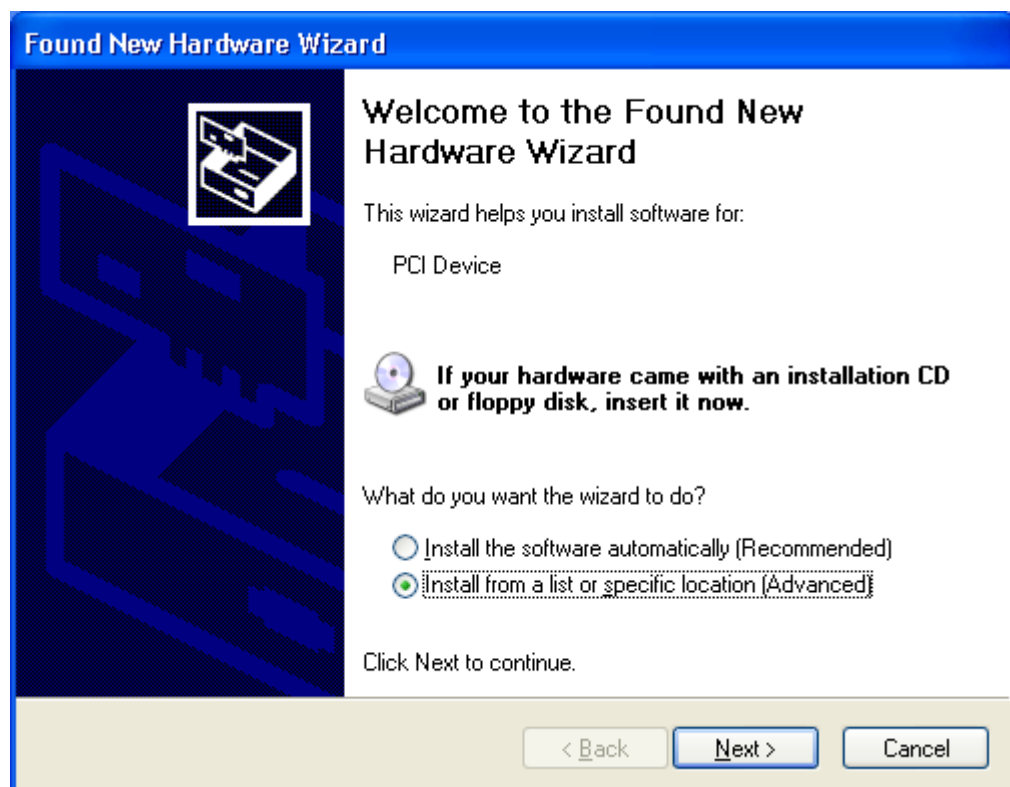


Figure 1: Found new Hardware Wizard - Indicate Software Source

4. Insert the installation DVD now.
 - Click to **Next >**.
 - The **Found new Hardware Wizard** asks you to select the research- and installation options.

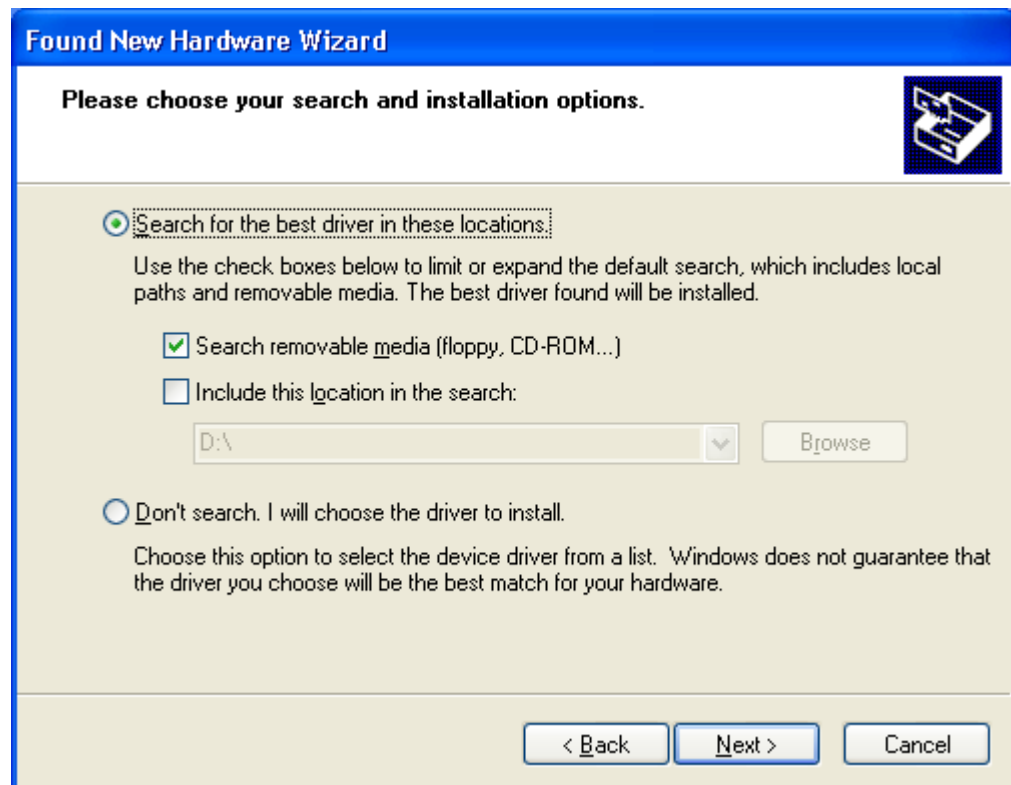


Figure 2: Found new Hardware Wizard - Select search- and installation options

5. Select **Search for the best driver in these locations.**
6. Activate **Search removable media (floppy, DVD...).**
- Click to **Next >.**
- The driver software for the **cifX Device Driver** gets installed.

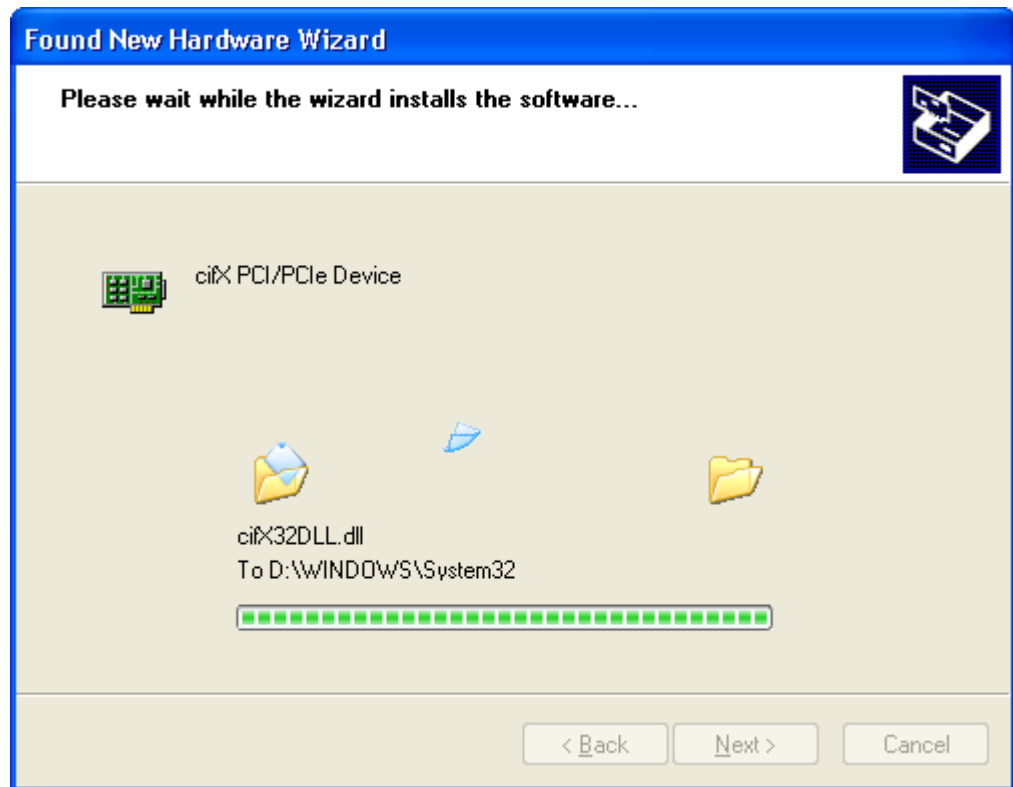


Figure 3: Found new Hardware Wizard - Software gets installed (Example with PCI devices)

- The **Found new Hardware Wizard** indicates the **cifX PCI/PCIe Device** software installation is complete.

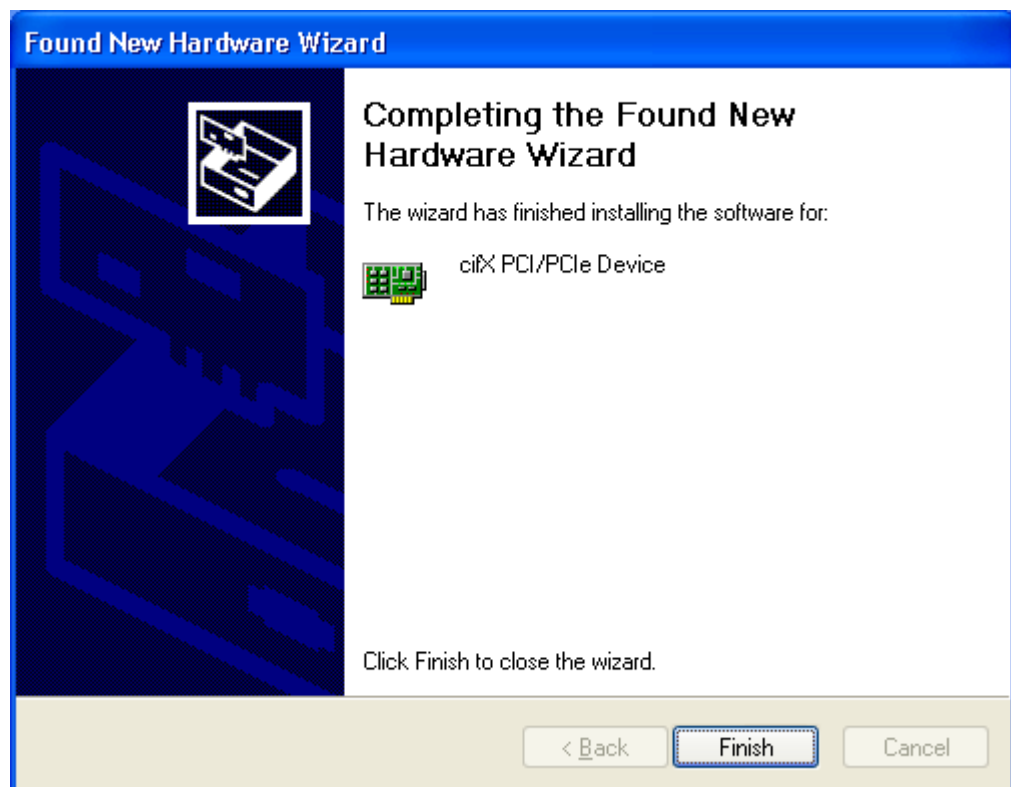


Figure 4: Found new Hardware Wizard - Software installation has been completed (Example with PCI devices)

7. Click in **Found new Hardware Wizard > Completing the Found new Hardware Wizard** to **Finish**.

- The installation of the **cifX Device Driver** is complete.

8. Check in the **Computer Manager**, if your cifX card installed correctly.
 - Therefore open the **Computer Manager** as follows: Desktop symbol **My Computer** > right click **Properties** > window **System Properties** > tab **Hardware** > button **Computer Manager**.
 - Check, if the view of your **Computer Manager** corresponds to the marked area in the view hereafter.

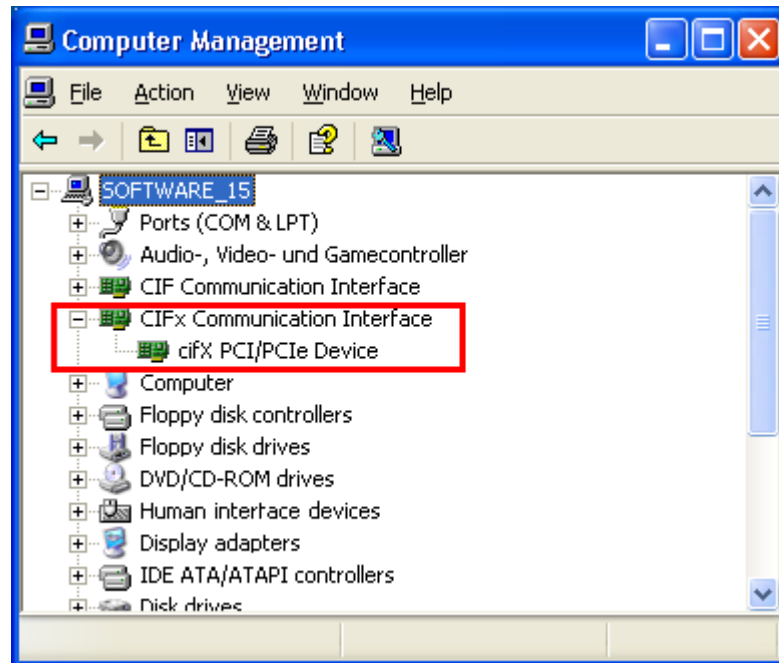


Figure 5: Device Manager > cifXPCI/PCIe Device - correctly installed (Example with PCI devices)



Note: The cifX card has to be configured.

3 cifX Driver Setup Utility

3.1 How to open and to quit the User Interface

1. Starting **cifX Driver Setup Utility** via Control Panel:
 - Select **Start > Settings > Control Panel**.
 - Select **Other Control Panel Options**.

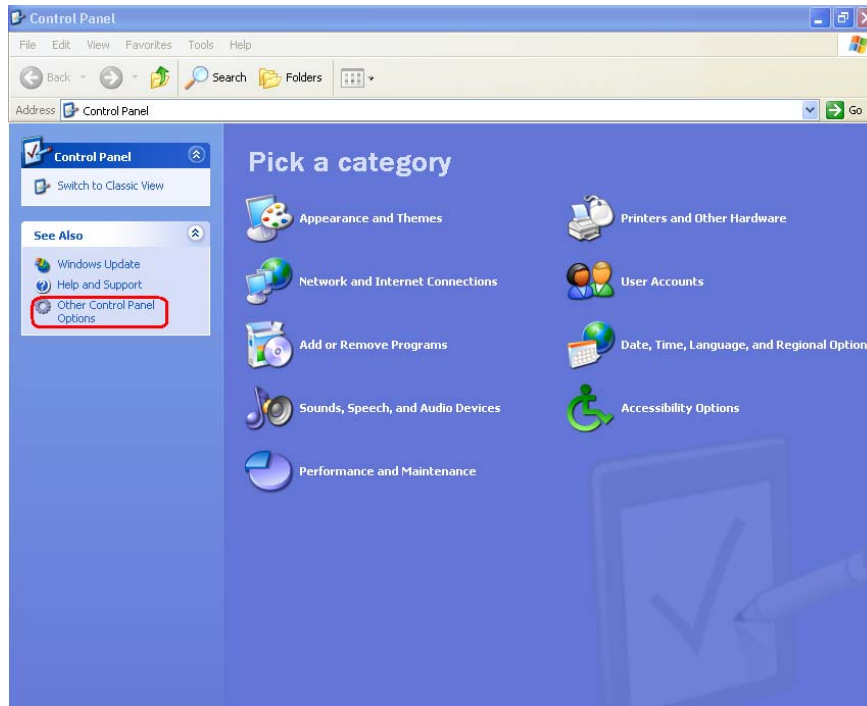


Figure 6: Control Panel (Classic Start menu Windows® XP) > Selecting Other Control Panel Options

- Select **cifX Setup**.

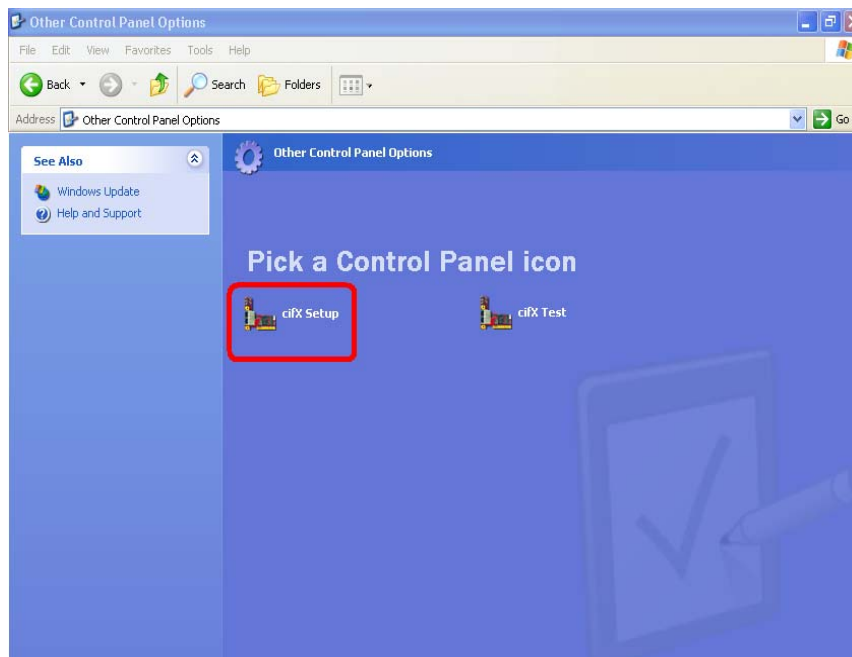


Figure 7: Other Control Panel Options - Select cifX Setup

2. Or start the **cifX Driver Setup Utility** via Windows® explorer:
 - Double click to the file *C:\Programs\cifX Device Driver\cifXSetup.exe*.

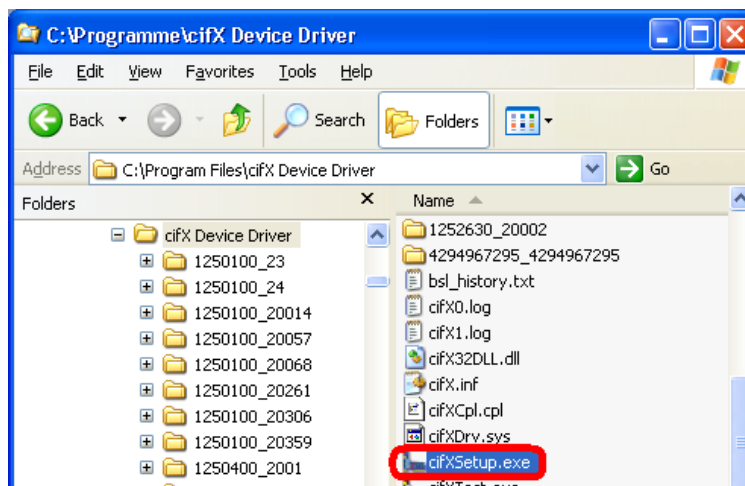


Figure 8: Running cifXSetup.exe file using the Windows® XP Explorer

- The cifX Driver Setup program is started and the **cifX Driver Setup Utility** user interface opens.

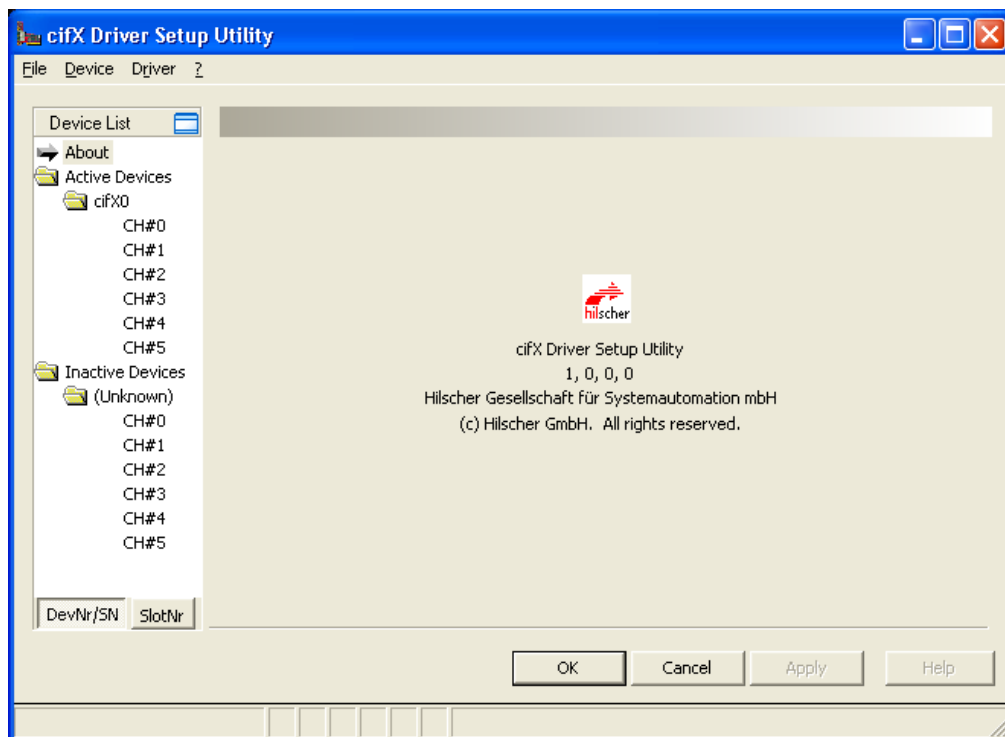


Figure 9: User Interface cifX Driver Setup Utility

3. Quitting the **cifX Driver Setup Utility** user interface.
 - Select **File > Quit**.

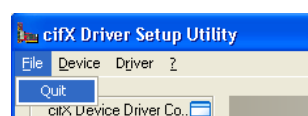


Figure 10: File > Quit

- The **cifX Driver Setup Utility** user interface closes.

3.2 Dialog Structure of the cifX Driver Setup Utility

The graphical user interface **cifX Driver Setup Utility** is composed of different areas and elements:

- ① Menus **File**, **Device** and **Driver** (above),
- ② **Device List** (left side),
- ③ **Dialog pane** (right side),
- ④ General buttons **OK**, **Cancel**, **Apply** and **Help**,
- ⑤ **Status bar** containing further information.

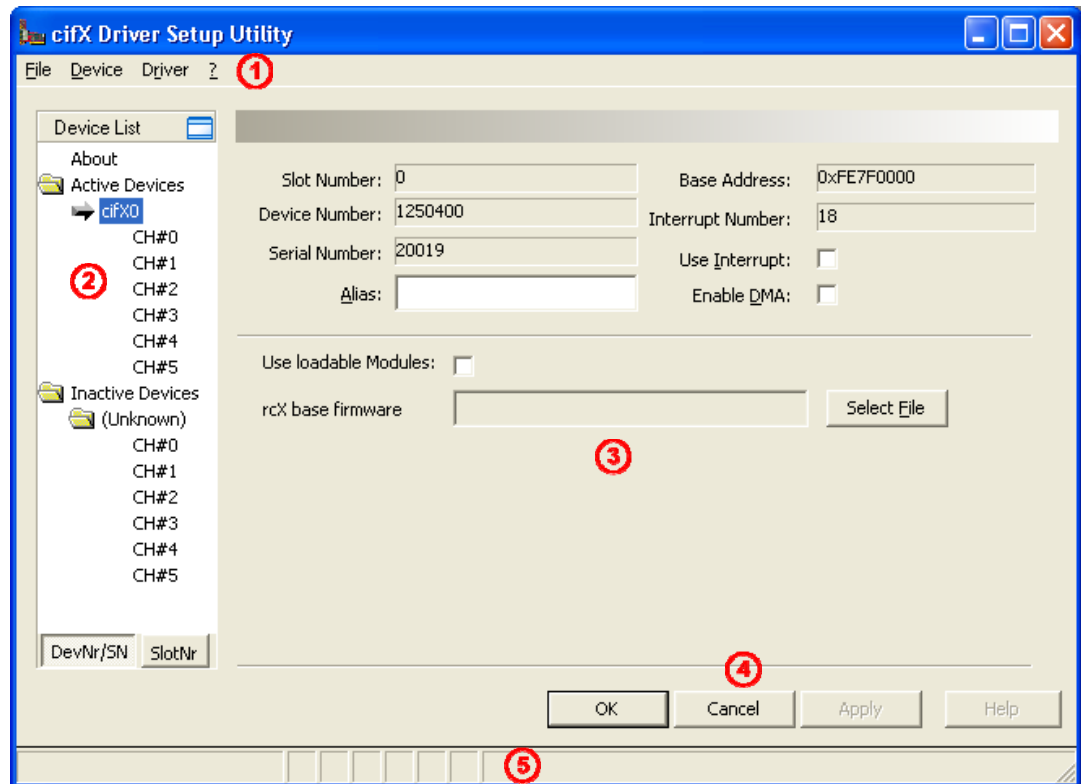




Figure 11: Dialog Structure cifX Driver Setup Utility

3.3 Device List

Via the **Device List** dialog boxes for the device configuration can be opened.

The **Device List** can be hidden via  or displayed via  Pages Tree-View.

3.3.1 General Buttons

The table below gives some explanations to the general buttons in the user interface.

Button	Meaning
OK	To confirm the settings, click OK . All set or changed values are applied. <i>The dialog then closes.</i>
Cancel	To cancel the latest changes, click Cancel . Then the changed values will not be applied on the frame application database. <i>The dialog then closes.</i>
Apply	To confirm your latest settings, click Apply . All changed values will be applied on the frame application database. <i>The dialog remains opened.</i>
Help	(for future applications)

Table 3: General Buttons

3.3.2 Status Bar

The **status bar** displays information on the current state of the **cifX Driver Setup Utility** user interface, e. g. on the state of the instant data set.

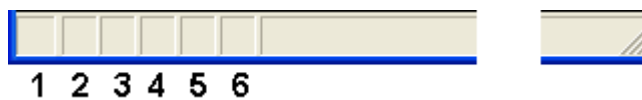


Figure 12: Status Bar

The table below gives information on the status bar icon 3.



Status Field	Icon / Meaning	
3	States of the instance Date Set	
	-	All data loaded
		Valid Modified: Parameter is changed (not equal to data source).
	-	Initial data set = Parameter value is equal to data source value (data base or field device).

Table 4: Status Bar Icon 3



Note: For configuration changes the icon  (valid modified) is displayed in the status bar of the **cifX Driver Setup Utility** user interface.

4 Setting and Configuring cifX Device Driver

4.1 Device Identification via Device and Serial Number

Preconditions:

As devices with rotary switch slot number (card ID) are identified by the **cifX Device Driver** via the device number and the serial number, the switch position of the rotary switch slot number (card ID) must be set to „0“. Devices without rotary switch slot number (card ID) can only be identified via the device number and the serial number.

Device List View “DevNr/SN”:

For slot number (card ID) „0“ or if no rotary switch is provided:

- Select the Device List view **DevNr/SN**.

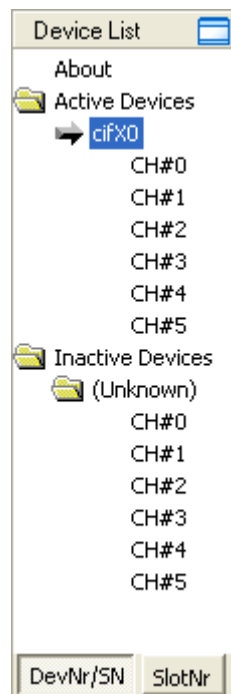


Figure 13: **Device List View DevNr/SN**

Parameter	Meaning
About	Current cifX Driver Setup Utility version, Hilscher manufacturer and copy right information.
Active Devices, Inactive Devices	Under Active Devices devices are displayed which are installed in the computer. Under Inactive Devices firmware and configuration files are displayed, of devices which had been installed to the computer but which are not any more there.
cifX0, cifX1 ...	Device name in the cifX Driver Setup Utility of the currently by the driver identified device.
(Unknown)	Is displayed for formerly identified devices not any more installed in the PC.
CH#0 ... CH#5	Communication channels CH#0 ... CH#5 . By default only channel CH#0 is used. For modularly assembled firmware all channels CH#0 ... CH#5 in the Device List are used.

Table 5: Parameters **Device List View DevNr/SN**

DevNr/SN: Dialog Window for Device Configuration

For slot number (card ID) „0“ or if no rotary switch is provided:

- Select **Device List > DevNr/SN > Active Devices > cifX**.

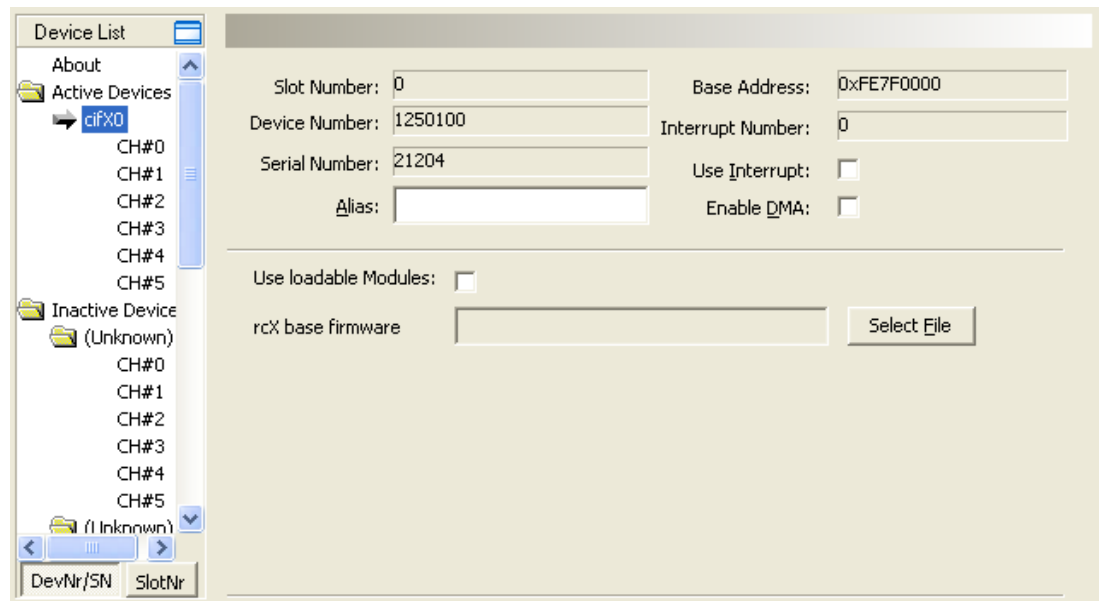


Figure 14: DevNr/SN: Dialog Window Device Configuration, Slot Number (card ID) „0“

Parameter	Meaning
Slot Number	The Slot Number (Card ID) serves to distinguish cifX cards from each other clearly, especially if several cifX cards are installed into the very same PC. The Slot Number (Card ID) must be set at the cifX card using the Rotary Switch Slot Number (Card ID) . <u>Value 0</u> : means that the cifX card is identified via its device and serial number. Note: cifX cards without rotary switch slot number (card ID) can only be identified via the device number and the serial number. In this case the value 0 is automatically displayed. <u>Values from 1 to 9</u> : correspond to the Slot Number (Card ID) 1 ... 9.
Device Number	Number of the device
Serial Number	Serial number of the device
Alias	As Alias you can enter a separate name for the device. This name is always assigned to the device number and to the serial number of the device.
Base Address	Starting address of the dual port-memory of the card in the PC memory
Interrupt Number	Interrupt number of the card
Use Interrupt	Check to activate card interrupts.
Enable DMA	Check to enable DMA.
Use loadable Modules	Check to use loadable modules (for future application).
rcX base firmware/ Select File	Load „rcX base“ firmware via Select File : cifXrcX.nxf, comXrcX.nxf
DevNr/SN, SlotNr	Change from DevNr/SN to SlotNr presentation.

Table 6: Parameters Dialog Window Device Configuration via „DevNr/SN“

4.2 Device Identification via Slot Number

Preconditions:

As devices with rotary switch slot number (card ID) are identified by the **cifX Device Driver** via the slot number (card ID), the switch position of the rotary switch slot number (card ID) must be set between „1“ and „9“. Devices without rotary switch slot number (card ID) can not be identified via the slot number (card ID).

Device List View “SlotNr”:

For slot number (card ID) „1“:

- Select the Device List view **SlotNr**.

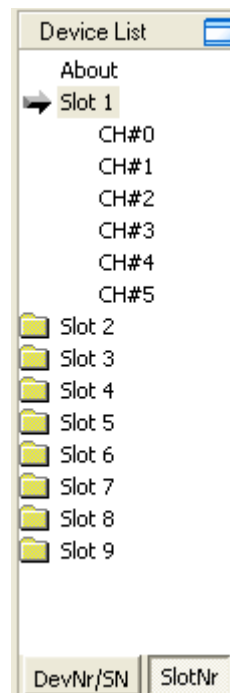


Figure 15: **Device List View SlotNr**

Parameter	Meaning
About	Current cifX Driver Setup Utility version, Hilscher manufacturer and copy right information.
Slot 1 ... Slot 9	Slot Number in the cifX Driver Setup Utility of the currently by the driver via the Slot Number (Card ID) identified device.
CH#0 ... CH#5	Communication channels CH#0 ... CH#5 . By default only channel CH#0 is used. For modularly assembled firmware all channels CH#0 ... CH#5 in the Device List are used.

Table 7: Parameters **Device List View DevNr/SN**

SlotNr: Dialog Window for Device Configuration

For slot number (card ID) „1“:

- Select **Device List > Slot1** or to **Slot9**.

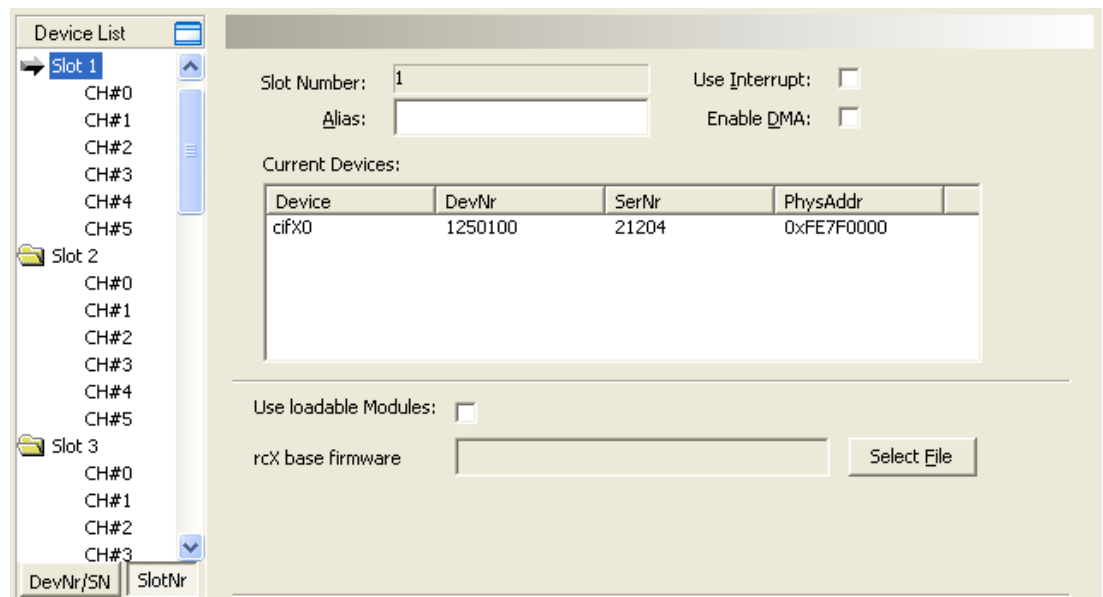


Figure 16: SlotNr: Dialog Window Device Configuration, Slot Number (card ID) „1“

Parameter	Meaning								
Slot Number	The Slot Number (Card ID) serves to distinguish cifX cards from each other clearly, especially if several cifX cards are installed into the very same PC. The Slot Number (Card ID) must be set at the cifX card using the Rotary Switch Slot Number (Card ID) . <u>Value 0:</u> means that the cifX card is identified via its device and serial number. Note: cifX cards without rotary switch slot number (card ID) can only be identified via the device number and the serial number. In this case the value 0 is automatically displayed. <u>Values from 1 to 9:</u> correspond to the Slot Number (Card ID)1 ... 9 .								
Alias	As Alias you can enter a separate name for the device. This name is always assigned to the device number and to the serial number of the device.								
Interrupt Number	Interrupt number of the card								
Current Devices	<table border="1"> <thead> <tr> <th>Device</th> <th>Device name of the current device: cifX0, cifX1 ...</th> </tr> </thead> <tbody> <tr> <td>DevNr</td> <td>Number of the current device</td> </tr> <tr> <td>SerNr</td> <td>Serial number of the current device</td> </tr> <tr> <td>PhysAddr</td> <td>Physical address of the current device</td> </tr> </tbody> </table>	Device	Device name of the current device: cifX0, cifX1 ...	DevNr	Number of the current device	SerNr	Serial number of the current device	PhysAddr	Physical address of the current device
Device	Device name of the current device: cifX0, cifX1 ...								
DevNr	Number of the current device								
SerNr	Serial number of the current device								
PhysAddr	Physical address of the current device								
Enable DMA	Check to enable DMA.								
Use loadable Modules	Check to use loadable modules (for future application).								
rcX base firmware/ Select File	Load „rcX base“ firmware via Select File: cifXrcX.nxf, comXrcX.nxf								
DevNr/SN, SlotNr	Change from DevNr/SN to SlotNr presentation.								

Table 8: Parameters Dialog Window Device Configuration via „SlotNr“

4.2.1 Slot Number

Hereafter a description is given, how the **Slot Number** (Card ID) is displayed in the **cifX Driver Setup Utility** user interface.

Prerequisite:

Previously a **Slot Number** (Card ID) between 1 and 9 has been set at the cifX card

The description below uses for **Slot Number** (Card ID) the value „1“.

1. Open the **cifX Driver Setup Utility** user interface.
 - Select **Start > Control Panel**.
 - Double click on the **cifX Setup** symbol.
 - The cifX Driver setup program starts.
2. **DevNr/SN View**:
 - Select **Device List > Active Devices > cifX**.
 - The dialog window for device configuration via **DevNr/SN** is displayed.
 - The field **Slot Number** shows the Slot Number (Card ID) for the cifX card. For this description the Slot Number (Card ID) has the value „1“.

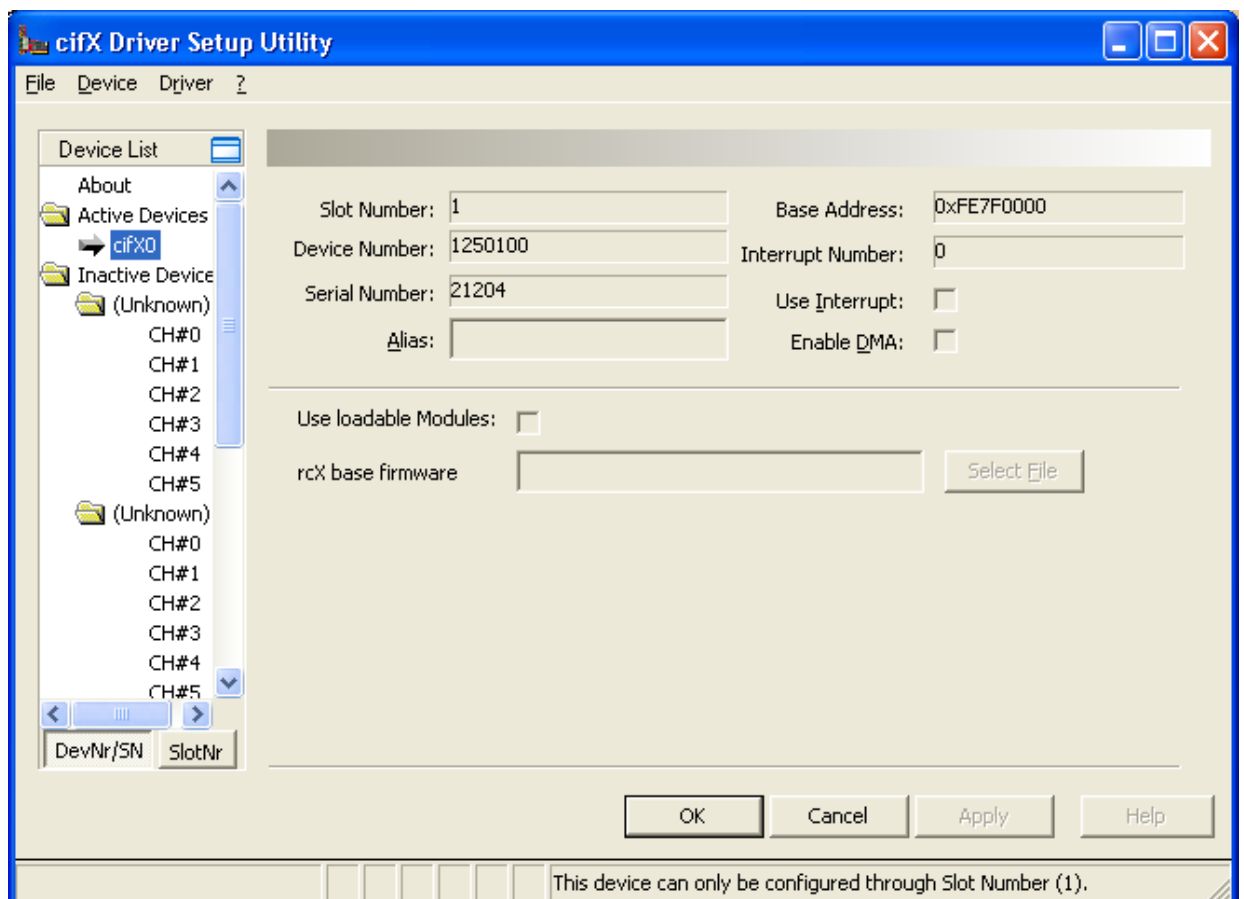


Figure 17: DevNr/SN: Dialog Window Device Configuration, Slot Number (card ID) „1“

Or:

3. **SlotNr** View:

- Select **Device List** > **SlotNr**.
- The dialog window for device configuration via **SlotNr** is displayed.

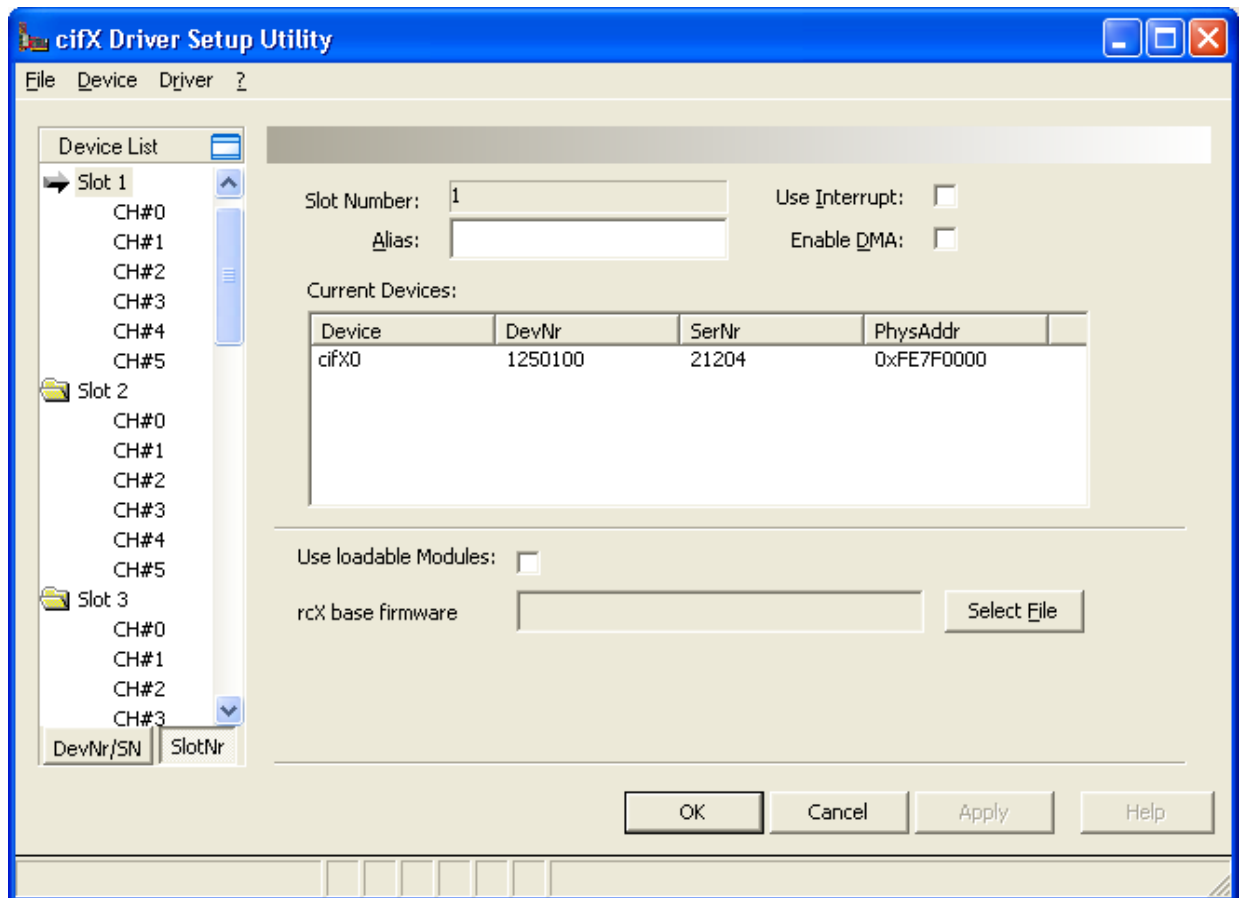


Figure 18: SlotNr: Dialog Window Device Configuration, Slot Number (card ID) „1“

4.3 Activating DMA Mode

This section describes how to activate the **DMA Mode** in the **cifX Driver Setup Utility** user interface.

Case 1: Previously a Slot Number (Card ID) between 1 and 9 has been set at the cifX card.

Case 2: Previously the Slot Number (Card ID) value 0 has been set at the cifX card or the cifX card is not equipped with a Rotary Switch Slot Number (Card ID).

The description below refers to case 1 and uses for Slot Number (Card ID) the value „1“.

1. Open the **cifX Driver Setup Utility** user interface.
2. Switch to the **SlotNr** view.
 - Select **Device List > SlotNr**.
3. Activate DMA Mode:
 - Select **Device List > Slot 1**.
 - Check **Enable DMA**.

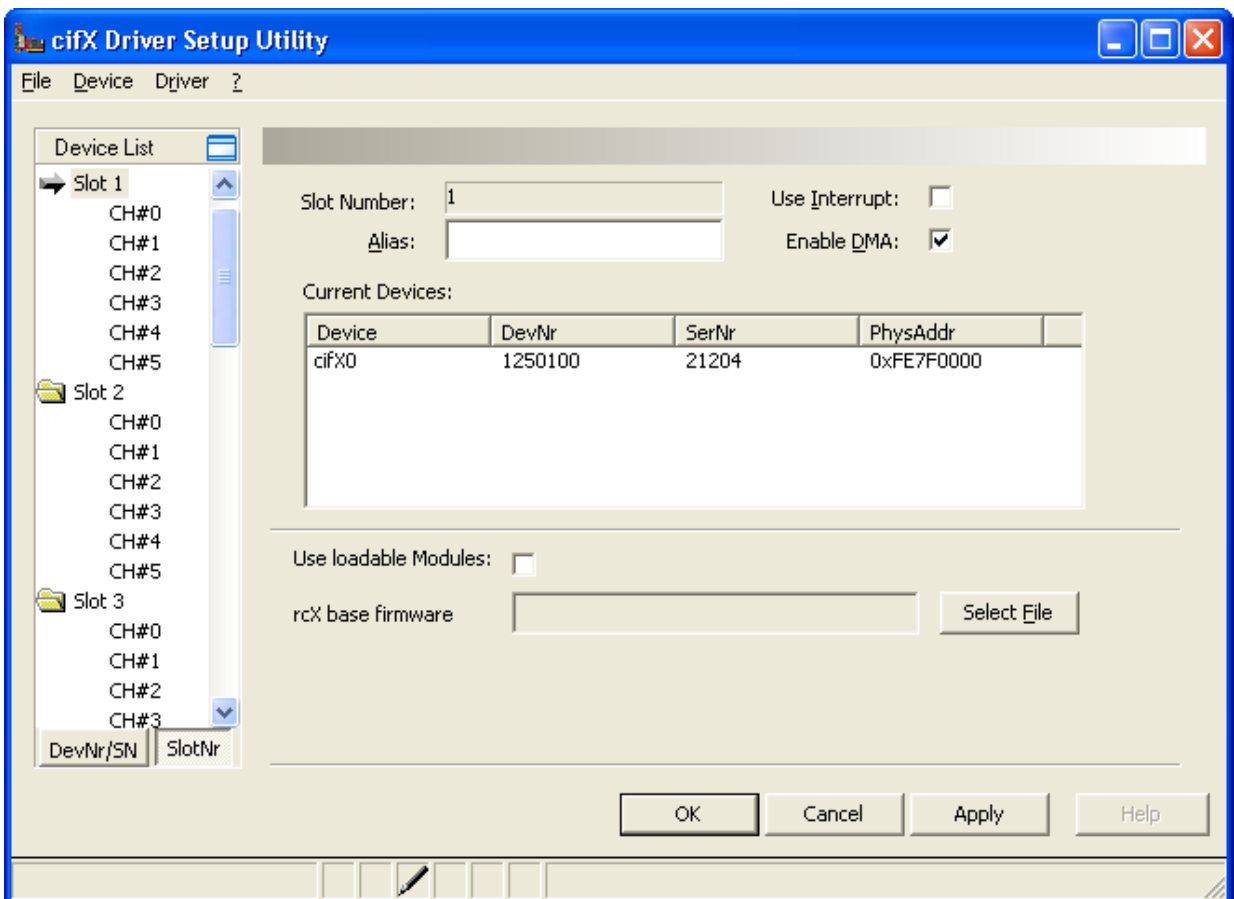


Figure 19: SlotNr: Dialog Window Device Configuration, Slot Number (card ID) „1“, Enable DMA checked

4. Apply Settings
 - Click **Apply**.
 - The **DMA Mode** is activated.

4.4 Deleting Device

Using the **Device > Delete** menu, you can delete devices from the **cifX Driver Setup Utility** configuration:

- Select under **Device List > DevNr/SN > Active Devices** to the folder **cifX** of the device to be deleted.
- Select **Device > Delete**.



Figure 20: Device > Add / Delete

- The device is deleted.

4.5 Global Driver Settings

In the **Global Driver Settings** window you can set different trace levels. The **cifX Device Driver** saves the error notes according to the selected trace levels to device specific driver log files into the driver directory *[disk drive]:\Program Files\cifX Device Driver*. The log file name corresponds to the device name of the current cifX card: e. g. cifX0.log, cifX1.log.



Note: If the cifX card remains in the not ready state, the **cifX Device Driver** cannot create the driver log file. In such a case Windows® writes the error messages to the *System Error Event* Event Viewer.

- Via **Driver > Global Settings** open the **Global Driver Settings** window.

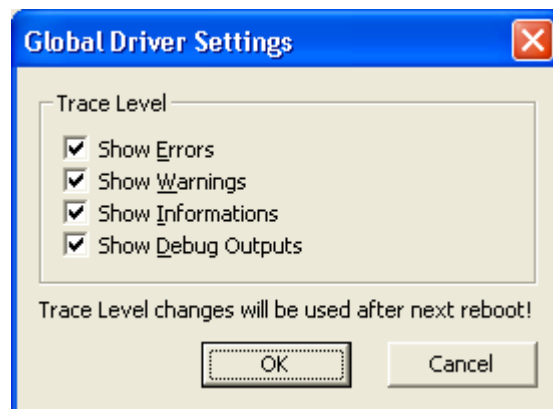


Figure 21: Global Driver Settings

- Check the required **Trace Level(s)**:
 - **Show Errors,**
 - **Show Warnings,**
 - **Show Information,**
 - **Show Debug Outputs.**
- Close the **Global Driver Settings** window via **OK**.

4.6 Firmware and Configuration

A firmware and a configuration file can be assigned to each of the communication channels **CH#0** to **CH#5** in the **Device List**. By default only channel **CH#0** is used.

For modularly assembled firmware all channels **CH#0** to **CH#5** in the **Device List** are used. Devices with modularly assembled firmware require a rcx base firmware and the firmware modules for the corresponding communication systems. The rcx base firmware **.nxf* is assigned to the communication channel **CH#0** and to each of the communication channels **CH#1** to **CH#5** a firmware module **.nxo* can be assigned.

The assignment of the firmware file, of the module(s) and of the configuration file(s) is made in the dialog window of the correspondent channel. All firmware files, modules and configuration files are filed in the configuration directory of the **cifX Device Driver** and they are opened during driver startup.

4.6.1 Firmware and Configuration via „DevNr/SN“

For slot number (card ID) „0“ or if no rotary switch is provided:

- Select **Device List > DevNr/SN > Active Devices > cifX > CH#0**.

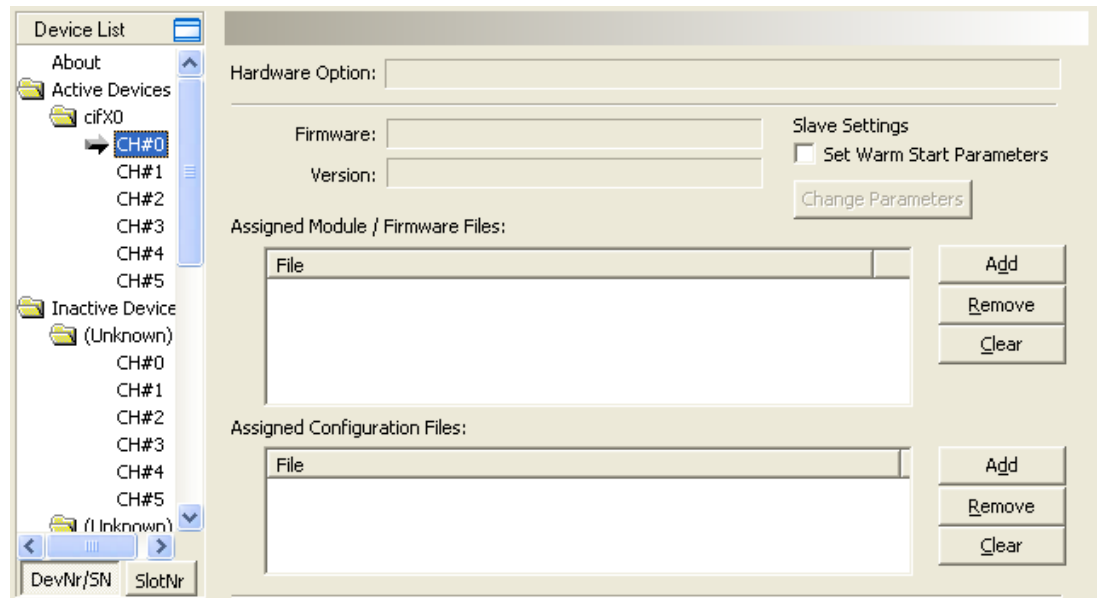


Figure 22: DevNr/SN: Dialog Window Firmware and Configuration, Slot Number (card ID) „0“

Parameter	Meaning
Hardware Option (only for DevNr/SN)	Shows the values for the „Hardware Assembly Options“ for the xC port 0 ... 3. The "Hardware Assembly Options" set the current hardware configuration of the xC ports. Thus, the respective type of the physical interface to the netX peripherals is defined. [1]
Firmware	Firmware name of the firmware file selected in the Assigned Module / Firmware Files window
Version	Firmware version of the firmware file selected in the Assigned Module / Firmware Files window
Slave Settings / Set Warmstart Parameters	Checkbox to activate the warmstart parameters
Change Parameters	If the checkbox Slave Settings / Set Warmstart Parameters is activated, via Change Parameters the window Change Warmstart Parameters can be opened.
Assigned Module / Firmware Files	In this window all downloaded modules or firmware files are displayed with their corresponding file paths.
Assigned Configuration Files	In this window all downloaded configuration files are displayed with their corresponding file paths.
Add / Remove / Clear	Add firmware or configuration files via Add , remove them via Remove or clear them via Clear .

Table 9: Parameters Dialog Window Firmware and Configuration

1. Selecting Firmware File:

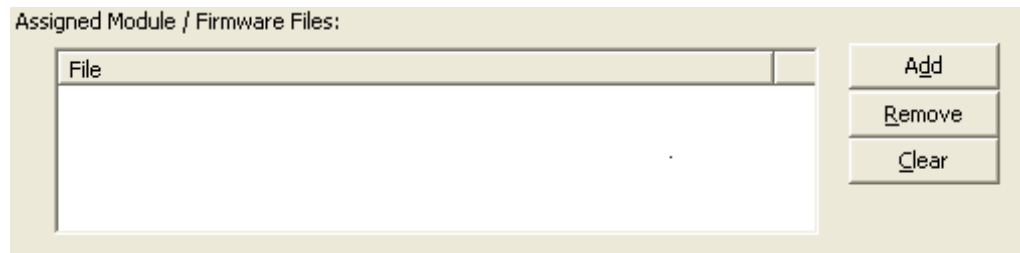


Figure 23: Select Firmware File

- Select **Assigned Module / Firmware Files > Add**.
- Select in the subsequent selection menu a firmware file **.nxf* and exit the selection menu via **OK**.
- Activate the file download via **Apply** or **OK**.
- ⇒ Under **Assigned Module / Firmware Files > File** the filing path and the file name of the firmware file(s) are displayed.

The firmware file **.nxf* is copied to the directory *[disk drive]:\ Program Files\cifX Device Driver\[Device Number]_[Serial Number]\Channel0*.

File	Note
<i>[Name Communication System].nxf</i>	Firmware file, depending from the used communication system.
<i>[Name Communication System].nxo</i>	Firmware module, for the corresponding communication system.

Table 10: Firmware Files cifX Device Driver

2. Or for modularly assembled firmware assign rcx base firmware:

- Select **Device List > DevNr/SN > Active Devices > cifX**.
- Check **Use loadable Modules**.
- Click **rcX base firmware/ Select File**.
- Select in the subsequent selection menu a rcx base firmware **.nxf* and exit the selection menu via **OK**.
- Activate the file download via **Apply** or **OK**.
- Select **Device List > DevNr/SN > Active Devices > cifX > CH#0**.
- ⇒ Under **Assigned Module / Firmware Files > File** the filing path and the file name of the rcx base firmware **.nxf* is displayed.

The rcx base firmware **.nxf* is copied to the directory *[disk drive]:\ Program Files\cifX Device Driver\[Device Number]_[Serial Number]\Channel0*.

File	Note
<i>cifXrcX.nxf, comXrcX.nxf</i>	rcx base firmware, depending from the used device.

Table 11: rcx Base Firmware cifX Device Driver

Further

- Select **Device List > DevNr/SN > Active Devices > cifX> CH#1 to CH#5**.
- Select **Assigned Module / Firmware Files > Add**.
- Select in the subsequent selection menu a firmware module *.nxo and exit the selection menu via **OK**.
- Possibly assign additional firmware modules *.nxo.
- Activate the file download via **Apply** or **OK**.
- Under **Assigned Module / Firmware Files > File** the filing path and the file name of the firmware module(s) are displayed.

The firmware module(s) *.nxfo are copied to the directory [disk drive]:\ Program Files\cifX Device Driver\[Device Number]_[Serial Number]\Channel0\.

File	Note
[Name Communication System].nxo	Firmware module, for the corresponding communication system.

Table 12: Firmware Modules cifX Device Driver

3. Selecting Configuration File:



Figure 24: Select Configuration File

- Select **Assigned Configuration Files > Add**.
- Select in the subsequent selection menu a configuration file *.nxd and exit the selection menu via **OK**.
- Activate the file download via **Apply** or **OK**.
- Under **Assigned Module / Firmware Files > File** the filing path and the file name of the configuration file(s) are displayed.

The configuration file *.nxd is copied to the directory [disk drive]:\ Program Files\cifX Device Driver\[Device Number]_[Serial Number]\Channel0\.

File	Note
CONFIG.nxd	Configuration file (= data base file)
NWID.nxd	Network ID, for Real-Time Ethernet Systems

Table 13: Configuration Files cifX Device Driver

4.6.2 Firmware and Configuration via „SlotNr“

For slot number (card ID) „1“:

- Select **Device List > SlotNr/ > Slot1** or to **Slot9 > CH#0**.

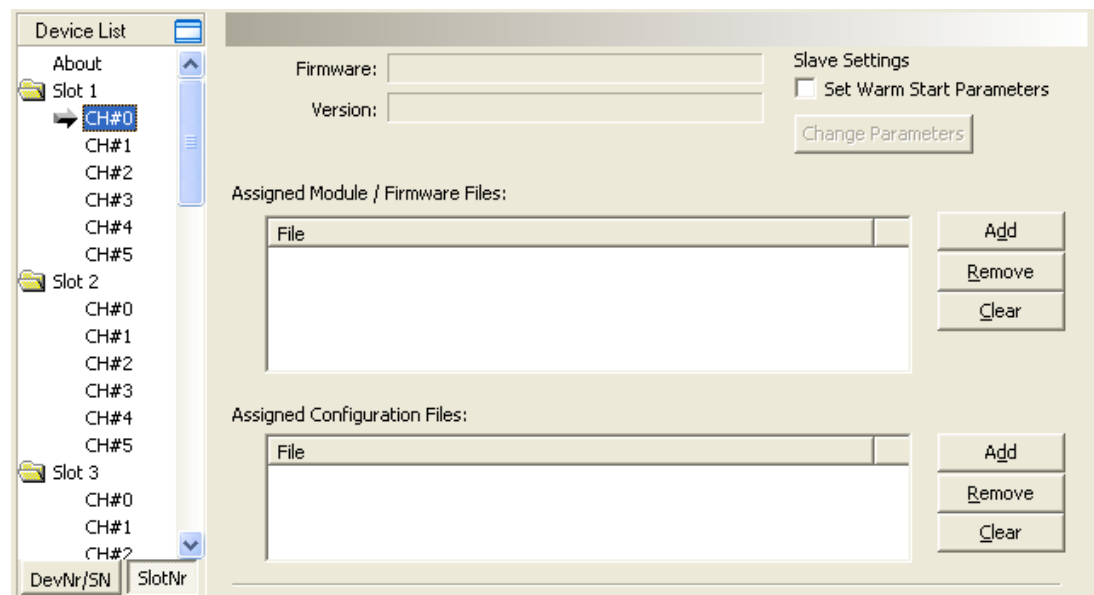


Figure 25: SlotNr: Dialog Window Firmware and Configuration, Slot Number (card ID) „1“

Parameter	Meaning
Firmware	Firmware name of the firmware file selected in the Assigned Module / Firmware Files window
Version	Firmware version of the firmware file selected in the Assigned Module / Firmware Files window
Slave Settings / Set Warmstart Parameters	Checkbox to activate the warmstart parameters
Change Parameters	If the checkbox Slave Settings / Set Warmstart Parameters is activated, via Change Parameters the window Change Warmstart Parameters can be opened.
Assigned Module / Firmware Files	In this window all downloaded modules or firmware files are displayed with their corresponding file paths.
Assigned Configuration Files	In this window all downloaded configuration files are displayed with their corresponding file paths.
Add / Remove / Clear	Add firmware or configuration files via Add , remove them via Remove or clear them via Clear .

Table 14: Parameter Dialog Window Firmware and Configuration

1. Selecting Firmware File:

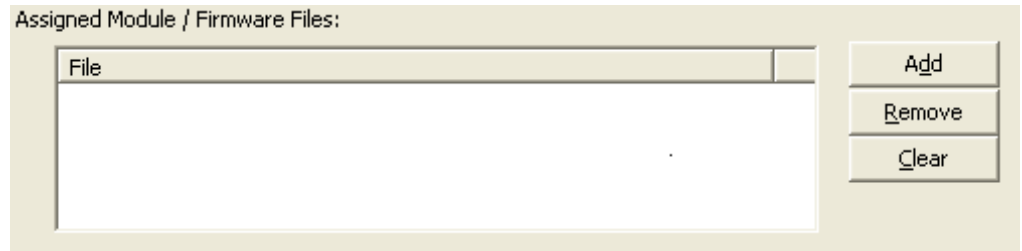


Figure 26: Select Firmware File

- Select **Assigned Module / Firmware Files > Add**.
- Select in the subsequent selection menu a firmware file *.nxf and exit the selection menu via **OK**.
- Activate the file download via **Apply** or **OK**.
- ⇒ Under **Assigned Module / Firmware Files > File** the filing path and the file name of the firmware file(s) are displayed.

The firmware file *.nxf is copied to the directory [disk drive]:\ Program Files\cifX Device Driver\Slot_n\Channel0\.

File	Note
[Name Communication System].nxf	Firmware file, depending from the used communication system.

Table 15: Firmware Files cifX Device Driver

2. Or for modularly assembled firmware assign rcx base firmware:

- Select **Device List > SlotNr/ > Slot1** or to **Slot9**.
- Check **Use loadable Modules**.
- Click **rcX base firmware/ Select File**.
- Select in the subsequent selection menu a rcx base firmware *.nxf and exit the selection menu via **OK**.
- Activate the file download via **Apply** or **OK**.
- Select **Device List > SlotNr/ > Slot1** or to **Slot9 > CH#0**.
- Under **Assigned Module / Firmware Files > File** the filing path and the file name of the rcx base firmware *.nxf is displayed.

The rcx base firmware *.nxf is copied to the directory [disk drive]:\ Program Files\cifX Device Driver\Slot_n\Channel0\.

File	Note
cifXrcX.nxf, comXrcX.nxf	rcx base firmware, depending from the used device.

Table 16: rcx Base Firmware cifX Device Driver

Further

- Select **Device List > SlotNr/ > Slot1** or to **Slot9 > CH#1 to CH#5**.
- Select **Assigned Module / Firmware Files > Add**.
- Select in the subsequent selection menu a firmware module *.nxo and exit the selection menu via **OK**.
- Possibly assign additional firmware modules *.nxo.
- Activate the file download via **Apply** or **OK**.
- Under **Assigned Module / Firmware Files > File** the filing path and the file name of the firmware module(s) are displayed.

The firmware module(s) *.nxfo are copied to the directory [disk drive]:\ Program Files\cifX Device Driver\Slot_n)\Channel0\.

File	Note
[Name Communication System].nxo	Firmware module, for the corresponding communication system.

Table 17: Firmware Modules cifX Device Driver

3. Select Configuration File:

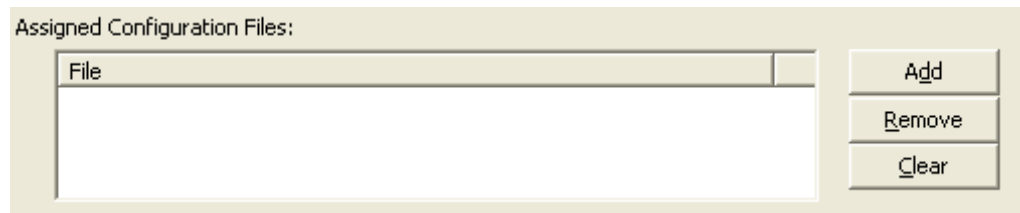


Figure 27: Select Configuration File

- Select **Assigned Configuration Files > Add**.
- Select in the subsequent selection menu a configuration file *.nxd and exit the selection menu via **OK**.
- Activate the file download via **Apply** or **OK**.
- Under **Assigned Module / Firmware Files > File** the filing path and the file name of the configuration file(s) are displayed.

The configuration file *.nxd is copied to the directory [disk drive]:\ Program Files\cifX Device Driver\[Device Number]_[Serial Number]\Channel0\.

File	Note
CONFIG.nxd	Configuration file (= data base file)
NWID.nxd	Network ID, for Real-Time Ethernet Systems

Table 18: Configuration Files cifX Device Driver

4.7 Setting Warmstart Parameters



Important: By default the warmstart parameters are configured using the configuration software **SYCON.net** or **netXConfiguration Tool**.

4.7.1 Configuring Warmstart Parameters using cifX Driver Setup Utility

Using the user interface **cifX Driver Setup Utility** for each channel the warmstart parameters can be configured. Then the warmstart parameters are stored in cifX Device Driver directory and they are accessed when you start the driver.



Note: Warmstart parameters can only be set for slave firmware. Set the warmstart parameters only for the communication system, the cifX card shall be configured for.

1. Open the dialog **Change Warmstart Parameters** and select the communication system.

- Check **Slave Settings / Set Warm Start Parameters**

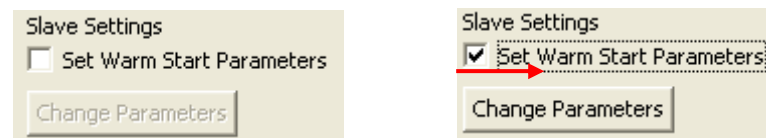


Figure 28: Activating Checkbox Set Warmstart Parameters (slave only)

- ⇒ The dialog **Change Warmstart Parameters** is displayed and the button **Change Parameters** can be selected.
2. Select the communication system in the window **Change Warmstart Parameters** via **Communication System**.
 3. Configure the warmstart parameters.

For further information to this refer to the following subsections.

4.7.2 Warmstart Parameters CANopen Slave

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: CANopen
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic (Default)
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
Node Address	Node ID of the CANopen Slave	1 ... 127, Default: CIFX CO/COS: 2
Baudrate	Baudrate of the CANopen connection	1 Mbaud, 800 Kbaud, 500 Kbaud, 250 Kbaud, 125 Kbaud, 100 Kbaud, 50 Kbaud, 20 Kbaud, 10 Kbaud, Default CIFX CO/COS: 1 MBaud
I/O Data Status	Status of the input or the output data. For each input and output data the following status information (in Byte) is memorized in the dual-port memory: Status 0 = None (default) Status 1 = 1 Byte (for future use) Status 2 = 4 Byte (for future use)	None, (1 Byte, 4 Byte) Default: None

Table 19: Warmstart Parameters - CANopen Slave

4.7.3 Warmstart Parameters DeviceNet Slave

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: DeviceNet
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic (Default)
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
Node Address	This parameter defines the DeviceNet address of the device within the network.	0 ... 63
Baudrate	Baud rate of DeviceNet connection	500 kBaud, 250 kBaud, 125 kBaud, Default CIFX DN/DNS: 500 kBaud
I/O Data Status	Status of the input or the output data. For each input and output data the following status information (in Byte) is memorized in the dual-port memory: Status 0 = None (default) Status 1 = 1 Byte (for future use) Status 2 = 4 Byte (for future use)	None, (1 Byte, 4 Byte) Default: None
Produced Size	ProducedSize sets the number of send bytes.	0 ... 255, Default: 2
Consumed Size	ConsumedSize sets the number of receive bytes.	0 ... 255, Default: 2
Config Flags	The variable ConfigFlags defines configuration parameters. <i>Ignore Address Switch</i> : ignore address switch, <i>Continue On Bus Off</i> : continue operation after BUS OFF event, <i>Continue On Loss NP</i> : continue operation in case of loss of network voltage, <i>Receive Idle Clear Data</i> : set receive data to 0 in the "Receive idle" mode, <i>Receive Idle User Data</i> : transfer user defined receive data in the "Receive idle" mode. If a flag is unchecked, the default value is used.	0x00000000 ... 0x0000001F (hex), Default: 0x00000000C (hex)
Vendor ID	Identification number of the manufacturer If unchecked, the default value is used.	0x00000000 ... 0x0000FFFF (hex), Hilscher: 0x00000011B (hex)
Product Type	Communication Adapter If unchecked, the default value is used.	0x00000000 ... 0x0000FFFF (hex), Default: 0x00000000C (hex)
Product Type	Product code of the device If unchecked, the default value is used.	0x00000000 ... 0xFFFFFFFF (hex), Default CIFX DN/DNS: 0x0000001C (hex), NETX 500 DN/DNS: 0x00000029 (hex), NETX 100 DN/DNS: 0x00000027 (hex), NETX 50 DN/DNS: 0x00000025 (hex)

For more see next Page

Parameter	Meaning	Range of Value / Value
Product Name	The variable Product Name is a text string that should represent a short description of the product/product family. If unchecked, the default value is used.	0 ... 31 ASCII Characters
Minor Rev	Minor Revision If unchecked, the default value is used.	1 ... 255, Default: 1
Major Rev	Major Revision If unchecked, the default value is used.	1 ... 255, Default: 1
Serial Number	Serial number of the device If unchecked, the default value is used.	0x00000000 ... 0xFFFFFFFF (hex)

Table 20: Warmstart Parameters - DeviceNet Slave

4.7.4 Warmstart Parameters EtherCAT Slave

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: EtherCAT
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic (Default)
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
I/O Data Status	Status of the input or the output data. For each input and output data the following status information (in Byte) is memorized in the dual-port memory: Status 0 = None (default) Status 1 = 1 Byte (for future use) Status 2 = 4 Byte (for future use)	None, (1 Byte, 4 Byte) Default: None
Input Length	Length of the input data in Byte	1... 256 Byte Default: 200 Byte
Output Length	Length of the output data in Byte	1... 256 Byte Default: 200 Byte
Vendor ID	Identification number of the manufacturer	0x00000000 ... 0xFFFFFFFF (hex), Hilscher: 0xE0000044 (hex)
Product Code	Product code of the device	0x00000000 ... 0xFFFFFFFF (hex), Default: CIFX RE/ECS: 0x00000001 (hex), COMX RE/ECS: 0x00000003 (hex), NETX 500 RE/ECS: 0x00000009 (hex), NETX 100 RE/ECS: 0x0000000C (hex), NETX 50 RE/ECS: 0x0000000A (hex)
Revision Number	Revision number of the device	0x00000000 ... 0xFFFFFFFF (hex), Default: CIFX RE/ECS, COMX RE/ECS: 0x00020001 (hex), NETX 500 RE/ECS, NETX 100 RE/ECS, NETX 50 RE/ECS: 0x00010000 (hex)
Serial Number	Serial number of the device	0x00000000 ... 0xFFFFFFFF (hex)

Table 21: Warmstart Parameters - EtherCAT Slave

4.7.5 Warmstart Parameters EtherNet/IP Slave

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: EtherNet/IP
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic (Default)
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
I/O Data Status	Status of the input or the output data. For each input and output data the following status information (in Byte) is memorized in the dual-port memory: Status 0 = None (default) Status 1 = 1 Byte (for future use) Status 2 = 4 Byte (for future use)	None, (1 Byte, 4 Byte) Default: None
Input Length	Length of the input data in Byte	1... 504 Byte, Default: 16 Byte
Output Length	Length of the output data in Byte	1... 504 Byte, Default: 16 Byte
Vendor ID	Identification number of the manufacturer	0 ... 65535, Hilscher: 283
Product Type	Communication Adapter	0 ... 65535, Default: 12
Product Code	Product code of the device	0 ... 65535, Default CIFX RE/EIS: 257 COMX RE/EIS: 259 NETX 500 RE/EIS: 261 NETX 50 RE/EIS: 263 NETX 100 RE/EIS: 265
Major Rev	Major Revision	0 ... 255, Default: 0
Minor Rev	Minor Revision	0 ... 255, Default: 0
Devicename	Device name of the device station as character string, e. g. EtherNet/IP Adapter (Slave).	0 - 31 ASCII characters
IP Address	Valid IP address for the device If 'Enabled' is unchecked (Default setting), the device obtains its IP Address from a DHCP server or also from a BOOTP server, if this one is checked. If 'Enabled' is checked, the device uses the manually entered value.	Valid IP address Default: unchecked
Netmask	Valid Network mask for the device If 'Enabled' is unchecked (Default setting), the device obtains its Netmask from a DHCP server or also from a BOOTP server, if this one is checked. If 'Enabled' is checked, the device uses the manually entered value.	Valid network mask Default: unchecked
Gateway	Valid Gateway address for the device If 'Enabled' is unchecked (Default setting), the device obtains its Gateway Address from a DHCP server or also from a BOOTP server, if this one is checked. If 'Enabled' is checked, the device uses the manually entered value.	Valid gateway address Default: unchecked

For more see next Page

Parameter	Meaning	Range of Value / Value
Gateway (continued)	<p>There are three methods available, how the device can obtain its IP Address, Netmask and Gateway Address, one of which must be selected.</p> <p>These methods can also be combined.</p> <p>The device performs the following sequence in order to obtain the addresses:</p> <ol style="list-style-type: none"> 1. from a DHCP server if DHCP is checked (if a DHCP server provides the requested addresses to the device, then the device uses these addresses) 2. from a BootP server if BootP is checked (if a BootP server provides the requested addresses to the device, then the device uses these addresses) 3. the addresses manually set are used. If the IP Address is set manually also the Network Mask must be set manually. The manually set Gateway Address is optional. <p>If no DHCP server and no BootP server and no manually set addresses exist, then the protocol is not ready for initialization or for operation.</p>	Valid gateway address Default: unchecked
Flags	<p>BootP: If checked, the device obtains its IP Address, Netmask, Gateway Address from a BOOTP server.</p>	Default: unchecked
	<p>DHCP: If checked, the device obtains its IP Address, Netmask, Gateway Address from a DHCP server.</p>	Default: checked
	<p>100Mbit: Speed Selection, If checked, the device will operate at 100 MBit/s, else at 10 MBit/s. This parameter will not be in effect, when auto-negotiation is active.</p>	Default: unchecked
	<p>FullDuplex: Duplex Operation, If checked, full-duplex operation will be used. The device will operate in half-duplex mode, if this parameter is set to zero. This parameter will not be in effect, when auto-negotiation is active.</p>	Default: unchecked
	<p>Auto-neg.: Auto-Negotiation, If checked, the device will auto-negotiate link parameters with the remote hub or switch.</p>	Default: checked

Table 22: Warmstart Parameters - EtherNet/IP Slave

4.7.6 Warmstart Parameters Open Modbus/TCP Slave

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: Open Modbus/TCP
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic Default CIFX RE/OMB: Automatic
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
Open Server Sockets	Server Connections Number of sockets to provide for server requests* *A value of 0 means that the Open Modbus/TCP task exclusive works as Client, while a Value of 16 means that the Open Modbus/TCP task exclusive works as Server in Message-Mode. The parameters Send Timeout, Connect Timeout and Close Timeout are for the Timeout between the Open Modbus/TCP Task and the TCP Task.	0 ... 4 ... 16
Answer Timeout	Telegram Timeout Only for client jobs in message-mode. After expiration of this time, the job will be canceled and an error is send to the application. Value is multiplied with 100 ms. Note: This timeout starts after command is send to the destination device via TCP	100 ... 2000 ... 6000000
OMB Open Time	Connection remain open time Only for client jobs in message-mode. The connection to the destination-device stays open, until timeout is expired. Value is multiplied with 100 ms. Note: This timeout starts, after receiving the answer to a command	100 ... 1000 ... 6000000
Send Timeout	TCP Task SendTimeout Parameter Parameter for TCP task (in milliseconds) . Used OMB task internal. It specifies the timeout for trying to send messages via TCP/IP If the value 0 is selected, the default value of 31000 milliseconds is used.	0 ... 65535
Connect Timeout	TCP Task Connect Timeout Parameter Parameter for TCP task (in milliseconds). Used OMB task internal. It specifies the timeout for trying to establish a connection with the TCP task. If the value 0 is selected, the default value of 31000 milliseconds is used.	0 ... 65535
Close Timeout	TCP Task Close Timeout Parameter Parameter for TCP task (in milliseconds). Used OMB task internal. It specifies the timeout for trying to close a connection with the TCP task. If the value 0 is selected, the default value of 13000 milliseconds is used.	0 ... 65535
Mode	Mode of data exchange: Message-Mode or IO-Mode	I/O Mode (default), Message Mode

For more see next Page

Parameter	Meaning	Range of Value / Value
Swap	Data-storage mode: Data will not be swapped or Data will be swapped.	Data will be swapped (default), Data will not be swapped
MAC Address	This parameter defines the Open Modbus address of the device within the Ethernet network. If 'Enabled' is unchecked (Default setting), the default value internally saved in the device is used. If 'Enabled' is checked, the device uses the manually entered value.	Valid MAC Address
IP Address	Valid IP address for the device If 'Enabled' is unchecked (Default setting), the device obtains its IP Address from a DHCP or BOOTP server. If 'Enabled' is checked, the device uses the manually entered value.	Valid IP address Default: unchecked
Netmask	Valid Network mask for the device If 'Enabled' is unchecked (Default setting), the device obtains its Netmask from a DHCP or BOOTP server. If 'Enabled' is checked, the device uses the manually entered value.	Valid network mask Default: unchecked
Gateway	Valid Gateway address for the device If 'Enabled' is unchecked (Default setting), the device obtains its Gateway Address from a DHCP or BOOTP server. If 'Enabled' is checked, the device uses the manually entered value.	Valid gateway address Default: unchecked
IP Address Netmask Gateway (continued)	There are three methods available, how the device can obtain its IP Address, Netmask and Gateway Address, one of which must be selected. These methods can also be combined. The device performs the following sequence in order to obtain the addresses: 1. from a DHCP server if DHCP is checked (if a DHCP server provides the requested addresses to the device, then the device uses these addresses) 2. from a BootP server if BootP is checked (if a BootP server provides the requested addresses to the device, then the device uses these addresses) 3. the addresses manually set are used. If the IP Address is set manually also the Network Mask must be set manually. The manually set Gateway Address is optional. If no DHCP server and no BootP server and no manually set addresses exist, then the protocol is not ready for initialization or for operation.	
Flags	BootP: If checked, the device obtains its IP Address, Netmask, Gateway Address from a BOOTP server.	Default: unchecked.
	DHCP: If checked, the device obtains its IP Address, Netmask, Gateway Address from a DHCP server.	Default: unchecked.

Table 23: Warmstart Parameters - Open Modbus/TCP Slave

4.7.7 Warmstart Parameters PROFIBUS Slave

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: PROFIBUS
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic (Default)
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
Ident Number	PROFIBUS Identification Number	0x00000000 ... 0x0000FFFF (hex), Default: CIFX DP/DPS: 0x000000B69 (hex)
Bus Address	PROFIBUS address of the device	0 ... 126
Baudrate	Network Baud Rate	9,6 kBit/s 19,2 kBit/s 93,75 kBit/s 187,5 kBit/s 500 kBit/s 1,5 MBit/s 3 MBit/s 6 MBit/s 12 MBit/s 31,25 kBit/s 45,45 kBit/s Auto detect Default: CIFX DP/DPS: Auto-Detect
Flags	DPV1 Enable: If checked, DPV1 is supported or the DPV1 functions are activated.	Default: unchecked
	Sync supported: If checked, the Slave stack supports the SYNC command or the SYNC mode is activated.	Default: unchecked
	Freeze supported: If checked, the Slave stack supports the FREEZE command or the FREEZE mode is activated.	Default: unchecked
	Fail safe supported: If checked, the FAILSAFE operation is supported or the FAILSAFE mode is activated.	Default: unchecked
	Address change not allowed: If checked, the Slave stack supports the Set Slave Address command. The bus address can be changed via the Master.	Default: unchecked
I/O Data Status	Status of the input or the output data. For each input and output data the following status information (in Byte) is memorized in the dual-port memory: Status 0 = None (default) Status 1 = 1 Byte (for future use) Status 2 = 4 Byte (for future use)	None, (1 Byte, 4 Byte) Default: None
Config Data Length	Number of bytes following	Default: 2

For more see next Page

Parameter	Meaning	Range of Value / Value
Config Data	<p>Configuration data for the output and input length.</p> <p>The identifier Byte (can be specified in two alternative forms): <u>General Identifier Byte</u> (coded according to the Profibus standard) or <u>Special Identifier Byte Format (SIF)</u></p> <p>For details refer to the PROFIBUS-DP Slave Protocol API Manual: for the General Identifier Byte refer to chap. 5.3.3.2, for the Special Identifier Byte Format (SIF) refer to chap. 5.3.3.3/5.3.3.4.</p> <p>Example: 21.11 / \ 2 Byte Output 2 Byte Input</p>	Default: 21,11 hex

Table 24: Warmstart Parameters - PROFIBUS Slave

4.7.8 Warmstart Parameters PROFINET IO-Device (V2)



Note: By default the warmstart parameters for the PROFINET IO-Device (V3 Stack) are supported.

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: PROFINET
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic (Default)
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
Name of Station	Station name or network name of the PROFINET IO-Controller or Device station. Must be DNS compatible name.	Character string, 0 - 240 characters
Type of Station	Type name of the PROFINET station; name can be assigned freely.	Character string, 0 - 240 characters
Vendor ID	Identification number of the manufacturer, assigned by PROFIBUS Nutzerorganisation e. V.	0x00000000 ... 0xFFFFFFFF (hex), Hilscher: 0x00000011E (hex)
Device ID	Identification number of the device, freely eligibly by the manufacturer, fixed for every device.	0x00000000 ... 0x0000FFFF (hex), für CIFX 50-RE: 0x00000103 (hex)
Device Type	Description of the device type, freely eligible	Character string, 0 - 25 characters
Order ID	Hilscher device number (e. g. 1250 100) or order description of the customer for its device	Character string, 0 - 20 characters
I/O Data Status	Status of the input or the output data. For each input and output data the following status information (in Byte) is memorized in the dual-port memory: Status 0 = None (default) Status 1 = 1 Byte (for future use) Status 2 = 4 Byte (for future use)	None, (1 Byte, 4 Byte) Default: None
Input Data Length	Length of the input data in Byte	0 ... 1024 Byte Default: 128 Byte
Output Data Length	Length of the output data in Byte	0 ... 1024 Byte Default: 128 Byte

Table 25: Warmstart Parameters - PROFINET IO-Device (V2 Stack)

4.7.9 Warmstart Parameters SERCOS III Slave (V2)



Note: By default the warmstart parameters for the SERCOS III (V3 Stack) are supported.

Parameter	Meaning	Range of Value / Value
Communication System	List field to select the communication system	Here: SERCOS III Slave
Bus Startup	Communication start application controlled or automatic	Application controlled, Automatic
Watchdog Time [ms]	Watchdog time within which the device watchdog must be retriggered from the application program while the application program monitoring is activated. When the watchdog time value is equal to 0 the application program monitoring is deactivated.	[0, 20 ... 65535] ms, default = 1000 ms, 0 = Off
I/O Data Status	Status of the input or the output data. For each input and output data the following status information (in Byte) is memorized in the dual-port memory: Status 0 = None (default) Status 1 = 1 Byte (for future use) Status 2 = 4 Byte (for future use)	None, (1 Byte, 4 Byte) Default: None
Device Address	Address for the SERCOS III Slave. The address range is from 1 to 127.	[1 ... 127]
Object Dictionary	Location of the Object Dictionary for Service Channel: local or Host	local, Host 0= local 1= Host (not supported yet) Default = 0
IP Address Netmask Gateway Flags (BootP, DHCP)	The SERCOS III Slave does not support the settings of the IP Address, Netmask and Gatewayaddress or the methods for its transmission DHCP and BootP.	

Table 26: Warmstart Parameters - SERCOS III Slave (V2 Stack)

4.7.10 Applying Warmstart Parameters

To apply the newly configured warmstart parameters:

- Click in the window **Change Warmstart Parameters** on **OK**.
- The warmstart parameters file *warmstart.dat* is saved in the directory [disk drive]:\ Program Files\cifX Device Driver\

For slot number (card ID) „0“ or if no rotary switch is provided:
 \backslash [Device Number]_\[Serial Number]\Channel0\.

For slot number (card ID) „1“: \backslash [Slot_n]\Channel0\.

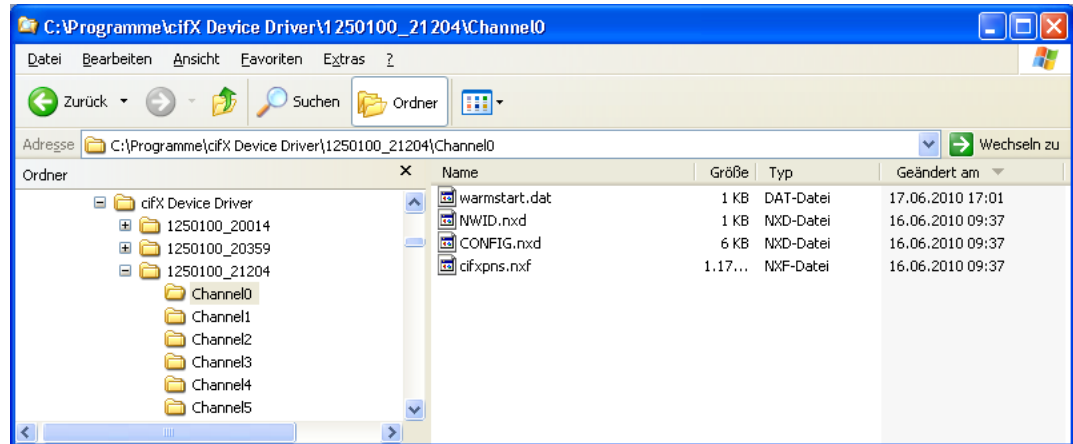


Figure 29: Filing location Warmstart Parameters Files

Case 1: Only cifX Driver Setup Utility is opened

If only the **cifX Driver Setup Utility** program is open and no further application program:

- The following request **cifX Setup - Do you want this device to be restarted?** is displayed:

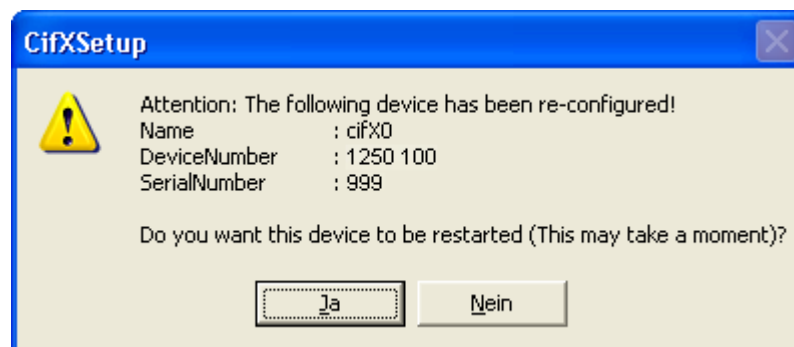


Figure 30: cifX Setup - Restart after Device Configuration

1. Acknowledge the request cifX Setup - Do you want this device to be restarted? by Yes (Ja).
- After restart of the cifX card, the new configuration is active.

Case 2: A further Application Program with access to the cifX Hardware is opened

If in addition to the **cifX Driver Setup Utility** program further application programs with access to the cifX hardware are open:

⇒ At first the following request **cifX Setup - Do you want this device to be restarted?** is displayed:



Figure 31: cifX Setup - Restart after Device Configuration

2. Acknowledge the request **cifX Setup - Do you want this device to be restarted?** by **Yes (Ja)**.

⇒ Then the Windows® request **System Settings Change** is displayed:

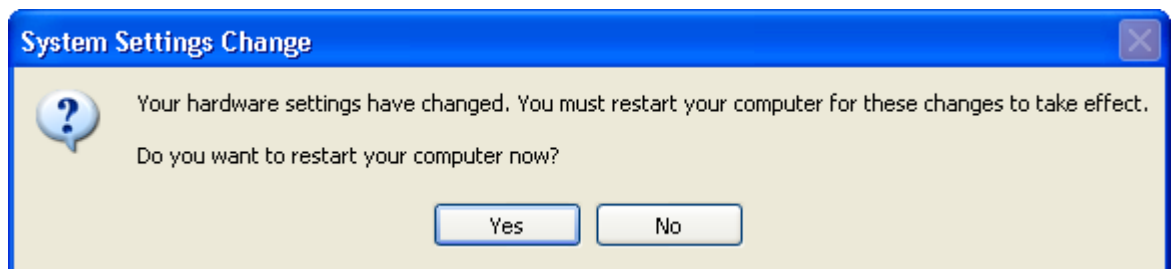


Figure 32: cifX Setup - System Settings Change



Note: The additional request to acknowledge also the computer restart is displayed:

- if one or several programs are still open in addition to the **cifX Driver Setup Utility** program,
- if an online connection is still established between the device and the application program after the transfer of the warmstart parameters.

3. Acknowledge the request by **Yes (Ja)**.

⇒ After restart of the cifX card, the new configuration is active.

4.8 References

- [1] netX Dual-Port Memory Interface for netX based Products, Interface of the netX Dual-Port Memory, netX DPM Interface.pdf (Englische Version)

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6 Contacts

Headquarters

Germany

Hilscher Gesellschaft für
Systemautomation mbH
Rheinstrasse 15
65795 Hattersheim
Phone: +49 (0) 6190 9907-0
Fax: +49 (0) 6190 9907-50
E-Mail: info@hilscher.com

Support

Phone: +49 (0) 6190 9907-99
E-Mail: de.support@hilscher.com

Subsidiaries

China

Hilscher Systemautomation (Shanghai) Co. Ltd.
200010 Shanghai
Phone: +86 (0) 21-6355-5161
E-Mail: info@hilscher.cn

Support

Phone: +86 (0) 21-6355-5161
E-Mail: cn.support@hilscher.com

France

Hilscher France S.a.r.l.
69500 Bron
Phone: +33 (0) 4 72 37 98 40
E-Mail: info@hilscher.fr

Support

Phone: +33 (0) 4 72 37 98 40
E-Mail: fr.support@hilscher.com

India

Hilscher India Pvt. Ltd.
New Delhi - 110 025
Phone: +91 11 40515640
E-Mail: info@hilscher.in

Italy

Hilscher Italia srl
20090 Vimodrone (MI)
Phone: +39 02 25007068
E-Mail: info@hilscher.it

Support

Phone: +39 02 25007068
E-Mail: it.support@hilscher.com

Japan

Hilscher Japan KK
Tokyo, 160-0022
Phone: +81 (0) 3-5362-0521
E-Mail: info@hilscher.jp

Support

Phone: +81 (0) 3-5362-0521
E-Mail: jp.support@hilscher.com

Korea

Hilscher Korea Inc.
Suwon, 443-810
Phone: +82-31-204-6190
E-Mail: info@hilscher.kr

Switzerland

Hilscher Swiss GmbH
4500 Solothurn
Phone: +41 (0) 32 623 6633
E-Mail: info@hilscher.ch

Support

Phone: +49 (0) 6190 9907-99
E-Mail: ch.support@hilscher.com

USA

Hilscher North America, Inc.
Lisle, IL 60532
Phone: +1 630-505-5301
E-Mail: info@hilscher.us

Support

Phone: +1 630-505-5301
E-Mail: us.support@hilscher.com