

## SIMATIC NET

### Installation Manual

C79000-G8976-C233

Release 08/2008

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### SIMATIC NET, PC Software, Edition 2008

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This document contains information in English.

## Classification of safety-related notices

This document 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:



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### **Danger**

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

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### **Warning**

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

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### **Caution**

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

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### **Caution**

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

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### **Notice**

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

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### **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.

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## **Disclaimer**

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.

## Trademarks

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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

Please read the relevant Installation Instructions and adhere to the instructions regarding the correct usage of hardware products.

### Correct usage of software products

Please note the following regarding the correct usage of software products:

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#### Caution

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 neither injury to persons nor damage to equipment can result in your plant or process.

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### Prior to startup

Before putting the product into operation, note the following warning:

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#### Caution

Prior to startup you must observe the instructions in the relevant documentation. For ordering data of the documentation please refer to the catalogs or contact your local SIEMENS representative.

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# Introduction

## **SIMATIC NET PC software products**

Thank you for deciding to purchase a communication product from SIMATIC NET. You have bought an innovative product that combines fast access to automation systems with simple installation and commissioning.

## **Purpose of this document**

This document describes how to install the SIMATIC NET PC software products on your PG/PC.

## **Validity of this installation manual**

This installation manual relates to the products of the **"SIMATIC NET, PC Software, Edition 2008"** CD.

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# **1 Installation of the SIMATIC NET PC software products**

## **1.1 Requirements and notes**

### **User experience**

To install SIMATIC NET PC software products, you should have experience of installing software under Windows Vista, Windows XP or Windows Server 2003 or Server 2008.

To configure the communication modules, you should have experience and knowledge of the following:

- You should be familiar with the structure of the system/plant involved.
- You should be familiar with the configuration of the system/plant.

You should only undertake the subsequent installation and configuration if you have this knowledge.

### 1.1.1 Required privileges

#### Privileges for installation

To install the product, you require administrator privileges.

#### Privileges for operating NCM PC

To operate NCM PC on an NTFS drive, the administrator must allow all users working on this computer with NCM PC full access to the NCM PC installation folder in the relevant "Security" tab.

Right-click on the NCM PC installation folder in the Windows Explorer. Go to the "Security" tab:

- **In Windows Vista and Windows Server 2008**  
via the context menu entry **Properties → Security** tab.
- **In Windows XP and Windows Server 2003**  
using the context menu **Sharing and Security... → Security** tab.

If the "Sharing and Security..." context menu command is not available for the folder, open the "View" tab in the Windows Explorer with the **Tools → Folder Options...** menu command and disable the "Use simple file sharing (Recommended)" option.

If projects are stored on NTFS drives, users of NCM PC must also be allowed full access here.

## **1.1.2 Requirements and notes relating to the software**

### **Operating systems**

SIMATIC NET PC software products are intended for use with Microsoft Windows operating systems; for more detailed information, refer to the section 5, „Technical specifications“.

### **Update CD for which versions?**

For the following software version, this "SIMATIC NET, PC Software" CD is an update CD:

CD 2007, V7.0 with Windows XP, Windows Vista or Windows Server 2003

The list on the back of the CD sleeve provides you with a quick overview of the available products.

### **Microsoft Internet Explorer**

We recommend that you use the Microsoft Internet Explorer Version 6.0 or higher.

### **Screen savers**

If you use a screen saver, remember that processing the saver takes up CPU time and this can lead to the system being overloaded.

Some screen savers are known not to release memory resources again. This leads to a continuous reduction in usable memory.



## Virus scanners

The use of a virus scanner during runtime can impair or severely slow down communication. Dynamic virus protection, in particular using gatekeeper mechanisms, is therefore not advisable. This is especially the case when trace files of the communication are written at the same time.

The following virus scanners have been tested in conjunction with the SIMATIC NET PC software products (the default settings of the virus scanners were not changed for the test):

Virus scanner name	Tested with operating system
Trend Micro Office Scan V8.0	<ul style="list-style-type: none"><li>• Windows XP Professional SP3</li><li>• Windows Server 2003 R2 SP2</li><li>• Windows Vista SP1</li></ul>
McAfee Virus Scan Plus 2008	<ul style="list-style-type: none"><li>• Windows XP Professional SP3</li><li>• Windows Vista SP1</li></ul>
Norton Antivirus 2008	<ul style="list-style-type: none"><li>• Windows XP Professional SP3</li><li>• Windows Vista SP1</li></ul>
Kaspersky Anti-Virus 7.0	<ul style="list-style-type: none"><li>• Windows XP Professional SP3</li><li>• Windows Vista SP1</li></ul>

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### Notice

If you use a virus scanner, make sure that the computer has enough system resources.

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## Restore points

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### Note

The "SIMATIC NET, PC Software" CD consists of lots of small setups and after they have been installed, the Microsoft operating systems create restore points. It is pointless to restore to an interim setup status, in other words, to the status of a partly installed "SIMATIC NET, PC Software" CD.

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### 1.1.3 Requirements and notes relating to the hardware

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**Note**

We recommend that you first install the software and license as described in this documentation and install the communications processors afterwards.

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#### Bus collisions after reinstallation

If two PROFIBUS communications processors are installed in one computer, when the computer starts up, both communication modules are assigned bus address 0. This causes collisions if both modules are connected to the same bus.

**Remedy**

Set different bus addresses for the communications processors before attaching to the bus.

#### Plug and play

If the Plug-and-Play mechanism does not find the driver after installing the CP and then rebooting the computer, the computer must be forced to find the driver at the instigation of the user. Follow the steps outlined below:

Step	Description
1	Restart the computer.
2	Go to the "Device Manager" dialog box: <ul style="list-style-type: none"><li>• <b>In Windows Vista and Windows Server 2008</b> Start menu <b>Start → Control Panel → Device Manager → Device Manager</b> dialog box.</li><li>• <b>In Windows XP and Windows Server 2003</b> Start menu <b>Start → Settings → Control Panel → System → Hardware</b> tab → <b>Device Manager</b> tab → <b>Device Manager</b> dialog box.</li></ul>
3	Select the top entry in the list box (the local PC) and then the menu command <b>Action → Scan for hardware changes</b> .
4	Confirm all the following dialogs with "Next".

### 1.1.4 Steps in installation

#### Description

Follow the instructions on the next pages step by step to install the SIMATIC NET PC software products.

During the installation, you will have to restart your computer several times depending on its configuration and the software you are installing.

**These restarts are unavoidable parts of the installation process!**

Following a restart on your computer, the installation will continue automatically with the next step. You only need to follow the installation instructions in this description. No further measures are necessary.

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**Note**

Make sure that the same user is logged on following a restart.

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#### Installing Chinese or Japanese

The installation dialog of the SIMATIC NET software offers you the choice of German or English. If you want to install on a Chinese or Asiatic Windows platform, select "English".

## 1.2 Procedure

### Step 1 – Registering with the operating system

It is only possible to install the SIMATIC NET PC software products if you have administrator privileges.

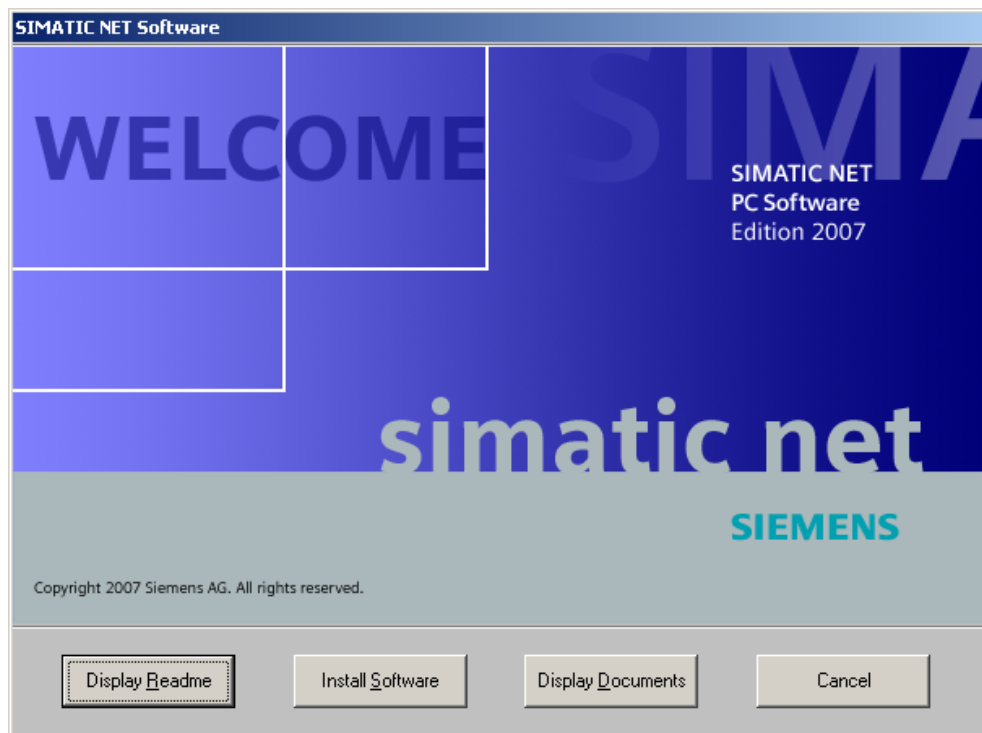
You should therefore log on with the operating system using a login belonging to the group of administrators.

### Step 2 – Closing open applications

Close all active programs. This also includes all virus scanners.

### Step 3 – Inserting the SIMATIC NET CD

Insert the "SIMATIC NET, PC Software CD, Edition 2008" and wait until the following dialog box appears:



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#### Note

If this dialog box does not appear at the latest after 30 seconds, the autostart function of your computer is not activated.

In this case, start the "setup.exe" program in the main folder on the SIMATIC NET CD.

---

### Step 4 – Reading the readme file

The readme file contains the latest information on the SIMATIC NET PC products.

Click the "Display Readme" button and read the information displayed.

## Step 5 – Reading SIMATIC NET documents

### Supplied Information

Please read the information that ships along with the product. This is important because ...

- ... it may be necessary or advisable to use this information during installation.
- ... this can support you when configuring the hardware.
- ... it will provide you with instructions on your specific product that are not contained in the "Industrial Communication for PG/PC" manual.

### Descriptions of the SIMATIC NET products

With a simple mouse click, you will find descriptions of the software products on this SIMATIC NET CD quickly and arranged according to topics on the accompanying "Manual Collection" CD.

## Step 6 – Installing software

Click the "Install Software" button.

Follow the instructions in the dialog boxes to select the language you require and to accept the license conditions.

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### Notice

If you want to install on a Chinese or Asiatic Windows platform, select "English".

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### Note

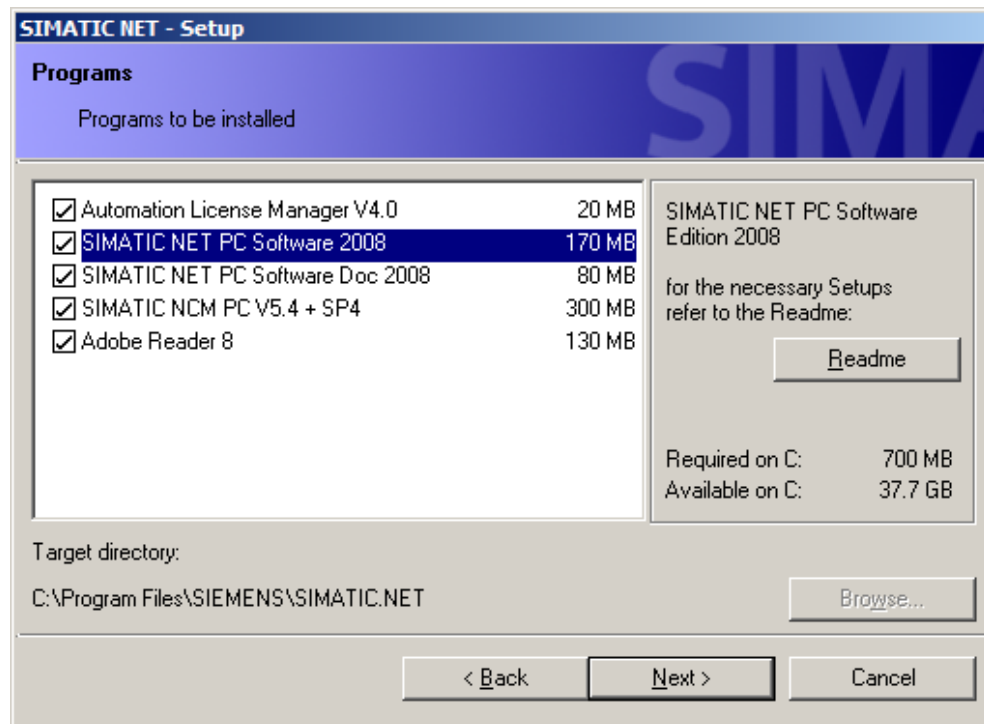
Depending on the operating system, this is followed by 1 to 2 information screens on security settings and the power save mode and you should confirm these with the "Install Software" button if you want to install.

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## Step 7 – Installing selected products

The "SIMATIC NET - Setup", "Programs" dialog box appears.

The information in the figure is an example and it may differ slightly from the information actually shown on the screen.



**Description and procedure**

The following table describes the programs in the list box shown above. Follow the instructions and read the notes.

Programs to be installed	Description and procedure
Automation License Manager V4.0	You can install or uninstall license keys with the Automation License Manager.
SIMATIC NET PC Software 2008	If the check box is selected, the SIMATIC NET PC software products are all installed at once.
SIMATIC NET PC Software Doc 2008	Select this check box if you want to install the documents for installation and commissioning on your PC.
SIMATIC NCM PC V5.4 SP4	<p>SIMATIC NCM PC is configuration software for configuring PGs/PCs.</p> <p>Do <b>not</b> select this check box if you want to use STEP 7 as of Version 5.4 instead as the configuration tool (with PROFINET IO products version 5.4 SP2 or higher).</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Note 1</b></p> <p>If STEP 7 is already installed, SIMATIC NCM PC is grayed out (deactivated) and cannot be installed. This is because the configuration functions are already contained in STEP 7.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Note 2</b></p> <p>SIMATIC NCM is <b>not</b> required for the following products:</p> <ul style="list-style-type: none"> <li>• TF-1613</li> <li>• SOFTNET-PG</li> <li>• PN CBA OPC Server</li> </ul> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Note 3</b></p> <p>To configure the following products, you require the STEP 7 program instead of NCM PC:</p> <ul style="list-style-type: none"> <li>• S7-REDCONNECT</li> <li>• Upgrade S7-REDCONNECT</li> </ul> </div>
Adobe Reader 8	You require Adobe Reader to display the contents of SIMATIC NET PDF files. Select the option if you do not have program for reading PDF files on your computer.

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### Notice

SIMATIC NET PC software products from an **earlier** SIMATIC NET CD will be **uninstalled** before the software products on this CD are installed.

You will see a further warning on the screen immediately before the "old" software products are uninstalled.

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Then click the "Next" button.

### Reaction

Software installation starts. This can take some time.

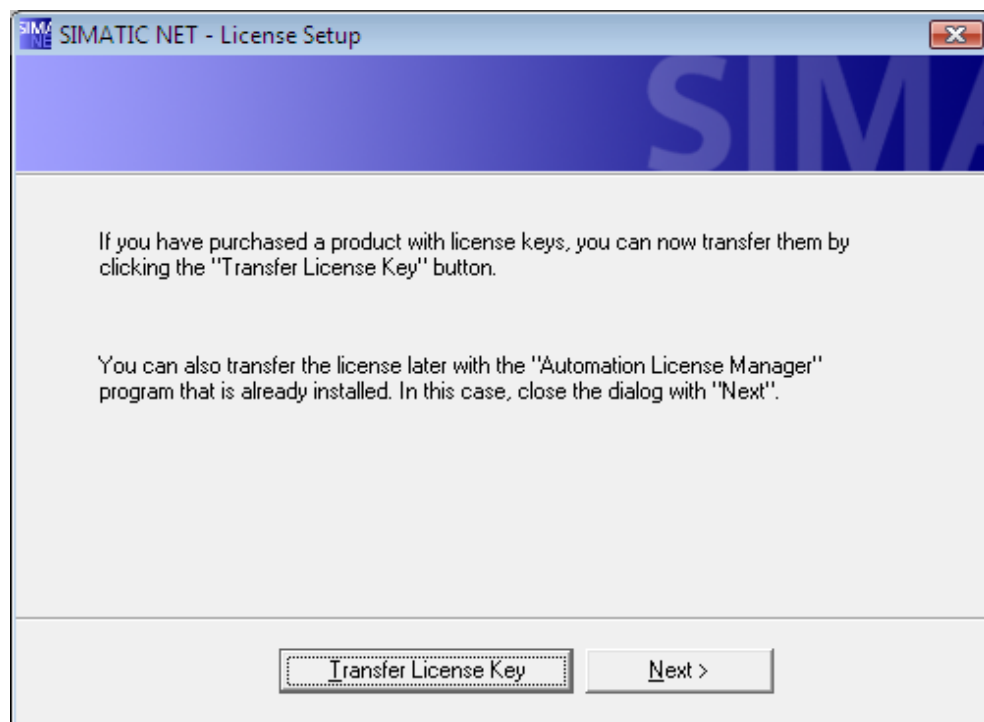
## Step 8 – Starting the transfer of license keys

### License keys and upgrade license keys

Current license keys are required for the products of the "SIMATIC NET, PC Software" CD. These ship with the product on USB stick and must be transferred to your computer.

### License keys

In this dialog box, you can choose whether you want to transfer the license keys during the current installation (by starting the Automation License Manager) or wait until later. You start the transfer dialog with the "Transfer License Key" button.





## Step 9 – Transferring license leys

You can manage the license keys for running SIMATIC programs with the "Automation License Manager".

### Note

For more detailed information on the "Automation License Manager", refer to the online help for the program.

### Transferring license keys of the "Single" type

With SIMATIC NET PC products of Edition 2008, follow the steps below to transfer license keys of the "Single" basic type to your computer:

Step	Description
1	Select the data medium containing the required license key in the left-hand list (navigation area).
2	In the right-hand list (object area), select the license keys you want to transfer.
3	Select the "License Key" menu command to change to the "Transfer License Key" dialog (menu command <b>License Key → Transfer... → Transfer License Key</b> dialog box).
4	Select the local drive of your computer to which you want to transfer the license keys and confirm with "OK". <b>Reaction</b> The license keys are transferred.

### Activating the license keys of an upgrade product

With authorizations of older SIMATIC products (up to 2005), you can use the upgrade function with the new "Upgrade" license keys.

Step	Description
1	Transfer the "upgrade" license key to the data medium on which the authorization is located as described above.
2	Select the authorization of the older SIMATIC product and use the upgrade function (menu command <b>License Key → Upgrade...</b> ). <b>Reaction</b> The authorization and the upgrade license key disappear and a current license key appears instead.

After transferring all required license keys, close the "Automation License Manager"; Reaction: The SIMATIC NET installation continues automatically.

## Step 10 – Completing the installation

After you have installed the license keys, the computer reports successful installation of the SIMATIC NET PC products.

The computer is restarted after installation.  
The following dialog box then opens.

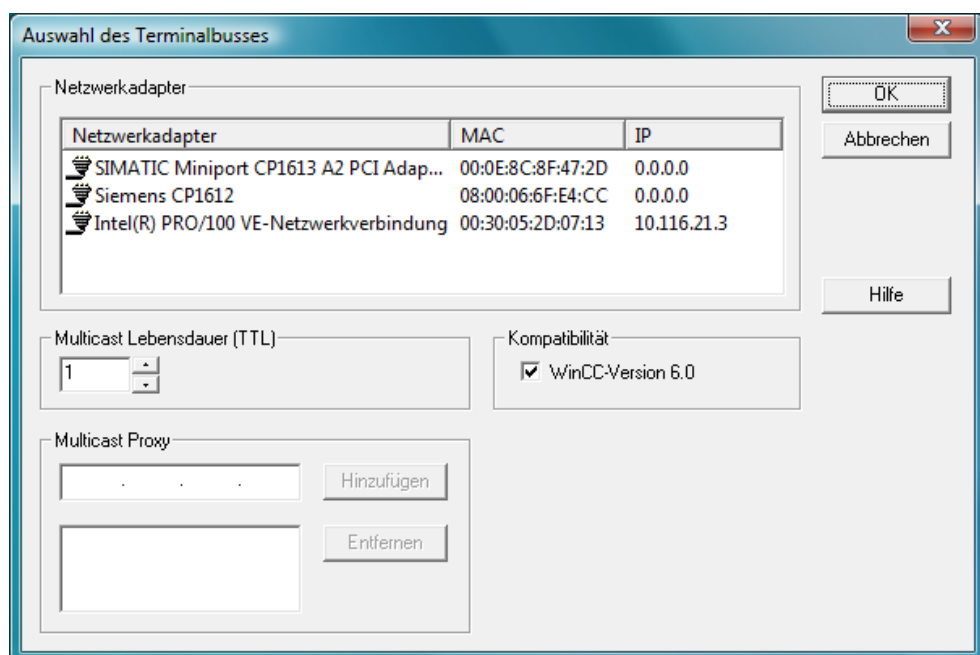
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### Note

If the Ethernet communications modules are not yet physically installed, close the dialog with "Cancel" and continue at "Step 11".

Once you have completed "Step 11", the following dialog box opens again.

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Here, select the communications module of the target PC and confirm with OK (the parameters TTL and WinCC compatibility are irrelevant here).

---

### Note

To transfer a configuration with STEP 7 to a target PC, a default communications module is necessary on the target PC to receive the configuration data.

If more than one Ethernet module is displayed, select the module that is connected to the same network and subnet as STEP 7.

---

## Step 11 – Installing communication modules

To install communication modules, shut down the computer and install the communication modules in the PC:

Step	Description
1	Read the installation manual or the operating instructions for the communications module and other relevant documentation.
2	Install the communication modules as explained.
3	Restart the computer.

## Step 12 – Starting configuration

After restarting the computer, you will need to log on with administrator privileges. It is **possible** that the Microsoft "Found New Hardware Wizard" appears.

You will then be asked whether or not you want to install the software automatically (recommended). Select this option, click "Next" and close the wizard when it has completed its work with "Finish".

Your computer now contains the SIMATIC NET communications software that still needs to be configured.

How to continue from here is described in the "Commissioning PC Stations" manual (Start menu **Start → ... → SIMATIC NET → Commissioning PC Stations**).

## Installing further software components

Please read the two following sections 2 and 3 on the installation of optional software components.

## **1.3 Automated installation**

### **1.3.1 Purpose and general description**

#### **Use in enterprises**

Enterprises that install plants with large numbers of computers generally want to use the same installation everywhere. Automated installation provides this option. The settings are made with a control file.

#### **Sequence**

Installation only requires a few user decisions that generally need to be taken at the end of the installation.

#### **Control file**

The control file is structured like an INI file. As an ASCII file, it is also easy to read. The control file is generated during a sample run; in exceptional situations, it can be corrected manually.

### 1.3.2 Structure of the control file

#### Description

The control file is called "Ra\_Auto.ini". If you look at the structure, you will immediately see the similarity to INI files.

```
[General]
CreatedWith=
RaSetupVersion=
Setuplanguage=0
IdName = Name
IdCompany = Siemens AG
IdNumber = 0000000000
GeneralDrive = C:\
AuthorizeSourceDrive = A:\
AuthorizeDestinationDrive = C:\
InstallLanguage=ABCDEJ
NewInstallation = True

[Dialogs]
DialogAuthorization = True

[PRODUCTCODE1]
DestinationDrive=
Selected =
DestinationPath=
[PRODUCTCODE2]
DestinationDrive=
Selected =
DestinationPath=

[...]
```

**Area [General]**

General settings are made in Area [General].

Parameter	Value ranges	Description
CreatedWith		Product series
RaSetupVersion		Version of system setup
Setuplanguage	0-5	0 – German 1 – English 2 – French 3 – Spanish 4 – Italian 5 – Japanese
IdName		Name of the author
IdCompany		Company name
GeneralDrive		Drive for general data , for example "C:\"
AuthorizeSourceDrive		Source drive with license keys
AuthorizeDestinationDrive		Destination drive for license keys
InstallLanguage	ABCDEJ	A – German B – English C – French D – Spanish E – Italian J – Japanese
NewInstallation	True / False	True – Programs already installed are reinstalled. False – An update is run.

**Area [Dialogs]**

Dialog windows are listed in the Area [Dialogs].

Parameter	Value ranges	Description
DialogAuthorization	True / False	True – Dialog box is visible False – Dialog box remains "silent".
etc.		

**Area [PRODUCTCODE1]**

The product codes area contains the product code and the three following parameters. Examples of a product code are: [LICENSEMANAGER], [ACROREAD] or [S7PCED].

Parameters	Value ranges	Description
DestinationPath		Installation path This can also be modified dynamically by using a placeholder.
DestinationDrive		Installation drive This can also be modified dynamically by using a placeholder.
selected	True / False	Product selection – if True, the program module is also installed even if it has already been installed on the system.

### 1.3.3 Generating the control file automatically

#### Description

The control file is generated by the setup program automatically.

The setup program can be controlled by a batch file.

#### Example of a batch file

The batch file shown here generates the control file "Ra-Auto.ini".

```
cd cd\sw\cdintern
setup.exe /record
```

The lines of the batch file example have the following significance:

Line	Meaning
1	The program changes to the "cdintern" folder.
2	The program starts the manual test installation and generates the control file "Ra_Auto.ini" with the "/record" parameter. All user actions in the dialogs are stored there. The record action stops after the "component selection" and closes the program.

### 1.3.4 Notes on automatic installation

Note the following points relating to automatic installation:

- The path for the "Ra\_Auto.ini" file can be set with the following instruction:  
`cd\sw\cdintern\setup.exe /silent=<Dr>:\<required directory>Ra_Auto.ini`  
If no path is specified, the Windows directory is browsed.
- If additional questions or error messages are displayed during installation, a dialog opens.



## 2 Installation of the OPC XML-DA Web service

### Description

OPC XML-DA (Data Access) allows access to process variables over the Internet.

You will find more detailed information on OPC XML-DA in the manuals "Industrial Communication with PG/PC" (Start menu **Start → ... → SIMATIC NET – Industrial Communication with PG PC Basics** and **SIMATIC NET – Industrial Communication with PG PC Interfaces**).

OPC XML-DA can only be operated in conjunction with the "Internet Information Services" (IIS) Windows component.

### Is the IIS Windows component already installed?

How you continue from here depends on whether the "Internet Information Services" Windows component is already installed.

If the "Internet Information Services" Windows component is ...	then...
<ul style="list-style-type: none"> <li>• ... already enabled on your computer, ... (in Vista/Server 2008)</li> <li>• ... already installed on your computer, ... (in XP/Server 2003)</li> </ul>	... you can skip down to page 32 to "Step 4 – Security settings for OPC" and check the functionality of the OPC XML-DA Web Services.
<ul style="list-style-type: none"> <li>• ... <b>not</b> enabled, ... (in Vista/Server 2008)</li> <li>• ... <b>not</b> installed, ... (in XP/Server 2003)</li> </ul>	... read the following note and start installation at "Step 1 – Enable Internet Information Services (IIS) Windows function".

### Note for users of Windows XP and Windows Server 2003

The following installation and configuration is described under the setting "Classic Start Menu" in Windows XP.

Before installing the software components, you should therefore change the **Windows menus** to "Classic Start Menu" (right-click in the start menu on the **Start** button → **Properties** tab → **Start Menu** tab → **Classic Start Menu** option).

## Step 1 – Enable Internet Information Services (IIS) Windows function

The Internet Information Services (IIS) Windows feature is an HTTP Web server. It is required to operate OPC XML DA Web services.

### Procedure in Windows Vista

Enable the Windows feature under Windows Vista as follows:

Step	Description
1	In the Control Panel, go to "Add/Remove Programs" and then "Turn Windows features on or off" (Start menu <b>Start → Control Panel → Programs and Features → Link Turn Windows features on or off</b> ). <b>Reaction:</b> The "Turn Windows features on or off" dialog box opens.
2	Open the tree structure <b>Internet Information Services → WWW Services → Application Development Features</b> and enable the <b>ASP.NET</b> option.
3	Expand the <b>Internet Information Services</b> structure → <b>Web Management Tools</b> and enable the <b>IIS Management Console</b> option. Confirm with "OK".

### Steps under Windows Server 2008

Enable the Windows feature under Windows Server 2008 as follows:

Step	Description
1	In the Control Panel, go to "Add/Remove Programs" and then "Turn Windows features on or off" (Start menu <b>Start → Control Panel → Programs and Features → Link Turn Windows features on or off</b> ). <b>Reaction:</b> The "Server Manager" dialog opens.
2	Start the Add Roles Wizard (open the <b>Roles</b> menu and click on the <b>Add Roles</b> link) and continue with "Next".
3	Enable the <b>Web Server (IIS)</b> role in the list box. <b>Reaction:</b> A new window opens.
4	Confirm with "Add Required Features" and continue the dialog with "Next".
5	Read the information displayed and confirm with "Next". <b>Reaction:</b> A list box with selectable role services appears.
6	Select the <b>ASP.NET</b> option. <b>Reaction:</b> A new window opens.

Continued on following page

Continued

Step	Description
7	Confirm with <b>Add Required Role Services</b> and continue the dialog with "Next". <b>Reaction:</b> A list box with the functions to be installed opens.
8	Start the installation with "Install". <b>Reaction:</b> Wait until the installation is completed and then read the displayed text.
9	Complete the installation with "Close". <b>Reaction:</b> A window with the status of the available roles in Server 2008 displays the functionalities/roles that can be used.

**Procedure in Windows XP**

Install the Windows component under Windows XP as follows:

Step	Description
1	Open the "Add/Remove Programs" application in the Control Panel and select "Add/Remove Windows Components". (Start menu <b>Start → Settings → Control Panel → Add/Remove Programs → Add/Remove Windows Components</b> ). <b>Reaction:</b> The "Windows Components" dialog box of the Windows Component Wizard appears.
2	Select the " <b>Internet Information Services (IIS)</b> " option in the "Components" list box, confirm with "Next", and install the component. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"><b>Note</b> Installing the Internet Information Services (IIS) changes IIS assignments for ASP.NET. You can restore these assignments by uninstalling ".NET-Framework" and reinstalling it. This is described in steps 3 and 4. There is also an article by Microsoft that you can open on the Internet page <a href="http://support.microsoft.com/?id=306005">http://support.microsoft.com/?id=306005</a>.</div>
3	Uninstall .NET-Framework (Start menu <b>Start → Settings → Control Panel → Add/Remove Programs</b> ).
4	Reinstall .NET-Framework V3.5. The .NET-Framework software is available on the "SIMATIC NET, PC Software" CD. Follow the steps below: 1. Change to the \sw\dotnetframework folder on the "SIMATIC NET, PC Software" CD. 2. Install the file "dotNETFx35setup.exe".

**Steps under Windows Server 2003**

Install the Windows component under Windows Server 2003 as follows:

Step	Description
1	Go to the Control Panel and click on the "Add or remove Windows components" button (Start menu <b>Start → Settings → Control Panel → Add/Remove Programs → Add or remove Windows components</b> ). <b>Reaction:</b> The "Windows Components" dialog box of the Windows Component Wizard appears.
2	Enable the <b>Application Server</b> option in "Components" list box and confirm with "Details".
3	Select the <b>ASP.NET</b> in addition to the defaults and confirm with "OK".
4	Continue with "Next" and install the component.

**Step 2 – Configuring the OPC XML DA (local host) Web service**

The OPC XML DA Web service provides process data that can be accessed over the Internet using HTTP.

During configuration, the following functions are performed:

- The address of the Web service is named.
- The connection to the installed SIMATIC NET software is established.

**Steps in Windows Vista and Windows Server 2008**

Follow the steps outlined below to configure the Web service:

Step	Description
1	Open the "Internet Information Services Manager" dialog box (Start menu <b>Start → Control Panel → Administrative Tools →</b> double-click on <b>IIS Manager</b> ). <b>Reaction:</b> The "Internet Information Services" dialog opens.
2	Change to <current PC> in the navigation area and "Default Web Site" and expand it (<current PC> → <b>Web Sites → Default Web Site</b> ).
3	If you find the entry "OPC.SIMATIC.NET" here, skip all other entries in this table. Otherwise continue at Step 4.
4	Select "Default Web Site" and open <b>Add Application...</b> in the context menu
5	Enter the folder name of the Web service in the "Alias" box. We recommend the name "OPC.Simatic.NET" because the supplied sample programs can then be used unchanged.
6	In the "Physical path" box, enter the path to the directory in which the installed "SIMATIC NET, PC Software" CD makes the data accessible. Enter the path as follows: <Installation folder>\Siemens\SIMATIC.NET\opc2\binXML
7	Click the <b>Select...</b> button <b>Reaction:</b> The "Select Application Pool" dialog appears.
8	Select the <b>Classic .NET AppPool</b> application pool and confirm with "OK".
9	Confirm the entries in the "Add Application" dialog with "OK". <b>Reaction:</b> The created Web service is displayed with its alias in "Default Web Site".

**Procedure in XP and Server 2003**

Follow the steps outlined below to configure the Web service:

Step	Description
1	Go to Computer Management (Start menu <b>Start → Settings → Control Panel → Administrative Tools → Computer Management</b> ).
2	Go to "Virtual Directory..." ( <b>Computer Management → Services and Applications → Internet Information Services → Web Sites → Default Web Site → right-click New → Virtual Directory...</b> ). <b>Reaction:</b> The wizard for creating virtual directories starts up.
3	Click the "Next" button.
4	Enter the directory name of the Web service, in the "Alias for Virtual Directory" dialog box. We recommend the name "OPC.Simatic.NET" because the supplied sample programs can then be used unchanged. Click the "Next" button.
5	In the "Web Site Content Directory" box, enter the path to the directory in which the installed "SIMATIC NET, PC Software" CD makes the data accessible. The path must be entered as follows: <Installation folder>\Siemens\SIMATIC.NET\opc2\binXML Click the "Next" button.
6	Make the required settings in the "Permissions" dialog box. However, allow at least "Read" and "Run Scripts", for example.
7	The wizard confirms successful completion. Complete the configuration with "Finish". <b>Reaction:</b> The created Web service is displayed in "Default Web Site".

### Step 3 – Security settings for OPC XML-DA

The Microsoft Internet Information Services (IIS) make your PC accessible from the Internet. It is therefore essential to specify suitable access permissions.

#### Steps in Windows Vista and Server 2008

Follow the steps outlined below to specify the access permissions.

Step	Description
1	Go to your newly created Web page in the Internet Information Services Manager; in this example: "OPC.Simatic.NET" (Start menu <b>Start → Control Panel → double-click on Administrative Tools → double-click on Internet Information Manager</b> ; Reaction: the "Internet Information Services Manager" dialog opens.
2	In the navigation area, select the entry "OPC.Simatic.NET" (<this PC> <b>→ Web Sites (on Server 2008: Sites) → Default Web Site → OPC.Simatic.NET</b> ).
3	Double-click on "Authentication" in the data area. <b>Reaction:</b> The content area shows the possible settings for "Authentication".
4	Make the settings you require for anonymous access and authenticated access.

#### Procedure in XP and Server 2003

Follow the steps outlined below to specify the access permissions.

Step	Description
1	Go to the Web service (Web site) you created in Computer Management. In this example, the created Web service is called „OPC.Simatic.NET" ( <b>Computer Management → Services and Applications → Internet Information Services → Web Sites → Default Web Site → OPC.Simatic.NET → right-click Properties</b> ). <b>Reaction:</b> The "Properties of ..." dialog box appears.
2	Select the "Directory Security" tab and click the "Edit..." button in the "Anonymous access and authentication control" section (in Windows Server 2003: "Authentication and access control").
3	Make the settings you require for anonymous access and authentication in the "Authentication Methods" dialog box and confirm with "OK".

## Step 4 – Security settings for OPC

Before the Internet Information Services can access OPC data, they must be given access permissions to specific OPC services.

Follow the steps outlined below to specify the access permissions.

Step	Description
1	Open the "Configuration Console" application (Start menu <b>Start → ... → SIMATIC NET → Configuration Console</b> ).
2	<div>In the tree structure, go to <b>PC Station → SIMATIC NET Configuration → Applications → OPC Settings → Security</b> and allow "remote basic and OPC communication".</div> <div><b>Note</b> By enabling OPC security, additional security settings must be made for OPC communication. These are described in the online help of the "Security" configuration dialog.</div>

This completes installation and configuration of the software components for operating OPC XML DA.

The next steps involve checking that everything works correctly.



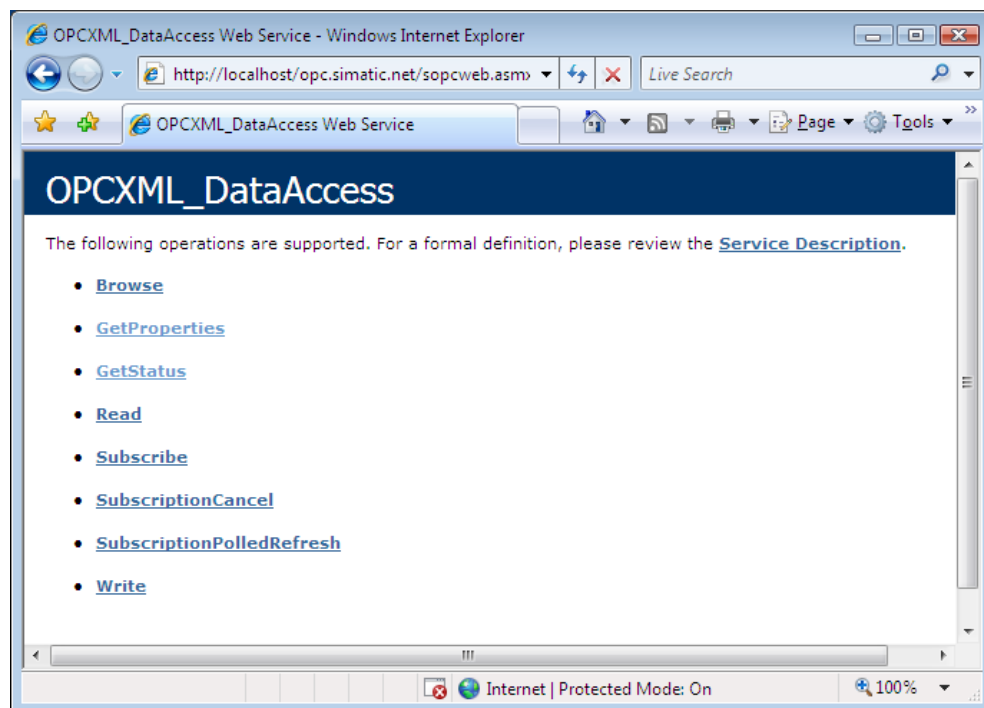
## Step 5 – Displaying your Web Site in the Internet Explorer

You can display the new Web page with the Internet Explorer:

Type in the following URL in the Internet Explorer (assuming your Web service has the name "OPC.Simatic.NET"):

<http://localhost/OPC.Simatic.NET/sopcweb.aspx>

Installation was successful when the possible OPC XML DA function calls (Read, Write ...) are displayed.



**Step 6 – Using the sample program for the OPC XML DA interface****Note**

You will find the sample client program in the folder:

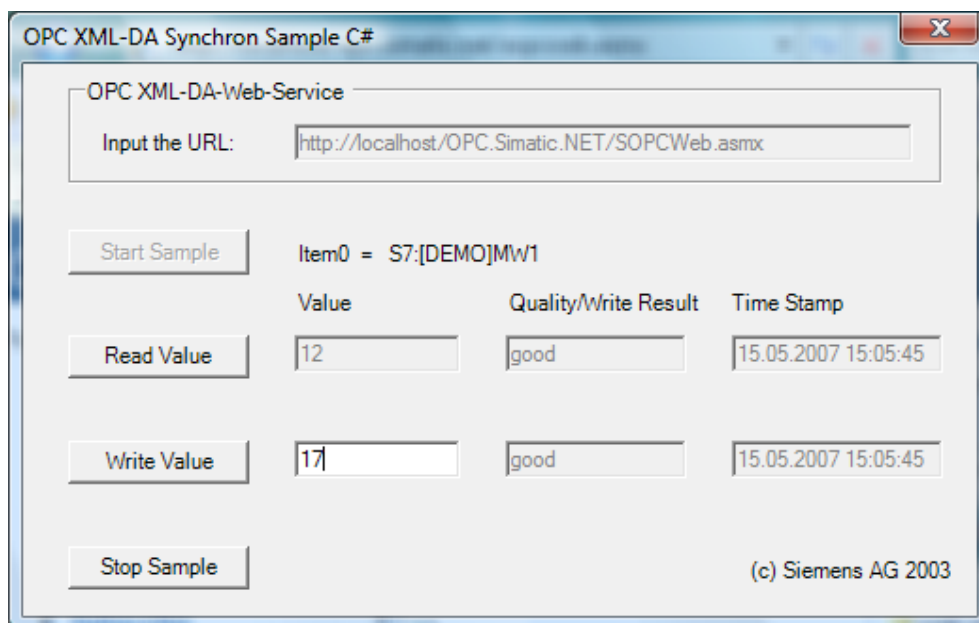
<installation folder>\Siemens\

SIMATIC.NET\opc2\samples\xml\sync\opcxml\_da\_sync.exe.

**Prerequisites**

Make sure that the two conditions are met before you use the sample program:

- Activate the demo mode for the S7 communication protocol as described in the "Industrial Communication for PG/PC" manual.
- After starting the sample program, enter the following address in the "Input the URL" box assuming your Web page has the name "OPC.Simatic.NET":  
<http://localhost/OPC.Simatic.NET/sopcweb.aspx>



## 3 SNMP service, SNMP OPC MIB compiler and profile files

### 3.1 Installing the SNMP service

#### Purpose

The SIMATIC NET SNMP OPC Server requires the SNMP service in the operating system. Full use of the SNMP OPC Server is only possible after installing this Windows component.

#### Introduction

Following standard installation of Windows XP Professional or Windows Vista, the full SNMP service is not yet available in the operating system. Without taking further steps, you can query items but cannot use SNMP traps.

Installing the SNMP service involves the following steps:

- Installing the SNMP Service.
- Adapting the network security settings to your own security needs.

---

#### Note for users of Windows XP and Windows Server 2003

The following installation is described assuming the "Classic Start Menu" in Windows.

Before installing the software components, **you should therefore set the Windows menus** to "Classic Start Menu" (right-click on Start menu **Start** → **Properties** menu → **Start Menu** tab → **Classic Start Menu** option).

---

## Requirements

You must be logged on as administrator or as a member of the administrators' group to be able to install the service.

---

### Note

If programs already use the OPC Server and the SNMP service was installed while an OPC Server was active, all programs that use the OPC Server must be closed and restarted. As a result, the OPC Server is also restarted.

If the computer is connected to a network, the general network settings may prevent installation of the SNMP services.

---

## Stage 1 – Installing the SNMP service

### Procedure in Vista

Install the SNMP service as described below:

Step	Description
1	Open the dialog for turning Windows features on and off in the Control Panel (Start menu <b>Start → Control Panel → Programs → Programs and Features → Turn Windows features on or off</b> link). <b>Reaction:</b> The dialog box with the tree structure of the installed Windows features opens.
2	Enable the "SNMP feature" check box in the "Windows Features" list and confirm with "OK". <b>Reaction</b> The SNMP service starts automatically whenever you restart the system.

---

### Caution

If the SNMP service was installed and an OPC Server was already active, the OPC Server must be shut down.

For safety reasons, close the OPC Server by closing all programs that access it. With the next request, it will start up again automatically.

---

**Steps under Server 2008**

Install the SNMP service as described below:

Step	Description
1	Open the dialog for turning Windows features on and off in the Control Panel (Start menu <b>Start → Control Panel → Programs → Programs and Features → Turn Windows features on or off</b> link). <b>Reaction:</b> The dialog with a list box opens.
2	Select "Features" in the list box and then the "Add Features" link on the right-hand side of the page that then appears. <b>Reaction:</b> A list box opens.
3	Select the "SNMP Service" option in the list box and confirm with "Next". <b>Reaction:</b> A dialog with information appears.
4	Click the "Install" button. <b>Reaction:</b> SNMP is installed.
5	Confirm completion of the installation with "Close".

---

**Caution**

If the SNMP service was installed and an OPC Server was already active, the OPC Server must be shut down.

For safety reasons, close the OPC Server by closing all programs that access it. With the next request, it will start up again automatically.

---

---

**Note**

The SNMP service starts automatically whenever you restart the system.

---

**Procedure in XP and Server 2003**

Install the SNMP service as described below:

Step	Description
1	Open the "Add/Remove Programs" dialog in the Control Panel and click the "Add/Remove Windows Components" button (Start menu <b>Start → Settings → Control Panel → Add/Remove Programs → Add/Remove Windows Components</b> button). <b>Reaction:</b> The wizard for Windows components starts.
2	Select the "Management and Monitoring Tools" entry in the "Components" list box, without changing the check box.
3	Click the "Details" button. <b>Reaction:</b> The "Managing and Monitoring Tools" dialog appears.
4	Check "Simple Network Management Protocol" and confirm with "OK".
5	Click on the "Next" button in the Windows Components dialog box. <b>Reaction:</b> You are prompted to insert the installation CD of the operating system.
6	Insert the installation CD and confirm with "OK". <b>Reaction:</b> The required files are copied and the "Completing the Windows Components Wizard" dialog box appears.
7	Confirm with "Finish". <b>Reaction:</b> The wizard closes and the "Add/Remove Programs" dialog opens again. The SNMP service is started automatically after installation.

---

**Caution**

If the SNMP service was installed and an OPC Server was already active, the OPC Server must be shut down.

For safety reasons, close the OPC Server by closing all programs that access it. With the next request, it will start up again automatically.

---

## Stage 2 – Adapting the Network Security Settings to your own Security Requirements

When you install the SNMP service, not only the SNMP protocol but also an SNMP agent is installed. The possibility of this being misused by unauthorized third parties cannot be excluded.

---

### Caution

Adapt the network security settings and the access permissions of the SNMP agent to your own security needs. You will find more detailed information in our manual "Commissioning PC Stations".

- **In Windows Vista**

The settings are made in the "Security" tab of the "Properties of Microsoft SNMP" dialog (Start menu **Start → Control Panel → Administrative Tools → Services → "Services" dialog, SNMP service entry → right-click Properties → Security tab**).

- **In Windows XP and Windows Server 2003**

The settings are made in the "Security" tab of the "Properties of Microsoft SNMP" dialog (Start menu **Start → Settings → Control Panel → Administrative Tools → Services → Services dialog, SNMP service entry → right-click Properties → Security tab**).

---

## 3.2 SNMP OPC MIB compiler and profile files for CP 1613 and CP 1623

### MIB compiler of STEP 7/NCM PC

The range of information that is monitored by the relevant devices with the SIMATIC NET SNMP OPC server is decided by the relevant device profile. With the integrated MIB compiler of STEP 7/NCM PC, existing profiles can be modified or new device profiles can be created for any SNMP-compliant devices. It requires MIB files complying with the SMIv1 standard.

### MIB files for CP 1613 and CP 1623

Special MIB files for CP 1613 or CP 1623 ship with STEP 7 as of version 5.4.5 and NCM PC as of version V5.4.4. General MIB files that also apply to the CP 1613 and CP 1623 were available with earlier versions.

When you enter the required device in the plant configuration, the "device profile" parameter offers you the profiles with the name of the module, for example "CP1623\_V10.txt" and they can be selected here.

## 4 Uninstalling the SIMATIC NET PC Software Products

### Procedure

To uninstall SIMATIC NET PC software products, follow the steps outlined below:

Step	Description
1	<ul style="list-style-type: none"><li>• <b>In Windows Vista and Server 2008</b> Go to "Programs and Features" (Start menu <b>Start → Control Panel → Programs and Features</b>).</li><li>• <b>In Windows XP and Windows Server 2003</b> Go to "Add/Remove Programs" (Start menu <b>Start → Settings → Control Panel → Add/Remove Programs</b>).</li></ul>
2	Select the entry "SIMATIC NET PC/Software Edition 2008" and start the uninstall function. <b>Reaction</b> <ul style="list-style-type: none"><li>• The SIMATIC NET PC software products are deleted from the hard disk.</li><li>• You can either uninstall the License Keys with the Automation License Manager or you can leave them on the hard disk.</li></ul>
3	If there are no longer any SIMATIC programs that require licenses on your computer, select the "Automation License Manager" and start the uninstall function. <b>Note</b> Any licenses left on the computer can no longer be backed up without Automation License Manager.
4	If you do not want to configure any further SIMATIC NET modules with this computer, select "SIMATIC NCM V5.4 + SP4" and start the uninstall function.

---

### Notice

After uninstalling the SIMATIC NET PC software products, any CP installed in the PC will no longer work because the device driver is also uninstalled.

This is indicated in the device manager by a yellow exclamation point.

You can remedy this situation by reinstalling the "SIMATIC NET, PC Software" CD.

---



## 5 Technical specifications

The "SIMATIC NET, PC Software, Edition 2008" CD can be used with the following operating systems:

Operating system	version
Windows XP Professional	with SP2 or SP3
Windows Server 2003	with SP2
Windows Server 2003 R2	with SP2
Windows Vista Business; Ultimate and Enterprise	with or without SP1
Windows Server 2008	

For more detailed information on **multilanguage versions** and the service packs required for the supported operating systems, please refer to the readme file on the "SIMATIC NET, PC Software" CD.

For more detailed information on the minimum requirements for the PC, refer to the readme file on the "SIMATIC NET, PC Software" CD.

## 6 Further information

### 6.1 Documentation guide

#### Readme file of the SIMATIC NET Products

All the important information relating to the SIMATIC NET products and other information on configuration and operation can be found in the readme files for the overall product and for NCM PC (main directory of the product CD).

#### Quick Start for SIMATIC NET products

You will find a quick start for configuration in the "Commissioning PC Stations" manual if you have installed the documentation (Start menu **Start → ... → SIMATIC NET → PC-Commissioning PC Stations**).

#### Commissioning PC Stations

Apart from the detailed description of the program "SIMATIC NCM PC", the "Commissioning PC Stations" manual also contains overviews of all the PC engineering and configuration programs (Start menu **Start → ... → SIMATIC NET → Commissioning PC Stations**).

The "Commissioning PC Stations" manual is a PDF document and can be printed out when required with the Acrobat Reader.

## 6.2 Further Documents

### Supplied Documents and Information

Documents and information on SIMATIC NET products are available on the accompanying CDs. The most important documents are:

- The "Readme.htm" file with the latest information on each product (in the main directory of the CD).
- Any printed leaflets accompanying a product
- Installation manual for the "SIMATIC NET, PC Software" CD:
  - printed, accompanying the product
  - as PDF file in the "\doc" directory of the "SIMATIC NET, PC Software" CD.

After installation, you can open the following documents (Start menu **Start → ... → SIMATIC → Documentation → English**):

- SIMATIC NET – Commissioning PC Stations
- SIMATIC NET – Industrial Communication with PG/PC
- NCM PC – Manual and Quick Start

The documentation of the SIMATIC NET products is available on the accompanying SIMATIC NET Documentation CD "SIMATIC NET Manual Collection".

You can also obtain information in the integrated online help systems using the F1 key.

### Additional Information on the Internet

Along with a wide range of other information, you can also obtain documentation on the product from the Internet:

<http://support.automation.siemens.com/WW/view/en/> → Technical Info → Manuals/Operating Instructions

Other product-related Internet addresses include:

- Siemens AG, Industry Sector, SIMATIC NET  
<http://www.automation.siemens.com/net>
- SIMATIC NET product catalog "IK PI"  
<http://www.automation.siemens.com/infocenter>

## **6.3 Technical Support, Contacts and Training**

For more detailed information, refer to the product information "Technical Support" in the "TechnicalSupport.pdf" file in the "\doc" directory of the "SIMATIC NET PC Software" CD.

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