Ethernet module with built-in webserver

RIEV TECH L+ H II IZ IJ I4 I5 I6 I7 I8 INFUT 8xOC IL-04(0-504) Log on Program Extend admin Name •••••| English Password ۲ Language Keep me logged on Login RIEV/TECH x-Messe ELC-12DC-DA-R-N OUTPUT 4xRelay 10A

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1.Ethernet module with built-in webserver

1.1 How to separate the new version and old version?

New functions for Ethernet PLC from Rievtech is released. Included CPU models: ELC-12DC-DA-R-N EXM-12DC-DA-R-N(-4G)

Method A:

Label on the bottom of the plastic house of the CPU. The new version marked with "V2" following the model.



Method B:

Get the version number by the software menu Tools-> transfer-> Get PLC version



If the hardware version is 1, that means it is new version.

Difference between 2 versions:

Items	New version	Old version
Network parameters	Program software(xlogicsoft	DeviceManager software
configuration software	or eSmsconfig)	

	The menu is Transfer-> Web	
	server config	
TCP Server/client	Work as TCP server or clients	Only one mode can be applied
	at the same time.	(tcp server or
		Tcp client)
TCP Connections.	Max separate tcp	Works as Tcp client: Can
	connections(Tcp server+Tcp	connect 1 Tcp server.
	clients) :8	Works as TCP
Built-in Web	Yes	No.
server(Control&Software)		

1.2 How to Configure the Network parameters through program software?

For ELC-12-N or ELC-22-N, you can use xlogicsoft to configure the Ethernet network parameters through the menu Tools-> transfer-> web server config

	-Local							
	IP Address	92 . 168 . 0 . 146	MAC Add	ress 70-B3-D5	-8C-10-0B			
	Subnet Mask 2	55 . 255 . 255 . 0	Protocol	MODBUS	-TCP RTU 🔻			
	Default Gateway	92 . 168 . 0 . 1		Enable	Web Server			
	Web Port 80							
	TCP Server				מטר	P Server		
12	Port 6400) Keep Alive	5	S 🔽 Enable	Po	ert 8	002	🔽 Enable
	Max Clients 2	▼ Timeout	0	S	Tin	neout 0		S
	- Target							1
		IP Address	Port	Keep Alive	Туре	Timeou	t	Write
	I. Enable 1	92 . 168 . 0 . 227	8003	5 S	TCP	• 0	S	
	2. Enable	92 . 168 . 0 . 226	8004	5 S	TCP	• 0	S	Kead
	3. Enable	92 . 168 . 0 . 225	8005	5 S	TCP	• 0	S	Confirm & Reset
	4. Enable	92 . 168 . 0 . 224	8006	5 S	TCP	• 0	S	
	5. Enable	92 . 168 . 0 . 223	8007	5 S	TCP	▼ 0	S	
		92 . 168 . 0 . 222	8008	5 S	TCP	- 0	s	
	6. Enable				100000	1 10		
	Image: Constraint of the second se	92 . 168 . 0 . 227	8009	5 S	TCP _	<u>~</u>] 0	3	

1. Local CPU Network settings

IP Address

Subnet Mask Default Gateway Web Port MAC Address Protocol The option: Enable web Server

2. TCP server

Port : This port is for TCP server. Keep alive: (This settings is no used) Max Clients:

Total TCP connection numbers is 8, so you can set all the connections for clients, if you set 8, then the PLC cannot work as TCP server anymore.

Timeout: 0s means, it will not be timeout, the server will always on-line even if there is no data transferred. If the value is not 0, that means if there is no data transmission, the connection will restart.

3. Target

If you select max 0 clients in the 2 item(tcp server), then all the 8 target server IP address and port number will be available.

You need tick up the "enable" option and input the remote server ip address and port number.

Keep alive: if there is no data transmission, the CPU will send a package without data to the server to make sure it still is on-line.

Type: TCP or UDP optional

Timeout: 0s means, it will not be timeout, the connection will always be kept even if there is no data transferred. If the value is not 0, that means if there is no data transmission when the timeout, the connection will restart.

4. UDP server

The CPU can work under UDP server as well, you can tickup the enable option.

After you finished the parameters configuration, you need download the settings into the CPU by serial connection or Ethernet Connection like download the program. And at last you need click the "Confirm and Reset" button, then the CPU will restart and the new settings will be available. Detailed method:

A. Create the connection between PC and the CPU by serial cable(RS232/USB cable) or Ethernet(You can check the CPU IP address and server port number on the LCD menu).

Connect the CPU with PC through the USB cable: Click the open com port option, and select the COM port of the USB cable, here the port number is COM3, then click the button "connect to PLC".

λ	
1	
Communication Co	onfiguration
Modbus Type:	MODBUS RTU 💌 PLC Address 1
	- 85232/USB
	Search 0%
	Bps 9600 •
	RS232 Port COW3 - Parity No Parity -
	Ethernet
	Local port
	e ri as berver to with if address (vith same
	Search
	 Jo as client
C Ethernet	Target xLogic IP: 192 168 0 146

If you has no USB cable there, you can use the Ethernet connection.

First check the PLC address with LCD menu

Get the IP address from:



Get the TCP server port from:

>Network -> IP Config.. -> TCP Server. -> TCP Server Port (6400). Then you can use the Ethernet option(PC as Client) to connect with CPU. IP:192.168.0.245 Port:8008

Modbus Type:	MODBUS TCP 👤	PLC Address 1
	Search	0%
RS232/USB		Bps 9600 -
	RS232 Port	COM3 - Parity No Parity -
	Ethernet	
	Target port	8008
	🧖 PC as Server	€ with IP address € with Name
		*
	Dearch	
Ethernet	PC as Client	
	Target xLogic TP	192 . 168 . 0 . 245

After the connection is created, you can click get the clock icon to confirm the communication is ok.



🔰 xLogic S	oft - XLogic2	-		AND ANY PARTY.	-		
File Edit	Tools SMS View Help						
│ 🏠 🔸 🛛 🖬 Workspace	Configuration Disconnect Line	+□ →□		변 화 환 🔛 🕨 🕨 🦉	E 1		
G III	Transfer •		PC-:	>PLC	Ctrl+W		
k λ 6 SF Λ A A A A A A	Simulation F3 Select Hardware Edit Cover HMI Language Selection User Manager Set Monit Config	PLC->PC Ctrl+R Get PLC Version Get SMS Version Set Clock Get Clock Get Clock Set Communication Type Set PLC's Address Get PLC's Address Get PLC's Scan Time Get PLC's ID					
	Allow entity's output pin empty Select Extended module for simulation Reference report						
	Long datas Math Analog Math errc Analog filter Max/Min Modbus_1x Mod		Sum Set Set Set Set Set Set Set	Inner time/Winter time Extended module extension address PLC AC/DC AQ Parameter Network module Parameter Modbus Config PLC to FBD Mode o Server Config			

Now you can configure the Network parameter by the menu Tools-> transfer->Web server Config

Local		12123-2123					-		
IP Address	192 . 169 . 0 . 201	MAC Ad	ldress						
Subnet Mask	255 . 255 . 255 . 0	Protoc	101	AODBUS-	TCP RTU	-			
Default Gateway	192 . 169 . 0 . 1		l.	Enable	Web Serve	er.			
Web Port	8000								
TCP Server						UDP Se	rver		
Port	8001 Keep Alive 3		s r	Enable		Port	8002	2	Enable
Max Clients	D Timeout	67 -	S			Timeou	t 0		S
Target	Second Second		3.35	2.534		8	2.20		
	IP Address	Port	Keep	Alive	Ty	ype	Timeout		Write
🔲 1. Enable	192 . 169 . 0 . 202	8001	3	S	TCP	~	0	S	
🔲 2. Enable	192 . 169 . 0 . 203	8002	3	S	TCP	Ŧ	0	S	Read
	192 . 169 . 0 . 204	8003	3	s	TCP	Ŧ	0	s	Canford & Ra
3. Enable	192 169 0 205	8003	3	s	TCP	~	0	s	Commit & Re
 3. Enable 4. Enable 			3	S	TCP	-	0	S	
 3. Enable 4. Enable 5. Enable 	192 . 169 . 0 . 206	8004	1-				0	s	
 3. Enable 4. Enable 5. Enable 6. Enable 	192 169 0 205 192 169 0 206 192 169 0 207	8004 8005	3	S	TCP	~	1		
 3. Enable 4. Enable 5. Enable 6. Enable 7. Enable 	192 169 0 206 192 169 0 207 192 169 0 208	8004 8005 8006	3	s s	TCP TCP	* *	0	s	

You can read the parameters from the PLC.

Docal	192 . 168 . 0 . 146	MACA	ddress	70-B3-D5-	8C-10-0	В	r.		
Subnet Mask	255 . 255 . 255 . 0	Proto	col	MODBUS-	TCP RT	u 🚽			
Default Gateway	192 . 168 . 0 . 1	-		Enable V	Web Serv	er			
Web Port	80								
TCP Server					_	- UDP Ser	ver		
Port	6400 Keep Alive	5	S	🔽 Enable		Port	800	2	Enable
Max Clients	2 Timeout	0	S			Timeout	0		S
Target	IP Address	Port	Kee	ep Alive	r	ype	Timeout		Write
🔽 1. Enable	192 . 168 . 0 . 227	8003	5	S	TCP	<u> </u>	0	s	[
2. Enable	192 . 168 . 0 . 226	8004	5	S	TCP	•	0	s	Read
✓ 3. Enable	192 . 168 . 0 . 225	8005	5	S	TCP	•	0	S	Confirm & Res
🗸 4. Enable	192 . 168 . 0 . 224	8006	5	S	TCP	•	0	S	
🔽 5. Enable	192 . 168 . 0 . 223	8007	5	S	TCP	•	0	s	
🗸 6. Enable	192 . 168 . 0 . 222	8008	5	S	TCP	•	0	s	
🗖 7. Enable	192 . 168 . 0 . 227	8009	5	S	TCP		0	S	
		-	-		-				

1.3 How to view and configure the Ethernet parameters through LCD panel?

You can view and modify the network parameter through the LCD menu.



Local										
IP Address	192 . 168	. 0 . 201	MAC A	ddress	70-B3-D5-	8C-10-0	В			
Subnet Mask	255 . 255	. 255 . 0	Proto	col	MODBUS-	TCP RT	U 🔻			
Default Gateway	192 . 168	. 0 . 1	1		🔽 Enable	Web Serv	er			
Web Port	80		I							
TCP Server						1		erver		
Port [6400	Keep Alive	5	S	🔽 Enable		Port	8002	2	Enable
Max Clients	4 💽	Timeout	0	S			Timeo	st 0		S
Target							1			1
	IP Add	iress	Port	Kee	p Alive	T	lype	Timeout		Write
🔽 1. Enable	192 . 168	. 0 . 105	8003	5	S	TCP	•	0	s	(#
🔽 2. Enable	192 . 168	. 0 . 105	8004	5	S	TCP	•	0	s	Read
✓ 3. Enable	192 . 168	. 0 . 105	8005	5	S	TCP	•	0	S	Confirm & Rese
🗸 4. Enable	192 . 168	. 0 . 105	8006	5	S	TCP	•	0	s	
🗖 S. Enable	0.0	. 0 . 0	0	5	S	TCP	~	0	S	
🗖 6. Enable	0.0	. 0 . 0	0	5	S	TCP	~	0	S	
🗖 7. Enable	0.0	. 0 . 0	0	5	S	TCP	-	0	S	
				-		_		-	- 2	

You can modify the Local IP address, subnet mask, gateway from the LCD menu :



Web server port also can be modified and the web server also can be disabled or enabled:



You can view the MAC address from here, but it cannot be modified:

PLC Version CPU ID >MAC Address	ok	MAC Address: 70-B3-D5-8C-10 -0B
---------------------------------------	----	---------------------------------------

TCP server port settings and allowed tcp clients settings:

>TCP Server UDP Server Target Factory	ok	TCP Server Port:06400 Max Clients:4	
--	----	---	--

View and modify the UDP server from here:

TCP Server		UDP Server
>UDP Server	ok	Port:08002
Factory.		

Set the Target server IP address and port number:



You can make the IP settings to factory by the menu

TCP Server UDP Server Target >Factory	ok	>RST IP Config RST Log on
--	----	------------------------------

"RST IP Config", the IP address will return to 192.168.0.201, and the tcp server port number will be 6400. "RST Log on" the webserver log on name and password will be back to "admin".

Modify the IP address:

-

Press ok to enter into the modification mode, the cursor will flash at the address position. The you can move the cursor by Left or Right button, and change the value by pressing UP/DOWN button. At last confirm with ok. Local IP Address 192.168.000.201

ok

Local IP Address 92.168.000.201

After you confirm the parameters with the ok button, the settings are not enabled , only after the CPU restart, the settings will be enabled? So when you leave the settings the LCD will show you:

Apply Net Param. &Restart? >Yes No

You need select "Yes" and press ok, the the CPU will restart, now the new settings will be available.

1.4 How to create the communication between the CPU and PC through Ethernet?

To communicate with the CPU, you can use the TCP/IP protocol. The CPU can work as TCP server and TCP client at the same time, and also it can work as UDP server or UDP Client as well. Notes:

1. The Ethernet can work under TCP and UDP mode, you can create the connection between our Ethernet CPUs, and also you can use our Ethernet CPU to create the connection with other factory Ethernet device based on TCP or UDP.

2. The communication protocol through Ethernet is MODBUS TCP or MODBUS RTU of our PLC, so if you want to communicate with other factory device through Ethernet, you need make sure the device also supports MODBUS TCP. Or MODBUS RTU.

3. Our Ethernet PLC(built-in webserver version) can work either as master or slave.

1.4.1 CPU works as TCP server

The maximum TCP connection is 8, so one CPU allow maximum 8 TCP clients to connect with the CPU at the same time. And each TCP connection is totally separately.

For example:



All the 8 clients can monitor and control the CPU at the same time.

Com with xlogicsoft(PC is client)

First check the PLC IP address with LCD menu Get the IP address from: >Network -> IP Config.. -> Local IP ADDR.. -> Local IP (192.168.0.146) >Local IP Addr.. Local IP Address Subnet Mask ... 192.168.000.146 ok Gateway ... Web Server.. >TCP Server.. **TCP Server** ok Port:06400 UDP Server.. Max Clients:4 Target.. Factory ..

Communication Co	nfiguration	
Modbus Type: 1	NODBUS TCP 💌	PLC Address 1
C RS232/USB	RS232/USB Search RS232 Port Ethernet Target port	0% Bps 9600
6 Ethernet	© PC as Server Search © PC as Client Target xLogic IP:	© with IP address C with Name

After the connection is established, you can download/upload the program and monitor the program like the usb cable connection.



Com with easySCADA(PC is client)

You need set the correct IP address and com port in the device configure of the easySCADA.

🙀 easyMonitor - [SystemStart]	
Project Edit Variables Drawlib(L) Layout Database	View Help
]┗ ☞ 🖬 🔳 👗 ☜ 🛍 ≏ ≏ 🛃 ► 🗞 관] 🕈 🧍	・ 🔲 🗖 🛄 📾 🛤 珥 韓 🗟 🔕
🕂 🕂 Basic 🦉 Bitmap 🖾 Curve 🖾 Meter 🐇 Pipe 🖉 R	m
/ G ⌒ ◇ ▲ ○ ○ ⊙ ○ △ ▷ 📄 ## 🕺 🔗 🛙] π
* X	
111.ezpj	
III.ezpj Windows Image: SystemStart Image: View1 Image: View2 Image: CurveView Image: Device Image: NET:PORT[192.168.0.146][6400]:Addr[1] Image: Script	I1 [B002][Off-Delay][1] Device define Comm Scan data Auto upload Password w use device Name: NET:FORT[192.168.0.146][6400]:Addr[1] Name: NET:FORT[192.168.0.146][6400]:Addr[1] Model: ELC-12 Series Inc1200=DA-R=N F Ext. Ext.1 F Comm type Brs: 9600 F K5485 F Ethernet/GFRS/WIFI @ IP addres 192.168.0.146 Domain name Comm speed @ The fastest speed
	The specified speed 1 Second 🔽
	OK Cancel Help

Our xLogicApp(Smart phone is tcp client) Interface configure

IP 192.168.0.146:6400	i	xLogic App
←	nterface Configure	
By IP Address		•
By DYN DNS		\odot
192	.168.0.146	Set
Address Port:	6400	5
		1
		a a
		· · · · ·

IP 192.168.0.14	5:6400		xLogic App
`	IO Sta	atus Monitor	1
Time/Tag	11	12	13
14:32:26	0	0	0
14:32:26	0	0	0
14:32:25	0	0	0
14:32:25	0	0	0
14:32:24	0	0	0
14:32:24	0	0	0
14:32:23	0	0	0
14:32:23	0	0	0
14:32:22	0	0	0
14:32:22	0	0	0

Modbus Poll works as TCP client

Modbus Poll - Mbpoll1

	🖻 🖬 🎒 🗙	日 県直 ル	05 06 15 16 22 23 101 🤋 隆				
2	Mbpoll1						
Tx	= 0: Err = 0: ID =	1: F = 03: SR =	1000ms				
No	Connection						
	Alias	00000					
0		0					
1		0					
2		0					
3		0					
4		0					
5		0					
6		0					
7		0			Connection Setup		
8		0			Connection		
9		0			 Serial Port 	TCP/IP	OK
							Cancel
					Port 3 💌	@ RTU O ASCI	
					9600 Baud 💌	Permanen Timonut	_
					8 Data bits 👻	1000 [ms]	
					None Parity ×	Delau Between Polls	
						100 [ms]	Adument
							Muvanceu
					Remote Server IP Address	Port	Connect Timeout
					192.168.0.146	6400	1000 [ms]
					5		
P					-		

웹 Modbus Poll - Mbpoll1	AND 10 10 10 10 10	1000 0010
File Edit Connection Setup Functions	Display View Window Help	
] 🗅 📽 🖬 🎒 🗙 🗂 🖳 🚊 л. об. о)6 15 16 22 23 101 😵 😽	
Mbpoll1		
Tx = 14: Err = 0: ID = 1: F = 03: SR = 100	lOms	
	Communication Traffic	
Alias 00000		
0 0	Exit Stop Save Copy	Stop on Error
1 0	000000-Tx:00 05 00 00 00 06 01 03 00 00 00 0A 000001-Rx:00 05 00 00 00 17 01 03 14 00 29 00 00 00 00 00 00 00 00 000002-Tx:00 06 00 00 00 06 01 03 00 00 00 0A	00 00 00 00 00 00 00 00 00 00
2 0	000003-Rx:00 06 00 00 01 7 01 03 14 00 00 00 00 00 00 00 00 00 00 00 00 00	00 00 00 1F 00 00 00 00 00 00 00
3 0	000006-Tx:00 08 00 00 00 00 01 03 00 00 00 0A 000007-Rx:00 08 00 00 01 70 103 14 00 00 00 00 00 00 00 00 00 00 00 000008-Tx:00 08 00 00 00 00 17 01 03 14 00 00 00 00 00 00 00 00 00 00	00 00 00 15 00 00 00 00 00 00
4 32	00009-Rx:00 09 00 00 00 17 01 03 14 00 0C 00 00 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00 00
5 0	000012-Tx:00 0B 00 00 00 06 01 03 00 00 00 0A 000013-Rx:00 0B 00 00 00 17 01 03 14 00 02 00 00 00 00 00 00 00 000014-Tx:00 0C 00 00 00 06 01 03 00 00 00 0A	00 00 00 00 00 00 00 00 00 00
6 0	000015-Rx:00 0C 00 00 00 17 01 03 14 00 00 00 00 00 00 00 00 00 00 00 00 00	00 00 00 00 00 00 00 00 00 00 00 00 00
7 0		
8 0		
9 0		

1.4.2 CPU works as TCP Client

The maximum TCP connection is 8, so one CPU allow maximum 8 TCP clients to connect with the CPU at the same time. And each TCP connection is totally separately.

For example:



All the 8 Servers can connected, and the data transmission can be processed separately.

Local								
IP Address	192 . 168 . 0 . 146	MAC Address 70-B3-D5-8C-10-0E		C-10-0B				
Subnet Mask	255 . 255 . 255 . 0	Protocol MODBUS-TCP RT		CP RTU -				
Default Gateway	, 192 . 168 . 0 . 1		1	Enable W	/eb Server			
Web Port	80							
TCP Server						P Server		
Port	6400 Keep Alive	5	s 🔽	Enable	Po	rt	8002	Enable
Max Clients	0 v Timeout 0)	S		Tir	neout	0	S
Target			221171/12					1
Target	IP Address	Port	Keep A	live	Туре	Time	out	Write
Target	IP Address 192 . 168 . 0 . 227	Port 8003	Keep A	live S	Type TCP	Time	out S	Write
Target ▼ 1. Enable ▼ 2. Enable	IP Address 192 168 0 227 192 168 0 227	Port 8003 8004	Keep A	live S S	Type TCP TCP	Time	out S S	Write
Target ↓ 1. Enable ↓ 2. Enable ↓ 3. Enable	IP Address 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	Port 8003 8004 8005	Keep A 5 5 5	live S S	Type TCP TCP TCP	Time • 0 • 0 • 0 • 0	out S S S	Write Read
Target ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable ✓ 4. Enable	IP Address 192 . 168 . 0 . 227 192 . 168 . 0 . 227	Port 8003 8004 8005 8006	Keep A 5 5 5 5 5	live S S S	Type TCP TCP TCP TCP	Time	out S S S S	Write Read Confirm & Res
Target ↓ 1. Enable ↓ 2. Enable ↓ 3. Enable ↓ 4. Enable ↓ 5. Enable	IP Address 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	Port 8003 8004 8005 8006 8007	Keep A 5 5 5 5 5 5	live S S S S S	Type TCP TCP TCP TCP TCP TCP	Time	out S S S S S S	Write Read Confirm & Res
Target ↓ 1. Enable ↓ 2. Enable ↓ 3. Enable ↓ 4. Enable ↓ 5. Enable ↓ 6. Enable	IP Address 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	Port 8003 8004 8005 8006 8007 8008	Keep A 5 5 5 5 5 5 5 5	live S S S S S	Type TCP TCP TCP TCP TCP TCP TCP	Time	out S S S S S S S S S	Write Read Confirm & Res
Target ▼ 1. Enable ▼ 2. Enable ▼ 3. Enable ▼ 4. Enable ▼ 5. Enable ▼ 6. Enable ▼ 7. Enable	IP Address 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	Port 8003 8004 8005 8006 8007 8008 8009	Keep A 5 5 5 5 5 5 5 5 5 5	live S S S S S S	Type TCP TCP TCP TCP TCP TCP TCP TCP	Time ▼ 0 ▼ 0 ▼ 0 ▼ 0 ▼ 0 ▼ 0 ▼ 0 ▼ 0	out S S S S S S S S S S	Write Read Confirm & Res

If we set Max clients 0, then the CPU will only play as tcp clients, then there are 8 tcp servers can be connected at the same time.

Xlogicsoft works as TCP server and wait the CPU log on(The PC IP address is 192.168.0.227):

Communication Co	nfiguration			23	
Modbus Type: A	IODBUS TCP 💌	PLC Address	1		
C 15232/USB	RS232/USB Search RS232 Port Ethernet Local port	COM3 <u>~</u> 8003	0% Bps 9600] Parity No P	▼ arity ▼	
	FC as Server Search	© with IF	address 🌀 wi	th Name	
er					
		9%			
IP address 192.168.0.146					

/ 00 102 160 0 146		4 5 5
192.100.0.140	:64847	4 Þ)
DestIP:	Send 🔽 AtuoSend Eve 1000 ms Send Stop	
192. 168. U. 146	Send Hex Send File Send Received Clear Option BroadOption	
V LocalPort	00 00 00 00 00 06 01 01 00 00 04	
8004		
Type TCP 👻		
AtuoConn		
Eve 0 s		
AutoSend		
ãve 0 ms		
	Rec StopShow Clear Save Option 🔽 ShowHex	
Send 1005	Save (In Time)	1000
1005	00 00 00 00 00 04 01 01 01 00 00 00 00 00 04 01 01 01 00 00 00 00 04 01 01 01 00 00 00 04 01 01 01 00 00 00 00 00 04	01
Recv 150	01 01 00 00 00 00 00 04 01 01 00	

TCP Sever 192.168.0.227, port:8004 is ok.

Operate(<u>O</u>) View(<u>V)</u> Windows(<u>W</u>) Help(<u>H</u>) Language
실 CreateConnn 😒	CreateServer 🐰 StartServer 迷 🕢 😹 Connect 🐲 🛬 DisconnAll 💥 DeleteConn 🎇
192.168.0.146:	49772
DestIP: 192.168.0.146 DestPort: 49772	Send AtuoSend Eve 100 ms Stop Image: Send Hex Send File Send Received Clear Option BroadOption
LocalPort 8005	
AtuoConn Eve 0 s	
Eve 0 ms	
Send 0	Rec StopShow Clear Save Option ShowHex Save(In Time)
Recv 0	
Clear	

TCP Sever 192.168.0.227, port:8005 is ok.



TCP Sever 192.168.0.227, port:8006 is ok.

👔 TCP&UDP测试工具 -	[192.168.0.146:51025]	
Operate(O) View() Windows(W) Help(H) Language	×
🗄 🚰 CreateConnn 🔌	CreateServer 🐰 StartServer 🛞 🕢 🛫 Connect 🐲 🗟 DisconnAll 💥 DeleteConn 🍇 🧕	3
192.168.0.146:5	1025	4 ⊳ ×
DestIP: 192.168.0.146 DestPort: S1025 M LocalPort 9007 Type TCP M AtuoConm Eve 8 S M AtuoCond Eve 8	Send TAtusSend Eve 100 ms Send Stop Send Hex Send File Send Received Clear Option BroadOption	
Eve 1835284 ms Count Send 0 Recv 0 Clear	Rec StopShow Clear Save Option ShowHex Save (In Time)	

TCP Sever 192.168.0.227, port:8007 is ok.

192.168.0.146	:51367
estIP: 92.168.0.146 estPort: 51367	Send AtuoSend Eve 100 ms Stop Send Hex Send File Send Received Clear Option
LocalPort	
Pe TCP	-
e	
	Rec StopShow Clear Save Option ShowHex
nd 0	- Save(In Time)

TCP Sever 192.168.0.227, port:8008 is ok.

Operate(<u>O</u>) View(<u>V</u>) Windows(<u>W</u>) Help(<u>H</u>) Language
🗄 🚰 CreateConnn 🔕 (CreateServer 🛞 StartServer 🛞 🐼 😹 Connect 😹 🗟 DisconnAll 💥 DeleteConn 🎘 🔯 🥃 🖕
192.168.0.146:5	1693
DestIP: 192.168.0.146 DestPort: 51693	Send AtuoSend Eve 100 ms Stop Send Hex Send File Send Received Clear Option
V LocalPort 8009 Type TCP V AtuoConn	
AutoSend Eve 0 ms	Rec StopShow Clear Save Option ShowHex Save(In Time)
Recv 0	

TCP Sever 192.168.0.227, port:8009 is ok.

192.168.0 .	146:52063
DestIP: [192.168.0.146 DestPort: 5206	Send AtuoSend Eve 100 ms Send Stop Send Hex Send File Send Received Clear Option BroadOption
V LocalPort 8010 Type TCP	
AtuoConn Eve 0 AutoSend	5
Eve 0	ms Rec StopShow Clear Save Option ShowHex
Send 0	Save (In Time)
Recv 0	

1.4.2 CPU works as UDP Server

CPU can work as UDP server, you can use your software to connect with it through UDP or make several CPUs communication through UDP as well.

Local								
IP Address	192 . 168 . 0 . 146	MAC A	ddress 70-1	B3-D5-8C-1	.0-0B			
Subnet Mask	255 . 255 . 255 . 0	Proto	col MO	DBUS-TCP	RTU -			
Default Gateway	y 192 . 168 . 0 . 1		▼ 1	Enable Web	Server			
Web Port	80							
TCP Server					UDP Se	rver		
Port	6400 Keep Alive	;	s 🔽 1	Enable	Port	800	2	Enable
Max Clients	0 Timeout)	S		Timeou	t 0		s
Target							1	
	IP Address	Port	Keep Aliv	ve	Type	Timeout		Write
✓ 1. Enable	192 . 168 . 0 . 227	8003	5	S TO	IP 💌	0	S	
			5		-	0		Read
🔽 2. Enable	192 . 168 . 0 . 227	8004	12	S 110	.P 🔄	ļv	5	
 2. Enable 3. Enable 	192 168 0 227 192 168 0 227	8004	5	s To	1P <u>•</u>	0	s	Confirm & R
 2. Enable 3. Enable 4. Enable 	192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	8004 8005 8006	5	s TO s TO	2P • 2P • 2P •	0	s s	Confirm & R
 2. Enable 3. Enable 4. Enable 5. Enable 	192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	8004 8005 8006 8007	5	s To s To s To	2P • 2P • 2P • 2P • 2P •	0 0 0	s s s	Confirm & R
 2. Enable 3. Enable 4. Enable 5. Enable 6. Enable 	192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	8004 8005 8006 8007 8008	5 5 5 5	s TO s TO s TO s TO		0 0 0 0	s - s - s - s	Confirm & R
 2. Enable 3. Enable 4. Enable 5. Enable 6. Enable 7. Enable 	192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	8004 8005 8006 8007 8008 8009	5 5 5 5 5 5	s TC s TC s TC s TC s TC	P • P • P • P • P • P • P •		5 5 5 5 5	Confirm & R

TCP&UDP-Debug

1	: 0t-(0)	1000	14C	140	LL-L-ZLD	E					
	CreateConr		ateServer	38	StartServer	3R	guag	je I Se Connect	-	Se DisconnAll	ℜ DeleteCor
				9			-		1004		00

Type: DP	
DestIP: 192.168.0.146	Port: 8002
LocalPort @ Auto OS	pecia 5007
T AutoConn: Eve	0 s
Send When Conn: Eve	ms
Create	uncel

Operate(<u>O</u>) View(<u>V</u>) Windows(W) Help(H) Language
🗄 🔄 CreateConnn 🔕 C	createServer 🐰 StartServer 🛞 🕢 😒 Connect 😹 🛬 DisconnAll 💥 DeleteConn 🎇 🔯 💂
192.168.0.146:80	002 d D
DestIP: 192.168.0.146 DestPort: 8002	Send Image: AtuoSend Eve 1000 ms Send Stop Image: Send Hex Send File Send Received Clear Option BroadOption
LocalPort 4001 Type UDF 💌	00 00 00 00 06 01 01 00 00 04
AtuoConn Eve 0 s	
Count 96	Rec StopShow Clear Save Option ShowHex Save (In Time)
Recv 80	00 00 00 00 00 04 01 01 01 00 00 00 00 00 00 04 01 01 01 00 00 00 00 00 00 04 01 01 01 00 00 00 00 00 04 01 01 01 00 00 00 00 00 00 04 01 01 01 00 00 00 00 00 00 04 01 01 01 00 00 00 00 00 00 04 01 01 01 00

After the connection is created, the CPU and the software can communicate based on MODBUS TCP protocol.

1.5 How to log on the built-in Web server

Only the new series ELC-12DC-DA-R-N has built-in web server. So you can use PC or mobile phone to control PLC.

Supported browser

- Chrome
- IE
- Please ensure that your browser is the latest version.

Supported devices

- PC
- iPhone
- iPad
- Android mobile phone
- Android pad

Supported language

- English
- Chinese
- Deutsch

- Francais
- Italiano
- Espanol

1.5.1 How to enable the webserver?

(1)Open Xlogic software, choose ELC-12DC-DA-R-N model and connect xlogicsoft to PLC, you can use serial port or network port to connect PLC.

(2)Tools-->Transfer-->Web Server Config

Configuration	sv sx ⊞ ► ■ ₹ ₩ ₩ ₽ 01 01
Disconnect Line	
Transfer +	PC->PLC Ctrl+W
SimulationF3Select HardwareEdit Cover HMILanguage SelectionUser ManagerSet Monit ConfigFile optimizationAllow entity's output pin emptySelect Extended module for simulation	PLC->PC Ctrl+R Get PLC Version Get SMS Version Set Clock Get Clock Set Communication Type Set PLC's Address Get PLC's Address Get PLC's Scan Time
Reference report Weekly Timer Yearly Timer S Astronomical clock Stopwatch Counter Up/Down counter Hours Counter Threshold trigger Analog Analog Analog comparator Analog threshold trigger	Get PLC's ID Summer time/Winter time Set Extended module Set extension address Set PLC AC/DC Set AQ Parameter Set Network module Parameter Set Modbus Config Set PLC to FBD Mode Web Server Config

(3)Click Read button to read web server configure. The default configuration is as follows:

Local								
IP Address	192 . 168 . 0 . 146	MAC A	ddress	70-B3-D5-8	C-10-0B			
Subnet Mask	255 . 255 . 255 . 0	Proto	col	MODBUS-T	CP RTU 🔻			
Default Gateway	192 . 168 . 0 . 1			🗸 Enable W	/eb Server			
Web Port	80							
TCP Server						Server		
Port	6400 Keep Alive	5	S	🔽 Enable	Port	80	002	Enable
Max Clients	0 T imeout	0	S		Time	out 0		S
Target								1
	IP Address	Port	Keep	Alive	Type	Timeou	E	Write
🔽 1. Enable	192 . 168 . 0 . 227	8003	5	s	TCP 🔻	0	S	
	192 168 0 227	8004	5	s	TCP 💌	0	S	Read
🔽 2. Enable								
2. Enable3. Enable	192 . 168 . 0 . 227	8005	5	S	TCP 💌	0	S	Confirm & Ro
 2. Enable 3. Enable 4. Enable 	192 168 0 227 192 168 0 227	8005 8006	5 5	s s	TCP 💌	0	s s	Confirm & Re
 2. Enable 3. Enable 4. Enable 5. Enable 	192 168 0 227 192 168 0 227 192 168 0 227	8005 8006 8007	5 5 5	s s s	TCP • TCP • TCP •	0	s s s	Confirm & Re
 2. Enable 3. Enable 4. Enable 5. Enable 6. Enable 	192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	8005 8006 8007 8008	5 5 5 5	8 8 8 8 8	TCP TCP TCP TCP TCP TCP TCP TCP	0 0 0	s s s	Confirm & Re
 2. Enable 3. Enable 4. Enable 5. Enable 6. Enable 7. Enable 	192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227 192 168 0 227	8005 8006 8007 8008 8009	5 5 5 5 5	s s s s	TCP TCP TCP TCP TCP TCP TCP TCP TCP TCP TCP	0 0 0 0	S S S S	Confirm & Re

The webserver is enabled in default, if you want to disable the webserver access, you just only cancel the option "Enable webserver" then the webserver would be not allowed to access.

1.5.2 How to log on the webserver?

1. You have to get IP address of PLC, then input IP address of PLC to the

browser,Web server interface will appear.The default IP of PLC is 192.168.0.245, the Default port of PLC is 8008.So you can use the default IP address to log on web server,you can also use the IP and port of PLC to connect the xlogic software to the PLC and configure web server parameters.

If you have changed the IP address, you can view the IP address by the LCD menu >Network -> IP Config.. -> Local IP ADDR.. -> Local IP

>Local IP Addr..
 Subnet Mask..
 Gateway..
 Web Server..
 Dk
 Local IP Address
 192.168.000.146

2.Open the browser, then input the IP address of PLC (Input your PLC IP address).

192.168.0.240

3.Press "Enter" key, the following interface will appear.

RIEV TECH



4. Log on interface

Name:The default name is admin.

Password: The default password is admin.

Language:Our web server supports six kinds of languages.You can choose your language.

English	۲
Deutsch	
English	
Francais	
Italiano	
Espanol	
中文	

Keep me logged on:When you choose "Keep me logged on", then you click on "Log on" and you log on to the web server successfully.You will always stay in the login state.If you close the browser, then you open the browser again, input the IP address, you will still stay in the login status.You can click on the "Log off" to exit the login status.

Log on: Click on it, log on to the web server.

Check CPU information

After logging on to the web server, web server will display the information of CPU.

RIEV TECH

Web User Log off	
• CPU Information • Variable Config • Monitor&Control • User Management • RIEVTECH On-line	CPU Information CPU name ELC_EXM Set Current status RUN CPU Clock 2017/07.13 09 17.23 Set CPU Clock 2017/07.13 09 17.23 Set CPU Model CPU Model ELC-12DC-DA-R-N Firmware Ver 2.64 Hardware Ver 1 GFPS Comedian GSM signal Set Set Set Set

CPU name: Display CPU name. **Current status:** Display the status of PLC CPU clock: When you click on the "CPU information", "CPU clock" will display the current time of PLC.Select the "PC synchronized", then click on "Set", the PC time will be written in PLC. **CPU Addr:** Display CPU address. You can change the address of PLC. Example: You can input "5", then click on "Set", the CPU address will be 5. CPU model: Display CPU model. Firmware Ver: Display Firmware Version. Hardware Ver: Display Hardware Version. **GPRS connection: (For EXM series CPU)** Display "connected" or "Not connected". GSM signal: (For EXM series CPU) Display GSM signal.

Variable Configure "Variable config" interface

Variable Config	Name	Item		Address			Туре		Display Format		Del
Monitor&Control	REG6	REG	•		* REG6	•	WORD	•	SIGNED	•	,
Jser Management	QHDHDHD	REG			* REG16	•	WORD	•	SIGNED	•	;
IEVTECH On-line	AIJSHDHD	AI	Ŧ	CPU	▼ AI1	٣	WORD	Ŧ	SIGNED	۲	
	AQJSKSLE	AQ		CPU	▼ AQ2	•	WORD	٣	SIGNED	•	;
	FGJDKDLD	F	۲		* F19	•	BIT	Ŧ	BOOL	¥	;
	AFELAFJD	AF	۲		* AF1	•	WORD	٣	SIGNED	۲	;
	HEGSSDF	HEG	۲		* HEG0	٣	DWORD	Ŧ	SIGNED	۲	;
	REGFSAF	REG	۲		* REG13	•	TIMER	۲	SIGNED	•	:
	MAFAFAD	M	۲		* M1	Ŧ	BIT	۲	BOOL	Ŧ	
	AMDFASF	AM	۲		* AM5	Ŧ	WORD	٧	SIGNED	•	:
	UPSADFS	CURSOR KEY	Ŧ		* C1	٣	BIT	٣	BOOL	v	
	F1AFAFDD	PANEL KEY	۲		▼ F1	•	BIT	Ŧ	BOOL	Ŧ	
	S11SADFA	SHIFT REGISTER BIT	۲		* S1.1	•	BIT	٣	BOOL	٣	:
	AISAFDFF	AI	Ŧ	EXT8	• AI4	•	WORD	τ.	SIGNED	•	;
	AFCONFIG	AF	۲		* AF128	•	WORD	Ŧ	HEX	•	1
	AQOUTPUT	AQ		EXT4	▼ AQ1	•	WORD	Ŧ	BINARY	•)

You can click on "Add Variable" to add variable. And you can change or delete the variable as well. Up to 16 variables can be configured

Name:

You can define a name for variable.(8 characters can be input)

Item:

You can configure 13 kinds of variables. (These variables are in the xlogicsoft)

Item	
1	•
Please Choose	
1	
Q	
AI	
AQ	
F	
AF	
HEG	
REG	
M	
AM	
CURSOR KEY	
PANEL KEY	
SHIFT REGISTER BIT	

Address

CPU • 11	۲	EXT1	▼ I1	۲
Address:I1		Address:I1	1	
CPU • Q1	¥	EXT1	▼ Q1	•
Address:Q1		Address:Q	11	
CPU • AI1	•	EXT1	▼ Al1	•
Address:AI1		Address:A	I11	

Type:

Data length of variable.Include: BIT,WORD,DWORD.If you use timer or counter,you should choose TIMER or COUNTER.

Display Format:

Display format, include: BOOL,SIGNEO, UNSIGNED,HEX,BINARY. **DEL:**

Click on X to delete variables .

Save Variable:

After finished configuration variables, you have to click on "Save Variable", then you can monitor and control variables at "Monitor&Control".

Monitor&Control

On this page, you can monitor and control variables. Web server refreshes data automatically. Auto refresh: choose "Auto read interval" and choose refresh time.

Auto Read Interval	1s	•
	0.3s	
Name	1s	
	2s	
REG6	3s	
	4s	
QHDHDHD	5s	

The web server refreshes the current value of variables every 0.3s-5s. The default auto refresh time is 1 second.

Web User Log off						
CPU Information	Monitor&Control Interface					
Variable Control Monitor&Control	Auto Read Interval 1s					
→ User Management	Name	Address		Status/Value	Change	
RIEVTECH On-line	REG6		REG6	0	0	set
	QHDHDHD		REG16	0	0	set
	AUSHDHD	CPU	AJ1	0	0	
	AQJSKSLE	CPU	AQ2	0	0	set
	FGJDKDLD		F19	off	◯ on ● off	set
	AFELAFJD		AF1	0	0	set
	HEGSSDF		HEG0	0	0	set
	REGFSAF		REG13	00:00		set
	MAFAFAD		M1	off	🔍 on 🖲 off	
	AMDFASF		AM5	0	0	
	UPSADFS		C1	off	🔍 on 💌 off	
	F1AFAFDD		F1	off	🔍 on 🖲 off	
	S11SADFA		S1.1	off	⊖ on ⊛ off	set
	AISAFDFF	EXT8	AJ4	0	0	
	AFCONFIG		AF128	16#0		set
	AQOUTPUT	EXT4	AQ1	2#0		set

Name:

Display the name of variable.

Address:

Display the address of variable.

Status/Value:

Display the current status or value of variables.

Change:

Change the current status of variable. When you change the current

Status:

status of variable, you have to click on the corresponding "Set" button.

Description of changing the state of variable

Variable I:

You can't change the status of variable I.

Variable Q:



When the input pin of output block Q is not connected, you can change the status of variable Q.

If the input pin of output block Q is already connected with other blocks, you can't change the status of variable Q anymore.

Variable AI:

You can't change the value of variable AI. Variable AQ:



When the input pin of analog output block AQ is not connected, you can change the value of variable AQ. If the input pin of analog output block AQ is already connected with other blocks, you can't change the value of variable AQ anymore.

Variable F:



When the input pin of digital flag variable F is not connected, you can change the status of variable F.

If the input pin of digital flag block F is already connected with other blocks, you can't change the status of variable F anymore.

Variable AF:



When the input pin of analog flag block AF is not connected, you can change the value of variable AF

If the input pin of analog flag block AF is already connected with other blocks, you can't change the value of variable AF anymore.

Variable HEG:



Cannot be set, only can be read.

Variable M:

You can't change the status of variable M, it only can be read.



Variable AM:

You can't change the value of variable AM, it only can be read.

		1001	1]	8001		M1]										AF	1
		n	4.4	22.22	1120	1111	110	à à .	\$ (\$)	110	1010	125	191909	1920	\$ 2.2	14/4	4.4	1919	F	+		1/6)	11	4.4	1.14	12.2	(192	8/6	4 4	1. 1.	1.4/2	h	
Modbus 1	x=0 (00H)	-	11									1	REGO							\sim	1			14	Mod	bus	14	=3	072	ico	OH)	r	F
													DWDRI	1.45	=21	457.0	5:(6)	נקסם	EX .		-						14						
													¥1 =	151																			
													¥3 =	17																			
													V4 =	18	1.1.1																		
													COINT		10	2141	+ + 74																
													con		1.42	21.0																	

Cursor key:

You can't change the status of cursor key, it only can be read.



Panel key:

You can't change the status of panel key, it only can be read.



Shift register bit:

You can't change the status of shift register bit, it only can be read.

User Management

User management interface

RIEV TECH

Web User Log off	
 CPU Information Variable Config Monitor&Control User Management RIEVTECH On-line 	User Management new user name new password confirm password Save

You can set a new user name and new password at this page. If you have set a new user name and password, the old user name and password can't be used. A web server just has a user name and a password.

If you forgot the user name or password you logged, you can reset it by the LCD menu

You can make the IP settings to factory by the menu Network-> IP Config..-> Factory-> RST Log on



After you reset the log on, the user name and password will be back to the default "admin".

RIEVTECH On-line

RIEVTECH On-line Interface You can monitor and operate the LCD panel remotely.

RIEV TECH

Web User Log off	
CPU Information Variable Config Monitor&Control User Management RIEVTECH On-line	Dn-line RIEVTECH XLOGIC MIC Run No Faults F1 F2 F3 F4 F3 F4 Concent F1 F2 F3 F4 Concent F1 F2 F3 F4 Concent F1 F2 F3 F4 Concent Concent F1 F2 F3 F4 Concent Conce
	RIEVTECH XLOGIC MIC Run No Faults Esc OK RIEV/TECH

The CPU only can get a trigger from the virtual keys, it cannot get a continuous signal, that means if you press the OK key for 3 seconds, the CPU cannot know it pressed down 3 seconds, it only get a trigger signal. So if you want to realize the press ok key for 3 seconds to change the parameters in the text message on the hardware, you need press the "set" key on the virtual panel.



Press "Set" = Press ok key for 3 seconds when there parameters in the text message need

be modified!

1.6 How to establish the communication between new Ethernet CPUs?

We can make the Ethernet connection based on the TCP connection or UDP connection. We can see the communication with 2 steps operation.

Step 1: Configure and create the connection(TCP pr UDP)

Each CPU has 8 TCP connections, it can be work both tcp server and tcp client, so a lot of CPUs can be connected in a network. Regarding to how to configure the connection, we will explain in following chapter.



Step2 : Programming and make the data transmission

We need use the function block "Modbus read and write" function block is the master CPU. The TCP server or the TCP client CPU can work as master or slave. It totally decide by yourself. Following chapters we will use examples to explain how to create the communication between 2 Ethernet CPUs.

1.6.1 Example1: One master CPU(TCP server) connect with 3 slave CPUs(TCP Clients)

The connection sketch:



Requirement:

1.If I1 of Master is ON/OFF, the Q1 of slave1---slave3 are ON/OFF.
 2.Read the AI2 value from the slave1--slave3 to master and display.

Step1: Configure the IP configuration of the PLCs. **Master** IP: 192.168.0.100 TCP port: 8000

Local IP Address Subnet Mask Default Gatewa Web Port	192 168 0 100 255 255 255 0 192 168 0 1 80	MAC A Proto	ddress 70-B3-I col MODBU V Enab	D5-8C-10-0 JS-TCP RT le Web Serv	DB TC 💌 ver			
TCP Server				Ì		erver		
Port	8000 Keep Alive	5	S 🔽 Enab	le	Port	800	2	Enable
Man Cline		-			-			- 12
Max Chen's	8 • Inneout	0	S		1 imeo	ut 10		S
Target	1 Intervet	U	5		limeo	ut JU		1
Target	IP Address	Port	s Keep Alive	1	Type	ut J0 Timeout		S Write
Target	IP Address 1921680105	0 Port 8003	Keep Alive	TCP	Type	Timeout	5	S Write
Target	IP Address	Port 8003 8004	Keep Alive	TCP TCP	I imeo Type 	Timeout	S	S Write Read
Target I. Enable I. Enable I. Enable I. Enable	IP Address	Port 8003 8004 8005	5 Keep Alive 5 5 5 5 8	TCP TCP TCP	Type	Timeout	- s - s - s	S Write Read
Target ▼ 1. Enable ▼ 2. Enable ▼ 3. Enable ▼ 4. Enable	IP Address IP2 . 168 . 0 . 105 I92 . 168 . 0 . 105	Port 8003 8004 8005 8006	S Keep Alive 5 8 5 8 5 8 5 8 5 8	TCP TCP TCP TCP	I imeo	Timeout 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- s - s - s - s	S Write Read Confirm & Res
Target ↓ I. Enable ↓ 2. Enable ↓ 3. Enable ↓ 4. Enable ↓ 5. Enable	IP Address I92 . 168 . 0 . 105 O . 0 . 0 . 0	Port 8003 8004 8005 8006 0	Keep Alive 5 5 5 5 5 5 5 8 5 8 5 8 5 8	TCP TCP TCP TCP TCP	I imeo	Timeout 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	- S - S - S - S - S - S	S Write Read Confirm & Res
Target ↓ I. Enable ↓ 2. Enable ↓ 3. Enable ↓ 4. Enable ↓ 5. Enable ↓ 6. Enable	Imeout Imeout IP Address 192 192 168 0 105 192 168 0 105 192 168 0 105 192 168 0 105 192 168 0 105 0 0 0 0 0 0 0 0 0 0	Port 8003 8004 8005 8006 0 0 0	S Keep Alive 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	TCP TCP TCP TCP TCP TCP TCP	I imeo	Timeout 0 0 0 0 0 0 0 0	S S S S S	S Write Read Confirm & Res
Target ▼ 1. Enable ▼ 2. Enable ▼ 3. Enable ▼ 4. Enable ■ 5. Enable ■ 6. Enable ■ 7. Enable	Imeou IP Address 192 168 0 105 192 168 0 105 192 168 0 105 192 168 0 105 192 168 0 105 192 168 0 105 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Port 8003 8004 8005 8006 0 0 0 0 0 0 0 0 0	Keep Alive 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8	TCP TCP	I imeo	Timeout 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	S S S S S S	S Write Read Confirm & Ress

Slave1:

IP:192.168.0.101 Target server: 192.168.0.101 port:8000

Local IP Address Subnet Mask Default Gatew <mark>, y</mark> Web Port	192 168 0 101 255 255 255 0 192 168 0 1 80	- MAC A	ddress :ol	70-B3-D5- MODBUS-	-8C-10-0B TCP RTU Web Serve	▼ r			
TCP Server — Port Max Clients	8001 Keep Alive 7 Timeout	5	s s	🔽 Enable		UDP Se Port Timeou	rver 800 t 0	02	Enable S
Target	IP Address	Port	Kee	p Alive	Ту	rpe	Timeout		Write
		8000	5	s	TCP	•	0	s	
✓ 1. Enable	192 . 168 . 0 . 100	10000	1000					the second se	
 1. Enable 2. Enable 	192 168 0 100 192 168 0 105	8004	5	S	TCP	-	0	S	Kead
 ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable 	192 168 0 100 192 168 0 105 192 168 0 105	8004	5	s s	TCP TCP	× ×	0	S S	Confirm & F

Slave2:

IP:192.168.0.102 Target server: 192.168.0.101 port:8000

IP Address Subnet Mask	192 . 168 . 0 . 102 255 . 255 . 255 . 0	MAC A	ddress col	70-B3-D5-1 MODBUS-7	8C-10-0 FCP RT	B T.▼	_		
Default Gateway Web Port	192 . 168 . 0 . 1 80			🔽 Enable V	Veb Serv	rer			
TCP Server						UDP Ser	ver		
Port	8002 Keep Alive	5	S	🔽 Enable		Port	80	002	Enable
Max Clients	7 Timeout	0	S			Timeout	0		S
Target	IP Address	Port	Kee	p Alive	1	Гуре	Timeou	t .	Write
					TCP	•	0	s	
🗸 1. Enable	192 . 168 . 0 . 100	8000	0	9					
 ✓ 1. Enable ✓ 2. Enable 	192 . 168 . 0 . 100 192 . 168 . 0 . 105	8000 8004	5	s	TCP	 	0	S	Read
 ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable 	192 . 168 0 . 100 192 . 168 0 . 105 192 . 168 0 . 105	8000 8004 8005	5 5	\$ \$	TCP TCP	×	0	s s	Confirm & Re

Slave3:

IP:192.168.0.103 Target server: 192.168.0.101 port:8000

Local IP Address Subnet Mask Default Gatewa Web Port	192 168 0 103 255 255 255 0 192 168 0 1 80	MAC A	ddress 70-B3 col MOD ⊽ En	3-D5-8C-10- BUS-TCP R able Web Se	-0B TU - rver		
TCP Server —					UDP Serv	er	
Port Max Clients	8003 Keep Alive	5	S 🔽 En	lable	Port Timeout	8002	Enable S
Port Max Clients Target	8003 Keep Alive	5 D Port	S En S Keep Alive	uable	Port Timeout	0 Cimeout	S Write
Port Max Clients Target 1. Enable	8003 Keep Alive 7 ▼ Timeout IP Address 192 . 168 . 0 . 100	5 0 Port 8000	S Keep Alive	s TCP	Port Timeout	0 Fimeout	S Write
Port Max Clients Target 1. Enable 2. Enable	8003 Keep Alive 7 ▼ Timeout [] IP Address [] 192 168 0 100 192 168 0 105	5 Port 8000 8004	S En S En S En S S S S S S S S S S S S S	s TCP S TCP	Port Timeout	8002 0 Timeout 0 8 0 8	S Enable
Port Max Clients Target 7 1. Enable 7 2. Enable 7 3. Enable	8003 Keep Alive 1 7 ▼ Timeout 1 IP Address 192 168 0 100 192 168 0 105 192 105	5 Port 8000 8004 8005	S Keep Alive	s TCP S TCP S TCP	Port Timeout	8002 0 Timeout 0 S 0 S 0 S	Write Read
Port Max Clients Target 7 1. Enable 7 2. Enable 7 3. Enable 7 4. Enable	8003 Keep Alive 7 ▼ Timeout 1 IP Address 192 168 0 100 192 168 0 105 192 168 0 105 192 168 0 105 192 168 0 105	5 Port 8000 8004 8005 8006	S En	s TCP S TCP S TCP S TCP S TCP	Port Timeout Type (• (• (• (• (• (• (• (•	8002 0 Timeout 0 8 0 8 0 8 0 8 0 8	S Write Read Confirm & Res

Step2 Programming for the master and slave

Master program.

In the master program, you need read and write data to the slaves, the function block is "Modbus Read Write". Note:

Even if the MODBUS READ and MODBUS WRITE block also have the Ethernet interface, but they only can be used for the old version Ethernet CPU, it cannot be applied to the new one built-in web server.



v:	Write I1 status to F1 of slavel	B001[M1][Modbus Read Write]
11 gn	BOD1[M1] - 21-	Parameter 1 Parameter 2 Comment
Slave Addr = 1 Rthernat		Block name: 🔽 🔽 Show Parameters
Function 15 Reg: 1536, Qt:1		Communicate Params
-Data: <== 11	Write II status to F1 of slave2 B002[M2]	Comm Type Ethernet 💌
crime saar - 1		Target IP 192.168.0.101
Ethernet Function 15		Local CPU Server
Reg: 1536, Qt:1 Data: <== I1	Write I1 status to F1 of slave3	
	B003[M3]	© Standard Modhus C Custom Modhus
Slave Addr = 1		
Lthernet Function: 15 Reg: 1536 9t:1		Slave Address
Data: <== Il		Data Kegister Index High Low 💌
		Command 15 Write Multiple Coils 🗸
		Register addr. 1536 Count 1
		Auto Data addr: I Address I I Address I
		Untig
		OK Cancel Help

If B001 is enabled, the I1 status of master will transferred to the F1(Modbus address is 0x 1536)slave1(IP:192.168.0.101).

High	Write I1 status to F1 of slave1	B002[M2][Modbus Read Write]
1		Parameter 1 Parameter 2 Comment
Slave Addr = 1 -		Block name: 🔽 🔽 Show Parameters
Function 15 Reg. 1538 Ot 1		Communicate Params
Data: <== Il	Write I1 status to F1 of slave2 BOD2[M2]	Comm Type Ethernet 👻
· · · · · · · · · · · · · · · · · · ·		Target IP 192 .168 . 0 .102
Slave Addr = 1		Target port O Protocol Modbus(TCP) -
Function: 15 Reg 1538 04:1		Local CPU Server TimeOut 5 S
Data: <== Ii	Write I1 status to F1 of slave3	TCP/UDP TCP -
	B003[M3]	
Slave Addr = 1 -		• Standard modbus • Custom modbus
Ethernet Function: 15		Slave Address 1
Reg: 1538, Qt.1 Data: <== I1		Data Register Index High Low 💌
		Command 15 Write Multiple Coils 💌
		Register addr 1536 Count 1
		Auto Data addr. I → Address 1
		Config
		OK Cancel Help

If B002 is enabled, the I1 status of master will transferred to the F1(Modbus address is 0x 1536)slave2(IP:192.168.0.102).

li gh	Write I1 status to F1 of slave1 BOO1[M1]	B003[M3][Modbus Read Write]
1 Slave Addr = 1 Htheriet 15 Punction: 15 Reg: 1535.0t1 Data: <== 11 Slave Addr = 1 Etheriet Etheriet	Write Il status to Fl of slave2 BOO2[M2] 	Parameter 1 Parameter 2 Comment Block name: Image: Show Parameters Communicate Params Comm Type Ethernet Target IP 192.168.0.103 Target port Protocol
Reg: 1536,9011 Bata: <== 11	Write I1 status to F1 of slave3 B003[M3]	Local CPU Server TimeOut 5 S TCP/UDP TCP
Slave Addr = 1 Withoria		🗭 Standard Modbus 🥂 Custom Modbus
Function: 15 Reg: 1536, Qt11 Date: 4= 11		Slave Address 1
		Data Register Index High Low 💌
		Command 15 Write Multiple Coils 💽
		Register addr 1536 Count 1
		🏽 Auto Data addr: 🔽 🔽 Address 1
		Manual 0 0 Config
		OK Cancel Help

If B003 is enabled, the I1 status of master will transferred to the F1(Modbus address is 0x 1536)slave3(IP:192.168.0.103).

figh	Write I1 status to BOO1[M1]	F1 of slavel	
1	-	Read All value from slave. ROD4[M4] 4F1	B004[M4][Modbus Read Write]
B005 [M5] : En			Parameter 1 Parameter 2 Comment
	Write I1 status to BOO2[M2]	F1 of slave2 Read AI1 value from slave2	Communicate Params
	- High SRW ∑	B005[M5] AF2	Comm Type Ethernet Target IP 192.168.0.101
	Write I1 status to BOO3[M3]	F1 of slave3 Read All value from slave	Target port 0 Protocol Modbus(TCP) V Local CPU Server V TimeOut 5 S
	High	B006[M6] AF3	TCP/UDP TCP -
			Slave Address 1
			Data Register Index High Low
			Register addr 1024 Count 1
			🏽 Auto Data addr: 🗛 Address 1
			C Manual 0 0 Config
			OK Cancel Help

If B004 is enabled, the master will read the AI1 value(modbus address 4x 1024) of slave1 and save into local AF1.

High	BOO1 [M1]		
1 +		Read All Value from Slavel BOO4[M4] AF1	to Local Ari
BOOS [MS]: En		- <mark>}</mark> -	B005[M5][Modbus Read Write]
			Parameter 1 Parameter 2 Comment
	Write I1 status t BOO2[M2]	o F1 of slave2	Block name: Show Parameters
· · · · · · · · · · · · · · · · · · ·		Read AI1 value from slave2 ROOS[M5] 4F2	Constant Providence
			Communicate farams
			Comm Type Ethernet
			Target IP 192 .168 . 0 .102
	Write I1 status t ROO3[M3]	o F1 of slave3 Read AT1 value from slave3	Target port O Protocol Modbus(TCP) -
· · · · · · · · · · · · · · · · · · ·		BOO6[M6] AF3	Local CPU Server V TimeOut 5 S
		— <mark>—</mark> ——————————————————————————————————	
			🗭 Standard Modbus 🥤 Custom Modbus
			Slave Address
			Data Register Index High Low 💌
			Command 03 Read Holding Registers(4x) 🔻
			Register addr 1024 Count 1
			🍜 Auto Data addr: 🗚 💌 Address 🛛 2
			Manual 0 0 Config
			OK Cancel Help

If B005 is enabled, the master will read the AI1 value(modbus address 4x 1024) of slave2 and save into local AF2.

High	Write II status to F1 of slavel BOO1[M1]	4. 11 474
BOOS [MS]: En	High BO04[M4] AF1	B006[M6][Modbus Read Write]
	-Find Write II status to FI of slave2 BOO2[M2] Read AII value from slave2 High BOO5[M5] AF2 -Find Write II status to FI of slave3 BOO3[M3] Read AII value from slave3 BOO3[M3] Read AII value from slave3 -Find High BOO5[M5] AF3 -Find -F	Parameter 1 Parameter 2 Comment Block name: Show Parameters Communicate Params Comm Type Ethernet Target IP 192.188.0.103 Target port Protocol Modbus(TCP) Local CPU Server TimeOut 5 S TCP/UDP TCP V
		(* Standard Modbus / Custom Modbus Slave Address 1
		Data Register Index High Low - Command 03 Read Holding Registers(4x) -
		Register addr: 1024 Count 1
		(* Auto Data addr: AF ▼ Address 3 C Manual 0 0 Config
		OK Cancel Help

If B006 is enabled, the master will read the AI1 value(modbus address 4x 1024) of slave3 and save into local AF3.

	F1= I: F1	l of m	aste:	r		· · · · · · · ·								200	1	• •	•••	• •		1
							:::			• • •			-	D(]_	• •	•••	• •	• •	
Modbus_0x=1536 (600H)	E				· · · · · ·			Mo	lbus	_0x	=0 ((00)	0			 •••	· · ·	•••	• • •	4.14.14.14
		· · · · ·			· · ·	· · · · · ·	• • •	· · ·		· · · ·			•••	••		• •	• • • •	• •	• •	14.14.14
	AI001				· · · · · ·	· · · · · · · ·	· · · ·	• • • •	Å	F1			•••	•••	• •	 • • • •	• • • •	• • • •	• •	
Modbus_4x=1024 (400H)	AI -			Modi	ous_	4x=3	072	(600)	0	F	-					 · ·	• •	•••		1.1.1.1.1.1.1.1.

Slave1--Slave3 Program would be same.

1.6.2 Example2: One master CPU(TCP Client) connect with 3 slave CPUs(TCP Servers)

The connection sketch:



Requirement:

1.If I1 of Master is ON/OFF, the Q1 of slave1---slave3 are ON/OFF.
 2.Read the AI2 value from the slave1--slave3 to master and display.

Step1: Configure the IP configuration of the PLCs. **Master** IP: 192.168.0.100 Target server 1 IP :192.168.0.101 port 8001 Target server 2 IP :192.168.0.102 port 8002 Target server 3 IP :192.168.0.103 port 8003

Local	(C		10				-22		
IP Address	192 . 168 . 0 . 100	MAC Ade	dress 70-B	3-D5-8	8C-10-0B	l.			
Subnet Mask	255 . 255 . 255 . 0	Protoco	ol MOE	DBUS-T	ICP RTU	-			
Default Gateway	192 . 168 . 0 . 1		🔽 Er	nable W	Veb Serve	r			
Web Port	80								
TCP Server						- UDP S	erver		
Port	Keen Alive		\$ 17 -			Port	0.00	a.	
Port	8000 Keep Alive 5		S V E	nable		Port	800	2	Enable
Port Max Clients	8000 Keep Alive 5 5 Timeout 0		S E	nable		Port Timeou	800 st 0	2	▼ Enable S
Port Max Clients	8000 Keep Alive 5 5 Timeout 0		S F E	nable		Port Timeo	800 st 0	2	S Enable
Port Max Clients	8000 Keep Alive 5 5 Timeout 0 IP Address	Port	S F Es	nable	Ty	Port Timeou vpe	800 ot 0 Timeout	2	S Enable
Port Max Clients Target I. Enable	8000 Keep Alive 5 5 Timeout 0 IP Address 192 . 168 . 0 . 101	Port 8001	S Es	nable e S	Ty	Port Timeou pe	soo tt 0 Timeout	2 8	S Write
Port Max Clients Target I. Enable 2. Enable	8000 Keep Alive 5 5 ▼ Timeout 0 IP Address 192 . 168 . 0 . 101 192 . 168 . 0 . 102	Port 8001 8002	S Es	nable e S S	Ty TCP TCP	Port Timeou rpe	800 st 0 Timeout	2 8 8	S Enable S Write Read
Port Max Clients Target I. Enable 2. Enable 3. Enable	8000 Keep Alive 5 5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103	Port 8001 8002 8003	S Es	e S S S	Ty TCP TCP TCP	Port Timeou rpe	800 st 0 Timeout 0 0	2 8 8 8	Vrite Read
Port Max Clients Target 7 1. Enable 7 2. Enable 7 3. Enable 7 4. Enable	8000 Keep Alive 5 5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 103 192 168 0 105	Port 8001 8002 8003 8006	S Keep Alive 5 5 5 5 5	nable e S S S S	Ty TCP TCP TCP TCP	Port Timeou rpe	800 tt 0 Timeout 0 0 0	2 8 8 8 8	Vrite Read Confirm & Rese
Port Max Clients Target ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable ✓ 4. Enable ✓ 5. Enable	8000 Keep Alive 5 5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 103 192 168 0 105 0 0 0 0 0	Port 8001 8002 8003 8006 0	\$ v Es \$ Keep Alive 5 5 5 5 5 5	e S S S S S	TCP TCP TCP TCP TCP TCP	Port Timeou pe	800 st 0 Timeout 0 0 0 0	2 S S S S S	S Write Read Confirm & Rese

Slave1:

IP:192.168.0.101

тср	server	port:8001	
		•	

Local		-							
IP Address	192 . 168 . 0 . 101	MAC A	ddress 7	0-B3-D5	-8C-10-0E	}			
Subnet Mask	255 . 255 . 255 . 0	Proto	col N	IODBUS	-TCP RTU	•			
Default Gateway	192 . 168 . 0 . 1	1		Enable	Web Serve	r			
Web Port	80								
TCP Server						- UDP Serv	er		
Port	8001 Keep Alive	5	s 🔽	Enable		Port	800	2	Enable
Max Clients	3 Timeout	0	S			Timeout	0		s
Target									1
	IP Address	Port	Keep A	live	T	npe 1	Timeout		Write
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	S	TCP	- ()	s	
🔽 2. Enable	192 . 168 . 0 . 102	8002	5	S	TCP	- ()	s	Read
- 0 F 11	192 . 168 . 0 . 103	8003	5	S	TCP	- 0)	S	Confirm & Res
♥ J. Lnable					100	10 00/0		1.	Commin de roes
🔽 4. Enable	192 . 168 . 0 . 105	8006	5	S	TCP	-):	S	

Slave2: IP:192.168.0.102 TCP server port:8002

Local		-							
IP Address	192 . 168 . 0 . 102	MAC A	ddress 7	0-B3-D5-	8C-10-0	В			
Subnet Mask	255 . 255 . 255 . 0	Proto	col N	IODBUS-	TCP RT	ŭ_ −			
Default Gatewry	y 192 . 168 . 0 . 1			Enable '	Web Serv	er			
Web Port	80								
TCP Server —						UDP Se	rver		
Port	8002 Keep Alive	5	S 🔽	Enable		Port	800	2	Enable
Max Clients	8 V Timeout)	S			Timeou	t 0		s
Target							~		
Target -	IP Address	Port	Keep /	Alive	1	ype	Timeout		Write
Target ▼ 1. Enable	IP Address 192 . 168 . 0 . 101	Port 8001	Keep A	Alive S	TCP	ype	Timeout	s	Write
Target ▼ 1. Ensble ▼ 2. Ensble	IP Address 192 . 168 . 0 . 101 192 . 168 . 0 . 102	Port 8001 8002	Кеер / 5 5	Alive S	T TCP TCP	ype	Timeout 0	S	Write
Target ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable	IP Address 192 168 0 101 192 168 0 102 192 168 0 103	Port 8001 8002 8003	Keep A	Alive S S S	TCP TCP TCP TCP	ype 	Timeout 0 0 0 0	- s - s - s	Write Read
Target ↓ 1. Enable ↓ 2. Enable ↓ 3. Enable ↓ 4. Enable	IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 105	Port 8001 8002 8003 8006	Keep /	Alive S S S S	TCP TCP TCP TCP TCP	ype 	Timeout 0 0 0 0 0 0	- s - s - s	Write Read Confirm & Rea

Slave3:

IP:192.168.0.103

TCP server port:8003

Web Server co	nfig						— X.
Local IP Address Subnet Mask Default Gatewa Web Port	192 168 0 103 255 255 255 0 y 192 168 0 1 80	MAC A Proto	ddress 70-B col MOI ⊽ Ea	3-D5-8C-10- DBUS-TCP R nable Web Ser	0B TU - ver		
TCP Server					UDP Ser	ver	
Port	8003 Keep Alive	5	S 🔽 E	nable	Port	8002	Enable
Max Clients	8 • Timeout	0	s		Timeout	0	S
- Target	IP Address	Port	Keep Aliv	e	Туре	Timeout	Write
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	S TCP	<u> </u>	0	s
🔽 2. Enable	192 . 168 . 0 . 102	8002	5	S TCP		0	S Read
🔽 3. Enable	192 . 168 . 0 . 103	8003	5	S TCP	<u> </u>	0	S Confirm & Reset
🔽 4. Enable	192 . 168 . 0 . 105	8006	5	S TCP		0	s
🗖 5. Enable	0.0.0.0	0	5	S TCP	<u> </u>	0	S
🦵 б. Enable	0.0.0.0	0	5	S TCP	<u>_</u>	0	S
	-	0	5	S TCP	-	0	S
T 7. Enable	0.0.0.0	l.	1-	1 1 1 1 1 1			

Step 2 Program in master and slave Master program

Wri Bigh	te Ii status to Fi of slavel
1 +	B001[M1][Modbus Read Write]
	Parameter 1 Parameter 2 Comment
	Block name: Show Parameters
Wri BOO	te Il status 2[M2] Communicate Params
	Comm Type Ethernet 👻
— <mark>» R Ù</mark>	Remote
· · · · · · · · · · · · · · · · · · ·	Target port Protocol Modbus (TCP)
Wri BOO	te Il status Local CPU Client TimeOut 5 S
	TCP/VDP TCP -
— <mark>8 R I</mark>	🗭 Standard Modbus 🦳 Custom Modbus
	Slave Address
	Data Register Index High Low
	Command 15 Write Multiple Coils
	Register addr: 1536 Count 1
	Auto Data addr: I ▼ Address 1
	C Manual 0 0 Config
	In the second se

B001 is used to write I1 status to F1 of slave1, the Remote 1 is the target1 in the network parameter settings.

	IP Address	Port	Keep Aliv	e.)	Ty	pe	Timeout	_
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	TCP	•	0	s
2. Enable	192 . 168 . 0 . 102	8002	5	S	TCP		0	S
✓ 3. Enable	192 . 168 . 0 . 103	8003	5	S	TCP	•	0	s
J. J. Freshla	192 . 168 . 0 . 105	8006	5	s	TCP	-	0	S

High	Write II status to Fl of slavel BOOI[M1] Read AII value from slavel to local AFI
B005 [M5] : En	B002[M2][Modbus Read Write]
	Parameter 1 Parameter 2 Comment
	Write II sta DLOCK name. Show Farameters BQQ2[M2]
	Communicate Farams
	Remote 2
	Write II sta Target port D Protocol Modbus(TCP) -
	B003[M3] Local CPU Client TimeOut 5 S
	TCP/VDP TCP -
	🗭 Standard Modbus 🦳 Custom Modbus
	Slave Address 1
	Data Register Index High Low 💌
	Command 15 Write Multiple Coils 💌
	Register ddr: 1536 Count 1
	Auto T Address 1
	C Manual 0 0 Config
	OK Cancel Help

B002 is used to write I1 status to F1 of slave1, the Remote 2 is the target2 in the network parameter settings.

	IP Address	Port	Keep Aliv	re -	Ty	pe	Timeout	
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	TCP	•	0	s
2. Enable	192 . 168 . 0 . 102	8002	5	S	TCP	۳	0	S
✓ 3. Enable	192 . 168 . 0 . 103	8003	5	S	TCP	•	0	8
Le d Enchlo	192 . 168 . 0 . 105	8006	5	S	TCP		0	S



B003 is used to write I1 status to F1 of slave1, the Remote 3 is the target3 in the network parameter settings.

	IP Address	Port	Keep	Alive	Ty	pe	Timeout	1
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	S	TCP	•	0	s
2. Enable	192 . 168 . 0 . 102	8002	5	S	TCP		0	S
✓ 3. Enable	192 . 168 . 0 . 103	8003	5	S	TCP	٣	0	3
A Frable	192 168 0 105	8006	5	S	TCP		0	S

	Write I1 status to F1 o B001[M1]	of slavel Read AI1 value from sl	lavel to local AFI
B005 [M5] : En		B004[M4] AF1	B004[M4][Modbus Read Write]
			Parameter 1 Parameter 2 Comment
	Write I1 status to F1 o BOO2[M2]	of slave2	Block name: Show Parameters
••••••••••••••••••••••••••••••••••••••	High	Read All value from s. B005[M5] AF2	Communicate Params
	- <u>3HW</u>		Comm Type Ethernet
			Remote
	mrite 11 status to F1 o BOO3[M3]	Read AI1 value from s	I Target port Protocol Modbus(ICF) Local CPU Client TimeOut
	High	B006[M6] AF3	TCP/WDP TCP V
			© Standard Modbus C Custom Modbus
			Slave Address
			Data Register Index High Low 💌
			Command 03 Read Holding Registers(4x) 💌
			Register addr: 1024 Count 1
			Manual 0 0 Config
			OK Cancel Help

B004 is used to read Al1 value of slave1 then save into AF1, the Remote 1 is the target1 in the network parameter settings.

	IP Address	Port	Keep /	Alive	Ту	pe	Timeout	
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	TCP	•	0	s
2. Enable	192 . 168 . 0 . 102	8002	5	S	TCP		0	S
✓ 3. Enable	192 . 168 . 0 . 103	8003	5	S	TCP	•	0	8
L. d. Eashla	192 . 168 . 0 . 105	8006	5	S	TCP	-	0	S



B005 is used to read AI1 value of slave2 then save into AF2, the Remote 2 is the target2 in the network parameter settings.

	IP Address	Port	Keep A	llive	Ty	pe	Timeout	
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	TCP	•	0	s
2. Enable	192 . 168 . 0 . 102	8002	5	S	TCP		0	S
✓ 3. Enable	192 . 168 . 0 . 103	8003	5	S	TCP	٣	0	S
L. d. Eashla	192 . 168 . 0 . 105	8006	5	S	TCP	-	0	S



B006 is used to read Al1 value of slave3 then save into AF3, the Remote 3 is the target3 in the network parameter settings.

	IP Address	Port	Keep A	live	Ту	pe	Timeout	
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	TCP	•	0	s
🗸 2. Enable	192 . 168 . 0 . 102	8002	5	S	TCP		0	S
✓ 3. Enable	192 . 168 . 0 . 103	8003	5	S	TCP	٣	0	8
J. A. Freshla	192 . 168 . 0 . 105	8006	5	S	TCP	Ŧ	0	S

Slave1--Slave3 Program would be same.

	F1=	I1 (of r	nast	ter		* *	* *		• •		• •	• •			• •			• •				• •		• •	• •	
	F1																			-	QC	001					
	h			1010			202) 202	<u>1</u>		102			202			202		i i i		1.1	П	n					
Modbus 0x=1536 (600H)	F		• •							* *			M .	db	us	0	x=0	9 (0	10]	0	F	4		14	• •	• •	
				• • •									* *			* *											
													* *			* *			* *						* *	* *	
		 	* *	* * *			• •						* *													• •	
	ALUU	1	• •	• • •				**					* *		A	Fl	-				• •						
	AL		***	*:*:*			*::*:			*:*:		**.	*:*		_		-										
Modbus_4x=1024 (400H)	\sim					Mo	dba	15_	4x	=3	07	2 (500)H)		F											

1.6.3 Example3: One master CPU(UDP Server) connect with 3 slave CPUs(UDP clients)

The connection sketch:



Requirement:

1.If I1 of Master is ON/OFF, the Q1 of slave1---slave3 are ON/OFF.

2.Read the AI2 value from the slave1--slave3 to master and display.

Step1: Configure the IP configuration of the PLCs. Master IP: 192.168.0.100 UDP Server port 8000

TD A HALL	192 168 0 100	MACA	ddress 70)-B3-D5-	8C-10-0B		-1		
IP Address	255 255 255 0	in Action		ODDUR	TOD PTT				
Subnet Mask		Proto		Eastle 1	UL C.	<u> </u>			
Default Gateway	192 . 168 . 0 . 1	_	1.	Enable	web berver	5			
Web Port	80								
TCP Server						UDP Se	rver		
Port	6400 Keep Alive	5	s 🔽	Enable		Port	8000)	Enable
Max Clients	8 Timeout	0	S			Timeou	t O		s
							1.		E
Target	TD Address	Part	Kaan A	lina	π.	-	Timeout		Ì
F 1 F 11		-	-	_		Pe I			Write
IV I. LNaole	192 . 168 . 0 . 105	8003	2	S	TCP	×	10	- -	Read
🔽 2. Enable	192 . 168 . 0 . 105	8004	5	S	TCP	<u> </u>	0	S	
🔽 3. Enable	192 . 168 . 0 . 105	8005	5	S	TCP	~	0	S	Confirm & Res
	192 . 168 . 0 . 105	8006	5	s	TCP	Ŧ	0	S	
🔽 4. Enable		0	5	s	TCP	Ŧ	0	s	
♥ 4. Enable ■ 5. Enable	0.0.0.0		1		TCP	-	0	s	
▼ 4. Enable 「 5. Enable 「 6. Enable	0.0.0.0	0	2	2			-		
 ✓ 4. Enable ✓ 5. Enable ✓ 6. Enable ✓ 7. Enable 	0.0.0.0	0	5	S	TCP	-	0	S	

Slave1:

100

IP:192.168.0.101 UDP Port 8001

Target1 IP address:192.168.0.100. UDP port 8000

eb Server con	fig		Sec. 1	the same	a to H o	f diset		
Local IP Address Subnet Mask Default Gateway Web Port	192 168 0 101 255 255 255 0 192 168 0 1 80	MAC A Proto	ddress col []	70-B3-D5-4 MODBUS-7 Z Enable V	8C-10-0B FCP RTU ▼ Veb Server			
TCP Server Port	6400 Keep Alive 7 Timeout	5	S R	Enable		DP Server ort	001	F Enable
Target	IP Address	Port	Keep .	Alive	Туре	Timeor	st	Write
🔽 1. Enable	192 . 168 . 0 . 100	8000	5	s	UDP	- 0	s	
🔽 2. Enable	192 . 168 . 0 . 105	8004	5	S	TCP	→ 0	S	Read
🔽 3. Enable	192 . 168 . 0 . 105	8005	5	S	TCP	- 0	S	Confirm & Re
🔽 4 Enable	192 . 168 . 0 . 105	8006	5	s	TCP	- 0	S	

Slave2:

IP:192.168.0.102 UDP port: 8002 Target1: 192.168.0.100 UDP port:8000

eb Server con	fig		-	A sea	-		and i		
Local IP Address Subnet Mask Default Gateway Web Port	192 168 0 102 255 255 255 0 192 168 0 1 80	MAC A	uddress nco1 	70-B3-D5 MODBUS- Z Enable	-8C-10-0E TCP RTU Web Serve	r			
TCP Server Port	6400 Keep Alive 7 Timeout	5	s I	Enable		UDP S Port Timeo	erver 80 st 0	002	S Enable
Target ———	IP Address	Port	Keep	Alive	Т	pe	Timeou	t	Write
🔽 1. Enable	192 . 168 . 0 . 100	8000	5	s	UDP	•	0	s	
🔽 2. Enable	192 . 168 . 0 . 105	8004	5	s	TCP	-	0	S	Read
🔽 3. Enable	192 . 168 . 0 . 105	8005	5	s	TCP	*	0	S	0.0.0
🔽 4. Enable	192 . 168 . 0 . 105	8006	5	s	TCP	~	0	s	Contirm & Kes
🗖 5. Enable	0.0.0.0	0	5	s	TCP	-	0	s	
C & Fuell		0	5	e	TCP	-	0		

Slave3:

IP:192.168.0.103 UDP port: 8003

Target1: 192.168.0.100 UDP port:8000

	fig		- Barris I			-		
Local P Address Subnet Mask Default Gatewa <mark>y</mark> Web Port	192 168 0 103 255 255 255 0 192 168 0 1 80	MAC Ad Protoc	ddress 70- col MC	B3-D5-8 DBUS-1 Enable V	3C-10-0B TCP RTU_▼ Veb Server			
TCP Server Port	6400 Keep Alive	5	s 🔽	Enable	- UD Po Tir	P Server rt	8003	Enable
	1. S. 1. S. 1.							
Target	IP Address	Port	Keep Ali	ve	Туре	Tin	ieout	Write
Target ▼ 1. Enable	IP Address 192 . 168 . 0 . 100	Port	Keep Ali	ve S	Type UDP	Tin	seout	Write
Target ✓ 1. Enable ✓ 2. Enable	IP Address 192 . 168 . 0 . 100 192 . 168 . 0 . 105	Port 8000 8004	Keep Ali	ve S S	Type UDP TCP	Tin ▼ 0 ▼ 0	s s	Write
Target 7 1. Enable 7 2. Enable 7 3. Enable	IP Address 192 . 168 . 0 . 100 192 . 168 . 0 . 105 192 . 168 . 0 . 105	Port 8000 8004 8005	Keep Ali	ve S S	Type UDP TCP TCP	Tin ▼ 0 ▼ 0 ▼ 0	s s s	Write Read

Step 2 Program in master and slave

Master program

		Write 71	- 74 C J 4
High		BOO1[M1]	B001[M1][Modbus Read Write]
	BOOS[MS]:En	-	Parameter 1 Parameter 2 Comment Block name: Show Parameters
		Write I1 status BOO2[M2]	Communicate Params Comm Type Ethernet
			Target IP 192.168.0.101 Target port 8001 Protocol Modbus(TCP)
		Write I1 status B003[M3]	Local CPU Server V TimeOut 5 S TCP/UDP UDP V
			Data Register Index High Low
			Command 15 Write Multiple Coils
			Auto Data addr: I Address 1
			C Manual 0 0 Config
			OK Cancel Help

B001 is used to transfer the I1 status to the F1 of slave1(slave1 IP 192.168.0.101, UDP port is 8001)



B002 is used to transfer the I1 status to the F1 of slave2(slave2 IP 192.168.0.102, UDP port is 8002)

		B003[M3][Modbus Read Write]
High	Write II status to F1 of slave1 BOO1[M1] Read AI1 valu	e from slav Parameter 1 Parameter 2 Comment
B006[M6]: En	High B004[M4]	AFI Block name: Show Parameters
		Communicate Farams Comm Type Ethernet
	B002[M2] Read AI1 valu	e from slav Target IP 192.168.0.103
		AFZ Target port B003 Protocol Modbus(TCP) Local CPU Server TimoOut E S
	- <u>}RW</u>	TCP/UDP
	B003[M3] Read AI1 valu 	e from slav AF3 C Standard Modbus C Custom Modbus
		- Slave Address 1
		Data Register Index High Low 💌
		Command 15 Write Multiple Coils
		Register addr: 1536 Count 1
		C Manual 0 0 Config
· · · · · · · · · · · · · · · · · · ·		OK Cancel Help

B003 is used to transfer the I1 status to the F1 of slave3(slave3 IP 192.168.0.103, UDP port is 8003)



B004 is used to read the AI1 value from slave1, then save it into AF1 of master(slave1 IP 192.168.0.101, UDP port is 8001)



B005 is used to read the AI1 value from slave2, then save it into AF2 of master(slave1 IP 192.168.0.102, UDP port is 8002)



Slave1--Slave3 Program would be same.



1.6.4 Example4: One master CPU(UDP Client) connect with 3 slave CPUs(UDP Servers)



Requirement:

1.If I1 of Master is ON/OFF, the Q1 of slave1---slave3 are ON/OFF.

2.Read the AI2 value from the slave1--slave3 to master and display.

Step1: Configure the IP configuration of the PLCs. Master IP: 192.168.0.100 UDP Server port 8000

Target1 UDP 192.168.0.101, Port :8001 Target2 UDP 192.168.0.102, Port :8002 Target3 UDP 192.168.0.103, Port :8003

		No. of Concession, Name	-					
IP Address	192 . 168 . 0 .	100 MAC A	Address 70	-B3-D5-80	-10-0B			
Subnet Mask	255 . 255 . 255 .	0 Prote	neol MO	DDBUS-TO	PRTU 🔻			
Default Gateway	192 . 168 . 0 .	1		Enable We	b Server			
Web Port	80							
TCP Server						Server -		
Port	6400 Keep Aliv	re 5	s 🔽	Enable	Por	E .	8000	Enable
10.00			-					-
Max Clients	5 v Timeout	0	S		Tim	eout	0	S
Max Clients	5 Timeout	0	S		Tim	eout	0	S
Target	5 <u> </u>]0	S		Tim	eout	0	S
Target	5 Timeout	0 Port	8 Keep Al	ive	Tim	eout Time	0 sout	S Write
Target	5 • Timeout IP Address 192 . 168 . 0 .	0 Port 101 8001	S Keep Al	ive S T	Type	Time	0 sout	S Write
Target I. Enable 2. Enable	5 • Timeout IP Address 192 . 168 . 0 . 192 . 168 . 0 .	0 Port 101 8001 102 8002	S Keep Al	ive S T	Type	Time	eout S	S Write Read
Target ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable	5 Timeout IP Address 192 . 168 . 0 . 192 . 168 . 0 . 192 . 168 . 0 .	0 Port 101 8001 102 8002 103 8003	8 Keep Al 5 5 5 5	ive S T S T S T	Type JDP	Time 0 0 0 0 0 0	eout S S S	S Write Read
Max Chents Target ↓ 1. Enable ↓ 2. Enable ↓ 3. Enable ↓ 4. Enable	5 Timeout IP Address 192 . 168 . 0 . 192 . 168 . 0 . 192 . 168 . 0 . 192 . 168 . 0 .	0 Port 101 8001 102 8002 103 8003 105 8006	8 Keep Al 5 5 5 5 5	ive S T S T S T S T	Type JDP	Time . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0 . 0	o sout S S S S	S Write Read Confirm & Rea
Target ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable ✓ 4. Enable ✓ 5. Enable	Timeout IP Address 192 168 0 192 168 0 192 168 0 192 168 0 192 168 0 192 168 0	0 Port 101 8001 102 8002 103 8003 105 8006 0 0 0	8 Keep Al 5 5 5 5 5	ive S S T S T S T S	Type Type TDP TDP TCP TCP	Time	o sout S S S S S	S Write Read Confirm & Res
Target	5 Timeout IP Address 192 192 168 0 192 168 0 192 168 0 192 168 0 0 0 0 0 0 0	0 Port 101 \$001 102 \$002 103 \$003 105 \$006 0 0 0 0 0 0	8 Keep Al 5 5 5 5 5 5 5	ive S T S T S T S T S T	Type UDP UDP TCP TCP	Time 0 0 0 0 0 0 0 0 0 0 0 0 0	eout S S S S S S S	S Write Read Confirm & Res
Target ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable ✓ 4. Enable ✓ 5. Enable ✓ 6. Enable ✓ 7. Enable	S Timeout IP Address IP Address 192 168 0 192 168 0 192 168 0 192 168 0 192 168 0 0 0 0 0 0 0 0 0 0 0 0 0	0 Port 101 \$001 102 \$002 103 \$003 105 \$006 0 0 0 0 0 0	8 Keep Al 5 5 5 5 5 5 5 5 5	ive S T S T S T S T S T S T S	Type JDP JDP TCP TCP TCP	Time 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	o sout S S S S S S S S S	S Write Read Confirm & Res

Slave1

IP: 192.168.0.101

UDP Server port 8001

Local IP Address	192 . 168 . 0 . 101	MACA	ddress 70-B3-	D5-8C-10-0	В	1		
Subnet Mask	255 . 255 . 255 . 0	Proto	col MODB	US-TCP RT	τ			
Default Gateway	192 . 168 . 0 . 1		🔽 Ena	ble Web Serv	/er			
Web Port	80							
TCP Server					UDP Se	rver		
Port	6400 Keep Alive	5	S 🔽 Ena	ble	Port	8001	L.	Enable
Max Clients	8 Timeout	0	S		Fimeou	t 0		s
Target								
	IP Address	Port	Keep Alive	1	Гуре	Timeout		Write
🔽 l. Enable	192 . 168 . 0 . 101	8001	5	S TCP	Ŧ	0	S	
	1						-	Road
🔽 2. Enable	192 . 168 . 0 . 102	8002	5	S TCP	Ŧ	0	S	Treas
🔽 2. Enable 🔽 3. Enable	192 . 168 . 0 . 102 192 . 168 . 0 . 103	8002 8003	5	S TCP	Y Y	0	s s	Confirm & P
☑ 2. Enable ☑ 3. Enable ☑ 4. Enable	192 168 0 102 192 168 0 103 192 168 0 105	8002 8003 8006	5 5 5	S TCP S TCP S TCP	* *	0 0 0	5 - 5 - 5	Confirm & Res
☑ 2. Enable ☑ 3. Enable ☑ 4. Enable ☑ 5. Enable	192 . 168 . 0 . 102 192 . 168 . 0 . 103 192 . 168 . 0 . 105 0 . 0 . 0 . 0	8002 8003 8006 0	5 5 5 5 5	S TCP S TCP S TCP S TCP	*	0 0 0 0	s - s - s	Confirm & Res
 ✓ 2. Enable ✓ 3. Enable ✓ 4. Enable ✓ 5. Enable ✓ 6. Enable 	192 . 168 . 0 . 102 192 . 168 . 0 . 103 192 . 168 . 0 . 105 0 . 0 . 0 . 0 0 . 0 . 0 . 0	8002 8003 8006 0 0	5 5 5 5 5	S TCP S TCP S TCP S TCP S TCP	4 4	0 0 0 0	S - S - S - S - S	Confirm & Res
 2. Enable 3. Enable 4. Enable 5. Enable 6. Enable 7. Enable 	192 . 168 . 0 . 102 192 . 168 . 0 . 103 192 . 168 . 0 . 103 192 . 168 . 0 . 105 0 . 0 . 0 . 0 0 . 0 . 0 . 0 0 . 0 . 0 . 0 0 . 0 . 0 . 0	8002 8003 8006 0 0 0	5 5 5 5 5 5 5	S TCP S TCP S TCP S TCP S TCP S TCP S TCP	+ + +	0 0 0 0 0	s - s - s - s - s	Confirm & Res

Slave2

IP: 192.168.0.102 UDP Server port 8002

Local				-						
IP Address	192 . 168 . 0	. 102	MAC Ad	ddress	70-B3-D5-	8C-10-0	В			
Subnet Mask	255 . 255 . 255	. 0	Protoc	:01	MODBUS-	TCP RT	u 🕶			
Default Gateway	ay 192 . 168 . 0 . 1 🔽 Enable Web Server									
Web Port	80									
TCP Server						-	UDP Se	rver		
Port	5400 K.eep	Alive 5		S	Enable		Port	8003	2	Enable
Max Clients	5400 Keep 3 v Time	Alive 5 out 0		s s	🔽 Enable		Port Timeou	8002	2	S Enable
Max Clients	5400 Keep 3 Time	Alive 5 out 0		s s	🔽 Enable		Port Timeou	8002	2	S Enable
Max Clients	5400 Keep 3 Time IP Address	Alive 5 out 0	Port	S S Kee	F Enable	т	Port Timeou	800: t 0 Timeout	2	S Write
Max Clients 7 Target 7 V 1. Enable	5400 Keep 8 Time IP Address 192 . 168 . 0	Alive 5 out 0	Port	S S Kee	P Alive	TCP	Port Timeou ype	8002 t 0 Timeout	2	S Write
Max Clients Target 1. Enable	5400 Keep 8 Time IP Address 192 . 168 . 0 192 . 168 . 0	Alive 5 out 0 . 101 . 102	Port 8001 8002	\$ \$ [5] [5]	p Alive	T TCP TCP	Port Timeou ype	8002 t 0 Timeout 0	2 5 5	S Enable
Max Clients Target V 1. Enable V 2. Enable V 3. Enable	S400 Keep 8 • Time IP Address 192 168 0 192 168 0 192 168 0	Alive 5 out 0 . 101 . 102 . 103	Port 8001 8002 8003	\$ \$ [5 [5] [5]	p Alive s s s	T TCP TCP TCP	Port Timeou ype	8002 t 0 Timeout 0 0	2 - s - s - s	Vrite Read

Slave3

IP: 192.168.0.103

UDP Server port 8003

	192 168 0 103	MACA	ddrass	70-B3-D5-	8C-10-0	B	-			
IP Address	152 . 100 . 0 . 105	MACA	outess	10 25 25	00 10 0					
Subnet Mask	255 . 255 . 255 . 0	Proto	otocol MODBUS-TCP RTU							
Default Gateway	7 192 . 168 . 0 . 1 ₩ Enable Web Se									
Web Port	80									
TCP Server					21		erver			
Port	6400 Keep Alive	5	S	Frahla	2	Port	ſ	8003	Enable	
1				. Dilabite			1	10000	17 Dilatic	
Max Clients	8 💌 Timeout 🚺)	S			Timeo	ut [0	s	
Max Clients	8 T imeout (0	S			Timeo	ut [0	s	
Max Clients	8 Timeout (Port	S Keep	Alive		Timeo Type	ut [Timed	0 nut	S Write	
Max Clients	8 Timeout (IP Address 192 . 168 . 0 . 101	Port 8001	S Keep	Alive S	TCP	Timeo Iype	ut Timeo	out s	S Write	
Max Clients Target	IP Address 192 168 0 101 192 168 0 101	Port 8001 8002	8 Keep 5 5	Alive S S	TCP TCP	Timeo Type +	ut Timeo	out sut s	S Write Read	
Max Clients Target Target 1. Enable 2. Enable 3. Enable	IP Address IP Address 192 168 0 101 192 168 0 102 192 168 0 102	Port 8001 8002 8003	\$ Keer 5 5 5	Alive S S S	TCP TCP TCP TCP	Timeo Type *	ut Timeo	out s s s s	S Write Read	
Max Clients Target ↓ 1. Enable ↓ 2. Enable ↓ 3. Enable ↓ 4. Enable	Image: Second state	Port 8001 8002 8003 8006	S Keer 5 5 5 5 5	Alive S S S S	TCP TCP TCP TCP TCP	Timeo Type Type	Timec	out sut s s s s s s	S Write Read Confirm & Re	
Max Clients □ Target □ □ 1. Enable □ 2. Enable □ 3. Enable □ 4. Enable □ 5. Enable	Image: Second state Timeout Image: Second state IP2 168 0 101 192 168 0 102 192 168 0 103 192 168 0 103 192 168 0 105 0 0 0 0 0	Port 8001 8002 8003 8006 0	S Keep 5 5 5 5 5 5 5 5	0 Alive S S S S S S S S	TCP TCP TCP TCP TCP TCP	Timeo Type Type	ut Timeo	out S S S S S S	S Write Read Confirm & Re	

Step 2 Program in master and slave Master program



B001 is used to transfer I1 status to the F1 of slave1 by UDP connection.

The Remote1 is the target UDP server setting in the network parameter:

Local			_			-		
IP Address	192 . 168 . 0 . 100	MAC A	ddress 70-B	3-D5-8C-10)-0B			
Subnet Mask	255 . 255 . 255 . 0	Proto	col MOI	DBUS-TCP I	RTU 🔻			
Default Gateway	192 . 168 . 0 . 1		₩ E	nable Web Se	erver			
Web Port	80							
TCP Server						rver		
Port	6400 Keep Alive 5	1	S 🔽 E	nable	Port	8000)	Enable
	Language Inc.					1 Sectores		
Max Clients	5 Timeout 0		S		Timeou	t 0		S
Max Clients	5 Timeout 0		S		Timeou	t 0		S
Max Clients Target	5 Timeout 0	Port	S Keep Aliv	e	Timeou Type	t 0 Timeout		S Write
Max Clients Target 1. Enable	5 Timeout 0 IP Address 192 . 168 . 0 . 101	Port	S Keep Aliv	e S UDI	Timeou Type	t 0 Timeout	s	SWrite
Max Clients Target 1. Enable 2. Enable	5 Timeout 0 IP Address 192 . 168 . 0 . 101 192 . 168 . 0 . 102	Port 8001 8002	S Keep Aliv	e S UD S UD	Timeou Type P •	t 0 Timeout 0	S	S Write Read
Max Clients Target 1. Enable 2. Enable 3. Enable	5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103	Port 8001 8002 8003	S Keep Aliv 5 5 5	e s עסט s עסט s עסט	Timeou Type P • P •	t 0 Timeout 0 0	s s s	S Write Read
Max Clients Target Target 1. Enable 2. Enable 3. Enable 4. Enable	5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 103 192 168 0 103	Port 8001 8002 8003 8006	\$ Keep Aliv- 5 5 5 5 5	e S UDD S UDD S UDD S TCD	Timeou Type P • P • P •	t 0 Timeout 0 0 0	S S S	S Write Read Confirm & Rea
Max Clients Target I. Enable I. Enable I. S. Enable S. Enable	5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 103 192 168 0 105 0 0 0 0 0	Port 8001 8002 8003 8006 0	\$ Keep Aliv 5 5 5 5 5 5	e S UDD S UDD S UDD S TCT S TCT	Timeou Type P • P • P • P • P •	t 0 Timeout 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	S S S S	S Write Read Confirm & Res
Max Clients Target Target I. Enable I 2. Enable I 4. Enable 5. Enable 6. Enable	5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 105 0 0 0 0 0 0 0 0	Port 8001 8002 8003 8006 0 0 0	\$ Keep Aliv 5 5 5 5 5 5 5	s UDD s UDD s UDD s TCI s TCI s TCI	Type Type P V P V P V P V P V P V P V P V P V P	t 0 Timeout 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	S S S S S	S Write Read Confirm & Res
Max Clients Target Target	5 Timeout 0 IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 103 192 168 0 105 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Port 8001 8002 8003 8006 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ Keep Alive 5 5 5 5 5 5 5 5	s UDD s UDD s UDD s TCC s TCC s TCC s TCC s TCC	Timeou Type P	t 0 Timeout 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	S S S S S S S	S Write Read Confirm & Rea



B002 is used to transfer I1 status to the F1 of slave2 by UDP connection.

The Remote2 is the target UDP server setting in the network parameter:

Local	18 St.		2255				- 22		
IP Address	192 . 168 . 0 . 100	MAC A	ddress 7	70-B3-D5	-8C-10-0	В			
Subnet Mask	255 . 255 . 255 . 0	Proto	201 1	MODBUS-	TCP RT	ü_▼			
Default Gateway	7 192 . 168 . 0 . 1			Enable	Web Serv	er			
Web Port	80								
TCP Server							erver		
Port	6400 Keep Alive	5	S I	Enable		Port	[8000	Enable
Max Clients	5 Timeout					Timen			
		,	3			Timeo			0
Target —			•			Timeor	. J.	,]
Target	IP Address	Port	s Keep	Alive	Т	Cype	Timeo	ut	Write
Target	IP Address	Port	Keep J	Alive S	T UDP	Cype	Timeo	ut S	Write
Target I. Enable 2. Enable	IP Address IP 2 . 168 . 0 . 101	Port 8001 8002	5 5 5	Alive S	T UDP UDP	Timeo Type	Timeo	ut S S	Write
Target ✓ 1. Enable ✓ 2. Enable ✓ 3. Enable	IP Address IP 2 . 168 . 0 . 101	Port 8001 8002 8003	5 5 5 5	Alive S S	T UDP UDP UDP	Timeo Type	Timeo 0 0	ut S S	Write Read
Target v 1. Enable v 2. Enable v 3. Enable 1. Enable	IP Address I92 . 168 . 0 . 101 192 . 168 . 0 . 102 192 . 168 . 0 . 103 192 . 168 . 0 . 105	Port 8001 8002 8003 8006	5 5 5 5 5	Alive S S S S	T UDP UDP UDP TCP	Times	Timeo 0 0 0 0 0 0	ut S S S S	Write Read
Target Target 1. Enable 2. Enable 3. Enable 4. Enable 5. Enable	IP Address IP Address I92 . 168 . 0 . 101 I92 . 168 . 0 . 102 I92 . 168 . 0 . 103 I92 . 168 . 0 . 105 0 . 0 . 0 . 0	Port 8001 8002 8003 8006 0	5 5 5 5 5 5 5	Alive S S S S S	T UDP UDP UDP TCP TCP	lype	Timeo 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ut S S S S S	Write Read Confirm & Re
Target	IP Address IP 2 . 168 . 0 . 101 I92 . 168 . 0 . 102 I92 . 168 . 0 . 103 I92 . 168 . 0 . 105 0 . 0 . 0 . 0 0 . 0 . 0 . 0	Port 8001 8002 8003 8006 0 0 0	5 5 5 5 5 5 5 5 5	Alive S S S S S S	UDP UDP UDP TCP TCP TCP	ype	Timeo 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ut S S S S S S S	Write Read Confirm & Re
Target ▼ 1. Enable ▼ 2. Enable ↓ ↓ □ ↓	IP Address 192 168 0 101 192 168 0 102 192 168 0 103 192 168 0 103 192 168 0 105 0 0 0 0 0 0 0 0 0 0	Port 8001 8002 8003 8006 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 5 5 5 5 5 5 5	Alive S S S S S S	T UDP UDP UDP TCP TCP TCP	Sype	Timeo 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ut S S S S S S S	Write Read Confirm & Re

	Write T1 status	to Fl. o	f cloval		
High	B001[M1]		Read AII value from slavei t	B003[M3][Modbus Read Write]	×
		High	B004[N4] AF1	Parameter 1 Parameter 2 Comment	
Door Tool 7. 211				Block name: Show Parameters	
	Write II status	to F1 o	f slave2	-Communicate Params	
		Hish	Read AI1 value from slave2 t BDD5[M5] AF2	Comm Type Ethernet 💌	
				Remote 3 -	
				Target port Protocol Modbus(TC	P) 🔻
	Write I1 status BOD3[M3]	to F1 o	f slave3 Read AI1 value from slave3 t	TCP/IMP	S
		High	B006[M6] AF3		.
	-120	-		(* Standard Modbus) Custom Modbus	
				Slave Address 1	
				Data Register Index High Low 💌	
				Command 15 Write Multiple Coils	•
				Register addr: 1536 Count 1	
				* Auto Data addr: I 💌 Address	
				C Manual 0 0 Config	
				OK Cancel	Help

B003 is used to transfer I1 status to the F1 of slave3 by UDP connection.

The Remote3 is the target UDP server setting in the network parameter:

Local	102 169	0 100			70 B2 D5	80 10 0	2	-		
IP Address	192 . 100	. 0 . 100	MACA	ooress	70-03-03-	-oc-10-0.				
Subnet Mask	255 . 255	. 255 . 0	Proto	col	MODBUS-	TCP RT	u -1			
Default Gateway	, 192 . 168	. 0 . 1			Enable	Web Serv	er			
Web Port	80									
TCP Server							UDP Se	rver		
Port	6400	Keep Alive	5	S	🔽 Enable		Port	800	0	Enable
Max Clients	5 💌	Timeout	0	s			Timeou	t 0		S
Target										1
	IP A	ddress	Port	Kee	p Alive	Т	ype	Timeout		Write
1. Enable	192 . 168	. 0 . 101	8001	5	S	UDP	-	0	S	
✓ 2. Enable	192 . 168	. 0 . 102	8002	5	S	UDP	•	0	s	Read
🗸 3. Enable	192 . 168	. 0 . 103	8003	5	S	UDP	•	0	S	Confirm & Rea
4. Enable	192 . 168	. 0 . 105	8006	5	S	TCP	Ŧ	0	s	
5. Enable	0.0	. 0 . 0	0	5	S	TCP	Ŧ	0	S	
6. Enable	0.0	. 0 . 0	0	5	s	TCP	-	0	s	
	0.0	. 0 . 0	0	5	S	TCP	Ψ	0	S	
7. Enable	and the second second									



B004 is used to read Al1 value from slave1 and save the value into AF1 by UDP connection.

The Remote1 is the target UDP server setting in the network parameter:

Target									
	IP Address	Port	Keep Alive		Type		Timeout		
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	UDP	•	0	S	
2. Enable	192 . 168 . 0 . 102	8002	5	S	UDP		0	S	
🔽 3. Enable	192 . 168 . 0 . 103	8003	5	\$	UDP	•	0	s	
			100	_		_			

High	Write I1 status BOO1[M1]	s to F1 of	slavel	
		High	Kead All value from slav BOO4[M4] AF1	B005[M5][Modbus Read Write]
		· · · · · · · · · · · · · · · · · · ·		Parameter 1 Parameter 2 Comment
	Write I1 status B002[M2]	to F1 of	slave2	Block name: Show Parameters
		Hi gh	Read All Value from Slav BOO5[M5] AF2	Communicate Params
				Remote
	Write Il status	s to F1 of	slave3	Target port O Protocol Modbus (TCP) V
		Hi gh	Read AI1 value from slav BOO6[M6] AF3	Local CPU Client TimeOut 5 S
		2		
				(* Standard Modbus (* Lustom Modbus
				Slave Address 1
				Data Kegister Index High Low
				Command 03 Read Holding Registers (4x)
				🏽 Auto Data addr: AF 💌 Address 2
				Config
				OK Cancel Help

B005 is used to read AI1 value from slave2 and save the value into AF2 by UDP connection.

The Remote2 is the target UDP server setting in the network parameter:

	IP Address	Port	Keep Alive		Type		Timeout	
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	UDP	•	0	s
2 Enable	192 , 168 , 0 , 102	8002	5	s	UDP	•	0	S
✓ 3. Enable	192 . 168 . 0 . 103	8003	5	s	UDP		0	S



B006 is used to read Al1 value from slave3 and save the value into AF3 by UDP connection.

The Remote3 is the target UDP server setting in the network parameter:

	IP Address	Port	Keep Alive		Type		Timeout	
🔽 1. Enable	192 . 168 . 0 . 101	8001	5	s	UDP	•	0	\$
🔽 2. Enable	192 . 168 . 0 . 102	8002	5	\$	UDP	٠	0	5
₩ 3. Enable	192 . 168 . 0 . 103	8003	5	s	UDP	-	0	S



