

# *GW-7663 (Modbus TCP 主站)*

## *如何與Modbus 從站設備通訊?*

### *以SIMATIC TIA portal為例*

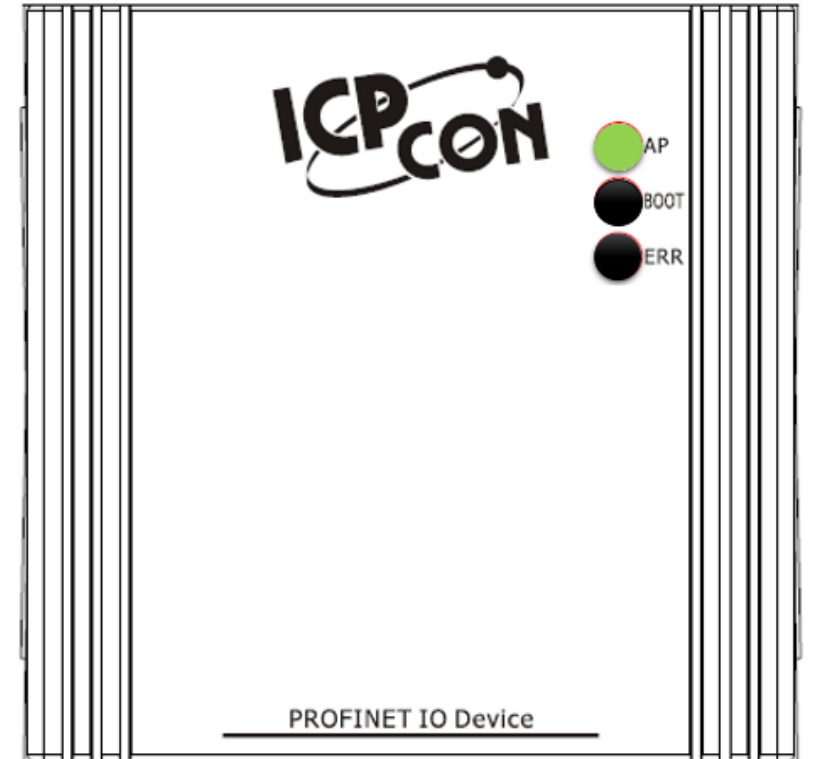
- 測試前準備
- Example 1:從 PLC 讀寫 DO 狀態
- Example 2:從 PLC 讀 DI 狀態
- Example 3:從 PLC 讀寫 AO 狀態
- Example 4:從 PLC 讀 AI 狀態

✓與 PLC 建立PROFINET連線 (LED => AP:ON, BOOT:OFF, ERR:OFF).

[如何用SIMATIC TIA portal設定GW-7663組態](#)

✓ 下載 PFN\_Tool 工具軟體

[PFN\\_Tool](#)

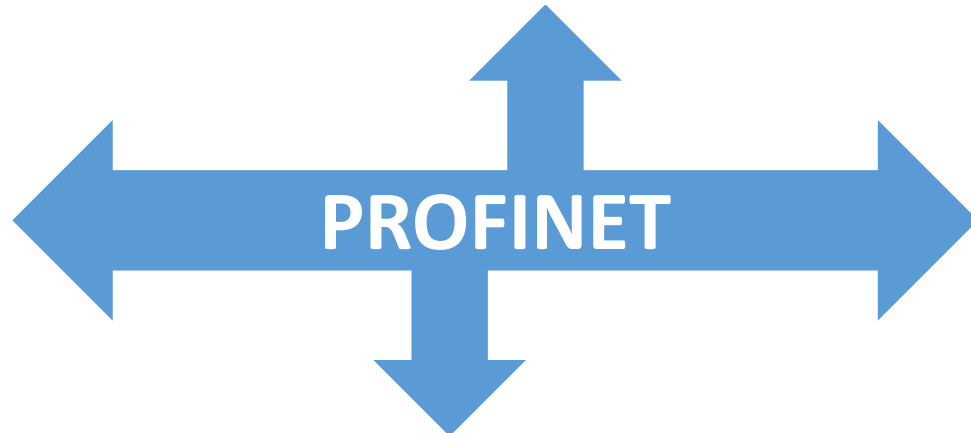
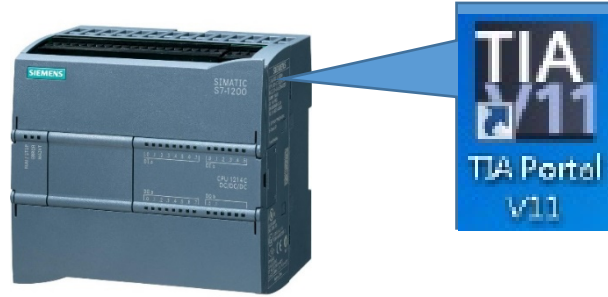


# 從 PLC 讀寫 16 通道 DO



**SIMATIC S7-1200**

PROFINET IO Controller  
(主站)



**GW-7663**



DO 模組 (TCP 從站)

- IP: 192.168.77.88
- Modbus ID: 2
- 資料位址: 00001~00016
- 資料長度: 2



PROFINET IO device  
(從站)

Modbus TCP 主站



PFN\_Tool (Version 1.31)

Network Devices : IP: 192.168.77.88 MAC: B8-6B-23-14-E5-76 (Intel(R) Ethernet Connection)

**1 搜尋模組** Search Start

Type	Name	IP	Mask	Gateway
S7-1200				
GW-7663				

**2 雙擊模組**

**Device Basic Configuration**

Device Information

Device Type : GW-7663  
 Device Name : gw-7663  
 IP Address : 0.0.0.0  
 Subnet Mask : 0.0.0.0  
 Gateway : 0.0.0.0  
 Mac Address : 00:0D:E0:17:00:AC

Device Name Configure

Device Name : gw-7663

Network Configure

IP Address : 192.168.0.111  
 Subnet Mask : 255.255.255.0  
 Gateway : 192.168.0.254

Advanced

Device Advanced Configuration

Device Information

Device Type : GW-7663  
 Firmware Version : V1.0

Options

Load File Save File Download Settings Upload Settings

Modbus Settings Modbus Test Diagnostic Msg. Communication Log Information

Parameters

Modbus Type : Master(Client) Polling Interval (ms) : 500  
 Byte Order : Little Endian(Intel) Query Timeout (ms) : 1000  
 I/O Safe Mode : Last Value TCP Connect Num : 1  
 Modbus Device ID (dec) : 1

Server settings.

Server NO. 0 OK  
 IP : 192 . 168 . 0 . 1  
 Re-Connect Time (ms) : 5000

Request Command

Function Code : FC1 Read multiple coils status (0xxxx) for DO Add  
 Server NO. 0  
 Modbus ID (dec) : 1 (1~247)  
 Start Address (dec) : 0 (0~65535)  
 Count (dec) : 1 (1~1024 Bits)

PROFINET Info.

Total Input (Byte) : 8 Modify  
 Total Output (Byte) : 8 Delete  
 System used: 8 Bytes

Change Word Order (AABB CCDD -> CCDD AABB)

Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)

**3 按「Advanced Settings」鈕**

Suggested Module : RSW:0 Input:32Byte Output:32Byte

# 從 PLC 讀寫 16 通道 DO



1. Modbus 通訊組態設定

2. 添加 Modbus 命令

3. 儲存設定

Device Advanced Configuration

Device Information  
Device Type : GW-7663  
Firmware Version : V1.0

Options  
Load File Save File Download Settings **Upload Settings**

Modbus Settings Modbus Test Diagnostic Msg. Communication Log Information

Parameters

Modbus Type : Master(Client) Polling Interval (ms) : 500 Server settings.  
Byte Order : Little Endian(Intel) Query Timeout (ms) : 1000 Server NO. 0 OK  
I/O Safe Mode : Last Value TCP Connect Num : 1 IP : 192 . 168 . 77 . 88  
Modbus Device ID (dec) : 1 Re-Connect Time (ms) : 5000

Request Command

Function Code : FC1 Read multiple coils status (0xxxx) for DO Add  
Server NO. 0 PROFINET Info.  
Modbus ID (dec) : 2 (1~247) Total Input (Byte) : 10 Modify  
Start Address (dec) : 0 (0~65535) Total Output (Byte) : 10 Delete  
Count (dec) : 16 (1~1024 Bits) System used: 8 Bytes  
 Change Word Order (AABB CCDD -> CCDD AABB)

	Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)
1	0	2	15 (WDO)	0	16	No	N/A	8~9
▶ 2	0	2	1 (RDO)	0	16	No	8~9	N/A

Suggested Module : RSW:0 Input:32Byte Output:32Byte

# 從 PLC 讀寫 16 通道 DO



I address與Q address的前8個bytes供GW-7663內部使用(64~71)  
I address與Q address的第9個bytes開始為Modbus資料(72~95)

Module	Rack	Slot	I address	Q address	Type	Order no.
GW-7663	0	0			GW-7663 2-Port De...	GW-7663
Internal	0	0 X1			GW-7663	
RSW:0 Input:32Byte Output:...	0	1	64...95	64...95	RSW:0 Input:32Byte...	

i	Name	Address	Display
1		%QB72	Hex
2		%QB73	Hex
3		%IB72	Hex
4		%IB73	Hex

QB72 => 用來寫入 DO 1~8  
QB73 => 用來寫入 DO 9~16

IB72 => 用來讀取 DO 1~8  
IB73 => 用來讀取 DO 9~16



初始 DO 值

ID = 2	
00001 = 0	00009 = 0
00002 = 0	00010 = 0
00003 = 0	00011 = 0
00004 = 0	00012 = 0
00005 = 0	00013 = 0
00006 = 0	00014 = 0
00007 = 0	00015 = 0
00008 = 0	00016 = 0

0x00      0x00

PLC 寫入 0x55 至 DO 1~8  
PLC 寫入 0xAA 至 DO 9~16

	i	...	Address	Display format	Monitor value	Modify value
1			%QB72	Hex	16#55	16#55
2			%QB73	Hex	16#AA	16#AA

ID = 2	
00001 = 1	00009 = 0
00002 = 0	00010 = 1
00003 = 1	00011 = 0
00004 = 0	00012 = 1
00005 = 1	00013 = 0
00006 = 0	00014 = 1
00007 = 1	00015 = 0
00008 = 0	00016 = 1

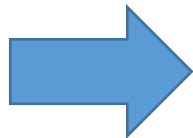
0x55      0xAA

PLC 讀取 0x55 從 DO 1~8  
PLC 讀取 0xAA 從 DO 9~16

Mbslav1 ID = 2

00001 = 1	00009 = 0
00002 = 0	00010 = 1
00003 = 1	00011 = 0
00004 = 0	00012 = 1
00005 = 1	00013 = 0
00006 = 0	00014 = 1
00007 = 1	00015 = 0
00008 = 0	00016 = 1

0x00    0x00



	i	...	Address	Display format	Monitor value	Modify value
1			%QB72	Hex	16#55	16#55
2			%QB73	Hex	16#AA	16#AA
3			%IB72	Hex	16#55	
4			%IB73	Hex	16#AA	

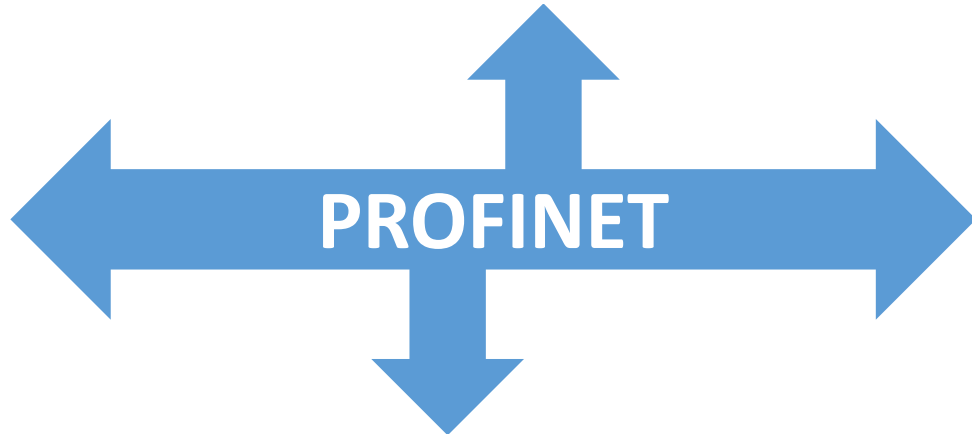
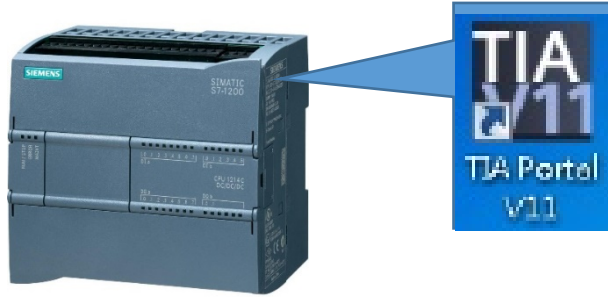


# 從 PLC 讀 14 通道 DI



**SIMATIC S7-1200**

PROFINET IO Controller  
(主站)



**GW-7663**



DI 模組 (TCP 從站)

- IP: 192.168.77.88
- Modbus ID: 3
- 資料位址: 10001~10014
- 資料長度: 2



PROFINET IO device  
(從站)

Modbus TCP 主站



PFN\_Tool (Version 1.31)

Network Devices : IP: 192.168.77.88 MAC: B8-6B-23-14-E5-76 (Intel(R) Ethernet Connection)

**1 搜尋模組**

Type	Name	IP	Mask	Gateway
S7-1200				
GW-7663				

**2 雙擊模組**

**Device Basic Configuration**

Device Information

Device Type : GW-7663  
 Device Name : gw-7663  
 IP Address : 0.0.0.0  
 Subnet Mask : 0.0.0.0  
 Gateway : 0.0.0.0  
 Mac Address : 00:0D:E0:17:00:AC

Device Name Configure

Device Name : gw-7663

Network Configure

IP Address : 192.168.0.111  
 Subnet Mask : 255.255.255.0  
 Gateway : 192.168.0.254

Advanced

Device Advanced Configuration

Device Information

Device Type : GW-7663  
 Firmware Version : V1.0

Options

Load File Save File Download Settings Upload Settings

Modbus Settings Modbus Test Diagnostic Msg. Communication Log Information

Parameters

Modbus Type : Master(Client) Polling Interval (ms) : 500  
 Byte Order : Little Endian(Intel) Query Timeout (ms) : 1000  
 I/O Safe Mode : Last Value TCP Connect Num : 1  
 Modbus Device ID (dec) : 1

Server settings

Server NO. 0 OK  
 IP : 192 . 168 . 0 . 1  
 Re-Connect Time (ms) : 5000

Request Command

Function Code : FC1 Read multiple coils status (0xxxx) for DO Add  
 Server NO. 0  
 Modbus ID (dec) : 1 (1~247)  
 Start Address (dec) : 0 (0~65535)  
 Count (dec) : 1 (1~1024 Bits)

PROFINET Info.

Total Input (Byte) : 8 Modify  
 Total Output (Byte) : 8  
 System used: 8 Bytes Delete

Change Word Order (AABB CCDD -> CCDD AABB)

Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)

Suggested Module : RSW:0 Input:32Byte Output:32Byte

**3 按「Advanced Settings」鈕**



Device Advanced Configuration

Device Information  
Device Type : GW-7663  
Firmware Version : V1.0

Options  
Load File Save File Download Settings **Upload Settings**

Modbus Settings Modbus Test Diagnostic Msg. Communication Log Information

Parameters

Modbus Type : Master(Client) Polling Interval (ms) : 500 Server settings.  
Byte Order : Little Endian(Intel) Query Timeout (ms) : 1000 Server NO. 0 OK  
I/O Safe Mode : Last Value TCP Connect Num : 1 IP : 192 . 168 . 77 . 88  
Modbus Device ID (dec) : 1 Re-Connect Time (ms) : 5000

Request Command

Function Code : FC2 Read multiple input discretes (1xxxx) for DI Add  
Server NO. 0 PROFINET Info.  
Modbus ID (dec) : 3 (1~247) Total Input (Byte) : 10 Modify  
Start Address (dec) : 0 (0~65535) Total Output (Byte) : 8 Delete  
Count (dec) : 14 (1~1024 Bits) System used: 8 Bytes  
 Change Word Order (AABB CCDD -> CCDD AABB)

	Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)
▶ 1	0	3	2 (RDI)	0	14	No	8-9	N/A

Suggested Module : RSW:0 Input:32Byte Output:32Byte

1. Modbus 通訊組態設定

2. 添加 Modbus 命令

3. 儲存設定



I address與Q address的前8個bytes供GW-7663內部使用(64~71)  
I address與Q address的第9個bytes開始為Modbus資料(72~95)

Module	Rack	Slot	I address	Q address	Type	Order no.
GW-7663	0	0			GW-7663 2-Port De...	GW-7663
Internal	0	0 X1			GW-7663	
RSW:0 Input:32Byte Output:...	0	1	64...95	64...95	RSW:0 Input:32Byte...	

Address	Display format	Monitor value
%IB72	Hex	16#00
%IB73	Hex	16#00
%I72.0	Bool	FALSE
%I72.1	Bool	FALSE
%I72.2	Bool	FALSE
%I72.3	Bool	FALSE
%I72.4	Bool	FALSE
%I72.5	Bool	FALSE
%I72.6	Bool	FALSE
%I72.7	Bool	FALSE
%I73.0	Bool	FALSE
%I73.1	Bool	FALSE
%I73.2	Bool	FALSE
%I73.3	Bool	FALSE
%I73.4	Bool	FALSE
%I73.5	Bool	FALSE

IB72 => 用來讀取 DI 1~8  
IB73 => 用來讀取 DI 9~14

I72.0~I72.7 => 用來讀取 DI 1~8  
I73.0~I73.5 => 用來讀取 DI 9~14



PLC 讀取 0x00 從 DI 1~8  
 PLC 讀取 0x00 從 DI 9~14

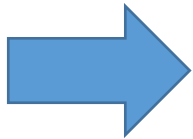
初始 DI 值

Mbslav1

ID = 3

10001 = 0	10009 = 0
10002 = 0	10010 = 0
10003 = 0	10011 = 0
10004 = 0	10012 = 0
10005 = 0	10013 = 0
10006 = 0	10014 = 0
10007 = 0	
10008 = 0	

0x00      0x00



	i	...	Address	Display format	Monitor value
1			%I72	Hex	16#00
2			%I73	Hex	16#00
3			%I72.0	Bool	<input type="checkbox"/> FALSE
4			%I72.1	Bool	<input type="checkbox"/> FALSE
5			%I72.2	Bool	<input type="checkbox"/> FALSE
6			%I72.3	Bool	<input type="checkbox"/> FALSE
7			%I72.4	Bool	<input type="checkbox"/> FALSE
8			%I72.5	Bool	<input type="checkbox"/> FALSE
9			%I72.6	Bool	<input type="checkbox"/> FALSE
10			%I72.7	Bool	<input type="checkbox"/> FALSE
11			%I73.0	Bool	<input type="checkbox"/> FALSE
12			%I73.1	Bool	<input type="checkbox"/> FALSE
13			%I73.2	Bool	<input type="checkbox"/> FALSE
14			%I73.3	Bool	<input type="checkbox"/> FALSE
15			%I73.4	Bool	<input type="checkbox"/> FALSE
16			%I73.5	Bool	<input type="checkbox"/> FALSE



PLC 讀取 0xAB 從 DI 1~8  
PLC 讀取 0x2A 從 DI 9~14

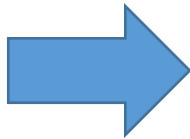
改變 DI 值

Mbslav1

ID = 3

10001 = 1	10009 = 0
10002 = 1	10010 = 1
10003 = 0	10011 = 0
10004 = 1	10012 = 1
10005 = 0	10013 = 0
10006 = 1	10014 = 1
10007 = 0	
10008 = 1	

0xAB      0x2A



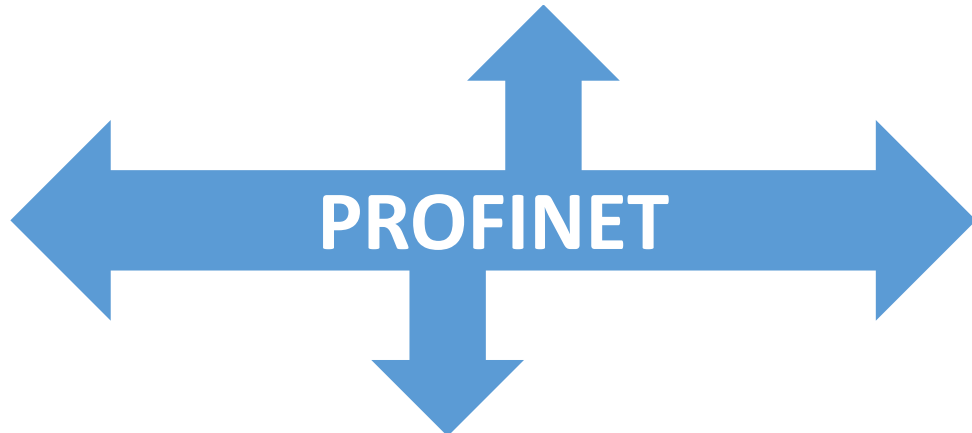
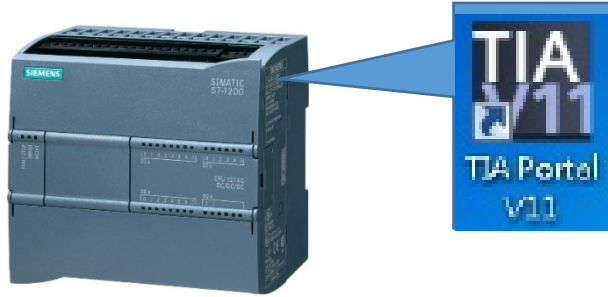
	i	...	Address	Display format	Monitor value
1			%IB72	Hex	16#AB
2			%IB73	Hex	16#2A
3			%I72.0	Bool	<input checked="" type="checkbox"/> TRUE
4			%I72.1	Bool	<input checked="" type="checkbox"/> TRUE
5			%I72.2	Bool	<input type="checkbox"/> FALSE
6			%I72.3	Bool	<input checked="" type="checkbox"/> TRUE
7			%I72.4	Bool	<input type="checkbox"/> FALSE
8			%I72.5	Bool	<input checked="" type="checkbox"/> TRUE
9			%I72.6	Bool	<input type="checkbox"/> FALSE
10			%I72.7	Bool	<input checked="" type="checkbox"/> TRUE
11			%I73.0	Bool	<input type="checkbox"/> FALSE
12			%I73.1	Bool	<input checked="" type="checkbox"/> TRUE
13			%I73.2	Bool	<input type="checkbox"/> FALSE
14			%I73.3	Bool	<input checked="" type="checkbox"/> TRUE
15			%I73.4	Bool	<input type="checkbox"/> FALSE
16			%I73.5	Bool	<input checked="" type="checkbox"/> TRUE

# 從 PLC 讀寫 3 通道 AO



**SIMATIC S7-1200**

PROFINET IO Controller  
(主站)



**GW-7663**



PROFINET IO device  
(從站)

Modbus TCP 主站



AO 模組 (TCP 從站)

- IP: 192.168.77.88
- Modbus ID: 4
- 資料位址: 40001~40003
- 資料長度: 3







PFN\_Tool (Version 1.31)

Network Devices : IP: 192.168.77.88 MAC: B8-6B-23-14-E5-76 (Intel(R) Ethernet Connection)

**1 搜尋模組**

Type	Name	IP	Mask	Gateway
S7-1200				
GW-7663				

**2 雙擊模組**

**Device Basic Configuration**

Device Information

Device Type : GW-7663  
 Device Name : gw-7663  
 IP Address : 0.0.0.0  
 Subnet Mask : 0.0.0.0  
 Gateway : 0.0.0.0  
 Mac Address : 00:0D:E0:17:00:AC

Device Name Configure

Device Name : gw-7663

Network Configure

IP Address : 192.168.0.111  
 Subnet Mask : 255.255.255.0  
 Gateway : 192.168.0.254

Advanced

Device Advanced Configuration

Device Information  
 Device Type : GW-7663  
 Firmware Version : V1.0

Options  
 Load File Save File Download Settings Upload Settings

Modbus Settings Modbus Test Diagnostic Msg. Communication Log Information

Parameters

Modbus Type : Master(Client) Polling Interval (ms) : 500  
 Byte Order : Little Endian(Intel) Query Timeout (ms) : 1000  
 I/O Safe Mode : Last Value TCP Connect Num : 1  
 Modbus Device ID (dec) : 1

Server settings  
 Server NO. 0 OK  
 IP : 192 . 168 . 0 . 1  
 Re-Connect Time (ms) : 5000

Request Command

Function Code : FC1 Read multiple coils status (0xxxx) for DO Add  
 Server NO. 0  
 Modbus ID (dec) : 1 (1~247)  
 Start Address (dec) : 0 (0~65535)  
 Count (dec) : 1 (1~1024 Bits)

PROFINET Info.  
 Total Input (Byte) : 8 Modify  
 Total Output (Byte) : 8 Delete  
 System used: 8 Bytes

Change Word Order (AABB CCDD -> CCDD AABB)

Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)

Suggested Module : RSW:0 Input:32Byte Output:32Byte

**3 按「Advanced Settings」鈕**





1. Modbus 通訊組態設定

2. 添加 Modbus 命令

3. 儲存設定

Device Information

Options

Device Type : GW-7663  
Firmware Version : V1.0

Load File
Save File
Download Settings
Upload Settings

Modbus Settings
Modbus Test
Diagnostic Msg.
Communication Log
Information

Parameters

Modbus Type : Master(Client) ▼

Byte Order : Little Endian(Intel) ▼

I/O Safe Mode : Last Value ▼

Modbus Device ID (dec) : 1

Polling Interval (ms) : 500

Query Timeout (ms) : 1000

TCP Connect Num : 1

Server settings.

Server NO. 0 ▼

IP : 192 . 168 . 77 . 88

Re-Connect Time (ms) : 5000

OK

Request Command

Function Code : FC3 Read multiple registers (4xxxx) for AO ▼

Server NO. : 0 ▼

Modbus ID (dec) : 4 (1~247)

Start Address (dec) : 0 (0~65535)

Count (dec) : 3 (1~64 Words)

Change Word Order (AABB CCDD -> CCDD AABB)

PROFINET Info.

Total Input (Byte) : 14

Total Output (Byte) : 14

System used: 8 Bytes

Add

Modify

Delete

	Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)
1	0	4	16 (WAO)	0	3	No	N/A	8~13
▶ 2	0	4	3 (RAO)	0	3	No	8~13	N/A

Suggested Module : RSW:0 Input:32Byte Output:32Byte



I address與Q address的前8個bytes供GW-7663內部使用(64~71)  
I address與Q address的第9個bytes開始為Modbus資料(72~95)

Module	Rack	Slot	I address	Q address	Type	Order no.
GW-7663	0	0			GW-7663 2-Port De...	GW-7663
Internal	0	0 X1			GW-7663	
RSW:0 Input:32Byte Output:...	0	1	64...95	64...95	RSW:0 Input:32Byte...	

i	...	Address	Display format
1		%QW72	Hex
2		%QW74	Hex
3		%QW76	Hex
4		%IW72	Hex
5		%IW74	Hex
6		%IW76	Hex

QW72 => 用來寫入 AO 1  
QW74 => 用來寫入 AO 2  
QW76 => 用來寫入 AO 3

IW72 => 用來讀取 AO 1  
IW74 => 用來讀取 AO 2  
IW76 => 用來讀取 AO 3



初始 AO 值

Initial AO values window (ID = 4):

40001	=	0x0000
40002	=	0x0000
40003	=	0x0000

PLC 寫入 0x1234 to AO 1  
PLC 寫入 0x5678 to AO 2  
PLC 寫入 0x9ABC to AO 3

PLC Monitor Table:

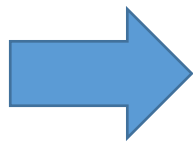
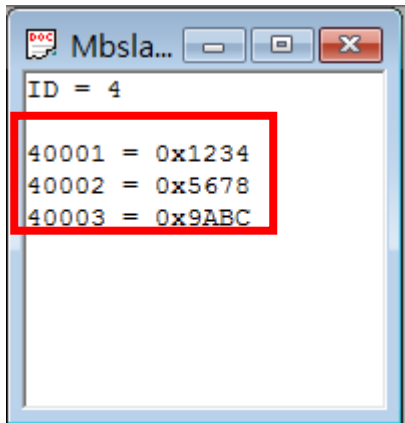
	i	...	Address	Display format	Monitor value	Modify value
1			%QW72	Hex	16#1234	16#1234
2			%QW74	Hex	16#5678	16#5678
3			%QW76	Hex	16#9ABC	16#9ABC

Updated AO values window (ID = 4):

40001	=	0x1234
40002	=	0x5678
40003	=	0x9ABC



PLC 讀取 0x1234 從 AO 1  
PLC 讀取 0x5678 從 AO 2  
PLC 讀取 0x9ABC 從 AO 3



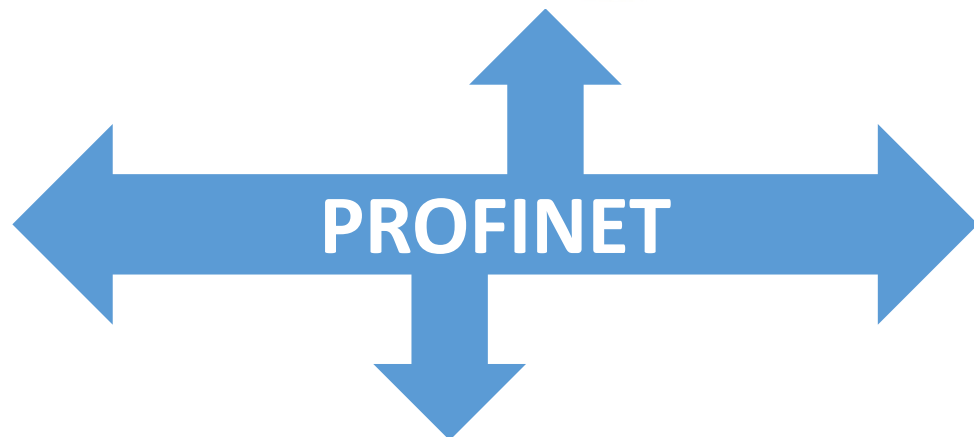
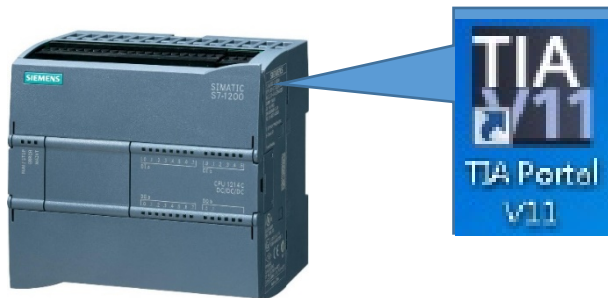
	i	...	Address	Display format	Monitor value	Modify value
1			%QW72	Hex	16#1234	16#1234
2			%QW74	Hex	16#5678	16#5678
3			%QW76	Hex	16#9ABC	16#9ABC
4			%IW72	Hex	16#1234	
5			%IW74	Hex	16#5678	
6			%IW76	Hex	16#9ABC	

# 從 PLC 讀 4 通道 AI



**SIMATIC S7-1200**

PROFINET IO Controller  
(主站)



**GW-7663**



PROFINET IO device  
(從站)

Modbus TCP 主站



AI 模組 (TCP 從站)

- IP: 192.168.77.88
- Modbus ID: 5
- 資料位址: 30001~30004
- 資料長度: 4





PFN\_Tool (Version 1.31)

Network Devices : IP: 192.168.77.88 MAC: B8-6B-23-14-E5-76 (Intel(R) Ethernet Connection)

**1 搜尋模組** Search Start

Type	Name	IP	Mask	Gateway
S7-1200				
GW-7663				

**2 雙擊模組**

**Device Basic Configuration**

Device Information

Device Type : GW-7663  
 Device Name : gw-7663  
 IP Address : 0.0.0.0  
 Subnet Mask : 0.0.0.0  
 Gateway : 0.0.0.0  
 Mac Address : 00:0D:E0:17:00:AC

Device Name Configure

Device Name : gw-7663

Network Configure

IP Address : 192.168.0.111  
 Subnet Mask : 255.255.255.0  
 Gateway : 192.168.0.254

Advanced

Device Advanced Configuration

Device Information

Device Type : GW-7663  
 Firmware Version : V1.0

Options

Load File Save File Download Settings Upload Settings

Modbus Settings Modbus Test Diagnostic Msg. Communication Log Information

Parameters

Modbus Type : Master(Client) Polling Interval (ms) : 500  
 Byte Order : Little Endian(Intel) Query Timeout (ms) : 1000  
 I/O Safe Mode : Last Value TCP Connect Num : 1  
 Modbus Device ID (dec) : 1

Server settings.

Server NO. 0 OK  
 IP : 192 . 168 . 0 . 1  
 Re-Connect Time (ms) : 5000

Request Command

Function Code : FC1 Read multiple coils status (0xxxx) for DO Add  
 Server NO. 0  
 Modbus ID (dec) : 1 (1~247)  
 Start Address (dec) : 0 (0~65535)  
 Count (dec) : 1 (1~1024 Bits)  
 Change Word Order (AABB CCDD -> CCDD AABB)

PROFINET Info.

Total Input (Byte) : 8 Modify  
 Total Output (Byte) : 8  
 System used: 8 Bytes Delete

Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)

**3 按「Advanced Settings」鈕**

Suggested Module : RSW:0 Input:32Byte Output:32Byte



Device Advanced Configuration

Device Information  
 Device Type : GW-7663  
 Firmware Version : V1.0

Options  
 Load File Save File Download Settings **Upload Settings**

Modbus Settings Modbus Test Diagnostic Msg. Communication Log Information

Parameters

Modbus Type : Master(Client) Polling Interval (ms) : 500 Server settings.  
 Byte Order : Little Endian(Intel) Query Timeout (ms) : 1000 Server NO. 0 OK  
 I/O Safe Mode : Last Value TCP Connect Num : 1 IP : 192 . 168 . 77 . 88  
 Modbus Device ID (dec) : 1 Re-Connect Time (ms) : 5000

Request Command

Function Code : FC4 Read multiple input registers (3xxxx) for AI Add  
 Server NO. 0 PROFINET Info.  
 Modbus ID (dec) : 5 (1~247) Total Input (Byte) : 16 Modify  
 Start Address (dec) : 0 (0~65535) Total Output (Byte) : 8 Delete  
 Count (dec) : 4 (1~64 Words) System used: 8 Bytes  
 Change Word Order (AABB CCDD -> CCDD AABB)

	Server NO.	ID	FC	Start Addr.	Count	Word order	PFN Input Addr.(Byte)	PFN Output Addr.(Byte)
▶ 1	0	5	4 (RAI)	0	4	No	8~15	N/A

Suggested Module : RSW:0 Input:32Byte Output:32Byte

1. Modbus 通訊組態設定

2. 添加 Modbus 命令

3. 儲存設定



I address與Q address的前8個bytes供GW-7663內部使用(64~71)  
 I address與Q address的第9個bytes開始為Modbus資料(72~95)

Device overview								
	...	Module	Rack	Slot	I address	Q address	Type	Order no.
		GW-7663	0	0			GW-7663 2-Port De...	GW-7663
		Internal	0	0 X1			GW-7663	
		RSW:0 Input:32Byte Output:...	0	1	64...95	64...95	RSW:0 Input:32Byte...	

	i	...	Address	Display format	Monitor val
1			%IW72	Hex	16#0000
2			%IW74	Hex	16#0000
3			%IW76	Hex	16#0000
4			%IW78	Hex	16#0000

IW72 => 用來讀取 AI 1  
 IW74 => 用來讀取 AI 2  
 IW76 => 用來讀取 AI 3  
 IW78 => 用來讀取 AI 4

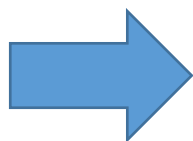




PLC 讀取 0x0000 從 AI 1  
PLC 讀取 0x0000 從 AI 2  
PLC 讀取 0x0000 從 AI 3  
PLC 讀取 0x0000 從 AI 4

初始 AI 值

Address	Value
30001	= 0x0000
30002	= 0x0000
30003	= 0x0000
30004	= 0x0000



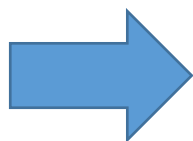
	<b>i</b>	...	Address	Display format	Monitor value
1			%IW72	Hex	16#0000
2			%IW74	Hex	16#0000
3			%IW76	Hex	16#0000
4			%IW78	Hex	16#0000



PLC 讀取 0x1234 從 AI 0  
PLC 讀取 0x5678 從 AI 1  
PLC 讀取 0x9ABC 從 AI 2  
PLC 讀取 0xDEFO 從 AI 3

改變 AI 值

30001	=	0x1234
30002	=	0x5678
30003	=	0x9ABC
30004	=	0xDEFO



	<b>i</b>	...	Address	Display format	Monitor value
1			%IW72	Hex	16#1234
2			%IW74	Hex	16#5678
3			%IW76	Hex	16#9ABC
4			%IW78	Hex	16#DEFO