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# Integrating CM 1542-5 as I slave in STEP 7 V5.x

Product / version / specification / keyword

<https://support.industry.siemens.com/cs/ww/en/view/109744337>

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# 1 Preface

You can use the communication module CM 1542-5 to operate an S7-1500 as I slave on a PROFIBUS DP master.

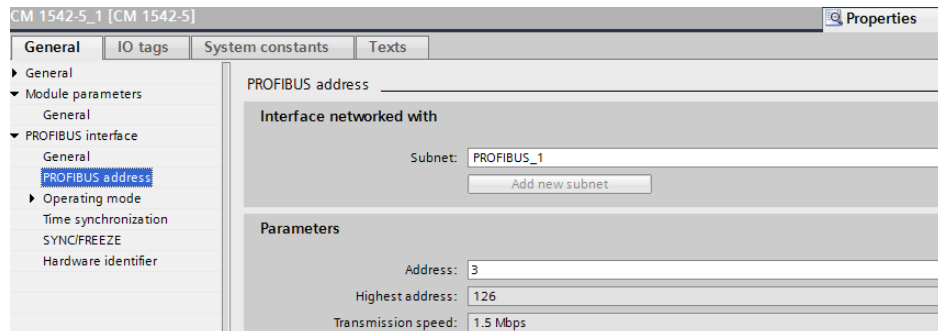
Chapter 2 gives you instructions for connecting the CM 1542-5 as I slave in STEP 7 V5.x to an S7-300/S7-400.

# 2 Instructions

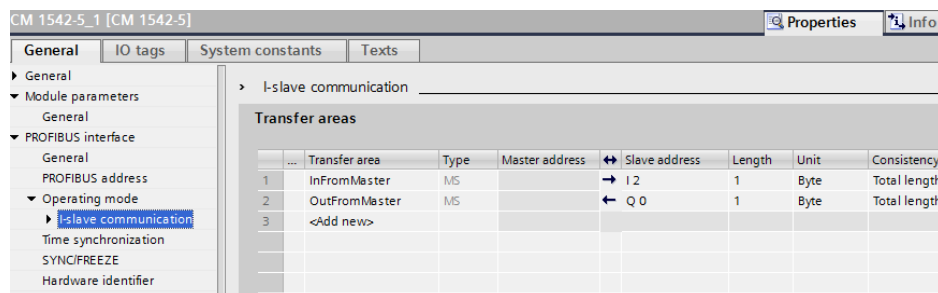
Follow the instructions below to connect the CM 1542-1 as I slave in STEP 7 V5.x to an S7-300/S7-400.

## Settings in STEP 7 (TIA Portal)

1. Configure the S7-1500 station and your physically existing hardware setup.
2. In the Network or Device view you mark the communication module CM 1542-5. The properties of the CM 1542-5 are displayed in the inspector window.
3. In the "General" tab you navigate to "PROFIBUS interface > PROFIBUS address" and enter the PROFIBUS address of the CM 1542-5.

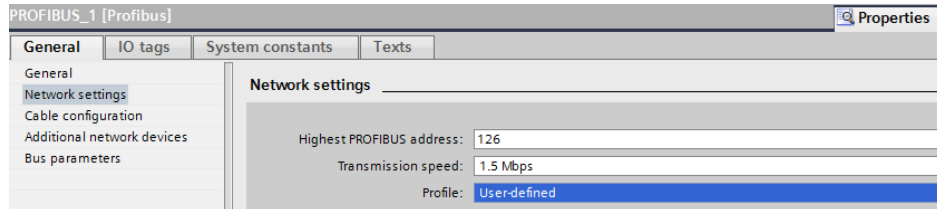


4. In the "General" tab you navigate to "PROFIBUS interface > Operating mode" and select "DP slave" as the operating mode. Specify the transfer areas including the lengths.

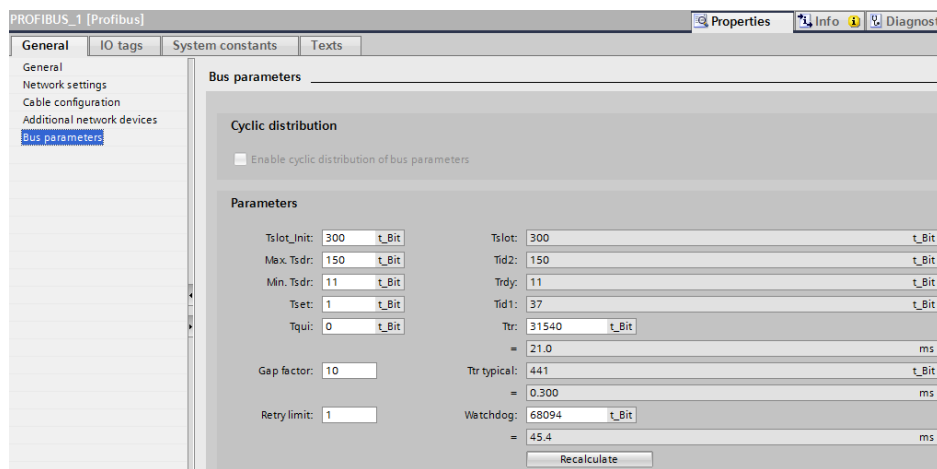


5. In the Network view you mark the PROFIBUS subnet of the CM 1542-5. The properties of the PROFIBUS subnet are displayed in the inspector window.

6. In the "General" tab you navigate to "Network Settings" and enter the following parameters:
  - Highest PROFIBUS address: 126, for example
  - Transmission speed: 1.5 Mbit/s, for example
  - Profile: User-defined



7. In the "General" tab you navigate to "Bus parameters". Set the bus parameters for the CM 1542-5 exactly as for the DP master system in your STEP 7 V5.x project.



8. Then load the configuration into the S7-1500 station.

### Settings in STEP 7 V5.x

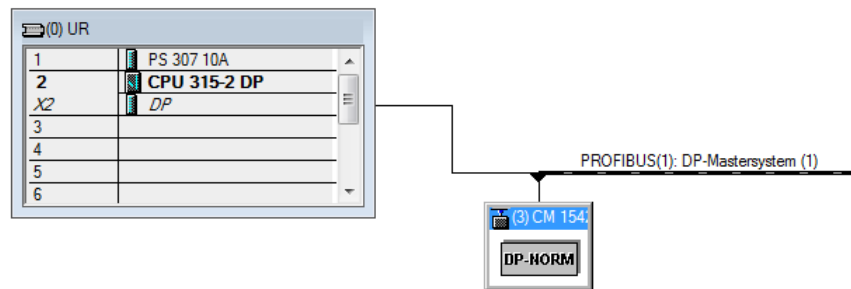
1. Download the GSD file of the CM 1542-5 from the Industry Online Support Portal.  
<https://support.industry.siemens.com/cs/ww/en/view/113652>
2. Install the GSD file of the CM 1542-5 in STEP 7 V5.x.
3. Once you have successfully installed the GSD file, the CM 1542-5 appears in the Hardware Catalog under:  
"PROFIBUS-DP > Other Field Devices > IO > S7 1500"
4. Drag-and-drop the CM 1542-5 to the PROFIBUS DP master system of the DP master.
5. Configure the inputs and outputs.

**Note**

The inputs configured in STEP (TIA Portal) are configured as outputs in STEP 7 V5.x.  
The outputs configured in STEP (TIA Portal) are configured as inputs in STEP 7 V5.x.  
The modules "1 Byte Output" and "1 Byte Input" are consistent via total length.



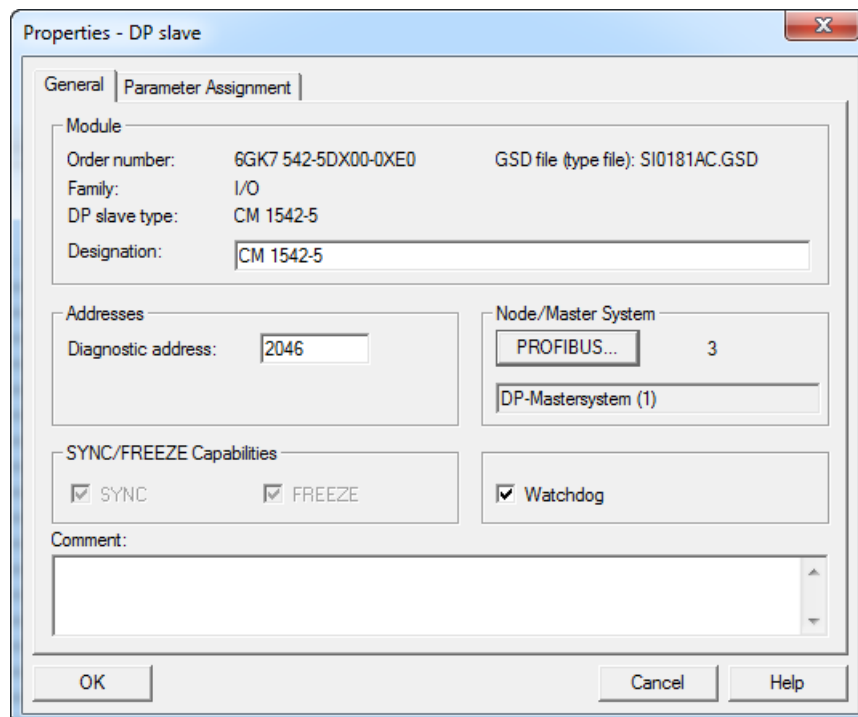
## 2 Instructions



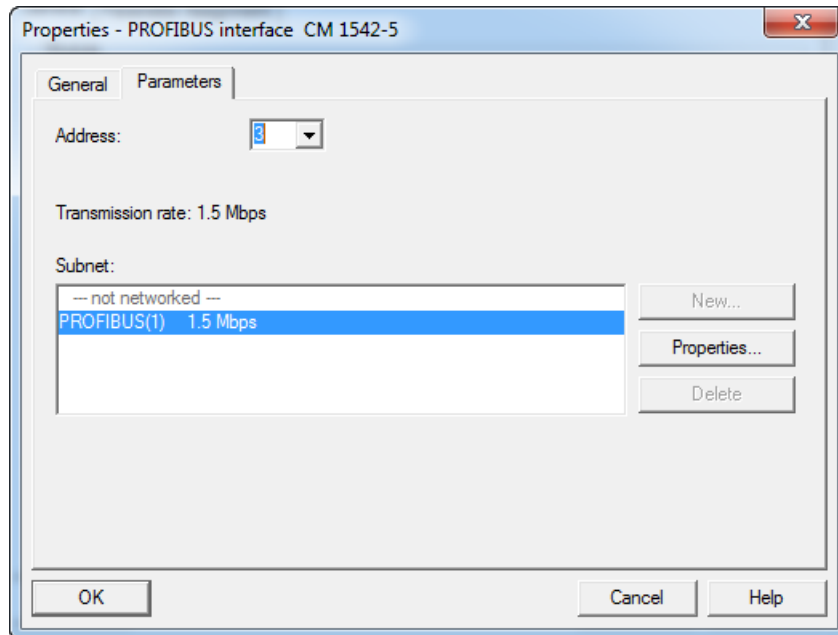
(3) CM 1542-5

Slot	DP ID	...	Order Number / Designation	I Address	Q Address	Comment
1	128		1 Byte Output		700	
2	64		1 Byte Input	700		

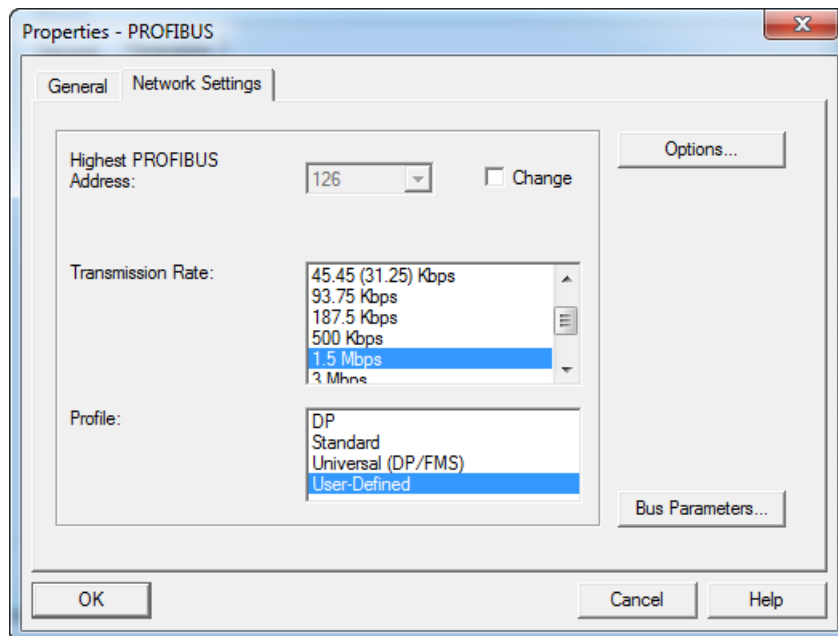
6. Double-click the CM 1542-5. The properties of the CM 1542-5 are opened.
7. Click the "PROFIBUS" button. The Properties dialog of the PROFIBUS interface of the CM 1542-5 opens.



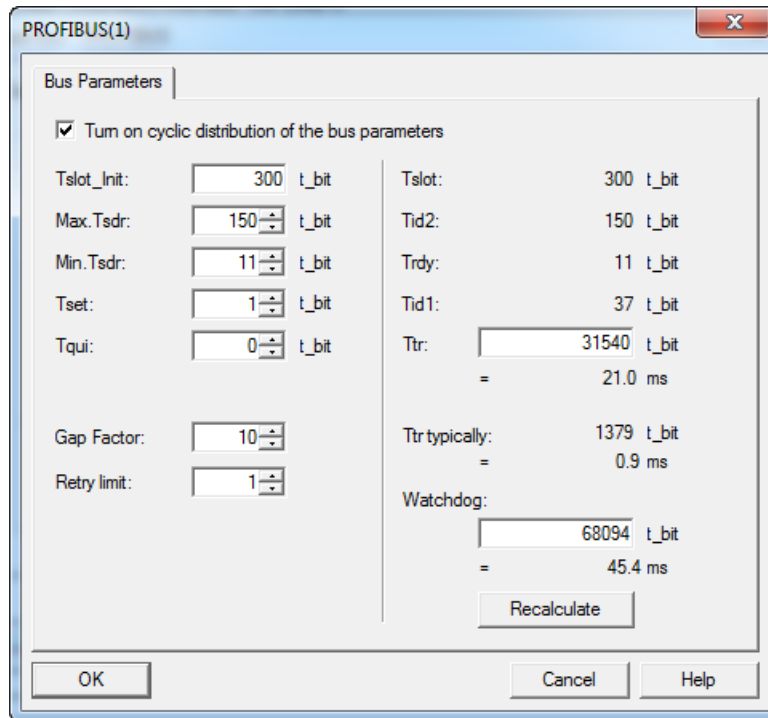
- For the CM 1542-5 you enter the same PROFIBUS address as in STEP 7 (TIA Portal). Click the "Properties" button. The Properties dialog of the PROFIBUS DP master system opens.



- In the Network Settings tab you set the same values as in STEP 7 (TIA Portal) for the following parameters.
  - Highest PROFIBUS address: 126, for example
  - Transmission speed: 1.5 Mbit/s, for example
  - Bus parameters



- If you select "User-Defined" for the bus profile and click the "Bus Parameters..." button, you can set the bus parameters manually. Set the same bus parameters as in STEP 7 (TIA Portal).



**NOTE** It's **not** necessary to call the following function blocks in the user program of the S7-CPU to send and receive data via PROFIBUS:

- FC1 "DP\_SEND"
- FC2 "DP\_RECV"