Q.

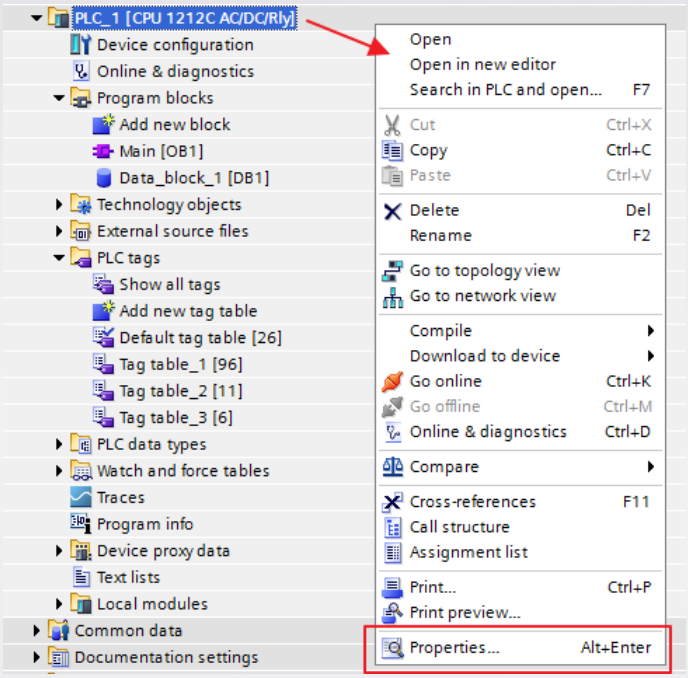
How to Establish Communication Between i Series HMI and S7-1200 FW V4.0 devices?

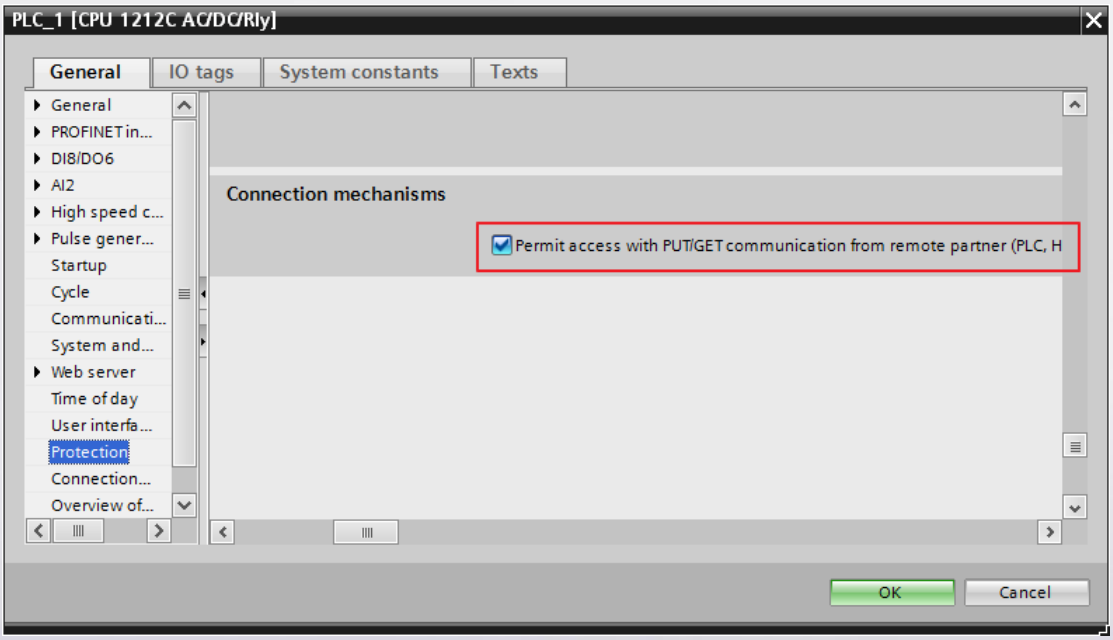
Recently, Siemens has made great changes in S7-1200 Firmware V4.0; therefore, S7-1200 driver can no longer establish communication between EasyBuilder8000 and S7-1200 Firmware V4.0. To establish communication between i Series HMI and S7-1200 Firmware V4.0 devices, please use S7-1500 driver.

A.

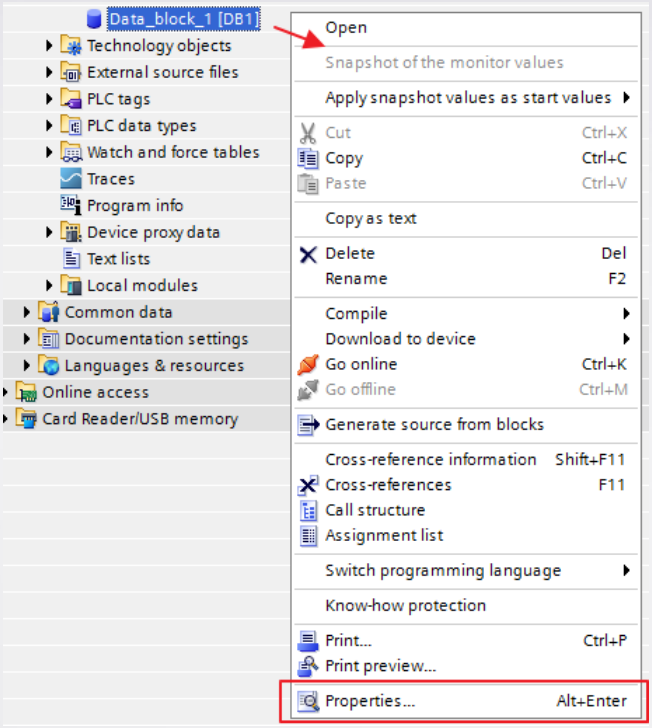
Please follow the steps to set up the environment for communication, otherwise, error may occur.

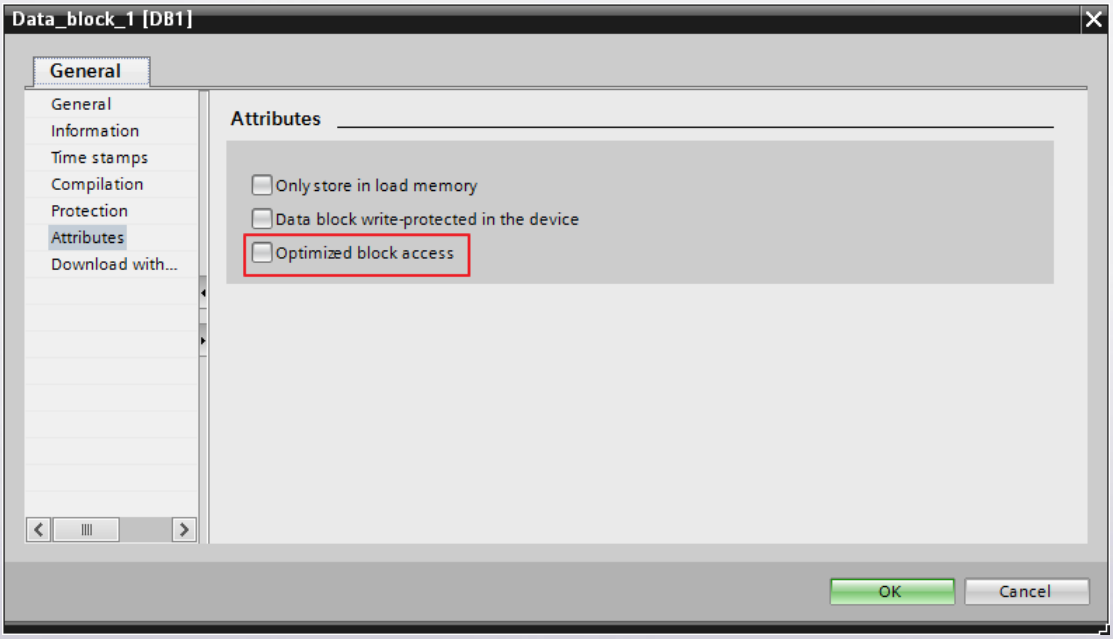
Step 1. Select [General] » [Protection] » [Permit access with PUT/GET communication from remote partner] option.





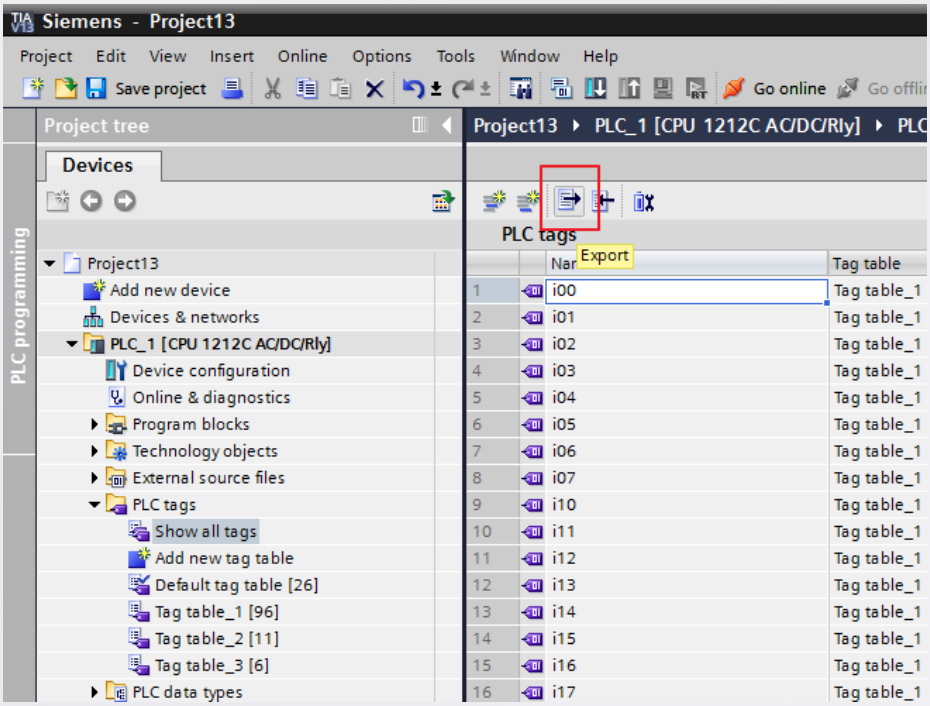
Step 2. Please do **not** select [DB UTILITAIRES] » [Attributes] » [Optimized block access]. Note that the option in all Data Blocks should **not** be selected.


Data_block_1 [DB1]
Technology objects
External source files
PLC tags
PLC data types
Watch and force tables
Traces
Program info
Device proxy data
Text lists
Local modules
Common data
Documentation settings
Languages & resources
Online access
Card Reader/USB memory
Open
Snapshot of the monitor values
Apply snapshot values as start values
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Copy as text
Delete Del
Rename F2
Compile
Download to device
Go online Ctrl+K
Go offline Ctrl+M
Generate source from blocks
Cross-reference information Shift+F11
Cross-references F11
Call structure
Assignment list
Switch programming language
Know-how protection
Print... Ctrl+P
Print preview...
Properties... Alt+Enter

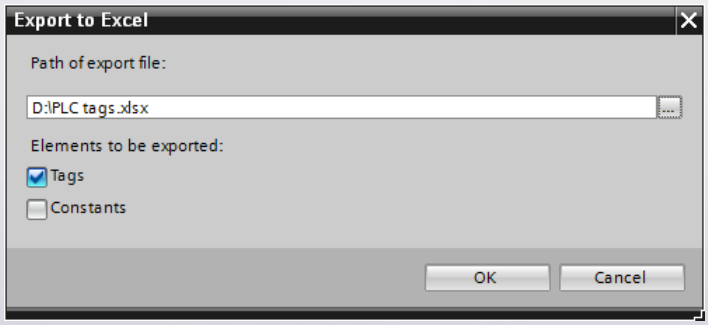

Data_block_1 [DB1]
General
General
Information
Time stamps
Compilation
Protection
Attributes
Download with...
Attributes
Only store in load memory
Data block write-protected in the device
Optimized block access
OK
Cancel

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

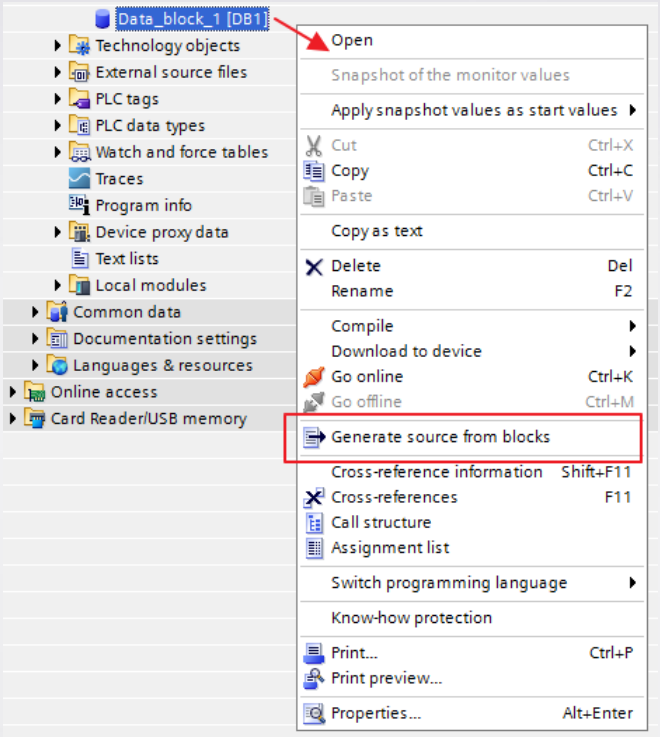
Step 1. Export PLC Tags (.xlsx file format). Under [PLC tags] create the address tags and then click the Export icon.



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

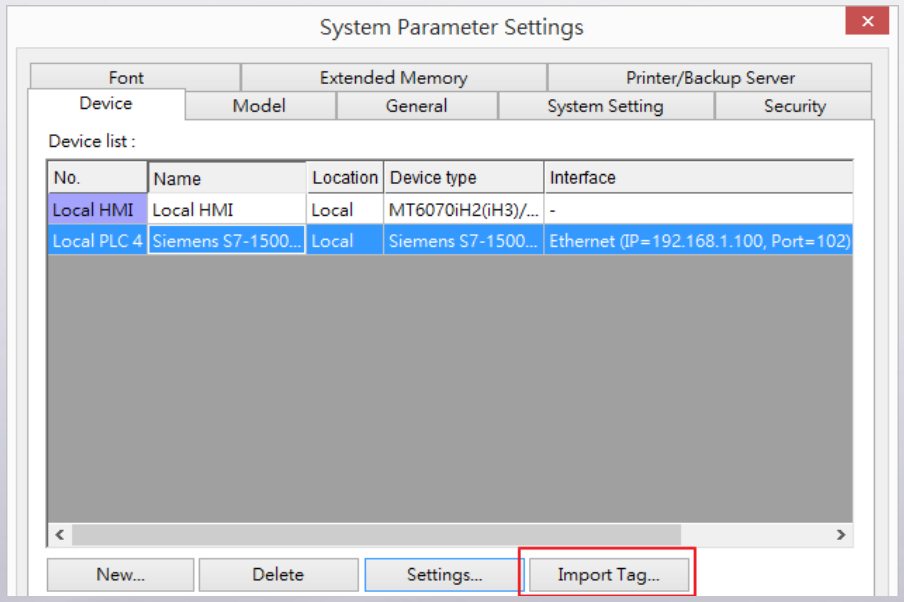


Step 2. Export Data Blocks (.scl file format). Under [Data blocks] create "Data_block_1 [DB1]" as shown in the following figure. Click the right mouse button on [DB1] and then click [Generate source from blocks] to generate .scl file.

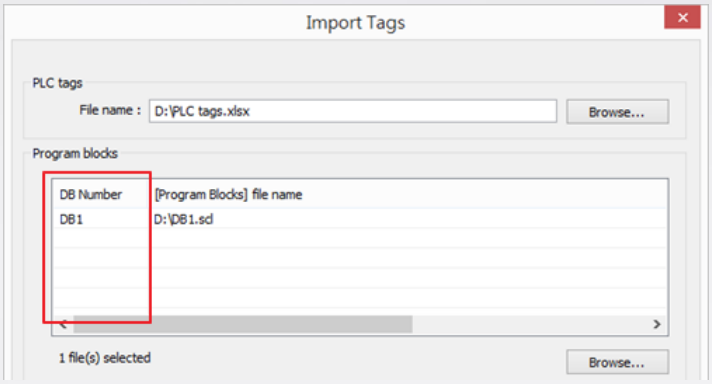


Step 3. In EasyBuilder8000, click [New PLC…], select “Siemens S7-1500 (Ethernet)”, and then click [Settings…] to set the parameters.

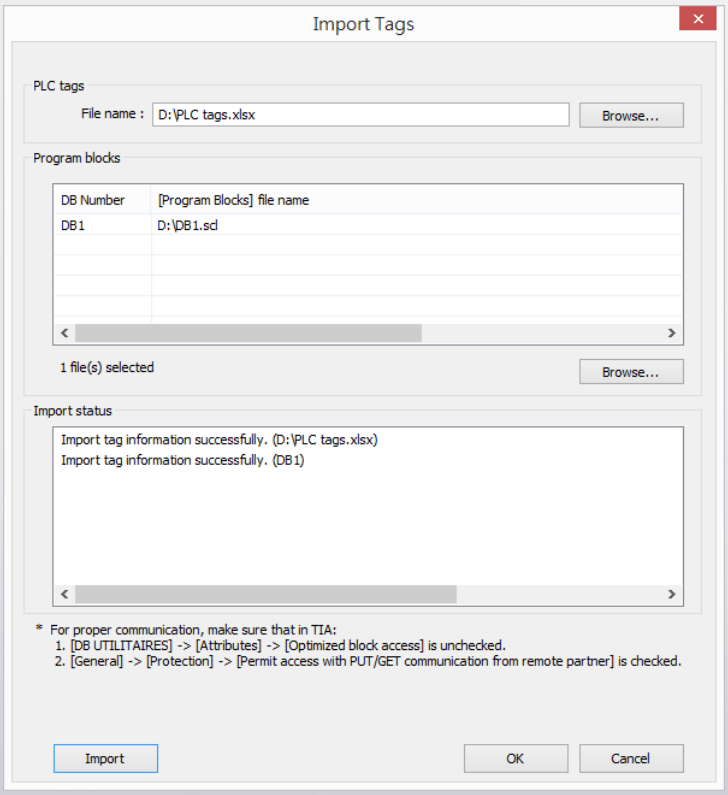
Step 4. Click [Import Tag…] button.



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



Step 6. Click [Import], a message will be displayed after successful import, click OK button to leave.



Supported data types:

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