Configure ADAM-6100PN module in SIEMENS SIMATIC Manager

Product:

ADAM-6100PN Series

Abstract:

Introduction of ADAM-6100PN Series connected to SIEMENS PLC

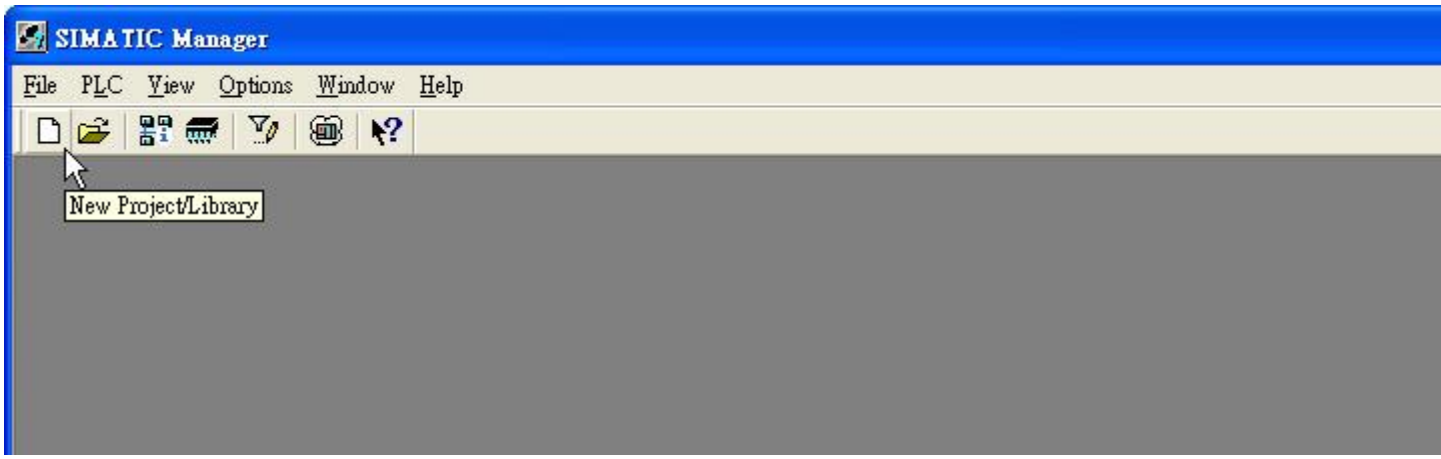
Description:

In this document, we will demonstrate how to connect ADAM-6100PN module to SIEMENS PLC using SIMATIC Manager

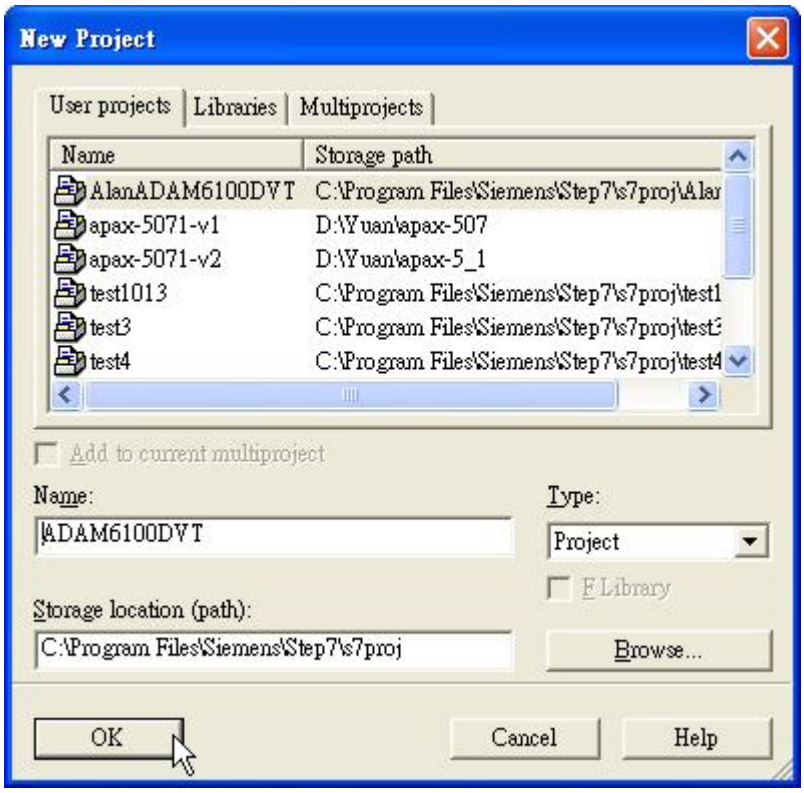
Contents

Add CPU in SIMATIC Project

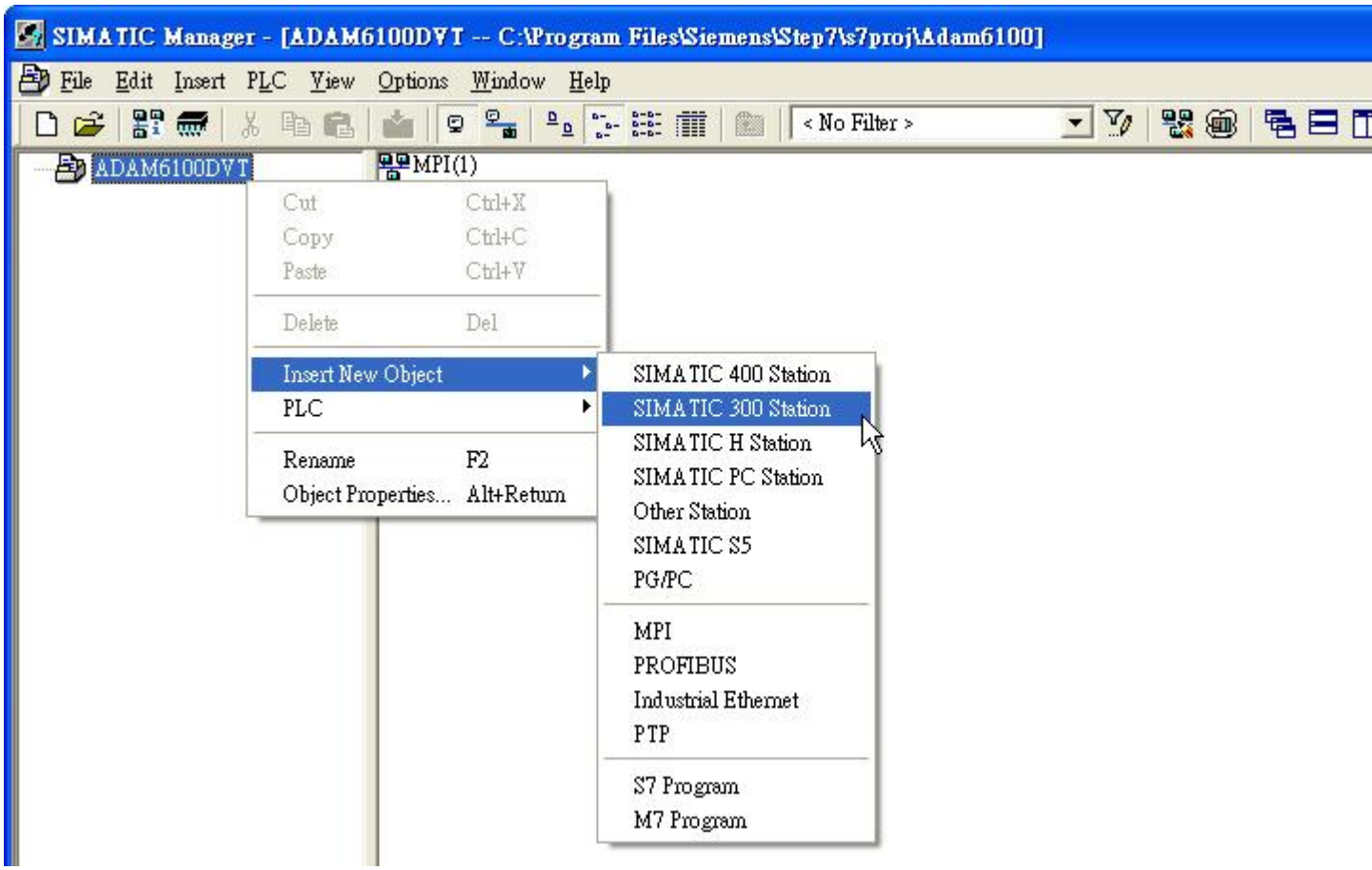
1. Click [New Project/Library]



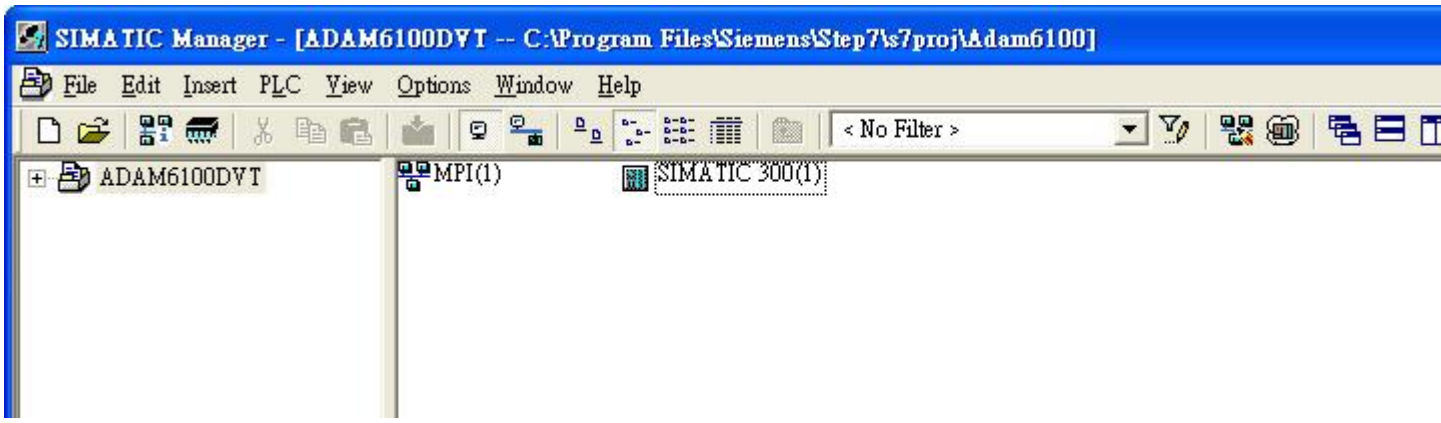
2. Give a project [Name] and click [OK]



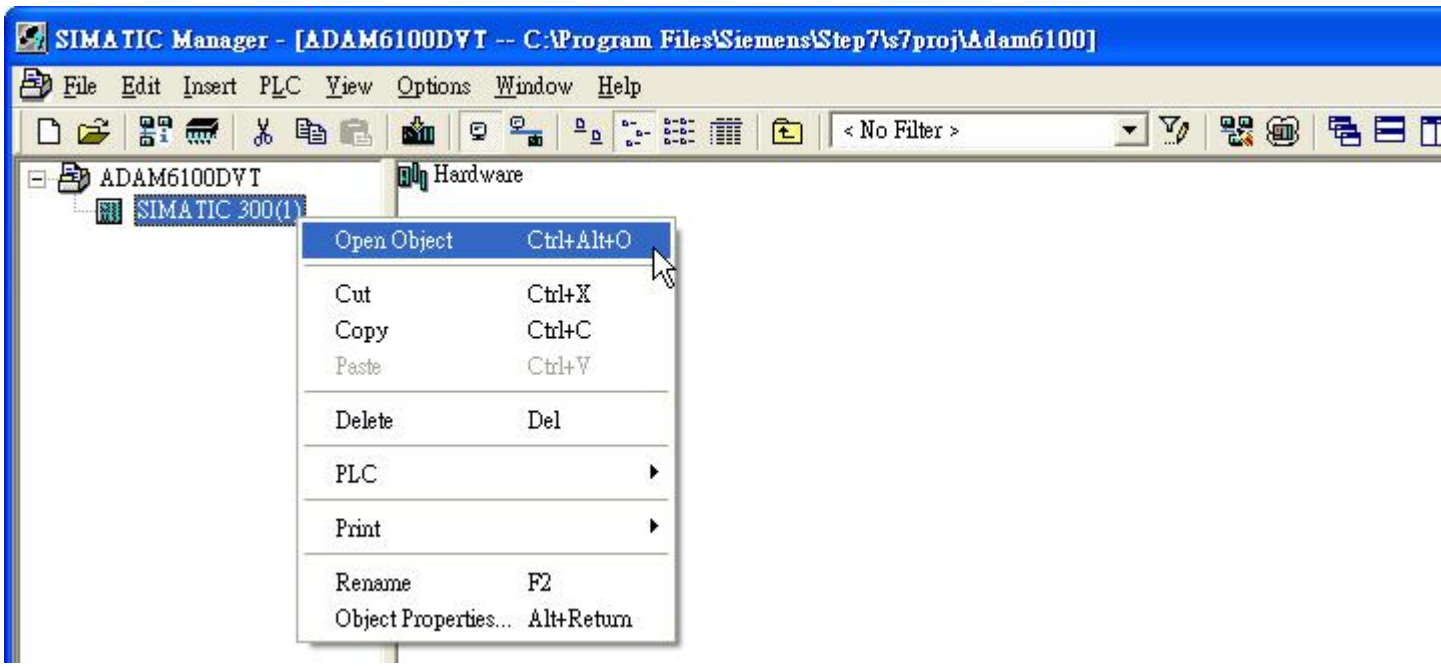
3. Right click [Project Name] (here, ADAM6100DVT), click [Insert New Object] \ [SIMATIC 300 Station] (We use this model as demo here)



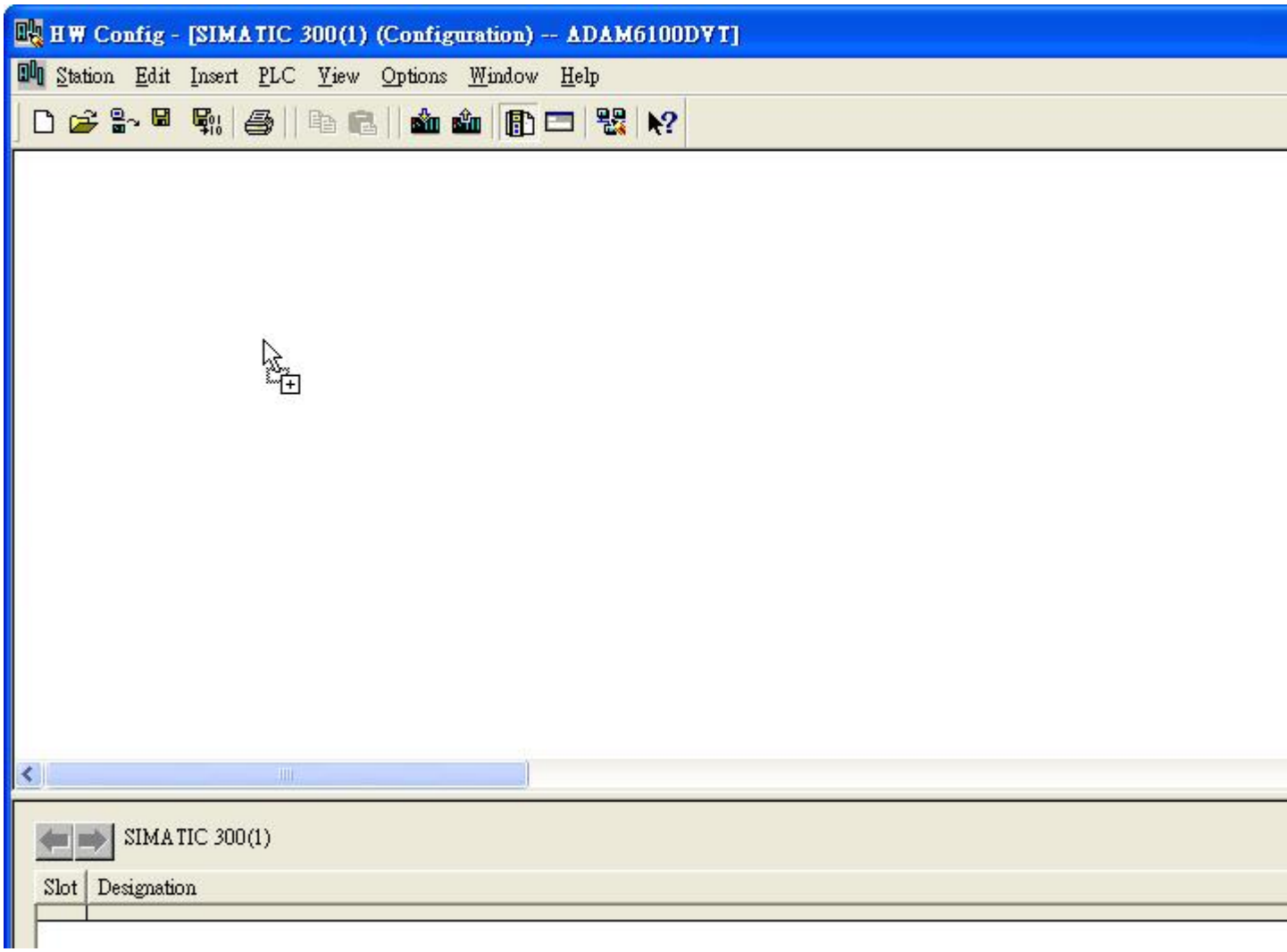
4. [SIMATIC 300] model has been added



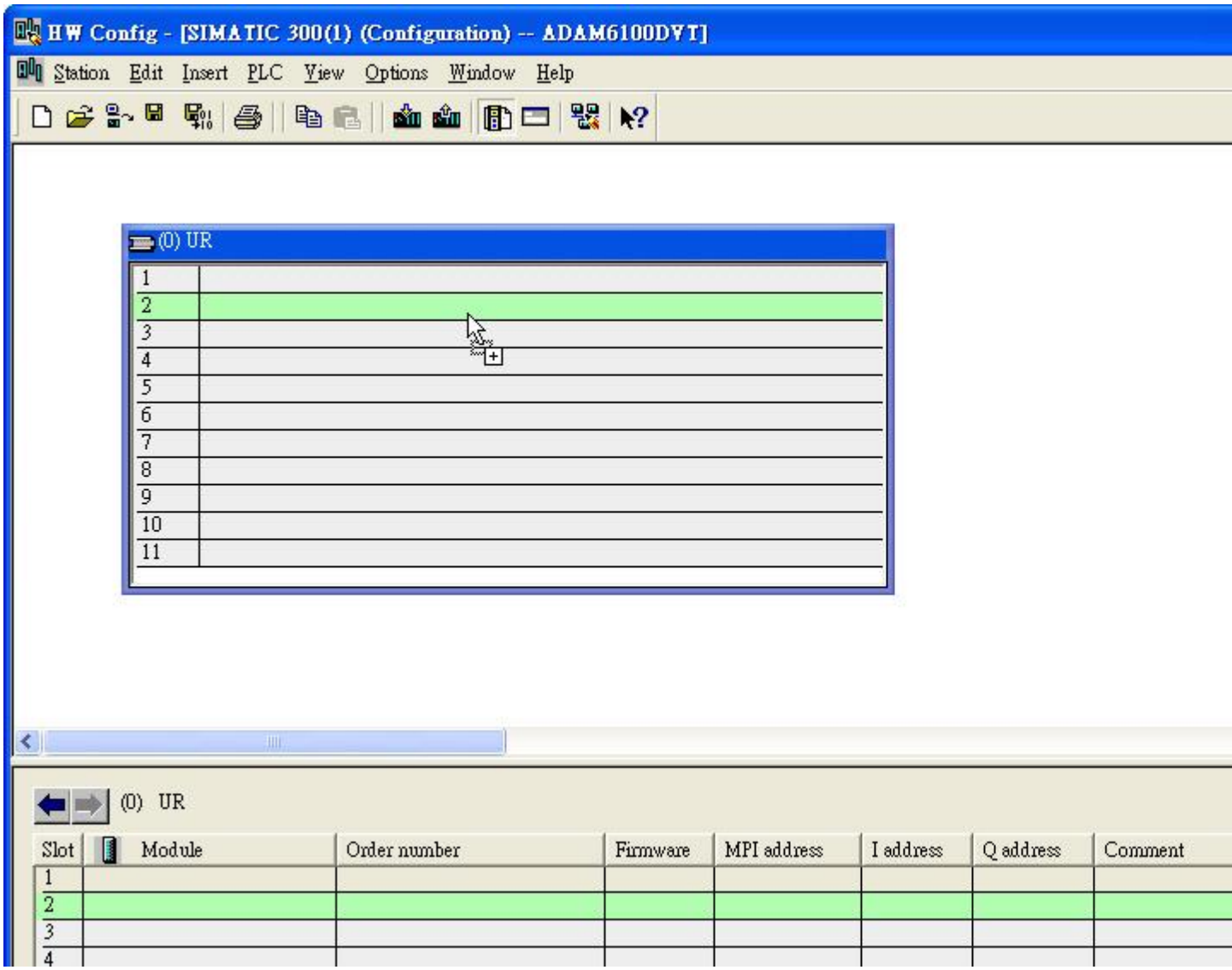
5. Right click [SIMATIC 300] label under project name, and click [Open module]



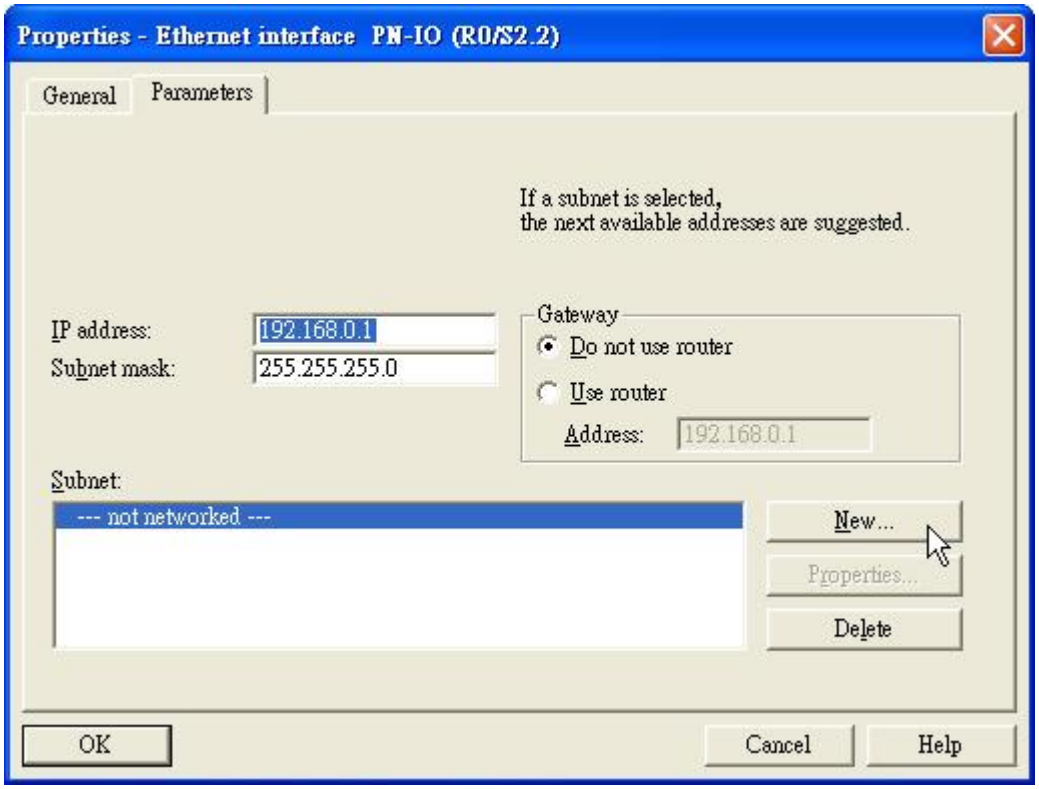
6. Now we start to configure model, drag a [Rail] under [SIMATIC 300] \ [RACK-300] to white workplace



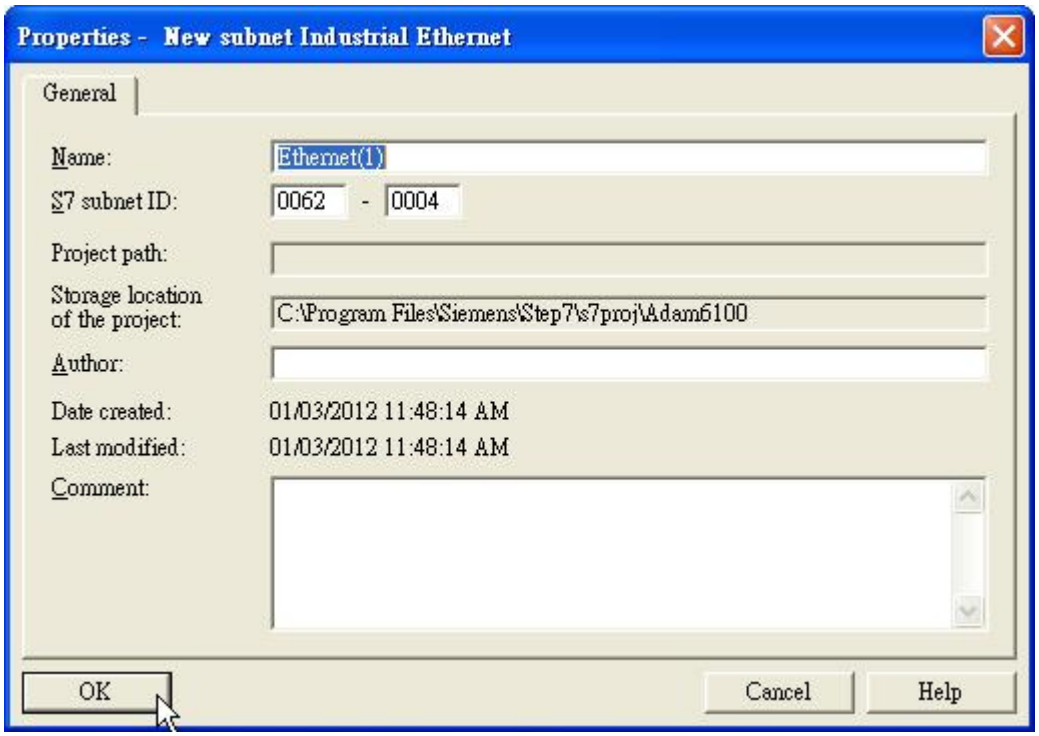
7. Drag [SIMATIC 300] \ [CPU-300] \ [CPU 315F-2 PN/DP] \ [6ES7 315-2FH13-0AB0] \ [V2.6] CPU to slot 2 in the rack.



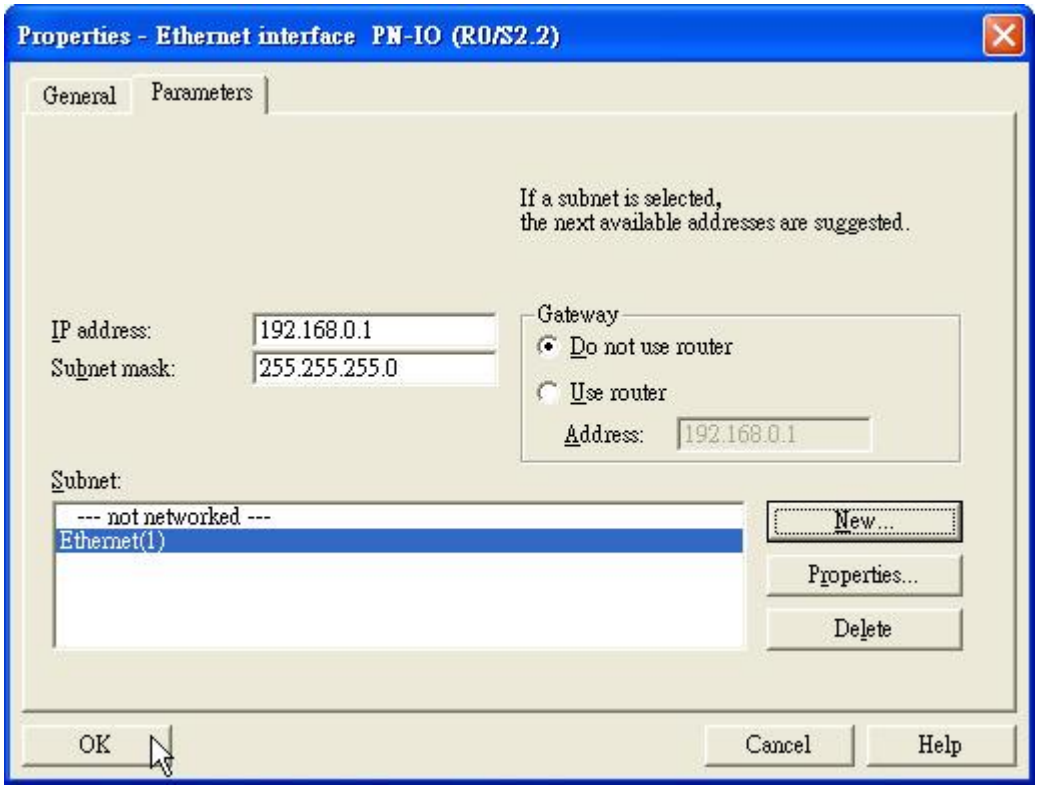
8. Here we add a subnet in pop-out windows, click [New…]



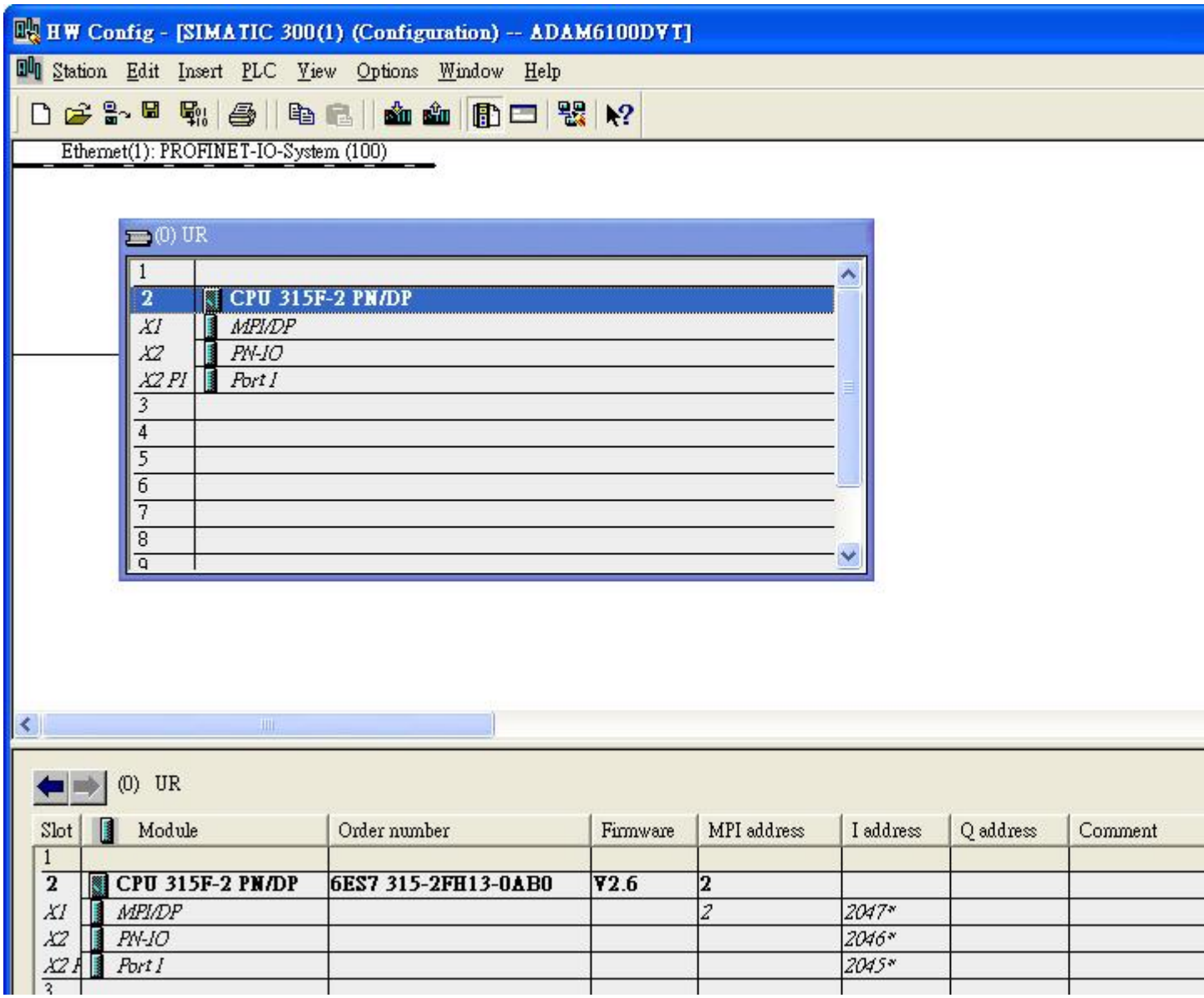
9. Click [OK] to add



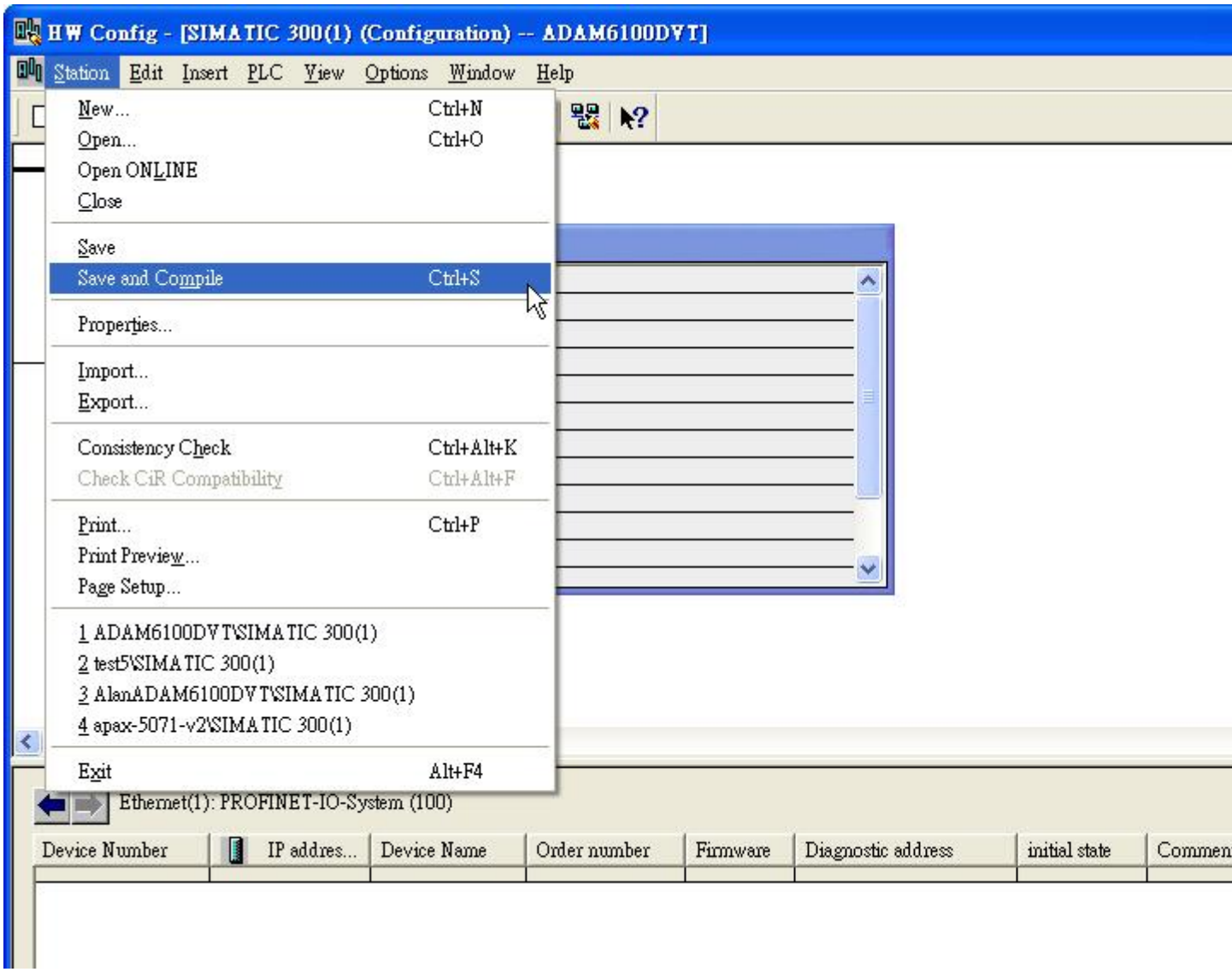
10. Click [OK] to end



11. The CPU has been added

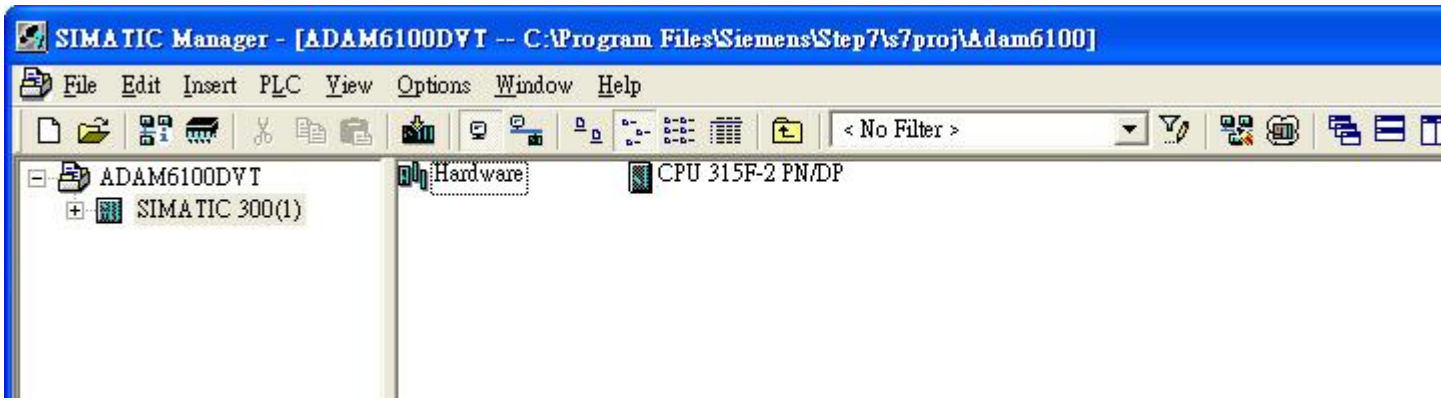


12. Click [Station] \ [Save and Compile]

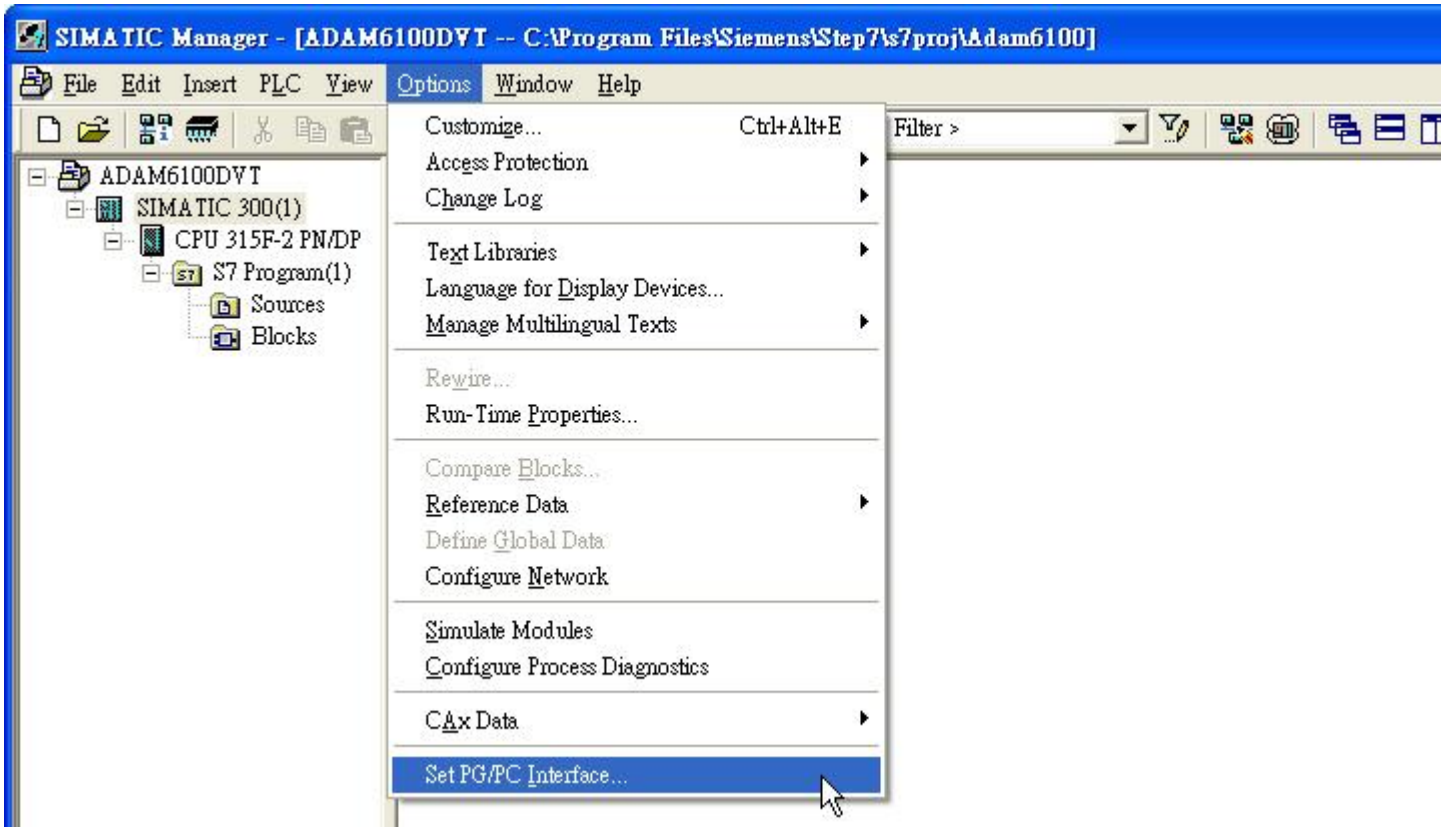


Download to PLC

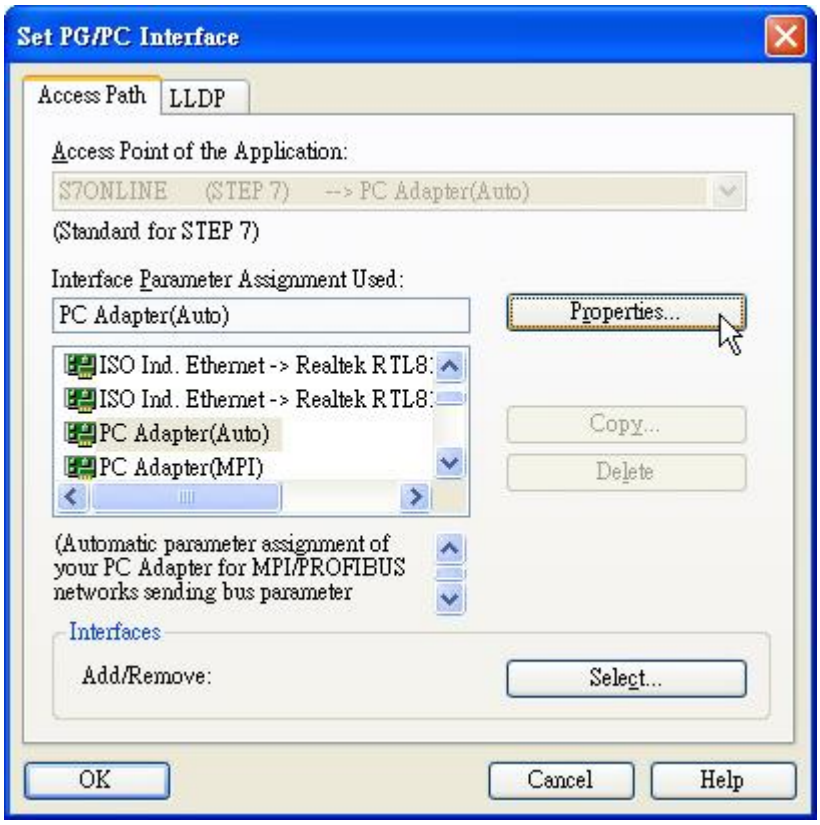
1. Back to [SIMATIC Manager], and connect PC and PLC thought [SIMATIC S7 PC Adapter USB] in MPI



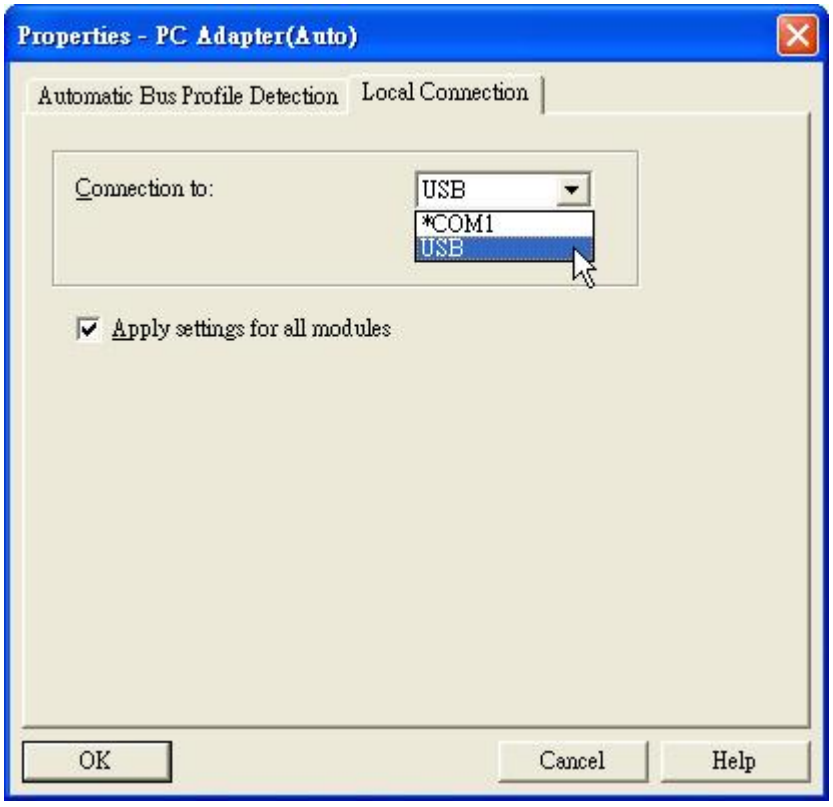
2. Click [Options] \ [Set PG/PC Interface…]



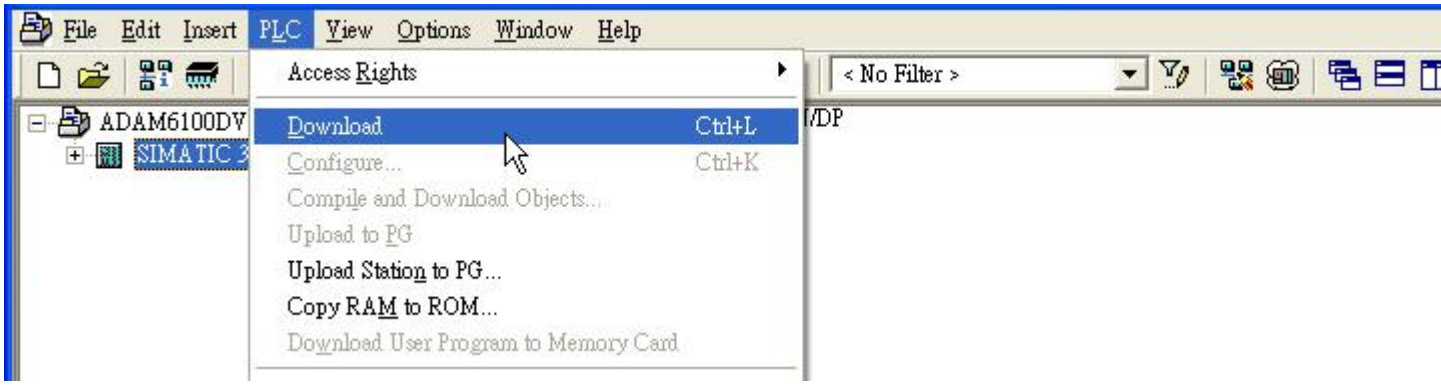
3. Select [PC Adapter(Auto)] or [PC Adapter(MPI)], click [Properties…]



4. Select [Connection to USB] in [Local Connection] tab, click [OK] and back to SIMATIC Manager

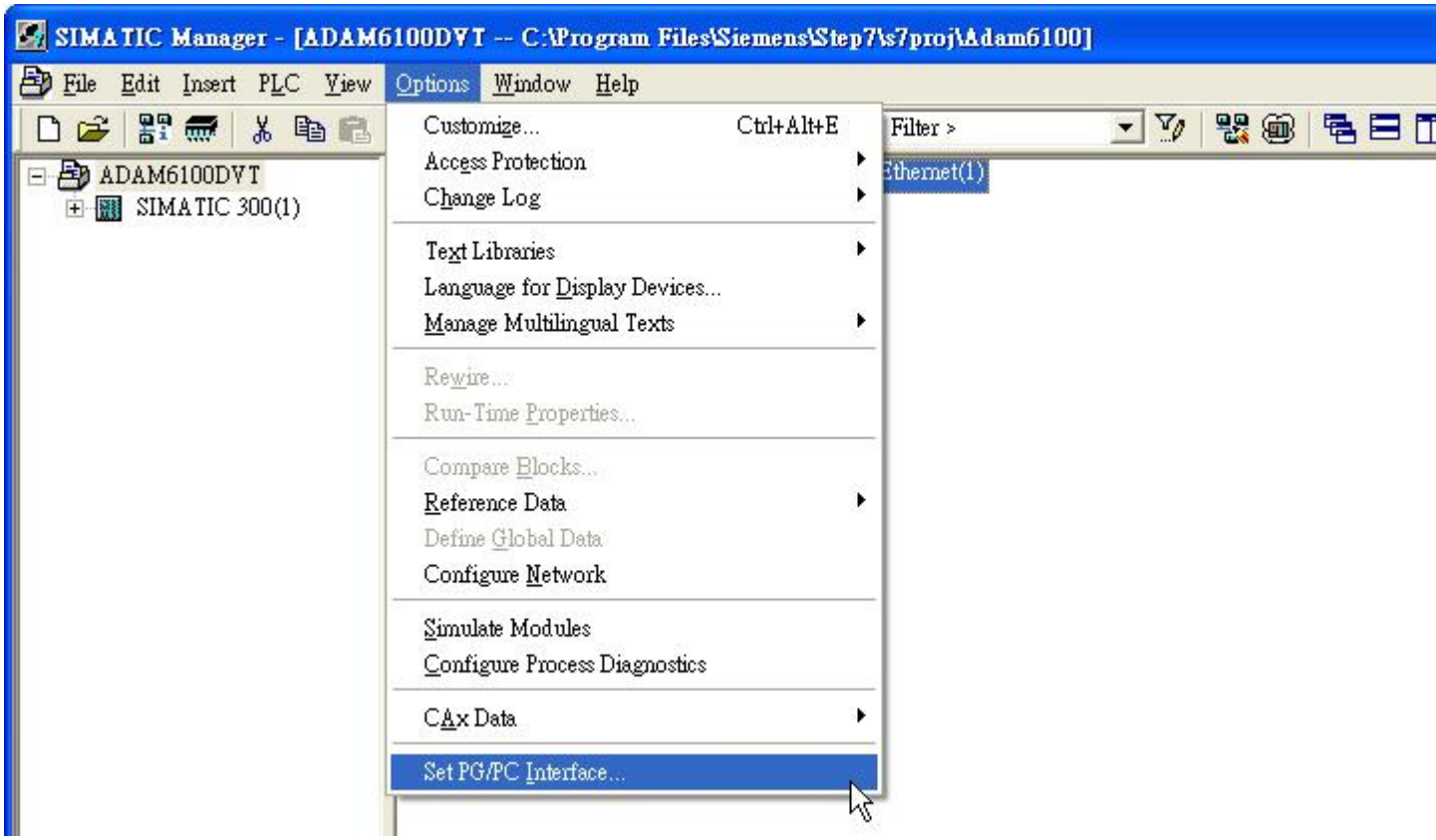


5. Click [PLC] \ [Download] to start downloading

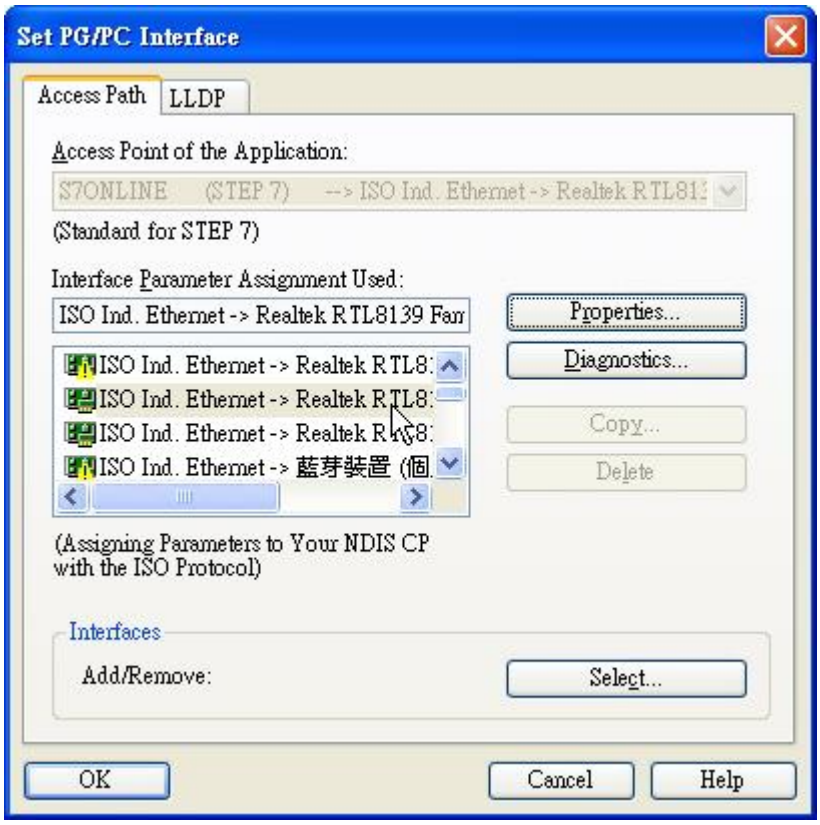


Search and configure ADAM-6100PN module by SIMATIC Manager

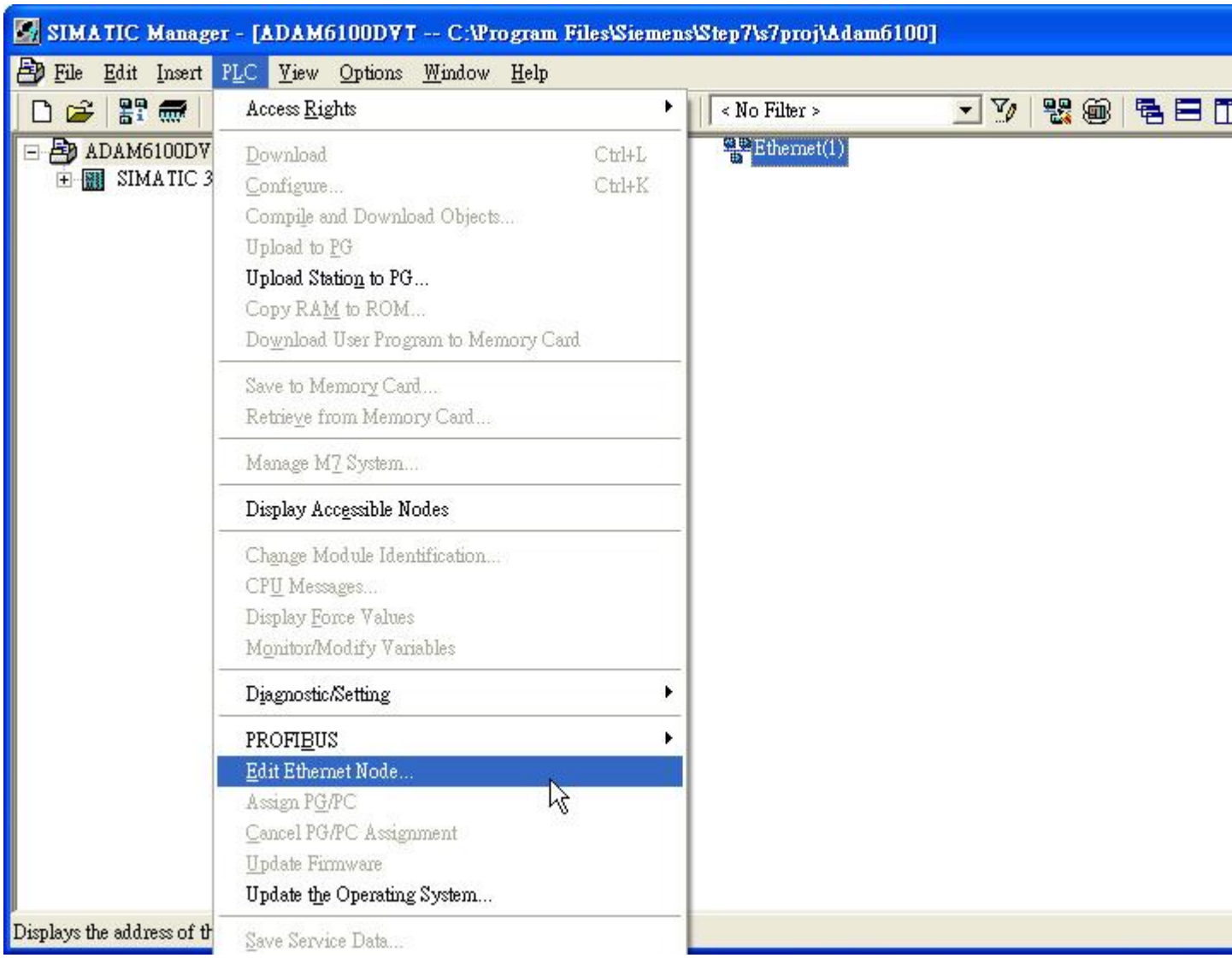
1. We need to switch interface to Ethernet, click [Option] \ [Set PG/PC Interface…]



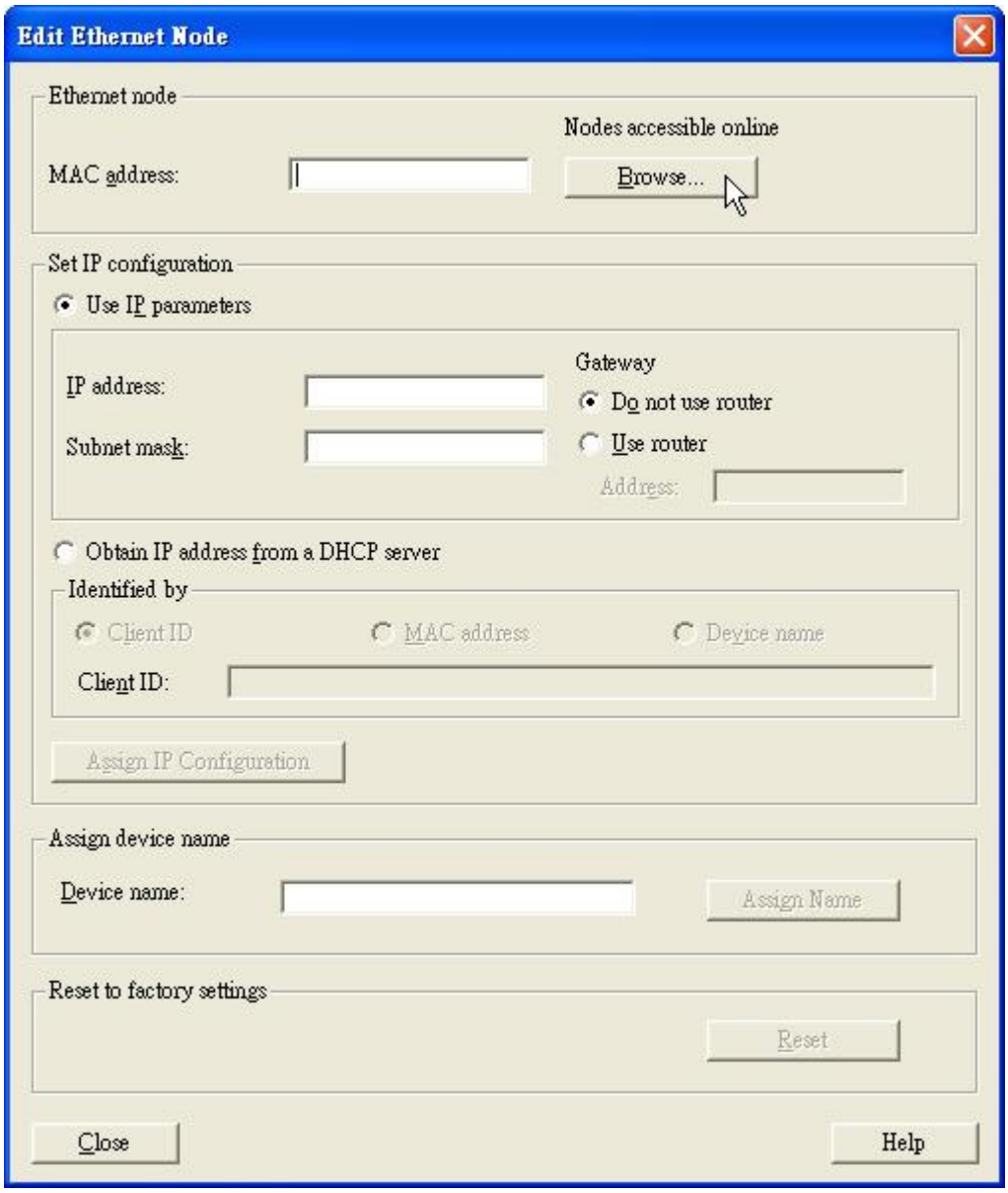
2. Choose the connected interface and click [OK]



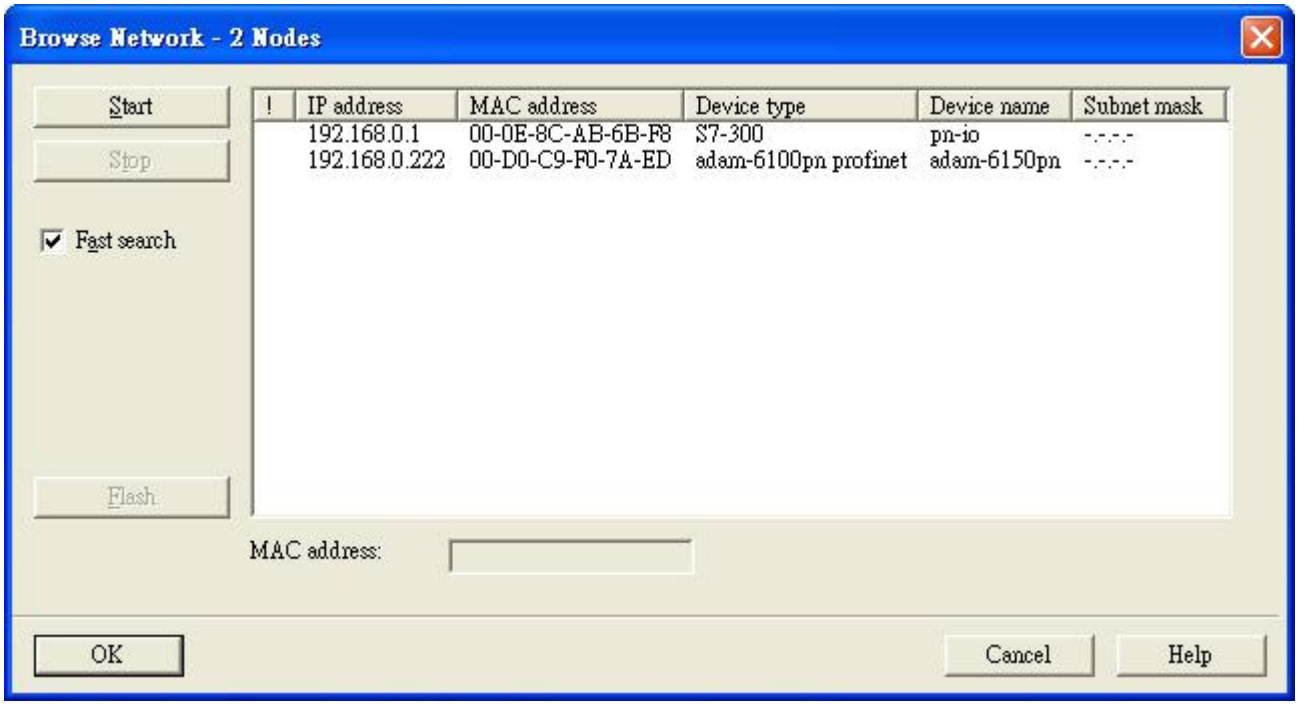
3. Click [PLC] \ [Edit Ethernet Node…]



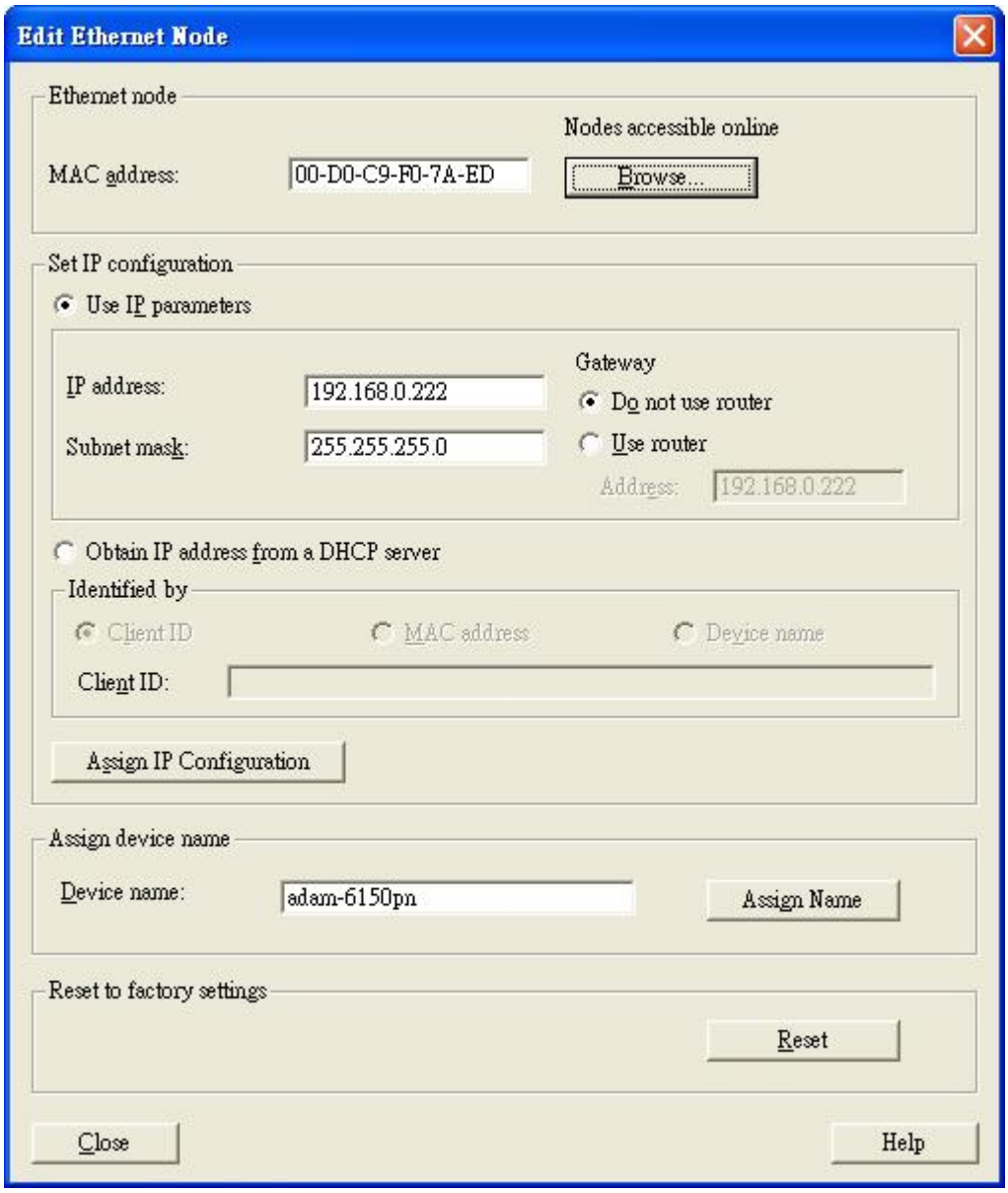
4. Click [Browse…]



5. Browser will auto start search, the ADAM-6100PN module will show by the [Device type: adam-6100pn profinet]. Choose the module and click [OK]

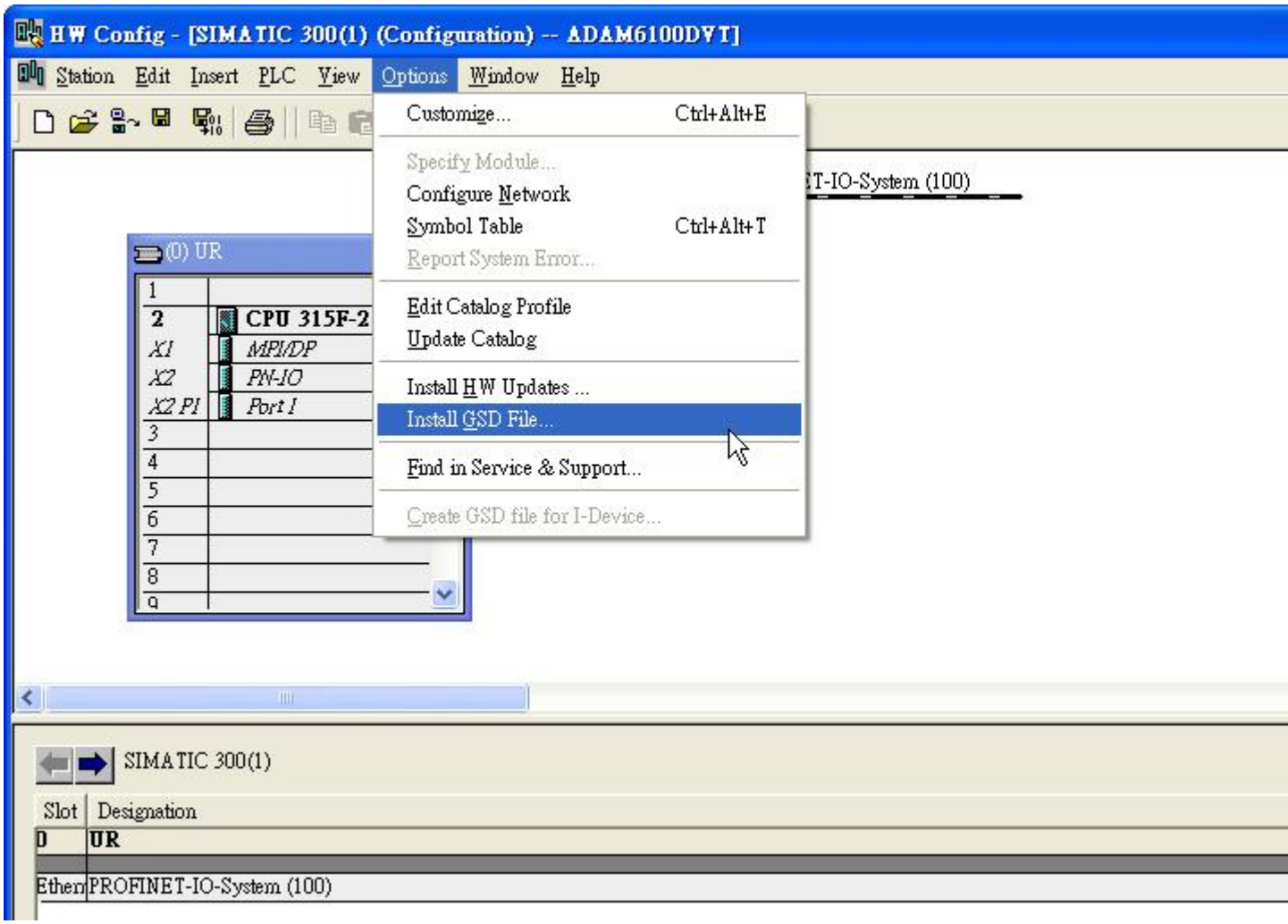


6. IP parameter and device name can be configure in this window

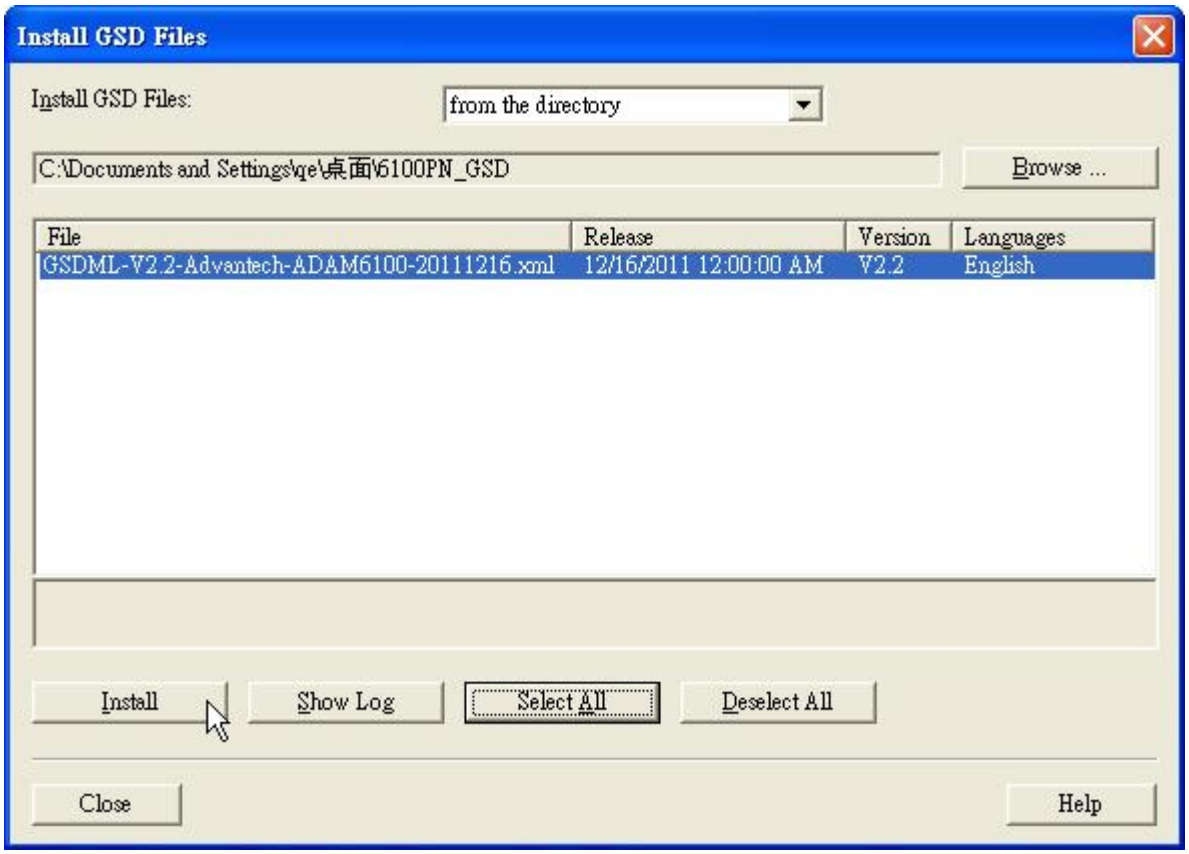


Install GSD File of ADAM-6100PN module

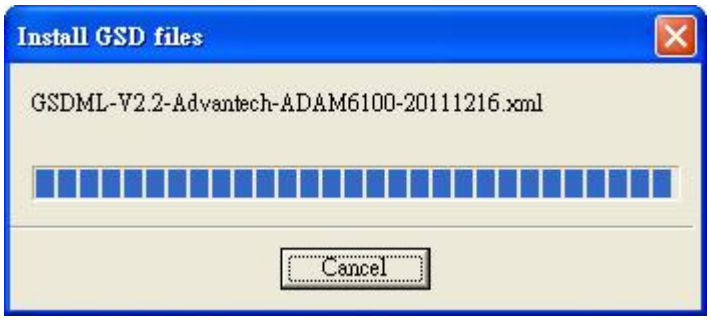
1. Click [Option] \ [Install GSD File…] in HW Config



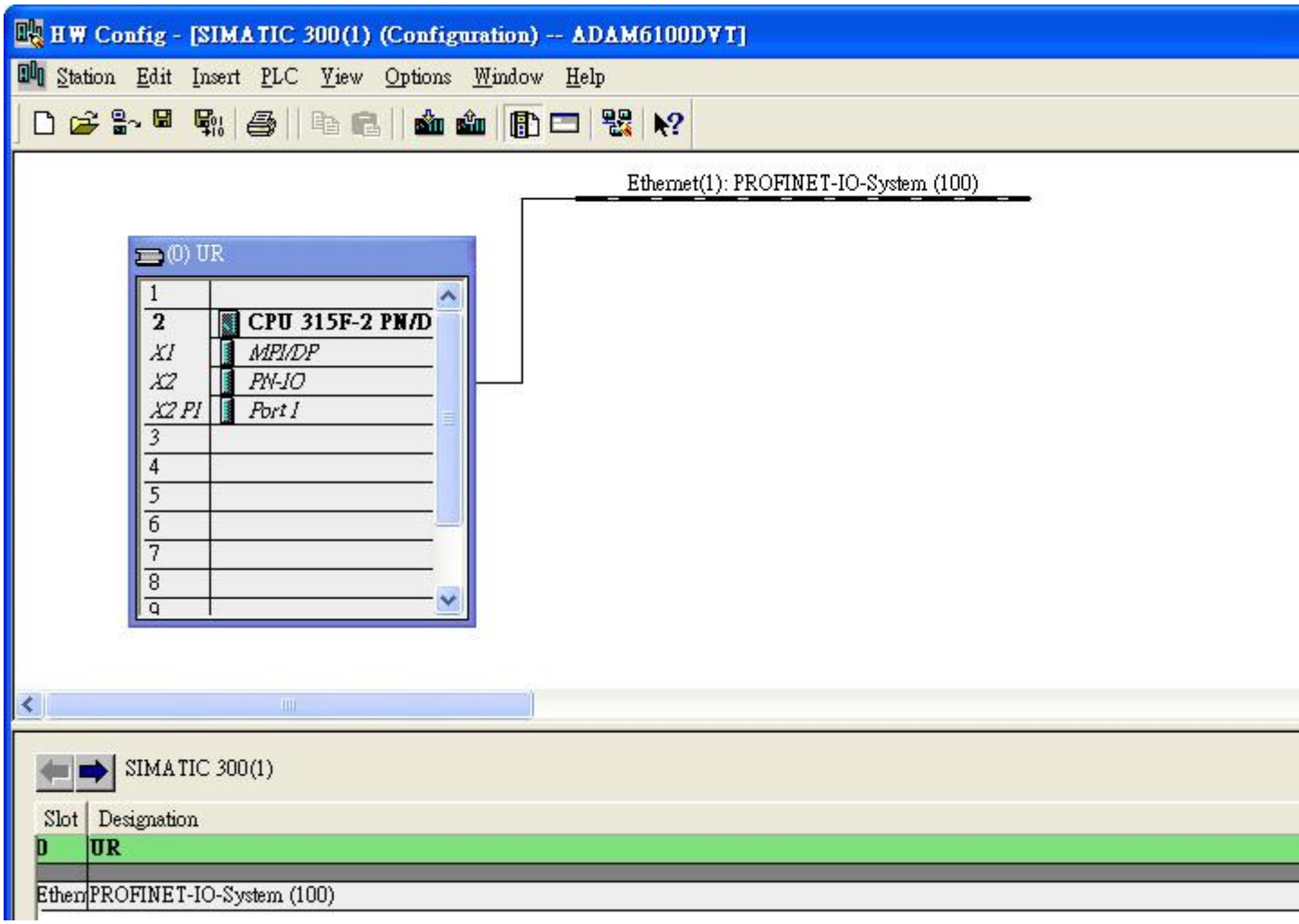
2. Click [Browse…] to import and select the GSD file, then click [Install]



3. Click [Yes] to continue, and wait for installing

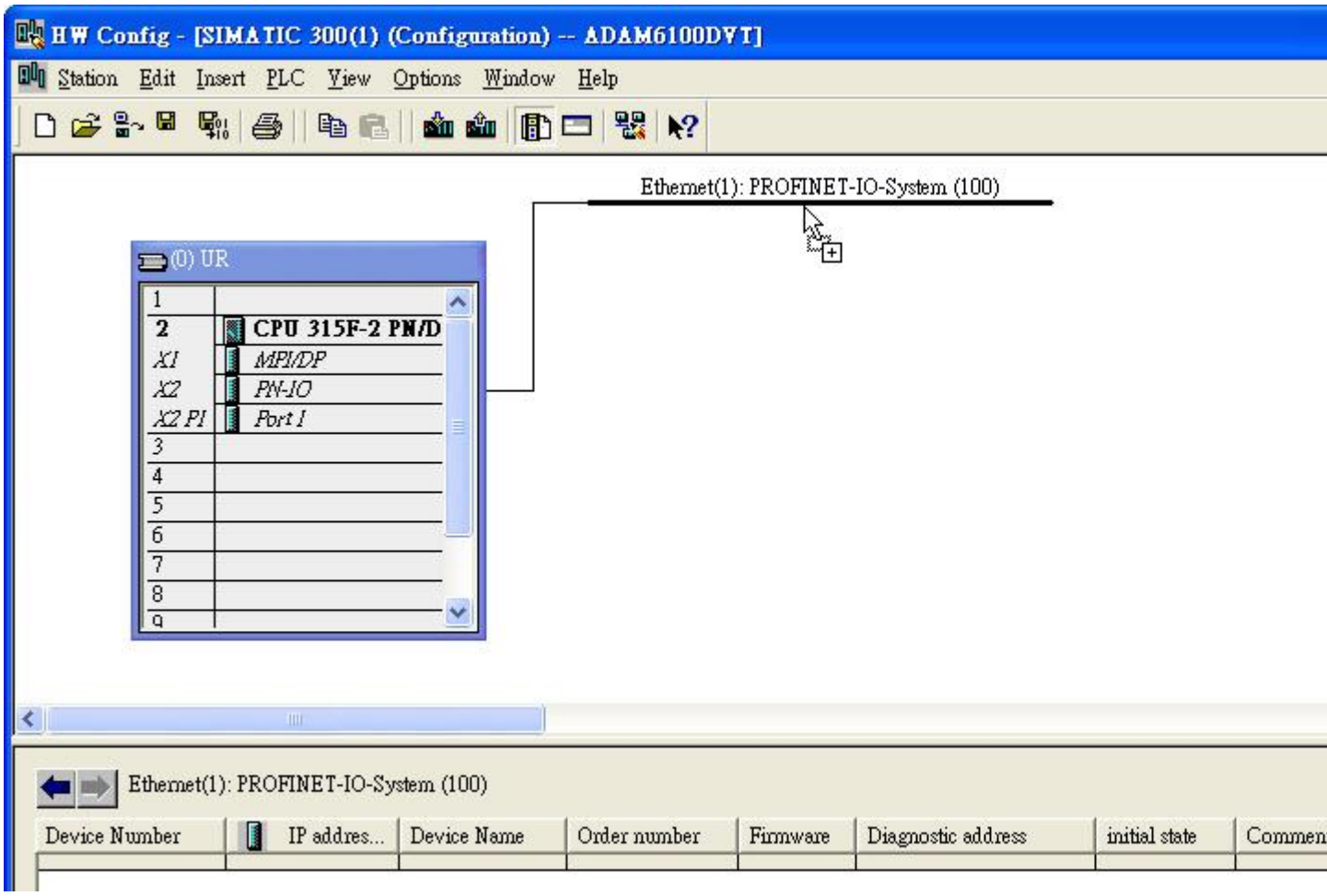


4. The installed GSD is show under [PROFINET IO] \ [Additional Field Devices] \ [I/O] \ [Advantech PROFINET Devices] \ [ADAM-6100PN Compact I/O]

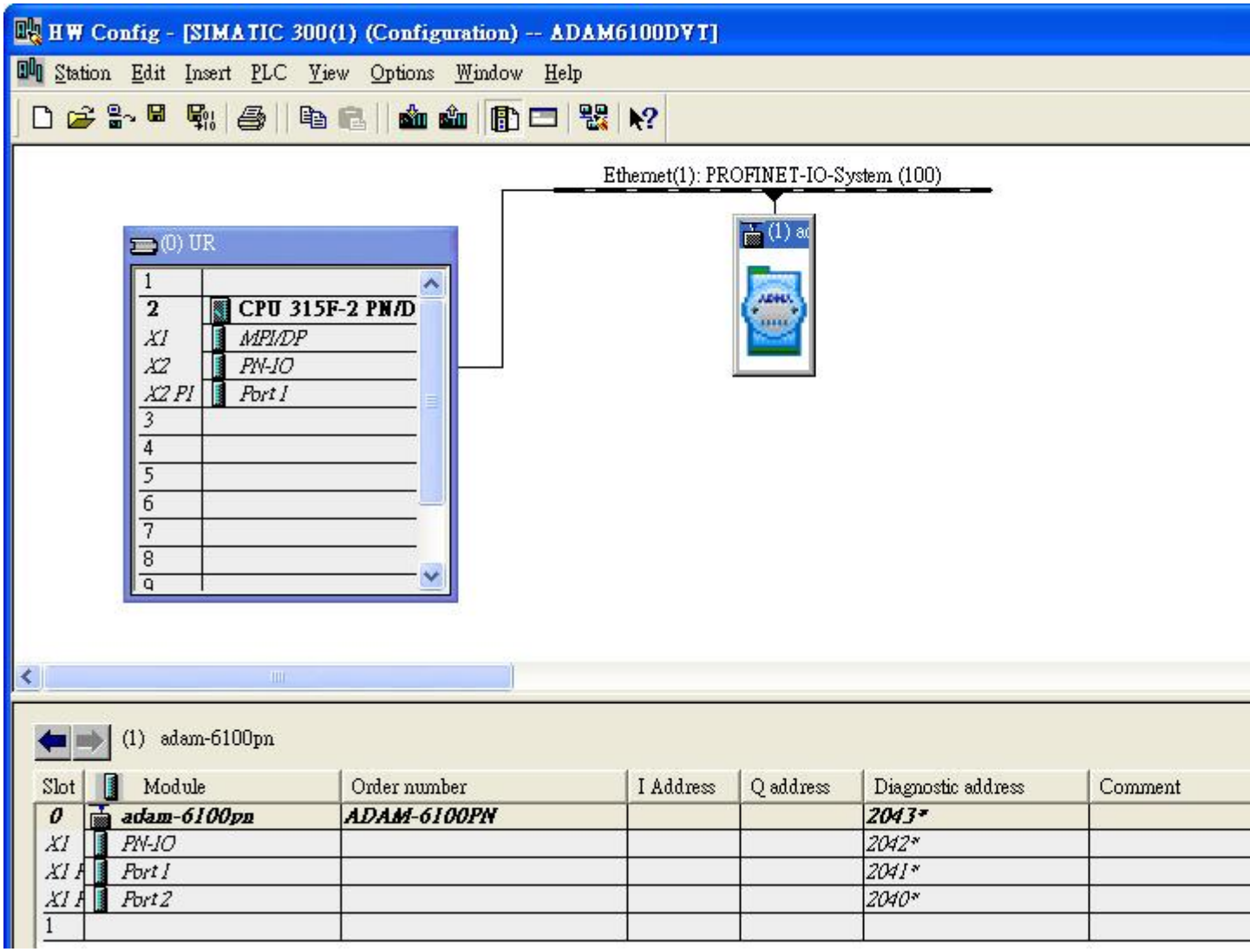


Add ADAM-6100PN module under PLC

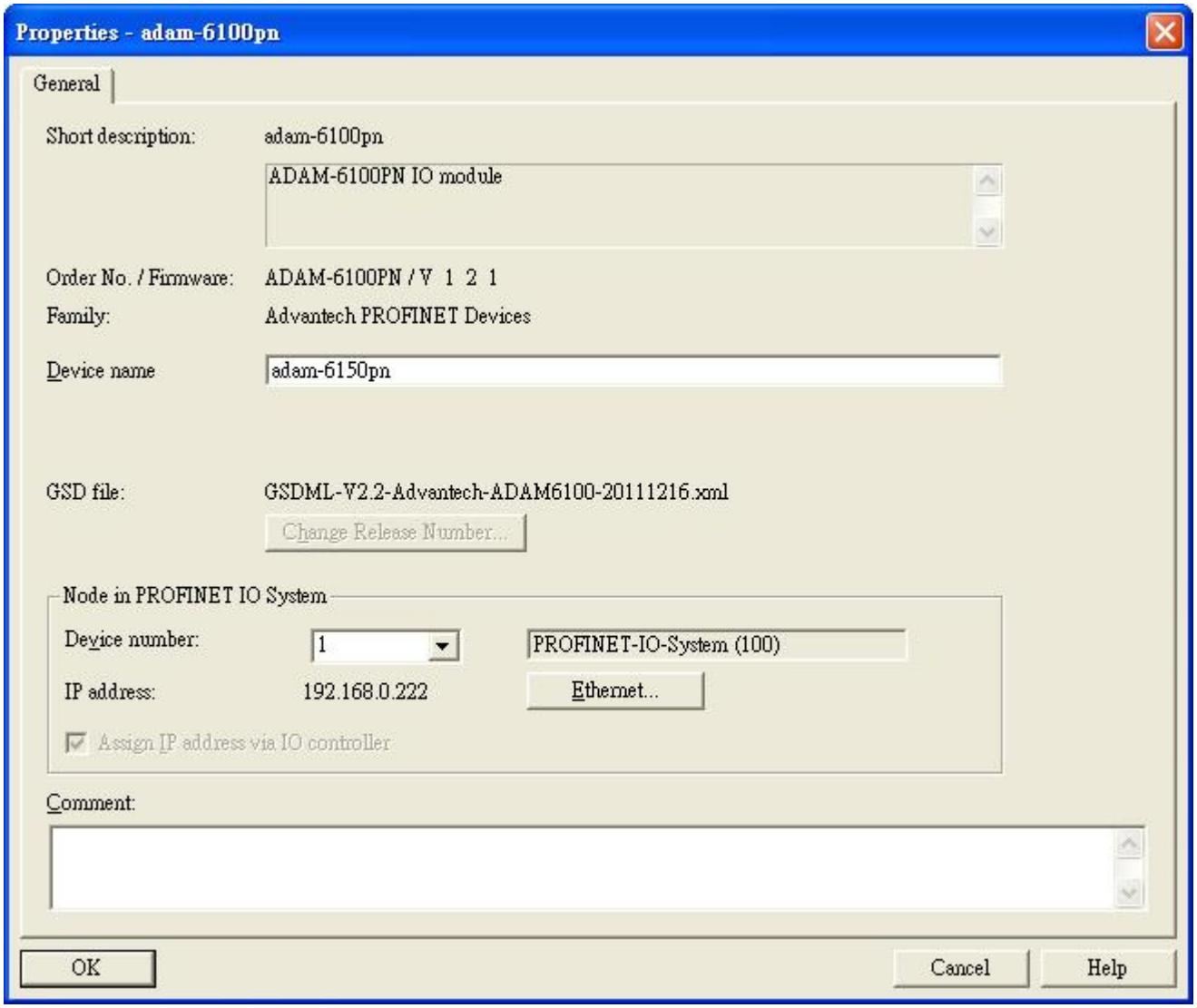
1. Drag [ADAM-6100PN Compact I/O] node to [Ethernet: PROFINET-IO-System (100)]



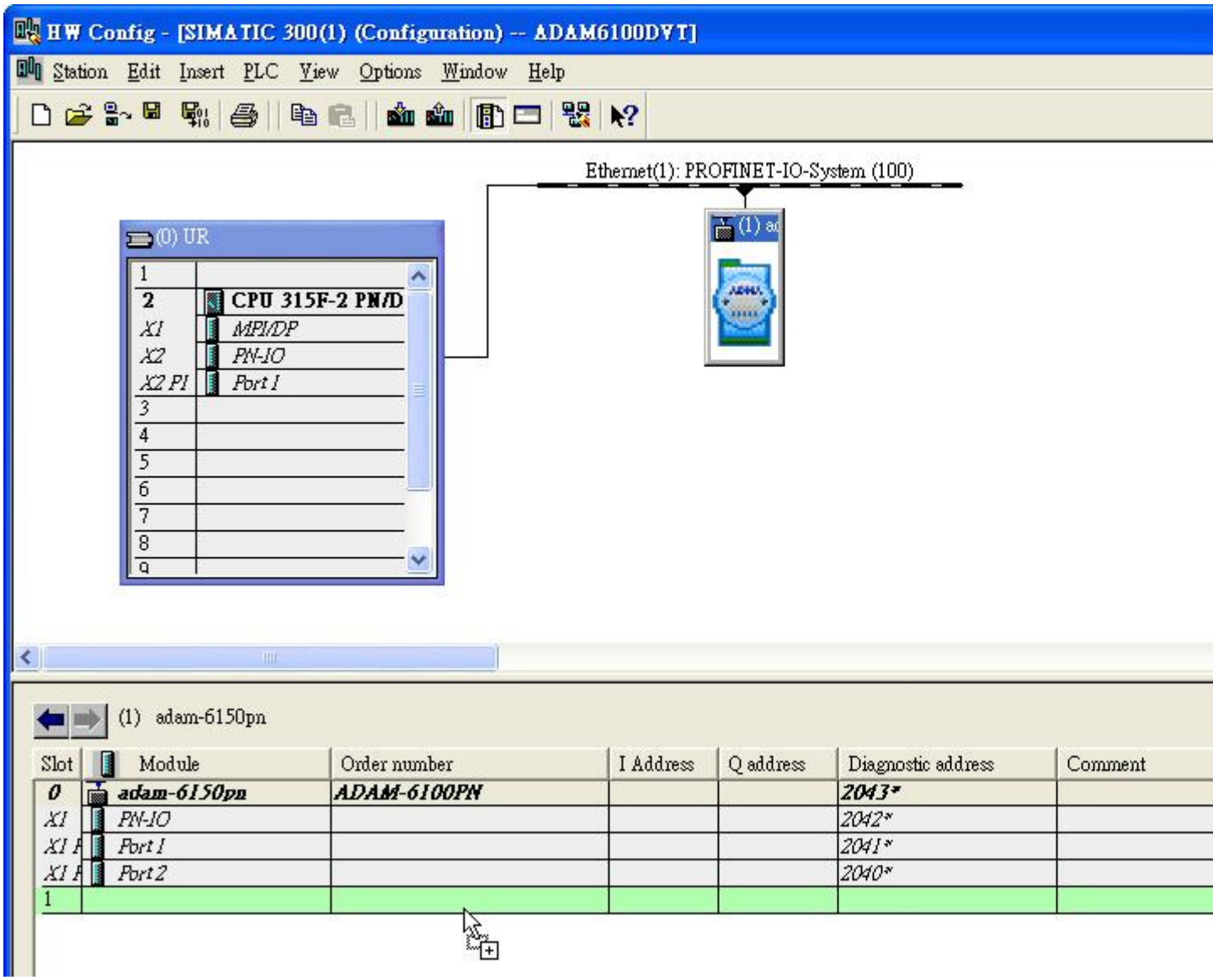
2. Double click the ADAM node to configure



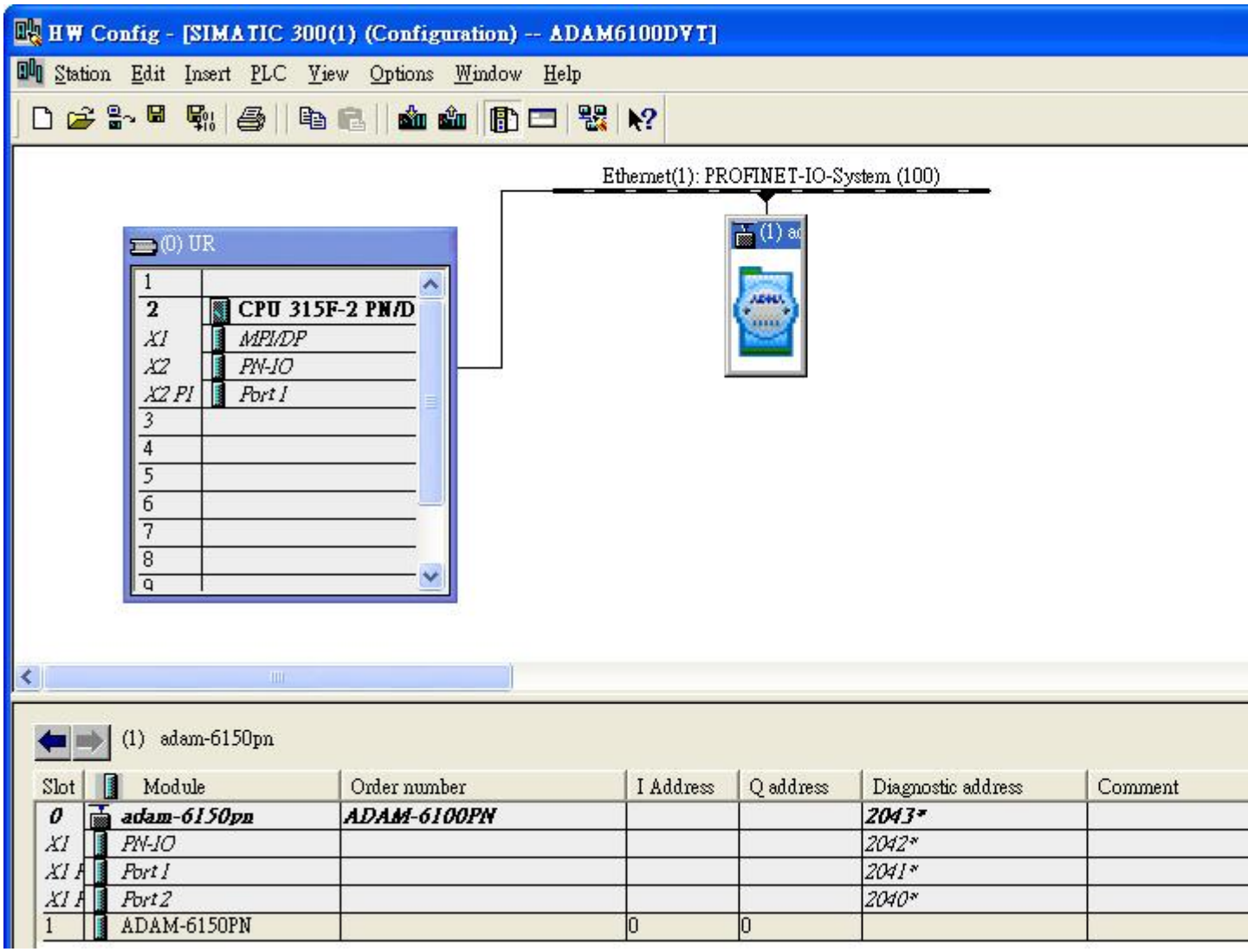
3. The [Device Name] can be assign here and the [IP address] can be configure be click [Ethernet…] buttom



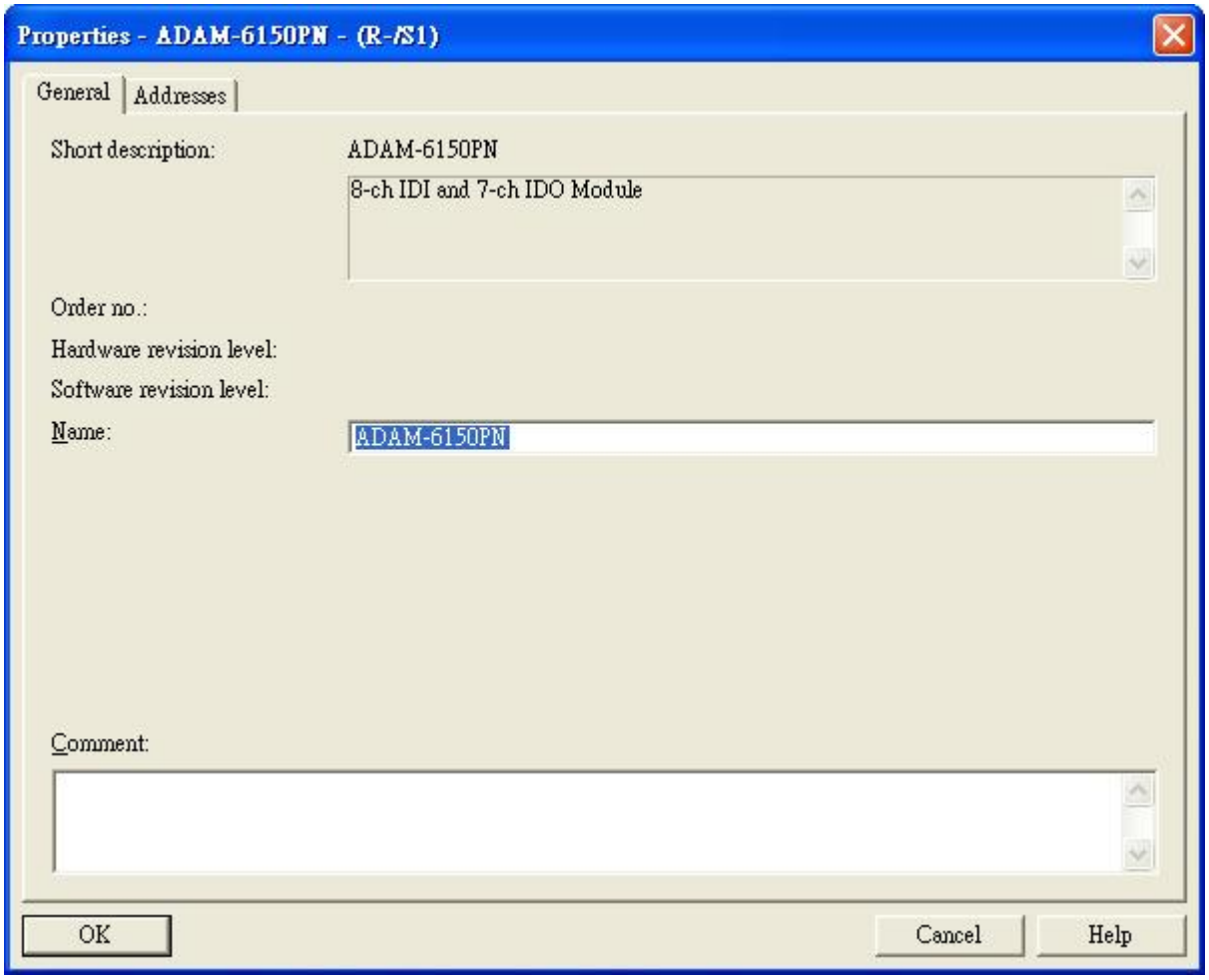
4. Drag the ADAM-6100PN module to slot 1 of the [ADAM-6100PN Compact I/O] node



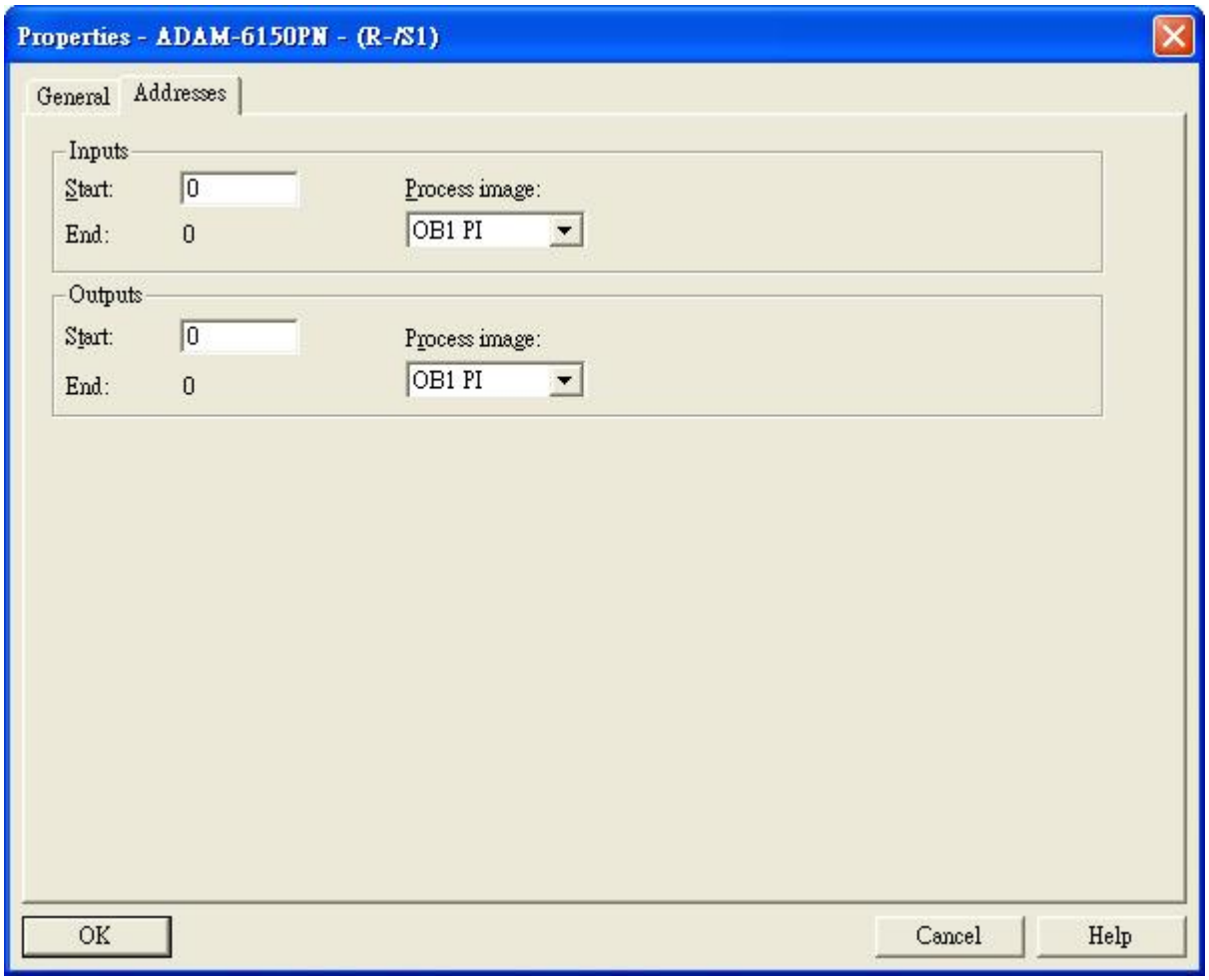
5. ADAM module is shown in slot 1, and the [I Address] and [Q address] are also shown in the slot 1. Double click slot 1 to configure



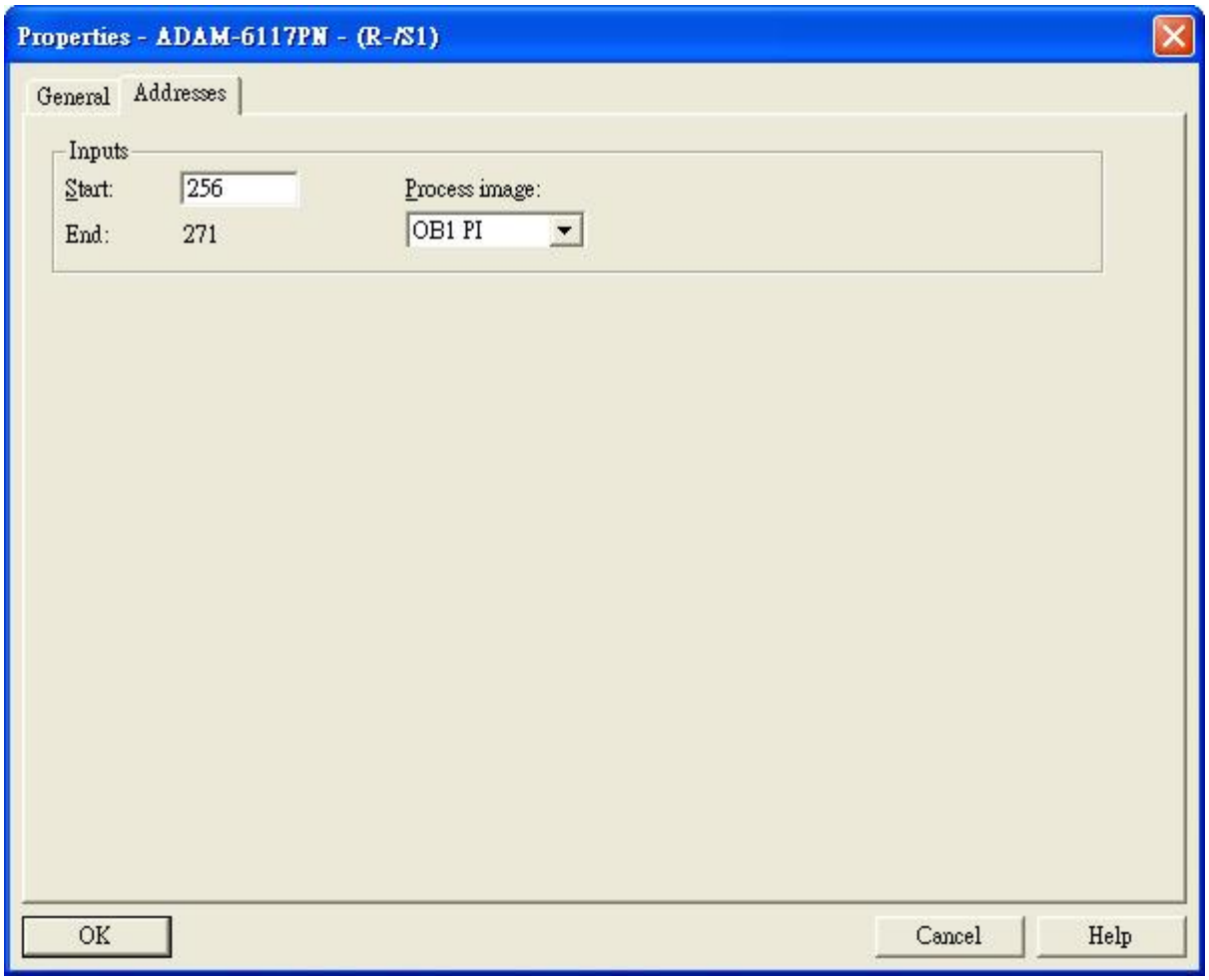
6. In [General] tab, the module name can be assigned



7. In the [Address] tab, the input address (I address) and output address (Q address) and be assigned. Here the ADAM-6150PN has one byte input and one byte output

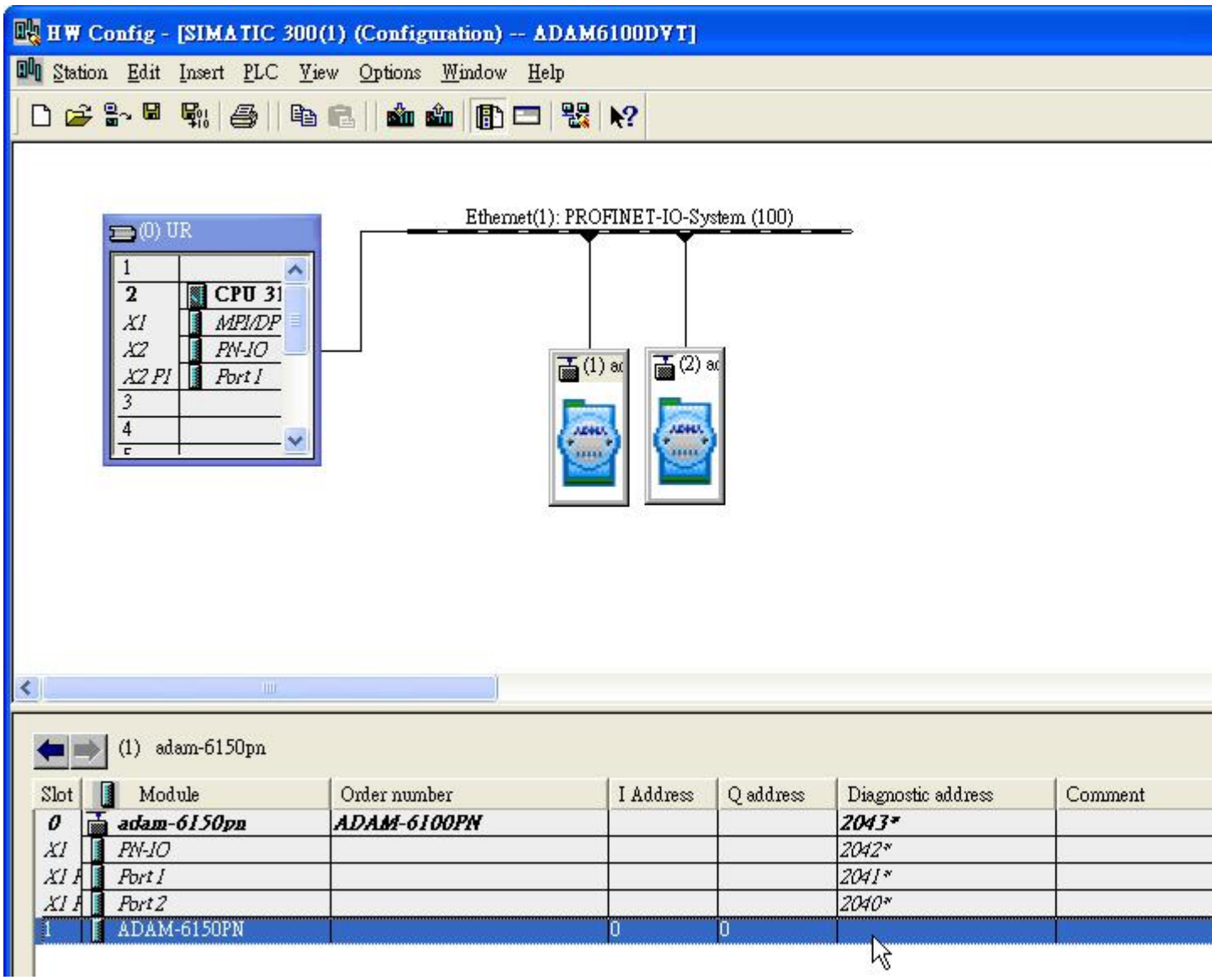


8. For AI module, ADAM-6117PN, which has 8 channel with 1 word, 2 bytes, 16-bit, the input address from 256 to 271 is 16 words

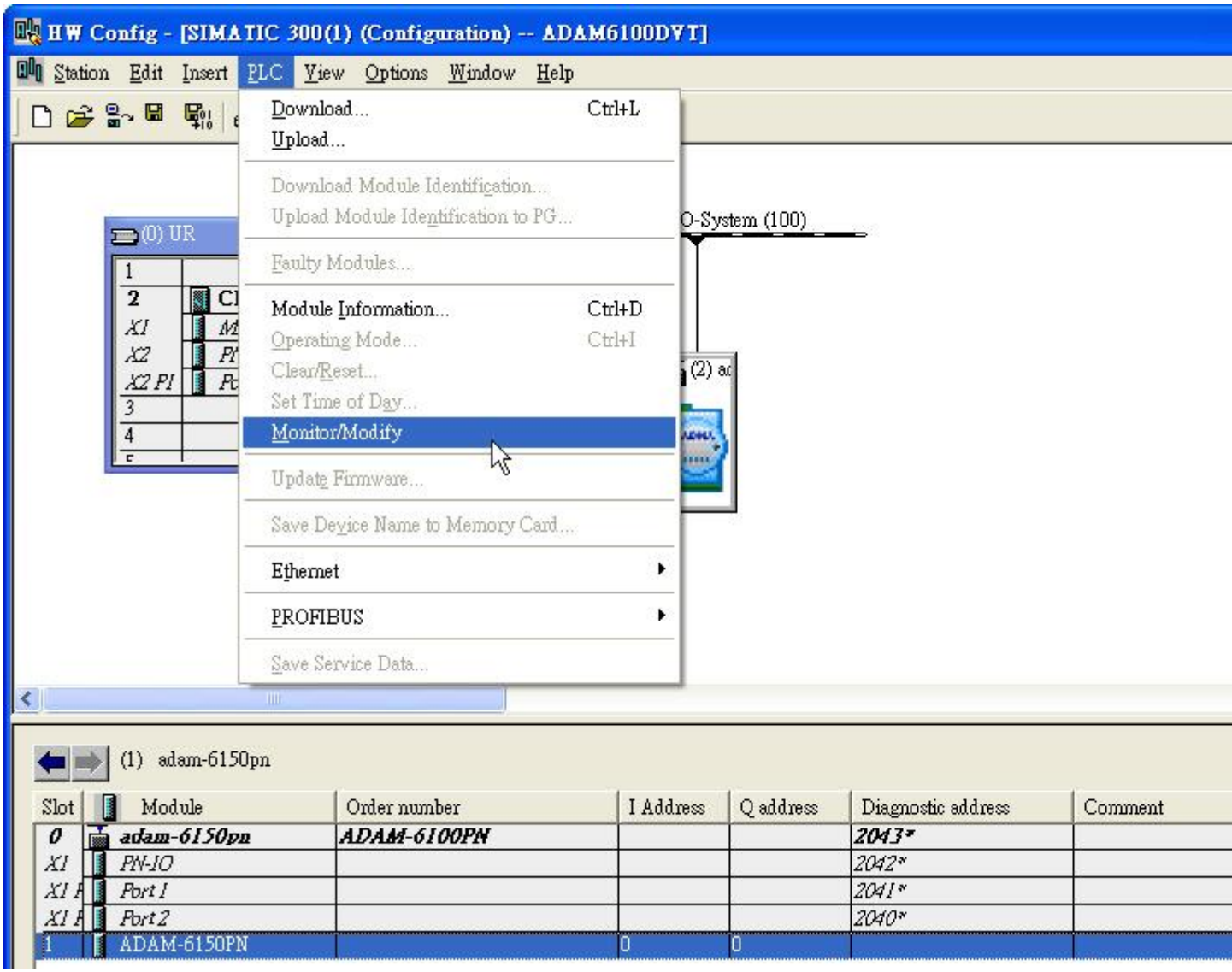


Monitor and Modify I/O

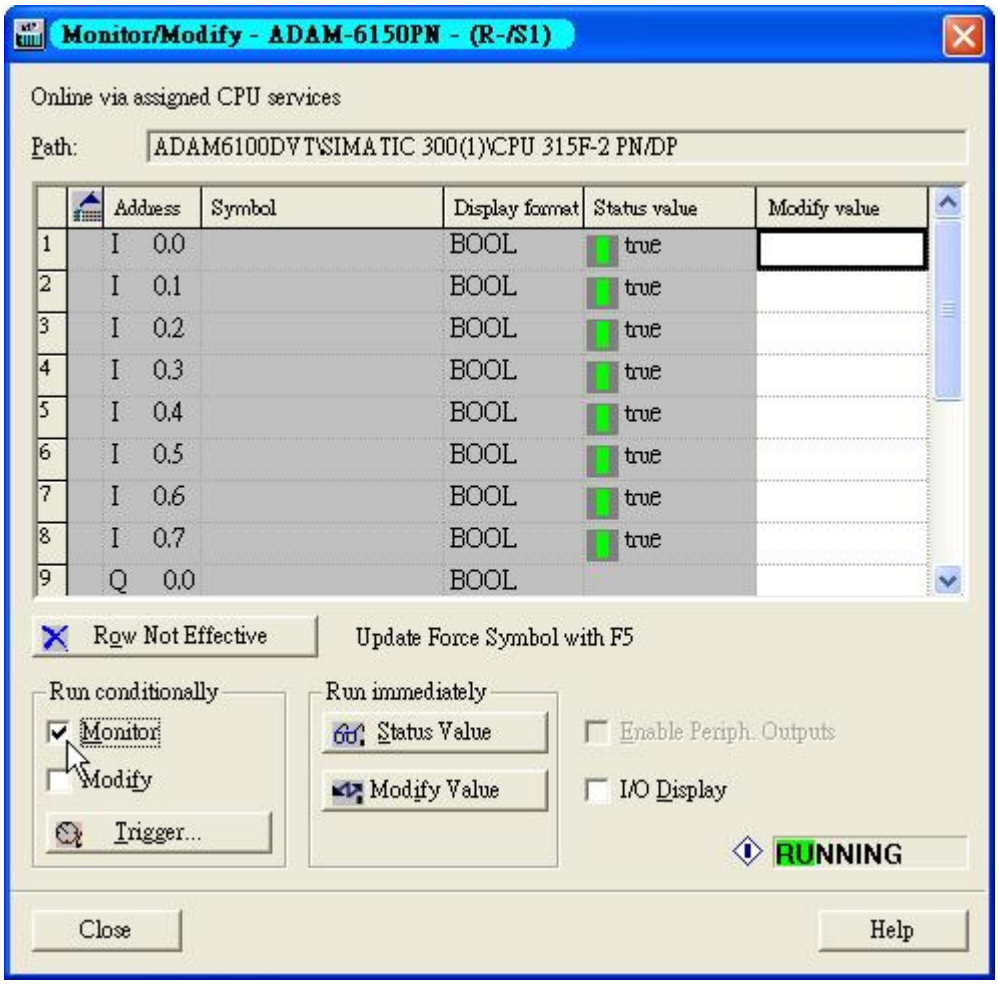
1. Here use ADAM-6150PN and ADAM-6117PN as example. After download the logic to PLC, select slot 1 in the node first



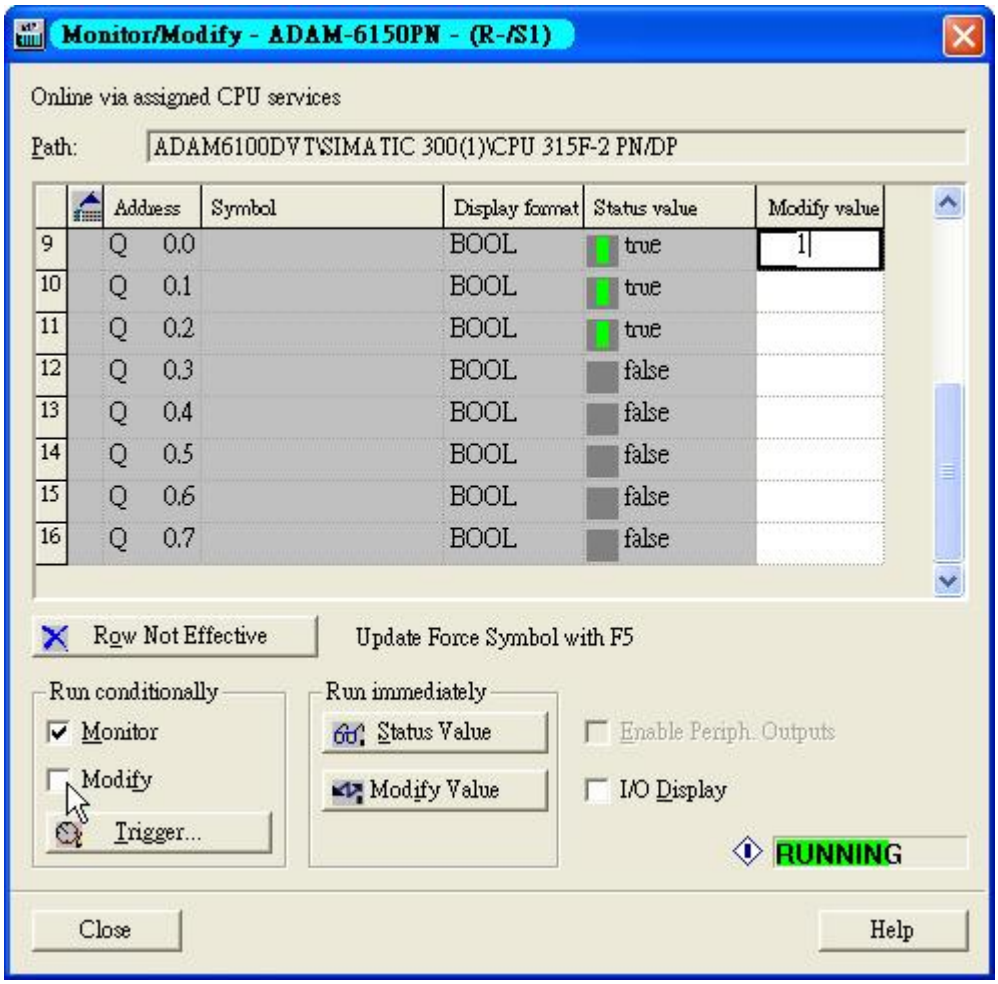
2. Click [PLC] \ [Monitor/Modify]



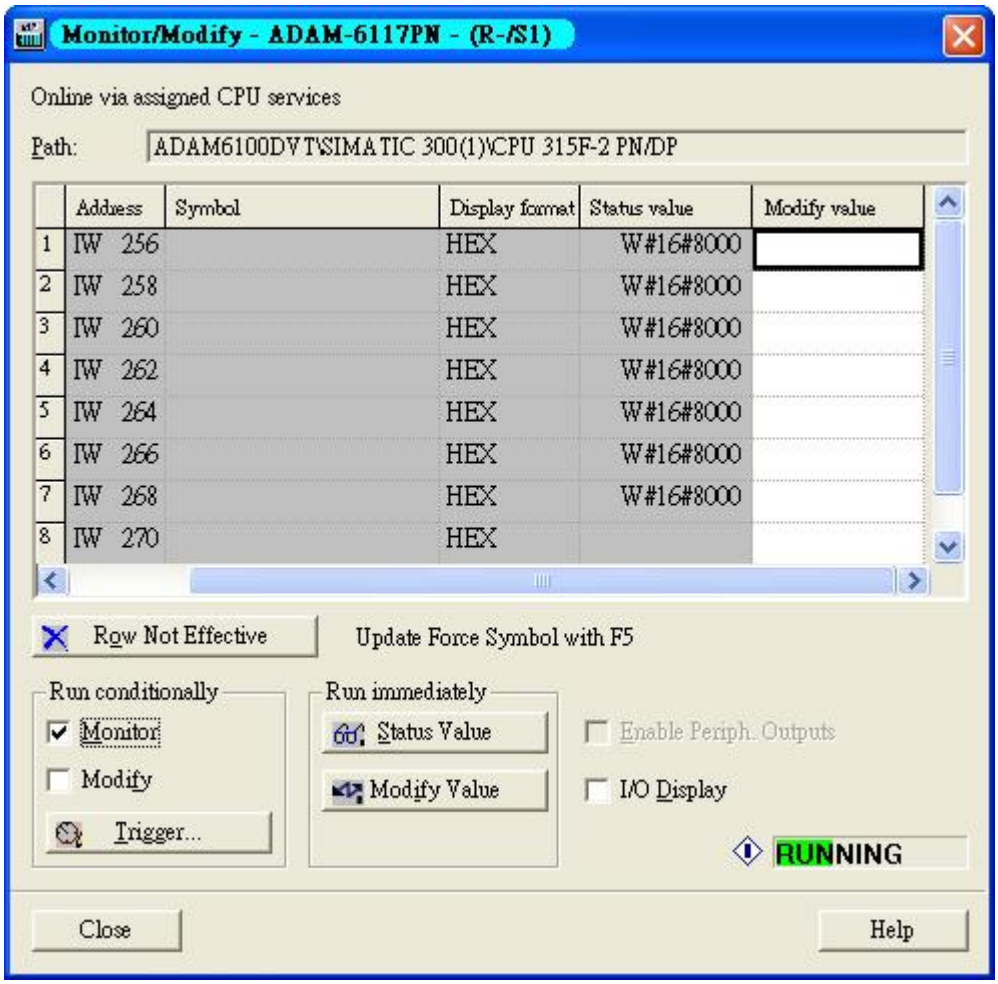
3. Check [Monitor] to monitor the real-time status, here shows the input address



4. Input true/fulse value in [Modify value] column and check [Modify]

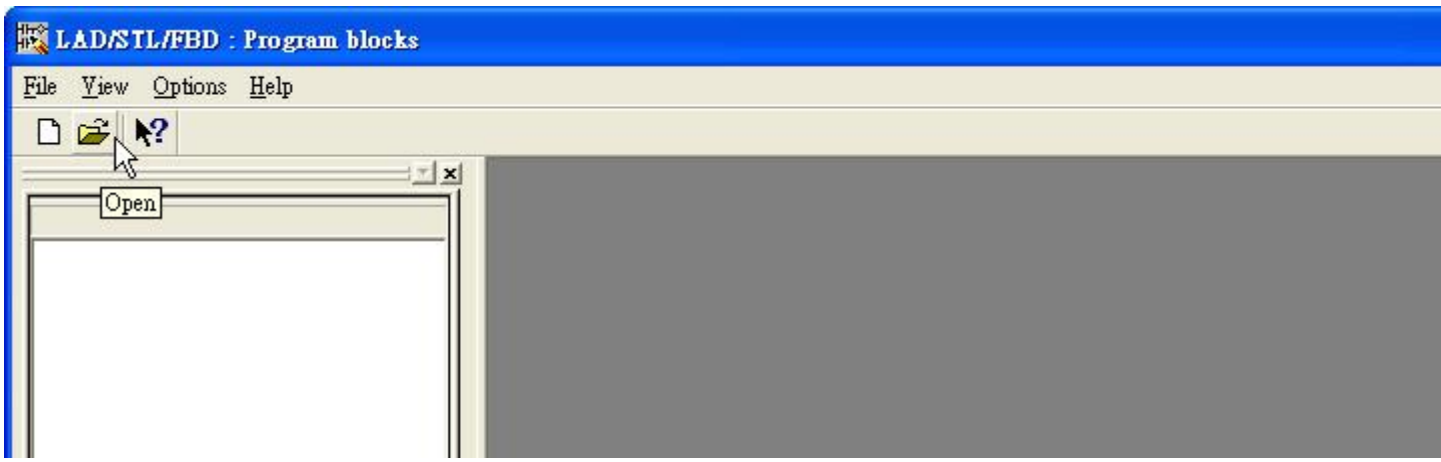


5. For AI module ADAM-6117PN, we can write 16-bit, word, value

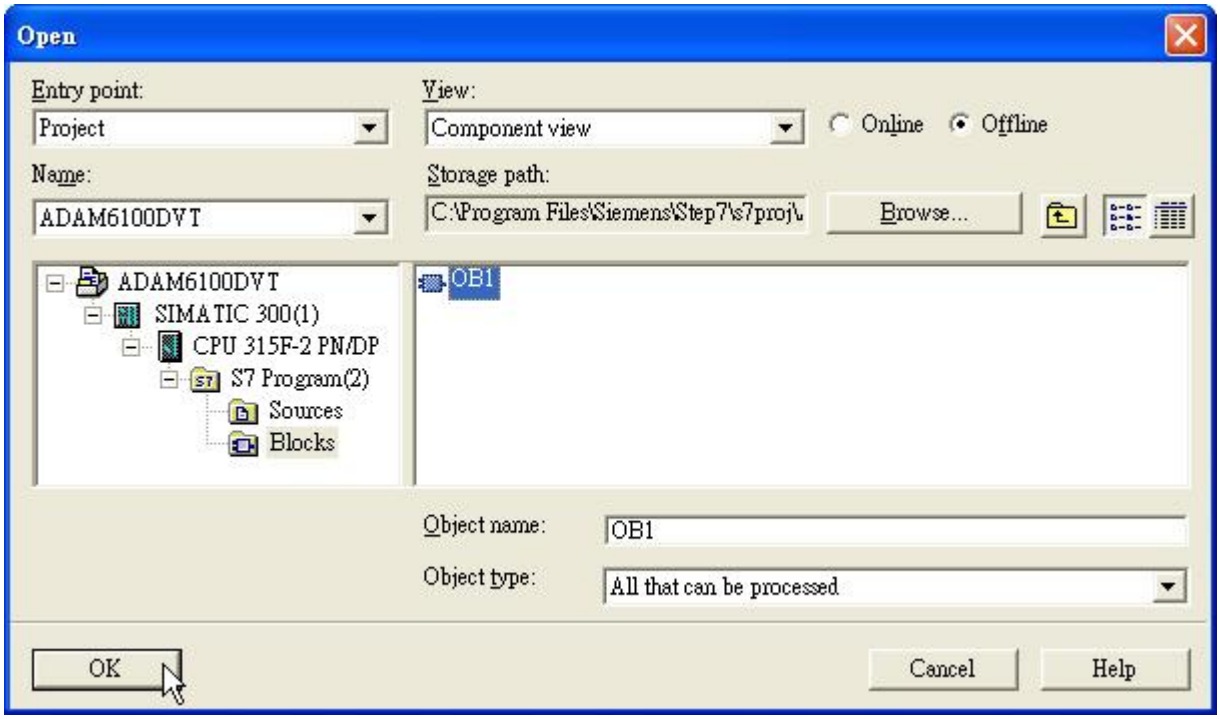


Programing in STEP7

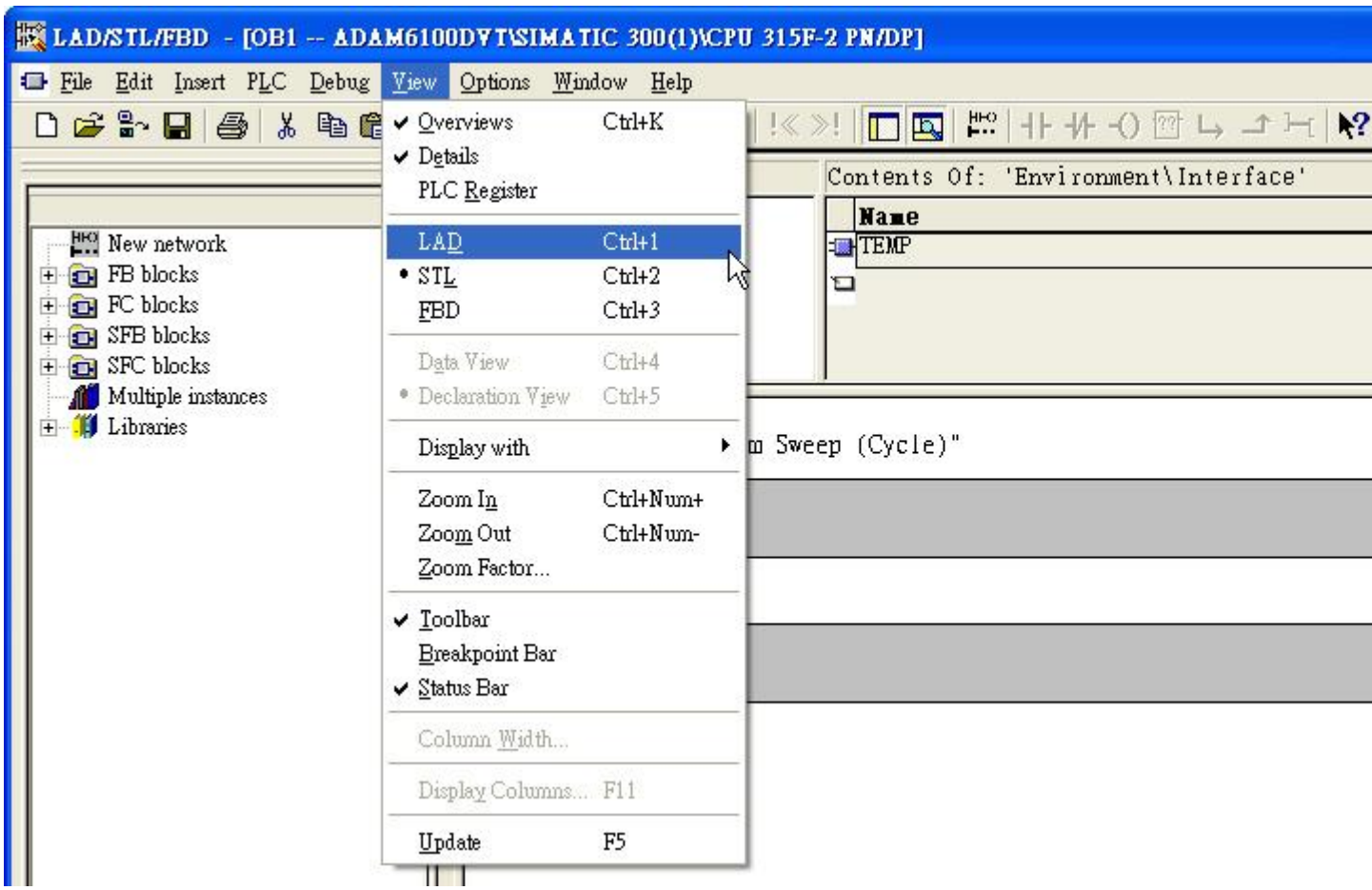
1. Open [Start] \ [SIMATIC] \ [STEP 7] \ [LAD,STL, FBD – Programing S7 Blocks]
2. Open object



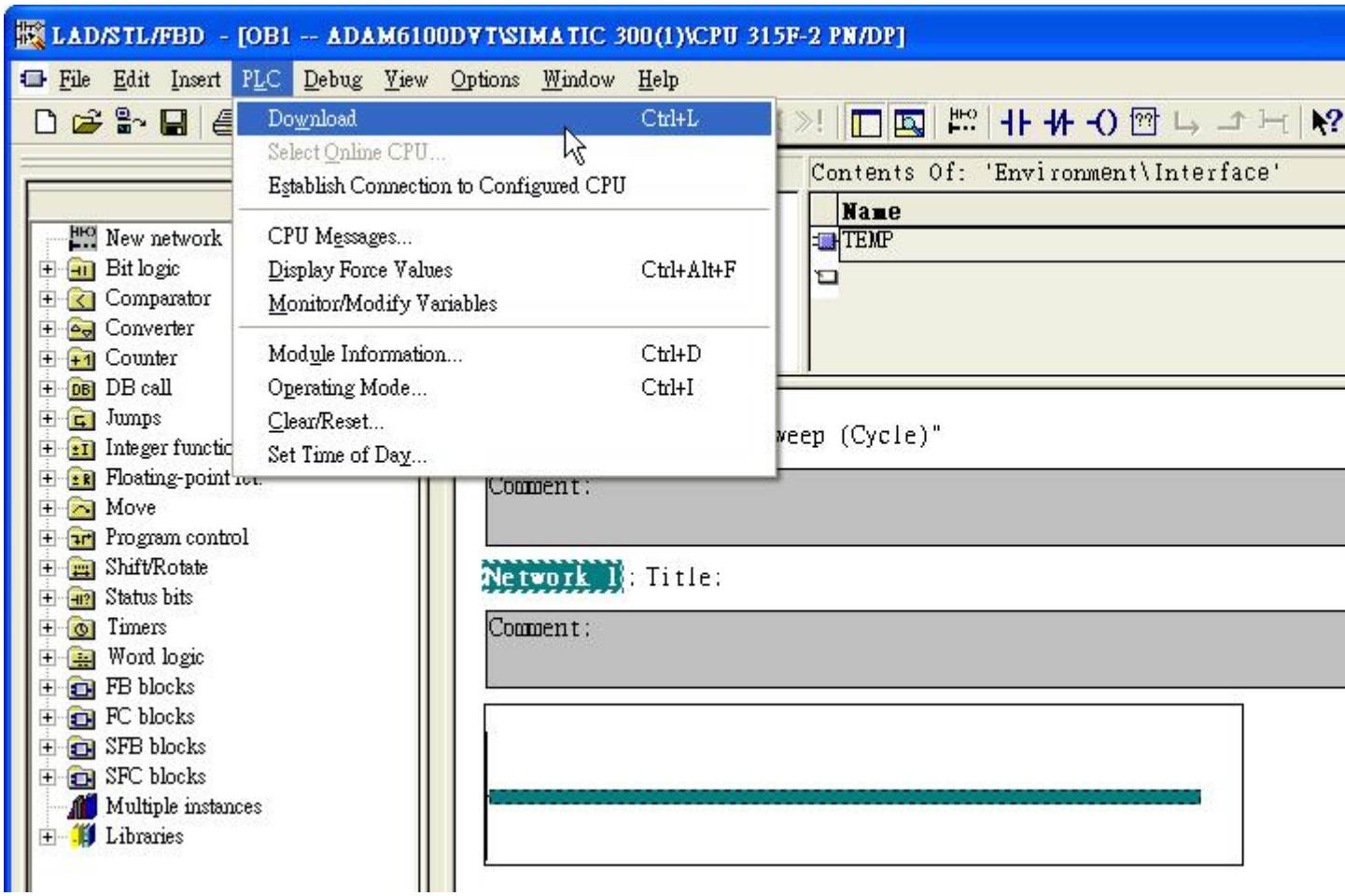
3. Open the object [OB1] in the project as following figure, and click [OK]



4. Language can be change under [View]



5. After programing, click [Download] under [PLC]



Written by Alan.Chien, ADAM Product AE, 2012/1/4