Chapter 17 AB: Control/CompactLogix, MicroLogix Series (EtherNet/IP)

It is only available for the following service versions or later. Please download it from LSELECTRIC website and re-install it.

Controller name	Service version	Details
Rockwell: EtherNet/IP		
ControlLogix/CompactLogix Series Native		
	XP-Builder Ver2.11	Web site: http://www.lselectric.co.kr/
Rockwell: EtherNet/IP		
MicroLogix Series		

17.1 Available PLC

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PLC Type	CPU Module	Connection mode	Communication mode	Connection Module	Remarks
CompactLogix	1769 CompactLogix	EthorNict/ID	Ethomot	1769-L32E 1769-L35E 1768-ENBT	RSLogix5000
ControlLogix	1768 CompactLogix		Ethernet	1756-EN2T 1756-EN2F 1756-ENBT	(Flogramming software)
MicroLogix	MicroLogix1000	EtherNet/IP	Ethernet	1761-NET-ENI	RSLogix500

Notice

(1) Not available PLC

Connection problem may occur depending on module O/S version.

(2) Programming Tool

- RSLogix5000 Controlling, CompactLogix
 RSLogix500 PLC-5, SLC500, MicroLogix



17.2 Control/CompactLogix Series (EtherNet/IP)

17.2.1 Connection

The device area is tag type under Control/CompactLogix series so a user needs to define tag directly. To apply the tag defined by a used to XP-Builder, L5K or CSV file should be created.

No	Setup Process	How to setup
1 Creating File (1)		Who Active Autobrowse Hetresh Autobrowse Hetresh Autobrowse Linx Gateways, Ethernet AB_ETHIP-1, Ethernet Upload Y2 198, 0, 110, Unrecognized Device, XGT Panel Upload Y1 192, 168, 0, 30, 1769-L32E Ethernet Port, 1769-L32E Ethernet Port Download Backplane, CompactLogix System Update Eimware Works 0, 1769-L32E Ethernet Port Download Works 0, 1769-L32E Ethernet Port Download Backplane, CompactLogix Processor, a Update Eimware Works 0, 00, 1769-L32E Ethernet Port Download Works 0, 01, 1769-L32E Ethernet Port Download Backplane, CompactLogix Processor, a Update Eimware Works 0, 00, ENU, 1761-NET-ENI/D Help AB_ETHIP-2, Ethernet Help
	After executing	Path in Project:
2	Creating File (2)	Save As Save in: Windows (C.) ATTI Documents and Settings Documents and Settings Cert.log My Recent GMUIN 4 Documents GMUIN 4 Desktop RECYCLER My Documents MSDOS.SYS Secul.og NTDETECT.COM System Volume Information ntdr Temp Dagefile.sys WinDOWS V3Ahn.cfg Work XecureSSL My Computer I IsK My Notwork Save Save s type:
	After connecting	g to the PLC, save the created controller tag (Save as file extension L5K)

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Notice

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1) Suggestions

- For setting PLC communication or creating tag, refer to RSLogix5000 manual.
 Program Tag: External access is not allowable through Program local Tag -> in the case of applying to XP, error occurs.
 Bit Offset and continuous reading are available for BOOL Array or Access area only.
- ► CSV File Import: The function will be added afterward.

17.2.2 Communication Setting

Select the menu [Common]-[Project Property] \rightarrow [Device Setting]-[Detailed connection option setting]

Process
1 Project Property Storage Settings Global Script Settings Auxiliary Settings Extended Controller Settings Summary XGT Panel Settings Screen Settings Security Settings Key Window Settings Language KGT Panel Type: VF80-TTA Image: Security Settings Key Window Settings Language VID Panel Type: VF80-TTA Image: Security Settings Key Window Settings Language VID Settings Use 1:N Connection Add Controller Delete Controller Image: Security Settings V1.05 Product: Rockwell EtherNet/IP ControlLogix/CompactLogix Series Native Image: V1.05 Refer to manual Connection Property Detail Settings Refer to manual Refer to manual Connection Property Detail Settings Image: V1.05 Refer to manual Setting Image: VID Settings Image: VID Settings Image: VID Settings Setting Settings Image: VID Settings Image: VID SetIngs Image: VID SetIngs SetIng Image: VID SetIngs Image: VID SetIngs Image: VID SetIngs Image: VID SetIngs SetIng Image: VID SetIngs Image: VID SetI



No	Setup Process	How to setup	
2	Communi cation Setting (2)	EtherNet/IP Settings IP address: IP address: IP address: ISlot No.: O Tag List	
	After inputting	the IP address of PLC EtherNet/IP to be connected, import the created file.	

Notice

- 1) Suggestions
 ► Slot No.: designates the slot No. of CPU. (Not slot No. of communication module)
 ► It can be applied only when Tag list is already declared or imported.

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17.3 MicroLogix Series (EtherNet/IP)

17.3.1 Connection

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No	Setup Process	How to setup
1	Communi cation Setting (1)	Image: Solo Image: Solo Image: Solo Image: Solo
	Atter executing	B KSLogix 500 gram, select the menu [Comms] – [VVNO Active Go Online].
2	Communi cation Setting (2)	File Yew Comms Tools Window Help OFFLINE Node: 100 Driver: AB_ETHIP-1 Forces Disabled Node: 100 Going to Online Programming State Filename : No Matching File Found Searching for Offline Image Filename : No Matching File Found Searching for Offline Image Filename : No Matching File Found Searching for Offline Image Filename : No Matching File Found Searching for Offline Image Filename : No Matching File Found Searching for Offline Image Filename : No Matching File Found Processor Name : MICRO Processor Information Processor Information Processor Name : MICRO Program Checksum : 411 Files Found Wth Matching Online Processor Name / Password Browse
	If you click [Cre	ate New File], connection process is completed.
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Notice

1) Suggestions ► For setting PLC communication, refer to RSLogix500 manual.



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17.3.2 Communication Setting

No	Process	How to setup		
1	Communi cation Setting (1)	Project Property Storage Settings Global Script Settings Auxiliary Settings Extended Controller Settings Summary XGT Panel Settings Screen Settings Security Settings Key Window Settings Language XGT Panel Type:		
	Select the men	u [Common]-[Project Property] \rightarrow [Device Setting]-[Detailed connection option setting]		
2	Communi cation Setting (2)	EtherNet/IP Settings Destination IP: 192 . 168 . 0 . 80 OK Cancel		

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17.3.3 Device Nomenclature

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It indicates the device configuration of MicroLogix under XP-Builder and offset address is set to the number of digits.

Data Type	PLC	XP-Builder
Bit Integer File Bit File Input File Output File	N7:12/11 File Type File Number Element Bit	N00701211 File Type File Number (3 digits) Element (3digits) Bit (2digits)
Word Integer File Bit File Input File Output File	N7:123 File Type File Number Element	N007123 File Type File Number (3digits) Element (3digits)
Bit/Word Timer File Counter File Controller File Floating Point File String File ASCII File	T4:0/EN File Type File Number Element Sub Element	TEN004012 File Type File Number (3digits) Element (3digits) Sub Element



17.4 Available Device

The available devices for XGT Panel are as below.

17.4.1 Control/CompactLogix Series

Туре	Type Code	Description
SINT	C2	Signaled 8 Bit
INT	C3	Signaled 16Bit
DINT	C4	Signaled 32Bit
LINT	C5	Signaled 64Bit
USINT	C6	Non-Signaled 8Bit
UINT	C7	Non-Signaled 16Bit
UDINT	C8	Non-Signaled 32Bit
ULINT	C9	Non-Signaled 64Bit
REAL	CA	32 Bit real number
LREAL	СВ	64 Bit real number
STRING	D0	Character string (1 byte/character)
BYTE	D1	8 Bit String
WORD	D2	16 Bit String
DWORD	D3	32 Bit String
LWORD	D4	64 Bit String
BOOL	C1	Bit

Notice

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(1) Suggestions

► Available Tag for Bit Address: Only the SINT, INT, DINT are available for Bit Address of the Tag that is not BOOL type.

▶ When applying SINT type to 16 bit under XP-Builder, only sub-byte is displayed, wiring is allowed.

► Only the tag declared through Array is available for continuous reading(data list, character string, recipe, device to be logged)

- Reading continuous bit is available within internal bit size such as BOOL Array type or DINT. (DINT tag1.0 ~ tag1.31)
- ▶ LINT type is displayed to the lower 32 bit (The maximum device size of XP is 32 bit)
- ▶ In case of STRING type, "Multi Copy" function does not work properly.

17.4.2 MicroLogix Series

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Device		Bit Address		Word Address		Remarks
Input File		10:0/00 ~ 163:255/15		10:0 ~ 163:255		-
Output File		O0:0/00 ~ O63:255/15		O0:0~O63:255		-
Status File		S2:0/0 ~ S2:163/15	;	S2:0 ~ S2:163		-
Pipon / Filo		B3:0/0 ~ B3:255/15	;	B:3:0 ~ B3:255		
Dinary File		B9:0/0 ~ B255:255/1	5	B9:0 ~ B255:255	-	-
	Enable		EN		-	-
	Timing	TA:0/~, TA:255/	Π	T4:0 ~ T4:255	-	-
Timer File	Done	$T4.0/ \sim T4.200/$	DN	T4.0. ~ T4.200.	-	-
	Preset	19.0/~1200.200	-	19.0. ~ 1200.200.	PRE	-
	Accumulated		-		ACC	-
	Up Enable		CU		-	-
	Down Enable		CD		-	-
	Done		DN		-	-
Counter	Overflow	C5:0/ ~ C5:255/	OV	C5:0. ~ C5:255.	-	-
File	Underflow	C9:0/ ~ C255:255/	UN	C9:0. ~ C255:255.	-	-
	Update Acc		UA		-	-
	Preset		-		PRE	-
	Accumulated		-		ACC	-
	Enable		EN		-	-
	Enable Unload		EU		-	-
	Done		DN		-	-
	Empty		EM		-	-
Control	Error	6:0/ ~ R6:255/	ER	R6:0. ~ R6:255.	-	-
File	Unload	R9:0/ ~ R255:255/	UL	R9:0. ~ R255:255.	-	-
	Inhibit Comp.		IN		-	-
	Found		FD		-	-
	Length		-		LEN	-
	Position		-		POS	-
Integer File		N7:0/0 ~ N7:255/15	;	N7:0 ~ N7:255		
Integer File		N9:0/0 ~ N255:255/1	5	N9:0 ~ N255:255		-
Electing Point File				F8:0 ~ F8:255		32 Bit
		-		F9:0 ~ F255:255		
String File		-		ST9:0 ~ ST255:255		-
LONG File		-		L9:0 ~ L255:255		32 Bit

Notice

(1) Suggestion

- ► In the case of applying unavailable address, Error occurs: 0x10
- ► F, ST, L files can not be added under MicroLogix1000series (can be added under MicroLogix1200, MicroLogix1500 series).

17.5 EDS File

An EDS (Electric Data Sheet) file is required to register XGT Panel as an EtherNet / IP device in the network. The location of the EDS file is in the following path under the folder where XP-Builder is installed.

17.5.1 EDS file location



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17.5.2 How to register for EDS

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Here is how to register EDS file on your PC.

No	Setup Proces) SS	How to setup						
	Manual	ly reg	ister EDS files in the EDS Hardware Installation Tool						
	You can manually register EDS files of hardware devices by launching the EDS Hardware Installation Tool.								
	Before y	Before you begin							
	• Y vi	'ou mus isit Rock	t have a valid and complete EDS file of the hardware device. To search and download the EDS file of a specific hardware device, swell Automation <u>Network Resources</u> .						
	• If o	f an icon r more l	i file (*.ico) exists for the hardware device, save it with the same name as the EDS file in the same directory. You can save one EDS files (and the related icon files) in one directory.						
	To regist	ter EDS	iles of hardware devices:						
	1. Li It	 Launch the EDS Hardware Installation Tool from Start > All Programs > Rockwell Software > RSLinx > Tools > EDS Hardware Installation Tool. 							
	2. O b)n the R ox oper	tockwell Automation - Hardware Installation Tool dialog box, click Add. The Rockwell Automation's EDS Wizard dialog						
1	3. 0)n the F	Registration screen, do one of the following, and then click Next:						
	•	Selec	ct Register a single file to register one EDS file at a time, and click Browse to select the EDS file						
	· ·	Seleo the l	ct Register a directory of EDS files to register two or more EDS files at a time, and click Browse to select the directory of EDS files						
	4. 0)n the E	DS File Installation Test Results screen, review the hardware device list, and click Next.						
	5. 0)n the C	Change Graphic Image screen, review the icon(s) of the hardware device(s), and click Next.						
	N	lote:	The Rockwell Automation's EDS Wizard assigns a default icon to each hardware device. You can specify another icon for the hardware device(s) by selecting the hardware device and clicking the Change icon button.						
	6. 0	n the F	inal Task Summary screen, review the hardware device list and click Next.						
	7. V	Vhen th	e registration is complete, click Finish to return to the Rockwell Automation - Hardware Installation Tool dialog box.						
	8. C	lick Exit							
			<the "rslinx="" classic="" from="" guideline="" help"=""></the>						



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No	Setup Process	How to setup
		Rockwell Automation - Hardware Installation Tool 24.0.12.0 This tool allows you to change the hardware description information currently installed on your computer. Add Launch the EDS Wizard and add selected hardware description files only. Remove Launch the EDS Wizard and remove selected hardware description files only. Emove Launch the EDS Wizard and remove selected hardware description files only.
2		Recover Automation's EDS Wizard Image: Comparison of EDS files Image: Comparison of EDS files
		다음(<u>N</u>) > 취소

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h.

Rockwell Automation's EDS Wizard
EDS File Installation Test Results This test evaluates each EDS file for errors in the EDS file. This test does not guarantee EDS file validity.
□ Installation Test Results L
View file
< 뒤로(B) [[[语(N])>] 취소
Packwall Automation's EDC Mizard
You can change the graphic image that is associated with a device,
Change icon
< 見え(B) [[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[[
Kockwell Automation's EDS Wizard
Final Task Summary This is a review of the task you want to complete,
You would like to register the following device.

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Follow the instructions in the "EDS Hardware Installation Tool" to register the EDS file.

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