

Siemens S7-1200 (Ethernet)

Supported Series: Siemens S7-1200 series Ethernet. Website: <u>http://www.siemens.com/entry/cc/en/</u>

HMI Setting:

Parameters	Recommen	ded	Options		Notes
DI C turo	SIEMENS	S7-1200	Siemens S7-400		
FLC type	(Ethernet)		(Ethernet)		
PLC I/F	Ethernet		Ethernet		
Port no.	102		102		
PLC sta. no.	2		2		
Rack	-		0		
CPU slot	-		1		

On-line simulator	Yes	Multi-PLC connect	Yes
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PLC Setting:

- 1. In S7-1200 program software create PLC program and tag and then download to PLC.
- 2. Select Go offline, EasyBuilder will connect to PLC and get tag data. In PLC type select "SIEMENS S7-1200 (Ethernet)".

Device Properties
Name : Siemens 57-1200 (Ethernet)
O HMI ⊙ PLC
Location : Local Settings
PLC type : Siemens S7-1200 (Ethernet)
V.1.80, SIEMENS_S7_1200.so
PLC I/F : Ethernet
IP : 192.168.1.95, Port=102 Settings
Use UDP (User Datagram Protocol)
PLC default station no. : 2
OK Cancel



3. Click "Settings...", input PLC IP address.

IP Address Settings	
IP address : 192 . 168 . Port no. : 102	0 . 95
Timeout (sec) : 1.0	Turn around delay (ms) : 0
Send ACK delay (ms) : 0	Parameter 1 : 0
Parameter 2 : 0	Parameter 3 : 0
	OK Cancel

4. Check the PLC that is not connected to any PC. Click "Get tag info...".

Font		Extended Memory			Printer/Backup Server		
Device	Device Model		neral	System	System Setting Sec		
Device list :							
No.	Name	Location	Device type		Interface		
Local HMI	Local HMI	Local	MT6070iH/M	T8070	Disable		
Local PLC 4	SIEMENS S7/1200.	Local	SIEMENS S7	V1200	Ethernet(IP=1	92.168.1.96, Po	
¢						4	
< New Project descr	Delete		Settings	Ge	tag info		



 If the software used is a version later than TIA Portal V11 , SP2, a dialog of FunctionBlock directory will be shown, users have to define the mapping from FB to DB in this directory then click "Check OK". The tag information will be gained and a successful message is shown.



PunctionBlock - 記事本	
檔案(E) 編輯(E) 格式(Q) 檢視(V) 說明(H)	
<pre>// S71200 // FunctionBlock mapping DataBolck // Ver1.0 begin struct</pre>	
ALC: NOT THE REAL PROPERTY OF	

Wa	ning	×
	Please confirm the conte Mapping Table) before i	ent (Function Block mporting,
	Check OK	Cancel

Get tag information successfully. Please click [Exit].	Exit
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6. Create an object and click read address "Setting..."

()	o Object's	Propert	iles	1					
jeneral	Security	Shape	Label	Profi	ile				
	Description	;							
Read	address	_							
Read	address PLC name	: Local H	HMI				 	Settin	g]
Read	address PLC name Address	: Local H : LB 0	HMI			 		Settin	g

7. In PLC name select S7-1200 then click Tag.

ress			
PLC name :	SIEMENS S7/1200 (Ethernet)		4
Tag :	0		-
Data type :	?		
			ę
		0K	Cancel

8. Select PLC tag.

PLC name :	SIEMENS S7/1200 (Ethernet)	~					
Tag :	0						
Data type :	 Program blocks DB_in_SubFolder [DB3] FB_in_SubFolder_DB [DB4] myDB_1 [DB1] PLC tags IArea QArea 	Name Start_A_Motor_1 Start_B_Motor_1 Stop_Motor Start_A_Motor_2 Stop_Motor_B Start_B_Motor_2 123	Data type Bool Bool Bool Bool Bool Bool Bool				



Support Device Type:

S7-1200 data type	EasyBuilder data format	Memo
Bool	bit	
Byte	16-bit BCD, Hex, Binary, Unsigned	8-bit
SInt	16-bit BCD, Hex, Binary, Signed	8-bit
USInt	16-bit BCD, Hex, Binary, Unsigned	8-bit
Word	16-bit BCD, Hex, Binary, Unsigned	16-bit
Int	16-bit BCD, Hex, Binary, Signed	16-bit
UInt	16-bit BCD, Hex, Binary, Unsigned	16-bit
DWord	32-bit BCD, Hex, Binary, Unsigned	32-bit
DInt	32-bit BCD, Hex, Binary, Signed	32-bit
Real	32-bit Float	32-bit
UDInt	32-bit BCD, Hex, Binary, Unsigned	32-bit
Array	Word array for ASCII input and ASCII display	Length=word

Wiring Diagram:

Direct connect (crossover cable):

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





PLC Connection Guide

Through a hub:

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

Driver Version:

Version	Date	Description
V1.70	Oct/7/2011	Add data type: Byte,SInt,UInt,UDInt
V1.90	Apr/26/2012	Add data type: USInt