



## Drive Note

Incorporating a VLT® 5000 Profibus,  
Siemens Simatic S5



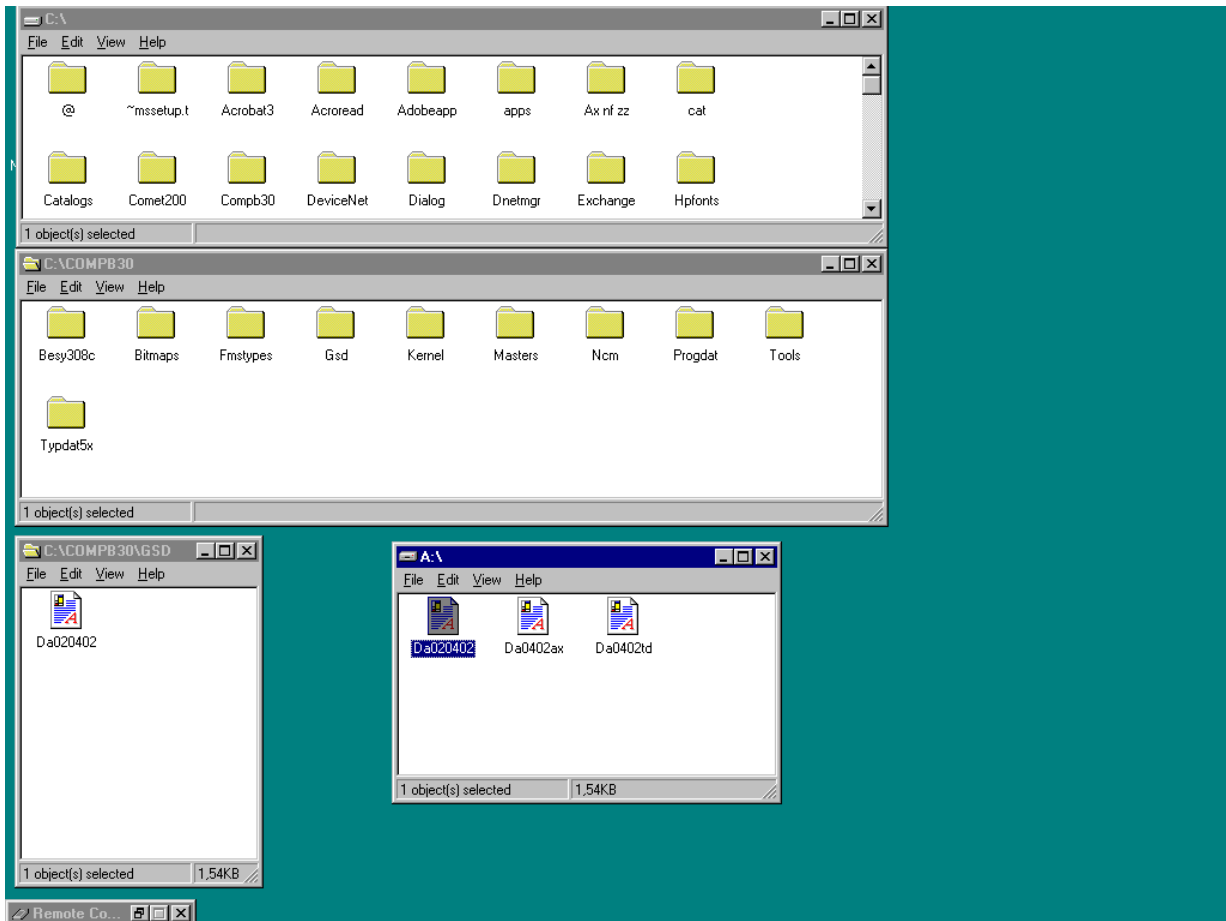
VLT® 5000

**■ VLT 5000 Profibus and the Siemens IM308C**

This document is an instruction containing nine steps which will help you incorporate a VLT 5000 Profibus into a Siemens Simatic S5 PLC system. However, it will not show how to set up the Simatic S5 PLC system. Only the steps which are required in order to establish communication between the VLT 5000 Profibus and the Simatic S5 PLC are shown. It is assumed that you are already familiar with the Simatic S5 system. In this instruction, the COM Profibus software version 3.0 is used.

**■ Step 1**

Copy the GSD file Da020402.GSD for Danfoss VLT 5000 to the Siemens COM Profibus directory. (Destination: C:\COMPB30\GSD (depends on Com Profibus version))

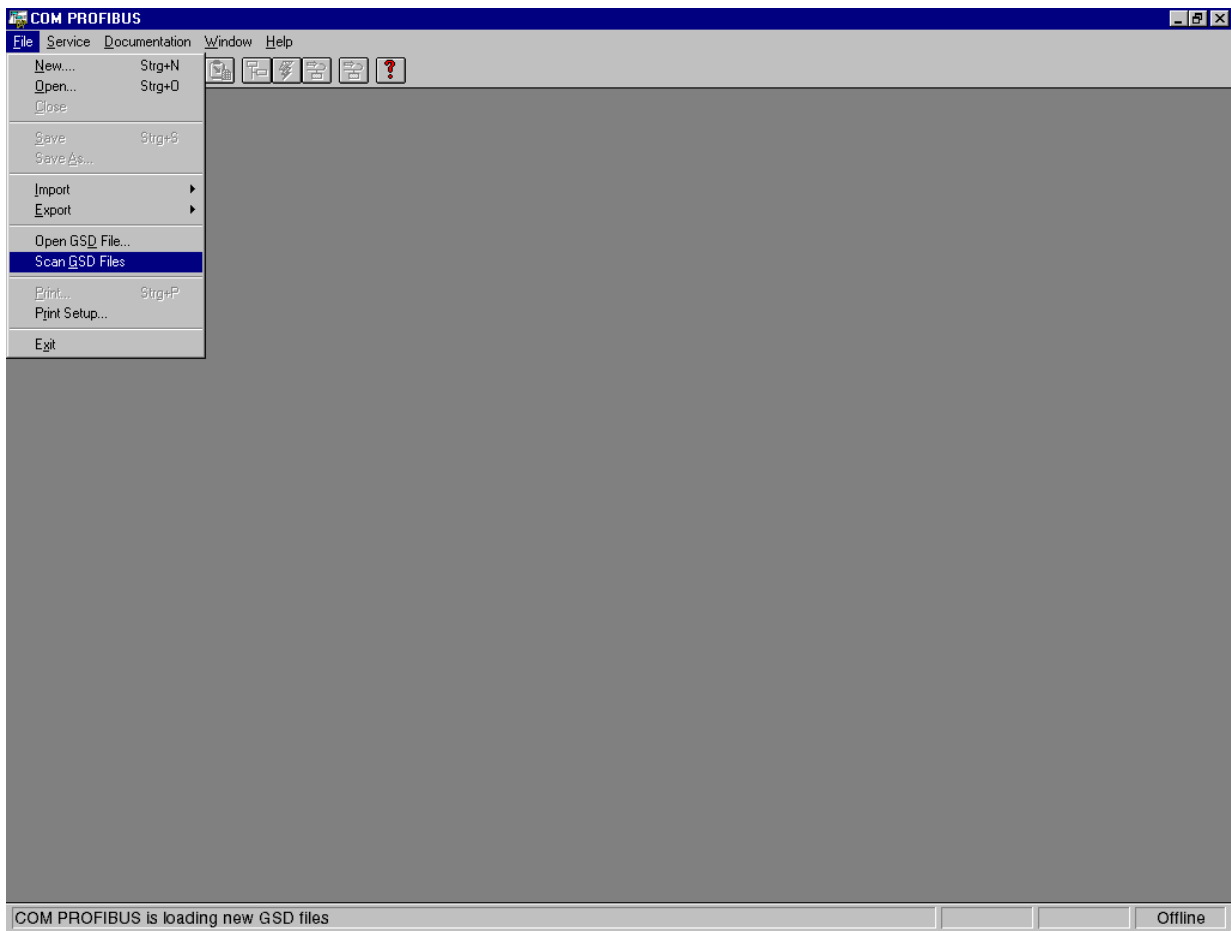


The GSD file can be ordered from your local Danfoss representative.

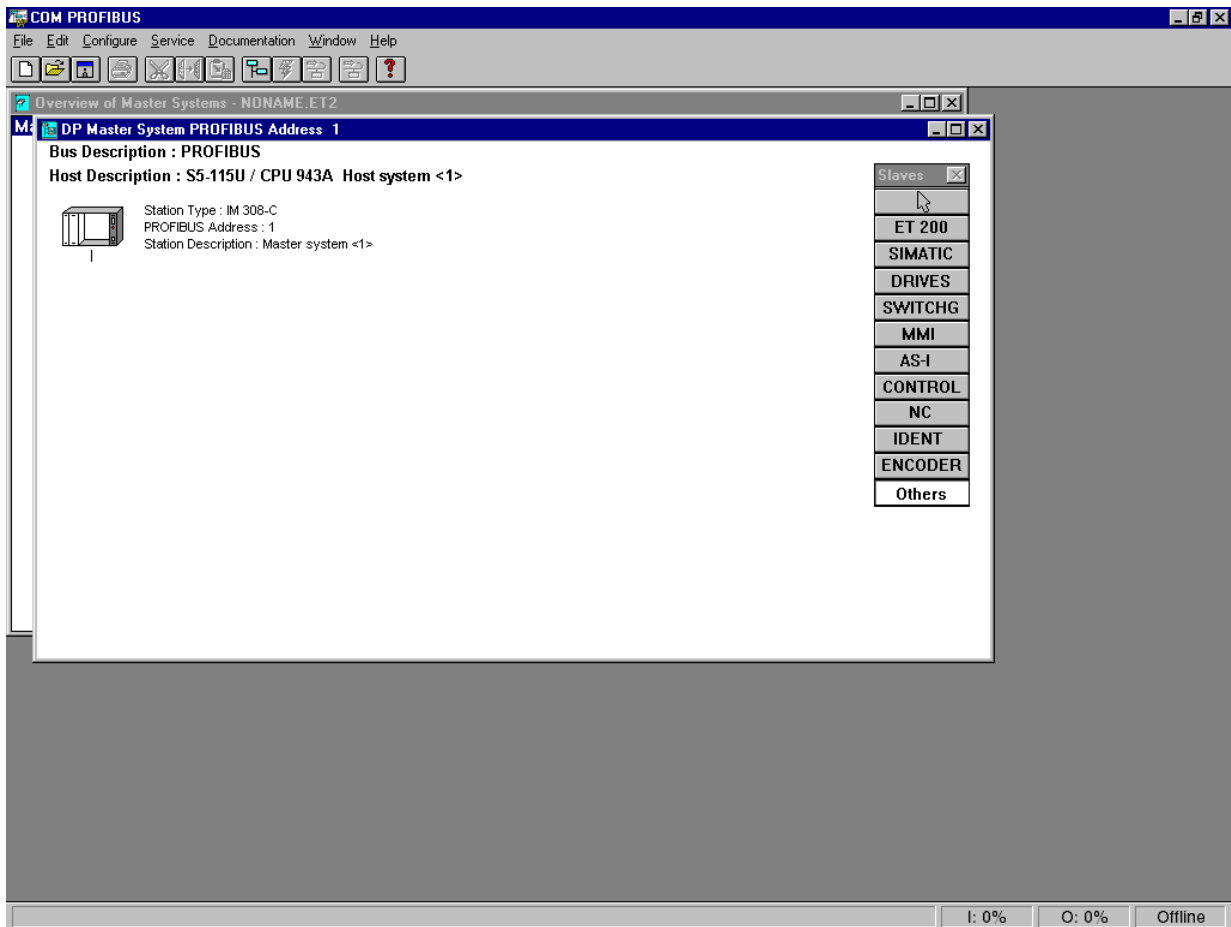
Simatic is a registered Siemens trademark.

Step 2

- Step 2  
Select the File menu "Scan GSD files":



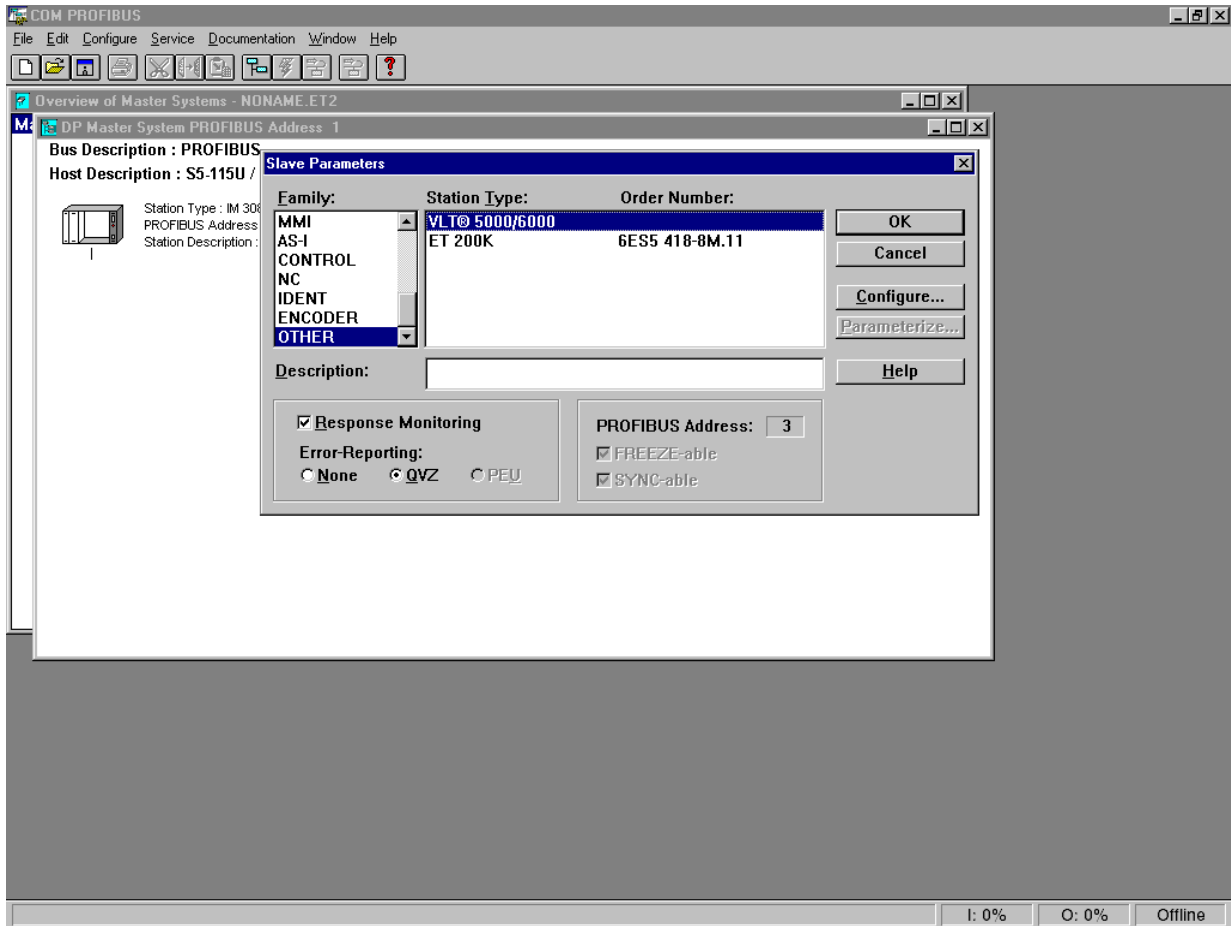
- Step 3  
In order to insert a VLT into the system. Select the Slave Family *Others* and insert the slave into the system.



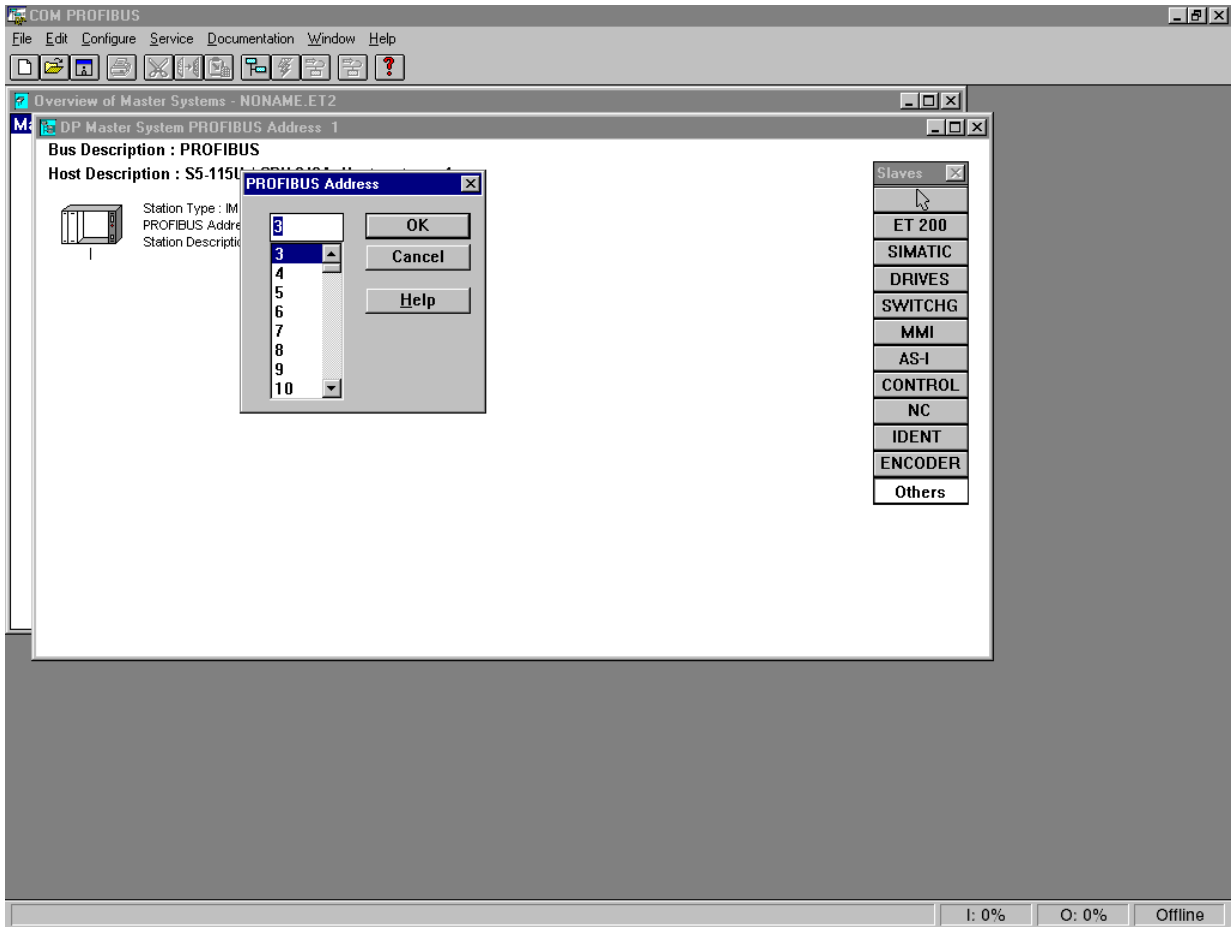
Step 4

■ Step 4

Select the Station Type "VLT®5000/6000".

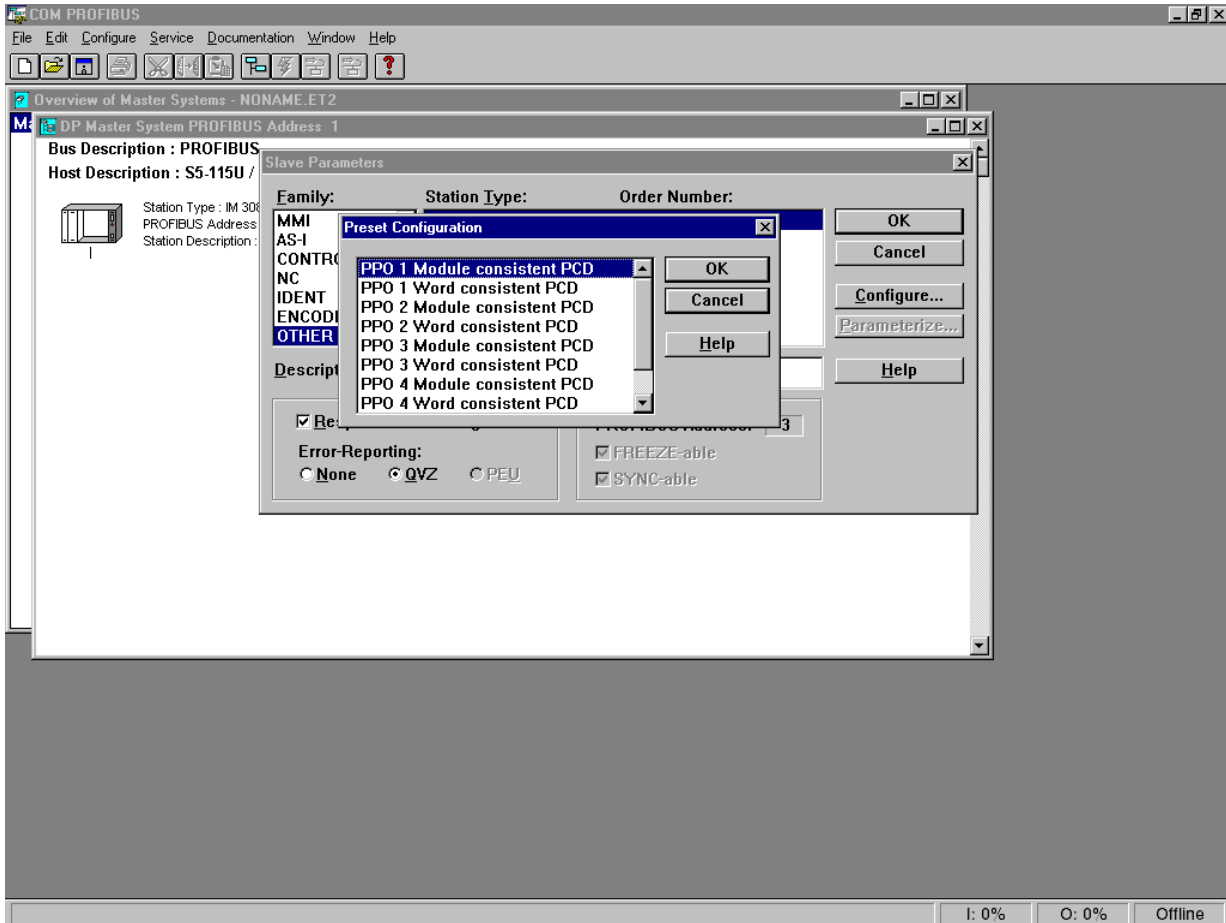


- Step 5  
Select the address of the VLT 5000. The value must match the VLT parameter 918.



Step 6

- Step 6  
 Select the PPO type you want to use. The value must match the VLT parameter 904.  
 In this example, PPO1 with module consistency is used.

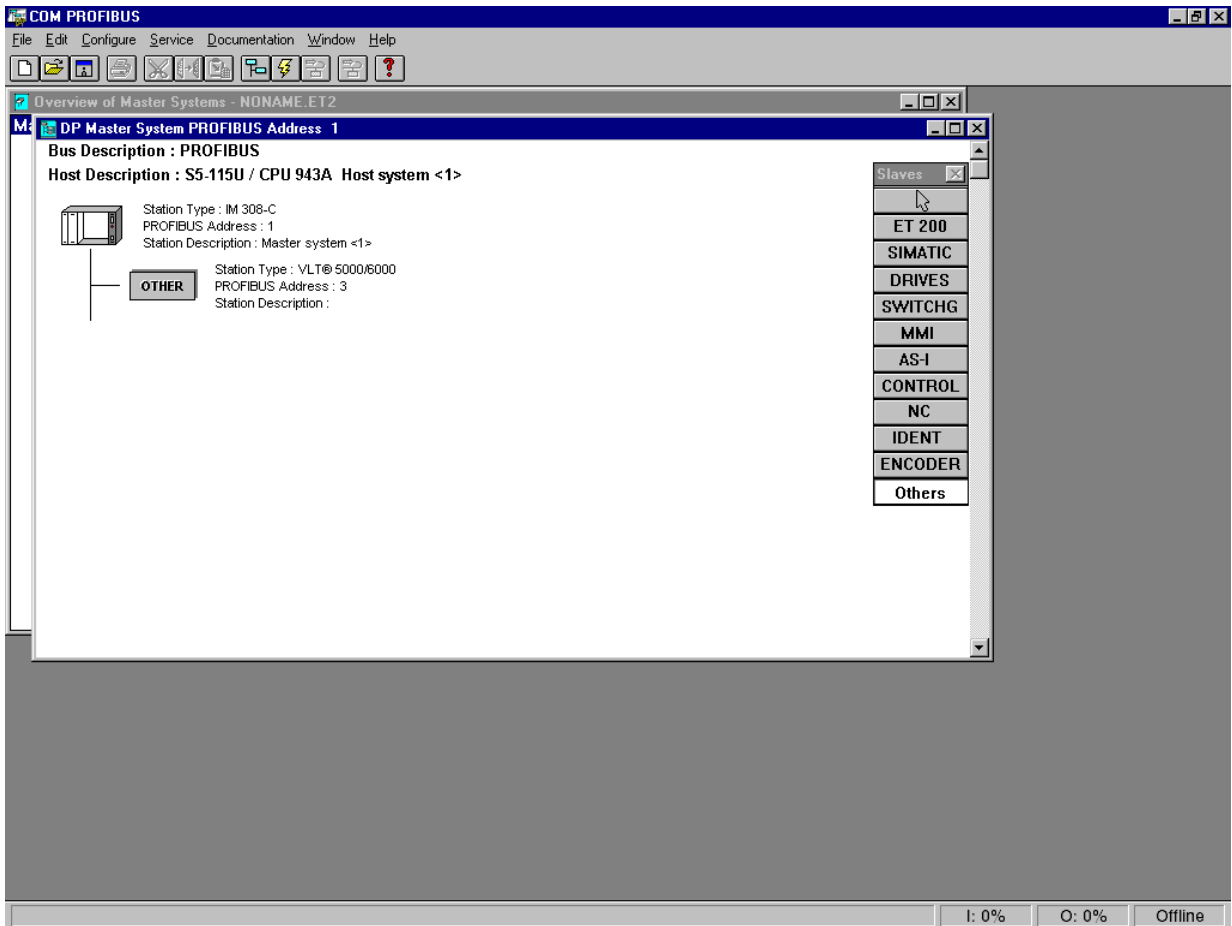


Consistency means that all data within a module are transmitted consistently over the profibus network.

The PCV must be transmitted consistently. The PCD can be transmitted either as module consistent (all PCD's) or as word consistent.

Danfoss recommends that module consistent PCD handling is used for the Synchronization/Positioning option.

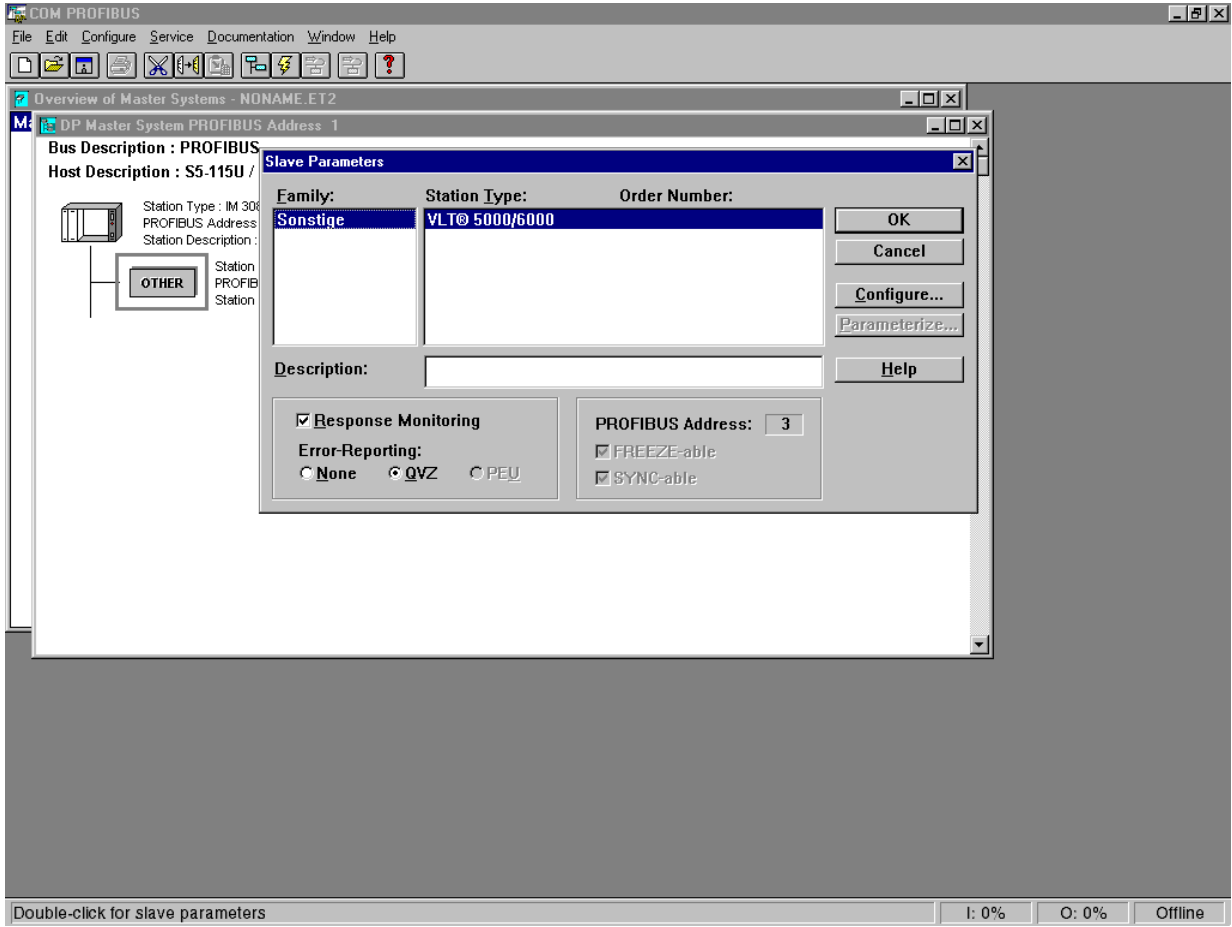
- Step 7  
Map the PPO data into the I/O of your PLC.





Step 8

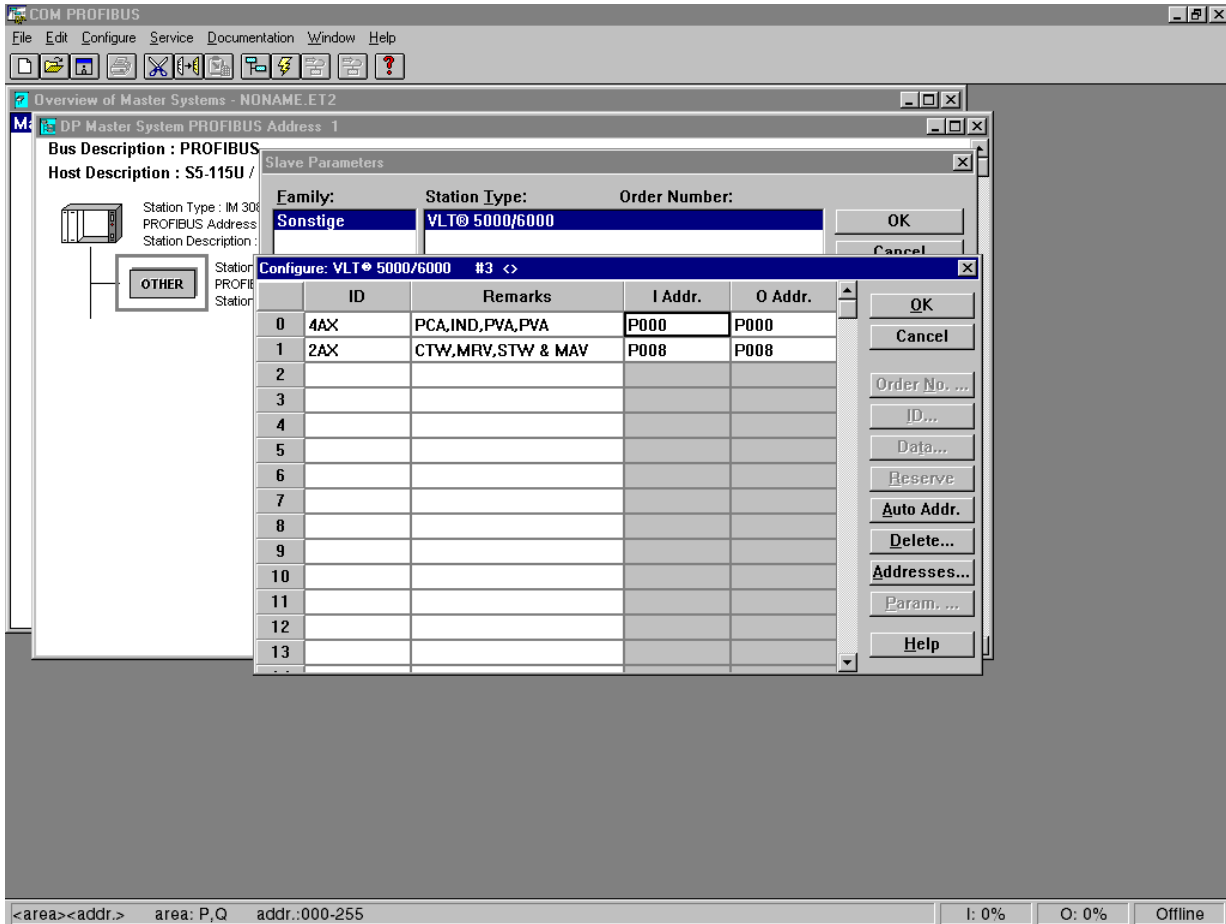
- Step 8  
Double click the Station you just added and select Configure.



- Step 9  
Each module must be mapped into the I/O space of the PLC.  
In this example, we have chosen the start address P000 for PPO1, first module (4AX), and P008 for the second module (2AX).



NB!  
Please be aware that PPO input data and output data can be mapped to the same I/O address of the PLC.



Now your system is set up to use the PPO1 Communication. The PPO elements are to be addressed as shown below:

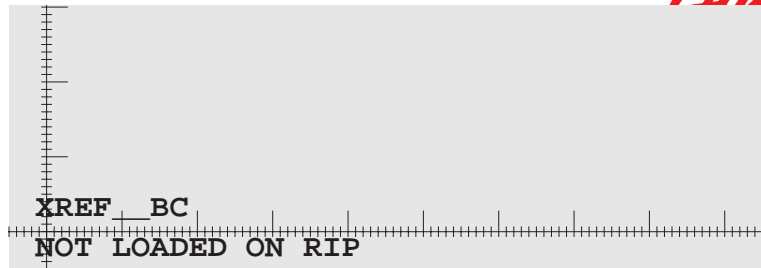
By writing to P Memory area

4AX				2AX	
PCA	IND	PVA	PVA	CTW	MRV
P000	P002	P004	P006	P008	P010

By Reading from P Memory area:

4AX				2AX	
PCA	IND	PVA	PVA	STW	MAV
P000	P002	P004	P006	P008	P010

Please consult your IM308C manual for handling consistency while using P memory.



[www.danfoss.com/drives](http://www.danfoss.com/drives)

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

