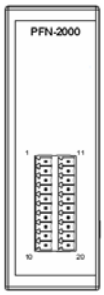
# PFN-2000 Series Modules Quick Start

This Quick Start Guide will provide information needed to get started with PFN-2000. Please also consult the User Manual for detailed information on the setup and use of PFN-2000.

## What's In the Box ?

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




PFN-2000 Module

Product CD

## Technical Support

- **PFN-2000 User Manual**
  CD: \fieldbus_cd\profinet\remote io\pfn-2000\manual\
  ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/profinet/remote%20io/pfn-2000/manual/

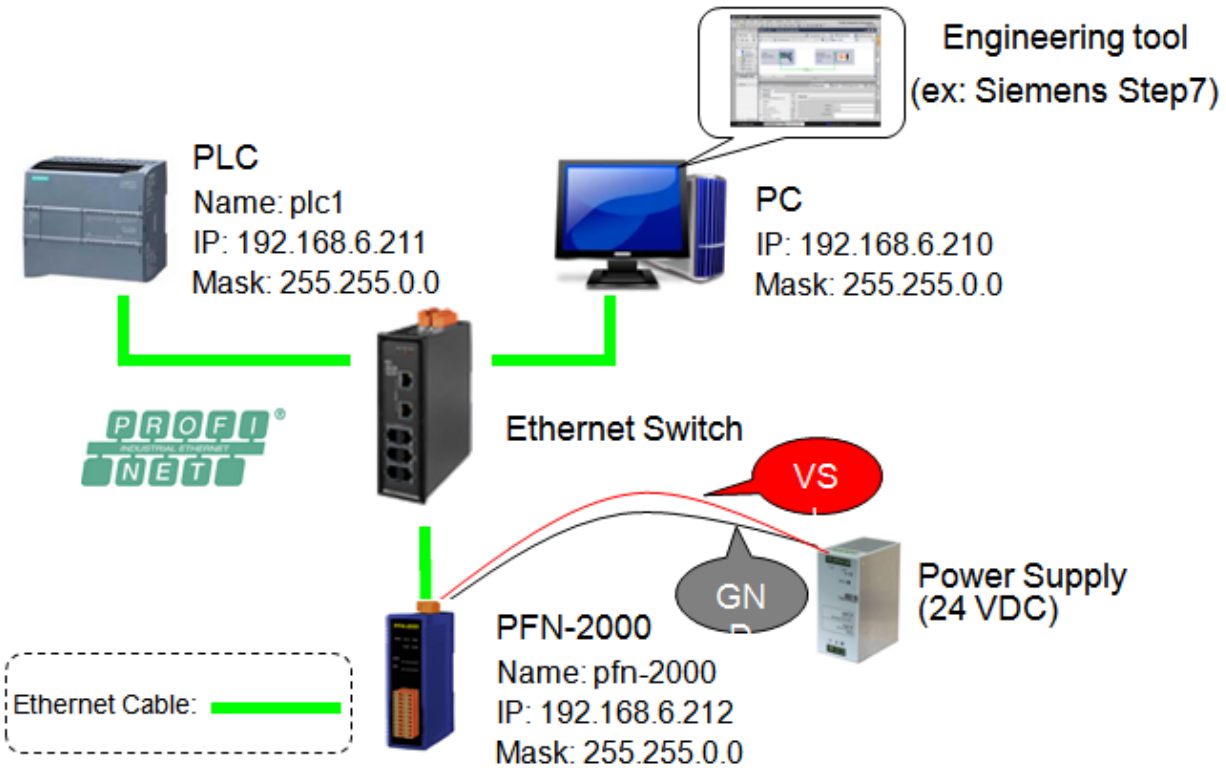
- **PROFINET Website**

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



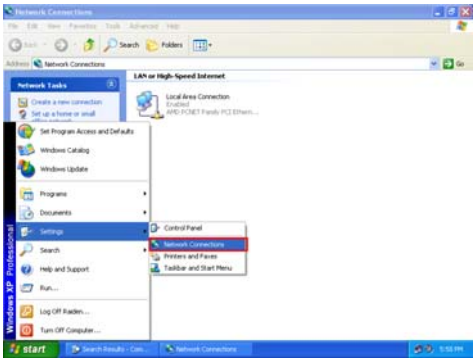

# 2 Network Configuration

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

| PC=> | PLC=> | PFN-2000=> |
|---|---|---|
| IP: 192.168.6.210 | Device name: plc1 | Device name: pfn-2000 |
| 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 |

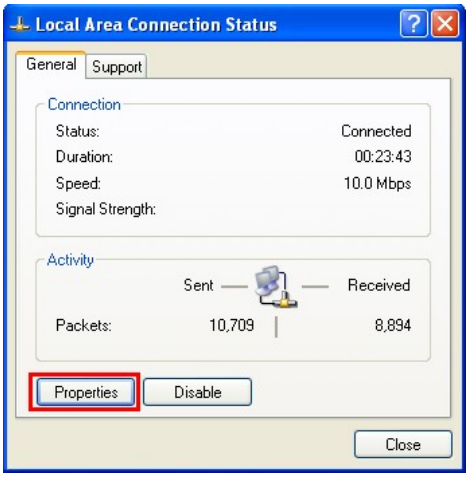
**Step 1: Set PC's IP & Mask (IP=192.168.6.210, Mask=255.255.0.0)**

1. Click “start->Settings->Network Connections”

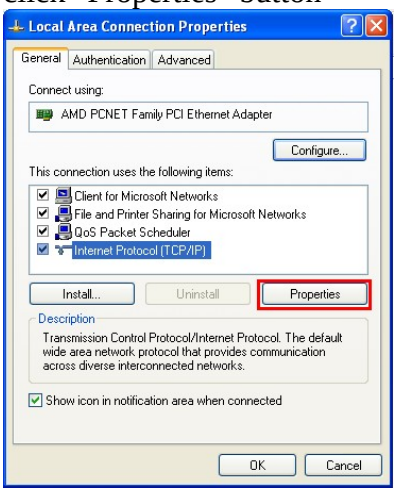


2. Double click “Local Area Connection” icon

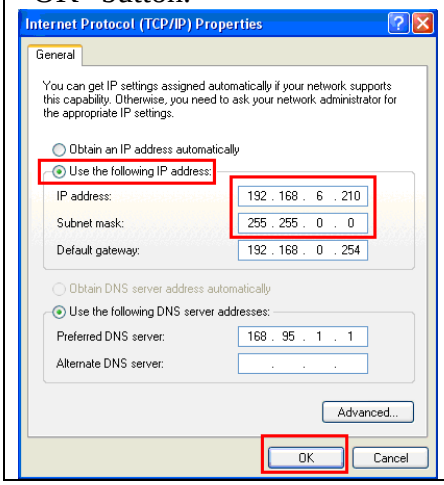

3. Click “Properties” button




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



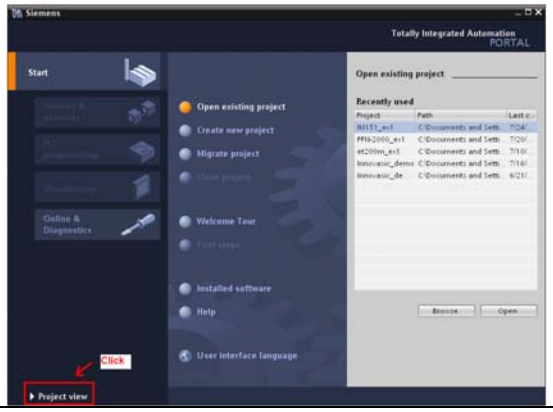

5. Set “Internet Protocol Properties” and then click “OK” button.



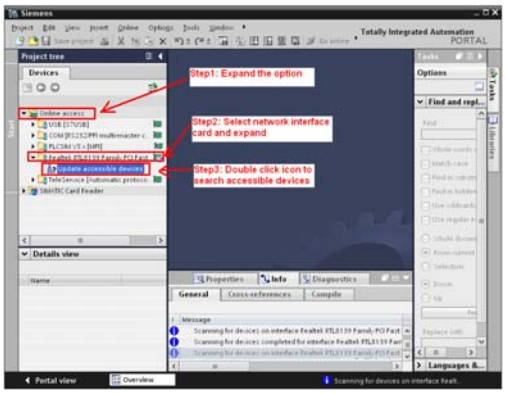
## Step 2: Set PLC's name and IP

1. Double Click TIA icon to start Step 7 V11


2. Click "Project view"

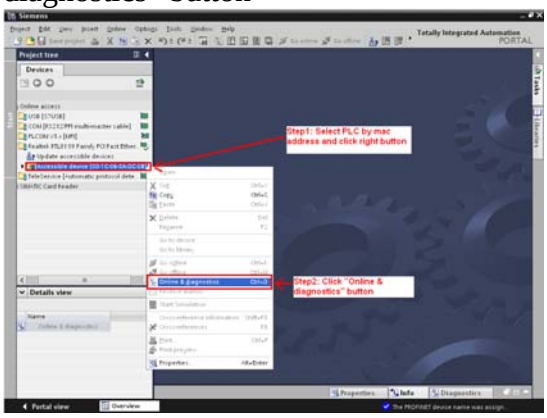



3. Search accessible devices



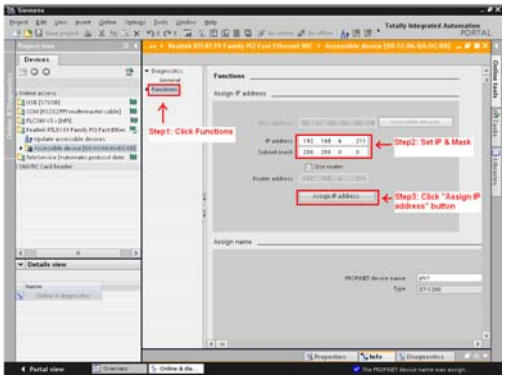

Note: At "Online access", select network interface card and expand it=>Double click "Update accessible devices" icon

4. Select PLC and click "Online & diagnostics" button



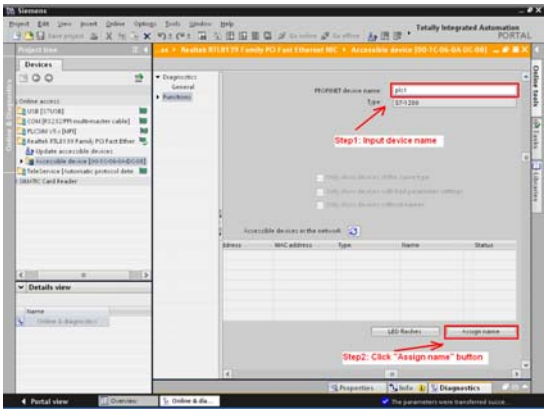

Note: Select PLC by mac address and click right button=>Click "Online & diagnostics" button

5. Set IP and Mask



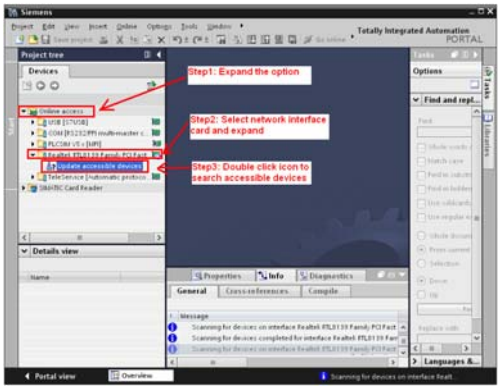
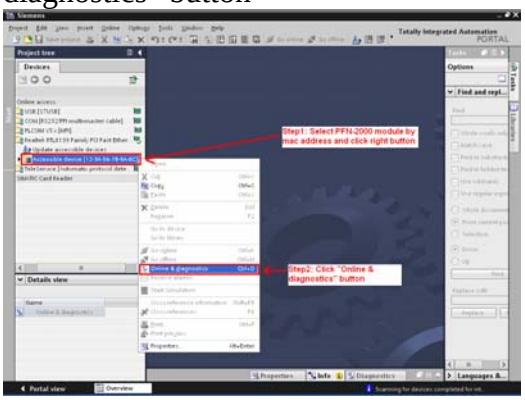
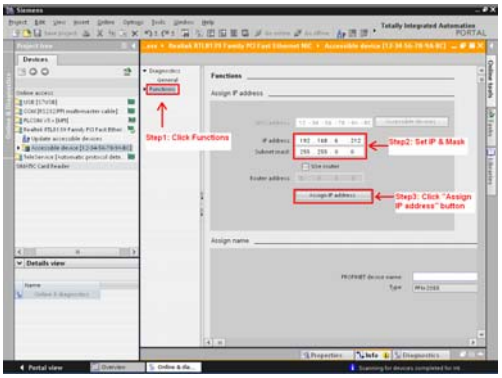
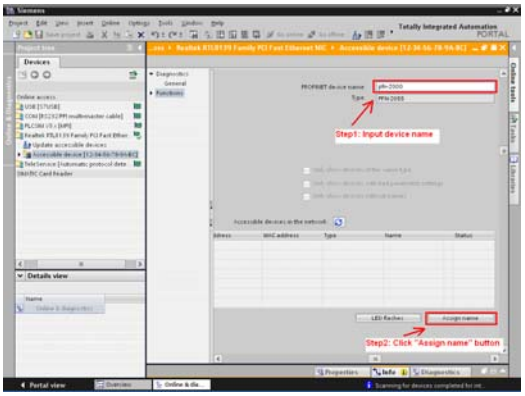

Note: Select "Functions"=>Set IP=192.168.6.211 & Mask=255.255.0.0=>Click "Assign IP address" button

6. Set device name




Note: Input device name=plc1=>Click "Assign name" button

## Step 3: Set PFN-2000's name and IP

| | |
|---|---|
| 1. Search accessible devices<br>  <br><br>Note: At “Online access”, select network interface card and expand it=>Double click “Update accessible devices” icon | 2. Select PFN-2000 and click “Online & diagnostics” button<br>  <br><br>Note: Select PFN-2000 by mac address and click right button=>Click ”Online & diagnostics” button |
| 3. Set IP and Mask<br>  <br><br>Note: Select “Functions”=>Set IP=192.168.6.212 & Mask=255.255.0.0=>Click ”Assign IP address” button | 4. Set device name<br>  <br><br>Note: Input device name=pfn-2000=>Click ”Assign name” button |

# 3 GSD Import

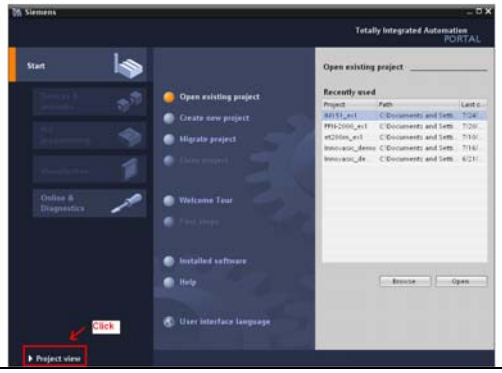
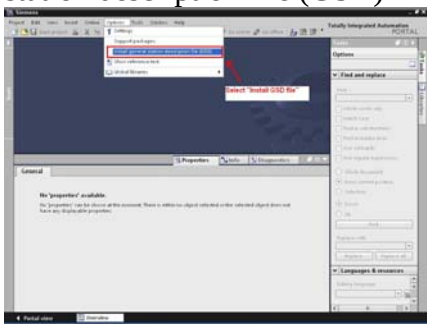
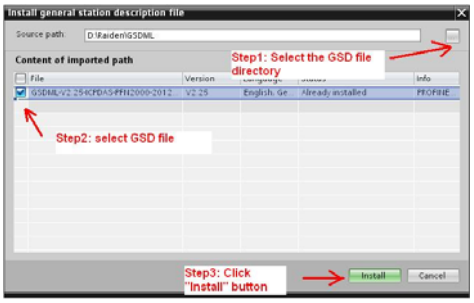
In this example, please follow the step to import GSD file.

### Step 1: Get GSD file

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

CD: \fieldbus_cd\profinet\remote io\pfn-2000\gsd\
ftp://ftp.icpdas.com/pub/cd/fieldbus_cd/profinet/remote%20io/pfn-2000/gsd/

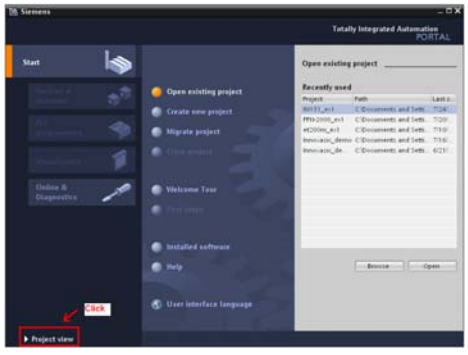
### Step 2: Import GSD file

| | |
|---|---|
| 1. Double Click TIA icon to start Step 7 V11<br>  | 2. Click “Project view”<br>  |
| 3. Select “Menu->Options->Install general station description file (GSD)”<br>  | 4. Select and install GSD file<br>  <br>Note: Select the GSD file directory=>Select GSD file of PFN-2000=>Click “Install” button |

# 4 Project Setup

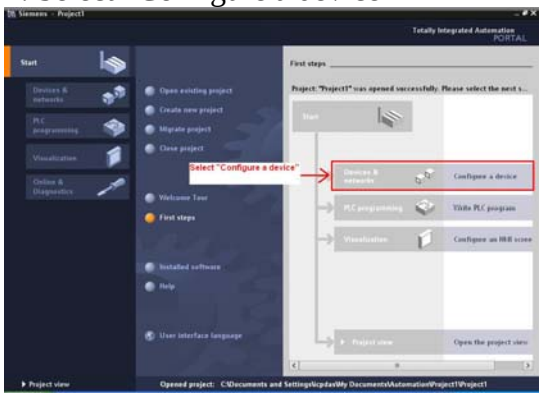
In this example, please follow the step to setup project.

## Step 1: Create the project

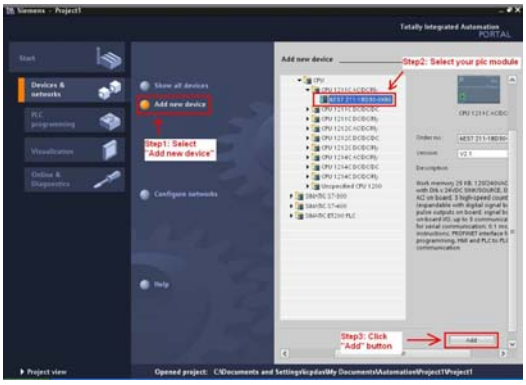
| | |
|---|---|
| 1. Double Click TIA icon to start Step 7 V11<br>  | 2. Create the Project<br>  <br>Note: Select ”Create new project” => Click “Create” button |

## Step 2: Project configuration

1. Select ”Configure a device”

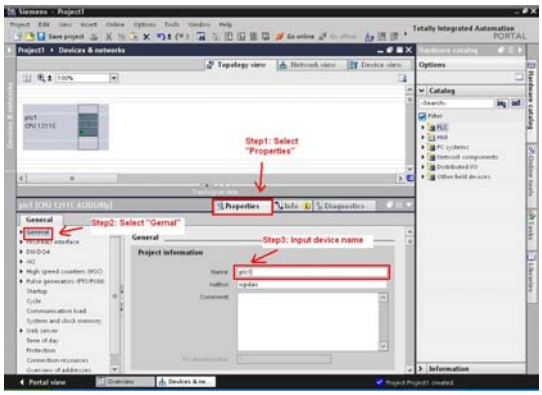



2. Select ”Add new device”



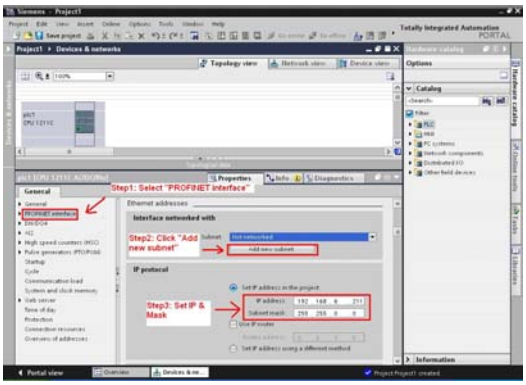

Note: Select “Add new device” => Select your PLC module => Click “Add” button

3. Set the device name of PLC to “plc1”



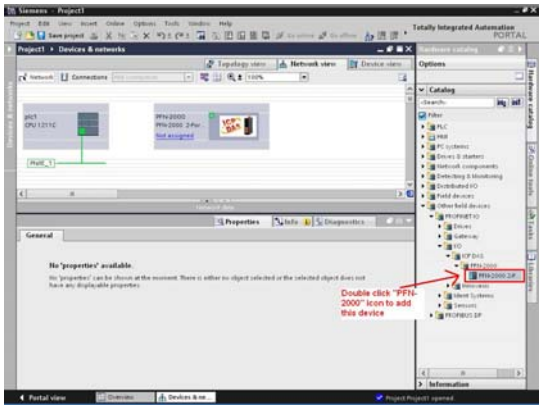

Note: Select ”Properties” windows => Select ”General” => Input device name = plc1 at “Project Information”

4. Set the IP and mask of PLC and add a new subnet



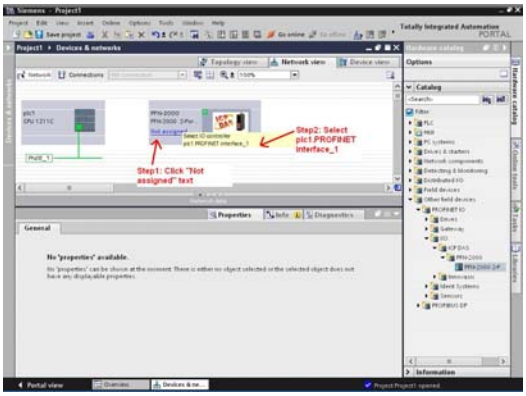

Note: Select ”PROFINET Interface” => Click ”Add new subnet” button at ”Ethernet addresses” => Input IP=192.168.6.211, mask=255.255.0.0

5. Add PFN-2000 module




Note: Add PFN-2000 device by Hardware catalog (Other field devices->PROFINET IO->I/O->ICP DAS->PFN-2000)

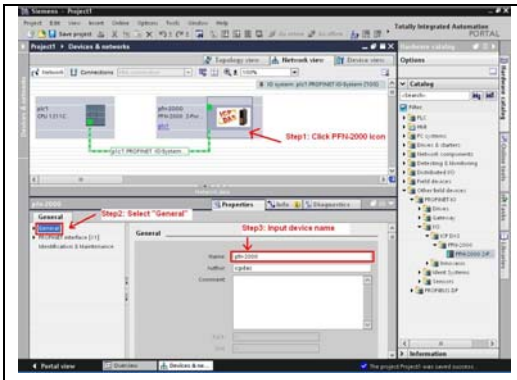
6. Select PROFINET interface



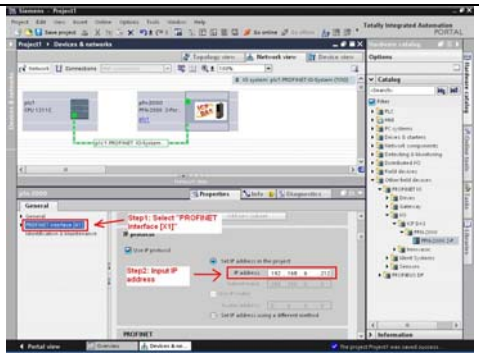

Note: Click ”Not assigned” text => Select plc1.PROFINET Interface_1

7. Set device name to “pfn-2000”

8. Set the IP of PFN-2000 module

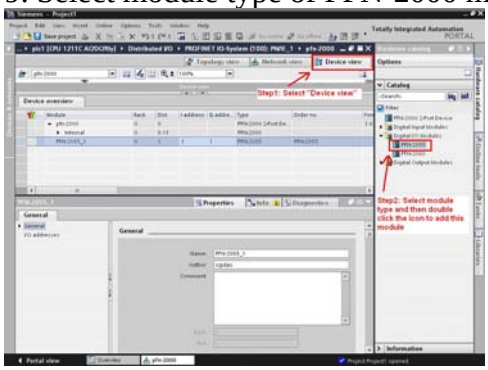



Note: Select PFN-2000 icon => Select ”Properties” => Select ”General” => Input name = pfn-2000 at ”Project Information”



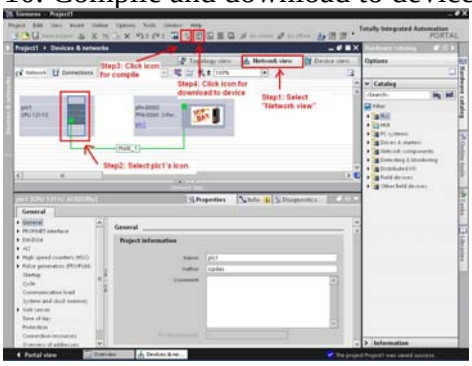

Note: Select ”PROFINET Interface [X1]” => Input IP=192.168.6.212 at ”IP addresses”

9. Select module type of PFN-2000 module



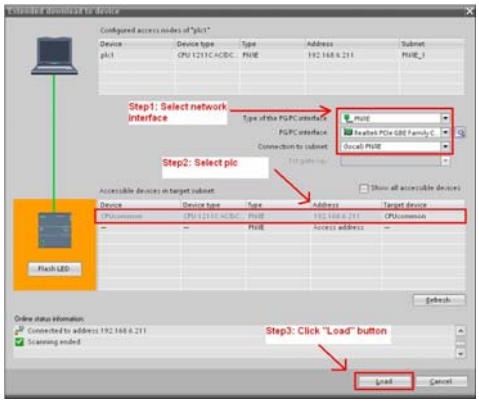

Note: Select ”Device view” windows => Select PFN-2055 module (Follow the module type of users to select) at “Hardware catalog” and double click the icon to add this module

10. Compile and download to device



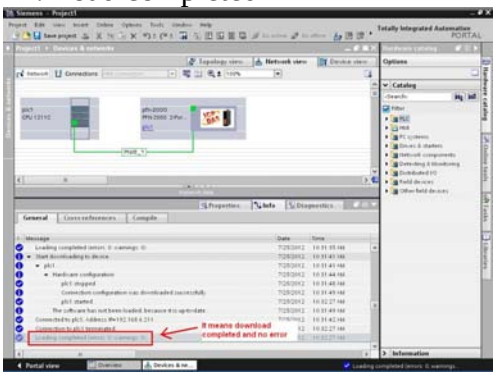

Note: Select ”Network view” windows => Select PLC icon => Click compile icon => Click download icon

11. Select network interface and PLC




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

12. 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 S1A & S2A LEDs of PFN-2000 module should turn on, it means the connection between PLC and PFN-2000 module is established.**