Q. How to Establish Communication Between i Series HMI and S7-1200 FW V4.0 devices?

Recently, Siemens has made great changes in S7-1200 Firmware V4.0; therefore, S7-1200 driver can no longer establish communication between EasyBuilder8000 and S7-1200 Firmware V4.0. To establish communication between i Series HMI and S7-1200 Firmware V4.0 devices, please use S7-1500 driver.

Α.

Please follow the steps to set up the environment for communication, otherwise, error may occur.

Step 1. Select [General] » [Protection] » [Permit access with PUT/GET communication from remote partner] option.

Establish Communication Between i Series & S7-1200 FW V4.0 - [] PLC_1 [CPU 1212C AC/DC/Rly] Open Device configuration Open in new editor 😼 Online & diagnostics F7 Search in PLC and open... 🕶 🛃 Program blocks 💣 Add new block X Cut Ctrl+X 💶 Main [OB1] Ctrl+C iii Copy Data_block_1 [DB1] 💼 Paste Ctrl+V Technology objects Del 🗙 Delete External source files Rename F2 🕶 🌄 PLC tags 📲 Go to topology view all tags 👆 🖁 Go to network view 💕 Add new tag table Compile • [26] Default tag table Download to device 🔩 Tag table_1 [96] 💋 Go online Ctrl+K 🍓 Tag table_2 [11] 🔊 Go offline Ctrl+M 🔩 Tag table_3 [6] 🖗 Online & diagnostics Ctrl+D PLC data types Watch and force tables 🐴 Compare • 🗠 Traces Cross-references F11 Program info E Call structure Device proxy data Assignment list Text lists 昌 Print... Ctrl+P Local modules 🐴 Print preview.. 🕨 📑 Common data 🔍 Properties... Alt+Enter ▶ 🛅 Documentation settings

General	IO ta	gs	System consta	nts	Texts					
General	^									
PROFINET in										
DI8/DO6										
AI2		Conne	ection mechani	sms						
High speed c		conne	in the charm							
Pulse gener					Permit	access with	PUT/GET comr	nunication from	remote part	ner (PLC. H
Startup										
Cycle	≡ •									
Communicati										
System and	Þ									
Web server										
Time of day										
User interfa										
Protection										
Connection										
Overview of	~									
		<								>

Step 2. Please do **not** select [DB UTILITAIRES] » [Attributes] » [Optimized block access]. Note that the option in all Data Blocks should **not** be selected.

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FAQ

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Data_block_1 [DB1]	×
General	
General	Attributes
Information	
Time stamps	
Compilation	Only store in load memory
Protection	Data block write-protected in the device
Attributes	
Download with	
< III >	
	OK Cancel



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The following part explains how to import address tags using TIA.

Step 1. Export PLC Tags (.xlsx file format). Under [PLC tags] create the address

tags and then click the Export icon.

🖓 Siemens - Project13								
Project Edit View Insert Online Options Tools Window Help								
_	Project tree	- `	Proie	ct1	3 ▶ PLC 1 [CPU 12120	CAC/DC/RIv] ► PLC		
	Devices					,,		
	Devices							
		d d	1	ŧ,	🖻 🕒 🛍			
			PI	_c t	ags			
Ξ.	▼ Project13				Nar Export	Tag table		
	Add new device		1	-00	i00	Tag table_1		
5	n Devices & networks		2	-	i01	Tag table_1		
Ē.	▼ 1 [CPU 1212C AC/DC/Rly]		з	-	i02	Tag table_1		
ž	Device configuration		4	-	i03	Tag table_1		
	🔽 Online & diagnostics		5	-	i04	Tag table_1		
	🕨 🔚 Program blocks		6	-	i05	Tag table_1		
	🕨 🙀 Technology objects		7	-	i06	Tag table_1		
	External source files		8	-00	i07	Tag table_1		
	🗢 🚂 PLC tags		9	-00	i10	Tag table_1		
	liange Show all tags		10	-00	i11	Tag table_1		
	📫 Add new tag table		11	-	i12	Tag table_1		
	💥 Default tag table [26]		12	-	i13	Tag table_1		
	🍓 Tag table_1 [96]		13	-	i14	Tag table_1		
	🍓 Tag table_2 [11]		14	-00	i15	Tag table_1		
	tag table_3 [6]		15	-	i16	Tag table_1		
	PLC data types		16	-00	i17	Tag table 1		

Designate the directory to save the file and then click OK button.

Path of export file:
D:\PLC tags.xlsx
Elements to be exported:
☑ Tags
Constants
OK Cancel

Step 2. Export Data Blocks (.scl file format). Under [Data blocks] create "Data_block_1 [DB1]" as shown in the following figure. Click the right mouse button on [DB1] and then click [Generate source from blocks] to generate .scl file.



Step 3. In EasyBuilder8000, click [New PLC...], select "Siemens S7-1500

(Ethernet)", and then click [Settings...] to set the parameters.

Step 4. Click [Import Tag...] button.

Font Device Model		Extende	ed Memory	Printer/Backup Server		
			General	System Setting	Security	
Name		Location	Device type	Interface		
Local HM	I	Local	MT6070iH2(iH3)/	-		
Siemens S	s7-1500	Local	Siemens S7-1500	Ethernet (IP=192.1)	68.1.100, Port=102)	
	Name Local HM Siemens S	Model Name Local HMI Siemens S7-1500	Name Location Local HMI Local Siemens S7-1500 Local	Extended Memory Model General Name Location Device type Local HMI Local MT6070iH2(iH3)/ Siemens S7-1500 Local Siemens S7-1500	Extended Memory Printer/Bi Model General System Setting Name Location Device type Interface Local HMI Local MT6070iH2(iH3)/ - Siemens S7-1500 Local Siemens S7-1500 Ethernet (IP=192.1)	

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Step 5. Select the PLC tags and Data Blocks to be imported. Pease check if the

DB Number is correct.

I C taos		
File name	: D:\PLC tags.xlsx Browse	
rogram blocks		
DB Number	[Program Blocks] file name	
DB Number DB1	[Program Blocks] file name D:\D81.sd	
DB Number DB1	[Program Blocks] file name D:\p81.sd	
DB Number DB1	[Program Blocks] file name D:\p81.sd	

Step 6. Click [Import], a message will be displayed after successful import,

click OK button to leave.

	Import Tags	_
.C taos		
File name	Browse	
ogram blocks		
DB Number	[Program Blocks] file name	
DB1	D:\DB1.sd	
-		
<		>
1.61-(-)1		
1 lie(s) selec	Browse	
nport status		
nport status Import tag in Import tag in	formation successfully. (D: IPLC tags.xlsx) formation successfully. (D81)	
Import status Import tag in Import tag in	formation successfully. (D: IPLC tags.xlsx) formation successfully. (DB 1)	>
For proper com 1. [DB UTILIT/ 2. [General] -;	formation successfully. (D: IPLC tags.xlsx) formation successfully. (DB1) munication, make sure that in TTA: AIRES[-> [Attributes] -> [Optimized block access] is unchecked. > [Protection] -> [Permit access with PUT/GET communication from remote partner] is check	> ked.

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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 display	Length=word

Supported data types: