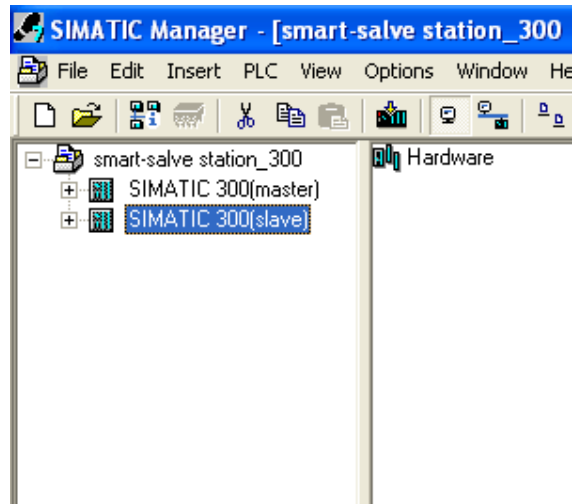
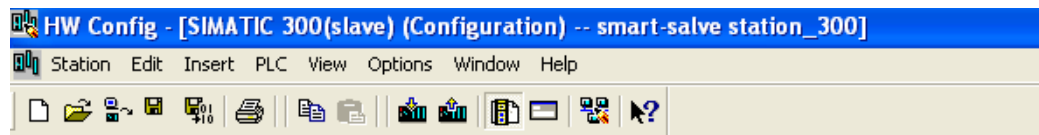


Part 1: S7-300 smart slave station

Step1: create a project and insert a S7-300 station named slave



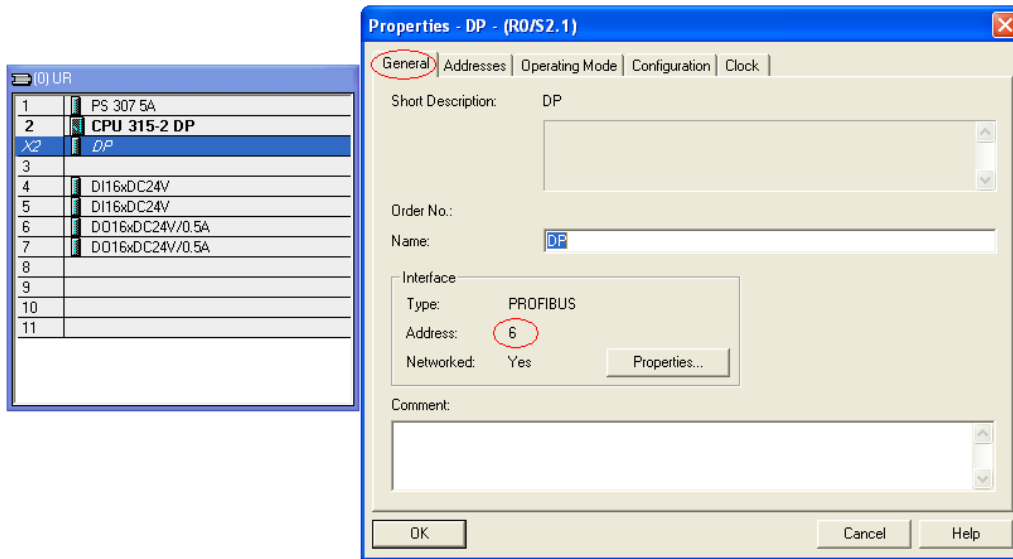
Step2: make the hardware configuration



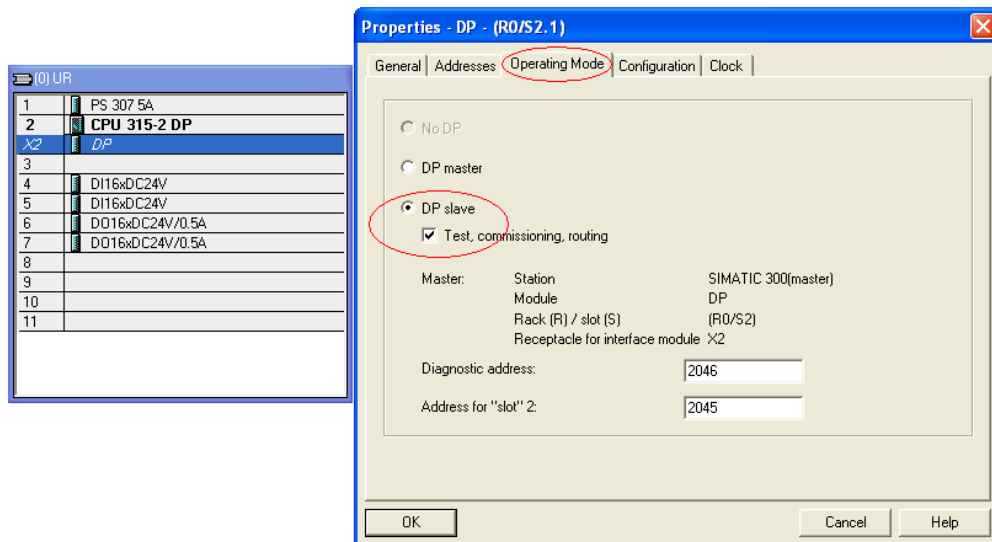
() UR	
1	PS 307 5A
2	CPU 315-2 DP
X2	DP
3	
4	DI16xDC24V
5	DI16xDC24V
6	DO16xDC24V/0.5A
7	DO16xDC24V/0.5A
8	
9	
10	
11	

Step3: DP property setting

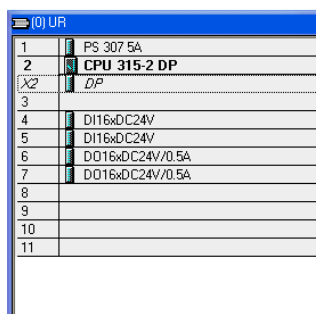
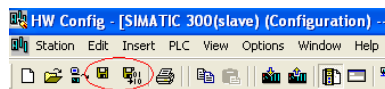
Set the DP station address:



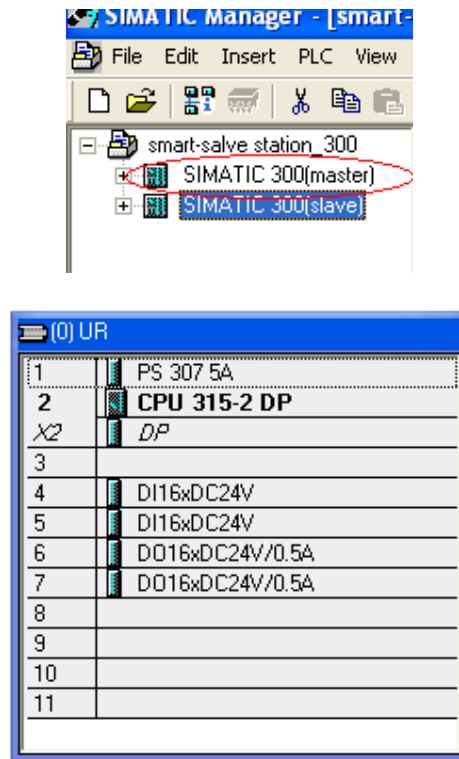
Set the DP operation mode:



Step 4: compile and save

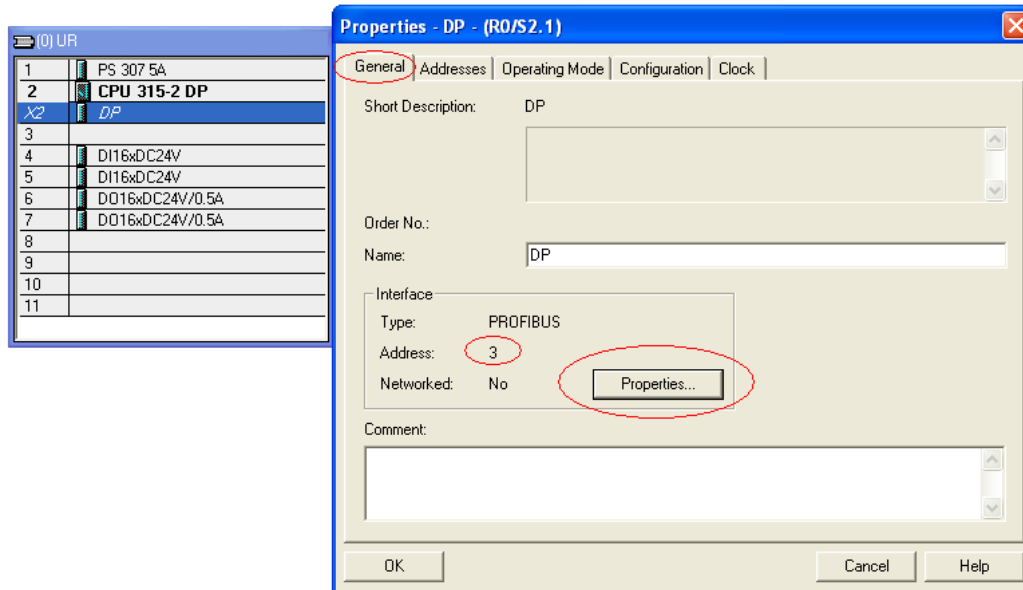


Step 5: insert a S7-300 station named master and make the hardware configuration

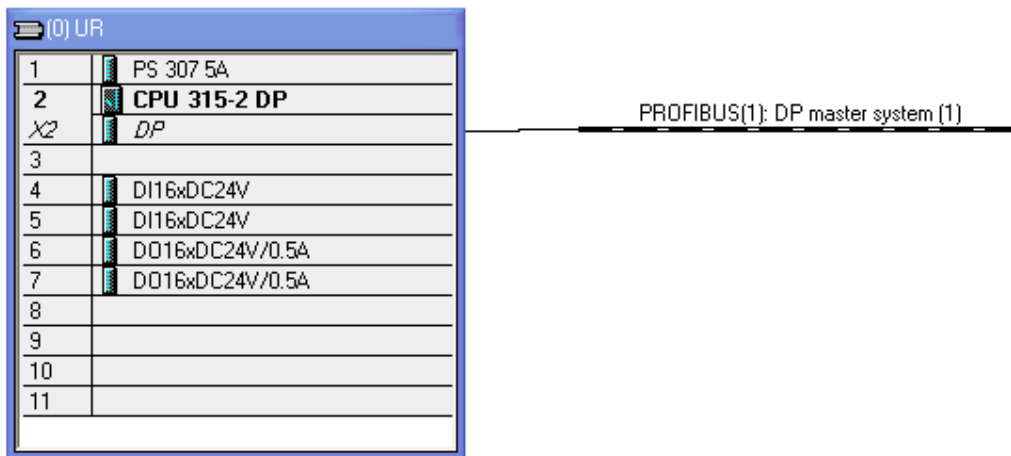
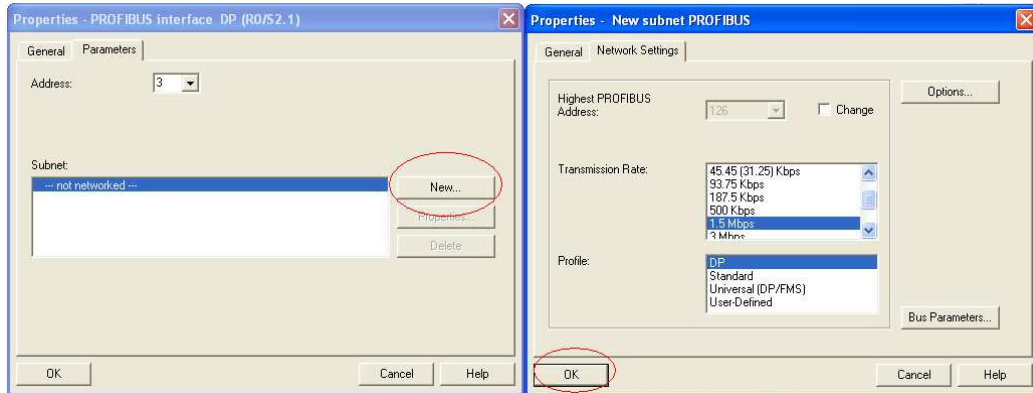


Step6: DP property setting and insert the smart slave station

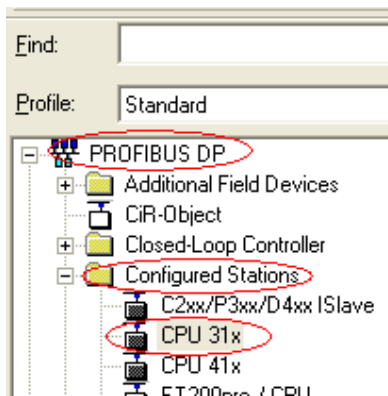
Set the station address: be different with the smart salve station



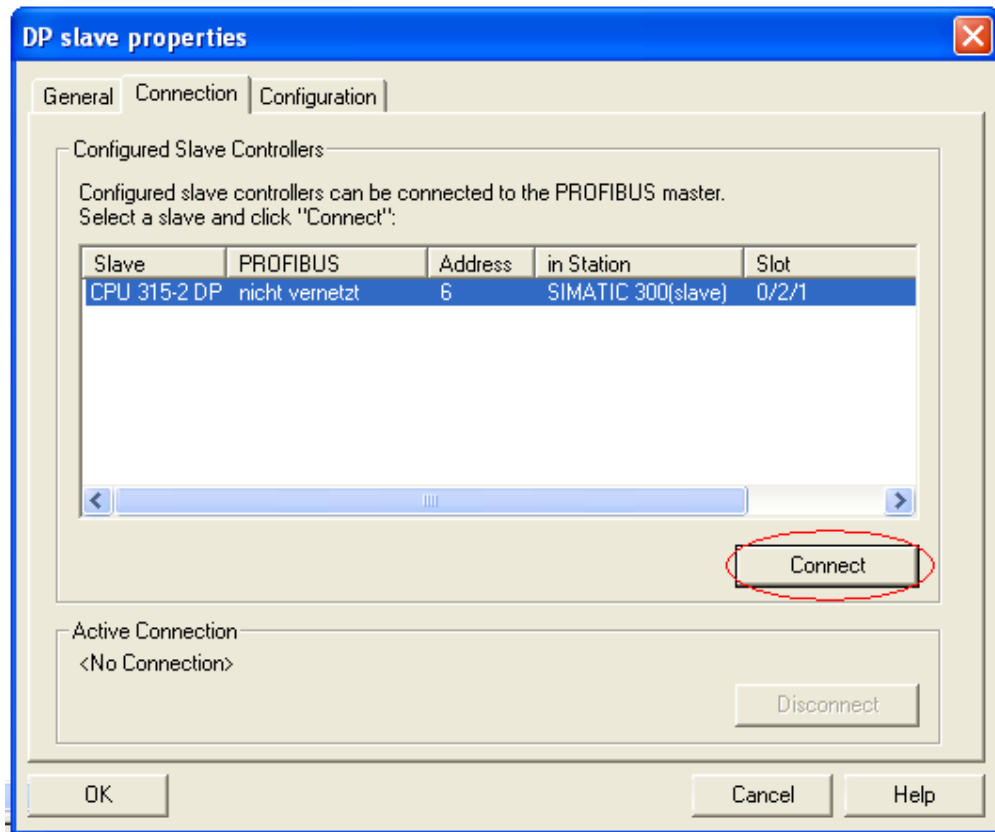
Create a new Profibus connection:



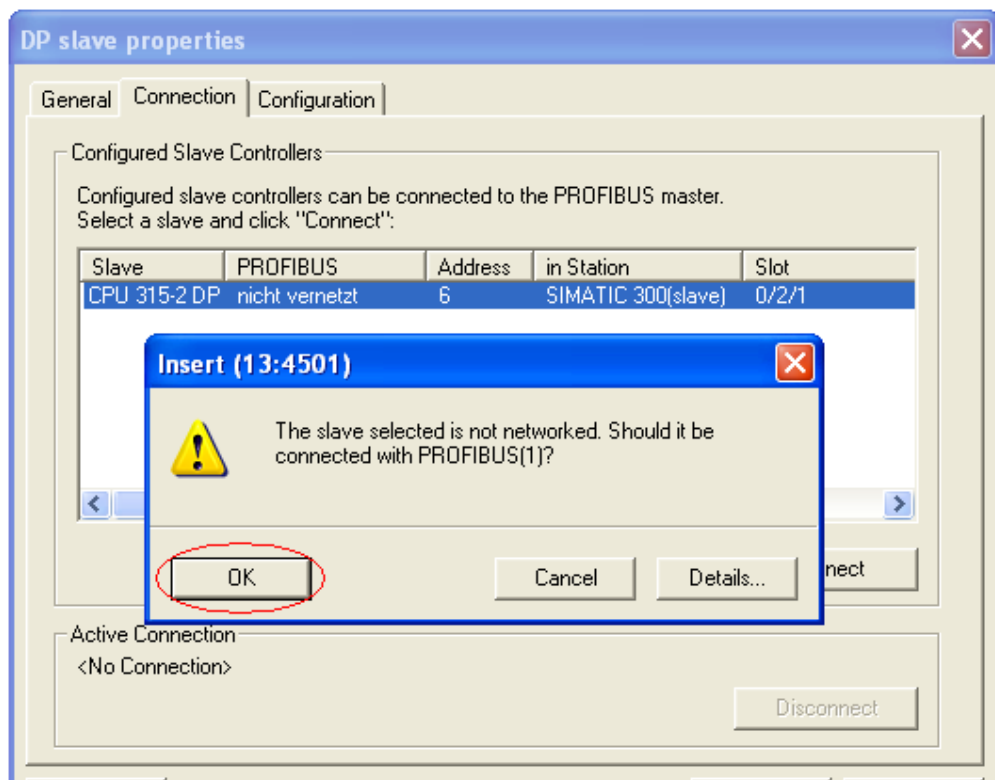
Insert the smart salve station:

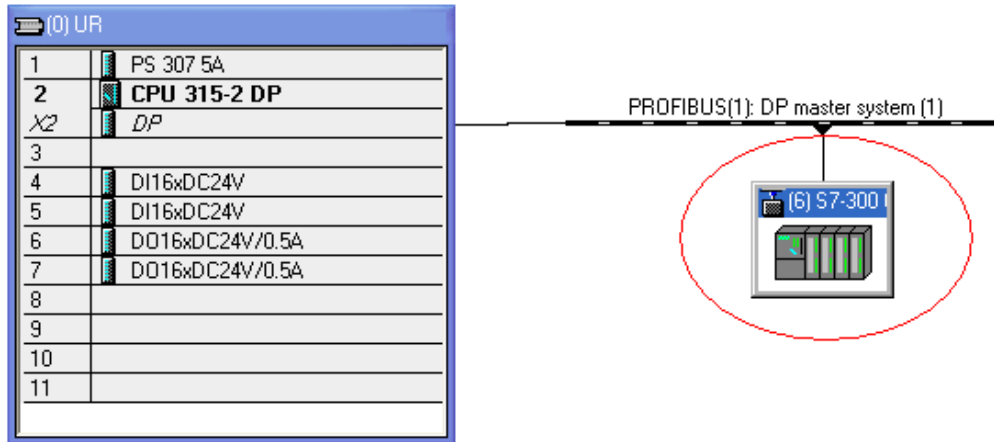


Click the 'connect' button in the pop window:

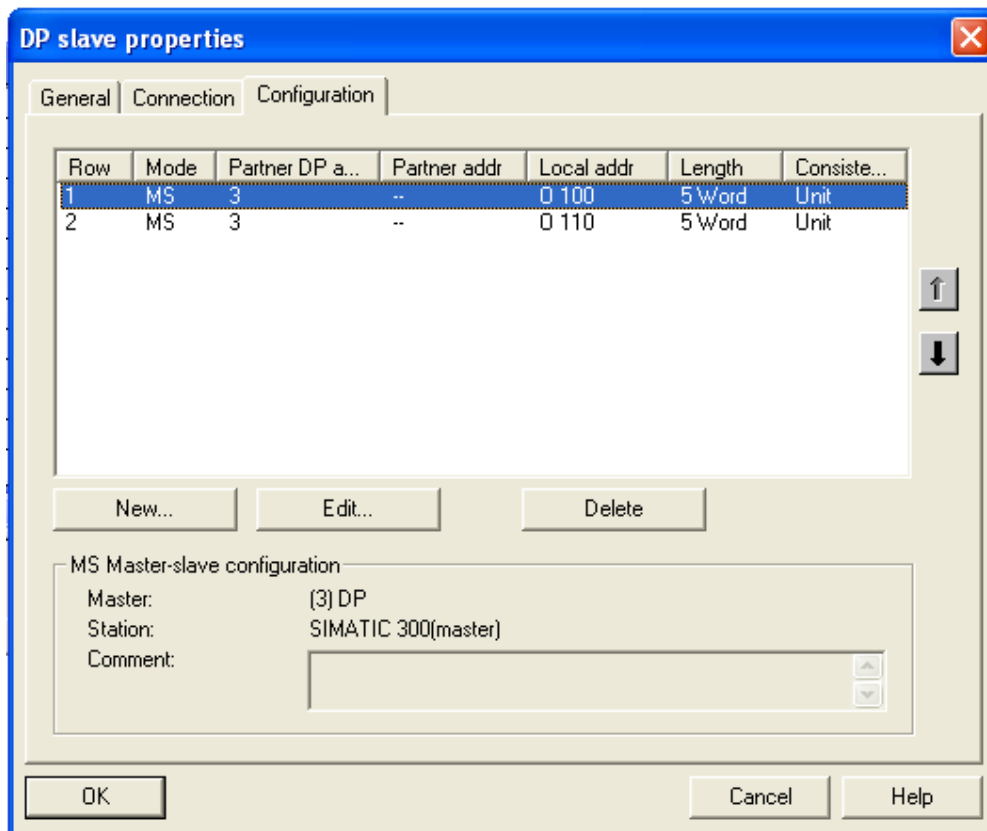


A new pop window is created; click the 'OK' button, the S7-300 smart slave station is inserted:

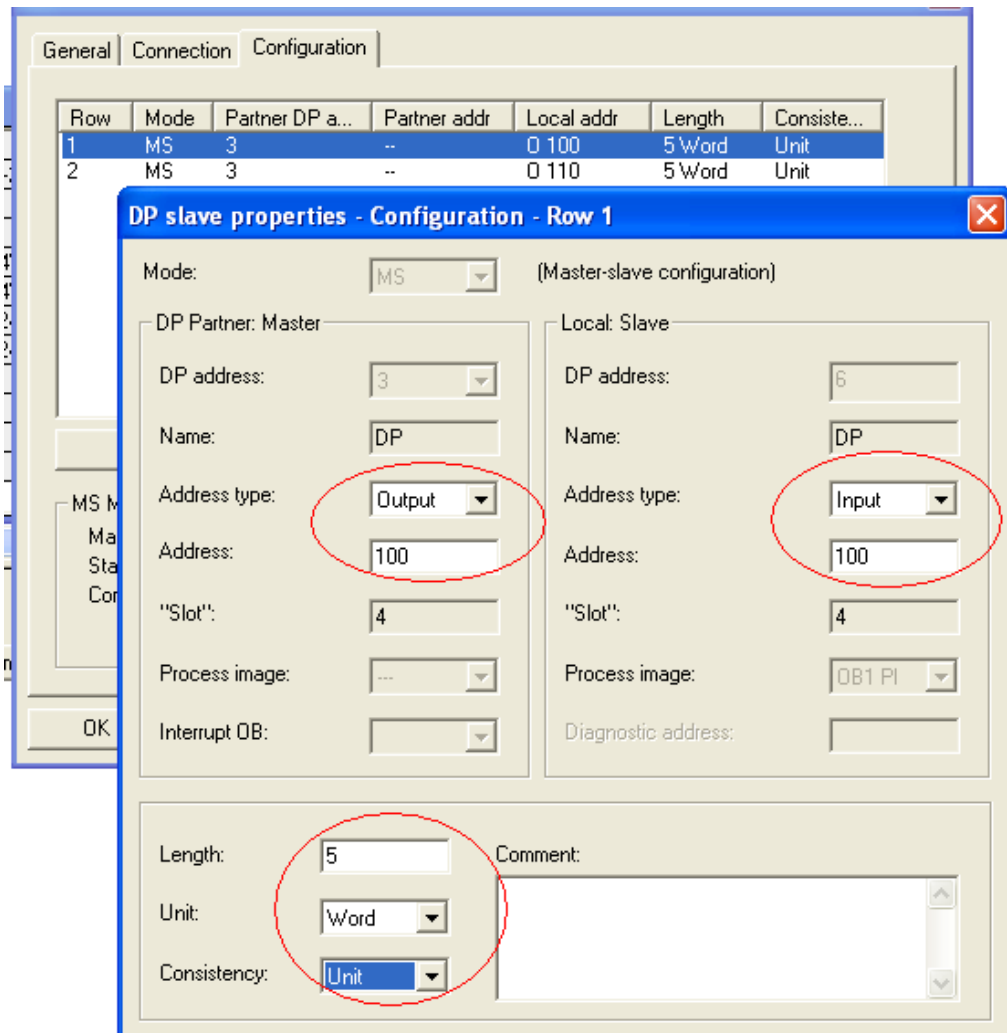




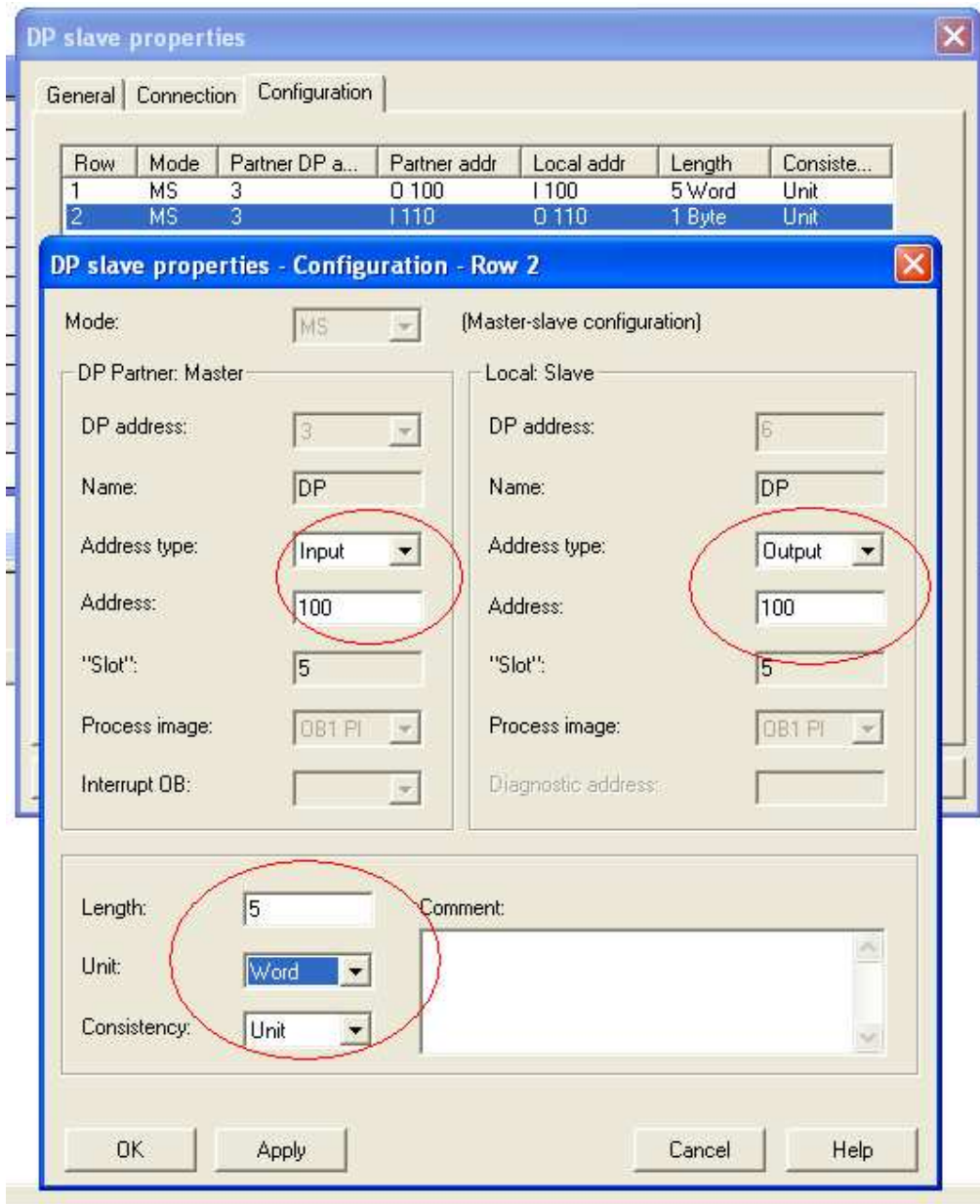
Double click the smart slave station and choose the configuration menu :



Double click the highlight line and set the parameters, here is the address where the master station can transfer data with the smart slave station:

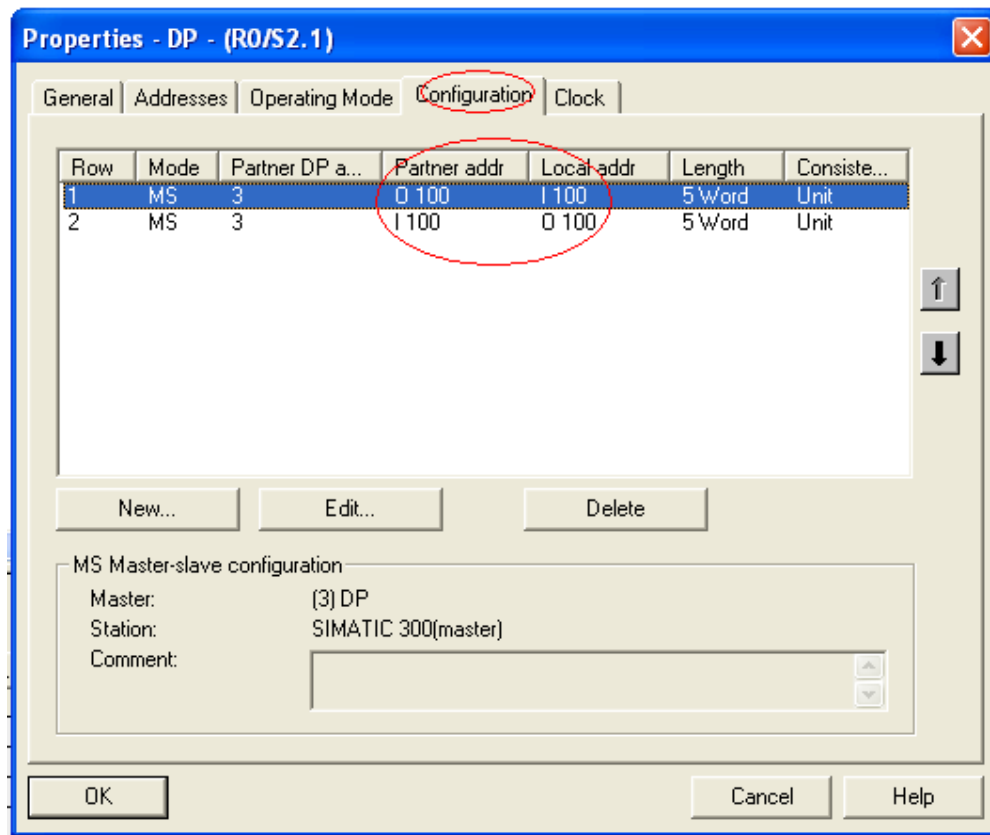
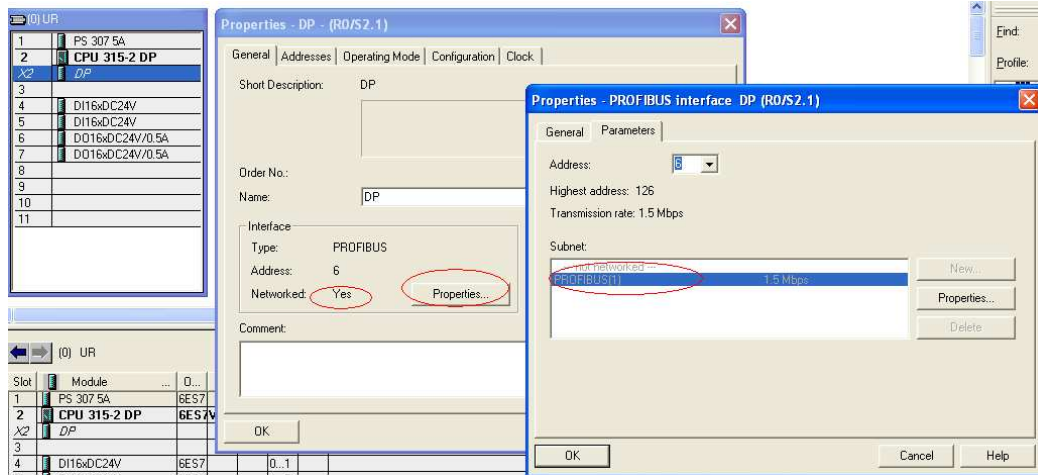


Then double click the next line in the DP slave property window and set the parameters:



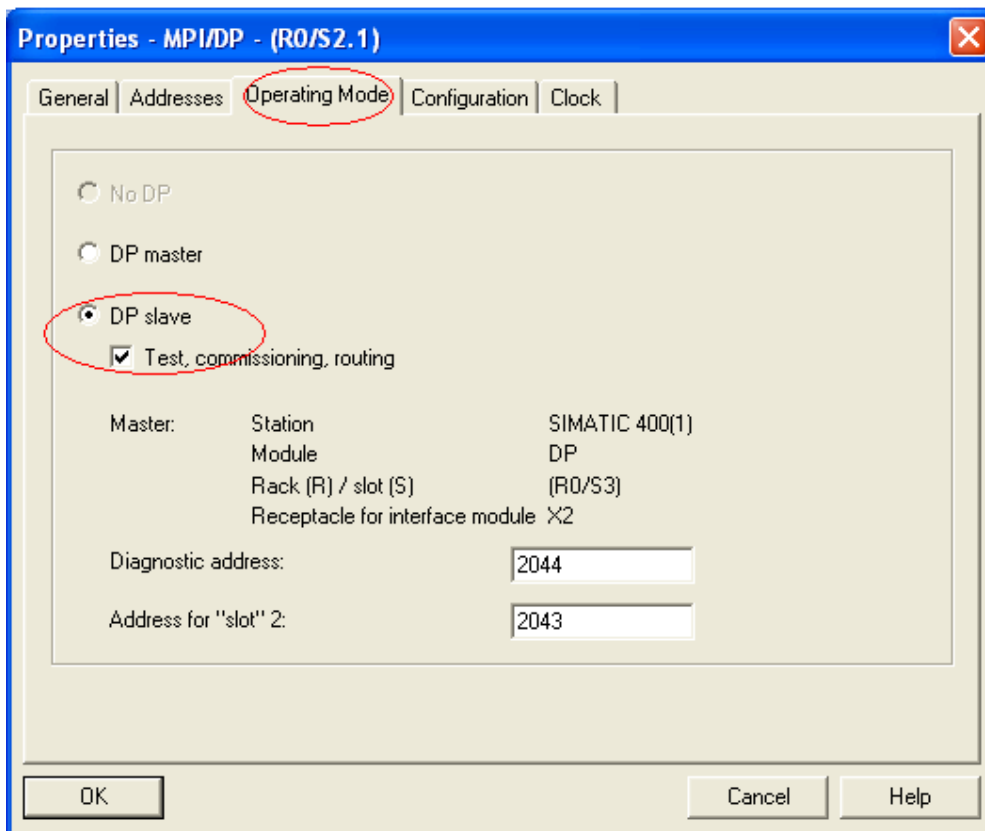
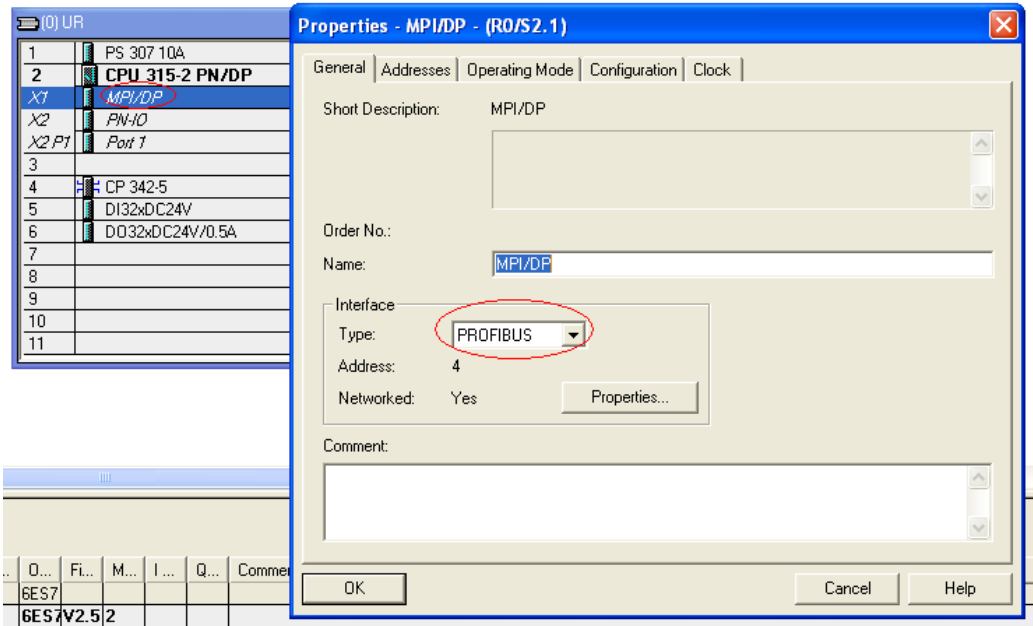
Click the OK button, compile and save, and then the hardware configuration is finished.

Now if you open the smart slave station HW-config window, you will find the following tips:



Attention: To avoid the CPU going into the STOP mode, we have to download OB82, OB86 into the CPU, this is very important.

Maybe when you have established the smart slave station, there would be a error when you compile and save the configuration. It often happens when the CPU just has the MPI/DP interface. Here you have to set the interface into DP mode and then the Operation Mode menu can be chosen. Active the DP Slave and go on to set the parameters in the menu Configuration. Create a new connection and set input or output address (now the parameters on the left side are not available).



Properties - MPI/DP - (R0/S2.1)

General | Addresses | Operating Mode | **Configuration** | Clock

Row | Mode | Partner DP a... | Partner addr | Local addr | Length | Consiste...

Properties - MPI/DP - (R0/S2.1) - Configuration - Row 1

Mode: MS (Master-slave configuration)

DP Partner: Master

DP address: []

Name: []

Address type: []

Address: []

"Slot": []

Process image: []

Interrupt DB: []

Local Slave

DP address: []

Name: MPI/DP

Address type: Input

Address: 100

"Slot": []

Process image: OB1 PI

Diagnostic address: []

Length: 1

Unit: Byte

Consistency: Unit

Comment: []

OK | Apply | Cancel | Help

Properties - MPI/DP - (R0/S2.1)

General | Addresses | Operating Mode | **Configuration** | Clock

Row	Mode	Partner DP a...	Partner addr	Local addr	Length	Consiste...
1	MS	--	--	I 100	5 Word	Unit
2	MS	--	--	O 100	5 Word	Unit

New... | Edit... | Delete

MS Master-slave configuration

Master: []

Station: []

Comment: []

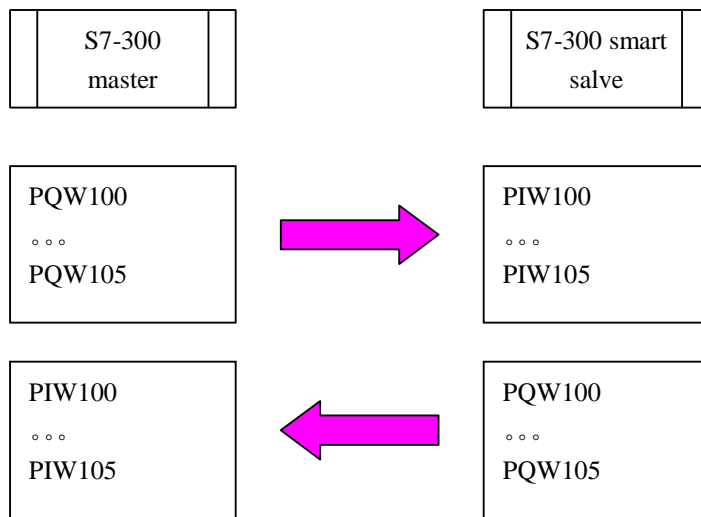
OK | Cancel | Help

After this setting, the hardware configuration can be right compiled and saved.

Step7: download the hardware configuration into the smart slave station and master station separately through the MPI, and then connect the two stations with profibus line by the DP interface.

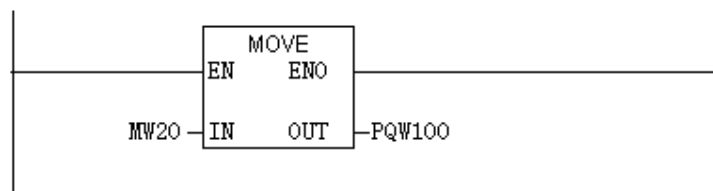
Step8: programming

In the Step6, we have set up the area of the data transfer between the master and slave. The relationship is like this:



We just have to use the 'MOVE' function block to transfer the data to each other.

In the STEP7, in the master station block:



Use this we have transferred the data MW20 to the smart slave station PIW100.