GW-7552 (Modbus RTU Master) Example for SIMATIC STEP 7(TIA Portal)

- Before Connecting
- Example 1:Reads and Writes DO module data
- Example 2:Reads DI module data
- Example 3:Reads and Writes AO module data
- Example 4:Reads AI module data

Before connecting

- Add a PROFIBUS master system and a PROFIBUS slave (GW-7552)

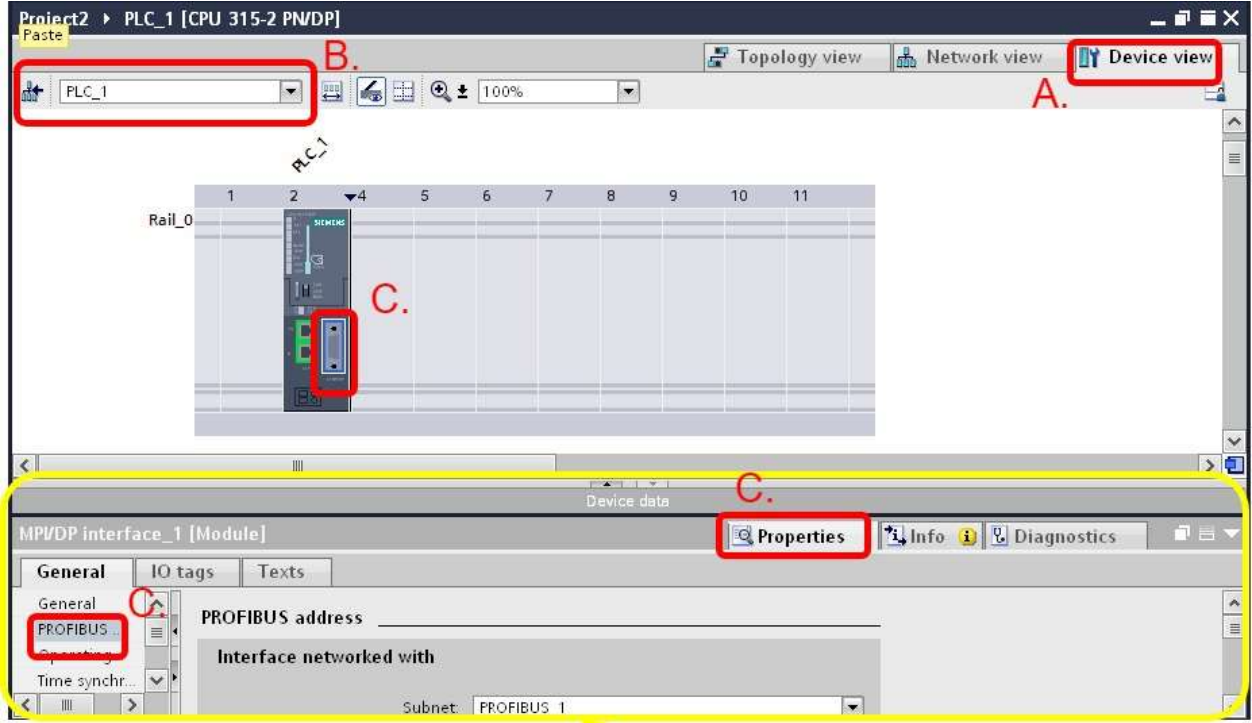
Set the address of PLC as below

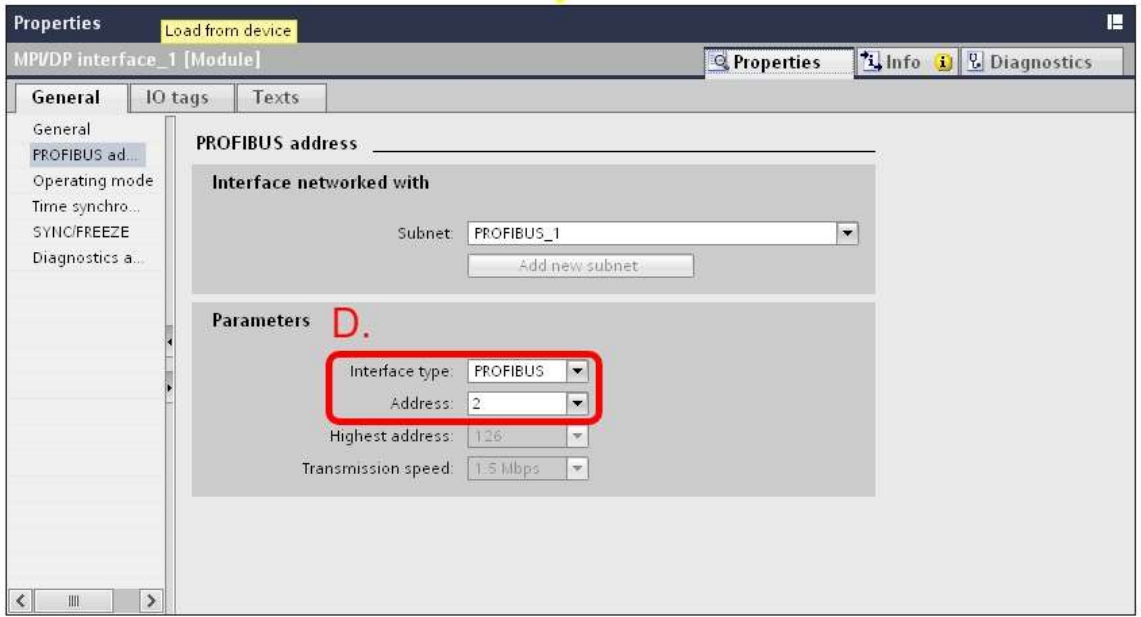
(A) Click “Device view”

(B) Select “PLC_1” (Which PLC you connect to GW-7552)

(C) Click “Properties” and “PROFIBUS address”

(D) Set “interface type”=PROFIBUS and set “Address”=2





Set GW-7552 comport setting as below

(A) Select “Slave_1” (Select the slave which is GW-7552)

(B) Select “Properties” and “Device-specific”

(C) Set comport :

Buad rate: 115200 baud

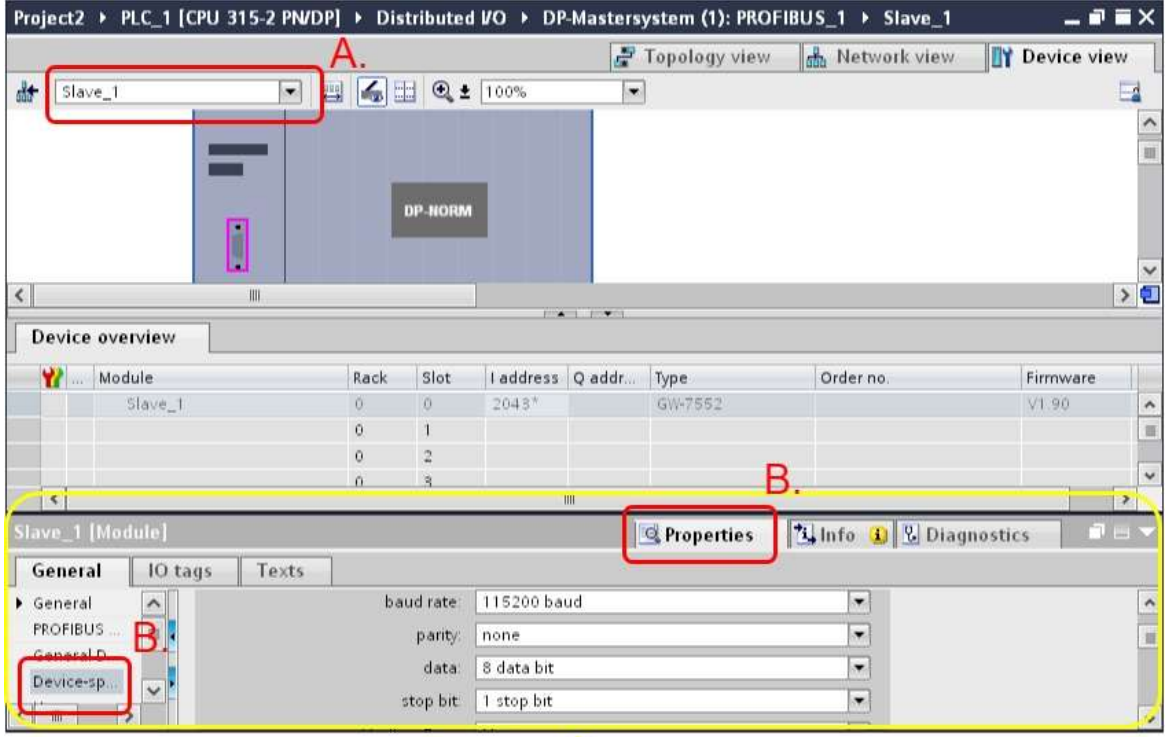
Parity: None

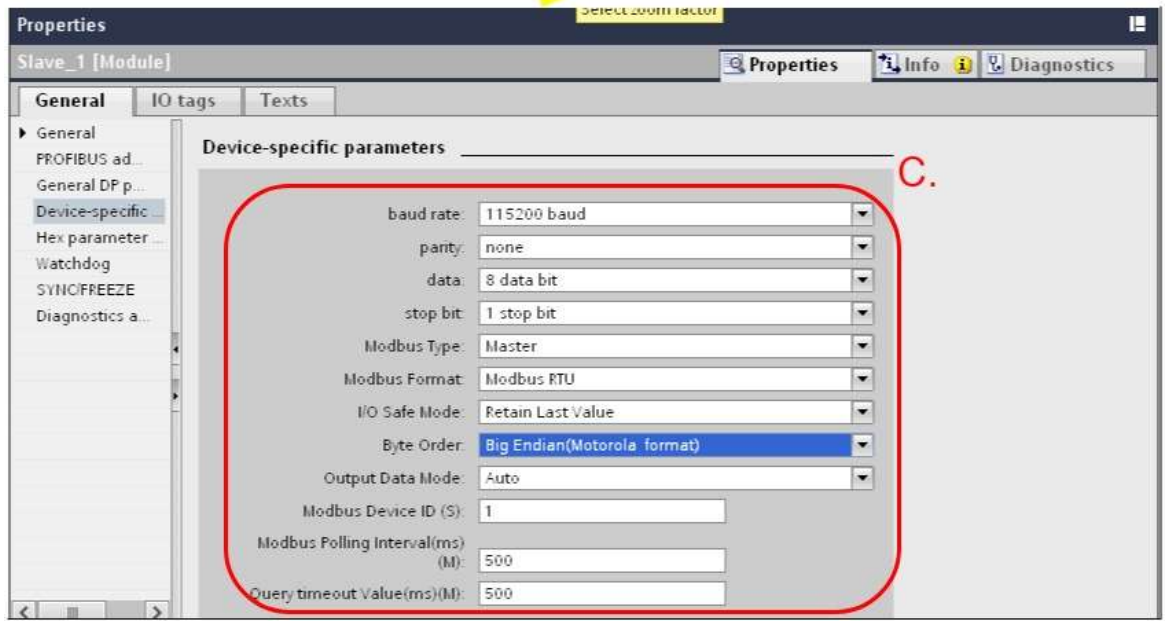
Data bit: 8

Stop bit: 1

Byte order: Big Endian

Output Data Mode: Auto

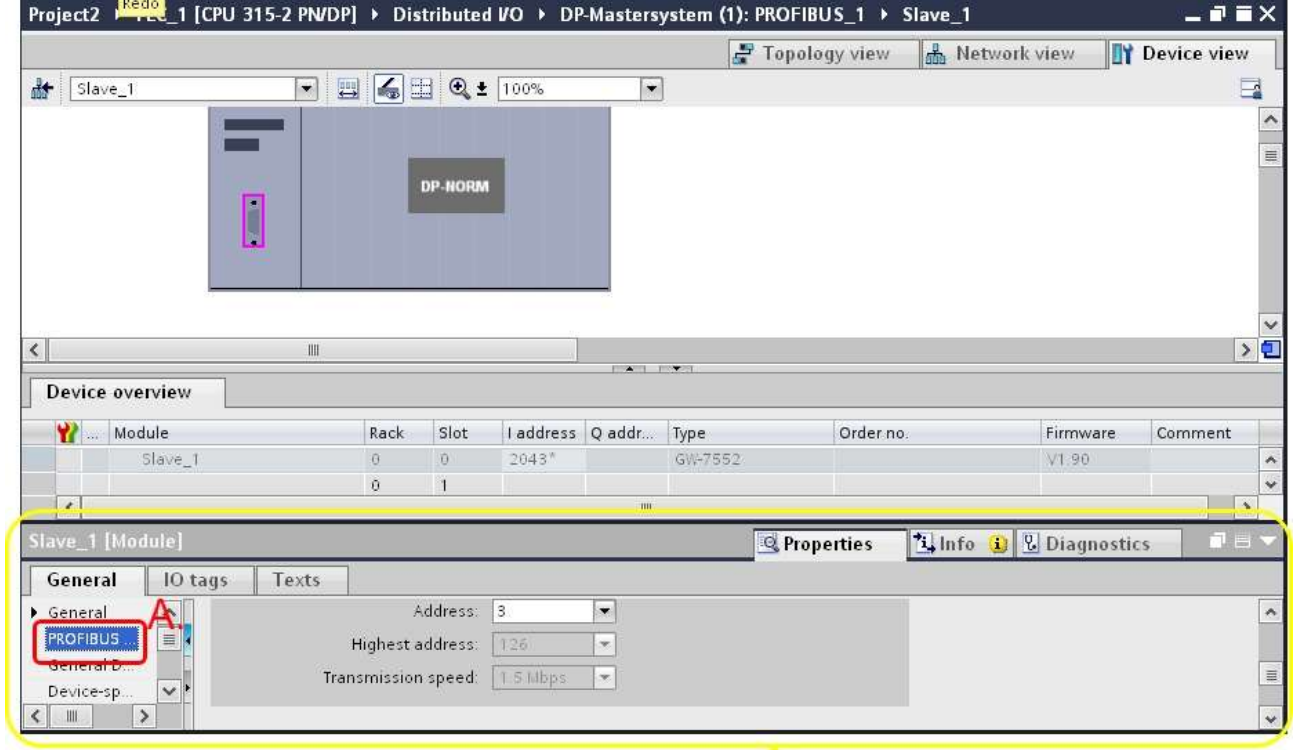


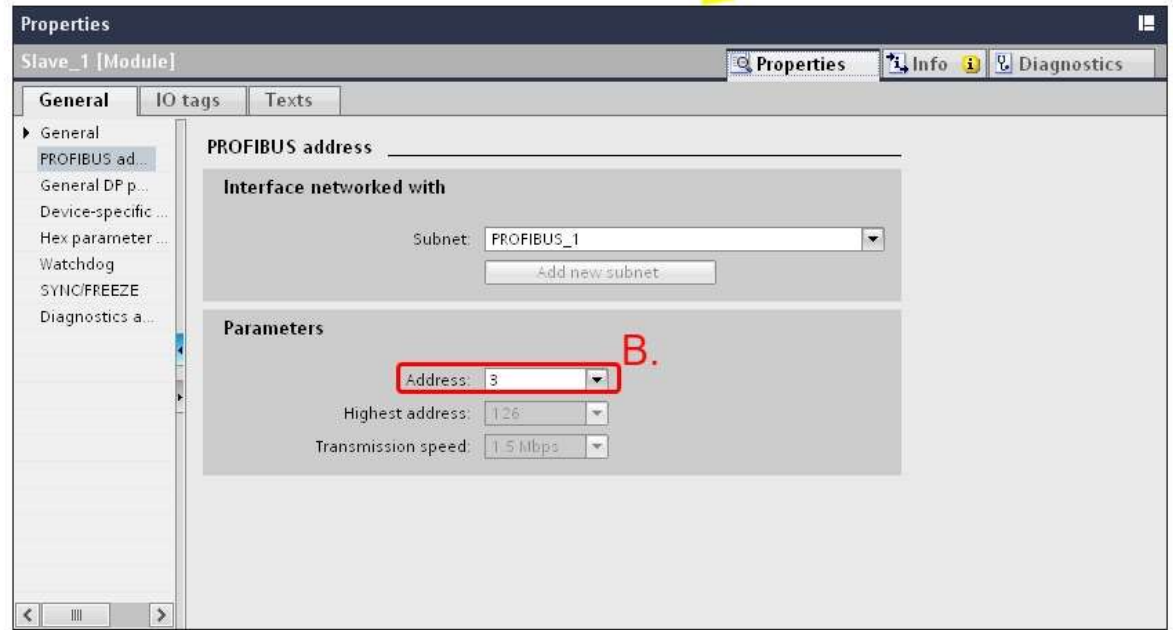


Set the address of GW-7552 as below

(A) Click “Properties” and
“PROFIBUS address”

(B) Set “Address”=3





Before connecting

- Make sure the switch of the GW-7552 is at Normal mode
- Refer to GW7552 user manual 2.6

Before connecting

- Setup the address by the DIP switch to set GW-7552's address as 3 in PROFIBUS
- Refer to GW-7552 user manual 2.4

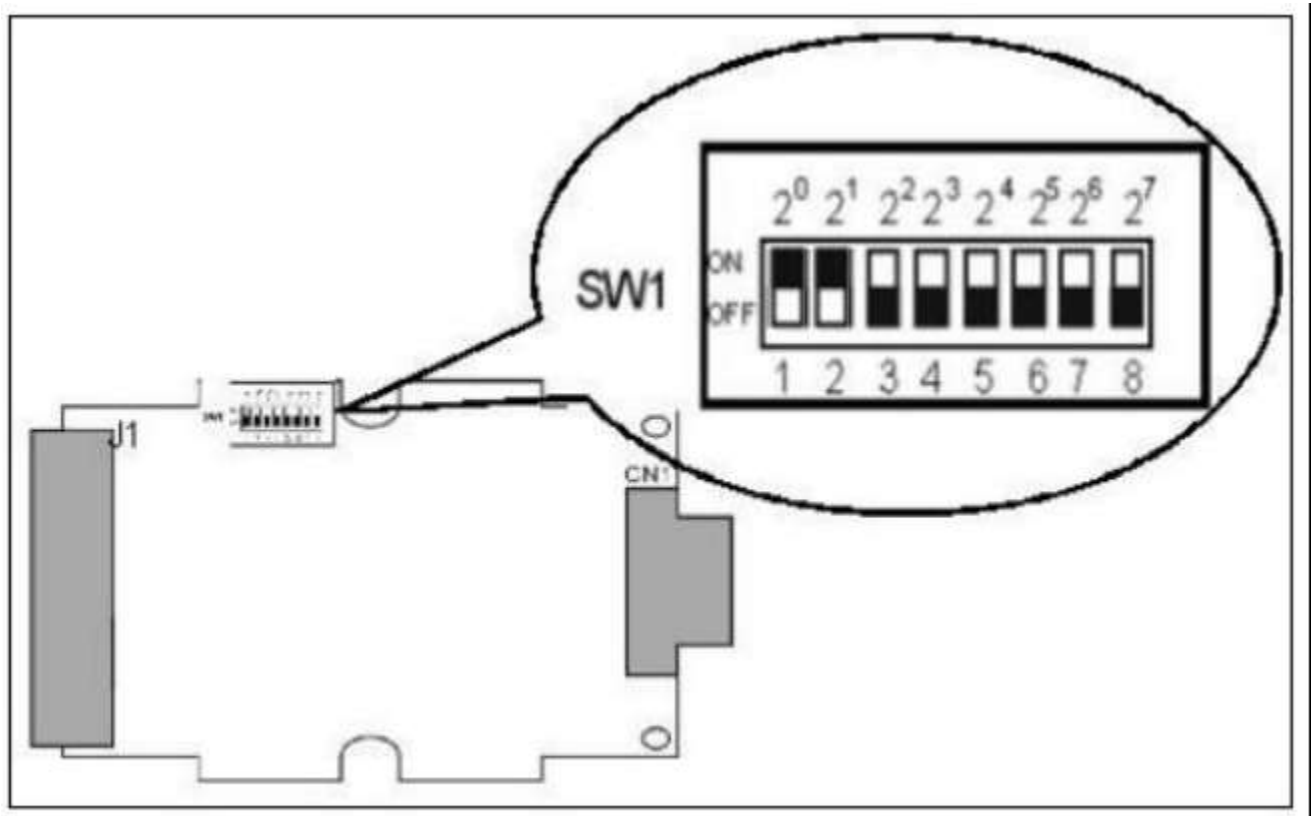
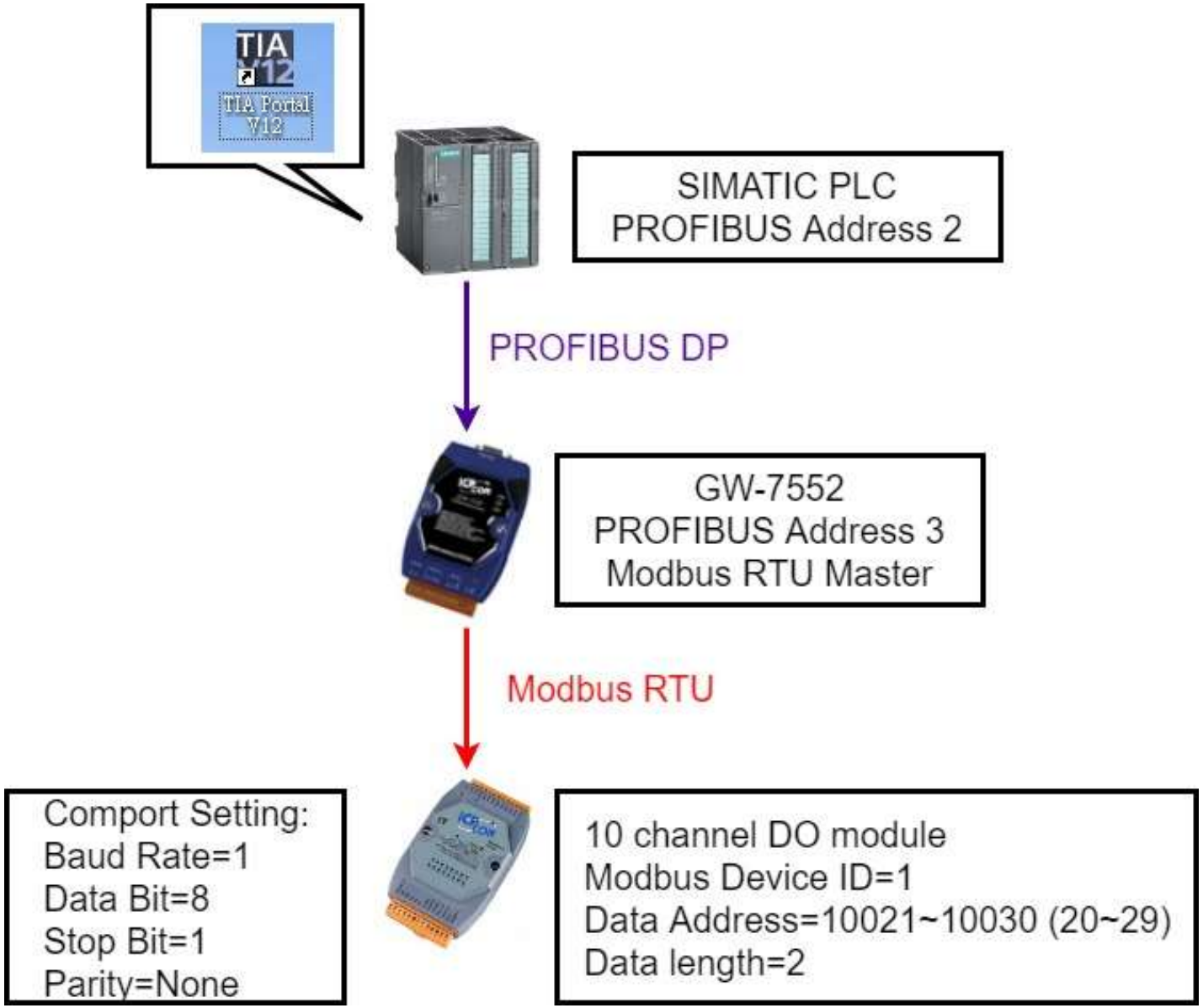
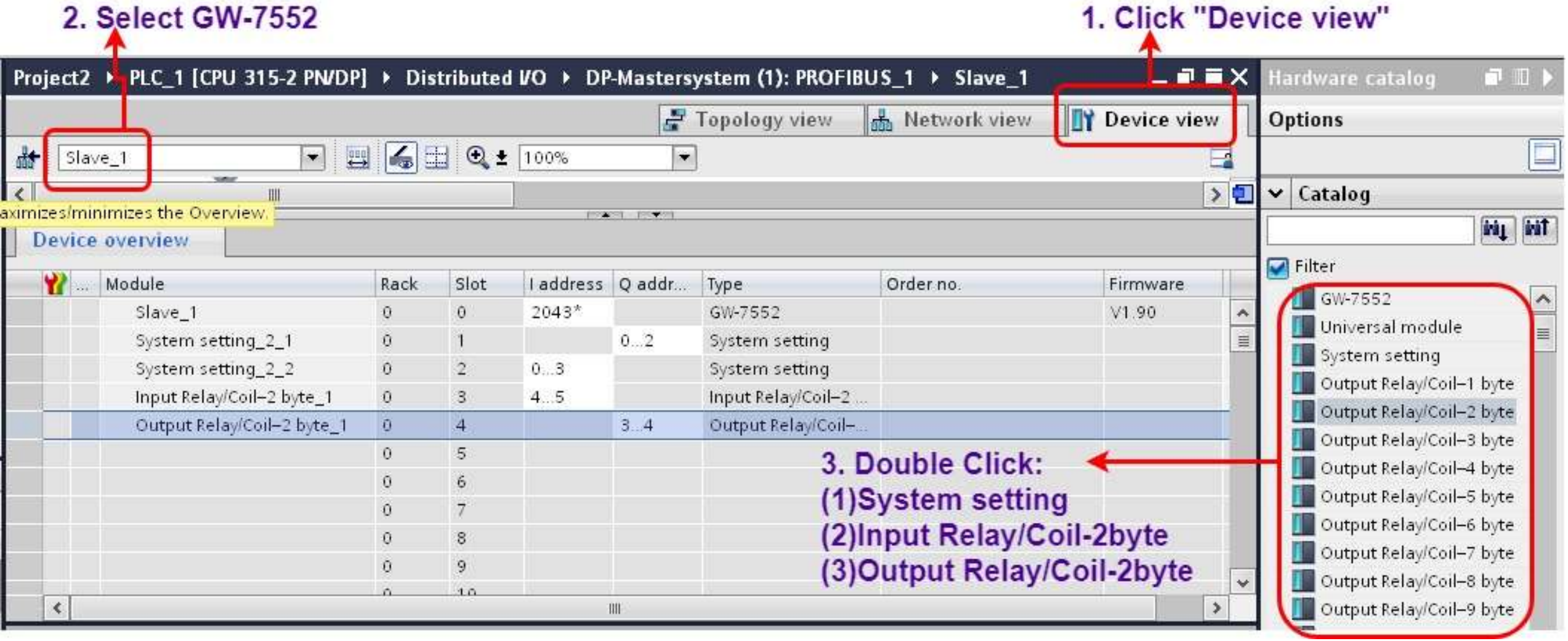


Figure 12: DIP switch

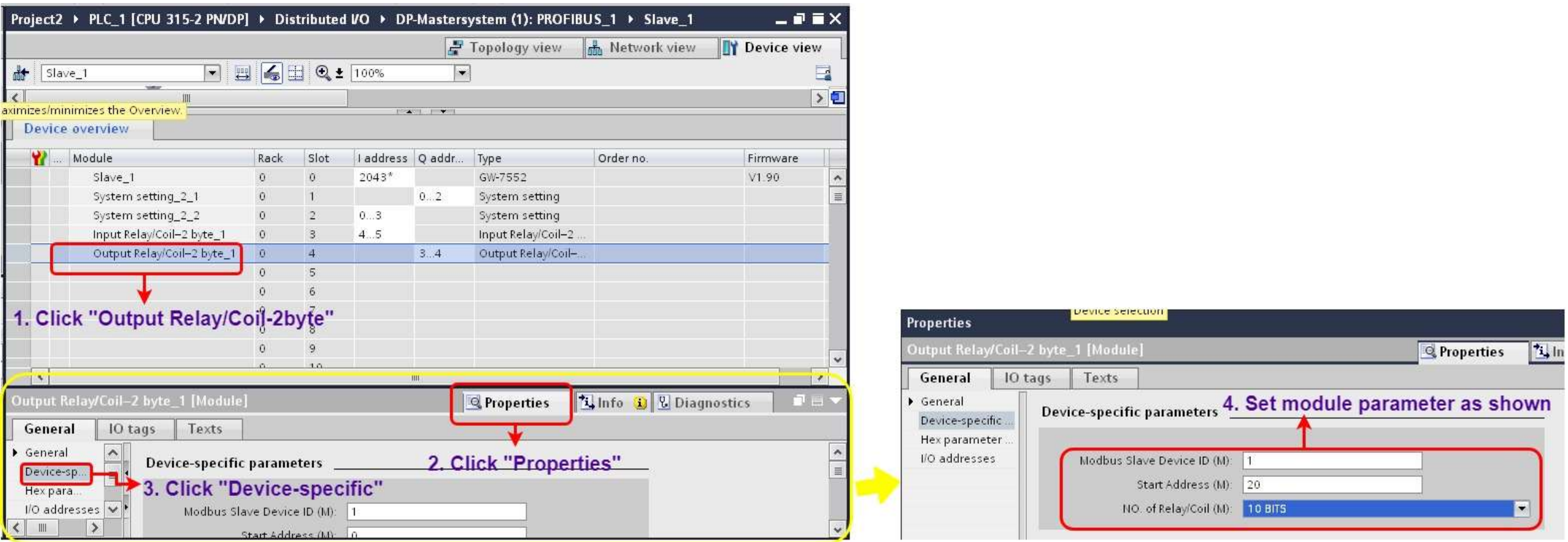
Reads and Writes DO module data



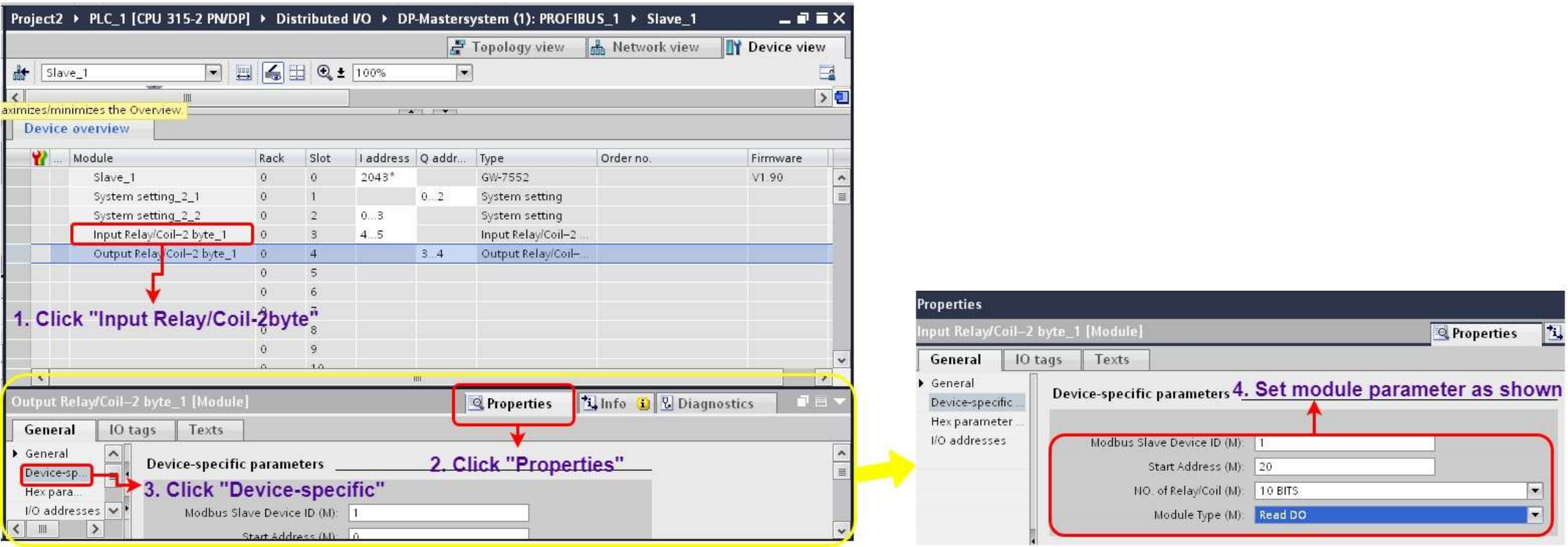
Reads and Writes DO module data



Reads and Writes DO module data



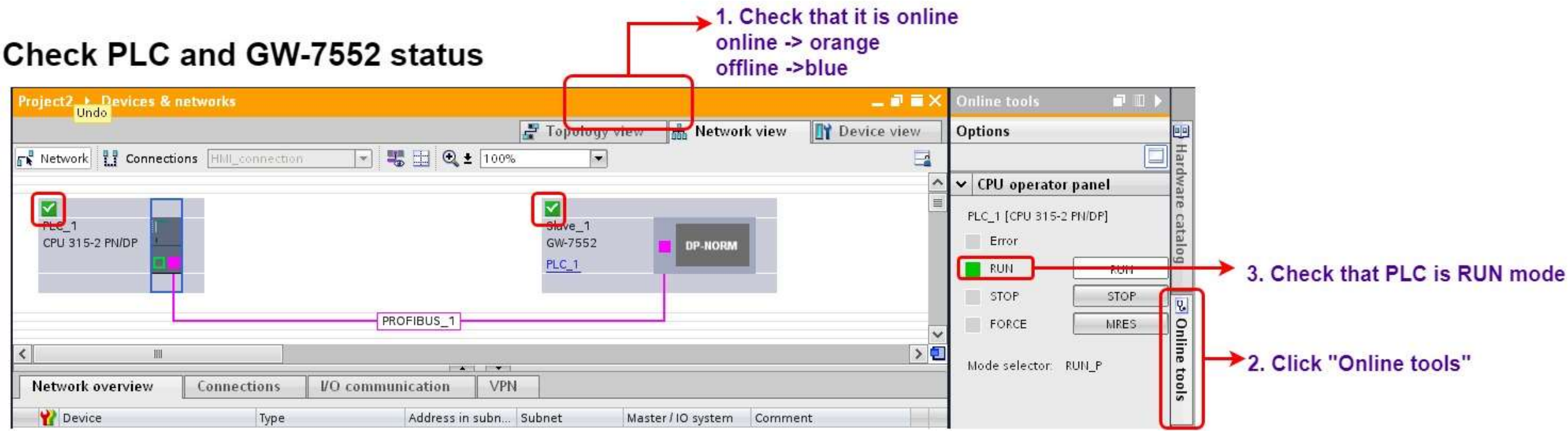
Reads and Writes DO module data



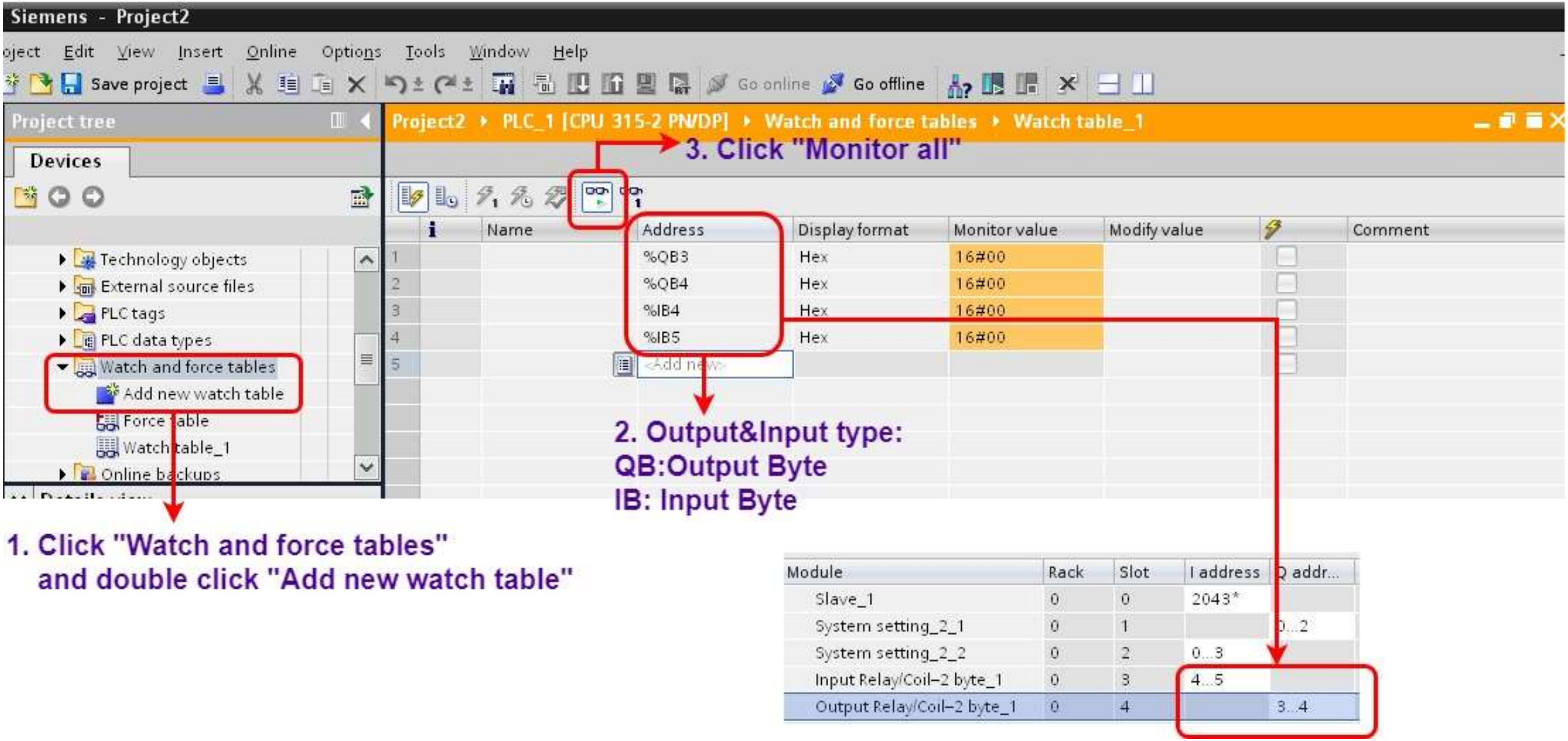
Reads and Writes DO module data

Reads and Writes DO module data

Check PLC and GW-7552 status

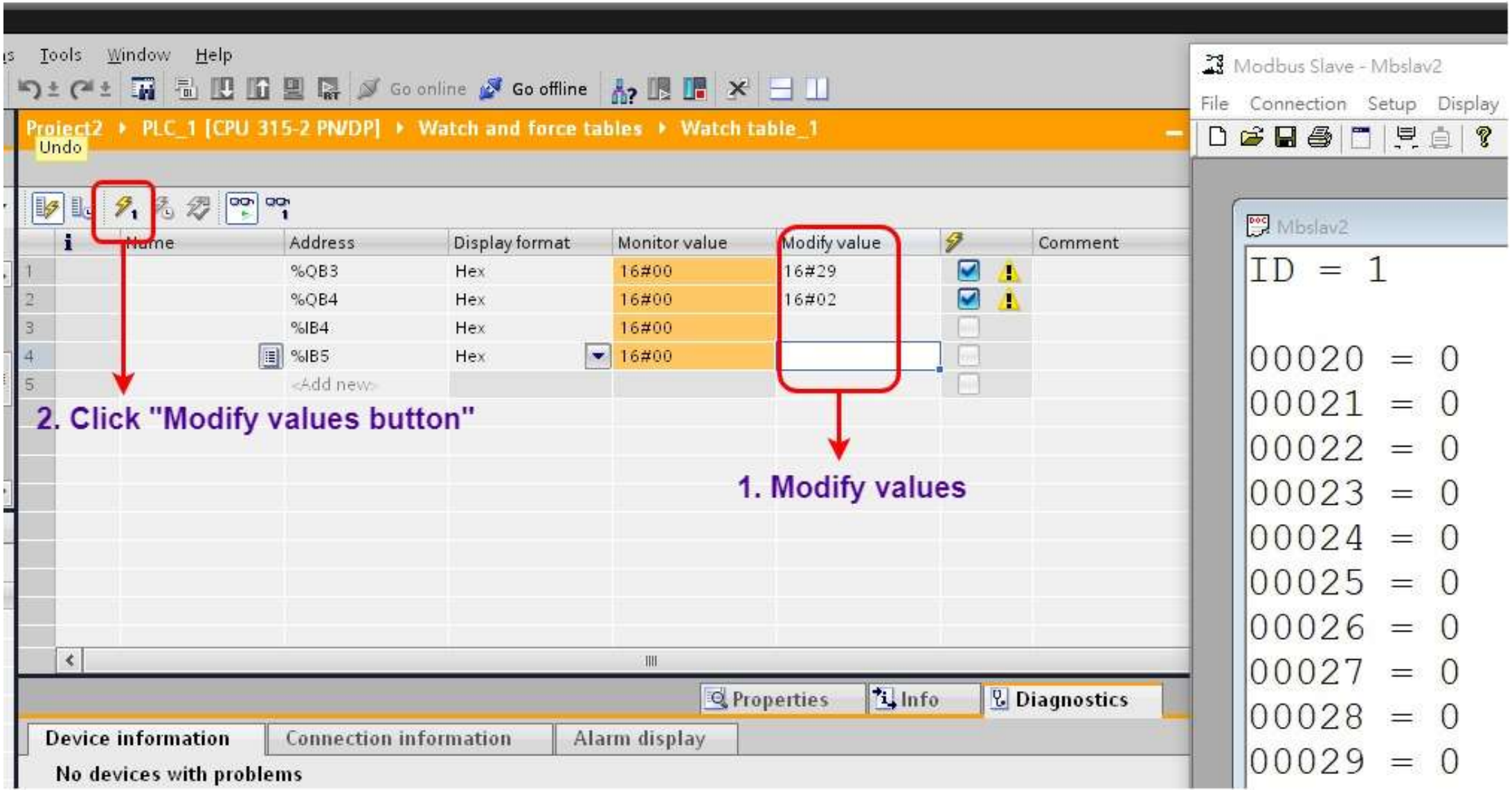


Reads and Writes DO module data



Reads and Writes DO module data

Modify values and Send Modbus commands



Reads and Writes DO module data

Modify values and Send Modbus commands

Address	Display format	Monitor value	Modify value		Comment
%QB3	Hex	16#29	16#29	☑ ⚠	
%QB4	Hex	16#02	16#02	☑ ⚠	
%IB4	Hex	16#29		☐	
%IB5	Hex	16#02		☐	
<Add new>				☐	

Type	Read/Write	Modbus Address	value
QB3	Write DO	20~27(00021~00028)	0x29
QB4	Write DO	28~29(00029~00030)	0x02
IB4	Read DO	20~27(00021~00028)	0x29
IB5	Read DO	28~29(00029~00030)	0x02

Properties | Info | Diagnostics

Connection information | Alarm display

ms

Mbslav2

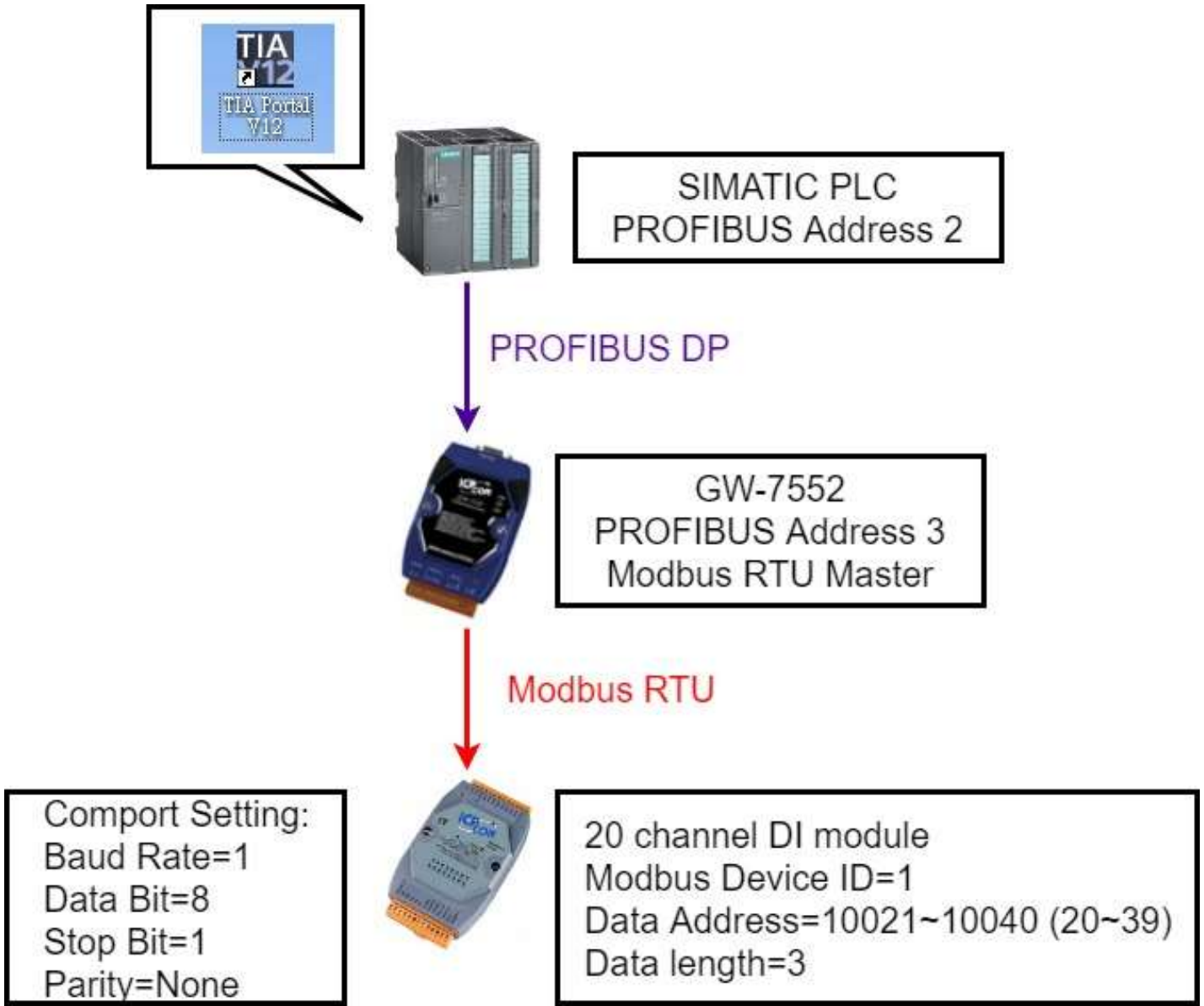
```
ID = 1

00020 = 1
00021 = 0
00022 = 0
00023 = 1
00024 = 0
00025 = 1
00026 = 0
00027 = 0
00028 = 0
00029 = 1
```

9

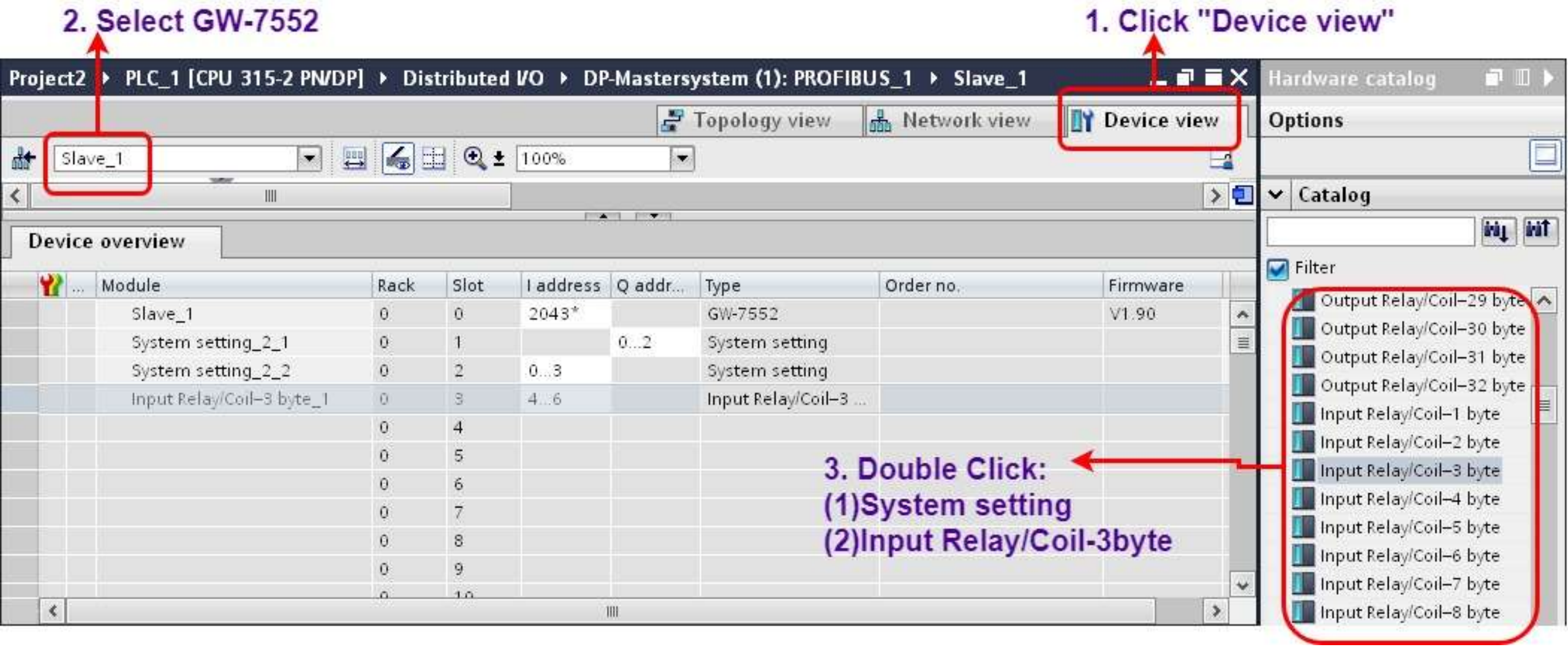
2

2

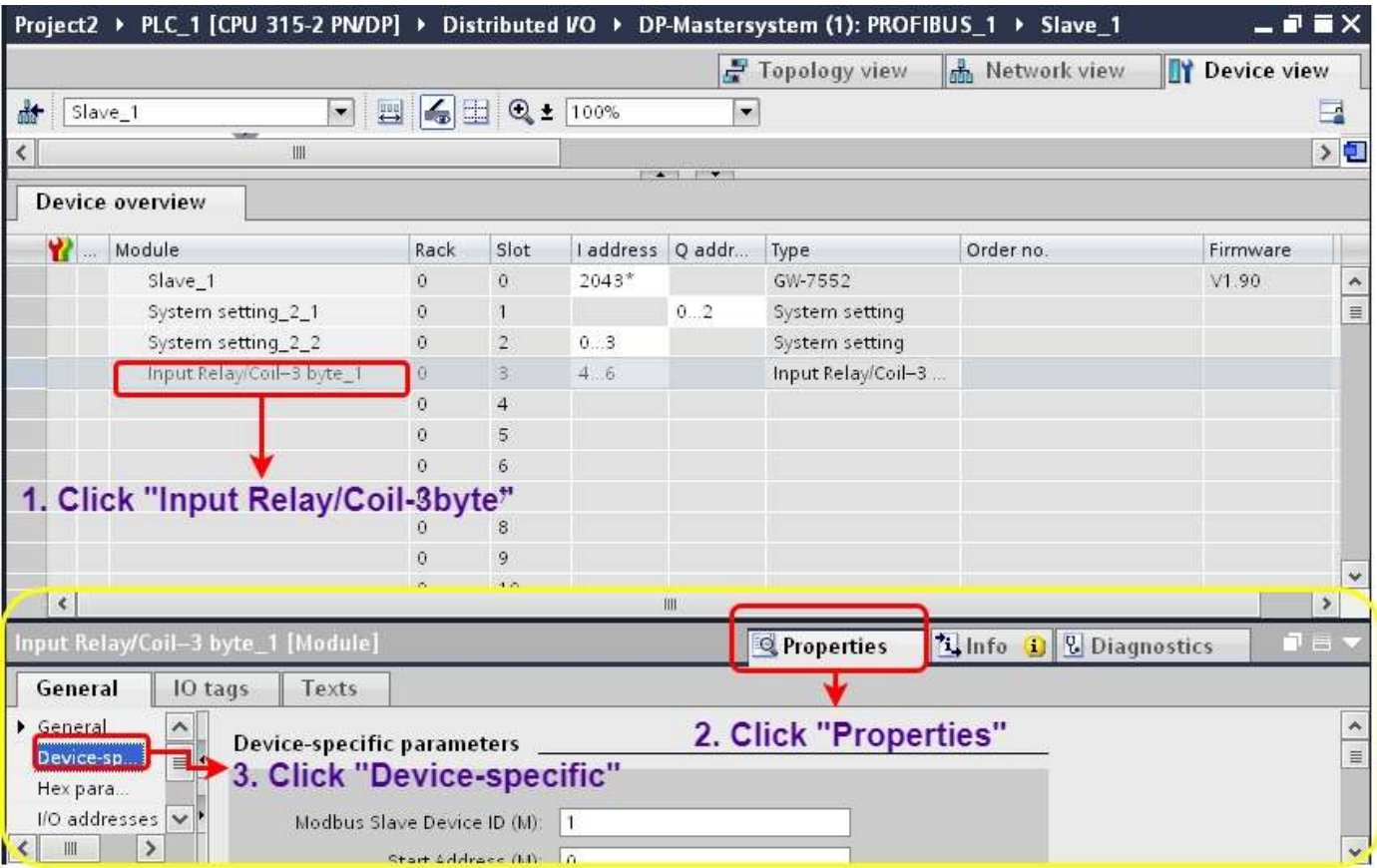
Reads DI module data

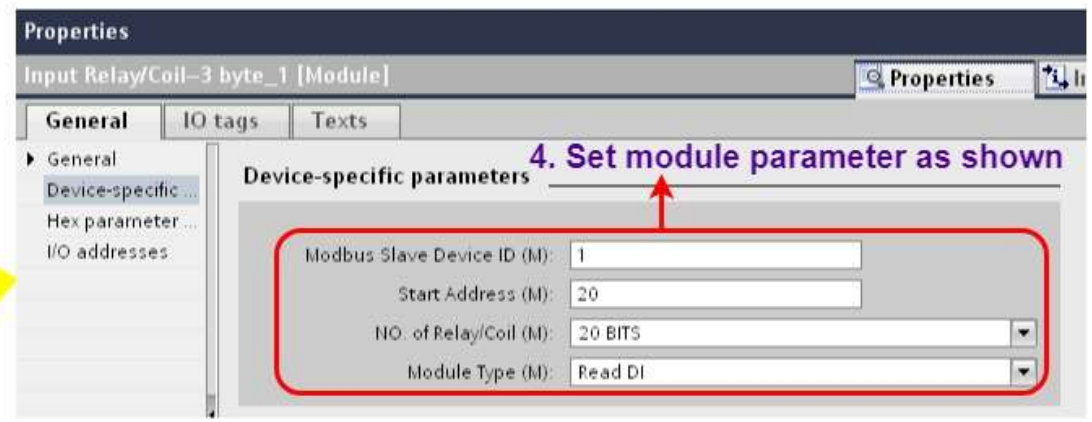


Reads DI module data



Reads DI module data

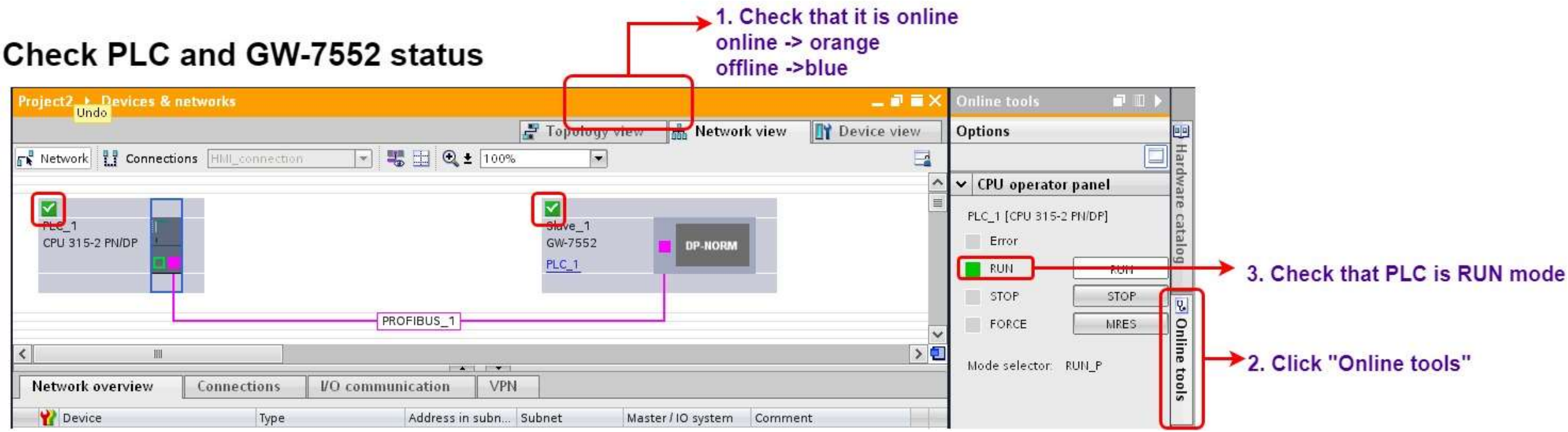




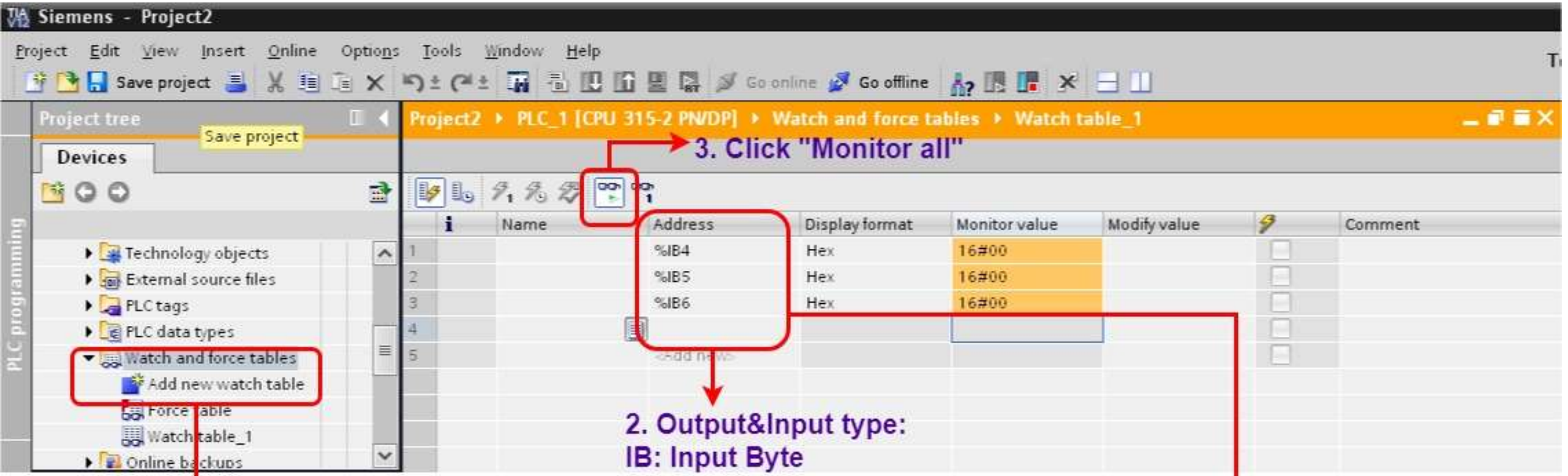
Reads DI module data

Reads DI module data

Check PLC and GW-7552 status



Reads DI module data



Module	Rack	Slot	I address	Q addr...
Slave_1	0	0	2043*	
System setting_2_1	0	1		0...2
System setting_2_2	0	2	0...3	
Input Relay/Coil-3 byte_1	0	3	4...6	

Reads DI module data

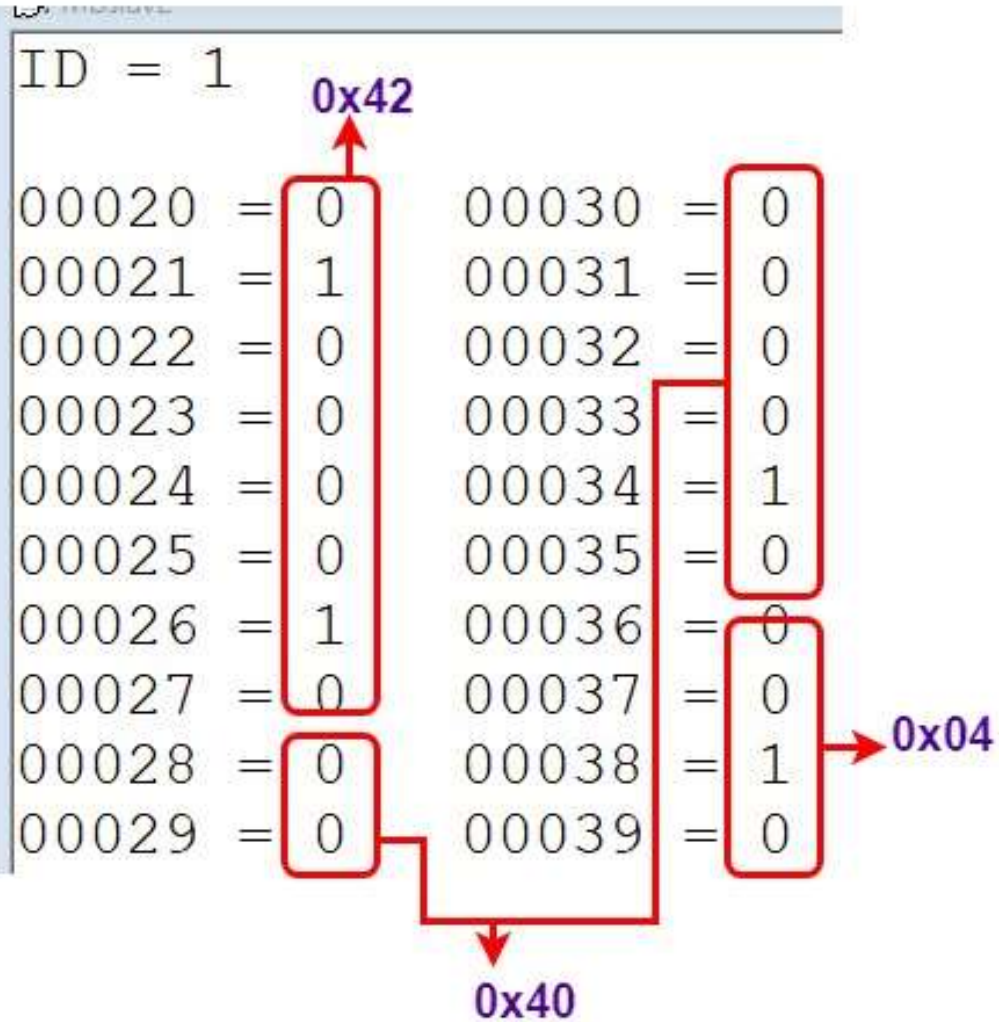
Modify values and Send Modbus commands

Address	Display format	Monitor value	Modify value		Comment
%IB4	Hex	16#42			
%IB5	Hex	16#40			
%IB6	Hex	16#04			
<Add new>					

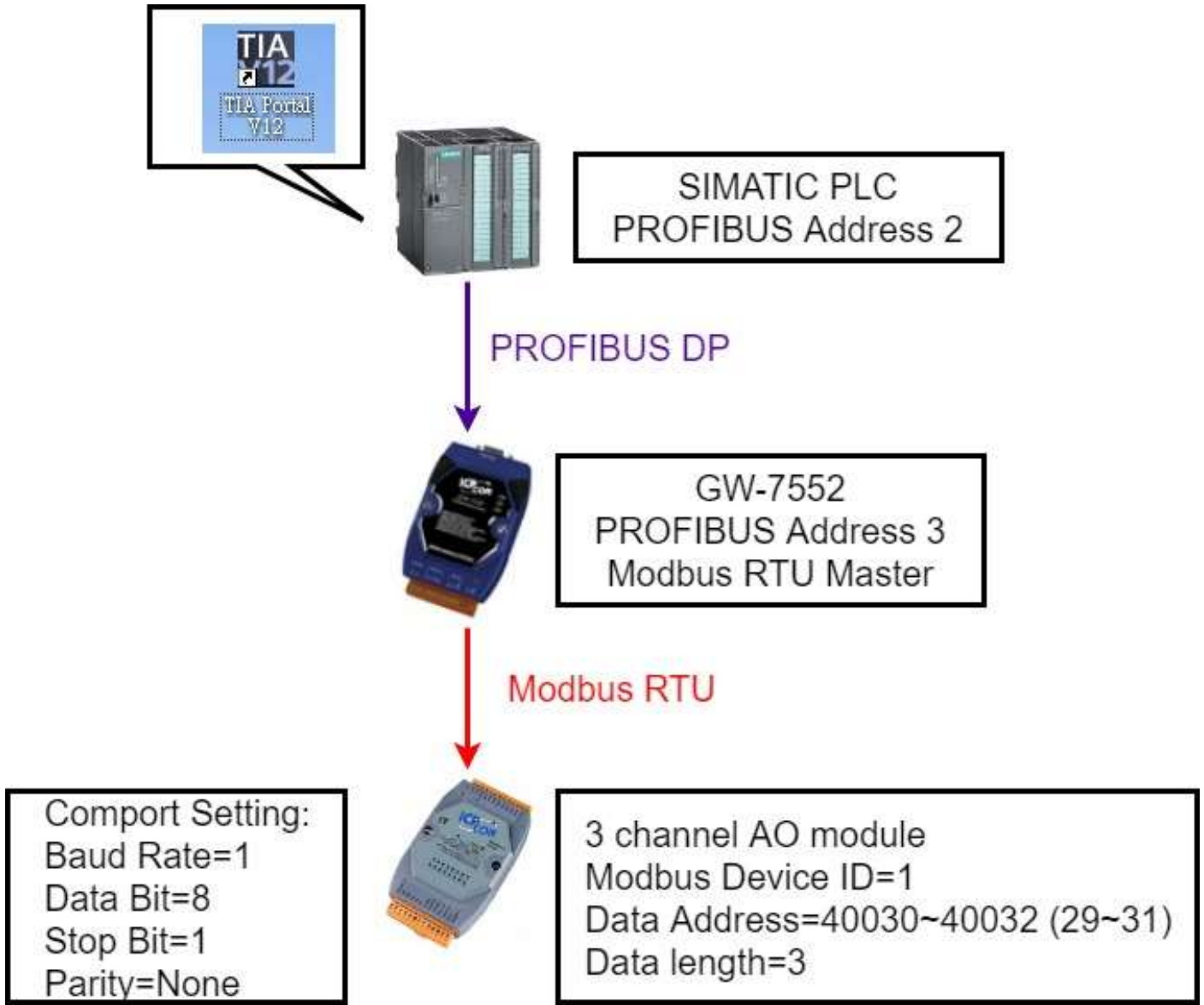
Type	Read/Write	Modbus Address	value
IB4	Read DI	20~27(10021~10028)	0x42
IB5	Read DI	28~35(10029~10036)	0x40
IB6	Read DI	36~39(10037~10040)	0x04

Properties | Info | Diagnostics

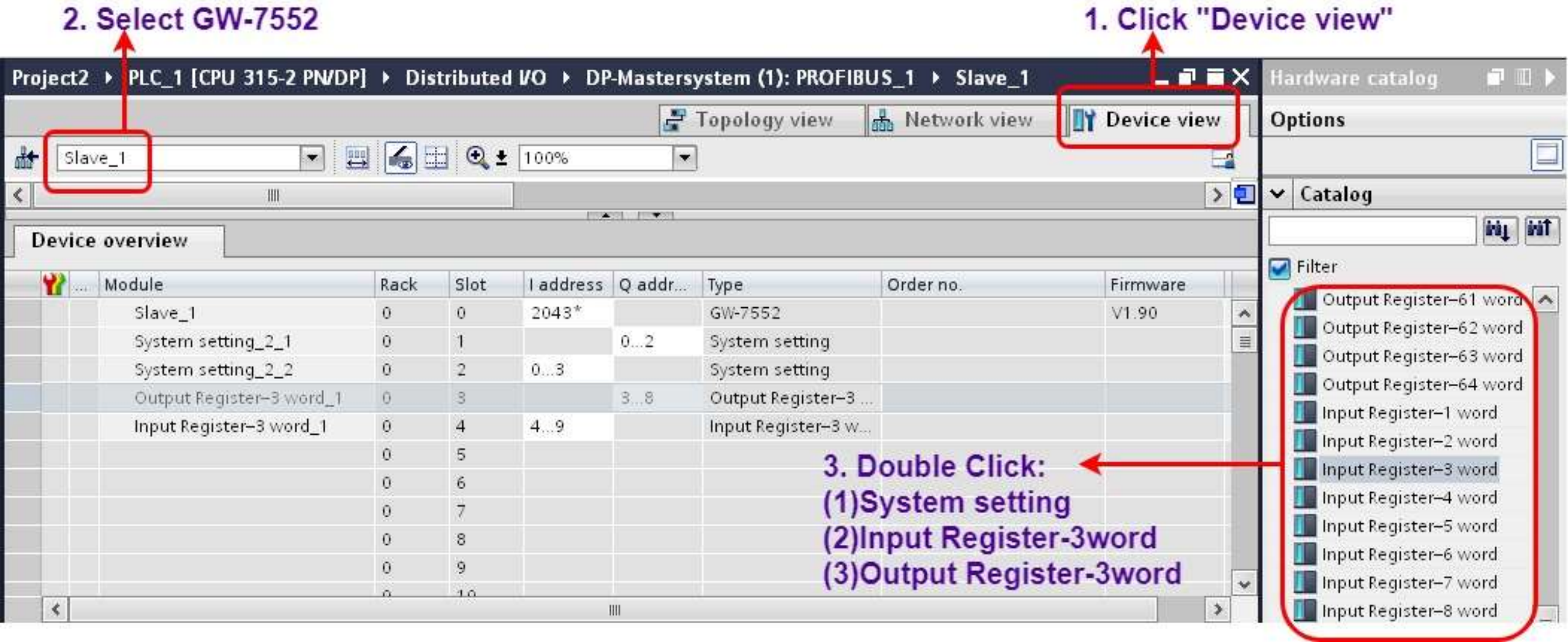
Connection information | Alarm display



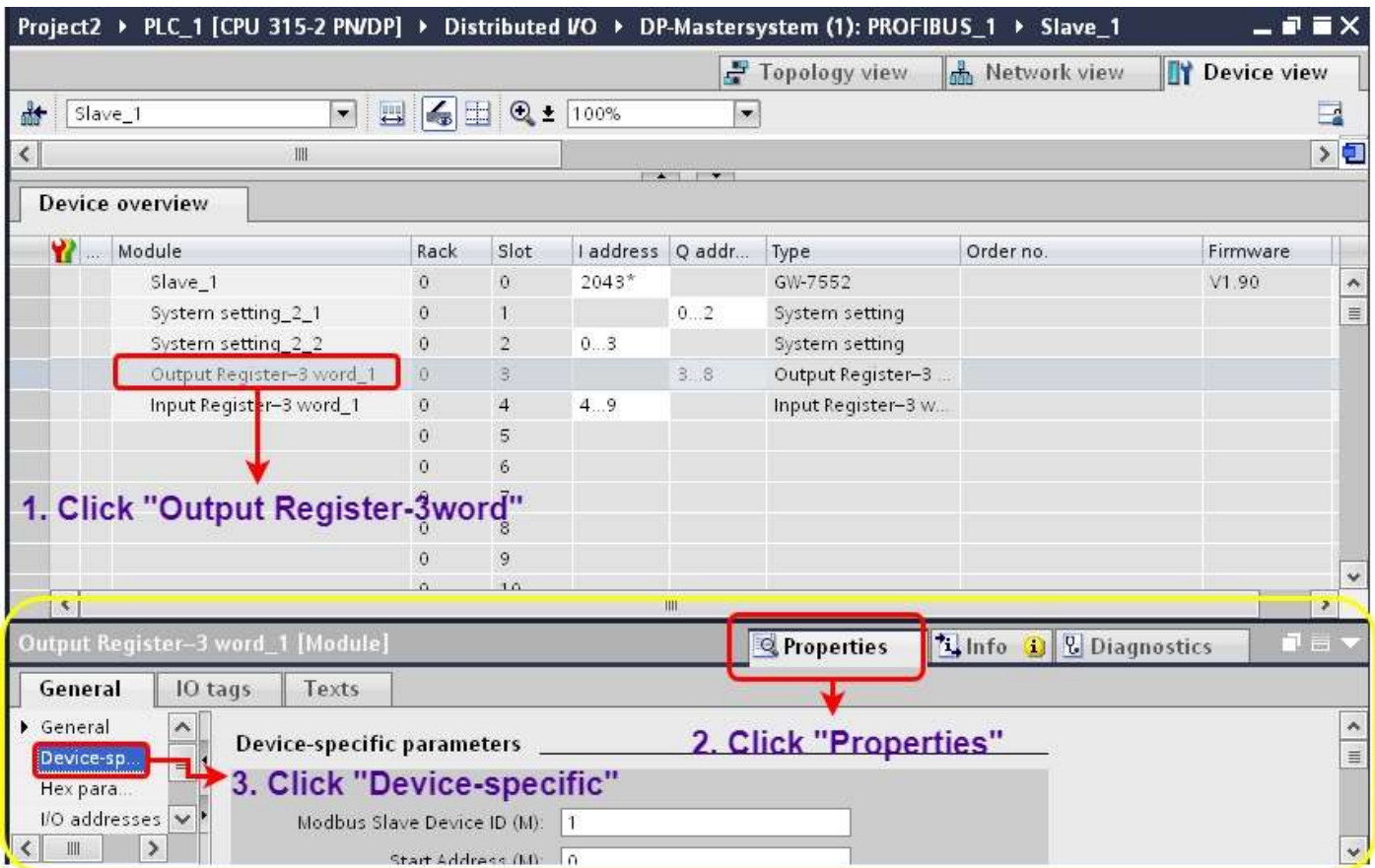
Reads and Writes AO module data

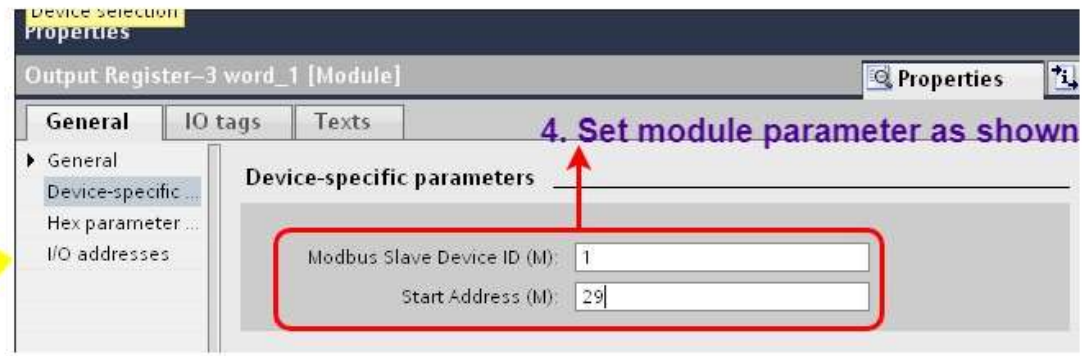


Reads and Writes AO module data

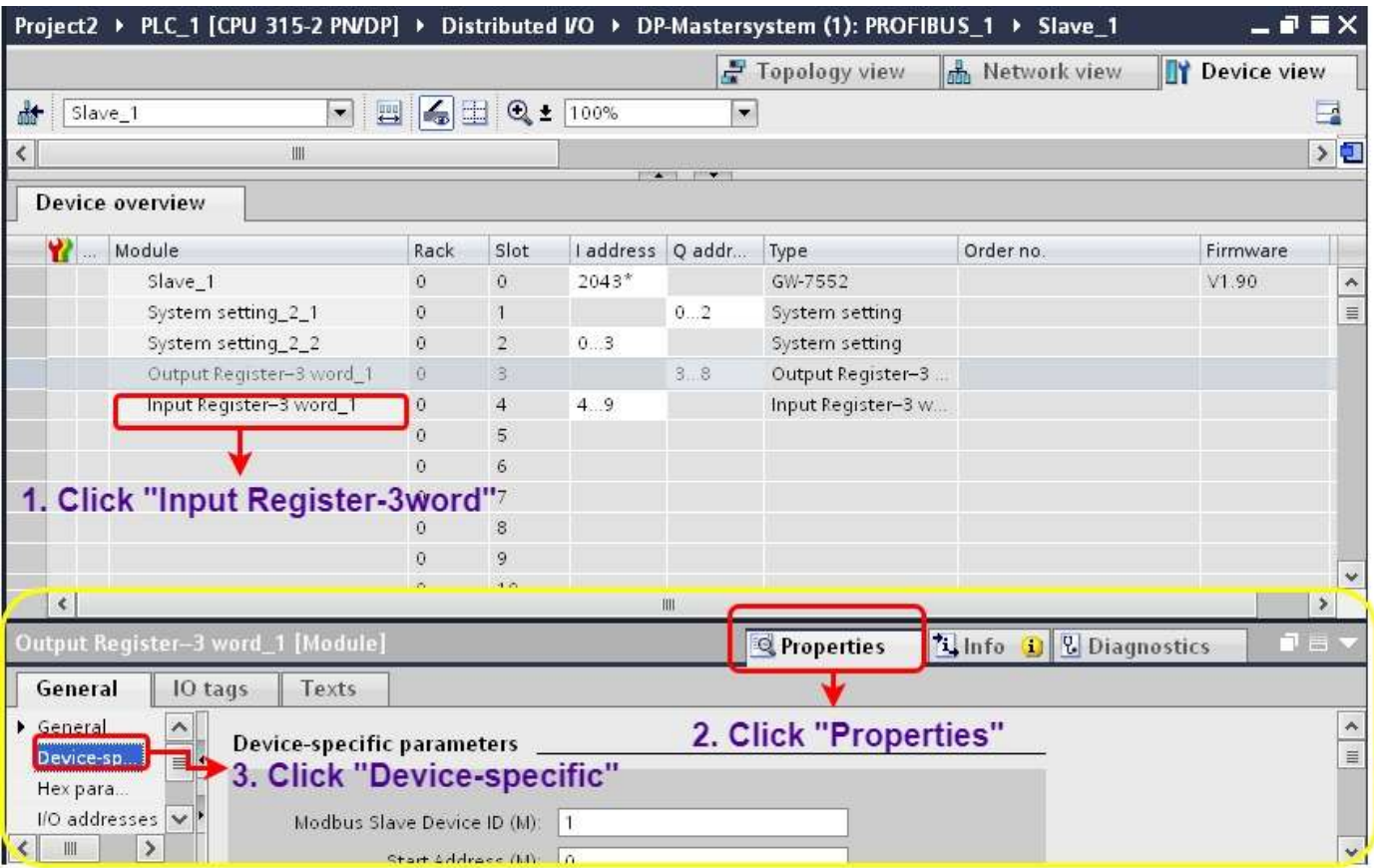


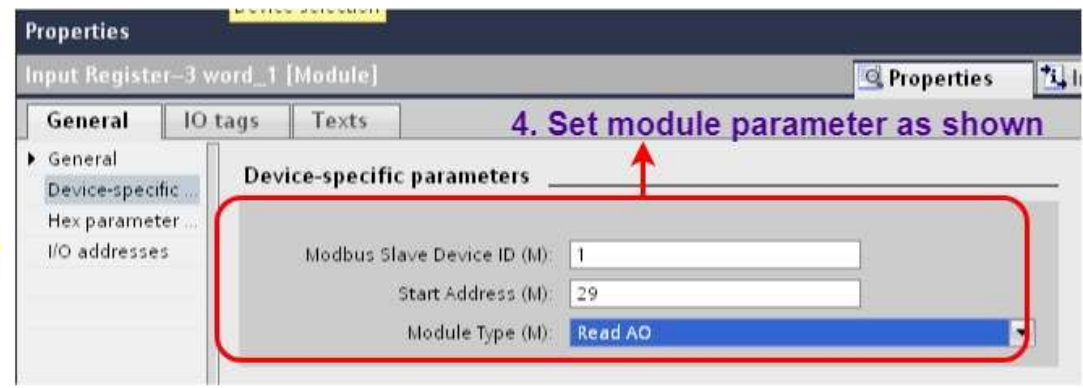
Reads and Writes AO module data





Reads and Writes AO module data

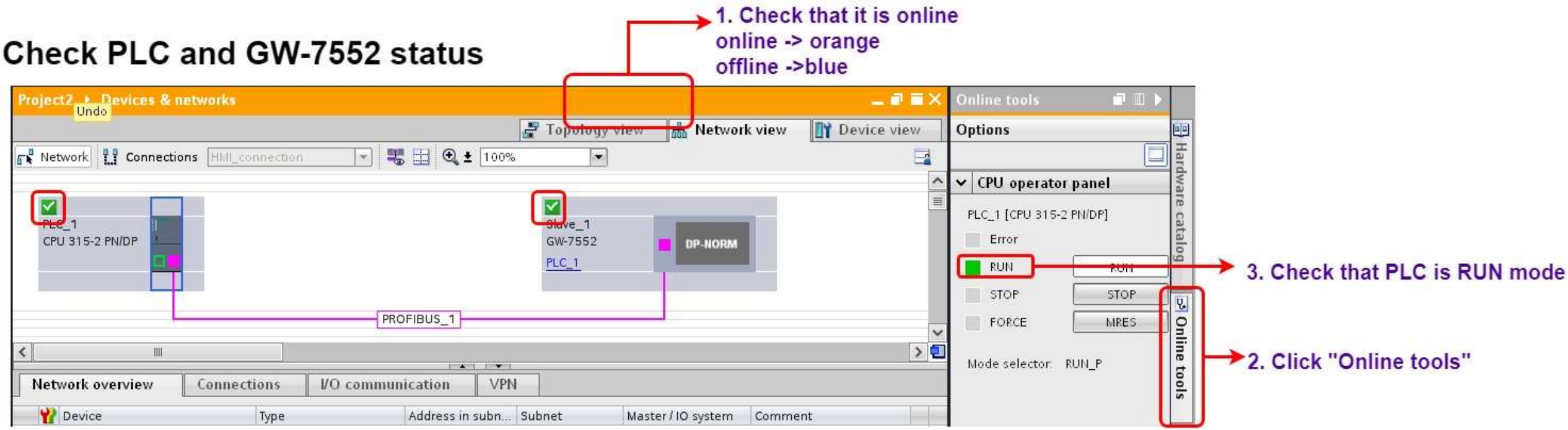




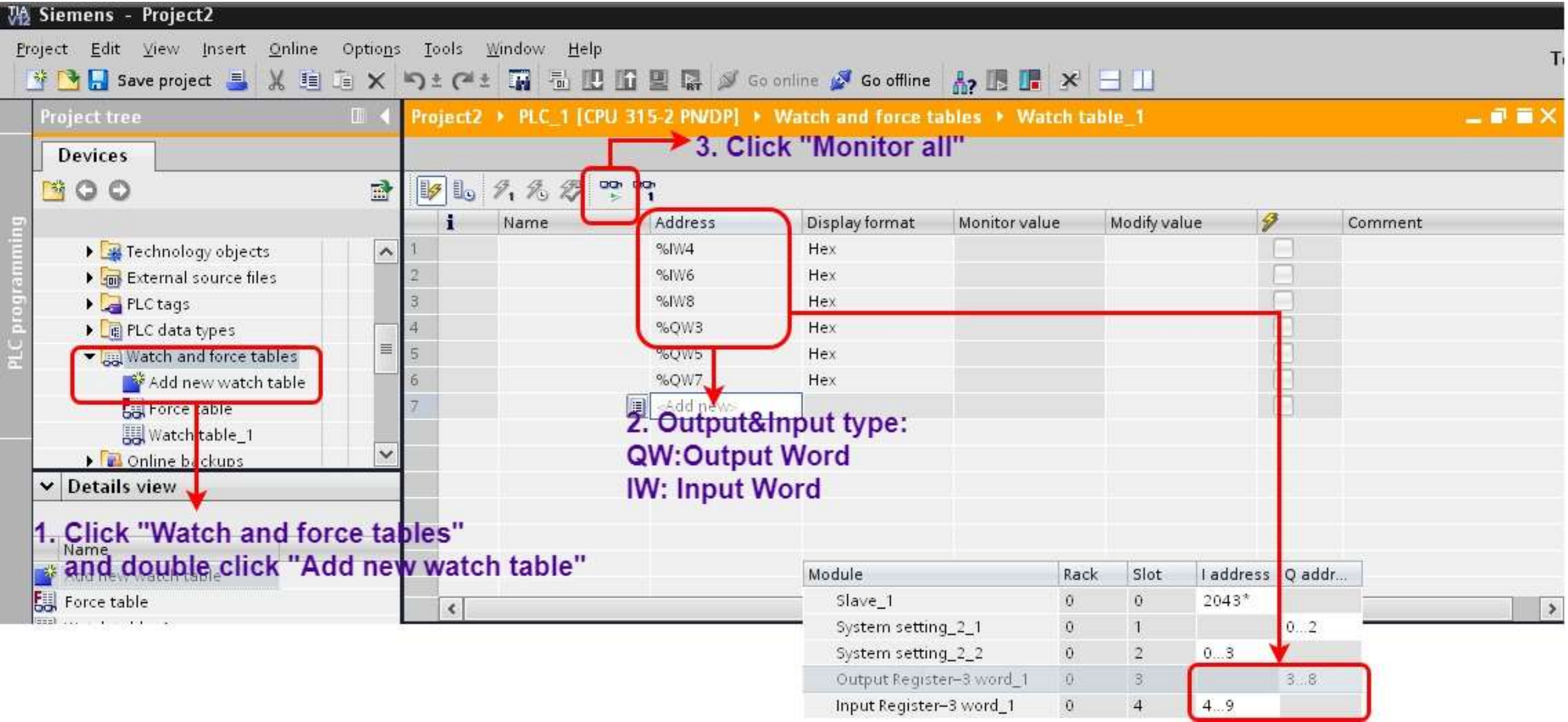
Reads and Writes AO module data

Reads and Writes AO module data

Check PLC and GW-7552 status

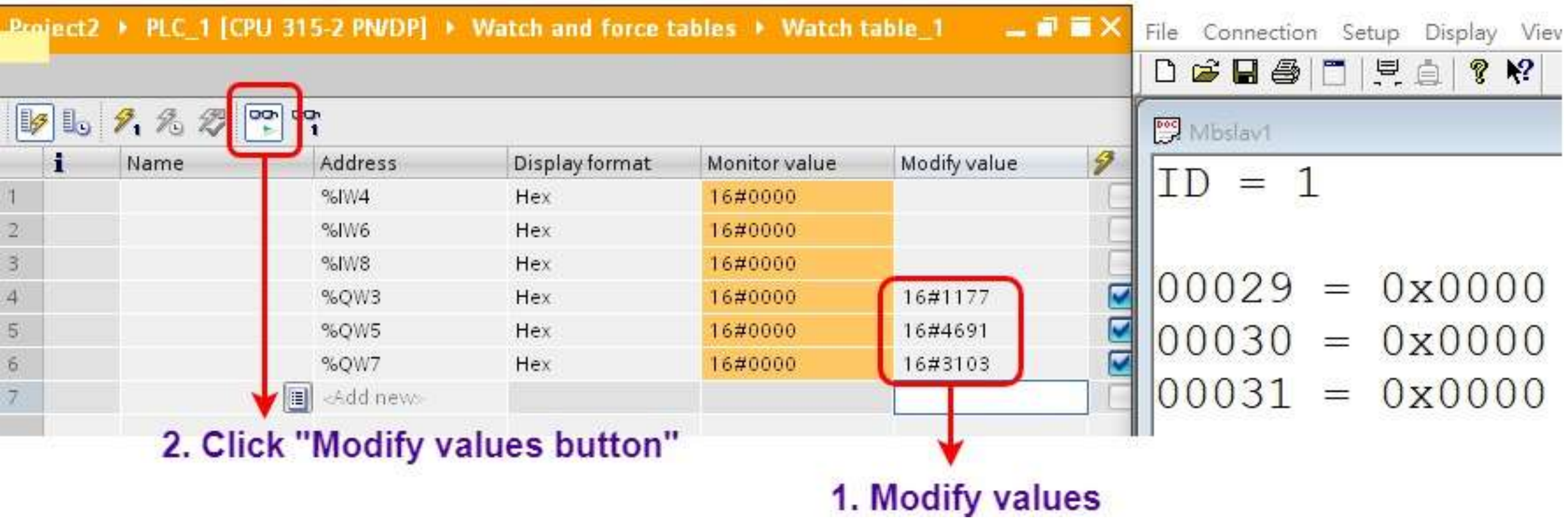


Reads and Writes AO module data



Reads and Writes AO module data

Modify values and Send Modbus commands

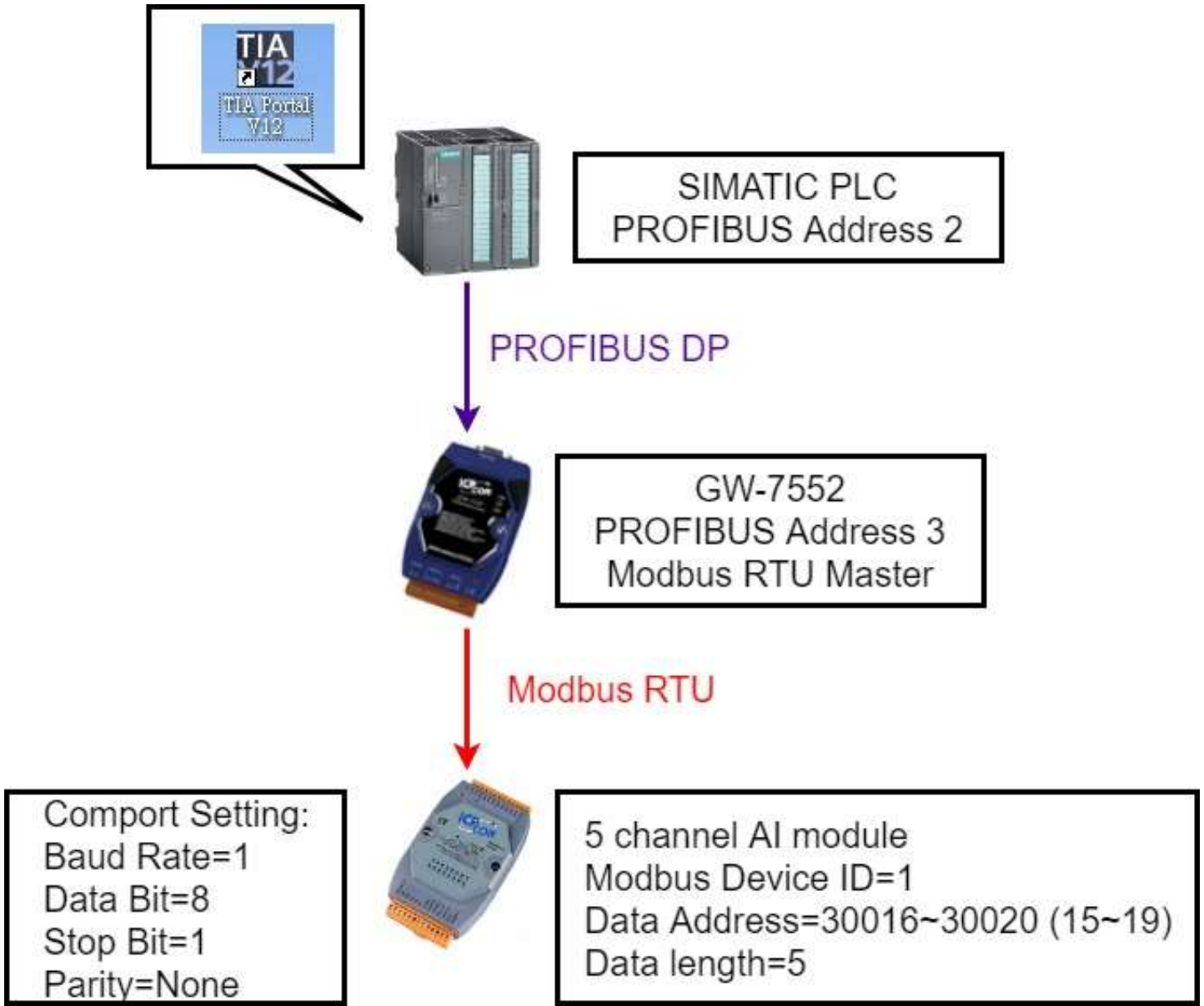


Reads and Writes AO module data

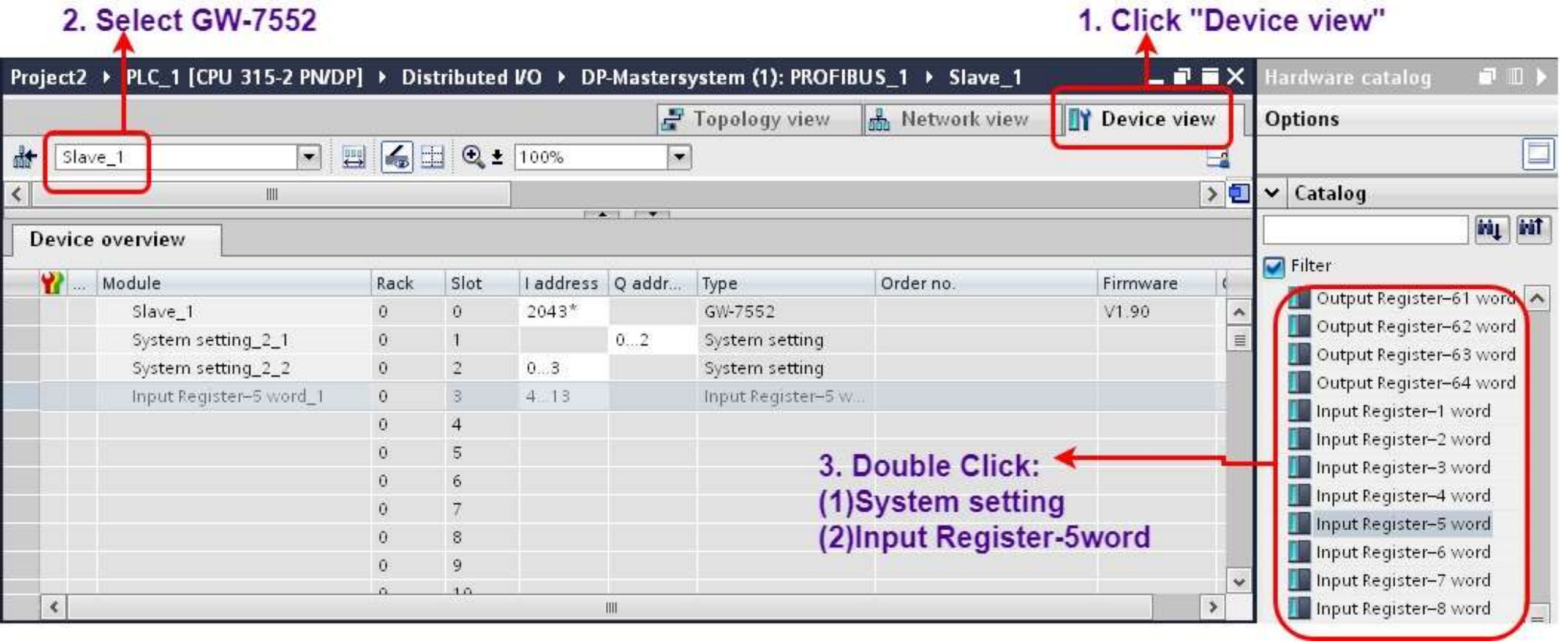
Modify values and Send Modbus commands

Type	Read/Write	Modbus Address	value
IW4	Read AO	29(40030)	0x1177
IW6	Read AO	30(40031)	0x4691
IW8	Read AO	31(40032)	0x3103
QW3	Write AO	29(40030)	0x1177
QW5	Write AO	30(40031)	0x4691
QW7	Write AO	31(40032)	0x3103

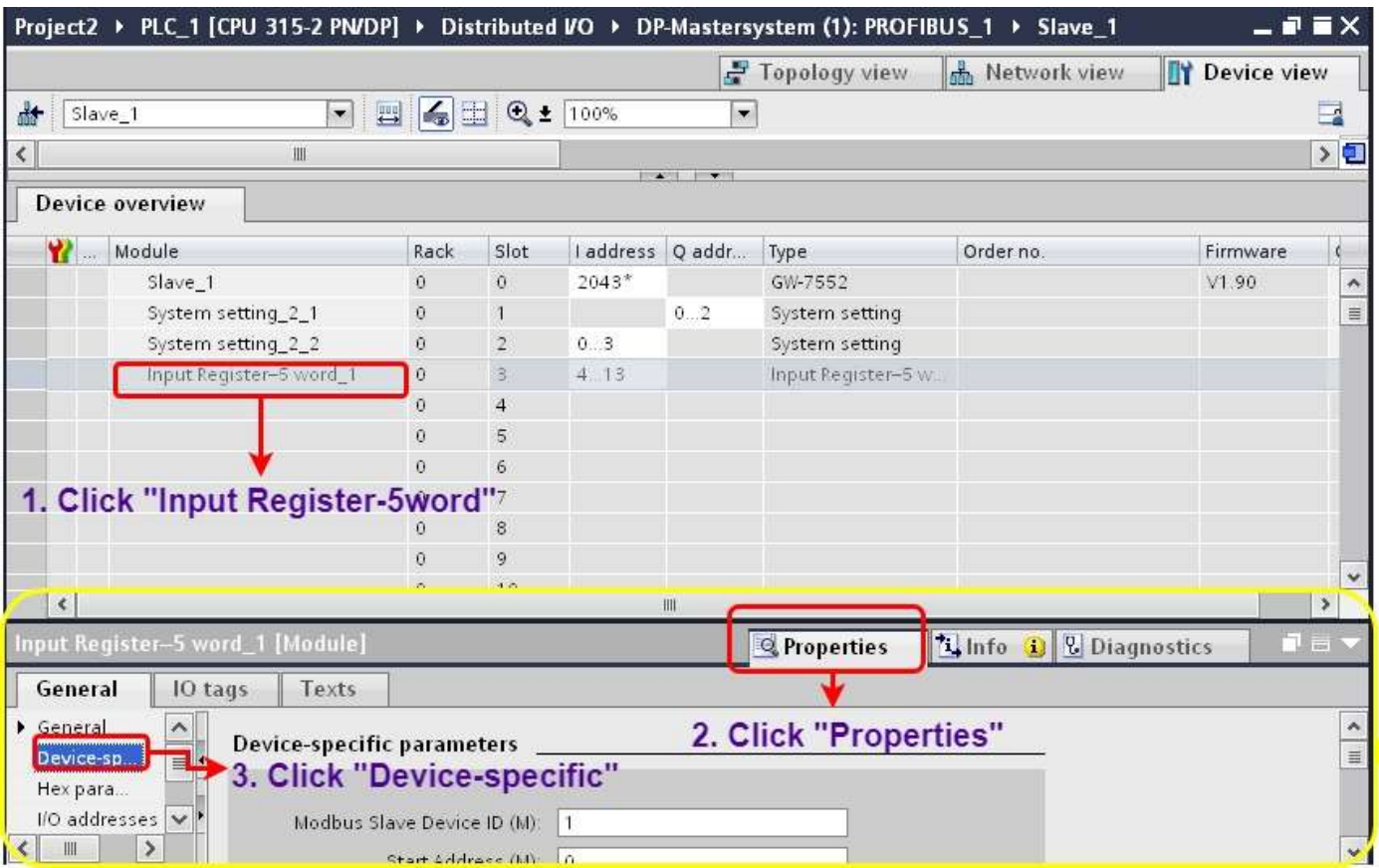
Reads AI module data

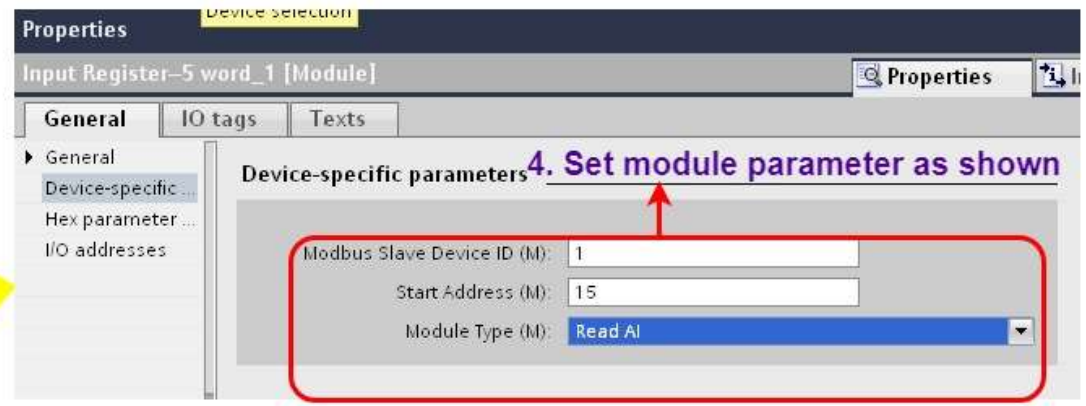


Reads AI module data



Reads AI module data

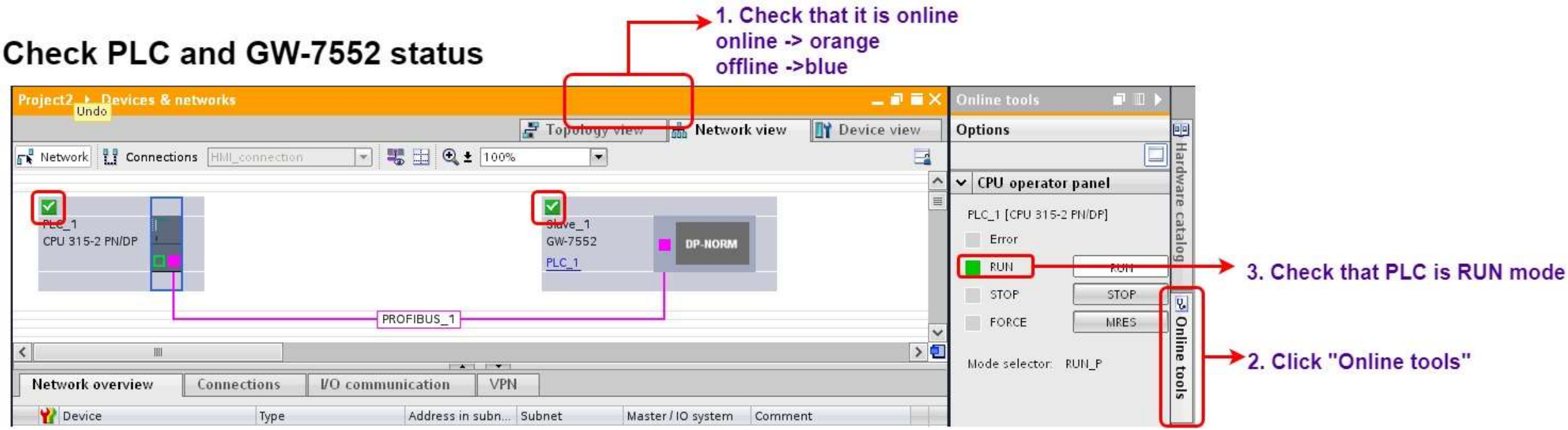




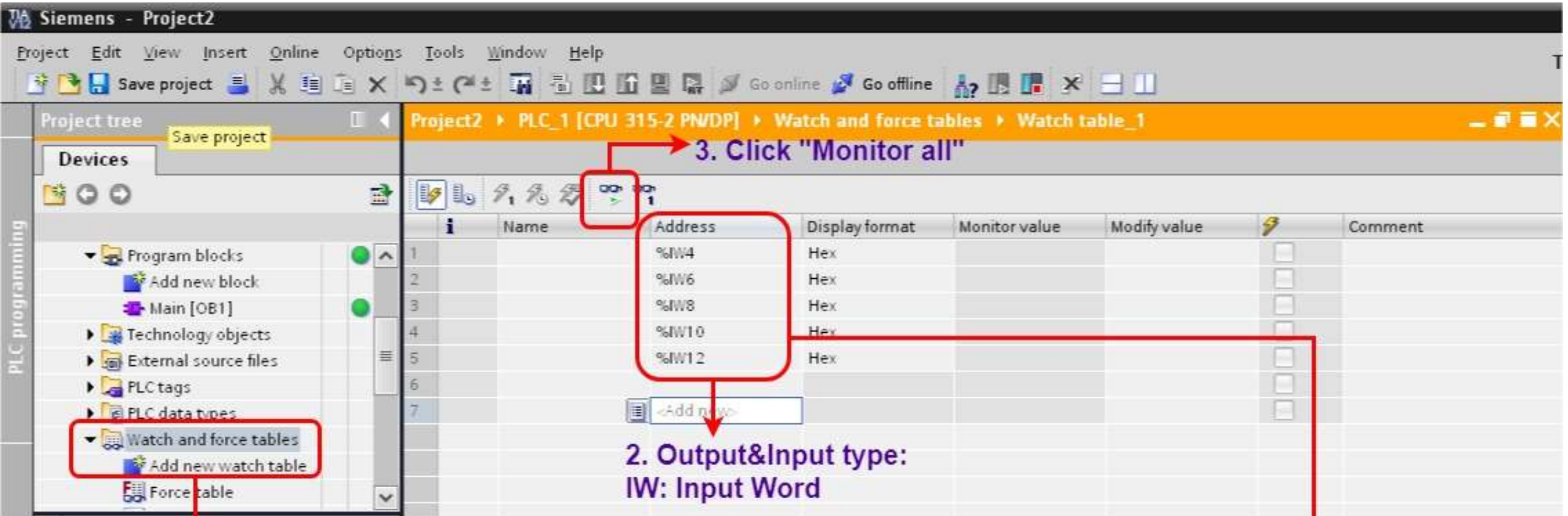
Reads AI module data

Reads AI module data

Check PLC and GW-7552 status



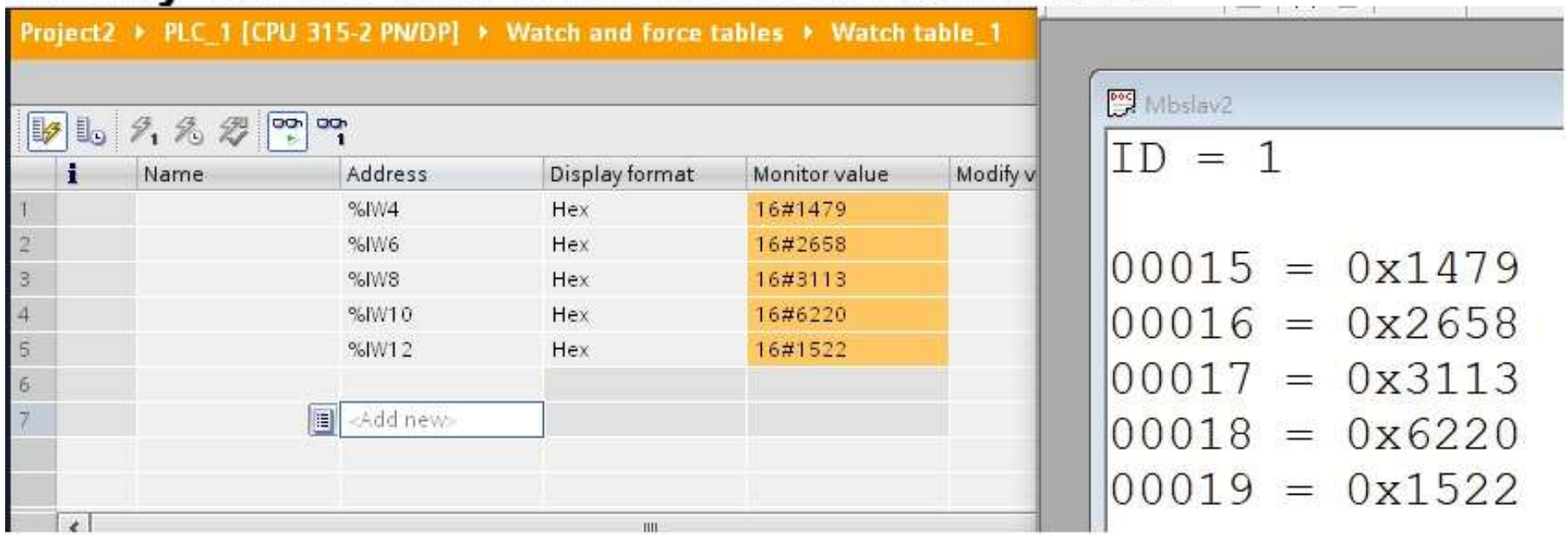
Reads AI module data



Module	Rack	Slot	I address
Slave_1	0	0	2048*
System setting_2_1	0	1	
System setting_2_2	0	2	0...
Input Register-5 word_1	0	3	4...13

Reads AI module data

Modify values and Send Modbus commands



Type	Read/Write	Modbus Address	value
IW4	Read AI	15(30016)	0x1479
IW6	Read AI	16(30017)	0x2658
IW8	Read AI	17(30018)	0x3113
IW10	Read AI	18(30019)	0x6220
IW12	Read AI	19(30020)	0x1522