ICP DAS

EIP-2000 FAQ

FAQ Version 1.0

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Q1 : How to connect to the Allen-Bradley PLC?

A1 : It is tested and confirmed that the EIP-2000 can be connected to the Allen-Bradley[™] ControlLogix Logix 5563 through the 1756-ENBT ControlLogix EtherNet/IP Module successfully. The configuration software is RSLogix 5000. Please follow the steps below:

1. Open RSLogix 5000 and create a new project.



Figure1-1. Create a new project.

2. Select the PLC type and give the project a name.

New Controlle	r		X
Vendor:	Allen-Bradley		
<u>T</u> ype:	1769-L32E CompactLogix5332E Controller	-	ОК
Re <u>v</u> ision:	17 💌		Cancel
			Help
Na <u>m</u> e:	EIP-2000		
Description:		~	
		~	
<u>C</u> hassis Type	(none)	*	
Sl <u>o</u> t	0 💼 Safety Partner Slot.		
Cr <u>e</u> ate In:	C:\RSLogix 5000\Projects\EIP-2000	_	Browse

Figure1-2. Set the PLC type and project name.

3. Create a new module in the "Ethernet" item.



Figure 1-3. Create a new module.

4. Select the "ETHERNET-MODULE" below "Communications" in the Select Module window.



Figure1-4. Select "ETHERNET-MODULE".

5. Configure the new module parameters. The I/O length of new module must be the same with the length of EIP-2000 I/O data. The data assembly please refer to Table 1-1 and the instance ID please refer to Table 1-2.

Type: Vendor	ETHERNET-MODULE Gene Allen-Bradleu	eric Ethernet Module		EIP-20	55
Parent:	LocalENB				
Name:	EIP-2000	Connection P	arameters Assembly	,	_
Description:			101	34	• (8-bit)
		Output:	102	2	• (8-bit)
Comm <u>F</u> orma - Address / H	t: Data - SINT fost Name		on: 100	0	• (8-bit)
• IP Add	ess: 192 - 168 - 255 -	. 1 <u>Status Inpul</u>	u		
C Host N	ame:	Status Outp	et.		

Figure1-5. The settings of EIP-2055

Module	Data Assembly	Byte	Description							
		count								
			1 st Byte: DI status							
EIP-2055	Input Assembly	34	2 nd Byte: DO status read back							
			3 rd ~34 th Byte: DI counters							
	Output	2	1 st Byte: DO status							
	Assembly	2	2 nd Byte: to set DI counters zero							
			1 st Byte: DI status							
	Input Assembly	26	2 nd Byte: DO status read back							
EIP-2060			3 rd ~26 th Byte: DI counters							
	Output	2	1 st Byte: DO status							
	Assembly	2	2 nd Byte: to set DI counters zero							
	Input Accombly	2	1 st Byte: DO status read back (DO0~DO7).							
EID 2042	input Assembly	2	2 nd Byte: DO status read back (DO8~DO15).							
CIF-2042	Output	2	1 st Byte: DO status (DO0~DO7).							
	Assembly	۷	2 nd Byte: DO status (DO8~DO15).							
EIP-2051	Input Assembly	66	1 st Byte: DI status(DI0~DI7).							

Table 1-1. Data Assembly of EIP-2000

			2 nd Byte: DI status(DI8~DI15).						
			3 rd ~65 th Byte: DI counters.						
	Output	0	1 st Byte: to set DI counters zero (DI0~DI7).						
	Assembly	Z	2 nd Byte: to set DI counters zero (DI8~DI15).						
			1 st ~ 16 th Byte: AI status(AI0~7) for DIFF. or S.E.						
	Input Assembly	31	mode.						
_	input Assembly	51	17 nd ~ 31 th Byte: AI status(AI8~15) for S.E. mode						
			only.						
			1 st Byte: Set value to the module.						
EIP-2017		22	2 nd ~ 17 th Byte: Set type code to AI0~AI15.						
	Output Assembly		18 th Byte: Filter selection of AI						
			19 th Byte: Channel mode selection DIFF. or S.E.						
			20 th Byte: AI representation						
			21 th Byte: AI channel selection (AI0 ~ AI7)						
			22 th Byte: AI channel selection (AI8 ~ AI15)						
		20	1 st ~ 16 th Byte: AI status(AI0~AI7).						
	Input Assembly		17 nd ~ 18 th Byte: The Brocken wire status.						
			19 rd ~ 20 th Byte: CJC status.						
			1 st Byte: Set value to the module.						
			2 nd ~ 7 th Byte: Set type code to Ch0~Ch7.						
EID-2010			8 th Byte: Filter selection of AI						
LIF-2019	Quitout		9 th Byte: Wire break detector						
	Assombly	21	10 th Byte: AI representation						
	Assembly		11 th Byte: Select AI channel to be short						
			12 th Byte: CJC switch						
			13 th Byte: CJC increment						
			14 th ~ 21 th Byte:CJC Offset						

Table 1-2. Instance ID table of EIP-2000

Implicit Message Information of EIP-2000										
Instance	Instance ID	Data length								
Input(T->O)	65 _{hex} (101)	Depends on modules.								
		e.g.34(EIP-2055)								
Out(O->T)	66 _{hex} (102)	Depends on modules.								
		e.g.2(EIP-2055)								
Configuration	64 _{hex} (100)									

Q2: How to use EDS file of EIP-2000 series?

A2 : EDS file is a convenient way to make the connection between EtherNet/IP Scanner and Adapter. All the EIP-2000 series EDS file can be download on our website:

http://www.icpdas.com/products/Remote_IO/can_bus/EtherNet_IP_series.htm

We provide the connection steps of Hilscher CIFX 50-RE with EIP-2055 EDS file. The configuration software is SYNCON.net. Please refer to the steps below :

1. Open SYNCON.net and create a new project.



Figure 2-1 Create a new project.

 To find the "CIFX RE/EIM" item below "EtherNet/IP -> Master", and drag the "CIFX RE/EIM" to the busline.



Figure2-2 Select CIFX RE/EIM

3. Click "Network" and select "Import Device Descriptions".

<u>F</u> ile	<u>V</u> iew	<u>D</u> evice	Neţ	vork E <u>x</u> tras <u>H</u> elp					
D	2 🔒	2	랔	<u>A</u> dd Busline					
netProje	ect		르	<u>D</u> elete Last Busline					
	Project:	Untitled	£	Start Project <u>D</u> ebug Mode					
	涛 CIF	X_RE_E	STOP	Stop Project <u>D</u> ebug Mode					
			3	De <u>v</u> ice Catalog					
				Import Device Descriptions					
				Print Project Data					

Figure2-3 Import Device Descriptions

4. To select the EDS file you download on our website of CD.



Figure2-4 Select EDS file

5. To find the "EIP-2055 EDS V1.1" item below "EtherNet/IP -> Slave", and drag the "EIP-2055 EDS V1.1" to the busline.



6. To configure CIFX RE/EIM and EIP-2055 in the same network area.



Figure2-6 Network Settings

7. Right click the CIFX_RE/EIM and click "Download".



Figure 2-7 Download configurations.

8. Right click the CIFX_RE/EIM again and click "Start Communication".

CIEV P	C. CINARCICO COM (CINAR) - 4	92 168 22 2225(#1)							
	<u>C</u> onnect <u>D</u> isconnect	:,100,22,222>(#1)							
1	D <u>o</u> wnload <u>U</u> pload								
	Cu <u>t</u> Copy <u>P</u> aste								
	<u>N</u> etwork Scan	ENIP Generic Adapter j< 192, 168, 22, 223>							
	Configuration Measured Value Simulation Diagnostic	_							
	Additional Functions	Offline Compare]						
	<u>D</u> elete	Online Compare Setpoint Value							
	Symbolic Name	Service 🔸	Start Communication						
		License	Stop Communication						
		Export Print							

Figure 2-8 Start Communication

9. The communication is complete. You can observe the I/O status on the Diagnostic window.

kan an a	CIFX_RE_E	IMICI	FX RE	ÆIM]	<192.	168.2	2.222	⊳ (∉1)								
IO Device: CIF Vendor: Hils	FX RE/EIM scher GmbH							Devid Vend	e ID: or ID:		Ox(Ox(0102 011B				FDT
Navigation Area 📃																
🔄 Diagnosis General Diagnosis Master Diagnosis	<u>⊂</u> olumns: Intput data		16		•						Di	isplay <u>r</u>	<u>n</u> ode:	Hex	adecim	el 💌
Firmware Diagnosis	Offset:	0000			<u>G</u> ο											
RX_SYSTEM DPM_COM0_SMBX DPM_COM0_RMBX EIM_CL1_TASK	0000) 0010 00 0020 00	0 01 00 00 00	02 00 00	03 00 00	04 00 00	05 00 00	06 00 00	07 00 00	08 00 00	09 00 00	00 00 00	0B 00 00	0C 00 00	0D 00 00	0E 00 00	0F 00 00
EIM_ENCAP_TASK EIM_OBJECT_TASK EIM_TCPUDP EIM_AP_TASK EIS_DLR_TASK																
☐ Tools Packet Monitor → 10 Monitor	Output dat	a														
	Off <u>s</u> et:	0000			G <u>o</u>											
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	0020 00	00														
< <u> </u>															Updat	
							L	OK		C	ancel		Apply	/	н	elp
😍 Connected 🛛 🧕 Device																//

Figure2-9 I/O status observation