

IM157 Link Model on Non-S7 Masters

Connecting SIEMENS PROFIBUS PA Instrument to Non-Siemens Host via an IM157 DP/PA Link Model

Objective:	<ul style="list-style-type: none"> Learn how to connect a Siemens PROFIBUS PA device to a non-Siemens PROFIBUS master using a Siemens IM157 DP/PA Link Model
Equipment:	<ul style="list-style-type: none"> Siemens PROFIBUS PA instrument Siemens PROFIBUS PA instruction manual Non-Siemens PROFIBUS master IM157 DP/PA Link Module + Coupler PC or laptop

While every effort was made to verify the following information, no warranty of accuracy or usability is expressed or implied.

Overview

With Step 7, integrating a PROFIBUS PA device into the network when using IM157 DP/PA Link module is a simple point and click. However, in non-Siemens host system or even old S5 systems, the GSD file of the PA slave must be integrated into the GSD file for the IM157.

This integration requires *gsdtool* located on the **IM157** support page in the download section at: <http://support.automation.siemens.com/WW/llisapi.dll?func=cslib.csinfo&lang=en&siteid=csius&objid=15350474>

This application guide explains the program and goes through an example of how to configure a network using the **IM157** and a sample non-Siemens host. *ProfiCaptain* is used as the non-Siemens host system.

Using *gsdtool*

Download the *gsdtool* ZIP file from the IM157 support page. After unzipping, run the *.exe* file to install a java application program in the *c:\gsdtool* folder.

NOTES:

- Install the correct java engine to run *gsdtool* (see IM157 support page for details).
- Go to the Siemens support website and download the *siem8052.gse* file: <http://support.automation.siemens.com/WW/llisapi.dll?query=siem8052.gsd+&func=cslib.cssearch&content=skm%2Fmain.asp&lang=en&siteid=csius&objaction=cssearch&searchinprim=0&nodeid=15351207&x=21&y=10>
- Please note that you can install either the *.gsd* file or the *.gse* file. The *.gsd* file is in German and the *.gse* file is in English. Both operate exactly the same and are interchangeable.
- Before you run *gsdtool*, the GSD file for the IM157 must be placed in *c:\gsdtool* along with the gsd files of the slaves to be connected to IM157.

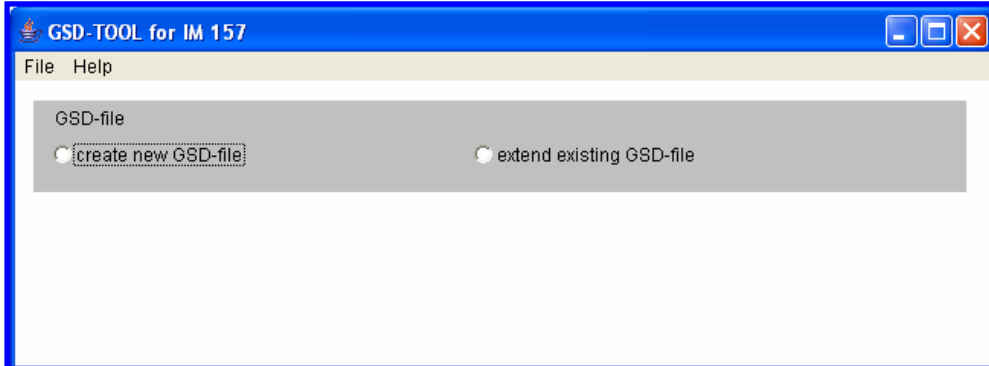
Siemens Milltronics Process Instruments Inc.

1954 Technology Drive, P.O. Box 4225
Peterborough, Ontario
K9J 7B1 / Canada

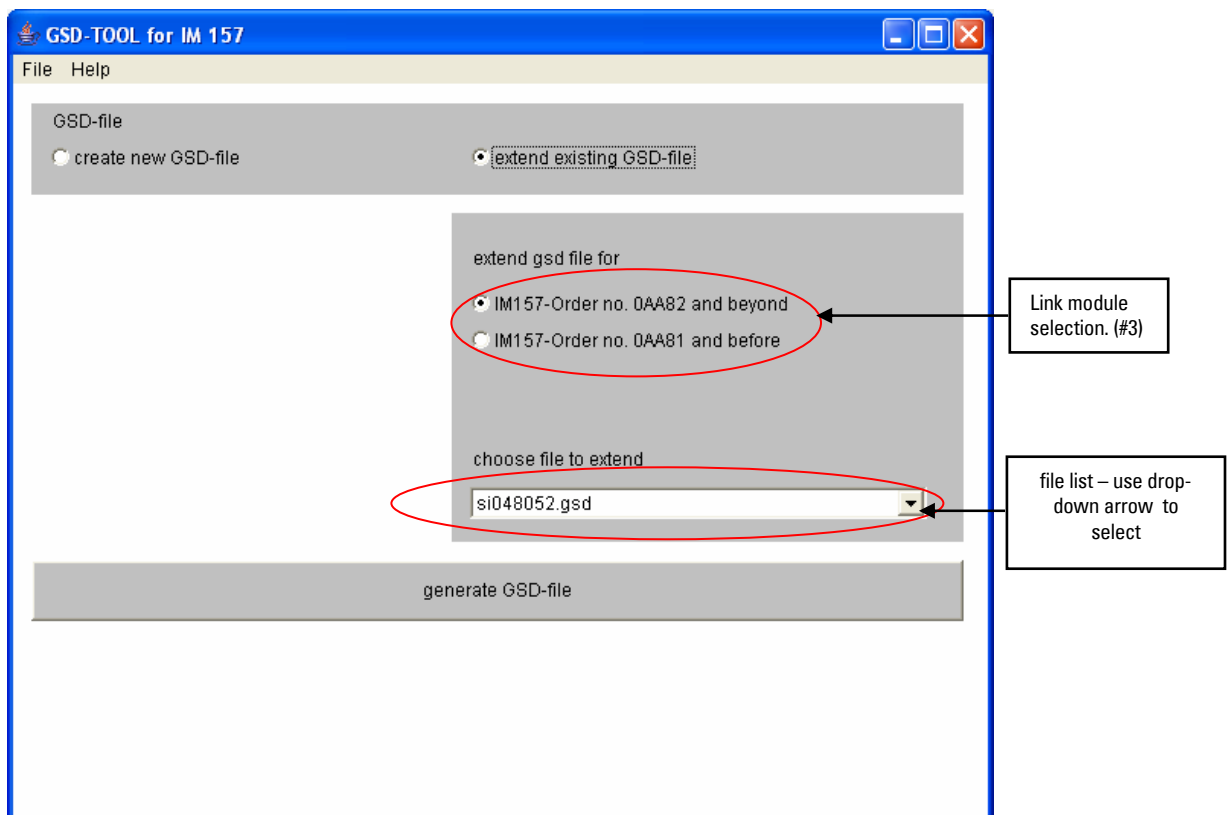
Tel.: (705) 745-2431
Fax: (705) 741-0466
www.siemens.com/processautomation

APPLICATION GUIDE

1. To run the program, double-click on **GSDTOOL.JAR** to open the TOOL window.



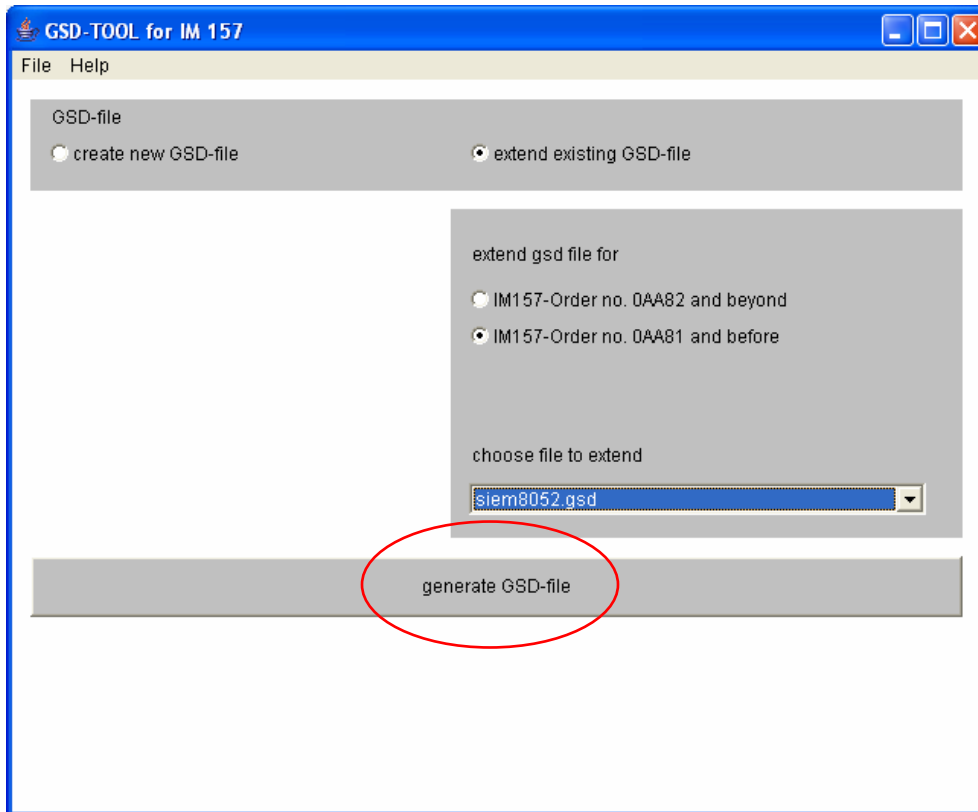
2. Click the **extend existing GSD-file** radio button to extend the GSD-file options.



3. Select the version of the DP/PA Link module you are using (either IM157 with 0AA82 in the order number or with 0AA81).
4. Using the drop-down arrow, select the **siem8052.gsd** file to extend.

APPLICATION GUIDE

5. Click **generate GSD-file** to create the new file placed in *c:\gsdtool\output*.

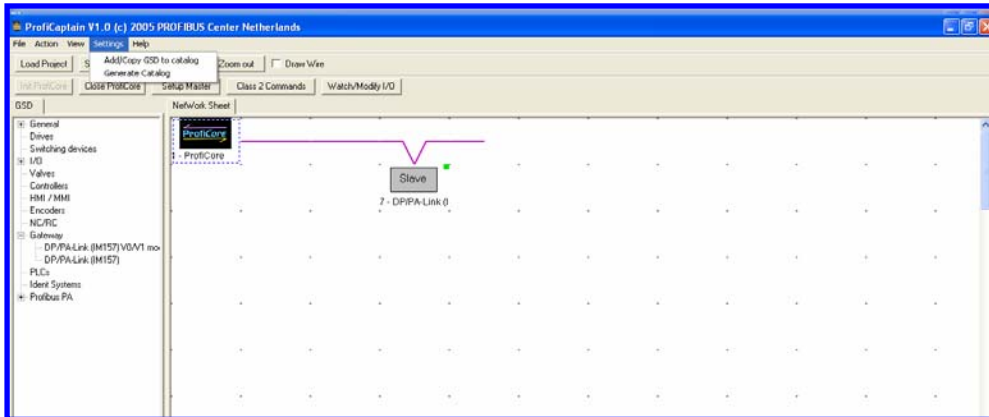


NOTE: The new file is still called *siem8052.gsd*. This is the file to be imported into the configuration software.

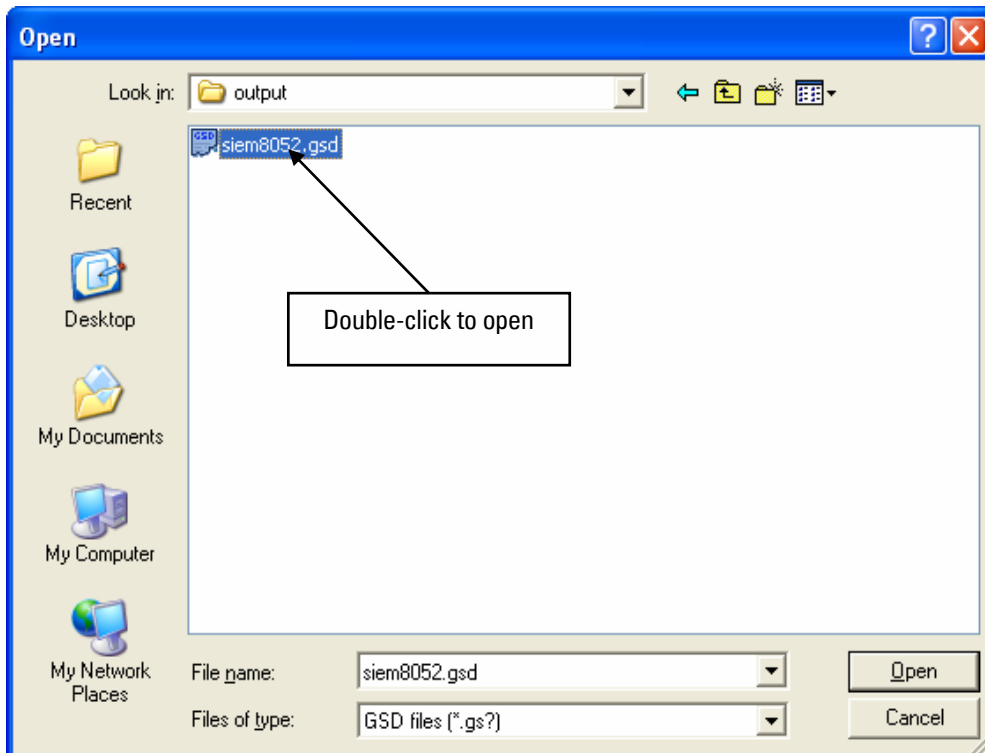
APPLICATION GUIDE

Configuring ProfiCaptain to Monitor a PROBE LU via an IM157 Link Model (example)

1. Run **ProfiCaptain** from **Start/Programs/ProfiCaptain/ProfiCaptain**.
2. Import the new gsd file by selecting **Setting/Add/Copy GSD to catalog** to open the directory.

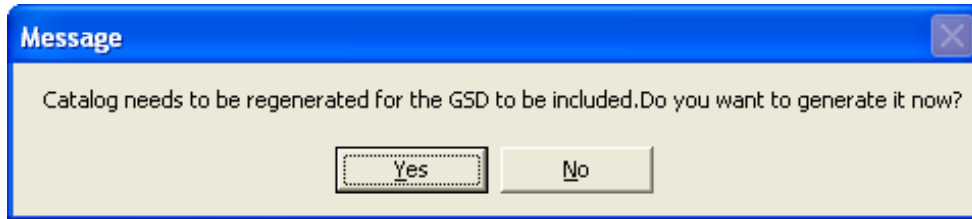


3. Select the file **siem8052.gsd** file from the **c:\gsdtool\output** directory.

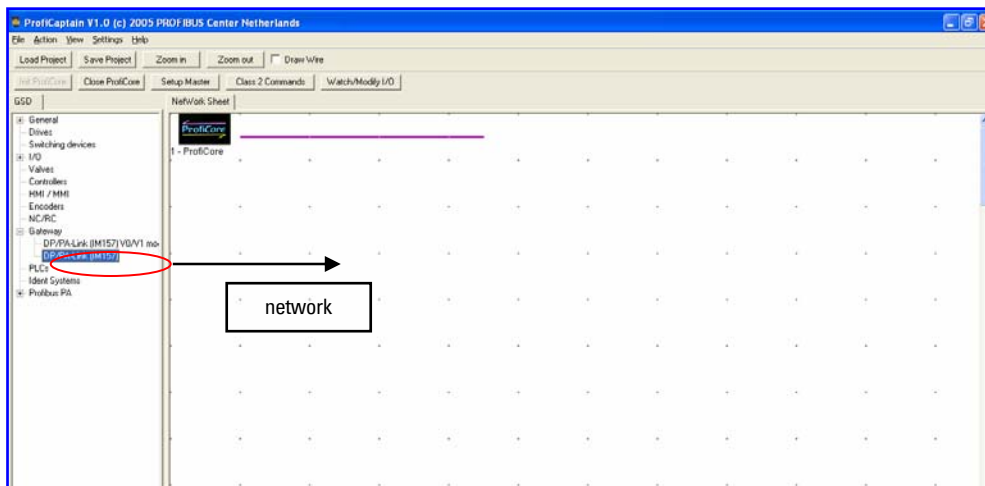


APPLICATION GUIDE

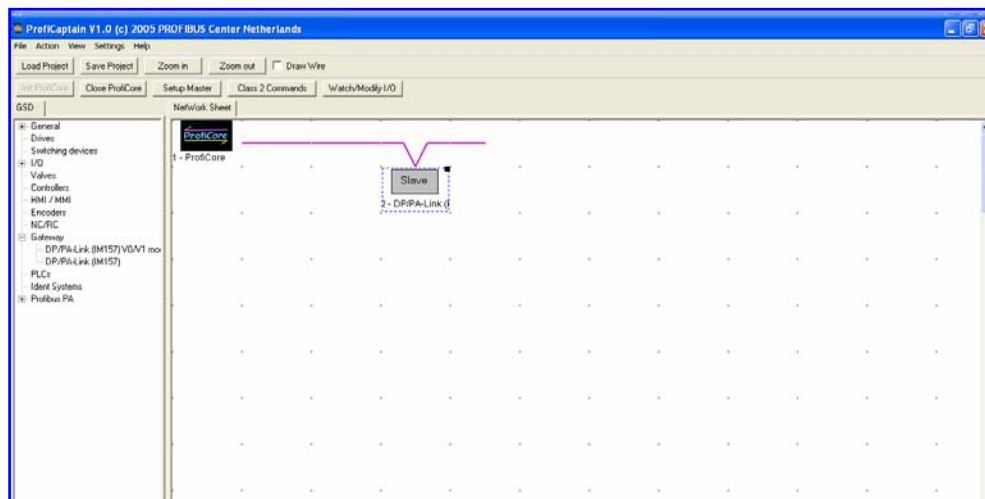
4. Double-click open and then click **Yes** when asked to regenerate the catalog.



5. The catalog opens in the left window. Select the **Gateway** tab and select the lower **DP/PA Link IM157**.

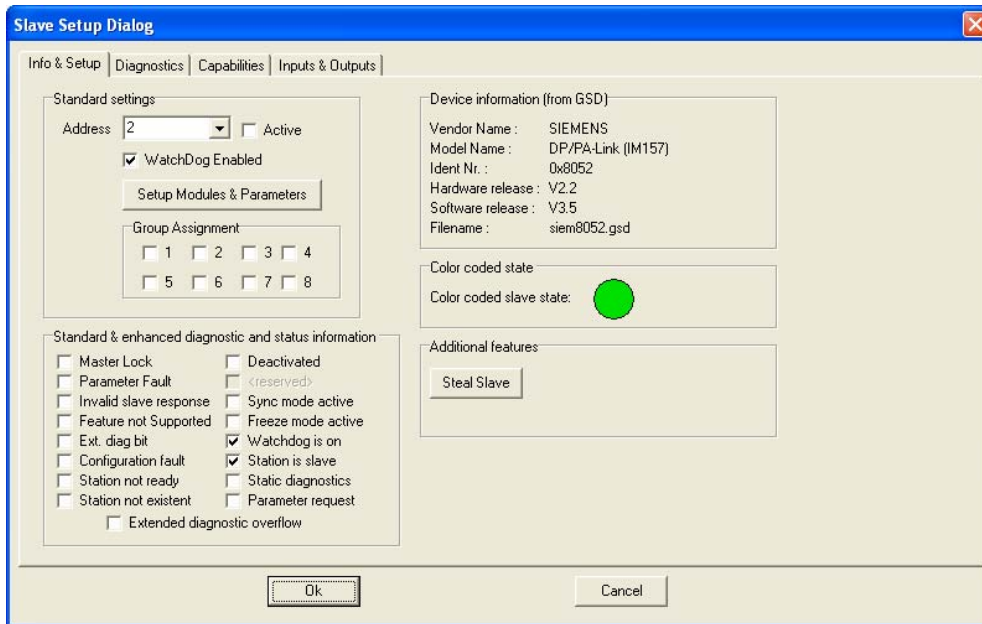


6. Click and drag **DP/PA Link IM157** onto the network.

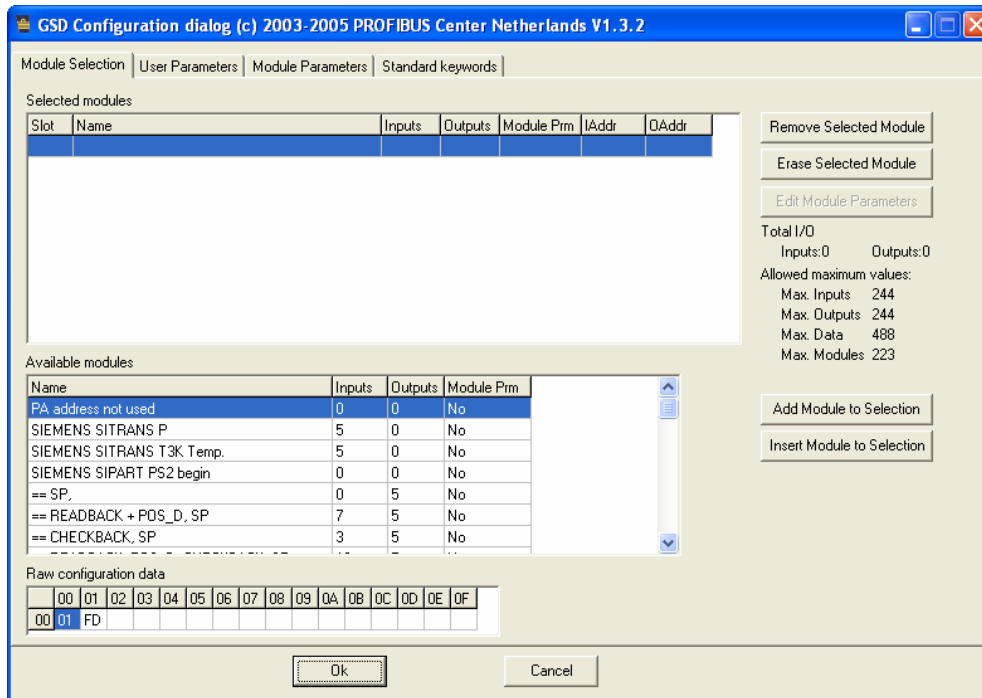


APPLICATION GUIDE

- Double-click the DP/PA link model to open the **Setup Dialog** box.



- Set the **Address** to match the values on the IM157 dip switch setting, and then select the **Active** radio button.
- Click **Setup Modules & Parameters** to open the **GSD Configuration dialog** box.



APPLICATION GUIDE

NOTES:

- The **Slot** address is connected to the bus address:
 - Slot 1 is address 3
 - Slot 2 is address 4

The Siemens devices just added are located at the end of the list of available modules. To see them, please scroll down to the bottom.

The screenshot shows the 'GSD Configuration dialog (c) 2003-2005 PROFIBUS Center Netherlands V1.3.2'. The 'Available modules' list is as follows:

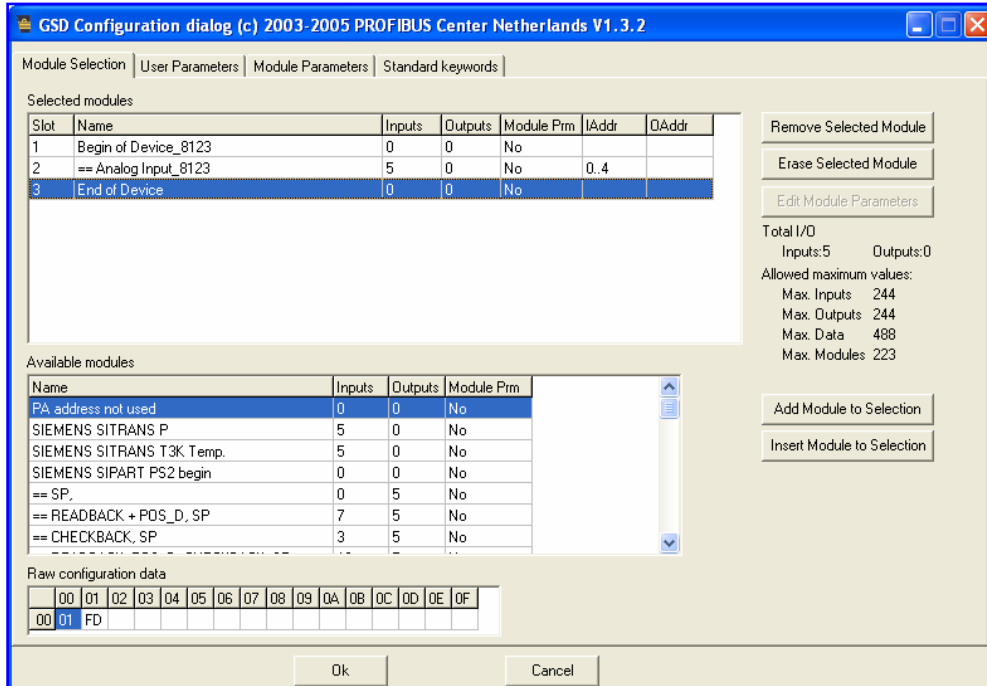
Name	Inputs	Outputs	Module Pm
SIEMENS-MILLTRONICS	0	0	No
SITRANS PROBE LU 12m	0	0	No
Begin of Device_8123	0	0	No
== Free place_8123	0	0	No
== Analog Input_8123	5	0	No
End of Device	0	0	No
SIEMENS-MILLTRONICS	0	0	No
.....	-	-	..

A red oval highlights the 'SIEMENS-MILLTRONICS' entry at the bottom of the list. A box labeled 'Siemens devices' with an arrow points to this entry. The 'Raw configuration data' table at the bottom shows '00 01 FD' in the first two columns.

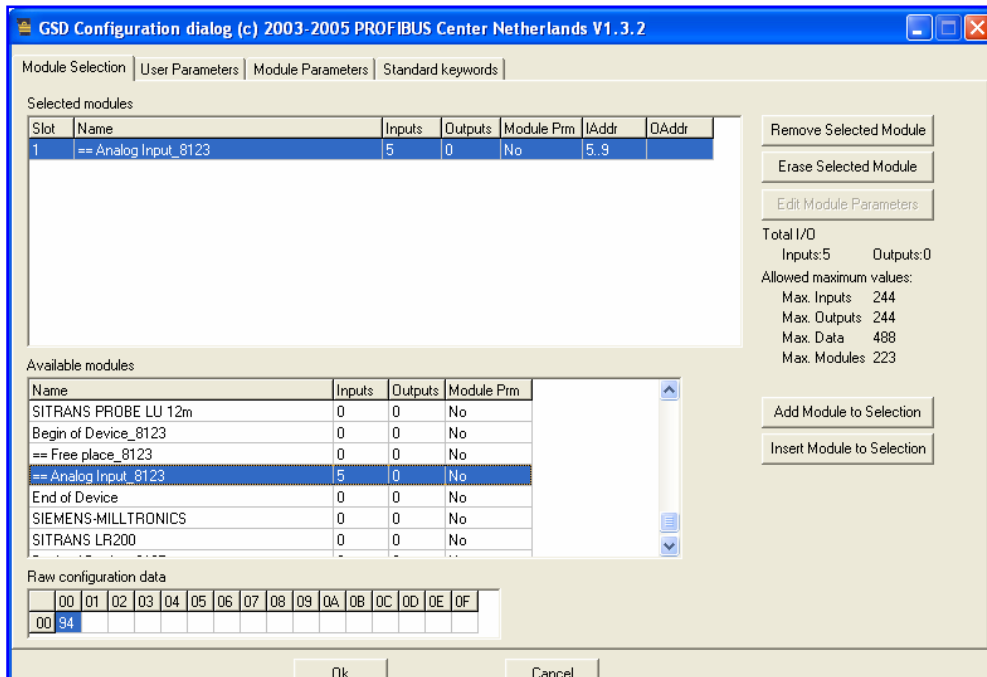
APPLICATION GUIDE

Now, there are two options on how to add a device in ProfiCaptain. Please note that if other configuration software such as *ComProfibus* is used, only the first method may work.

1. Use the ***Begin of Device_8123***, one or two ***Analog Input_8123***, then an ***End of Device***.



2. Or use ***==Analog Input_8123*** module.



APPLICATION GUIDE

In both examples, the IM157 expects the bus address of the PROBE LU 12m to be **3**. For a higher bus address, insert **PA address not used**.

- the PROBE LU will be a bus address $3+5 = 8$
- the address is at I10 to I14

