How do you configure a connection between WinCC flexible Runtime (PC/Panel) and a SIMATIC S7-300/400 via Industrial Ethernet?

WinCC flexible

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Question

How do you configure a connection between WinCC flexible Runtime (PC or Panel) and a SIMATIC S7-300 / S7-400 via Industrial Ethernet?

Answer

Follow the instructions and notes listed in this document for a detailed answer to the above question.

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1 Introduction

1.1 When should you use an HMI station and when a PC station?

You should use an HMI station if you want to connect the PC Runtime or an operator panel to an S7 controller and do not wish to use any more embedded controllers. If, for example, you want to use WinAC or OPC, you must use a PC station, because an HMI station does not support this.

You are to use a PC station when you are working with embedded controllers. If, for example, you are working with WinAC, you must use a PC station.

Note If you want to connect only one PC Runtime to a controller, then you should use an HMI station.

1.2 Which Ethernet CP should you select?

The "IE General" CP is to be used for all connections of PC Runtime to a controller, because others are not released for this.

The "IE General" CP is to be used for all connections of panels to a controller, because others are not released for this. The "HMI IE" CP is released only for the connection with panels.

Note The communication driver for communication on SIMATIC S7-200 and on SIMATIC S7-300/400 is supplied together with WinCC flexible and is installed automatically.

Special blocks for the connection are not necessary in the controller.

2 Connecting a panel to SIMATIC S7 via Industrial Ethernet

2.1 Requirements

Software

- WinCC flexible compact, standard or advanced
- STEP 7 as from V5.3
- STEP 7 project with TCP/IP Ethernet connection

Operator panels

- TP177B PN/DP ¹, OP177B PN/DP ¹
- Mobile Panel 177 PN¹, Mobile Panel 277²
- TP270 / OP270 with NE2000-compatible CF Ethernet card ³
- TP277 2) / OP277 ²
- MP177 ⁴
- MP270B, MP277²
- MP370, MP377 5
- KTP400 mono PN ⁶
- KTP600 mono PN ⁶, KTP600 color PN ⁶
- KTP1000 color PN ⁴, TP1500 color PN ⁴
- TP177 4" Widescreen ⁴
- Note The OP/TP270 (discontinued) does not possess an on-board Ethernet interface and the operator panels are available still only as spare parts. An Ethernet interface can be added to the OP/TP270 devices via the CF Ethernet cards. The CF Ethernet cards must be NE2000-compatible. (These NE2000-compatible CF Ethernet cards are no longer on the market!) You can use the on-board Ethernet interface with all the operator panels listed above (except TP/OP270).

Check the compatibility of the software components used in each case. Information on this is available on our Support pages.

- ³ Refer to the note on this page!
- ⁴ Configuration possible as from WinCC flexible 2008
- ⁵ Configuration possible as from WinCC flexible 2007
- ⁶ Configuration possible as from WinCC flexible 2008 SP1

¹ Configuration possible as from WinCC flexible 2005

² Configuration possible as from WinCC flexible 2005 SP1

2.2 Configuration in STEP7 and WinCC flexible, and on the panel

Proceed as follows to establish a connection between an S7 300/400 and a panel.

Figure	2-1
--------	-----

No.	Procedure
1.	 Configuration in STEP 7 Open a STEP 7 project with Ethernet connection or create a new project.
2.	Add and configure a SIMATIC HMI station Add a SIMATIC HMI station via "Insert > Station > SIMATIC HMI Station". In the dialog that opens, you select the relevant HMI operator panel - this case an MP370 12" Touch. Construction of the select the relevant HMI operator panel - this case an MP370 12" Touch. Static south the select the relevant HMI operator panel - this case an MP370 12" Touch. Static south the select the relevant HMI operator panel - this case an MP370 12" Touch. Static south the select the relevant HMI operator panel - this static south the select the relevant HMI operator panel - this Static south the select select the relevant HMI operator panel - this static south the select sel

No.	Procedure
3.	Open the HMI configuration
	Mark the HMI station in the left project window.
	 Open the configuration of the HMI station by double-clicking on "Configuration".
	• The Hardware Configuration of the HMI station opens.
	 Check that the CP "HMI IE" has been inserted on the mounting channel from the "Hordware Catalog > SIMATIC HMI Station > CP Industrial Ethernet >
	HMI IE".
	Note:
	The "HMI IE" component is only available for the Ethernet interface on the panel. "HMI IE" may not be used for Ethernet cards in PCs.
	🕅 Station Edit Insert PLC View Options Window Help
	I I Find Find
	2 VinCC flexible BT Profile: Standard
	4 HMI MPI/DP 5 HHI IE
	6 7 7
	8 SIMATIC HMI Station
	10 11 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
	• Double-click on "HMI IE" on the mounting channel (here slot 5).
	 Network "HMI IE" with the Industrial Ethernet of the S7 controller by configuring a unique IP address with appropriate subnetwork address for the
	panel.
	• Importanti
	The IP address of the panel must be in the same IP address range as the IP
	address of the S7 controller in order to be able to set up a connection.
	Dere se se se se
	Op/Op/HM Hardware Catalog 1 A 2 A
	3 www.WnCCCReadel RT 4 # HM MR/VDP 5 # HMMIE B W PROFINE 10 B W PROFINE 10
	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	9 properties - IMI IE X 10 General Describes to fee UMI IF (201977)
	Shot Di General Parameters
	Order Ni
	Name Galeway Galeway Galeway
	Type: Subnet matrix Instanzation © Do not use router Addre C Use router C Use router
	Netw Address: 192168.0.2
	Etheme(i) New Properties Properties
	Delete
	Cancel Heb

No.	Procedure
	 Close the open dialogs with OK. Save and compile the configuration. Close the HMI station's hardware configuration and return to the SIMATIC Manager.
4.	 Set the interface in WinCC flexible In the SIMATIC Manager, navigate via the SIMATIC HMI station to "WinCC flexible RT > Communication > Connections". In the right project window, double-click on "Connections". WinCC flexible ES opens. The Ethernet connection configured in the Hardware Configuration is transferred automatically to WinCC flexible ES if a SIMATIC HMI station has been configured. Activate the connection by the setting "On" for the "Active" parameter
	MP 370 12" Touch Sation Image: State of the Presser Image: State of the Presser Type MHI device Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser Image: State of the Presser <t< th=""></t<>
5.	Settings on the panel Open the "Control Panel" on the operator panel. Open the "Network" folder in the Control Panel. If the panel has an on-board Ethernet interface, select the adapter " Onboard LAN Ethernet Driver" or LAN9001. If you have slotted a CF Ethernet plug-in card in the panel, select " NE 2000 Compatible Ethernet Driver". Bille View Backup/Re Communic Date/Time InputPanel Internet Keyboard Settings Printer Regional 57-Transfer ScreenSaver System Transfer Setting: Setting: Open the Setting Setting:

No.	Procedure		
6.	 Address assignment on the panel Now click on "Properties". Apply the IP address settings from the configuration of the SIMATIC HMI station. 		
Note:			
	Onboard LAN Ethernet Dr OK ×		
	IP Address Name Servers		
	An IP address can be automatically assigned to this computer.		
	O Obtain an IP address via DHCP		
	Specify an IP address		
	IP Address: 192.168.0 .2		
	Subnet Mask: 255.255.255.0		
	Default Gateway:		
 Default Gateway: Click "OK" to close the dialogs. Open the "Communication" folder in the Control Panel. (On a panel with WinCE 5.0, you open the "System" folder.) Enter a name in the "Device Name" tab. The device name is for identifying the operator panel in the the default name (e a HMI Panel -> MP370_Station_1). Communications Properties Device Name PC Connection Your device uses this information to identify itself to other computers. Device gescription: MP370_Station_1 Device description: MP370 Device Device	 Click "OK" to close the dialogs. Open the "Communication" folder in the Control Panel. (On a panel with WinCE 5.0, you open the "System" folder.) Enter a name in the "Device Name" tab. The device name is for identifying the operator panel in the network. Change the default name (e.o. HMI Panel -> MP370_Station_1). 		
	Load the WinCC flexible project into the operator panel.		

Note How many simultaneously active controller connections can be configured for a panel is described in Entry ID <u>15363798</u>.

How any number of controllers can be addressed one after the other is described in Entry ID $\frac{35508221}{2}$.

Connecting a WinCC flexible Runtime to SIMATIC S7 via Industrial Ethernet without Station Configuration Editor

3.1 Requirements

- WinCC flexible Advanced
- STEP 7 as from V5.3
- PC with Ethernet interface
- STEP 7 project with TCP/IP Ethernet connection
- SIMATIC NET license (only for WinCC flexible 2004/2005): the SIMATIC NET license is on the WinCC flexible RT license floppy disk.

More information on WinCC flexible licenses is available in Entry ID 27005215.

3.2 Connecting an HMI station

Proceed as follows to establish a connection between an S7 300/400 and a WinCC flexible PC Runtime (HMI station).

Table 3-1		
No.	Procedure	
1.	Configuration in STEP 7Open a STEP 7 project with Ethernet connection or create a new project.	
2.	 SIMATIC HMI station Add a SIMATIC HMI station via "Insert > Station > SIMATIC HMI Station". In the dialog that opens you select the SIMATIC HMI station. 	
	Select "WinCC flexible Runtime" in the dialog that opens.	

No.	Procedure			
3.	Open the HMI station configuration			
	 Mark the HMI station. Open the configuration of the HMI station by double-clicking on 			
	"Configuration".			
	The Hardware Configuration of the HMI station opens.			
4.	Incorporate "IE General"			
	slot of the HMI station's rack.			
	The "IE General" module is in the hardware catalog under			
	"SIMATIC HMI Station > CP Industrial Ethernet > IE General".			
	NOTE: • The "IF General" module stands for all commercially available network			
	cards. Do not use the HMI IE, because this is reserved for panels.			
5.	Object properties of "IE General"			
	Specify the parameters for the interface under			
	"General > Interface > Properties > Parameters".			
	 Activate Set MAC address and set the MAC address. Assign a unique IP address in the network for the network card and the 			
	associated subnet mask from the IP address range of the controller;			
	network the card with the "Ethernet" network of the S7-300/S7-400 controller			
	 Acknowledge the settings with the "OK" button 			
	Please see also the information in Entry ID: <u>17313385</u> .			
	Important: The address settings (MAC address, IP address and subnet mask) of the "IF			
	General" in the HMI station must match the address settings in MS Windows.			
	Gin Station Edit Insert PLC View Options Window Help			
	■ (0) PC			
	1 IE Allgemein			
	General Addresses Assignment PROFINET			
	3 5 7 Shor 9 Properties - Ethernet interface IE General (R0/51)			
	General Parameters			
	Set MAC address / use ISO protocol			
	Nam			
	Int IP protocol is being used			
	Ti Paddress: 192.188.01 © Do not use router Ax Subnet mask: 255.255.0			
	Address: 192.168.0.1			
	Com Subnet:			
	Ethemet(1)			
	OK Cancel Help			
	Acknowledge the selection with "OK".			
	The Properties window of the IE General opens automatically in the			
	"Assignment" tab.			

No.	Procedure			
6.	 Assignment of "IE General" Configure the interface parameters (ISO) with dummy text. Configure the interface parameter assignment used (TCP/IP) with "S7ONLINE". 			
	Note: "S7ONLINE": Access point of the application. Specify the name as also used in the PG/PC interface.			
	 Acknowledge the configuration with "OK". Save and compile the PC station via "Station > Save and compile". Close the Hardware Configuration of the HMI station. 			
 7. Set the PG/PC interface Open the PG/PC interface via your computer's Control Panel. Under "Interface Parameter Assignment Used" use the setting "S7ONLI (STEP 7)> TCP/IP -> Broadcom NetXtreme Gigabit", where "Broad NetXtreme Gigabit" is the Ethernet adapter used in this PC station. Note: You can select a different access point instead of "S7ONLINE"; however access point selected must be specified in WinCC flexible ES under "Communication > Connection"! 				
	Set PG/PE Interface Image: Set PG/PE Interface Access Path Access Point of the Application: \$70NLINE (STEP 7) Interface Parameter Assignment Used: TCP/IP -> Broadcom NetXtreme Gig Properties Diagnostics PC internal (local) Copy Delete Interfaces Add/Remove: Select			

No.	Procedure
8.	 Set the interface in WinCC flexible In the SIMATIC Manager, navigate via the SIMATIC HMI station to "WinCC flexible RT > Communication > Connections". In the right project window, double-click on "Connections". WinCC flexible ES opens. The Ethernet connection configured in the hardware configuration is transferred automatically to WinCC flexible ES. Activate the connection by the setting "On" for the "Active" parameter.
	Name Active Commentication driver Ration Verbinding_1 On BMATIC 57 300/400 VS7300_Ethernet_WinCCRex/SIMATIL CPU 316-2 DP CP 349-1 On Verbinding_1 On BMATIC 57 300/400 VS7300_Ethernet_WinCCRex/SIMATIL CPU 316-2 DP CP 349-1 On
	Mill device PLC device Type Address 192, 168, 0, 1 IDD 192, 168, 0, 1 192, 168, 0, 3 Submet Nada: Expansion slot 2 Z55, 255, 0, 0 0 Rack 0 Access point STONLINE DC/cyclic operation
	 Then complete your configuration in WinCC flexible ES (create tags, configure pictures,). Start WinCC flexible RT.

3.3 Connecting a PC station

Proceed as follows to establish a connection between an S7 300/400 and a WinCC flexible PC Runtime (PC station).

Table	3-2

Procedure	
onfiguration Open a S	in STEP 7 TEP 7 project with Ethernet connection or create a new project.
d a SIMATI Add a SIM In the dial	C PC station MATIC PC station via "Insert > Station > SIMATIC PC Station". og that opens you select the SIMATIC PC station. siMATIC 40-Station 2 SIMATIC 40-Station 2 SIMATIC +Relation 4 SIMATIC +Relation 6 Andre Station 7 SIMATIC 55 9 PC/PC
	nfiguration Open a S d a SIMATI Add a SIM In the dial

3 Connecting a WinCC flexible Runtime to SIMATIC S7 via Industrial Ethernet without Station Configuration Editor

No.	Procedure
3.	Configure the PC station Mark the PC station. Open the configuration of the PC station by double-clicking on "Configuration". The Hardware Configuration of the PC station opens. Open the Properties by double-clicking on the rack's "upper" edge. In the rack's Properties, in the "Configuration" tab, you deactivate the check box "S7RTM is installed". (This is only selected if the components are set using the Station Configuration Editor.) Close the dialog box with "OK". Close the dialog box with "OK". Corperties - SIMATIC PC Station Compatibility: Station Configuration file: Station of the configuration file: Memory location of the configuration file: Compatibility: Compatibility: Compatibility: Compatibility: Configuration file: Compatibility: Compatibility: Configuration file: Compatibility: Configuration file: Compatibility: Configuration file: Compatibility: Compatibility: Configuration file: Compatibility: Configuration file: Configuration fi
	Note:
4.	 I he check box is checked by default in a PC station, so it has to be changed. Insert "WinCC flexible RT" Insert the "WinCC flexible RT" module from the hardware catalog into any available slot of the PC station's rack. The "WinCC flexible RT" module is in the hardware catalog under "SIMATIC PC Station > HMI > WinCC flexible RT".
5.	 Incorporate "IE General" Insert the "IE General" module from the hardware catalog into any available slot of the PC station's rack. The "IE General" module is in the hardware catalog under "SIMATIC PC Station > CP Industrial Ethernet > IE General". Note: The "IE General" module stands for all commercially available network cards. Do not use the HMI IE, because this is reserved for panels.

No.	Procedure
6.	 Object properties of "IE General" Specify the parameters for the interface under "General > Interface > Properties > Parameters". Activate "Set MAC address" and set the MAC address. Assign a unique IP address in the network for the network card and the associated subnet mask from the IP address range of the controller; network the card with the "Ethernet" network of the S7-300/S7-400 controller. Acknowledge the settings with the "OK" button. Please see also the information in Entry ID: <u>17313385</u>.
	Important: The address settings (MAC address, IP address and subnet mask) of the "IE General" in the PC station must match the address settings in MS Windows.
	Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Options Window Help Image: Station Edit Insert PLC View Option Edit Inser
	2 File Allgemein 3 Properties - IE General 4 5 5 General 6 7 0 Short Properties - Ethernet interface IE General (R0/52) General Parameters
	Order Set MAC address / use ISD protocol Mare MAC address: Name IP protocol is being used Inte Tyr Add Subnet mask: 255.255.255.0 Gateway Ne Subnet:
	Comm Subnet:
	 Acknowledge the selection with "OK". The Properties window of the IE General opens automatically in the "Assignment" tab.

ignment of "IE General" Configure the interface parameters (ISO) with dummy text. Configure the interface parameter assignment used (TCP/IP) with "S7ONLINE". a: ONLINE": Access point of the application. Name as also used in the PG/PC frace. Acknowledge the configuration with "OK". Save and compile the PC station via "Station > Save and compile". Open the Hardware Configuration of the PC station. the PG/PC interface Open the PG/PC interface via your computer's Control Panel. Under "Interface Parameter Assignment Used" use the setting "S7ONLINE"
e: ONLINE": Access point of the application. Name as also used in the PG/PC face. Acknowledge the configuration with "OK". Save and compile the PC station via "Station > Save and compile". Open the Hardware Configuration of the PC station. the PG/PC interface Open the PG/PC interface via your computer's Control Panel. Under "Interface Parameter Assignment Used" use the setting "S7ONLINE
Acknowledge the configuration with "OK". Save and compile the PC station via "Station > Save and compile". Open the Hardware Configuration of the PC station. the PG/PC interface Open the PG/PC interface via your computer's Control Panel. Under "Interface Parameter Assignment Used" use the setting "S7ONLINE
the PG/PC interface Open the PG/PC interface via your computer's Control Panel. Under "Interface Parameter Assignment Used" use the setting "S7ONLINE
(STEP 7)> TCP/IP -> Broadcom NetXtreme Gigabit", where "Broadcom NetXtreme Gigabit" is the Ethernet adapter used in this PC station. Note: You can select a different access point instead of "S7ONLINE"; however, the access point selected must be specified in WinCC flexible ES under "Communication > Connection"!
G/PC Interface ▼ ccess Path ccess Point of the Application: S70NLINE (STEP 7) → TCP/IP > Broadcom NetXtreme ▼ itandard for STEP 7) →> TCP/IP > Broadcom NetXtreme ▼ itandard for STEP 7) itandard for STEP 8 itandard for STEP 8 itandard for STEP 7) itandard for STEP 8 itandard for STEP 8 itandard for STEP 8 itandard for Step 7 itandard for Step 7 itandard for Step 7 itandard for Step 8 itantreface 8

3 Connecting a WinCC flexible Runtime to SIMATIC S7 via Industrial Ethernet without Station Configuration Editor

No.	Procedure
9.	 Set the interface in WinCC flexible In the SIMATIC Manager, navigate via the SIMATIC PC station to "WinCC flexible RT > Communication > Connections". In the right project window, double-click on "Connections". WinCC flexible ES opens. The Ethernet connection configured in the hardware configuration is transferred automatically to WinCC flexible ES.
	Activate the connection by the setting "On" for the "Active" parameter. Stree_1
	Parameters Area pointer WinCC Results RT Station Interface ETHERNET
	HHI device PLC device Type Address Address IP 192, 160, 0, 1 192, 160, 0, 3 Submet Masic Expension slot 2 255, 255, 0, 0 Access point Rack 9 Access point STORLINE Dir Cyclic operation
	 Then complete your configuration in WinCC flexible ES (create tags, configure pictures,). Start WinCC flexible RT.

4 Connecting a WinCC flexible Runtime to SIMATIC S7 via Industrial Ethernet with Station Configuration Editor

4.1 Requirements

- WinCC flexible Advanced
- SIMATIC NET PC Software (Softnet IE) as from V6.2 (only for WinCC flexible 2004/2005)
- STEP 7 as from V5.3
- PC with Ethernet interface
- STEP 7 project with TCP/IP Ethernet connection
- SIMATIC NET license (only for WinCC flexible 2004/2005): the SIMATIC NET license is on the WinCC flexible RT license floppy disk.

More information on WinCC flexible licenses is available in Entry ID <u>27005215</u>. More information on the Station Configuration Editor is available in Entry ID <u>13542666</u> in section 4.1.

4.2 Connecting an HMI station

Proceed as follows to establish a connection between an S7 300/400 and a WinCC flexible PC Runtime (HMI station) using the Station Configuration Editor.

Table 4-1

No.	Procedure
1.	 Configuration in STEP 7 Open a STEP 7 project with Ethernet connection or create a new project.
2.	 SIMATIC HMI station Add a SIMATIC HMI station via "Insert > Station > SIMATIC HMI Station". In the dialog that opens you select the SIMATIC HMI station.
	Select "WinCC flexible Runtime" in the dialog that opens.

No.	Procedure
3.	 Open the HMI station configuration Mark the HMI station. Open the configuration of the HMI station by double-clicking on "Configuration". The Hardware Configuration of the HMI station opens. Open the Properties by double-clicking on the rack's "upper" edge. In the rack's Properties under "Compatibility", activate "S7RTM is installed". Close the dialog box with "OK".
	SIMATIC HMI-Station
	Allgemein Einstellungen Konfiguration
	Kompatibilität: S7RTM ist installiert (z.B. mit SIMATIC NET CD ab 7/2001)
	Speicherort der Konfigurationsdatei:
	OK Abbrechen Hilfe
4.	Incorporate "IE General"
	 Insert the "IE General" module from the hardware catalog into any available slot of the HMI station's rack.
	 The "IE General" module is in the hardware catalog under "SIMATIC HMI Station > CP Industrial Ethernet > IE General".
	Note:
	The "IE General" module stands for all commercially available network cards. Do not use the HMI IE, because this is reserved for panels.

No.	Procedure
5.	 Object properties of "IE General" Specify the parameters for the interface under "General > Interface > Properties > Parameters". Assign a unique IP address in the network for the network card and the associated subnet mask from the IP address range of the controller; network the card with the "Ethernet" network of the S7-300/S7-400 controller. Acknowledge the settings with the "OK" button. Please see also the information in Entry ID: <u>17313385</u>.
	Important: The address settings (IP address and subnet mask) of the "IE General" in the HMI station must match the address settings in MS Windows. Figenschaften - Ethernet Schnittstelle IE Allgemein (R0/S1) Allgemein Parameter MAC-Adresse einstellen / ISO-Protokoll verwenden MAC-Adresse: Bei Anwahl eines Subnetzes werden die nächsten freien Adressen vorgeschlagen Verzübergang C Keinen Router verwenden Adresse: 192168.0.4 Subnetz: Tricht vergetzt Ethernet(1) Eigenschaften Löschen
	OK Abbrechen Hilfe
	 Acknowledge the Selection with OK . Save and compile the HMI station via "Station > Save and compile". Close the Hardware Configuration of the HMI station.

No.	Procedure
6.	Station Configuration Editor • Start the "Station Configuration Editor" via the icon in the taskbar.
	 Assign a station name by clicking on the "Station Name" button. Here you enter the name of the HMI station. (This must be identical to the computer name.) There are now two options for inserting the components in the Station Configuration Editor. You insert the separate components via the "Add" button. You insert the components via the "Import Station" button.
	 Re Point 1: Insert components separately Important: The slots of "IE General" and the "WinCC flexible RT" in the Station Configuration Editor must match the index of the Hardware Configuration. Mark Slot 2 of the Station Configuration Editor. Click on the "Add" button The "Add components" window opens. From the list under "Type" you select "IE General" and acknowledge the input with "OK". Follow the same procedure for Slot 3. Here, you select "WinCC flexible RT" from the list under "Type".
	Index Name Type Ring Status Run/Stop Cont
	1 IE Allgemein IE Allgemein 3 WinCC flexible RT Import Station 5 Import Station Disable Station
	ОК

4 Connecting a WinCC flexible Runtime to SIMATIC S7 via Industrial Ethernet with Station Configuration Editor

No.	Procedure
7.	Import components Re Point 2: Note: An "XDB" file is generated by saving and compiling in the HMI station's hardware configuration. You can specify the storage path of this file. • For this you open the HMI station's configuration • Open the Properties by double-clicking on the rack's "upper" edge. • Open the Properties by double-clicking on the rack's "upper" edge. • Open the "Configuration" folder. • Under "Memory location of the configuration file" you can specify the path and name of the "XDB" file • HW Config - [PC_2 (Configuration) - \$7300_Ethernet_WinCCflex] • station Edt Insert PLC View Options Window Help • The Aligemein • OPEN • The Aligemein • STRTM is installed (for example with SIMATIC NET CD 7/2001 or later) • STRTM is installed (for example with SIMATIC NET CD 7/2001 or later) • VOBs/tpcs_2.xdb • Browse
	OK Cancel Help
	Open the Station Configuration Editor. Click the "Import Station," button
	 Click the Import Station button. Acknowledge the subsequent message with "OK". The "Import XDB file" window opens. Select the appropriate "subdirectory" that you used previously for the "XDB" file in the HMI station's Hardware Configuration and open the corresponding *.xdb file.
	 Acknowledge the subsequent message with "OK". The configuration is loaded automatically.

No.	Procedure
8.	 Set the PG/PC interface Open the PG/PC interface via your computer's Control Panel. Use the setting "PC internal (local)" under "Interface Parameter Assignment Used".
	Access Path Access Point of the Application: \$70NLINE (STEP 7) -> PC internal (local) Interface Parameter Assignment Used: PC internal (local) PC chemal (local) PC internal (local) Delete Interfaces Add/Remove: Select
9.	 Set the interface in WinCC flexible In the SIMATIC Manager navigate via SIMATIC HMI STATION to "WinCC flexible RT > Communication > Connections". In the right project window double-click on "Connections". WinCC flexible ES opens. The Ethernet connection configured in the hardware configuration is transferred automatically to WinCC flexible ES. Activate the connection by the setting "On" for the "Active" parameter.
	Free pointer WinCC flexible RT WinCC flexible ES (create tags,
	configure pictures,).Start the WinCC flexible RT.

4.3 Connecting a PC station

Proceed as follows to establish a connection between an S7 300/400 and a WinCC flexible PC Runtime (PC station) using the Station Configuration Editor. Table 4-2

No.	Procedure
1.	Configuration in STEP 7
	Open a STEP 7 project with Ethernet connection or create a new project.
2.	Add a SIMATIC PC station
	 Add a SIMATIC PC station via "Insert > Station > SIMATIC PC Station".
	 In the dialog that opens you select the SIMATIC PC station.
	Enfügen Zielsystem Ansicht Extras Fenster Hilf Station 1 1 SUMATIC 400-Station Subnetz 2 SIMATIC H-Station S7-Software 3 SIMATIC H-Station S7-Saustein 6 Andere Station M7-Software 5 SIMATIC H-Station S7-Saustein 6 Andere Station Totybolitabelle 7 SIMATIC H-Station VenCC flexible RT VenCC flexible RT
3.	Open the HMI station configuration
	Mark the HMI station.
	 Open the configuration of the HMI station by double-clicking on "Configuration"
	The Hardware Configuration of the HMI station opens.
4.	Incorporate "IE General"
	 Insert the "IE General" module from the hardware catalog into any available slot of the PC station's rack.
	The "IE General" module is in the hardware catalog under
	"SIMATIC PC Station > CP Industrial Ethernet > IE General".
	Note:
	The "IE General" module stands for all commercially available network
	cards. Do not use the HMI IE, because this is reserved for panels.
5.	Insert "WinCC flexible RT"
	Insert the "WinCC flexible RT" module from the hardware catalog into any
	available slot of the PC station's rack.
	Ihe "WinCC flexible RT" module is in the hardware catalog under
	"SIMATIC PC Station > HMI > WinCC flexible RT".

No.	Procedure
6.	 Object properties of "IE General" Specify the parameters for the interface under "General > Interface > Properties > Parameters". Assign a unique IP address in the network for the network card and the associated subnet mask from the IP address range of the controller; network the card with the "Ethernet" network of the S7-300/S7-400 controller. Acknowledge the settings with the "OK" button. Please see also the information in Entry ID: <u>17313385</u>.
	<text><text><image/></text></text>
	 Save and compile the PC station via "Station > Save and compile". Open the Hardware Configuration of the PC station.

No.	Procedure
7.	Station Configuration Editor
	Start the "Station Configuration Editor" via the icon in the taskbar.
	 Assign a station name by clicking on the "Station Name" button. Here you enter the name of the PC station. (This must be identical to the computer name.)
	There are now two options for inserting the components in the Station Configuration Editor.
	3. You insert the separate components via the "Add" button.4. You insert the components via the "Import Station" button.
	Re Point 1: Insert components separately Important:
	The slots of "IE General" and the "WinCC flexible RT" in the Station Configuration Editor must match the index of the Hardware Configuration
	Mark Slot 2 of the Station Configuration Editor.
	 Click on the "Add" button The "Add components" window opens. From the list under "Type" you select
	"IE General" and acknowledge the input with "OK".
	Follow the same procedure for Slot 3.
	Station Configuration Editor - [ONLINE]
	Components Diagnostics
	Station: PL_2 Betriebsart: HUN_P
	3 WinCC flexible RT WinCC flexible RT
	5 6
	9 10
	13
	Add Edit Delete Ring ON
	Station Name Import Station Disable Station
	ОК Нер

No.	Procedure
8.	Import components Re Point 2: Note: An "XDB" file is generated by saving and compiling in the PC station's hardware configuration. You can specify the storage path of this file. • For this you open the PC station's configuration • Open the Properties by double-clicking on the rack's "upper" edge. • Open the "Configuration" folder. • Under "Memory location of the configuration file" you can specify the path and name of the "XDB" file • HW Config - [PC_2 (Configuration) - S7300_Ethernet_WinCCflex] • Station Edt Insert PLC View Options Window Help • Import PLC View Options Window Help •
	OK Cancel Help
	 Open the Station Configuration Editor. Click the "Import Station" button. Acknowledge the subsequent message with "OK". The "Import XDB file" window opens. Select the appropriate "subdirectory" that you used previously for the "XDB" file in the PC station's Hardware Configuration and open the corresponding *.xdb file. Acknowledge the subsequent message with "OK". The configuration is loaded automatically.

No.	Procedure
9.	 Set the PG/PC interface Open the PG/PC interface via your computer's Control Panel. Use the setting "PC internal (local)" under "Interface Parameter Assignment Used".
	Set PG/PC Interface Access Path Access Point of the Application: \$70NLINE (STEP 7) (Standard for STEP 7) Interface Parameter Assignment Used: PC internal (local) Delete Communication with SIMATIC components in this PG/PC) Interfaces Add/Remove: Select
10.	 Set the interface in WinCC flexible In the SIMATIC Manager navigate via SIMATIC PC STATION to "WinCC flexible RT > Communication > Connections". In the right project window double-click on "Connections". WinCC flexible ES opens. The Ethernet connection configured in the hardware configuration is transferred automatically to WinCC flexible ES. Activate the connection by the setting "On" for the "Active" parameter.
	configure pictures,).Start the WinCC flexible RT.