

Siemens S7-300/ET200S (Ethernet)

Supported Series: Siemens S7-300 Ethernet Series PLC, Ethernet module CP-343-1, CPU315-2 PN/DP, CPU317-2 PN/DP, CPU319-3 PN/DP, and ET200S.

Website: <http://www.siemens.com/entry/cc/en/>

HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	SIEMENS S7-300/ET200S (Ethernet)		
PLC I/F	Ethernet		
Port no.	102		
PLC sta. no.	1	0-31	

Device Address:

Bit/Word	Device type	Format	Range	Memo
B	I	DDDDo	0 ~ 40957	Input (I)
B	Q	DDDDo	0 ~ 40957	Output (O)
B	M	DDDDo	0 ~ 40957	Bit Memory
B	DBnBit	FFFFDDDDo	0 ~ 409699997	
B	DB0Bit-DB99Bit	DDDDDo	0 ~ 655327	Data Register Bit
W	IW	DDDD	0 ~ 4095	Input (I)
W	QW	DDDD	0 ~ 4095	Output (O)
W	MW	DDDD	0 ~ 4095	Bit Memory
DW	MD	DDDD	0 ~ 4094	Bit Memory Double Word
DW	MD_Anyaddr	DDDD	0 ~ 4094	Bit Memory Double Word (must be even)
W	DBn	FFFFDDDD	0 ~ 40969999	Data Register (must be even)
DW	DBDn	FFFFDDDD	0 ~ 40969999	Data Register Double Word (must be multiple of 4)
DW	DBDn_Anyaddr	FFFFDDDD	0 ~ 40969999	Data Register Double Word (must be even)
W	DBn_String	FFFFDDDD	0 ~ 40969999	
DW	DBDn_String	FFFFDDDD	0 ~ 40969999	
W	DB0 ~ DB99	DDDDDD	0 ~ 65532	Data Register

Bit/Word	Device type	Format	Range	Memo
				(must be even)
Byte	MB	DDDD	0 ~ 4095	Bit Memory Byte
Byte	DBBn	FFFFDDDD	0 ~ 40969999	Data Register Byte

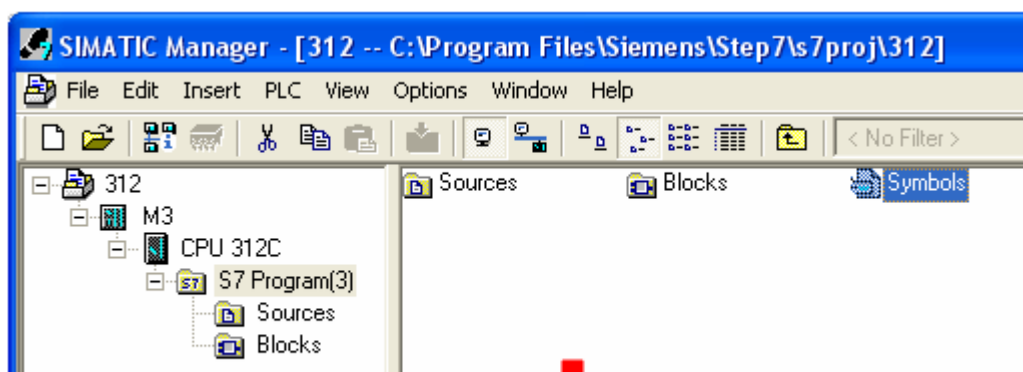

- Double word and floating point value must use DBDn device type.

How to Import Tag:

SIEMENS STEP 7 program allows building files of user-defined tag (*.dif file and *.AWL file), and import these files in EasyBuilder8000/EasyBuilderPro -> System Parameter Settings. The following describes how to build and import these two types of files.

1. Building *.dif File

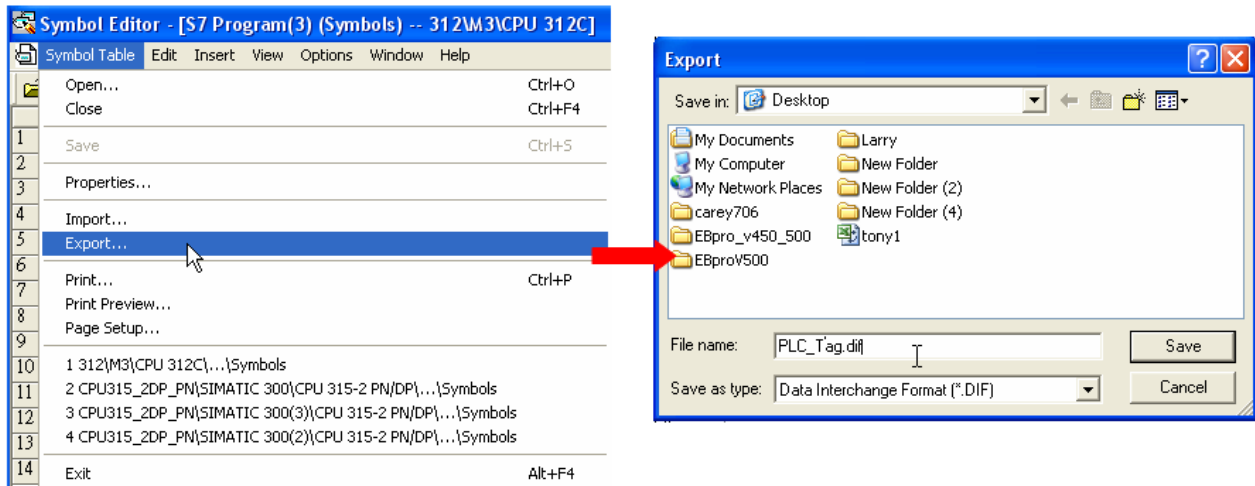
- a、In “Symbols” create user-defined tag.

Symbol Editor - [S7 Program(3) (Symbols) -- 312M3\CPU 312C]

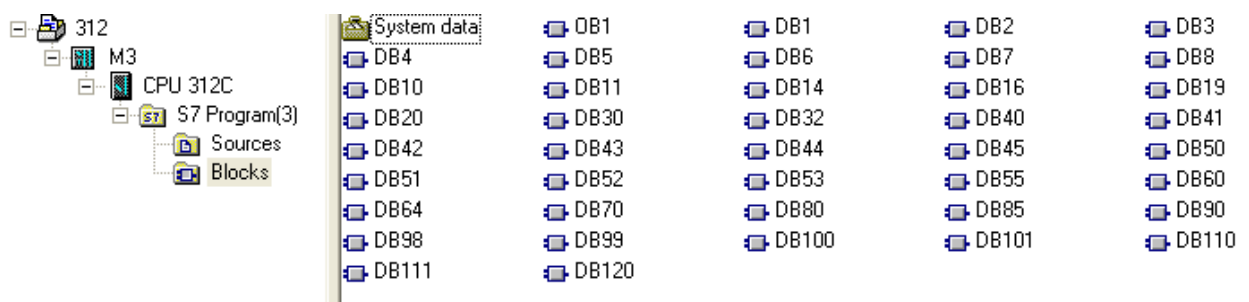
Status	Symbol	Address	Data type	Comment
1	I0.0	I 0.0	BOOL	
2	I0.1	I 0.1	BOOL	
3	I0.2	I 0.2	BOOL	
4	I0.3	I 0.3	BOOL	
5	I0.4	I 0.4	BOOL	
6	I0.5	I 0.5	BOOL	
7	I0.6	I 0.6	BOOL	
8	I0.7	I 0.7	BOOL	

b 、 Click **Export** to export the edited file and click **Save**.

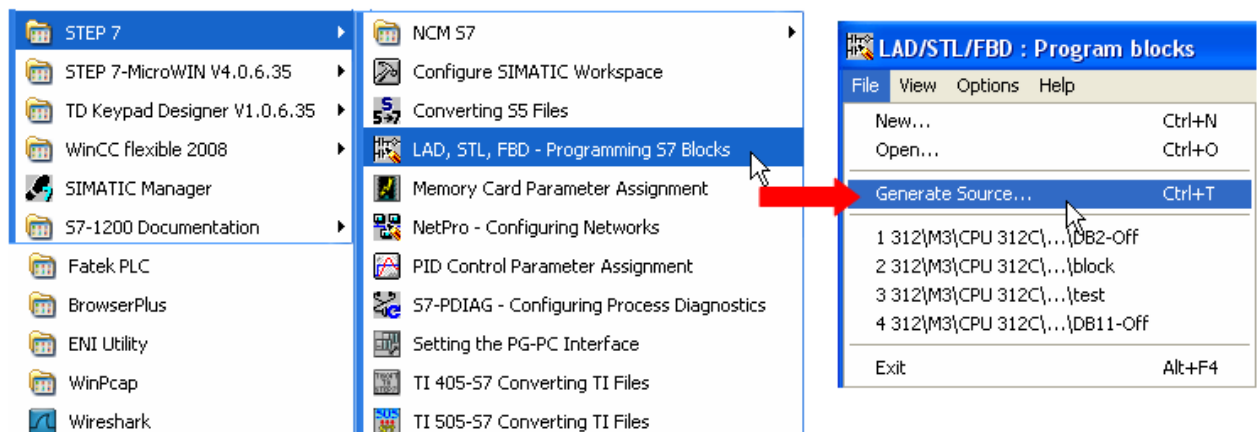


2. Building *.AWF File

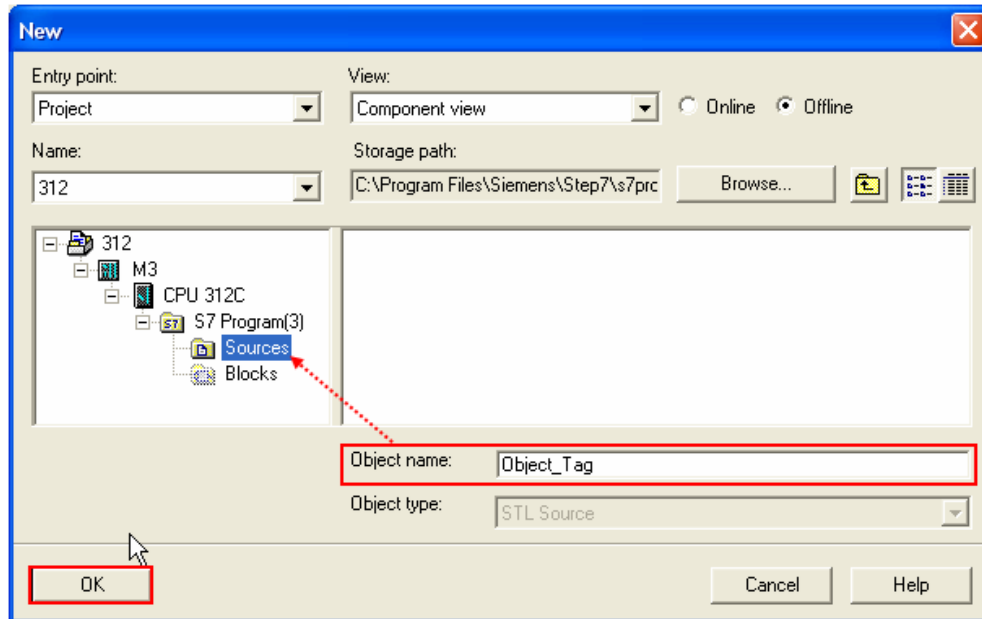
a 、 In **Blocks** create items as shown below:



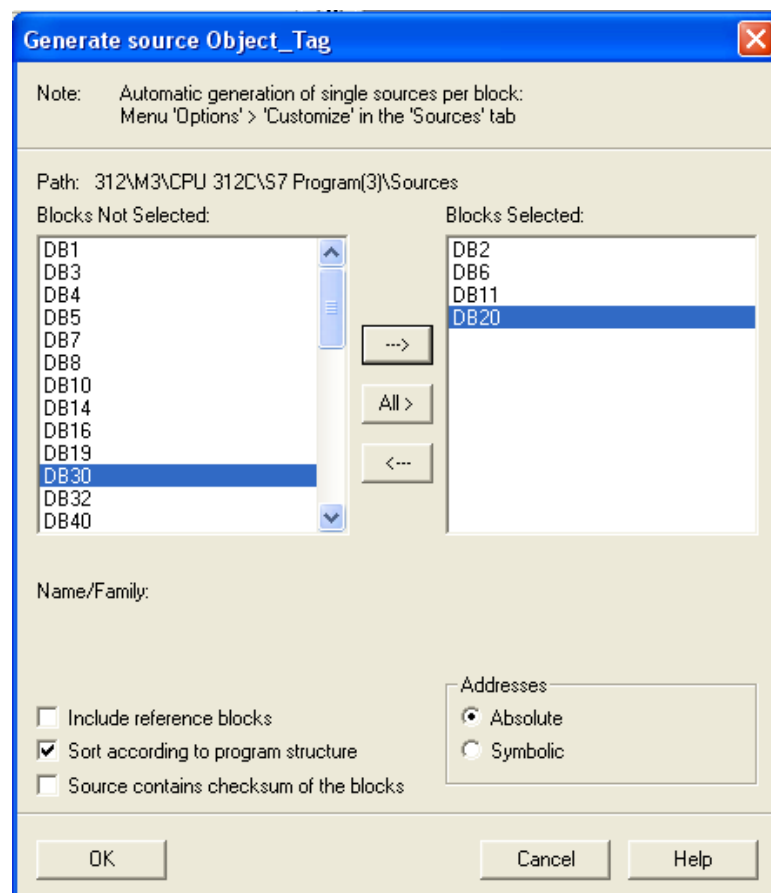
b 、 Open LAD/STL, FBD – Programming S7 Blocks, click **File -> Generate Source**.



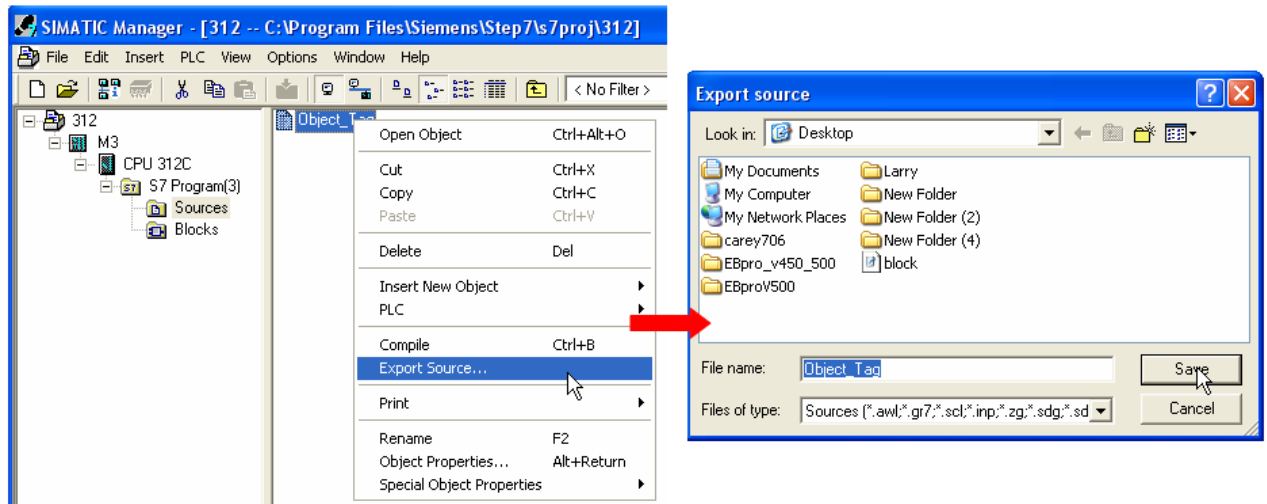
- c、 Select **Sources** as storage path, specify the file name then click **OK**.



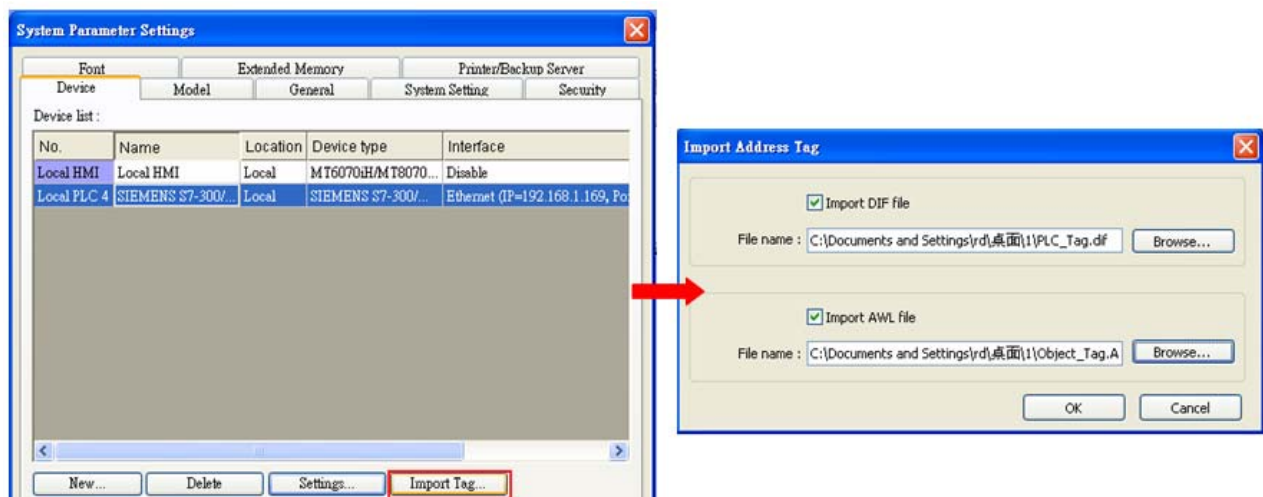
- d、 Select the objects to be exported then click **OK**.



- e、 Under **Sources** there will be names of the saved files, select **Export Source** to build *.AWL file.



The generated *.dif and *.AWL files can be imported in EasyBuilder8000/EasyBuilderPro **System Parameter Settings**, by clicking **Import Tag**.




Tag information successfully imported.



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-



Driver Version:

Version	Date	Description
V2.10	May/21/2011	Added registers: MB & DBBn.
V2.20	Apr/25/2012	Added registers: MD_Anyaddr & DBDn_Anyaddr.