

# SIEMENS

## SIMATIC PDM V5.1

Getting Started

Edition 04/2001



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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.

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# 1 Working with SIMATIC PDM

## What are you going to learn?

The following practical exercise shows you how simple it is to create a network configuration and subsequently process the devices in SIMATIC PDM.

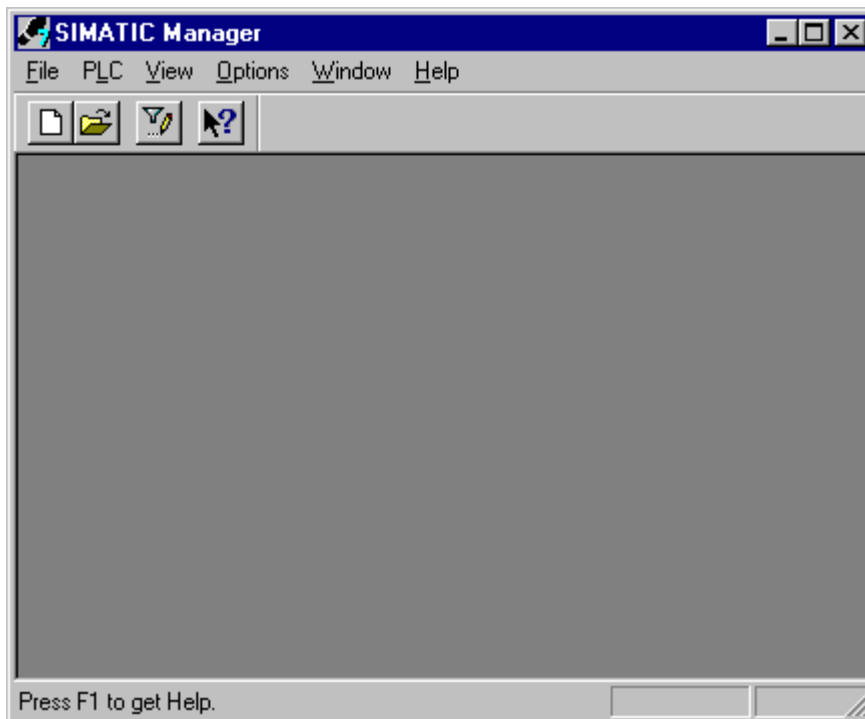
In this sample you will create a SIMATIC PDM configuration with sensors. Later on, you are going to work with a sensor (16 BAR) of the Siemens **SITRANS P** family.

Detailed instructions will lead you step by step through the creation of a network and SIMATIC PDM operation.

## 1.1 Creating a Project

### Starting the Program

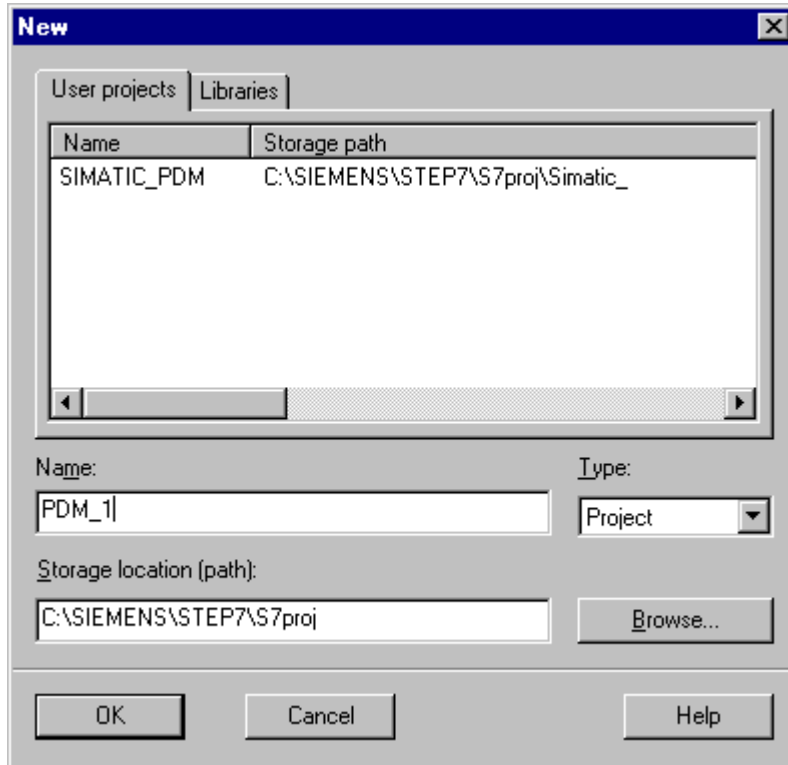
Start the program with a click on the "SIMATIC Manager" desktop icon. An almost empty window opens with a toolbar in the upper section (the number of icons in the tool bar depends on whether you are using the integrated version or not).



## Creating a Project

Proceed as follows in order to create a project:

1. Select the menu command **File > New**.
2. Enter a name for the project in the displayed dialog box. Verify that the option "New project" is selected.
3. Confirm by clicking on "OK".



4. The task window "New project" is displayed. Double-click on the "networks" icon in the right screen section. This transfers it to the left column.



## Selecting the View in the SIMATIC Manager

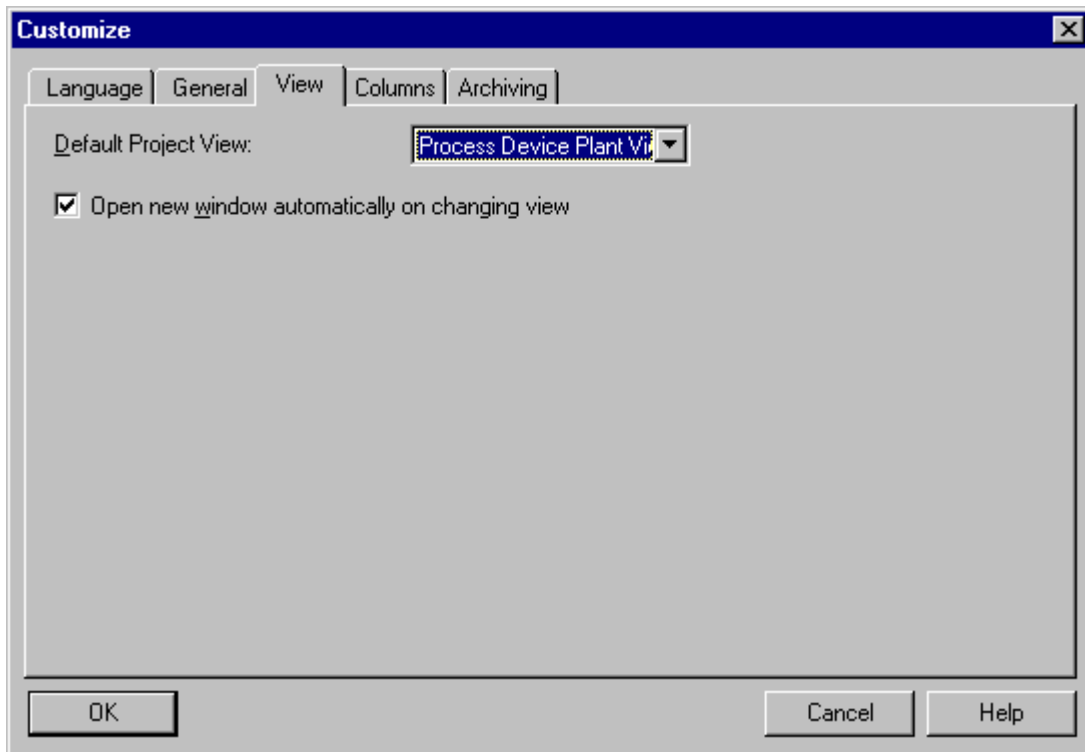
You can choose between the following views in the **Customize > View** tab:

The **Component View** is used for configurations with HW-Config.

In the **Process device network view** the process devices are shown in groups according to the network topology. You can configure networks and process devices in this view. You can open this view for the configuration of the following sample project by selecting **View > Process device network view**.

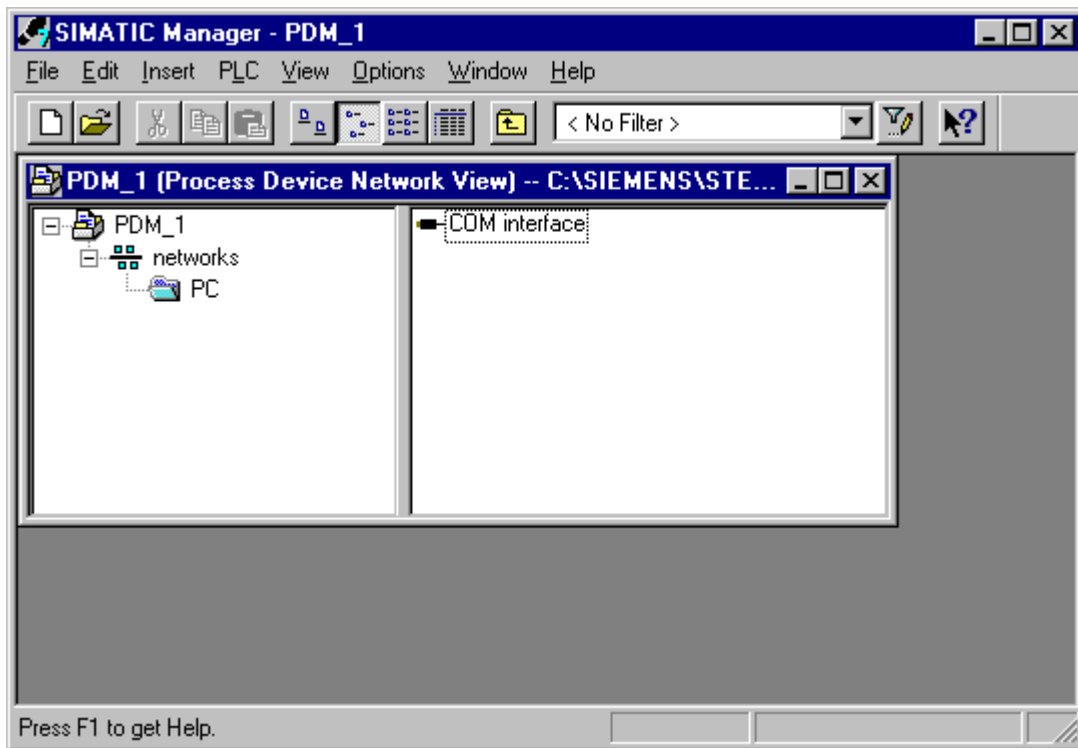
The **Process system view** gives you a fast overview of the configured process devices. You can configure devices without linking them to a network.

**Note:** You can specify which view is to be displayed when the SIMATIC Manager is started. If you configure via HW-Config we recommend you preset the component view. You should preset the process devices network view if you use the stand-alone version of SIMATIC PDM or if you configure the networks in the SIMATIC Manager. Select the menu item **Options > Customize** and select the desired view in the "View" tab.



### Configuring a PC

1. Right-click on "networks" and select the context sensitive menu command **Insert New Object > PC**.
2. The "PC" icon is now displayed in the right column. Shift it into the left column with double-click.
3. Select the menu command **Options > SIMATIC PDM > Define Current PC**. **Caution:** This step defines the current PC for use in the system from now on.
4. Right-click on "PC" and select the menu command **Insert New Object.... > COM Interface**.



## Setting the COM Interface

Proceed as follows to set the COM interface:

1. Mark the COM interface in the right column. Right-click to open "Object Properties..." in the right screen section.

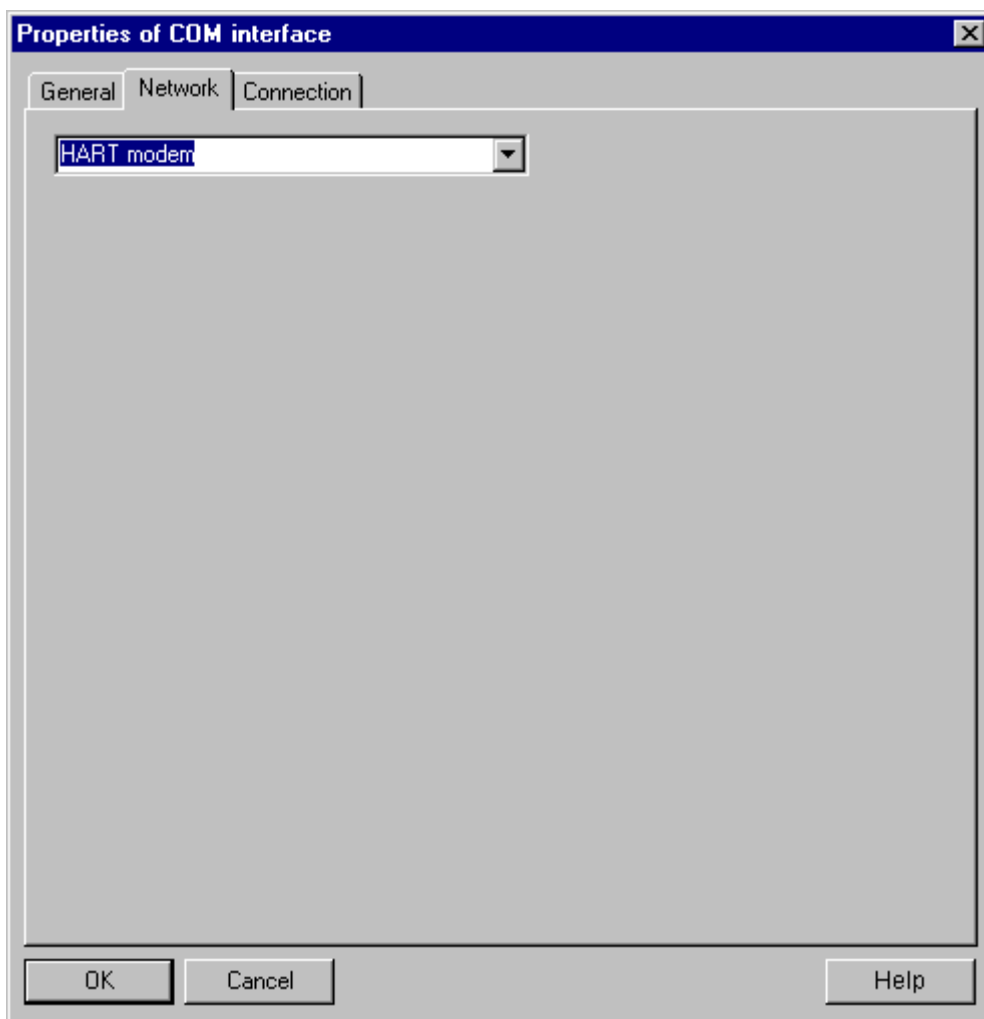


2. In the "Connection" tab of the displayed dialog box, enter the correct "COM-Port" (in our example "2").  
**Note:** You should know which COM-Port is available on your computer. Connect your **MacTek HART modem** or your **Siemens modem** to this port.
3. Confirm your entries with "OK".



### Adding the HART Modem and Linking the COM Interface

1. To add a HART modem, right-click on the "Network" icon and select the menu command **Insert New Object... > HART modem**.
2. Click on PC, mark the COM interface, right-click on "Object Properties..." and select the HART modem in the "Network" tab.



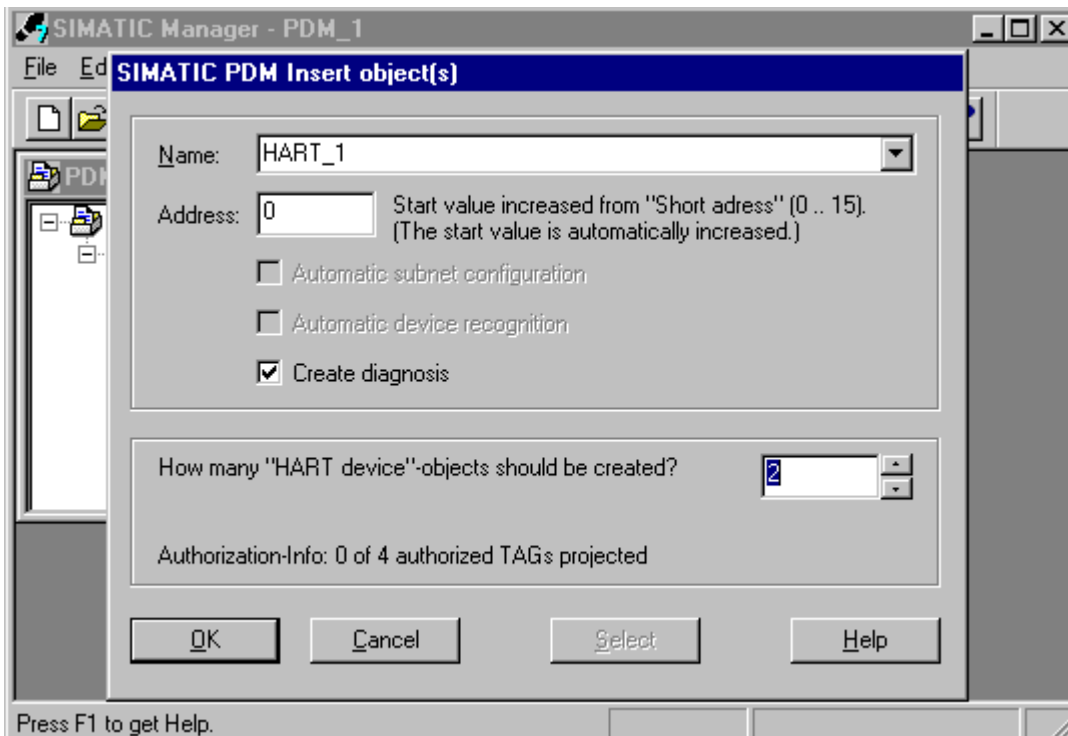
3. Confirm your entries with "OK".

## Inserting HART Devices

You can insert up to 16 devices per project using the standard version of SIMATIC PDM. If you need to configure more devices than that for a project, you can purchase expansions for an unlimited number of devices.

To insert the desired HART devices, proceed as follows:

1. Right-click on the HART modem and in the context sensitive menu select the command **Insert New Object.... > HART Device**.
2. The dialog box "SIMATIC PDM Insert Object(s)" is displayed.



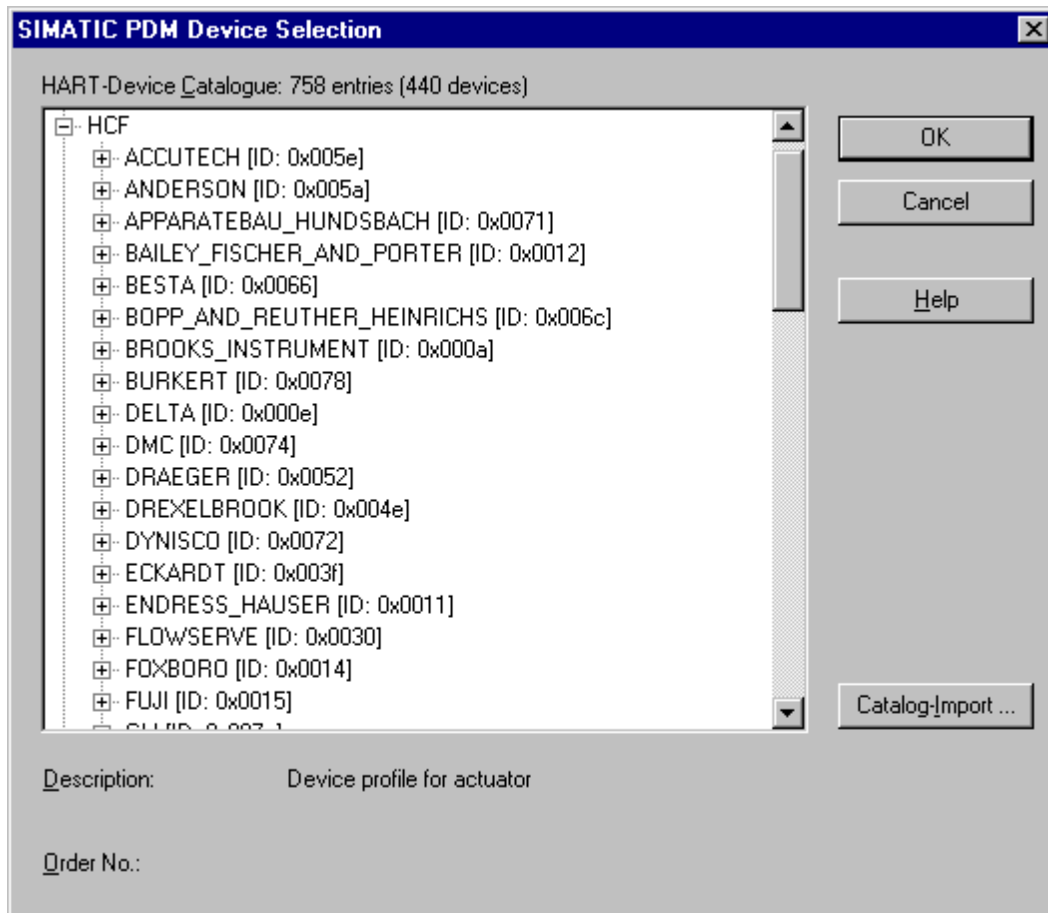
3. In the "Name" field, enter the desired name (maximum 8 characters) for the HART device (in our example HART\_1). Enter "2" in the field "How many "HART device" objects should be created". You do not need to make any entries in the field "Start value increased from "Short address", because the program automatically enters this value.
4. Confirm your entries with "OK". The program inserts two sensors named "HART\_1 1" and "HART\_1 2" in the project. They are inserted into the right column. Their name numbers are automatically incremented by one count.
5. Double-click on the new device you have created. The dialog box "SIMATIC PDM Device Selection" is displayed. Select the type of your HART device. If it does not exist, click on the "Catalog Import..." button and browse through your CD-ROM drive to the subdirectory HCF-DD. Then select your HART device type in the "HCF" directory.

6. Confirm by clicking on "OK".

**Note:** Importing may take several minutes. All current HART device information (.DDLs) is imported. You can download updates from the following Siemens Website (status May 2000):

[http://www.feldgeraete.de/76/produkte/simatic\\_pdm/infos.html](http://www.feldgeraete.de/76/produkte/simatic_pdm/infos.html)

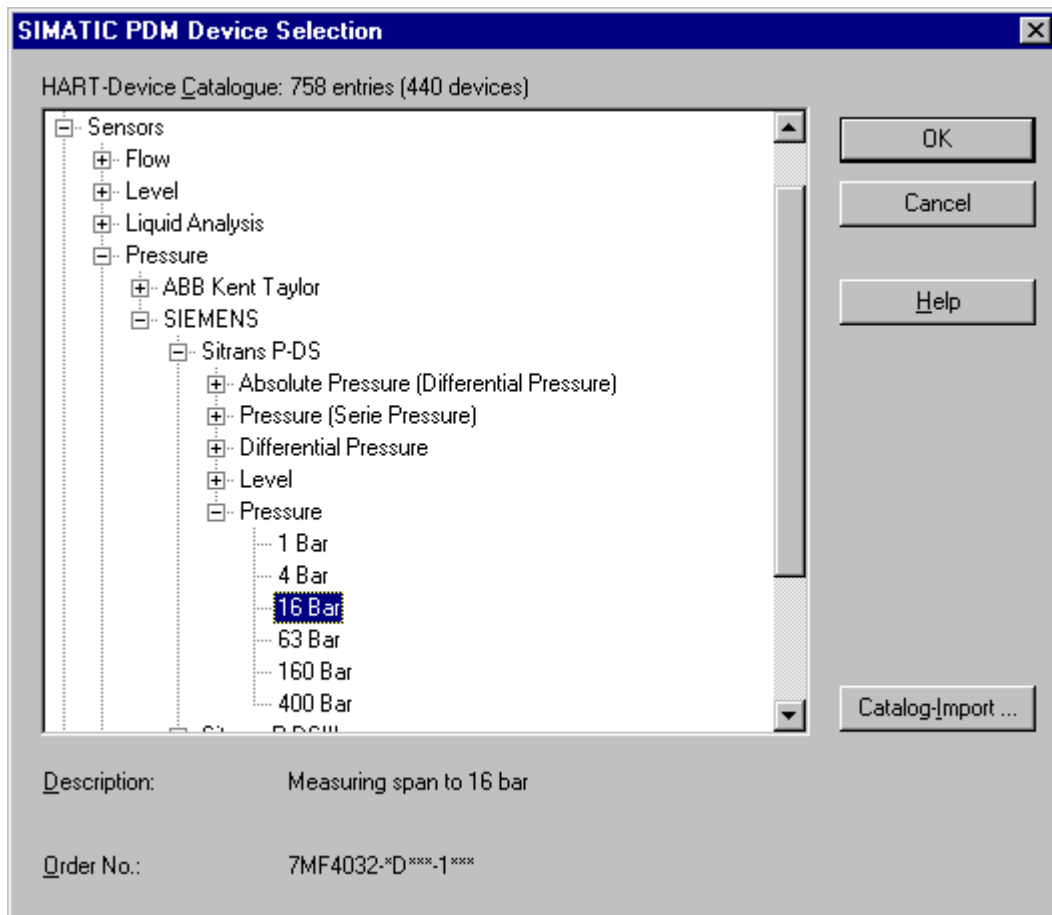
7. Following this import, the dialog box "SIMATIC PDM Device Selection" displays the installed HCF files.



## Selecting a Sensor

Proceed as follows:

1. Double-click on one of the sensors which you have inserted (in our example HART\_1 1).
2. Select the entry **Sensors > Pressure > SIEMENS > SITRANS P-DS > Pressure > 16 Bar** to choose the sensor you have created. Configure the other devices you have selected for your sample project correspondingly.



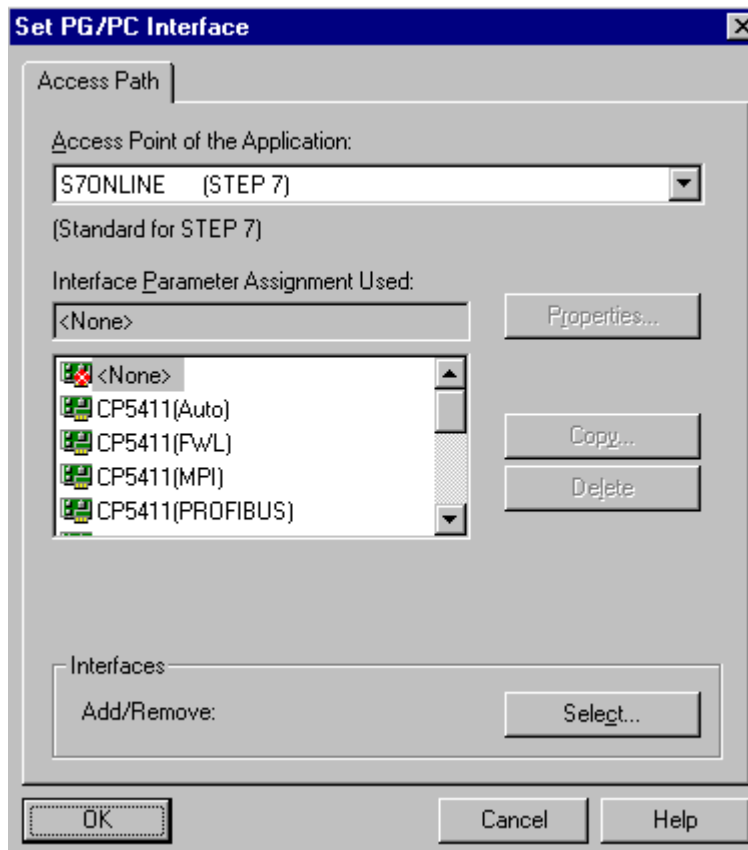
3. Confirm all entries with "OK".

## 1.2 Setting the PG/PC Interface for PROFIBUS Communication

Whenever you create a PROFIBUS network, you should also check the PG/PC interface to insure that no PROFIBUS device configuration has been created by another user. Proceed as follows:

1. Select the menu command **Options > Set PG/PC Interface** (in the stand-alone version you can find the PG/PC interface in **Start > Settings >Control Panel**).
2. In the dialog box, verify that the option "<None>" is highlighted in the dialog box. Select the CP installed in your device.

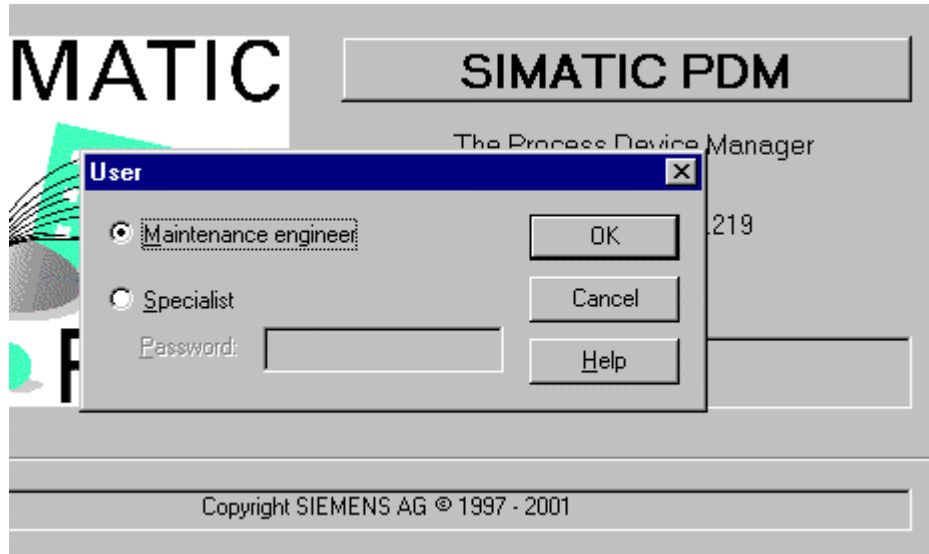
**Note:** The "Set PG/PC interface" function becomes important if you want to create a PROFIBUS PA system and configure PA devices. SIMATIC PDM can be used both for HART or PROFIBUS systems, however, with different hardware (for PROFIBUS systems, for example, you need a Siemens CP5611 or 5511 board or another appropriate board).



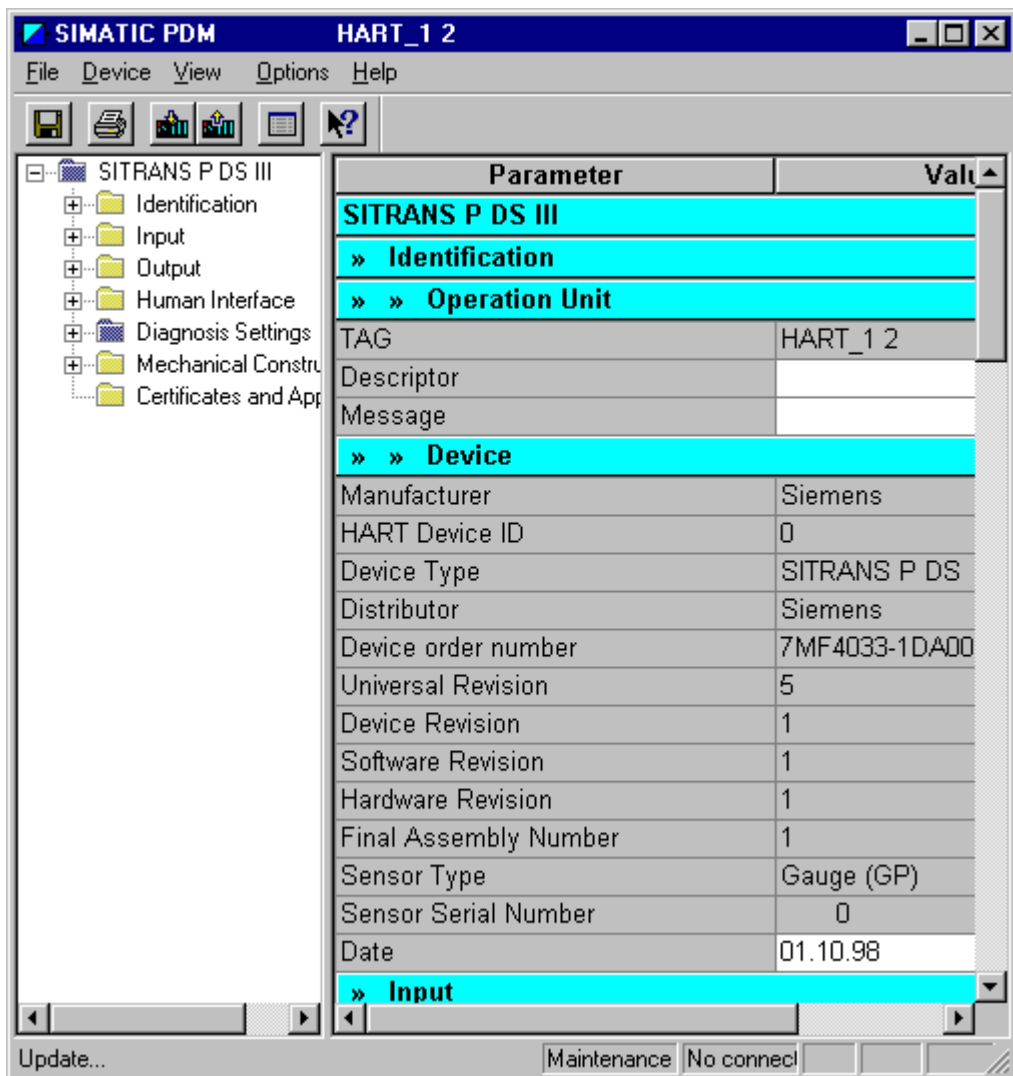
3. Confirm your entries with "OK".

### 1.3 Configuring a Device

Double-click the device icon to start SIMATIC PDM. Select the option "Specialist" or "Maintenance engineer" in the displayed dialog box. Confirm your entries with "OK". The SIMATIC PDM logo is now displayed.



You have now opened SIMATIC PDM for your selected HART device. The values displayed in the right screen section do not represent "real" values, but rather the values in the DDLs selected by you. To obtain the correct values for your device, select the menu command **Device > Download to PG/PC** or click on the toolbar icon.



**Caution:** Before you submit data to a device you should download the current device data to your PC and create a software link to the HART device via HART modem. Select the menu command **Device > Download to PG/PC** or click on the corresponding toolbar icon. The on-screen values are replaced by the real values of the device. In the status bar the status changes from "Not connection" to "Connected". If you now edit these values, their status changes from "Initial value" to "Changed". To transfer data to the sensor, select the menu command **Device > Download to device** or click on the corresponding toolbar icon. All previous sensor data is overwritten with your edited data. Therefore, verify all data before you transfer it to the device.

**Note:** It is possible that the HART device has not been implemented in your SIMATIC PDM version. If this is the case, download the current software version or up-to-date Service Pack via Internet.

**Congratulations!** You now have worked through this "Getting Started" and become acquainted with important terms, procedures and functionalities of SIMATIC PDM. You are now ready to create your first project.

If you encounter problems finding information on certain functions or operating sequences for SIMATIC PDM, you are welcomed to take advantage of our extensive Help on SIMATIC PDM.

We wish you a lot of success with your future projects!