

YASKAWA MP2300Siec

Website: <http://www.yaskawa.com/site/home.nsf/home/home.html>

HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	YASKAWA MP2300Siec		
PLC I/F	Ethernet		
Port no.	44818		
Assembly instance	Input::101 Output:111	Input::101~106 Output:111~116	
PLC sta. no.	1		

PLC Setting:

MP2300Siec-Motion Works IEC Express (YASKAWA) Settings:

Step 1. Before HMI communicates with MP2300Siec using Ethernet/IP, the Instance Input and Instance Output of MP2300Siec device must be set correctly. Multiple Instances are allowed to be built at one time, please click [Save] after setting.

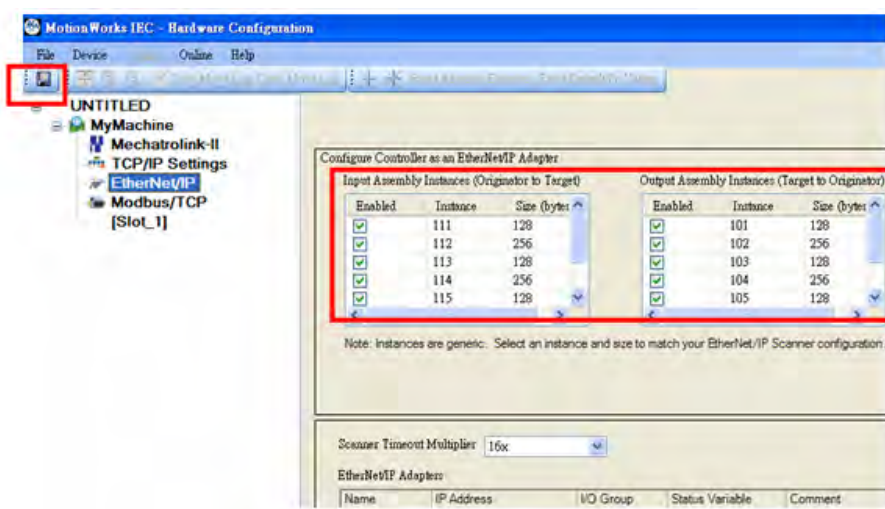


Fig. 1 Assembly Instances

Step 2. Global Variables will automatically add in E/IP Input and Output data, Input and Output data name and address type can be user-defined.

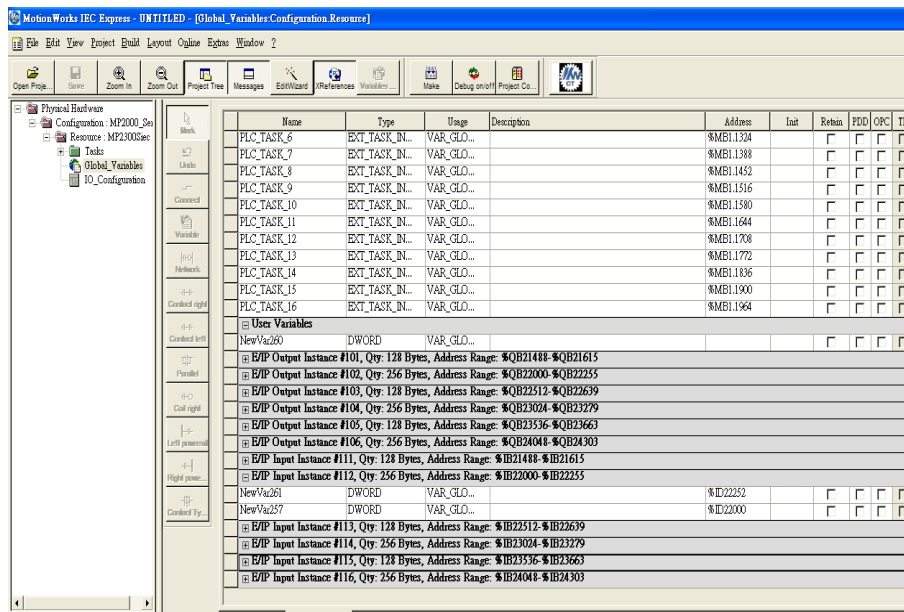


Fig. 2 Global Variables

Step 3. When download Project to device (MP2300Siec), please go to (Fig. 3) Resource->Settings to access setting dialog (Fig. 4) for setting MP2300Siec IP address.

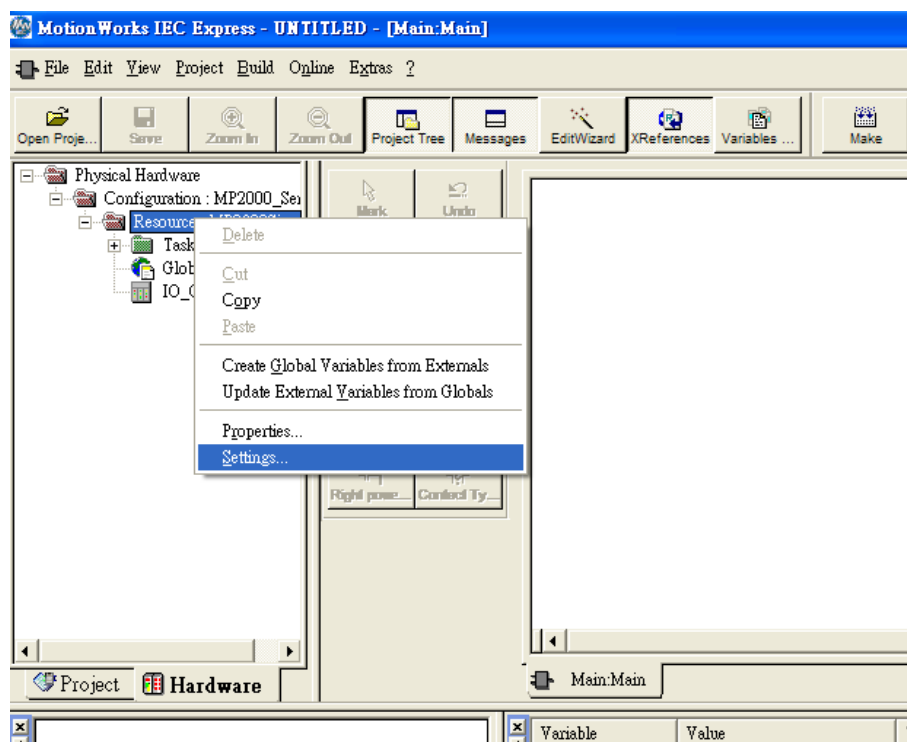


Fig. 3 Motion Works IEC Express – Settings

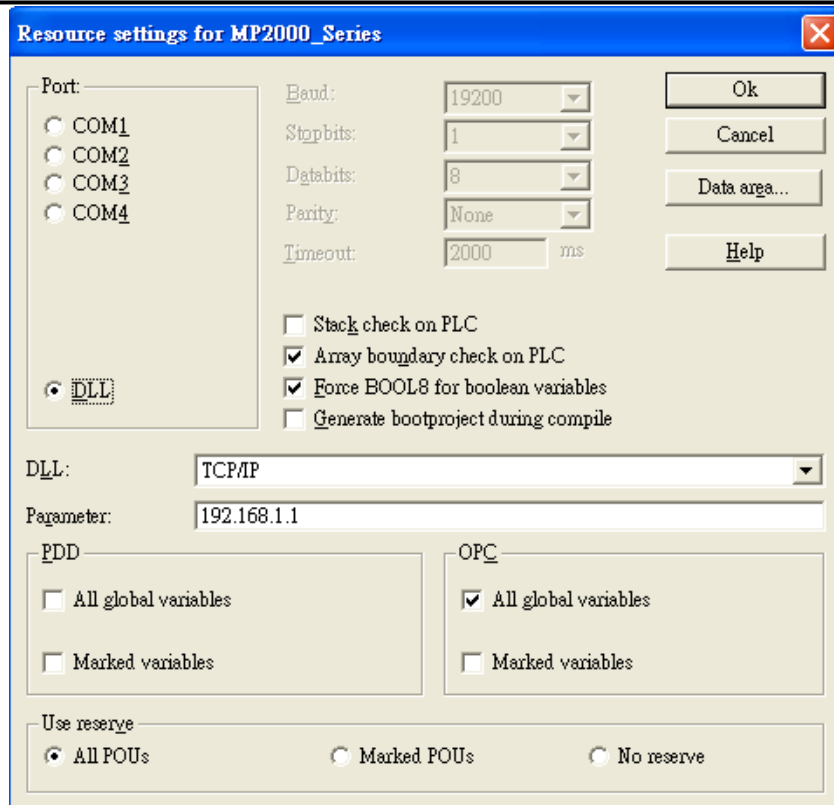


Fig. 4 Resource Settings

Step 4. Start compilation.

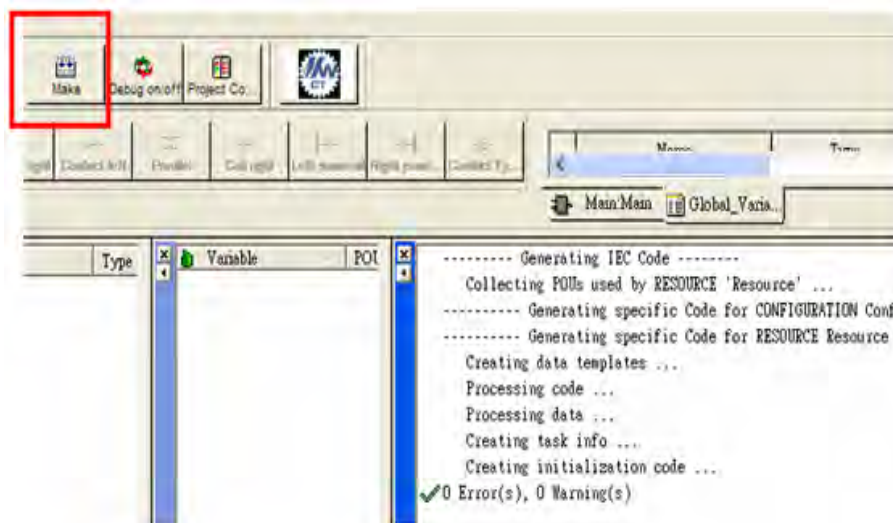


Fig. 5 Editing Screen

Step 5. Download project to device- MP2300Siec, and execute Cold.

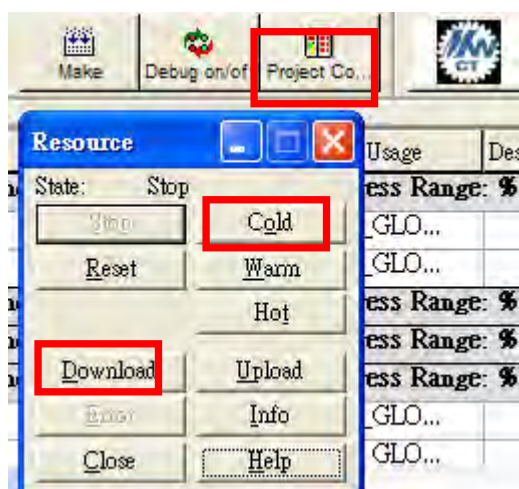


Fig. 6 Project Downloading

EasyBuilder8000/EasyBuilder Pro Settings:

Step 1. System Parameter Settings

Open EasyBuilder8000/EasyBuilder Pro project, as shown in Fig. 7, Assembly Instance and Size must match the software default factory settings, and please don't select UDP. Fig.8 below shows how HMI Input / Output address is mapped to MP2300Siec device.

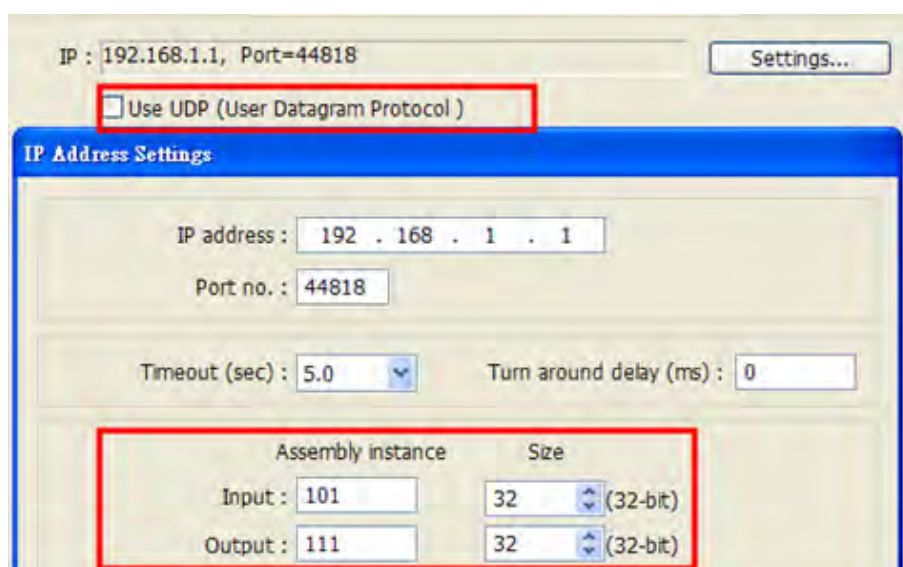


Fig. 7 Instance Setting

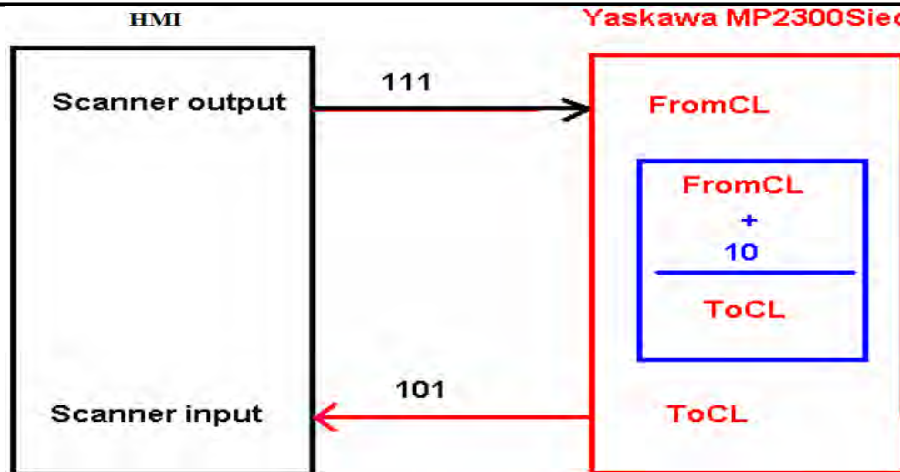


Fig.8 HMI and MP2300Siec I/O Mapping

Step 2. Address Setting:

Instance 101 and Instance 111 are defined as 128Bytes, on the project window , WORD objects can be used, with data typed defined as 32-Bit Unsigned, Input addresses set to 0 、 2 、 4 、 6.....62 for reading Instance 101 data.

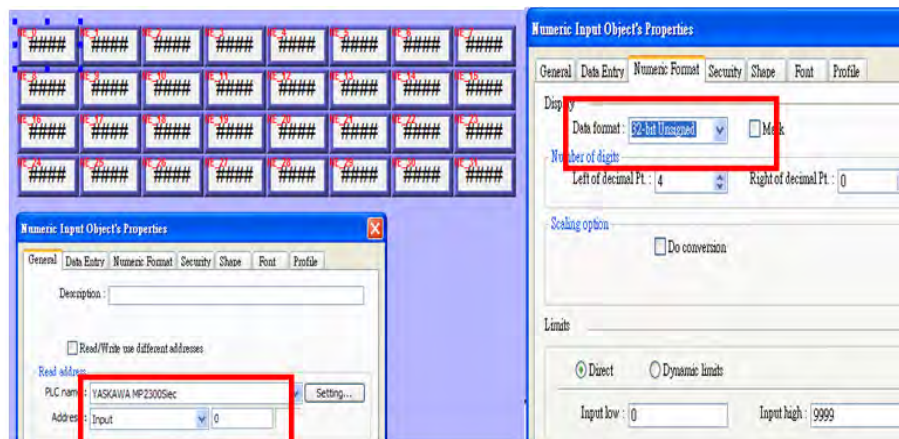
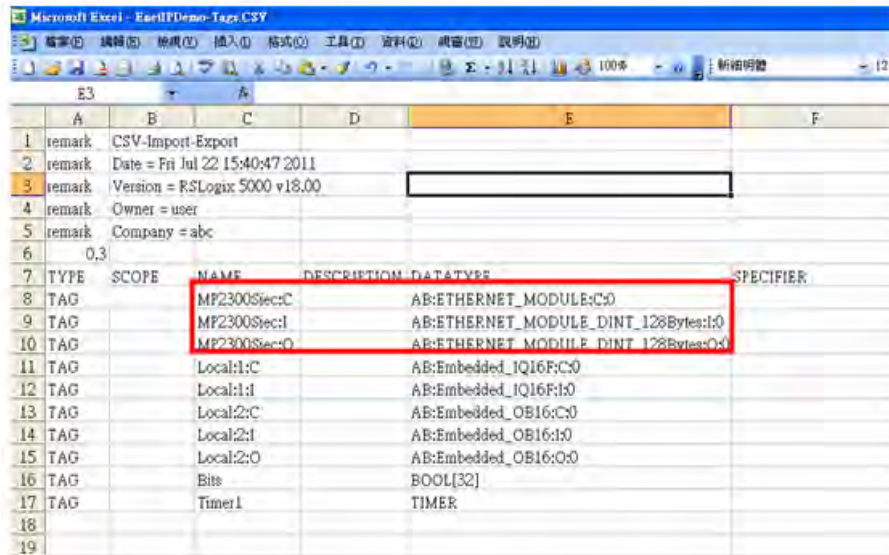


Fig. 9 Address Setting

EasyBuilder8000/EasyBuilder Pro-Allen Bradley CompactLogix Tag Data Importing and Module Defined:

Step 1. In EasyBuilder8000/EasyBuilder Pro project, when using Allen Bradley EIP driver to import CSV file (as in Fig. 10), please open AB Data Type Editor (Fig. 11), and right click on Module Defined to add New Data Type.



	A	B	C	D	E	F
1	remark	CSV-Import-Export				
2	remark	Date = Fri Jul 22 15:40:47 2011				
3	remark	Version = RSLogix 5000 v18.00				
4	remark	Owner = user				
5	remark	Company = abc				
6	0,3					
7	TYPE	SCOPE	NAME	DESCRIPTION	DATA TYPE	SPECIFIER
8	TAG		MP2300Sec:C		AB:ETHERNET_MODULE:C0	
9	TAG		MP2300Sec:I		AB:ETHERNET_MODULE_DINT_128Bytes:I0	
10	TAG		MP2300Sec:O		AB:ETHERNET_MODULE_DINT_128Bytes:O0	
11	TAG		Local:I:C		AB:Embedded_IQ16F:C0	
12	TAG		Local:I:I		AB:Embedded_IQ16F:I0	
13	TAG		Local:O:C		AB:Embedded_OB16:C0	
14	TAG		Local:O:I		AB:Embedded_OB16:I0	
15	TAG		Local:O:O		AB:Embedded_OB16:O0	
16	TAG		Bits		BOOL[32]	
17	TAG		Timer1		TIMER	
18						
19						

Fig. 10 RSLogix 5000 (Allen Bradley Software) Export Free Tag CSV File

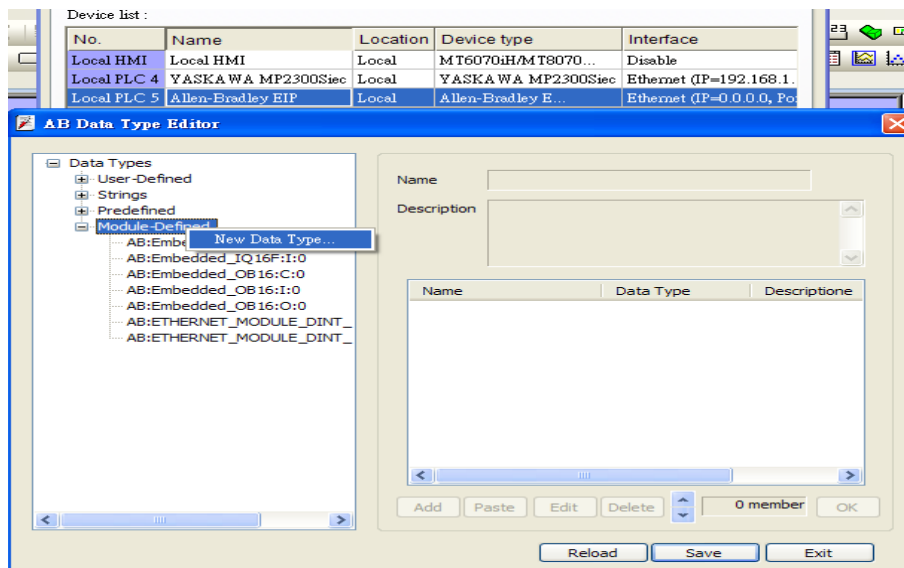


Fig.11 AB Data Type Editor

Step 2. As in Fig 12, in AB Data Type Editor add Name of the new data type. The Name must be set identically to the Data Type in Free Tag CSV file. As in Fig 14, Data Member Name must be set identically to the AB software (as Data in Fig. 13), then click [Save] (Fig. 15).

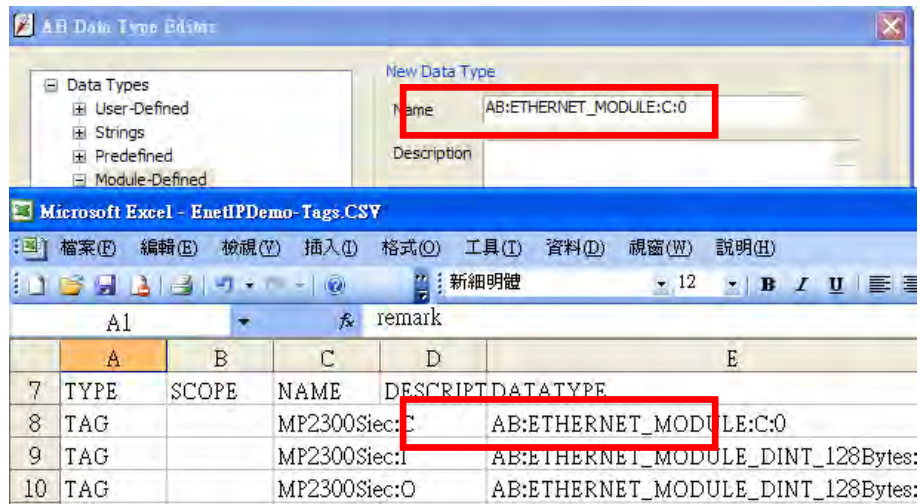


Fig.12 AB Data Type Editor

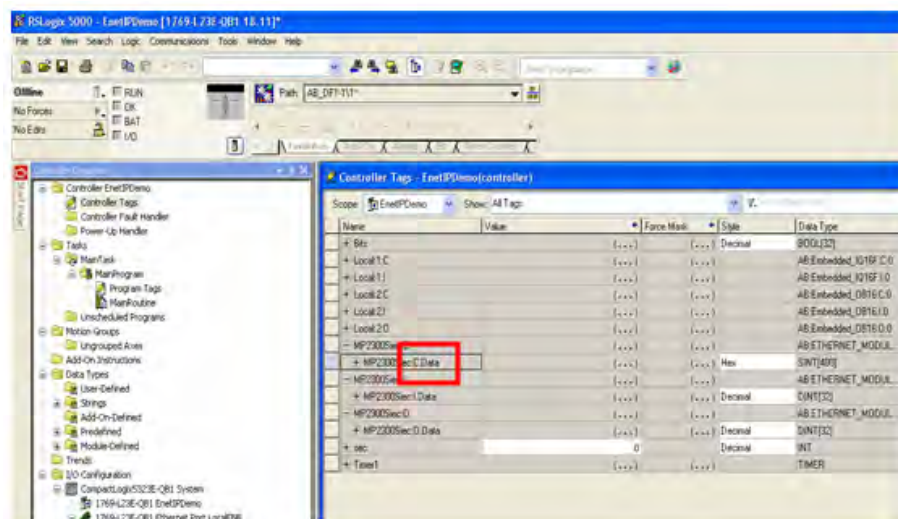


Fig.13 Tag Information

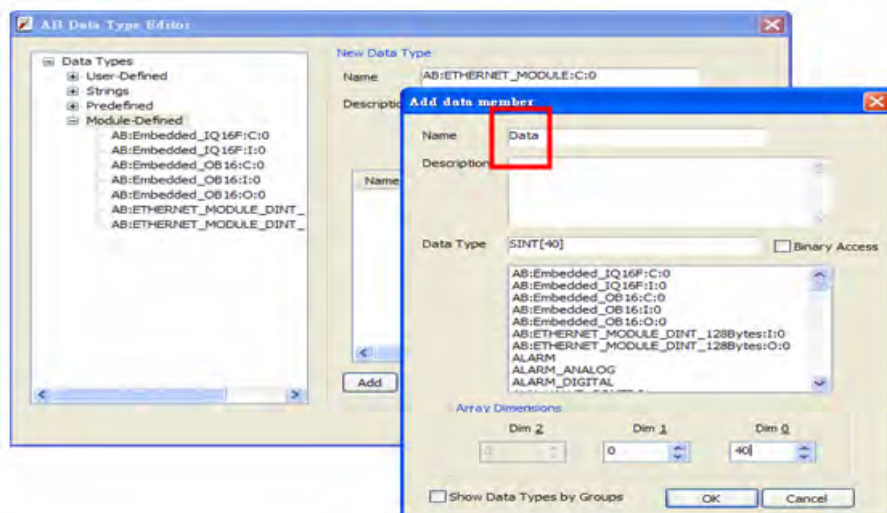


Fig.14 Add Data Member - Name Tag Information

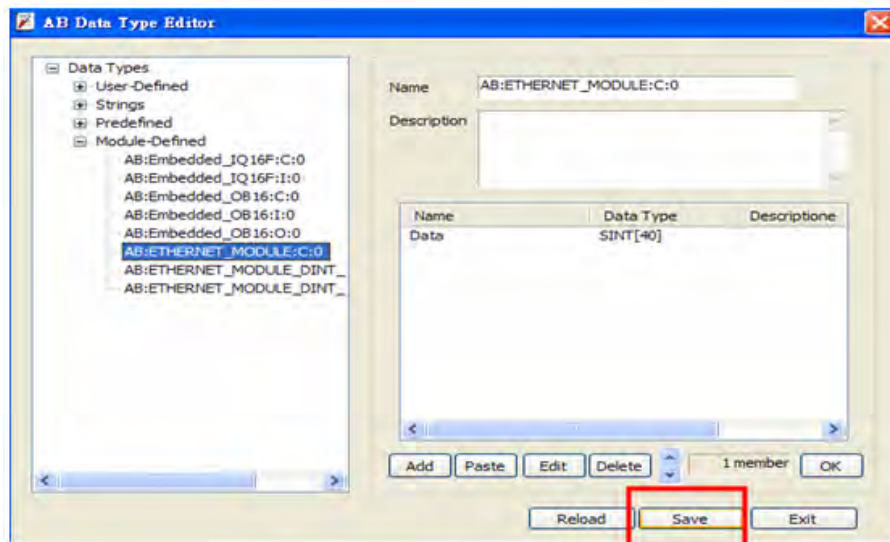


Fig. 15 Add Data Member-Settings - Save

Step 3. Import CSV file, Tag Information can be viewed from object address.

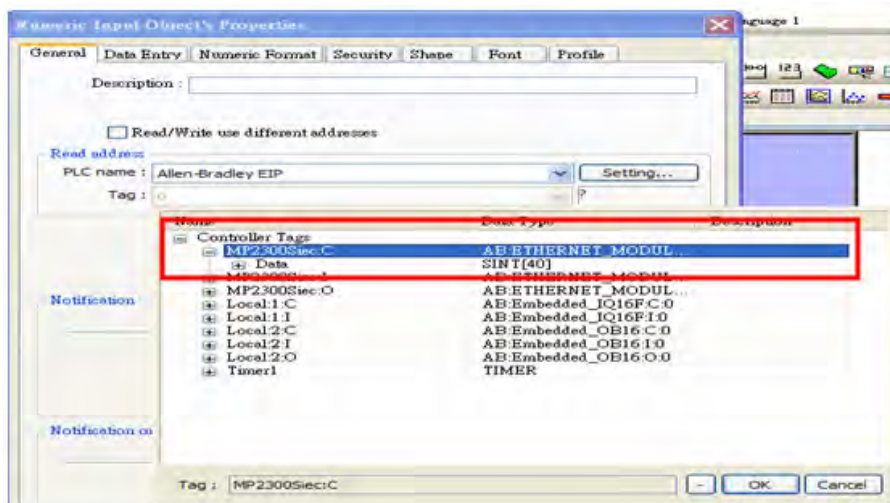


Fig.16 Tag Information

Device Address:

Bit/Word	Device type	Format	Range	Memo
B	Input_Bit	DDDDdd	0 ~ 6553515	
B	Output_Bit	DDDDdd	0 ~ 6553515	
DW	Input	DDDD	0 ~ 65535	
DW	Output	DDDD	0 ~ 65535	

Wiring Diagram:

Direct connect (crossover cable):

HMI RJ45 Male	Wire Color	PLC RJ45 Male
1 TX+	White/Orange	3 RX+
2 TX-	Orange	6 RX-
3 RX+	White/Green	1 TX+
4 BD4+	Blue	4 BD4+
5 BD4-	White/Blue	5 BD4-
6 RX-	Green	2 TX-
7 BD3+	White/Brown	7 BD3+
8 BD3-	Brown	8 BD3-



Through a hub:

HMI RJ45 Male	Wire Color	PLC RJ45 Male
1 TX+	White/Orange	1 TX+
2 TX-	Orange	2 TX-
3 RX+	White/Green	3 RX+
4 BD4+	Blue	4 BD4+
5 BD4-	White/Blue	5 BD4-
6 RX-	Green	6 RX-
7 BD3+	White/Brown	7 BD3+
8 BD3-	Brown	8 BD3-



Note: The wiring diagrams above are drawn based on MT8100i structure, the actual placement of pins may vary according to HMI module.

Driver Version:

Version	Date	Description
V1.00	Aug/24/2011	Driver released.