

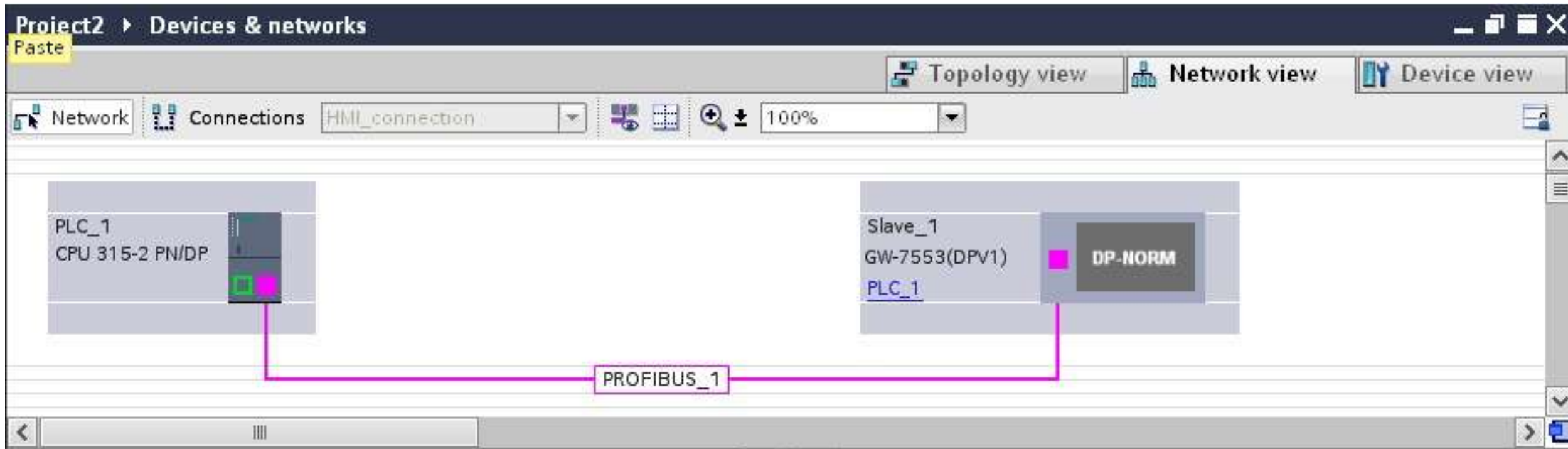
# *GW-7553 (Modbus RTU Master)*

## *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](#)

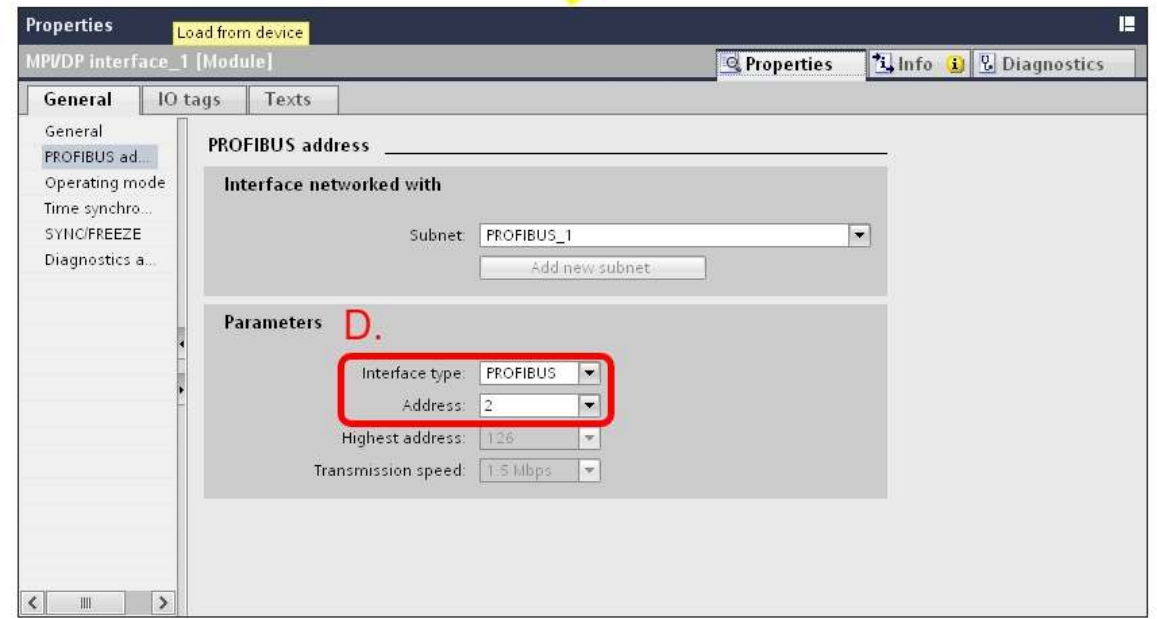
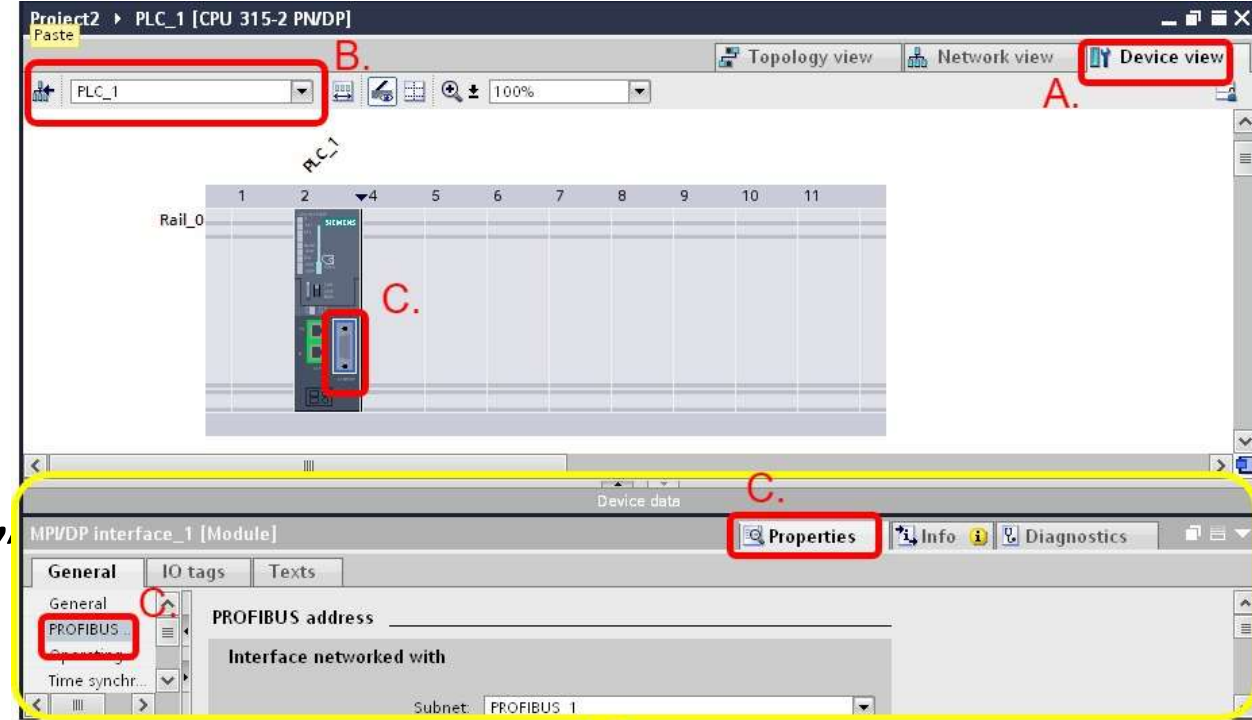
# *Before connecting*

- Add a PROFIBUS master system and a PROFIBUS slave (GW-7553)



# Set the address of PLC as below

- (A) Click “Device view”
- (B) Select “PLC\_1” (Which PLC you connect to GW-7553)
- (C) Click “Properties” and “PROFIBUS address”
- (D) Set “interface type”=PROFIBUS and set “Address”=2



# Set GW-7553 comport setting as below

(A) Select "Slave\_1" (Select the slave which is GW-7553)

(B) Select "Properties" and "Device-specific"

(C) Set comport:

Baud rate: 115200 baud

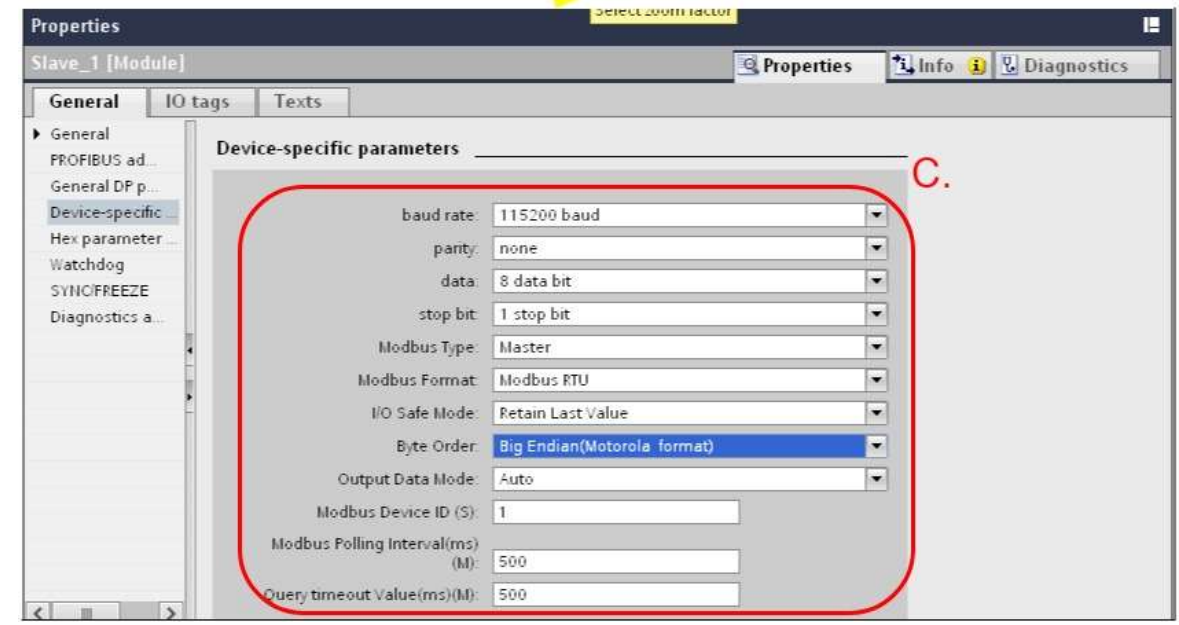
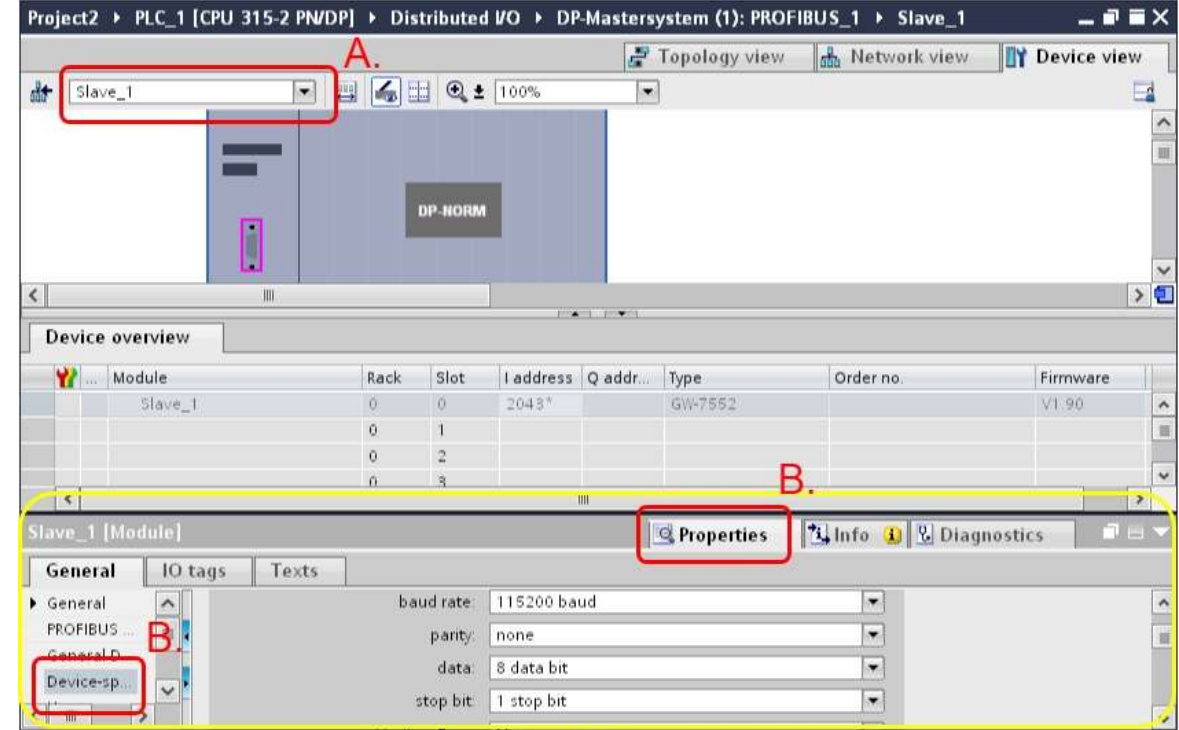
Parity: None

Data bit: 8

Stop bit: 1

Byte order: Big Endian

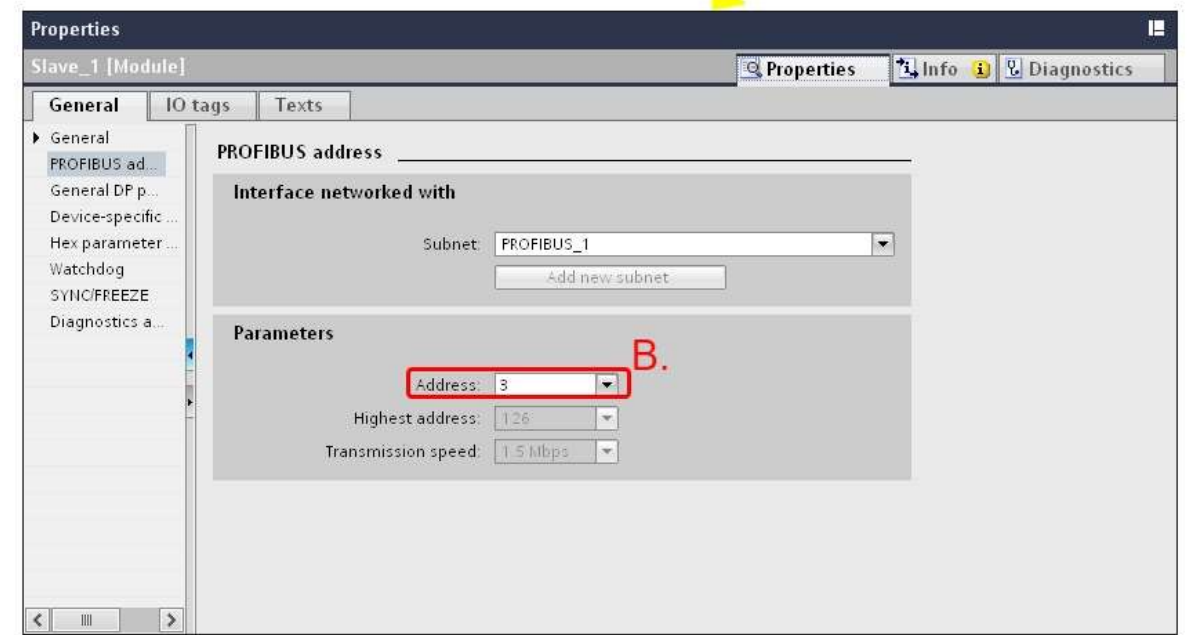
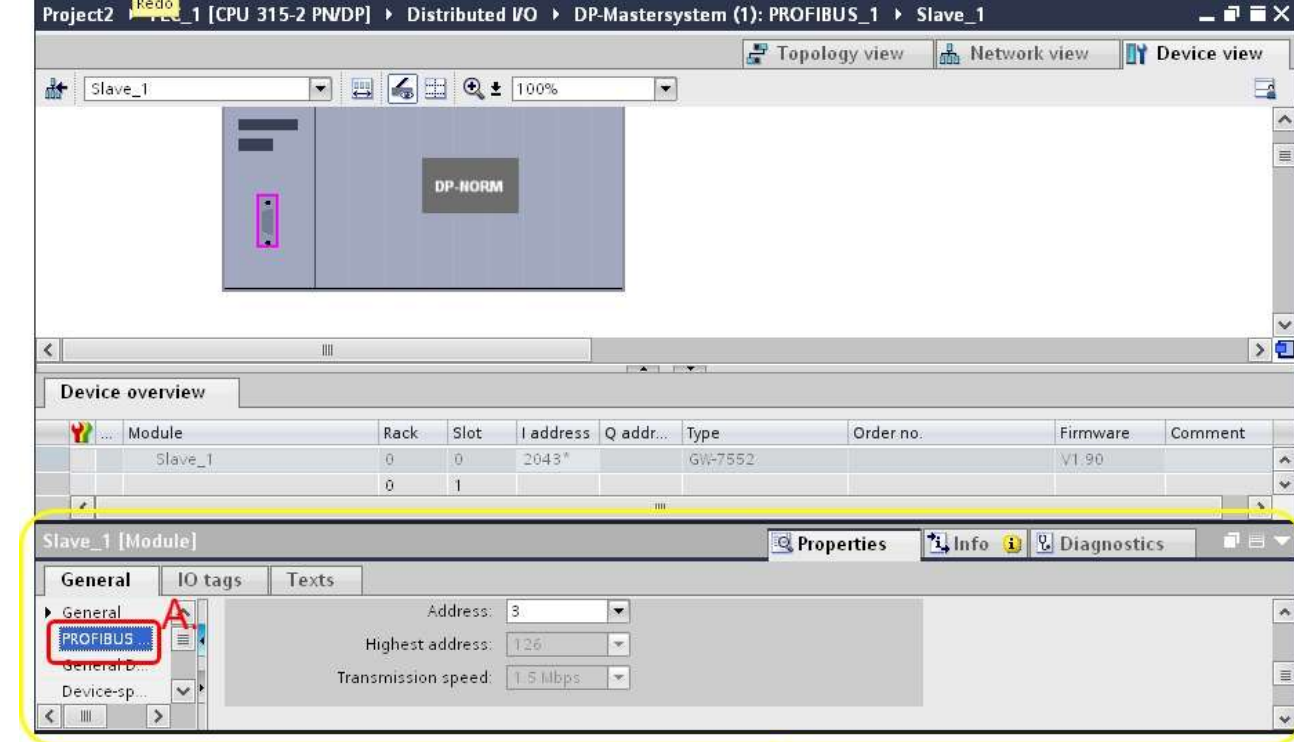
Output Data Mode: Auto



*Set the address of GW-7553 as below*

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

(B) Set “Address”=3



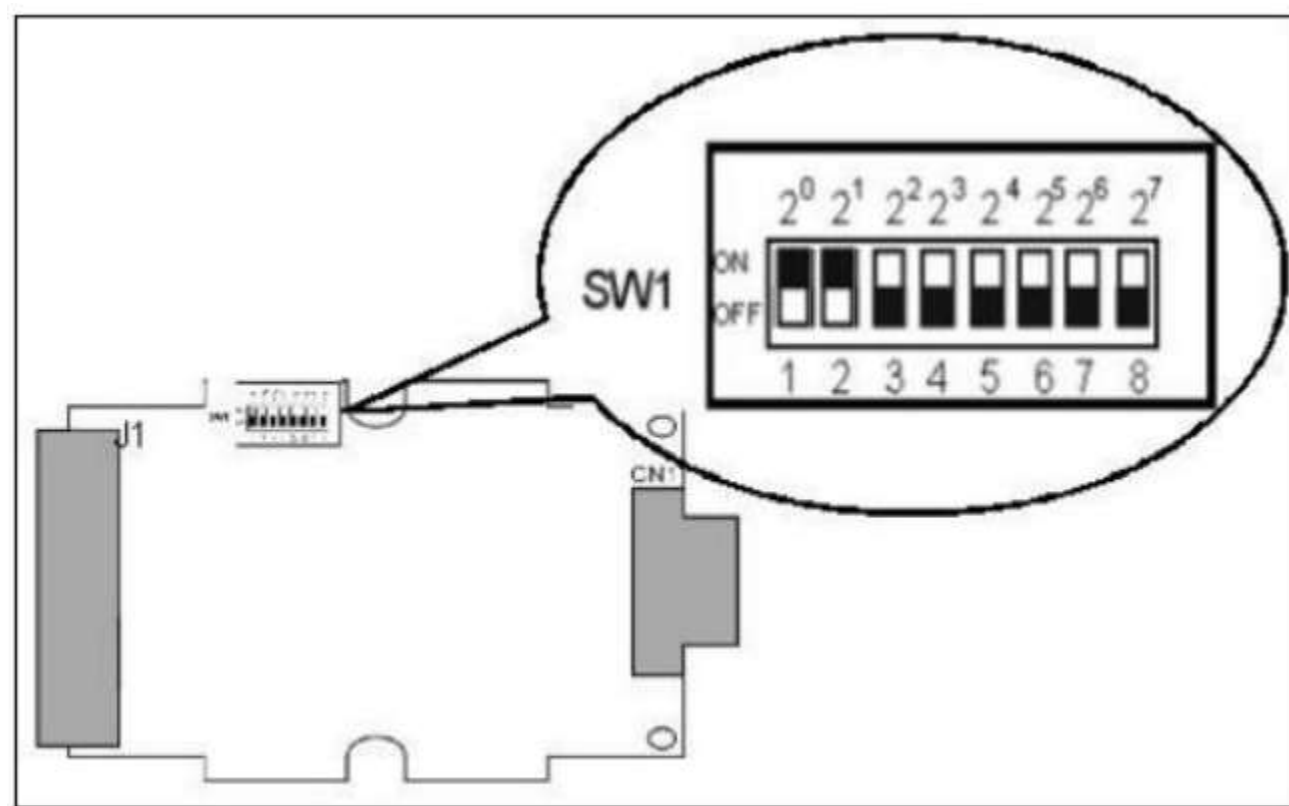
# *Before connecting*

- Make sure the switch of the GW-7553 is at Normal mode
- Refer to [GW7553 user manual 2.6](#)



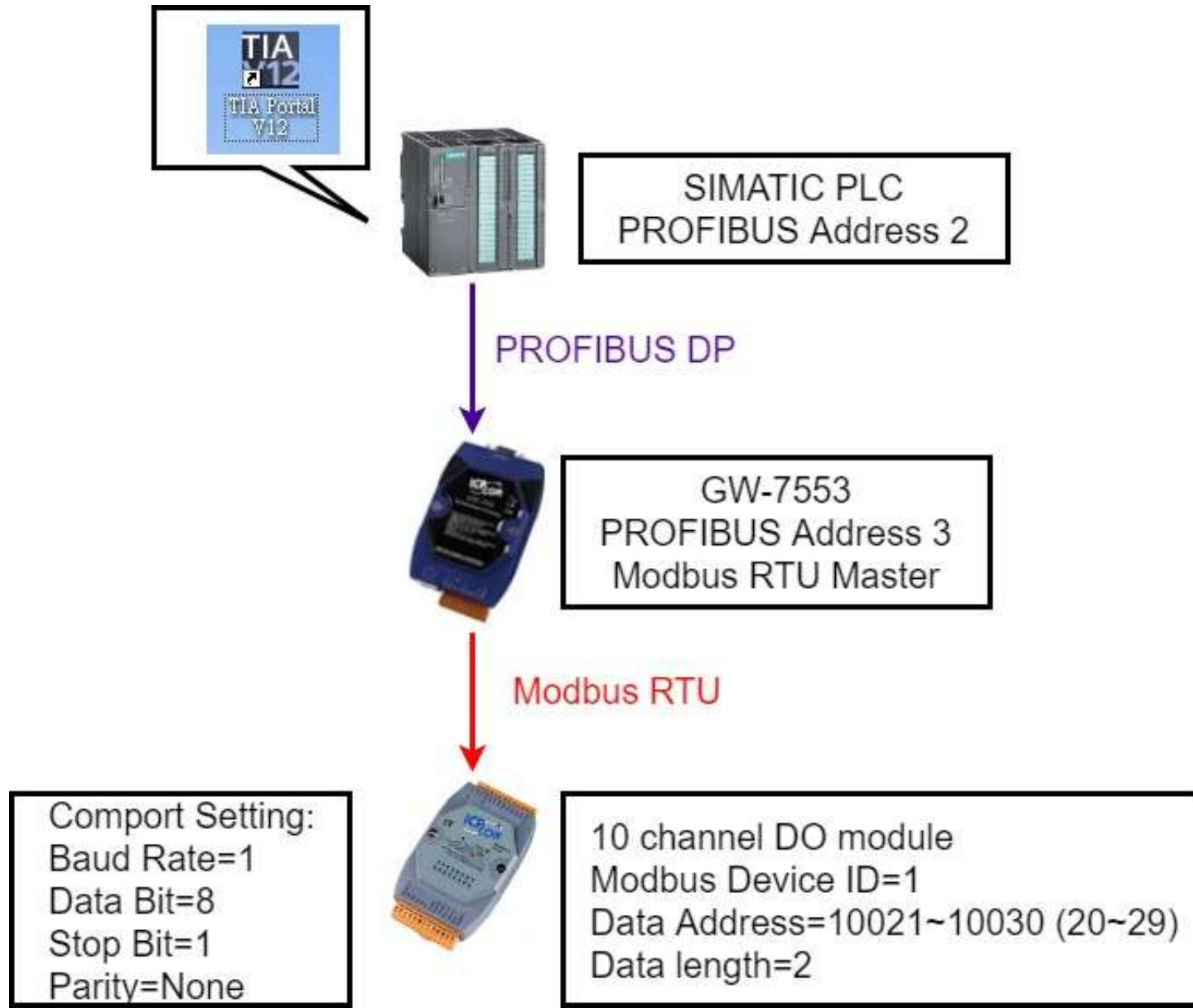
# *Before connecting*

- Setup the address by the DIP switch to set GW-7553's address as 3 in PROFIBUS
- Refer to [GW-7553 user manual 2.4](#)



*Figure 12: DIP switch*

# *Reads and Writes DO module data*





# Reads and Writes DO module data

2. Select GW-7553

1. Click "Device view"

The screenshot displays the SIMATIC Manager interface. The breadcrumb path is Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1. The 'Device view' tab is active. The 'Device overview' table is shown below, with the 'Output Relay/Coil-2 byte\_1' module highlighted. The hardware catalog on the right shows the 'GW-7553(DPV1)' module selected.

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0...2	System setting		
System setting_2_2	0	2	0...5		System setting		
Input Relay/Coil-2 byte_1	0	3	6...7		Input Relay/Coil-2 ...		
Output Relay/Coil-2 byte_1	0	4		3...4	Output Relay/Coil-...		
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

3. Double Click:  
(1) System setting  
(2) Input Relay/Coil-2byte  
(3) Output Relay/Coil-2byte

# Reads and Writes DO module data

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1

Topology view | Network view | Device view

Slave\_1

100%

Device overview

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0...2	System setting		
System setting_2_2	0	2	0...5		System setting		
Input Relay/Coil-2 byte_1	0	3	6...7		Input Relay/Coil-2 ...		
Output Relay/Coil-2 byte_1	0	4		3...4	Output Relay/Coil-...		
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

1. Click "Output Relay/Coil-2byte"

Output Relay/Coil-2 byte\_1 [Module]

Properties | Info | Diagnostics

General | IO tags | Texts

Device-specific parameters

2. Click "Properties"

3. Click "Device-specific"

Modbus Slave Device ID (M): 1

Start Address (M): 0

Properties

Output Relay/Coil-2 byte\_1 [Module]

General | IO tags | Texts

Device-specific parameters

4. Set module parameter as shown

Modbus Slave Device ID (M): 1

Start Address (M): 20

NO. of Relay/Coil (M): 10 BITS

# Reads and Writes DO module data

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1

Topology view | Network view | Device view

Slave\_1

100%

Device overview

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0...2	System setting		
System setting_2_2	0	2	0...5		System setting		
Input Relay/Coil-2 byte_1	0	3	6...7		Input Relay/Coil-2 ...		
Output Relay/Coil-2 byte_1	0	4		3...4	Output Relay/Coil-...		
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

1. Click "Input Relay/Coil-2byte"

Output Relay/Coil-2 byte\_1 [Module]

Properties | Info | Diagnostics

General | IO tags | Texts

General

Device-specific parameters

2. Click "Properties"

3. Click "Device-specific"

Device-specific parameters

Modbus Slave Device ID (M): 1

Start Address (M): 0

Properties

Input Relay/Coil-2 byte\_1 [Module]

Properties

General | IO tags | Texts

General

Device-specific parameters

4. Set module parameter as shown

Modbus Slave Device ID (M): 1

Start Address (M): 20

I/O of Relay/Coil (M): 10 BITS

Module Type (M): Read DO

# *Reads and Writes DO module data*

3. Click "Save project"

4. Click "Compile" and "Download"

6. Click "Start CPU"

The screenshot shows the Siemens SIMATIC Manager interface. The top menu bar includes Project, Edit, View, Insert, Online, Options, Tools, Window, and Help. The toolbar contains icons for Save project, Compile, Download, Go online, and Start CPU. The Project tree on the left shows a hierarchy for PLC\_1 [CPU 315-2 PN...]. The main workspace displays the PLC\_1 CPU 315-2 PN/DP hardware rack. The view tabs at the top right are Topology view, Network view, and Device view. Red boxes and arrows highlight the following steps:

- 1. Click "Topology view" (points to the Topology view tab)
- 2. Click your PLC (points to the PLC\_1 CPU 315-2 PN/DP hardware rack)
- 3. Click "Save project" (points to the Save project icon)
- 4. Click "Compile" and "Download" (points to the Compile and Download icons)
- 5. Click "Go online" (points to the Go online icon)
- 6. Click "Start CPU" (points to the Start CPU icon)

# Reads and Writes DO module data

## Check PLC and GW-7553 status

1. Check that it is online  
online -> orange  
offline -> blue

The screenshot displays the SIMATIC Manager interface. The main workspace shows a network diagram with a PLC\_1 (CPU 315-2 PN/DP) and a Slave\_1 (GW-7553(DPV1)) connected via PROFIBUS\_1. Both devices have a green checkmark icon, indicating they are online. The 'Online tools' panel on the right shows the 'CPU operator panel' for PLC\_1, with the 'RUN' mode selected and highlighted by a red box. The 'Online tools' button is also highlighted by a red box. The 'Mode selector' is set to 'RUN\_P'.

3. Check that PLC is RUN mode

2. Click "Online tools"

Device	Type	Address in subn...	Subnet	Master / IO system	Comment
PLC_1	CPU 315-2 PN/DP				
Slave_1	GW-7553(DPV1)				

# Reads and Writes DO module data

Siemens - Project2

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Watch and force tables > Watch table\_1

3. Click "Monitor all"

Name	Address	Display format	Monitor value	Modify value	Comment
1	%QB3	Hex	16#00	<input type="checkbox"/>	
2	%QB4	Hex	16#00	<input type="checkbox"/>	
3	%IB6	Hex	16#00	<input type="checkbox"/>	
4	%IB7	Hex	16#00	<input type="checkbox"/>	
5	<Add new>				

2. Output&Input type:  
QB:Output Byte  
IB: Input Byte

1. Click "Watch and force tables"  
and double click "Add new watch table"

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..5	
Input Relay/Coil-2 byte_1	0	3	6..7	
Output Relay/Coil-2 byte_1	0	4		3..4

# Reads and Writes DO module data

## Modify values and Send Modbus commands

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Watch and force tables > Watch table\_1

Undo

Name	Address	Display format	Monitor value	Modify value		Comment
1	%QB3	Hex	16#00	16#29	<input checked="" type="checkbox"/>	
2	%QB4	Hex	16#00	16#02	<input checked="" type="checkbox"/>	
3	%IB6	Hex	16#00		<input type="checkbox"/>	
4	%IB7	Hex	16#00		<input type="checkbox"/>	
5	<Add new>				<input type="checkbox"/>	

2. Click "Modify values button"

1. Modify values

Modbus Slave - Mbslav2

File Connection Setup Display

Mbslav2

```
ID = 1

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

Properties Info Diagnostics

Device information Connection information Alarm display

No devices with problems

# 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	<input checked="" type="checkbox"/>	
%QB4	Hex	16#02	16#02	<input checked="" type="checkbox"/>	
%IB6	Hex	16#29	<input type="text"/>	<input type="checkbox"/>	
%IB7	Hex	16#02		<input type="checkbox"/>	
<Add new>				<input type="checkbox"/>	

Type	Read/Write	Modbus Address	value
QB3	Write DO	20~27(00021~00028)	0x29
QB4	Write DO	28~29(00029~00030)	0x02
IB6	Read DO	20~27(00021~00028)	0x29
IB7	Read DO	28~29(00029~00030)	0x02

Properties Info Diagnostics

Connection information Alarm display

ms

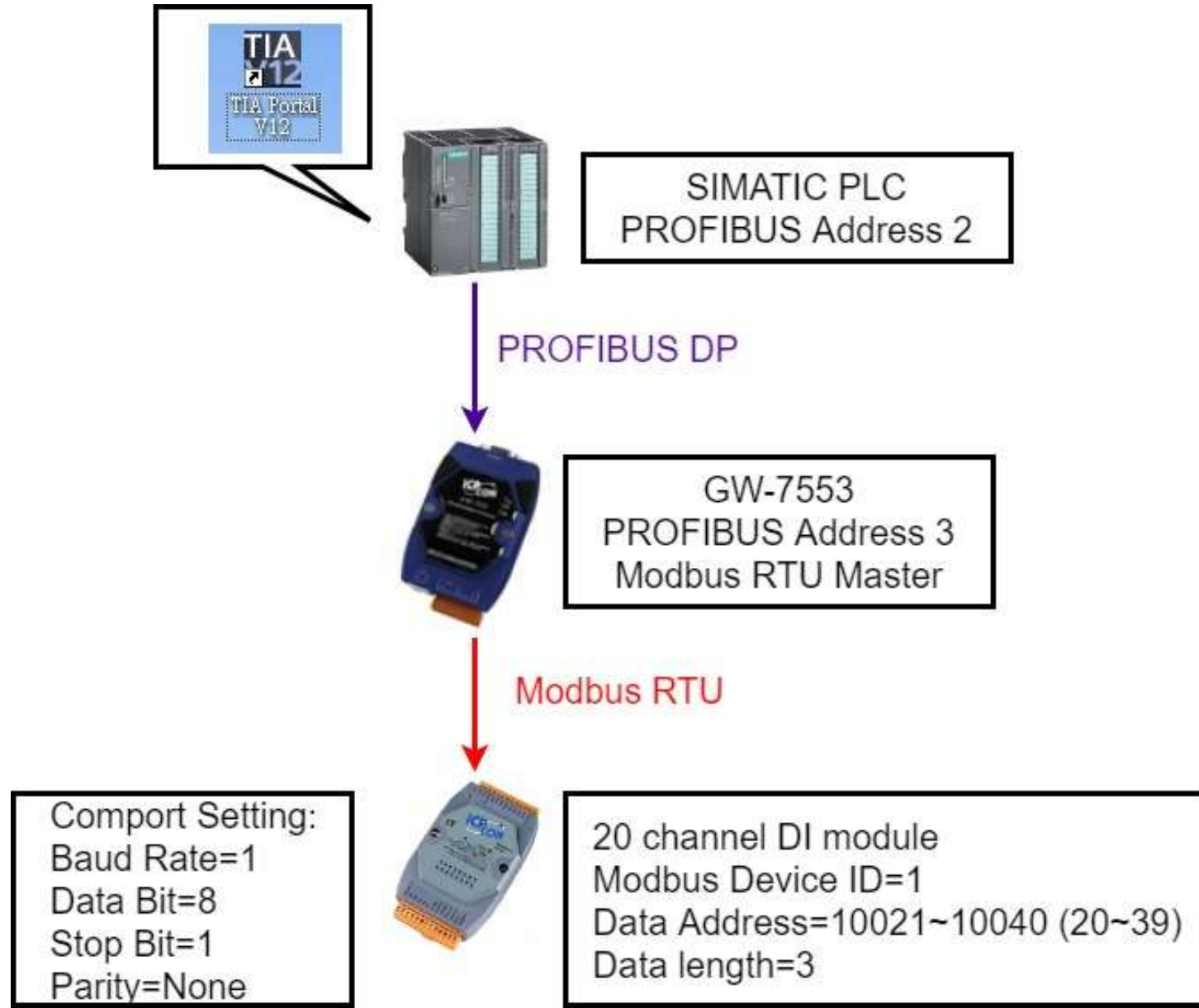
Mbslav2

ID = 1

00020	=	1	
00021	=	0	
00022	=	0	→ 9
00023	=	1	
00024	=	0	
00025	=	1	
00026	=	0	→ 2
00027	=	0	
00028	=	0	
00029	=	1	→ 2



# *Reads DI module data*



# Reads DI module data

2. Select GW-7553

1. Click "Device view"

The screenshot shows the SIMATIC Manager interface. The breadcrumb path is: Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1. The 'Device view' button is highlighted with a red box and an arrow pointing to the text '1. Click "Device view"'. The 'Slave\_1' dropdown menu is also highlighted with a red box and an arrow pointing to the text '2. Select GW-7553'. The 'Device overview' table is shown below, with the 'Input Relay/Coil-3 byte\_1' row highlighted. The 'Hardware catalog' on the right shows a list of modules, with 'Input Relay/Coil-3 byte' highlighted and an arrow pointing to the text '3. Double Click: (1) System setting (2) Input Relay/Coil-3byte'.

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0...2	System setting		
System setting_2_2	0	2	0...5		System setting		
Input Relay/Coil-3 byte_1	0	3	6...8		Input Relay/Coil-3 ...		
	0	4					
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

Hardware catalog

Options

Catalog

Filter

- Output Relay/Coil-29 byte
- Output Relay/Coil-30 byte
- Output Relay/Coil-31 byte
- Output Relay/Coil-32 byte
- Input Relay/Coil-1 byte
- Input Relay/Coil-2 byte
- Input Relay/Coil-3 byte
- Input Relay/Coil-4 byte
- Input Relay/Coil-5 byte
- Input Relay/Coil-6 byte
- Input Relay/Coil-7 byte
- Input Relay/Coil-8 byte

3. Double Click:  
(1) System setting  
(2) Input Relay/Coil-3byte

# Reads DI module data

The screenshot shows the SIMATIC Manager interface. The top window displays the 'Device overview' table with the following data:

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0...2	System setting		
System setting_2_2	0	2	0...5		System setting		
Input Relay/Coil-3 byte_1	0	3	6...8		Input Relay/Coil-3 ...		

A red box highlights the 'Input Relay/Coil-3 byte\_1' row, with an arrow pointing to the text '1. Click "Input Relay/Coil-3byte"'. Below the table, a yellow box highlights the 'Properties' button in the 'Input Relay/Coil-3 byte\_1 [Module]' window. An arrow points from this button to the text '2. Click "Properties"'. In the 'Properties' dialog, the 'Device-specific' tab is selected, and an arrow points to the 'Device-specific parameters' section with the text '3. Click "Device-specific"'. A yellow arrow points from the 'Properties' dialog to the next screenshot.

The 'Properties' dialog for 'Input Relay/Coil-3 byte\_1 [Module]' is shown. The 'Device-specific parameters' section is highlighted with a red box and labeled '4. Set module parameter as shown'. The parameters are:

- Modbus Slave Device ID (M): 1
- Start Address (M): 20
- NO. of Relay/Coil (M): 20 BITS
- Module Type (M): Read DI

# Reads DI module data

3. Click "Save project"

4. Click "Compile" and "Download"

6. Click "Start CPU"

The screenshot shows the Siemens SIMATIC Manager interface. The title bar reads "Siemens - Project2". The menu bar includes Project, Edit, View, Insert, Online, Options, Tools, Window, and Help. The toolbar contains icons for Save project, Cut, Copy, Paste, Go online, Go offline, and Start CPU. The Project tree on the left shows a hierarchy: Devices > PLC\_1 [CPU 315-2 PN...]. The main workspace displays the "Devices & networks" view with a 100% zoom level. A PLC\_1 CPU 315-2 PN/DP is shown in the workspace, highlighted with a red box. The "Topology view" tab is selected in the view control bar. Annotations with red arrows point to the "Save project" icon, the "Compile" and "Download" icons, the "Go online" icon, the "Start CPU" icon, the "Topology view" tab, the PLC\_1 CPU 315-2 PN/DP device, and the "Topology view" tab again.

5. Click "Go online"

1. Click "Topology view"

2. Click your PLC

# Reads and Writes DI module data

## Check PLC and GW-7553 status

1. Check that it is online  
online -> orange  
offline -> blue

3. Check that PLC is RUN mode

2. Click "Online tools"

Device	Type	Address in subn...	Subnet	Master / IO system	Comment
PLC_1	CPU 315-2 PN/DP				
Slave_1	GW-7553(DPV1) DP-NORM				

# Reads DI module data

The screenshot shows the Siemens TIA Portal interface. The project tree on the left is expanded to 'Watch and force tables' > 'Watch table\_1'. The main workspace displays a table with the following columns: Name, Address, Display format, Monitor value, Modify value, and Comment. The table contains three rows of data:

Name	Address	Display format	Monitor value	Modify value	Comment
	%IB6	Hex	16#00		
	%IB7	Hex	16#00		
	%IB8	Hex	16#00		

Red annotations and arrows indicate the following steps:

- Click "Watch and force tables" and double click "Add new watch table"
- Output&Input type: IB: Input Byte
- Click "Monitor all"

1. Click "Watch and force tables" and double click "Add new watch table"

2. Output&Input type: IB: Input Byte

3. Click "Monitor all"

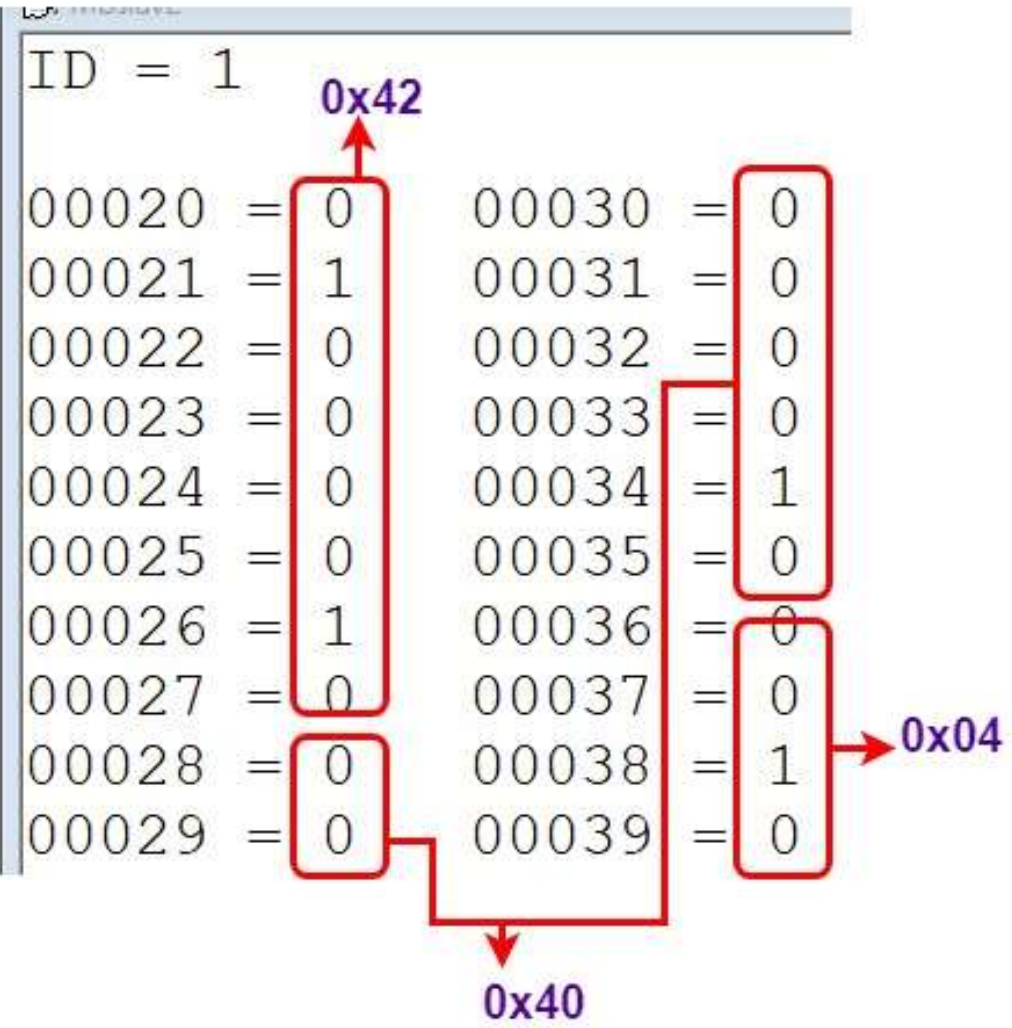
Module	Rack	Slot	I address	Q addr...
Slave_1	0	0	2048*	
System setting_2_1	0	1		0..2
System setting_2_2	0	2	0..5	
Input Relay/Coil-3 byte_1	0	3	6..8	

# Reads DI module data

## Modify values and Send Modbus commands

Address	Display format	Monitor value	Modify value	Comment
%IB6	Hex	16#42	<input type="checkbox"/>	
%IB7	Hex	16#40	<input type="checkbox"/>	
%IB8	Hex	16#04	<input type="checkbox"/>	
<Add new>			<input type="checkbox"/>	

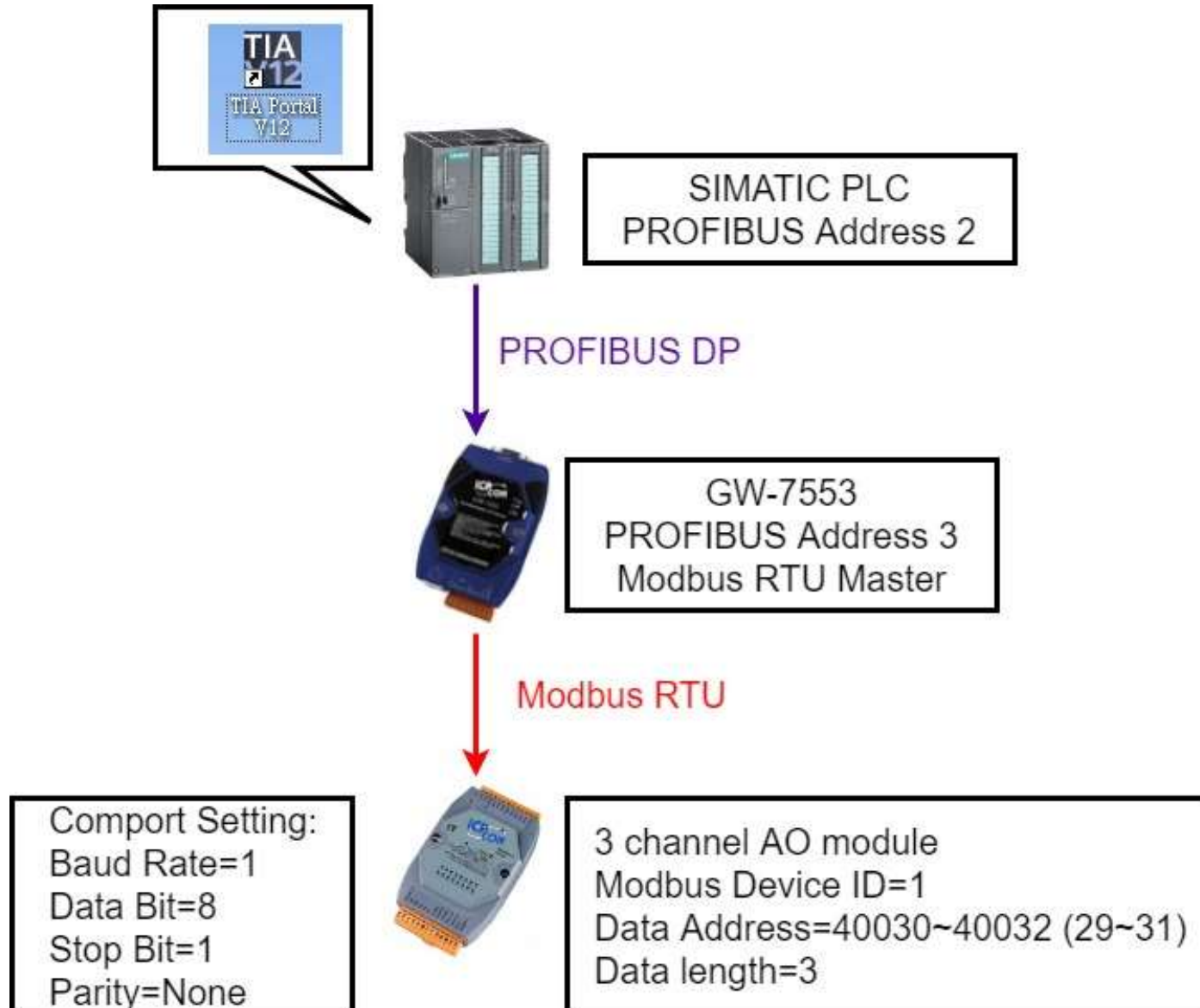
Type	Read/Write	Modbus Address	value
IB6	Read DI	20~27(10021~10028)	0x42
IB7	Read DI	28~35(10029~10036)	0x40
IB8	Read DI	36~39(10037~10040)	0x04



Connection information

Alarm display

# *Reads and Writes AO module data*





# Reads and Writes AO module data

2. Select GW-7553

1. Click "Device view"

The screenshot shows the SIMATIC Manager interface. The breadcrumb path is Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1. The 'Device view' button is highlighted with a red box and an arrow pointing to the text '1. Click "Device view"'. The 'Slave\_1' dropdown menu is also highlighted with a red box and an arrow pointing to the text '2. Select GW-7553'. The 'Device overview' table is visible, showing the following data:

Module	Rack	Slot	I address	Q address	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0...2	System setting		
System setting_2_2	0	2	0...3		System setting		
Output Register-3 word_1	0	3		3...8	Output Register-3 ...		
Input Register-3 word_1	0	4	4...9		Input Register-3 w...		
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

The hardware catalog on the right shows a list of modules. The 'Filter' checkbox is checked. The following modules are listed and highlighted with a red box:

- 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

An arrow points from the text '3. Double Click: (1)System setting (2)Input Register-3word (3)Output Register-3word' to the 'Input Register-3 word' entry in the hardware catalog.

3. Double Click:  
(1)System setting  
(2)Input Register-3word  
(3)Output Register-3word

# Reads and Writes AO module data

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1

Topology view | Network view | Device view

Slave\_1

100%

Device overview

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0..2	System setting		
System setting_2_2	0	2	0..5		System setting		
Output Register-3 word_1	0	3		3..8	Output Register-3 ...		
Input Register-3 word_1	0	4	6..11		Input Register-3 w...		
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

1. Click "Output Register-3 word\_1"

Output Register-3 word\_1 [Module]

Properties | Info | Diagnostics

General | IO tags | Texts

Device-specific parameters

2. Click "Properties"

3. Click "Device-specific"

Modbus Slave Device ID (M): 1

Start Address (M): 0

Device selection

Properties

Output Register-3 word\_1 [Module] | Properties

General | IO tags | Texts

4. Set module parameter as shown

Device-specific parameters

Modbus Slave Device ID (M): 1

Start Address (M): 29

# Reads and Writes AO module data

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1

Topology view | Network view | Device view

Slave\_1

100%

Device overview

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7552		V1.90
System setting_2_1	0	1		0..2	System setting		
System setting_2_2	0	2	0..5		System setting		
Output Register-3 word_1	0	3		3..8	Output Register-3 ...		
Input Register-3 word_1	0	4	6..11		Input Register-3 w...		
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

1. Click "Input Register-3word"

Output Register-3 word\_1 [Module]

Properties | Info | Diagnostics

2. Click "Properties"

3. Click "Device-specific"

Device-specific parameters

Modbus Slave Device ID (M): 1

Start Address (M): 0

Properties

Input Register-3 word\_1 [Module]

Properties

General | IO tags | Texts

4. Set module parameter as shown

Device-specific parameters

Modbus Slave Device ID (M): 1

Start Address (M): 29

Module Type (M): Read AO

# Reads and Writes AO module data

3. Click "Save project"

4. Click "Compile" and "Download"

6. Click "Start CPU"

The screenshot shows the Siemens SIMATIC Manager interface. The 'Project tree' on the left lists 'PLC\_1 [CPU 315-2 PN...]'. The main workspace shows 'PLC\_1 CPU 315-2 PN/DP' with a hardware rack diagram. The 'Go online' button in the toolbar is highlighted. The 'Topology view' button is also highlighted. Red arrows point from text instructions to these specific UI elements.

5. Click "Go online"

1. Click "Topology view"

2. Click your PLC

Project tree: Devices > PLC\_1 [CPU 315-2 PN...]

Devices & networks: PLC\_1 CPU 315-2 PN/DP

Toolbar: Save project, Go online, Topology view, Network view, Device view

# Reads and Writes AO module data

## Check PLC and GW-7553 status

1. Check that it is online  
online -> orange  
offline -> blue

The screenshot displays the SIMATIC Manager interface. The main workspace shows a network diagram with a PLC\_1 (CPU 315-2 PN/DP) and a Slave\_1 (GW-7553(DPV1)) connected via PROFIBUS\_1. Both devices have a green checkmark icon, indicating they are online. The 'Online tools' panel on the right shows the 'CPU operator panel' for PLC\_1, with the 'RUN' mode selected and highlighted by a red box. The 'Mode selector' is set to 'RUN\_P'. A red box highlights the 'Online tools' button in the bottom right corner of the panel.

3. Check that PLC is RUN mode

2. Click "Online tools"

# Reads and Writes AO module data

**1. Click "Watch and force tables" and double click "Add new watch table"**

**2. Output&Input type:  
QW: Output Word  
IW: Input Word**

**3. Click "Monitor all"**

i	Name	Address	Display format	Monitor value	Modify value		Comment
1		%IW6	Hex			<input type="checkbox"/>	
2		%IW8	Hex			<input type="checkbox"/>	
3		%IW10	Hex			<input type="checkbox"/>	
4		%QW3	Hex			<input type="checkbox"/>	
5		%QW5	Hex			<input type="checkbox"/>	
6		%QW7	Hex			<input type="checkbox"/>	
7		<Add new>				<input type="checkbox"/>	

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..5	
Output Register-3 word_1	0	3		3..8
Input Register-3 word_1	0	4	6..11	

# Reads and Writes AO module data

## Modify values and Send Modbus commands

	i	Name	Address	Display format	Monitor value	Modify value
1			%IW6	Hex	16#0000	
2			%IW8	Hex	16#0000	
3			%IW10	Hex	16#0000	
4			%QW3	Hex	16#0000	16#1177
5			%QW5	Hex	16#0000	16#4691
6			%QW7	Hex	16#0000	16#3103
7			<Add new>			

2. Click "Modify values button"

1. Modify values

File Connection Setup Display View

Mbsslav1

ID = 1

00029 = 0x0000

00030 = 0x0000

00031 = 0x0000

# Reads and Writes AO module data

## Modify values and Send Modbus commands



The screenshot shows the 'Watch and force tables' window for a PLC. The table below lists the variables being monitored and their Modbus addresses. To the right, the 'Mbslav2' configuration window shows the Modbus ID set to 1 and the mapping of PLC addresses to Modbus addresses.

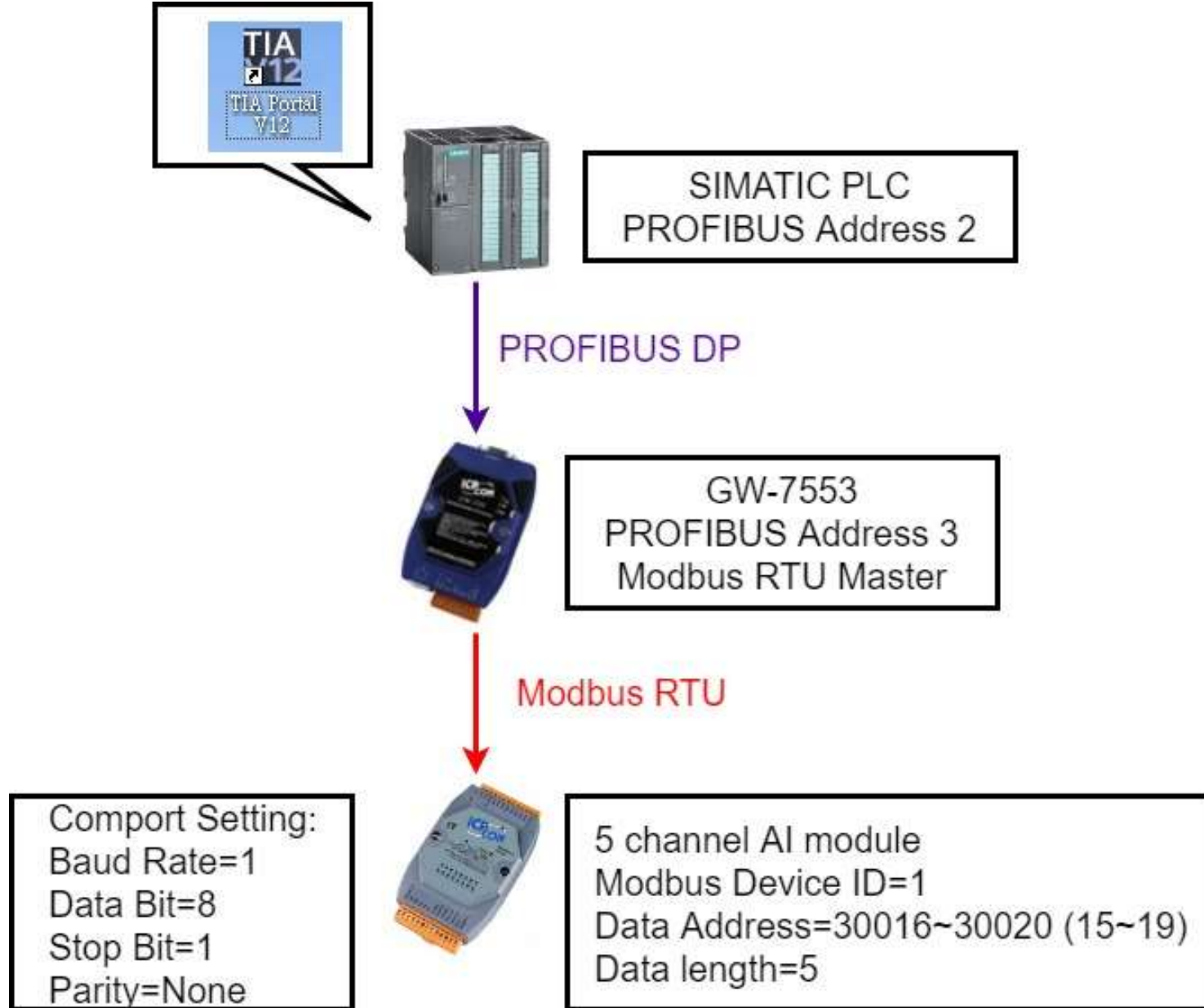
	i	Name	Address	Display format	Monitor value	Modify value
1			%IW6	Hex	16#1177	
2			%IW8	Hex	16#4691	
3			%IW10	Hex	16#3103	
4			%QW3	Hex	16#1177	16#1177
5			%QW5	Hex	16#4691	16#4691
6			%QW7	Hex	16#3103	16#3103

Mbslav2  
ID = 1  
00029 = 0x1177  
00030 = 0x4691  
00031 = 0x3103

Type	Read/Write	Modbus Address	value
IW6	Read AO	29(40030)	0x1177
IW8	Read AO	30(40031)	0x4691
IW10	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

2. Select GW-7553

1. Click "Device view"

The screenshot shows the SIMATIC Manager interface. The breadcrumb path is: Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1. The 'Device view' button is highlighted with a red box. The 'Device overview' table is as follows:

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0...2	System setting		
System setting_2_2	0	2	0...5		System setting		
Input Register-5 word_1	0	3	6...15		Input Register-5 w...		
	0	4					
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

The 'Hardware catalog' on the right shows a list of modules. The 'Input Register-5 word' is highlighted with a red box. The 'Filter' checkbox is checked.

3. Double Click:  
(1) System setting  
(2) Input Register-5 word

# Reads AI module data

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Distributed I/O > DP-Mastersystem (1): PROFIBUS\_1 > Slave\_1

Topology view | Network view | Device view

Slave\_1

100%

Device overview

Module	Rack	Slot	I address	Q addr...	Type	Order no.	Firmware
Slave_1	0	0	2043*		GW-7553(DPV1)		V1.90
System setting_2_1	0	1		0..2	System setting		
System setting_2_2	0	2	0..5		System setting		
Input Register-5 word_1	0	3	6..15		Input Register-5 w...		
	0	4					
	0	5					
	0	6					
	0	7					
	0	8					
	0	9					
	0	10					

1. Click "Input Register-5word"

Input Register-5 word\_1 [Module]

Properties | Info | Diagnostics

General | IO tags | Texts

Device-specific parameters

2. Click "Properties"

3. Click "Device-specific"

Modbus Slave Device ID (M): 1

Start Address (M): 0

Device selection

Properties

Input Register-5 word\_1 [Module]

Properties

General | IO tags | Texts

Device-specific parameters

4. Set module parameter as shown

Modbus Slave Device ID (M): 1

Start Address (M): 15

Module Type (M): Read AI

# *Reads AI module data*

3. Click "Save project"

4. Click "Compile" and "Download"

6. Click "Start CPU"

The screenshot shows the Siemens SIMATIC Manager interface. The main window displays the 'Devices & networks' view for 'Project2'. The 'Project tree' on the left shows a hierarchy with 'PLC\_1 [CPU 315-2 PN...]' selected. The main workspace shows a graphical representation of the PLC hardware, with a red box highlighting the PLC unit. The 'Go online' button in the toolbar is also highlighted. The 'Topology view' button in the view selector is highlighted. The 'Save project' button in the toolbar is highlighted. The 'Compile' and 'Download' buttons in the toolbar are highlighted. The 'Start CPU' button in the toolbar is highlighted.

5. Click "Go online"

1. Click "Topology view"

2. Click your PLC

# Reads AI module data

## Check PLC and GW-7553 status

1. Check that it is online  
online -> orange  
offline -> blue

Project2 - Devices & networks

Undo

Topology view Network view Device view

Network Connections HMI\_connection 100%

PLC\_1 CPU 315-2 PN/DP

Slave\_1 GW-7553(DPV1) DP-NORM

PROFIBUS\_1

Online tools

Options

CPU operator panel

PLC\_1 [CPU 315-2 PN/DP]

Error

RUN

STOP

FORCE

Mode selector: RUN\_P

Hardware catalog

Online tools

3. Check that PLC is RUN mode

2. Click "Online tools"

Device	Type	Address in subn...	Subnet	Master / IO system	Comment
PLC_1	CPU 315-2 PN/DP				
Slave_1	GW-7553(DPV1)				

# Reads AI module data

Siemens - Project2

Project Edit View Insert Online Options Tools Window Help

Save project

Project2 > PLC\_1 [CPU 315-2 PN/DP] > Watch and force tables > Watch table\_1

3. Click "Monitor all"

Name	Address	Display format	Monitor value	Modify value	Comment
1	%IW6	Hex			
2	%IW8	Hex			
3	%IW10	Hex			
4	%IW12	Hex			
5	%IW14	Hex			
6					
7					

2. Output&Input type:  
IW: Input Word

<Add new>

1. Click "Watch and force tables"  
and double click "Add new watch table"

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	6..15

# Reads AI module data

## Modify values and Send Modbus commands

The screenshot shows the SIMATIC Manager interface. The top navigation bar indicates the path: Project2 > PLC\_1 [CPU 315-2 PN/DP] > Watch and force tables > Watch table\_1. Below this is a toolbar with various icons. The main area is a table with the following columns: Name, Address, Display format, Monitor value, and Modify v. The table contains five rows of data, with the Monitor value column highlighted in orange. Row 7 contains an '<Add new>' button.

	Name	Address	Display format	Monitor value	Modify v
1		%IW6	Hex	16#1479	
2		%IW8	Hex	16#2658	
3		%IW10	Hex	16#3113	
4		%IW12	Hex	16#6220	
5		%IW14	Hex	16#1522	
6					
7		<Add new>			

To the right of the table is a window titled 'Mbslav2' containing the following text:

```
ID = 1  
  
00015 = 0x1479  
00016 = 0x2658  
00017 = 0x3113  
00018 = 0x6220  
00019 = 0x1522
```

Type	Read/Write	Modbus Address	value
IW6	Read AI	15(30016)	0x1479
IW8	Read AI	16(30017)	0x2658
IW10	Read AI	17(30018)	0x3113
IW12	Read AI	18(30019)	0x6220
IW14	Read AI	19(30020)	0x1522