

How-To-Do

Communication to Siemens OPC Server via Ethernet

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1 General

1.1 Information

This 'How-To-Do' describes, how you can build up a S7 communication between an OPC Server from Siemens and a 300 PLC from VIPA via Ethernet.

It is required, that STEP7 and the software „OPC-Scout“ from Siemens have been installed on the PC.

1.2 Reference

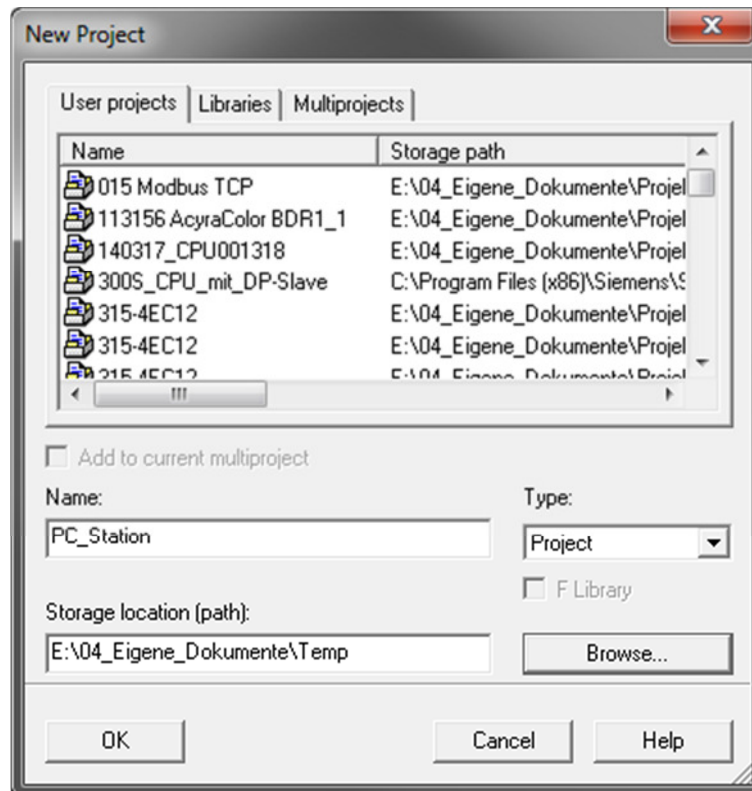
In this 'How-To-Do' the principal procedure is described by means of examples.

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2 Konfiguration des PC Station

2.1 Create a new Project

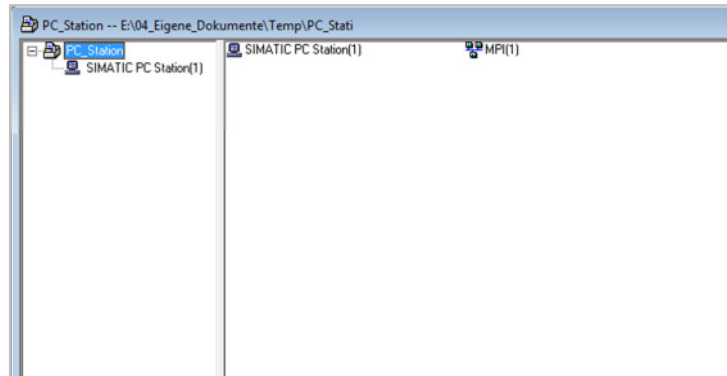
Create a new project in the SIMATIC Manager by „File -> New“



pic 1: name the project

Confirm your input of the project name by <OK> (in the example: "PC_Station").

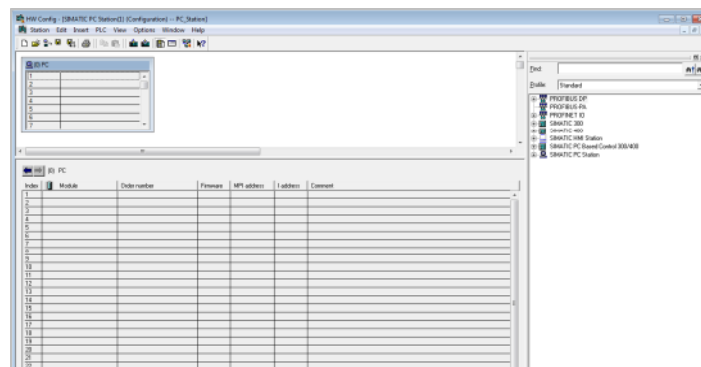
2.2 Insert the PC Station



pic 2: insert the PC Station

You can insert a PC station by the menu item „Insert -> Station -> SIMATIC PC-Station“.

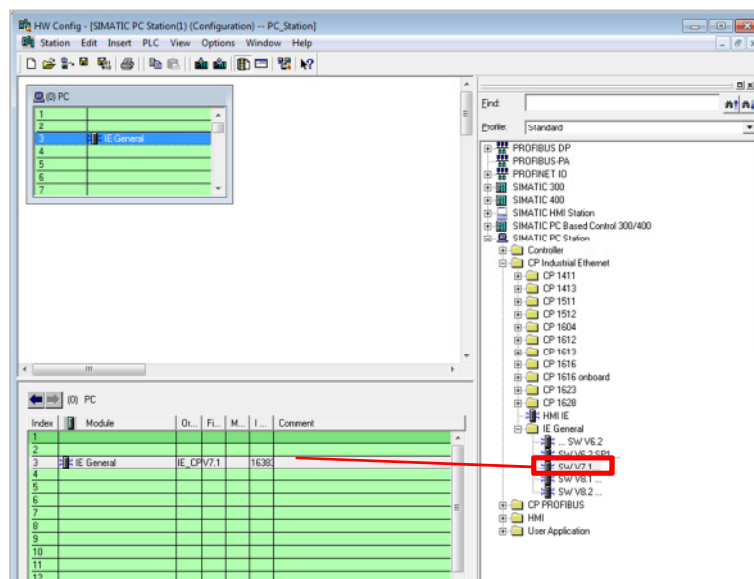
2.3 Opening of the Hardware Configuration for the PC Station



Now please open the hardware configuration of the PC station. For it select the PC station then push the right mouse button for -> “Open Object”. If the hardware catalog doesn't exist, please now open it.

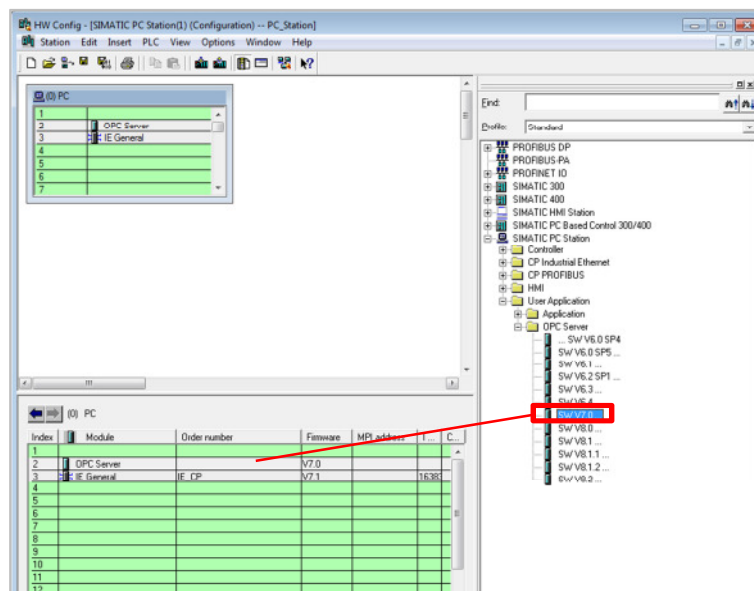
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2.4 Selection of the modules via Hardware Catalog



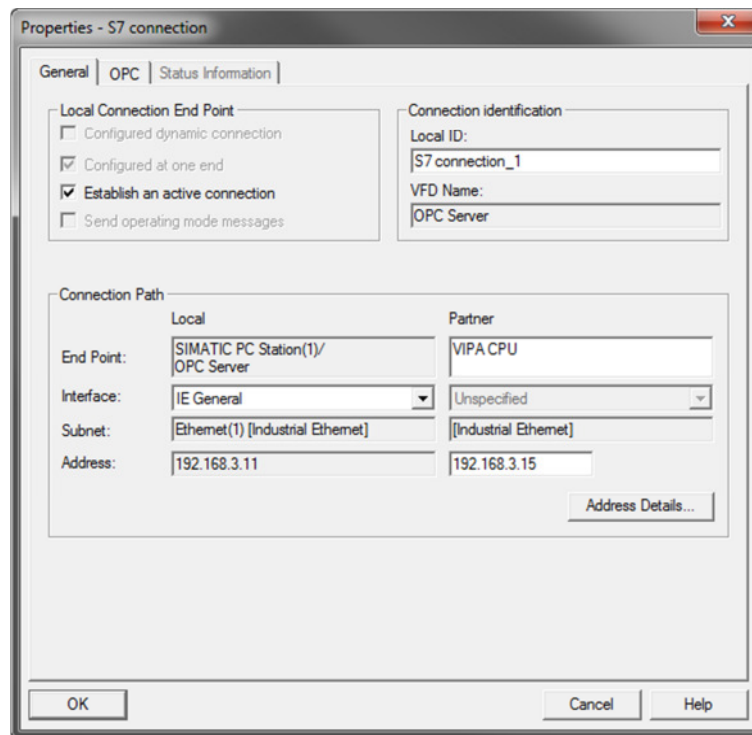
Now place your PC modules into this rack, link them and allocate the IP address. The IP address, which you have to allocate, is the address for your PC.

2.5 Projecting the OPC Server



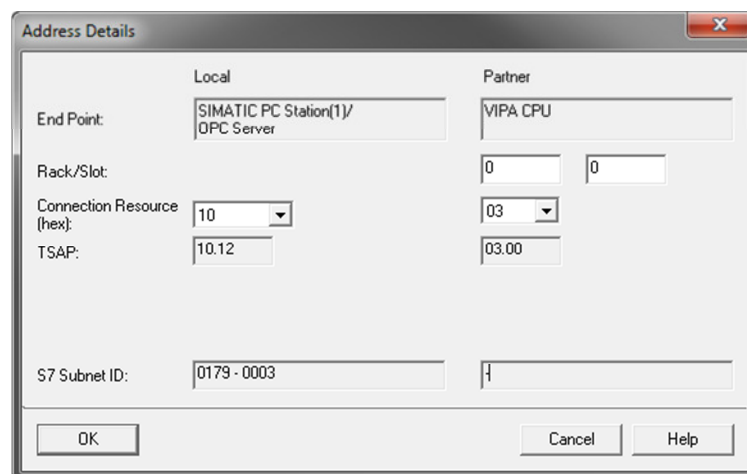
Select the OPC Server in the hardware catalog and pull it to any slot via drag&drop. Now open the program „NetPro“ and insert an unspecified S7 connection.

2.6 Object Properties of the S7 Connection



Because the connection is created „unspecified, you must fill in the IP address of the Partner.

2.7 Address Details of the S7 Connection

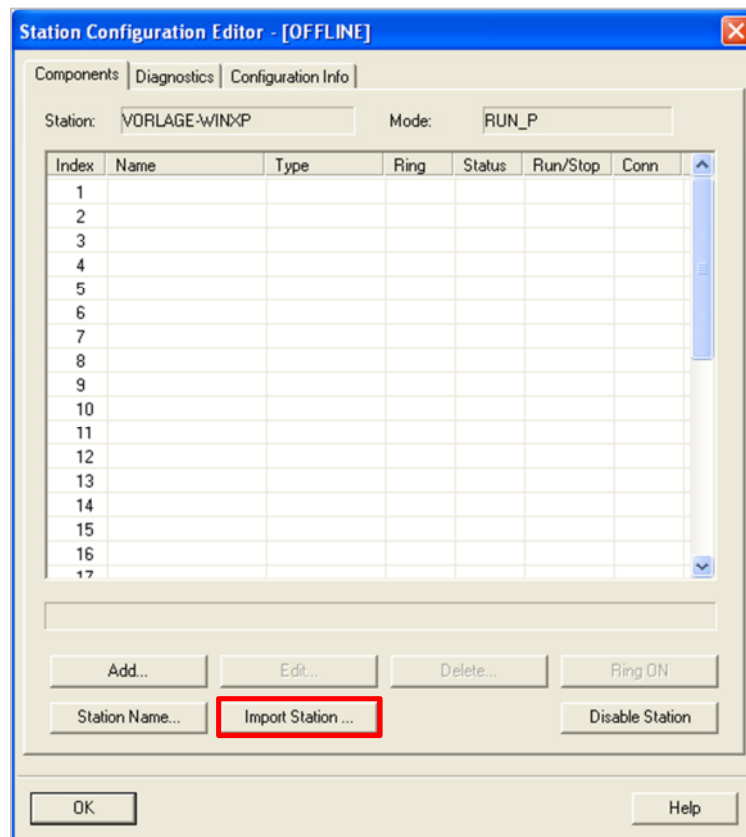


Please here specify the slot of the CPU of the SIMATIC S7 Connection Partner.

3 Software „Station Configuration Editor“

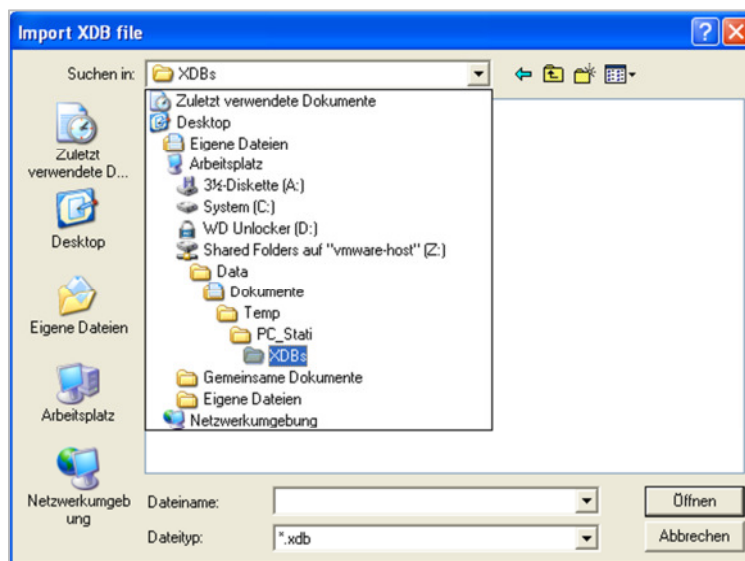
3.1 Configuration and Load via „Import Station ...“

Open the software „Station Configuration Editor“, which is an icon on your desktop.



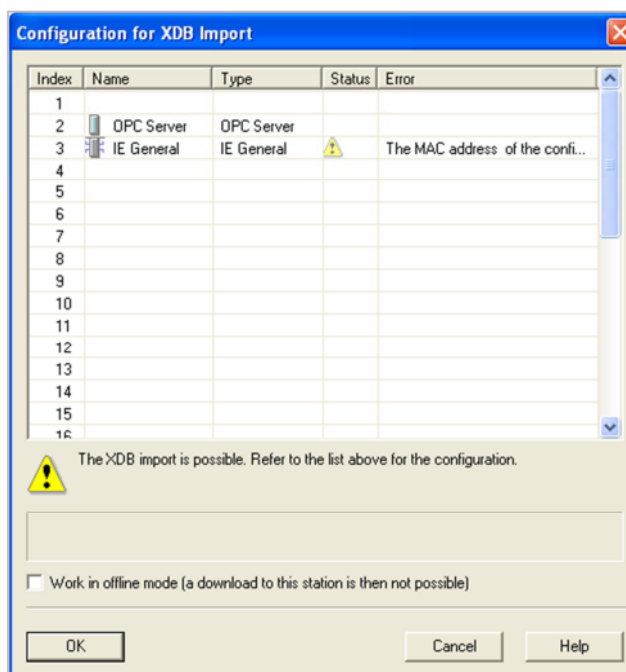
Click on the button „Import Station“ and confirm the next window by <Yes>.

3.2 Search of the XDB file



Please specify the path, in which the XDB file can be found, in the browser window. The XDB file always must be created in the STEP7 project. (see pic 1: name the project)

3.3 Information from the XDB File



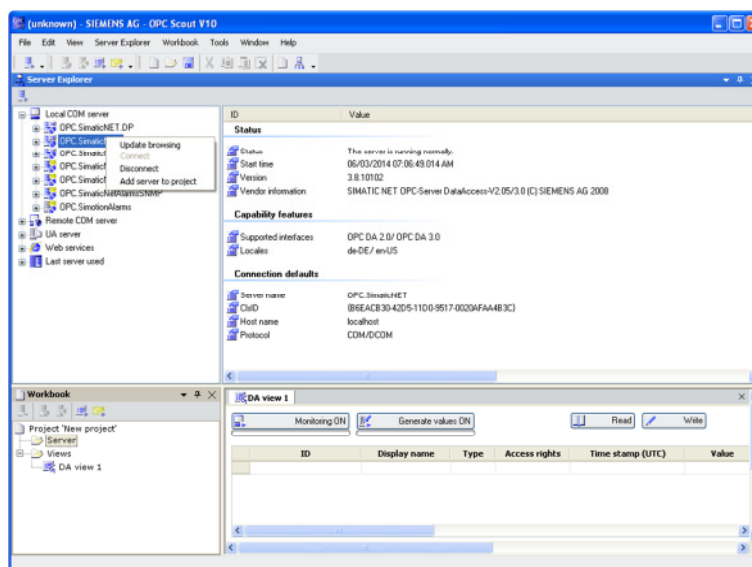
Please confirm this window by <OK>. Then the import has been finished and the project is loaded.

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5 Starting the OPC-Scout

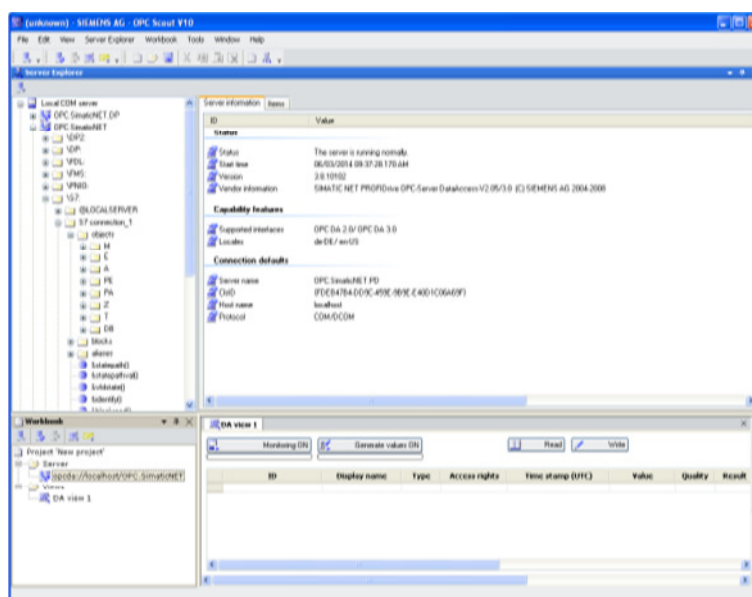
5.1 Start the OPC-Scout via „Start > Simatic > Simatic Net > OPC Scout“

5.2 Connect the OPC Server and Create a Group



Create a connection to the OPC server via right-click on „OPC.SimaticNet“ and choosing „Add server to project“.

5.3 OPC Navigator



Via a further double-click on the connection and „Objects“ the tree with the potential objects appears, which can be applied.

4 Revision History

4.1 Changes:

DATUM	ÄNDERUNGEN	BEARBEITER
13.11.2012	Erstellung Dokument	Karsten Schmidt
13.11.2012	Überarbeitung	Fritz Dotzer
19.03.2014	Übersetzung Englisch	N. Schlimm
02.06.2014	Textanpassung und Screenshots (Englisch)	M. Dörnhöfer