



FAQ • 03/2015

Connecting a PC Station to S7-1200 using OPC

STEP 7 Professional V13 (TIA Portal V13)

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1 Introduction

This entry shows you how to configure an S7-1200, a PC station and an S7 connection in the TIA Portal so that you can exchange data between the stations via Industrial Ethernet.

Note In the TIA Portal you need STEP 7 Professional, because with STEP 7 Basic you cannot configure a PC station, but only the SIMATIC S7-1200.

Optimized S7 access for the OPC server to PLC data

With firmware V4.0 and higher the S7-1200 CPU supports S7 connections with access to optimized data blocks.

The OPC Server V12 and higher supports only the communication to S7-1200 via OPC UA (OPC Unified Architecture). In this connection optimized data blocks or standard data blocks can be used. In TIA Portal the access to optimized data blocks is preset.

For S7 access to optimized data blocks via OPC UA and using OPC server V12 or higher, you require an OPC client which supports OPC UA.

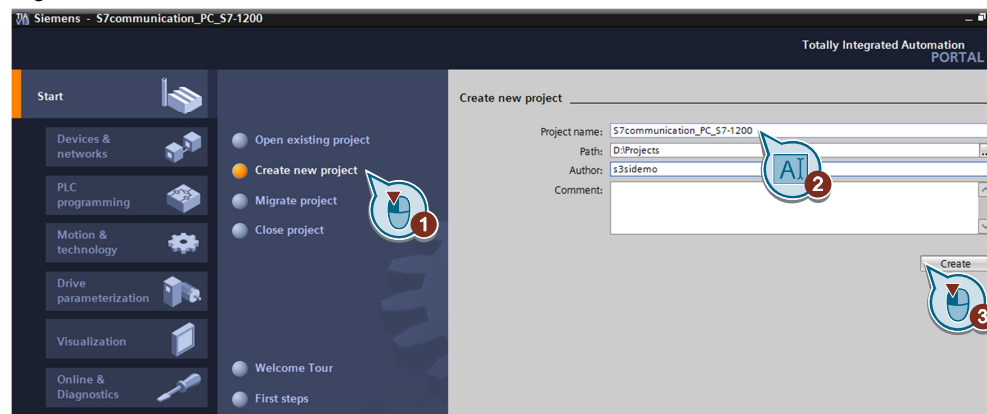
This entry shows how to configure the S7 connection between the S7-1200 V4 and the PC station in order to be able to use an OPC client which only supports OPC DA (OPC Data Access).

Create a project

In Windows, select the command "Start > All Programs > Siemens Automation > TIA Portal V13" to start the TIA Portal.

1. In the Portal view, select the "Create new project" action.
2. Enter the project name in the appropriate field.
3. Click the "Create" button to create a new project.

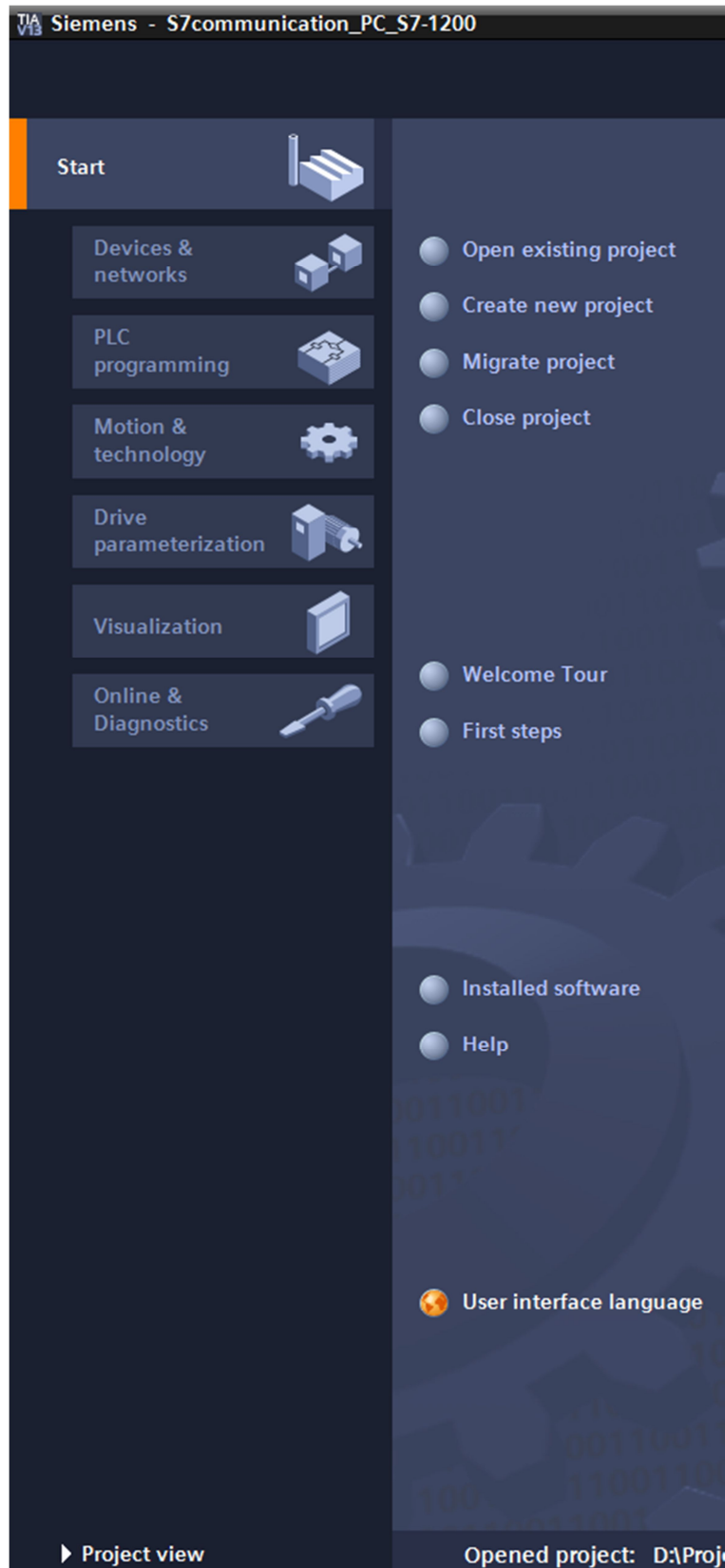
Figure 1-1



Switch to Project View

Use the "Project View" link to switch to the Project View.

Figure 1-2



2 Procedure for S7-1200 V4.0 and Higher

This chapter shows:

- The configuration of a SIMATIC S7-1200 and a PC station in the TIA Portal
- The configuration of an S7 connection for data exchange between the SIMATIC S7-1200 and the PC station

2.1 Configuration of the S7-1200

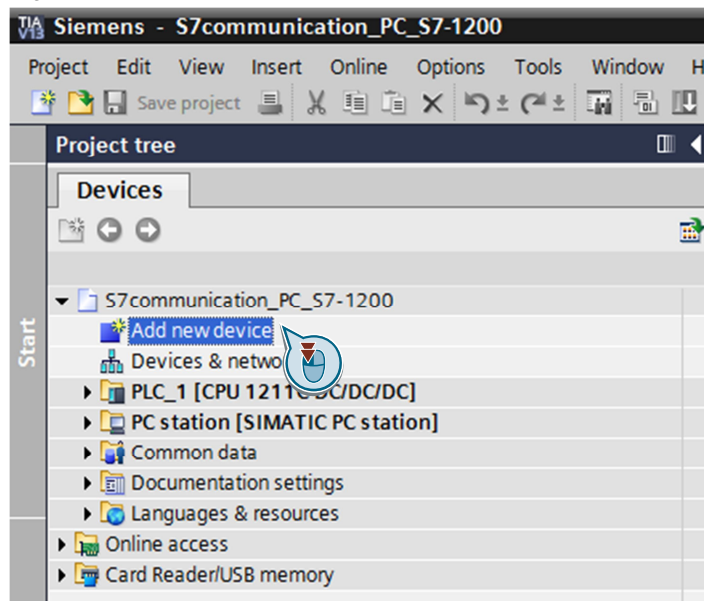
You configure your S7-1200 station in the TIA Portal. Then you create the user program and define which data is to be monitored over the S7 connection of the OPC server.

2.1.1 Configure the Hardware

Add an S7-1200 station

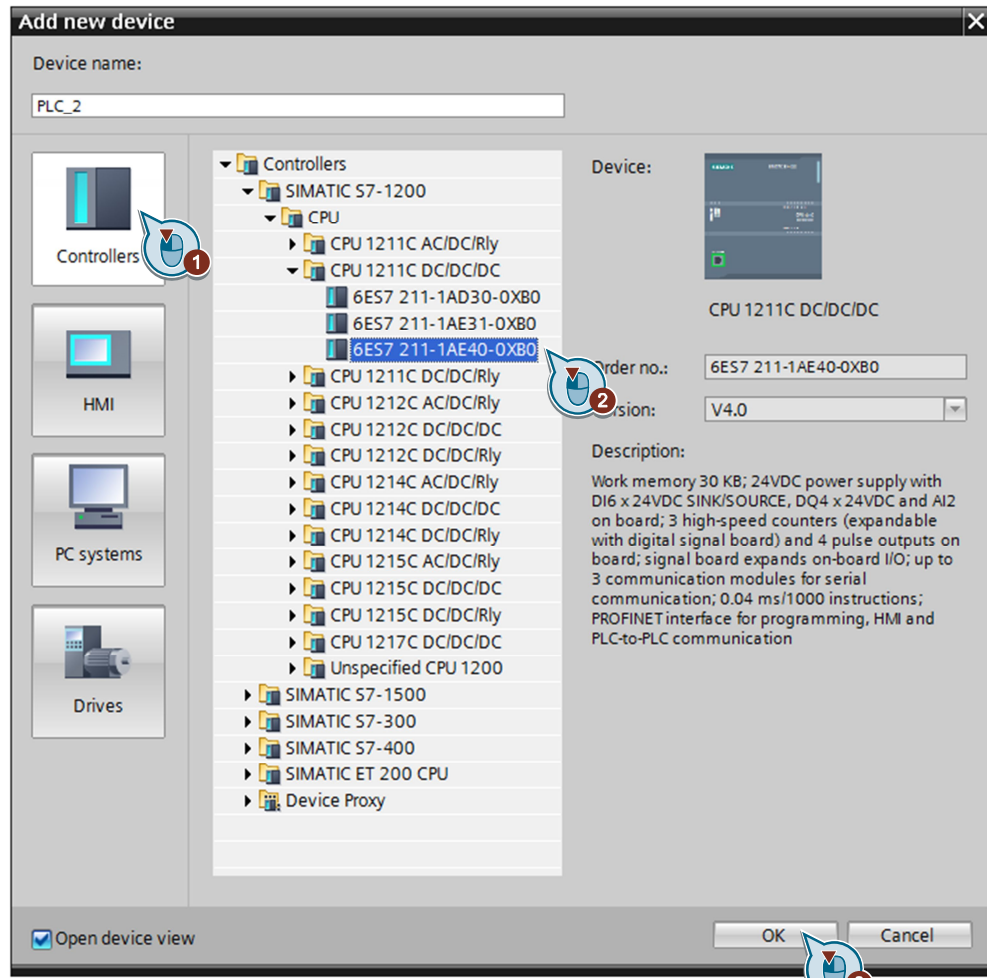
In the Project tree, double-click the "Add new device" item. The "Add new device" dialog opens.

Figure 2-1



4. Click the "Controller" button in the working area.
5. Go to "Controller → SIMATIC S7-1200 → CPU" and select the required controller.
6. Click the "OK" button to add the selected S7-1200 CPU to your project.

Figure 2-2

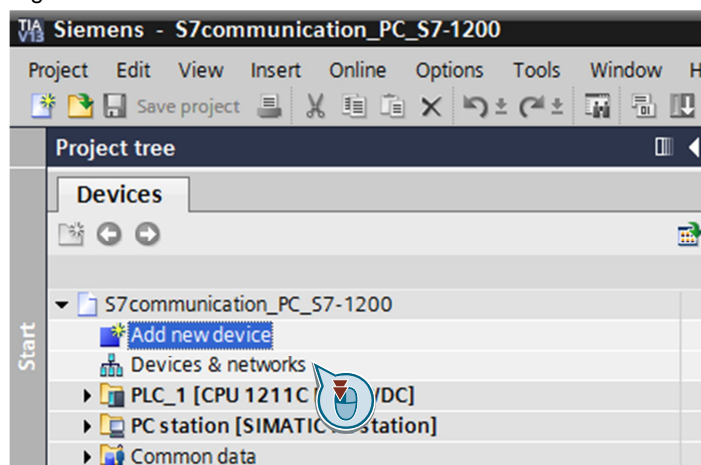


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Define IP address and assign subnet

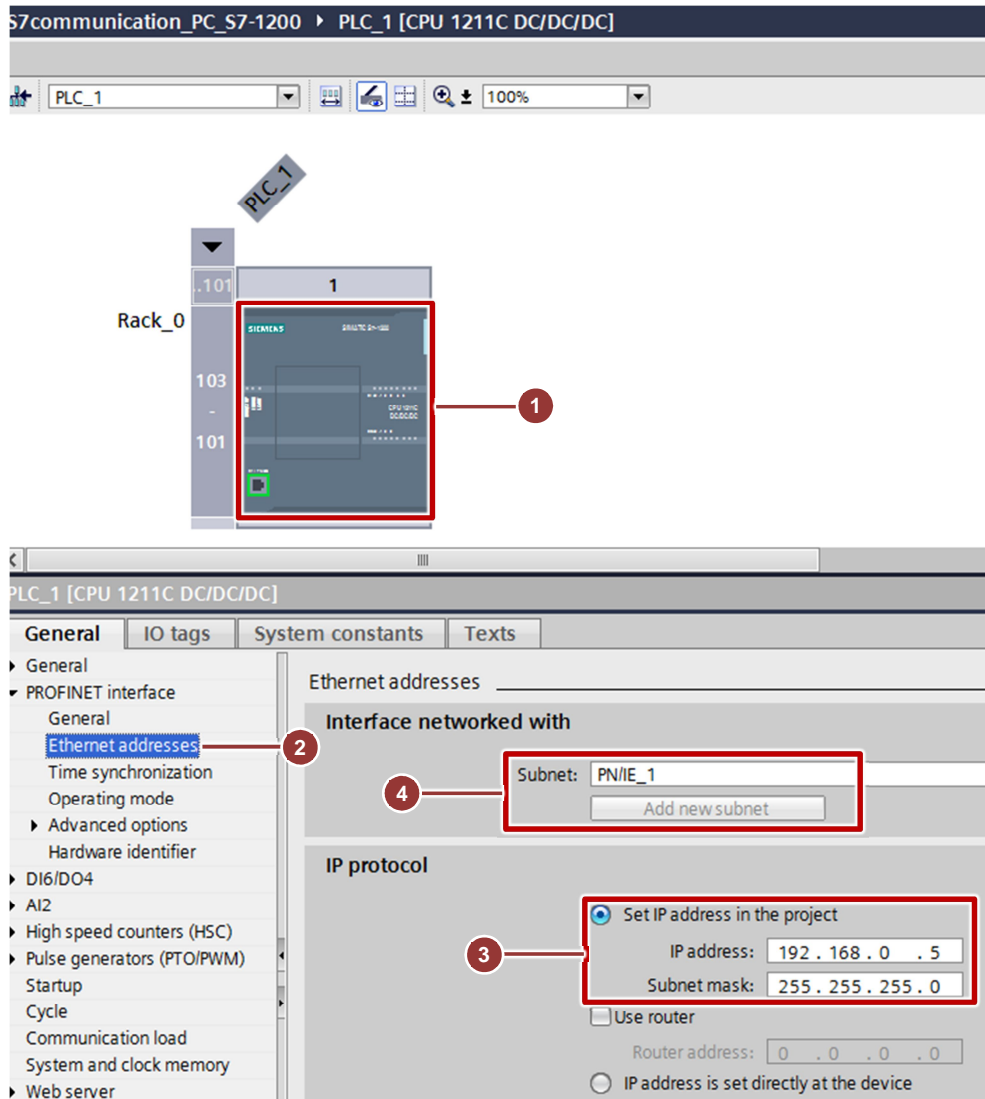
In the Project tree, double-click the "Devices & networks" item. The Devices & networks editor opens.

Figure 2-3



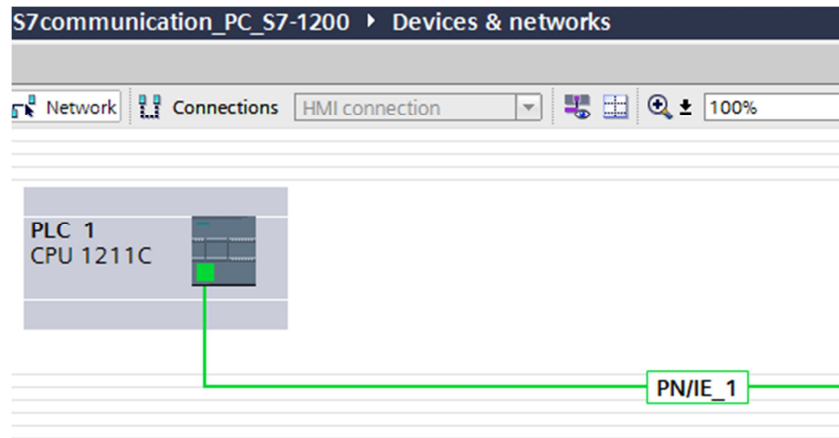
1. In the Network View or Device View of the Devices & networks editor you mark the S7-1200 CPU.
2. The properties of the S7-1200 CPU are displayed in the inspector window. Go to the "General" tab and in the area navigation you select the "PROFINET interface > Ethernet addresses" item.
3. In this example you enter the IP address 192.168.0.5 and the subnet mask 255.255.255.0 for the PROFINET interface of the S7-1200 CPU.
4. Assign a subnet to the PROFINET interface. Click the "Add new subnet" button to create a new subnet.

Figure 2-4



The connection between the subnet, PN/IE_1, for example, and the S7-1200 is now displayed in the "Network View" of the Devices & networks editor.

Figure 2-5



Permit access with PUT/GET communication from remote partner (PLC, HMI, OPC, ...)

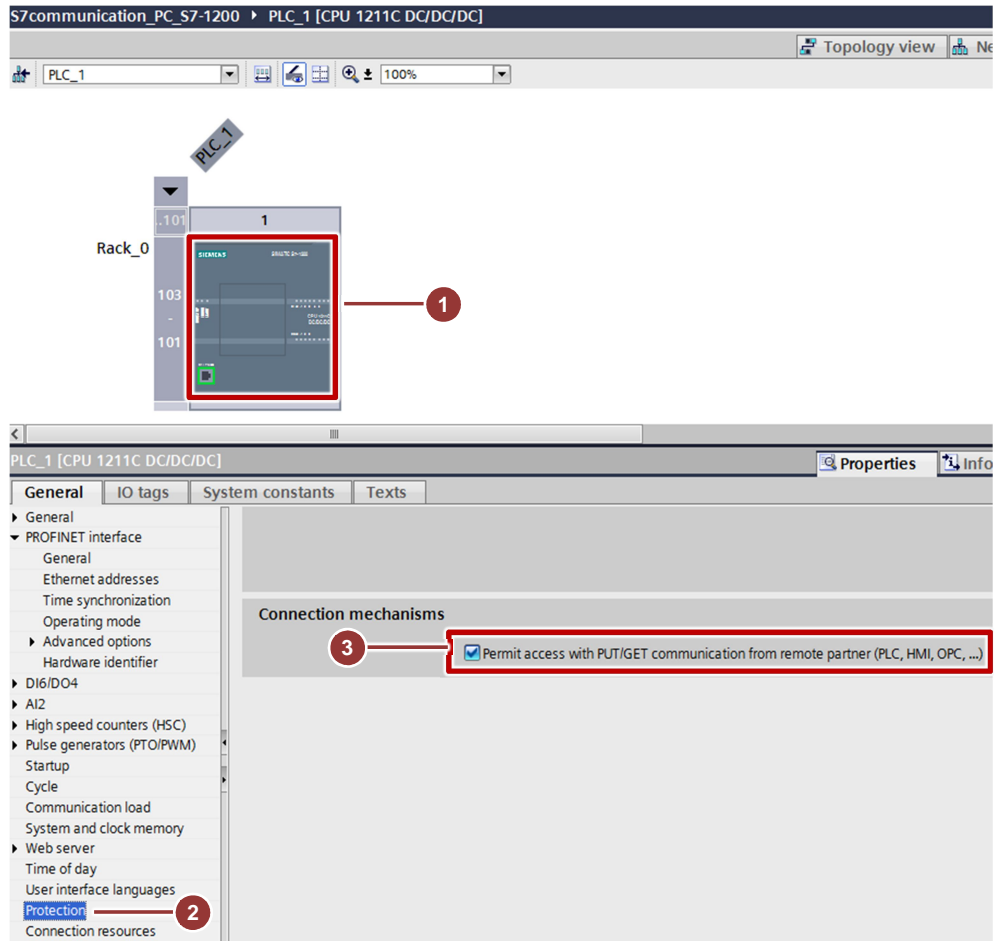
In example it is the S7-1200 CPU server for the S7 connection, in other words it participates passively in establishing the connection.

The PC station is client for the S7 connection, in other words the PC station actively established the S7 connection.

In the S7-1200 CPU you must permit the client-side access to the CPU data, which means that the communication services of the CPU are then no longer restricted. Proceed as follows.

1. In the Network View or Device View of the Devices & networks editor you mark the S7-1200 CPU.
2. The properties of the S7-1200 CPU are displayed in the inspector window. Go to the "General" tab and in the area navigation you select the "Protection" item.
3. Enable the "Permit Access with PUT/GET communication from remote partner (PLC, HMI, OPC, ...)" function.

Figure 2-6



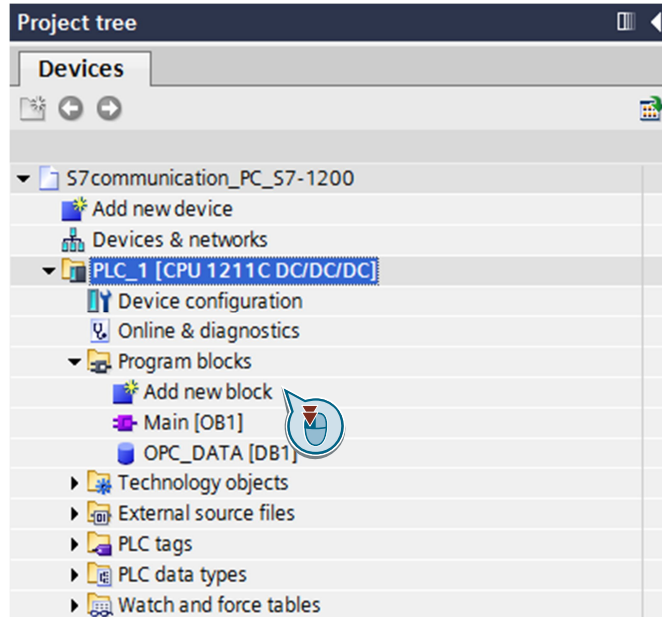
2.1.2 Create a User Program

Add a data block

In the Project tree, navigate to the device folder of the S7-1200 CPU, "PLC_1 [CPU 1212C ...]", for example. The device folder contains structured objects and actions that belong to the device.

In the device folder you navigate to the "Program blocks" subfolder and double-click the "Add new block" action. The "Add new block" dialog opens.

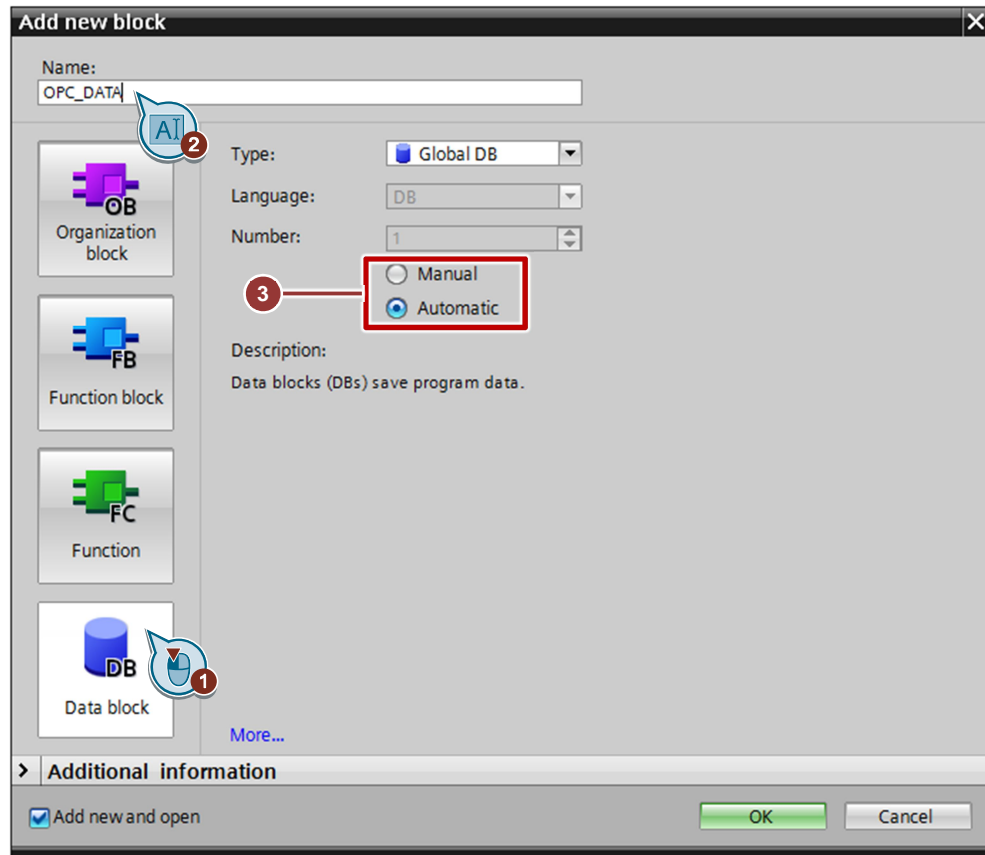
Figure 2-7



1. Click the "Data block (DB)" button.
2. Enter the name of the data block.
3. If the "Automatic" option is enabled, the number of the data block is assigned automatically.
Enable the "Manual" option if you want to assign the desired number of the data block manually.
4. Apply the settings with "OK".

The data block DB1 "OPC_DATA" is created in this example.

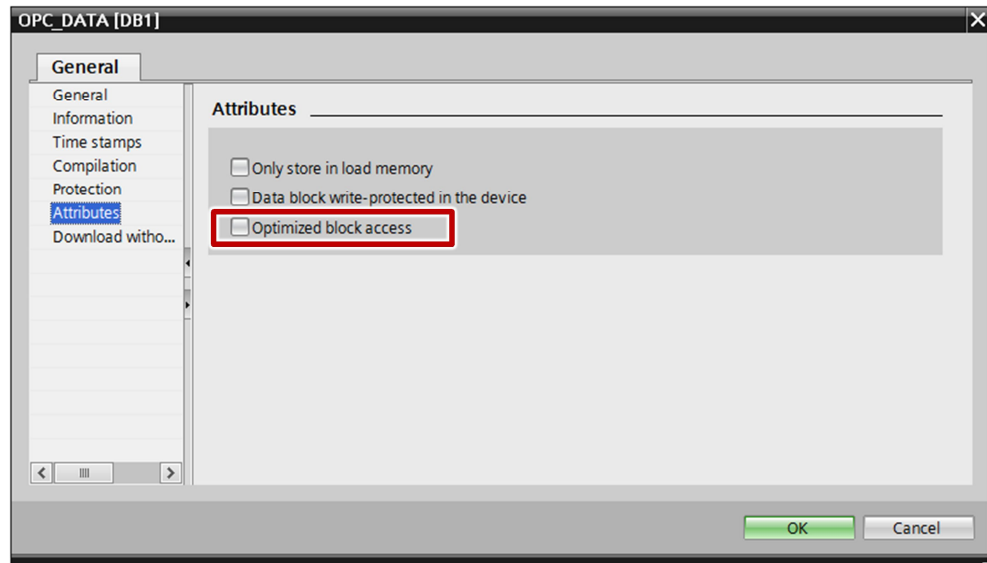
Figure 2-8



In the Properties of the data block, under "Attributes" you disable the "Optimized block access" function.

Data blocks with standard access have a fixed structure. The data elements in the declaration include both symbolic names and a fixed address in the block. The address is displayed in the "Offset" column. You can address the tags in this block both symbolically and absolutely.

Figure 2-9

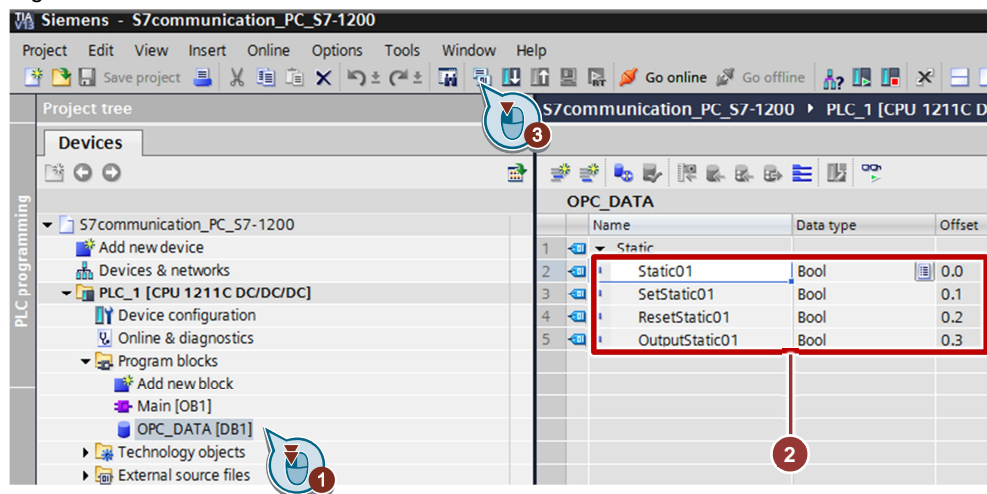


Define static tag in the data block

Define 4 static variables of the "Bool" data type in the DB1 "OPC_DATA".

1. In the Project tree you go to the "Program Blocks" folder and double-click the data block DB1 "OPC_DATA". The data block DB1 "OPC_DATA" opens in the working area.
2. Insert 4 static variables of the "Bool" data type in the data block DB1 "OPC_DATA".
 - Static01
 - SetStatic01
 - ResetStatic01
 - OutputStatic01
3. Click the "Compile" button.

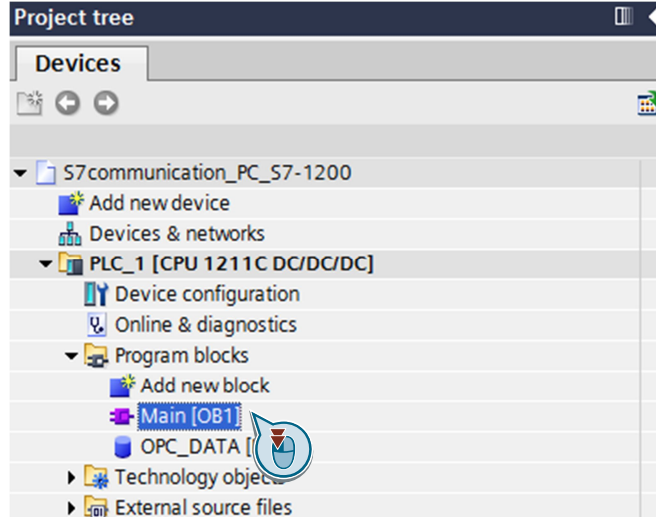
Figure 2-10



Create Main [OB1]

In the "Program blocks" folder, you double-click the "Main [OB1]" block to open the corresponding dialog window.

Figure 2-11



Create the program as shown in [Figure 2-12](#). The bit links are in the "Instructions" task card under "Basic instructions > Bit links".

Use drag-and-drop to add the normally open contact, the flip-flop and the Assignment to Network 1 of the "Main [OB1]" block.

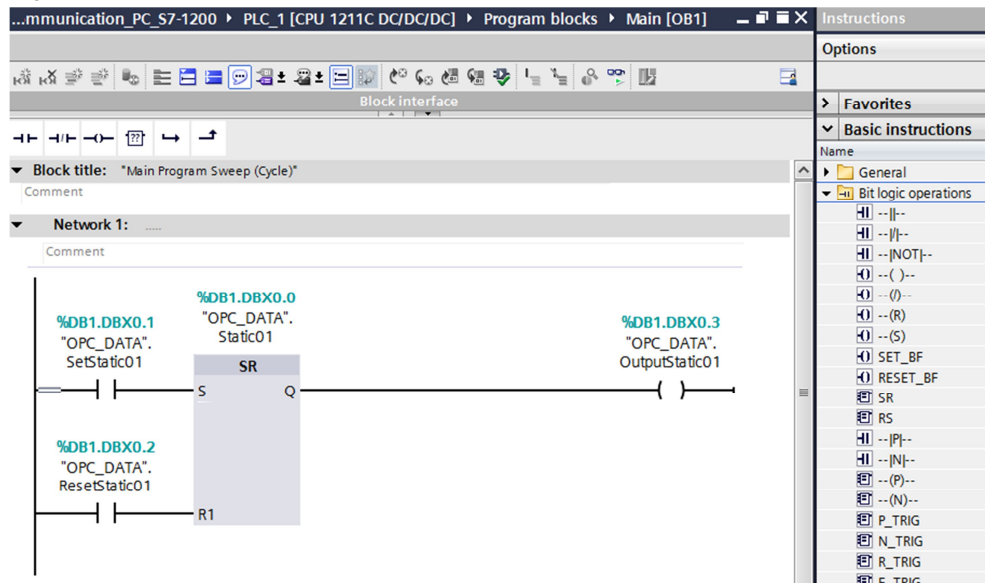
Assign the tags assigned in [Table 2-1](#) to the flip-flop, to the normally open contact at inputs S and R of the flip-flop and to the assignment at output Q of the flip-flop.

Click the "Compile" button.

Table 2-1

Variable		Description
Absolute address	Symbolic name	
DB1.DBX0.1	"OPC_DATA".SetStatic01	SR flip-flop input S: NO contact
DB1.DBX0.2	"OPC_DATA".ResetStatic01	SR flip-flop input R: NO contact
DB1.DBX0.0	"OPC_DATA".Static01	SR variable
DB1.DBX0.3	"OPC_DATA".OutputStatic01	SR flip-flop output Q: Assignment

Figure 2-12



Note The "%" character before the absolute address is added automatically by the TIA Portal.

2.2 Configuration of the PC Station

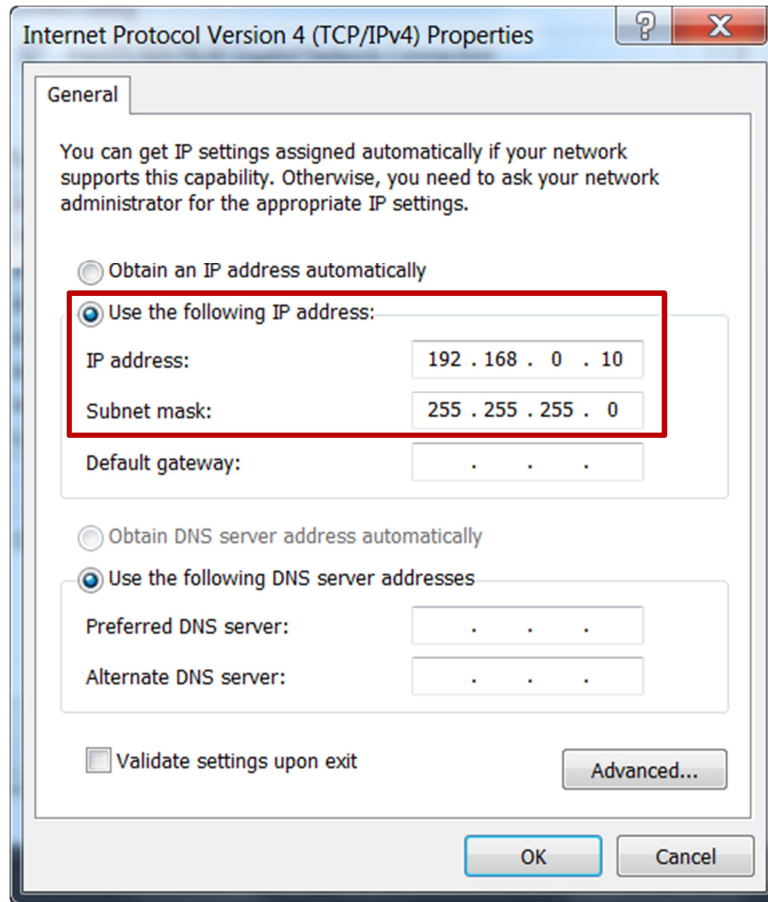
Before you start configuring the PC station in the TIA Portal, determine or change the IP address of the network card via which the PC station is connected to the S7-1200. You enter the IP address and subnet mask of the network card when you configure the PC station in the TIA Portal.

Determine and change the IP address and subnet mask of the network card

In Windows you open the "Network and Sharing Center" and select the "Change adapter settings" functions. Open the Properties dialog of the network card via which the PC station is connected with the S7-1200.

In this example the network card receives the IP address 192.168.0.10 and subnet mask 255.255.255.0.

Figure 2-13



Note

The IP address configured for the PC station in the TIA Portal must match the IP address set in Windows.

If you are not using a router, then the IP addresses of the PC station and the S7-1200 CPU must be in the same subnet.

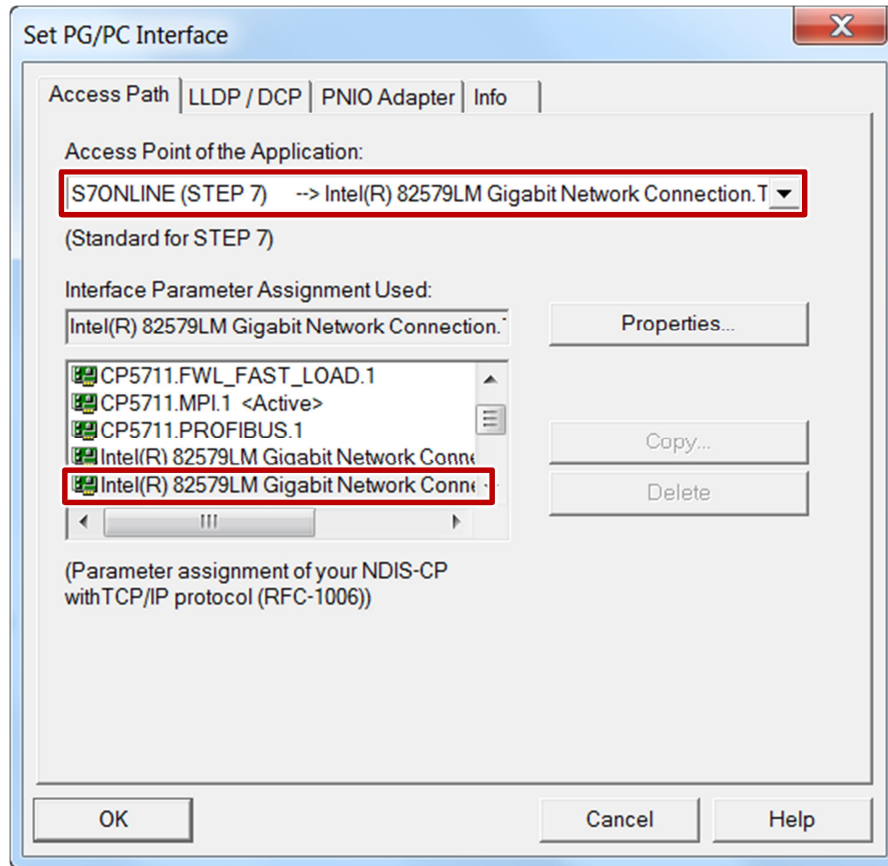
Setting the PG/PC interface

Go to the Control Panel and start the configuration program "Set PG/PC Interface": "Start > Settings > Control Panel > Set PG/PC Interface".

In the "Access Point of the Application" list box you select the access point "S7ONLINE".

In the "Interface Parameter Assignment Used" list box you select the network card with TCP/IP to which the S7-1200 CPU is connected.

Figure 2-14

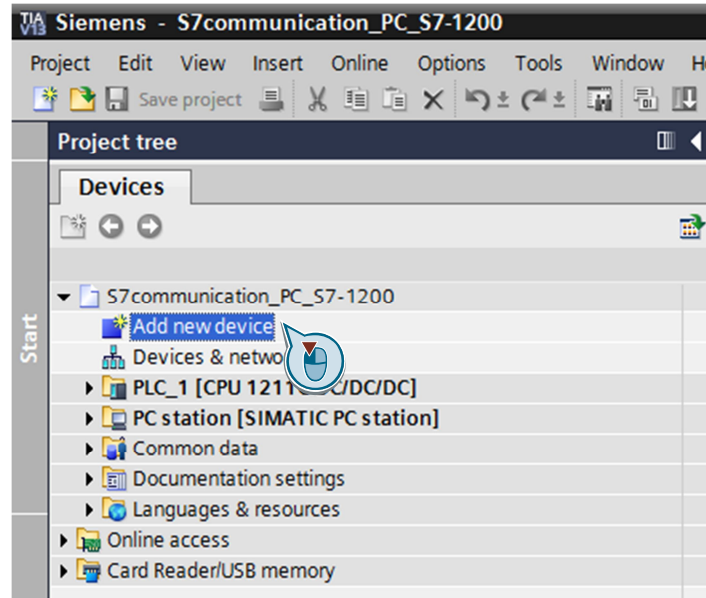


Add a PC station

In the TIA Portal you open the project that contains the configuration for the S7-1200 station.

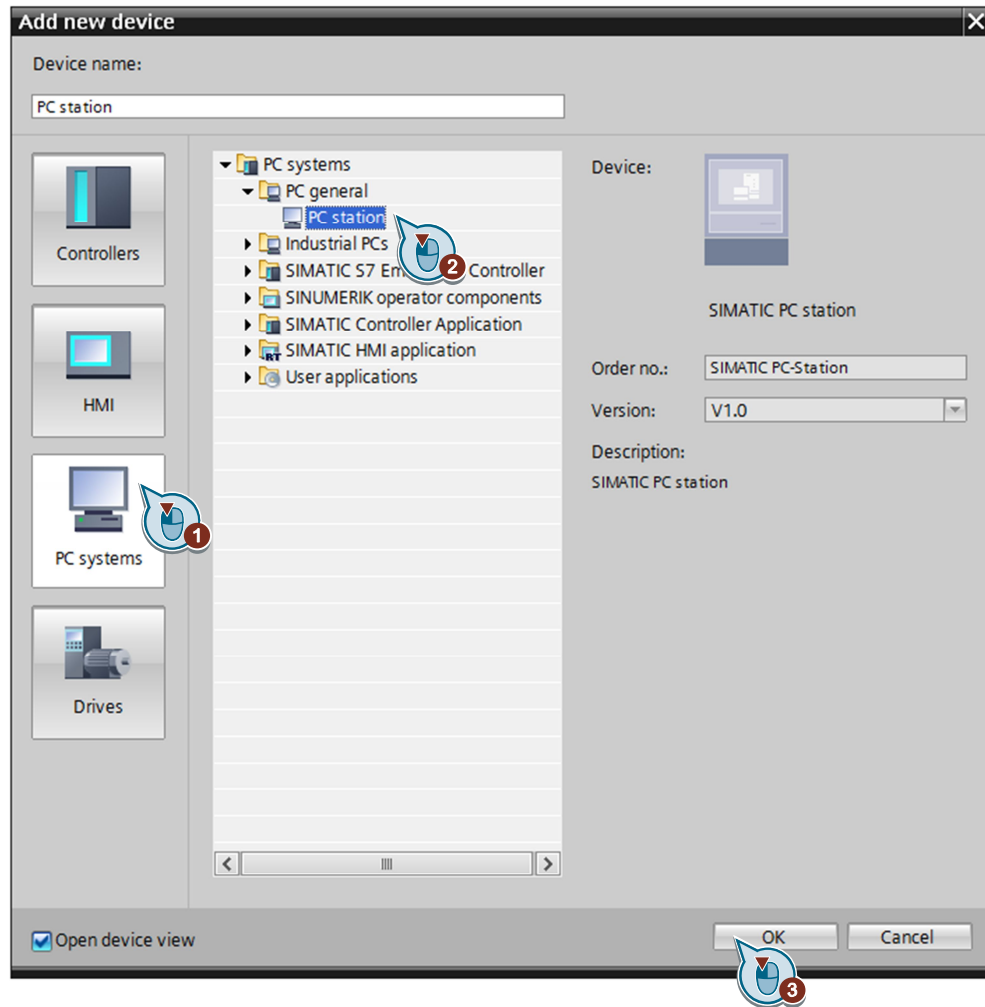
In the Project tree, double-click the "Add new device" item. The "Add new device" dialog opens.

Figure 2-15



1. Click the "PC systems" button in the working area.
2. Go to "PC systems → PC general" and select the "PC station" item.
3. Click the "OK" button to add a PC station named "PC Station" to your project.

Figure 2-16

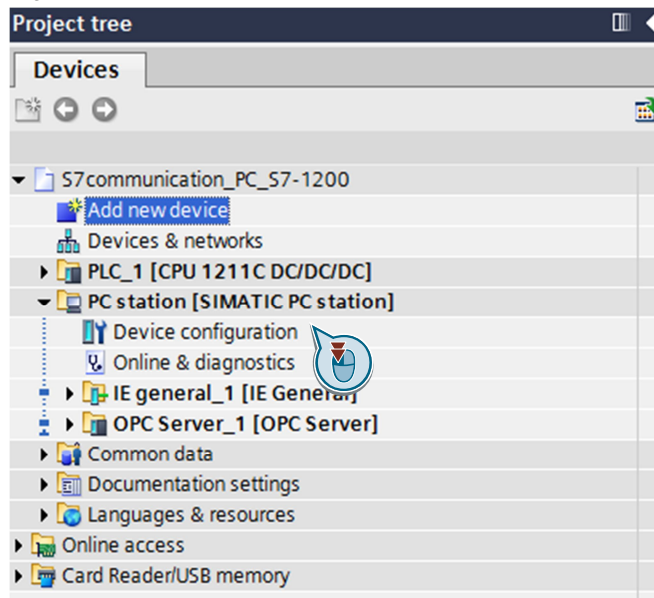


Open the "Device View" of the PC station in the Devices & networks editor

In the Project tree, navigate to the device folder of the PC station, "PC Station [PC station]", for example. The device folder contains structured objects and actions that belong to the device.

In the device folder double-click the "Device configuration" object to open the "Device View" of the PC station in the Devices & networks editor.

Figure 2-17

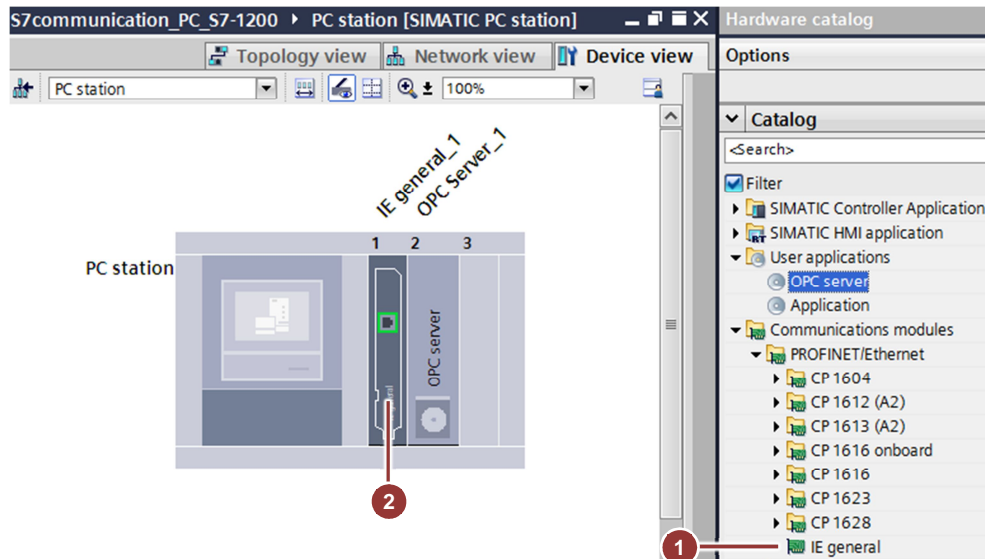


Configure user application and communication module of the PC station

In the "Device View" of the PC station you configure and parameterize the modules of the PC station.

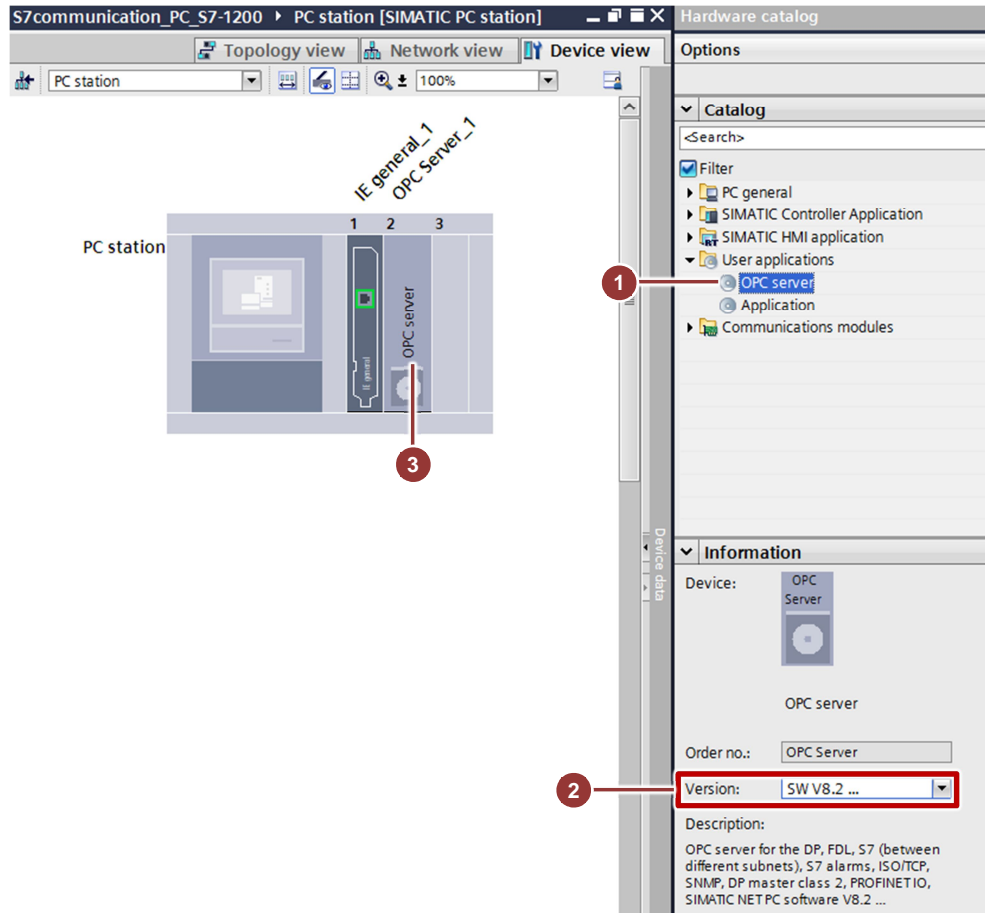
1. In the "Hardware catalog" task card, the "Catalog" palette contains the user applications and communication modules which you can configure in the PC station. Mark the "IE General" communication module.
2. Using drag-and-drop you add the "IE General" communication module to Slot 1 of the PC station.

Figure 2-18



1. In the Hardware catalog you go to the "Catalog" palette and mark the user application "OPC Server".
2. In the "Information" palette you select the version "SW V8.2..." for the OPC server. This ensures that no S7 connection with access to optimized data blocks is created later.
3. Using drag-and-drop you add the "OPC server" user application to Slot 2 of the PC station.

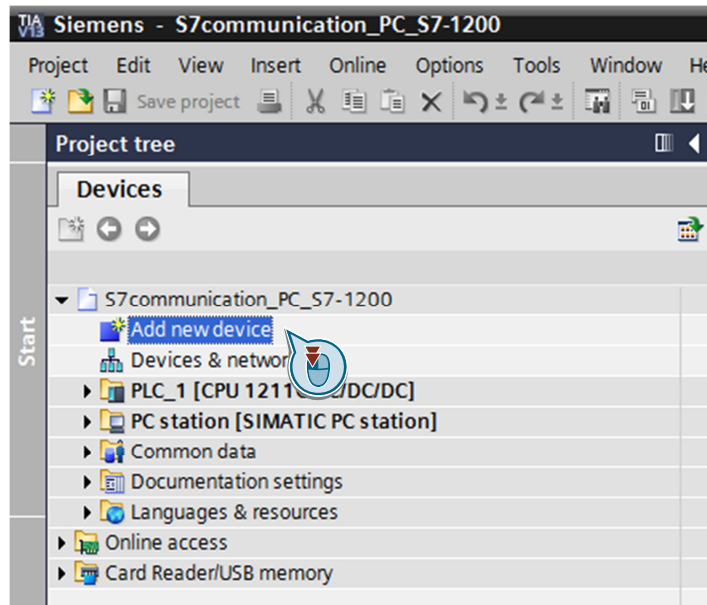
Figure 2-19



Define IP address and assign subnet

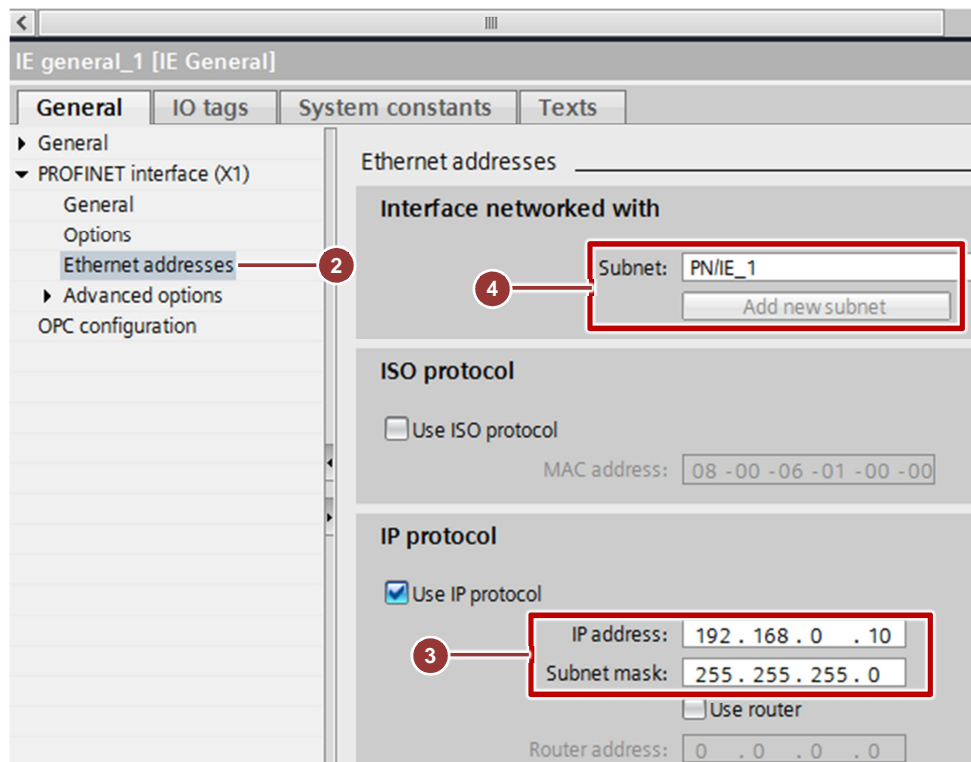
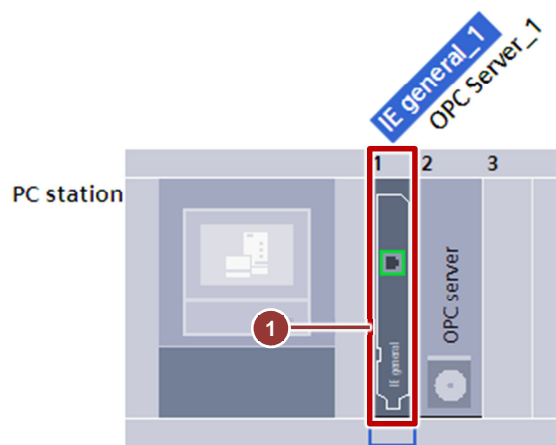
In the Project tree, double-click the "Devices & networks" item. The Devices & networks editor opens.

Figure 2-20



1. In the Network View or Device View of the Devices & networks editor you mark the network card in the PC station.
2. The properties of the network card are displayed in the inspector window. Go to the "General" tab and in the area navigation you select the "PROFINET interface > Ethernet addresses" item.
3. In this example you enter the IP address 192.168.0.10 and subnet mask 255.255.255.0 for the network card.
4. Select the subnet that you have already assigned to the S7-1200 CPU and assign it also to the network card of the PC station.

Figure 2-21



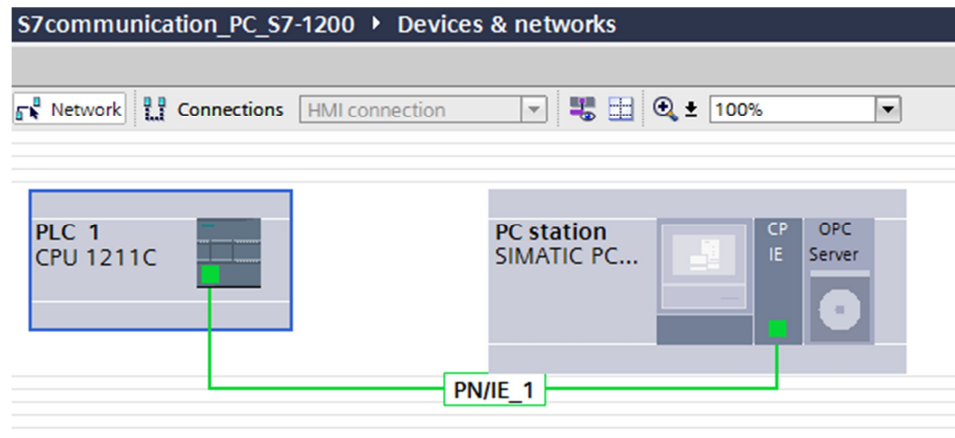
Note

The IP address configured for the PC station in the TIA Portal must match the IP address set in Windows.

If you are not using a router, then the IP addresses of the PC station and the S7-1200 CPU must be in the same subnet.

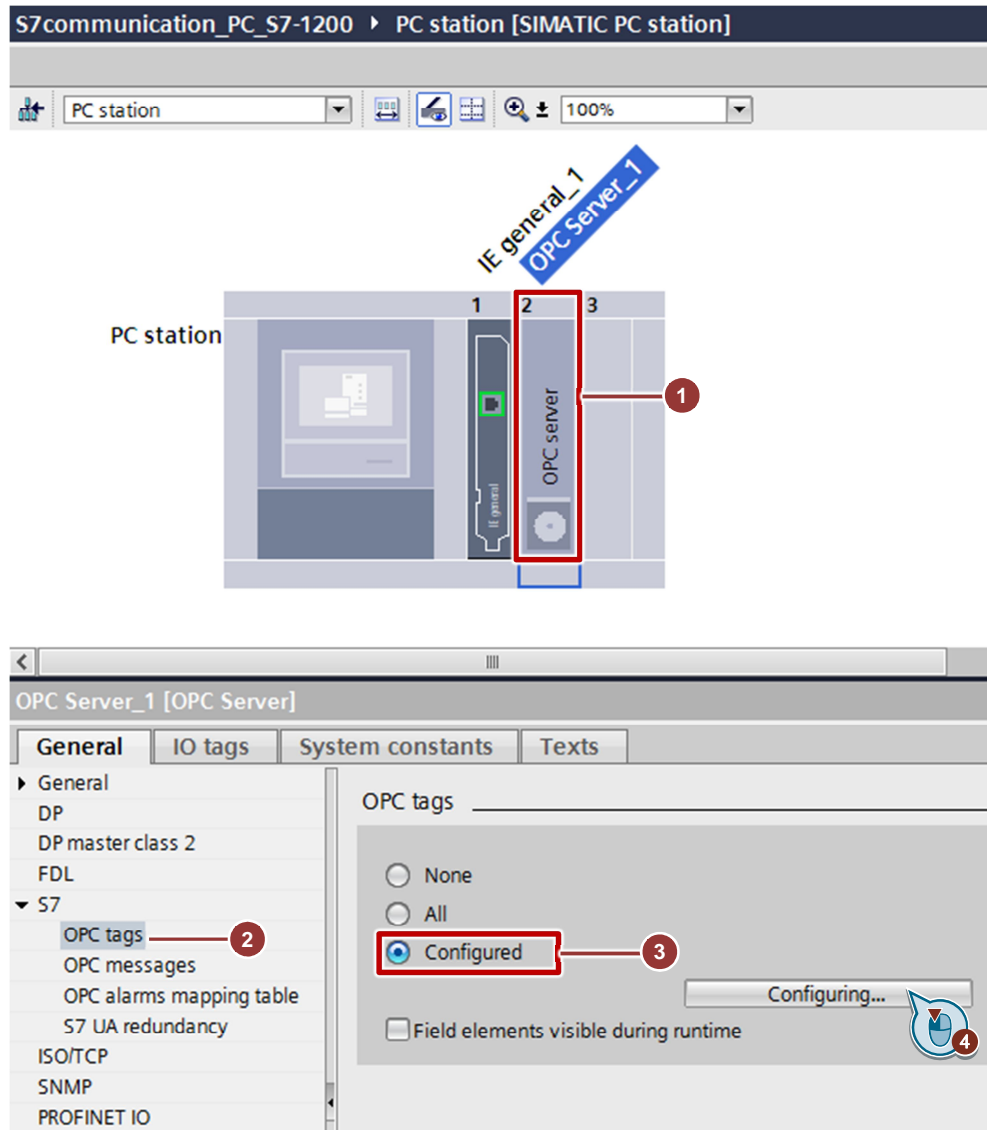
The connection between the subnet, PN/IE_1, for example, and the S7-1200 and the PC station is now displayed in the "Network View" of the devices and networks editor.

Figure 2-22

**Use symbols**

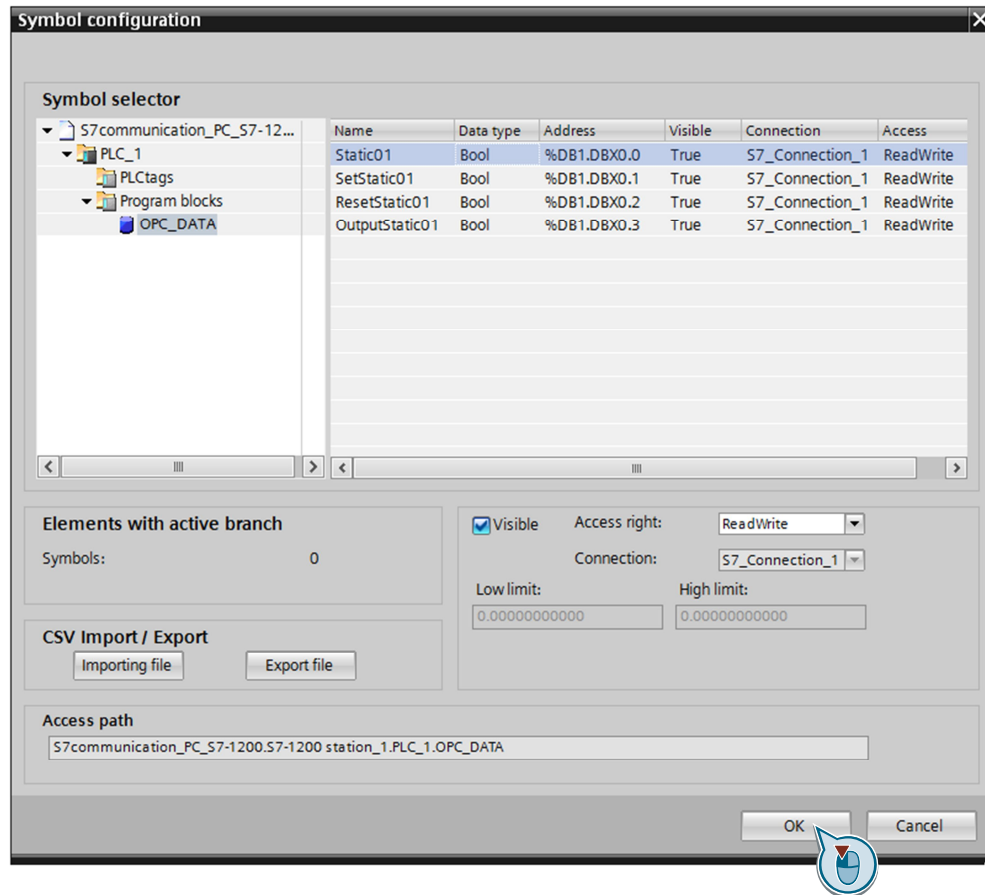
1. In the Network View or Device View of the Devices & networks editor you mark the OPC server in the PC station.
2. The properties of the OPC server are displayed in the inspector window. Go to the "General" tab and in the area navigation you select the "S7 > OPC tags" item.
3. Select the "Configured" option and click the "Configuring..." button. The "Symbol configuration" dialog opens.

Figure 2-23



Select the symbols via the Symbol selector and apply the selection with "OK".

Figure 2-24



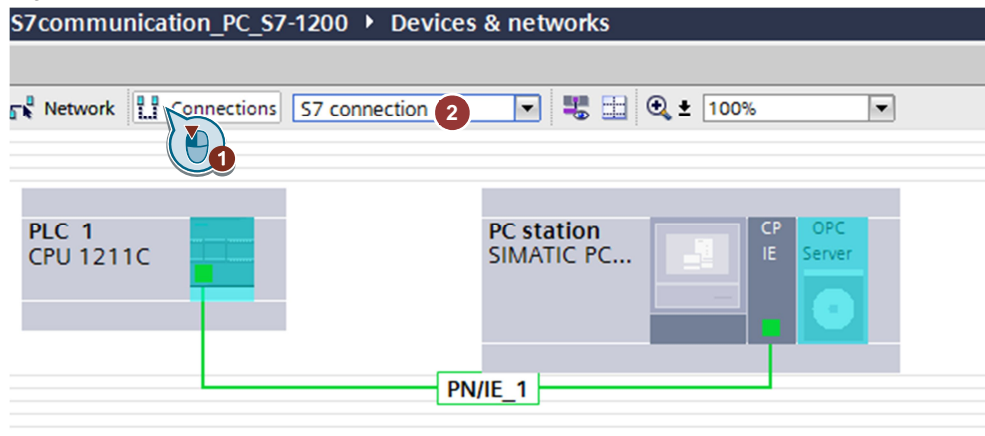
2.3 Configure the S7 Connection

2.3.1 Add the S7 Connection

In the Project tree, double-click the "Devices & networks" item to open the Devices & networks editor.

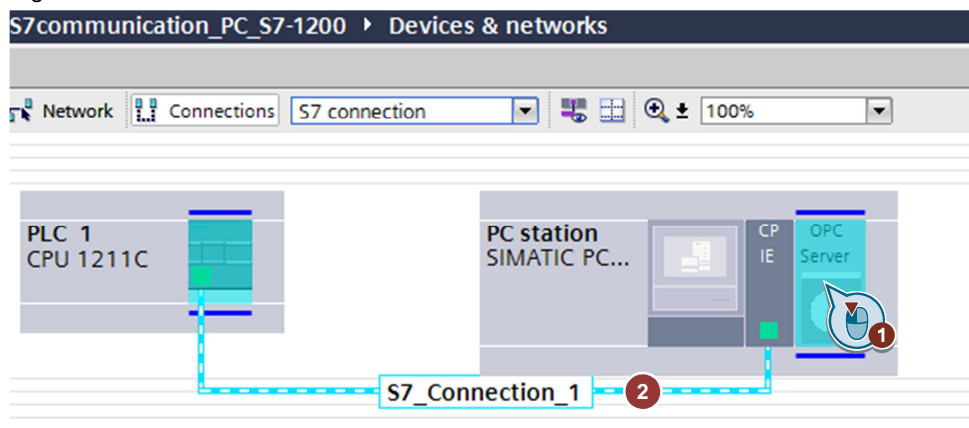
1. In the toolbar of the Network View, click the "Connections" icon to switch to the mode for setting the connections.
2. In the drop-down list box you select "S7 connection" as connection type.

Figure 2-25



1. In the graphical area of the Network View, click the OPC server in the PC station and connect it to the S7-1200 CPU.
2. In the Network View, the S7 connection is displayed in the graphical area.

Figure 2-26



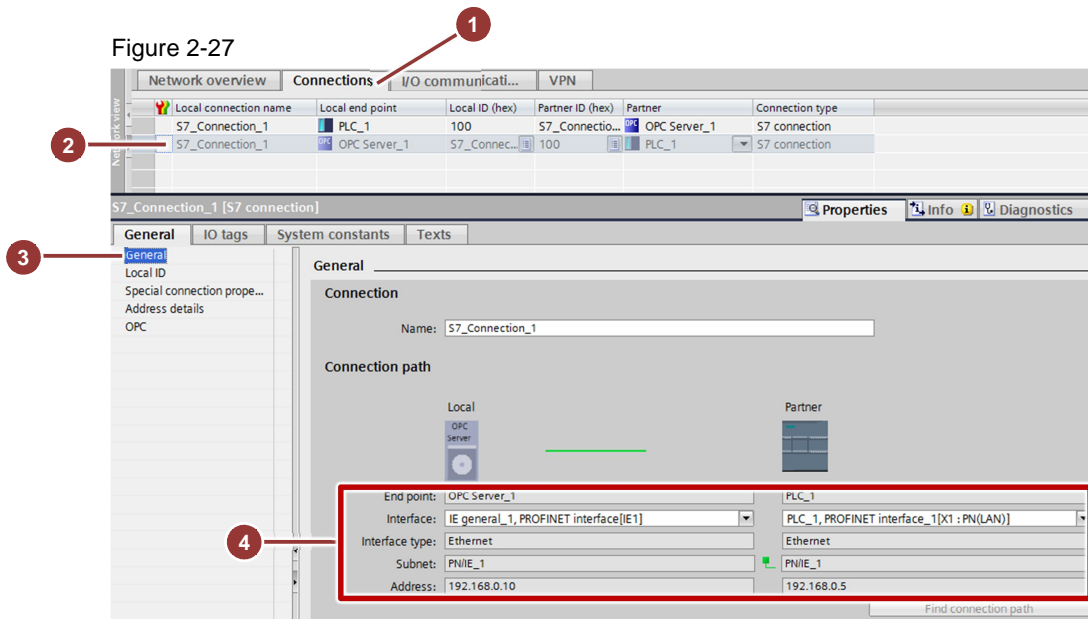
2.3.2 Display and Change Properties of the S7 Connection in the Inspector Window

1. In the Network view area you open the "Connections" table.
2. Select the S7 connection which has the OPC server as local end point. The properties of the S7 connection are displayed in the inspector window.

General properties

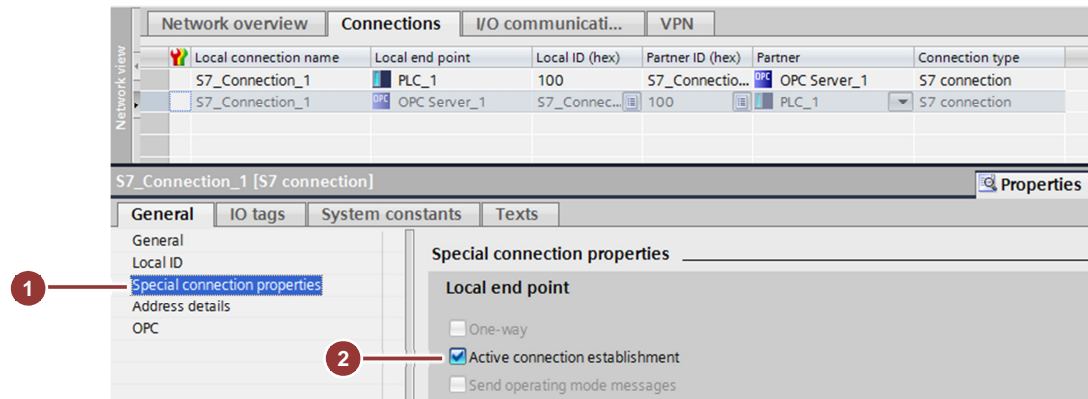
3. Go to the "General" tab and in the area navigation you select the "General" item to display the connection path.
4. The S7 connection is between the OPC server and the S7-1200 CPU.

Figure 2-27



1. Go to the "General" tab and in the area navigation you select the "Special connection properties" item.
2. Here you see a display of the special connection properties of the local end point, "Active connection establishment", for example. In this example, the OPC server establishes the S7 connection. The communication partner, S7-1200 CPU, participates passively in establishing the connection.

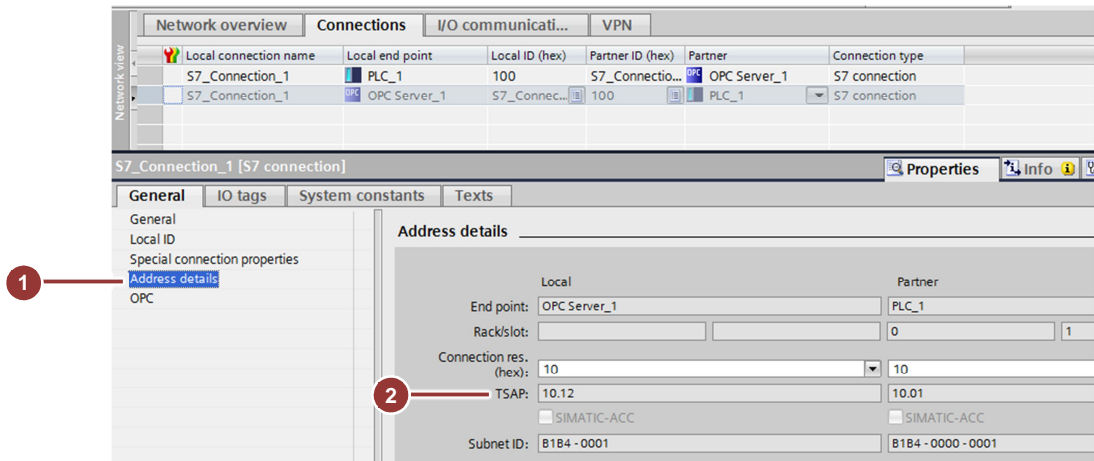
Figure 2-28



1. Go to the "General" tab and in the area navigation you select the "Address details" item.
2. Here you have a display of the local end point, the partner end point and the TSAP of both end points.

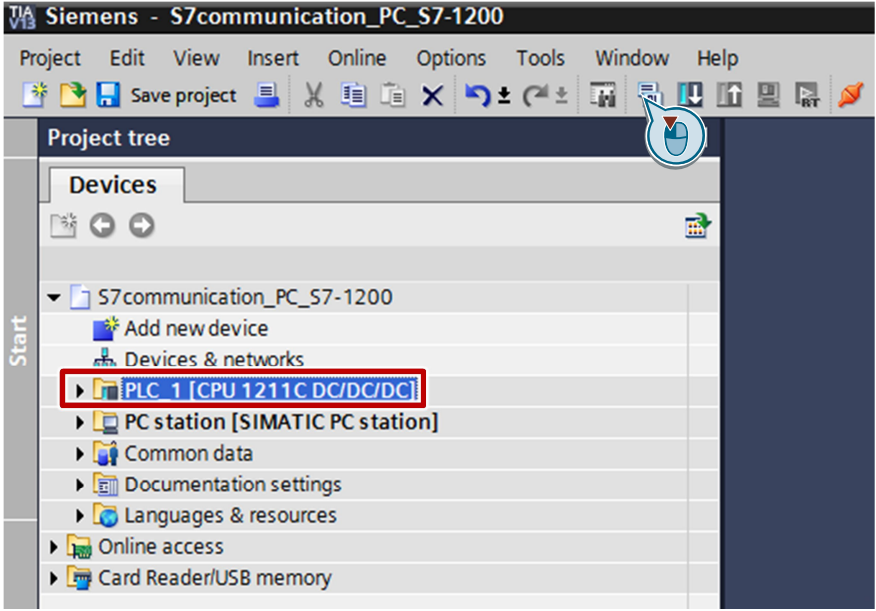
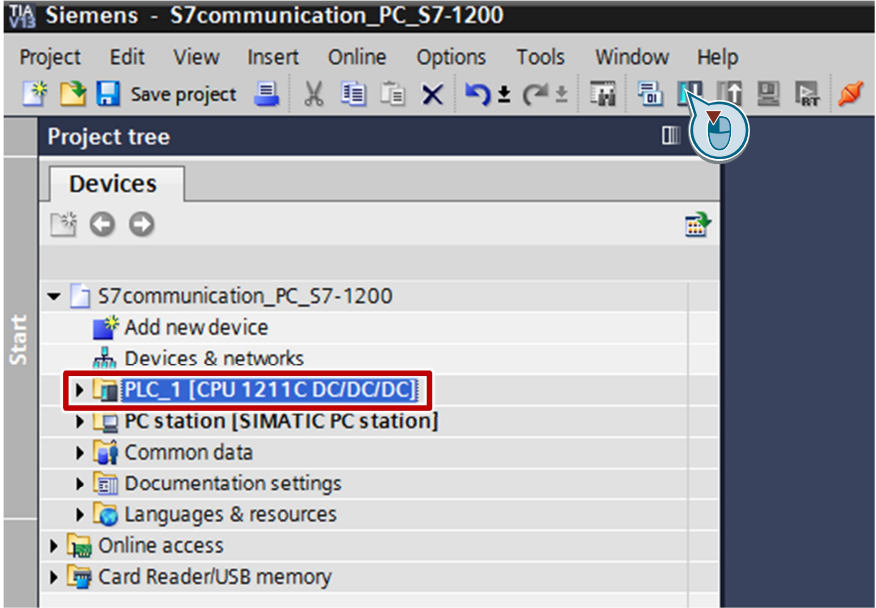
2 Procedure for S7-1200 V4.0 and Higher

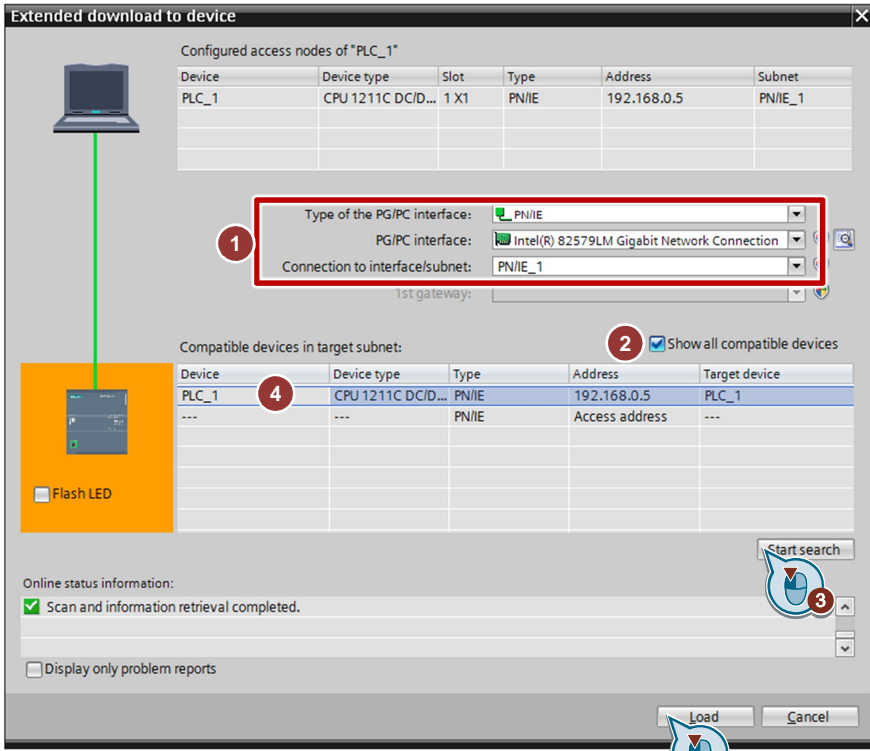
Figure 2-29

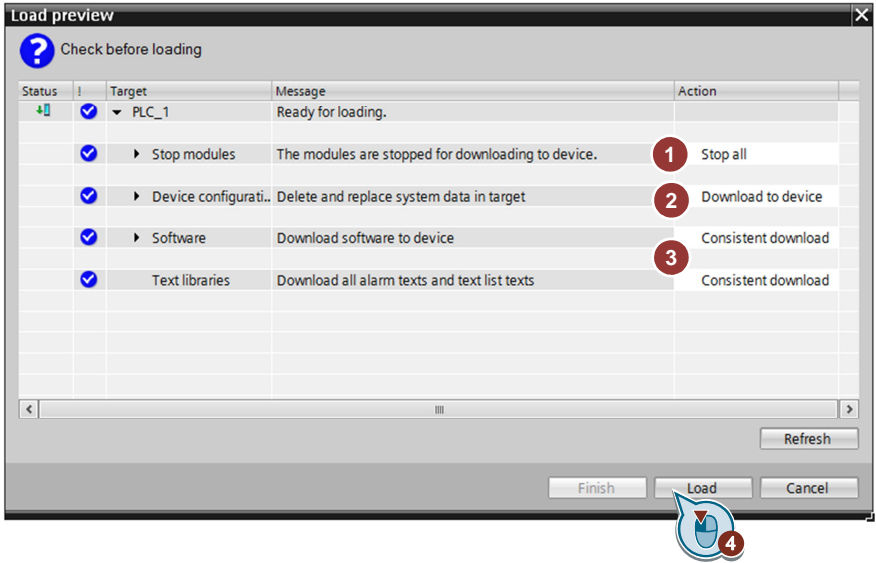
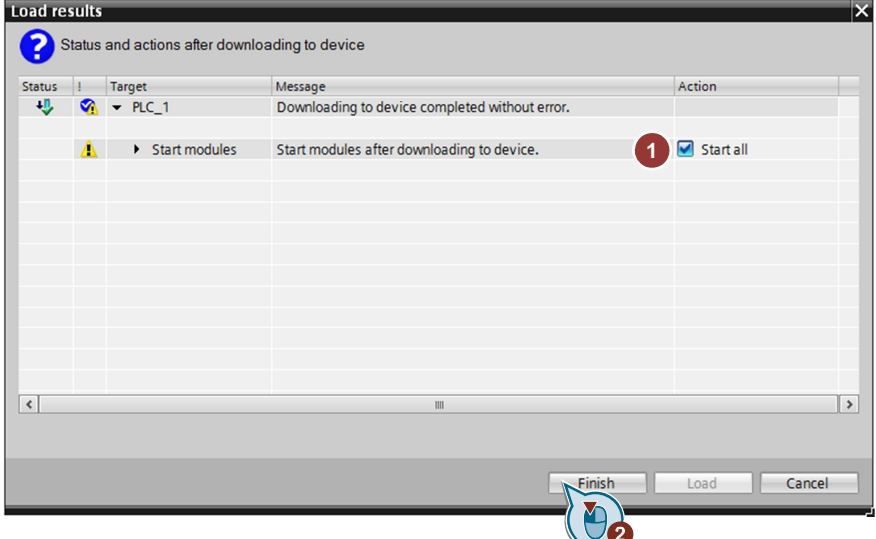


2.4 Compile and Download the Configuration and User Program of the S7-1200

Table 2-2

No.	Description
1.	<p>In the Project tree you mark the device folder of the S7-1200 CPU. In the toolbar you click the "Compile" button.</p> <p>The hardware configuration and the software of the S7-1200 are compiled.</p>  <p>The screenshot shows the Siemens TIA Portal interface for project 'S7communication_PC_S7-1200'. The menu bar includes Project, Edit, View, Insert, Online, Options, Tools, Window, and Help. The toolbar contains various icons, with the 'Compile' icon (a blue circle with a white 'C') highlighted by a blue callout bubble. The Project tree on the left shows a hierarchy under 'Devices' for 'S7communication_PC_S7-1200', with 'PLC_1 [CPU 1211C DC/DC/DC]' selected and highlighted by a red rectangle.</p>
2.	<p>In the Project tree you mark the device folder of the S7-1200 CPU. In the toolbar you click the "Download to device" button to download the project into the S7-1200 CPU.</p> <p>The "Extended download to device" or "Load preview" dialog opens automatically.</p>  <p>The screenshot shows the same Siemens TIA Portal interface. The 'Download to device' icon (a blue circle with a white arrow pointing down) in the toolbar is highlighted by a blue callout bubble. The Project tree shows 'PLC_1 [CPU 1211C DC/DC/DC]' selected and highlighted by a red rectangle.</p>

No.	Description
3.	<p>The "Extended download to device" dialog opens automatically only if the access path from the PG/PC to the SIMATIC S7-1200 CPU has to be set.</p> <p>4. Make the following settings:</p> <ul style="list-style-type: none"> - Type of the PG/PC interface: PN/IE - PG/PC interface: Network card of the PG/PC - Connection to interface/subnet: Subnet of the S7-1200 CPU, PN/IE_1, for example <p>5. Enable the "Show all compatible devices" option.</p> <p>6. Click the "Start search" button. The S7-1200 CPU is displayed in the "Compatible devices in target subnet:" list.</p> <p>7. From the "Compatible devices in target subnet:" list you select the S7-1200 CPU.</p> <p>8. Click the "Load" button.</p>
	 <p>The screenshot shows the 'Extended download to device' dialog box. At the top, it displays 'Configured access nodes of "PLC_1"'. Below this is a table with columns: Device, Device type, Slot, Type, Address, and Subnet. The first row shows 'PLC_1' with device type 'CPU 1211C DC/D...', slot '1 X1', type 'PN/IE', address '192.168.0.5', and subnet 'PN/IE_1'. Below the table are configuration options: 'Type of the PG/PC interface:' (dropdown set to 'PN/IE'), 'PG/PC interface:' (dropdown set to 'Intel(R) 82579LM Gigabit Network Connection'), and 'Connection to interface/subnet:' (dropdown set to 'PN/IE_1'). A '1st gateway:' field is also present. Below these is a section for 'Compatible devices in target subnet:' with a '2' callout pointing to the checked 'Show all compatible devices' checkbox. A table below shows the search results with columns: Device, Device type, Type, Address, and Target device. The first row shows 'PLC_1' with device type 'CPU 1211C DC/D...', type 'PN/IE', address '192.168.0.5', and target device 'PLC_1'. A '4' callout points to this row. At the bottom right, there is a 'Start search' button with a '3' callout, and 'Load' and 'Cancel' buttons with a '5' callout. The 'Online status information:' section shows a green checkmark and the text 'Scan and information retrieval completed.' There is also a 'Flash LED' checkbox and a 'Display only problem reports' checkbox.</p>

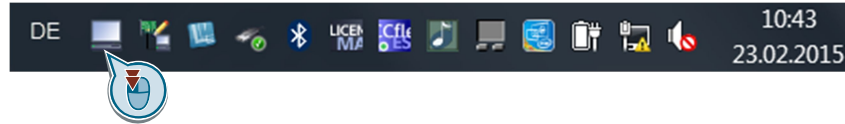
No.	Description
9.	<p>In the "Load preview" dialog you make the following settings.</p> <ol style="list-style-type: none"> 1. Select the "Stop all" action to stop the modules for downloading to the device. 2. The device configuration is downloaded into the target device (S7-1200 CPU). 3. The software and the text libraries are downloaded consistently to the target device (S7-1200 CPU). 4. Click the "Load" button to start the download procedure. 
5.	<p>In the "Load results" dialog you make the following settings.</p> <ol style="list-style-type: none"> 1. Enable the action "Start all". 2. Click the "Finish" button to terminate the download procedure. The status LED of the S7-1200 CPU indicates the "RUN" mode after downloading. 

2.5 Compile and Download the PC Station Configuration

Open the Station Configuration Editor

In the Windows taskbar you double-click the "Station Configuration Editor" icon. The Station Configuration Editor opens.

Figure 2-30



1. In the Station Configuration Editor you click the "Add..." button to add the modules, namely the OPC server and the network card, in accordance with the hardware configuration.
2. The modules are used at the following slots:
 - Slot 1: Network card
 - Slot 2: OPC server
3. Click the "Station Name..." button to change the station names. The name of the PC station must be identical in the TIA Portal and in the Station Configuration Editor.
4. The station name "PC station" is used in this example.

Figure 2-31

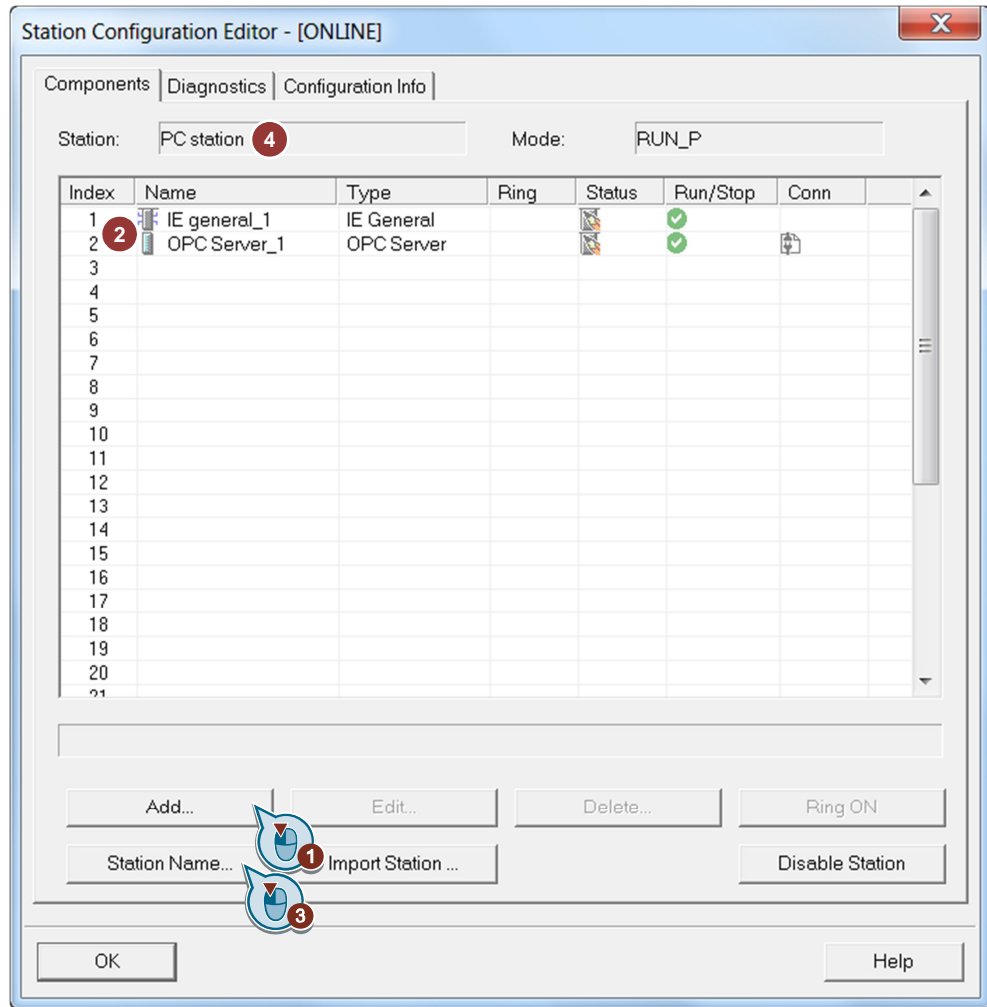
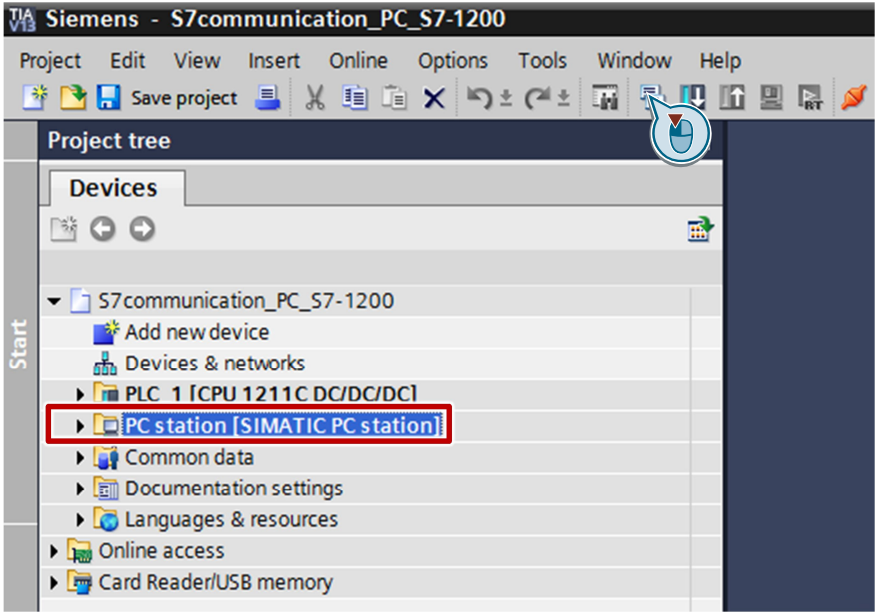
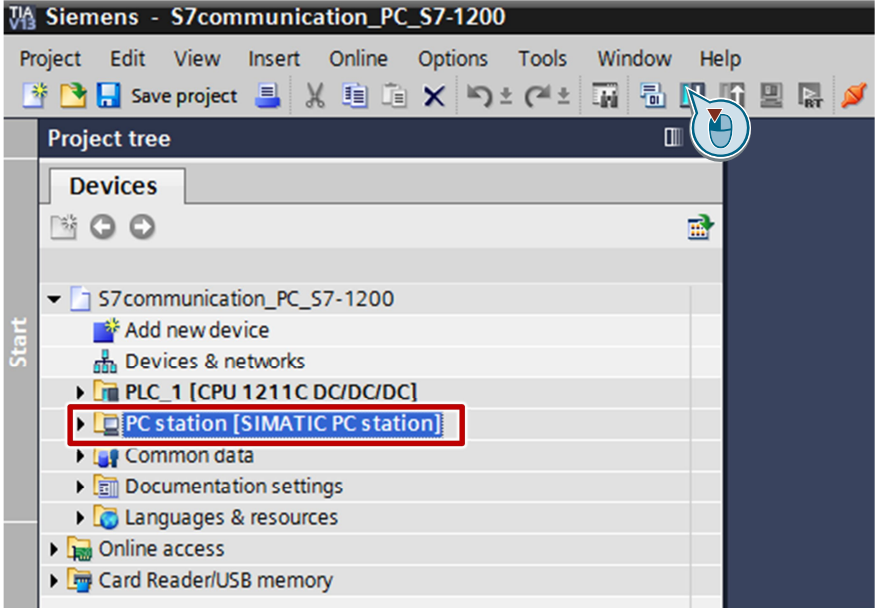
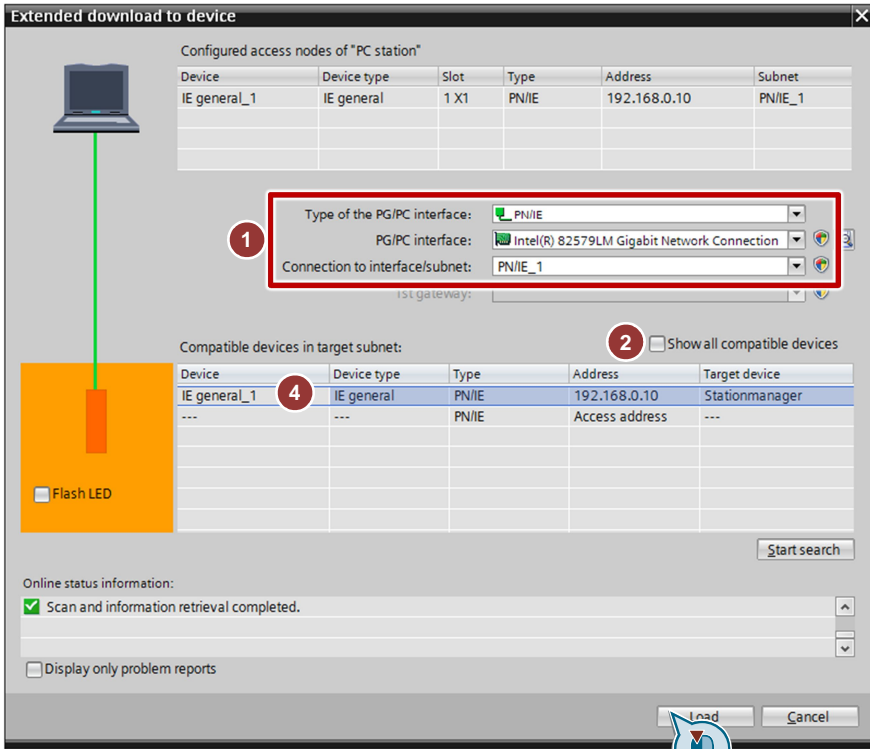
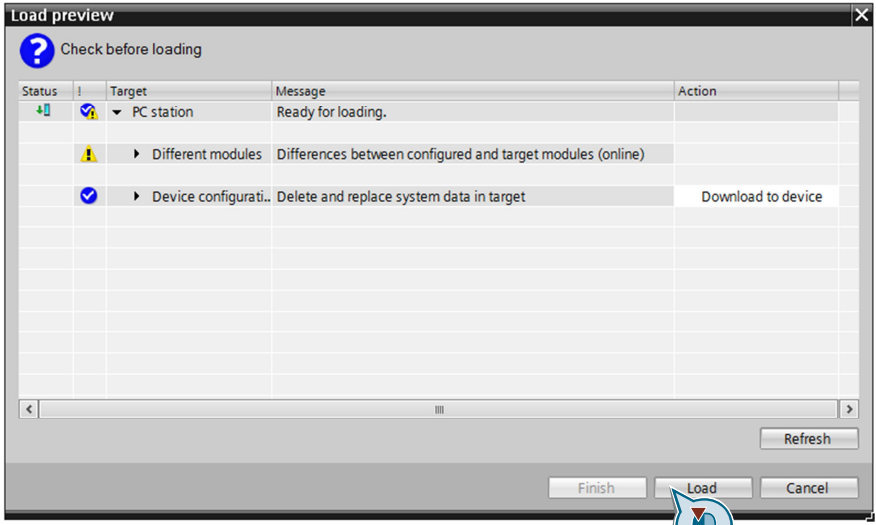


Table 2-3

No.	Description
1.	<p>In the Project tree you mark the device folder of the PC station. In the toolbar you click the "Compile" button.</p> <p>The hardware configuration and the software of the PC station are compiled.</p> 
2.	<p>In the Project tree you mark the device folder of the PC station. In the toolbar you click the "Download to device" button to download the project to the Station Configuration Editor.</p> <p>The "Extended download to device" or "Load preview" dialog opens automatically.</p> 

No.	Description
3.	<p>The "Extended download to device" dialog opens automatically only if the access path from the PG/PC to the PC station has to be set.</p> <ol style="list-style-type: none"> 1. Make the following settings: <ul style="list-style-type: none"> - Type of the PG/PC interface: PN/IE - PG/PC interface: Network card of the PG/PC - Connection to interface/subnet: Subnet of the PC station, PN/IE_1, for example 2. Disable the "Show all compatible devices" option. 3. Click the "Start search" button. The network card of the PC station is displayed in the "Compatible devices in target subnet:" list. 4. From the "Compatible devices in target subnet:" list you select the network card of the PC station. 5. Click the "Load" button. 

No.	Description
6.	<p>In the "Load preview" dialog you click the "Load" button to start the download procedure.</p> 
7.	<p>Commissioning of the PC station is completed after downloading of the configuration.</p>

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2.6 OPC Scout V10

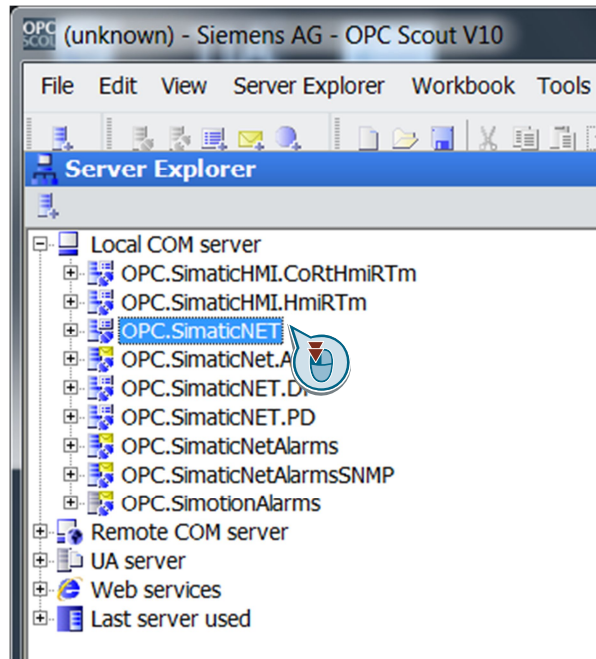
In this example the OPC Scout V10 is used as the OPC client. Using the OPC client you can access the data of the S7-1200 CPU via the OPC server.

Start the OPC Scout V10 by means of the Windows menu "Start > All Programs > Siemens Automation > SIMATIC > SIMATIC NET > OPC Scout V10".

2.6.1 Establish Connection to the OPC Server

In the Server Explorer you double-click the "OPC.SimaticNET" item to establish a connection to the OPC server.

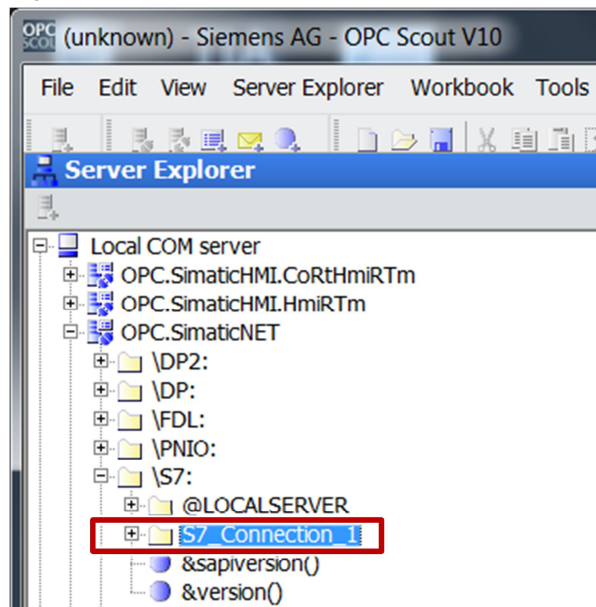
Figure 2-32



2.6.2 Absolute Tag Access

The configured S7 connection named "S7_Connection_1" is displayed in the Server Explorer under OPC.SimaticNET in the "\S7:" folder.

Figure 2-33



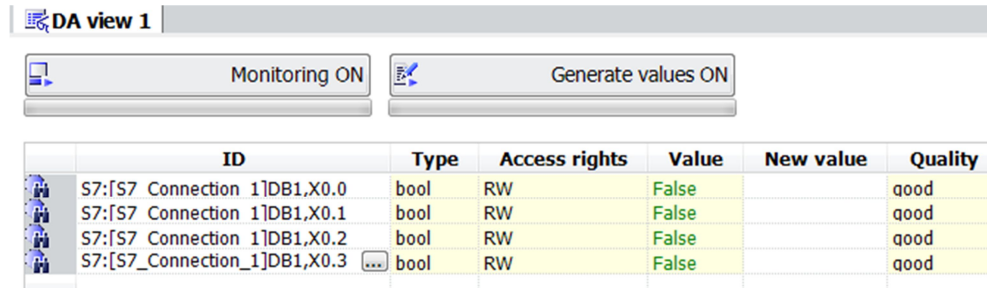
Create OPC items

Add the items below to the DA view.

Table 2-4

OPC item	Description
S7:[S7_Connection_1]DB1,X0.0	By means of the OPC item you monitor Bit 0.0 of the DB1 data block in the S7-1200 CPU.
S7:[S7_Connection_1]DB1,X0.1	By means of the OPC item you monitor and control Bit 0.1 of the DB1 data block in the S7-1200 CPU.
S7:[S7_Connection_1]DB1,X0.2	By means of the OPC item you monitor and control Bit 0.2 of the DB1 data block in the S7-1200 CPU.
S7:[S7_Connection_1]DB1,X0.3	By means of the OPC item you monitor Bit 0.3 of the DB1 data block in the S7-1200 CPU.

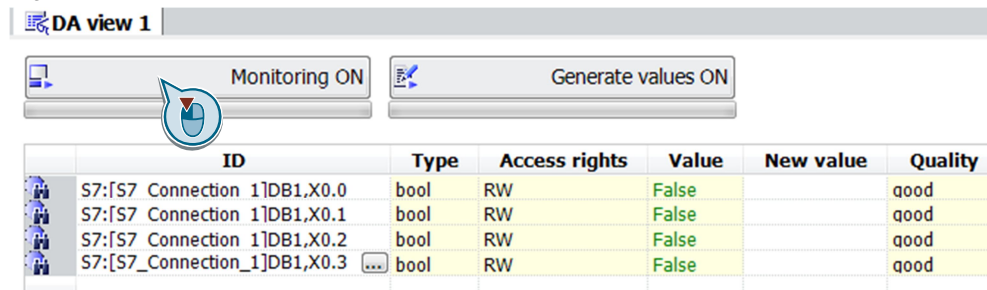
Figure 2-34



Monitor OPC items

Click the "Monitoring ON" button to monitor the values of the OPC items. The values of the OPC items are displayed in the "Value" column.

Figure 2-35



Write values

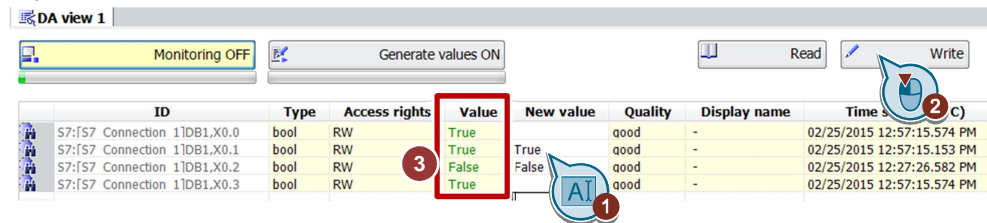
1. In the "New value" column you enter the value that you want to write to the S7-1200 CPU. Enter the values below in the "New value" column (see [Table 2-5](#)).

Table 2-5

OPC item	New value
S7:[S7_Connection_1]DB1,X0.1	True
S7:[S7_Connection_1]DB1,X0.2	False

2. Click the "Write" button.
3. Bits 0.0 and 0.3 in DB1 are given the value "True". The results of the write procedure are displayed in the "Value" column.

Figure 2-36



1. Enter the values below in the "New value" column (see [Table 2-6](#)).

Table 2-6

OPC item	New value
S7:[S7_Connection_1]DB1,0.1	False
S7:[S7_Connection_1]DB1,0.2	True

2. Click the "Write" button.
3. Bits 0.0 and 0.3 in DB1 are reset to the value "False". The results of the write procedure are displayed in the "Value" column.

Figure 2-37

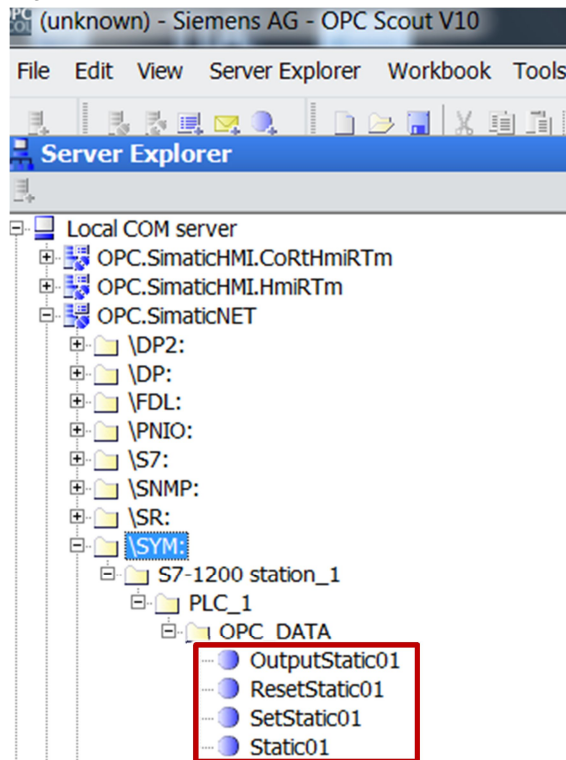
ID	Type	Access rights	Value	New value	Quality	Display name	Time stamp
S7:1S7 Connection 1\DB1.X0.0	bool	RW	False		good	-	02/25/2015 12:58:46.082 PM
S7:1S7 Connection 1\DB1.X0.1	bool	RW	False	False	good	-	02/25/2015 12:58:45.801 PM
S7:1S7 Connection 1\DB1.X0.2	bool	RW	True	True	good	-	02/25/2015 12:58:45.801 PM
S7:1S7 Connection 1\DB1.X0.3	bool	RW	False		good	-	02/25/2015 12:58:46.082 PM

2.6.3 Symbolic Tag Access

The symbols configured in the STEP 7 configuration (see section 2.2) are displayed in the Server Explorer under OPC.SimaticNET in the "\SYM:" folder.

In this example we use the symbol table of the S7-1200 CPU, because an S7 connection to this CPU is configured for the OPC server. Here the symbols of the symbol table which refer to the data blocks (DB), markers, inputs and outputs, for example, are taken into account.

Figure 2-38



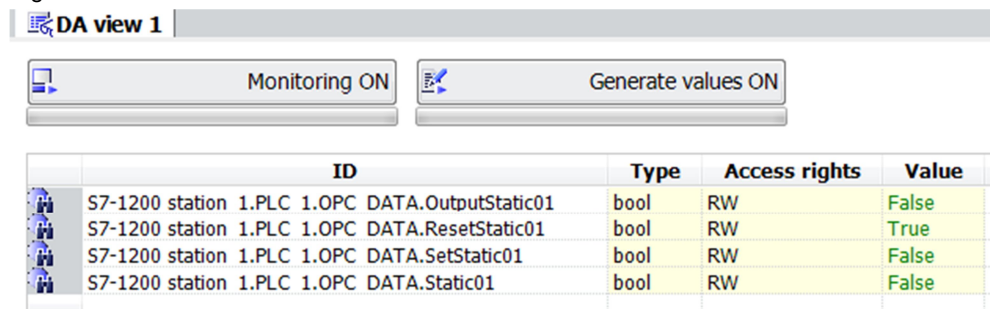
Create OPC items

Add the items below to the DA view.

Table 2-7

OPC item	Description
S7-1200 station_1.PLC_1.OPC_DATA.Static01	By means of the OPC item you monitor Bit 0.0 of the DB1 data block in the S7-1200 CPU.
S7-1200 station_1.PLC_1.OPC_DATA.SetStatic01	By means of the OPC item you monitor and control Bit 0.1 of the DB1 data block in the S7-1200 CPU.
S7-1200 station_1.PLC_1.OPC_DATA.ResetStatic01	By means of the OPC item you monitor and control Bit 0.2 of the DB1 data block in the S7-1200 CPU.
S7-1200 station_1.PLC_1.OPC_DATA.OutputStatic01	By means of the OPC item you monitor Bit 0.3 of the DB1 data block in the S7-1200 CPU.

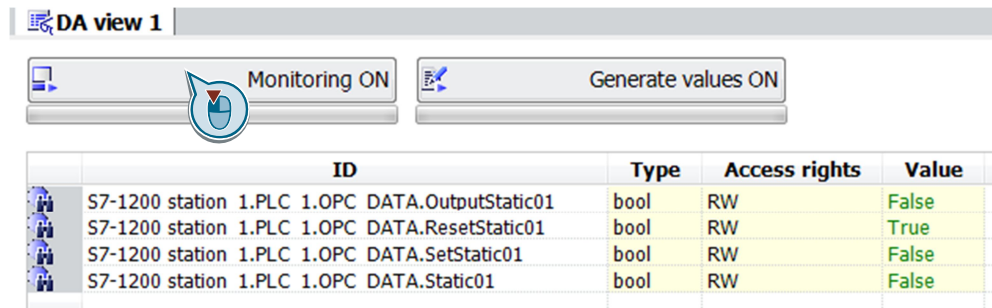
Figure 2-39



Monitor OPC items

Click the "Monitoring ON" button to monitor the values of the OPC items. The values of the OPC items are displayed in the "Value" column.

Figure 2-40



Write values

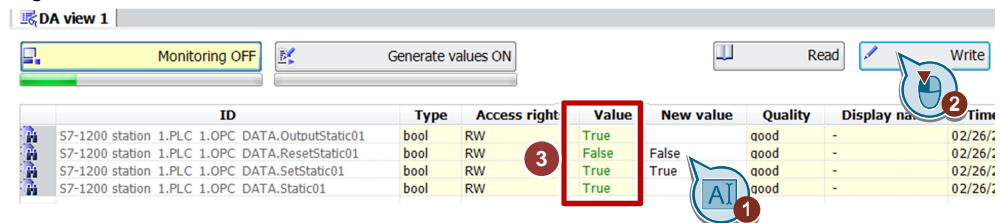
1. In the "New value" column you enter the value that you want to write to the S7-1200 CPU. Enter the values below in the "New value" column (see [Table 2-8](#)).

Table 2-8

OPC item	New value
S7-1200 station_1.PLC_1.OPC_DATA.SetStatic01	True
S7-1200 station_1.PLC_1.OPC_DATA.ResetStatic01	False

2. Click the "Write" button.
3. The OPC items "S7-1200 station_1.PLC_1.OPC_DATA.Static01" and "S7-1200 station_1.PLC_1.OPC_DATA.OutputStatic01" are set to the value "True". The results of the write procedure are displayed in the "Value" column.

Figure 2-41



1. Enter the values below in the "New value" column (see [Table 2-9](#)).

Table 2-9

OPC item	New value
S7-1200 station_1.PLC_1.OPC_DATA.SetStatic01	False
S7-1200 station_1.PLC_1.OPC_DATA.ResetStatic01	True

2. Click the "Write" button.
3. The OPC items "S7-1200 station_1.PLC_1.OPC_DATA.Static01" and "S7-1200 station_1.PLC_1.OPC_DATA.OutputStatic01" are reset to the value "False". The results of the write procedure are displayed in the "Value" column.

Figure 2-42

The screenshot shows the 'DA view 1' interface. At the top, there are buttons for 'Monitoring OFF', 'Generate values ON', 'Read', and 'Write'. Below these is a table with the following columns: ID, Type, Access right, Value, New value, Quality, Display name, and Time. The table contains four rows of data. A red box highlights the 'Value' column, and a blue callout bubble with 'AT' and a red '1' is positioned below it. A red circle with '2' is next to the 'Write' button, and a red circle with '3' is next to the 'Access right' column.

ID	Type	Access right	Value	New value	Quality	Display name	Time
S7-1200 station 1.PLC 1.OPC DATA.OutputStatic01	bool	RW	False		good	-	02/26/2
S7-1200 station 1.PLC 1.OPC DATA.ResetStatic01	bool	RW	True	True	good	-	02/26/2
S7-1200 station 1.PLC 1.OPC DATA.SetStatic01	bool	RW	False	False	good	-	02/26/2
S7-1200 station 1.PLC 1.OPC DATA.Static01	bool	RW	False		good	-	02/26/2