

GW-7552 (Modbus RTU master)
example for SIMATIC STEP 7

Example 1: Reads DO module data from GW-7552(Modbus FC01).

Example 2: Reads DI module data from GW-7552(Modbus FC02).

Example 3: Reads AO module data from GW-7552(Modbus FC03).

Example 4: Reads AI module data from GW-7552(Modbus FC04).

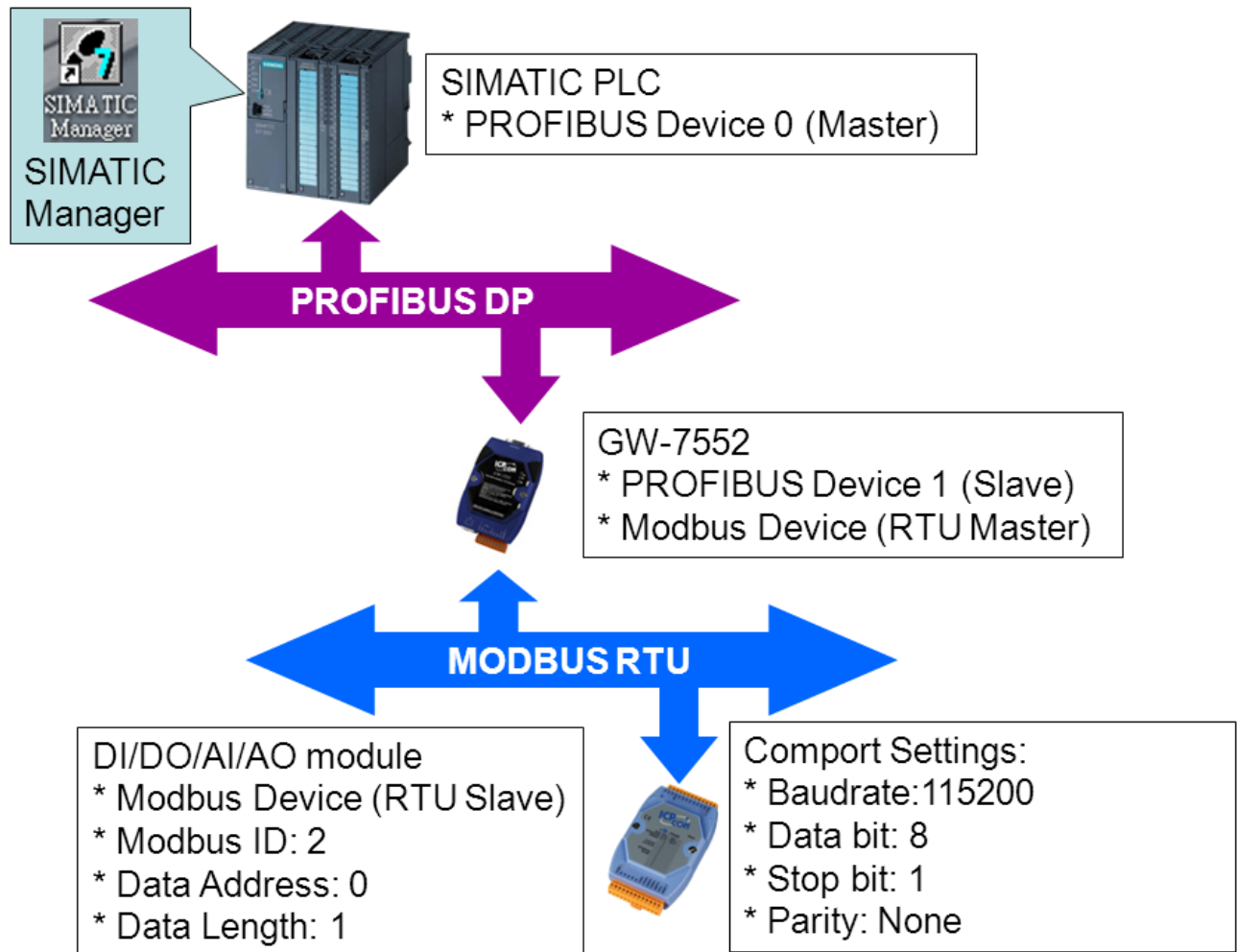
Example 5: Writes DO module data from GW-7552(Modbus FC05,15).

Example 6: Writes AO module data from GW-7552(Modbus FC06,16).

Example 1: PLC reads DO module data from GW-7552.

(Modbus FC01)

Read a Modbus RTU DO module (PROFIBUS Slave & Modbus RTU/Master)



SIMATIC STEP7 Configuration:

Step 1: Setup the GW-7552 module

1. Select GW-7552 module

The screenshot shows the SIMATIC HW Config interface for a SIMATIC 300 Station. The main workspace displays a rack configuration with slots 1 through 5. Slot 2 contains a CPU 314C-2 DP. A PROFIBUS DP master system is connected to the DP port. A GW-7552 module icon is highlighted with a red box, and a red arrow points to it with the text "Click GW-7552 icon".

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	24DO	System setting		0...2	
2	8DO	Output Relay/Coil--1 byte		3	
3	8DI	Input Relay/Coil--1 byte	0		
4					
5					

2. Add a System setting module

The screenshot shows the SIMATIC HW Config interface with the GW-7552 module selected. The main workspace shows the rack configuration with the GW-7552 module in slot 2. A red box highlights the "System setting" module in the HW Config table, and a red arrow points to it with the text "Double click 'System setting'".

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	24DO	System setting		0...2	
2	8DO	Output Relay/Coil--1 byte		3	
3	8DI	Input Relay/Coil--1 byte	0		
4					
5					

The HW Config tree on the right shows the following structure:

- I/O
- Gateway
 - AS-I
 - DP/DP Coupler
 - DP/RS232C Link
 - GW-7552
 - Universal module
 - System setting
 - Output Relay/Coil--1 byte
 - Output Relay/Coil--2 byte
 - Output Relay/Coil--3 byte
 - Output Relay/Coil--4 byte
 - Output Relay/Coil--5 byte
 - Output Relay/Coil--6 byte
 - Output Relay/Coil--7 byte
 - Output Relay/Coil--8 byte
 - Output Relay/Coil--9 byte
 - Output Relay/Coil--10 byte
 - Output Relay/Coil--11 byte
 - Output Relay/Coil--12 byte

3. Add "Output Relay/Coil – 1 byte" and "Input Relay/Coil – 1byte"

Double click
"Output Relay/Coil -- 1 byte"

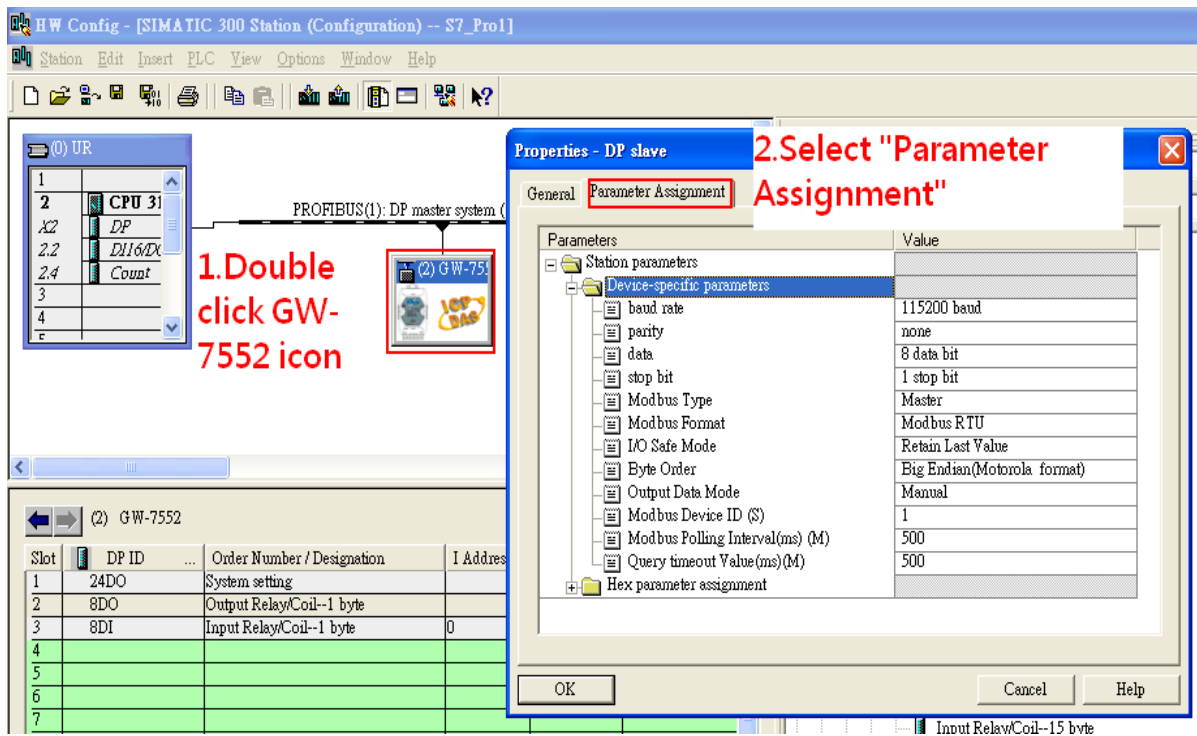
Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	24DO	System setting		0..2	
2	8DO	Output Relay/Coil-1 byte		3	
3	8DI	Input Relay/Coil-1 byte	0		
4					
5					

Double click
"Input Relay/Coil -- 1 byte"

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	24DO	System setting		0..2	
2	8DO	Output Relay/Coil-1 byte		3	
3	8DI	Input Relay/Coil-1 byte	0		
4					
5					

Step 2: Setup the parameters of the GW-7552

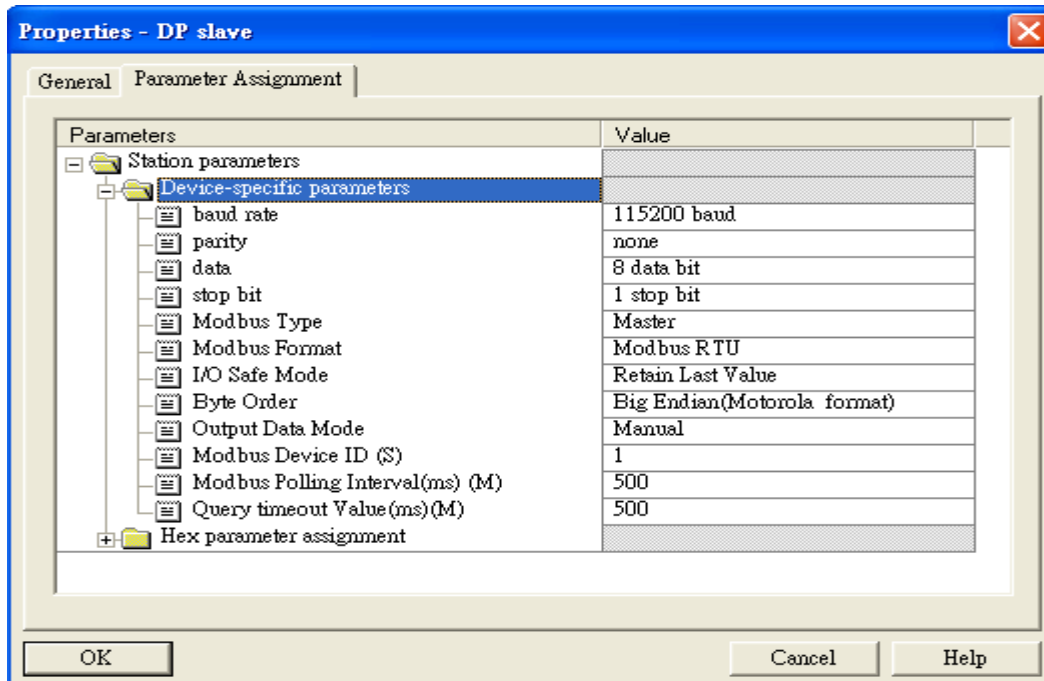
1. Double click GW-7552 icon
2. Select "Parameter Assignment"



3. Set common parameters of the GW-7552

Common parameters →

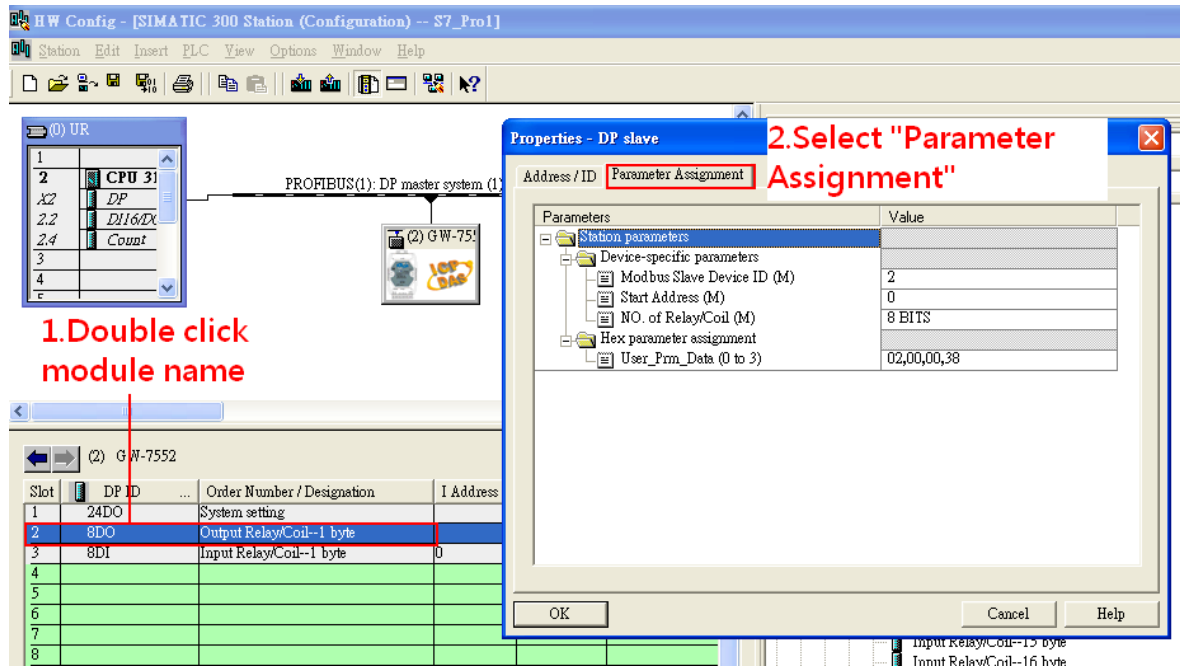
Baud rate: 115200; Parity: none; Data: 8 data bit; Stop bit: 1 stop bit; Modbus type: Master
Modbus Format: Modbus RTU; Byte Order: Big Endian



4. Set module parameters of the GW-7552

(1) Double click "Output Relay/Coil – 1 byte" module

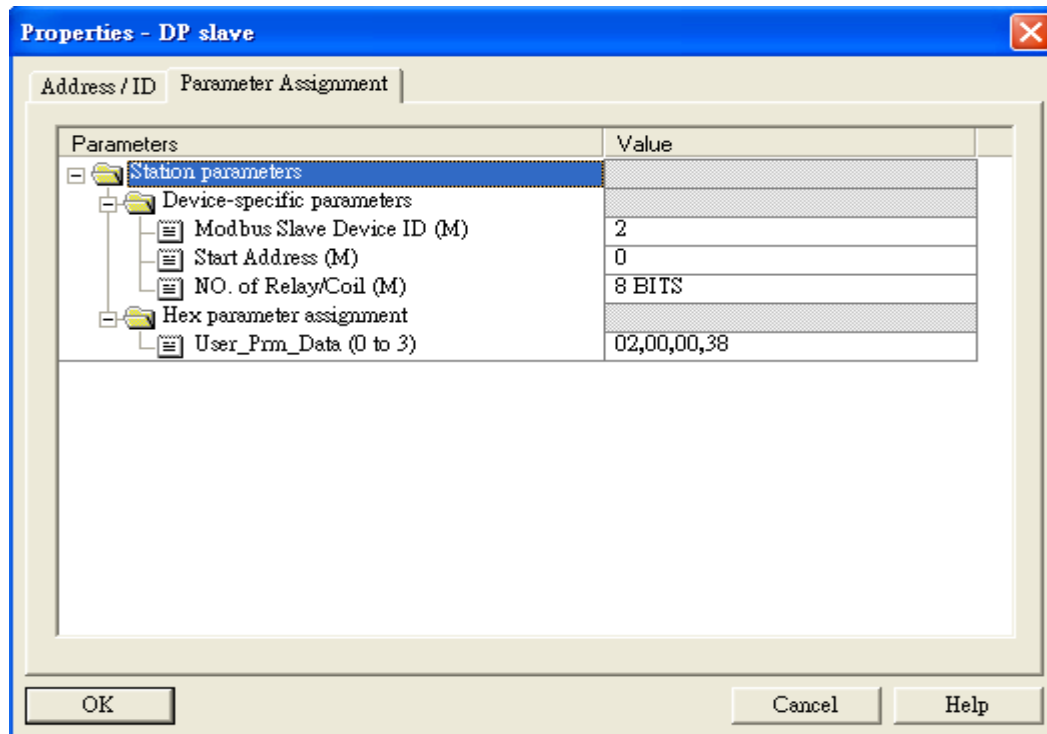
(2) Select "Parameter Assignment"



5. Setup "Output Relay/Coil – 1 byte" module parameter

Module parameters →

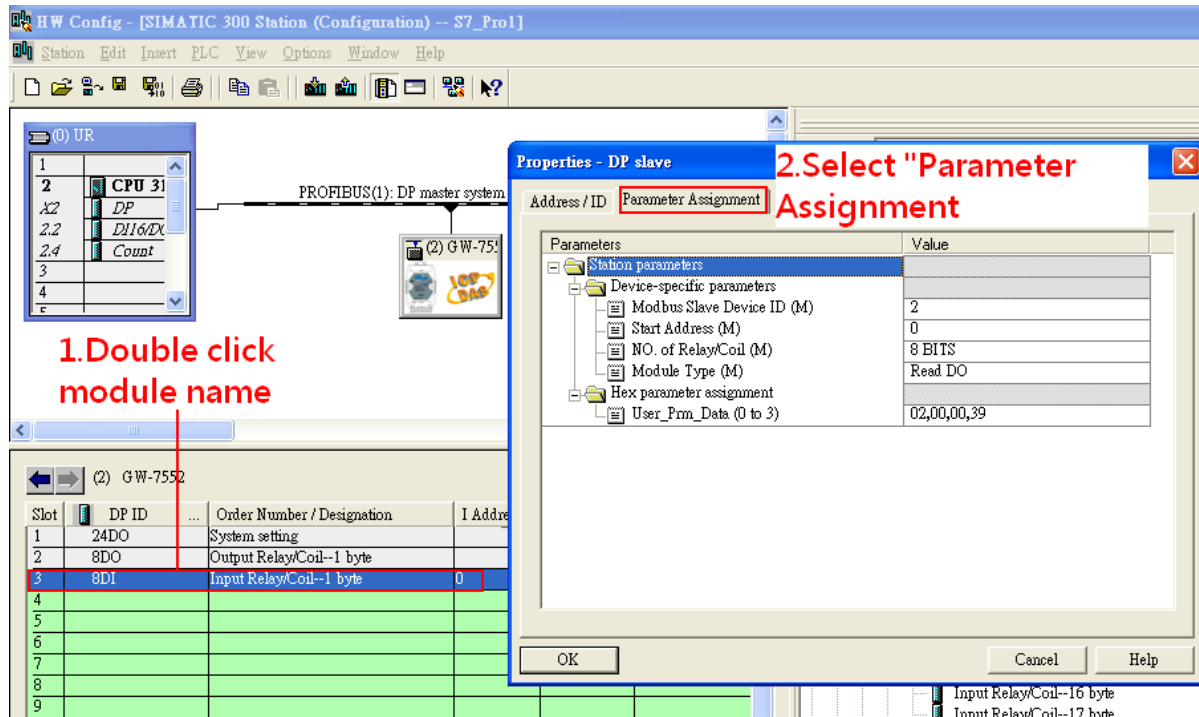
Modbus Slave Device ID: 2; Slave Address: 0 (Protocol address (base 0))



6. Set module parameters of the GW-7552

(1) Double click "Input Relay/Coil – 1 byte" module

(2) Select "Parameter Assignment"

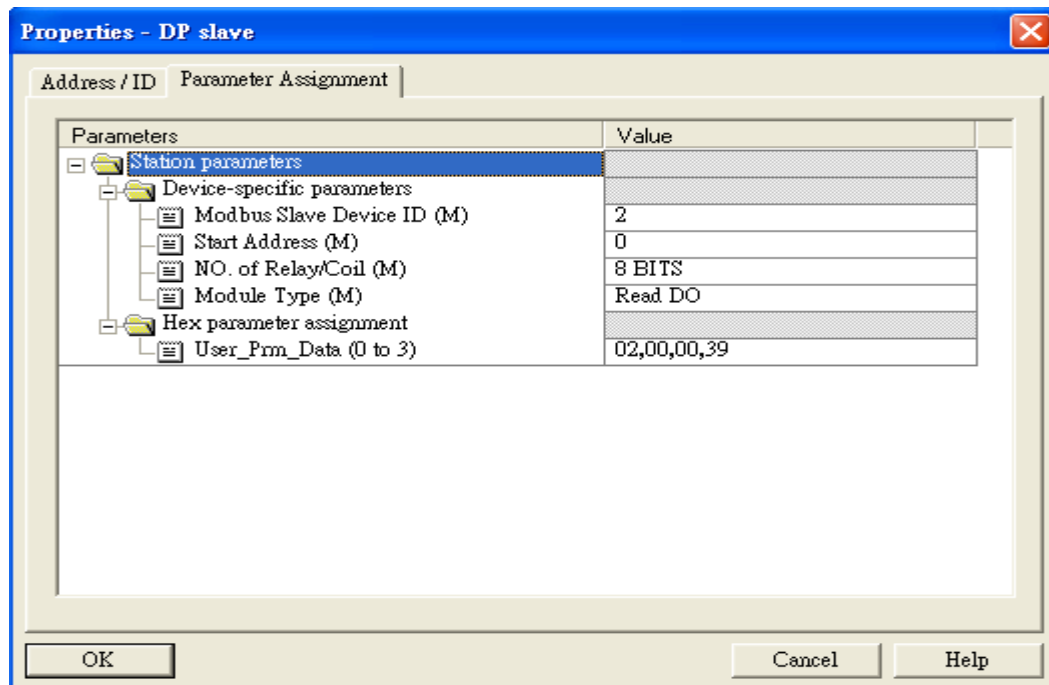


7. Setup "Input Relay/Coil – 1 byte" module parameter

Module parameters →

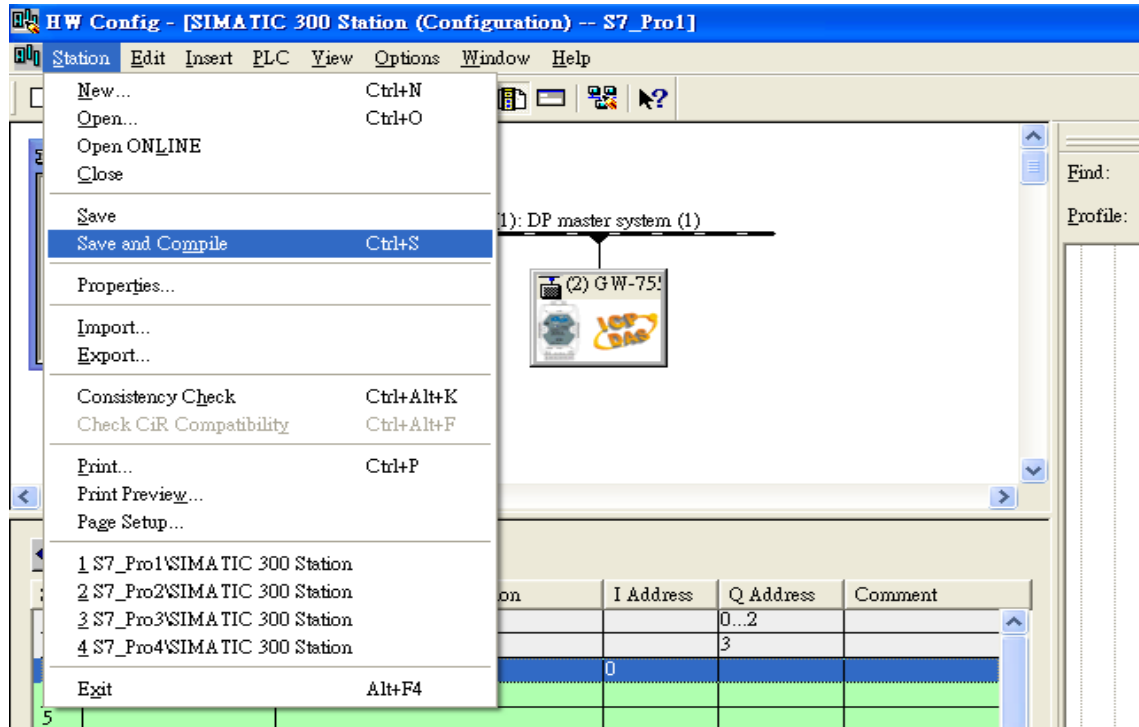
Modbus Slave Device ID: 2; Slave Address: 0 (Protocol address (base 0))

Module Type: Read DO, click ok.

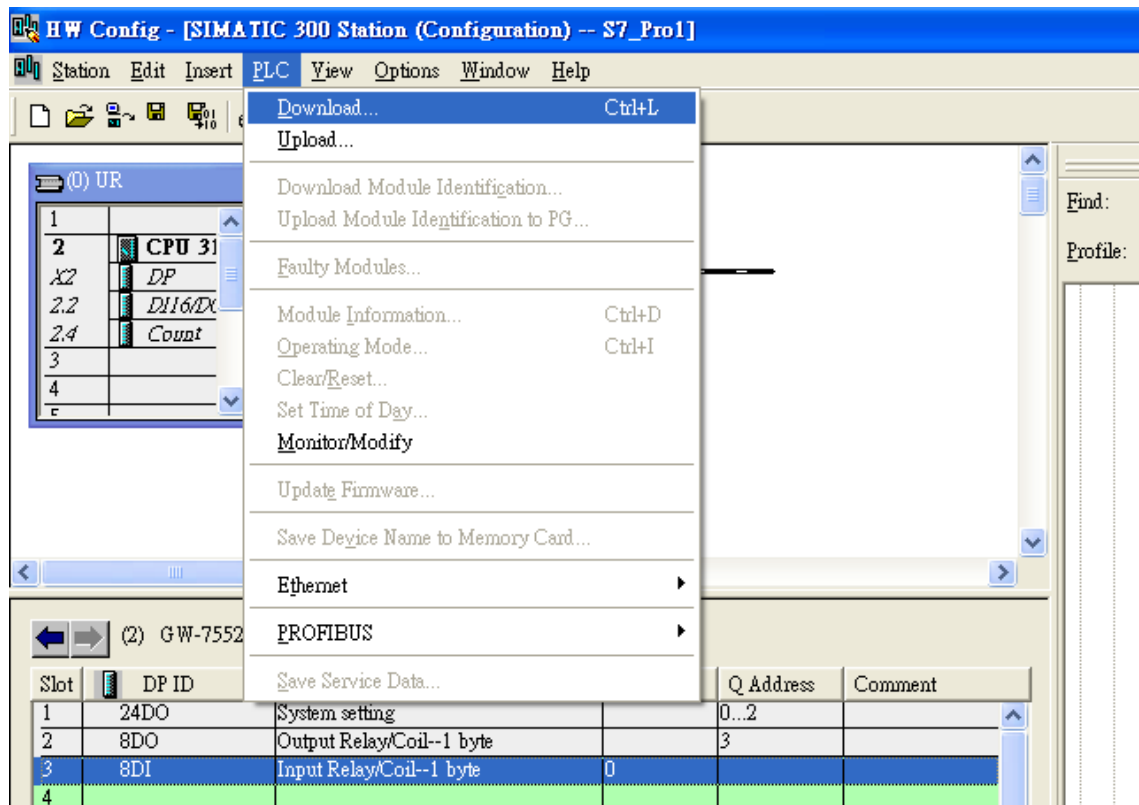


Step 3: Download the HW settings into SIMATIC PLC

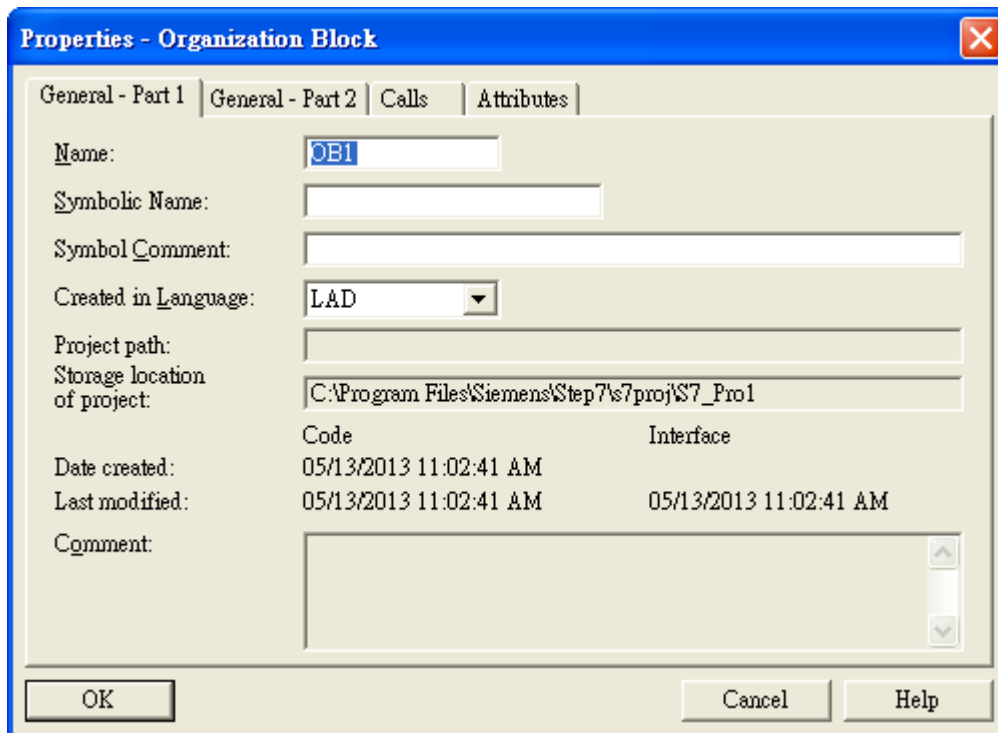
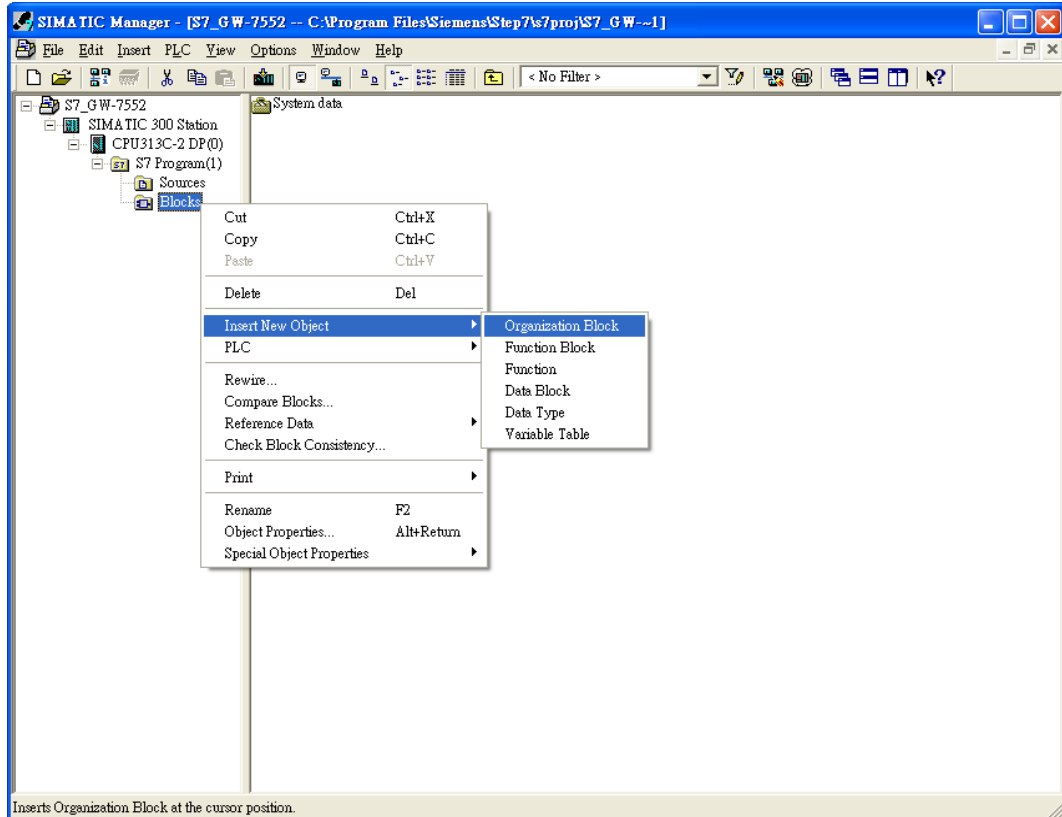
1. Save and Compile

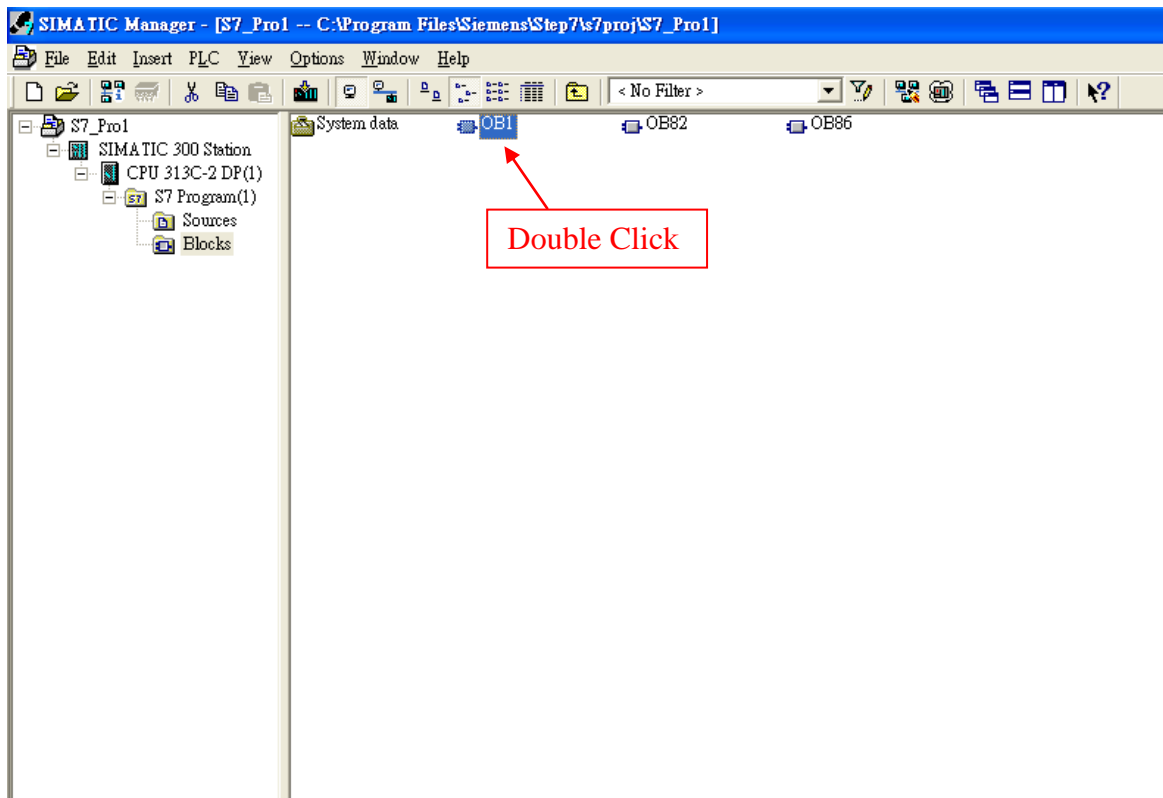


2. HW settings into SIMATIC PLC



Step 4: Insert a new Organization Block (OB1,OB82,OB86)





Step 5: Edit OB1

Variables used in the example LD Program:

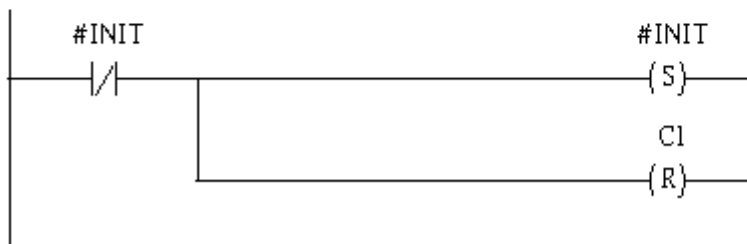
	Name	Data Type	Address	Comment
	END	Bool	20.0	
	INIT	Bool	20.1	
	Tri	Int	22.0	
	DIValue	Byte	24.0	

OB1 : "Main Program Sweep (Cycle)"

PROFIBUS Slave
Modbus Master

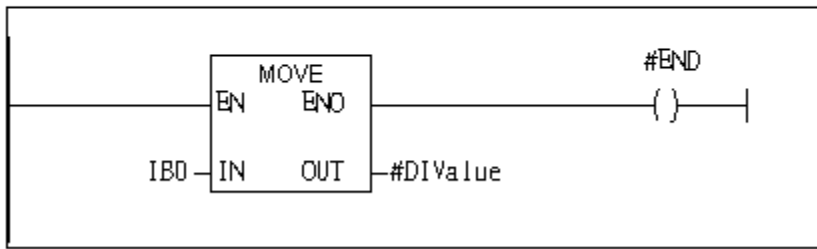
Network 1 : Reset Counter(C1)

Reset Counter (C1)



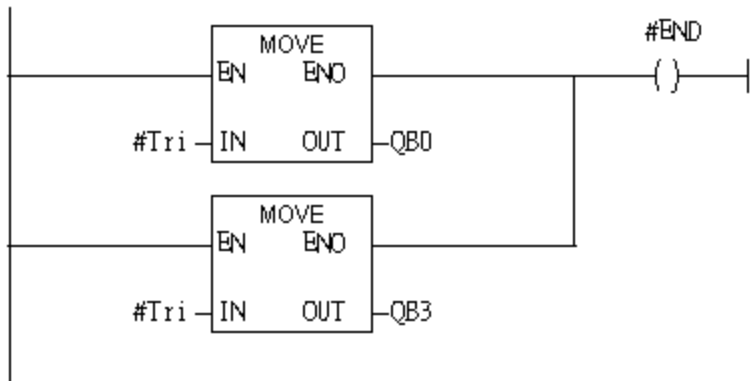
Network 2: Title:

Comment:



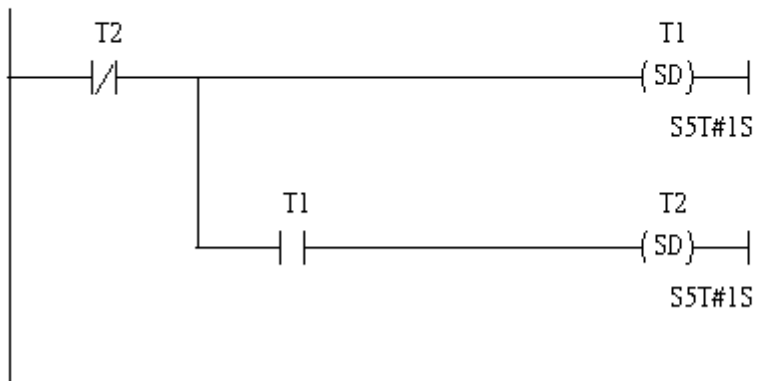
Network 3: QB0 add "1" then PLC will send QW3 out.

1 byte DO



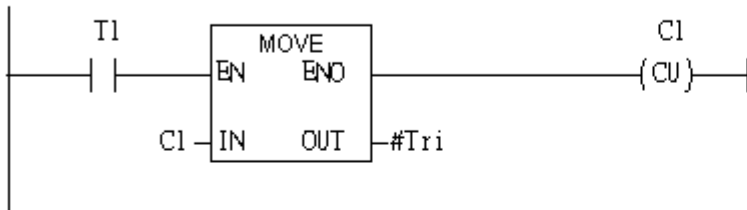
Network 4: Timer T1 & T2

Using T2 trigger T1



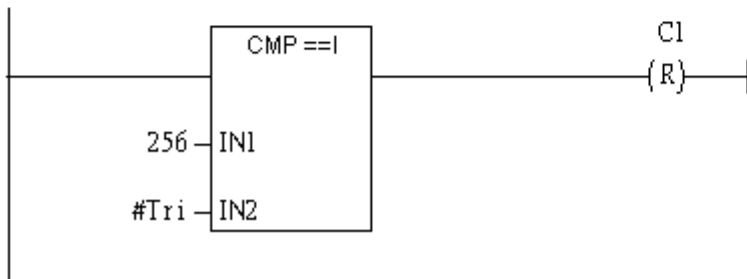
Network 5 : Counter C1

If counter(C1) add "1" and Tri will add "1" ,too.



Network 6 : Compare Tri & 256

If Tri is equal to 256,C1 will reset



Step 6: Download the settings into SIMATIC PLC

The screenshot shows the SIMATIC Manager interface. The 'Download' menu is open, showing options like 'Select Online CPU...', 'Establish Connection to Configured CPU', 'CPU Messages...', 'Display Force Values', 'Monitor/Modify Variables', 'Module Information...', 'Operating Mode...', 'Clear/Reset...', and 'Set Time of Day...'. A table of variables is also visible:

Name	Data Type	Address	Comment
OBI_MAX...	Int	10.0	Maximum cycle time of OBI (milliseconds)
OBI_DAT...	Date_...	12.0	Date and time OBI started
END	Bool	20.0	
INIT	Bool	20.1	

Below the table, the 'Network 1 : Reset Counter(C1)' is shown, with a reset coil (R) connected to counter C1. The coil is controlled by a normally open contact labeled '#INIT'.

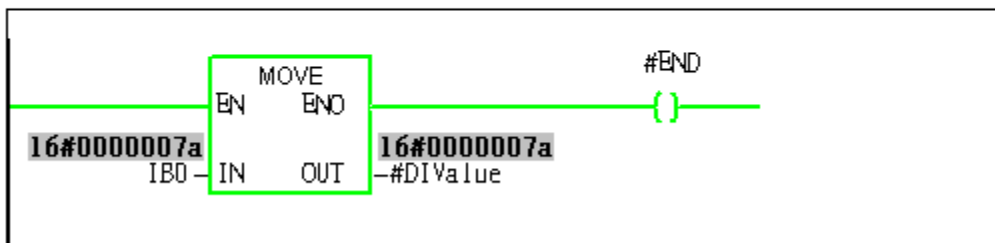
Step 7: Make sure the RUN LED of the GW-7552 is on and the switch of the GW-7552 is at Normal mode.



Now the setting procedure has been finished and the user can read the data to the Modbus DO module at address IB0.

Network 2: Title:

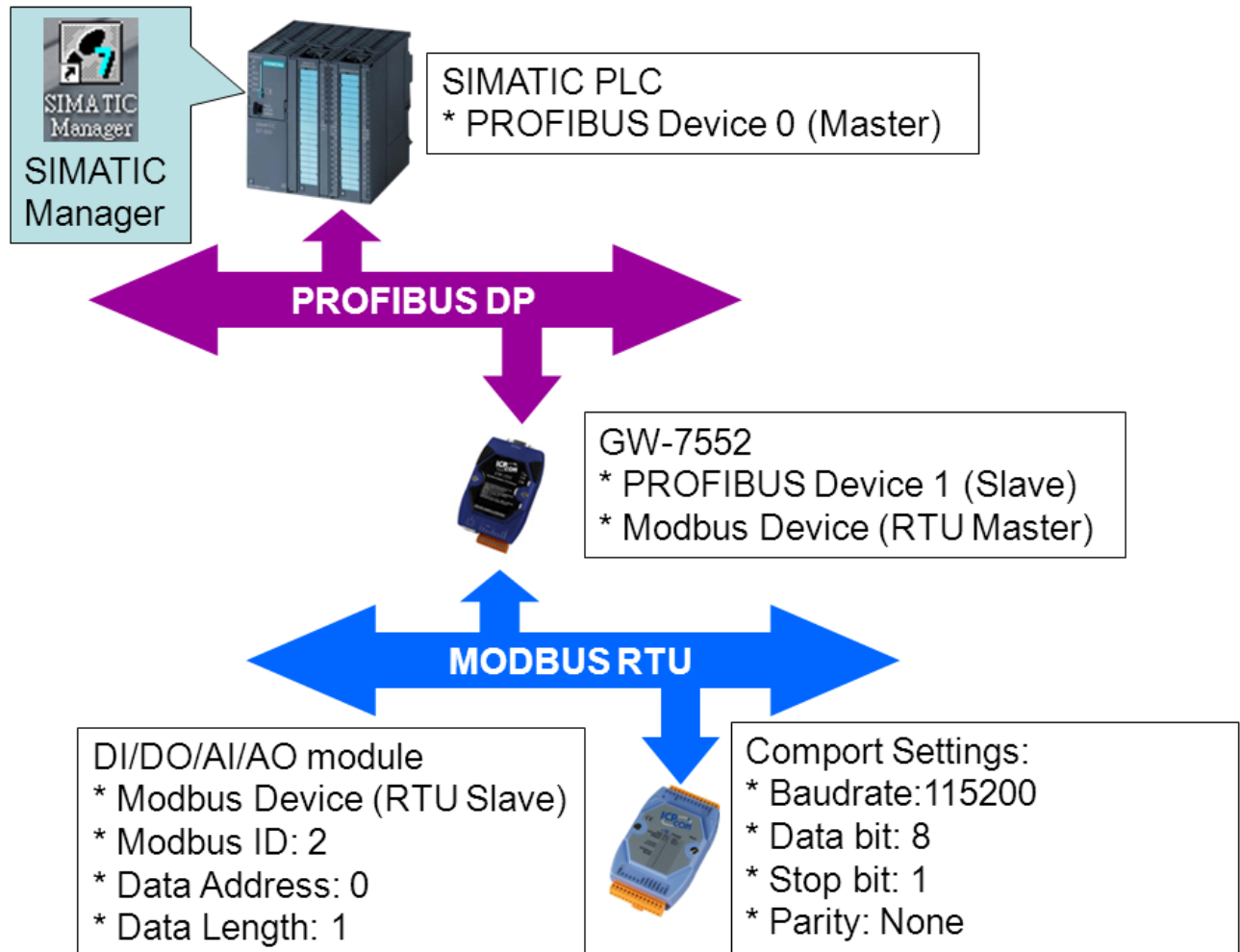
Comment:



Example 2: PLC reads DI module data from GW-7552.

(Modbus FC02)

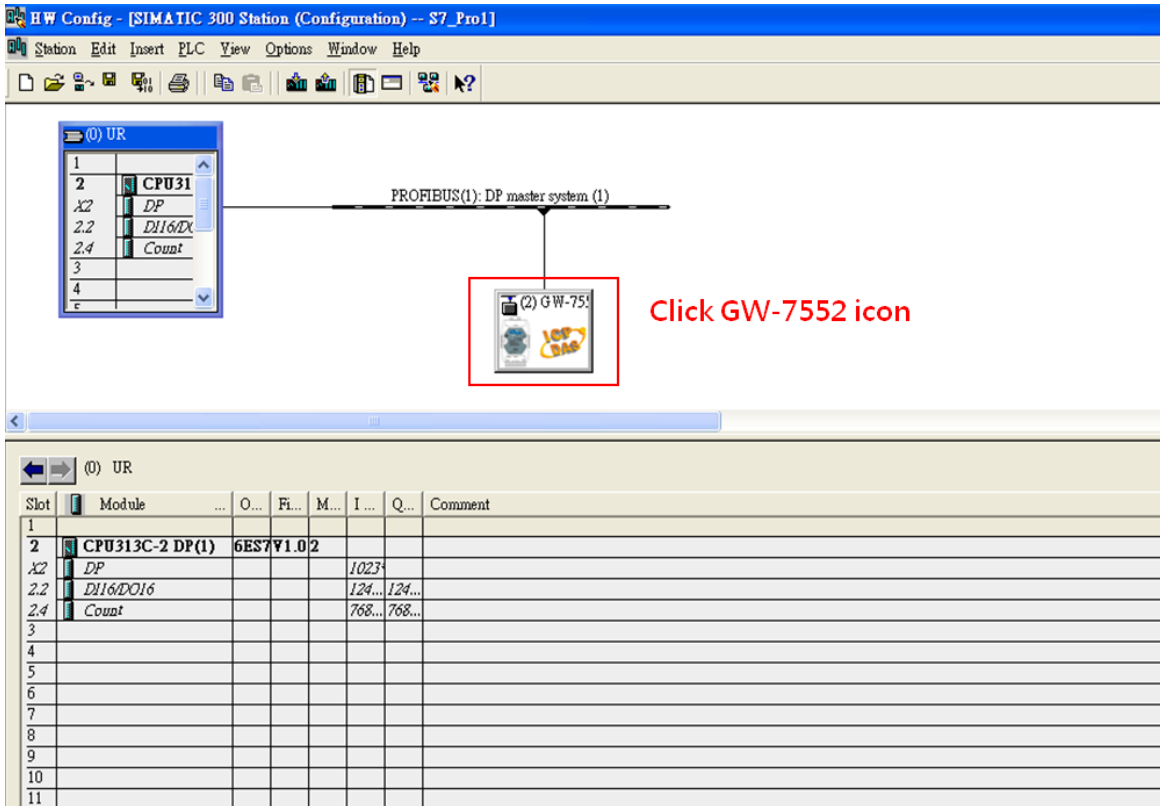
Read a Modbus RTU DI module (PROFIBUS Slave & Modbus RTU/Master)



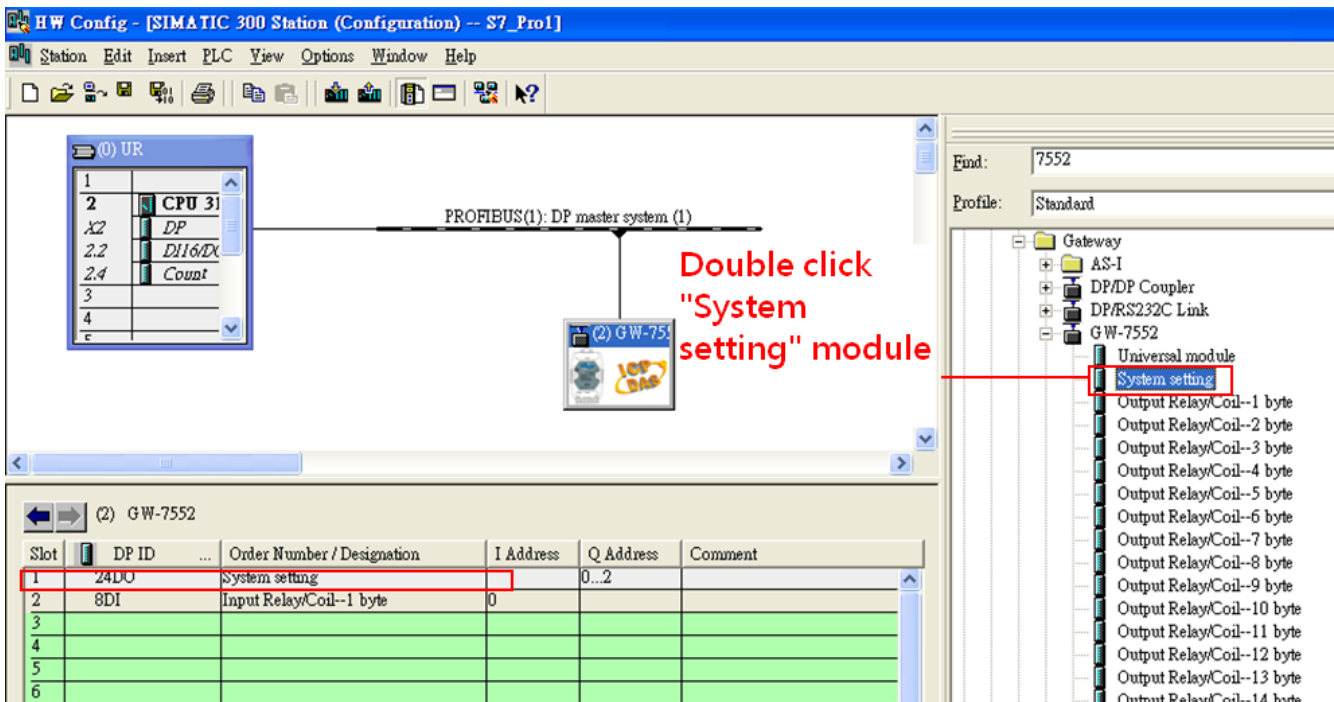
SIMATIC STEP7 Configuration:

Step 1: Setup the GW-7552 module

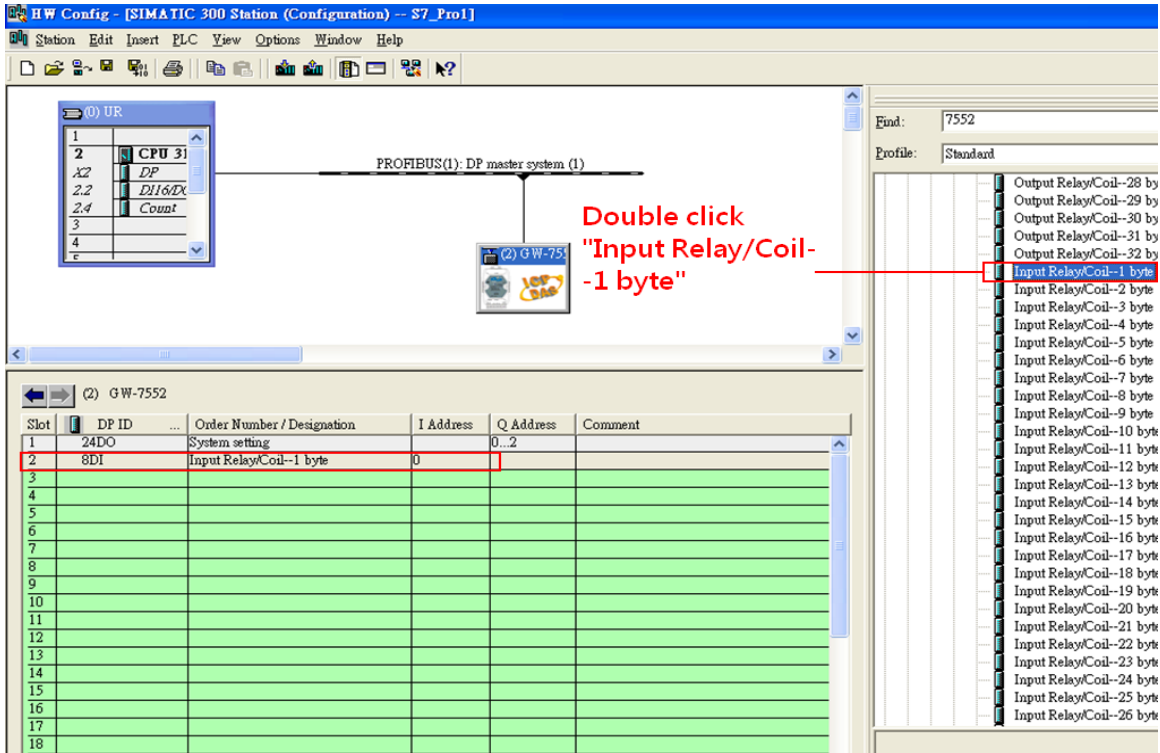
1. Select GW-7552 module



2. Add a System setting module

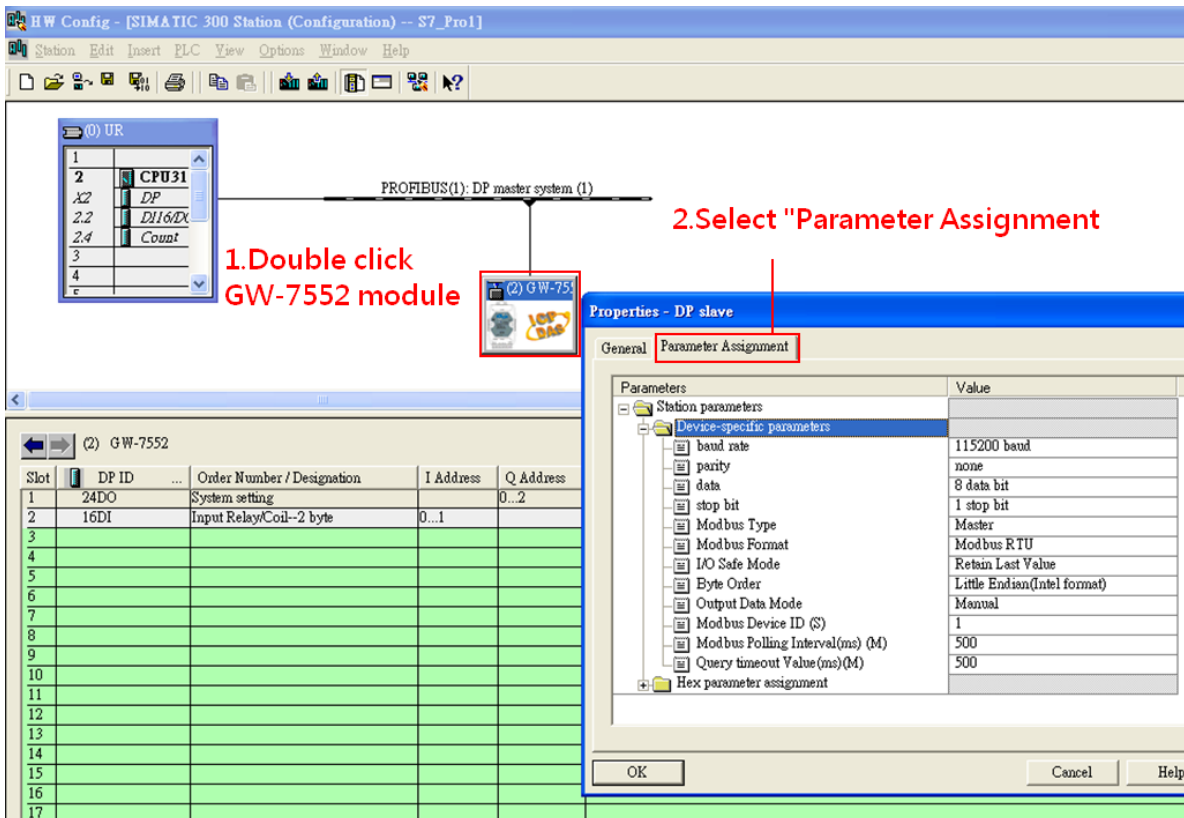


3. Add "Input Relay/Coil—1 byte" module



Step 2: Setup the parameters of the GW-752

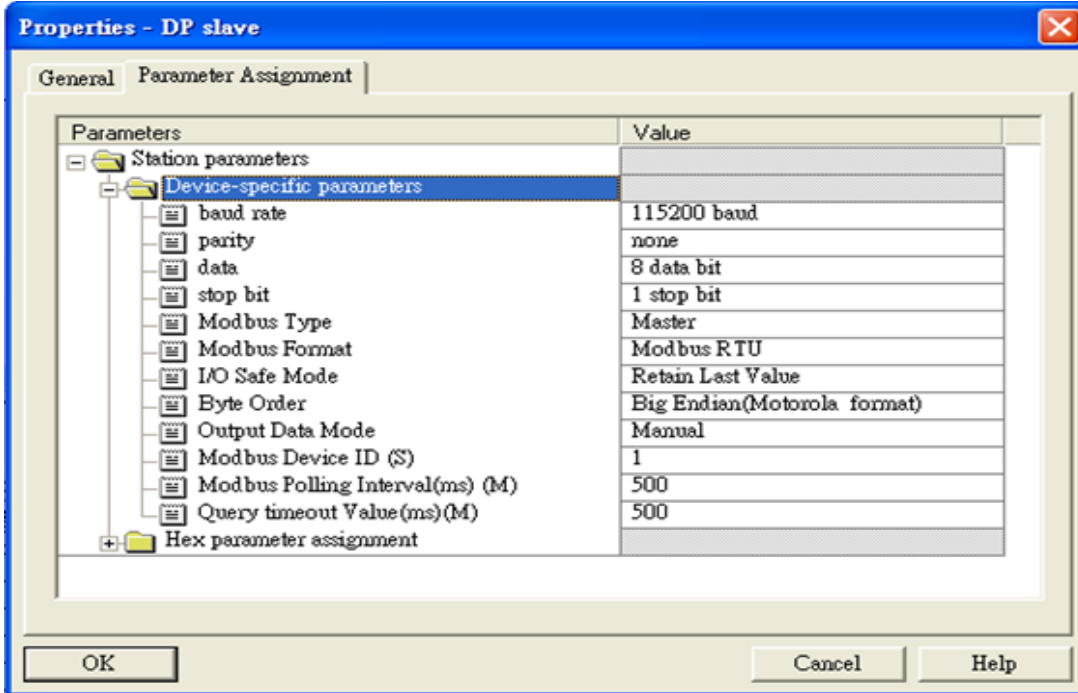
1. Double click GW-752 icon
2. Select "Parameter Assignment"



3. Set common parameters of the GW-7552

Common parameters →

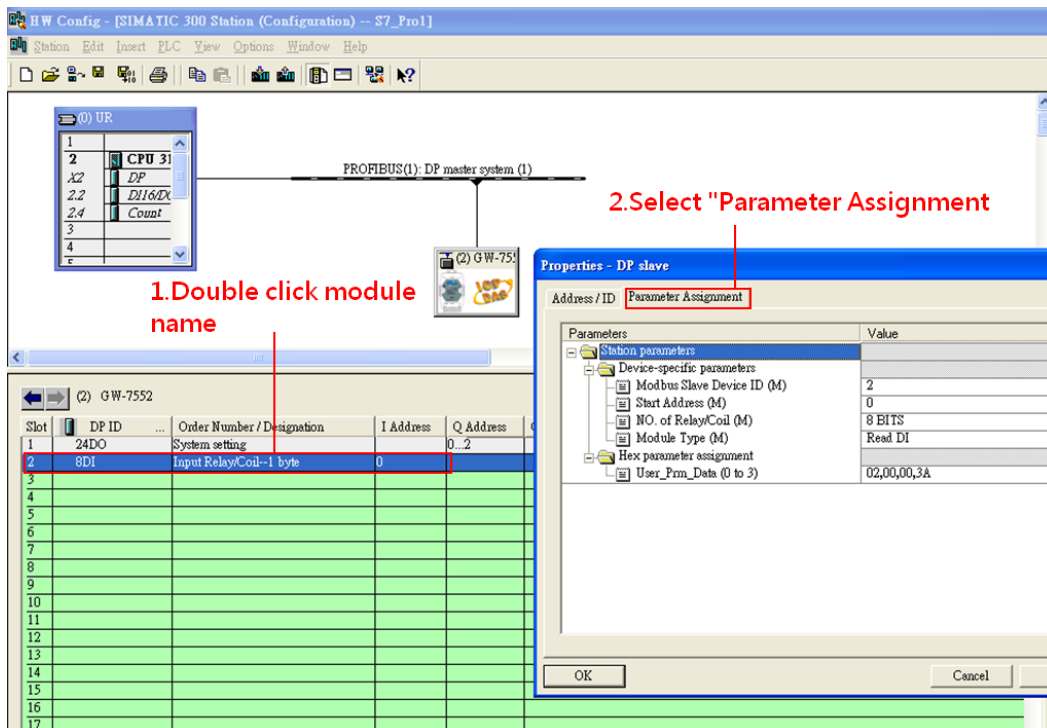
Baud rate: 115200; Parity: none; Data: 8 data bit; Stop bit: 1 stop bit; Modbus type: Master
Modbus Format: Modbus RTU; Byte Order: Big Endian



4. Set module parameters of the GW-7552

(1) Double click "Input Relay/Coil—1 byte" module

(2) Select "Parameter Assignment"

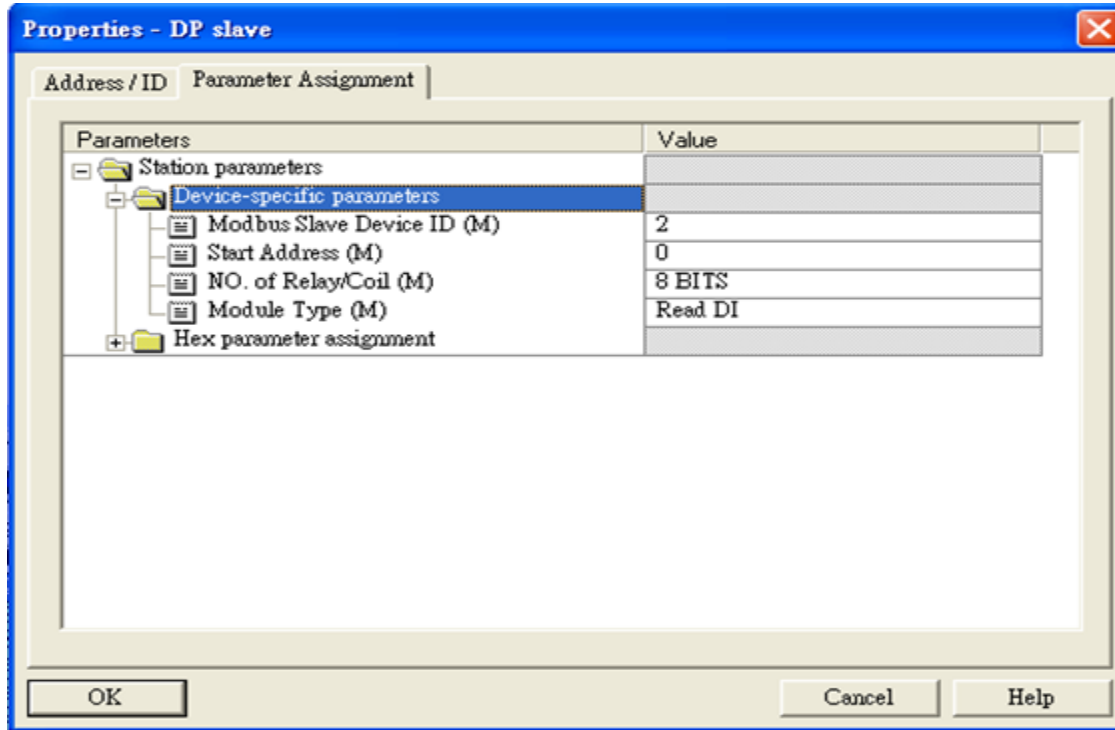


5. Setup "Input Relay/Coil—1 byte" module parameters

Module parameters →

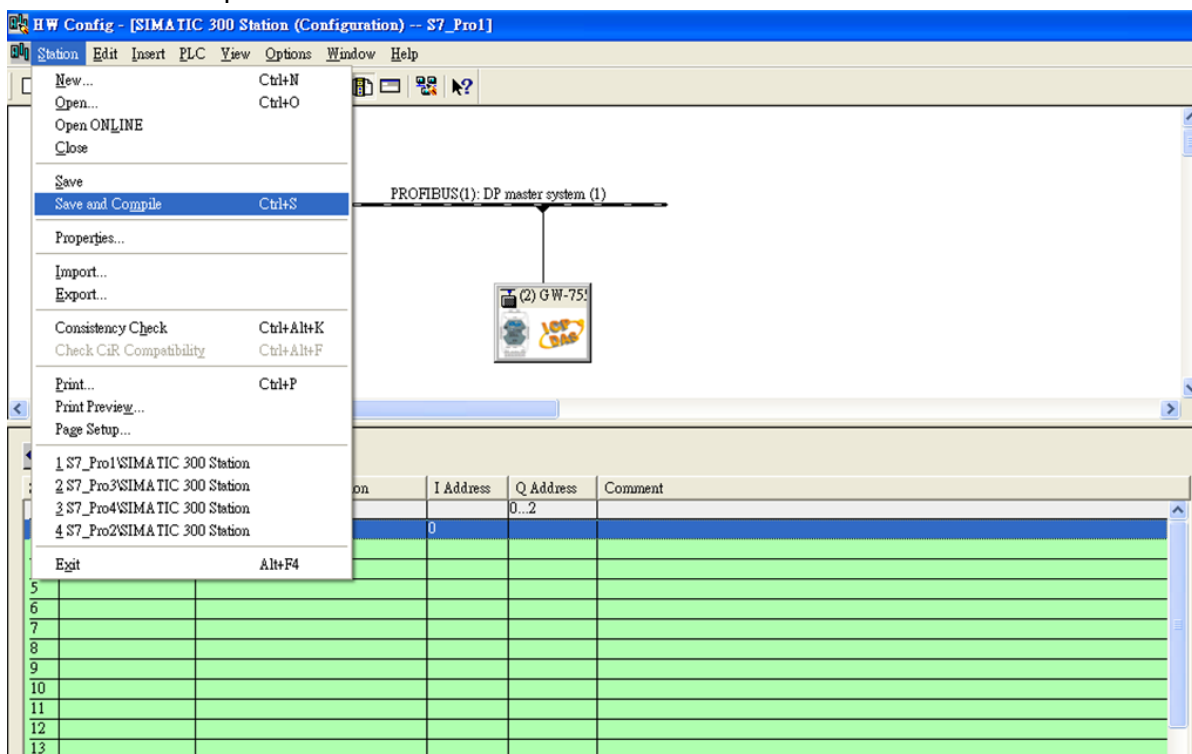
Modbus Slave Device ID: 2; Slave Address: 0 (Protocol address (base 0))

Module Type: Read DI, click ok.

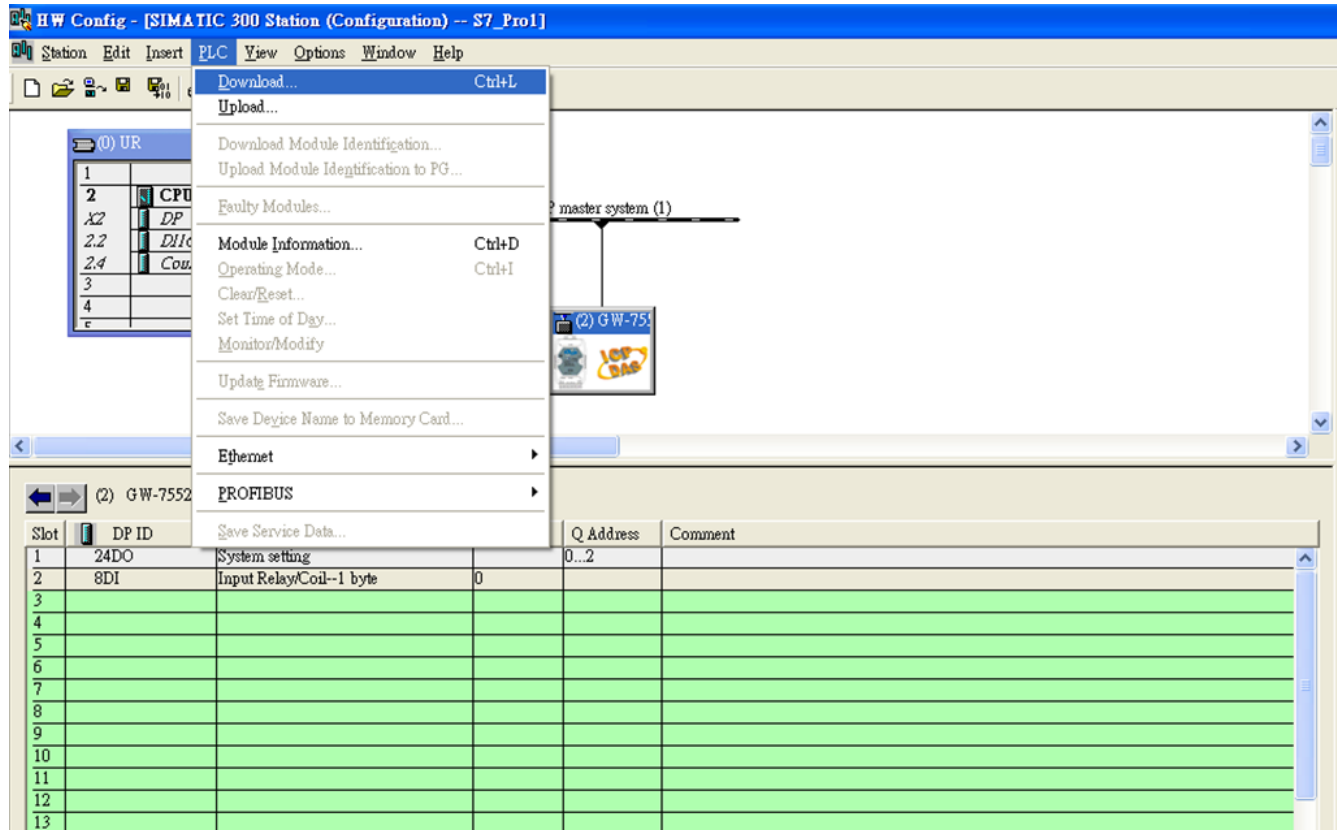


Step 3: Download the HW settings into SIMATIC PLC

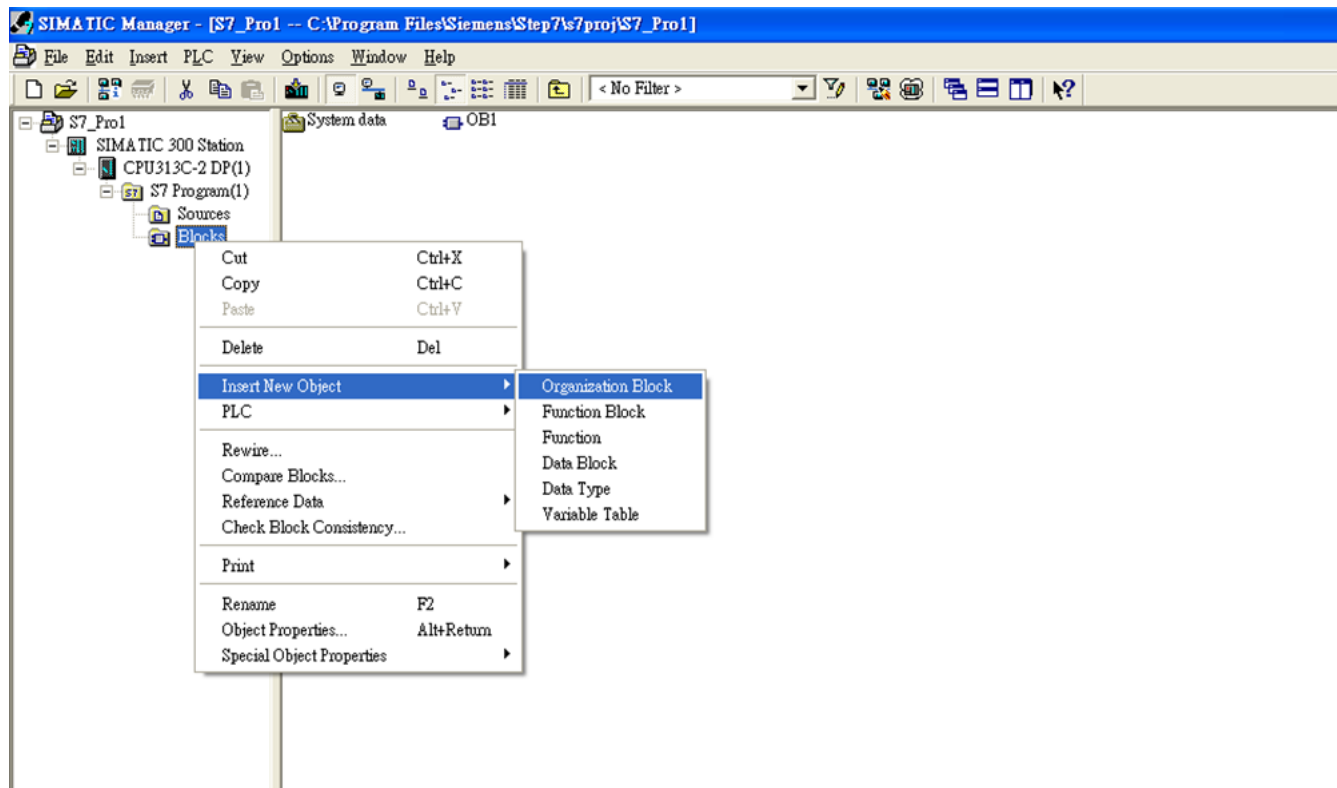
1. Save and Compile

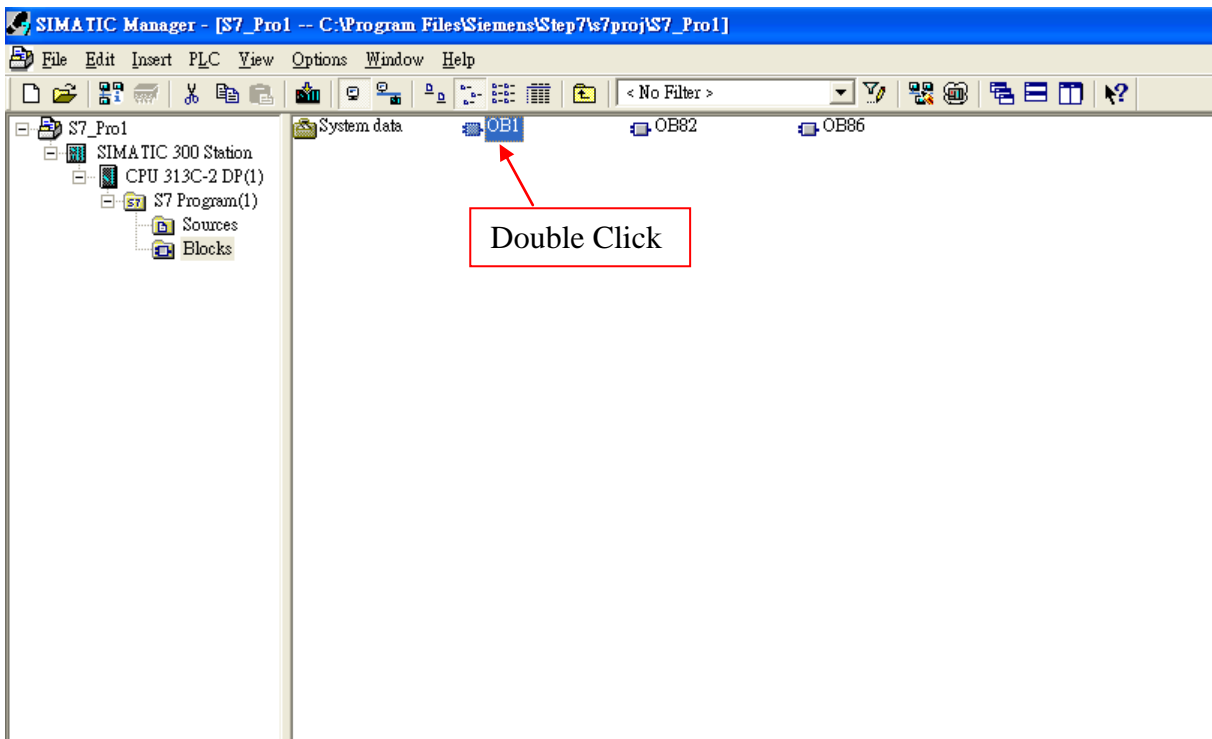
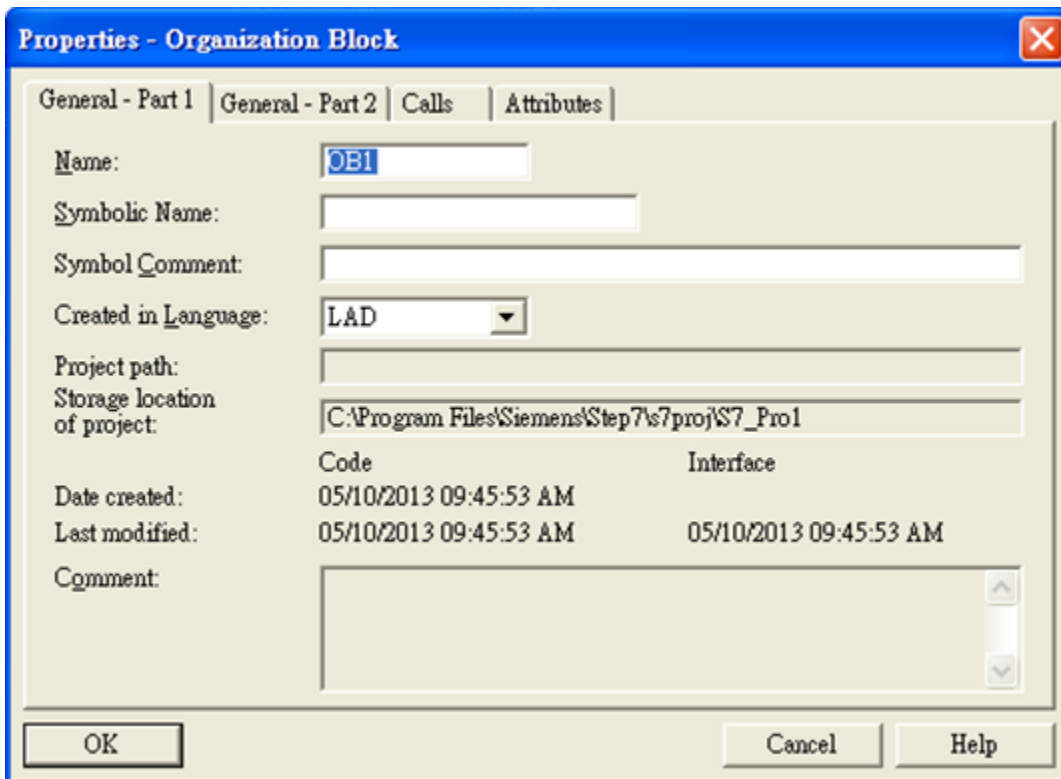


2. HW settings into SIMATIC PLC



Step 4: Insert a new Organization Block (OB1,OB82,OB86)





Step 5: Edit OB1

Contents Of: 'Environment\Interface\TEMP'

Name	Data Type	Address	Comment
OBI_MIN...	Int	8.0	Minimum cycle time of OBI (milliseconds)
OBI_MAX...	Int	10.0	Maximum cycle time of OBI (milliseconds)
OBI_DAT...	Date_...	12.0	Date and time OBI started
DIValue	Byte	20.0	
END	Bool	21.0	

OB1 : "Main Program Sweep (Cycle)"

Comment:

Network 1: Title:

Comment:

MOVE EN ENO END IN OUT #DIValue #END

Slot	DP ID	Order Number / Designation	I Address	Q Address
1	24DO	System setting		0..2
2	8DI	Input Relay/Coil--1 byte	0	
3				

Step 6: Download the settings into SIMATIC PLC

Contents Of: 'Environment\Interface\TEMP'

Name	Data Type	Address	Comment
OBI_MIN...	Int	8.0	Minimum cycle time of OBI
OBI_MAX...	Int	10.0	Maximum cycle time of OBI
OBI_DAT...	Date_...	12.0	Date and time OBI start
DIValue	Byte	20.0	
END	Bool	21.0	

OB1 : "Main Program Sweep (Cycle)"

Comment:

Network 1: Title:

Comment:

MOVE EN ENO END IN OUT #DIValue #END

Step 7: Make sure the RUN LED of the GW-7552 is on and the switch of the GW-7552 is at Normal mode.



Now the setting procedure has been finished and the user can read the data of the Modbus DI module at address PIB0.

```

OBI : "Main Program Sweep (Cycle)"
Comment:
Network 1: Title:
Comment:
  MOVE
  EN  ENO
  IN  OUT
  16#000000ff  16#000000ff
  PIB0 -#DIValue
  #END
  
```

```

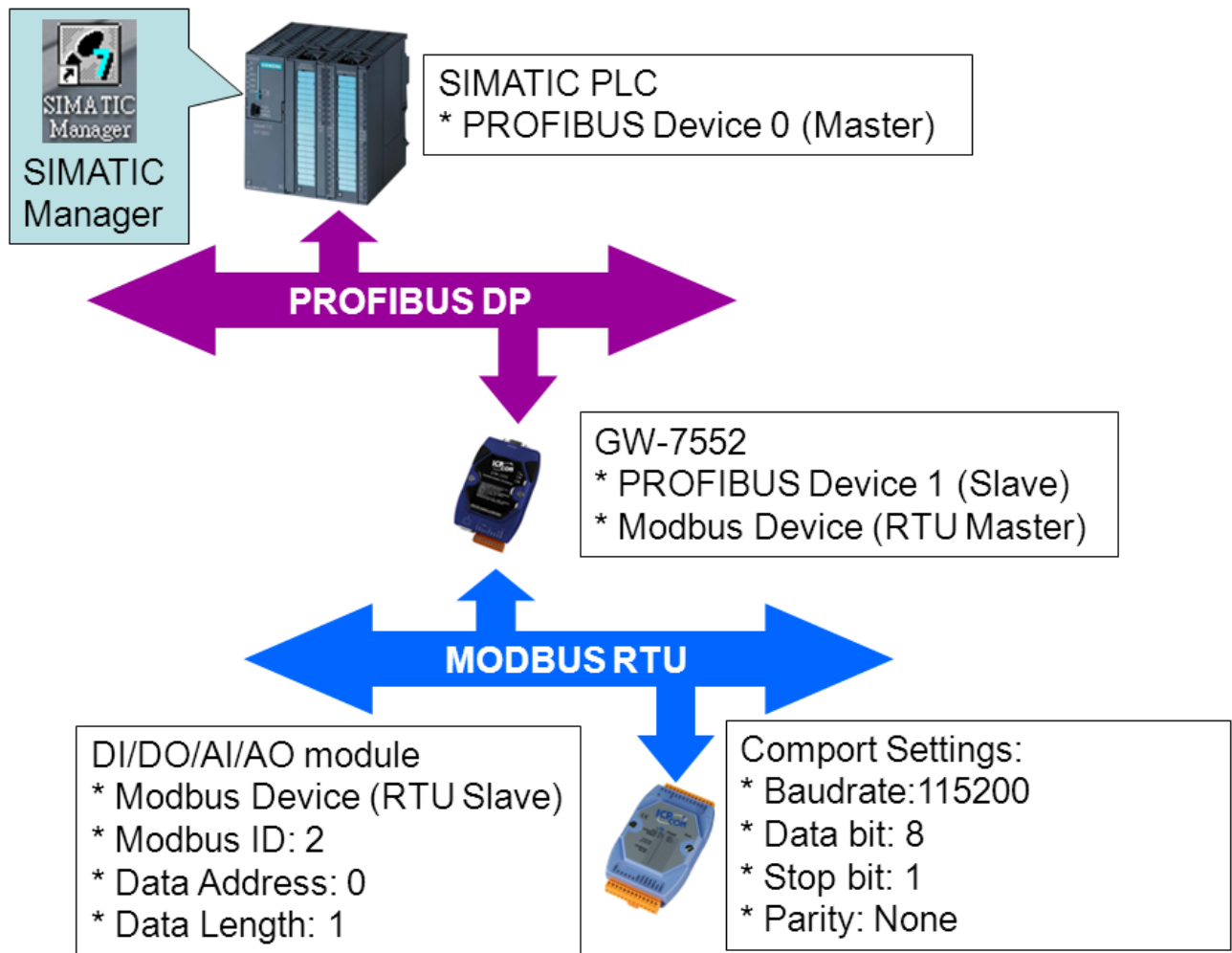
1\CPU 313C-2 DP(1)\...\OBI - <offline>
  
```

3: Cross-references 4: Address info. 5: Modify 6: Diagnostics 7: Comparison

RUN

Example 3: PLC reads AO module data from GW-7552.
(Modbus FC03)

Read a Modbus RTU AO module (PROFIBUS Slave & Modbus RTU/Master)



SIMATIC STEP7 Configuration:

Step 1: Setup the GW-7552 module

1. Select GW-7552 module

Slot	DP ID	...	Order Number / Designation	I Address	Q Address	Comment
1			System setting		0...2	
2	24DO		Output Register--1 word		256...257	
3	1AO		Input Register--1 word	256...257		
4	1AI					

2. Add a System setting module

Slot	DP ID	...	Order Number / Designation	I Address	Q Address	Comment
1	24DO		System setting		0...2	
2	1AO		Output Register--1 word		256...257	
3	1AI		Input Register--1 word	256...257		
4						
5						

3. Add “Onput Register – 1 word” and “Input Register – 1 word”

Hardware Catalog Selection:

- Input Relay/Coil--28 byte
- Input Relay/Coil--29 byte
- Input Relay/Coil--30 byte
- Input Relay/Coil--31 byte
- Input Relay/Coil--32 byte
- Output Register--1 word**
- Output Register--2 word
- Output Register--3 word
- Output Register--4 word
- Output Register--5 word
- Output Register--6 word
- Output Register--7 word
- Output Register--8 word
- Output Register--9 word
- Output Register--10 word
- Output Register--11 word
- Output Register--12 word
- Output Register--13 word
- Output Register--14 word

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	24DO	System setting		0...2	
2	1AO	Output Register--1 word		256...257	
3	1AI	Input Register--1 word	256...257		
4					

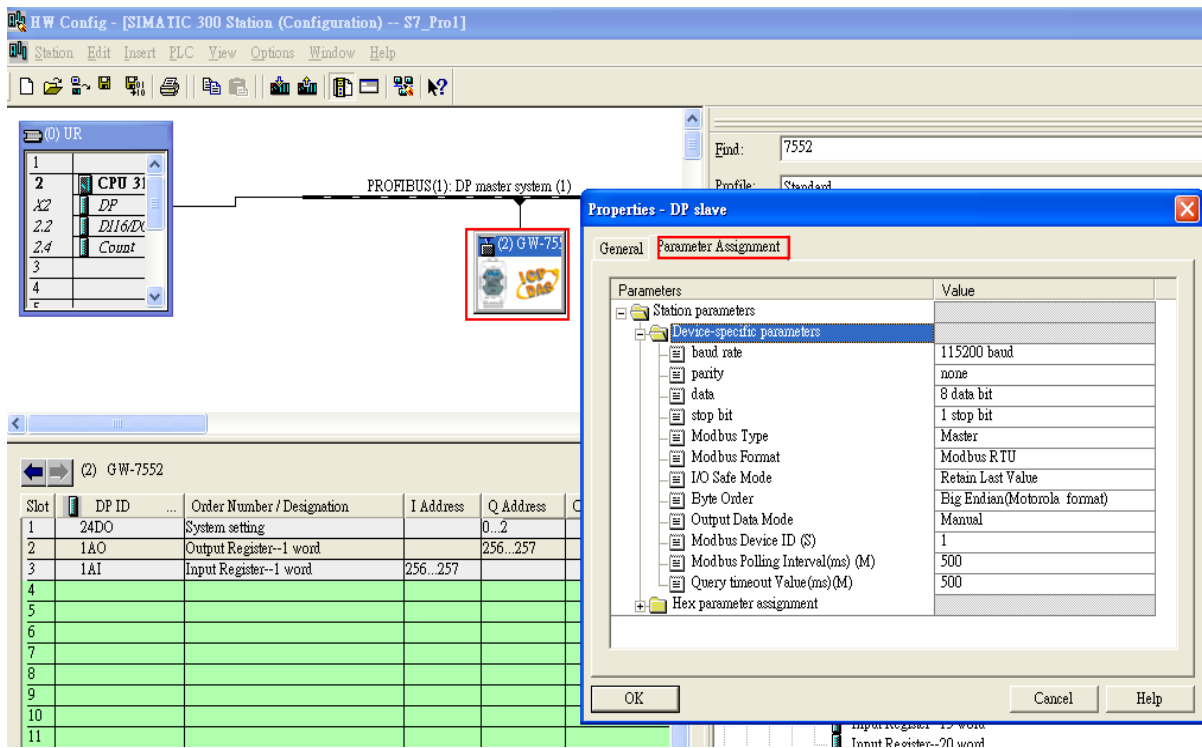
Hardware Catalog Selection:

- Output Register--59 word
- Output Register--60 word
- Output Register--61 word
- Output Register--62 word
- Output Register--63 word
- Output Register--64 word
- Input Register--1 word**
- Input Register--2 word
- Input Register--3 word
- Input Register--4 word
- Input Register--5 word
- Input Register--6 word
- Input Register--7 word
- Input Register--8 word
- Input Register--9 word
- Input Register--10 word
- Input Register--11 word
- Input Register--12 word
- Input Register--13 word
- Input Register--14 word

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	24DO	System setting		0...2	
2	1AO	Output Register--1 word		256...257	
3	1AI	Input Register--1 word	256...257		
4					
5					

Step 2: Setup the parameters of the GW-7552

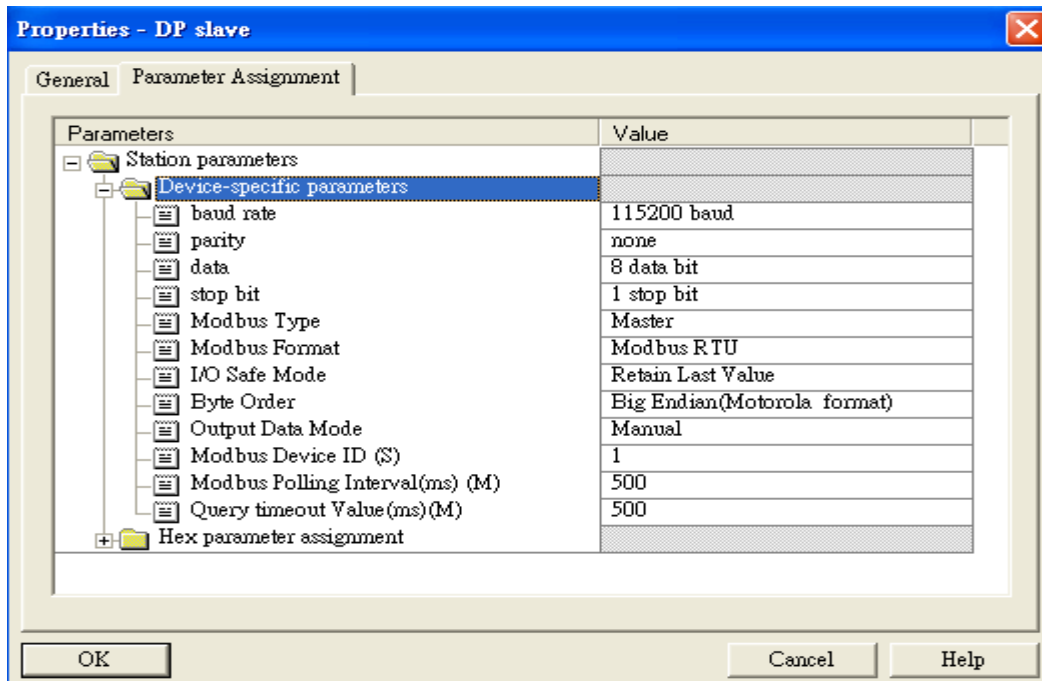
1. Double click GW-7552 icon
2. Select "Parameter Assignment"



3. Set common parameters of the GW-7552

Common parameters →

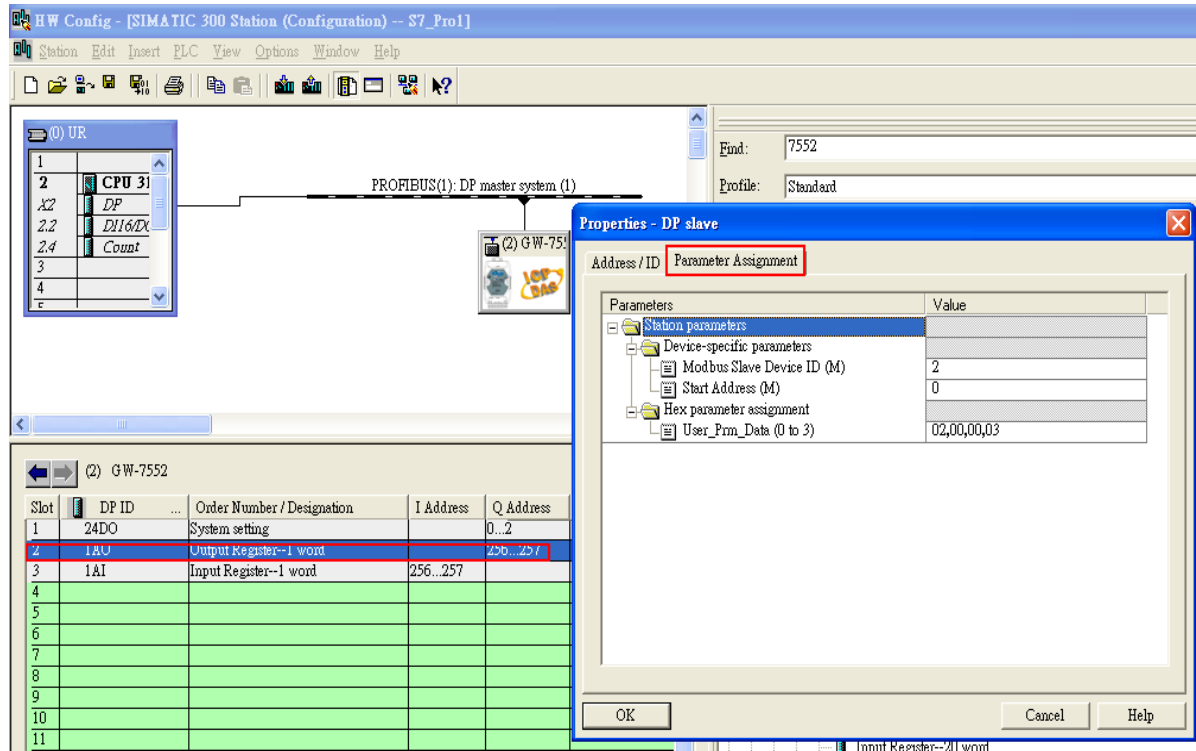
Baud rate: 115200; Parity: none; Data: 8 data bit; Stop bit: 1 stop bit; **Modbus type: Master**
Modbus Format: Modbus RTU; Byte Order: Big Endian



4. Set module parameters of the GW-7552

(1) Double click "Output Register – 1 word" module

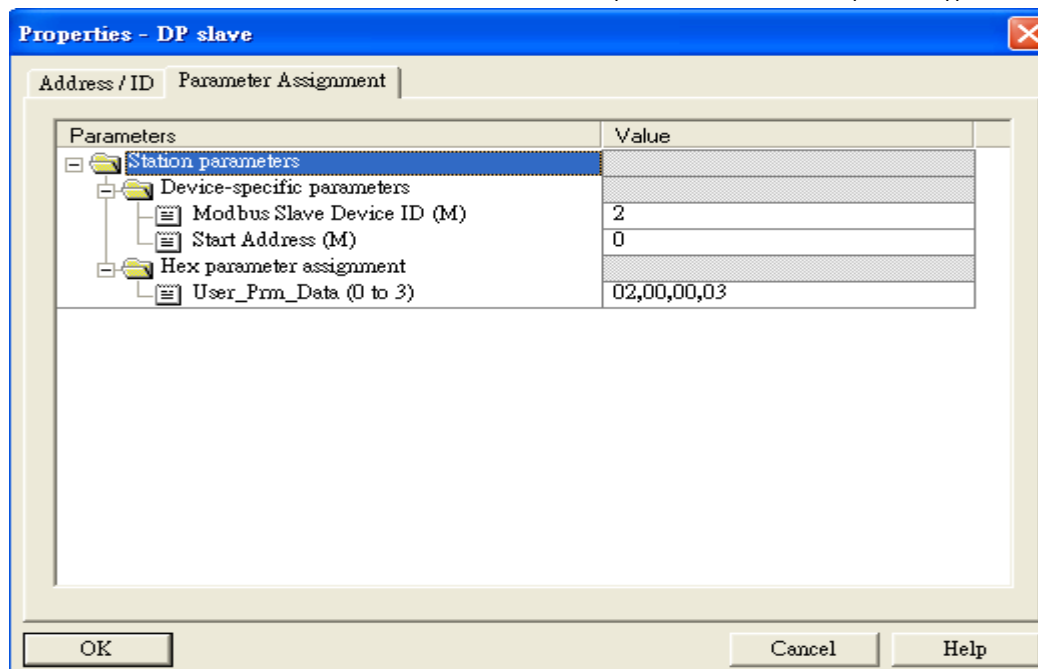
(2) Select "Parameter Assignment"



5. Setup "Output Register – 1 word" module parameters

Module parameters →

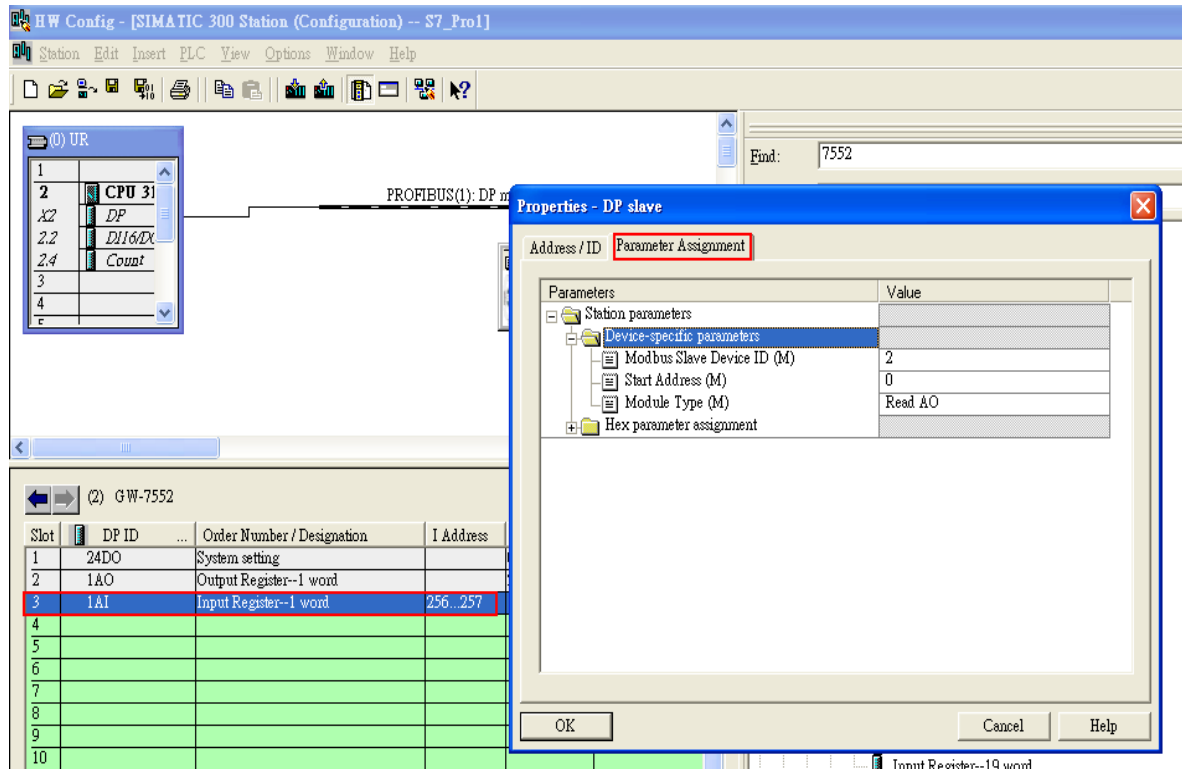
Modbus Slave Device ID: 2; Slave Address: 0 (Protocol address (base 0)), click ok.



6. Set module parameters of the GW-7552

(1) Double click "Input Register – 1 word" module

(2) Select "Parameter Assignment"

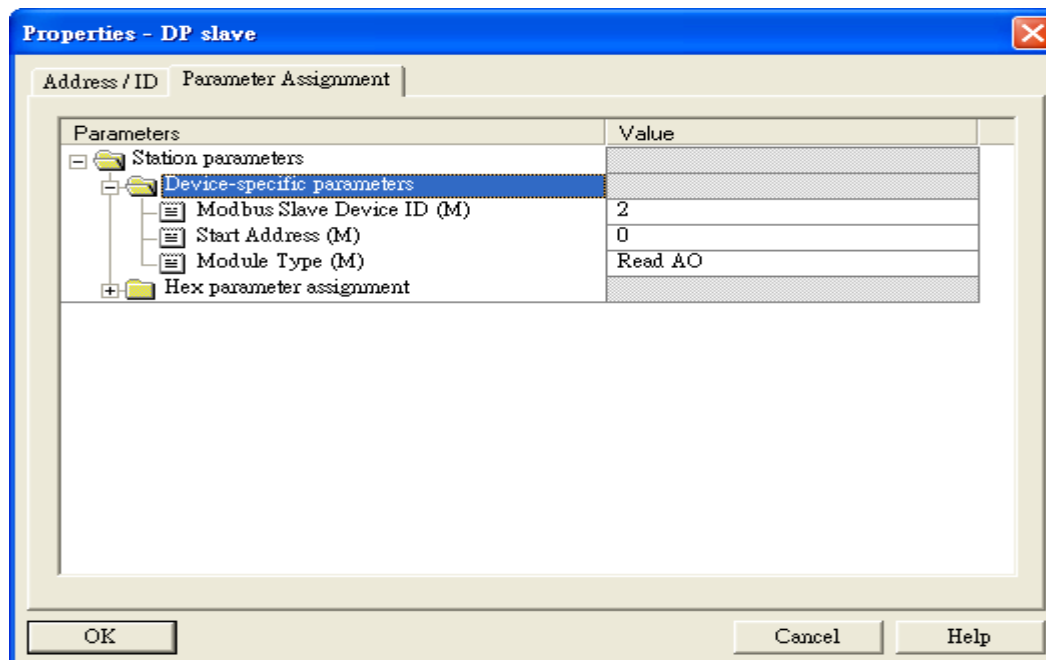


5. Setup "Input Register – 1 word" module parameters

Module parameters →

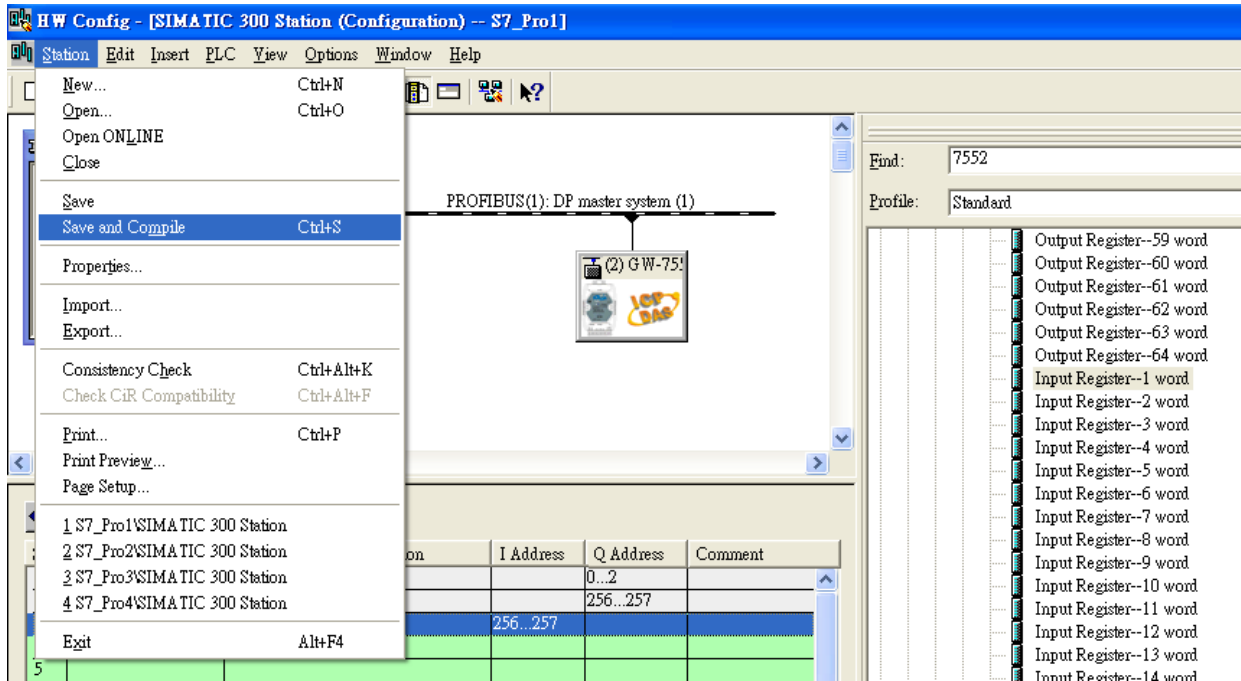
Modbus Slave Device ID: 2; Slave Address: 0 (Protocol address (base 0)), click ok.

Module Type: Read AO, click ok.

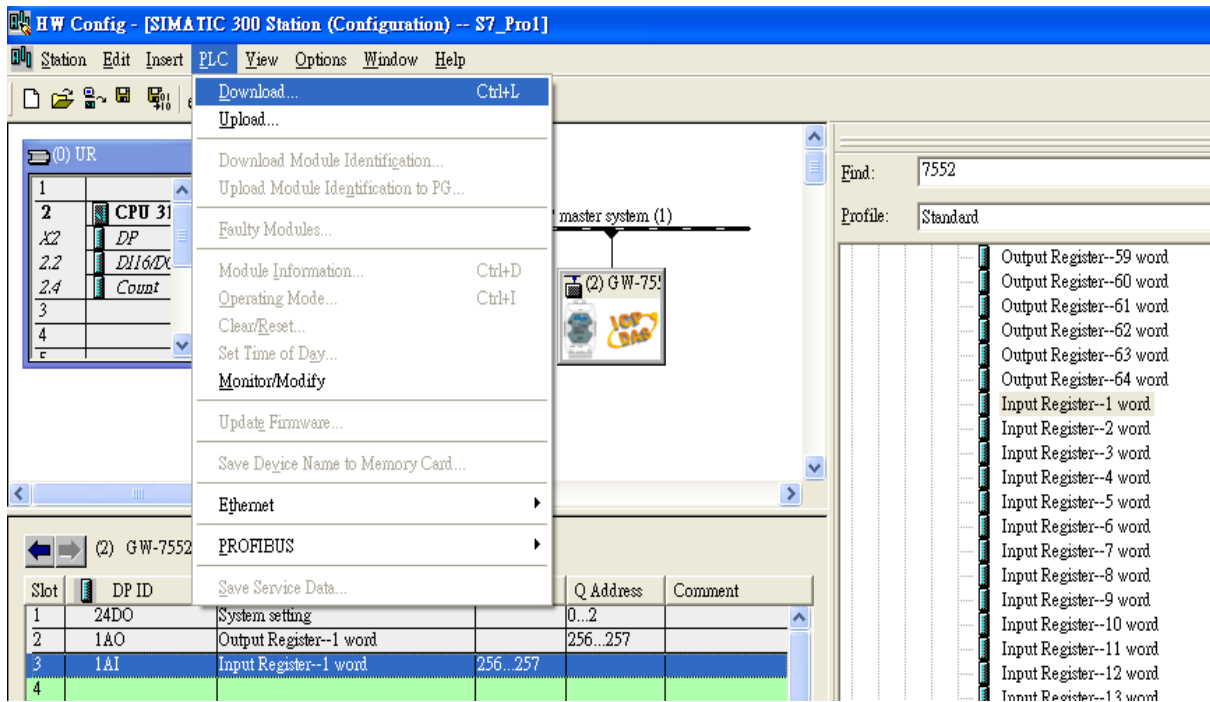


Step 3: Download the HW settings into SIMATIC PLC

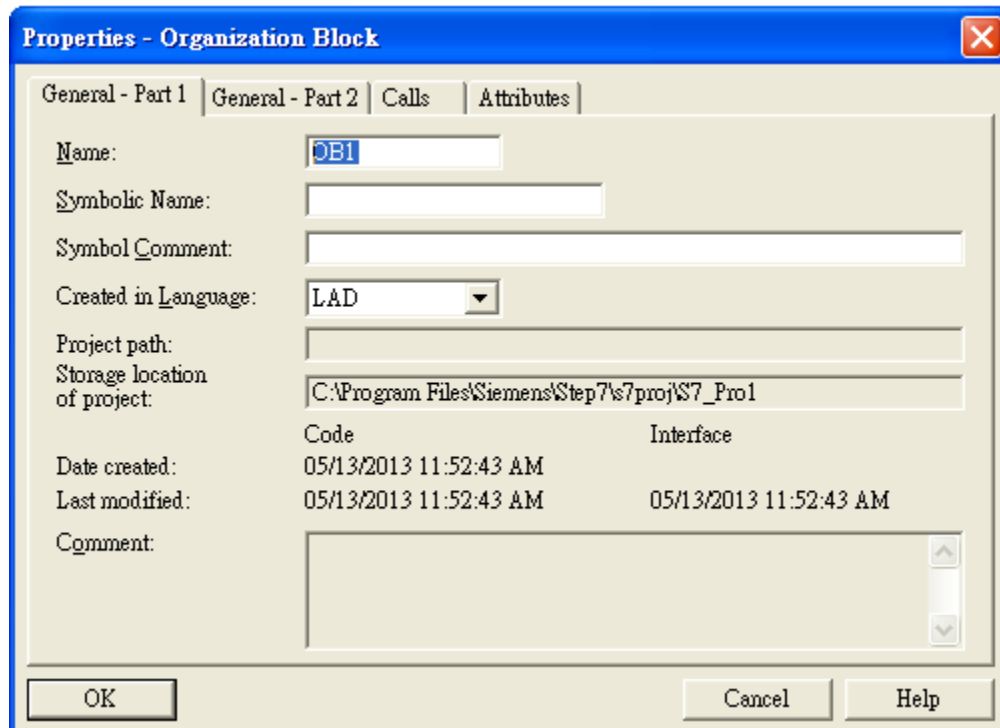
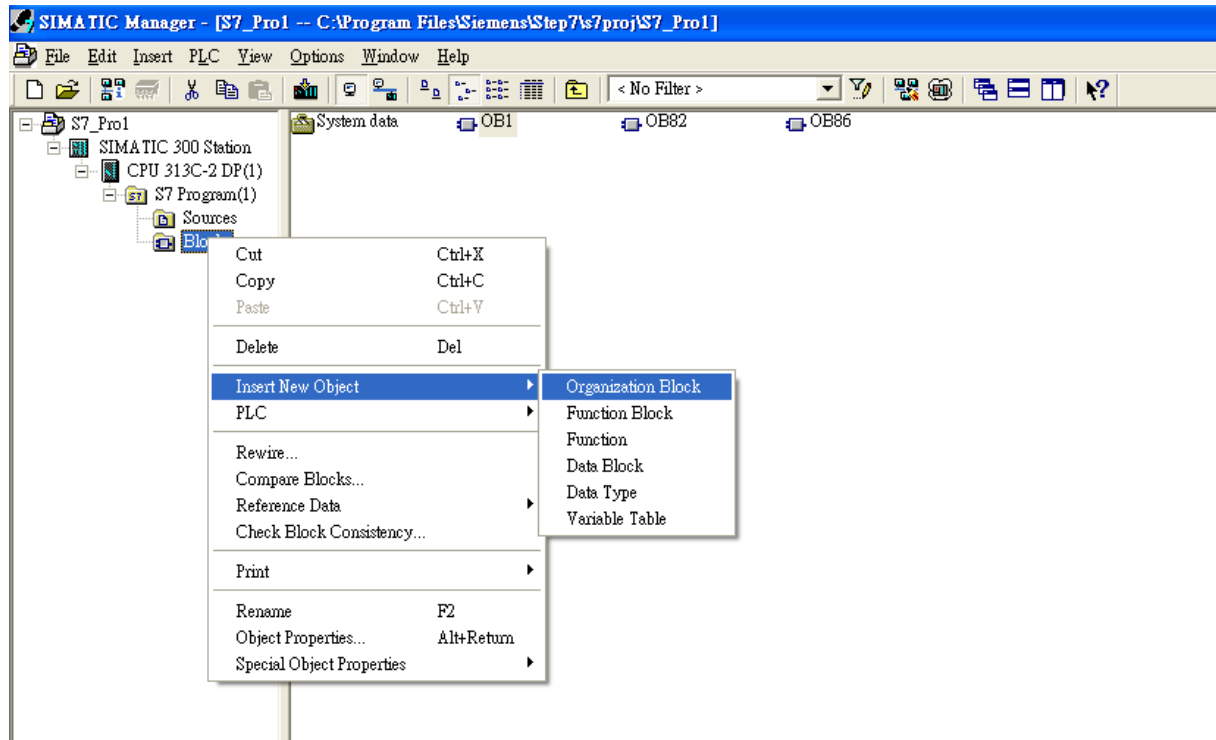
1. Save and Compile

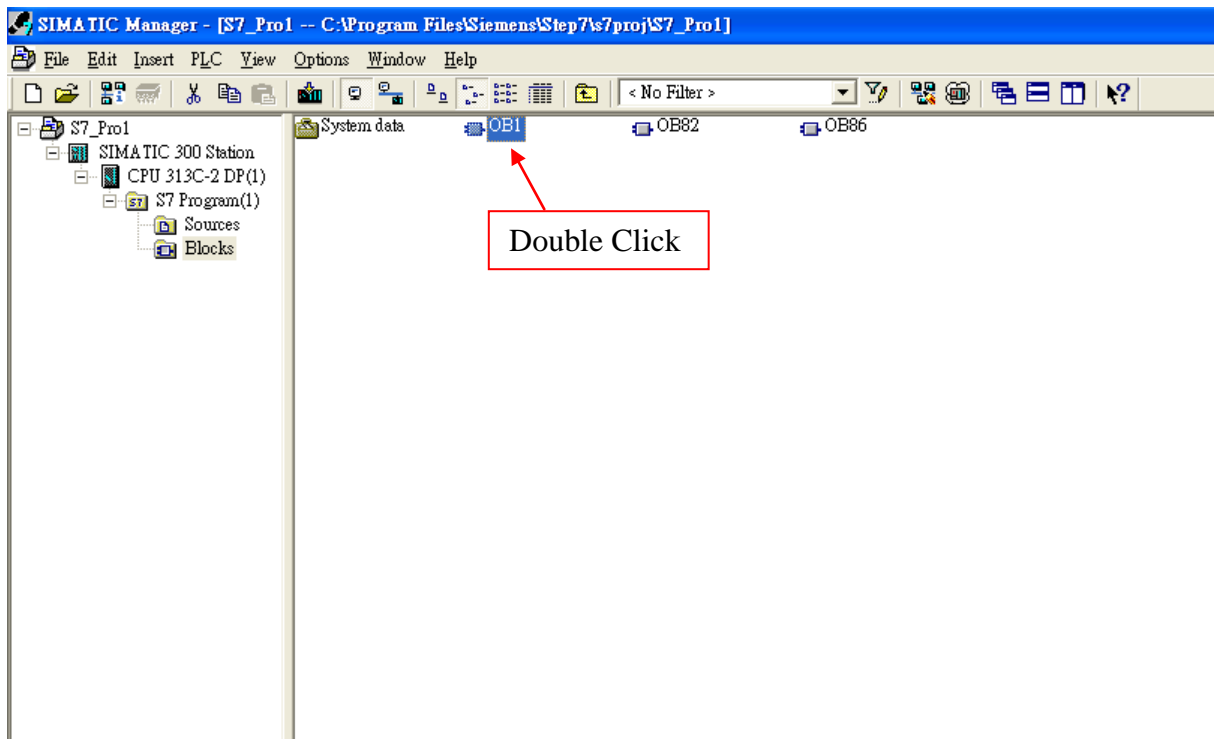


2. HW settings into SIMATIC PLC



Step 4: Insert a new Organization Block (OB1,OB82,OB86)





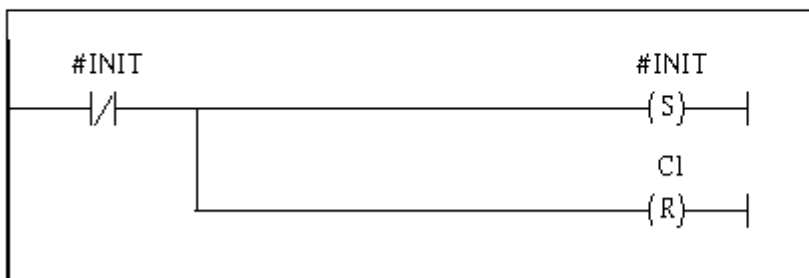
Step 5: Edit OB1

Variables used in the example LD Program:

Name	Data Type	Address	Comment
END	Bool	20.0	
INIT	Bool	20.1	
Tri	Int	22.0	
AIValue	Word	24.0	

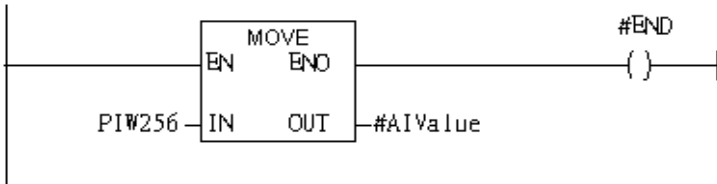
Network 1: Reset Counter(C1)

Reset Counter (C1)



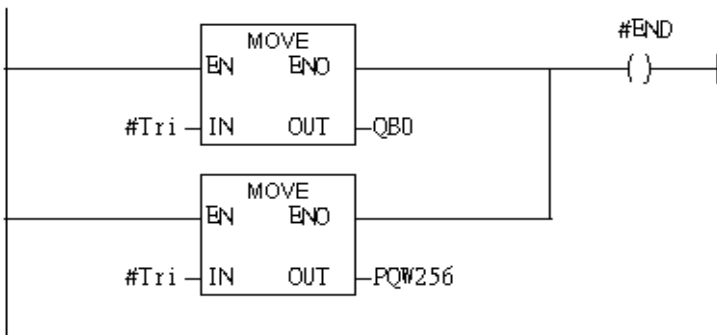
Network 2 : Title:

Comment:



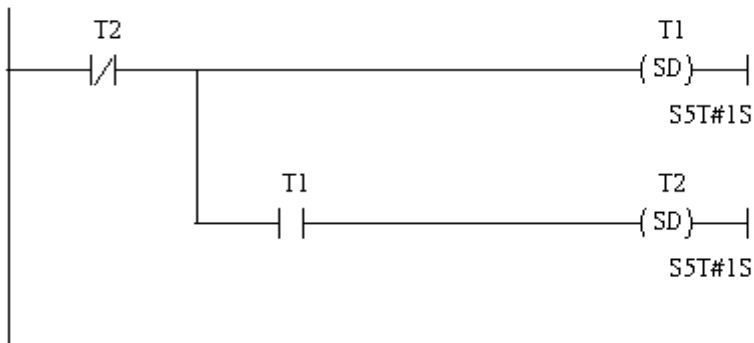
Network 3 : QW0 add "1" then PLC will send QW3 out.

1 word AO



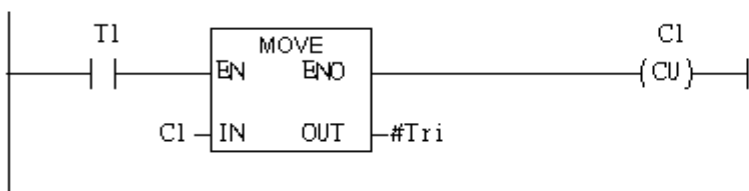
Network 4 : Timer T1 & T2

Using T2 trigger T1



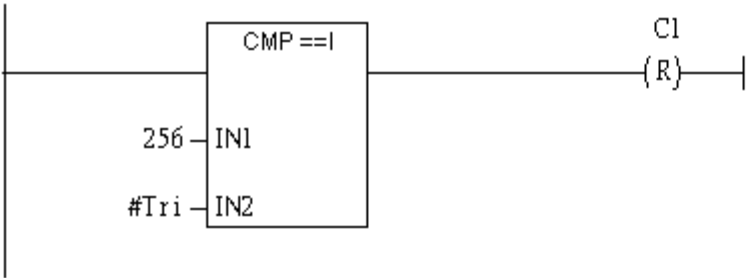
Network 5 : Counter C1

If counter(C1) add "1" and Tri will add "1" ,too.



Network 6 : Compare Tri & 256

If Tri is equal to 256, C1 will reset



Step 6: Download the settings into SIMATIC PLC

The screenshot shows the SIMATIC Manager interface. The 'Download' menu is open, listing options like 'Select Online CPU...', 'Establish Connection to Configured CPU', 'CPU Messages...', 'Display Force Values', 'Monitor/Modify Variables', 'Module Information...', 'Operating Mode...', 'Clear/Reset...', and 'Set Time of Day...'. Below the menu, a table lists variables:

Name	Data Type	Address	Comment
OB1_MAX...	Int	10.0	Maximum cycle time of OB1
OB1_DAT...	Date_...	12.0	Date and time OB1 started
END	Bool	20.0	
INIT	Bool	20.1	
Tri	Int	22.0	
AIValue	Word	24.0	

Below the table, a portion of a ladder logic network is visible, showing a normally closed contact labeled '#INIT' connected to a coil labeled 'C1 (R)'. Below this, the title 'Network 2 : Title:' is followed by a comment box. At the bottom, another part of a network is shown with a 'MOVE' block. The block has inputs 'EN' and 'OUT' and an output 'IN'. The output 'IN' is connected to a coil labeled '#END'. The input 'OUT' is labeled '#AIValue'.

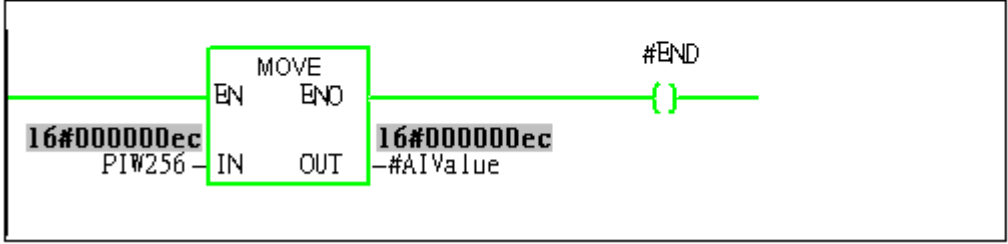
Step 7: Make sure the RUN LED of the GW-7552 is on and the switch of the GW-7552 is at Normal mode.



Now the setting procedure has been finished and the user can write the data to the Modbus AO module at address PIW256.

Network 2: Title:

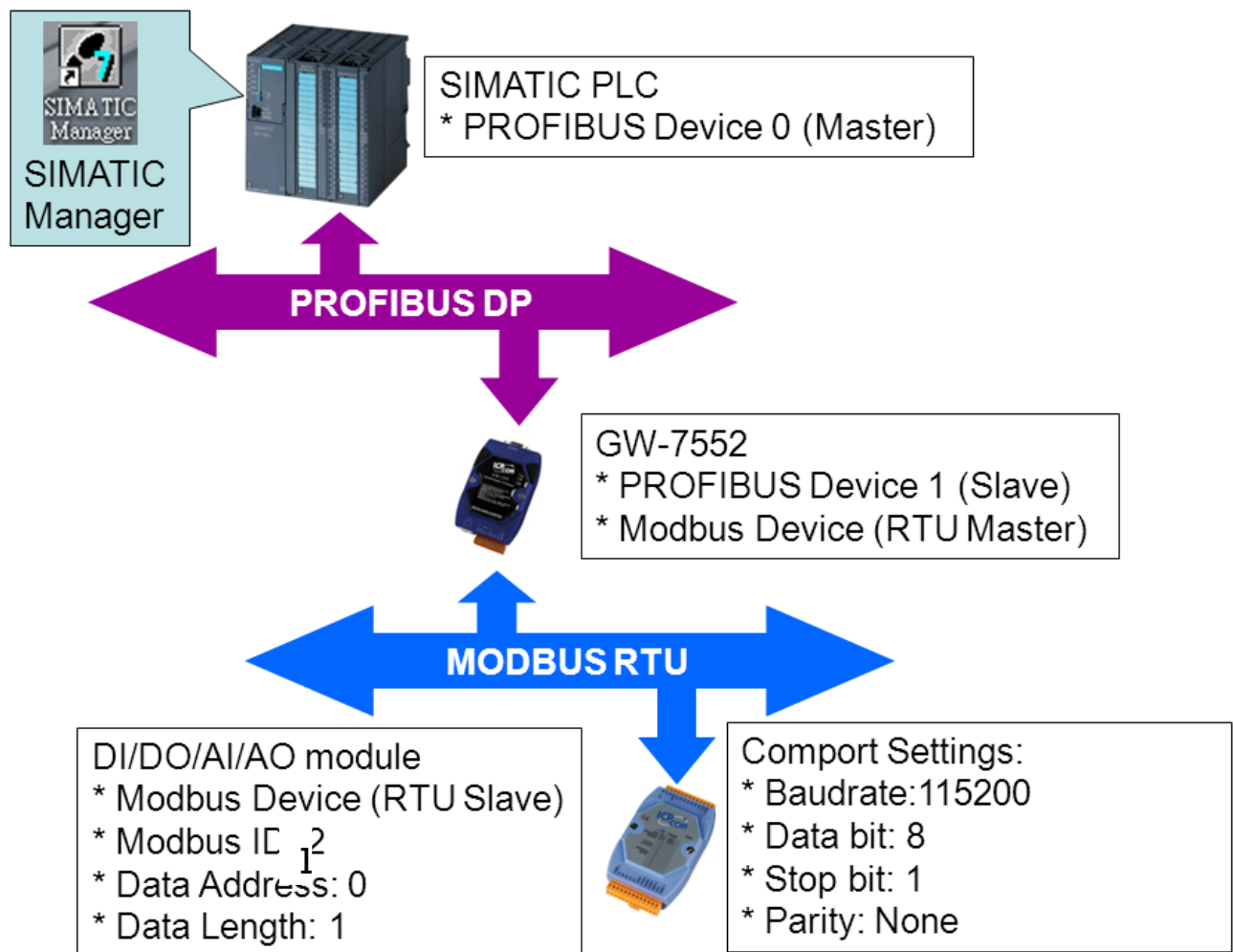
Comment:



Example 4: PLC reads AI module data from GW-7552.

(Modbus FC04)

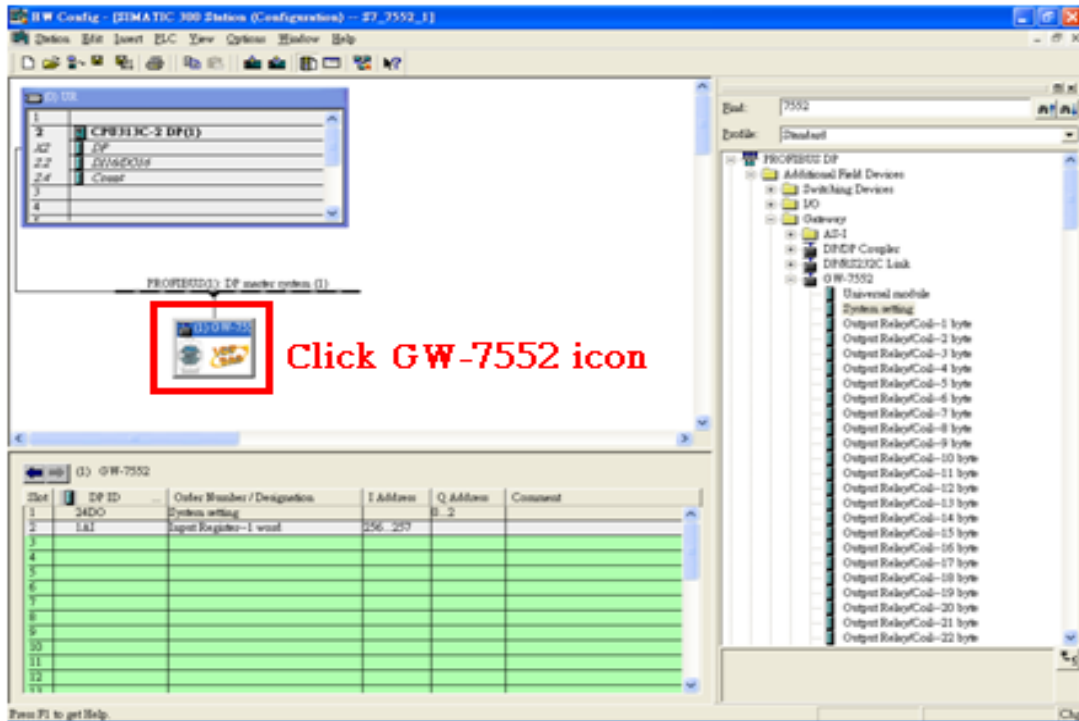
Read a Modbus RTU AI module (PROFIBUS Slave & Modbus RTU/Master)



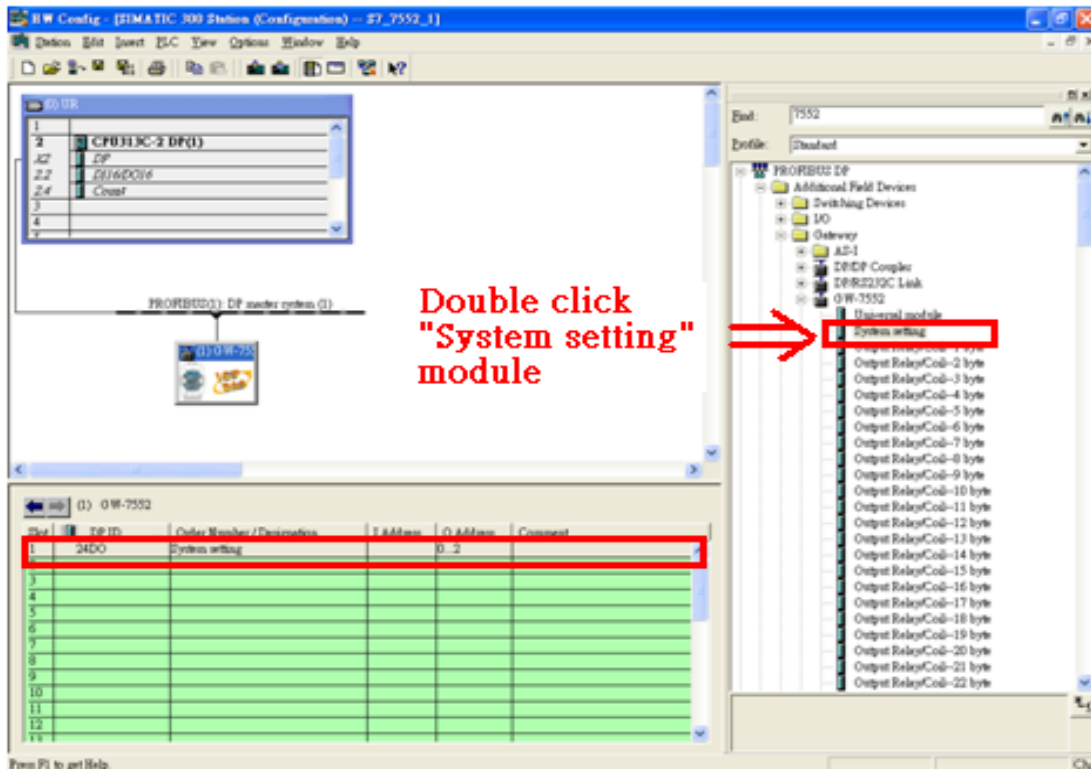
SIMATIC STEP7 Configuration:

Step 1: Setup the GW-7552 module

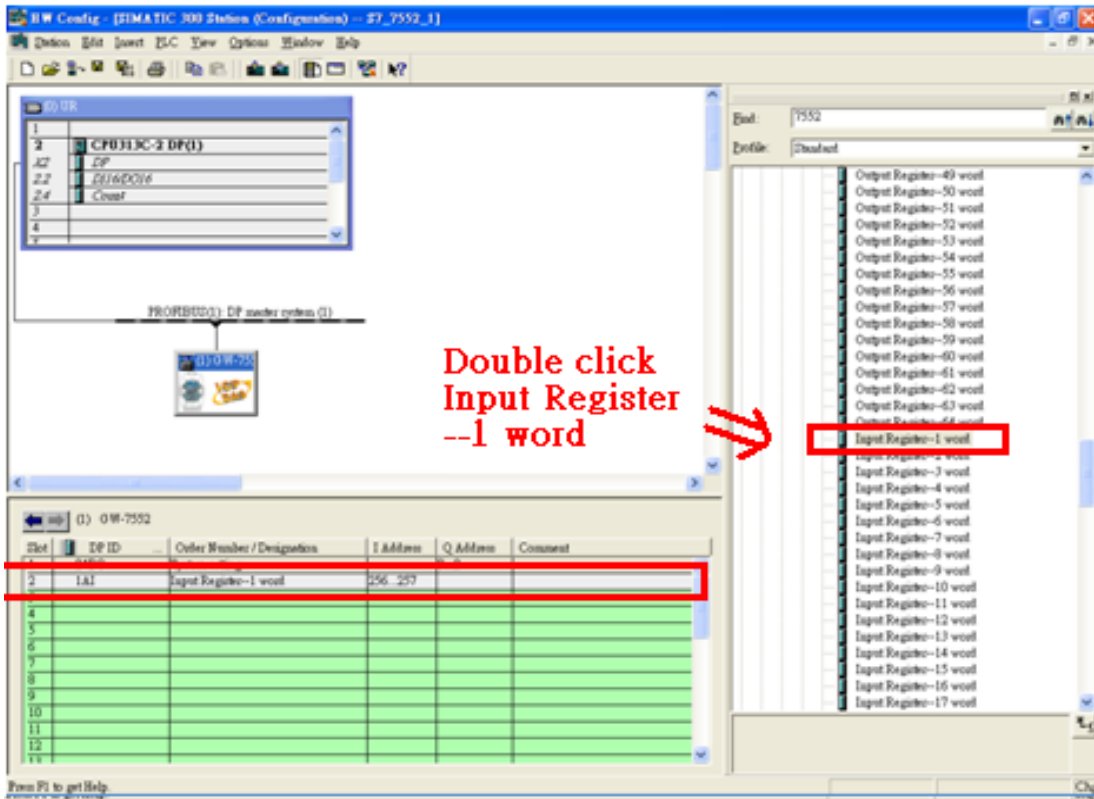
1. Select GW-7552 module



2. Add a System setting module

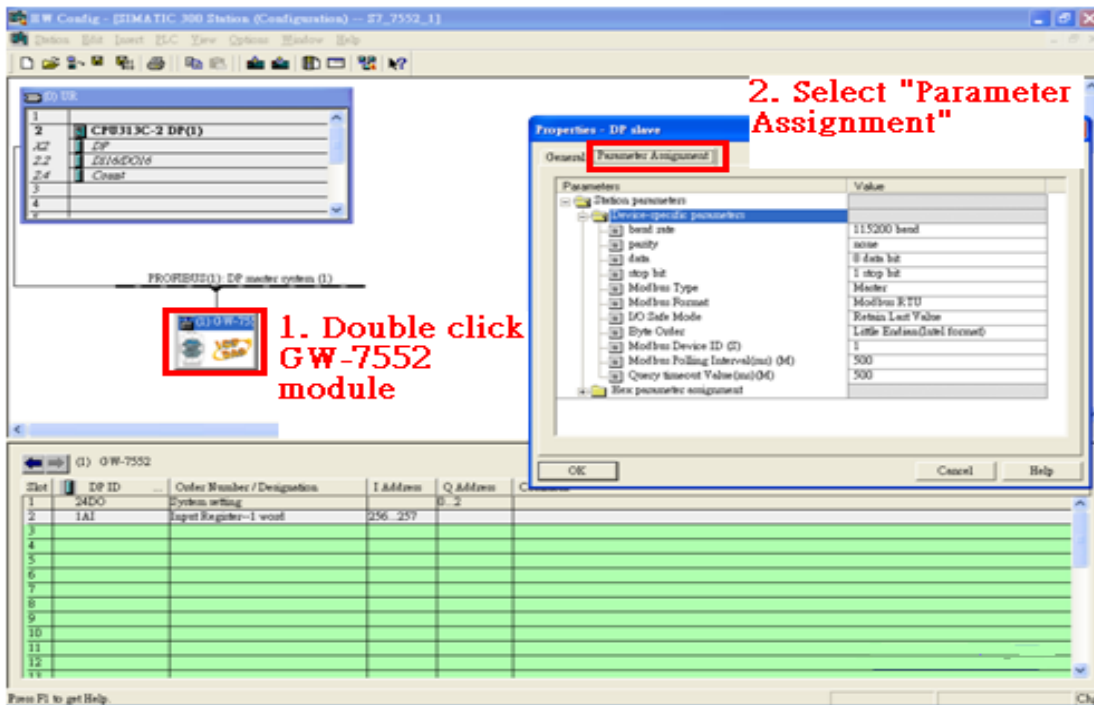


3. Add "Input Register—1 word" module



Step 2: Setup the parameters of the GW-7552

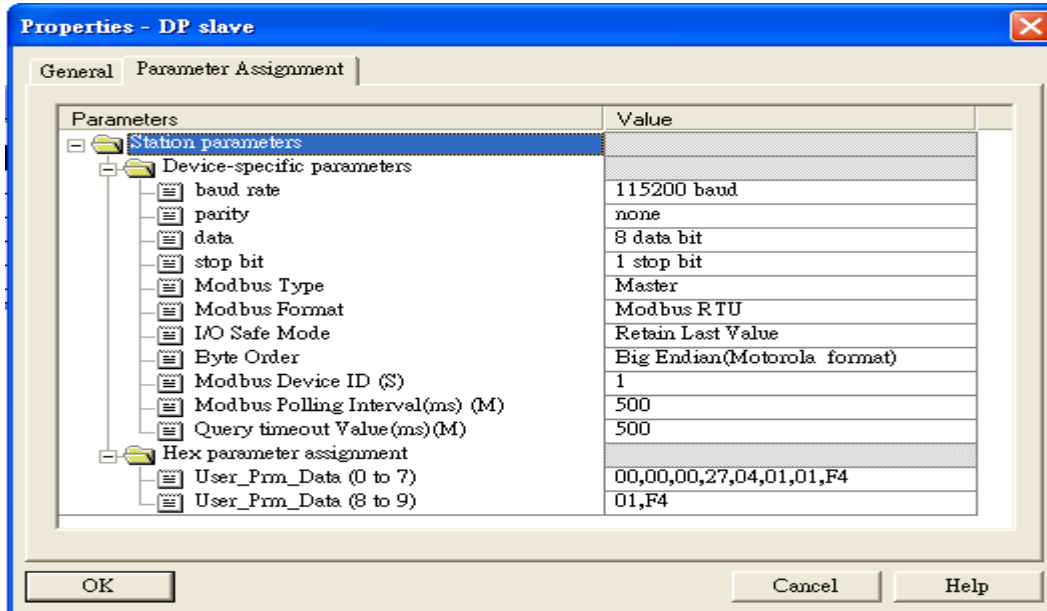
1. Double click GW-7552 icon
2. Select "Parameter Assignment"



3. Set common parameters of the GW-7552

Common parameters →

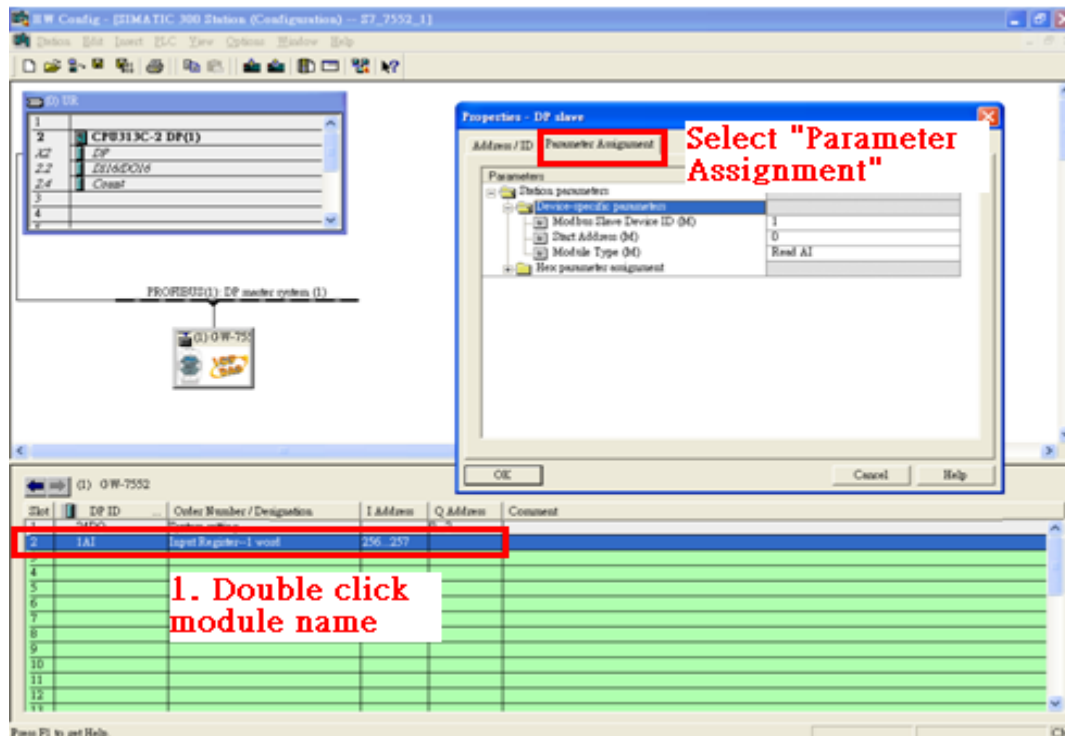
Baud rate: 115200; Parity: none; Data: 8 data bit; Stop bit: 1 stop bit; Modbus type: Master
Modbus Format: Modbus RTU; Byte Order: Big Endian



4. Set module parameters of the GW-7552

(1) Double click "input register—1 word" module

(2) Select "Parameter Assignment"

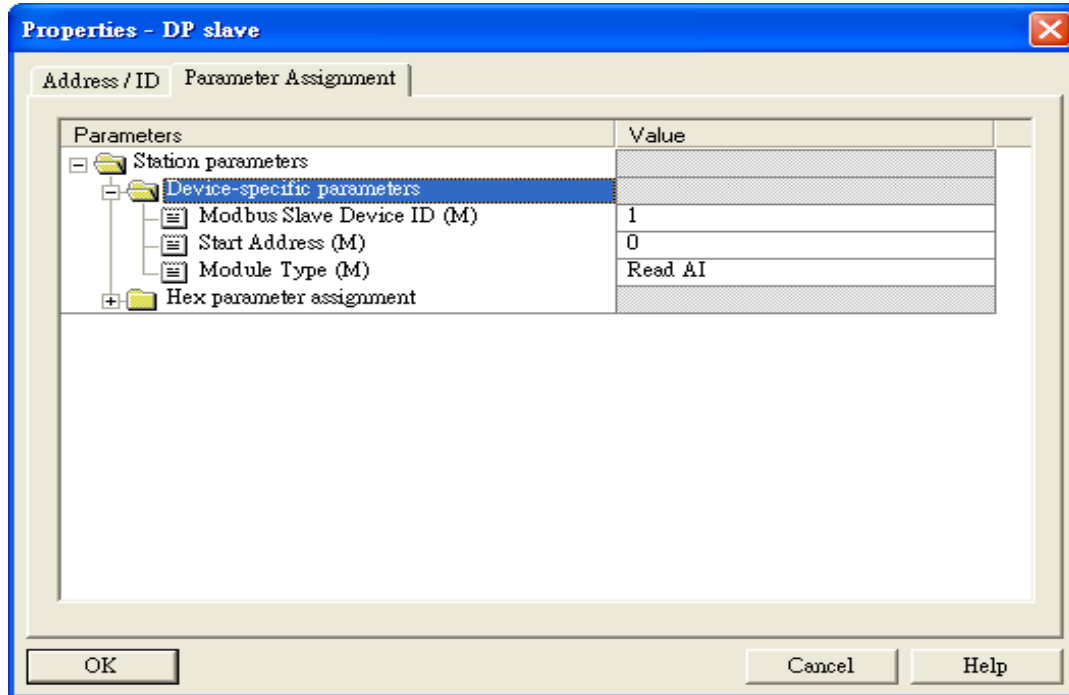


5. Setup “input register—1 word” module parameters

Module parameters →

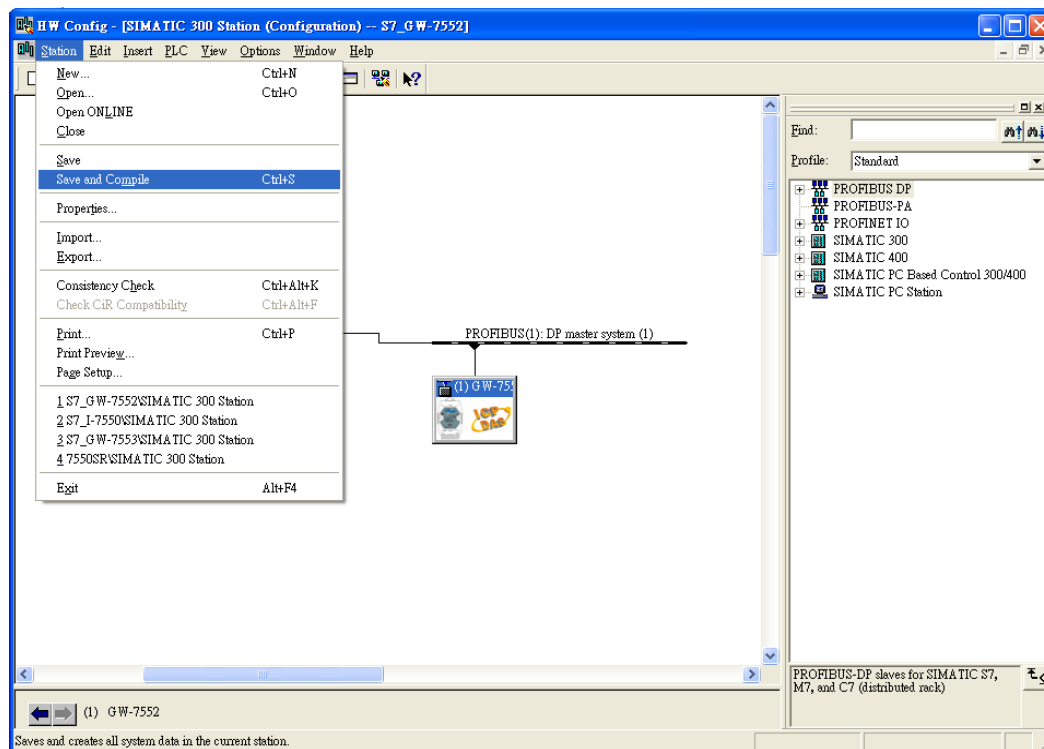
Modbus Slave Device ID: 1; Slave Address: 0 (Protocol address (base 0))

Module Type: Read AI, click ok.

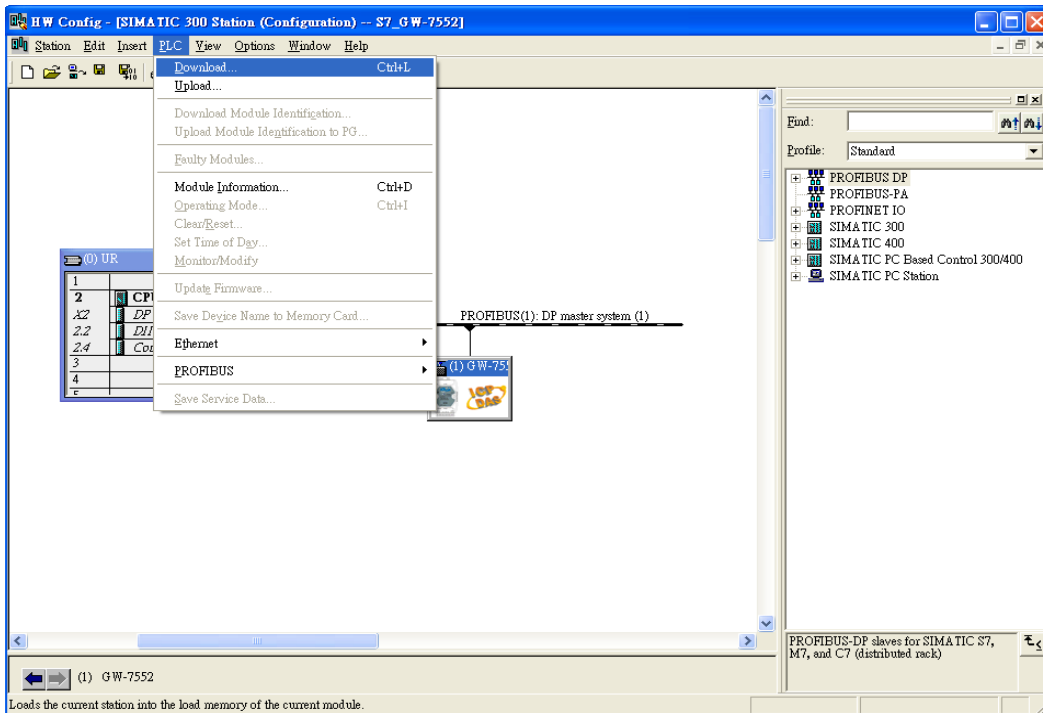


Step 3: Download the HW settings into SIMATIC PLC

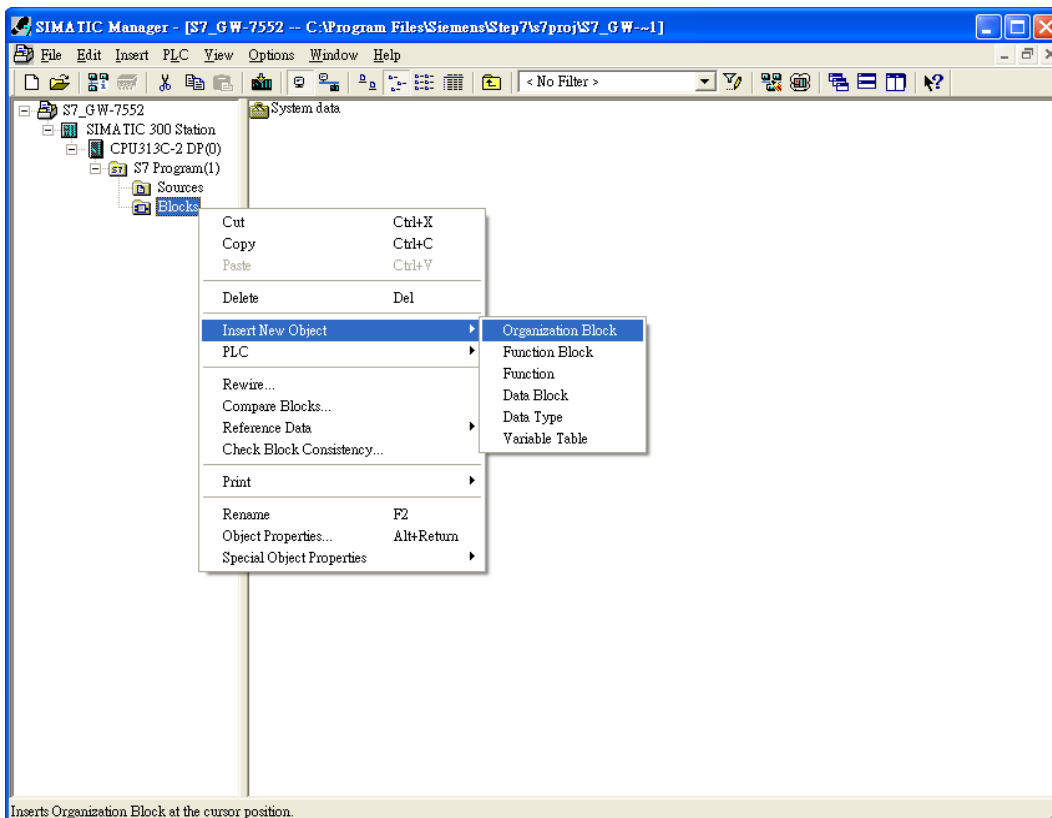
1. Save and Compile

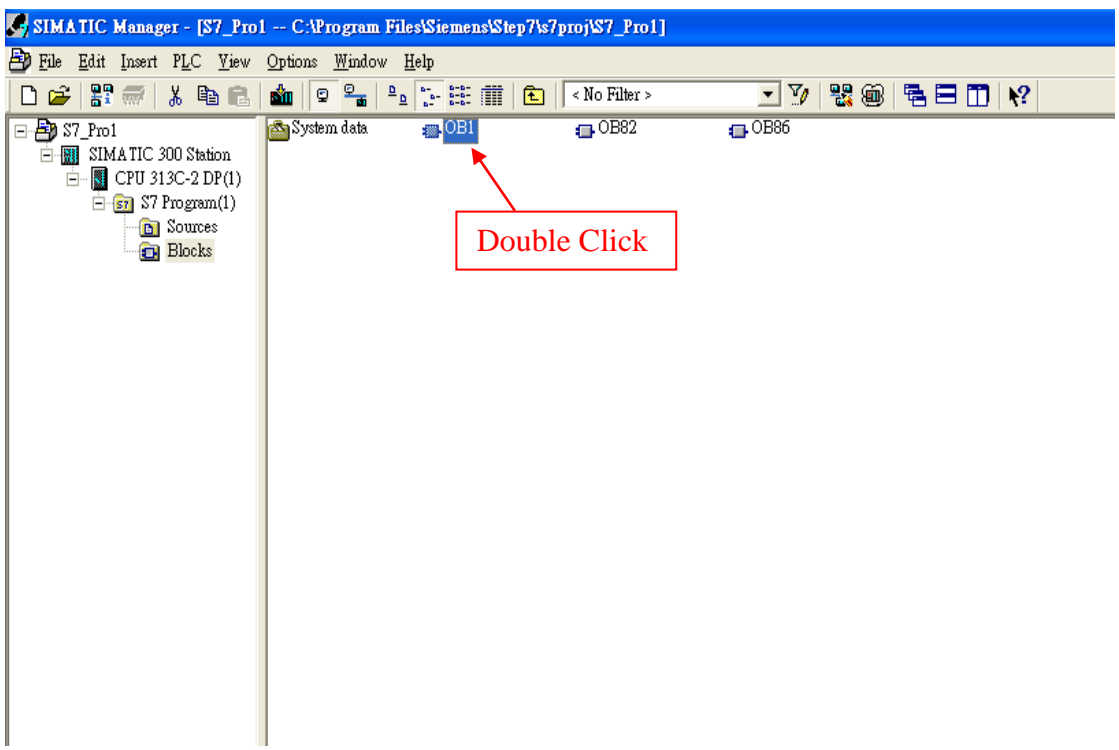
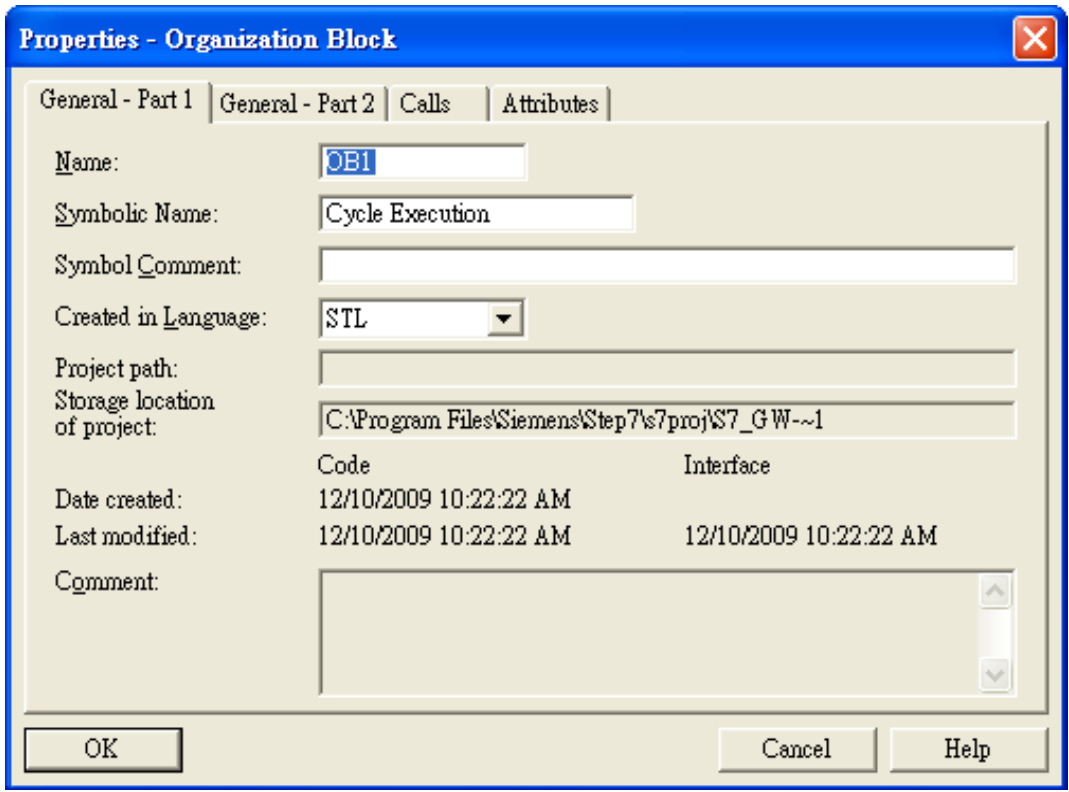


2. HW settings into SIMATIC PLC



Step 4: Insert a new Organization Block (OB1,OB82,OB86)





Step 5: Edit OB1

Contents Of: 'Environment\Interface\TEMP'

Name	Data Type	Address
AIValue	Word	20.0
END	Bool	22.0

OB1 : "Main Program Sweep (Cycle)"

Network 1: Read AI

```

    PIW256 --(IN)--- MOVE ---(OUT)--- #AIValue
                    ENO ---( )--- END
  
```

Slot	D.	Order Number / Designation	I Address	Q Address	Comment
1	24DC	System setting		0..2	
2	131	Input Register-1 word	256..257		
3					
4					
5					
6					
7					
8					
9					

Step 6: Download the settings into SIMATIC PLC

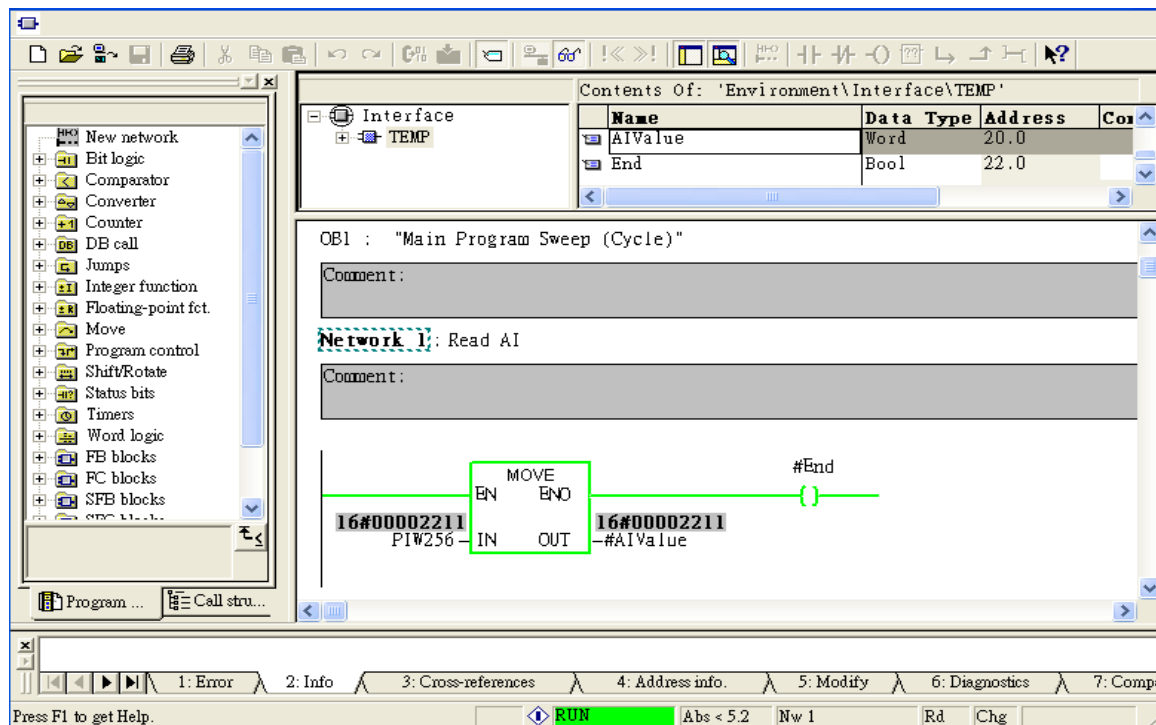
Download Ctrl+L

- Select Online CPU...
- Establish Connection to Configured CPU
- CPU Messages...
- Display Force Values Ctrl+Alt+F
- Monitor/Modify Variables
- Module Information... Ctrl+D
- Operating Mode... Ctrl+I
- Clear/Reset...
- Set Time of Day...

Step 7: Make sure the RUN LED of the GW-7552 is on and the switch of the GW-7552 is at Normal mode.



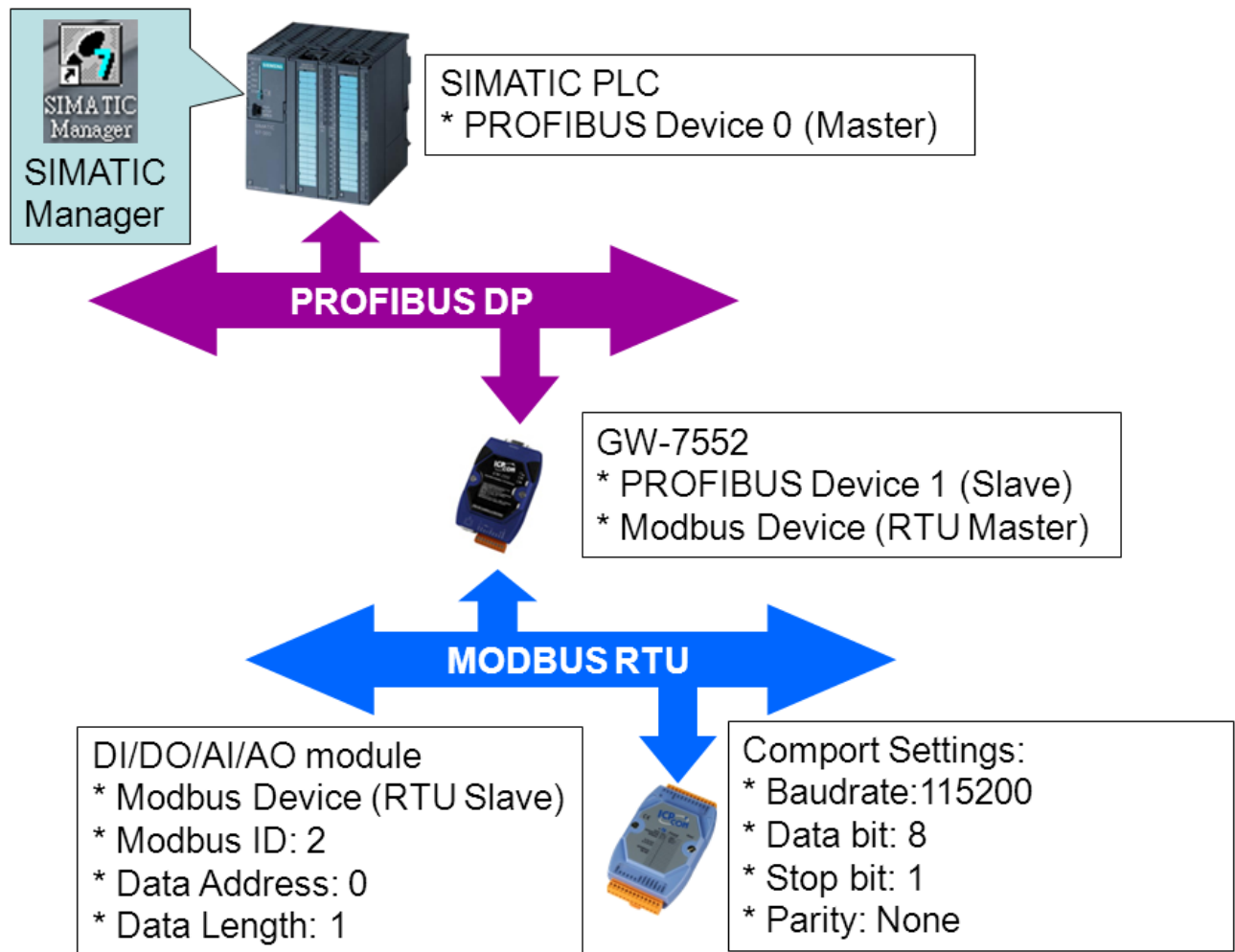
Now the setting procedure has been finished and the user can read the data of the Modbus AI module at address PIW256.



Example 5: PLC writes DO module data to GW-7552.

(Modbus FC05,FC15)

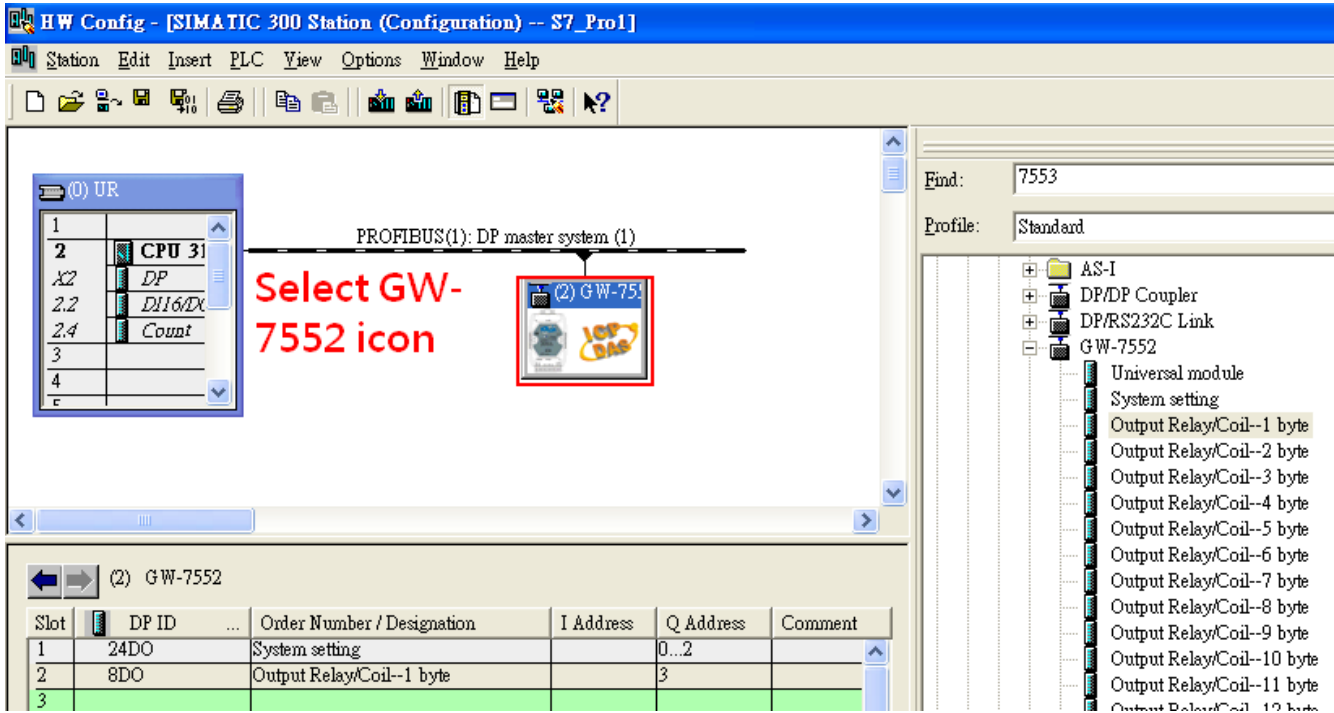
Write a Modbus RTU DO module (**PROFIBUS Slave** & **Modbus RTU/Master**)



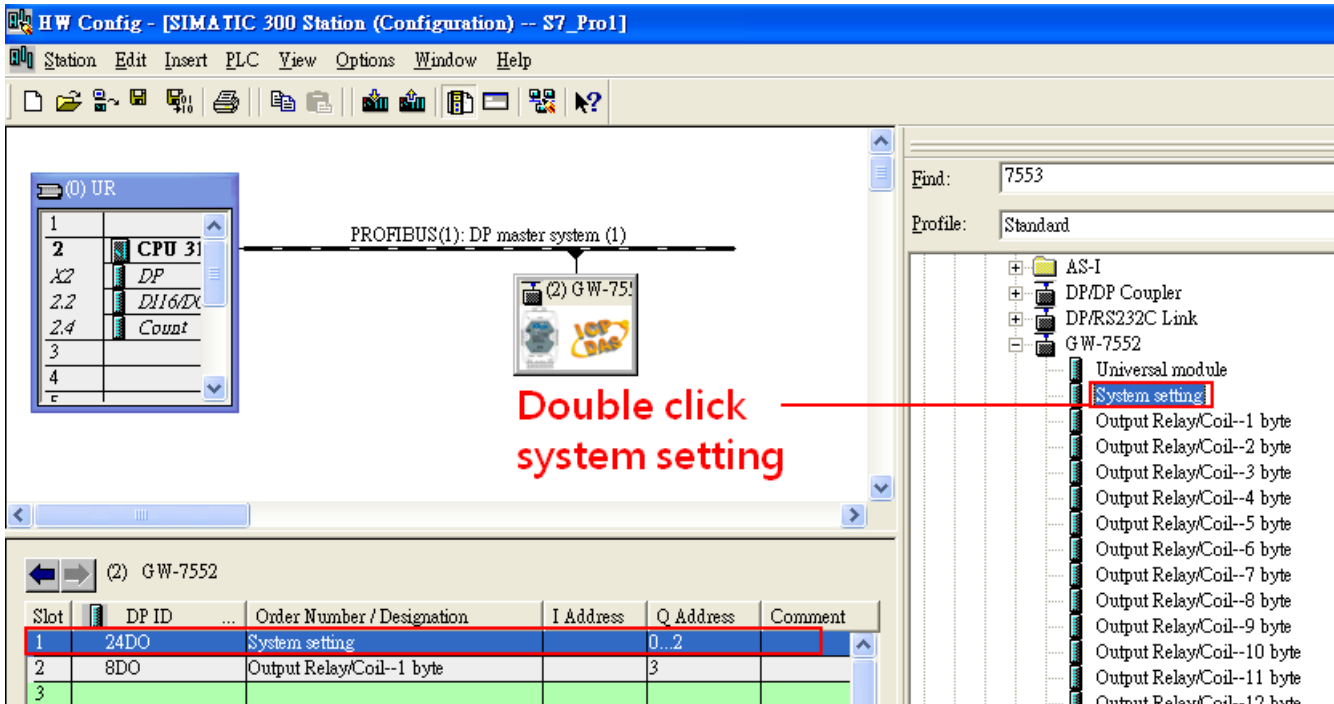
SIMATIC STEP7 Configuration:

Step 1: Setup the GW-7552 module

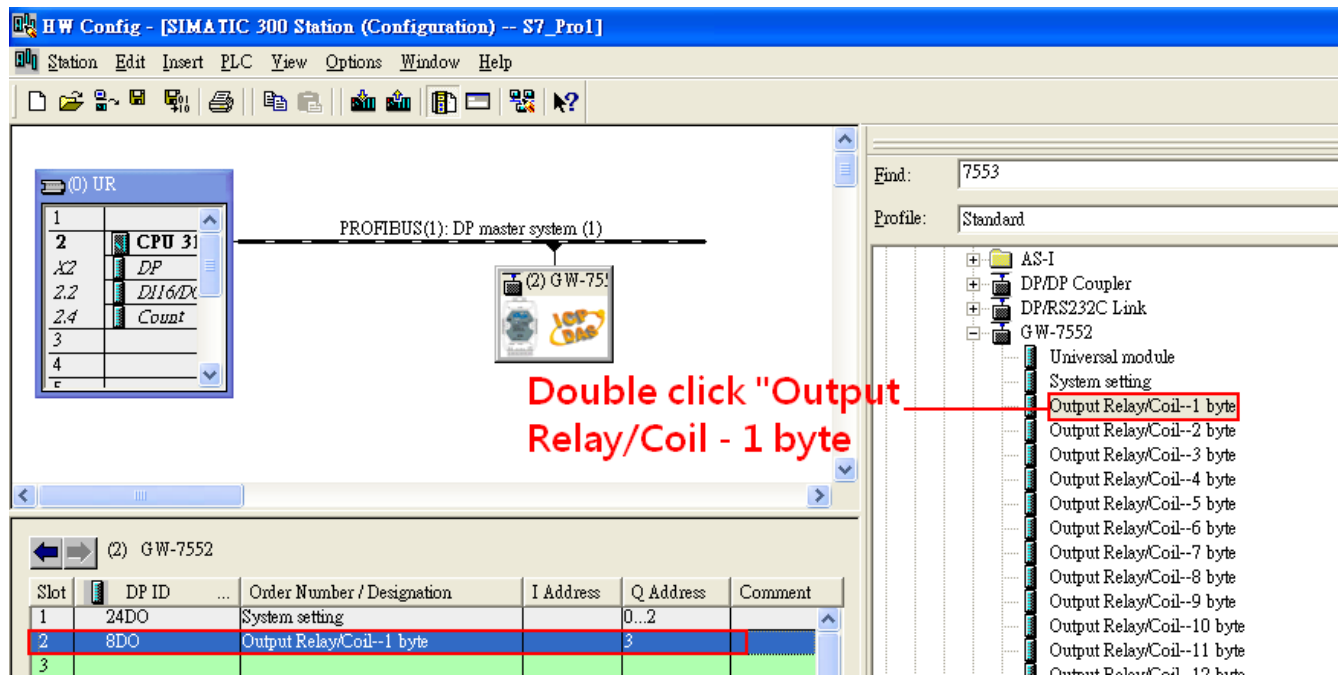
1. Select GW-7552 module



2. Add a System setting module

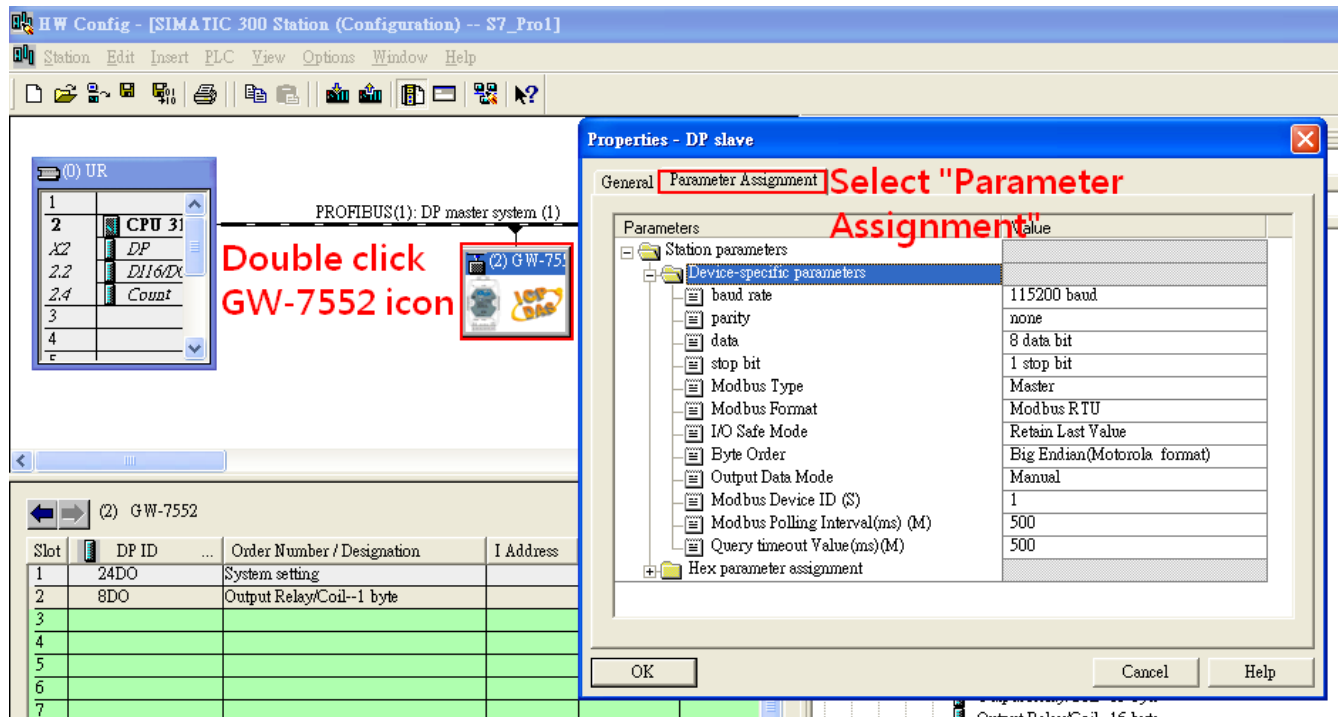


3. Add “Onput Relay/Coil—1 byte” module(For FC15,multiple coils, please select more than 1 byte module)



Step 2: Setup the parameters of the GW-752

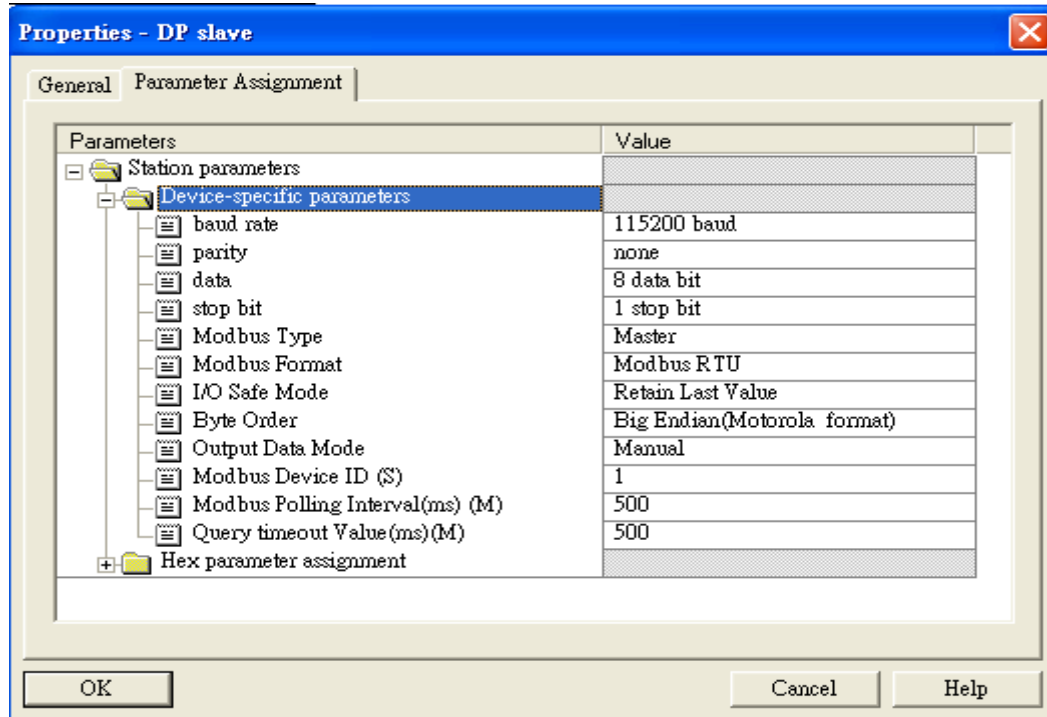
1. Double click GW-752 icon
2. Select “Parameter Assignment”



3. Set common parameters of the GW-7552

Common parameters →

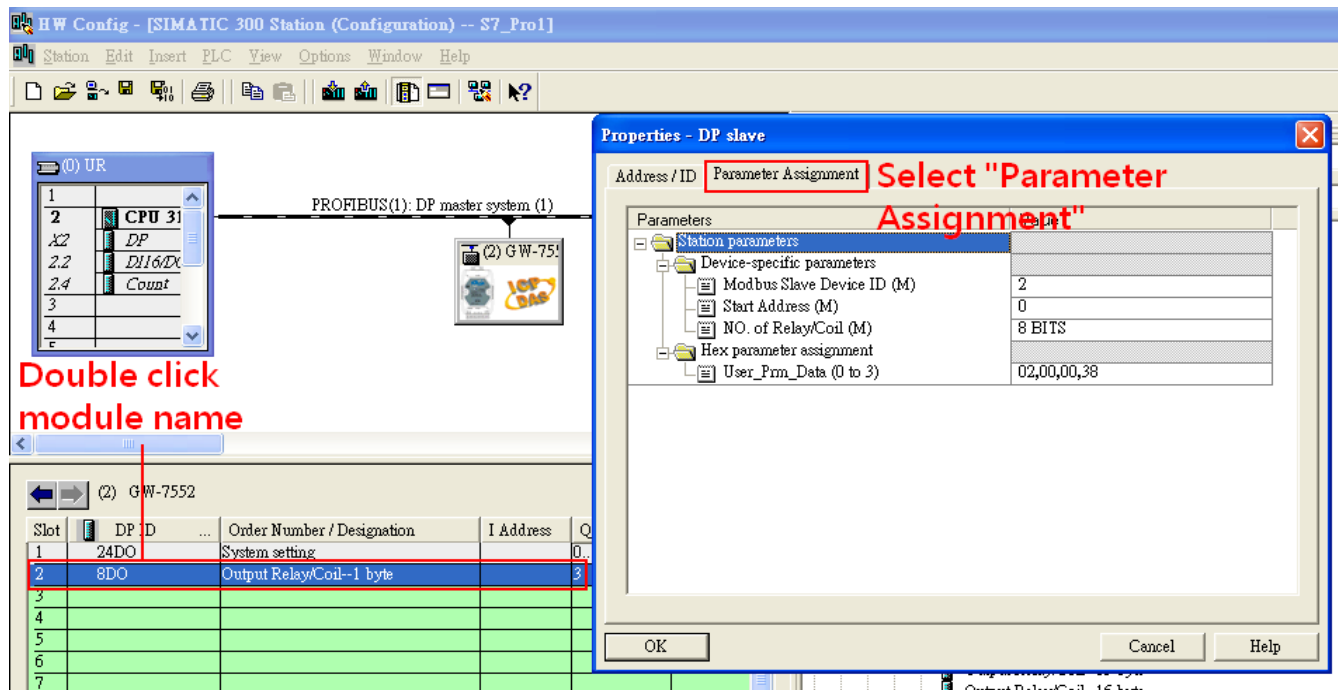
Baud rate: 115200; Parity: none; Data: 8 data bit; Stop bit: 1 stop bit; Modbus type: Master
Modbus Format: Modbus RTU; Byte Order: Big Endian



4. Set module parameters of the GW-7552

(1) Double click "Output Relay/Coil—1 byte" module

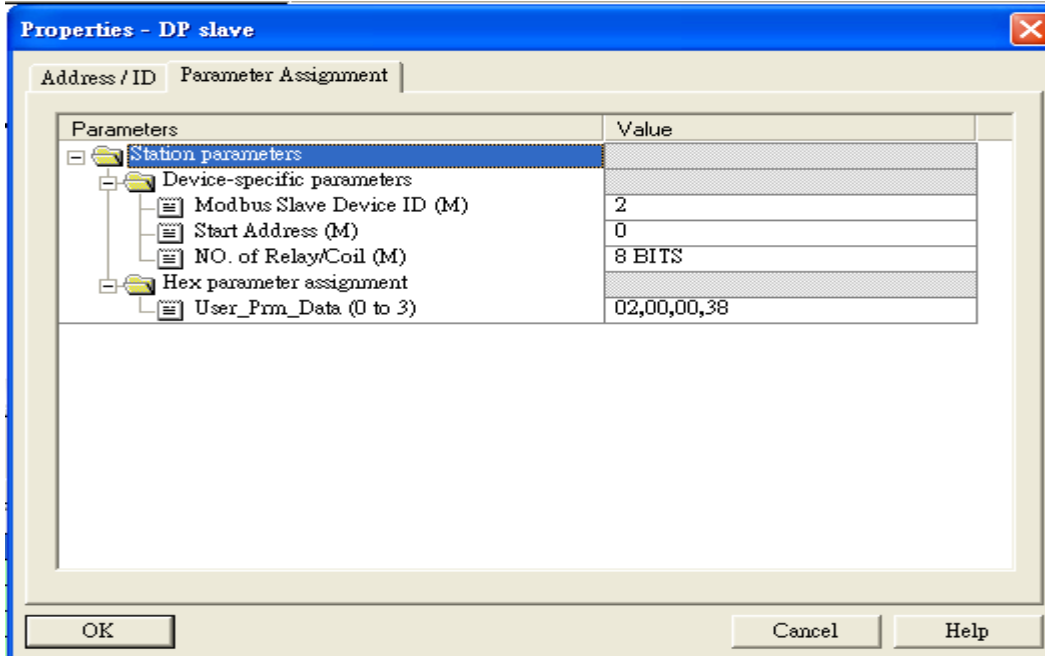
(2) Select "Parameter Assignment"



5. Setup "Output Relay/Coil—1 byte" module parameters

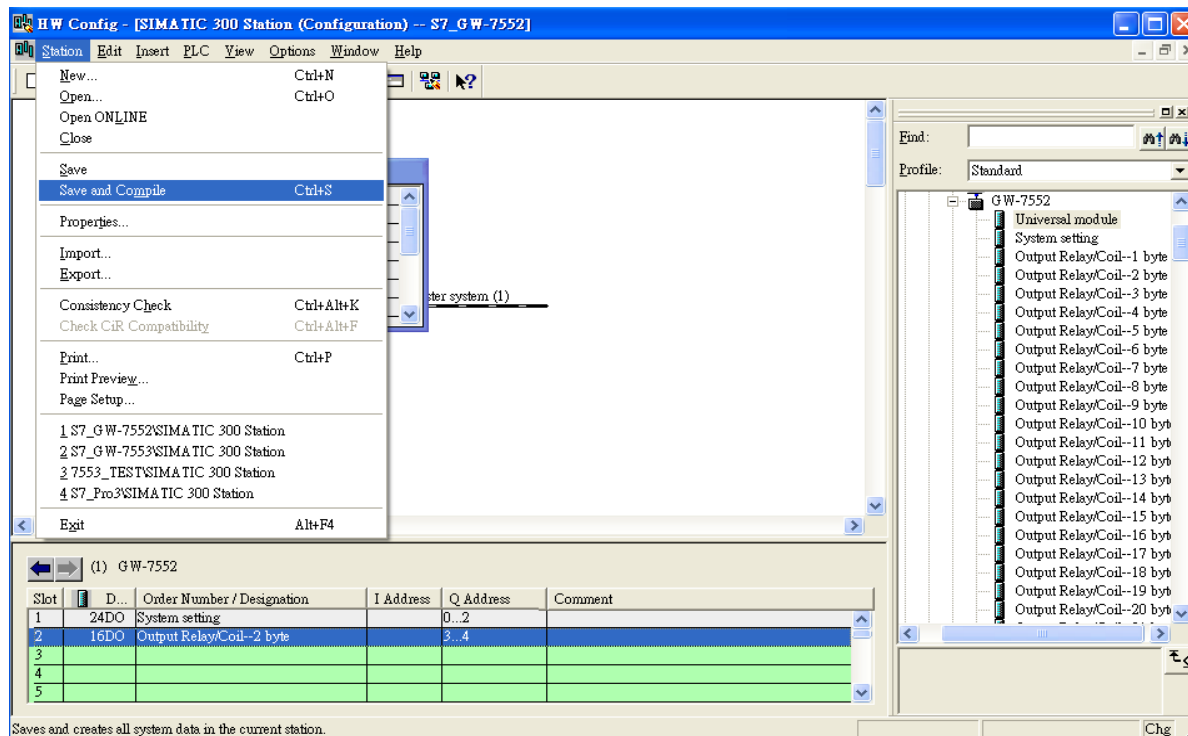
Module parameters →

Modbus Slave Device ID: 2; Slave Address: 0 (Protocol address (base 0)), click ok.

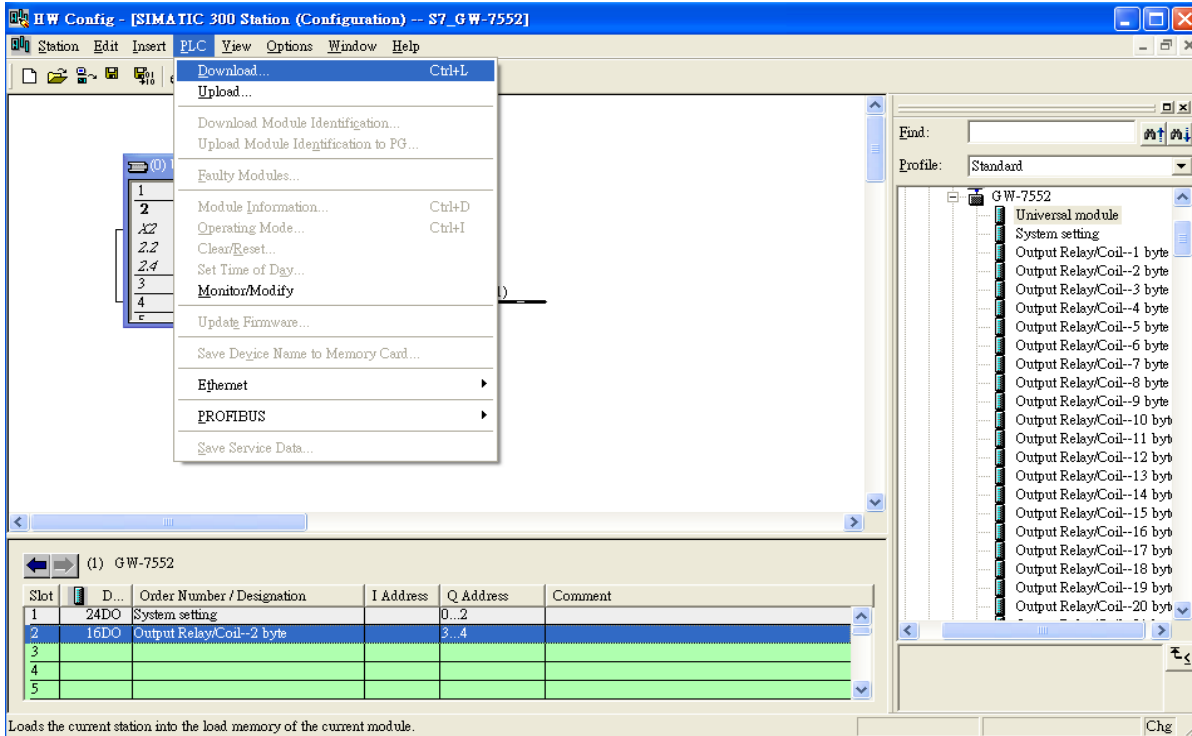


Step 3: Download the HW settings into SIMATIC PLC

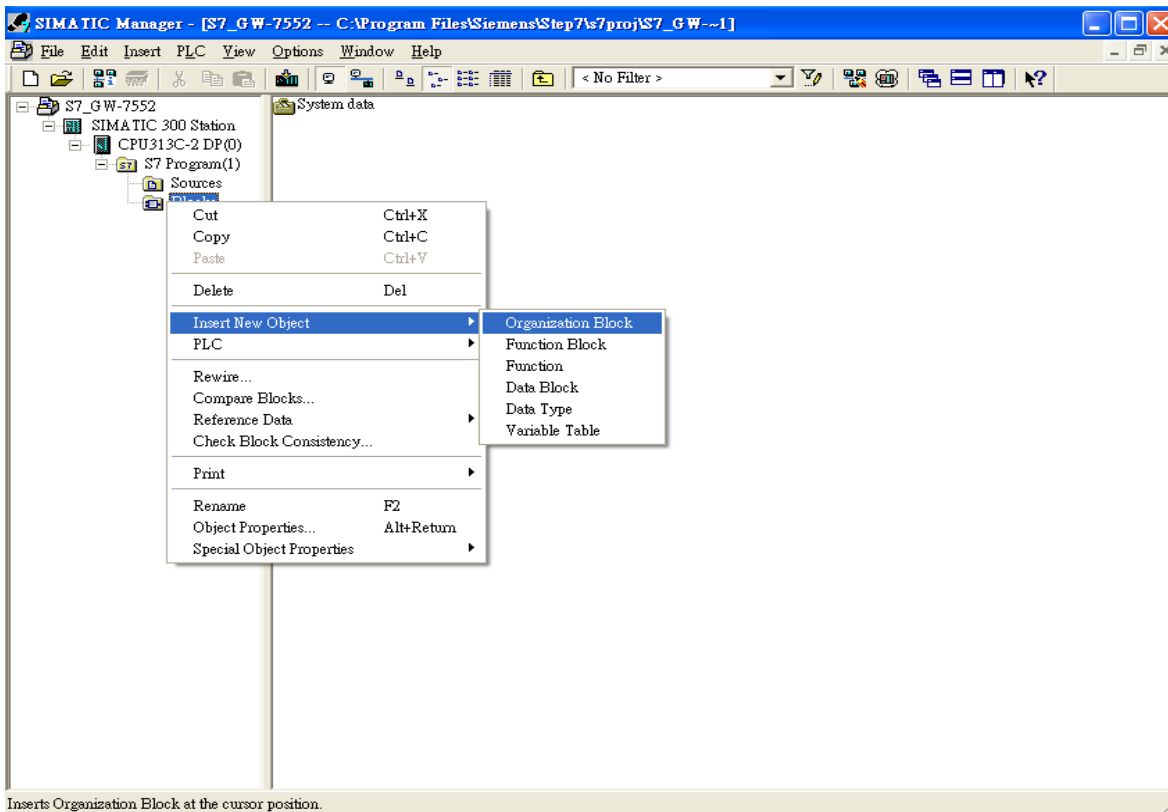
1. Save and Compile

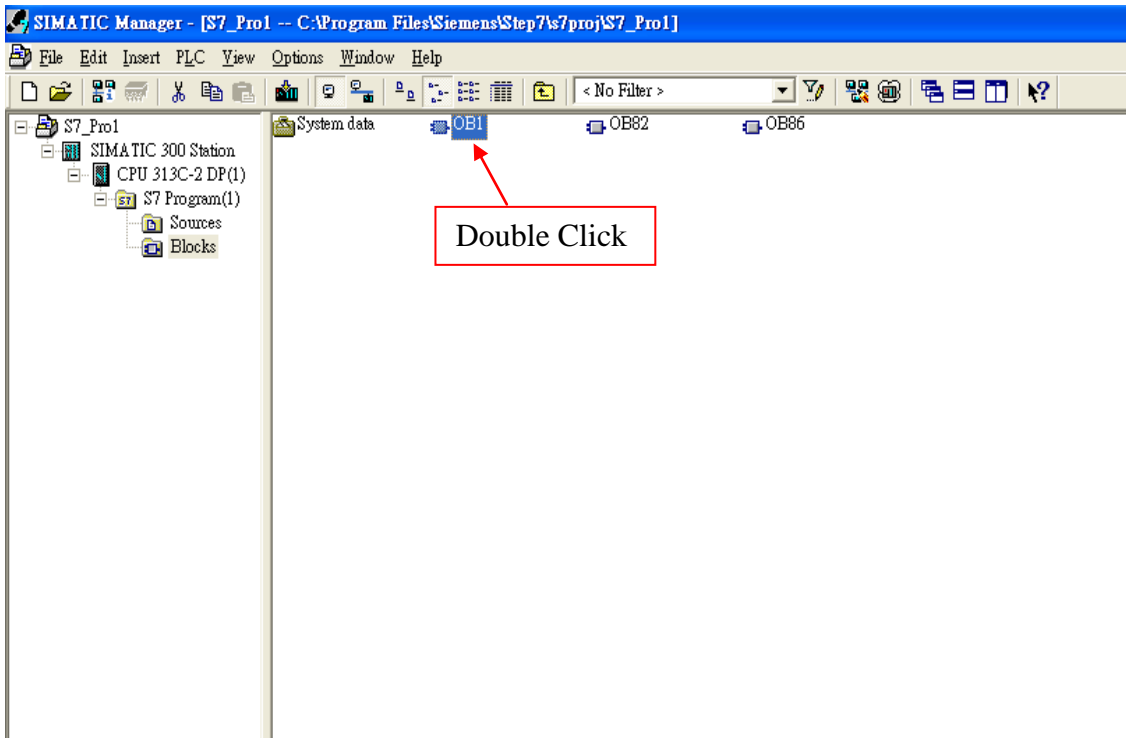
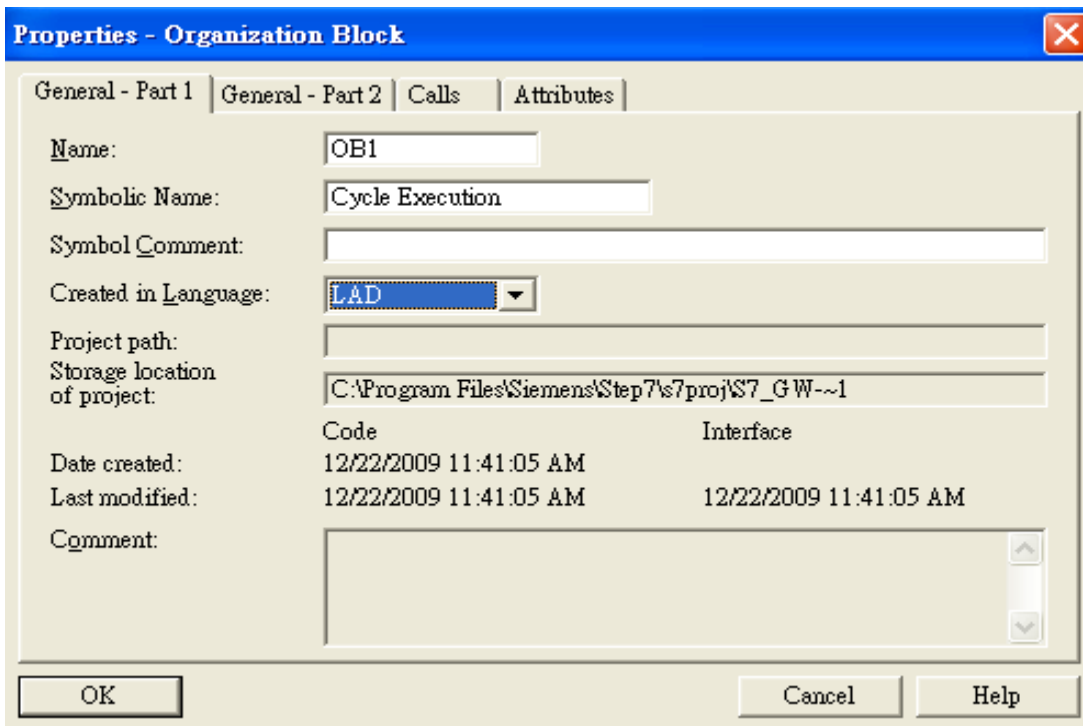


2. HW settings into SIMATIC PLC



Step 4: Insert a new Organization Block (OB1,OB82,OB86)





Step 5: Edit OB1

Variables used in the example LD Program:

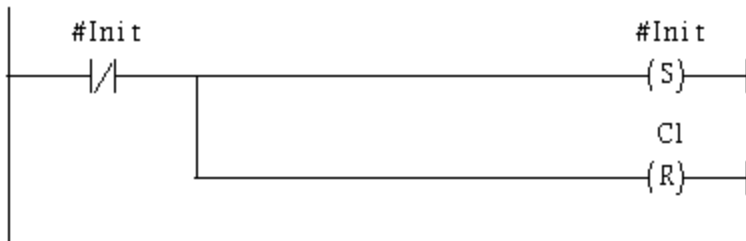
Name	Data Type	Address	Comment
OB1_MAX...	Int	10.0	Maximum cycle time of OB1 (milliseconds)
OB1_DAT...	Date_...	12.0	Date and time OB1 started
END	Bool	20.0	
Init	Bool	20.1	
Tri	Int	22.0	

OB1 : "Main Program Sweep (Cycle)"

Comment:

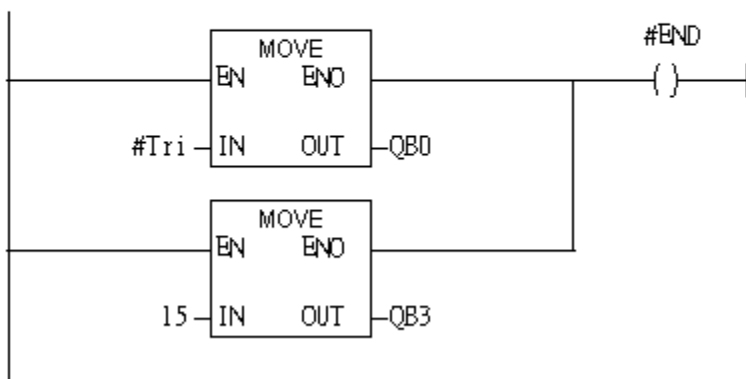
Network 1 : Title:

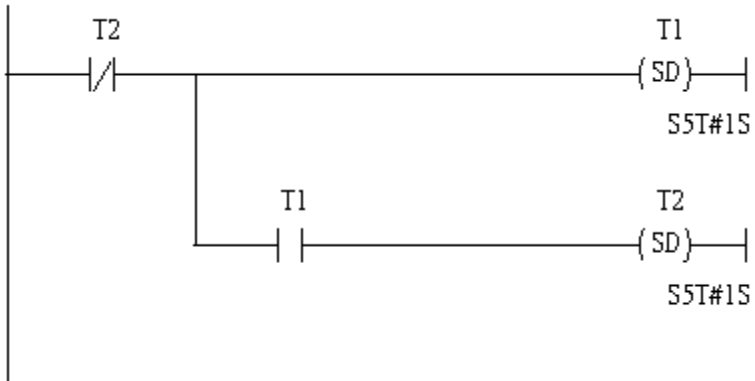
Comment:



Network 2 : Title:

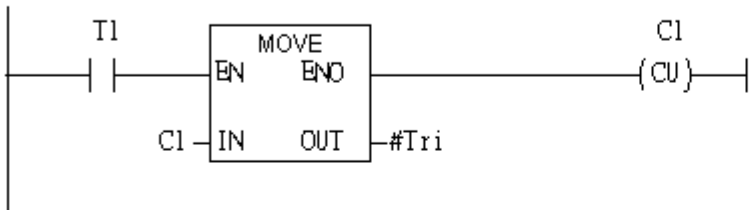
Comment:





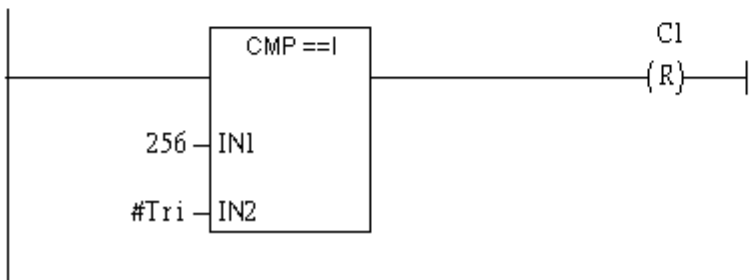
Network 4 : Title:

Comment:



Network 5 : Title:

Comment:



Step 6: Download the settings into SIMATIC PLC

The screenshot shows the SIMATIC Manager interface. The 'PLC' menu is open, highlighting the 'Download' option (Ctrl+L). Other options include 'Select Online CPU...', 'Establish Connection to Configured CPU', 'CPU Messages...', 'Display Force Values' (Ctrl+Alt+F), 'Monitor/Modify Variables', 'Module Information...' (Ctrl+D), 'Operating Mode...' (Ctrl+I), 'Clear/Reset...', and 'Set Time of Day...'. The background shows a ladder logic network diagram for 'Network 4' with a 'MOVE' block. The input is 'T1' and the output is 'C1'. The block is labeled 'MOVE' with 'EN' and 'ENO' on top, and 'IN' and 'OUT' on the bottom. The output is connected to a coil '(CU)'. A comment field is visible above the diagram.

Name	Data Type	Address	Co
OB1_OB_...	Byte	3.0	1
OB1_RES...	Byte	4.0	Re:
OB1_RES...	Byte	5.0	Re:
OB1_PRE...	Int	6.0	Cy:
OB1_MIN...	Int	8.0	Mi:
OB1_MAX...	Int	10.0	Ma:
OB1_DAT...	Date ...	12.0	Da:

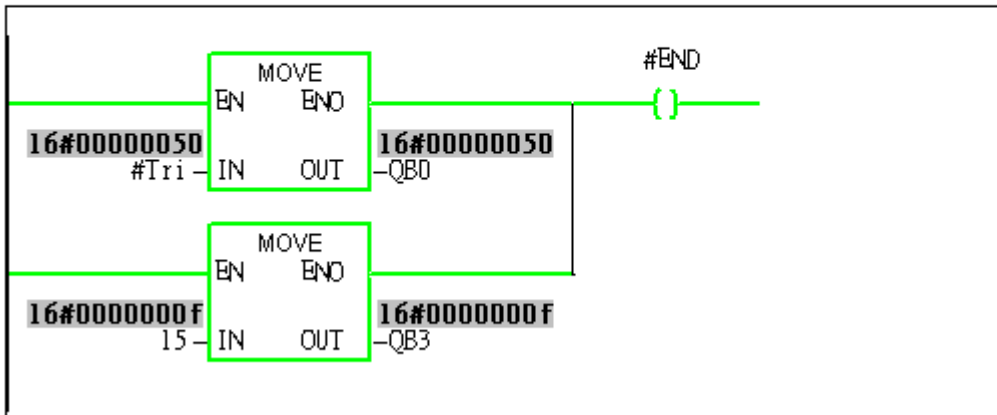
Step 7: Make sure the RUN LED of the GW-7552 is on and the switch of the GW-7552 is at Normal mode.



Now the setting procedure has been finished and the user can write the data to the Modbus DO module at address QB3.

Network 2: Title:

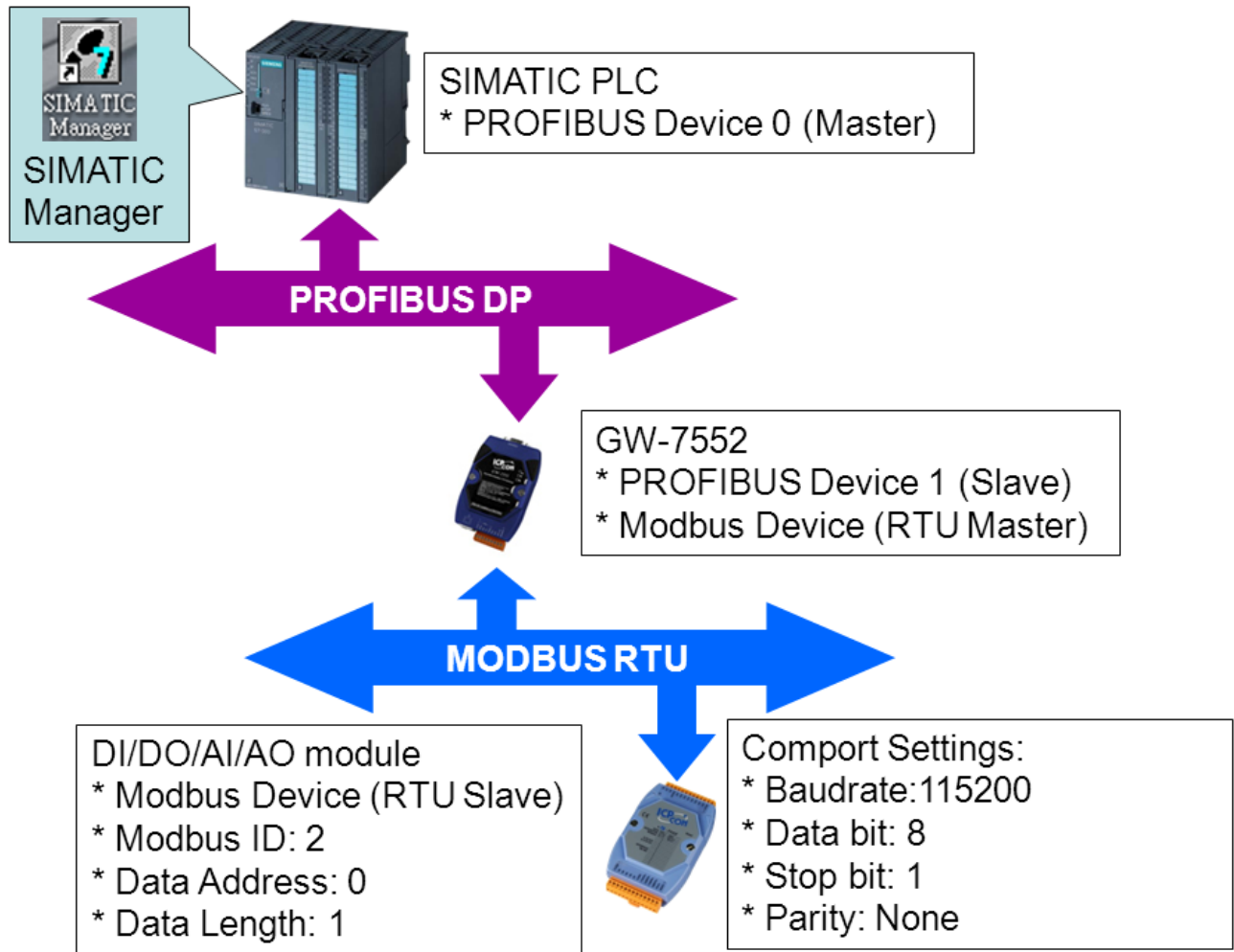
Comment:



Example 6: PLC writes AO module data to GW-7552.

(Modbus FC06, FC16)

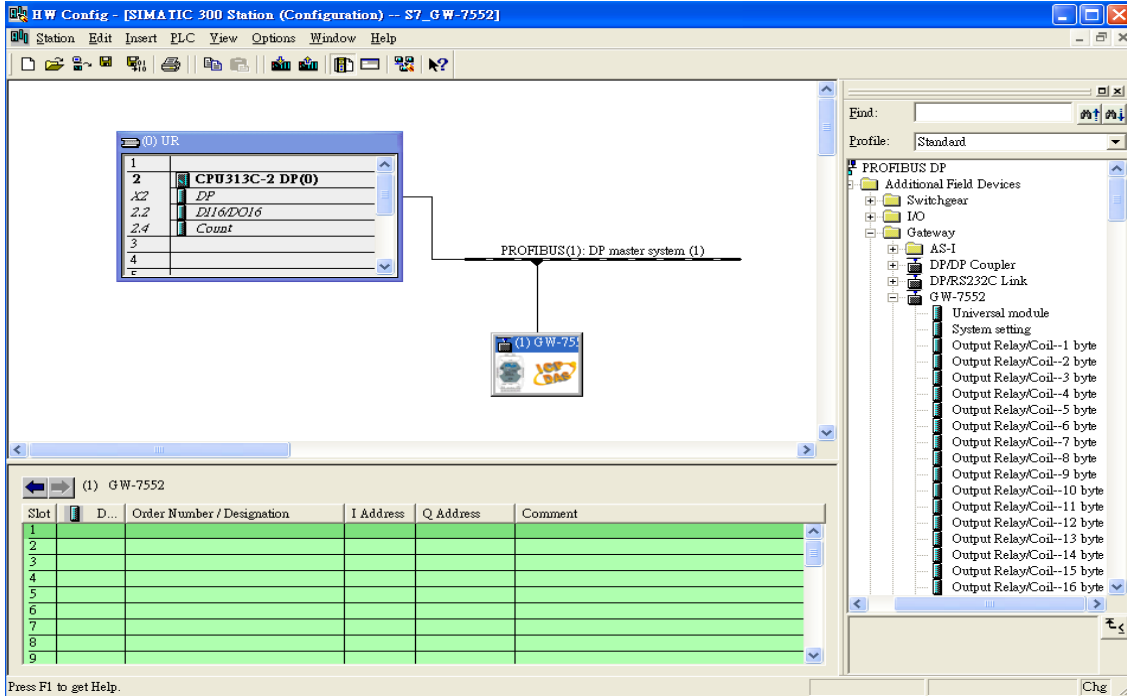
Write a Modbus RTU AO module (**PROFIBUS Slave** & **Modbus RTU/Master**)



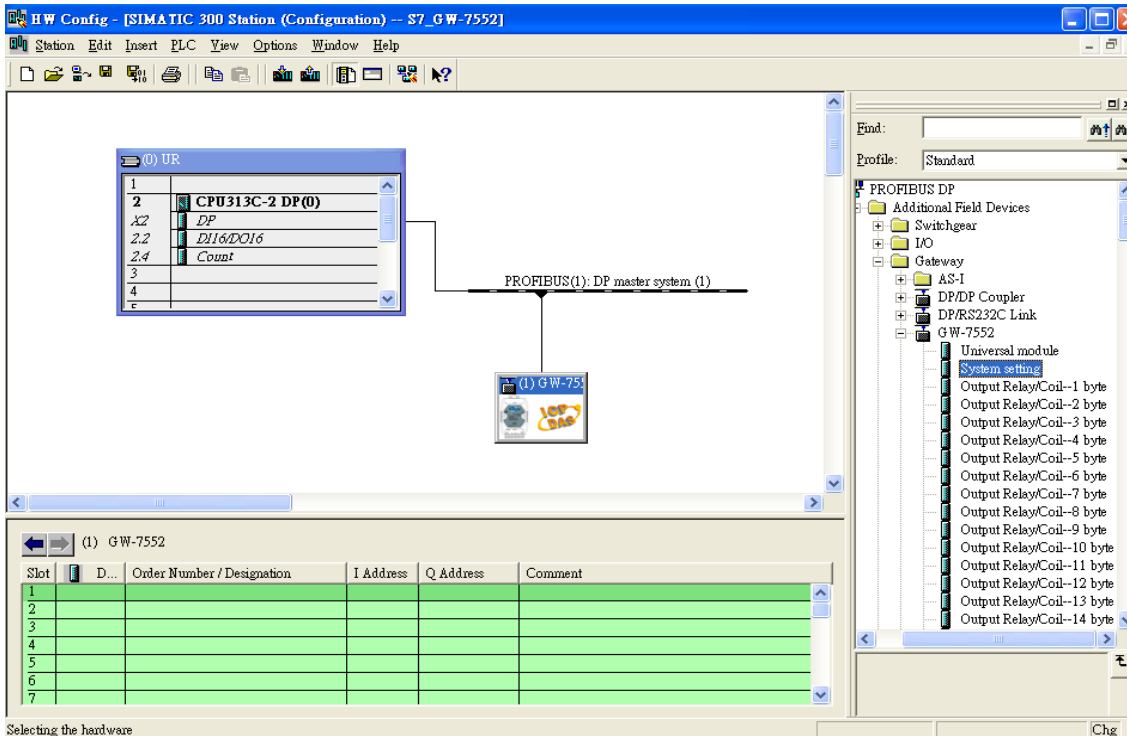
SIMATIC STEP7 Configuration:

Step 1: Setup the GW-7552 module

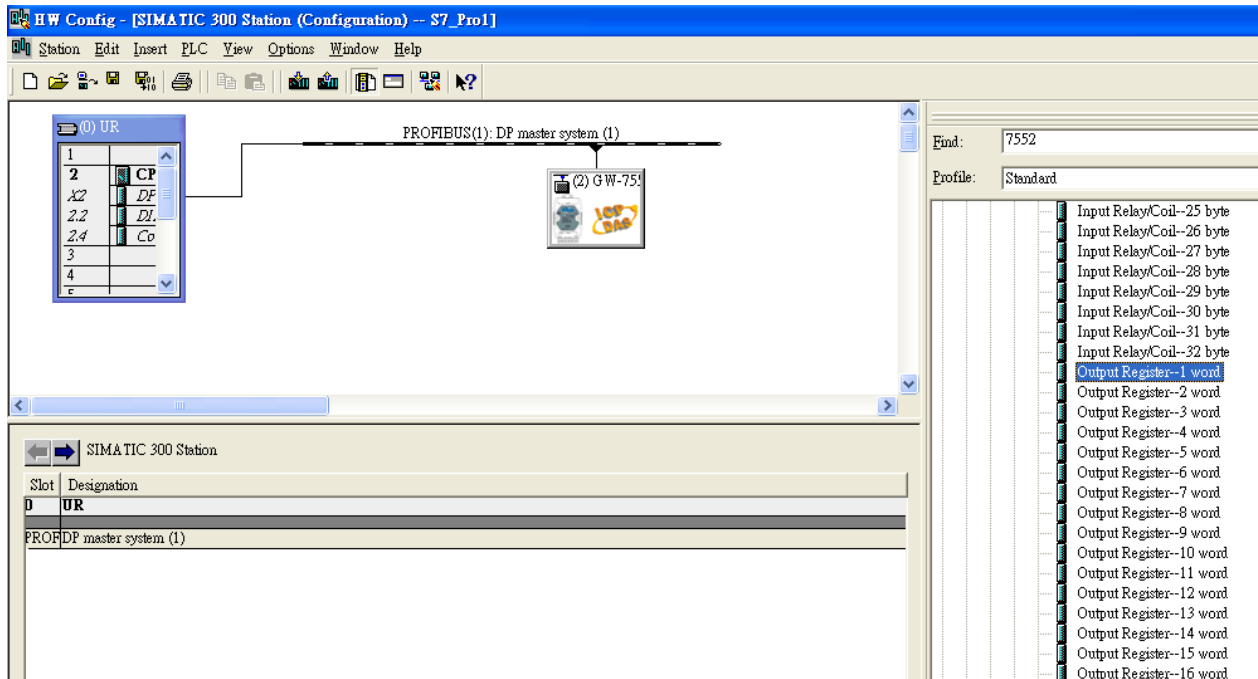
1. Select GW-7552 module



2. Add a System setting module

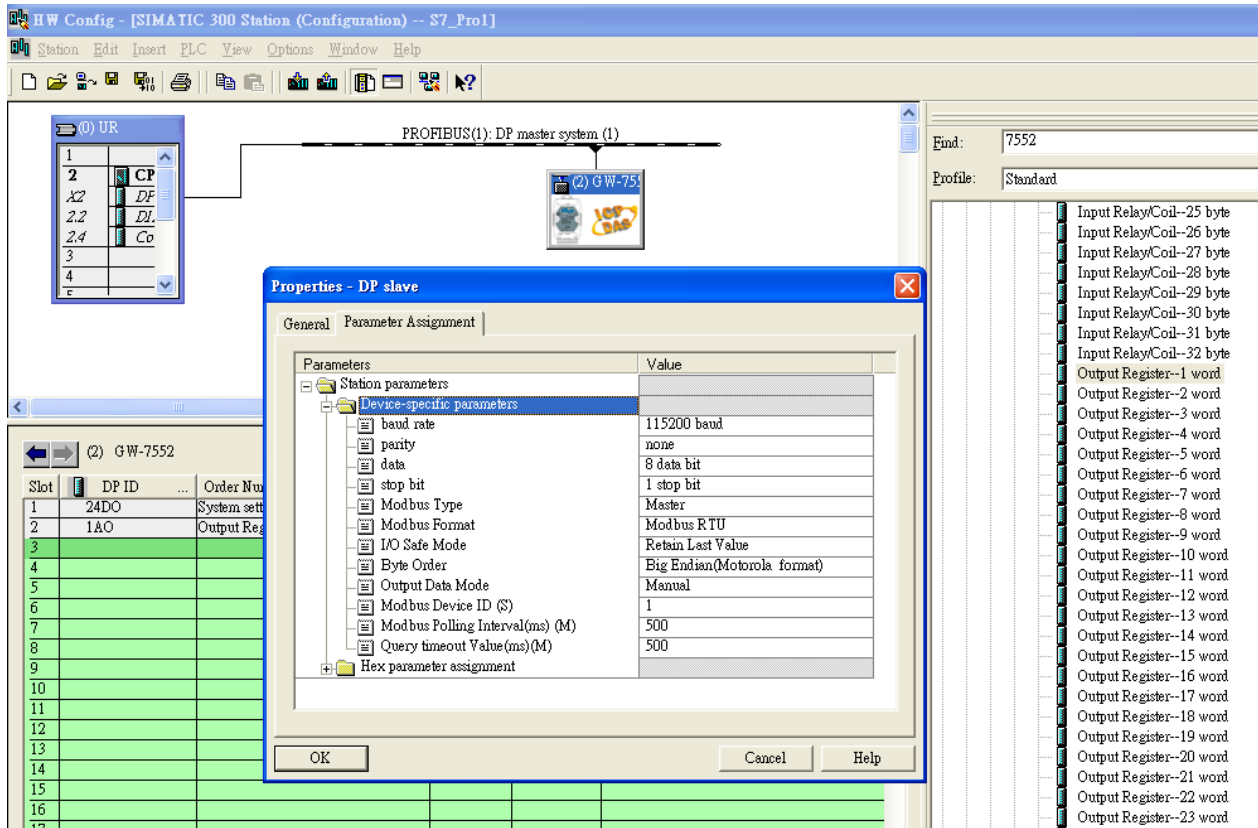


3. Add “Output Register—1word” module. (For FC16,multiple registers, please select more than 1 word module)



Step 2: Setup the parameters of the GW-7552

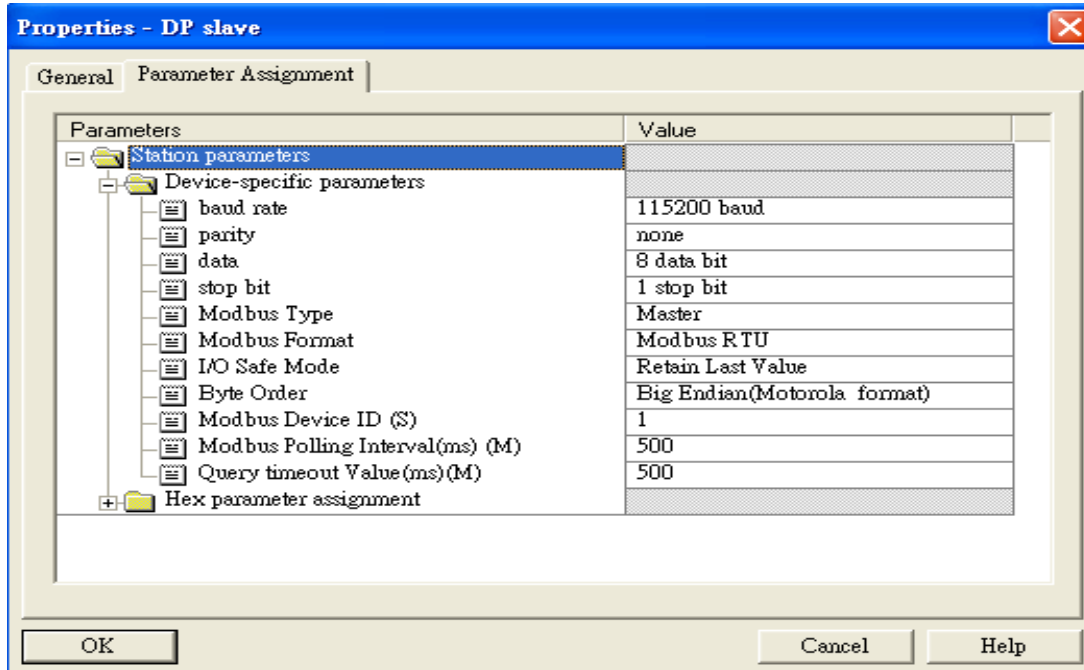
1. Double click GW-7552 icon
2. Select “Parameter Assignment”



3. Set common parameters of the GW-7552

Common parameters →

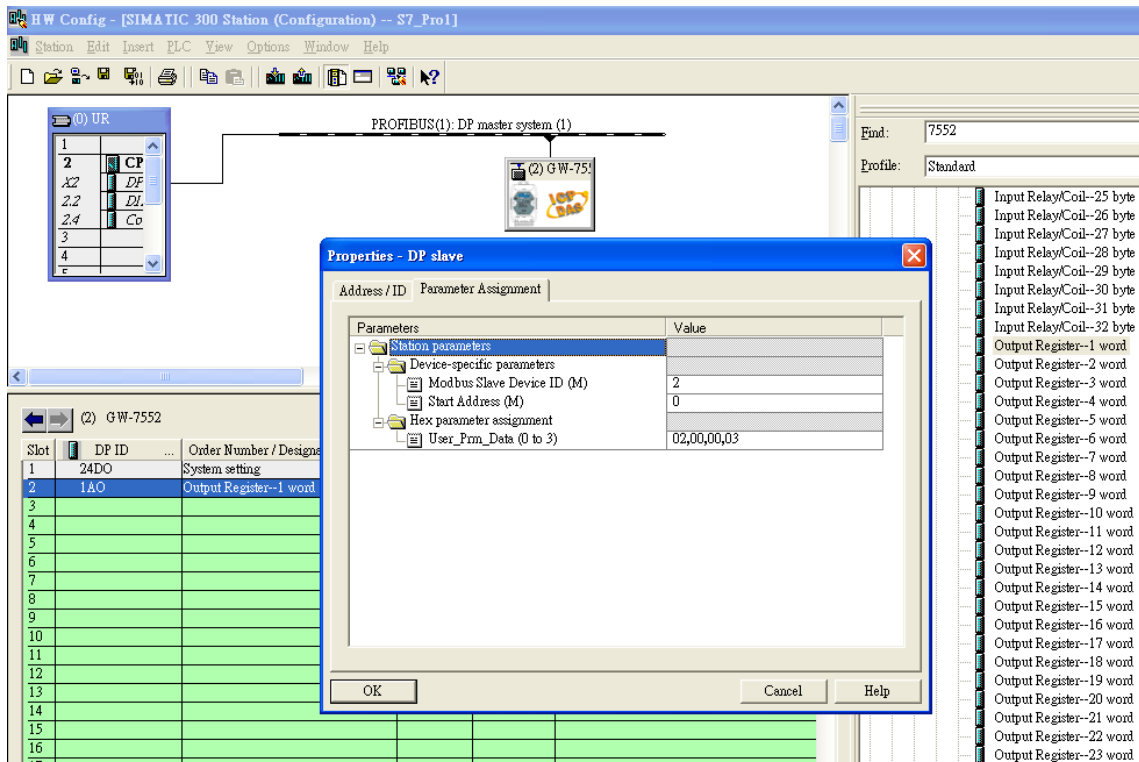
Baud rate: 115200; Parity: none; Data: 8 data bit; Stop bit: 1 stop bit; **Modbus type: Master**
Modbus Format: Modbus RTU; Byte Order: Big Endian



4. Set module parameters of the GW-7552

(1) Double click "Output Register—1 word" module

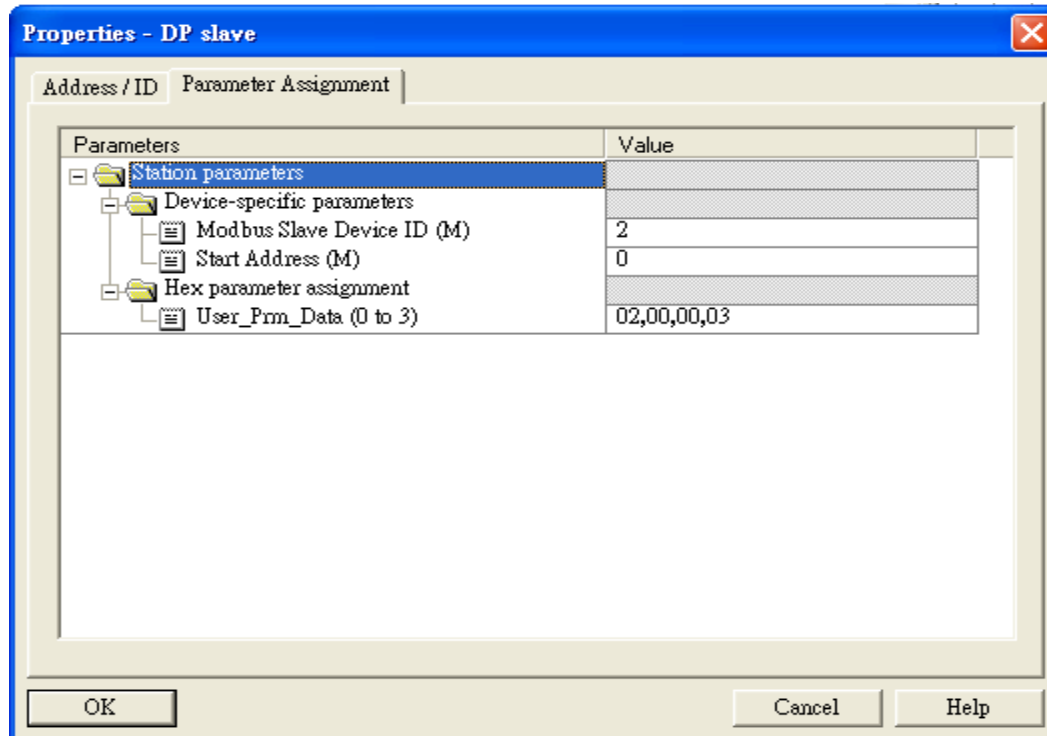
(2) Select "Parameter Assignment"



5. Setup “Output Register—1 word” module parameters

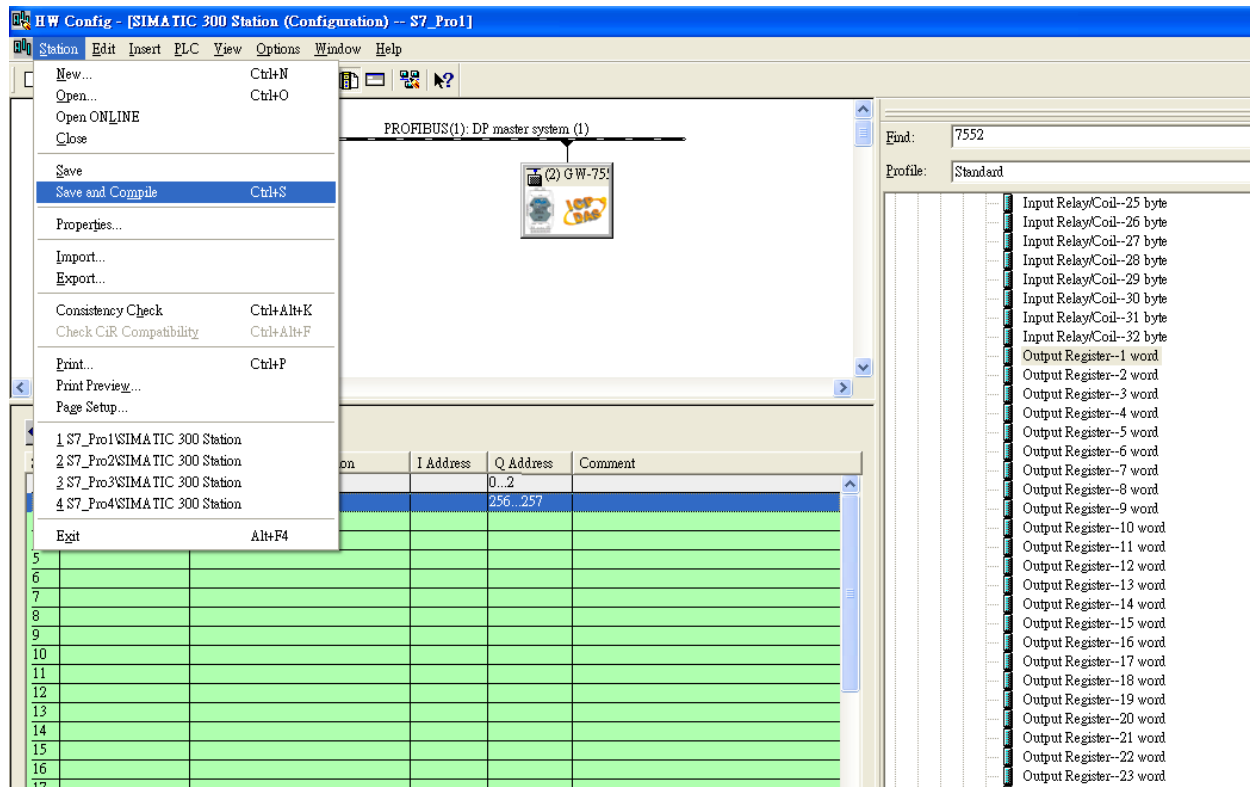
Module parameters →

Modbus Slave Device ID: 2; Slave Address: 0 (Protocol address (base 0)), click ok.

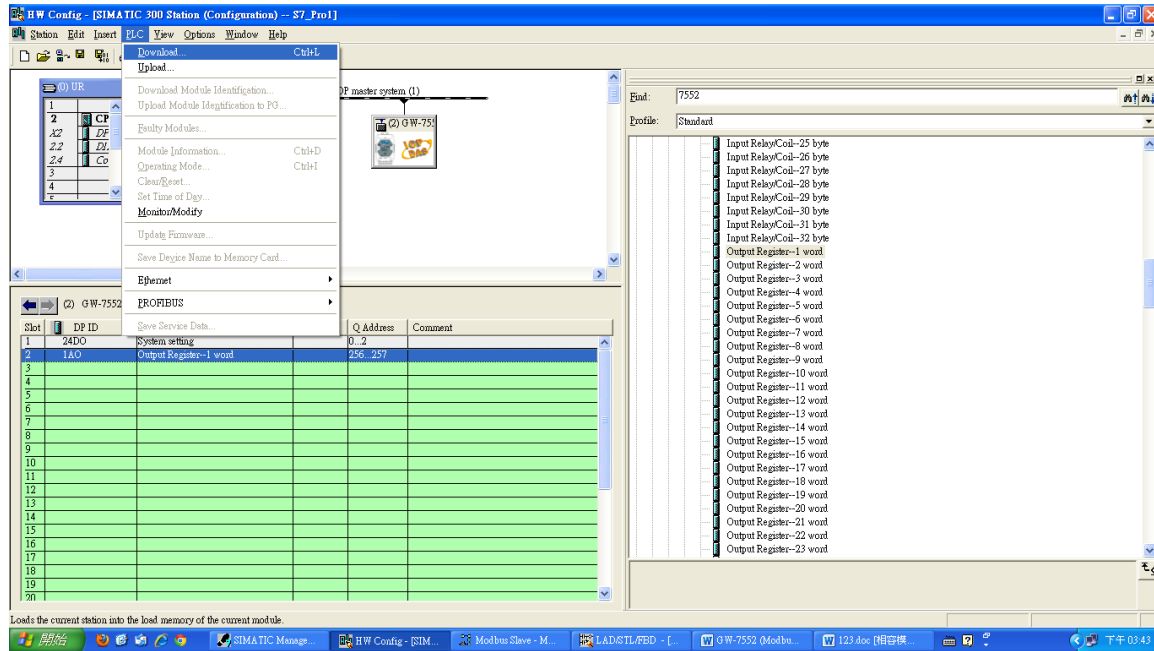


Step 3: Download the HW settings into SIMATIC PLC

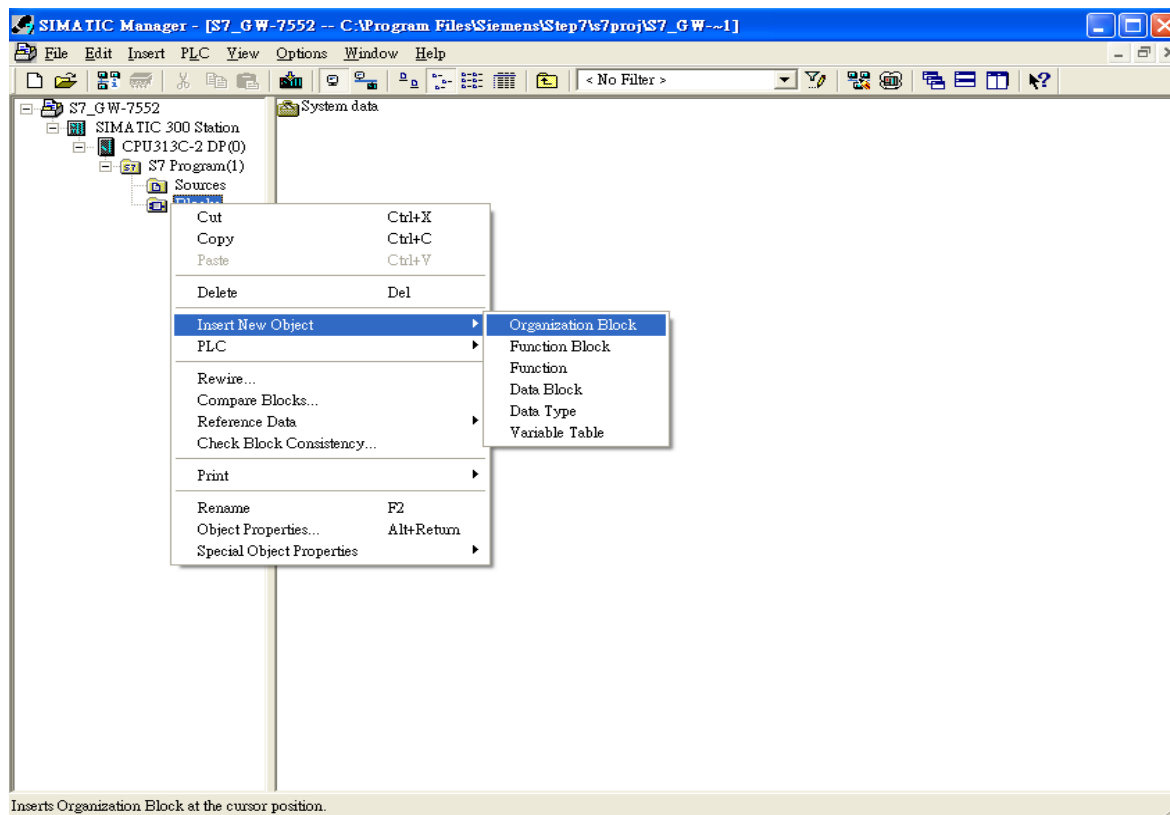
1. Save and Compile

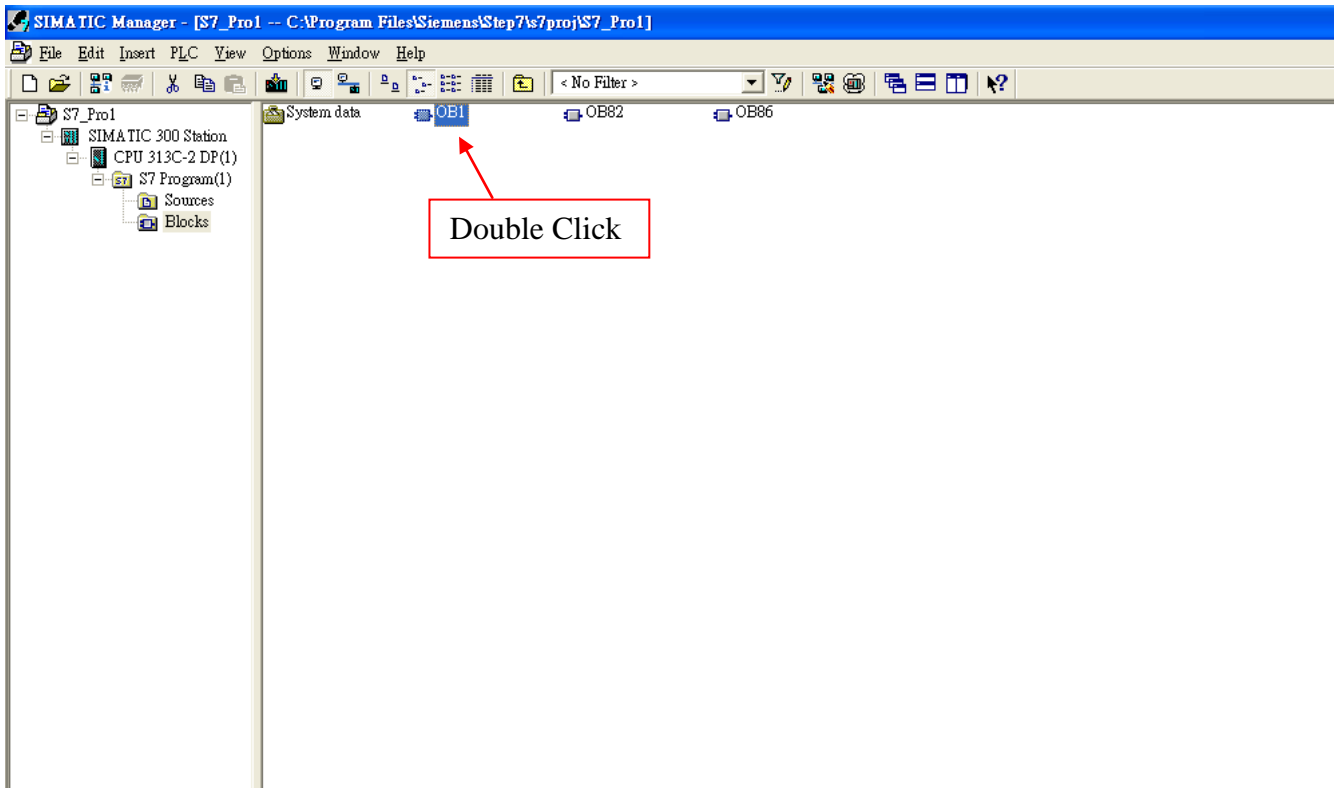
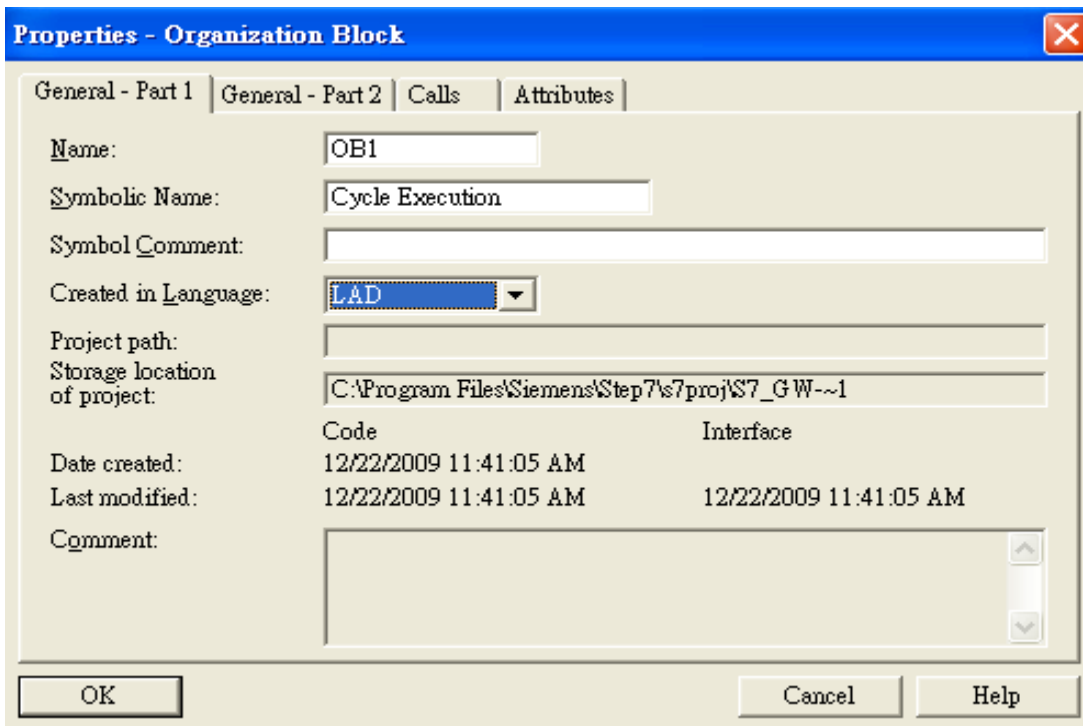


2. HW settings into SIMATIC PLC



Step 4: Insert a new Organization Block (OB1,OB82,OB86)





Step 5: Edit OB1

Variables used in the example LD Program:

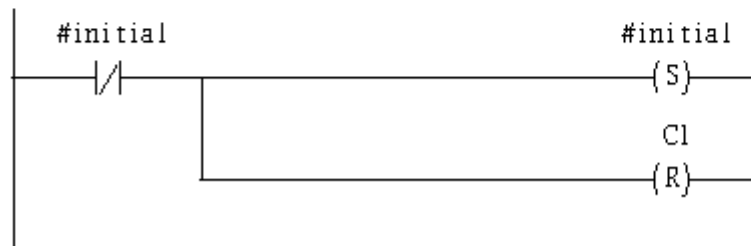
Name	Data Type	Address	Comment
OB1_MAX...	Int	10.0	Maximum cycle time of OBI (milliseconds)
OB1_DAT...	Date_...	12.0	Date and time OBI started
END	Bool	20.0	
Tri	Int	22.0	
initial	Bool	24.0	

OB1 : "Main Program Sweep (Cycle)"

PROFIBUS Slave
Modbus Master

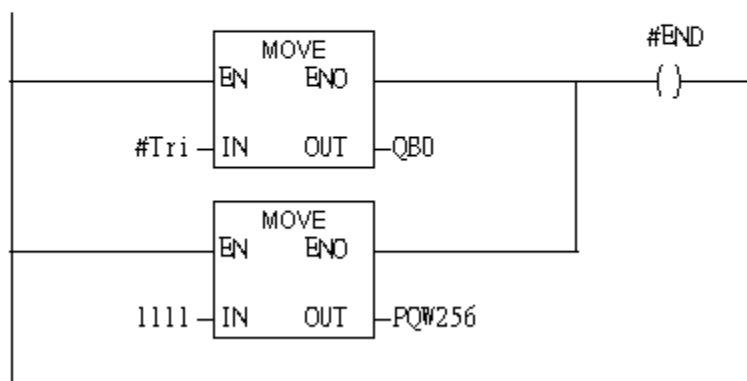
Network 1 : Reset Counter(C1)

Reset Counter(C1)



Network 2 : QBO add "1" then PLC will send PQW256 out.

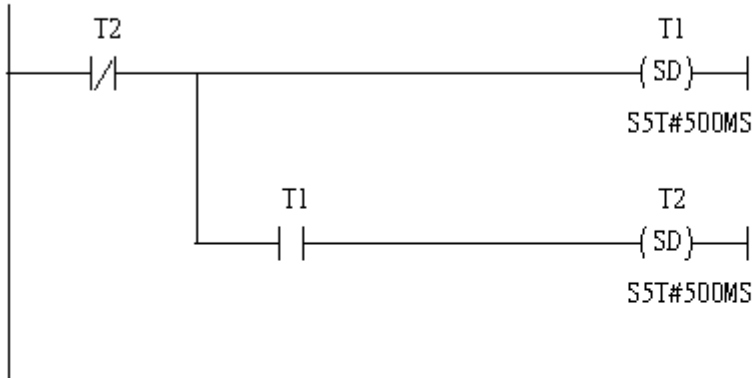
1 word 16AO



Using T2 trigger T1 If counter (C1) add 1 and Tri will add 1 every 1s.

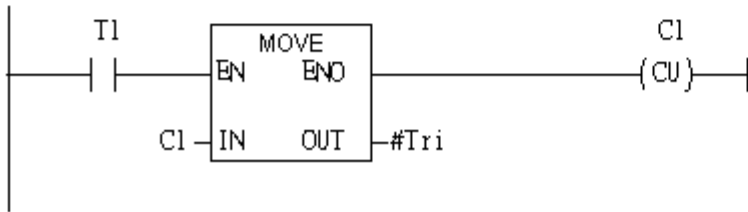
Network 3 : Timer T1 & T2

Using T2 trigger T1



Network 4 : Counter C1

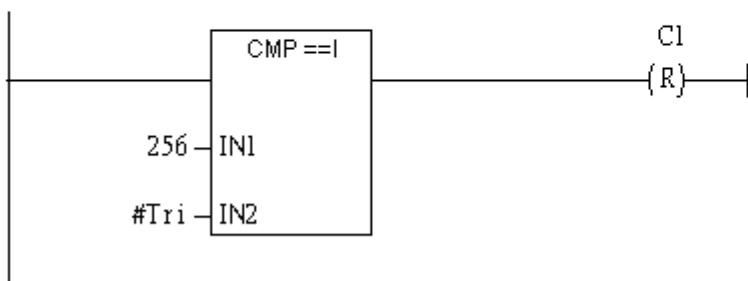
If counter(C1) add "1" and Tri will add "1" ,too.



If Tri is equal to 256 then reset counter (C1).

Network 5 : Compare Tri & 256

If Tri is equal to 256 ,C1 will reset.



Step 6: Download the settings into SIMATIC PLC

The screenshot shows the SIMATIC Manager interface. The 'Download' menu is open, displaying options such as 'Select Online CPU...', 'Establish Connection to Configured CPU', 'CPU Messages...', 'Display Force Values', 'Monitor/Modify Variables', 'Module Information...', 'Operating Mode...', 'Clear/Reset...', and 'Set Time of Day...'. The 'Download' option is highlighted with a blue bar. Below the menu, a table lists variables:

Name	Data Type	Address	Comment
OBI_PRE...	Int	6.0	Cycle time of previous OBI scan (milliseconds)
OBI_MIN...	Int	8.0	Minimum cycle time of OBI (milliseconds)
OBI_MAX...	Int	10.0	Maximum cycle time of OBI (milliseconds)
OBI_DAT...	Date ...	12.0	Date and time OBI started

Below the table, a ladder logic diagram shows a 'CMP == I' block with inputs '256-IN1' and '#Tri-IN2', and an output 'C1 (R)'. The 'Download' menu is also open over the diagram.

Step 7: Make sure the RUN LED of the GW-7552 is on and the switch of the GW-7552 is at Normal mode.



Now the setting procedure has been finished and the user can write the data to the Modbus AO module at address PQW256.

Network 2 : QB0 add "1" then PLC will send PQB256 out.

1 word 16AO

