

**SIEMENS**



FAQ • 03/2014

Why can you not transfer the  
HMI configuration to the panel?  
- PROFIBUS Connection -

<http://support.automation.siemens.com/WW/view/en/88633853>

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## Caution

The functions and solutions described in this entry are predominantly limited to the realization of the automation task. When linking your system to other system components, to the company network or to the internet, appropriate industrial security measures must be taken. More information about this is available in Entry ID: !50203404!.

<http://support.automation.siemens.com/WW/view/en/50203404>

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# 1 General

## 1.1 Contents

This entry describes different solutions if you should encounter problems when transferring the configuration file to the HMI operator panel. Possible causes are listed and remedies given for clearing them.

### Requirement

Transfer of the HMI configuration to the operator panel is by PROFIBUS or MPI.

### Note

The document describes troubleshooting using PROFIBUS. The procedure using MPI is done in the same way.

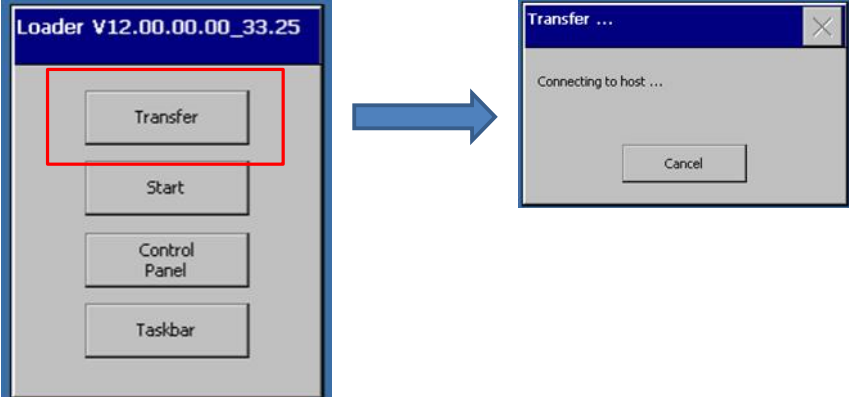
## 1.2 Settings

You must open different menus to check the settings. This chapter describes how to get to the menus and settings. In later error analyses we refer to this chapter.

### 1.2.1 Settings on the Panel


#### Set the panel to the Transfer mode

Table 1-1

No.	Action
1.	<ul style="list-style-type: none"> <li>• After the panel has started up or after the panel Runtime has been completed, the "Loader" menu is displayed.</li> <li>• Select the "Transfer" button in the "Loader" menu.</li> </ul> 

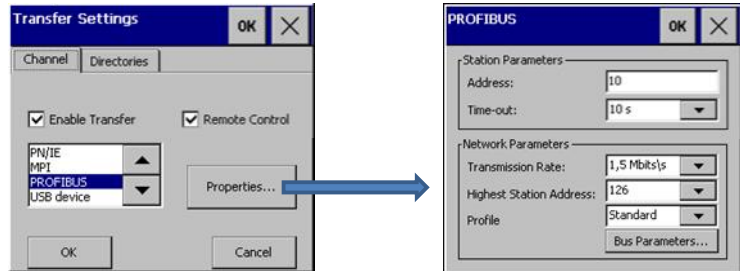
**Make Transfer settings on the panel**

Table 1-2

No.	Action
1.	<ul style="list-style-type: none"> <li>• Select the "Control Panel" button in the "Loader" menu.</li> <li>• In the "Control Panel" you select the "Transfer" icon. The "Transfer Settings" window opens.</li> </ul> 

**Change bus parameters on the panel**

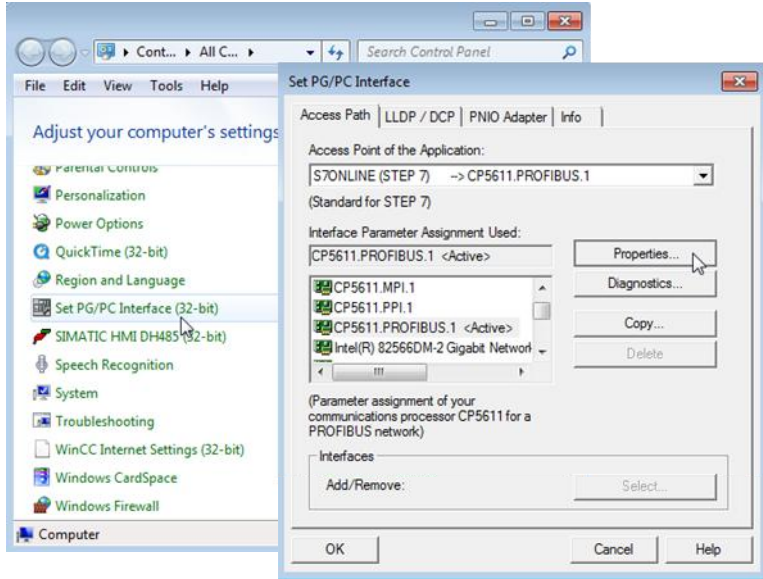
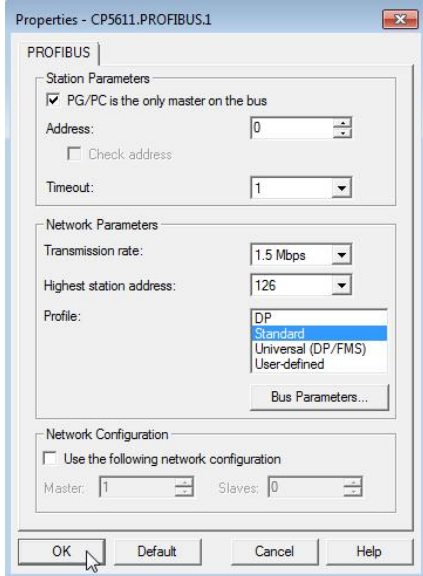
Table 1-3

No.	Action
1.	<ul style="list-style-type: none"> <li>• Select the "Control Panel" button in the "Loader" menu.</li> <li>• In the "Control Panel" you select the "Transfer" icon.</li> <li>• Select the "Channel" tab.</li> <li>• Select "PROFIBUS" from the list.</li> <li>• Click the "Properties..." button.</li> </ul> 

## 1.2.2 Settings on the Configuration PC

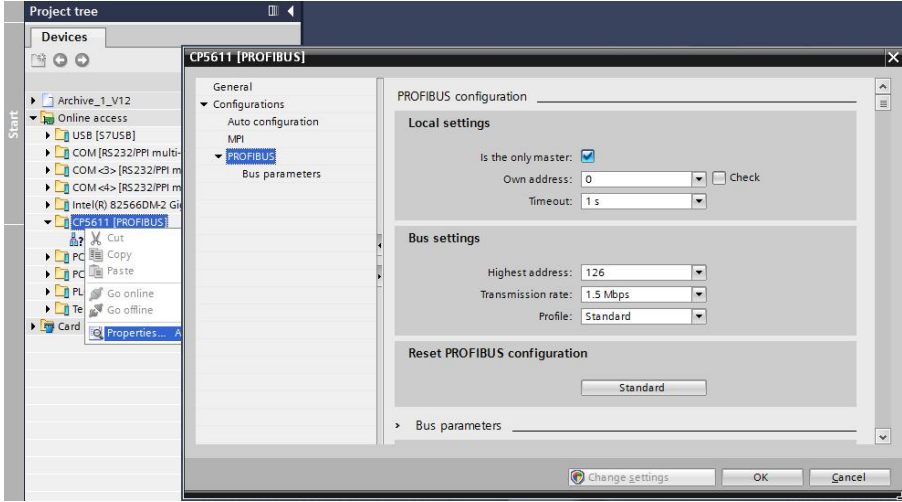
### Settings of the PG/PC interface (WinCC flexible 2008)

Table 1-4

No.	Action
1.	<ul style="list-style-type: none"> <li>Click the Windows "Start" button and open the Control Panel.</li> <li>Select the "Set PG/PC interface..." item.</li> <li>In the "Set PG/PC interface" dialog you select the interface parameter assignment and access point.</li> <li>Click "Properties..." to set the properties of the CPs.</li> </ul> 
2.	<ul style="list-style-type: none"> <li>You specify the properties of the CP in the window.</li> </ul> 

**Parameterize the MPI/PROFIBUS interface (WinCC (TIA Portal))**

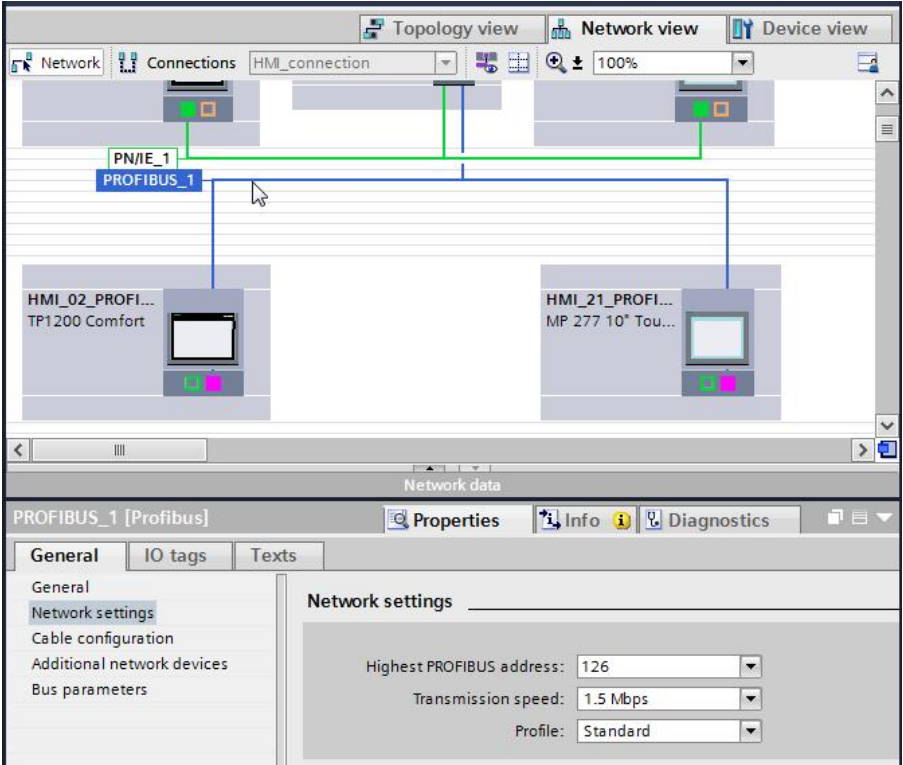
Table 1-5

No.	Action
1.	<ul style="list-style-type: none"> <li>• In the project tree, the "Online access" folder gives you all the enabled interfaces of the PG/PC.</li> <li>• Right-click the CP you are using.</li> <li>• Select the "Properties..." command in the pop-up menu. The "Properties" dialog opens.</li> <li>• The area navigation is on the left. Select and change the relevant parameters as required.</li> </ul> <p><b>Notes</b></p> <ul style="list-style-type: none"> <li>• Make sure that the bus settings are identical to those of the configured and connected PROFIBUS.</li> <li>• Details on the parameters are available in the Online Help.</li> </ul> 



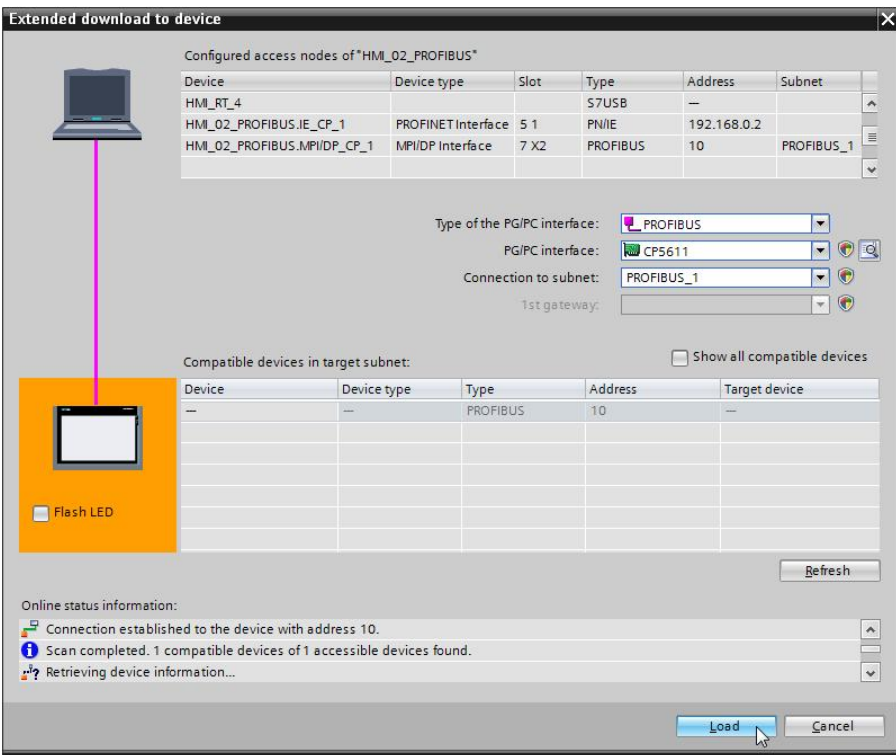
## Network settings in the HMI configuration

Table 1-6

No.	Action
1.	<ul style="list-style-type: none"> <li>• Open the Device Configuration of the HMI operator panel.</li> <li>• Enable Network View.</li> <li>• Mark the PROFIBUS segment with the mouse.</li> <li>• You can make different network settings under "Properties &gt; General &gt; Network settings".</li> </ul> 

### Transfer settings in the HMI configuration

Table 1-7

No.	Action
1.	<ul style="list-style-type: none"> <li>In the project tree you open the folder of the operator panel to be transferred.</li> <li>Select the menu command "Online &gt; Extended download to device...". The window (Extended download) with the transfer settings opens.</li> </ul> 



## 2 Basic Check

This chapter describes the most common sources of error.

If you cannot now transfer the configuration to the HMI operator panel, then you must run a detailed check. Refer here to chapter [3](#).

### 2.1 General Settings

#### Check the PROFIBUS address

Check the PROFIBUS address and associated network parameters


- On the panel (for details about calling functions see [1.2.1](#)).
- On the configuration PC (for details about calling functions see [1.2.2](#)).
- In the HMI configuration (for details about calling functions see [1.2.2](#)).

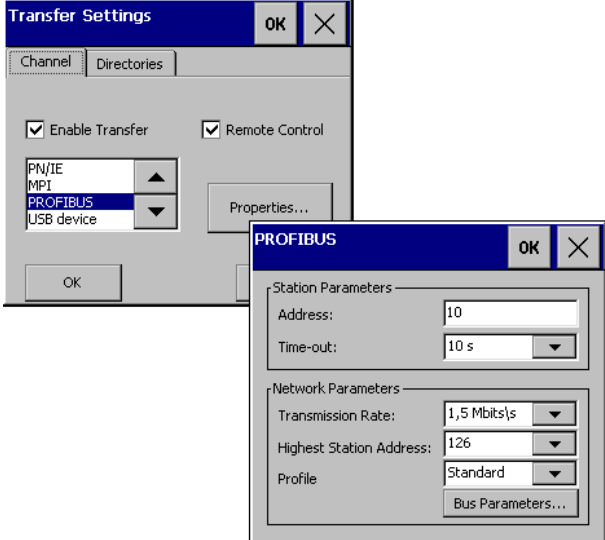
#### Network parameters to be checked

- Address
- Transmission rate
- Highest station address
- Profile

#### 2.1.1 Settings on the panel

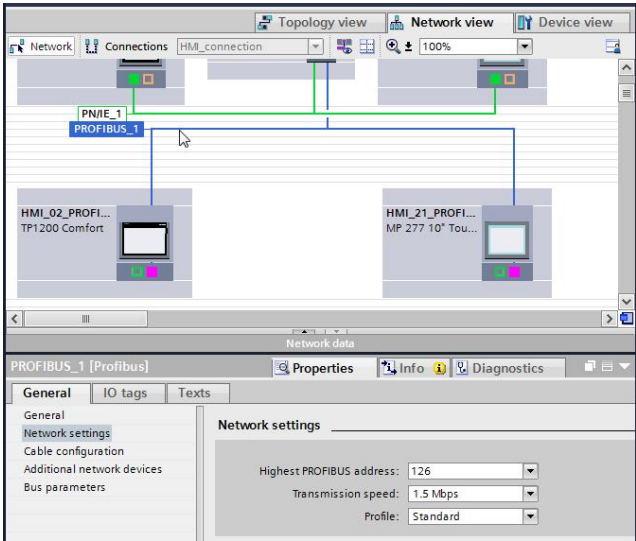
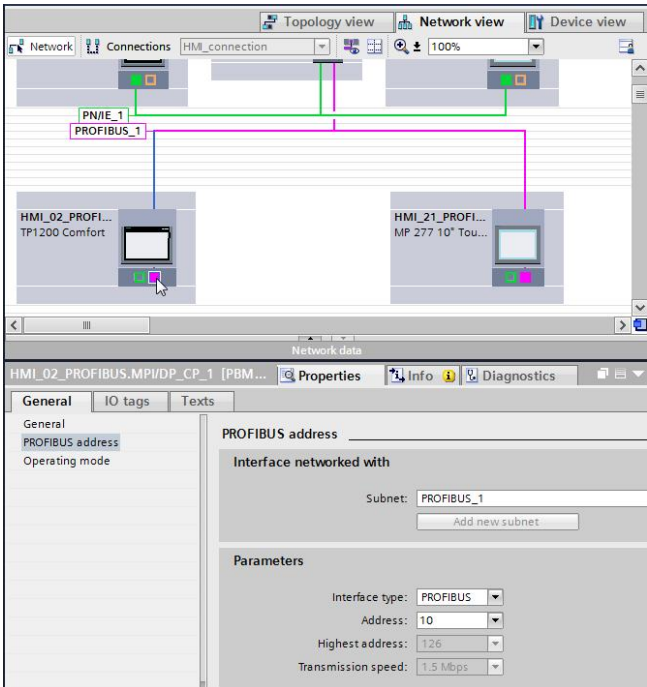
Table 2-1

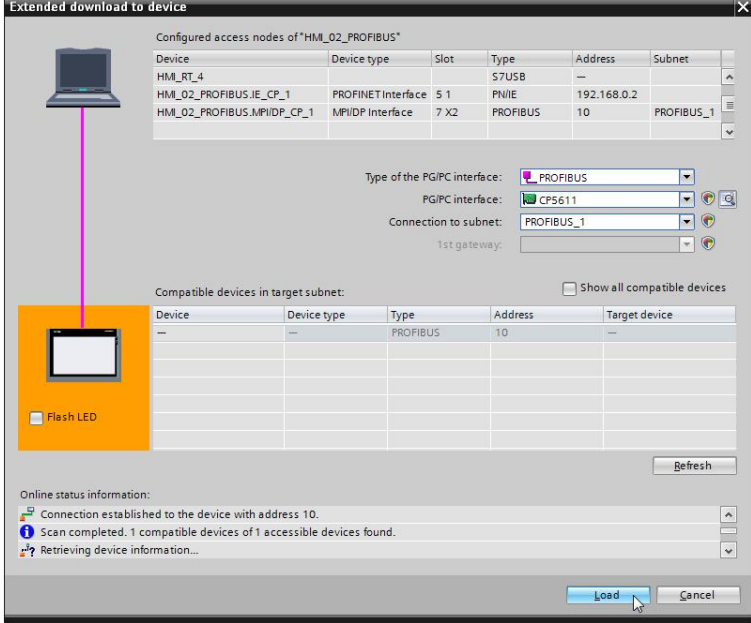
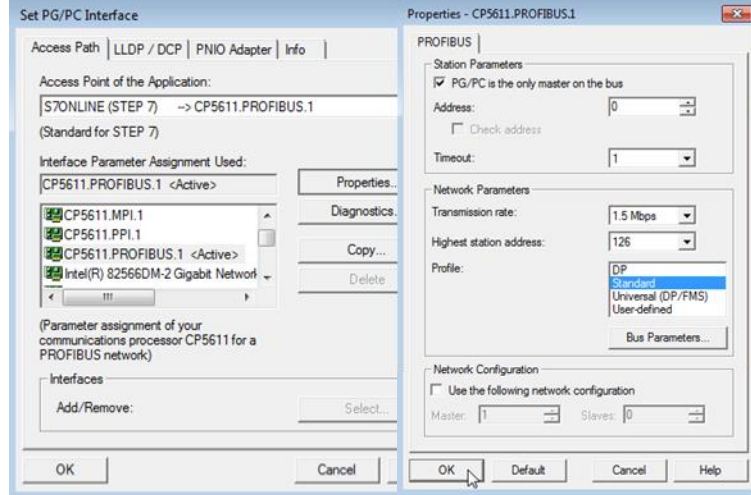
No.	Action
1.	<p><b>Panel in Transfer mode</b></p> <ul style="list-style-type: none"> <li>• Set the panel to Transfer mode.</li> </ul> <p><b>Note</b> Also set the panel to Transfer mode even if you have chosen the "Enable automatic transfer" (Remote Control) option in the transfer settings on the panel.</p> 

No.	Action
2.	<p><b>Settings for the transfer and bus parameters (Comfort Panel)</b></p> <ul style="list-style-type: none"> <li>• Compare the settings made here with the transfer settings in the HMI configuration.</li> <li>• Check the PROFIBUS network installation.</li> <li>• Make sure that the "Enable Transfer" option is enabled.</li> </ul> 

### 2.1.2 Settings on the PC

Table 2-2

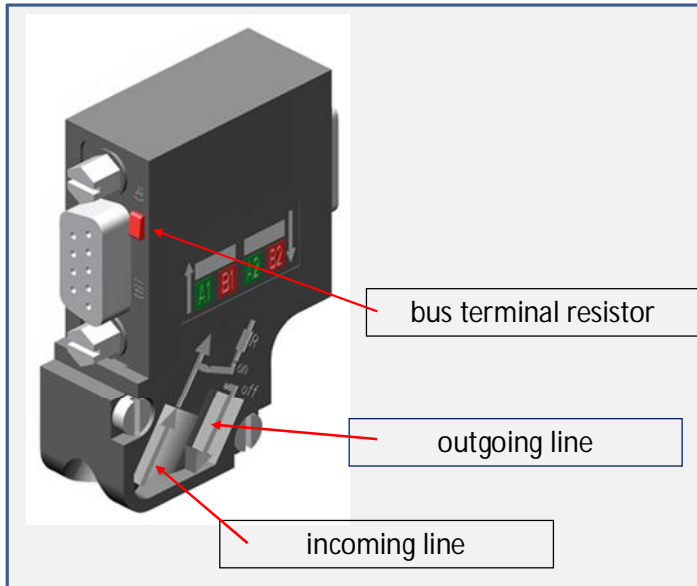
No.	Action
1.	<p><b>Network settings in the HMI configuration</b></p> <ul style="list-style-type: none"> <li>Check the network settings in the HMI configuration. They must be identical to the settings made on the panel.</li> </ul> 
2.	<p><b>Change/check the PROFIBUS address in the HMI configuration</b></p> <ul style="list-style-type: none"> <li>Check the PROFIBUS address. They must be identical to the settings made on the panel.</li> </ul> 

No.	Action
3.	<p><b>Transfer settings</b></p> <ul style="list-style-type: none"> <li>Compare the transfer settings with those made on the operator panel.</li> </ul> 
4.	<p><b>PG/PC interface (WinCC flexible 2008)</b></p> <ul style="list-style-type: none"> <li>Check the settings of the PG/PC interface (only necessary when using WinCC flexible).</li> </ul> 

### 2.1.3 PROFIBUS male bus connectors

Check the PROFIBUS male bus connectors for the following points.

Figure 2-1



- Switch position of the bus terminating resistor.
  - ON: The switch position must be "ON" (terminator activated) on the PROFIBUS for the first and last station (activated terminator). There is only one incoming line on the connector.
  - OFF: The switch position must "OFF" (terminator deactivated) on the PROFIBUS for all the other stations. There is an incoming and an outgoing line on the connector.
- Incoming cables are always connected on the **left** (see coding A1, B1).
- Incoming cables are always connected on the **left** (see coding A1, B2).
- Check the cable connections as necessary. Make sure that the connectors are wired in properly.
  - Incoming line and outgoing line mixed up.
  - Incorrect connection (green/red mixed up).
  - Defective shielding.

### 2.1.4 Repeater

Check the network topology.

Is the HMI operator panel connected after a repeater in the network? Make sure that the repeater power supply is switched on.

### 2.1.5 Cable Connections

Cable connections between the operator panel, the PC and other PROFIBUS stations.

#### PROFIBUS cable

Always use an original PROFIBUS cable.

Figure 2-2



#### MPI cable

Always use an original PROFIBUS cable also in MPI networks and for transferring the configuration.

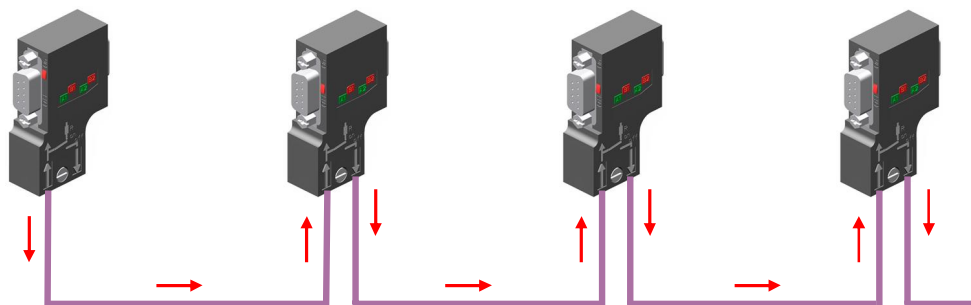
#### PC Adapter USB

Note that the "PC Adapter USB" is not released for all operator panels. More information about this is available in the FAQ response in Entry ID [19109408](#).

#### Network structure

Wire the PROFIBUS stations as shown in the figure below. Pay attention here to the switch position of the bus terminating resistor (for this see section [2.1.3](#)).

Figure 2-3



### 3 Detailed Check

#### 3.1 PC Settings

##### 3.1.1 Check the Interface

###### WinCC (TIA Portal)

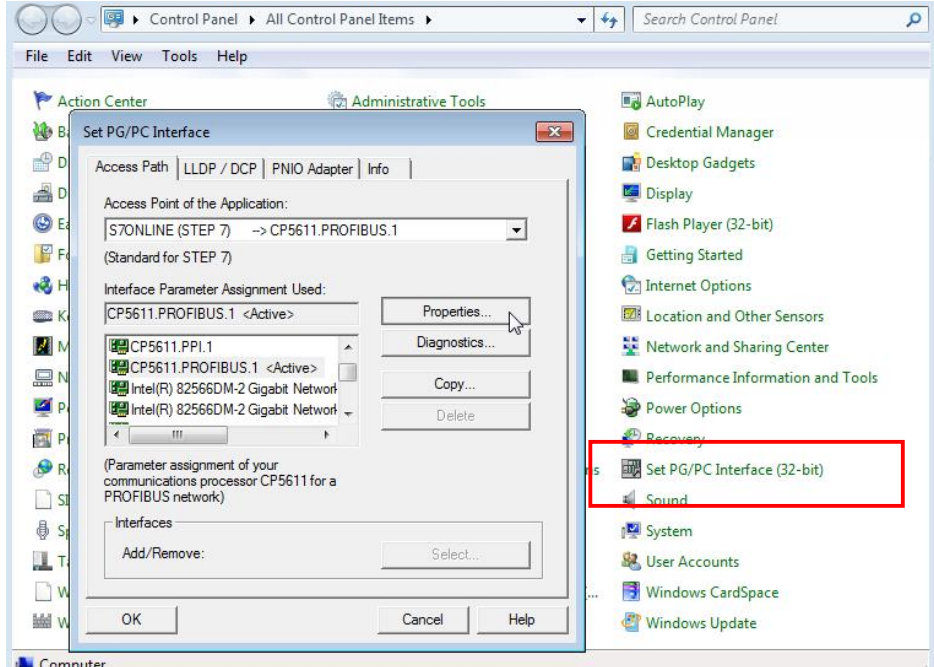
When using WinCC (TIA Portal), there is no need to make any settings in the PG/PC interface for transferring the configuration to the operator panel. All the required settings are made in the "Extended download" menu.

To check the properties of the CP used, refer to the description in section [1.2.2](#).

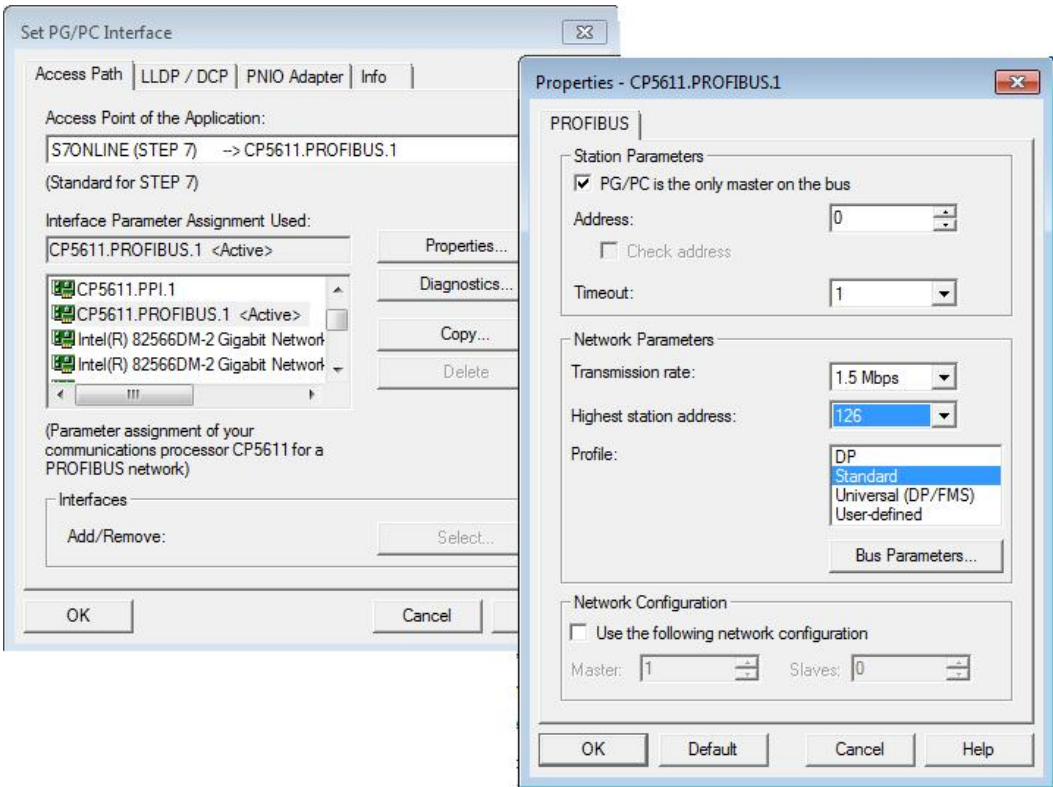
###### WinCC flexible 2008

When using WinCC flexible 2008, check the settings in the PG/PC interface.

Table 3-1

No.	Action
1.	<p><b>Change the settings of the PG/PC interface</b></p> <ul style="list-style-type: none"> <li>In the dialog window you select the CP you are using. In this example "CP5611 PROFIBUS".</li> <li>Under "Access Point of the Application" you select "S7ONLINE (STEP 7) → your CP".</li> </ul> 

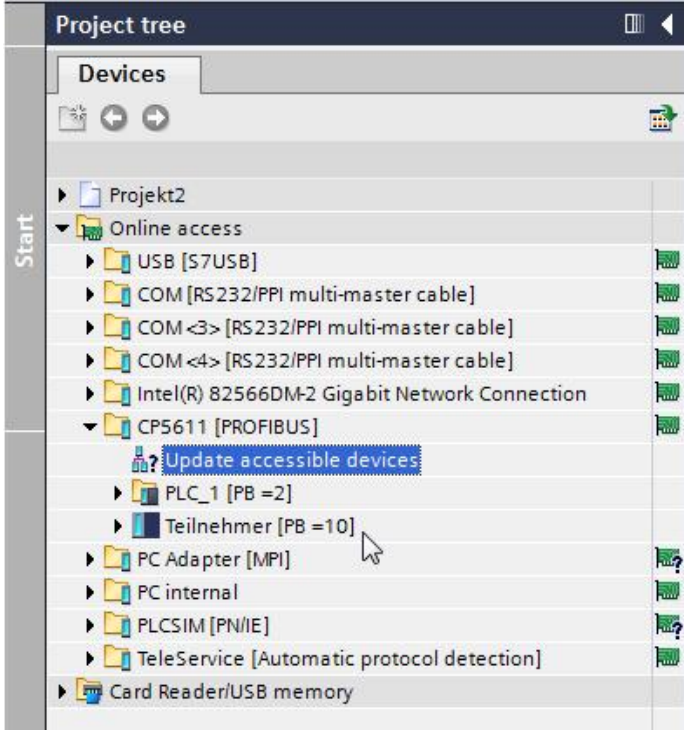


No.	Action
2.	<p><b>Change the properties of the PG/PC interface</b></p> <ul style="list-style-type: none"> <li>• Open the Properties of the selected interface with the "Properties..." button.</li> <li>• Enable the option "PG/PC is the only master on the bus".</li> <li>• Enter "0" (null) for the "Address".</li> <li>• The other parameters must match the transfer settings on the operator panel and the HMI configuration.</li> <li>• Click "OK" to confirm the settings.</li> </ul> 
3.	<p><b>Troubleshooting</b></p> <p><b>Note</b> If you cannot change the PG/PC interface, check whether "PLC SIM" or an HMI Runtime is still enabled. PLC SIM disables all other online interfaces. In this case, first close the running application (assuming that this is allowed to be closed).</p> <ul style="list-style-type: none"> <li>• Perform network diagnostics. See section <a href="#">3.1.2</a> for this.</li> </ul>

### 3.1.2 Network Diagnostics: Display Accessible Devices

#### WinCC (TIA Portal)

Table 3-2

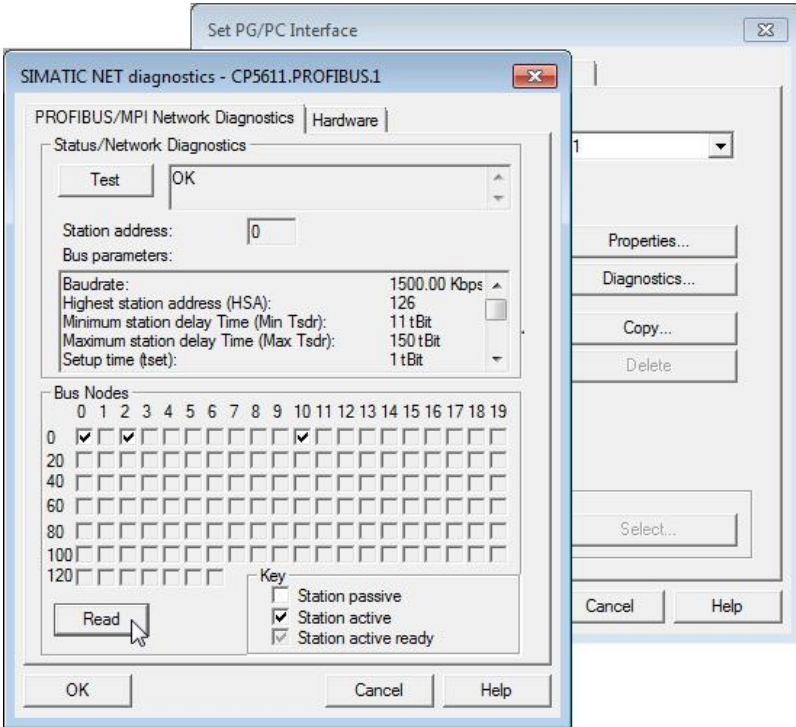
No.	Action
1.	<p><b>Online access</b></p> <ul style="list-style-type: none"> <li>• Open the WinCC (TIA Portal) configuration.</li> <li>• Open the "Online access" folder in the project tree. The folder contains all the enabled interfaces of your PG/PC.</li> <li>• Open the subfolder of the CP used. In this example "CP5611 PROFIBUS".                             <ul style="list-style-type: none"> <li>- To update the list you double-click "Update accessible devices".</li> </ul> </li> </ul> <p>If the panel is accessible in the network, it is listed underneath the interface used. In this example these are the PROFIBUS devices with the addresses "2" (PLC) and "10" (HMI operator panel).</p> <p><b>Note</b> Detailed information about "Online access" is available in the Online Help.</p> 

No.	Action
2.	<p><b>Troubleshooting</b></p> <ul style="list-style-type: none"> <li>• The panel is in the list of accessible devices.                             <ul style="list-style-type: none"> <li>- If the panel you are using is in the list of accessible devices, check the PROFIBUS addresses of the other devices in the list. There might be a device there with the same PROFIBUS address.</li> <li>- Set the panel to Transfer mode.</li> </ul> </li>   <li>• The panel is <b>not</b> in the list of accessible devices.                             <ul style="list-style-type: none"> <li>- Check the cable connection. See section <a href="#">2.1.5</a> for this.</li> <li>- Check the PROFIBUS male bus connectors. See section <a href="#">2.1.3</a> for this.</li> <li>- Check the PROFIBUS settings in the HMI configuration. See section <a href="#">3.2</a> for this.</li> <li>- Check the PROFIBUS settings on the operator panel. See section <a href="#">3.3</a> for this.</li> </ul> </li> </ul>

**Network diagnostics: WinCC flexible**

Table 3-3

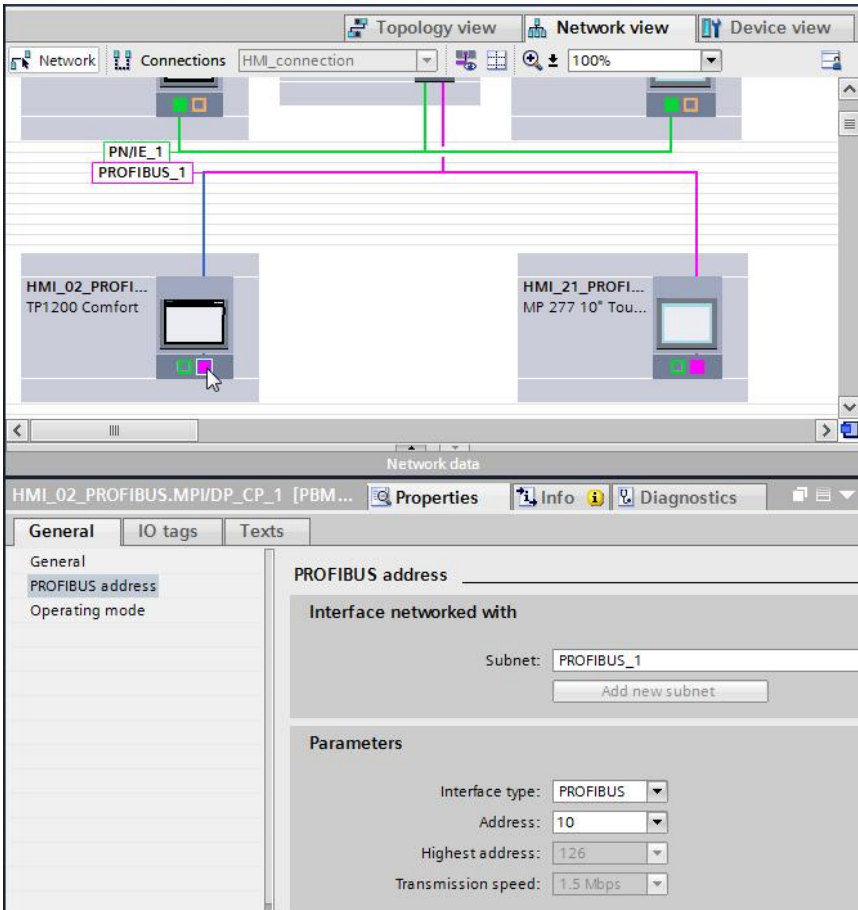
No.	Action
1.	<p><b>Call diagnostics (open the PG/PC interface)</b></p> <ul style="list-style-type: none"> <li>• Call the PG/PC interface.</li> <li>• The access point / interface must be set to PROFIBUS.</li> </ul> <div data-bbox="316 1205 1114 1787" style="border: 1px solid gray; padding: 5px;"> </div> <ul style="list-style-type: none"> <li>• Click the "Diagnostics..." button. The "SIMATIC NET diagnostics" window opens.</li> </ul>

No.	Action
	<p><b>"SIMATIC NET diagnostics" window</b></p>  <ul style="list-style-type: none"> <li>• Perform network diagnostics for the CP by clicking the "Test" button.</li> <li>• If the network diagnostics test is "OK", click the "Read" button.             <ul style="list-style-type: none"> <li>- The "Bus Nodes" table shows all the recognized PROFIBUS stations. In this example these are the bus nodes with the addresses "0" (PC); "2" (PLC) and "10" (HMI operator panel).</li> </ul> </li> </ul>
2.	<p><b>Troubleshooting</b></p> <ul style="list-style-type: none"> <li>• The panel is in the list of accessible devices.             <ul style="list-style-type: none"> <li>- If the panel you are using is in the list of accessible devices, check the PROFIBUS addresses of the other devices in the list. There might be a device there with the same PROFIBUS address.</li> <li>- Set the panel to Transfer mode.</li> </ul> </li> <li>• Network diagnostics.             <ul style="list-style-type: none"> <li>- If the operating mode is <b>not</b> "OK", check the hardware and the hardware and the bus parameters in the PG/PC interface. If necessary, check the CPU settings in the Hardware Configuration and the settings on the panel.</li> </ul> </li> <li>• The panel is <b>not</b> in the list of accessible devices.             <ul style="list-style-type: none"> <li>- Check the cable connection. See section <a href="#">2.1.5</a> for this.</li> <li>- Check the PROFIBUS settings in the HMI configuration. See section <a href="#">3.2</a> for this.</li> <li>- Check the PROFIBUS settings on the operator panel. See section <a href="#">3.3</a> for this.</li> </ul> </li> </ul>

## 3.2 HMI Configuration

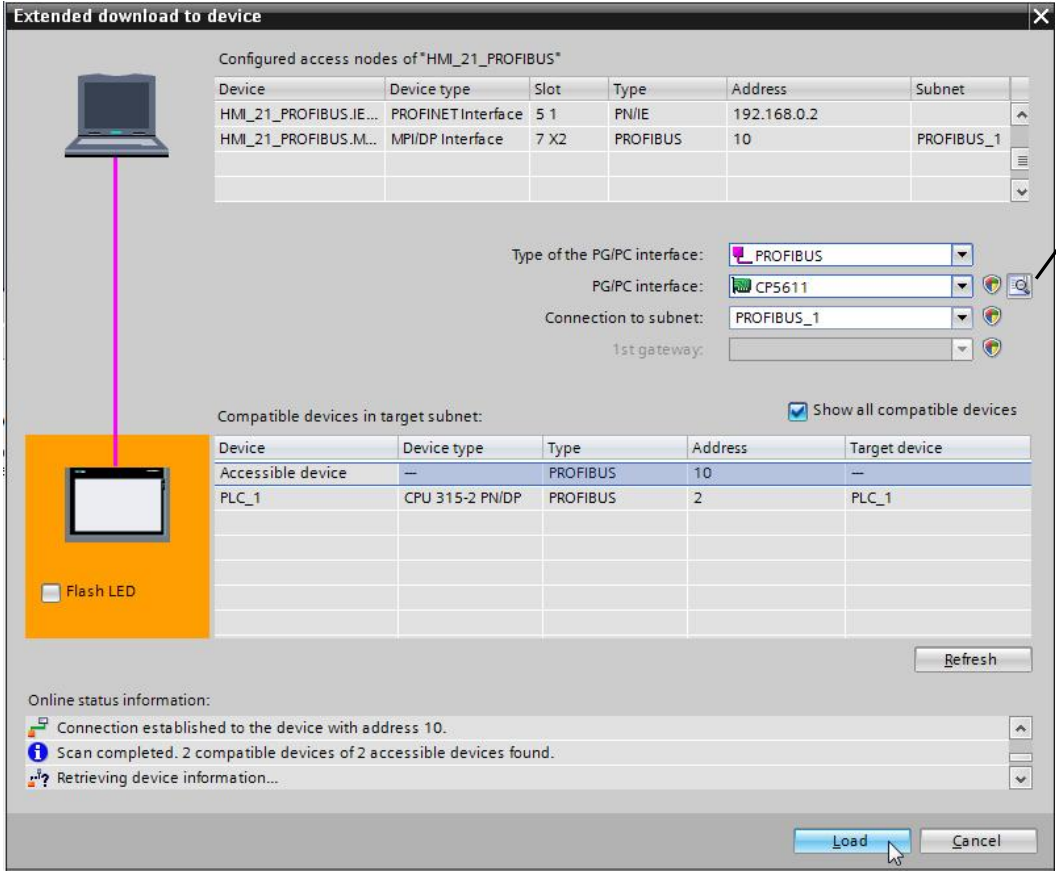
### 3.2.1 Check the PROFIBUS Settings

Table 3-4

No.	Action
1.	<p><b>Network view</b></p> <ul style="list-style-type: none"> <li>• Open the Device View of the operator panel and call the Network View.</li> <li>• Mark the PROFIBUS interface of the operator panel and check the parameters entered.</li> </ul> 
2.	<p><b>Troubleshooting</b></p> <ul style="list-style-type: none"> <li>• Is the panel in the correct subnet?</li> <li>• Do the settings match those on the operator panel?</li> <li>• Is there a router in the network? Make sure that the power supply is switched on.</li> </ul>

### 3.2.2 Check the Transfer Settings

Table 3-5

No.	Action
1.	<p><b>Extended download</b></p> <p>Check each parameter in the "Extended download" dialog.</p> <ul style="list-style-type: none"> <li>PG/PC interface type                             <ul style="list-style-type: none"> <li>Here you select PROFIBUS.</li> </ul> </li> <li>PG/PC interface                             <ul style="list-style-type: none"> <li>Select the CP you are using. In this example "CP5611".</li> </ul> </li> <li>Connection to subnet                             <ul style="list-style-type: none"> <li>Here you select the network in which the panel is located. If the panel is connected directly to the PC, you can also use the "Direct at slot..." setting.</li> </ul> </li> <li>Show all compatible devices (option)                             <ul style="list-style-type: none"> <li>Select this option if you do not know the address of the operator panel, for example, or you want to have all the network nodes displayed.</li> </ul> </li> </ul> <p><b>Note</b>                      Next to the drop-down list box of the PG/PC interface you can use the "Configure Interface" icon (1) to call the parameters of the CP used. See also section <a href="#">1.2.2</a> for this.</p> 

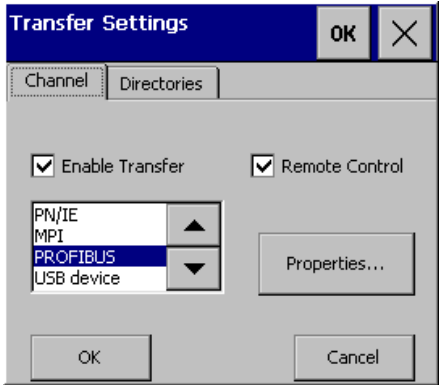
No.	Action
2.	<p><b>Troubleshooting</b></p> <ul style="list-style-type: none"> <li>• The panel is in the "Compatible devices in target subnet" table.           <ul style="list-style-type: none"> <li>- If the panel you are using is in the list of accessible devices, check the PROFIBUS addresses of the other devices in the list. There might be a device there with the same PROFIBUS address.</li> <li>- Set the panel to Transfer mode.</li> </ul> </li>   <li>• The panel is <b>not</b> in the "Compatible devices in target subnet" table.           <ul style="list-style-type: none"> <li>- Check the entry for "Type of the PG/PC interface:". Have you selected MPI here? Compare this with the transfer settings on the operator panel.</li> <li>- PG/PC interface. Check the settings of the CP used. Refer here to chapter <a href="#">1.2.2</a>.</li> <li>- Enable the "Show all compatible devices" option. The panel is recognized even if a different PROFIBUS address is entered on the panel.</li> <li>- Check the cable connection. See section <a href="#">2.1.5</a> for this.</li> <li>- Check the PROFIBUS settings in the HMI configuration. See section <a href="#">3.2</a> for this.</li> <li>- Check the PROFIBUS settings on the operator panel. See section <a href="#">3.3</a> for this.</li> </ul> </li> </ul>



### 3.3 Operator Panel Settings

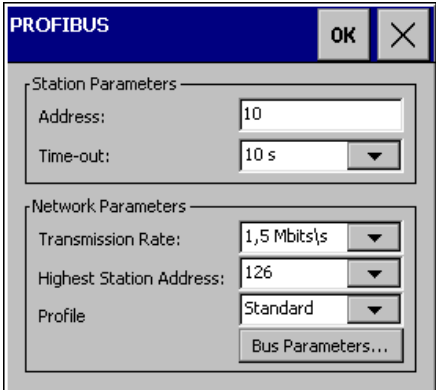
#### 3.3.1 Transfer Settings in the Control Panel

Table 3-6

No.	Action
1.	<p><b>Transfer settings</b></p> <p>Check each setting in the "Transfer Settings" dialog.</p> <ul style="list-style-type: none"> <li>• Enable Transfer                             <ul style="list-style-type: none"> <li>- This option must be enabled if you want to transfer the configuration to the panel.</li> </ul> </li> <li>• Remote Control                             <ul style="list-style-type: none"> <li>- If you disable this option, you have to set the panel manually to Transfer Mode before you can transfer the configuration to the panel.</li> </ul> </li> <li>• Interface selection                             <ul style="list-style-type: none"> <li>- Specify the transfer protocol. This setting must be identical to the one in the configuration.</li> </ul> </li> </ul> 
2.	<p><b>Troubleshooting</b></p> <ul style="list-style-type: none"> <li>• Transfer protocol                             <ul style="list-style-type: none"> <li>- Have you selected MPI here? This setting must be identical to the transfer settings in the configuration.</li> </ul> </li> <li>• Properties....                             <ul style="list-style-type: none"> <li>- Use the "Properties..." button to call the network settings. Check the PROFIBUS parameters set there. They must match the parameters used in the HMI configuration. See section <a href="#">3.3</a> for this.</li> </ul> </li> </ul>

### 3.3.2 Network Settings on the Operator Panel

Table 3-7

No.	Action
1.	<p><b>PROFIBUS parameters</b></p> <p>Check the PROFIBUS parameters. Make sure that the PROFIBUS parameters match those in the configuration.</p> 
2.	<p><b>Troubleshooting</b></p> <ul style="list-style-type: none"> <li>• Check the PROFIBUS parameters entered.</li> <li>• Check whether the PROFIBUS address has not already been assigned in the network. For this you remove the PROFIBUS cable and have all the accessible devices displayed (see section <a href="#">3.1.2</a>).</li> </ul>

## 4 Tips for Configuring and Commissioning

### Configuration

Make a list of all the devices in the network. Note the following information for each device.

- Device designation
- PROFIBUS address and the parameters used

Compare the list with the devices in the plant. This avoids duplicate assignment of PROFIBUS addresses.

### Commissioning

Before you start testing the network connection to the panel, take a good look at the network structure of the plant. If necessary, get together with a network manager before commissioning.

- Check the cable connections.
- Are there repeaters in the network?
- Are there multiple PROFIBUS networks?
- Are there already multiple devices/operator panels in the network?
- Is there a list of the devices already in the network?
- Are all the devices in the same PROFIBUS network?
- First make a direct connection with the panel and then try to establish a connection. Only when that works should you connect the panel to the network.

## 5 Link List

### WinCC (TIA Portal)

Table 5-1

No.	Type	Link
1.	FAQ	Which connector cables are available for connecting to SIMATIC Panels? <a href="http://support.automation.siemens.com/WW/view/en/19109408">http://support.automation.siemens.com/WW/view/en/19109408</a>
2.	FAQ	How can you transfer a WinCC (TIA Portal) configuration to an operator panel using MPI/PROFIBUS? <a href="http://support.automation.siemens.com/WW/view/en/58668002">http://support.automation.siemens.com/WW/view/en/58668002</a>
3.	Application	Remote access to SIMATIC HMI Panels <a href="http://support.automation.siemens.com/WW/view/en/109476153">http://support.automation.siemens.com/WW/view/en/109476153</a>
4.	Manual	WinCC Comfort / WinCC Advanced V12.0 <a href="http://support.automation.siemens.com/WW/view/en/68075405">http://support.automation.siemens.com/WW/view/en/68075405</a>

### WinCC flexible 2008

Table 5-2

No.	Type	Link
1.	FAQ	Which connector cables are available for connecting to SIMATIC Panels? <a href="http://support.automation.siemens.com/WW/view/en/19109408">http://support.automation.siemens.com/WW/view/en/19109408</a>
2.	FAQ	How can you transfer a WinCC flexible project via MPI/PROFIBUS to a Windows-based panel? <a href="http://support.automation.siemens.com/WW/view/en/23802404">http://support.automation.siemens.com/WW/view/en/23802404</a>
3.	FAQ	What settings have to be made for a PROFIBUS DP connection between a panel or a PC with WinCC flexible Runtime and an S7-200? <a href="http://support.automation.siemens.com/WW/view/en/19839489">http://support.automation.siemens.com/WW/view/en/19839489</a>
4.	FAQ	How do you configure a connection between WinCC flexible Runtime (PC/Panel) and an S7-300/S7400 via PROFIBUS/MPI? <a href="http://support.automation.siemens.com/WW/view/en/42918861">http://support.automation.siemens.com/WW/view/en/42918861</a>
5.	FAQ	How do you use WinCC flexible to configure communication between an operator panel and an S7 station via S7 routing? <a href="http://support.automation.siemens.com/WW/view/en/22257781">http://support.automation.siemens.com/WW/view/en/22257781</a>
6.	Manual	SIMATIC HMI WinCC flexible 2008 WinCC flexible 2008 Compact / Standard / Advanced <a href="http://support.automation.siemens.com/WW/view/en/18796010">http://support.automation.siemens.com/WW/view/en/18796010</a>