

Beckhoff ADS/AMS (Ethernet)

Supported Series: TwinCAT

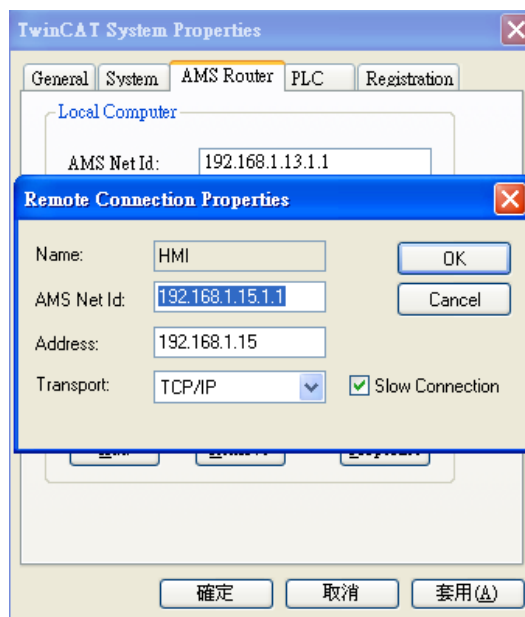
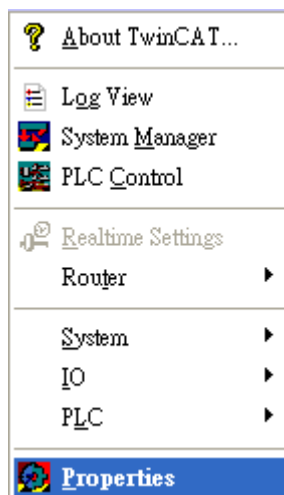
HMI Setting:

Parameters	Recommended	Options	Notes
PLC type	Beckhoff ADS/AMS (Ethernet)		
PLC I/F	Ethernet		
Port no.	48898		
ADS port	801	801, 811, 821, 831	
PLC sta. no.	1		

PLC Setting:

Step1.

Open TwinCAT System Properties.



PLC Settings: Set HMI Name, AMS Net ID, and Address.

Ex:

HMI IP: 192.168.1.15

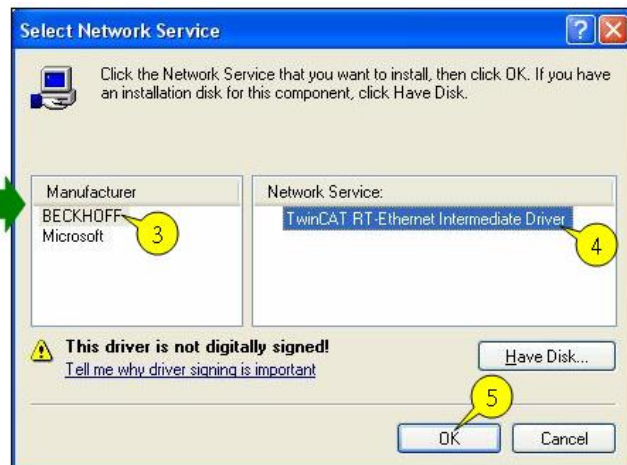
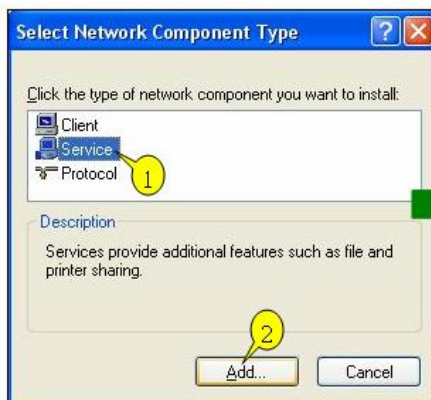
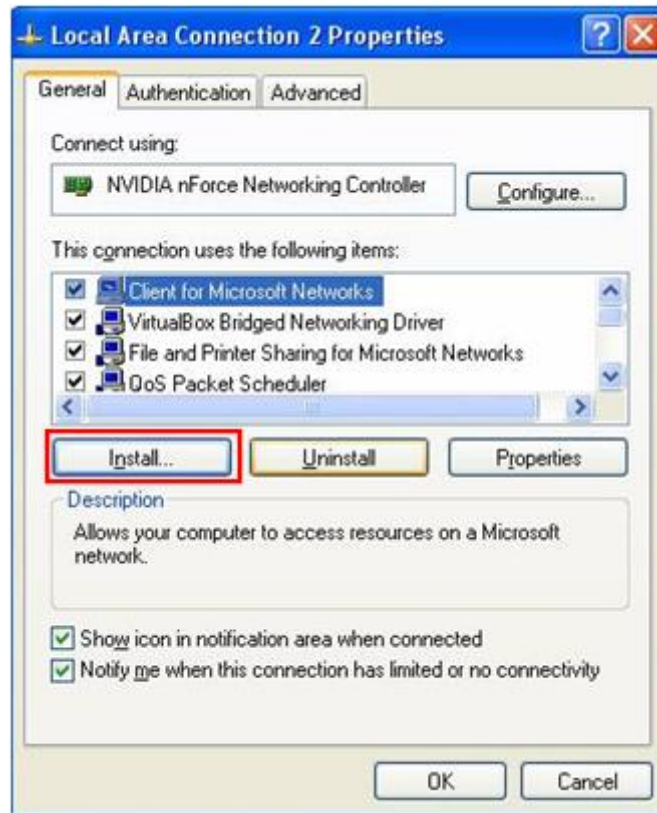
AMS Net ID: Must input 192.168.1.15.1

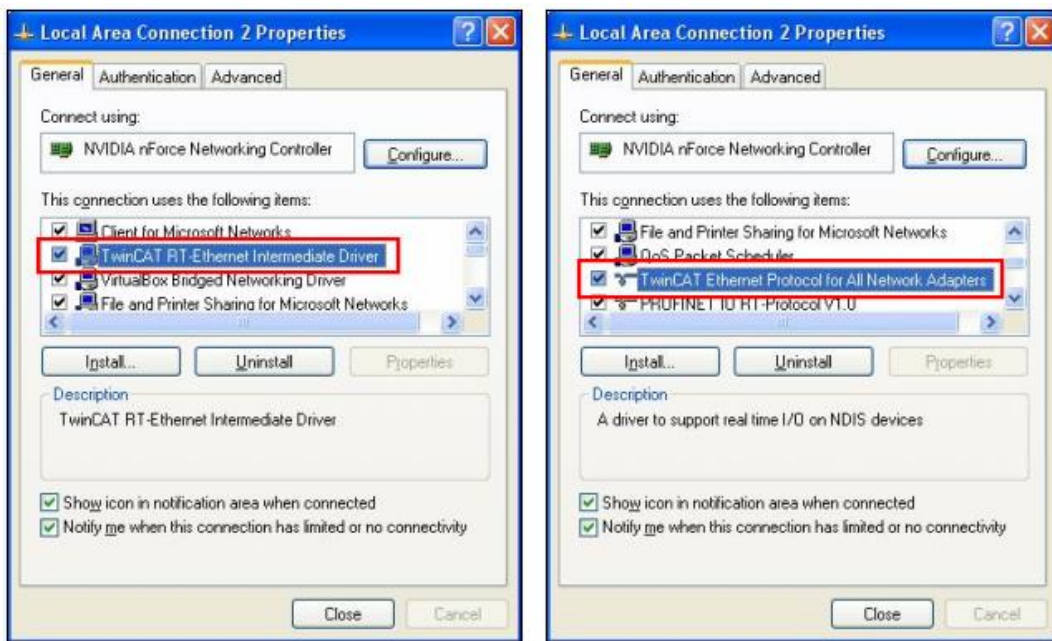
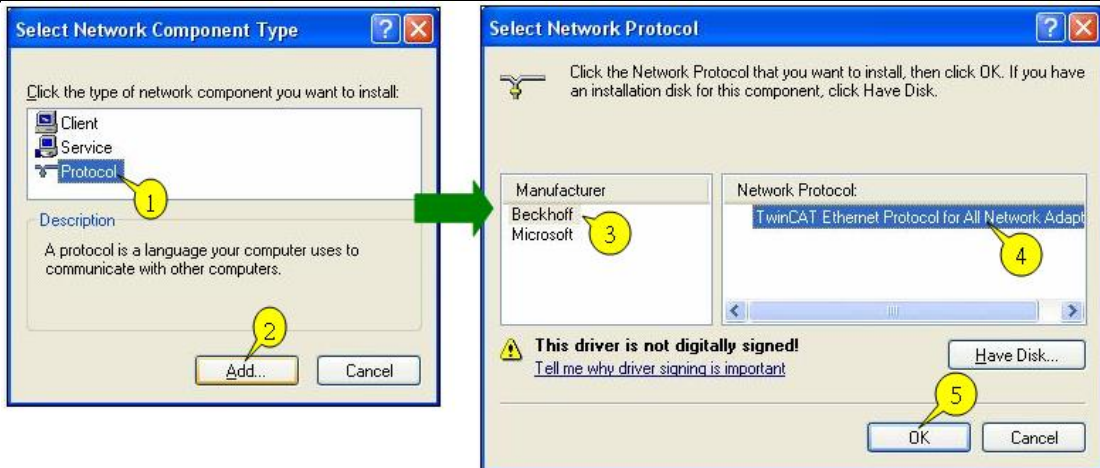
Address: 192.168.1.15

Name: Input "HMI" or any user-defined name.

Step2.

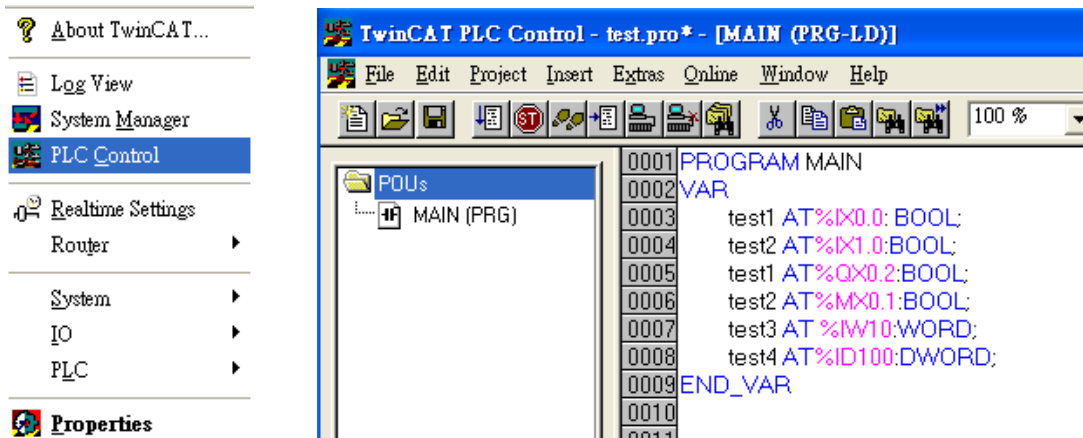
Simulate PLC on PC. 2 Twincat drivers must be installed as follows:





Step3.

The following commands can be utilized for Twincat PLC to output the parameters observed.



PS. Twincat PLC

IX, QX, MX - Must output in BOOL type.

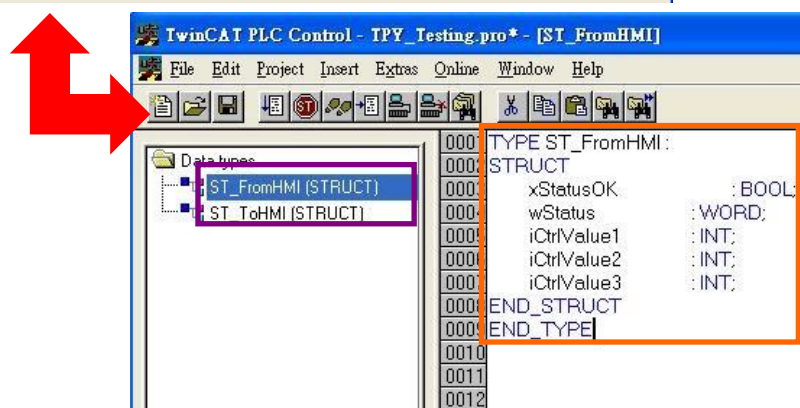
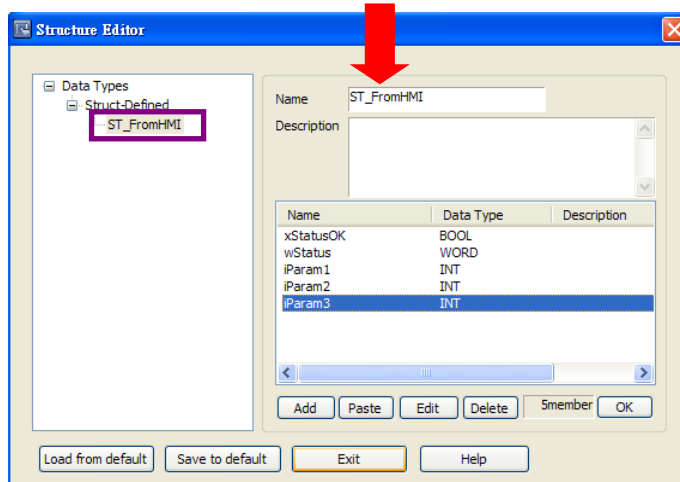
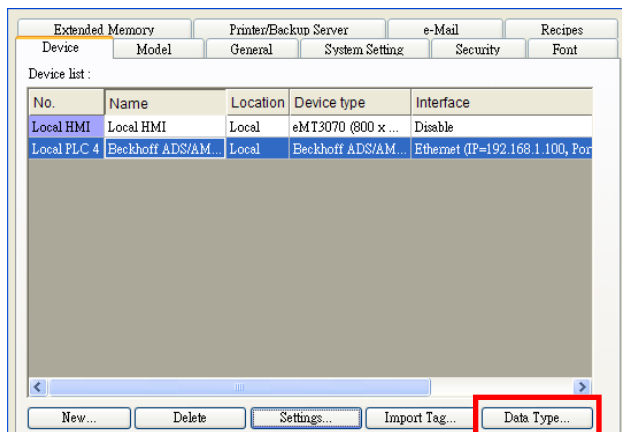
IW, QW, MW - Must output in UINT, WORD, and INT types.

ID, QD, MD - Must output in UDINT, DWORD, and DINT types.

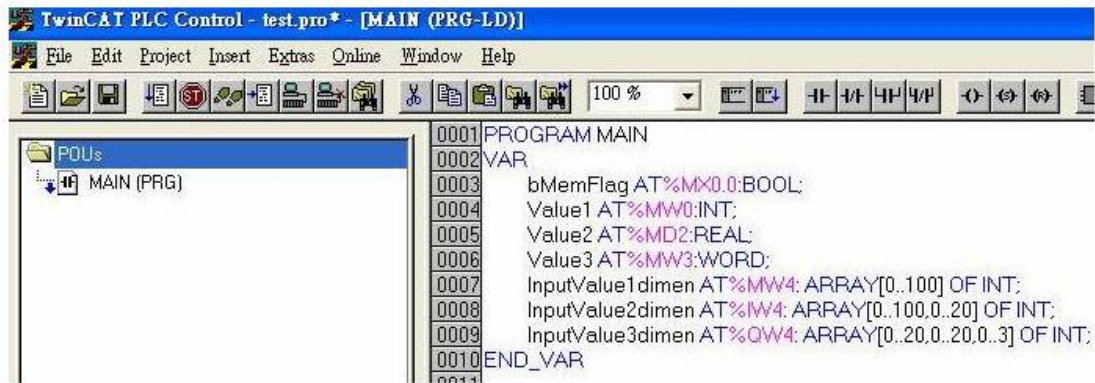
This driver supports variables under STRUCT structure. Click [Data Type] to open Structure Editor and create the same [Name] and [Data Type] as in Twincat PLC Control.

The standard data types include:

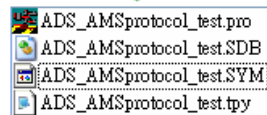
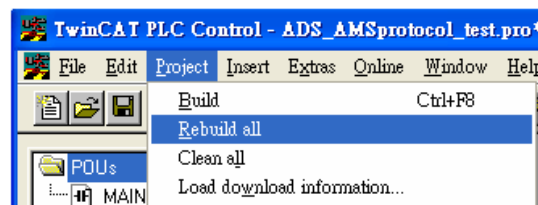
BOOL, WORD, INT, UINT, DINT, UDINT, REAL, DWORD, ARRAY



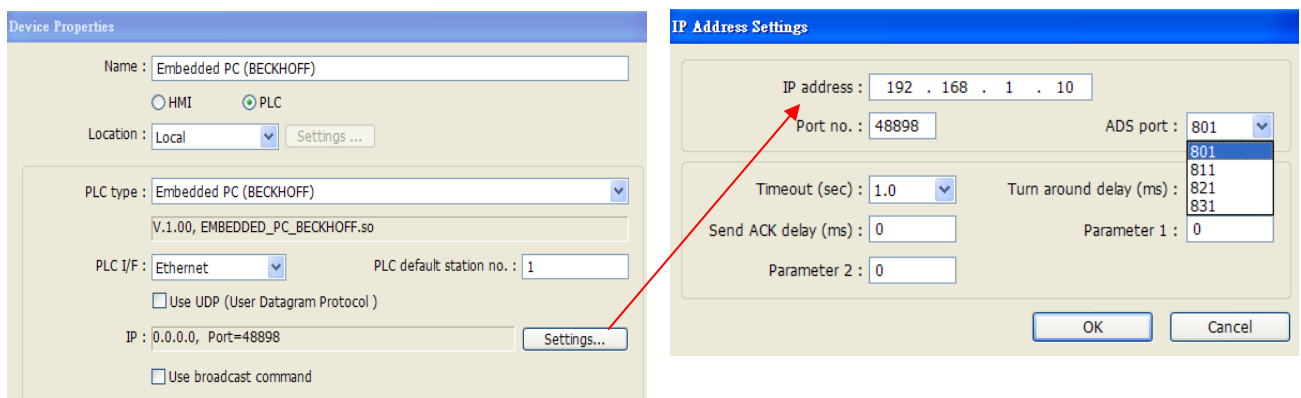
The syntax of Tag in Twincat software is: Tag Name +AT+%+Type, as shown in the following figure.



Project -> Rebuild all



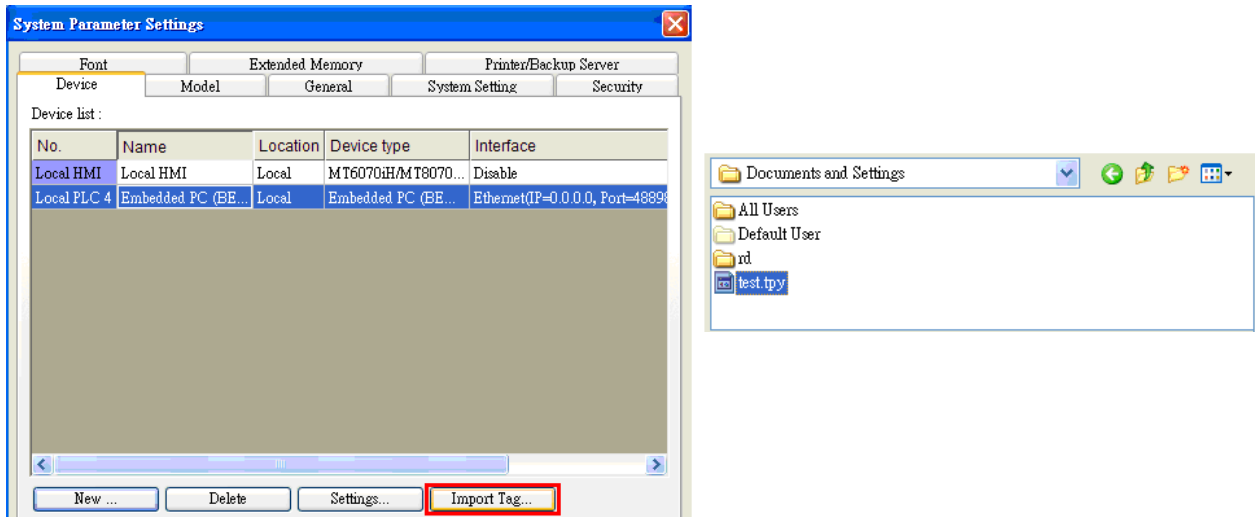
Step4. Set PLC IP in EasyBuilder.



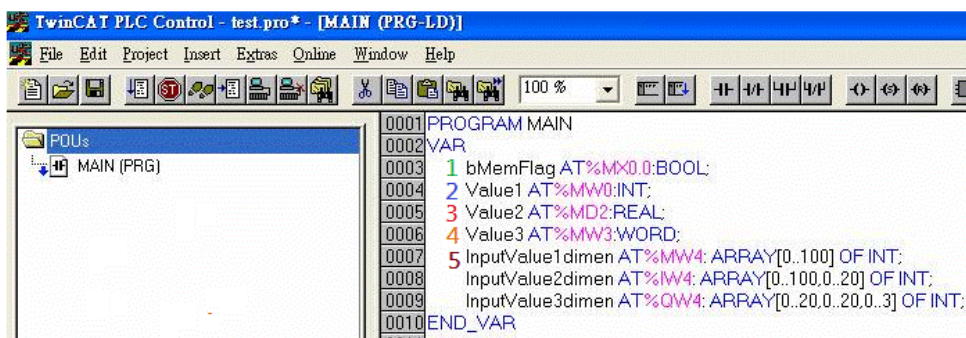
Step5.

Click [Import Tag] button in EasyBuilder to open the TPY file compiled by TwinCAT PLC Control.

Note: When using Beckhoff driver, if the TPY file cannot be imported, try download and install MSXML 4.0 in Microsoft - Download Center.



Import tpy to EasyBuilder, the result is shown in the following figure.

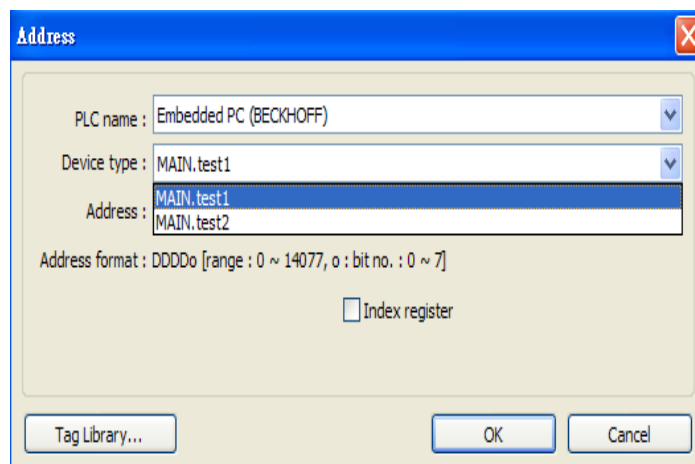
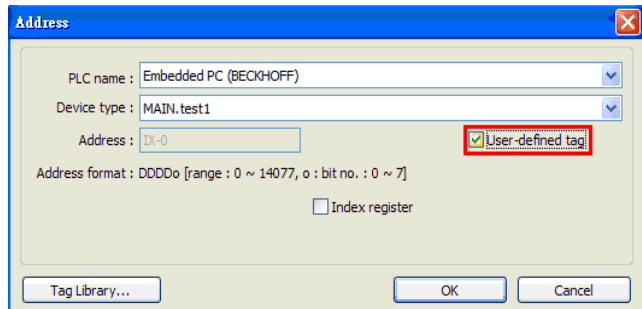
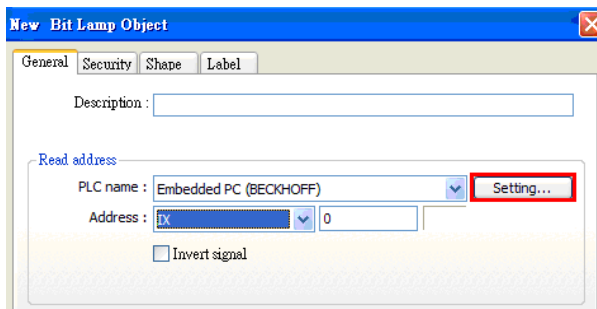
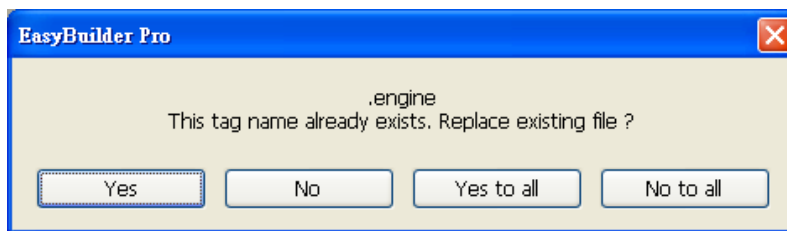
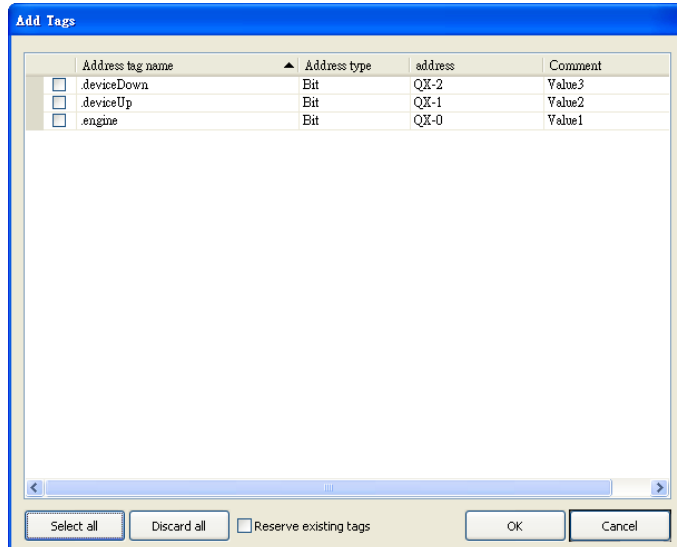


No.	Address tag name	PLC name	Addr...	Address	Read/W...
1	MAIN.bMemFlag	Beckhoff ADS/AMS (...)	Bit	MX-0 1	Read/...
2	MAIN.Value1	Beckhoff ADS/AMS (...)	Word	MW-0 2	Read/...
3	MAIN.Value2	Beckhoff ADS/AMS (...)	Word	MD-2 3	Read/...
4	MAIN.Value3	Beckhoff ADS/AMS (...)	Word	MW-3 4	Read/...
5	MAIN.InputValue1dimen[0]	Beckhoff ADS/AMS (...)	Word	MW-4 5	Read/...
6	MAIN.InputValue1dimen[1]	Beckhoff ADS/AMS (...)	Word	MW-6	Read/...
7	MAIN.InputValue1dimen[2]	Beckhoff ADS/AMS (...)	Word	MW-8	Read/...
8	MAIN.InputValue1dimen[3]	Beckhoff ADS/AMS (...)	Word	MW-10	Read/...
9	MAIN.InputValue1dimen[4]	Beckhoff ADS/AMS (...)	Word	MW-12	Read/...
10	MAIN.InputValue1dimen[5]	Beckhoff ADS/AMS (...)	Word	MW-14	Read/...
11	MAIN.InputValue1dimen[6]	Beckhoff ADS/AMS (...)	Word	MW-16	Read/...
12	MAIN.InputValue1dimen[7]	Beckhoff ADS/AMS (...)	Word	MW-18	Read/...
13	MAIN.InputValue1dimen[8]	Beckhoff ADS/AMS (...)	Word	MW-20	Read/...
14	MAIN.InputValue1dimen[9]	Beckhoff ADS/AMS (...)	Word	MW-22	Read/...
15	MAIN.InputValue1dimen[10]	Beckhoff ADS/AMS (...)	Word	MW-24	Read/...
16	MAIN.InputValue1dimen[11]	Beckhoff ADS/AMS (...)	Word	MW-26	Read/...
17	MAIN.InputValue1dimen[12]	Beckhoff ADS/AMS (...)	Word	MW-28	Read/...
18	MAIN.InputValue1dimen[13]	Beckhoff ADS/AMS (...)	Word	MW-30	Read/...

Step6.

The following dialog box appears for users to select all or part of the data to import. A reminding message is shown when import the same data repeatedly.

*EasyBuilder8000 does not support [Comment] setting.



Step7.

Download the project compiled in EasyBuilder to HMI.

Device address:

Bit/Wor	Device type	Format	Range	Memo
B	IX	DDDDDo	0 ~ 655357	o : Bit no.(0 ~ 7)
B	QX	DDDDDo	0 ~ 655357	o : Bit no.(0 ~ 7)
B	MX	DDDDDo	0 ~ 655357	o : Bit no.(0 ~ 7)
W	IW	DDDDD	0 ~ 65535	
W	QW	DDDDD	0 ~ 65535	
W	MW	DDDDD	0 ~ 65535	
DW	ID	DDDDD	0 ~ 65535	
DW	QD	DDDDD	0 ~ 65535	
DW	MD	DDDDD	0 ~ 65535	

Support Device Type:

Data type	EasyBuilder data format	Memo
Bool	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
String	ASCII input and ASCII display	

Wiring Diagram:

Ethernet cable:

