

## Configuring PC Stations with SIMATIC NCM PC

### Manual and Quick Start

for SIMATIC NCM PC / STEP 7  
V5.1 SP2 and higher

**Advanced PC Configuration**

Preface, Contents

---

#### Manual

---

Introduction and Notes on  
Switching to Advanced PC  
Configuration

1

Configuring SIMATIC PC Stations

2

Configuring the OPC Server

3

#### Quick Start

---

Configuring the OPC Server –  
Quick Start with PROFIBUS-DP

4

Configuring the OPC Server –  
Quick Start with Industrial  
Ethernet

5

Notes for Users Switching from  
previous SIMATIC NET Products

A

Support and Training

B

Glossary

C

Index

---

---

## Classification of Safety-Related Notices

This manual contains notices which you should observe to ensure your own personal safety, as well as to protect the product and connected equipment. These notices are highlighted in the manual by a warning triangle and are marked as follows according to the level of danger:



---

### **Danger**

indicates that death or severe personal injury **will** result if proper precautions are not taken.

---



---

### **Warning**

indicates that death or severe personal injury **can** result if proper precautions are not taken.

---



---

### **Caution**

with warning triangle indicates that minor personal injury can result if proper precautions are not taken.

---

---

### **Caution**

without warning triangle indicates that damage to property can result if proper precautions are not taken.

---

---

### **Notice**

indicates that an undesirable result or status can result if the relevant notice is ignored.

---

---

### **Note**

highlights important information on the product, using the product, or part of the documentation that is of particular importance and that will be of benefit to the user.

---

---

## Trademarks

SIMATIC®, SIMATIC HMI® and SIMATIC NET® are registered trademarks of SIEMENS AG.

Third parties using for their own purposes any other names in this document which refer to trademarks might infringe upon the rights of the trademark owners.

## Safety Instructions Regarding your Product:

Before you use the product described here, read the safety instructions below thoroughly.

## Qualified Personnel

Only **qualified personnel** should be allowed to install and work on this equipment. Qualified persons are defined as persons who are authorized to commission, to ground, and to tag circuits, equipment, and systems in accordance with established safety practices and standards.

## Correct Usage of Hardware Products

Note the following:



### Warning

This device and its components may only be used for the applications described in the catalog or the technical description, and only in connection with devices or components from other manufacturers which have been approved or recommended by Siemens.

This product can only function correctly and safely if it is transported, stored, set up, and installed correctly, and operated and maintained as recommended.

Before you use the supplied sample programs or programs you have written yourself, make certain that no injury to persons nor damage to equipment can result in your plant or process.

EU Directive: Do not start up until you have established that the machine on which you intend to run this component complies with the directive 89/392/EEC.

---

## Correct Usage of Software Products

Note the following:



### Warning

This software may only be used for the applications described in the catalog or the technical description, and only in connection with software products, devices, or components from other manufacturers which have been approved or recommended by Siemens.

Before you use the supplied sample programs or programs you have written yourself, make certain that no injury to persons nor damage to equipment can result in your plant or process.

---

---

## Prior to Startup

Prior to startup, note the following:

---

### Caution

Prior to startup, note the information and follow the instructions in the latest documentation. You will find the ordering data for this documentation in the relevant catalogs or contact your local Siemens office.

---

#### Copyright © Siemens AG 2001/2002 All rights reserved

The reproduction, transmission or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.

Siemens AG  
Automation and Drives  
Postfach 4848, D-90327 Nuernberg

#### Disclaimer of Liability

We have checked the contents of this manual for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in this manual are reviewed regularly and any necessary corrections included in subsequent editions. Suggestions for improvement are welcomed.

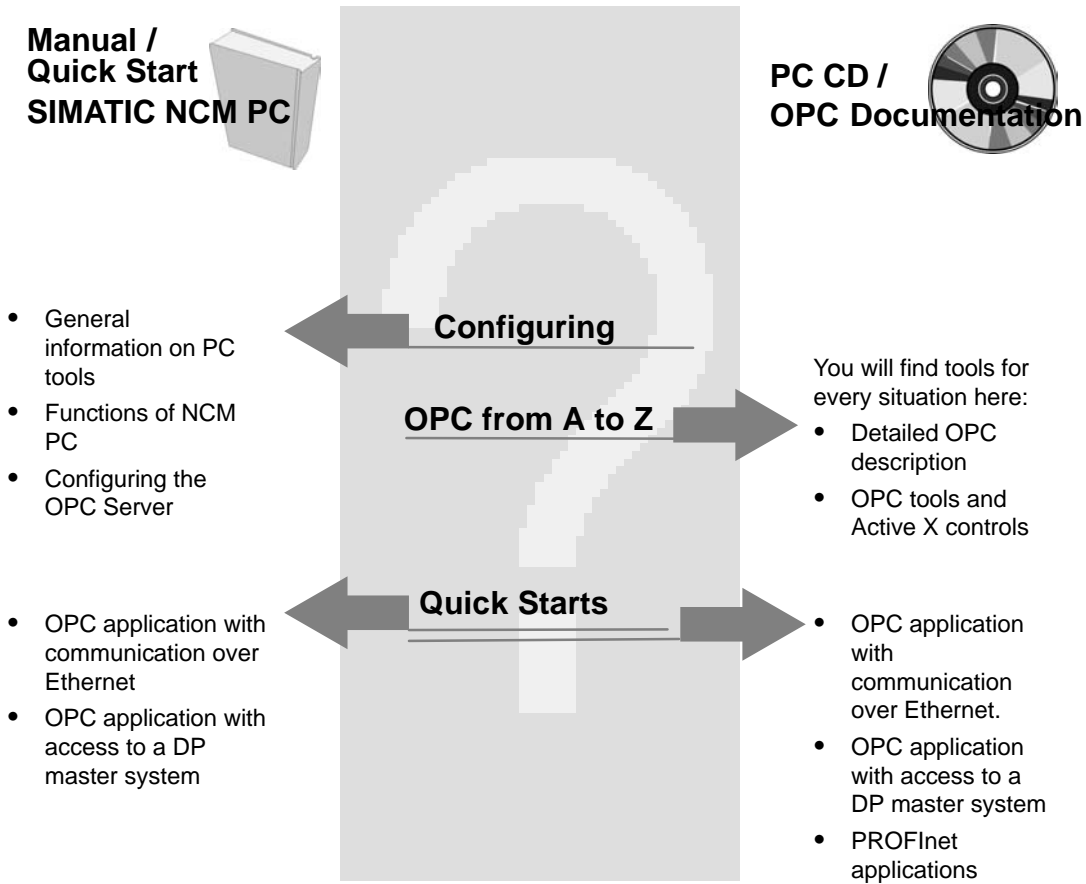
Technical data subject to change.

# This manual...

... supports you and helps you to make efficient use of the communications functions of your PC applications in conjunction with the SIMATIC NET modules.

... supplements the OPC documentation on the SIMATIC NET PC / Windows CD.

The descriptions are structured as shown below:



**New in this version**

This release contains additional information and notes for users switching from previous products in Appendix A. This information was previously in the global installation instructions.

### Additional Information

This manual is also part of the documentation packages for NCM S7 for PROFIBUS and Industrial Ethernet.



Tip:

This symbol appears in the margin to draw your attention to useful tips.

### Additional Information on SIMATIC S7 and STEP 7

The following documentation contains additional information about the STEP 7 standard software of the SIMATIC programmable controllers and can be obtained from your local Siemens office.

Topic	Document
Basic information for technical personnel using the STEP 7 standard software for control tasks with S7-300/400 programmable controllers.	STEP 7 basics with <ul style="list-style-type: none"><li>• User Manual</li><li>• Programming Manual</li><li>• Manual for converting from S5 to S7</li><li>• Primer for a fast start</li></ul>

### Validity of this Manual

The information in this manual applies to

- Version 5.1 SP2 and higher of the SIMATIC NCM PC / STEP 7 configuration software with the NCM S7 for Industrial Ethernet / PROFIBUS options;
- CD 7/2001 and higher from SIMATIC NET

### Conventions

References to other manuals and documentation are indicated by numbers in slashes /.../. These numbers refer to the titles of manuals listed in the References section of the Appendix.



# Contents

<b>1</b>	<b>Introduction and Notes on Switching to Advanced PC Configuration</b> .....	<b>9</b>
<b>2</b>	<b>Configuring SIMATIC PC Stations</b> .....	<b>11</b>
2.1	Tools and Utilities .....	11
2.2	Using tools – Station Configuration Options .....	14
2.3	Configuring with SIMATIC NCM PC .....	17
2.3.1	Relationship Between SIMATIC NCM PC and STEP 7 .....	18
2.3.2	Creating a PC Station .....	19
2.3.3	Configuring a PC Station with HW Config .....	21
2.3.4	Creating a DP Master System .....	24
2.3.5	Configuring Connections .....	26
2.4	Downloading the Configuration Data to the PC Station .....	28
2.5	Commissioning Wizard .....	31
2.6	PC Station Wizard .....	32
2.7	Station Configuration Editor .....	34
2.7.1	Managing Components: “Components Tab” .....	35
2.7.2	“Diagnostics” Tab .....	37
<b>3</b>	<b>Configuring the OPC Server</b> .....	<b>38</b>
3.1	Significance of Configuration .....	39
3.2	Configuring the Properties of the OPC Server .....	40
3.3	Configuring Connection Properties for the OPC Server .....	42
<b>4</b>	<b>Quick Start for the OPC Application for PROFIBUS-DP</b> .....	<b>46</b>
4.1	Example of a PROFIBUS Configuration .....	46
4.2	Quick Start for PROFIBUS Communication with OPC .....	47
4.2.1	Hardware and Software Installation .....	48
4.2.2	Configuring the PC Station .....	49
4.2.3	STEP 7 – Starting the PC Station Wizard .....	50
4.2.4	STEP 7 – PC Station Wizard: Selecting the Editing Mode .....	51
4.2.5	STEP 7 – PC Station Wizard: Changing Settings .....	52
4.2.6	HW Config: Inserting a DP Master System .....	53
4.2.7	HW Config: Inserting a DP Slave .....	54
4.2.8	HW Config: Downloading the Configuration .....	55
4.2.9	STEP 7 – Commissioning Wizard: Specifying the Use of Symbol Files ..	56
4.2.10	OPC Scout: Establishing a Connection to the OPC Server .....	56
4.2.11	OPC Scout: Inserting a Group and Variables .....	57
4.2.12	OPC Scout: Displaying and Modifying Values of Variables .....	59
<b>5</b>	<b>Quick Start for the OPC Application for Industrial Ethernet</b> .....	<b>60</b>
5.1	Example of an Industrial Ethernet Configuration .....	60
5.2	Quick Start for Industrial Ethernet Communication with OPC .....	61
5.2.1	Hardware and Software Installation .....	61
5.2.2	Configuring the PC Station .....	62

5.2.3	STEP 7 – Starting the PC Station Wizard .....	64
5.2.4	STEP 7 – PC Station Wizard: Selecting the Editing Mode .....	65
5.2.5	STEP 7 – PC Station Wizard: Opening the Project .....	66
5.2.6	STEP 7 – PC Station Wizard: Changing Settings .....	67
5.2.7	STEP 7 – NetPro .....	68
5.2.8	STEP 7 NetPro: Downloading the Configuration .....	69
5.2.9	STEP 7 – Commissioning Wizard .....	69
5.2.10	Symbol File Configurator .....	70
5.2.11	SIMATIC NET Commissioning Wizard .....	71
5.2.12	OPC Scout: Establishing a Connection to the OPC Server .....	72
5.2.13	OPC Scout: Inserting a Group and Variables .....	73
5.2.14	OPC Scout: Displaying and Modifying Values of Variables .....	75
<b>A</b>	<b>Notes for Users Switching from previous SIMATIC NET Products .....</b>	<b>77</b>
A.1	LDB and XDB Databases – Overview .....	77
A.1.1	Configurations up to SIMATIC NET CD 05/2000 .....	78
A.1.2	Continued Use of Previous Configurations .....	80
A.2	Industrial Ethernet – Effects on Older Product Versions (SIMATIC NET CD 05/2000 and earlier) .....	81
A.3	PROFIBUS – Effects on Older Product Versions (SIMATIC NET–CD 05/2000 and earlier) .....	83
<b>B</b>	<b>SIMATIC NET – Support and Training .....</b>	<b>87</b>
	Customer Support, Technical Support .....	87
<b>C</b>	<b>Glossary .....</b>	<b>90</b>



# 1 Introduction and Notes on Switching to Advanced PC Configuration

Advanced PC Configuration is the new tool with which you can commission a PC station as part of an industrial communication network. SIMATIC NET supports the option of using Advanced PC Configuration on a central engineering station to configure not only PC stations but also, for example, operator stations. The engineering station is a networked PC with the SIMATIC NCM PC program or STEP 7.

## Tools of Advanced PC Configuration

- **Commissioning Wizard**  
The Commissioning Wizard allows simple and consistent commissioning of all modules and user programs supported by Advanced PC Configuration. It guides the user step by step through the installation and configuration of the PC station.
- **Configuration Console**  
The Configuration Console is a snap-in program embedded in the Microsoft Management Console (MMC) and provides a wide range of options for configuring PC hardware components and PC user programs as well as providing diagnostic functions. Settings for the OPC servers that ship with the communication software are also made in the Configuration Console.
- **SIMATIC NCM PC and PC Station Wizard**  
With SIMATIC NCM PC V5.1, Service Pack 2, a new configuration tool for STEP 7-compatible PC configuration is available.
- **Station Configuration Editor**  
The Station Configuration Editor is the user interface of the Station Manager; this allows you access to the component management of the PC station.

The following Chapter LEERER MERKER also contains information on these tools and other related utilities.

## Features – Comparison with Previous Products

The new features of the SIMATIC NET software involve several changes to the previous configuration procedures and these are summarized below:

- All settings are made with **one** tool during configuration and downloaded completely to the PC station. This tool is SIMATIC NCM PC or STEP 7.
- Properties that were previously configured using the "Set PG/PC Interface" program are now part of the configuration and are downloaded to the PC station. These include, for example, the station address and the bus parameters. It is no longer necessary to create several databases.
- Properties that were previously specified in various configuration programs are now configured in SIMATIC NCM PC / STEP 7. Examples of such configuration tools include COML S7, COM PROFIBUS.
- Configuration parameters for the OPC Server that were previously stored in TXT files are now configured in SIMATIC NCM PC / STEP 7 and downloaded to the PC station.

## Supported Modules

The file "hinw\_e.rtf" on the SIMATIC NET product CD (CD\_drive / sw / cdintern / hinw\_e.rtf) contains a list of modules supported and not supported by Advanced PC Configuration.

## LDB Databases no Longer Required

By configuring on a central station and with the option of downloading, LDB databases are no longer required for the DP, FMS, and S7 protocols. Existing XDB files can continue to be used; they must be imported into the central data management on the PC station using the Station Configuration Editor or PC Station Wizard.

---

### Note

For more detailed information on the difference between the previous methods and working with the software and modules, refer to appendix A.

---



## 2 Configuring SIMATIC PC Stations

### Communication with PC Applications

PC applications that communicate with each other or with other stations such as S7 stations, PC stations, or operator control and monitoring stations use SIMATIC NET communications modules and software components.

Before such communication is possible, you must first set up the communication services on your PC.

This chapter explains how to use the tools and utilities with which you set up the PC components for communications tasks.

### 2.1 Tools and Utilities

#### SIMATIC NCM PC Configuration Tool

SIMATIC NCM PC is the central tool for configuring the communications services for your PC station. After creating your configuration data with this tool, you then download it to the PC station. The PC station is then ready for communication.

---

**Note**

You can configure both in SIMATIC NCM PC and in STEP 7. STEP 7 also provides all the SIMATIC NCM PC functions described here for configuring your PC.

From now on, the description will only refer to SIMATIC NCM PC but nevertheless applies to both.

---

#### Station Manager with the Station Configuration Editor

With the Station Configuration Editor, you can both display and edit the list in which the components are managed in the Station Manager on a PC station.

The Station Configuration Editor also provides diagnostic services.

## Wizards Mean Less Work

The following wizards can be used in most situations.

- Commissioning Wizard

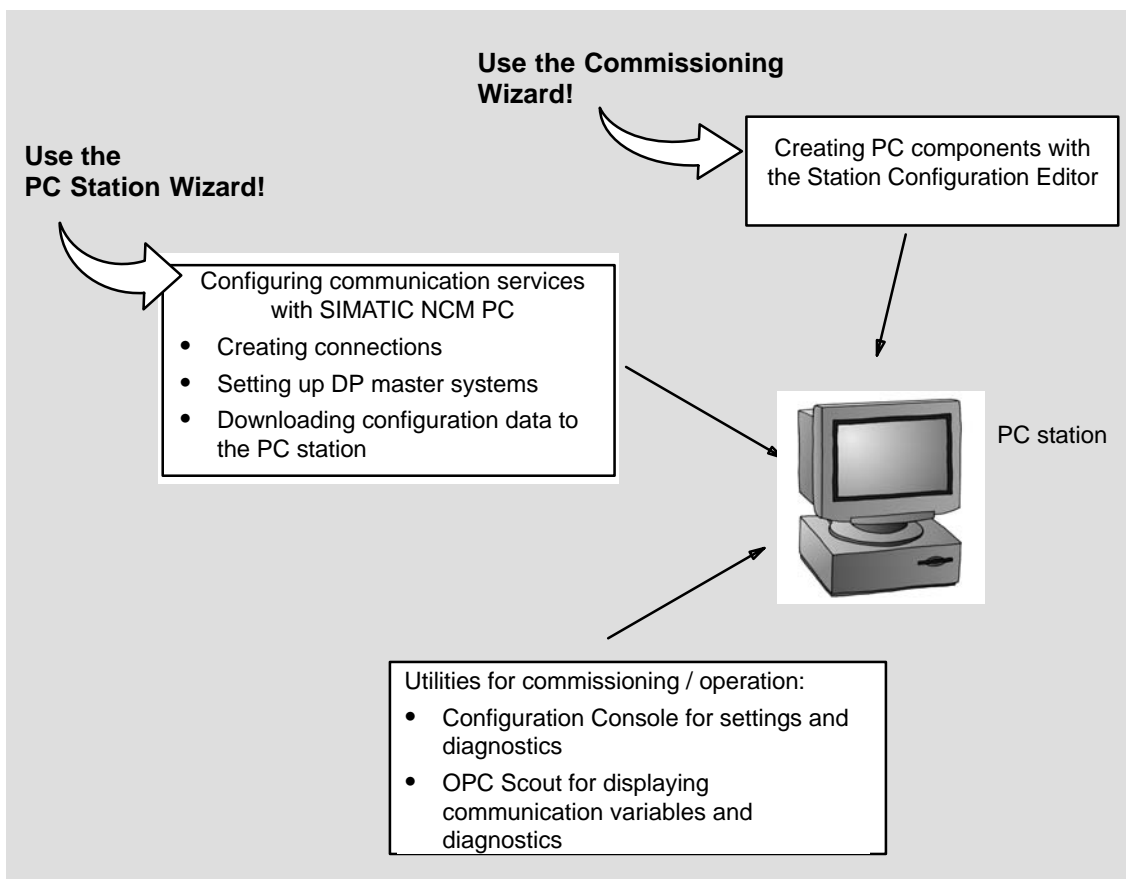
A Commissioning Wizard helps you to integrate a newly installed communications module in a few simple steps so that subsequent configuration with the PC Station Wizard and the SIMATIC NCM PC configuration tool is normally extremely simple. The existing configuration of the PC can be queried automatically; you do not need to call up the Station Configuration Editor explicitly.

- PC Station Wizard

The PC Station Wizard helps you when creating and handling projects for the SIMATIC NCM PC configuration tool. You can call it up either directly or start it when using the Commissioning Wizard.

The following graphic shows the steps required and which tools to use.

When you use the wizards, you are guided through these steps automatically and can assume that the configuration data created in SIMATIC NCM PC are consistent with the PC configuration.



## Further Utilities

From the graphic, you can see that there are other utilities available, for example for using the OPC Server interface. These utilities will be pointed out or described in greater detail where applicable.

- Configuration Console

A utility with which you can display the structure of a PC station in much the same way as in the Windows Explorer. The interactive options are

- Module diagnostics
- Setting the operating mode
- Configuration for specific situations

- OPC Scout

A utility that allows easy access to process data over the OPC interface. The interactive options are

- Displays of the configured communications channels representing the available OPC variables
- Monitoring, reading, and writing of process data

## 2.2 Using tools – Station Configuration Options

Depending on where you install the configuration tool and how the PC station is networked, you have the following options:

- Online – networked (remote PC station)
- Online – local
- Offline

The following descriptions illustrate when and where to use the tools and utilities in various situations.

### Online – Networked (Configuration Station and PC Station Networked)

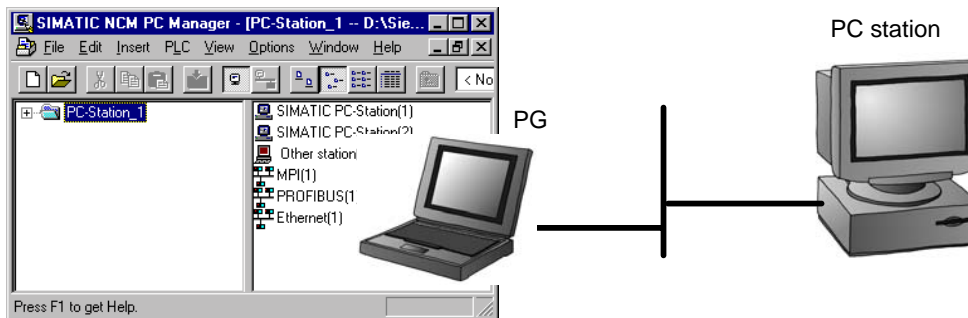


Table 2-1

Tool / Utility	...use on	
	Configuration Station	Networked PC Station
SIMATIC NCM PC / STEP 7 is installed	yes	no
Station Configuration Editor	no	optional <ul style="list-style-type: none"> <li>• can be used to adapt a target PC station to a configuration</li> </ul>
Commissioning Wizard	optional <ul style="list-style-type: none"> <li>• for setting up PG /PC operation</li> </ul>	recommended <ul style="list-style-type: none"> <li>• for setting up modules for productive communication</li> </ul>
PC Station Wizard	recommended <ul style="list-style-type: none"> <li>• to edit a stored configuration</li> <li>• to create a new configuration</li> </ul>	no

**Online – Local (Configuration Station is also PC Station)**

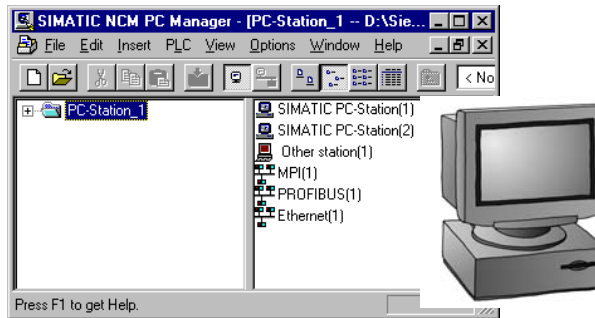


Table 2-2

Tool / Utility	...use on
	Configuration Station = PC Station
SIMATIC NCM PC / STEP 7 is installed	yes
Station Configuration Editor	optional <ul style="list-style-type: none"> <li>• can be used to adapt the PC station to a configuration</li> </ul>
Commissioning Wizard	recommended <ul style="list-style-type: none"> <li>• for setting up modules for productive communication</li> </ul>
PC Station Wizard	recommended to ... <ul style="list-style-type: none"> <li>• change local settings</li> <li>• edit a stored configuration</li> <li>• create a new configuration</li> <li>• import XDB files</li> </ul>

**Offline (Configuration Station and PC Station not Connected)**

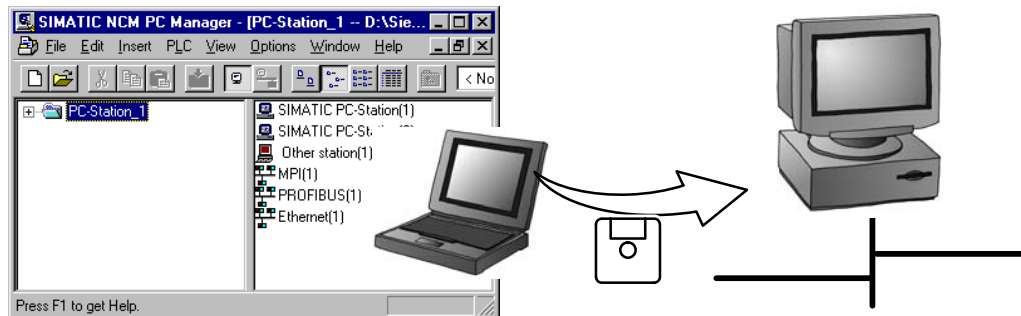


Table 2-3

Tool / Utility	...use on	
	Configuration Station	Networked PC Station
SIMATIC NCM PC / STEP 7 is installed	yes	no
Station Configuration Editor	no	yes <ul style="list-style-type: none"> <li>• to import an XDB file optional</li> <li>• can be used to match the actual configuration of a PC station to a planned configuration</li> </ul>
Commissioning Wizard	no	recommended <ul style="list-style-type: none"> <li>• for setting up modules for productive communication</li> </ul>
PC Station Wizard	recommended <ul style="list-style-type: none"> <li>• to edit a stored configuration</li> <li>• to create a new configuration</li> </ul>	recommended <ul style="list-style-type: none"> <li>• to import an XDB file</li> </ul>



## 2.3 Configuring with SIMATIC NCM PC

This chapter will familiarize you with the basic functions of SIMATIC NCM PC.

### What the NCM PC Configuration Tool Does

The SIMATIC NCM PC Manager is a version of STEP 7 tailored for configuring PCs. It provides the functionality with which you can perform the following tasks for PC stations:

- Configure communication properties of the SIMATIC NET OPC Server
- Configure connections
- Configure the DP mode
- Set network parameters for PROFIBUS and Ethernet operation
- Download configuration data to PC stations
- Monitor communication to attached S7 stations with NCM Diagnostics

### Further Information in Help

You will also find detailed information in the integrated help by selecting the menu command:

- Help ► Introduction

Contains a brief description of SIMATIC NCM PC

- Help ► Getting Started

Here you will find brief instructions on how to create a PC station, its applications and modules. For more detailed information, you can go from here to the PC topics in the main help system.

These instructions are available only in Help on SIMATIC NCM PC. In STEP 7, select the Help menu directly:

- Help

Here you will find help topics relating to the PC station under:

- Configuring Hardware / SIMATIC PC Station
- Configuring Connections for a SIMATIC PC Station

### 2.3.1 Relationship Between SIMATIC NCM PC and STEP 7

SIMATIC NCM PC and STEP 7 are compatible with each other.

You can

- open and edit projects that you created with SIMATIC NCM PC at any time in STEP 7/SIMATIC Manager. This allows you to use additional functions for programming and configuring S7 stations.

---

#### Notice

Optional packages are not supported by SIMATIC NCM PC. If you are editing a project that was created or edited in STEP 7, it may contain components from STEP 7 optional packages. If this is the case, you can only edit stations using SIMATIC NET PC that do not contain components from STEP 7 optional packages.

- open and edit projects you created with STEP 7/SIMATIC Manager at any time in SIMATIC NCM. You can edit PC stations you have already created and create new PC stations. You can configure communication connections from these PC stations to existing S7 stations.

The restrictions in SIMATIC NCM PC relate to the S7 station types that can be configured and programming. You can see the differences in the following graphic:

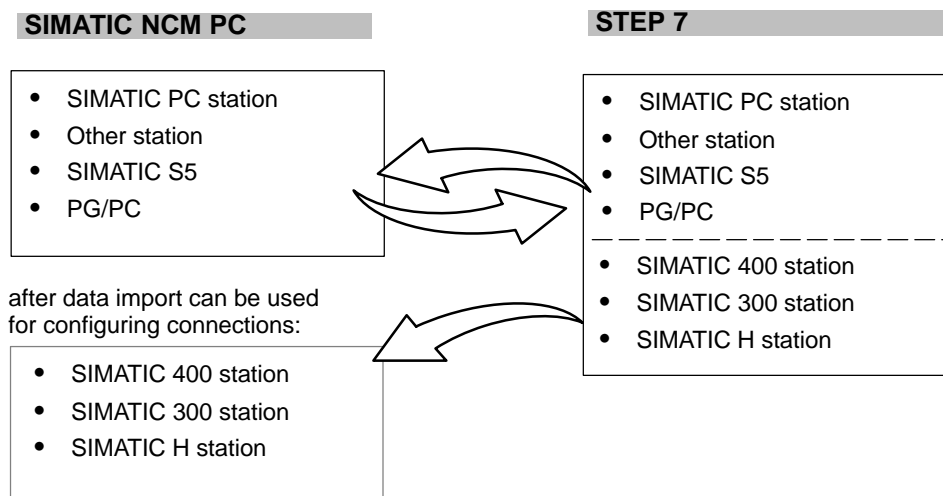


Figure 2-1

The types of stations that you can configure only in STEP 7 can be used in SIMATIC NCM PC as target stations for a connection configuration after importing the project.

After working on such a project in SIMATIC NCM PC, you can return it to STEP 7 and edit it again at any time.

## 2.3.2 Creating a PC Station

### Aims

You want to create configuration data for communication services for individual PC stations. This configuration data will then be downloaded to the PC station. After this, the PC applications can use the communications services.

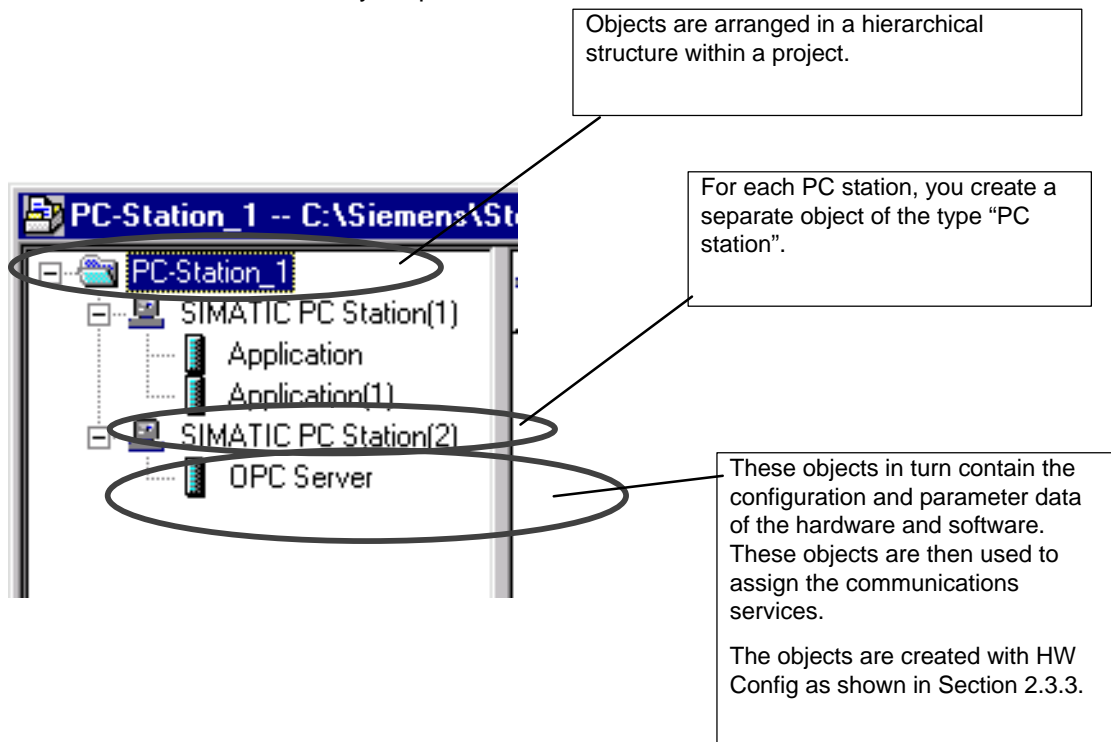


Tip:

Remember that you can create a great deal of the project structure automatically using the PC Station Wizard! Read the information on starting and working with the wizard in Section 2.6. You will find examples in the Quick Start in Chapters 4 and 5.

### Creating and Managing Objects

After starting SIMATIC NCM PC, you either open an existing project or create a new one. You use projects to manage your configurations consisting of all or part of the stations of your plant.



---

**Notice**

The name selected here for the PC station identifies the PC configuration.

If you define a configuration for the local PC with NCM PC, the name you select must be identical to the name of the actual local configuration. If you define a configuration for a remote PC station, the name must not be identical to that of the actual local configuration! Otherwise, the local configuration would be overwritten when you download.

---

**Follow the steps below:**

1. Start up the SIMATIC NCM PC Manager.
2. You can create the stations with the insert objects function.
3. Opening a station object starts the HW Config tool with which you can create the configuration of a PC station consisting of modules and applications (see the following page).

---

**Note**

When you start STEP 7, a wizard is opened that helps you to create a new project.

In SIMATIC NCM PC, this wizard is replaced by the PC Station Wizard. Depending on your initial situation, this wizard provides you with more extensive support for your PC station.

The PC Station Wizard also exists in STEP 7.

---

### 2.3.3 Configuring a PC Station with HW Config

#### Creating an Image of the PC Configuration

To allow the configuration data sent by the configuration system to be assigned to a module or an application, they must have unique identification numbers. The identification number for modules, applications, and other components in a PC station is the index.

You now place your applications and modules in slots in a “virtual rack” in HW Config. This slot number then corresponds to the index mentioned above.

---

#### Notice

Be careful not to confuse this “Index” with a hardware slot, for example on the PCI bus of the PC station. The slot on the PCI bus is not relevant for commissioning and is not used at any point.

---

#### Follow the steps below:

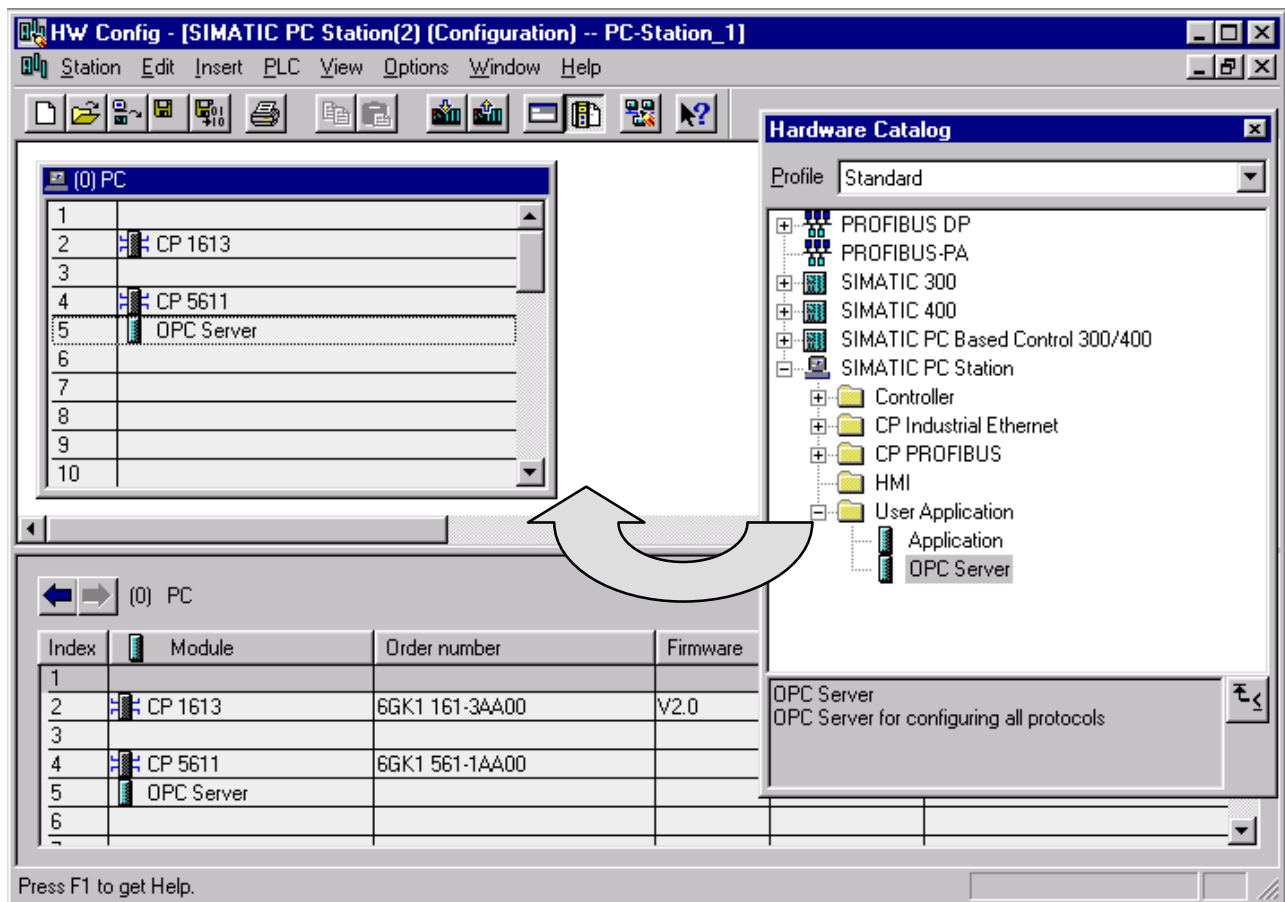
Drag the components from the catalog to the list (the “virtual rack”) displayed in HW Config.

---

#### Notice

Make sure you arrange the components exactly the same as in the configuration list of the Station Configuration Editor (see Section 2.7). If the configuration differs from the list, the configuration data that you download from SIMATIC NCM PC to the PC station will not be adopted correctly.

---



## PC Components in the Catalog

For the SIMATIC PC station, you can select the following components:

- **Application**

- Application (standard application)

You use standard interfaces to communicate with other applications and devices via your PC module.

The user programs included in the application use suitable interfaces for communication, such as the SAPI programming interface or the SEND/RECEIVE programming interface.

You can configure the following communications services depending on the module inserted:

- S7 connections
- FMS connections (PROFIBUS)
- DP services (DPV0 and DPV1)

Note how these differ from the user programs that use the communication service as OPC clients via an OPC Server as described below.

- OPC Server

You use the convenient interface to an OPC server to communicate with a programmable controller such as a SIMATIC S7-400.

The OPC server can be set up as an interface for all available communications protocols. You can only create this object once in a PC station.

You can then use this OPC Server for communication with any number of user programs (OPC clients).

The following communications services can be used depending on the modules inserted:

- all types of connection
- DP services

- **CP Industrial Ethernet**

This contains all the CP modules for attachment to Industrial Ethernet.

- **CP PROFIBUS**

This contains all the CP modules for attachment to PROFIBUS.

### 2.3.4 Creating a DP Master System

Read the information below if you want to use a PROFIBUS CP and configure a DP master system.

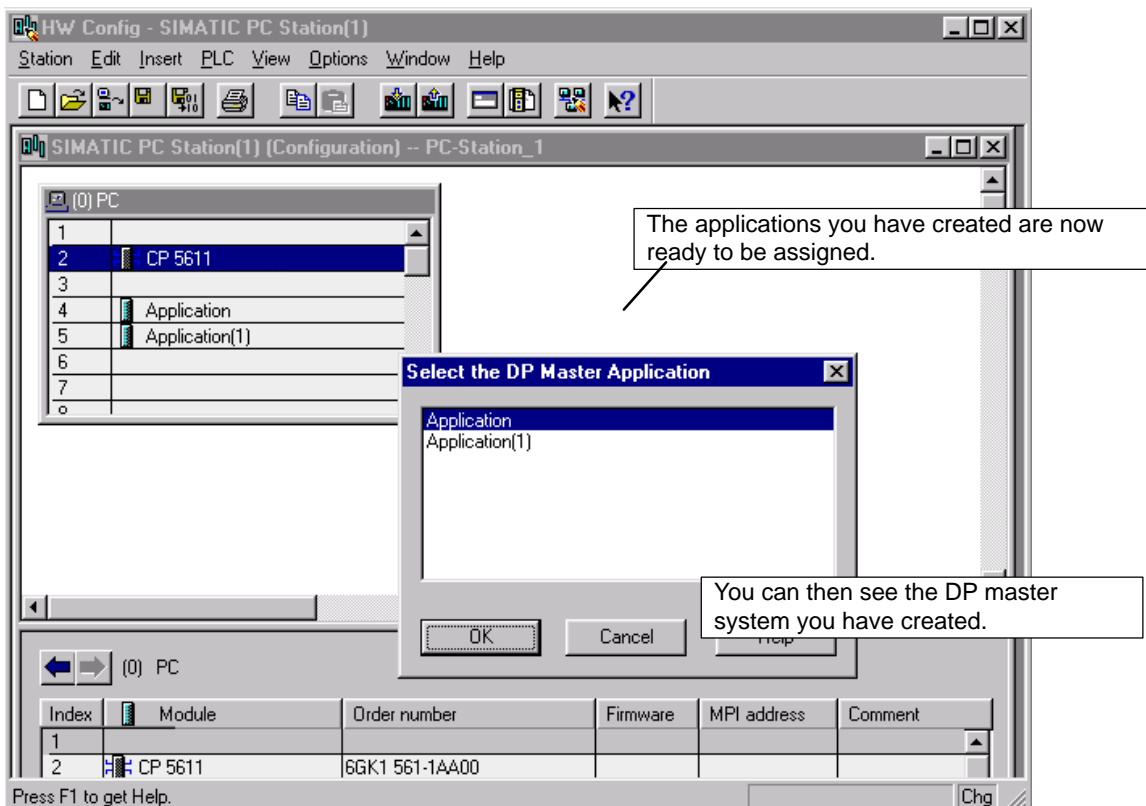
#### Significance of the Configuration Data in a DP Master System

The configuration data inform the DP master in the PC station of the data and address areas of the attached slaves.

Depending on the type of slave, this information is either implicitly linked to the entry in the catalog or must be configured here additionally as, for example, when using an intelligent DP slave such as the CP 342-5.

#### Follow the steps below:

1. You have already placed the applications and modules as described in Section 2.3.3.
2. After you have taken the module from the catalog, you can select it and create a DP master system using the **Insert** menu command.
3. Select the application that will address the master system (the DP slaves).





Now insert the DP slaves you want to be addressed by the application from the catalog.

Hardware Catalog

- PROFIBUS DP
  - Additional Field Devices
  - Closed-Loop Controller
  - Configured Stations
  - DP V0 slaves
  - DP/AS-i
  - DP/PA Link
  - ENCODER
  - ET 200B**
  - ET 200C
  - ET 200IS
  - ET 200L
  - ET 200M
  - ET 200S
  - ET 200U
  - ET 200X

Compact I/O device in safety class IP 20 as DP slave

Slot	Module / ...	Order number	I Address	Q Address	Comment
0	16DO	Universal module		0...1	
1	0	Universal module			

## 2.3.5 Configuring Connections

### Meaning

During operation, configured connections are established either implicitly or on request, depending on the parameter assignment. They are then available to the OPC Server or the PC application for communication.

### General Rules

Regardless of the type of application, these general rules apply when configuring connections:

- Communication connections are always assigned to an application.
- In the PC station, the CP that supports the type of connection is used for the data transfer.
- If there is more than one CP with this capability, you can use Routing to select the transmission path.

### Follow the steps below:

1. Select the application to which you want to assign a connection.

The screenshot shows the NetPro software interface for configuring connections. The main window displays a network diagram with three stations: SIMATIC PC Station(1), SIMATIC PC Station(2), and Other station(1). The connections are color-coded: Ethernet (green), Industrial Ethernet (red), MPI (red), and PROFIBUS (magenta). Below the diagram, there are two tables for station details and a table for active connections.

Local ID	Partner ID	Partner	Type	Active connection partner	Subnet
S7 connection_1	S7 connection_1	SIMATIC PC Stati...	S7 connection	Yes	PROFIBUS(1)
S7 connection_2	S7 connection_2	SIMATIC PC Stati...	S7 connection	Yes	PROFIBUS(1)

2. Enter the desired connection type. When selecting the destination station, note the following:

After creating a new project in SIMATIC NCM PC, you will normally find that the required destination station (for example an S7 station) does not exist. You then have the following options:

- Create an unspecified connection

Select “unspecified” as the connection partner. In the Properties dialog box, you can then set the address parameters for the connection partner.

- Create a proxy object

Create an “Other Station”. You then network this station by assigning the necessary interface types in the Properties dialog.

This method is advisable if you intend to assign several connections to this partner station on the same interface in your project.

- Create a copy of an S7 station

Insert the copy of an S7 station that you have created using STEP 7 in another project. You can then select this S7 station as your destination station.

## 2.4 Downloading the Configuration Data to the PC Station

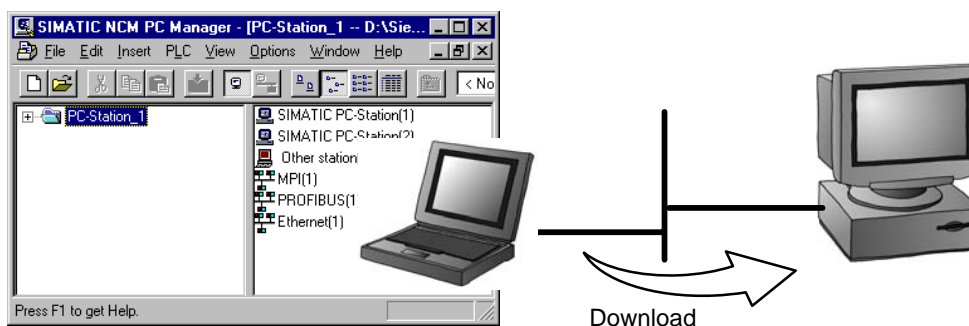
### Notice

Downloading as described below only results in successful installation of the communications services on your PC station if the arrangement of the components in the configuration data is identical with that of the configuration data on the PC station. See also Section 2.3.3.

### Online Mode

The online mode allows you to download the configuration data directly to a PC station attached to the network (MPI, PROFIBUS or Ethernet) or to load the data on the local PC station if you are using this as the configuration station.

- **Online – Networked (Configuration Station and PC Station Networked)**

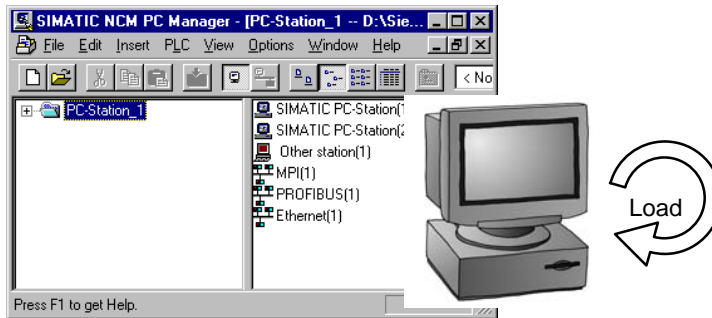


Follow the steps below:

1. Switch the PG/PC station online.
2. Select the station you want to download to.
3. Download the configuration data with PLC → Download

Make sure you set the correct interface in “Set PG/PC Interface”.

- **Online – Local (Configuration Station is also PC Station)**



Follow the steps below:

1. Select the station you want to load.
2. Load the configuration data using PLC → Download.

Requirement:

In the Set PG/PC Interface, you must first select the following setting as access point of the application:

S7ONLINE (STEP7) → PC internal (local)

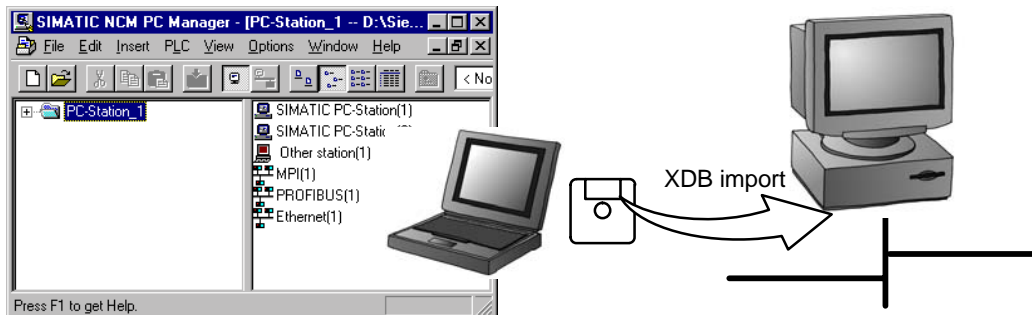
Tip:

If you use the PC Station Wizard, this setting is made automatically.



### Offline (Configuration Station and PC Station are not Connected)

If you are working offline, you will require an XDB file to transfer the data. The configuration system always generates an XDB file for each configured PC station.



Follow the steps below to create and import an XDB file:

1. Select the station on which you want to load the data in the STEP 7 project.
2. Open the object properties of the station with the “Station Properties” menu command and select the “Configuration” tab.
3. Here, you can check and, if necessary, change the setting under “Storage Location of the Configuration File”.
4. Save and compile your project; you will then find the required XDB file in the folder you have selected.

Note:

The station name must be identical in the configuration and on the local PC station “Entry in the Station Configuration Editor”.

5. Copy the XDB file onto a data medium that the destination station can access.
6. Import the XDB file into your destination station using the Station Configuration Editor.

## 2.5 Commissioning Wizard

When configuring the SIMATIC NET communications modules for the first time, you are supported by the Commissioning Wizard.

The Commissioning Wizard takes you through the necessary steps for commissioning modules and the further steps for commissioning a PC station with configured communication.



Tips:

- Refer to the examples in the Quick Start chapters in this manual.
- The tools and utilities were described in Section 2.2, Station Configuration.

### The wizard opens...

- when you boot the PC station after inserting an additional module
- when you select the appropriate menu command in the “Configuration Console” tool
- when you select it in the Start menu

### How to Use the Wizard

The basic steps are outlined below:

1. When you first configure the modules, all those that had not been detected previously are detected. For each module, you then set the operating mode and (if you select “Configured mode”) the network–related parameters for initial configuration.
2. After the Commissioning Wizard has run through all the previously undetected modules, confirm the settings you made for the modules.
3. If you want to configure communication on the PC station, you can now start the PC Station Wizard. When you have finished configuring, you return to the Commissioning Wizard.
4. If you intend to use the OPC server, you can decide whether to create a symbol file or use an existing one in the next step.
5. After this, the configuration is finally adopted and the PC is ready for the next steps.

## 2.6 PC Station Wizard

The PC Station Wizard supports you when you create projects in SIMATIC NCM PC. It allows you to acquire the configure data of the PC station automatically. This helps you to make sure that your configuration data is consistent.

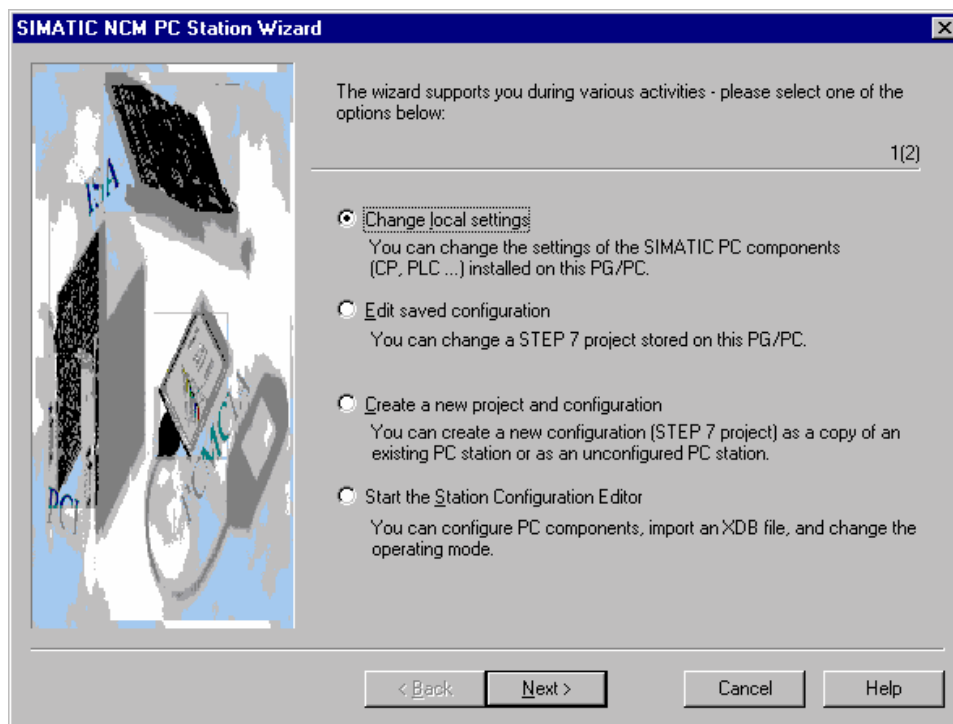


Tips:

- Refer to the examples in the Quick Start section, Chapters 4 and 5.
- We have already described the interaction of the tools and utilities in Section 2.2, Station Configuration.

### How to Start the PC Station Wizard

- From the Commissioning Wizard
  - After you have finished configuring the modules, you start the wizard by clicking the corresponding button (see Section 2.5 and the Quick Start chapters).
- From the Start menu
  - Select **Start ▶ SIMATIC ▶ SIMATIC NCM PC Station Wizard**.





**The PC Station Wizard supports you in the following situations:**

- Changing local settings  
If the SIMATIC NCM PC configuration tool is installed on the destination PC station, the wizard can compare the configuration data with the planned configuration data that already exist. The communications parameters can then be edited in the project directly.
- Editing a saved configuration  
Open an existing project and compare the local configuration with the information in the project.  
In contrast to the “Change Local Settings” function, the configuration edited here is independent of an existing local configuration.
- Creating a new configuration  
Create a new project and enter the local configuration in the project.
- Starting the Station Configuration Editor  
When working offline, this option make use of an XDB file (configuration station and PC station are not connected – see Section 2.2).

## 2.7 Station Configuration Editor

### Purpose

The Station Configuration Editor is the central management entity for the components of the PC station.

Components are the modules and communications tasks of active applications.

The Station Configuration Editor can also be used for diagnostic purposes.

### Modes

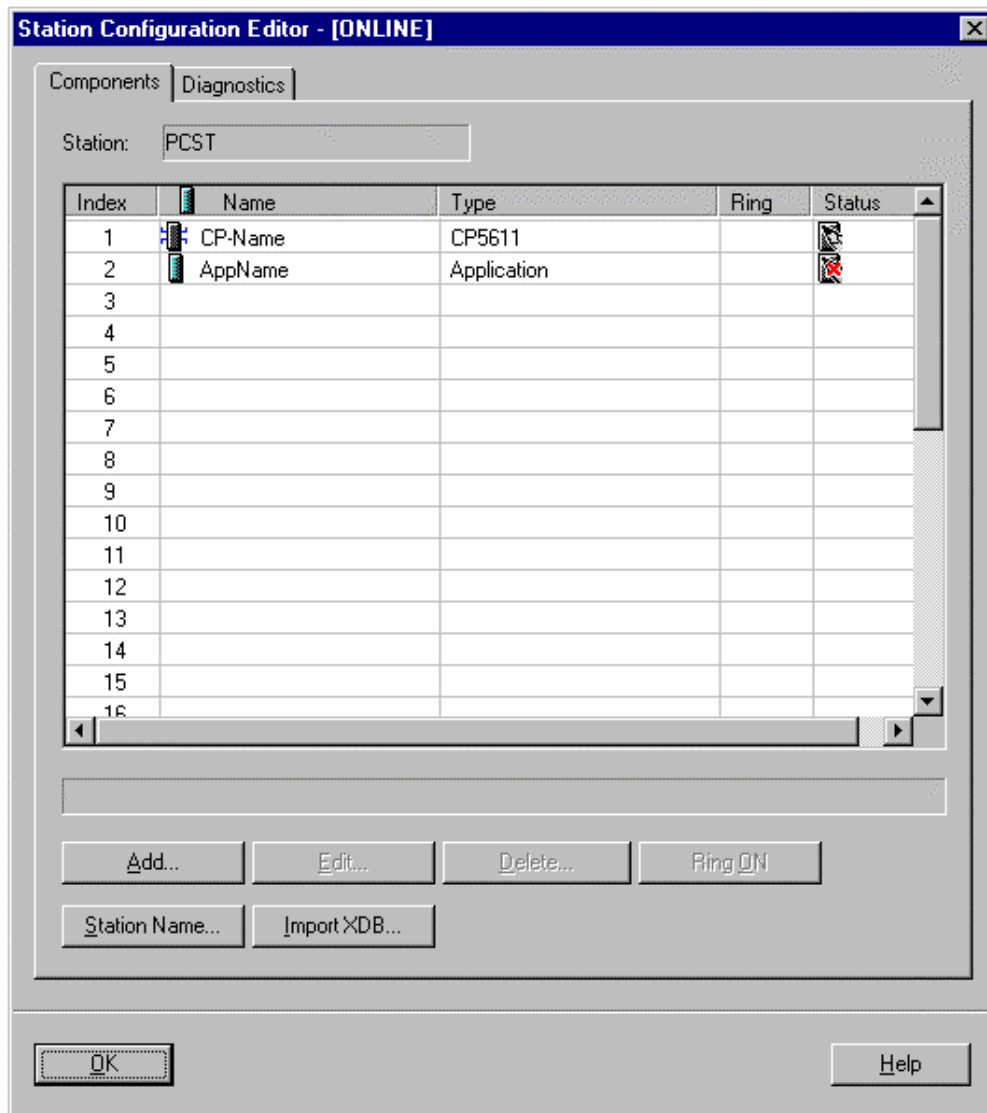
You can use the Station Configuration Editor for the local PC station or for a PC accessible over the network.

### How to Start the Station Configuration Editor



The Station Configuration Editor is always available and started on the PC station on which you have installed the PC-CD. You can bring it to the foreground by clicking the icon shown here in the taskbar of the Windows desktop.

## 2.7.1 Managing Components: “Components Tab”



### Notice

The components in the configuration list you can edit here must be entered in exactly the same order as in the component image you created in SIMATIC NCM PC with HW Config. If the configurations differ, the configuration data that you download to the PC station from SIMATIC NCM PC will not be adopted correctly.

## Creating a Component Configuration

- Automatic configuration using wizards

In the simplest situation, you use the Commissioning Wizard and the PC Station Wizard to configure your PC station. In this case, the component configuration is acquired automatically. You then simply call the configuration editor described here to check the configuration or to run diagnostic checks.

- “Controlled” configuration
  1. First assign a name for the station by clicking the Station button. The name must match the name you assigned to the PC station when you configured the communications with SIMATIC NCM PC.
  2. If you want the PC station to be accessible on the network, select the station by clicking the Host button.
  3. Create the individual components for your PC station by clicking the Add button.

The status display constantly informs you whether the component you have created matches the current hardware configuration and whether it matches any configuration that has already been downloaded.

---

### Note

You will find more information on the meaning of the display boxes and the buttons in the integrated help system.

---

## Importing an XDB File

The communication configuration data are either downloaded directly to the PC station or imported using an XDB file (see Section 2.4).

When required, the XDB file can be imported using the relevant button in the Station Configuration Editor.

You can only import an XDB file when the configuration is an exact match.

## Checking the Accessibility of the Module – “Ring” Function

Once you have finished configuring, you can check the accessibility of the modules, by clicking the “Ring” button. If the module supports this function, you will see an indicator respond on the module.

## 2.7.2 “Diagnostics” Tab

### How It Works

The Station Configuration Editor manages a diagnostic buffer in which the PC station components (hardware and software) enter event information.

You can use this list to analyze configuration or communication problems.

---

#### Note

You will find more information on the meaning of the display boxes and the buttons in the integrated help system.

---



## 3 Configuring the OPC Server

### OPC Server

With the SIMATIC NET OPC Server described here, SIMATIC NET offers you a convenient tool with which your PC applications can write and read process data and receive notification of process events.

By creating a configuration, you can specify the behavior of the OPC Server. You then download the configuration data to the PC station with NCM PC.

This chapter describes the options available to you when configuring the OPC Server with the NCM PC configuration tool.

### Where to Find Further Information

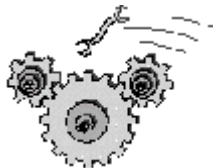
- Creating PC stations and configuring connections:

Please read Section 2.3 in this manual.

- Using the interface to the OPC Server in PC applications:

How you address the OPC Server in your PC application and how the PC application reacts to the behavior of the OPC Server is not described in this documentation.

For more information on this topic, please read the detailed OPC documentation provided by SIMATIC NET. You will find information on the basic aspects of the OPC indicated by the graphic shown below:



Grundlagen der OPC-Schnittstelle

## 3.1 Significance of Configuration

### The OPC Server Application Type

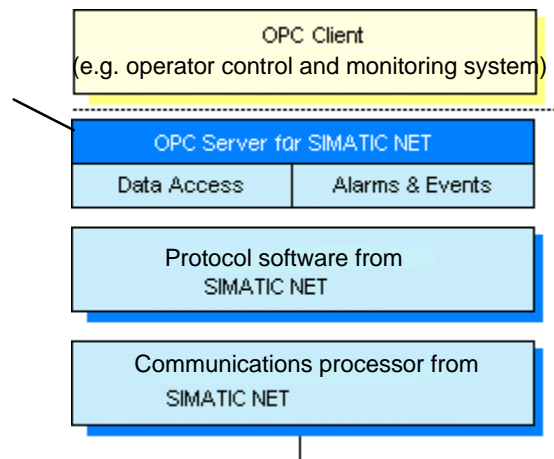
The OPC Server can be configured as an interface to all available communication protocols. You can create this object only once in a PC station.

You can then use this OPC Server for communication with any number of user programs (OPC clients).

### What Can be Configured?

You can configure the following:

- Protocol and service-dependent properties
- Properties for specific connections



### Standard Situation: Using the default settings

In the simplest case (in other words, the standard situation), you simply need to create the OPC Server in the PC station. You must also create the communications modules used in the station and configure communication connections.

The steps are described in detail in Section 2.3 Configuring with SIMATIC NCM PC.

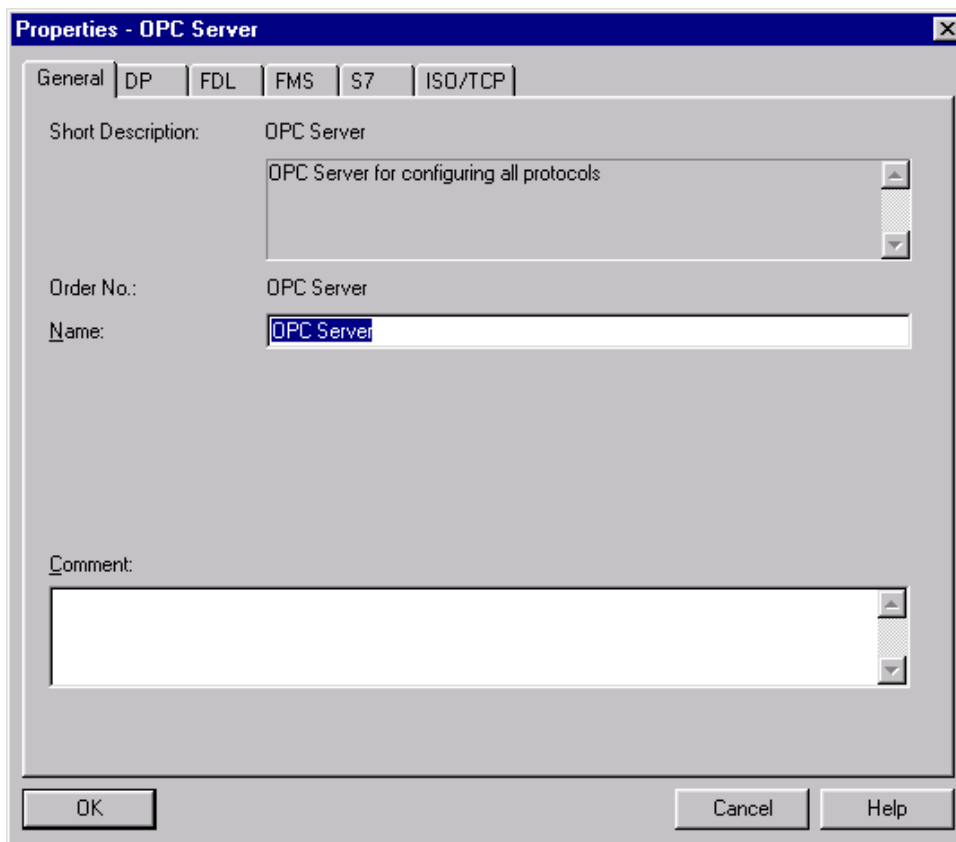
If you use the PC Station Wizard, you will be able to put your PC station into operation both quickly and simply.

### Using default settings or configured parameters

The parameters you can set with NCM PC all have default settings so that in most cases problem-free communication is possible.

## 3.2 Configuring the Properties of the OPC Server

To check the properties of the OPC Server or to modify parameters, open the Properties dialog of the OPC Server object.



The "General" tab contains the formal parameters for identifying the OPC Server. In the other tabs, you can make parameter settings for the OPC server related to the specific protocols.

These parameters are independent of the communication connections or a DP master system that you configure separately.

The table below provides you with an overview of the possible parameter settings depending on the protocol or service type.



Table 3-1

Parameter / Function	Possible Settings / Significance	Can be set for a specific protocol				
		DP	FDL (SEND/RECEIVE)	FMS	S7	ISO/TCP (SEND/RECEIVE)
Scan cycle time	Here, you make the settings to control updating by the OPC Server. The scan cycle time decides how often the OPC server updates the values of the OPC items.	x	x	x	x	x
Access protection	You can specify the access rights to individual variables or variable groups for each specific protocol. You can, for example, prevent variables calculated internally by the controller from being overwritten. As default, no access protection is activated.	x	x	x	x	x
VFD	VFD (Virtual Field Device) is the neutral description of a device used in FMS. Communication connections (FMS connections) are then configured for the VFDs. Here, you inform the OPC server of the required VFDs. During configuration, you then assign the VFD to the FMS connection. When accessing variables in the PC application, you also reference the VFD. Extra function: creating the object dictionary Here, you can also create the object dictionary (OD) belonging to a VFD. The FMS variables (name and structure) are defined in the object dictionary.			x		
Connection parameters	Here, you can make the settings required for communication for services that do not require specific connection configuration.				x	
Segmentation	Special settings for providing the data buffers independent of specific connections.					x

Please note that the parameters are described in detail in the online help for each individual dialog in NCM PC.

### 3.3 Configuring Connection Properties for the OPC Server

When using OPC, communication connections are established and managed by the OPC Server. As a result, you create the communication connections only for the “OPC Server” application.

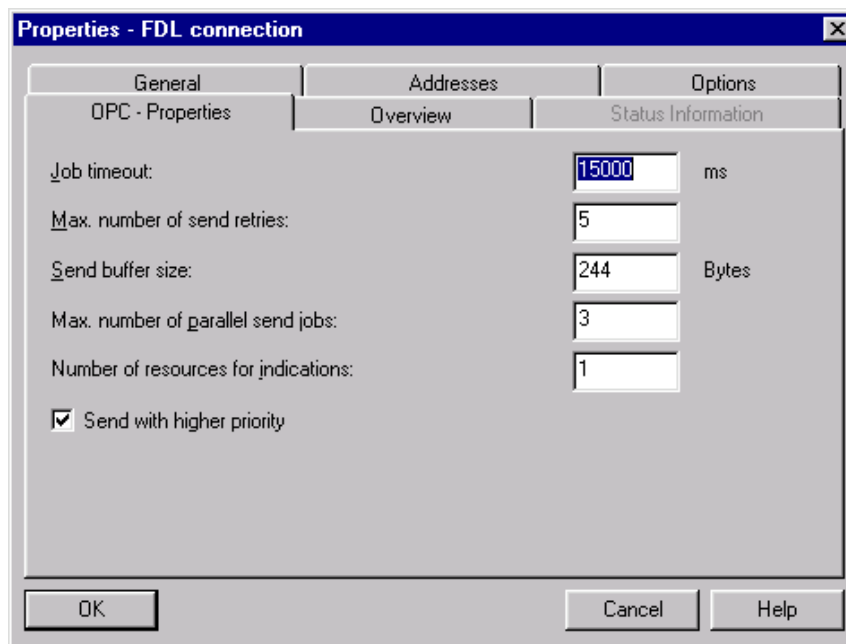
How to create a connection for PC applications is described in Section 2.3.5.

If a connection is created for the OPC Server, the properties dialog for the connection includes an additional tab, “OPC – Properties”.

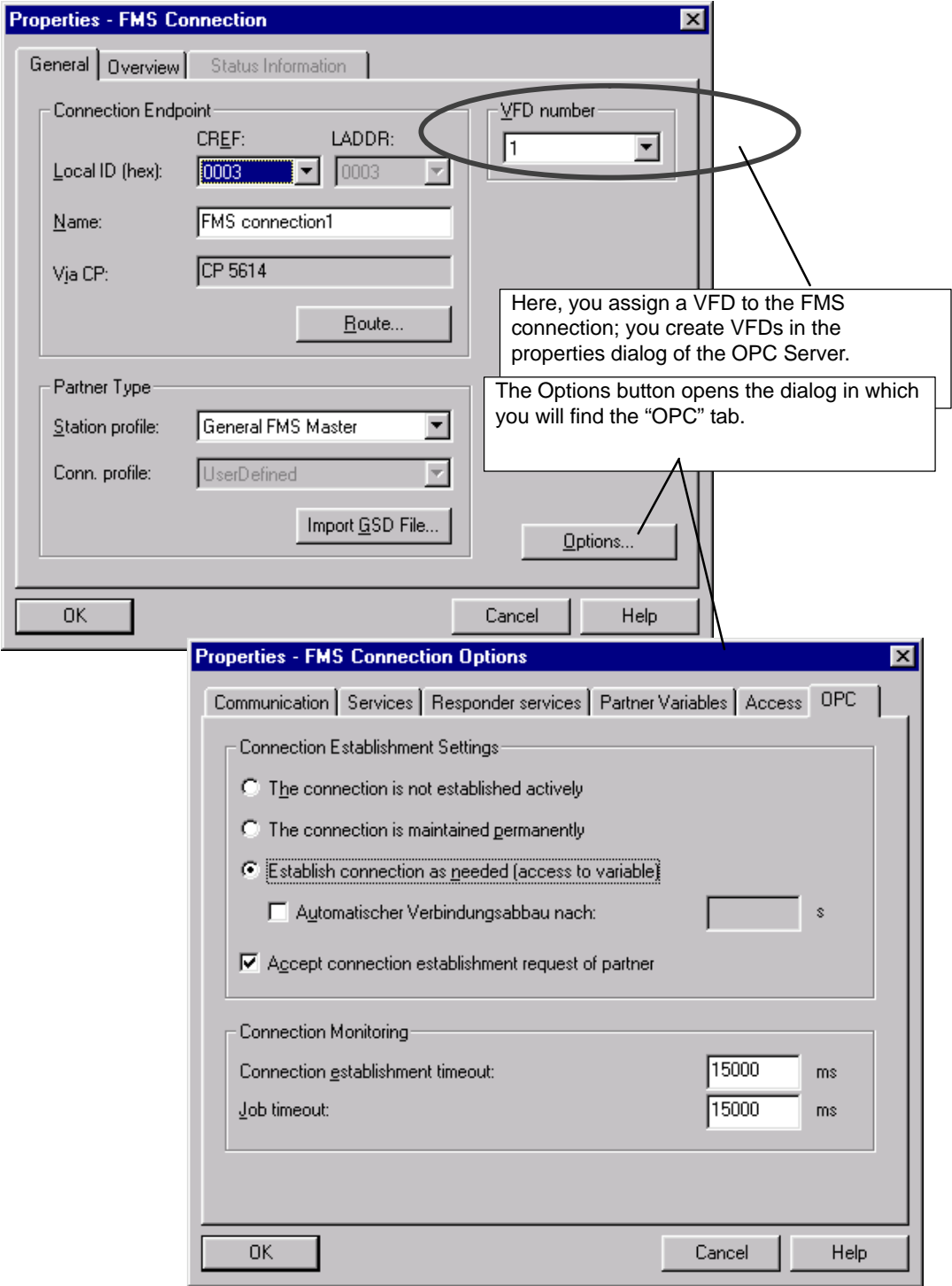
The dialogs shown below for the various protocols provide you with an overview of the possible settings; in these examples, the parameters have their default settings.

Please note that the parameters are described in detail in the online help for each individual dialog in NCM PC.

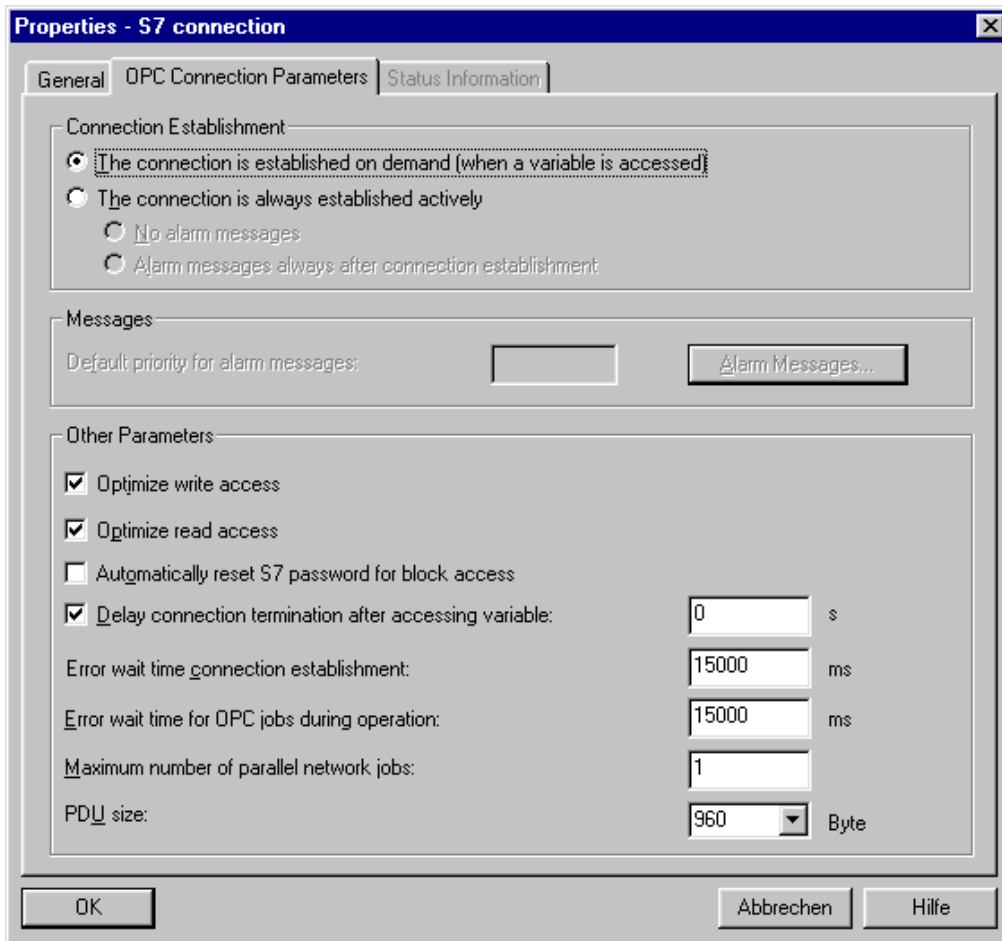
#### FDL Connection (SEND/RECEIVE Interface)



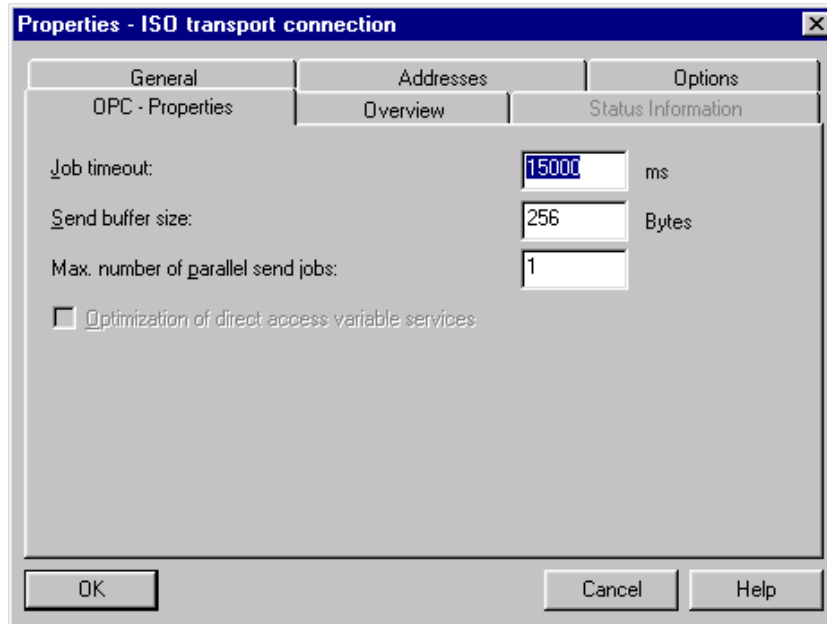
### FMS Connection



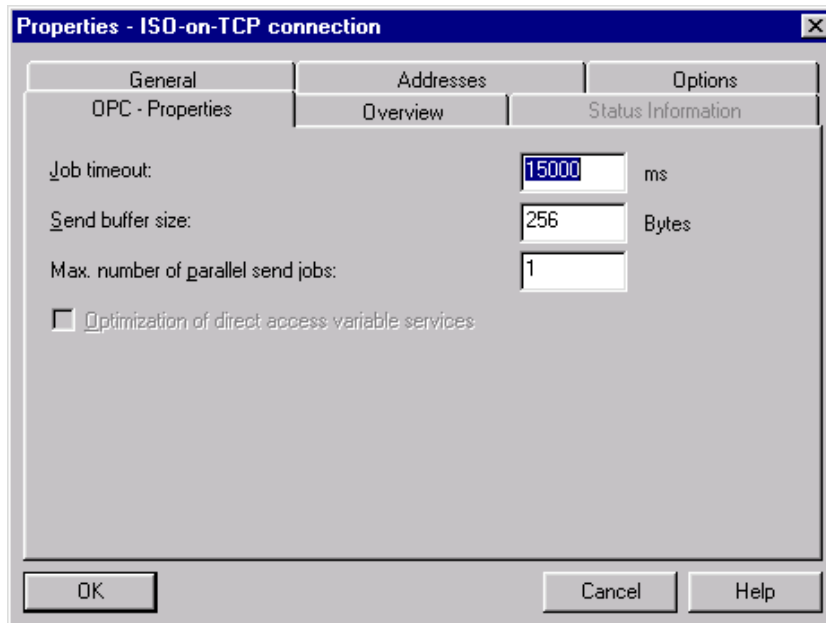
## S7 Connection (S7 Communication)



### ISO Transport Connection (SEND/RECEIVE Interface)



### ISO-on-TCP Connection (SEND/RECEIVE Interface)



□

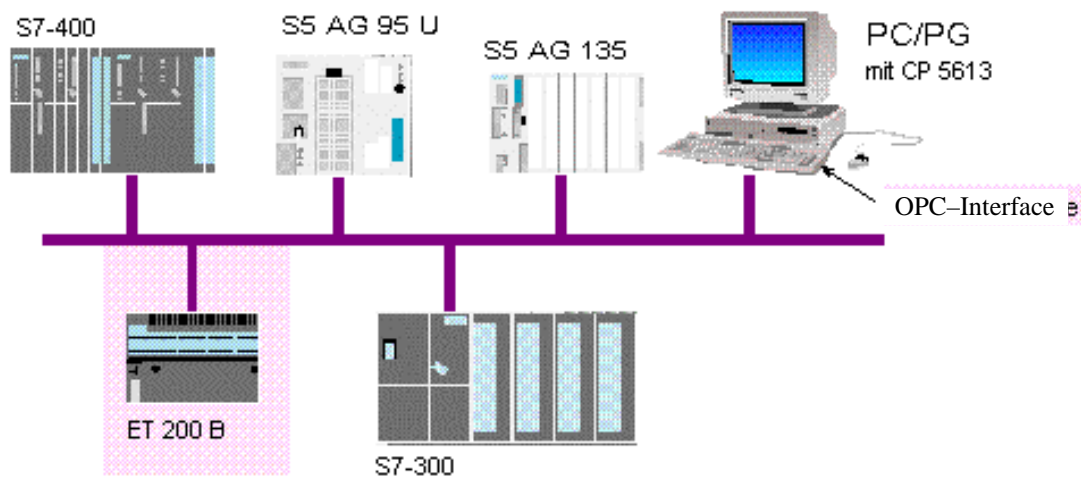
## 4 Quick Start for the OPC Application for PROFIBUS-DP

### 4.1 Example of a PROFIBUS Configuration

#### How does a communication system with PROFIBUS appear?

Below, you will find an example of a communication system using PROFIBUS.

Typical communication partners are attached to the PROFIBUS network and they can be reached over the OPC Server.



Example of a PROFIBUS Configuration

Communication takes place between two devices or modules. Communication with an ET 200 B is described in detail.

## 4.2 Quick Start for PROFIBUS Communication with OPC

### Introduction

This example illustrates how you can connect an ET 200 B DP slave with a CP 5613 in a PC station over PROFIBUS-DP.

This section describes the programs used for configuring a PC station and a DP slave. You will also see how to use the OPC Scout program for communication with the OPC Server.

### Requirements

If you want to try out the example yourself, you require the following:

- a PC
- a communication module for PROFIBUS (CP 5613)
- the SIMATIC NET CD 07/2001 software
- an ET 200 B DP slave
- PROFIBUS cabling between the PC module and ET 200 device

## 4.2.1 Hardware and Software Installation

### Installing the Software

	Activity
1.	Turn on the PC and start Windows.
2.	Insert the SIMATIC NET 07/2001 CD. If the installation program does not start the CD automatically, start the Setup.exe program on the CD.
3.	Follow the on-screen instructions of the installation program. Install the SIMATIC NET software and SIMATIC NCM PC.

### Installing the CP 5613

	Activity
1.	Shut down the PC and turn it off.
2.	Disconnect the power cable.
3.	Read the instructions for installing cards in the manufacturer's instructions for your PC.
4.	Insert the CP 5613 module in a PCI slot.
5.	Reassemble the PC as described in the instructions of the PC manufacturer and reconnect the power cable.

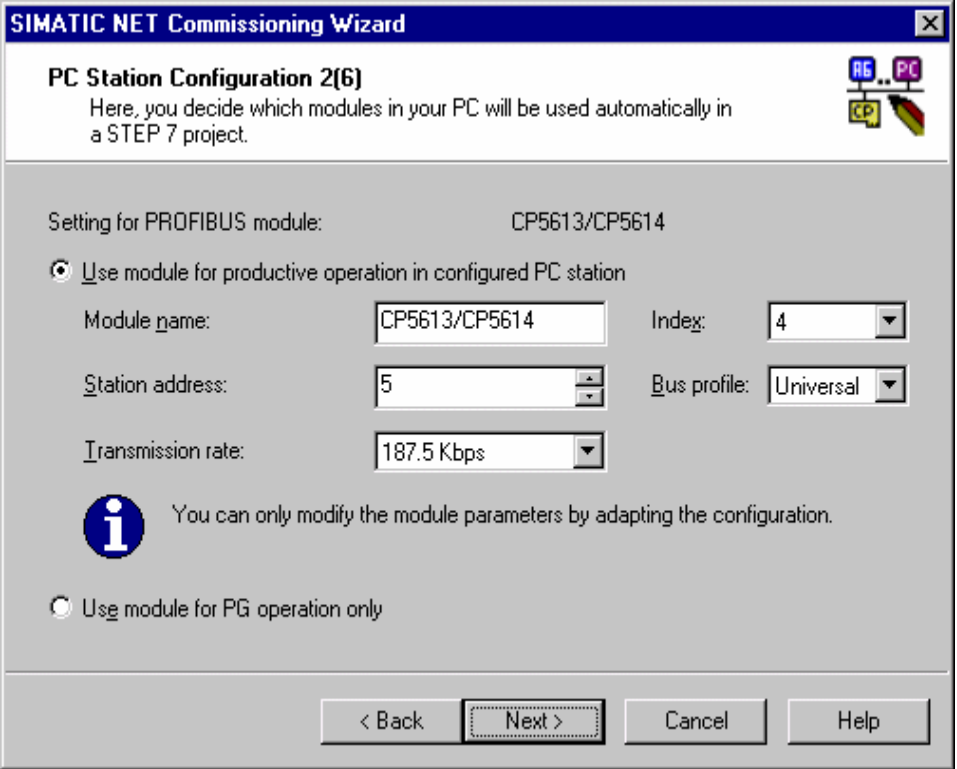
### Attaching to the Network

	Activity
1.	Connect the PROFIBUS cable to the CP 5613.
2.	Connect the DP slave to the PROFIBUS cable.
3.	Check the terminators on the connectors. The terminators at both ends of the cable must be activated ("On").



## 4.2.2 Configuring the PC Station

### Basic Configuration of the Installed Module

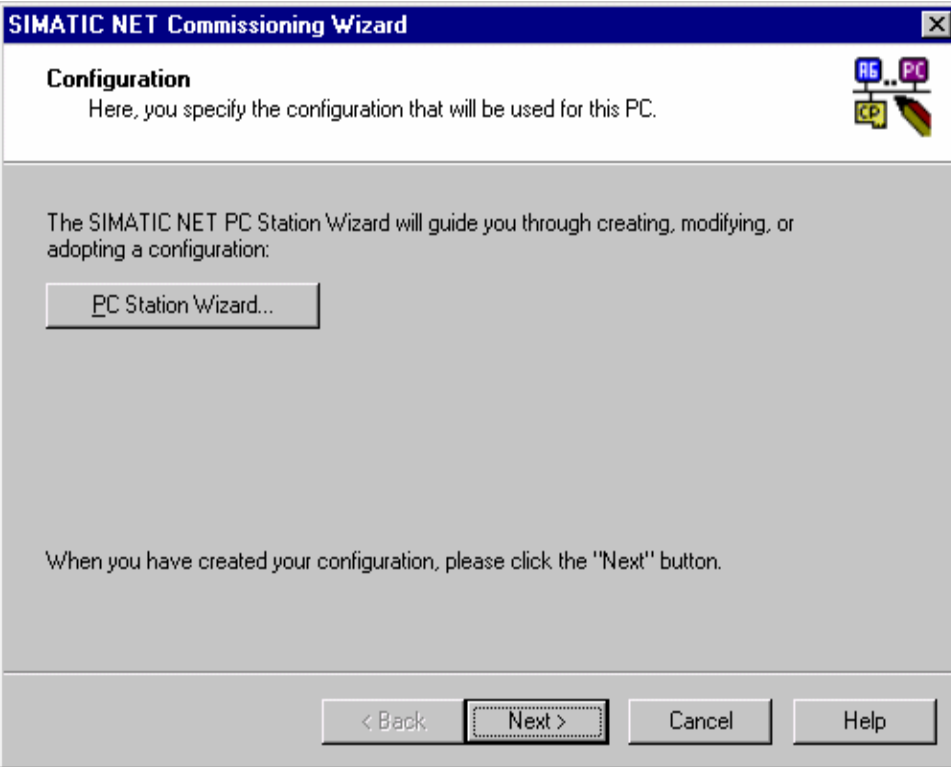
	Activity
1.	The welcome page of the Commissioning Wizard opens. Click “Next”.
2.	
3.	Leave the defaults as they are and click “Next”.
4.	On the next page, confirm the configuration of the modules by clicking “Next”. This saves the configuration and you can no longer go back.

You have now made the following settings in the dialog:

- The module will be used for productive communication with the DP protocol. This requires a configuration that will be created with SIMATIC NCM PC or STEP 7.
- The module will be initialized with the PROFIBUS address 5. This means that it would be possible to download to the PC station over PROFIBUS from an engineering station with SIMATIC NCM PC or STEP 7. In this example, SIMATIC NCM PC is installed locally and a download over the network is not necessary.
- Index 4 is the identification number for internal addressing of the module within the PC station. Each configured component of a PC station has a unique index. During configuration, the index can be set using SIMATIC STEP 7/HW Config.

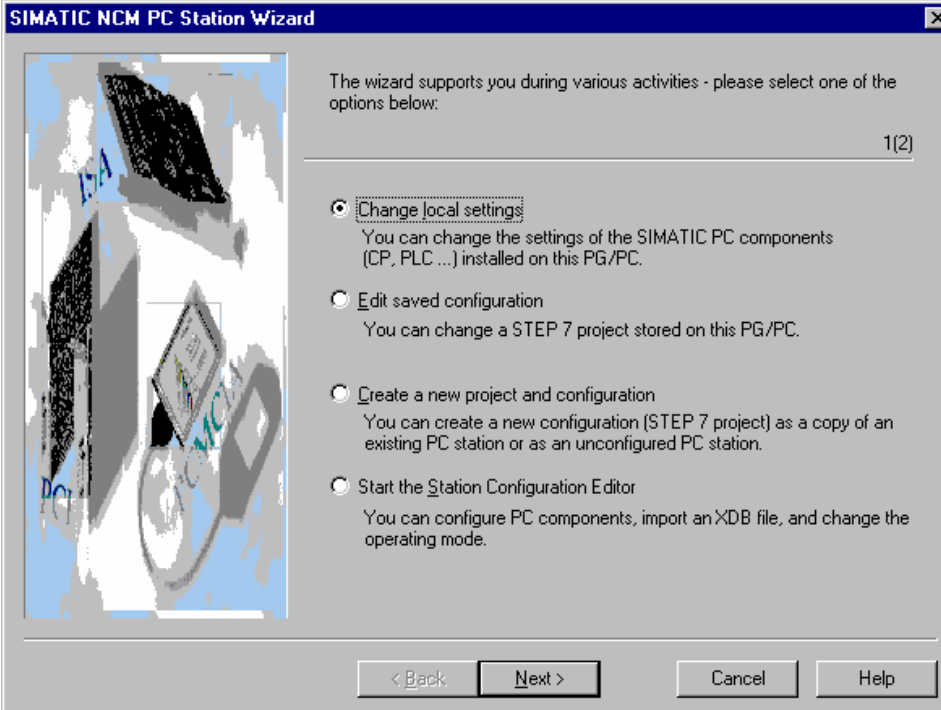
### 4.2.3 STEP 7 – Starting the PC Station Wizard

#### Specifying the Configuration

	Activity
1.	
2.	<p>Only click the “Next” button in the Commissioning Wizard dialog when you have completed the configuration.</p>

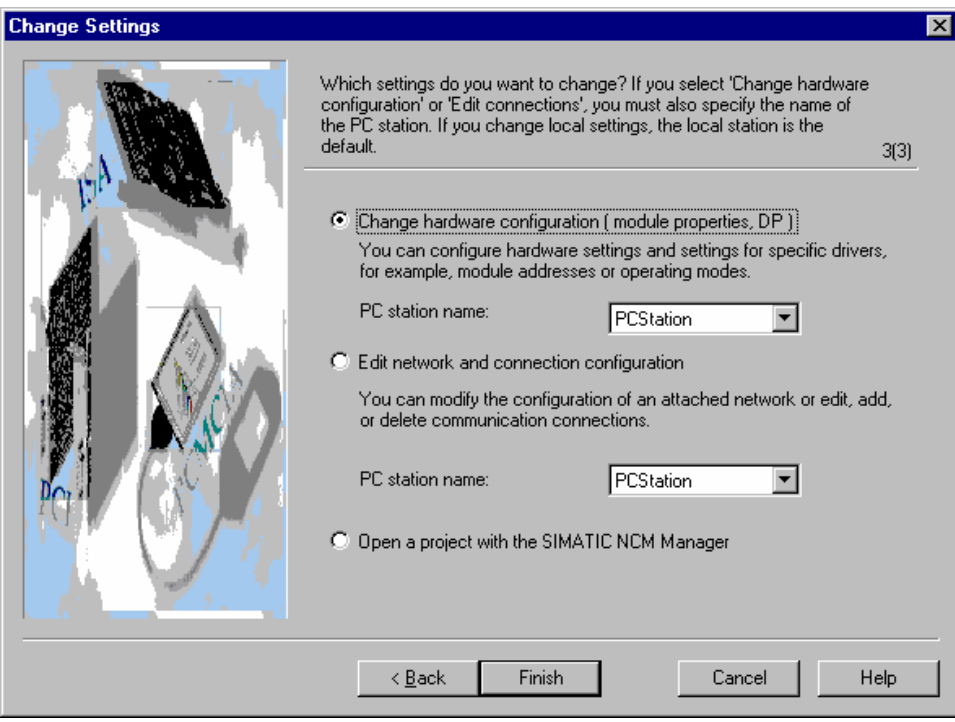
## 4.2.4 STEP 7 – PC Station Wizard: Selecting the Editing Mode

### Changing Settings

	Activity
1.	 <p>The wizard supports you during various activities - please select one of the options below:</p> <p>1(2)</p> <ul style="list-style-type: none"> <li><input checked="" type="radio"/> <b>C</b>hange local settings You can change the settings of the SIMATIC PC components (CP, PLC ...) installed on this PG/PC.</li> <li><input type="radio"/> <b>E</b>dit saved configuration You can change a STEP 7 project stored on this PG/PC.</li> <li><input type="radio"/> <b>C</b>reate a new project and configuration You can create a new configuration (STEP 7 project) as a copy of an existing PC station or as an unconfigured PC station.</li> <li><input type="radio"/> <b>S</b>tart the Station Configuration Editor You can configure PC components, import an XDB file, and change the operating mode.</li> </ul> <p>&lt; Back   Next &gt;   Cancel   Help</p>
2.	Click the "Next" button.

## 4.2.5 STEP 7 – PC Station Wizard: Changing Settings

### Changing the Hardware and Driver Configuration

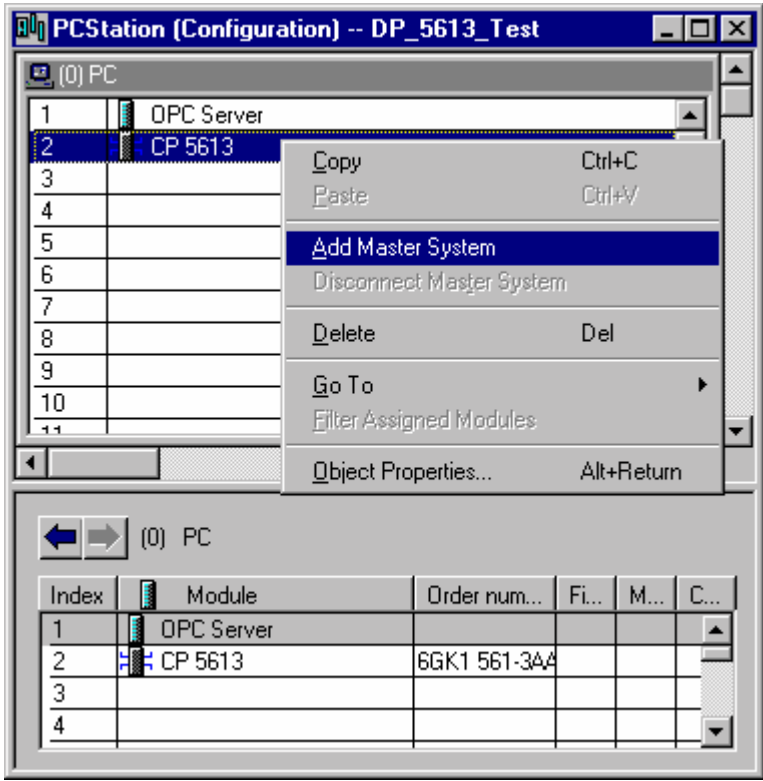
	Activity
1.	
2.	Click the “Finish” button. This starts HW Config of SIMATIC STEP 7.

## 4.2.6 HW Config: Inserting a DP Master System

### CP 5613 as DP Master

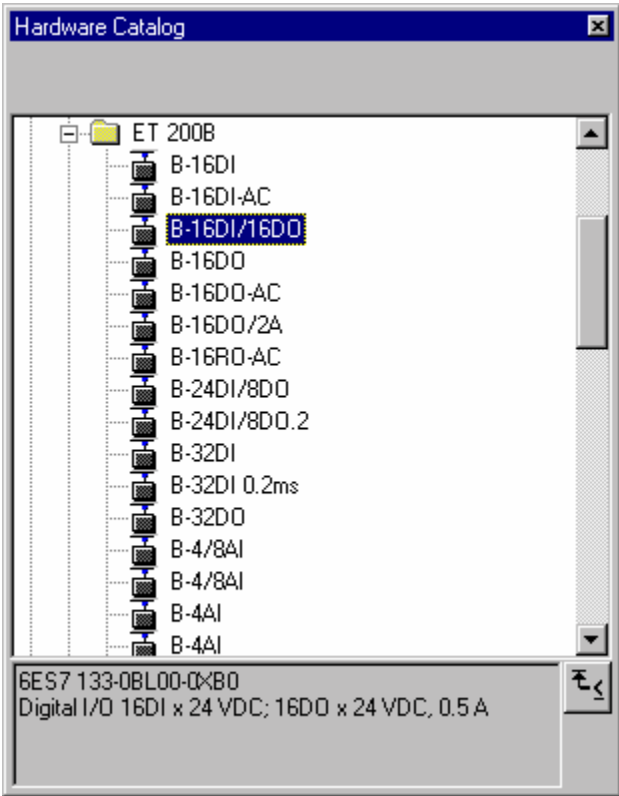
In the STEP 7 project created by the wizard, a SIMATIC PC station was created automatically as an image of the local PC. This PC station already includes the OPC server as the basic component for productive communication and the CP 5613.

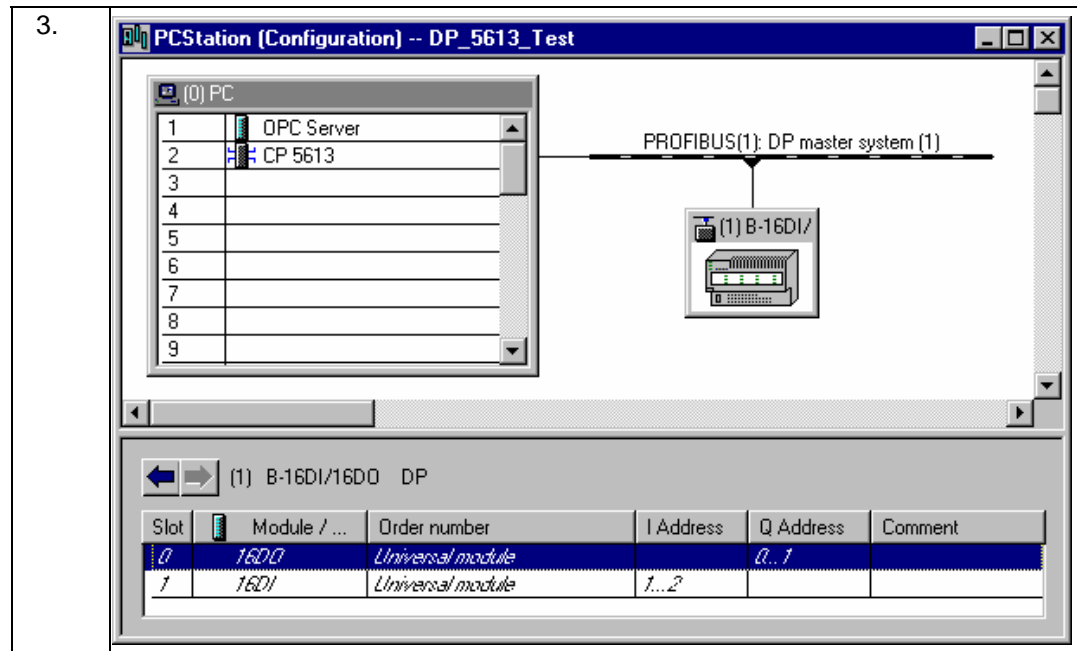
You require a DP master system so that you can assign DP slaves. For the DP mode, a DP master system must therefore be added to the CP 5613:

	Activity																														
1.	 <table border="1" data-bbox="609 1333 1315 1501"> <thead> <tr> <th>Index</th> <th>Module</th> <th>Order num...</th> <th>Fi...</th> <th>M...</th> <th>C...</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OPC Server</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>CP 5613</td> <td>6GK1 561-3AA</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Index	Module	Order num...	Fi...	M...	C...	1	OPC Server					2	CP 5613	6GK1 561-3AA				3						4					
Index	Module	Order num...	Fi...	M...	C...																										
1	OPC Server																														
2	CP 5613	6GK1 561-3AA																													
3																															
4																															
2.	Select the "Insert DP Master System" menu command.																														

## 4.2.7 HW Config: Inserting a DP Slave

### ET 200B as DP Slave

	Activity
1.	Open the catalog in the right-hand half of the window if it is not already open. You open the catalog by clicking on the following button:
2.	



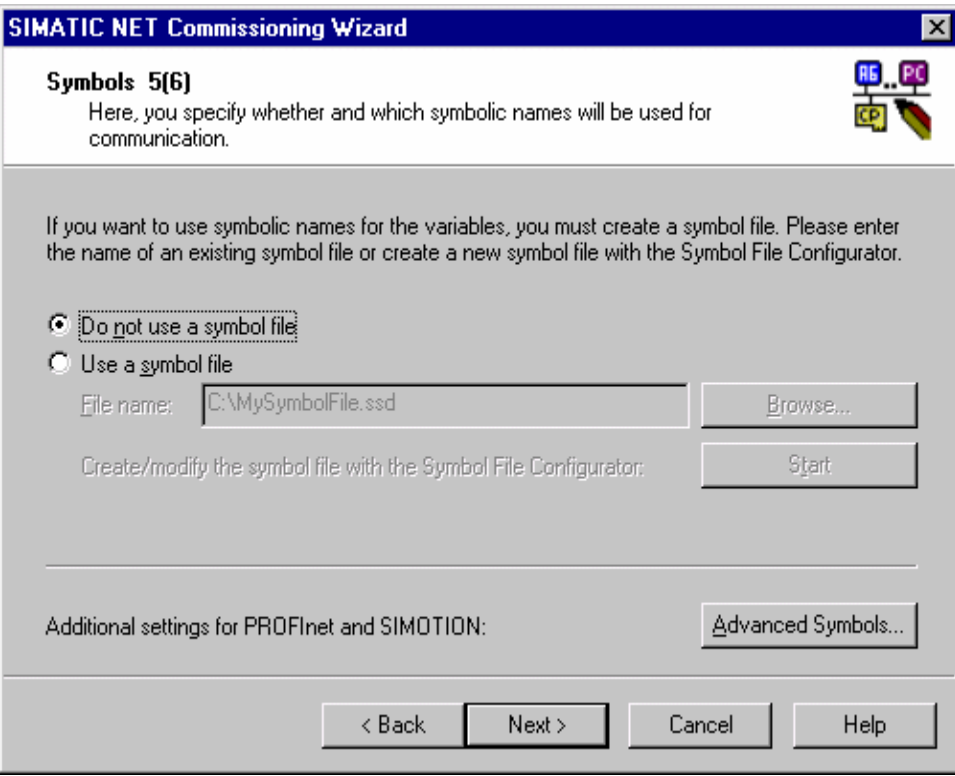
#### 4.2.8 HW Config: Downloading the Configuration

##### Finishing configuration and returning to the Commissioning Wizard

	Activity
1.	
2.	
3.	Close HW Config.
4.	Activate the Commissioning Wizard dialog box and click the "Next" button.

## 4.2.9 STEP 7 – Commissioning Wizard: Specifying the Use of Symbol Files

### Completing Commissioning

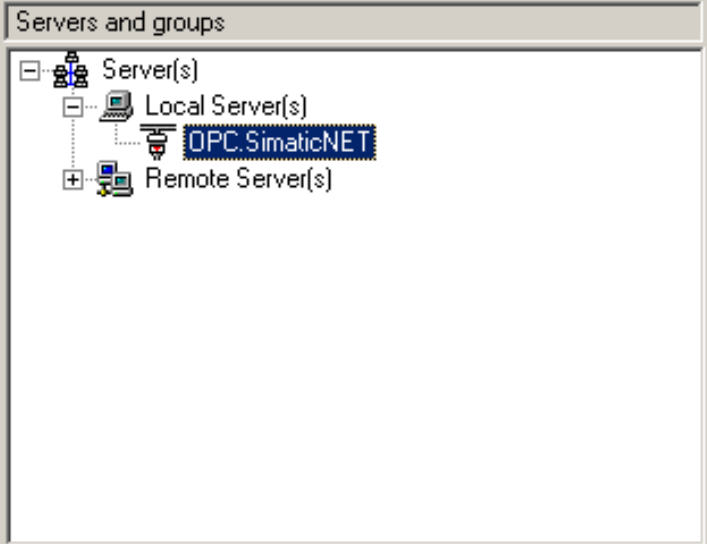
	Activity
1.	
2.	Click the “Next” button.
3.	The last dialog box of the Commissioning Wizard appears. Click the “Finish” button to complete your work with the wizard.

## 4.2.10 OPC Scout: Establishing a Connection to the OPC Server

### The OPC Scout as Client for Commissioning and Testing

You can now access the objects of the programmable controller with any OPC client. The OPC Scout ships with this product as the tool for commissioning and testing. Follow the steps outlined below to set the values of the variables of the DP slave using the OPC Scout:

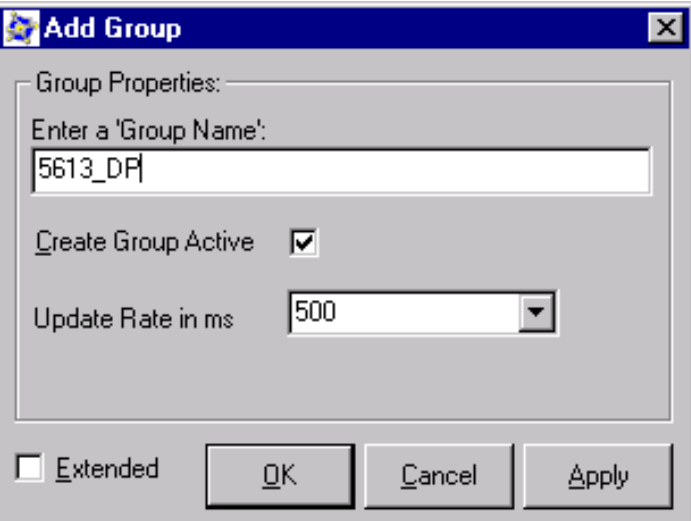
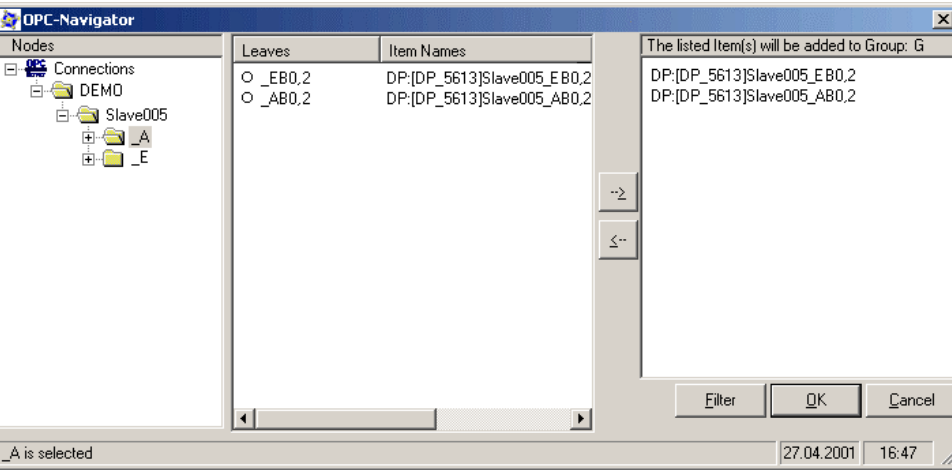


	<b>Activity</b>
1.	Start the OPC Scout in the Start menu: Start > SIMATIC > SIMATIC NET > PROFIBUS > CP5613_CP5614 > OPC Scout
2.	

#### 4.2.11 OPC Scout: Inserting a Group and Variables

##### Organizing Process Variables

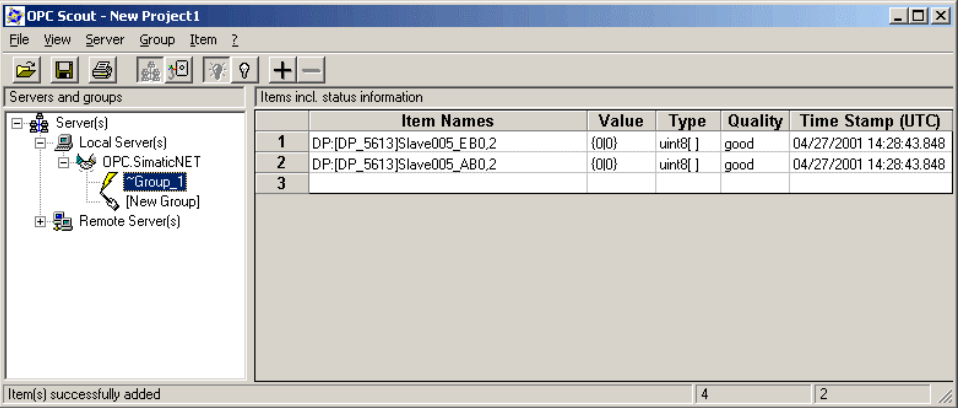
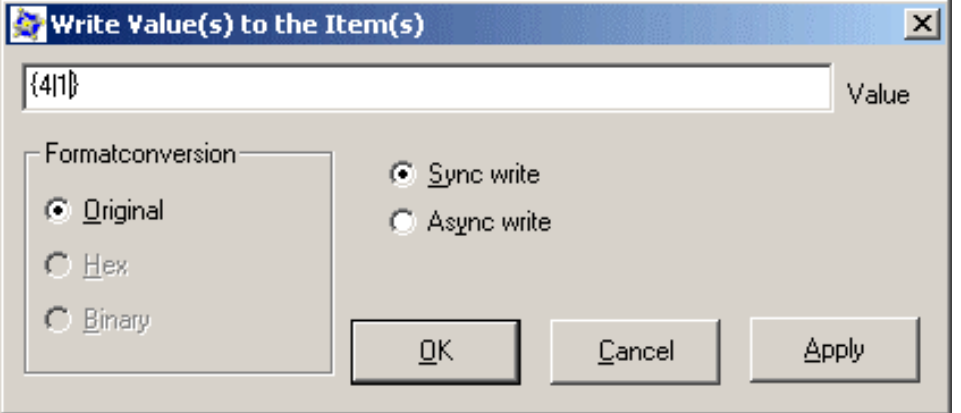
The process variables of the OPC Server (known as OPC items) are assigned to groups. You therefore require an OPC group before you can insert OPC variables. Follow the steps outlined below to create a group and add items to it:

	Activity
1.	
2.	<p>Double-click on the group entry “5613_DP” to open the OPC Browser. In the left-hand pane, you will see the hierarchically arranged name space of the OPC variables.</p>
3.	
4.	<p>Select the following OPC items from the appropriate branches in the left-hand window and transfer these variables to the right-hand pane by clicking on the arrow button. The structure displayed and the variable names depend on the names specified in the STEP 7 program.</p> <p>DP:[CP_5613]Slave005IB0,2  DP:[CP_5613]Slave005QB0,2</p> <p>The items are added to the group after you confirm the dialog with OK.</p>



## 4.2.12 OPC Scout: Displaying and Modifying Values of Variables

### Executing Synchronous and Asynchronous Write Jobs

	Activity																								
1.	 <table border="1" data-bbox="734 575 1430 659"> <thead> <tr> <th></th> <th>Item Names</th> <th>Value</th> <th>Type</th> <th>Quality</th> <th>Time Stamp (UTC)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DP:[DP_5613]Slave005_EB0,2</td> <td>{0 0}</td> <td>uint8[ ]</td> <td>good</td> <td>04/27/2001 14:28:43.848</td> </tr> <tr> <td>2</td> <td>DP:[DP_5613]Slave005_AB0,2</td> <td>{0 0}</td> <td>uint8[ ]</td> <td>good</td> <td>04/27/2001 14:28:43.848</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Item Names	Value	Type	Quality	Time Stamp (UTC)	1	DP:[DP_5613]Slave005_EB0,2	{0 0}	uint8[ ]	good	04/27/2001 14:28:43.848	2	DP:[DP_5613]Slave005_AB0,2	{0 0}	uint8[ ]	good	04/27/2001 14:28:43.848	3					
	Item Names	Value	Type	Quality	Time Stamp (UTC)																				
1	DP:[DP_5613]Slave005_EB0,2	{0 0}	uint8[ ]	good	04/27/2001 14:28:43.848																				
2	DP:[DP_5613]Slave005_AB0,2	{0 0}	uint8[ ]	good	04/27/2001 14:28:43.848																				
3																									
2.	<p>Now double-click on the “Value” cell of the output byte with the content {0 0} (first table row). A dialog opens in which you can change the value of a variable.</p>																								
3.																									
4.	<p>Click the “OK” button to start the write job.</p>																								



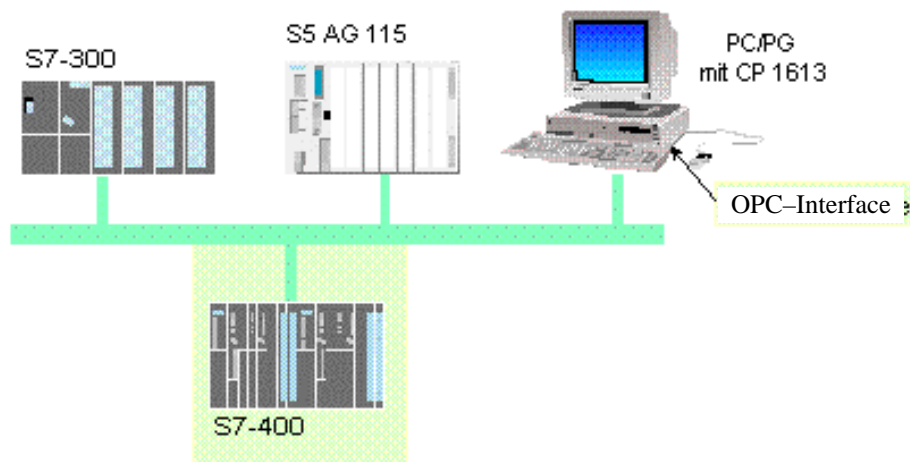
## 5 Quick Start for the OPC Application for Industrial Ethernet

### 5.1 Example of an Industrial Ethernet Configuration

#### How does a communication system with Industrial Ethernet appear?

Below, you will find an example of a communication system using Industrial Ethernet.

Typical communication partners are attached to Industrial Ethernet and they can be reached over the OPC Server.



Example of an Industrial Ethernet Configuration

Communication takes place between two devices or modules. Communication with an S7-400 station using the S7 protocol (SEND/RECEIVE interface ) is described in detail below.

## 5.2 Quick Start for Industrial Ethernet Communication with OPC

### Introduction

This example illustrates how you can connect an S7-400 programmable controller with a PC station over Industrial Ethernet.

This section describes the programs used for configuring a PC station for connecting to an S7-400. You will see how symbolic variables in the S7 program are made available in OPC. You will also see how to use the OPC Scout program that is supplied with the product for communication with the OPC Server.

### Requirements

If you want to try out the example yourself, you require the following:

- a PC
- a communication module for Industrial Ethernet (CP 1613)
- the SIMATIC NET CD 07/2001 software
- an S7-400 with a CP 443-1
- Industrial Ethernet cabling between the PC module and S7 device

For the S7-400, you require an STEP 7 project. In the project, you specify the hardware configuration and the programs and data blocks and define a symbol table.


In the example, you will expand your existing STEP 7 project by adding a PC station and will configure the connection between the PC station and the S7-400.

### 5.2.1 Hardware and Software Installation

#### Installing the Software

	Activity
1.	Turn on the PC and start Windows.
2.	Insert the SIMATIC NET 07/2001 CD. If the installation program does not start the CD automatically, start the Setup.exe program on the CD.
3.	Follow the on-screen instructions of the installation program.
4.	Once you have completed the installation, the Commissioning Wizard starts automatically.

### Installing the CP 1613




	Activity
1.	Shut down the PC and turn it off.
2.	Disconnect the power cable.
3.	Read the instructions for installing cards in the manufacturer's instructions for your PC.
4.	Insert the CP 1613 module in a PCI slot.
5.	Reassemble the PC as described in the instructions of the PC manufacturer and reconnect the power cable.

### Attaching to the Network

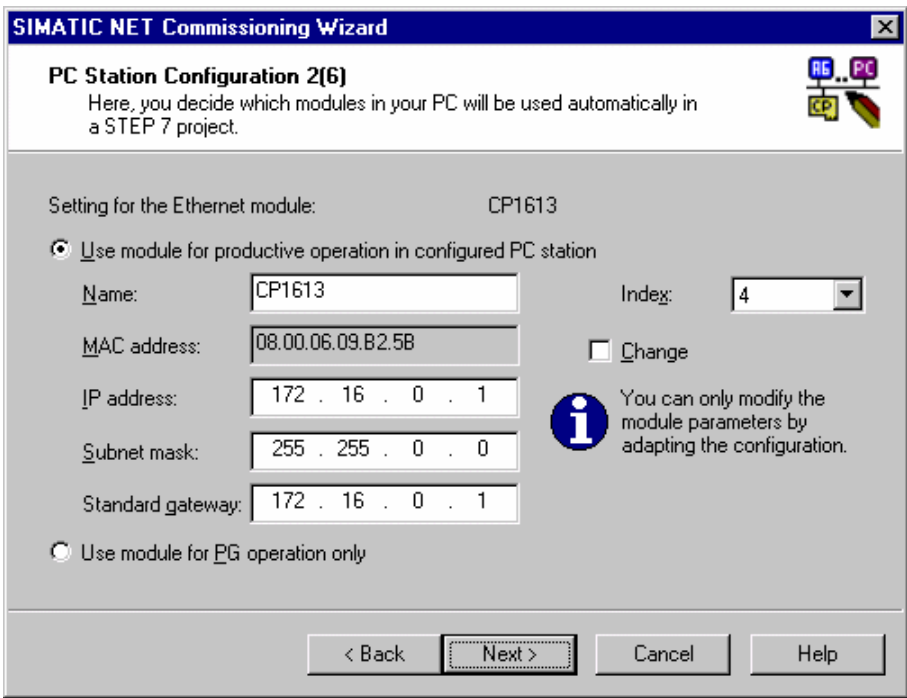
	Activity
1.	Connect the Ethernet cable to the CP 1613.
2.	Connect the S7-400 device to the network cable.

## 5.2.2 Configuring the PC Station

### Basic Configuration of the Installed Module



	Activity
1.	The welcome page of the Commissioning Wizard opens. Click "Next".

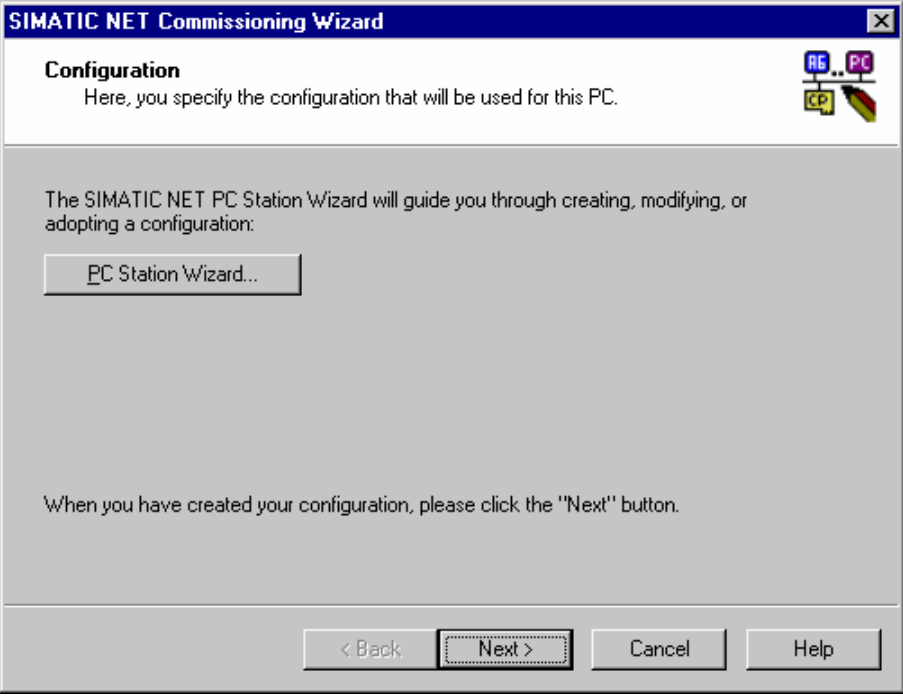
2	
3.	Leave the defaults as they are and click “Next”.
4.	On the next page, confirm the configuration of the modules by clicking “Next”. This saves the configuration and you can no longer go back.

You have now made the following settings in the dialog:

- The module will be used for productive communication. This requires a configuration that will be created with SIMATIC NCM PC or STEP 7.
- The module will be initialized with the MAC address “08.00.06.01.55.06”. This means that it would be possible to download to the PC station over Industrial Ethernet from an engineering station with SIMATIC NCM PC or STEP 7. In this example, SIMATIC NCM PC is installed locally and a download over the network is not necessary.
- Index 4 is the identification number for internal addressing of the module within the PC station. Each configured component of a PC station has a unique index. During configuration, the index can be set using SIMATIC STEP / HW Config.

### 5.2.3 STEP 7 – Starting the PC Station Wizard

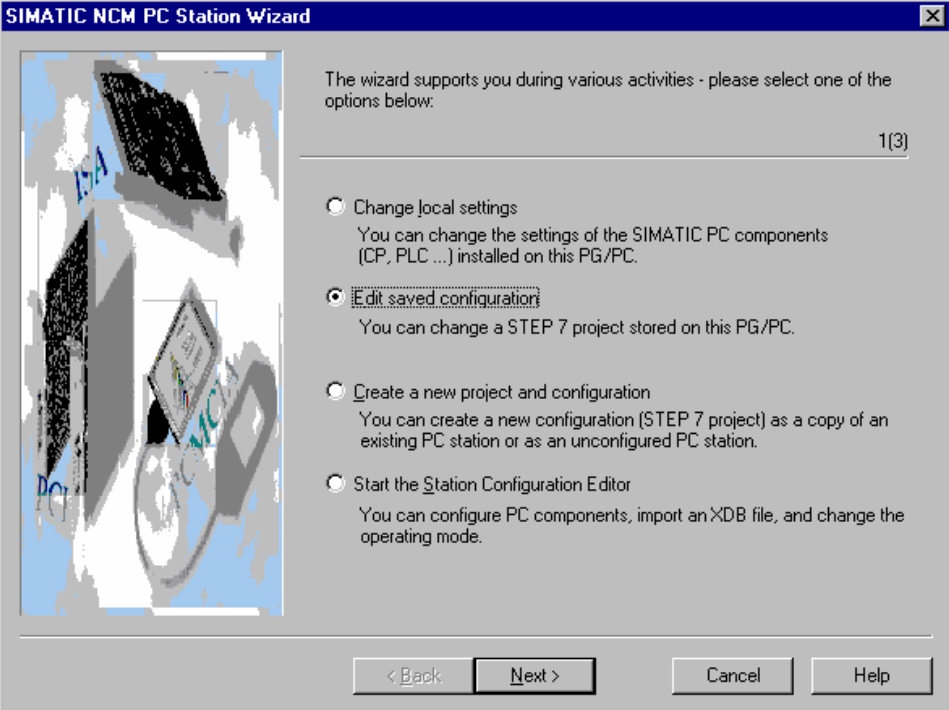
#### Specifying the Configuration

	Activity
1.	
2.	<p>Only click the “Next” button in the Commissioning Wizard dialog when you have completed the configuration.</p>



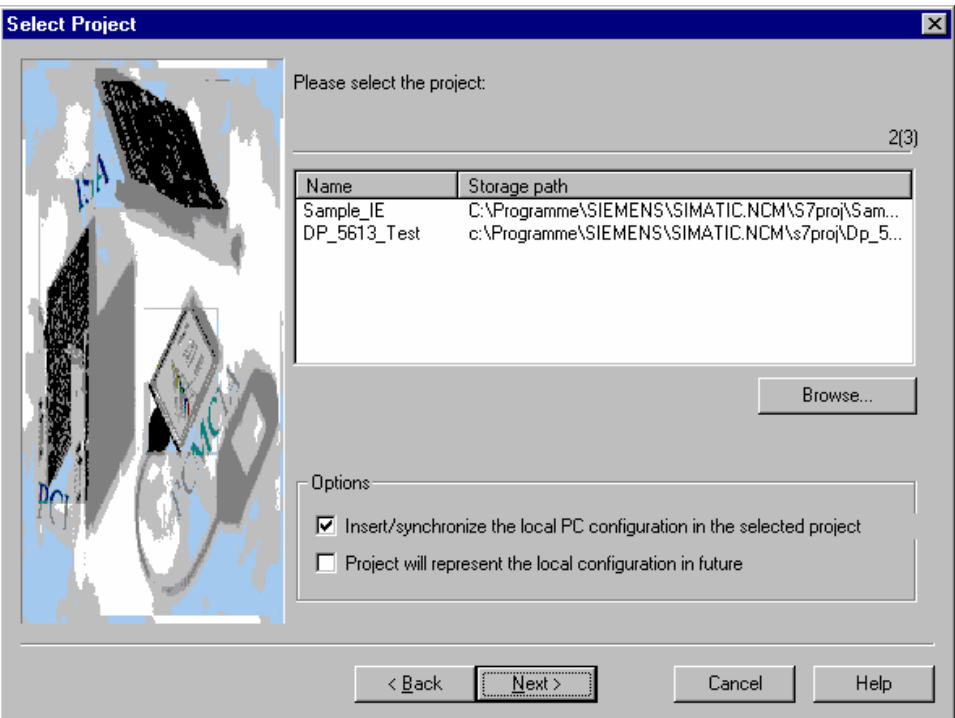
## 5.2.4 STEP 7 – PC Station Wizard: Selecting the Editing Mode

### Changing Settings

	Activity
1.	 <p>The wizard supports you during various activities - please select one of the options below:</p> <p>1(3)</p> <ul style="list-style-type: none"> <li><input type="radio"/> Change local settings You can change the settings of the SIMATIC PC components (CP, PLC ...) installed on this PG/PC.</li> <li><input checked="" type="radio"/> <u>E</u>dit saved configuration You can change a STEP 7 project stored on this PG/PC.</li> <li><input type="radio"/> <u>C</u>reate a new project and configuration You can create a new configuration (STEP 7 project) as a copy of an existing PC station or as an unconfigured PC station.</li> <li><input type="radio"/> Start the <u>S</u>tation Configuration Editor You can configure PC components, import an XDB file, and change the operating mode.</li> </ul> <p>&lt; Back    Next &gt;    Cancel    Help</p>
2.	Click the "Next" button.

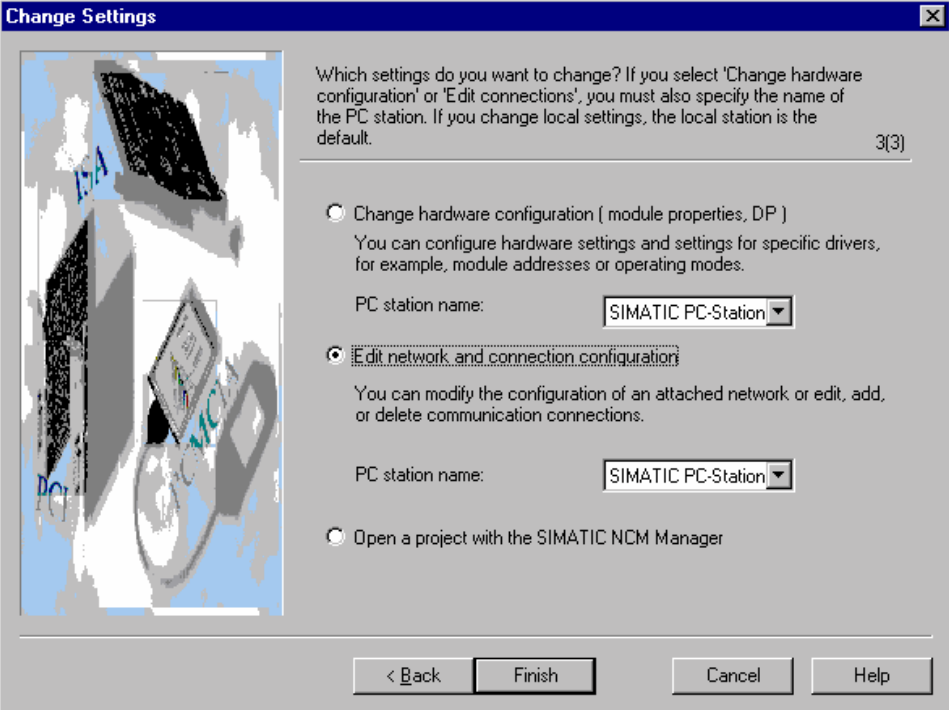
## 5.2.5 STEP 7 – PC Station Wizard: Opening the Project

### Creating a Copy of the Local PC Station

	Activity						
1.	 <p>Please select the project:</p> <p>2(3)</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Storage path</th> </tr> </thead> <tbody> <tr> <td>Sample_IE</td> <td>C:\Programme\SIEMENS\SIMATIC.NCM\S7proj\Sam...</td> </tr> <tr> <td>DP_5613_Test</td> <td>c:\Programme\SIEMENS\SIMATIC.NCM\s7proj\Dp_5...</td> </tr> </tbody> </table> <p>Browse...</p> <p>Options</p> <p><input checked="" type="checkbox"/> Insert/synchronize the local PC configuration in the selected project</p> <p><input type="checkbox"/> Project will represent the local configuration in future</p> <p>&lt; Back   Next &gt;   Cancel   Help</p>	Name	Storage path	Sample_IE	C:\Programme\SIEMENS\SIMATIC.NCM\S7proj\Sam...	DP_5613_Test	c:\Programme\SIEMENS\SIMATIC.NCM\s7proj\Dp_5...
Name	Storage path						
Sample_IE	C:\Programme\SIEMENS\SIMATIC.NCM\S7proj\Sam...						
DP_5613_Test	c:\Programme\SIEMENS\SIMATIC.NCM\s7proj\Dp_5...						
2.	Click the "Next" button.						

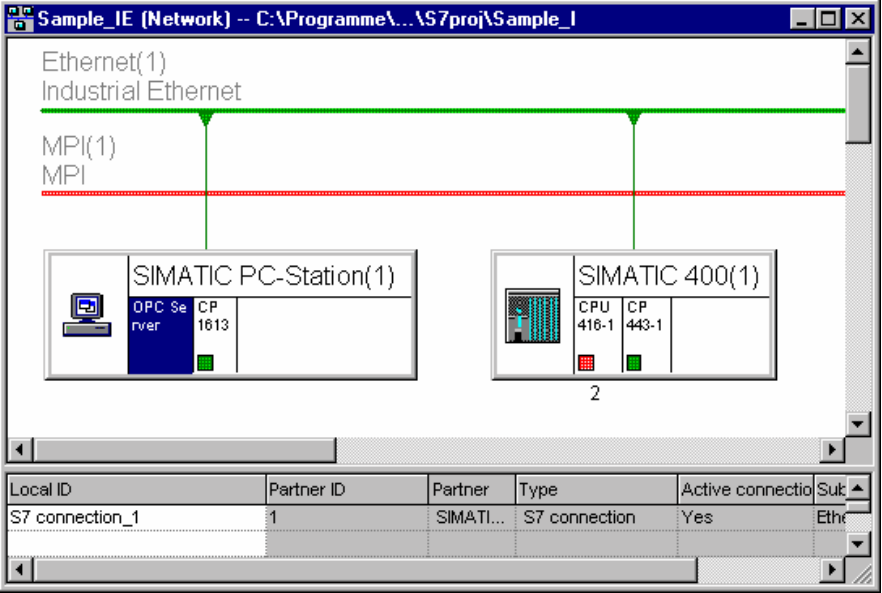
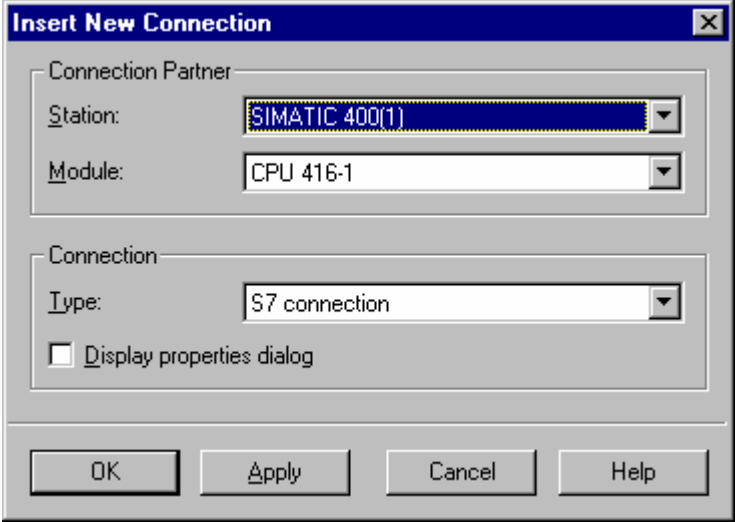
## 5.2.6 STEP 7 – PC Station Wizard: Changing Settings

### Editing the Network and Connection Configuration

	Activity
1.	 <p>Which settings do you want to change? If you select 'Change hardware configuration' or 'Edit connections', you must also specify the name of the PC station. If you change local settings, the local station is the default. 3(3)</p> <p><input type="radio"/> Change hardware configuration ( module properties, DP ) You can configure hardware settings and settings for specific drivers, for example, module addresses or operating modes.</p> <p>PC station name: SIMATIC PC-Station</p> <p><input checked="" type="radio"/> <u>Edit network and connection configuration</u> You can modify the configuration of an attached network or edit, add, or delete communication connections.</p> <p>PC station name: SIMATIC PC-Station</p> <p><input type="radio"/> Open a project with the SIMATIC NCM Manager</p> <p>&lt; Back Finish Cancel Help</p>
2.	Click the "Finish" button. This starts NETPRO of STEP 7.



## 5.2.7 STEP 7 – NetPro

### Inserting an S7 Connection

	Activity												
1.	 <p>The screenshot shows the 'Sample_IE (Network)' window. It displays a network topology with two stations: 'SIMATIC PC-Station(1)' and 'SIMATIC 400(1)'. A green line represents the Ethernet connection, and a red line represents the MPI connection. Below the network diagram is a table of connections:</p> <table border="1" data-bbox="467 976 1344 1060"> <thead> <tr> <th>Local ID</th> <th>Partner ID</th> <th>Partner</th> <th>Type</th> <th>Active connection</th> <th>Sub...</th> </tr> </thead> <tbody> <tr> <td>S7 connection_1</td> <td>1</td> <td>SIMATI...</td> <td>S7 connection</td> <td>Yes</td> <td>Eth...</td> </tr> </tbody> </table>	Local ID	Partner ID	Partner	Type	Active connection	Sub...	S7 connection_1	1	SIMATI...	S7 connection	Yes	Eth...
Local ID	Partner ID	Partner	Type	Active connection	Sub...								
S7 connection_1	1	SIMATI...	S7 connection	Yes	Eth...								
2.	 <p>The 'Insert New Connection' dialog box is shown. The 'Connection Partner' section has 'Station' set to 'SIMATIC 400(1)' and 'Module' set to 'CPU 416-1'. The 'Connection' section has 'Type' set to 'S7 connection'. There is an unchecked checkbox for 'Display properties dialog'. Buttons for 'OK', 'Apply', 'Cancel', and 'Help' are at the bottom.</p> <p>The S7-400 device is automatically entered as the connection partner and the connection type "S7 connection" will be set.</p>												
3.	<p>Confirm this dialog by clicking "Apply". You have now configured the connection between the PC station and the S7-400.</p>												

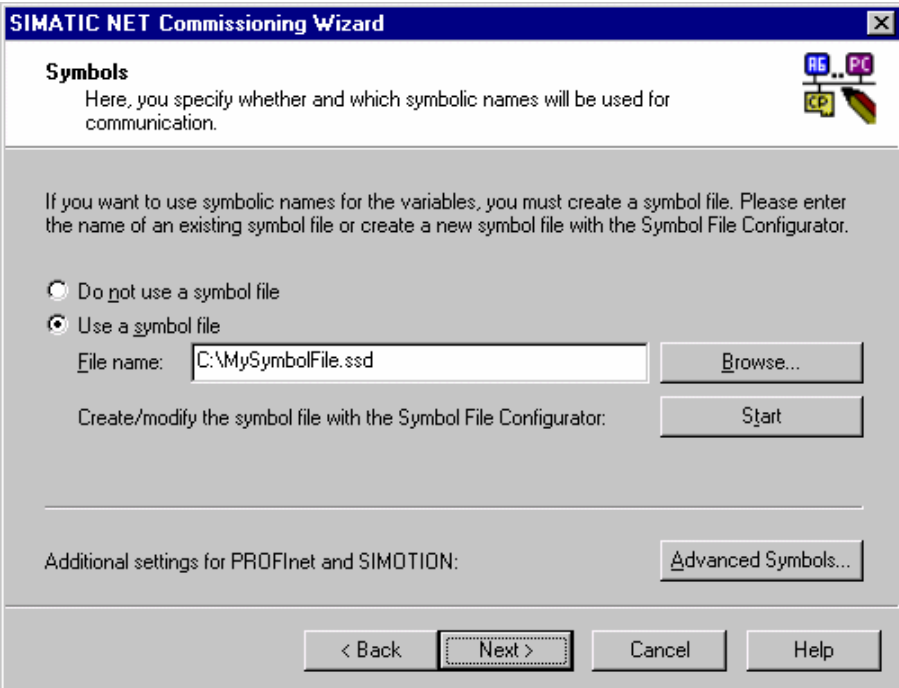
## 5.2.8 STEP 7 NetPro: Downloading the Configuration

### Finishing Configuration and Returning to the Commissioning Wizard

	Activity
1.	
2.	Select both the PC station and the S7 device by first clicking on the PC station and then on the S7 device while holding down the CTRL key.
3.	
4.	Close NetPro.
5.	Activate the Commissioning Wizard dialog box and click the "Next" button.

## 5.2.9 STEP 7 – Commissioning Wizard

### Specifying the Use of Symbol Files

	Activity
1.	


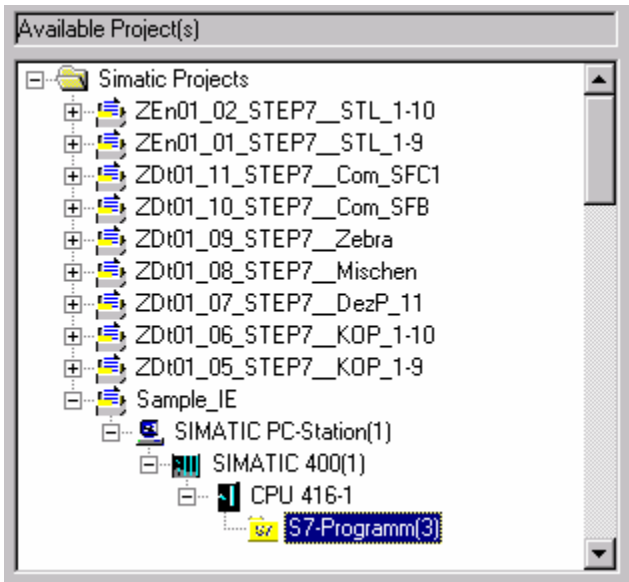
2.	Click the “Start” button to start the Symbol File Configurator.
3.	Click the “Next” button only after the symbol file has been created with the Symbol File Configurator and the file name of the created file has been entered.


## 5.2.10 Symbol File Configurator

### Inserting a New Program

To create a symbol file with the Symbol File Configurator, the programs and therefore the symbol definitions must be selected in a STEP 7 project. The Symbol File Configurator then automatically enters the content of the symbol table and the definition of the data blocks of the STEP 7 program in the file.

To insert a program, the corresponding S7 device must be linked to a PC station over an S7 connection as in this example.

	Activity
1.	 The dialog for selecting a new program opens.
2.	Select the STEP 7 project in which the program was defined in the left-hand pane of the window. This is a project you created and contains the PC station and the S7-400 device.
3.	

4.	
5.	<p>Click the “OK” button.</p> <p>These symbolic names are now extracted from the STEP 7 project and entered in a symbol file. The dialog is closed and the symbolic name space that has been created is displayed in the main window.</p>
6.	<p>Save the symbol file and close the Symbol File Configurator.</p>

### 5.2.11 SIMATIC NET Commissioning Wizard

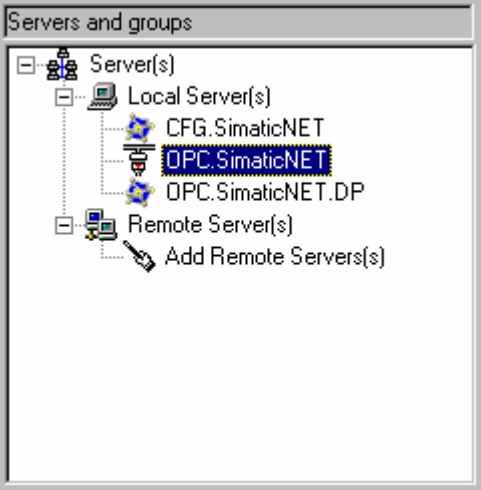
#### Completing Commissioning

	<b>Activity</b>
1.	<p>When you closed the Symbol File Configurator, the path to the symbol file was entered in the “Symbols” dialog of the Commissioning Wizard.</p> <p>Now click the “Next” button.</p>
2.	<p>The last dialog box of the Commissioning Wizard appears. Click the “Finish” button to complete your work with the wizard.</p>

## 5.2.12 OPC Scout: Establishing a Connection to the OPC Server

### The OPC Scout as Client for Commissioning and Testing

You can now access the data objects of the S7 station with any OPC client. The OPC Scout ships with this product as the tool for commissioning and testing. Follow the steps outlined below to read the inputs and set the outputs using the OPC Scout:

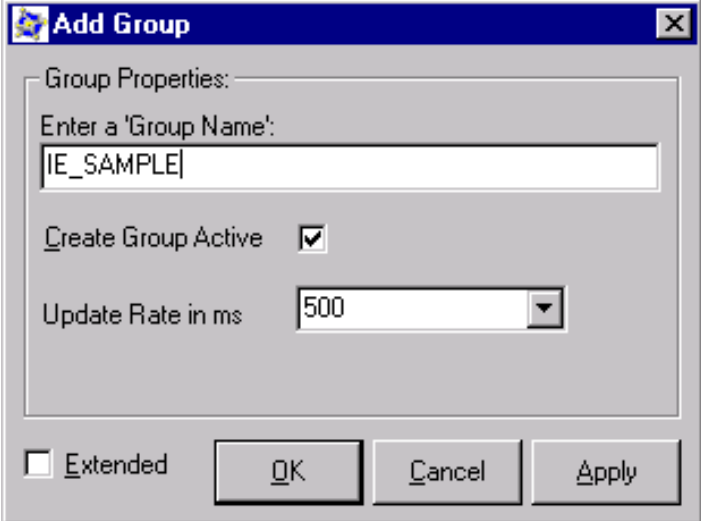
	Activity
1.	Start the OPC Scout in the Start menu: Start > SIMATIC > SIMATIC NET > Industrial Ethernet > CP1613 > OPC Scout
2.	



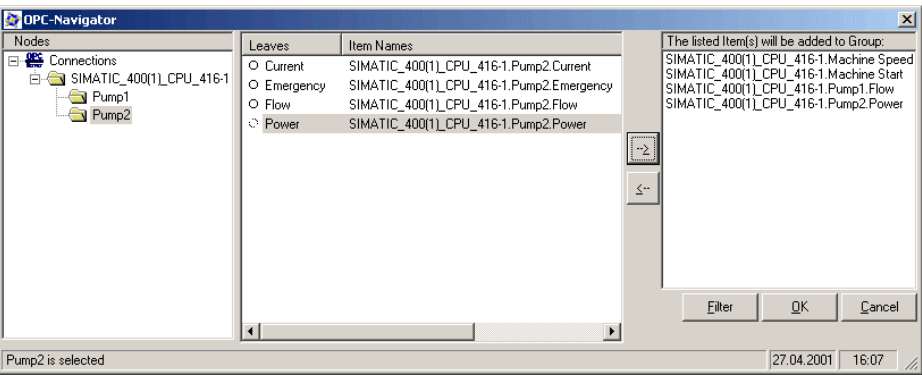
### 5.2.13 OPC Scout: Inserting a Group and Variables

#### Organizing Process Variables

The process variables of the OPC Server (known as OPC items) are assigned to groups. You therefore require an OPC group before you can insert OPC variables. Follow the steps outlined below to create a group and add items to it:

	Activity
1.	
2.	<p>Double-click on the group entry “IE_SAMPLE” to open the OPC Browser. In the left-hand pane, you will see the hierarchically arranged name space of the OPC variables.</p>

3.



4.

Select the following OPC items from the appropriate branches in the left-hand window and transfer these variables to the right-hand pane by clicking on the arrow button.

Examples:

SIMATIC\_400(1)\_CPU\_416-1.Machine Speed

SIMATIC\_400(1)\_CPU\_416-1.Machine Start

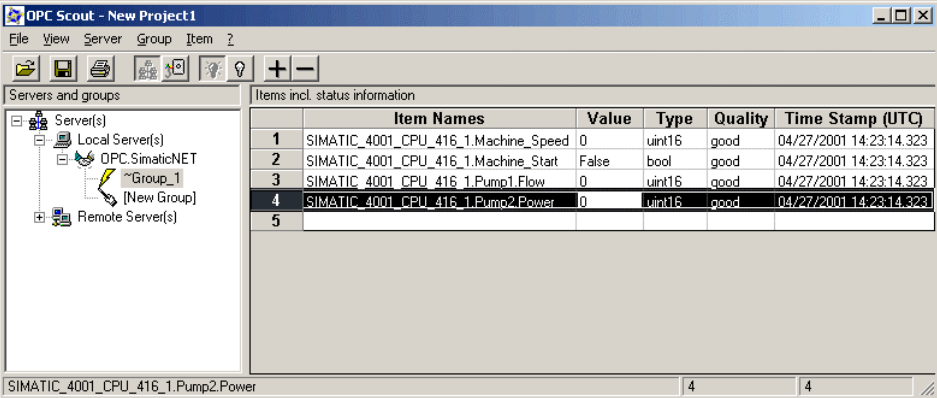
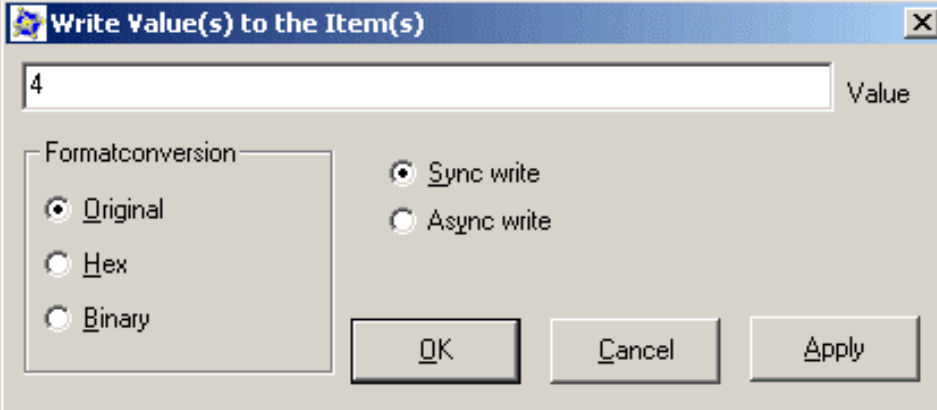
SIMATIC\_400(1)\_CPU\_416-1.Pump1.Flow

SIMATIC\_400(1)\_CPU\_416-1.Pump2.Power

The items are added to the group after you confirm the dialog with OK.

## 5.2.14 OPC Scout: Displaying and Modifying Values of Variables

### Executing Synchronous Write Jobs

	Activity																																				
1.	 <table border="1" data-bbox="732 575 1409 701"> <thead> <tr> <th></th> <th>Item Names</th> <th>Value</th> <th>Type</th> <th>Quality</th> <th>Time Stamp (UTC)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SIMATIC_4001_CPU_416_1.Machine_Speed</td> <td>0</td> <td>uint16</td> <td>good</td> <td>04/27/2001 14:23:14.323</td> </tr> <tr> <td>2</td> <td>SIMATIC_4001_CPU_416_1.Machine_Start</td> <td>False</td> <td>bool</td> <td>good</td> <td>04/27/2001 14:23:14.323</td> </tr> <tr> <td>3</td> <td>SIMATIC_4001_CPU_416_1.Pump1.Flow</td> <td>0</td> <td>uint16</td> <td>good</td> <td>04/27/2001 14:23:14.323</td> </tr> <tr style="background-color: #e0e0e0;"> <td>4</td> <td>SIMATIC_4001_CPU_416_1.Pump2.Power</td> <td>0</td> <td>uint16</td> <td>good</td> <td>04/27/2001 14:23:14.323</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Item Names	Value	Type	Quality	Time Stamp (UTC)	1	SIMATIC_4001_CPU_416_1.Machine_Speed	0	uint16	good	04/27/2001 14:23:14.323	2	SIMATIC_4001_CPU_416_1.Machine_Start	False	bool	good	04/27/2001 14:23:14.323	3	SIMATIC_4001_CPU_416_1.Pump1.Flow	0	uint16	good	04/27/2001 14:23:14.323	4	SIMATIC_4001_CPU_416_1.Pump2.Power	0	uint16	good	04/27/2001 14:23:14.323	5					
	Item Names	Value	Type	Quality	Time Stamp (UTC)																																
1	SIMATIC_4001_CPU_416_1.Machine_Speed	0	uint16	good	04/27/2001 14:23:14.323																																
2	SIMATIC_4001_CPU_416_1.Machine_Start	False	bool	good	04/27/2001 14:23:14.323																																
3	SIMATIC_4001_CPU_416_1.Pump1.Flow	0	uint16	good	04/27/2001 14:23:14.323																																
4	SIMATIC_4001_CPU_416_1.Pump2.Power	0	uint16	good	04/27/2001 14:23:14.323																																
5																																					
2.	<p>Now double-click on the “Value” cell of one of the variables, for example on the “0” of the first OPC item. A dialog opens in which you can change the value of the variable.</p>																																				
3.																																					
4.	<p>Click the “OK” button to start the write job.</p>																																				



# A Notes for Users Switching from previous SIMATIC NET Products

In the sections below, you will find detailed information on the differences compared with the previous PC products of SIMATIC NET.

## A.1 LDB and XDB Databases – Overview

### Consequences of the New Central Configuration

As of the SIMATIC NET PC software CD 07/2001, all SIMATIC NET PC software products have central configuration and download mechanisms. The configuration data are now stored in XDB databases.

The previously used LDB databases can no longer be used.

Existing XDB databases can continue to be used after importing them into the central data management of the PC station, the Station Configuration Editor.

### Using the Databases and Central Data Management

The graphics on the following pages illustrate the new situation:

- Configurations in previous product versions and the use of databases
- New, totally integrated and uniform configuration with the Station Configuration Editor
- New, totally integrated and uniform configuration within Advanced PC Configuration with SIMATIC NCM PC V5.1 Service Pack 2/STEP 7 Version 5.1 Service Pack 2 or higher.

The local or remote configuration data are downloaded using SIMATIC NCM PC/STEP 7. It is also possible to transfer the configuration data in the form of an XDB database that is also created with the Station Configuration Editor.

The OPC server and its protocol-specific adapters are optional elements and are shown with broken lines.

## A.1.1 Configurations up to SIMATIC NET CD 05/2000

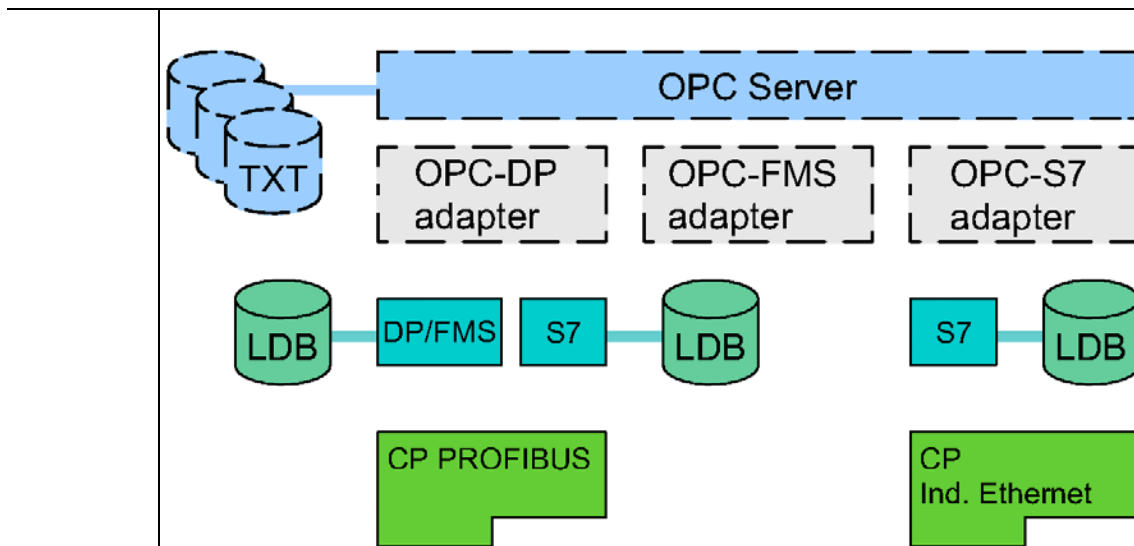
### Description

A configuration created with the tools of the SIMATIC NET product CDs up to and including SIMATIC NET CD 05/2000 will be called the "previous configuration" in the description below.

### Previous Configuration with LDB Databases

Each protocol of each module required its own database.

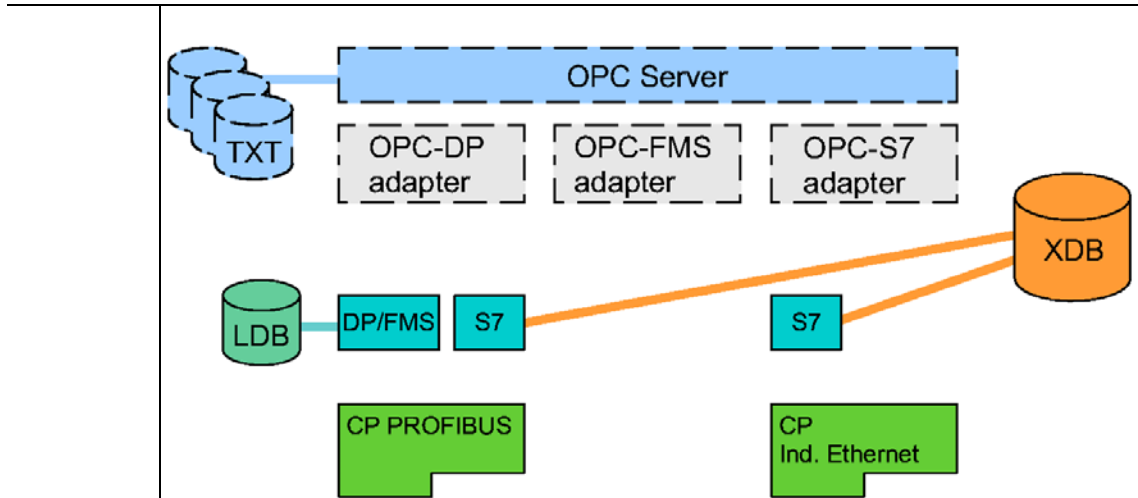
If the OPC server was used, it also required its own databases in TXT format for each protocol:



### Previous Configuration with LDB and XDB Databases

Even when the entire communication of all modules for the S7 protocol was stored in the XDB database, separate databases were required for DP and FMS.

An optional OPC server also had its own data storage:



## A.1.2 Continued Use of Previous Configurations

### Continued Use of Databases and Configuration Tools

The following table shows an overview of the previous database types and the corresponding configurations and indicates whether continued use is possible:

Protocol	Database Type	Configuration Tool	Continued Use
DP	LDB	COM PROFIBUS	Continued use not possible, the configuration must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.
FDL	TXT	Text Editor	Continued use not possible, the configuration must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.
FMS	LDB	COM PROFIBUS	Continued use not possible, the configuration must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.
S7	LDB	COML S7	Continued use not possible, the configuration must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.
S7	XDB	STEP 7	Continued use possible, the XDB database must be imported.
SEND/ RECEIVE	TXT	Text Editor	Continued use not possible, the configuration must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.
TF	LDB	COML TF	Continued use possible, as previously with COML TF.

---

#### Note

If you want to continue using the previous configuration tools, use the SIMATIC NET CD 05/2000.

---

## **A.2 Industrial Ethernet – Effects on Older Product Versions (SIMATIC NET CD 05/2000 and earlier)**

### **Introduction**

This section describes what changes are necessary in Industrial Ethernet systems if you are already using a SIMATIC NET CD 05/2000 product or a previous version.

### **PG–1413, S7–1413, TF–1413 up to version 5.2 with Service Pack 2 for Windows NT 4.0 or Windows 98**

#### **Situation:**

These products are not supported by the SIMATIC NET CD 07/2001.

Simultaneous installation of these products with products of the new CD 07/2001 is not permitted and is prevented.

#### **Steps to take:**

Keep using the products of the SIMATIC NET 5/2000 CD if you want to use a CP 1413 in your computer or replace it with a CP 1613.

### **PG–1613 up to version 2.1 for Windows 2000 Pro or Windows NT 4.0**

#### **Situation:**

PG operation possible as before.

#### **Steps to take:**

None necessary

### **S7–1613 up to version 2.1 for Windows 2000 Pro or Windows NT 4.0**

#### **Situation:**

An S7 configuration created with the COML S7 program cannot be used.

#### **Steps to take:**

A configuration created with the COML S7 program must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.

If the configuration was already created with STEP 7 (XDB), this STEP 7 project can continue to be used. You only need to download the configuration to the CP/PC station from STEP 7 Version 5.1 Service Pack 2 or higher.



### **TF-1613 up to version 2.1 for Windows 2000 Pro or Windows NT 4.0**

**Situation:**

Application associations will continue to be configured as previously with the COML TF program.

Support of this protocol by SIMATIC NCM PC or STEP 7 with OPC is not planned.

The SEND/RECEIVE programming interface included in the product TF-1613 can continue to be used unchanged. If you use the OPC interface, it will be possible, in future, to configure SEND/RECEIVE communication with SIMATIC NCM PC or STEP 7!

**Steps to take:**

None necessary

### **SOFTNET-PG up to version 3.3 for Windows 2000 Pro, Windows NT 4.0 or Windows 98**

**Situation:**

Windows 98 is no longer supported.

PG operation under Windows 2000 Pro or Windows NT 4.0 remains possible and is unchanged.

**Steps to take:**

Under Windows 98, use the SIMATIC NET CD 05/2000.

### **SOFTNET-PG up to version 3.3 with Service Pack 2 for Windows 2000 Pro, Windows NT 4.0, Windows Me or Windows 98**

**Situation:**

Windows Me and Windows 98 are no longer supported.

PG operation under Windows 2000 Pro or Windows NT 4.0 remains possible and is unchanged.

**Steps to take:**

Under Windows Me or Windows 98, use the SIMATIC NET CD 05/2000.

## **SOFTNET–S7 up to version 3.3 for Windows 2000 Pro, Windows NT 4.0 or Windows 98**

### **Situation:**

Windows 98 is no longer supported.

An S7 configuration created with the COML S7 program cannot be used.

### **Steps to take:**

Under Windows 98, use the SIMATIC NET CD 05/2000.

A configuration created with the COML S7 program must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.

If the configuration was already created with STEP 7 (XDB), this STEP 7 project can continue to be used. You only need to download the configuration to the CP/PC station from STEP 7 Version 5.1 Service Pack 2 or higher.

## **A.3 PROFIBUS – Effects on Older Product Versions (SIMATIC NET–CD 05/2000 and earlier)**

### **Introduction**

This section describes what changes are necessary in PROFIBUS systems if you are already using a SIMATIC NET CD 05/2000 product (or a previous version).

## **DP–5412, FMS–5412, PG–5412, S7–5412 up to version 5.2 with Service Pack 2 for Windows NT 4.0 or Windows 98**

### **Situation:**

These products are not supported by the SIMATIC NET CD 07/2001.

Simultaneous installation of these products with products of the new CD 07/2001 is not permitted and is prevented.

### **Steps to take:**

Keep using the products of the SIMATIC NET 05/2000 CD if you want to use a CP 5412 in your computer or replace it with a CP 5613.

### **DP 5613 up to version 2.1 for Windows 2000 Pro or Windows NT 4.0**

**Situation:**

A DP configuration created with the COM PROFIBUS program cannot be used.

**Steps to take:**

A DP configuration created with the COM PROFIBUS program must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.

If the configuration was already created with STEP 7, this STEP 7 project can continue to be used. You only need to download the configuration to the CP/PC station from STEP 7 Version 5.1 Service Pack 2 or higher.

### **FMS–5613 up to version 2.1 for Windows 2000 Pro or Windows NT 4.0**

**Situation:**

An FMS configuration created with the COM PROFIBUS program cannot be used.

**Steps to take:**

An FMS configuration created with the COM PROFIBUS program must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.

### **S7–5613 up to version 2.1 for Windows 2000 Pro or Windows NT 4.0**

**Situation:**

An S7 configuration created with the COMML S7 program cannot be used.

**Steps to take:**

A configuration created with the COMML S7 program must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.

If the configuration was already created with STEP 7 (XDB), this STEP 7 project can continue to be used. You only need to download the configuration to the CP/PC station from STEP 7 Version 5.1 Service Pack 2 or higher.

### **SOFTNET–DP up to version 5.3 for Windows 2000 Pro, Windows NT 4.0 or Windows 98**

**Situation:**

Windows 98 is no longer supported.

A DP configuration created with the COM PROFIBUS program cannot be used.

It will be possible to configure Send/Receive communication on the basis of the FDL interface over OPC with SIMATIC NCM PC or STEP 7 in the future!

**Steps to take:**

Under Windows 98, use the SIMATIC NET CD 05/2000.

A DP configuration created with the COM PROFIBUS program must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.

If the configuration was already created with STEP 7, this STEP 7 project can continue to be used. You only need to download the configuration to the CP/PC station from STEP 7 Version 5.1 Service Pack 2 or higher.

### **SOFTNET–DP slave up to version 1.2 for Windows 2000 Pro, Windows NT 4.0 or Windows 98**

**Situation:**

Windows 98 is no longer supported.

**Steps to take:**

Under Windows 98, use the SIMATIC NET CD 05/2000.

## **SOFTNET–S7 up to version 5.3 for Windows 2000 Pro, Windows NT 4.0 or Windows 98**

### **Situation:**

Windows 98 is no longer supported.

An S7 configuration created with the COML S7 program cannot be used.

### **Steps to take:**

Under Windows 98, use the SIMATIC NET CD 05/2000.

A configuration created with the COML S7 program must be recreated with SIMATIC NCM PC V5.1 Service Pack 2 or STEP 7 Version 5.1 Service Pack 2 or higher.

If the configuration was already created with STEP 7 (XDB), this STEP 7 project can continue to be used. You only need to download the configuration to the CP/PC station from STEP 7 Version 5.1 Service Pack 2 or higher.



## B SIMATIC NET – Support and Training

### Customer Support, Technical Support

Open round the clock, worldwide:



Technical Support	Authorization Hotline
<b>Europe and Africa (Nuremberg)</b> Mo. to Fr. 7:00 to 17:00 (local time, GMT +1) Tel: +49 – (0) 180 – 5050 – 222 Fax: +49 – (0) 180 – 5050 – 223 E-mail: techsupport@ad.siemens.de	<b>Europe and Africa (Nuremberg)</b> Mo. to Fr. 7:00 to 17:00 (local time, GMT +1) Tel: +49 – (0) 911 – 895 – 7200 Fax: +49 – (0) 911 – 895 – 7201 E-mail: authorization@nbgm.siemens.de
<b>America (Johnson City)</b> Mo. to Fr. 8:00 to 19:00 (local time, GMT –5) Tel: +1 – (0) 423 – 262 – 2522 Fax: +1 – (0) 423 – 262 – 2231 E-mail: simatic.hotline@sea.siemens.com	
<b>Asia and Australia (Singapore)</b> Mo. to Fr. 8:30 to 17:30 (local time, GMT +8) Tel: +65 – (0) 740 – 7000 Fax: +65 – (0) 740 – 7001 E-mail: simatic.hotline@sae.siemens.com.sg	
SIMATIC Premium Hotline	
<b>Worldwide (Nuremberg)</b> Workdays 0:00 to 24:00 (local time, GMT +1) Tel: +49 – (0) 911 – 895 – 7777 Fax: +49 – (0) 911 – 895 – 7001 E-mail: techsupport@ad.siemens.de	Fast callback guaranteed within a maximum of two hours (charged, only with the SIMATIC Card)

## Technical Support Online Services

SIMATIC Customer Support provides you with a wide range of additional information on SIMATIC products in the online services:

- You can obtain general up-to-date information as follows:
  - on the Internet at  
<http://www.siemens.de/simatic-net>
  - at fax polling no. +49 (0) 8765-93 02 77 95 00
- Updated product information, FAQs, Tips and Tricks, and useful downloads are available from the following sources:
  - on the Internet at  
<http://www.siemens.de/automation/service&support>
  - From the bulletin board system (BBS) in Nuremberg (*SIMATIC Customer Support Mailbox*) at the number +49 (0) 911 895-7100.

To dial the mailbox, use a modem with up to V.34 (28.8 Kbaud), with the following parameters: 8, N, 1, ANSI, or dial on ISDN (x.75, 64 Kbits).

## Training Center

Courses are available to help you become familiar with the SIMATIC S7 automation system and programmable controllers. Please contact your regional training center or the central training center in D 90327 Nuremberg.

Tel. +49 (0) 911–895–3154  
Infoline: Tel. +49 (0) 1805 23 56 11  
Fax. +49 (0) 1805 23 56 12  
Internet: <http://www.sitrain.com>  
E-mail: AD–Training@nbgm.siemens.de

The H/F Competence Center in Nuremberg offers a special workshop on the topic of fault-tolerant SIMATIC S7 programmable controllers. The H/F Competence Center also supports you during configuration, when putting your system into operation and if you have problems on site.

Tel. +49 – (0) 911 – 895 – 4759  
Fax. +49 – (0) 911 – 895 – 5193  
E-mail: hf–cc@nbgm.siemens.de  
CoC–SI@nbgm.siemens.de

## Further Support

If you have further questions about SIMATIC NET products, contact your local Siemens representative.

You will find the addresses:

- In our catalog IK PI
- on the Internet at  
<http://www.siemens.de/automation/partner>
- in the interactive catalog CA01  
<http://www.siemens.de/automation/ca01>
- on the Quick Start CD





## C Glossary

### **Station Configuration Editor**

The Station Configuration Editor is the user interface of the Station Manager; this allows you access to the component management of the PC station.

Here, the components are the modules and the applications involved in communications.

The Station Configuration Editor can also be used for diagnostic purposes.

### **Advanced PC Configuration (APC)**

As of the SIMATIC NET PC/Windows CD 07/2001, a new standard for PC commissioning is available – Advanced PC Configuration. Automatic software installation, Plug and Play for all supported modules, and user-guided commissioning are also part of Advanced PC Configuration just as greatly simplified OPC configuration and the new SIMATIC NCM PC configuration tool. SIMATIC NCM PC allows configuration of SIMATIC NET PC components that is compatible with STEP 7 and serves as a substitute for the previous PC configuration tools COML S7 and COM PROFIBUS PC Edition. A common database with STEP 7 ensures comprehensive configuration including all protocols.

### **SIMATIC NCM PC**

SIMATIC NCM PC is a configuration tool that is compatible with STEP 7 and is tailored to the requirements of PC configuration. SIMATIC NCM PC provides the full functionality for the following tasks:

- Configuring PC stations and networking them graphically
- Configuring connections
- Configuring the DP mode (DPV0 and DPV1)
- Setting network parameters for PROFIBUS
- Downloading configuration data to PC stations
- Monitoring communication with attached S7 stations using NCM Diagnostics

### **Station Manager**

With the Station Manager, you can configure a PC in much the same way as an S7 station and download the configuration data over the network. The Station Manager is the basic component for configuration and run time of OPC applications.

**PC Station**

In this context, a PC station means a PC with communications modules and applications. The role of this PC might be, for example, to communicate with SIMATIC S7 devices and perform process control tasks. The term “run-time station” is also used to describe such PCs equipped with run-time software. The PC station is configured for communication with SIMATIC S7 devices in SIMATIC NCM PC / STEP 7.

The required run-time software is available on the PC station after installing APC (Advanced PC Configuration).

**STEP 7 Project**

A STEP 7 Project is created with SIMATIC NCM PC or with STEP 7/NCM. It contains the project and configuration data that can be downloaded to S7 stations and PC stations.

