

# ***GW-7552 (Modbus RTU Master)***

## ***Example for SIMATIC STEP 7***

- **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**



Set the parameters of device as shown as below



SIMATIC PLC  
\* PROFIBUS Device 0(Master)



GW-7552  
• PROFIBUS Device 2 (Slave)  
• Modbus Device (RTU Master)

Comport Settings:

- Baud rate:115200
- Data bit: 8
- Stop bit : 1
- Parity: None
- Byte order: Big Endian
- Output Data Mode: Auto

# Before connecting



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

The screenshot shows the HW Config window for a SIMATIC 300 station. The main configuration area displays a rack with slots 1 through 4. Slot 2 contains a CPU313 C-2 DP(1) module. A label 'PROFIBUS(1): DP master system (1)' is connected to the DP port of the CPU. Below the rack, a DP/DP coupler (GW-7552) is connected to the DP/RS232C link. The right-hand pane shows the component tree with 'FIBUS DP' expanded, and 'DP/DP Coupler' selected. The 'Find' field is set to '7552' and the 'Profile' is 'Standard'. The bottom pane shows the station configuration table.

| Slot                              | Designation          |
|-----------------------------------|----------------------|
| 0                                 | UR                   |
| PROFIBUS(1): DP master system (1) | DP master system (1) |

Press F1 to get Help.

Chg

# Before connecting



Set the address of PLC in profibus as below



SIMATIC PLC  
\* PROFIBUS Device 0 (Master)

1. Double Click DP icon
2. Click "Properties"
3. Change address
4. Click OK

HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

Properties - PROFIBUS interface DP (R0/S2.1)

General Parameters

Address: 0

Highest address: 126

Transmission rate: 1.5 Mbps

Subnet: --- not networked ---

PROFIBUS(1) 1.5 Mbps

OK Cancel Help

| Slot | Module           | ... | Ord |
|------|------------------|-----|-----|
| 1    |                  |     |     |
| 2    | CPU313 C-2 DP(1) |     | 6ES |
| X2   | DP               |     |     |
| 2.2  | DI16/DO16        |     |     |
| 2.4  | Count            |     |     |

Press F1 to get Help.

Chg

# Before connecting



Set the address of GW-7552 as below



## GW-7552

- PROFIBUS Device 2 (Slave)
- Modbus Device (RTU Master)

1. Double click GW7552 icon
2. Click PROFIBUS
3. Change the address
4. Click OK

[SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Properties - DP slave

General | Parameter Assignment

Module

Properties - PROFIBUS interface GW-7552

General | Parameters

Address: 2

Transmission rate: 1.5 Mbps

Subnet:

|             |               |     |
|-------------|---------------|-----|
| ---         | not networked | --- |
| PROFIBUS(1) | 1.5 Mbps      |     |

New... Properties... Delete

OK Cancel Help

(type file): IPDS0B87.GSD

Coil--31 b  
Coil--32 b  
Coil--1 byte  
Coil--2 byte  
Coil--3 byte  
Coil--4 byte  
Coil--5 byte  
Coil--6 byte  
Coil--7 byte  
Coil--8 byte  
Coil--9 byte  
Coil--10 by  
Coil--12 by  
Coil--13 by  
Coil--14 by

Master System  
IBUS... 1  
ter system (1)  
hdog

Cancel Help

d, module is too wide, or the functionality of the inserted module is not transferable to the Chg



Set Gw-7552 comport setting as below



## Comport Settings:

- Baudrate:115200
- Data bit: 8
- Stop bit : 1
- Parity: None
- Byte order: Big Endian
- Output Data Mode: Auto

- 1.Double click GW7552 icon
- 2.Click Parameter Assignment
- 3.Change

Baud rate : 115200

Data bit : 8

Stop bit : 1

Parity : None

Byte order: big Endian

Output Data Mode: Auto

- 4.Click "OK"

You can change parameters here

Properties - DP slave

General | Parameter Assignment

| Parameters                      | Value                       |
|---------------------------------|-----------------------------|
| Station parameters              |                             |
| Device-specific parameters      |                             |
| baud rate                       | 115200 baud                 |
| parity                          | none                        |
| data                            | 8 data bit                  |
| stop bit                        | 1 stop bit                  |
| Modbus Type                     | Master                      |
| Modbus Format                   | Modbus RTU                  |
| I/O Safe Mode                   | Retain Last Value           |
| Byte Order                      | Big Endian(Motorola format) |
| Output Data Mode                | Auto                        |
| Modbus Device ID (S)            | 1                           |
| Modbus Polling Interval(ms) (M) | 500                         |
| Query timeout Value(ms)(M)      | 500                         |
| Hex parameter assignment        |                             |

OK Cancel Help



## *Before connecting*

Make sure the switch of the GW-7552 is at Normal mode.

Refer to [GW-7552 user manual](#) 2.6



## Before connecting



Setup the address by the DIP switch to set GW-7552's address as 2 in PROFIBUS

Refer to [GW-7552 user manual](#) 2.4

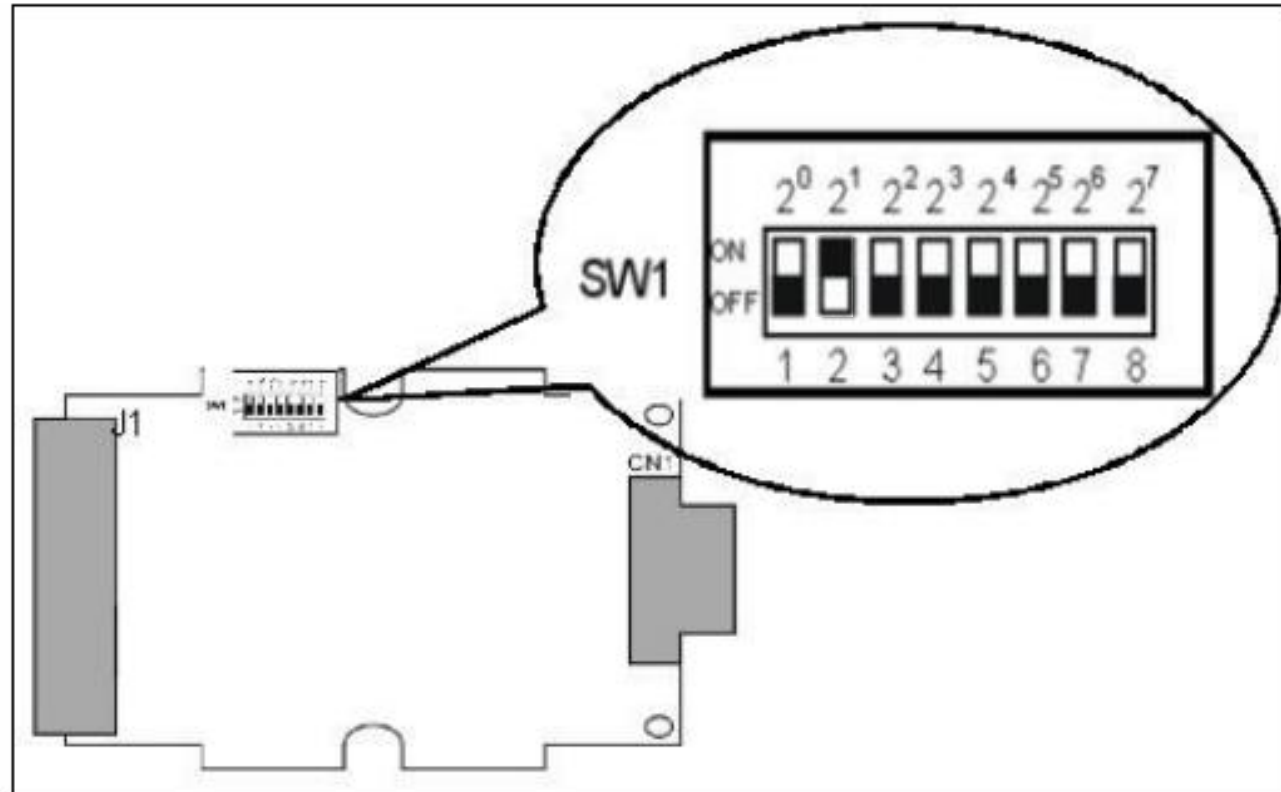
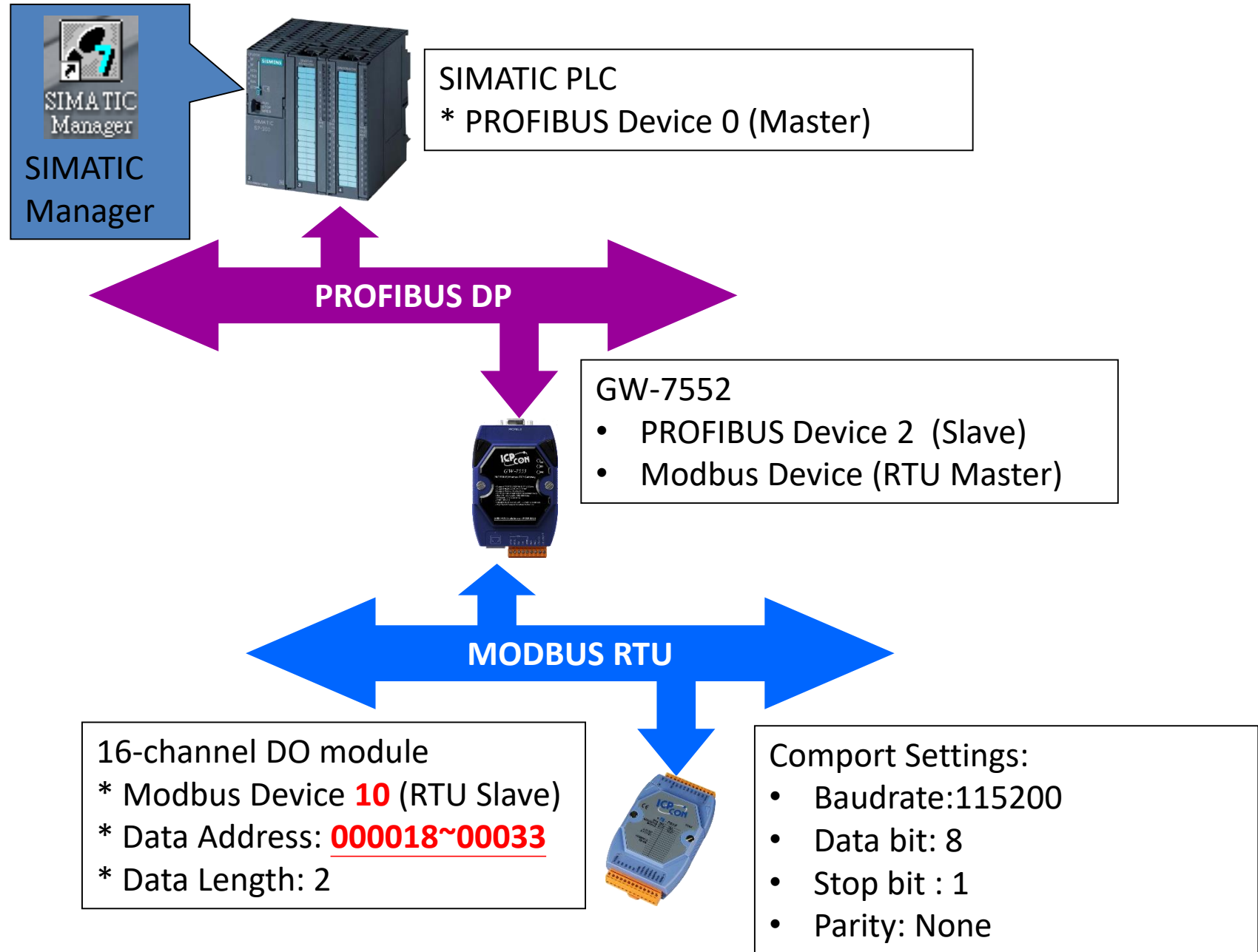


Figure 12: DIP switch





# Read 16-channel DO and Write 16-channel DO



The screenshot shows the HW Config window for a SIMATIC 300 Station. The main window displays a rack configuration for a DP master system. Slot 2 is occupied by a CPU313 C-2 DP(1) module. A callout box labeled (1) points to the GW-7552 module icon, with the instruction "Select GW-7552 module". A callout box labeled (2) points to the "Input Relay/Coil--2 byte" module in the right-hand list, with the instruction "Double click".

**(1) Select GW-7552 module**

**(2) Double click**

1. "System setting module"
2. "Output Relay/Coil – 2 byte"
3. "Input Relay/Coil – 2byte"

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 1    | 24DO  | System setting             |           | 0...2     |         |
| 2    | 32DI  | --> System setting         | 0...3     |           |         |
| 3    | 16DO  | Output Relay/Coil--2 byte  |           | 3..4      |         |
| 4    | 16DI  | Input Relay/Coil--2 byte   | 4...5     |           |         |
| 5    |       |                            |           |           |         |

# Read 16-channel DO and Write 16-channel DO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help



(0) UR

|     |                   |
|-----|-------------------|
| 1   |                   |
| 2   | CPU313 C-2 DP (1) |
| X2  | DP                |
| 2.2 | DI16/DO16         |
| 2.4 | Count             |
| 3   |                   |
| 4   |                   |

Properties - DP ID

Address / ID **Parameter Assignment** (2)Parameter Assignment

| Parameters                 | Value   |
|----------------------------|---------|
| Station parameters         |         |
| Device-specific parameters |         |
| Modbus Slave Device ID (M) | 10      |
| Start Address (M)          | 17      |
| NO. of Relay/Coil (M)      | 16 BITS |
| Hex parameter assignment   |         |

Modbus Slave Device ID (M) : 10  
Start Address(M):17  
No.of Relay/Coil (M):16 BITS

(3)Click OK

OK Cancel Help

Find: 7552

Profile: Standard

- Output Relay/Coil--29 b
- Output Relay/Coil--30 b
- Output Relay/Coil--31 b
- Output Relay/Coil--32 b
- 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
- Input Relay/Coil--9 byte
- Input Relay/Coil--10 by
- Input Relay/Coil--11 by
- Input Relay/Coil--12 by
- Input Relay/Coil--13 by
- Input Relay/Coil--14 by

(2) GW-7552

| Slot | DP ID | Order Num                 |
|------|-------|---------------------------|
| 1    | 24DO  | System settin             |
| 2    | 32DI  | --> System s              |
| 3    | 16DO  | Output Relay/Coil--2 byte |
| 4    | 16DI  | Input Relay/Coil--2 byte  |

(1)Double click "output Relay/Coil – 2 byte " module

Press F1 to get Help.

Chg

# Read 16-channel DO and Write 16-channel DO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

UR

|     |                 |
|-----|-----------------|
| 1   |                 |
| 2   | CPU313 C-2 DP(1 |
| X2  | DP              |
| 2.2 | DI16/DO16       |
| 2.4 | Count           |
| 3   |                 |
| 4   |                 |

(2) CPU313 C-2 DP(1

Properties - DP ID

Address / ID **Parameter Assignment** (2)Parameter Assignment

| Parameters                 | Value   |
|----------------------------|---------|
| Station parameters         |         |
| Device-specific parameters |         |
| Modbus Slave Device ID (M) | 10      |
| Start Address (M)          | 17      |
| NO. of Relay/Coil (M)      | 16 BITS |
| Module Type (M)            | Read DO |
| Hex parameter assignment   |         |

Modbus Slave Device ID (M) : 10  
Start Address(M):17  
No.of Relay/Coil (M):16 BITS  
Module Type(M):Read DO

(3)Click OK

OK Cancel Help

(1)Double click "input Relay/Coil – 2 byte "module

| Slot | DP ID | Order Num                      |
|------|-------|--------------------------------|
| 1    | 24DO  | System setting                 |
| 2    | 32DI  | --> System setting             |
| 3    | 16DO  | Output Relay/Coil--2 byte      |
| 4    | 16DI  | Input Relay/Coil--2 byte 4...5 |
| 5    |       |                                |

Find: 7552 Profile: Standard

Output Relay/Coil--29 b  
Output Relay/Coil--30 b  
Output Relay/Coil--31 b  
Output Relay/Coil--32 b  
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  
Input Relay/Coil--9 byte  
Input Relay/Coil--10 by  
Input Relay/Coil--11 by  
Input Relay/Coil--12 by  
Input Relay/Coil--13 by  
Input Relay/Coil--14 by

Press F1 to get Help. Chg

# Read 16-channel DO and Write 16-channel DO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

New... Ctrl+N  
Open... Ctrl+O  
Open ONLINE  
Close  
Save  
Save and Compile Ctrl+S  
Properties...  
Import...  
Export...  
Consistency Check Ctrl+Alt+K  
Check CiR Compatibility Ctrl+Alt+F  
Print... Ctrl+P  
Print Preview...  
Page Setup...  
1 S7\_Pro2\SIMATIC 300 Station  
2 S7\_Pro1\SIMATIC 300 Station  
3 S7\_Pro4\SIMATIC 300 Station  
4 S7\_Pro3\SIMATIC 300 Station  
Exit Alt+F4

Find: 7552  
Profile: Standard

Output Relay/Coil--29 b  
Output Relay/Coil--30 b  
Output Relay/Coil--31 b  
Output Relay/Coil--32 b  
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  
Input Relay/Coil--9 byte  
Input Relay/Coil--10 by  
Input Relay/Coil--11 by  
Input Relay/Coil--12 by  
Input Relay/Coil--13 by  
Input Relay/Coil--14 by

| Address | Q Address | Comment |
|---------|-----------|---------|
|         | 0...2     |         |
| 3       |           |         |
|         | 3...4     |         |
| 5       |           |         |

Saves and creates all system data in the current station.

Chg

# Read 16-channel DO and Write 16-channel DO



The screenshot shows the SIMATIC Manager HW Config interface for a SIMATIC 300 Station. The 'PLC' menu is open, and the 'Download to PLC' option is highlighted with a red box. The hardware rack is visible on the left, and the hardware catalog is on the right. The status bar at the bottom indicates that the current station is loaded into the load memory of the current module.

| Slot | DP ID | Module Name               | Address Range |
|------|-------|---------------------------|---------------|
| 1    | 24DO  | System setting            | 0...2         |
| 2    | 32DI  | --> System setting        | 0...3         |
| 3    | 16DO  | Output Relay/Coil--2 byte | 3...4         |
| 4    | 16DI  | Input Relay/Coil--2 byte  | 4...5         |
| 5    |       |                           |               |

Loads the current station into the load memory of the current module.

# Read 16-channel DO and Write 16-channel DO



The screenshot shows the SIMATIC Manager interface for a project named S7\_Pro2. The main workspace displays a project tree on the left and a list of objects (System data, OB1, OB82, OB86, and VAT\_1) on the right. The VAT\_1 object is highlighted with a red box. A context menu is open over the VAT\_1 object, and the 'Insert New Object' option is selected, which has opened a sub-menu. In this sub-menu, the 'Variable Table' option is highlighted. A red box with the text 'Double click' is positioned below the VAT\_1 object. The status bar at the bottom left of the window displays the text 'Inserts Variable Table'.

SIMATIC Manager - S7\_Pro2

File Edit Insert PLC View Options Window Help

S7\_Pro2 -- C:\Program Files\Siemens\Step7\s7proj\S7\_Pro2

S7\_Pro2

- SIMATIC 300 Station
  - CPU313 C-2 DP(1)
    - S7 Program(1)
      - Sources

System data OB1 OB82 OB86 VAT\_1

Double click

Inserts Variable Table

# Read 16-channel DO and Write 16-channel DO



Type output(QB #)& input (IB #)

IB : input Byte ; QB : output Byte

IW: input Word ; QW : output Word

|   | Address | Symbol | Display format | Status value | Modify value |
|---|---------|--------|----------------|--------------|--------------|
| 1 | QB 3    |        | HEX            |              |              |
| 2 | qb4     |        |                |              |              |

Press F1 for help.



|   | Address | Symbol | Display format | Status value | Modify value |
|---|---------|--------|----------------|--------------|--------------|
| 1 | QB 3    |        | HEX            |              |              |
| 2 | QB 4    |        | HEX            |              |              |
| 3 |         |        |                |              |              |
| 4 | IB 4    |        | HEX            |              |              |
| 5 | IB 5    |        | HEX            |              |              |
| 6 |         |        |                |              |              |

Press F1 for help.



# Read 16-channel DO and Write 16-channel DO



The addresses in VAT\_1 correspond module addresses

The screenshot displays the SIMATIC Manager interface. On the left, the hardware rack is shown with slots 1-4 containing a CPU313 C-2 DP(1) and modules for DP, DI16/DO16, and Count. A callout box points to the 'Monitor' button in the 'Table Edit' window, with the text 'Click "Monitor" button'. The 'Table Edit' window shows a table of variables with columns for Address, Symbol, Display format, Status value, and Modify value. A red box highlights the first two rows (QB 3 and QB 4), and a green box highlights the last two rows (IB 4 and IB 5). Red and green lines connect these boxes to the 'Q Address' and 'I Address' columns in the hardware rack table below. The hardware rack table has columns for Slot, DP ID, Order Number / Designation, I Address, Q Address, and Comment. A red box highlights the 'Q Address' '3..4' for slot 3, and a green box highlights the 'I Address' '4..5' for slot 4. The status value column in the 'Table Edit' window is shaded grey.

| Address | Symbol | Display format | Status value | Modify value |
|---------|--------|----------------|--------------|--------------|
| 1       | QB 3   | HEX            |              |              |
| 2       | QB 4   | HEX            |              |              |
| 3       |        |                |              |              |
| 4       | IB 4   | HEX            |              |              |
| 5       | IB 5   | HEX            |              |              |
| 6       |        |                |              |              |

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 1    | 24DO  | System setting             |           | 0..2      |         |
| 2    | 32DI  | --> System setting         | 0..3      |           |         |
| 3    | 16DO  | Output Relay/Coil--2 byte  |           | 3..4      |         |
| 4    | 16DI  | Input Relay/Coil--2 byte   | 4..5      |           |         |
| 5    |       |                            |           |           |         |

Press F1 to get Help.

Chg



## Monitor Variable

|   | Address | Symbol | Display format | Status value | Modify value |
|---|---------|--------|----------------|--------------|--------------|
| 1 | QB 3    |        | HEX            | B#16#00      |              |
| 2 | QB 4    |        | HEX            | B#16#00      |              |
| 3 |         |        |                |              |              |
| 4 | IB 4    |        | HEX            | B#16#00      |              |
| 5 | IB 5    |        | HEX            | B#16#00      |              |
| 6 |         |        |                |              |              |

00018~00025

Bit 25 24 23 22 21 20 19 18  
 0 0 0 0 0 0 0 0  
 2<sup>7</sup> 2<sup>6</sup> 2<sup>5</sup> 2<sup>4</sup> 2<sup>3</sup> 2<sup>2</sup> 2<sup>1</sup> 2<sup>0</sup>

Modbus... ID = 10

|           |           |
|-----------|-----------|
| 00018 = 0 | 00026 = 0 |
| 00019 = 0 | 00027 = 0 |
| 00020 = 0 | 00028 = 0 |
| 00021 = 0 | 00029 = 0 |
| 00022 = 0 | 00030 = 0 |
| 00023 = 0 | 00031 = 0 |
| 00024 = 0 | 00032 = 0 |
| 00025 = 0 | 00033 = 0 |

Bit 33 32 31 30 29 28 27 26  
 0 0 0 0 0 0 0 0  
 2<sup>7</sup> 2<sup>6</sup> 2<sup>5</sup> 2<sup>4</sup> 2<sup>3</sup> 2<sup>2</sup> 2<sup>1</sup> 2<sup>0</sup>

00026~00033



Modify the value to send ModBus command

The Data to transfer

|   | Address | Symbol | Display form | Modify value |
|---|---------|--------|--------------|--------------|
| 1 | QB 3    |        | HEX          | B#16#01      |
| 2 | QB 4    |        | HEX          | B#16#03      |
| 3 |         |        |              |              |
| 4 | IB 4    |        | HEX          | B#16#00      |
| 5 | IB 5    |        | HEX          | B#16#00      |
| 6 |         |        |              |              |

Setup QB3 QB4,click modify variable button



Data transfer

|   | Address | Symbol | Display form | Data transfer | Modify value |
|---|---------|--------|--------------|---------------|--------------|
| 1 | QB 3    |        | HEX          | B#16#01       | B#16#01      |
| 2 | QB 4    |        | HEX          | B#16#03       | B#16#03      |
| 3 |         |        |              |               |              |
| 4 | IB 4    |        | HEX          | B#16#01       |              |
| 5 | IB 5    |        | HEX          | B#16#03       |              |
| 6 |         |        |              |               |              |

Data received



## Step 15 :Modify the value to send ModBus command

|   | Address | Symbol | Display format | Status value | Modify value |
|---|---------|--------|----------------|--------------|--------------|
| 1 | QB 3    |        | HEX            | B#16#01      | B#16#01      |
| 2 | QB 4    |        | HEX            | B#16#03      | B#16#03      |
| 3 |         |        |                |              |              |
| 4 | IB 4    |        | HEX            | B#16#01      |              |
| 5 | IB 5    |        | HEX            | B#16#03      |              |
| 6 |         |        |                |              |              |

**Write DO(8bit)**

```

Data    03
Address 33 32 31 30 29 28 27 26
bit     0 0 0 0 0 0 1 1
Write   X X X X X X V V
    
```

Write DO(8bit)

Write DO(8bit)

**Write DO(8bit)**

```

Data    03
Address 25 24 23 22 21 20 19 18
bit     0 0 0 0 0 0 0 1
Write   X X X X X X X V
    
```

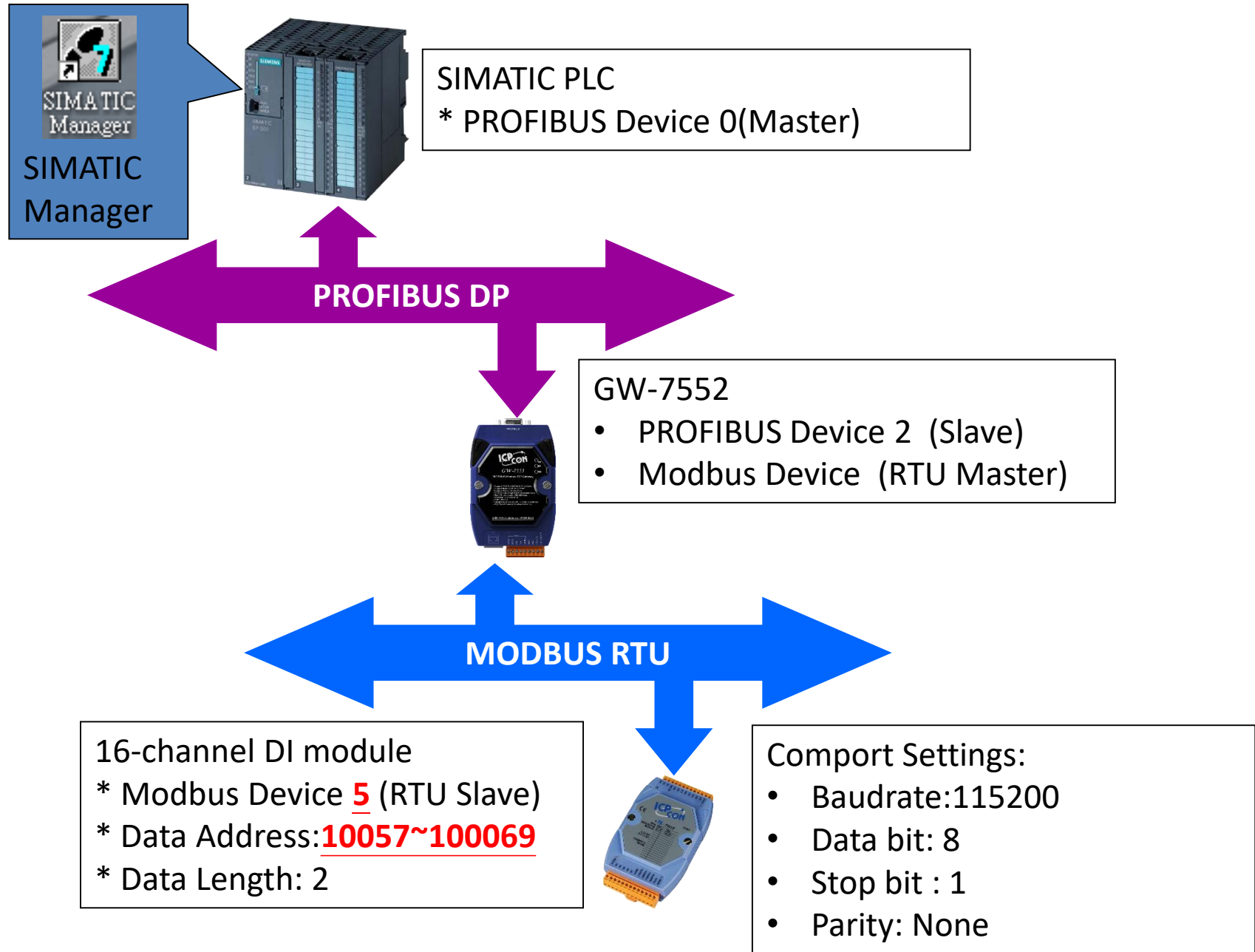
ID = 10

|           |           |
|-----------|-----------|
| 00018 = 1 | 00026 = 1 |
| 00019 = 0 | 00027 = 1 |
| 00020 = 0 | 00028 = 0 |
| 00021 = 0 | 00029 = 0 |
| 00022 = 0 | 00030 = 0 |
| 00023 = 0 | 00031 = 0 |
| 00024 = 0 | 00032 = 0 |
| 00025 = 0 | 00033 = 0 |

Read DO(8bit)

Read DO(8bit)

User can read the data to the Modbus DO module at address IB4 、 IB5



# Read 13-channel DI



The screenshot shows the SIMATIC Manager HW Config interface. The main window displays a rack configuration for a SIMATIC 300 Station. Slot 2 is occupied by a CPU313 C-2 DP(1) module. A callout box labeled "BUS(1): DP master system (1)" points to the DP interface of the CPU. A red callout box with the text "(1) Select GW-7552 module" points to a small icon of the GW-7552 module in the rack. Below the rack configuration, a table shows the details for the selected GW-7552 module. The table has columns for Slot, DP ID, Order Number / Designation, I Address, Q Address, and Comment. The first three rows are highlighted in green. To the right of the main window, a search panel shows "Find: 7552" and "Profile: Standard". Below the search panel is a list of module types, including "Output Relay/C", "Input Relay/C", and "Input Relay/Coil-2 byte". A red callout box with the text "(2) Double click 1. 'System setting' 2. 'Input Relay/Coil-2 byte'" points to the "Input Relay/Coil-2 byte" entry in the list.

(1) Select GW-7552 module

(2) Double click  
1. "System setting"  
2. "Input Relay/Coil-2 byte"

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 1    | 24DO  | System setting             |           | 0...2     |         |
| 2    | 32DI  | --> System setting         | 0...3     |           |         |
| 3    | 16DI  | Input Relay/Coil-2 byte    | 4...5     |           |         |
| 4    |       |                            |           |           |         |
| 5    |       |                            |           |           |         |

# Read 13-channel DI



The screenshot shows the SIMATIC Manager HW Config interface. A 'Properties - DP ID' dialog box is open, displaying the configuration for a DP module. The 'Device-specific parameters' section is highlighted with a red box, and its values are summarized in a pink callout box. The 'OK' button is also highlighted with a red box and labeled with a red callout. The background shows a rack configuration with a CPU313 C-2 DP module in slot 2 and a 16DI module in slot 3.

| Parameters                 | Value       |
|----------------------------|-------------|
| Station parameters         |             |
| Device-specific parameters |             |
| Modbus Slave Device ID (M) | 5           |
| Start Address (M)          | 56          |
| NO. of Relay/Coil (M)      | 13 BITS     |
| Module Type (M)            | Read DI     |
| Hex parameter assignment   |             |
| User_Prm_Data (0 to 3)     | 05 00 00 00 |

Modbus Slave Device ID (M) : 5  
Start Address(M):56  
No.of Relay/Coil (M):13 BITS

(1) Double click DI module

(3) Click OK

| Slot | DP ID | Order Num               |
|------|-------|-------------------------|
| 1    | 24DO  | System setting          |
| 2    | 32DI  | --> System setting      |
| 3    | 16DI  | Input Relay/Coil-2 byte |
| 4    |       |                         |
| 5    |       |                         |

# Read 13-channel DI



The screenshot shows the SIMATIC Manager HW Config interface. The 'Station' menu is open, and the 'Save and Compile' option is highlighted with a red box. The background shows a hardware rack configuration with a table of addresses and a list of modules.

| Address | Q Address | Comment |
|---------|-----------|---------|
|         | 0...2     |         |
| 3       |           |         |
| 5       |           |         |
|         |           |         |

Station Edit Insert PLC View Options Window Help

- New... Ctrl+N
- Open... Ctrl+O
- Open ONLINE
- Close
- Save
- Save and Compile Ctrl+S**
- Properties...
- Import...
- Export...
- Consistency Check Ctrl+Alt+K
- Check CiR Compatibility Ctrl+Alt+F
- Print... Ctrl+P
- Print Preview...
- Page Setup...
- 1 S7\_Pro2\SIMATIC 300 Station
- 2 S7\_Pro1\SIMATIC 300 Station
- 3 S7\_Pro4\SIMATIC 300 Station
- 4 S7\_Pro3\SIMATIC 300 Station
- Exit Alt+F4

Find: 7552 Profile: Standard

- Output Relay/
- Output Relay/
- Output Relay/
- Output Relay/
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C
- Input Relay/C

Saves and creates all system data in the current station.

Chg



# Read 13-channel DI



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert **PLC** View Options Window Help

Download... Ctrl+L  
Upload...  
Download Module Identification...  
Upload Module Identification to PG...  
Faulty Modules...  
Module Information... Ctrl+D  
Operating Mode... Ctrl+I  
Clear/Reset...  
Set Time of Day...  
Monitor/Modify  
Update Firmware...  
Save Device Name to Memory Card...  
Ethernet  
PROFIBUS  
Save Service Data...

Download to PLC

(0) UR

|     |          |  |
|-----|----------|--|
| 1   |          |  |
| 2   | CPU313   |  |
| X2  | DP       |  |
| 2.2 | DI16/DO4 |  |
| 2.4 | Count    |  |
| 3   |          |  |
| 4   |          |  |

(2) GW-7552

| Slot | DP ID | ...                      |
|------|-------|--------------------------|
| 1    | 24DO  | System setting           |
| 2    | 32DI  | --> System setting       |
| 3    | 16DI  | Input Relay/Coil--2 byte |
| 4    |       |                          |
| 5    |       |                          |

Find: 7552  
Profile: Standard

Output Relay/  
Output Relay/  
Output Relay/  
Output Relay/  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C  
Input Relay/C

Loads the current station into the load memory of the current module.

Chg

# Read 13-channel DI



SIMATIC Manager - S7\_Pro2

File Edit Insert PLC View Options Window Help

< No Filter >

S7\_Pro2 -- C:\Program Files\Siemens\Step7\s7proj\S7\_Pro2

S7\_Pro2

- SIMATIC 300 Station
  - CPU313 C-2 DP(1)
    - S7 Program(1)
      - Sources
      - Blocks
- System data
- OB1
- OB82
- OB86
- VAT\_1

Double click

- Cut Ctrl+X
- Copy Ctrl+C
- Paste Ctrl+V
- Delete Del
- Insert New Object
  - Organization Block
  - Function Block
  - Function
  - Data Block
  - Data Type
  - Variable Table
- PLC
- Rewire...
- Compare Blocks...
- Reference Data
- Check Block Consistency...
- Print
- Rename F2
- Object Properties... Alt+Return
- Special Object Properties

Inserts Variable Table

# Read 13-channel DI



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

(0) UR

|     |                  |
|-----|------------------|
| 1   |                  |
| 2   | CPU313 C-2 DP(1) |
| X2  | DP               |
| 2.2 | DI16/DO16        |
| 2.4 | Count            |
| 3   |                  |
| 4   |                  |

BUS(1): DP master system

Click "Monitor" button

(2) GW-7552

| Address | Symbol | Display format | Status value | Modify value |
|---------|--------|----------------|--------------|--------------|
| 1       |        |                |              |              |
| 2       | IB 4   | HEX            | B#16#00      |              |
| 3       | IB 5   | HEX            | B#16#00      |              |
| 4       |        |                |              |              |
| 5       |        |                |              |              |
| 6       |        |                |              |              |

S7\_Pro2\SIMATIC 300 Station\...\S7 Program(1)

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 1    | 24DO  | System setting             |           | 0...2     |         |
| 2    | 32DI  | --> System setting         | 0...3     |           |         |
| 3    | 16DI  | Input Relay/Coil--2 byte   | 4...5     |           |         |
| 4    |       |                            |           |           |         |
| 5    |       |                            |           |           |         |

Press F1 to get Help.

Chg

# Read 13-channel DI



Var - [VAT\_1 -- @S7\_Pro2\SIMATIC 300 Station\CPU313 C-2 DP(1)\

Table Edit Insert PLC Variable View Options Window

Read DI(8bit)

|   | Address | Symbol | Display format | Status value | Modify value |
|---|---------|--------|----------------|--------------|--------------|
| 1 |         |        |                |              |              |
| 2 | IB 4    |        | HEX            | B#16#07      |              |
| 3 | IB 5    |        | HEX            | B#16#05      |              |
| 4 |         |        |                |              |              |
| 5 |         |        |                |              |              |
| 6 |         |        |                |              |              |

0000111 (binary)= 07 (hex)  
00101 (binary)= 05 (hex)

User can read the data to the Modbus DI module at address IB 4 、 IB 5

Read DI(5bit)

S7\_Pro2\SIMATIC 300 Station\...\S7 Program(1)

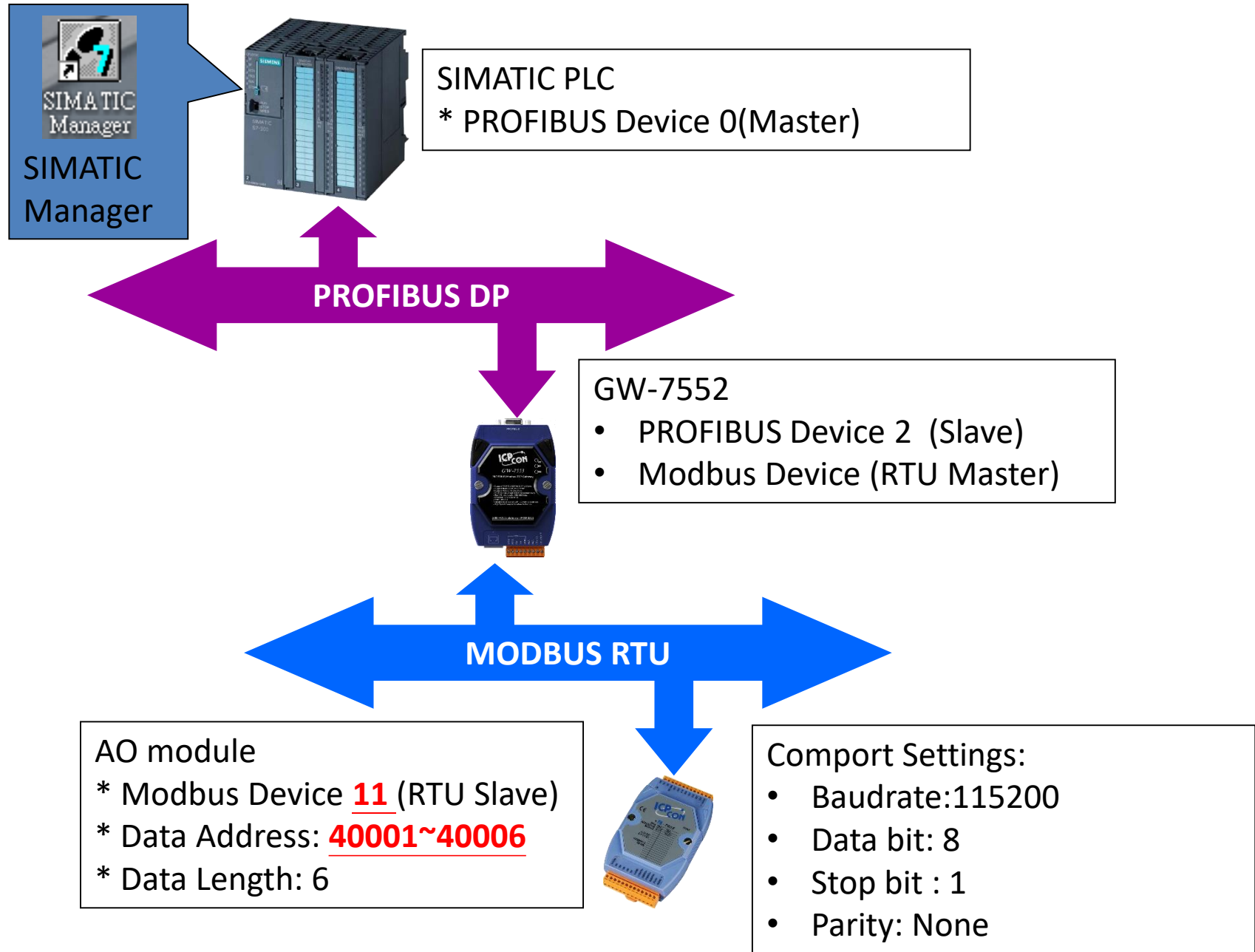
Modbus Slave - [M...

File Connection Setup Display  
View Window Help

ID = 5

|       |   |   |
|-------|---|---|
| 10057 | = | 1 |
| 10058 | = | 1 |
| 10059 | = | 1 |
| 10060 | = | 0 |
| 10061 | = | 0 |
| 10062 | = | 0 |
| 10063 | = | 0 |
| 10064 | = | 0 |
| 10065 | = | 1 |
| 10066 | = | 0 |
| 10067 | = | 1 |
| 10068 | = | 0 |
| 10069 | = | 0 |

For Help, press F1. For Edit, double clic



# Read and Write 6-channel AO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

(0) UR

|     |                  |
|-----|------------------|
| 1   |                  |
| 2   | CPU313 C-2 DP(1) |
| X2  | DP               |
| 2.2 | DI16/DO16        |
| 2.4 | Count            |
| 3   |                  |
| 4   |                  |

BUS(1): DP master system (1)

(1) Select GW-7552 module

(2) Double click

1. "System setting"
2. "Output Register—6 word"
3. "Input Register—6 word"

(2) GW-7552

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 1    | 24DO  | System setting             |           | 0...2     |         |
| 2    | 32DI  | --> System setting         | 0...3     |           |         |
| 3    | 6AO   | Output Register--6 word    |           | 256...267 |         |
| 4    | 6AI   | Input Register--6 word     | 256...267 |           |         |
| 5    |       |                            |           |           |         |

Find: 7552

Profile: Standard

- 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

Press F1 to get Help.

Chg

# Read and Write 6-channel AO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

(0) UR

|     |                  |
|-----|------------------|
| 1   |                  |
| 2   | CPU313 C-2 DP(1) |
| X2  | DP               |
| 2.2 | DI16/DO16        |
| 2.4 | Count            |
| 3   |                  |
| 4   |                  |

(2) GW

(1) Double click AO module

| Slot | Module | Number setting          |
|------|--------|-------------------------|
| 1    |        |                         |
| 2    | 32DI   | --> System setting      |
| 3    | 6AO    | Output Register--6 word |

Properties - DP ID

Address / ID Parameter Assignment (2)Parameter

| Parameters                 | Value       |
|----------------------------|-------------|
| Station parameters         |             |
| Device-specific parameters |             |
| Modbus Slave Device ID (M) | 11          |
| Start Address (M)          | 0           |
| Change Word Order          | Disable     |
| Hex parameter assignment   |             |
| User_Prm_Data (0 to 3)     | 0B,00,00,03 |

Modbus Slave Device ID (M) : 11

Find: 7552

Profile: Standard

- 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 is occupied, module is too wide, or the functionality of the inserted module is not transferable to the new module

Chg

# Read and Write 6-channel AO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

(0) UR

|     |                  |
|-----|------------------|
| 1   |                  |
| 2   | CPU313 C-2 DP(1) |
| X2  | DP               |
| 2.2 | DI16/DO16        |
| 2.4 | Count            |
| 3   |                  |
| 4   |                  |

(2) GW

Properties - DP ID

Address / ID Parameter Assignment (2)Parameter

| Parameters                 | Value       |
|----------------------------|-------------|
| Station parameters         |             |
| Device-specific parameters |             |
| Modbus Slave Device ID (M) | 11          |
| Start Address (M)          | 0           |
| Module Type (M)            | Read AO     |
| Change Word Order          | Disable     |
| Hex parameter assignment   |             |
| User_Prm_Data (0 to 3)     | 0B,00,00,04 |

Modbus Slave Device ID (M) : 11  
Module Type (M):Read AO

(1)Double click AI module

OK (3)Click OK

Cancel Help

Find: 7552 Profile: Standard

- 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 is occupied, module is too wide, or the functionality of the inserted module is not transferable to the new module

Chg



# Read and Write 6-channel AO



The screenshot shows the SIMATIC Manager HW Config interface. The 'Station' menu is open, and the 'Save and Compile' option is highlighted with a red box. The menu items are as follows:

- New... (Ctrl+N)
- Open... (Ctrl+O)
- Open ONLINE
- Close
- Save
- Save and Compile (Ctrl+S)**
- Properties...
- Import...
- Export...
- Consistency Check (Ctrl+Alt+K)
- Check CiR Compatibility (Ctrl+Alt+F)
- Print... (Ctrl+P)
- Print Preview...
- Page Setup...
- 1 S7\_Pro2\SIMATIC 300 Station
- 2 S7\_Pro1\SIMATIC 300 Station
- 3 S7\_Pro4\SIMATIC 300 Station
- 4 S7\_Pro3\SIMATIC 300 Station
- Exit (Alt+F4)

On the right side of the interface, there is a 'Find' field containing '7552' and a 'Profile' dropdown set to 'Standard'. Below these are lists of hardware components:

- 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

Saves and creates all system data in the current station.

Chg

# Read and Write 6-channel AO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert **PLC** View Options Window Help

Download... Ctrl+L

Upload...

Download Module Identification...

Upload Module Identification to PG...

Faulty Modules...

Module Information... Ctrl+D

Operating Mode... Ctrl+I

Clear/Reset...

Set Time of Day...

Monitor/Modify

Update Firmware...

Save Device Name to Memory Card...

Ethernet

PROFIBUS

Save Service Data...

Download to PLC

(0) UR

|     |          |
|-----|----------|
| 1   |          |
| 2   | CPU313   |
| X2  | DP       |
| 2.2 | DI16/DO4 |
| 2.4 | Count    |
| 3   |          |
| 4   |          |

SIMATIC 300 Station

| Slot                              | Designation          |
|-----------------------------------|----------------------|
| 0                                 | UR                   |
|                                   |                      |
|                                   |                      |
| PROFIBUS(1): DP master system (1) | DP master system (1) |

Find: 7552

Profile: Standard

- 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

Loads the current station into the load memory of the current module.

Chg

# Read and Write 6-channel AO



SIMATIC Manager - S7\_Pro2

File Edit Insert PLC View Options Window Help

< No Filter >

S7\_Pro2 -- C:\Program Files\Siemens\Step7\s7proj\S7\_Pro2

S7\_Pro2

- SIMATIC 300 Station
  - CPU313 C-2 DP(1)
    - S7 Program(1)
      - Sources
      - Blocks
- System data
- OB1
- OB82
- OB86
- VAT\_1

Double click

- Cut Ctrl+X
- Copy Ctrl+C
- Paste Ctrl+V
- Delete Del
- Insert New Object
  - Organization Block
  - Function Block
  - Function
  - Data Block
  - Data Type
  - Variable Table
- PLC
- Rewire...
- Compare Blocks...
- Reference Data
- Check Block Consistency...
- Print
- Rename F2
- Object Properties... Alt+Return
- Special Object Properties

Inserts Variable Table at t

# Read and Write 6-channel AO



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

(0) UR

|     |                  |
|-----|------------------|
| 1   |                  |
| 2   | CPU313 C-2 DP(1) |
| X2  | DP               |
| 2.2 | DI16/DO16        |
| 2.4 | Count            |
| 3   |                  |
| 4   |                  |

BUS(1): DP master system (1)

(2) GW-752

(2) GW-7552

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 2    | 32DI  | --> System setting         | 0...3     |           |         |
| 3    | 6AO   | Output Register--6 word    |           | 256...267 |         |
| 4    | 6AI   | Input Register--6 word     | 256...267 |           |         |

Click "Monitor" button

Var - [VAT\_1 -- @S7\_Pro2\SIMATIC 300 Station\CPU3...

Table Edit Insert PLC Variable View Options Window Help

|    | Address | Symbol | Display format | Status value | Modify value |
|----|---------|--------|----------------|--------------|--------------|
| 1  | PQW 256 |        | HEX            | 00           |              |
| 2  | PQW 258 |        | HEX            | 00           |              |
| 3  | PQW 260 |        | HEX            | 00           |              |
| 4  | PQW 262 |        | HEX            | 00           |              |
| 5  | PQW 264 |        | HEX            | 00           |              |
| 6  | PQW 266 |        | HEX            | 00           |              |
| 7  |         |        |                |              |              |
| 8  | PIW 256 |        | HEX            | W#16#0000    |              |
| 9  | PIW 258 |        | HEX            | W#16#0000    |              |
| 10 | PIW 260 |        | HEX            | W#16#0000    |              |
| 11 | PIW 262 |        | HEX            | W#16#0000    |              |
| 12 | PIW 264 |        | HEX            | W#16#0000    |              |
| 13 | PIW 266 |        | HEX            | W#16#0000    |              |
| 14 |         |        |                |              |              |

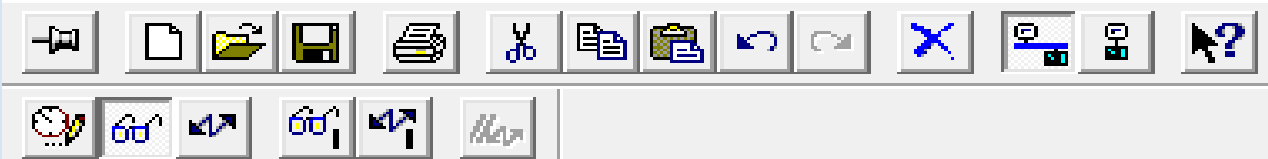
S7\_Pro2\SIMATIC 300 Station\...\S7 Program(1)

# Read and Write 6-channel AO



Var - [VAT\_1 -- @S7\_Pro2\SIMATIC 300 Station\CPU313 C-2 DP(1)\S7 Program(1) ONLINE]

Table Edit Insert PLC Variable View Options Window Help



|    | Address | Symbol | Display format | Status value  | Modify value |
|----|---------|--------|----------------|---------------|--------------|
| 1  | PQW 256 |        | HEX            | <del>0x</del> |              |
| 2  | PQW 258 |        | HEX            | <del>0x</del> |              |
| 3  | PQW 260 |        | HEX            | <del>0x</del> |              |
| 4  | PQW 262 |        | HEX            | <del>0x</del> |              |
| 5  | PQW 264 |        | HEX            | <del>0x</del> |              |
| 6  | PQW 266 |        | HEX            | <del>0x</del> |              |
| 7  |         |        |                |               |              |
| 8  | PIW 256 |        | HEX            | W#16#0000     |              |
| 9  | PIW 258 |        | HEX            | W#16#0000     |              |
| 10 | PIW 260 |        | HEX            | W#16#0000     |              |
| 11 | PIW 262 |        | HEX            | W#16#0000     |              |
| 12 | PIW 264 |        | HEX            | W#16#0000     |              |
| 13 | PIW 266 |        | HEX            | W#16#0000     |              |
| 14 |         |        |                |               |              |

Modbus Slave - [M...]

File Connection Setup Display  
View Window Help

ID = 11

40001 = 0x0000  
40002 = 0x0000  
40003 = 0x0000  
40004 = 0x0000  
40005 = 0x0000  
40006 = 0x0000

For Help, press F1. For Edit, double clic

Read AO(6 word)

# Read and Write 6-channel AO



Var - [VAT\_1 -- @S7\_Pro2\SIMATIC 300 Station\CPU313 C-2 DP(1)\S7 Program(1) ONLINE]

Table Edit Insert PLC Variable View Options Window Help



(2) Click "Modify variable" button

|    | Address | Symbol | Display format | Status value  |
|----|---------|--------|----------------|---------------|
| 1  | PQW 256 |        | HEX            | <del>00</del> |
| 2  | PQW 258 |        | HEX            | <del>00</del> |
| 3  | PQW 260 |        | HEX            | <del>00</del> |
| 4  | PQW 262 |        | HEX            | <del>00</del> |
| 5  | PQW 264 |        | HEX            | <del>00</del> |
| 6  | PQW 266 |        | HEX            | <del>00</del> |
| 7  |         |        |                |               |
| 8  | PTW 256 |        | HEX            | W#16#0000     |
| 9  | PTW 258 |        | HEX            | W#16#0000     |
| 10 | PTW 260 |        | HEX            | W#16#0000     |
| 11 | PTW 262 |        | HEX            | W#16#0000     |
| 12 | PTW 264 |        | HEX            | W#16#0000     |
| 13 | PTW 266 |        | HEX            | W#16#0000     |
| 14 |         |        |                |               |

(1) Set the data to transfer

W#16#1253  
W#16#5533  
W#16#4537  
W#16#0123  
W#16#0012  
W#16#0022

Read AO(6 word)

Modbus Slave - [M...]

File Connection Setup Display  
View Window Help

ID = 11

40001 = 0x0000  
40002 = 0x0000  
40003 = 0x0000  
40004 = 0x0000  
40005 = 0x0000  
40006 = 0x0000

For Help, press F1. For Edit, double clic

# Read and Write 6-channel AO



Var - [VAT\_1 -- @S7\_Pro2\SIMATIC 300 Station\CPU313 C-2 DP(1)\S7 Program(1) ONLINE]

Table Edit Insert PLC Variable View Options Window Help



|    | Address | Symbol | Display format | Status value    | Modify value |
|----|---------|--------|----------------|-----------------|--------------|
| 1  | PQW 256 |        | HEX            | <del>0000</del> | W#16#1253    |
| 2  | PQW 258 |        | HEX            | <del>0000</del> | W#16#5533    |
| 3  | PQW 260 |        | HEX            | <del>0000</del> | W#16#4537    |
| 4  | PQW 262 |        | HEX            | <del>0000</del> | W#16#0123    |
| 5  | PQW 264 |        | HEX            | <del>0000</del> | W#16#0012    |
| 6  | PQW 266 |        | HEX            | <del>0000</del> | W#16#0022    |
| 7  |         |        |                |                 |              |
| 8  | PIW 256 |        | HEX            | W#16#1253       |              |
| 9  | PIW 258 |        | HEX            | W#16#5533       |              |
| 10 | PIW 260 |        | HEX            | W#16#4537       |              |
| 11 | PIW 262 |        | HEX            | W#16#0123       |              |
| 12 | PIW 264 |        | HEX            | W#16#0012       |              |
| 13 | PIW 266 |        | HEX            | W#16#0022       |              |
| 14 |         |        |                |                 |              |

Write AO(6 word)

Read AO(6 word)

Modbus Slave - [M...]

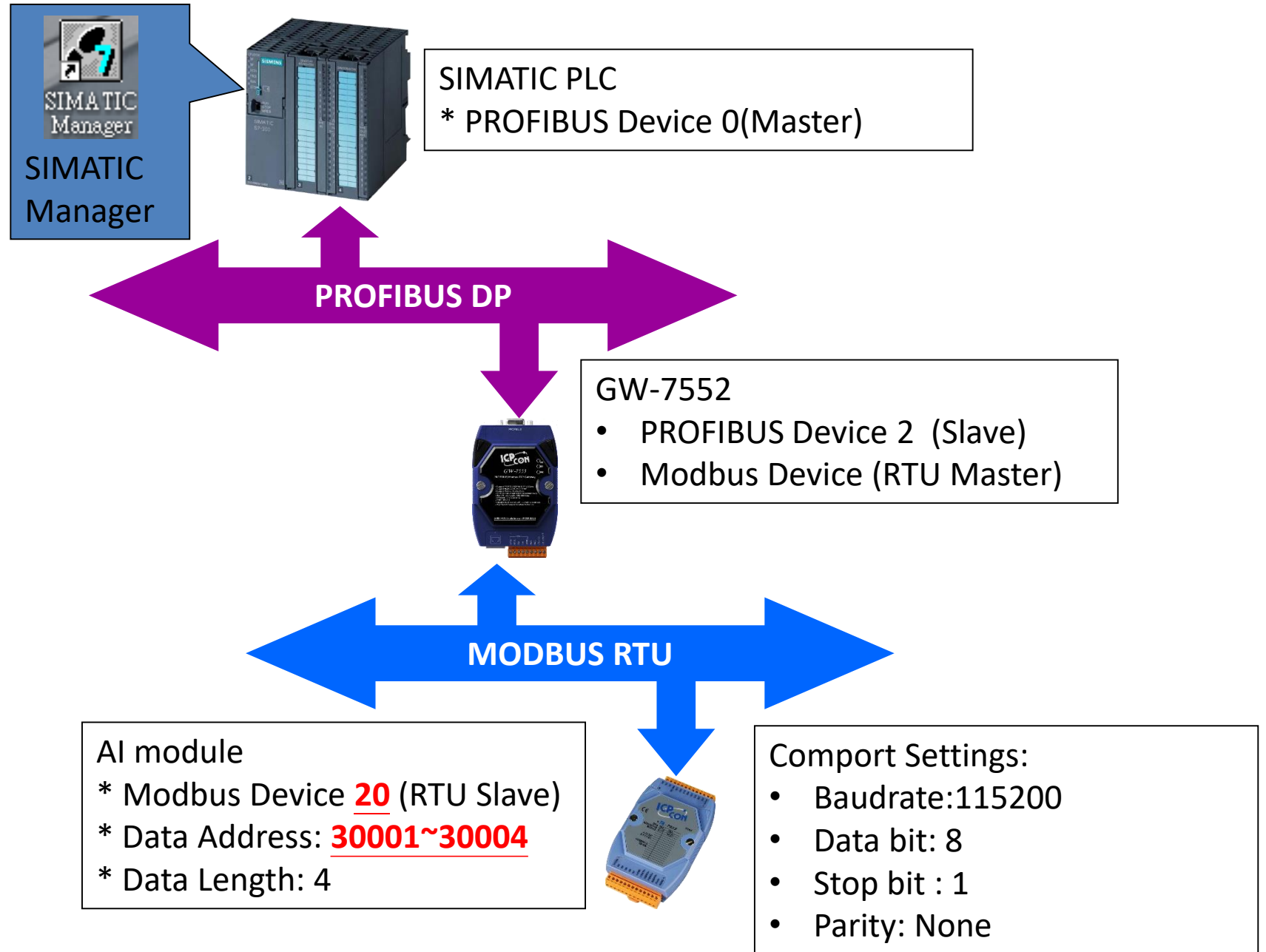
File Connection Setup Display  
View Window Help

ID = 11

```
40001 = 0x1253
40002 = 0x5533
40003 = 0x4537
40004 = 0x0123
40005 = 0x0012
40006 = 0x0022
```

For Help, press F1. For Edit, double clic

# Read 4-channel AI





# Read 4-channel AI



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

Find: 7552 Profile: Standard

(1) Select GW-7552 module

(2) Double click  
1. "System setting"  
2. "Input Register—4 word"

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 1    | 24DO  | System setting             |           | 0...2     |         |
| 2    | 32DI  | --> System setting         | 0...3     |           |         |
| 3    | 4AI   | Input Register--4 word     | 256...263 |           |         |
| 4    |       |                            |           |           |         |

Press F1 to get Help. Chg

# Read 4-channel AI



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

(0) UR

|     |                  |  |
|-----|------------------|--|
| 1   |                  |  |
| 2   | CPU313 C-2 DP(1) |  |
| X2  | DP               |  |
| 2.2 | DI16/DO16        |  |
| 2.4 | Count            |  |
| 3   |                  |  |
| 4   |                  |  |

(2) GW

(2) GW-7552

(1) Double click AI module

Properties - DP ID

Address / ID Parameter Assignment

(2) Parameter Assignment

| Parameters                 | Value       |
|----------------------------|-------------|
| Station parameters         |             |
| Device-specific parameters |             |
| Modbus Slave Device ID (M) | 20          |
| Start Address (M)          | 0           |
| Module Type (M)            | Read AI     |
| Change Word                |             |
| Hex parameter as           |             |
| User_Prm_Data (0 to 3)     | 14,00,00,05 |

Modbus Slave Device ID (M) : 20

OK Cancel Help

Find: 7552 Profile: Standard

- Output Register
- Output Register
- Output Register
- Output Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register
- Input Register

|   |      |                        |           |  |
|---|------|------------------------|-----------|--|
| 2 | 32DI | --> System settin_     |           |  |
| 3 | 4AI  | Input Register--4 word | 256...263 |  |
| 4 |      |                        |           |  |

Press F1 to get Help.

Chg



# Read 4-channel AI



The screenshot shows the SIMATIC Manager HW Config interface. The 'PLC' menu is open, and the 'Download to PLC' option is highlighted with a red background. The hardware rack configuration is visible on the left, and the hardware catalog is on the right. The bottom status bar contains the text: 'Loads the current station into the load memory of the current module.'

| Slot | DP ID | ... | ...                    | ...      | Comment |
|------|-------|-----|------------------------|----------|---------|
| 1    | 24DO  |     | System setting         | 0...2    |         |
| 2    | 32DI  |     | --> System setting     | 0...3    |         |
| 3    | 4AI   |     | Input Register--4 word | 256..263 |         |
| 4    |       |     |                        |          |         |

# Read 4-channel AI

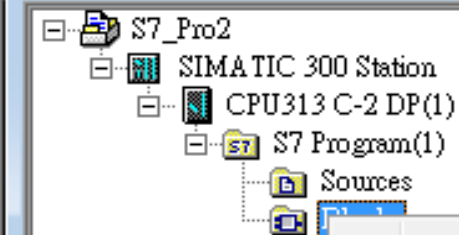


SIMATIC Manager - S7\_Pro2

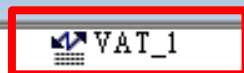
File Edit Insert PLC View Options Window Help



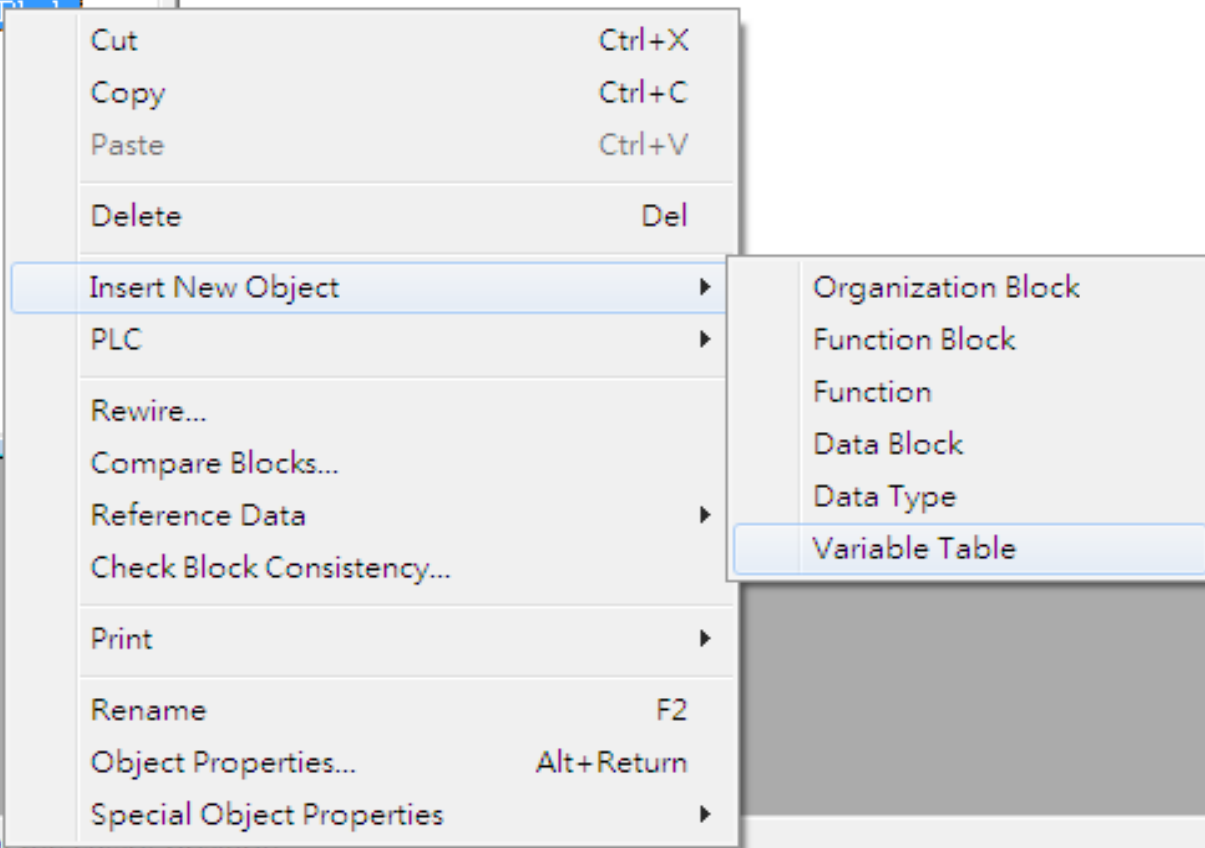
S7\_Pro2 -- C:\Program Files\Siemens\Step7\s7proj\S7\_Pro2



System data OB1 OB82 OB86 VAT\_1



Double click



Inserts Variable Table at the cursor position.

# Read 4-channel AI



HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro2]

Station Edit Insert PLC View Options Window Help

Click "Monitor" button

BUS(1): DP master system (1)

(2) GW-75!

(2) GW-7552

| Slot | DP ID | Order Number / Designation | I Address | Q Address | Comment |
|------|-------|----------------------------|-----------|-----------|---------|
| 1    | 24DO  | System setting             |           | 0...2     |         |
| 2    | 32DI  | --> System setting         | 0...3     |           |         |
| 3    | 4AI   | Input Register--4 word     | 256...263 |           |         |
| 4    |       |                            |           |           |         |

Var - VAT\_1

Table Edit Insert PLC Variable View Options

Window Help

| Address | Symbol  | Display format | Status value | Modify value |
|---------|---------|----------------|--------------|--------------|
| 1       | PIW 256 | HEX            |              |              |
| 2       | PIW 258 | HEX            |              |              |
| 3       | PIW 260 | HEX            |              |              |
| 4       | PIW 262 | HEX            |              |              |
| 5       |         |                |              |              |

Press F1 for help.

# Read 4-channel AI



Var - [VAT\_1 -- @S7\_Pro2\SIMATIC 300 Station\CPU313 C-2 DP(1)\S7 Program(1) ONLINE]

Table Edit Insert PLC Variable View Options Window

|   | Address | Symbol | Display format | Status value | Modify value |
|---|---------|--------|----------------|--------------|--------------|
| 1 | PIW 256 |        | HEX            | W#16#1234    |              |
| 2 | PIW 258 |        | HEX            | W#16#0000    |              |
| 3 | PIW 260 |        | HEX            | W#16#0000    |              |
| 4 | PIW 262 |        | HEX            | W#16#0000    |              |
| 5 |         |        |                |              |              |

Modbus Slave - [M...]

File Connection Setup Display  
View Window Help

ID = 20

30001 = 0x1234  
30002 = 0x0000  
30003 = 0x0000  
30004 = 0x0000

Read AI(4word)

S7\_Pro2\SIMATIC 300 Station\...\S7 Program(1) RUN Abs < 5.2

# Read 4-channel AI



Var - [VAT\_1 -- @S7\_Pro2\SIMATIC 300 Station\CPU313 C-2 DP(1)\S7 Program(1) ONLINE]

Table Edit Insert PLC Variable View Options Window Help



|   | Address | Symbol | Display format | Status value | Modify value |
|---|---------|--------|----------------|--------------|--------------|
| 1 | PIW 256 |        | HEX            | W#16#1234    |              |
| 2 | PIW 258 |        | HEX            | W#16#7788    |              |
| 3 | PIW 260 |        | HEX            | W#16#AABB    |              |
| 4 | PIW 262 |        | HEX            | W#16#CCDD    |              |
| 5 |         |        |                |              |              |

Read AI(4word)

Modbus Slave - [M...]

File Connection Setup Display  
View Window Help

ID = 20

30001 = 0x1234  
30002 = 0x7788  
30003 = 0xAABB  
30004 = 0xCCDD

For Help, press F1. For Edit, double clic