I-7580 Quick Start

This Quick Start will provide information needed to get started with I-7580. Please also consult the User Manual for detailed information on the setup and use of I-7580.

What's In the Box ?

In addition to this guide, the package includes the following item:

I-7580 Module


Product CD


Screw driver

Technical Support

- **I-7580 User Manual**
  CD: \fieldbus_cd\profinet\converter\i-7580\manual\
  ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/profinet/converter/i-7580/manual/

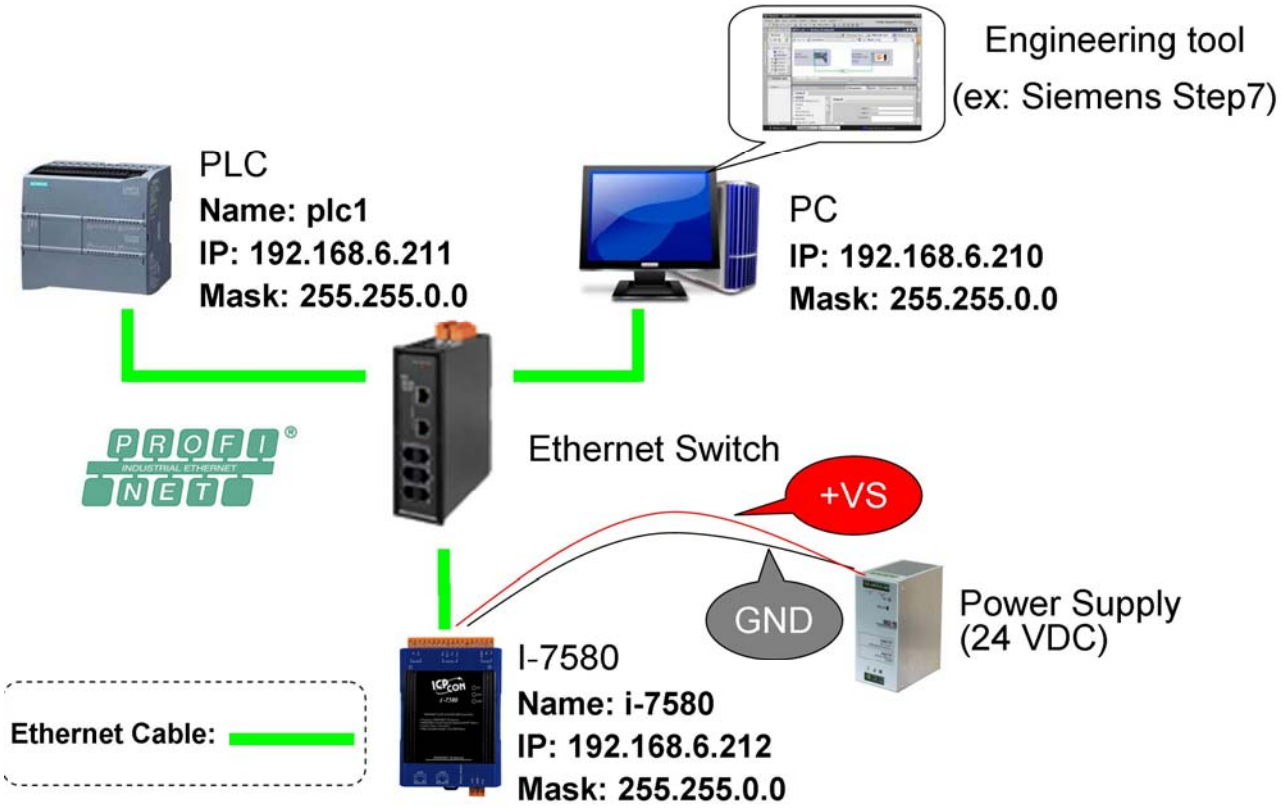
- **PROFINET Website**

http://www.icpdas.com/products/Industrial/profibus/profinet_intro.htm

Let's Start

In the following examples the S7-1200 PLC from Siemens is used. The configuration and communication is done by the program ''Step 7 V11 (TIA PORTAL)'' provided by Siemens. We will establish a PROFINET IO network.

1 Connecting to Network, PC, PLC and Power



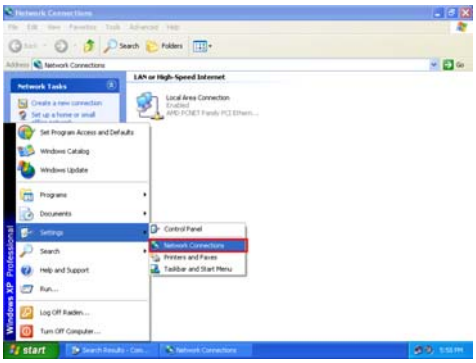
2 Network Configuration

In this example, please follow the below configuration to configure the network.

PC=>	PLC=>	I-7580=>
IP: 192.168.6.210	Device name: plc1	Device name: i-7580
Mask: 255.255.0.0	IP: 192.168.6.211	IP: 192.168.6.212
	Mask: 255.255.0.0	Mask: 255.255.0.0

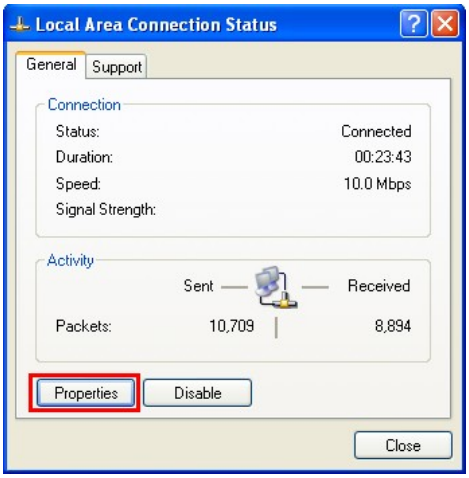
Step 1: Set PC's IP & Mask (IP=192.168.6.210, Mask=255.255.0.0)

1. Click "start->Settings->Network Connections"

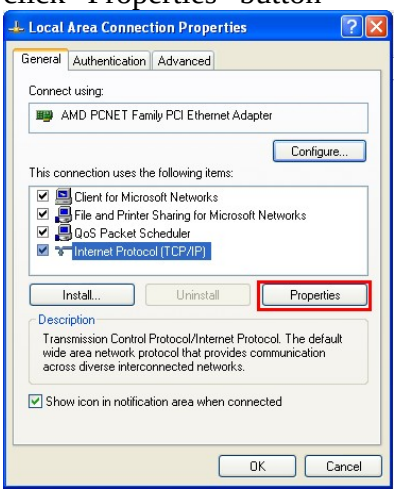


2. Double click "Local Area Connection" icon

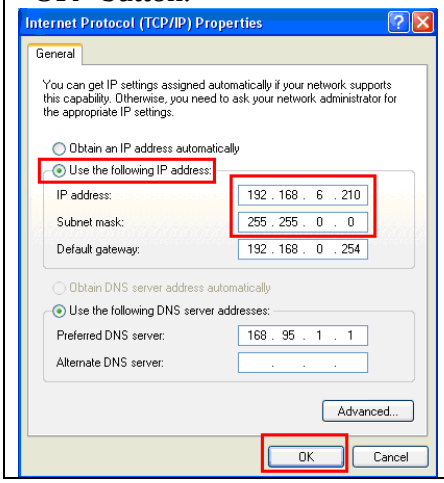
3. Click "Properties" button



4. Select "Internet Protocol(TCP/IP)" and click "Properties" button



5. Set "Internet Protocol Properties" and then click "OK" button.



3 GSD Import

In this example, please follow the step to import GSD file.

Step 1: Get GSD file

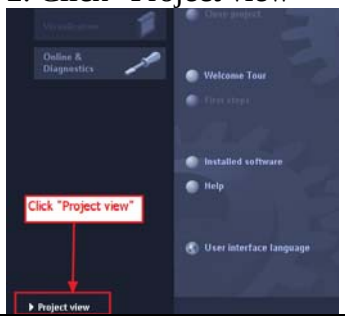
The GSD file can be obtained from companion CD or our FTP site:

CD: \fieldbus_cd\profinet\remote io\I-7580\gsd\
ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/profinet/converter/i-7580/gsd/

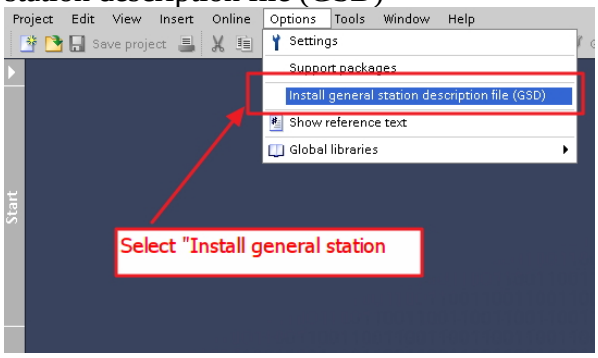
Step 2: Import GSD file

1. Double Click TIA icon to start Step 7 V11

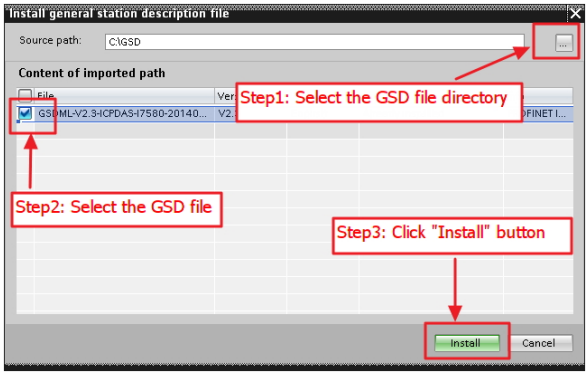
2. Click “Project view”



3. Select “Menu->Options->Install general station description file (GSD)”



4. Select and install GSD file

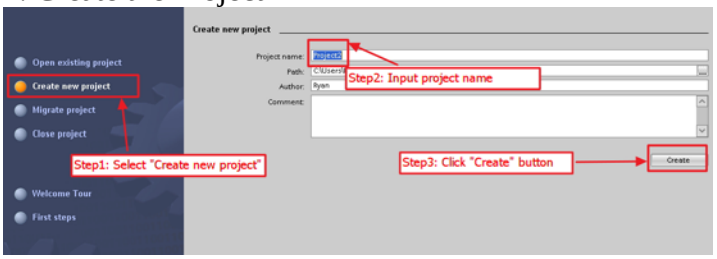


Note: Select the GSD file directory=>Select GSD file of I-7580=>Click “Install” button

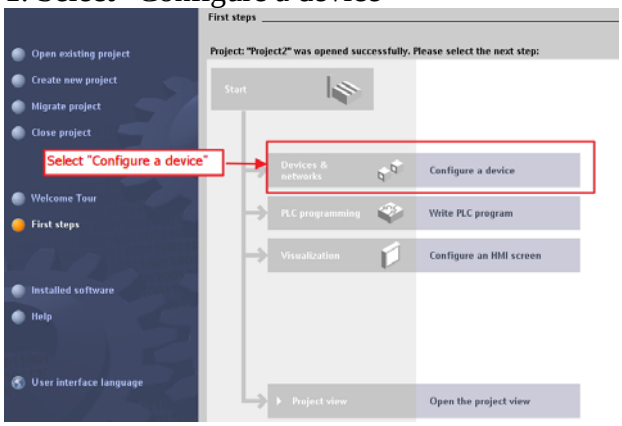
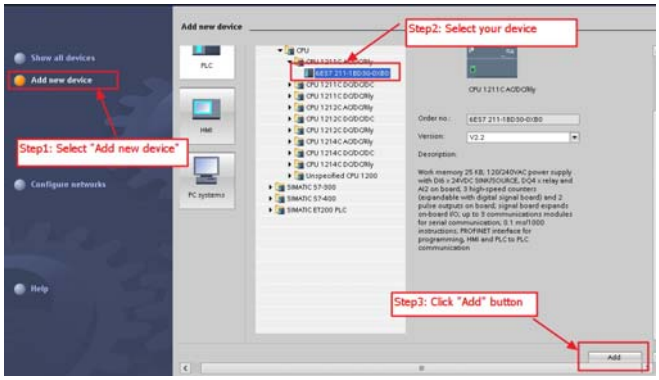
4 Project Setup

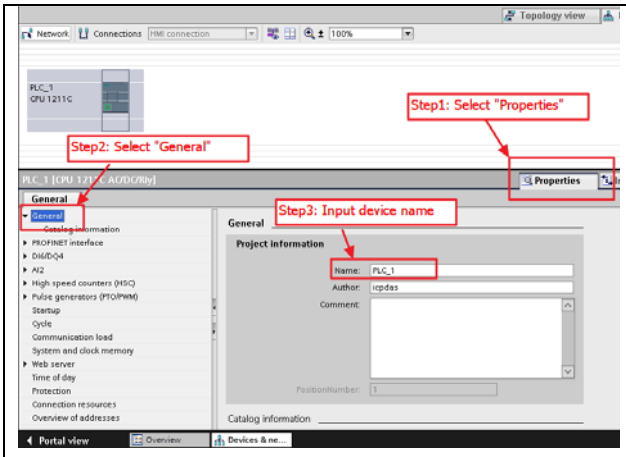
In this example, please follow the step to setup project.

Step 1: Create the project

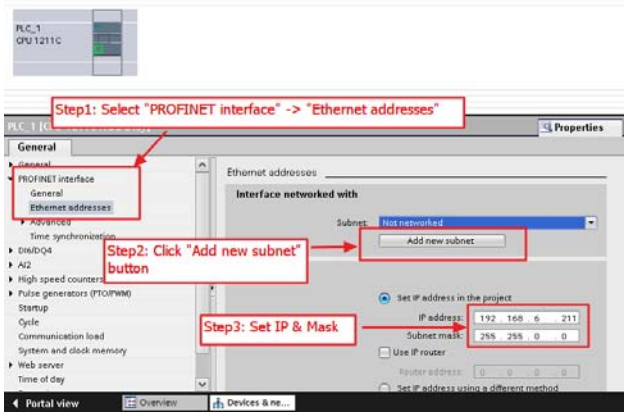
1. Double Click TIA icon to start Step 7 V11  	2. Create the Project  Note: Select ”Create new project” => Click “Create” button

Step 2: Project configuration

1. Select ”Configure a device”  	2. Select ”Add new device”  Note: Select “Add new device” => Select your PLC module => Click “Add” button
3. Set the device name of PLC to “plc1”	4. Set the IP and mask of PLC and add a new subnet

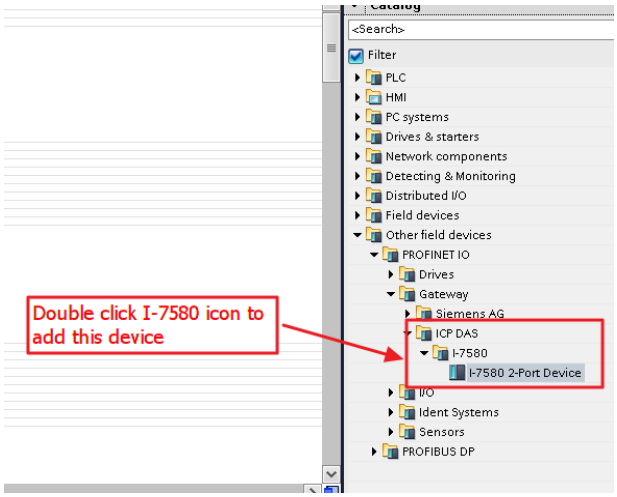


Note: Select ”Properties” windows => Select ”General” => Input device name = plc1 at “Project Information”



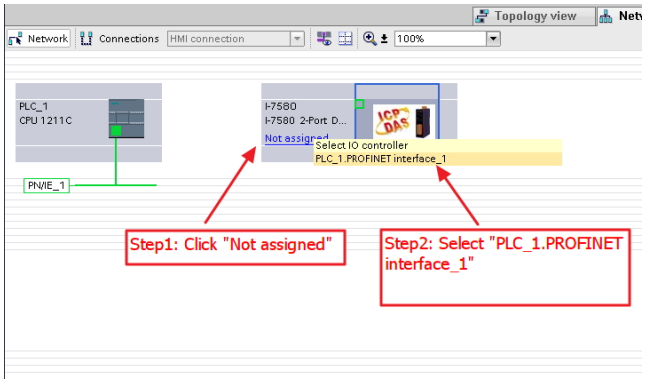
Note: Select ”PROFINET Interface” => Click ”Add new subnet” button at ”Ethernet addresses” => Input IP=192.168.6.211, mask=255.255.0.0

5. Add I-7580 module



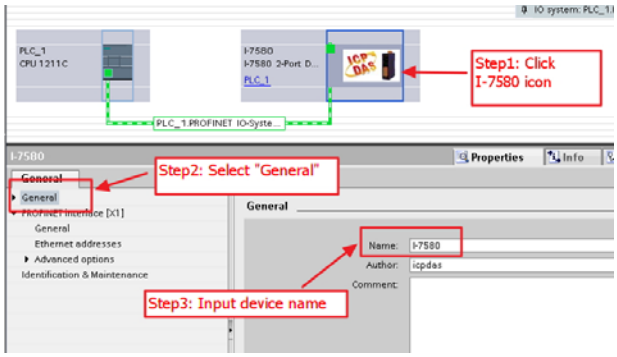
Note: Add I-7580 device by Hardware catalog (Other field devices->PROFINET IO->Gateway->ICP DAS->I-7580)

6. Select PROFINET interface



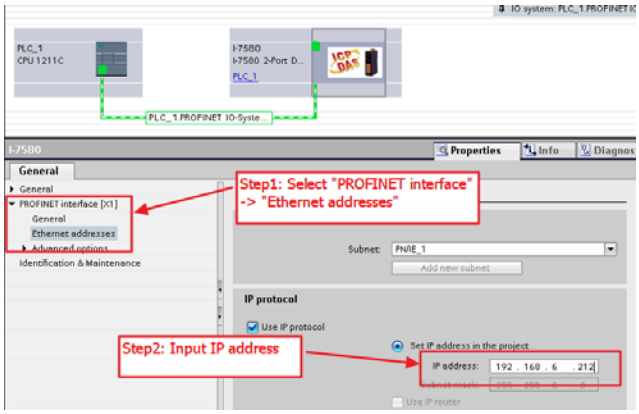
Note: Click ”Not assigned” text => Select plc1.PROFINET Interface_1

7. Set device name to “I-7580”



Note: Select I-7580 icon => Select ”Properties” => Select ”General” => Input name = I-7580 at ”Project Information”

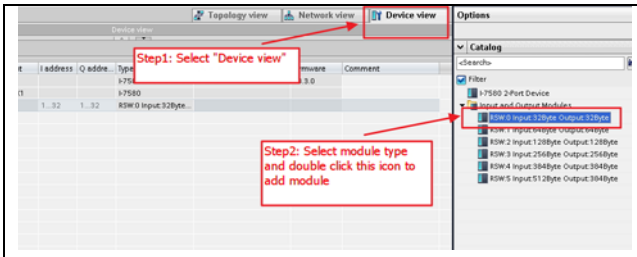
8. Set the IP of I-7580 module



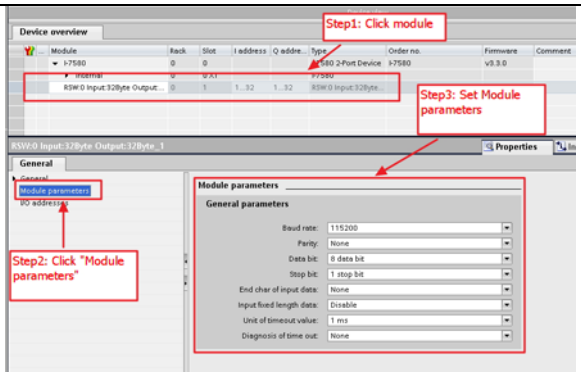
Note: Select ”PROFINET Interface [X1]” => Input IP=192.168.6.212 at ”IP addresses”

9. Select module type of I-7580 module

10. Set module parameters of I-7580

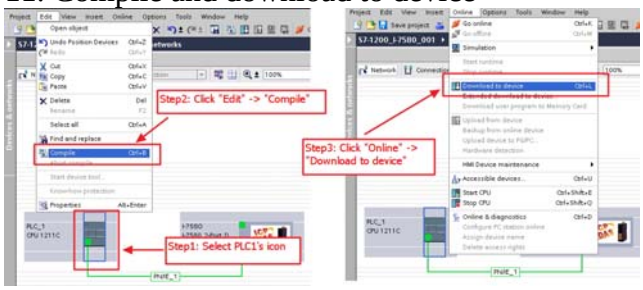


Note: Select ”Device view” windows => Select “RSW:0 Input:32Byte Output:32Byte” module at “Hardware catalog” and double click the icon to add this module



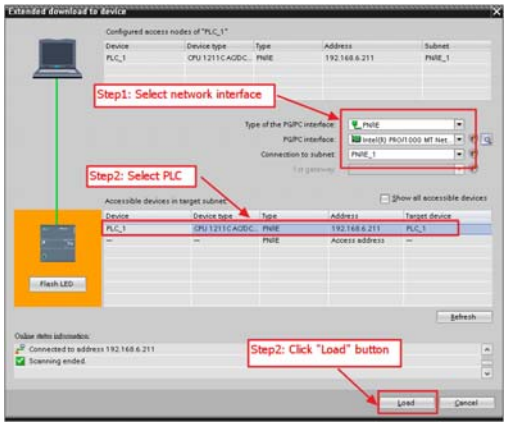
Note: Use default values(COM port:115200, n, 8, 1)

11. Compile and download to device



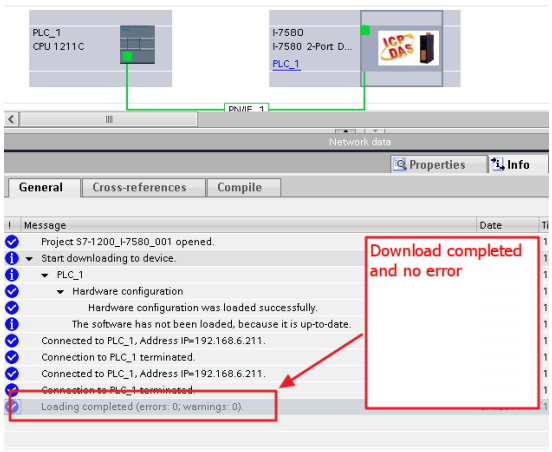
Note: Select ”Network view” windows => Select PLC icon => Click compile icon => Click download icon

12. Select network interface and PLC



Note: Select network interface => Select PLC => Click “Load” button

13. Load completed



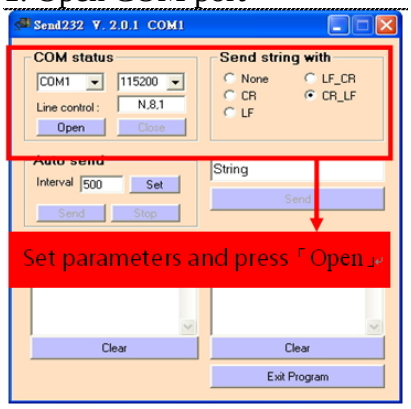
Note: Select “Info” windows, it will show “Load completed (errors: 0, warnings: 0)” message, it means download completed and no error.

At this time, the AP LED should turn on, BOOT LED and ERR LED should turn off, it means the connection between PLC and I-7580 module is established.

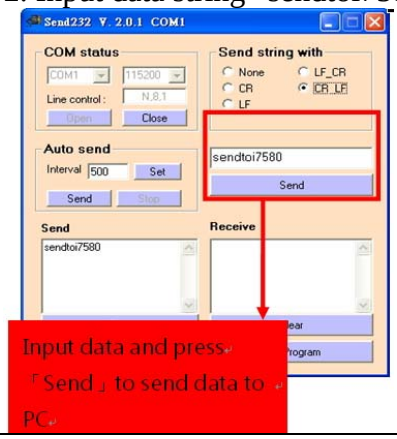
5 Communication test

we use “Send232” to test PROFINET communication and serial communication. This utility simulates a serial device and can be obtained from our FTP site.
ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/7188e/tcp/pcdiag/source/send232.vb6_2.0.1

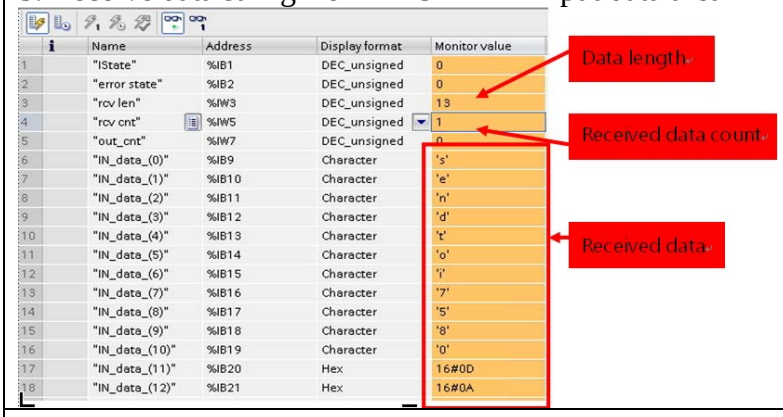
1. Open COM port



2. Input data string “sendtoi7580”



3. Receive data string from PROFINET input data area



4. Transmit data string ”sendtoPC” from PROFINET output data area to Send232