

IEC104 Driver Guide

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1. WebAccess Setting - Configure Device

1.1 Add TCP/IP

Create New Comport	
Interface Name	TCPIP <input type="button" value="v"/>
Comport Number	<input type="text" value="2"/>
Description	<input type="text" value="Description"/>
Scan Time	<input type="text" value="1"/> <input type="radio"/> MilliSecond <input checked="" type="radio"/> Second <input type="radio"/> Minute <input type="radio"/> Hour
Timeout	<input type="text" value="1000"/> MilliSecond
Retry Count	<input type="text" value="3"/>
Auto Recover Time	<input type="text" value="60"/> Second
Backup Port Number	<input type="text" value="0"/>
Scan Devices in Parallel	<input type="radio"/> Yes <input checked="" type="radio"/> No
<input type="button" value="[Cancel]"/> <input type="button" value="Submit"/>	

1.2. Add Device

設備屬性		[取消]	提供
設備名稱	dev1		
描述			
單元號	0		
設備類型	IEC104 ▾		
主要	IP位址	172.16.12.137	
	通信埠號碼	2404	
	設備位址	如果不是單元號	
次要	IP位址	172.16.12.137	
	通信埠號碼	2405	
	設備位址		
t1:t2:t3:k:w:OA:DA:ST	15:10:20:12:8:0:3:30		

Device Type : Select IEC104

IP Address : IP Address of IEC104 Slave.

Port Number : TCP Port of IEC104 Slave.

t1: 1~255 second, please reference IEC104 spec

t2: 1~600 second, please reference IEC104 spec

t3: 1~600 second, please reference IEC104 spec

k/w : 1~32767, please reference IEC104 spec

OA: Master Originator Address

DA: Slave Common Address

ST: Scan Time. Range from 1~3000 second. Time Interval to send
C_RD_NA1/C_IC_NA_1/C_CI_NA_1

2. WebAccess Setting - Configure Tag

2.1 Types of Tag

There are three types of Tag.

a. ReadOnly Tag

R:ReadAddr/ReadDataType/ReadCmd

R:402/M_BO_NA_1/n

b. WriteOnly Tag

W:WriteAddr/WriteCmd

W:2300/C_RC_NA_1

Note: Always show value 0 for this kind of tag

c. ReadAndWrite Tag

R:ReadAddr/ReadDataType/ReadCmd/W:WriteAddr/WriteCmd

R:400/M_BO_NA_1/n/W:2400/n

Note: Add **/SE** after WriteCmd to change “Direct Execute” to “Select and Execute”

R:100/M_SP_NA_1/n/W:2100/n/**SE**

W:2100/C_SC_NA_1/**SE**

2.2 Elements of Tag

ReadAddr: Information Object Address

WriteAddr: Information Object Address

ReadDataType: Choose ReadDataType below

ReadDataType	Relative Response		
M_SP_NA_1	M_SP_NA_1	M_SP_TB_1	
M_DP_NA_1	M_DP_NA_1	M_DP_TB_1	
M_ST_NA_1	M_ST_NA_1	M_ST_TB_1	
M_BO_NA_1	M_BO_NA_1	M_BO_TB_1	
M_ME_NA_1	M_ME_NA_1	M_ME_TD_1	
M_ME_NB_1	M_ME_NB_1	M_ME_TE_1	
M_ME_NC_1	M_ME_NC_1	M_ME_TF_1	
M_PS_NA_1	M_PS_NA_1		
M_ME_ND_1	M_ME_ND_1	M_ME_TD_1	M_ME_NA_1
M_SP_TB_1	M_SP_TB_1		
M_DP_TB_1	M_DP_TB_1		
M_ST_TB_1	M_ST_TB_1		
M_BO_TB_1	M_BO_TB_1		
M_ME_TD_1	M_ME_TD_1		
M_ME_TE_1	M_ME_TE_1		
M_ME_TF_1	M_ME_TF_1		
M_IT_NA_1	M_IT_NA_1	M_IT_TB_1	
M_IT_TB_1	M_IT_TB_1		

Read Data Type	Meaning
M_SP_NA_1	Single-Point Information
M_DP_NA_1	Double-Point Information
M_BO_NA_1	Bitstring
M_ME_NA_1	Measured Normalized Value
M_ME_NB_1	Measured Scaled Value
M_ME_NC_1	Measured Short Floating Point Number
M_ME_ND_1	Measured Normalized Values without Quality Descriptor
M_PS_NA_1	Packed Single-Point Information
M_SP_TB_1	Single-Point Information with Time Tag
M_DP_TB_1	Double-Point Information with Time Tag
M_BO_TB_1	Bitstring with Time Tag
M_ME_TD_1	Measured Normalized Value with Time Tag
M_ME_TE_1	Measured Scaled Value with Time Tag
M_ME_TF_1	Measured Short Floating Point Number with Time Tag
M_ST_NA_1	Step Position Information
M_ST_TB_1	Step Position Information with Time Tag
M_IT_NA_1	Integrated Totals
M_IT_TB_1	Integrated Totals with Time Tag

Meaning of Read Data Type

ReadCmd: Choose ReadCmd below

ReadCmd	Description
i:GroupID	Use Interrogation Command GroupID range from 0-16 0 means General Group 1 means Group1 ex: i:0
r	Use C_RD_NA_1 to Read ReadAddr
c:GroupID	Use Counter Interrogation GroupID range from 1-5 5 means General Group 1 means Group1 ex: c:5
n	No Read Command, slave sends data automatically

WriteCmd:Choose WriteCmd below

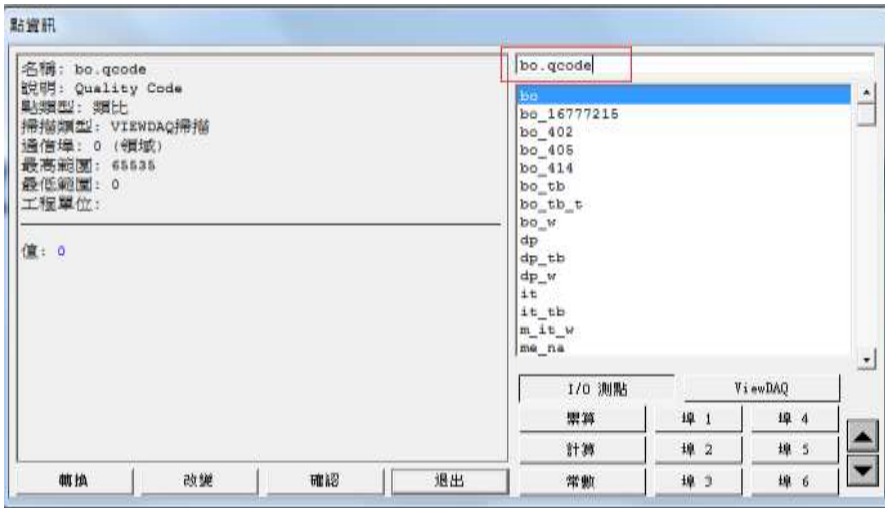
WriteCmd	Description
n	For "ReadAndWrite Tag" Choose Mapping Write Command by Read Data Type. See Read Data Type and Mapping Write Command Table
C_SC_NA_1	For WriteOnly Tag/Single Point Information Value 0: Off Value 1: On
C_DC_NA_1	For WriteOnly Tag/Double Point Information Value 1: Off Value 2: On In M_DP_NA_1:Value 0: indeterminate or intermediate state In M_DP_NA_1:Value 3: indeterminate state
C_RC_NA_1	For WriteOnly Tag/Step Position Information Value 1: next step LOWER Value 2: next step HIGHER
C_SE_NA_1	For WriteOnly Tag/Measured Normalized Value
C_SE_NB_1	For WriteOnly Tag/Measured Scaled Value
C_SE_NC_1	For WriteOnly Tag/Measured Short Floating Point Number
C_BO_NA_1	For WriteOnly Tag/Bitstring
C_CI_NA_1:GroupID	For WriteOnly Tag/Integrated Totals GroupID range from 1-5 GroupID 5 means General Group GroupID 1 means Group1 Value 0: read (no freeze or reset) Value 1: counter freeze without reset (value frozen represents integrated total) Value 2: counter freeze with reset (value frozen represents incremental information) Value 3: counter reset

Read Data Type	Mapping Write Command Table
M_SP_NA_1	C_SC_NA_1
M_DP_NA_1	C_DC_NA_1
M_BO_NA_1	C_BO_NA_1
M_ME_NA_1	C_SE_NA_1
M_ME_NB_1	C_SE_NB_1
M_ME_NC_1	C_SE_NC_1
M_ME_ND_1	C_SE_NA_1
M_SP_TB_1	C_SC_NA_1
M_DP_TB_1	C_DC_NA_1
M_BO_TB_1	C_BO_NA_1
M_ME_TD_1	C_SE_NA_1
M_ME_TE_1	C_SE_NB_1
M_ME_TF_1	C_SE_NC_1
M_ST_NA_1	Use WriteOnly tag instead
M_ST_TB_1	Use WriteOnly tag instead
M_IT_NA_1	Use WriteOnly tag instead
M_IT_TB_1	Use WriteOnly tag instead

Read Data Type and Mapping Write Command Table

2.3 Quality of Tag

To get Quality of Tag, see below



Quality 0x8001: Internal Error

Quality 0x8002: Address of this tag is not legal

Quality 0x8003: Internal Error

Quality 0x8004: No available data for this tag now.

Quality 0x8005: No connection now.

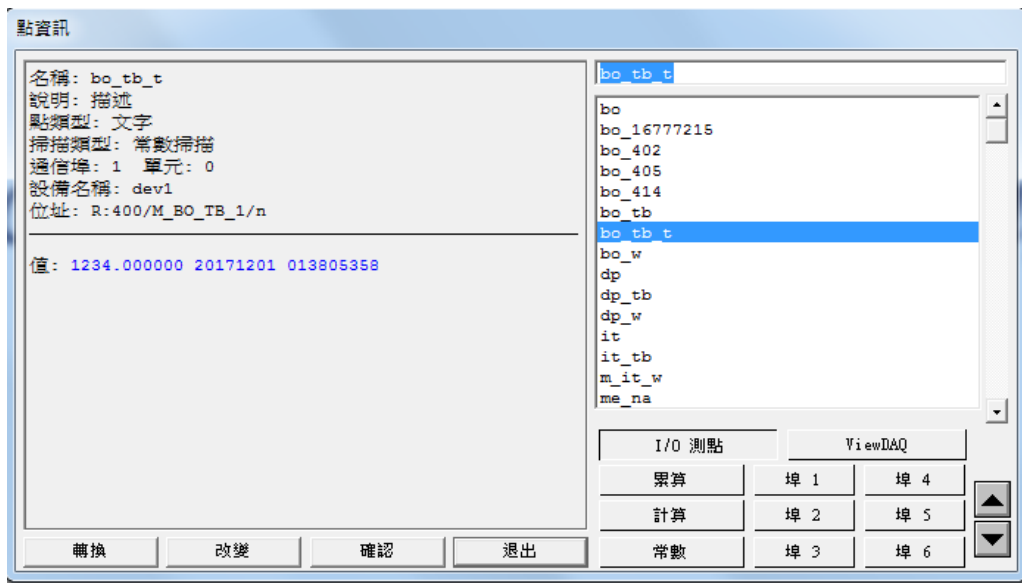
	Other Read Data Type	M_IT_NA_1/M_IT_TB_1
bit 0	Used by WebAccess to indicate error	Used by WebAccess to indicate error
bit 1		
bit 2		
bit 3		
bit 4		
bit 5	Blocked bit	Sequence Number
bit 6	Not topical bit	
bit 7	Substituted bit	
bit 8	Overflow bit	
bit 9	Invalid bit in IEC104, also affect bit 15	
bit 10		Carry Bit
bit 11		Counter was adjusted bit
bit 12		Invalid bit in IEC104, also affect bit 15
bit 13		
bit 14		
bit 15	Used by WebAccess to indicate data is invalid	Used by WebAccess to indicate data is invalid

2.4 Time Information of Tag

For Read Data Type listed below. You can set Tag as Text Type.

Available Read Data Type
M_SP_TB_1
M_DP_TB_1
M_ST_TB_1
M_BO_TB_1
M_ME_TD_1
M_ME_TE_1
M_ME_TF_1
M_IT_TB_1

Get Tag value as below. Time information is appended after value.



2.5 Simple Setting Tag Example

Step1. View Tag Template on Webpage



Step2. Choose Data Type (choose Single-Point here, so select SP_RW)



Step3. Edit Tag

For Read-Write Tag, Change ReadAddr and WriteAddr

R:100/M_SP_NA_1/n/W:2100/n -> R:110/M_SP_NA_1/n/W:2110/n

For Read-Only Tag, Change ReadAddr and Remove Write Information

R:100/M_SP_NA_1/n/W:2100/n -> R:110/M_SP_NA_1/n