

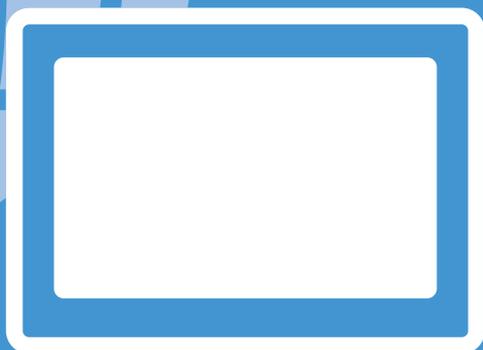


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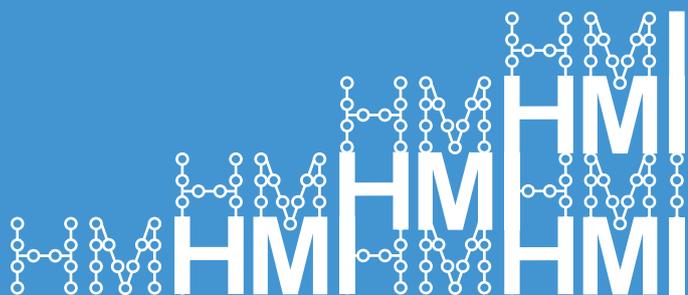
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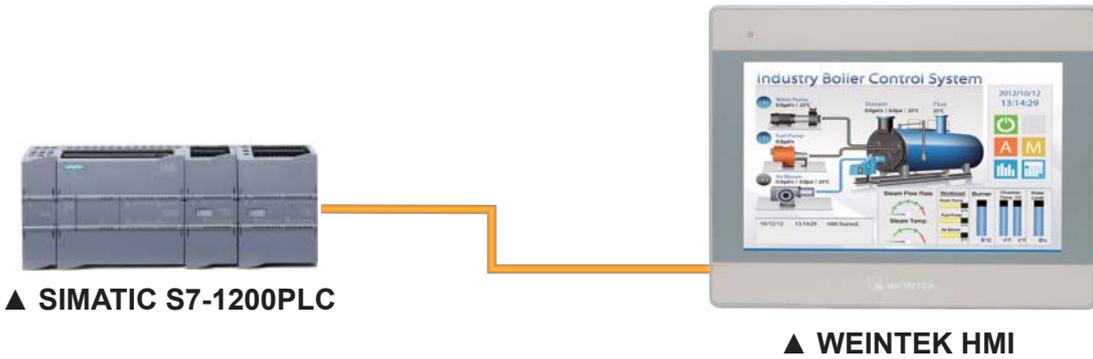
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The perfect combination
of WEINTEK HMI and
SIMATIC S7-1200





The perfect combination of WEINTEK HMI and SIMATIC S7-1200

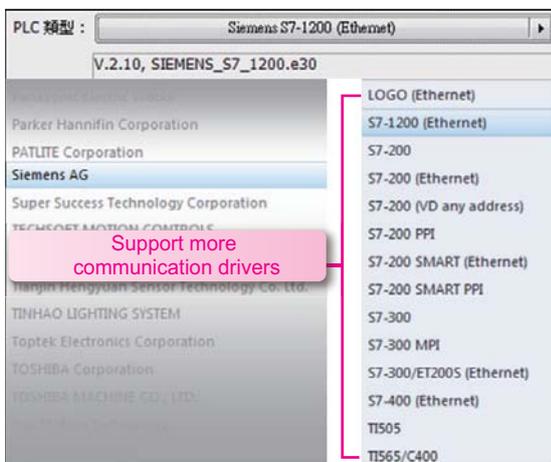
Introduction

The SIMATIC S7-1200, the successor of S7-200, is a new compact PLC which perfectly fits individual requirement in a wide variety of applications in the economical market of Industrial Automation and Control. Connecting with this powerful PLC which supports the majority of communication protocols such as PROFINET、TCP/IP native, ISO on TCP. The WEINTEK engineering software, EasyBuilder 8000/PRO, which provides fully integrated engineering environment for both WEINTEK HMI and S7-1200. With the seamless communication, the WEINTEK all Series of HMIs are perfectly communicating and performing all functions of the S7-1200 for advanced operations such as in-time monitoring the PLC and controlling the host machine. Thus, you can save valuable engineering time and money with this intuitive task-oriented and user-friendly engineering software.

Simple steps to efficiently import the PLC Tag Table from the S7-1200 into the EasyBuilder 8000/PRO

The EasyBuilder 8000/PRO is fully integrated with the S7-1200. You can use the S7-1200 communication driver to connect with the S7-1200 and import the complete PLC Tag Table from the S7-1200. If you use HMI of other brands, then you must select other PLC communication drivers such as S7-300/400 to communicate with the S7-1200. Not only it is a waste of time referring the S7-1200 user manual to check the address meaning, but also you have to estimate the offset carefully in case of encountering some unexpected errors while accessing the used addresses.

Step 1



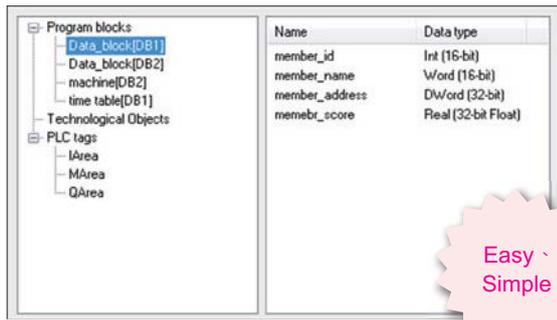
WEINTEK engineering software EB8000/PRO

(Select and use the S7-1200 communication driver)

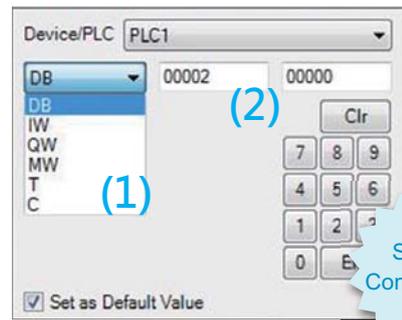
Others

(Select and only able to use the S7-300/400 communication driver)

Step 2



Easy · Simple



Slow · Complicated

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(completely import the S7-1200 Tag Table then access those tags)

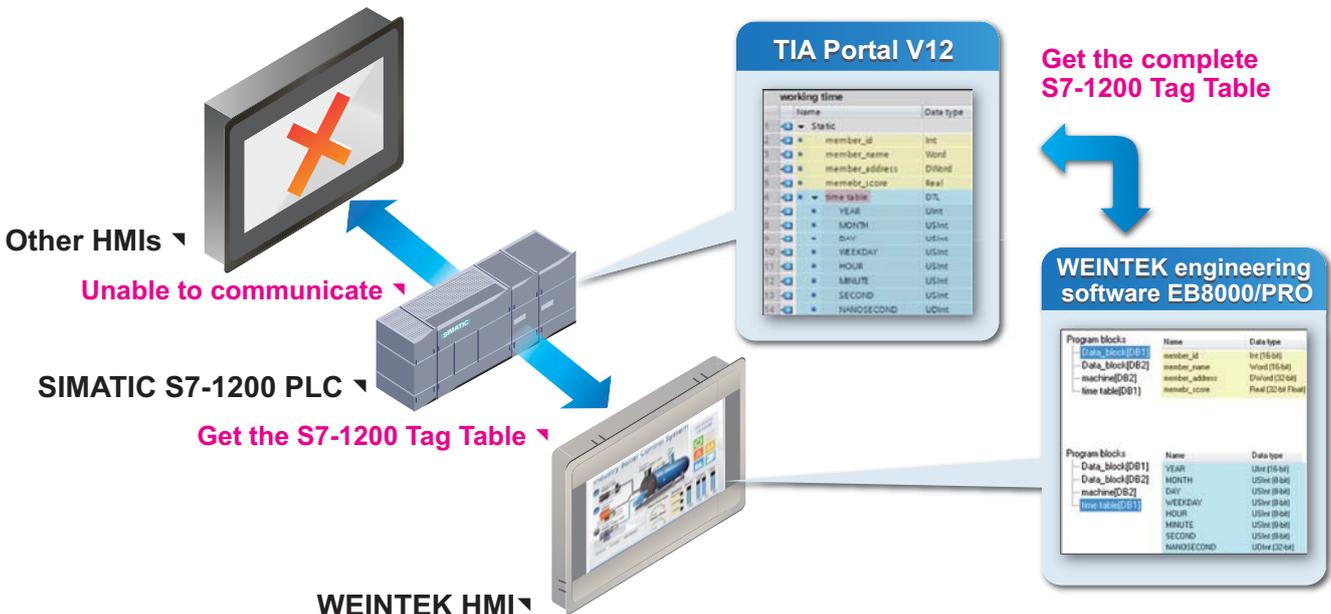
▲ Others

- (1) Study the S7-1200 user manual to check the address meaning.
- (2) Estimate the offset carefully in case of encountering some unexpected errors while accessing the used addresses.
- (3) Access those defined-addresses.

■ EasyBuilder 8000/PRO perfectly controls the S7-1200 PLC Tag Table

The S7-1200 PLC Tag enables the addressing becomes smarter and more intuitive. Every PLC Tag associates with a meaningful tag name with data type, memory area, memory offset, and comment. Although the SIMATIC TIA Portal V12 version is not longer to support the S7-400 communication driver, however, by using the S7-1200 communication driver, the EasyBuilder 8000/PRO PLC can stably communicate with the S7-1200. Furthermore, you can directly access (read from and write to) the PLC Tags in the PLC “I”, “M”, and “Q” memory area, or tags that are represented in the Global Data Blocks. Those tags are stored in a tag table which facilitates control the PLC easier, faster and more cost-effective to transfer those important data to your HMI.

The EasyBuilder 8000/PRO can support more than 40 different data types provided by the S7-1200, included : BOOL, BYTE, WORD, DWORD, REAL, INT, SINT, USINT, UINT, UDINT, DINT...etc. Moreover, it supports the User-Defined Data Type (UDT) and the S7-1200 default data structure, for example, DTL which is a default data structure for the date and time. This powerful support provides you a variety of different data type options for advanced usage.



1. Perfectly support the S7-1200 User-Defined Data Type (UDT)

working machine		
	Name	Data type
1	Static	
2	working_num	Byte
3	machine	"machine"
4	m_id	DInt
5	m_status	Bool
6	m_device	HW_DEVICE

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(User-Defined Data Type, UDT - machine)

Program blocks	Name	Data type
Data_block[DB1]	working_num	Byte (8-bit)
Data_block[DB2]		
machine[DB2]		
time table[DB1]		

Program blocks	Name	Data type
Data_block[DB1]	m_id	DInt (32-bit)
Data_block[DB2]	m_device	Word (16-bit)
machine[DB2]		
time table[DB1]		

Program blocks	Name	Data type
	m_status	Bool

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(Get the complete the S7-1200 Tag Table)

EasyBuilder 8000/PRO completely gets the **working machine** static variables and the **UDT - machine** data structure.

2. Perfectly support the S7-1200 default data structure

working time		
	Name	Data type
1	Static	
2	member_id	Int
3	member_name	Word
4	member_address	DWord
5	memebr_score	Real
6	time table	DTL
7	YEAR	UInt
8	MONTH	USInt
9	DAY	USInt
10	WEEKDAY	USInt
11	HOUR	USInt
12	MINUTE	USInt
13	SECOND	USInt
14	NANOSECOND	UDInt

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(Default data structure - DTL)

Program blocks	Name	Data type
Data_block[DB1]	member_id	Int (16-bit)
Data_block[DB2]	member_name	Word (16-bit)
machine[DB2]	member_address	DWord (32-bit)
time table[DB1]	memebr_score	Real (32-bit Float)

Program blocks	Name	Data type
Data_block[DB1]	YEAR	UInt (16-bit)
Data_block[DB2]	MONTH	USInt (8-bit)
machine[DB2]	DAY	USInt (8-bit)
time table[DB1]	WEEKDAY	USInt (8-bit)
	HOUR	USInt (8-bit)
	MINUTE	USInt (8-bit)
	SECOND	USInt (8-bit)
	NANOSECOND	UDInt (32-bit)

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(Get the complete the S7-1200 Tag Table)

EasyBuilder 8000/PRO completely gets the **working time** static variables and the **DTL - time table** data structure.

3. Perfectly support the S7-1200 PLC Tag : [I]Input 、 [M]Bit Memory 、 [Q]Output

Tag Table		
	Name ▲	Data type
1	input_num	Int
2	input_size	Byte
3	memory_size	DWord
4	memory_time	Time_Of_Day
5	output_num	SInt
6	output_size	Byte

▲ SIMATIC S7-1200

(PLC Tag – [I]Input 、 [M]Bit Memory 、 [Q]Output)

PLC tags	Name	Data type
IArea	input_num	Int (16-bit)
MArea	input_size	Byte (8-bit)
QArea		

PLC tags	Name	Data type
IArea	memory_size	DWord (32-bit)
MArea	memory_time	UDInt (32-bit)
QArea		

PLC tags	Name	Data type
IArea	output_num	SInt (8-bit)
MArea	output_size	Byte (8-bit)
QArea		

▲ WEINTEK engineering software EB8000/PRO

(Get the complete the S7-1200 Tag Table)

EasyBuilder 8000/PRO completely gets the **PLC Tag I 、 M 、 Q** memory data structure.

■ **Conclusion**

The powerful WEINTEK EasyBuilder 8000/PRO is highly integrated with the SIMATIC S7-1200. Not only perfectly supports the S7-1200 communication driver, but also the EasyBuilder 8000/PRO can get the complete S7-1200 Tag Table. This feature greatly reduces the project development time and improves the programming efficiency. Based on the talent and brilliant technology, WEINTEK keeps leading the HMI market and pursuing excellence.