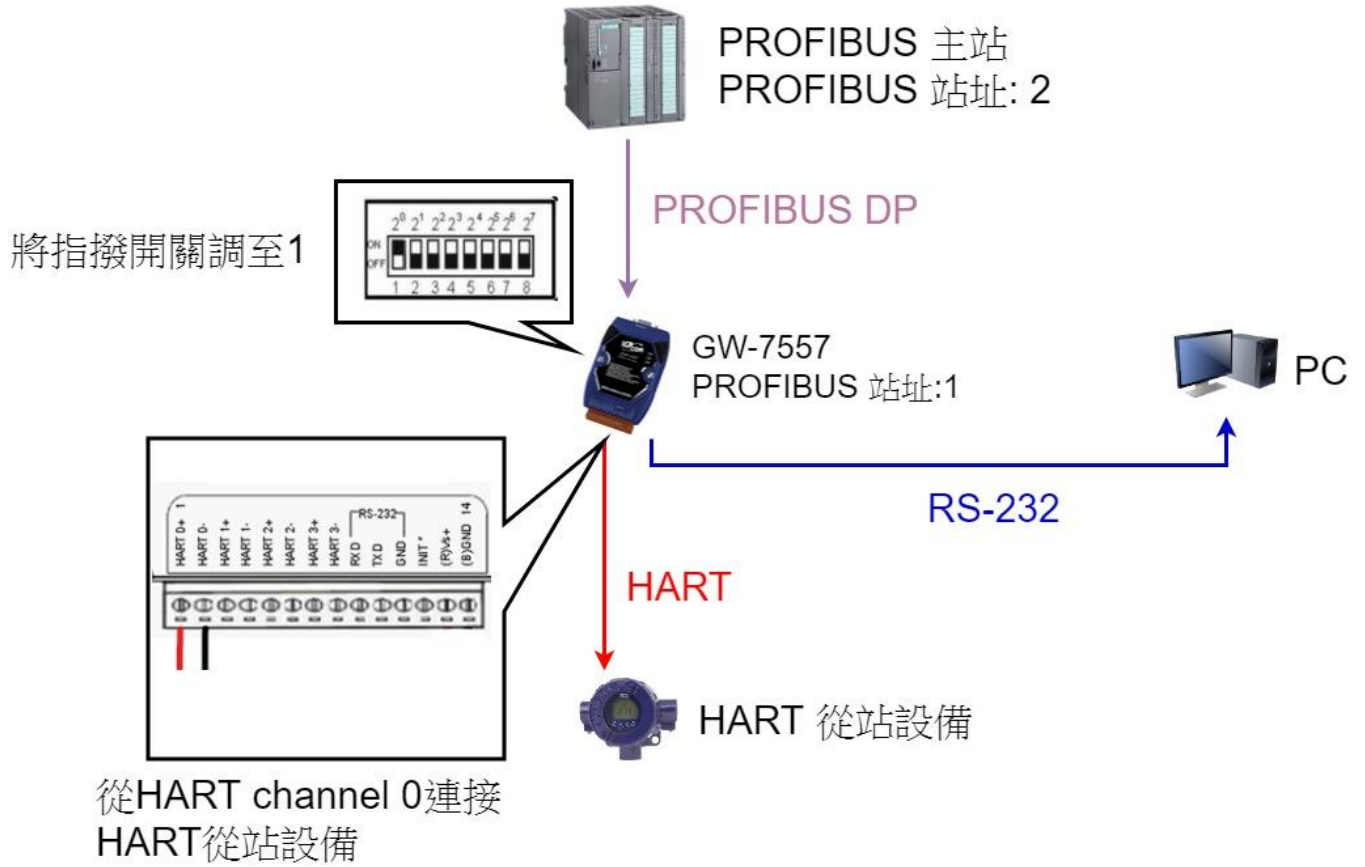


# 如何在 GW-7557 設定 HART 命令 以 SIMATIC STEP 7 為例

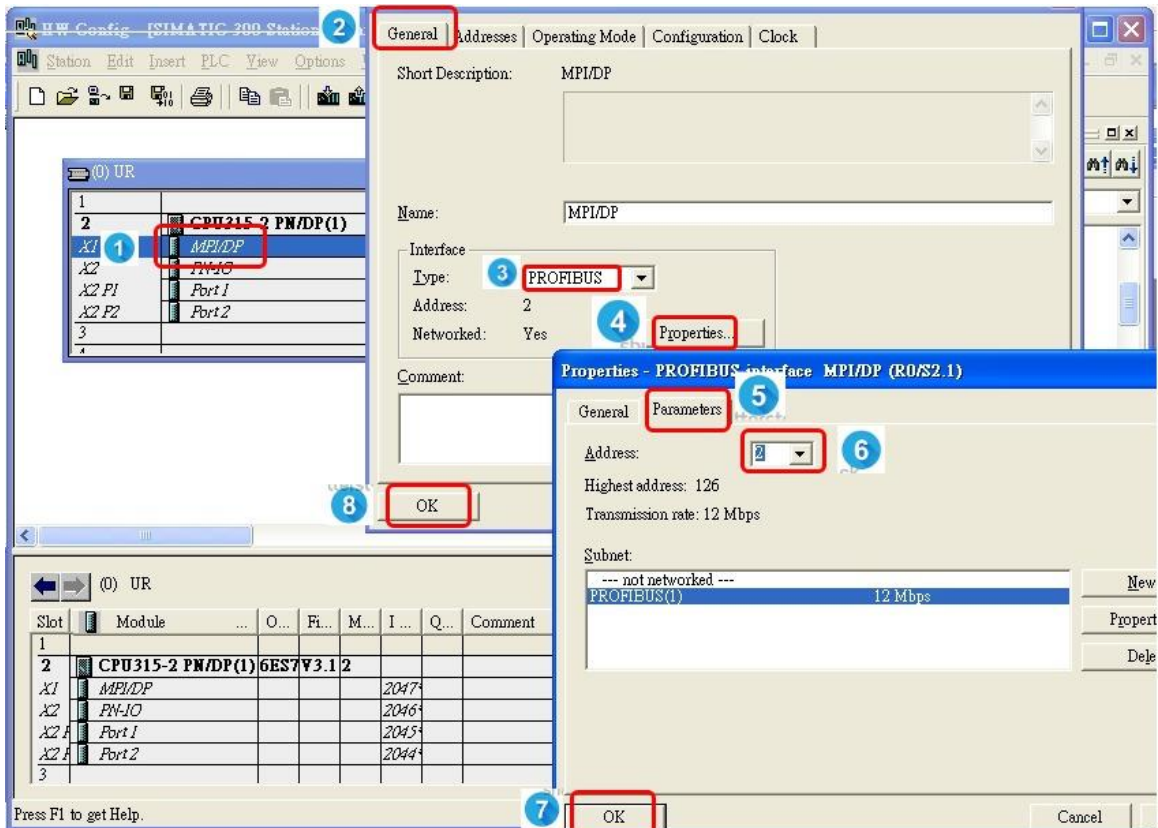
## 步驟一:接線圖



## 步驟二:在 SIMATIC STEP 7 建立 GW-7557

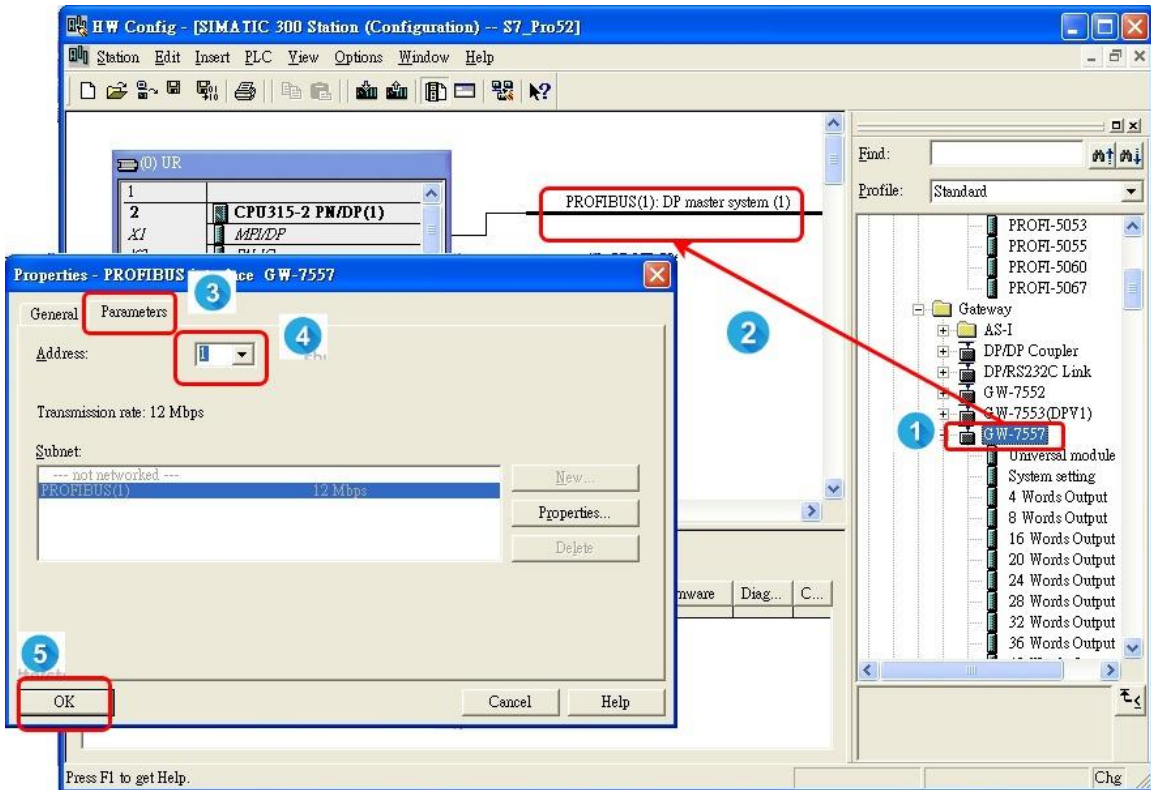
### 1. 設定 PLC 的 PROFIBUS 站址

- (1) 雙擊 “PROFIBUS DP” interface
- (2) 點擊 “General”
- (3) 選擇 “PROFIBUS”
- (4) 點擊 “Properties”
- (5) 點擊 “Parameters”
- (6) 選擇 “2”
- (7) 點擊 “OK”
- (8) 點擊 “OK”



## 2. 設定 GW-7557 的 PROFIBUS 站址

- (1) 點擊 “GW-7557”。
- (2) 拖移 “GW-7557” 到 PROFIBUS DP 系統
- (3) 點擊 “Parameters”。
- (4) 選擇 “1”。
- (5) 點擊 “OK”。



### 3. 設定 GW-7557 模組

(1) 點擊 GW-7557

(2) 雙擊 “System setting”

The screenshot shows the HW Config window for a SIMATIC 300 Station. The main area displays a hardware rack with a CPU315-2 PN/DP module in slot 2 and a GW-7557 module in slot 1. A red box labeled '1' highlights the GW-7557 module in the rack. Below the rack, a table lists the module's parameters:

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	11A1	System setting	0...21		
2	37	--> System setting		0...5	
3	64	Command 3	22...47		
4					
5					
6					
7					

The right-hand side of the window shows a component selection tree for the GW-7557 module. A red box labeled '2' highlights the 'System setting' option in the tree.

#### 4. 設定 HART 命令

(1) 雙擊 “Command 3”

(你可以選擇其他你需要的 HART 命令)

HW Config - [SIMATIC 300 Station (Configuration) -- S7\_Pro52]

Station Edit Insert PLC View Options Window Help

Find:

Profile: Standard

48 Words Input

- Command 0
- Command 1
- Command 2
- Command 3**
- Command 4
- Command 7
- Command 8
- Command 9
- Command 11
- Command 12
- Command 13
- Command 14
- Command 15
- Command 16
- Command 17
- Command 18
- Command 19
- Command 20
- Command 21
- Command 22

(1) UR

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comment
1	11AI	System setting	0...21		
2	37	--> System setting		0...5	
<b>3</b>	<b>64</b>	<b>Command 3</b>	<b>22...47</b>		
4					
5					
6					
7					

(1) GW-7557

Selecting the hardware

Chg

## 5. 設定 GW-7557 設備參數

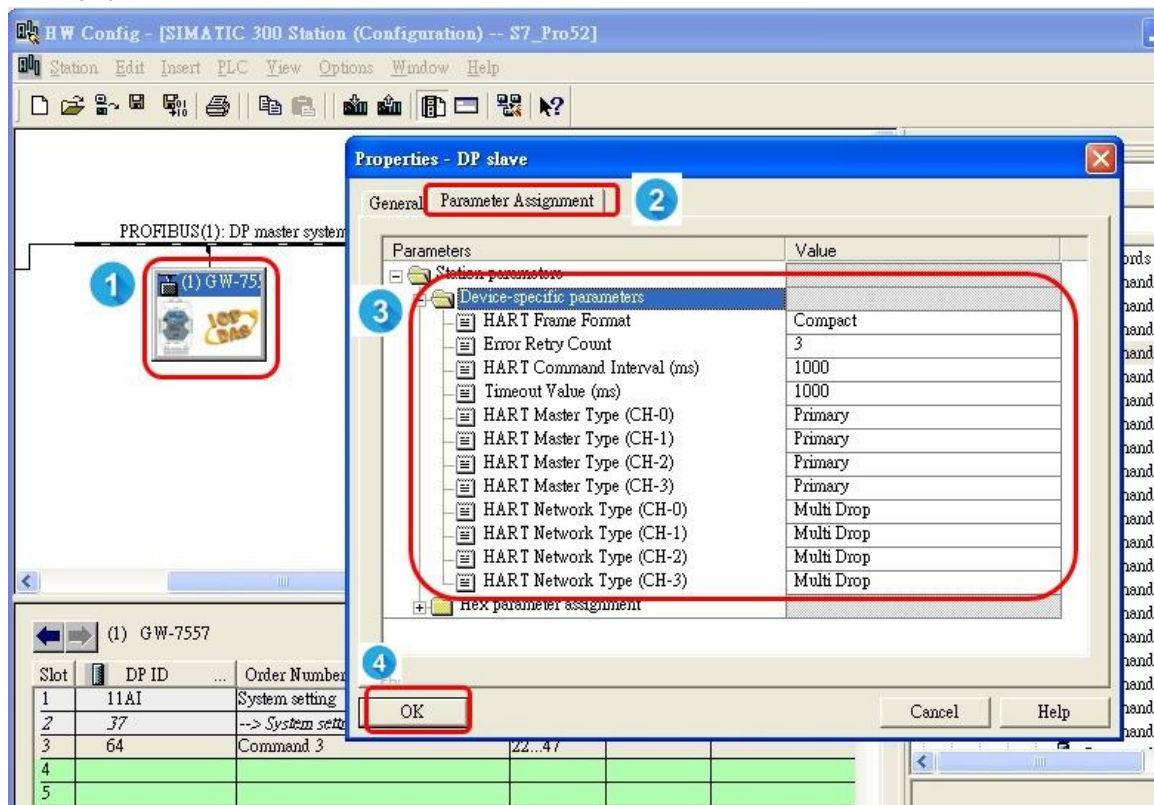
(1) 雙擊 “GW-7557”

(2) 點擊 “Parameter Assignment”

(3) 設定 GW-7557 的設備參數:

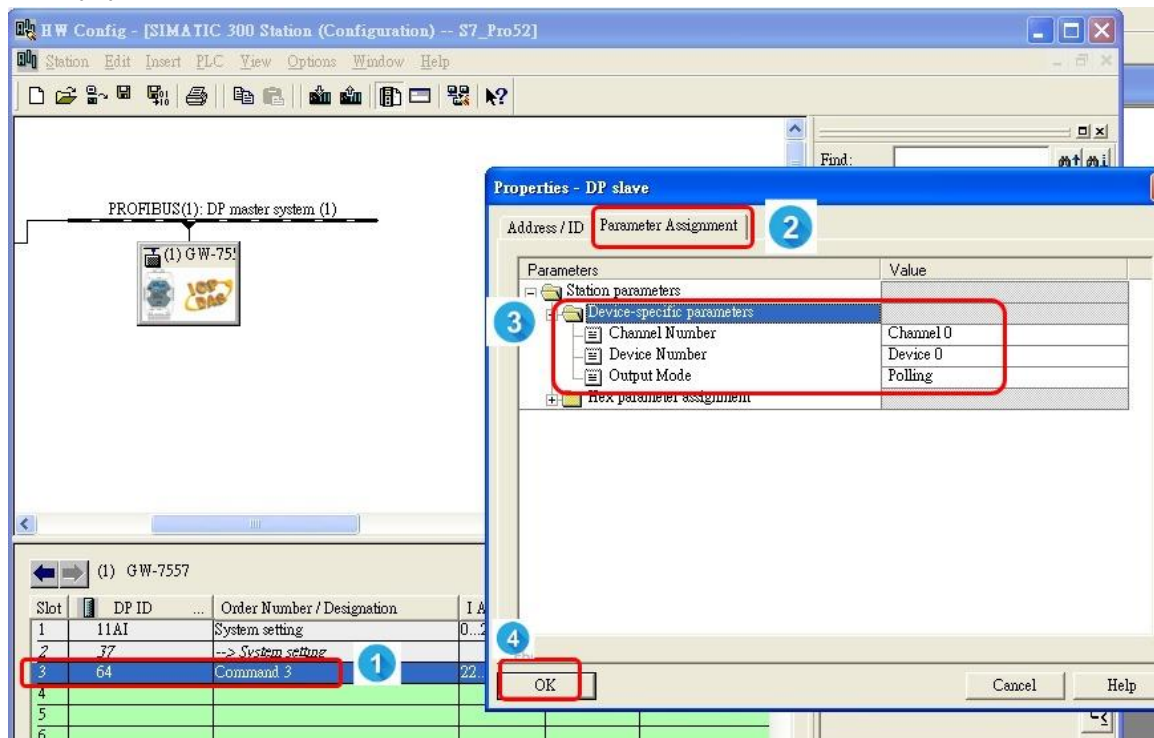
- HART Frame Format: Compact
- Error Retry Count: 3
- HART Command Interval(ms): 1000
- Timeout Value(ms): 1000
- HART Master Type(CH-0): Primary
- HART Master Type(CH-1): Primary
- HART Master Type(CH-2): Primary
- HART Master Type(CH-3): Primary
- HART Network Type(CH-0): Multi Drop
- HART Network Type(CH-1): Multi Drop
- HART Network Type(CH-2): Multi Drop
- HART Network Type(CH-3): Multi Drop

(4) 點擊 “OK”



## 6. 設定模組參數 Set module parameters

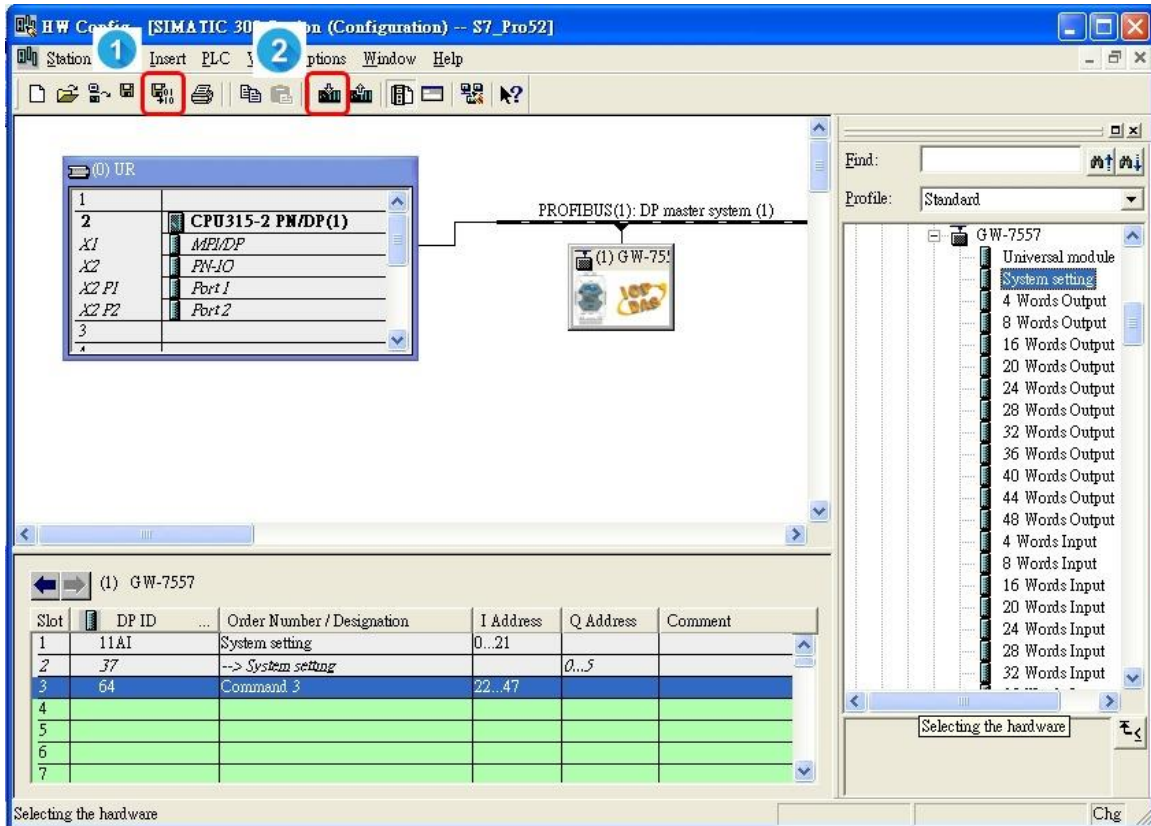
- (1) 雙擊 “command 3”
- (2) 點擊 “Parameter Assignment”
- (3) 設定命令 3 的模組參數：
  - Channel Number: Channel 0
  - Device Number: Device 0
  - Output Mode: Polling
- (4) 點擊 “OK”



## 7. 存檔、編譯、下載到 PLC

(1) 點擊 Save and Compile 的圖示

(2) 點擊 Download 圖示





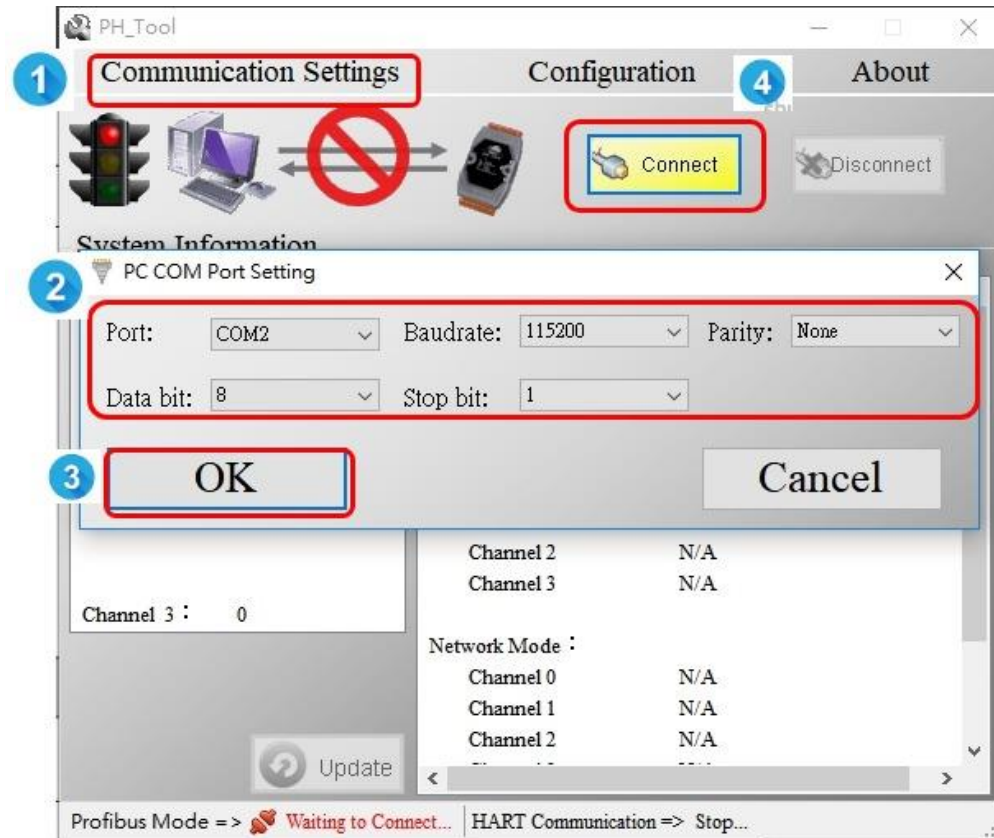
### 步驟三: 透過 PH\_Tool 設定 HART 從站設備

#### 1. 雙擊 “PH\_Tool” 圖示



#### 2. PH\_Tool 連線 GW-7557

- (1) 點擊 “Communication Settings”.
- (2) 設定 PC 的 COM port 的通訊設定，這些設定必需與 GW-7557 的 COM port 設定相同，否則會連線失敗。
- (3) 點擊 “OK”
- (4) 點擊 “Connect”

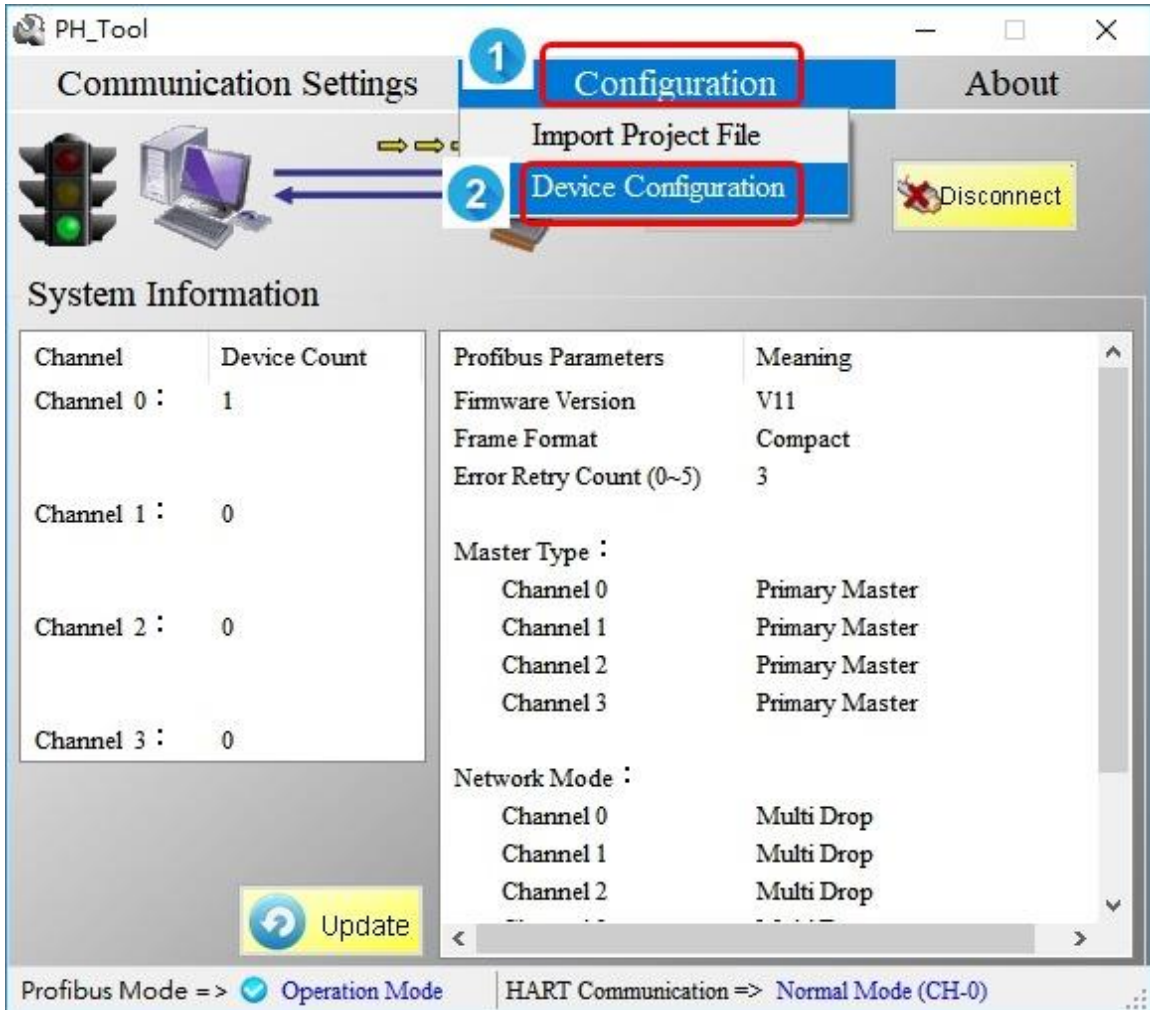


## 如果你忘記 GW-7557 的 COM port 設定，請參考 [GW-7557 user manual 2.6](#).

### 3. 設定 GW-7557

(1) 點擊 “Configuration”

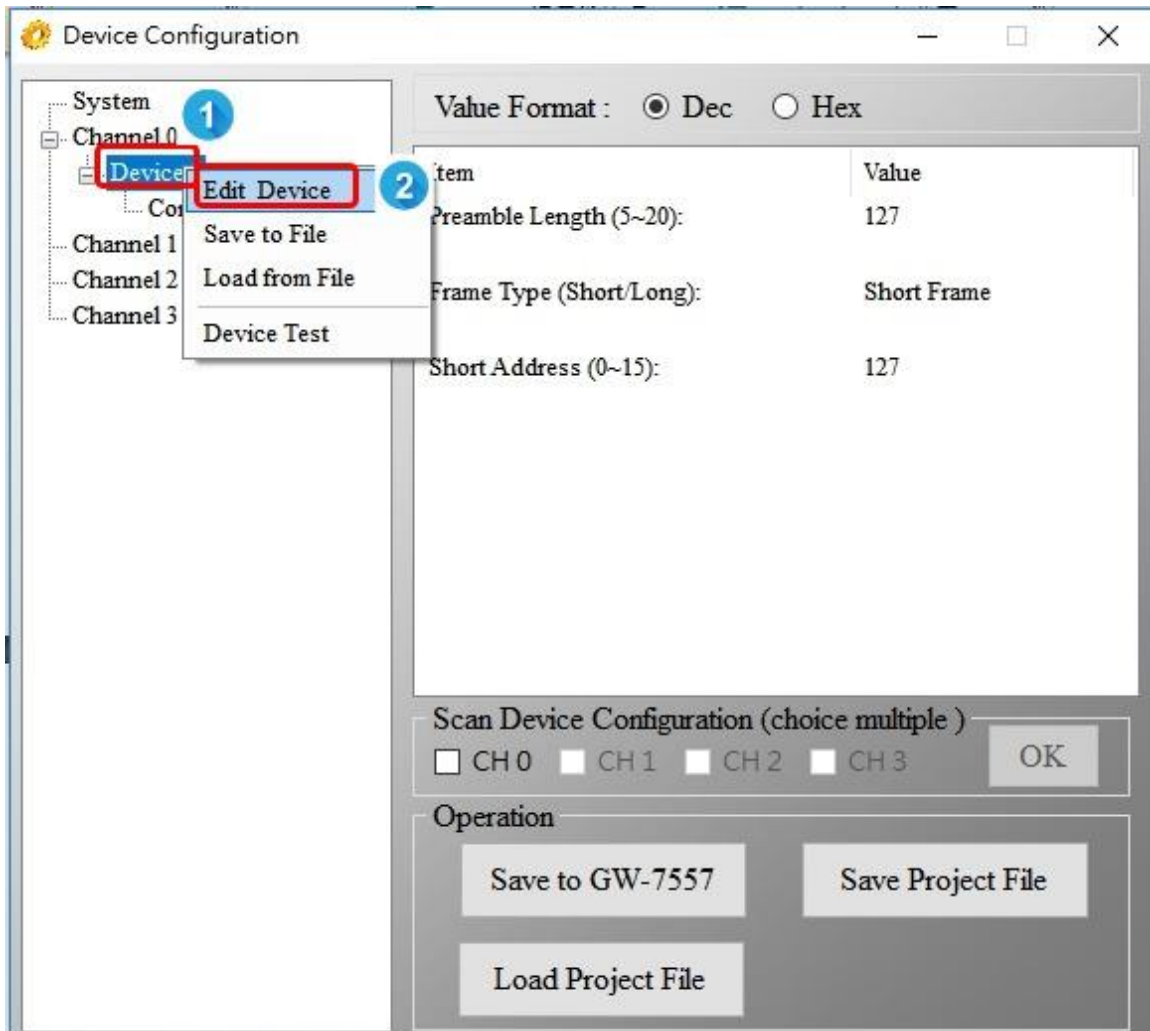
(2) 點擊 “Device Configuration”



#### 4. 設定 GW-7557

(1) 右鍵點擊 “Device 0”

(2) 點擊 “Edit Device”



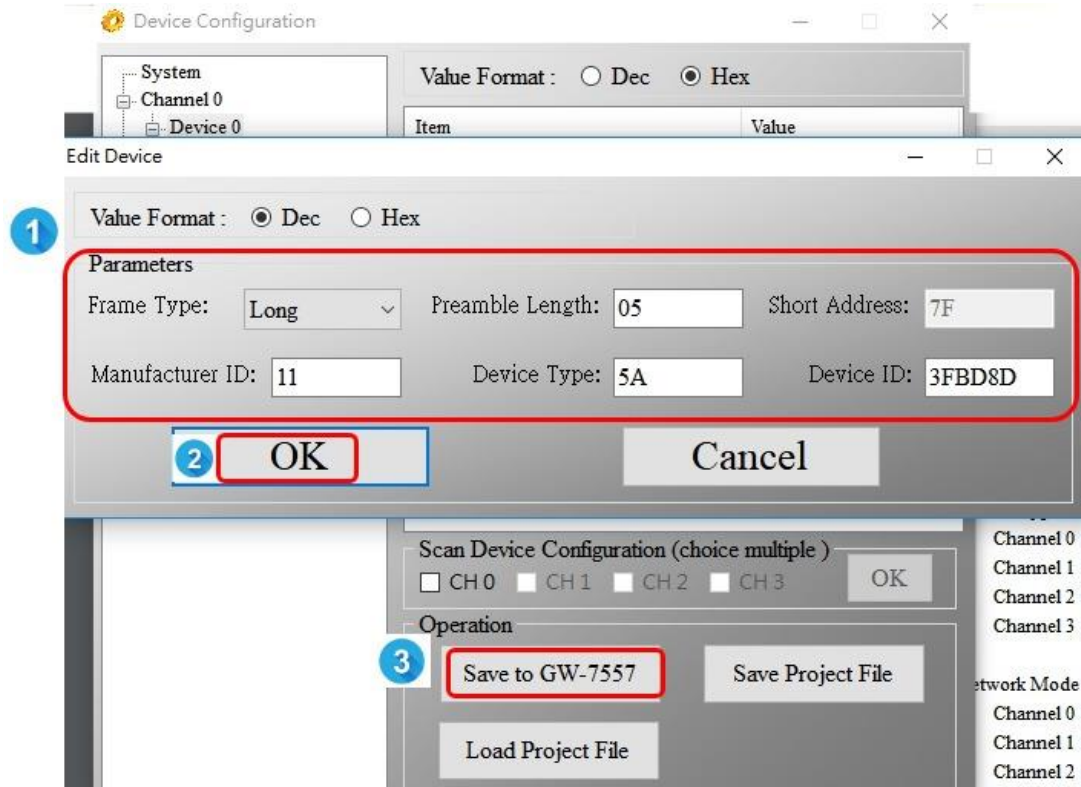
## 5. 設定 HART 從站設備的參數

### (1) 設定 HART 從站設備的參數

請從 HART 從站設備的手冊中取得這些參數

### (2) 點擊 “OK”

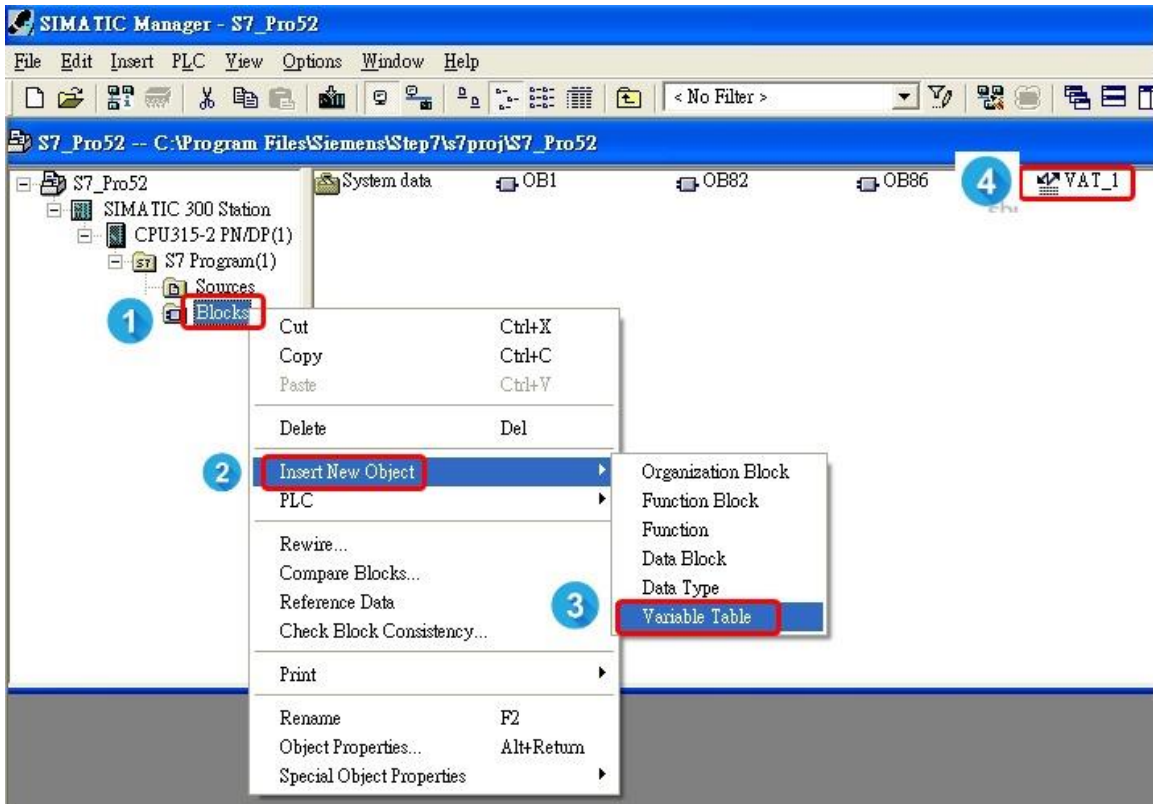
### (3) 點擊 “Save to GW-7557”



## 步驟四：在變數表上顯示 HART 數據

### 1. 建立變數表

- (1) 右鍵點擊 “Blocks”
- (2) 點擊 “Insert New Object”
- (3) 點擊 “Variable Table”
- (4) 雙擊 “VAT\_1”



## 2. 設定變數表

- (1) 輸入“command 3”的數據位址。  
(請將模組提供的數據位址輸入進變數表內)
- (2) 點擊監控按鈕

The screenshot shows the SIMATIC Manager interface. On the left, a rack diagram shows a CPU315-2 PN/DP module connected to a PROFIBUS DP master and a GW-757 gateway. On the right, the 'Var - [VAT\_2 -- @S7\_Pro52SIMATIC 300]' window displays a variable table with columns for Address, Display format, and Status value. A red box highlights the address range 22 to 47. A red arrow points from a text box to the 'IB' column header.

**IB : input Byte ; QB : output Byte**  
**IW : input Word ; QW : output Word**

Address	Display format	Status value
1	IB 22	HEX B#16#00
2	IB 23	HEX B#16#00
3	IB 24	HEX B#16#00
4	IB 25	HEX B#16#D8
5	IB 26	HEX B#16#4C
6	IB 27	HEX B#16#F0
7	IB 28	HEX B#16#06
8	IB 29	HEX B#16#40
9	IB 30	HEX B#16#8E
10	IB 31	HEX B#16#35
11	IB 32	HEX B#16#3F
12	IB 33	HEX B#16#07
13	IB 34	HEX B#16#40
14	IB 35	HEX B#16#53
15	IB 36	HEX B#16#33

Slot	DP ID	Order Number / Designation	I Address	Q Address	Comm
1	11AI	System setting	0...21		
2	37	--> System setting		0...5	
3	64	Command 3	22...47		

## 3. 接受來自 HART 從站設備的命令 3 數據。

The screenshot shows the HART Device Simulator interface. On the left, a variable table lists addresses from IB 25 to IB 46. On the right, the 'HART\_Develop' window shows a table of HART device parameters. A red box highlights the PV\_Value column, and a red arrow points to the value 11.333333 in the TV\_Value column.

Address	Symbol	Display format	Status value	Modify value
IB 25		HEX	B#16#D8	
IB 26		HEX	B#16#4C	
IB 27		HEX	B#16#F0	
IB 28		HEX	B#16#06	
IB 29		HEX	B#16#40	
IB 30		HEX	B#16#8E	
IB 31		HEX	B#16#35	
IB 32		HEX	B#16#3F	
IB 33		HEX	B#16#07	
IB 34		HEX	B#16#40	
IB 35		HEX	B#16#53	
IB 36		HEX	B#16#33	
IB 37		HEX	B#16#33	
IB 38		HEX	B#16#08	
IB 39		HEX	B#16#40	
IB 40		HEX	B#16#0C	
IB 41		HEX	B#16#0C	
IB 42		HEX	B#16#CD	
IB 43		HEX	B#16#09	
IB 44		HEX	B#16#3F	
IB 45		HEX	B#16#8C	
IB 46		HEX	B#16#0C	

Enable	Short Addr	Long Addr (HEX)	PV_Value	PV_Unit	SV_Value	SV_Unit	TV_Value	TV_Unit	QV_Value	QV_Unit
<input checked="" type="checkbox"/>	00	0x115A3FBD8D	4.444000	psi	3.300000	bar	2.200000	mbar	1.100000	g/cm2
<input type="checkbox"/>	01	0x0A01000000	11.111111	kg/cm2	11.222222	Pa	11.333333	kPa	11.444444	torr
<input type="checkbox"/>	02	0x0D14000000	22.111111	MPa	22.222222	gal/sec	22.333333	gal/min	22.444444	gal/hr
<input type="checkbox"/>	03	0x1190000000	33.111111	l/sec	33.222222	l/min	33.333333	l/hr	33.444444	m3/sec
<input type="checkbox"/>	04	0x1164000000	44.111111	m3/min	44.222222	m3/hr	44.333333	ft3/sec	44.444444	ft3/min
<input checked="" type="checkbox"/>	05	0x11199211A5	55.111111	ft3/hr	55.222222	g/sec	55.333333	g/min	55.444444	g/hr
<input type="checkbox"/>	06	0x110E000000	66.111111	Kg/sec	66.222222	Kg/min	66.333333	Kg/hr	66.444444	lb/sec
<input type="checkbox"/>	07	0x1207000000	77.111111	lb/min	77.222222	lb/hr	77.333333	Deg.C	77.444444	Deg.F
<input type="checkbox"/>	08	0x1304000000	88.111111	Deg.R	88.222222	Kelvin	88.333333	ft/sec	88.444444	m/sec
<input type="checkbox"/>	09	0x147D000000	99.111111	m/sec	99.222222	m/min	99.333333	ft/min	99.444444	m/hr
<input type="checkbox"/>	10	0x1501000000	100.111111	gal	100.222222	liter	100.333333	m3	100.444444	tbl