

A-BOX remote communication module

User manual

Wuxi Xinje Electric Co., Ltd.

Data No. MC12 20180914 1.0

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1. Introduction

1-1. Product overview

In order to solve the problem of information isolation of automatic equipment, ABOX series of products can realize remote download program and device data monitoring of PLC, HMI, intelligent instrument lamp and other products. The network configuration of ABOX product is simple, no need for professional technology, and easy to use.

- Compatibility
- ▶ Rich network access: 4G/WiFi/RJ45
- ▶ Up to 2 channels of RS232/485/422 serial port
- ▶ Up to 3 channels 10/100M adaptive RJ45 interface
- > Provide RJ45/WiFi network environment, allow varity of network equipments
- > Compatible with various mainstream controllers in the market
- Performance features
- ➢ 4G fits all kinds of network
- GPS function
- Serial port transparent transmission
- Ethernet VPN technology
- ➢ Fit for global network environment
- Persistent online, redial and watchdog function

2. Performance parameters

2-1. Structure







2-2. Dimension

The overall dimension is 50.0mm ×125.0mm ×94.0mm (W ×H ×D). Please install on the DIN46277(width is 35mm) rail.



Note:

(1) during screw hole processing and wiring, please do not let the chip and wire chip fall into the module.

(2) before connecting, please confirm the specification of module and connecting equipment to ensure there is no error.

(3) when the connection is made, please note whether the connection is firm or not. If the connection falls off, the wrong data and short circuit will be caused. Installation, wiring, etc. shall be performed after the power supply is cut off.

2-3. Status light

After the module is powered, the indicator light will be lit according to the function. The meaning is as follows:



Light	Description
PWR	Power supply indicator, normally on when power is on
FN	Flashing fast when the flash disk is updating firmware Flashing slowly when exporting the historical data
LINK	Always lights when log on server succeeded Flashing in Virtual serial port/VPN mode
4G	Always lights when the SIM card is in, Flashing when the SIM card is not in
WIFI	Always lights in STA (station) mode Flashing in AP(hotspot) mode
GPS	Always lights when receiving the GPS information successfully

2-4. Flash disk

To do the following, make sure the flash disk file system format is FAT32, otherwise it may fail.

2-4-1. Update the firmware

1. Create a folder named XINJE in root directory of flash disk, please put the update file XnetNew.abin in this folder.

📕 🛃 📕 🖛	XINJE	_	×
文件 主页	共享 查看		~ 🕐
$\leftarrow \rightarrow \cdot \uparrow$	« U 盘 (F:) → XINJE v	· ^ひ 搜索"XINJE"	Q
XnetNew.abi n			8 🔳

2. Connect the flash disk to the USB port of ABOX, and power on the ABOX again. FN light is flashing fast, it means ABOX is updating, ABOX will restart again automatically after update.

2-4-2. Export history

Create a folder named XINJE in root directory in flash disk, connect the flash disk to USB port of ABOX, click the reset button on the left side of ABOX to start historical data export. FN light will flash slowly when exporting, FN light will be off when the exporting process ends.

2-5. SIM card

- SIM card dimension is Nano SIM card
- Support all the telecom operators



2-6. Ethernet port



- > 10M/100M adaptive port
- > When the Internet mode is Ethernet port, the first port is WAN port
- > When the Internet mode is 4G or WIFI, all the port is LAN port
- 2-7. Power supply

FG	
0V	
24V	

The module power supply is 24V DC, the allowable range is DC 21.6V~26.4V.

2-8. Communication port

Two serial ports, which are com0 and com1. com0 and com1 can be used at the same time. The RS232 and RS485/RS422 of the same port cannot be used at the same time.



COM0 port pin definition:

	Pin no.	Name	Meaning
	1	NC	Empty
	2	RXD	RS232 receive data
9876	3	TXD	RS232 send data
	4	А	RS485+
	5	GND	Signal ground
	6	BUSY	Busy signal
5 4 3 2 1	7	В	RS485-
	8	NC	Empty
	9	NC	Empty

COM1 port pin definition:



2-9. Antenna

ABOX has three antenna interfaces which are 4G, WIFI, GPS, they are all extension antenna.



2-10. Reset button

Triggering mode	Function
0-5s	Start historical data export
5-15s	Restore factory initial setting
>15s	Factory mode

2-11. General specification

Item	Specification
Using environment	No corrosive gas
Environment temperature	0°C~60°C
Storage environment temperature	-20~70°C
Environment humidity	5~95%RH
Storage environment humidity	5~95%RH
Installation	Fix on the rail DIN46277 (width is 35mm) with M3 screw

2-12. Product features

Parameter	Descriptions
CPU	MT7628
FLASH	32MB SPI FLASH
ROM	256MB
Ethernet port	3 channels 10M/100M adaptive port
Communication	COM0: RS232/RS485
port	COM1: RS232/RS485/RS422
USB port	USB Host
4G module	EC20 R2.0
4G working	GSM/GPRS: 900/1800MHz EDGE: 900/1800MHz
frequency	UMTS: CDMA2000(BC0), WCDMA(B1, B8), TD-SCDMA(1.9G, 2G)
	LTE: FDD(B1, B3, B8)TDD(B38, B39, B40, B41)
	GNSS: GPS, GLONASS
WIFI working	2.4GHz
frequency	
Max	GSM/GPRS: 2W EDGE: 0.5W
transmitting power	UMTS: 0.25W LTE: 0.25W
Working	-10°C~50°C
temperature	
Average	<150mA 4W
standby current	

3. Configuration environment

3-1. Preparation

ABOX has WAN and LAN configuration mode. LAN configuration uses Ethernet cable (UTP5) connecting to any LAN port. WAN configuration needs the module log on the server successfully. The defaulted parameters can be used, user no need to set the parameters.

Version requirements		
Firmware	Configuration tool	
V1.0.0 and up	V2.1.001(20180810)	

3-1-1. LAN

1. Connect the ABOX to PC with Ethernet cable, find the corresponding network card, right click the property, remember the network card name (in this example, the name is Ethernet) which will be used when configuring the ABOX adapter.



2. find the Internet protocol version 4(TCP/IPv4).

<u>P</u>	Ethernet Properties	×			
Networking					
Connect using:					
🔮 Realtek P	Cle GBE Family Controller #2				
	<u>C</u> onfigure				
This connection	uses the following items:				
QoS Pa Microso Aicroso Ai	acket Scheduler oft Network Adapter Multiplexor Protocol oft LLDP Protocol Driver yer Topology Discovery Mapper I/O Driver yer Topology Discovery Responder Protocol Version 6 (TCP/IPv6) Protocol Version 4 (TCP/IPv4)	^ ~			
l <u>n</u> stall	Uninstall Properties				
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks. OK Cancel					

3. change the IP setting to obtain an IP address automatically

Internet Protocol Version	4 (TCP/IPv4) Properties
General Alternate Configuration	
You can get IP settings assigned auton this capability. Otherwise, you need to for the appropriate IP settings.	natically if your network supports ask your network administrator
Obtain an IP address automatical	ly
O Use the following IP address:	
IP address:	
Subnet mask:	
Default gateway:	
Obtain DNS server address autor	natically
Use the following DNS server add	resses:
Preferred DNS server:	
Alternate DNS server:	· · · · ·
Validate settings upon exit	Advanced
	OK Cancel

4. Open the configuration tool, find the adapter in my PC, click the adapter.

3				Welco	me to u	se xinje config tool	-		×
File	e(F)	Tool(T)	Envir	onment(E)	Help(H)				
۲	PL	.C		FouchWin					
۲	4GE	Box		WBox		ABox			
j	P	С							
服务	≩运行	亍中	_					_	:

		Locol Config	×
Remote Ro	ute Ada	lapter	
Adapte	er:	跟随系统 🗸	
Descrip	otion:	自动选择系统默认适配器。	
		You can choose the right Ethernet Adapter	
	wr	nich server work on.	
		Read	Vrite

5. Change the adapter to the network card name connected before, refer to step 1, click write.

	Locol Config	×
Remote Route Adapter		
Adapter: Ethe	met v	
Description: Real	tek PCIe GBE Family Controller #2	
You	can choose the right Ethernet Adapter	
which	server work on.	
	Read Write	
	Tredu Valle	

6. Click ABOX in the configuration tool.

		Welcome to use xinje config tool 🛛 🗖 🗖	×
File	(F) Tool(T)	Environment(E) Help(H)	
۲	PLC	TouchWin	
۲	4GBox	🥪 WBox 👒 ABox	
J N	PC		
服务	运行中		:

7. Click the LAN connection, input ABOX device ID(refer to ABOX label), or click get ID, click link, it will show read success after connection is successful.

-14	ABo	xLink	×	
Remote	Ethernet			
ID:	020-0)03-001-0306-0000		Read success!
	GetID	Link		确定

8. After the connection is successful, it will jump to configuration interface automatically.

ABox		\times
文件(F) 工具(T) 帮助	均(H)	
连接设备ID: 020-003-00	11-0308-0000(远程)	
🗡 设置向导		
🗉 聲 用户设置	工作模式	
🗄 🖺 用户功能	40	
🗄 🔨 系统工具		
	WAN Internet	
	● 視式A ()通过4G上网)	
	◯ 模式B(通过Wifi上网)	
	○ 模式C(通过有线网口上网)	
	下一步	

9. After the working mode is configured, the server is logged on successfully(the LINK light is always on), please change the adapter to follow system in configuration tool when remote connecting ABOX with configuration tool, and click write.

.	Locol Config	×
Remote Route Ad	apter	
Adapter:	即随乏统	
Adaptor.	PKN0237330	
Description:	自动选择系统默认适配器。	
	You can choose the right Ethernet Adapter	
wł	nich server work on.	
	Read Write	

3-1-2. WAN

1. ABOX accesses to WAN successfully, make sure the PC can access the network before configuration. Open the configuration tool, click ABOX. The network configuration mode please

refer to setup wizard.

	Welcome to use xinje config tool -	×
File(F) Tool(T)	Environment(E) Help(H)	
📦 PLC	TouchWin	
⊚ 4GBox	Image: WBox Image: ABox Image:	
👰 PC		
服务运行中		

2. input ABOX device ID in remote connection(refer to the ABOX label), server domain name is <u>www.x-net.info</u>, defaulted password is 12345678. click link, it will show read success after successful connection. You can continue to operate.

.	ABoxLink	×	
Remote Etherne	et		×
ServerDNS:	www.x-net.info 02-003-001-0308-0000		Read success!
Password:	12345678 Link		确定

3. After successful connection, it will jump to configuration interface automatically.

ABox		\times
文件(F) 工具(T)	帮助(H)	
连接设备ID: 020-003	3-001-0308-0000(远程)	
🎤 设置向导		
🗄 🔮 用户设置	工作模式	
🛛 👫 用户功能	40	
🗄 🔨 系统工具		
	AN Internet	
	○ 模式B(通过Wifi上网)	
	○ 模式C(通过有线网口上网)	
	下	
	1, 0	

3-2. Setup wizard

The network access mode includes 4G/WIFI/RJ45, using wizard configuration parameters. The defaulted mode is 4G

3-2-1. Mode A (access to Internet via 4G)

1. in working mode interface, choose mode A(access to Internet via 4G), click next.

ABox	×
文件(F) 工具(T) 帮助	(H)
连接设备ID: 020-003-001	-0308-0000(远程)
🎤 设置向导	
🗄 🔮 用户设置	工作模式
🗷 👫 用户功能	46
🗄 🔨 系统工具	
	WAN Internet
	● 模式A(通过4G上网)
	○ 模式B (通过Wifi上网)
	○ 模式C(通过有线网口上网)
	世一才

2. Set the LAN port parameters. LAN port provides network access capability for other network devices, enabling wireless hotspot function, the defaulted WIFI name is XINJE ABOX, defaulted password is XINJEABOX. ABOX is equivalent to wireless router, which can provide hotspot for other devices.

📑 ABox		×
文件(E) 工具(I) 帮助(E	£)	
连接设备ID: 020-003-001-0	030a-0000(远程)	
✓ 设置向导 ■ 曾 用户设置	局域网参数	
 图 图 用户功能 图 系统工具 	局域网	热点
•••••	开启DHCP服务: TRUE V	AP I 启用热点
	IP(网关): 192 · 168 · 1 · 1	ESSID: XINJE ABOX
	子阿掩码: 255、255、255、0	꺒4号: XINJEABOX
		近回 下一步

3. Click next, restart ABOX to make the settings effective.

🙀 ABox		×
文件(F) 工具(T) 帮助(H)	
连接设备ID: 020-003-001-	030a-0000(远程)	
🥕 🎢 设置向导		
🗉 🔮 用户设置	ABox重启	
🗄 👫 用户功能		
🗄 🔨 系统工具		
	返回重启	

4. When the power is cut off, power on after the module is insert with SIM card. Log on the server after the function is initialized. 4G light is always on, LINK light is always on, WIFI light is flashing.

3-2-2. Mode B (access to Internet via WIFI)

1. in working mode interface, choose mode B(access to Internet via WIFI), click next.

🐺 ABox		×	
文件(E) 工具(I) 帮助	D(H)		
连接设备ID: 020-003-001	1-0308-0000(远程)		
🗡 设置向导			
🗄 🔮 用户设置	工作模式		
🗄 👫 用户功能	46		
🗄 🔨 系统工具	· · · · · · · · · · · · · · · · · · ·		
	WAN Internet		
	○ 模式A(通过4G上网)		
	● 模式B (通过Wifi上网)		
	○ 模式C(通过有线网口上网)		
	下一步		
		_	

2. Set the network connection parameters, fill in the WIFI name and password. It is recommended to choose DHCP for WAN protocol.

🙀 ABox		×
文件(F) 工具(T) 帮助(I 连接设备ID: 020-003-001-	H) -030a-0000(远程)	
 ▶ 设置向导 ● 曾 用户设置 ● ● 用户功能 	联网参数	
	广域网 元线 协议: DHCP IP 地址: 子网摘码: 默认网关: 激认网关:	
	返回 下一步	ŧ

→ABox →///(D) 工具(D) 非助(741	>
连接设备ID: 020-003-001-	-0306-0000(局域网)	
 ▶ 设置向导 ● 曾 用户设置 ● □ 田立井谷 	局域网参数	
 ■ ● 用户切能 ■ ▲ 系统工具 	局域网 开启DHCP服务: TRUE V	热点
	IF(网关): 192.168.1.1	ESSID: XINJE ABOX
	子网掩码: 255、255、255、0	密码: XINJEABOX
		返回 下一步

3. Click next, set the LAN parameters, it is recommended to enable the DHCP service. Mode B cannot provide hotspot.

4. Click next, restart the ABOX to make the settings effective. After log on the server successfully, LINK and WIFI light are always ON.

🙀 ABox		×
文件(E) 工具(T) 帮助(H)	
连接设备ID: 020-003-001	-030a-0000(远程)	
🥕 🗡 设置向导		
🗈 🔮 用户设置	ABox重启	
🖲 👫 用户功能		
🗄 🔨 系统工具		
	返回重启	

3-2-3. Mode C(access to Internet via Ethernet port)

1. in the working interface, choose mode C(access to Internet via Ethernet port), click next.

📑 ABox				×
文件(E) 工具	【(<u>T</u>) 帮助((<u>H</u>)		
连接设备ID: 0	20-003-001	-0308-0000(远程)		
🥕 🥕 设置।	句导			
🖩 🔮 用户词	255			
▣ 🖁 用户)	功能		46	
🗄 🔨 系统	T目		÷	
			WAN Internet	
			○ 模式A(通过4G上网)	
			◯ 模式B(通过Wifi上网)	
			● 模式C (通过有线网口上网)	
				下一步

2. Set the WAN port parameters, choose DHCP(recommended) or static. Click next after setting.

🙀 ABox		×
文件(E) 工具(I) 帮助(H)	
连接设备ID: 020-003-001-0	30a-0000(远程)	
 → 设置向导 ● 曾 用户设置 ● 用户功能 	联网参数	
● 配 用厂切配	广域网 □HCP ✓ AP ✓ △ 信道: 11 ✓ IP 地址: 加密: WFA2-PSK ✓ 子阿掩码: ESSID: XINJE 默认网关: 密码: 12344321	
	返回下一步	

3. Set the LAN port parameters, it is recommended to startup the DHCP service. WAN and LAN port network information is not allowed to conflict. LAN port provides network access capability for other network devices, enabling wireless hotspots function, defaulted WIFI name is XINJE ABOX, defaulted password is XINJEABOX. ABOX is equivalent to wireless router, which can provide hotspot for other devices.

🔜 ABox		×
文件(E) 工具(T) 帮助(Ш	
连接设备ID: 020-003-001-	-030a-0000(远程)	
🥕 🥕 设置向导		
🗉 🔮 用户设置	局域网参数	
🗉 👫 用户功能		
🗄 🔨 系统工具	局域网	- 热点
	开启DHCP服务: TRUE ~	AP
	IP(网关): 192、168、1、1	ESSID: XINJE ABOX
	子网掩码: 255、255、255、0	密码: XINJEABOX
		返回 下一步

4. Click next, restart the ABOX to make the settings effective. WAN accesses to the network with RJ45 port, after log on the server successfully, LINK light is always ON, WIFI light is flashing.

🙀 ABox		×
文件(E) 工具(I) 帮助((H)	
连接设备ID: 020-003-001-	-030a-0000(远程)	
🥕 🗡 设置向导		
🗄 🔮 用户设置	ABox重启	
🗄 👫 用户功能		
🗄 🔨 系统工具		
	返回	重启

3-3. User setting

3-3-1. Device safety

The ABOX device password is used as the password verification for ABOX connection. The factory setting is 12345678. After initializing ABOX, the password is also 12345678. Password length is 8 bits, which can be letters, numbers, sensitive cased.

🔜 ABox		×
文件(F) 工具(T) 帮助(Ш	
连接设备ID: 020-003-001	-030a-0000(远程)	_
🗡 设置向导		
□ 🔮 用户设置	设备安全	
- 🔯 设备安全		
- 🜒 服务器		
🗉 <table-of-contents> 用户功能</table-of-contents>	为设备设置访问密码,用户可以通过ABox的	
🗄 🔨 系统工具	「レベル上第四)では元王文次(文用。	
	ABox设备密码: 12345678	
	此配置在<系统工具>中,选择重启ABox后生效	

3-3-2. Server

The server is divided into XINJE service and transmission service. Do not modify it for non special use.

Ly ABox	
(文件() 工具() 報報	200
注接设备ID: 020-003-00 → 设置向导 ● ● 用户设置 ● ● 用户设置 ● ● 服务器 ● ● 用户功能 ● ● 系统工具	1-030a-0000(远程) 服务器 信種服务 传输服务 启用远程通信: ☑ 服务器域名: www.x=net.info 服务器IP:
<mark>财</mark> ABox 文(牛(E) 工具(□) 帮助(此配置在〈系统工具〉中,选择重启ABox后生效 出
连接设备ID: 020-003-001-	030a-0000(远程)
🥕 设置向导	
🗆 聲 用户设置	服务器
🔯 设备安全	信捷服务 传输服务
- 🚮 服务器	
■ ■ 田户功能	
■ 🔨 系统工具	服务器地址: www.x-net.info
	服务器令牌: *******
	此配置在<系统工具>中,选择重启AB ox后生效

3-4. User function

3-4-1. Serial port

Set the com0, com1 parameters of ABOX. Com0 and com1 can be used at the same time. The RS232 and RS485/RS422 for the same port cannot be used at the same time. Write in the serial port parameters, the parameters will be effective immediately.

ABox	*
文件(F) 工具(T) 帮助(Ш
连接设备ID: 020-003-001	-030a-0000(远程)
🗡 设置向导	
🗉 聲 用户设置	串口设置
🛛 <table-of-contents> 用户功能</table-of-contents>	COMO COM1
🖶 🖶 串口设置	波特室: 19200 🗸
- 🚰 虚拟串口	
● ● 数据监控	数据位:
VIN VPN	校验位: EVEN ✓
🗄 🔨 系统工具	停止位: 1 🗸
	写入并生效

3-4-2. Virtual serial port

Transparent transmission, the transport network is only responsible for the transport of services to the destination node, while ensuring the quality of transmission. The virtual serial port enables the remote PC control the device which is connected ABOX via serial port. The virtual serial port supports LAN and WAN mode. Refer to chapter 4-1 for details.



3-4-3. VPN

VPN is virtual private network, which establishes a private network on public network for encrypted communication. Connect the network interface device to ABOX directly through the network cable, the remote PC can control the device with network interface through Ethernet network after VPN. Virtual gateway and virtual network segment need to be in the same network segment. Please refer to chapter 4-3 for details.

🙀 АВох			
文件(E) 工具(I) 帮助((<u>H</u>)		
连接设备ID: 020-003-001	-030a-0000(远程)		
→ 米 设置向导	VPN		
🗟 📑 用/ 设盘 💟 设备安全			
■ ● 服务器	虚拟网关:	192 - 168 - 1 - 1	
□ ● 707 908	子网掩码:	255 - 255 - 255 - 0	
🛫 虚拟串口	虚拟网段:	192 - 168 - 1 - 252	~
● ● 数据监控	~	192 . 168 . 1 .254	
🗄 🔨 系统工具			
	VPN功能如果没有效果,请尝试 择为"跟随系统" (我的电脑配置)	务适配器选 。	写入、启动ИРИ

3-4-4. Data monitoring

Data monitoring needs to cooperate with XINJE Cloud platform. The address of different devices corresponds to the address of ABOX, so as to realize real-time monitoring of PLC data by Cloud platform. Please refer to chapter 4-2 for details.

📑 ABox				
文件(E) 工具(T) 帮助(H)			
连接设备ID: 020-003-001-	-030a-0000(远程)			
🥕 🎢 设置向导				
🗆 🔮 用户设置	数据监控 右键节点添加设备读	弓指令		获取历史数据 启动数据监控
🔋 🔁 设备安全		AP	ŧ.	
🚽 服务器		AD OX 永规信息标志X1世	~° ∕~++++=	
🛛 🖶 用户功能	- 611 江总		所在寄存器	奇存器数里
- 😇 串口设置 - 🛫 虚拟串口	▲ 🚯 系统信息	♥ GTS印度 GPS经度 GPS信号强度 GPS是否定位成功	SDC SD2 SD4 SD5	4(字节,浮点数) 4(字节,浮点数) 1(寄存器,整数) 1(寄存器,0/2:失败/
◎ 数据监控		4G信号强度 工作構 式	SD6 SD7	1(寄存器,整数) 1(寄存器,工作横式1
 ● (X) · Ⅲ · I ● ▼PN ● ● ● 系统工具 		ABox ID	SD100	1(封存器,工作模式1 10(字节,字节数组)

3-5. System tools

3-5-1. ABOX restart

Click restart to restart the ABOX, the configuration parameters in configuration tool will be effective.



3-5-2. Initialization

Click ABOX initialization, restore the ABOX parameters to factory default settings. This

operation will not change the ABOX firmware version.

📑 ABox			×
文件(E) 工具(I) 帮助	(H)		
连接设备ID: 020-003-001	-0306-0000(局域网)		
🥕 🥕 设置向导			
🗄 🔮 用户设置	初始化		
🗄 👫 用户功能			
🗆 🔨 系统工具			
▲Box重启			
🥹 初始化			
1 设备升级			
		ABox初始化	

3-5-3. Device update

2. Click

1. click ABOX update, choose the update file folder, click open.

	📑 打开								×
	$\leftarrow \rightarrow \cdot \uparrow$	📙 « ABo	xUpdate(1) →	ABoxUpdate	ڻ ~	搜索"AI	BoxUpdate	-	<i>م</i>
	组织 ▼ 新	建文件夹						•	?
	拓路者	^	名称	^	1	修改日期	ŝ	走型	
	\land OneDrive		XnetNew.a	abin	1	2018/8/6 3	:15 /	ABIN 文件	
	 ■ 此电脑 30 对象 ■ 视频 ■ 图片 雪 文档 ↓ 下载 ♪ 音乐 ■ 桌面 * Window 	s (C:) 🗸 🗸	: <u>N</u>): XnetNew.a	bin		ABox	十级文件 (*.4	abin)	>
		2016	Anet te that	biii		*TŦ	Ŧ(O)	取満	
OK.	4.D								~
	ABox开级								×
	?	ABox升级 其配置。 文件名: C:\Users\ī	过程中请确保 71668\Deskto	网络通信正常, op\ABoxUpdat	过程中请不 e(1)\ABoxU	要从此电题 Jpdate\X	脑或其他的 netNew.	电脑对 abin	
					确	Ē	Ę	汉消	

3. After updating, restart the ABOX to make the new firmware effective.

3-6. Import and export

The configuration information of ABOX can be exported.

4. Typical function application

4-1. Virtual serial port

This application uses XINJE PLC XDE-30T4.

1. Make sure the serial port parameters are consistent for PLC and ABOX.

📑 ABox		\times
文件(E) 工具(I) 帮助(<u>H</u>)	
连接设备ID: 020-003-001-	0306-0000(局域网)	
🏓 设置向导		
🛛 😫 用户设置	串口设置	
🛛 🔯 设备安全	COMO COM1	
服务器	波特室: 19200 ~	
🛛 🖺 用户功能	物据位: 8 ✓	
🖶 🛱 串口设置		
- 🛫 虚拟串ロ		
🛛 🗑 数据监控	停止位:	
. YPN		
🗄 🔨 系统工具		
	□ 与人开生效 □	

2. Click virtual serial port, choose the com port used by ABOX, choose the idle com port in my PC. Click startup the virtual serial port.

🔜 АВох			×
文件(F) 工具(T) 帮助((<u>H</u>)		
连接设备ID: 020-003-001	-0306-0000(局域网)		
🎤 设置向导			
🛛 🔮 用户设置	虚拟串口		
- 🔯 设备安全 - 剩 服务器	ABox	我的电脑	
 日本 	⊻ сомо ∎ ⊡ ши — — — — — — —	→ → → → → → → → → → → → → →	
- ☆ 虚拟串ロ ④ 数据监控	Сомі Портин — —		
- 🕎 ¥₽₩ ∋ 🔨 系统工具		CUM7 COM8 COM9 COM10 (Vsin; COM11 COM12	
		COM13 COM14 COM15 COM16 COM16 COM17 COM18 COM18	启动虚拟串口

3. After the process of statup virtual serial port is completed, it will show the message "virtual serial port is running".

配置虚拟串口		
配置进度: 20%	信捷软件 虚拟串口正在运行… XNetConfigTool	÷

4. After creating the virtual serial port, open the PLC programming software, choose the virtual com port to build the connection, to realize the function of remote PLC program downloading, uploading and monitoring, debugging.

Config Software ComPort				
Serial Port(C)	Baudrate(B)			
Parity(P) None Odd Even	Other set Databits:8 ,Stopbits:1			
This COM Port Not Exist XNet Protocol ? Automatic Detection	OK Cancel			

Note: please choose Bluetooth virtual serial port in the XC and XD series PLC software.

5. After finishing the use of virtual serial port, right click the XINJE software icon on the right bottom of PC to exist the virtual serial port.



6. Some computers may show that the serial port is still occupied after it is released. At this time, please open the configuration tool, click tool \rightarrow cleanserials to release the serial port.



4-2. VPN

VPN is virtual private network, which establishes private network on public network for encrypted communication. PLC is connected to ABOX through Ethernet port, the remote PC can download to PLC directly through the Ethernet network.

1. Connect the ABOX with configuration tool, and check the LAN parameters of ABOX. Confirm the ABOX LAN port gateway, the defaulted value is 192.168.1.1, the subnet mask is 255.255.255.0. VPN only can be used for remote logging on.
| 🙀 ABox | | × |
|-------------------------|---------------------------------------|---|
| 文件(F) 工具(T) 帮助(H | H) | |
| 连接设备ID: 020-003-001-0 | 0306-0000(局域网) | |
| → 设置向导 | 局域网参数 | |
| - 💟 设备安全 | 局域网 | |
| ■ 副户功能 | 开启DHCP服务: TRUE V AP V 启用热点 | |
| - 🧊 串口设置 | IP(网关): 192、168、1、1 ESSID: XINJE ABOX | |
| ◎ 数据监控 | 子网掩码: 255、255、255、0 密码: XINJEABOX | |
| □ — VPA | | |
| - ∮ ΔBox重启
- 🤮 初始化 🗸 | 返回下一步 | |

2. Fix the IP address of PLC Ethernet port which needs to VPN, the PLC IP address should be in the same gateway of ABOX, take the defaulted gateway as an example, PLC IP is 192.168.1.XX(XX range is 2~251). XINJE XDE series settings are shown as below:

	PLC1 - ethernet Set	×
PLC Config I/O PLC Serial Port PLC Serial Port PLS Hermet Dulse DD DD DD VBOX WBOX	general remote communication ethemet port: 8 Automatically obtain IP address IP: 192.168.1.200 subnet mask: 255.255.255.0 Default gateway: 192.168.1.1	
	Read From PLC Write To PLC OK Cancel	

3. After configuring the PLC IP, connect the Ethernet cable to the ABOX LAN port, open the configuration tool after logging on the server successfully, connect the present ABOX, open user function/VPN, click write in to startup the VPN.

🕞 ABox			×
文件(F) 工具(T) 帮助((H)		
连接设备ID: 020-003-001	-0306-0000(局域网)		
🖌 设置向导 🤺			
🛛 🔮 用户设置	VPN		
🖏 设备安全			
- 🚽 服务器			
🗄 🚼 用户功能		虚拟网天: 192、168、1、1	
👼 串口设置		子网掩码: 255、255、255、0	
🛫 虚拟串ロ		虚拟网段: 192、168、1、252	~
●		~ <u>192 - 168 - 1</u> -254	
VPN			
🛛 🔨 系统工具			
𝒴 𝜆 𝜆 𝔤 𝜆 𝔤 𝔤			
- 🥝 初始化 🗸			写入、启动ИРИ
< >			

4. When it shows the following image "Initialization Sequence Completed", it means the connection is successful, it can make the transparent transmission.

	[C:\Pr	ograi	m File	s (x86	5)\XINJ	JE/X	INJEC	onfig	J\ope	envpr	n\op	envp	n_x6	54\o	penvp	on.ovp	on] O	pen\	VPN 2.	4.5 F	4:EX	IT F1:	USR1	F2:U	SR2 F	F3:HU	Р	_			\times
dre:	ss=bı	usdev	/@xir	ije. (com																										
llon	Aug	06 (09:05	5:02	2018	3 VE	RIFY	OK	: de	epth	=0,	C=C	CN,	ST=	=JS,	L=Ψı	ıΧi,	0=)	XinJe	, 0	U=B₁	usDer	v, C	N=se	erve	r, n	ame=#	BOXRS	A, er	nailA	١ddr
ess	=busc	lev@;	rinje	e. com	n																										
lon	Aug	06 (09:05	5:02	2018	3 Ça	ntro	1_Cł	hann	nel:	TL	Sv1.	2,	cip	her	TLS	71.2	ECI	DHE-F	SA-	AES:	256-(GCM-	SHAG	384,	102	4 bit	: RSA			
lon	Aug	06 (09:05	5:02	2018	3 [s	erve	r] [Peer	:_Co:	nne	ctio	m I	[ni t	tiate	ed wi	ith	[AF]	_INET]12	7.0	0.1	:119	94							
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llon	Aug	06 (9:05	5:04	2018	3_PU	SH:	Rece	eive	ed c	onti	ro1	mes	ssag	ge:	PUSE	I_RE!	ΡLΥ,	, rout	e-g	ate	way	192.	168.	1.1	,pin	g 10,	ping-	resta	art 1	120,
ifc	mfi	g 192	2. 168	3. 1. 2	252 2	255.	255.	255.	. O, p	eer	-id	0, c	ciph	her	AE2.	-256-	-GCM														
llon	Aug	06 ()9:05	:04	2018	S OF	TION	SΠ	NPOR	(T:)	tim	ers	and	i/or	r tii	neout	ts m	odi	fied												
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lon	Aug	06 (9:05	5:04	2018	3 T.A	P-Wi	ndo	ws D	riv	erí	Vers	sior	n 9.	21																
lon	Aug	06 (09:05	5:04	2018	3 No	tifi	ed]	TAP-	Win	dow:	s dr	rive	er t	to se	∋ta	DHCI	ΡIJ	P/net	mas	k o:	f 19:	2.16	i8. 1.	252	/255	. 255.	255.0	on i	inter	fac
e {)20Ğ:	1529-	-D3BC	-450	C7-8A	∖BF-	4B4B	2628	8975	5F}	[DH(CP-s	serv	7: 1	192.	168.:	1.0,	le:	ase-t	ime	: 3	1536	000]								
llon	Aug	06 (09:05	5:04	2018	3 Su	icces	sful	1 AR	PF	lus!	h on	ı ir	nter	fac	e [14	1] {I	020	61529	-D3	BC	45C7	-8AE	SF-4E	34B2	6289	75F}				
llon	Aug	06 (09:05	5:04	2018	3 do	_ifc	onfi	ig,	tt-	>di	d_if	fcor	nfig	g_ip	76_se	etup	=0													
llon	Aug	06 (09:05	5:09	2018	3 TE	ST R	OUTH	ES:	0/0	su	ссее	edec	d le	en=0	ret	=1 a:	=0 1	u/d=u	р											
llon	Aug	06 (09:05	5:09	2018	3 W.A	RNIN	G: 1	this	5 CO	nfi	gura	atic	on n	nay	cache	e pa:	ssw	ords	in	mem	ory		ise 1	he:	auth	-noca	iche oj	ption	ı to	pre
ven	t thi	IS																													
llon	Aug	06 (JA:0E	:09	2018	3 In	itia	liza	atic	n S	equ	ence	e Co	ompl	lete	1															

5. Do not close the above window when VPN transparent transmission, open the PLC software, connect to the PLC IP address, remote PLC program uploading and downloading can be done.

	XNet Communication Config								
config	Service								
	connect mode:	find device by ∨							
	网络号:	192 - 168							
	站点号:	1 .200							
service is running v1.6.398									
Mo	odbus	OK Cancel							

6. After the VPN ends, right click the configuration tool icon to exsit.

退出虚拟串口				1	125%	
退出VPN		e	r1 0)	•	-fb	*
	84	1176	-		<i>cu-</i>	*

4-3. Data monitoring

Data monitoring needs the XINJE Cloud platform. Map the device address to ABOX internal address to realize real-time monitoring of PLC data by cloud platform.

1. After connecting the ABOX, click data monitor, it supports serial port and Ethernet port devices. Take serial port com0 connecting PLC as an example.

ABox							>
文件(F) 工具(T) 帮助	(H)						
连接设备ID: 020-003-001	-0306-0000(局域网)						
 → 设置向导 用户设置 ・ ・	数据监控 右键节点添加设备读到 - ④ COM1 - ④ RD - 通 江总 - ④ 系统信息	5指令 使用Delete键册 通信口: COMO 指令名称	除选中项 设备名 通信协议	: XD3 设备对象	获取历 9 对象个数	巴数据 户	助数据监控

2. Right click com0, click protocol setting.

🛒 ABox		×
文件(F) 工具(T) 帮助((H)	
连接设备ID: 020-003-001-	-0306-0000(局域网)	
💉 设置向导	米ヶ田でな	
🗆 🔮 用户设置		获取历史数据 启动数据监控
🛛 🔯 设备安全		
■ 剩 服务器	- • • · · · · · · · · · · · · · · · · ·	
🗆 <table-of-contents> 用户功能</table-of-contents>	· · · · · · · · · · · · · · · · · · ·	设备对象 ABox对象 历史记录
🖶 👼 串口设置	□ □ □ ● 系统信息	
- 🚰 虚拟串口		
🕄 数据监控		
VPN		
🗄 🔨 系统工具		

 $3. \quad Choose ``XINJE_XD3_Modbus'' protocol.$

🛃 ConfigInter	f	—		×
通信协议:	MIN Modl S7_2 XIN	TE_XD3 busRtu 200PLC JE_XD3	Modbus Modbus	~

4. Right click "COM0", click add device.

🔜 ABox		>
文件(F) 工具(T) 帮助	b(H)	
连接设备ID: 020-003-001	1-0306-0000(局域网)	
 连接设备ID: 020-003-001 → 设置向导 ● ● 用户设置 ● ● 用户功能 ● ● ● 用户功能 ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	1-0306-0000(局域网) 数据监控 右键节点添加设备读写指令	历史数据 启动数据监控 ABox对象 历史记录

5. Fill in the PLC station no., the connection flag range is SD1000-SD2000, please note different PLC address cannot be conflict.

🔡 添加串口设备	- 🗆 X
通信口:	COMO
通信协议:	XINJE_XD3_Modbus
设备名称:	PLC1
站点号:	1
连接标志(SD):	1000
取消	确定

6. Right click the new device PLC1, click add instruction.

📑 АВох				>
文件(F) 工具(T) 帮助(连接设备ID: 020-003-001-	H) 0306-0000(局域网)			
注接设計D: 020-003-001- → 设置向导 ● ● 用户设置 ● ◎ し备安全 ● ● 用户功能 ● ● 用户功能 ● ● 用户功能 ● ● 用户功能 ● ● 和口设置 ● ◎ 数据监控 ■ ● ▼PN ■ ≪ 系统工具	305-0000(同識(柄)) 数据监控 右键节点添加设备读写指令 使用Deletel での 使用Deletel ごの のロ ごの ごの 正置设备 正置设备 正置设备 正置 に息	健删除选中项 9₩0 设备名: PLC1 通信协议 设备对象	获取历史数据 启 对象个数 ABox对象	动数据监控

- 7. Instruction name:
- Data specification: Bit(coil) or word(register)
- Data object: PLC internal address
- Start address: specify the PLC start address
- Object quantity: specify the PLC address length
- ABOX object: corresponds to ABOX internal address type, M is coil, D is register, SD is special register
- Start address: specify the ABOX object start address
- Historical records: choose whether save the data in ABOX local historical record, after choosing this item, the object quantity only can be 1.
- Recording period: set the sampling period of historical data, unit is second, the value must be a multiple of 5.

🛃 AddComm	andForm		×
指令名称:		历史记录:	
数据规格:	Bit 🗸	记录周期:	5
设备		ABox	
数据对象:	M v		
起始地址:	0	ABox对象:	M v
对象数里:	1	起始地址:	0
		取消	确认

8. The instruction is shown as below, please note ABOX object address cannot be conflict. After creating the data instruction, click startup data monitoring to apply the settings.

📑 ABox)
文件(E) 工具(I) 帮助(<u>(H</u>)						
连接设备ID: 020-003-001-	-0306-0000(局域网)						
 ✓ 设置向导 ● ● 用户设置 ■ ● 用户功能 	数据监控 右键节点添加设备读题 【 III COM0	話令 使用Delete雑酬 通信ロ・comp	W余选中项 		获取历史数	据启动	助数据监控
- 👼 串口设置 - 🛫 虚拟串口 - 🕃 数据监控		通言日: COMU 指令名称 ▶ f g g	设备名: XD3 通信协议 XINJE_XD3_Modbus XINJE_XD3_Modbus XINJE_XD3_Modbus XINJE_XD3_Modbus	设备对 M(0-4) Y(0-4) D(0-4) HD(0-4)	对象个数 5 5 5 5	ABox汉寸 M(0-4) M(10-14) D(0-4) D(10-14)	互 型 □ □ □ □
 - - ▲ ABox重启 - - ※ 初始化 - ● <th></th><th></th><th></th><th></th><th>_</th><th></th><th></th>					_		

9. Open the Cloud platform in IE, fill in the user name and password.

云智造	Copyright © 1996 - 2018 XINJE Corporation, All Rights Reserved
总机:0510-85134136/84,34174/85134228 特性:0510-85134136/84,34174/85134228 特性:0510-8512803 技行:4000-850-136 方公:无婚市海學路100号统易國行後4届 生产:无婚中加坡工业图 (20编辑9号)	用户登录 xinje → ご → ご → ご → ご → ご → ご → ご → · · · · · · · · · · · · · · · · · · ·

10. When creating new device, please input the ABOX ID and password.

🎮 编辑 设备		×
代理商	信捷	
客户	项目—	
设备名称	abox	
BoxID	02000300103060000	
Box名称 / 密码	12345678	
配置表	abox	-
视频地址		
经纬度	1	
		确认

11. When creating the configuration table, the data block data is the object of ABOX.

SD	M	D	SD
SD_0_6	M_0_19	D_0_19	SD_1000

12. After configuring the data, click apply configuration.

─ ~ 信捷	🛸 abox 🗙					
	数据名称	值 / 状态	单位 / 备注	数据名称	值 / 状态	单位 / 备注
🛸 🛸 abox	纬度	31.54602		经度	120.2403	
▲ ◇ 总线	GPS	8		连接GPS	1	
× xuchen ABoy07	信号强度	26		M0	OFF	×
Aboxor	M1	ON	开	M2	OFF	×
¥	M3	OFF	×	M4	ON	开
分期	YO	ON	开	¥1	ON	开
	Y2	OFF	×	¥3	OFF	×
	Y4	ON	开	D0	2	
	D1	44		D2	33	
	D3	44		D4	123	
	HD0	78		HD1	1	
	HD2	456		HD3	879	
	HD4	890		速度SD1000	1	
С В Щ						
王钧	U 到达 U id	△ 报警记录 🛛 🤊	历史数据 💿 条件采集	📔 设备信息 🛛 📑 在	线统计 📄 报表	1 维保信息

 If it is Ethernet port communication, please confirm the Ethernet port device IP and port. Generally, Modbus-TCP port is 502, XINJE XDE series PLC port is 531. The same ABOX Ethernet port supports multiple protocols for simultaneous use.

🔜 ABoxAddEthDev	vice		_	-		×
通信口: 通信协议: [设备名称: [连接标志(SD): [网口 ModbusTep ∨ 设备1 1005 €	设备地址 端口: 50 IP: 1)2 192 - 168	· 1	-200	
			取消		确定	

5. Transparent transmission application

ABOX transparent transmission is compatible with all brands of PLC, HMI and other serial port or ethernet port devices, please refer to chapter 4 for details. The tested brands are shown as below:

Brand	Series	Serial port transparent transmission	VPN transparent transmission
XINJE	XC	Support	-
	XD/XL/XG	Support	Ethernet port PLC support
	HMI(version 2.e and up)	-	(-ET) support
Mitsubishi	FX	Support	-
	FX3U/G	Support	Support
	FX5U	Support	-
	L	-	Support
	Q	-	Support
Omron	CP1E	Support	-
	СР1Н	Support	Support
	CJ-CS	Support	-
	CJ (Ethernet)	-	Support
	CPM/CQM	Support	-
Siemens	S7-200	Support	-
	S7-300	Support	Support
	S7-200 SMSRT	Support	Support

	\$7-1200	-	Support
	S7-1500	-	Support
Weinview	MT8071iE	-	Support
Delta	DVP	Support	Support
	АН	Support	Support
	AS	Support	Support
Schneider	Modicon Micor	Support	-
	Modicon M221	-	Support
	Modicon Twido	Support	-
ABB	AC500	-	Support
Yaskawa	MP	-	Support
Keyence	KV5000/KV7500	-	Support
Коуо	S	Support	-
	DL	Support	-
	Click	Support	-

- 5-1. XINJE XC series serial port transparent transmission
- 1. XINJE XC series serial port transparent transmission supports RS232 and RS485. XC series PLC defaulted serial port parameters are 19200, 8, 1, E.

PL	LC1 - Serial Port Set	×
PLC Config Password PLC Serial Port BD CAN CAN CAN Module Tro I/O MA Module Motion D 4GBOX WBOX	Serial Port 1 Communication Mode Modbus Num User Protocol Overtime Set (ms) Char : 3 Reply : 300 Serial Port User Protocol Baudrate: 19200 BPS Databits: 8Bit Stopbits: 1Bit Parity: Even	>
< >	Notice:configuration effective,reboot PLC	
Read From PLC W	/rite To PLC OK Cancel	

2. ABOX module COM0 and COM1 defaulted parameters are 19200, 8, 1, E. it only needs to connect ABOX and XC through RS232 or RS485.

3. Link the ABOX with the configuration tool, click user function→virtual serial port, choose the com port of ABOX, choose the idle com port in my PC, click startup virtual serial port.

🙀 ABox		
文件(E) 工具(I) 帮助(<u>H</u>)	
连接设备ID: 020-003-001-	-0306-0000(远程)	
🥕 🥕 设置向导		
🗉 聲 用户设置	虚拟串口	
 □ ○ ○	АВ ох ☐ СОМО ☐ ☐ ☐ ☐ ☐ — — — — — — — — — — — — — — —	我的电脑 →端口& →端口B COM1 COM2 COM3 COM4 COM4 COM5 COM5 COM7
		COMB COM9 COM10(Usin; COM11(COM1) COM13 COM13 COM14

4. When the virtual serial port process is completed, it will show "virtual serial port is running".

配置虚拟串口			
配置进度: 20%	1	信捷软件 虚拟串口正在运行… XNetConfigTool	÷

5. after creating the virtual serial port, open the PLC software, choose this virtual serial port to connect. It can realize remote PLC program downloading uploading and monitoring, debugging.

Note: for XC series software, please choose blue tooth serial port when using virtual serial port.

Config Software ComPort		×
Serial Port(C) COM1 V V Blue Tooth Serial Port	Baudrate(B)	
Parity(₽) ○ Non∢○ Odd	Other set Databits:8 ,Stopbits:1	
This COM Port Not Exist XNet Comms ? Automatic Detection	OK Cancel	

5-2. XINJE XD series PLC serial port transparent transmission

1. The configuration method is same to chapter 5-1. Make sure the PLC and ABOX serial port parameters are consistent.

ABox		\times
文件(E) 工具(I) 帮助(E	Ð	
连接设备ID: 020-003-001-0	0306-0000(局域网)	
🎤 设置向导		
🛛 🔮 用户设置	串口设置	
🛛 🖏 设备安全	COMO COM1	
服务器	波特率: 19200 🗸	
🛛 👫 用户功能	** += (-) · · · ·	
🖶 📅 串口设置		
- 🗊 虚拟串口	校验位: EVEN ~	
● 🌒 数据监控	停止位: 1 🗸	
VIN VPN		
🗄 🔨 系统工具		
	写入并生效	

2. Click the virtual serial port, choose the com port of ABOX, choose idle com port in my PC. Click startup virtual serial port.



3. When the virtual serial port process is completed, it will show "virtual serial port is running".

配置虚拟串口		
配置进度: 20%	信捷软件 虛拟串口正在运行… XNetConfigTool	÷

4. after creating the virtual serial port, open the PLC software, choose this virtual serial port to connect. It can realize remote PLC program downloading uploading and monitoring, debugging.

Note: for XD series software, please choose blue tooth serial port when using virtual serial port.

Config Software	ComPort ×
Serial Port(C)	Baudrate(B)
Parity(P) ONone Odd Even	Other set Databits:8 ,Stopbits:1
XNet Protocol ? Automatic Detection	OK Cancel

5-3. XINJE HMI(v2.e and up)

1. Turn on switch 3 of HMI, power on the HMI again, set the HMI IP to 192.168.1.50.

IP设 <u>罟</u>					
IP地址	192	. 168	1.	50	
子网掩码	255	. 255	255	Ø	
默认网关	192	. 168	1.	1	
	设	置完成后请重新		自动获取IP	
—— 当前状态 ————					
IP地址	Ø	. Ø	ø.	Ø	
子网掩码	Ø	. Ø	Ø.	Ø	
默认网关	Ø	. Ø	Ø.	Ø	
设备ID	000 -	000 - 000	9 - 0000	- 0000	
远程连接登录状态					
					关闭

2. Link the ABOX with configuration tool. Click user function \rightarrow VPN, click write to start the VPN.

🙀 ABox			>
文件(F) 工具(T) 帮助(Ή)		
连接设备ID: 020-003-001	-0306-0000(远程)		
🗡 设置向导			
🗄 🔮 用户设置	VPN		
🖻 <table-of-contents> 用户功能</table-of-contents>			
🖶 📅 串口设置			
- 🗊 虚拟串口	armara.	192 - 186 - 1 - 1	
📓 数据监控	子网掩码: 	255 - 255 - 255 - 0	
VFN VPN	虚拟网段:	192 - 168 - 1 - 252 ~	
🗷 🔨 系统工具	~	192 - 168 - 1 - 254	
	VPN功能如果没有效果,请尝试 择为"跟随系统" (我的电脑配置)	9适配器选 。	写入、启动VFN

When it shows the following image "Initialization Sequence Completed", it means the 3.

connection is successful, user can make the transparent transmission.

💵 [C:\Program Files (x86)\XINJE\XINJE\XINJEConfig\openvpn\openvpn_x64\openvpn.ovpn] OpenVPN 2.4.5 F4:EXIT F1:USR1 F2:USR2 F3:HUP — 🛛 🗙
dress=busdev@xinje.com
Mon Aug UG 09:U5:U2 2018 VERIFY UK: depth=U, C=CN, SI=JS, L=WuXi, U=Ainje, UU=BusDev, CN=server, name=ABUXKSA, emailAddr
ess-pulsuevexinje.com Nom Aug 06 00-05-02 2018 Control Channel. II Sul 2. cinhor II Sul 2 RCDUR-PSA-685256-CCM-SU4224. 1024 bit RSA
Mon Aug 06 09:05:02 2018 [cenver] Peer Connection Initiated with [AF INFT]127 0 0 1:1104
Mon Aug 06 09:05:04 2018 SENT CONTROL [server]: 'PISH REQUEST' (status=1)
Non Aug 06 09:05:04 2018 PUSH: Received control message: 'PUSH REPLY.route-gateway 192, 168, 1, 1, ping 10, ping-restart 120,
ifconfig 192.168.1.252 255.255.255.0, peer-id 0, cipher AES-256-GCM'
Mon Aug 06 09:05:04 2018 OPTIONS IMPORT: timers and/or timeouts modified
Mon Aug 06 09:05:04 2018 OPTIONS IMPORT:ifconfig/up options modified
Mon Aug 06 09:05:04 2018 OPTIONS IMPORT: route-related options modified
Mon Aug 06 09:05:04 2018 OPTIONS IMPORT: peer-id set
Mon Aug 06 09:05:04 2018 OPTIONS IMPORT: adjusting link_mtu to 1659
Non Aug UG 09:05:04 2018 0P110NS IMPOKI: data channel crypto options modified
Mon Aug Uo U9:U5:U4 2018 Data Channel: using negotiated cipher AES-250-UCM Han Aug 06 00:05:U4 2018 Outroine Data Channel: Cipher 'AFC-256-200' initialized with 256 hit hav
Mon Aug 06 09:05:04 2010 Ungoing Data Channel. Cipher ADS-200-60m initialized with 256 bit key
Non Aug 06 09.05.04 2018 interactive course channel. $105 200 \text{ GeV}$ initialized with 200 bit key
Mon Aug 06 09:05:04 2018 open tun
Mon Aug 06 09:05:04 2018 TAP-WIN32 device [以太网 2] opened: \\.\Global\{02061529-D3BC-45C7-8ABF-4B4B2628975F}.tap
Mon Aug 06 09:05:04 2018 TAP-Windows Driver Version 9.21
Mon Aug 06 09:05:04 2018 Notified TAP-Windows driver to set a DHCP IP/netmask of 192.168.1.252/255.255.255.0 on interfac
e {02061529-D3BC-45C7-8ABF-4B4B2628975F} [DHCP-serv: 192.168.1.0, lease-time: 31536000]
Mon Aug 06 09:05:04 2018 Successful ARP Flush on interface [14] {02061529-D3BC-45C7-8ABF-4B4B2628975F}
Non Aug 06 09:05:04 2018 do ifconfig, tt->did_ifconfig_ipv6_setup=0
Non Aug 06 09:05:09 2018 TEST ROUTES: 0/0 succeeded len=0 ret=1 a=0 u/d=up
Mon Aug 06 09:05:09 2018 WARWING: this configuration may cache passwords in memory use the auth-nocache option to pre
Ventus Non Aug. 06:00:05:00:2019 Initialization Sequence Completed
whi Aug 00 05.05.05 Zono initialization bequence completed

Open the HMI software (v2.e and up), click the following button. 4.

😰 🚾 📴 🎬 💵 📓 I 🗿 🖓 🗳 🖬 🔍 🗞 💭 💷 🕅	
) 🚯 💥 🚋 🔤 👰 👰 🔮 🔍 🔤 🗠 1 🗠 🔄 🦄	x 🛛 🖃 📰 📰 📰
👯 : 🖕 0 🔽 Language1 💌 🛤 : 🕄 😢 🖄 😭 🗙 F 🕱 📽	
🐼 FW 🏢 💷 📕 rtc 🎬 🖀 🖀 🏨 CT 🚧 🕫 🙆 S 🗟 69 🚥	\smile
) 🔆 🏹 🚺 🎕 🌺 % E 🕴 🗒 🗟 🖳 🔄 🖳	

The link mode is specified port, the net ID and station no. is HMI IP address 192.168.1.50. 5.

Config Param			
Link Mode:	Specified port	*	
Address Net ID	192	168	
Station ID	1	50	
ОК	Cancel		Help

6. Click download button.

Ø TouchWin 编辑工具 - 工程 - [00001]画面1	- 0 ×
: 文件(3) 编辑(8) 查看(V) 部件(2) 工具(1) 视图(V) 帮助(H)	
D 🖆 🖬 🖔 📾 🕫 🔍 🌹 🔜 🗛 🕰 🏧 😌 🌑 🚭 🛤 💷 💷 🕮 🖼 💷 🕋 💷 🚇 🚇 🔛 🕘 🚫 🚫 🗆 💷 🔤 🔤	
ヽヽロロロロロ団闘闘 🖋 🖉 🔌 [🛜 ▲ ☆ 🗄 🗑 🥝 米 端回 🗑 ≕ 👰 👰 🗐 函 ┉ ヒ 比 ဩ 🖂 🖸 □ 昌 目 田 🎟 🖽 🐗 🎩 🗌	
『17月1月12月12日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日 日	
/ ኤ { @ ~ ■ 茨 % ※ 26 刻 ⊗ án 血 盂 ズ 厂 ♪ / ぷ 0 次 終 [] 剛 雅 ≫ E 風 風 風 風 風	
工程 0× 1000011回前1 × [65535]Common Soreen [60007]KeyBoard_Ase [60009]IP Sett	
● ① IP ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	

5-4. Mitsubishi Fx3U series PLC serial port transparent transmission

1. Connect ABOX to FX3U RS422 port with FX cable. Set the ABOX com1 serial port parameters to 9600, 7, 1, E. COM0 cannot support RS422, so we use COM1.

◎ 基本设置	串口设	置				
 一用户设置 一用户功能 一日中功能 一日中功能 一日中功能 一日中功能 一日中功能 一日中功能 一日中功能 一日中功能 一日中勤能 二日中勤能 二日日中勤能 二日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日日	COMO	COM1	波特率: 数据位: 校验位: 停止位:	9600 7 EVEN 1	> > > >	

2. After write in and being effective, click virtual serial port, virtual com1 corresponds to local port com9 for example.



3. Enable the virtual serial port.



4. Open Mitsubishi programming software GX Works2, create a new project.

新建		×
系列(<u>S</u>):	FXCPU	•
机型①:	FX3U/FX3UC	_
工程类型吧:	简单工程	•
	ſ	● 使用标签(L)
程序语言(G):	梯形图	<u>•</u>
	đá	腚 取消

5. Click the link target, click the above present connection target.



6. click serial USB and set the parameters.

连接目标设计	Connectio	Int		and the)
i+ 3 8819 I/F	Serial USB	CC IE Cont NET/10(H) Board	CC-Link Board	Ethernet Board	CC IE Field Board	Q Series Bus	NET(II) Board	PLC Board	
可编程控制 發例 I/P	COM COM	9 作返速度 CC IE Cont NET/10(H) Module	CC-link Module	Ethernet Module	<u>c24</u>	50T	CC IE Field Master/Local Module	Head Module	
某份过程			(m)			CPU模式 (FX)	(PU (主地)3.5—9	(n)	1

7. Choose RS232C, com9, transmission speed is 9600, and set the parity mode, data bit and stop bit.

计算机例 I/F 审行详细设置	>	<		
RS-232C	确定	」 计算机侧 I/F 串行	亍详细设置	×
(包含FX-USB-AW/FX3U-USB-BD) C USB	取消	」 一 奇偶校验	偶数 💌	确定
сом靖口 Сом 9 💽	详细设置	」	7 💌	
传送速度 9.6Kbps 🔹		停止位	1 •	默认值

8. Click communication test, it will show the connection is ok.

N7/10(H/ Module Module Module		Master/1 Modul	Jocal le
	CPU模式	FXCPU	
		连按路	径一资(L)
1 <u>Other</u> MELSOFT应用程序	×	可编程控制	器直接连接设置(D)
5 .		通信测试(T)	
	(3U/FX3UCCPU连接。	CPU型号	FX3U/FX3UC
TE Eth		同時會計	
eld	确定	系统	图像(G)
		TEL	(FXCPU)
			确定
C IE Ethernet CC-Link ield	C24		取消
X IE Ethernet CC-Link Field			确定 取消

- 5-5. Omron CP1E series PLC serial port transparent transmission
- 1. Connect CX-programmer and PLC with USB cable.



2. Set the Omron PLC to programming mode.

豪 新工程	and and	0	164 クロット 1011
 新PLC1[CP16 一合語 符号 	修改(<u>G</u>) 插入程序(D)	•	P On
 図 役章 ● 错误日志 ● PLC 时钟 ◇ 内存 	▲ 在幾工作(W) ■ 启动PLC-PT整体模拟(E) ■ 工作在线模拟器(I)		常直标志
日間程序	影 PLC错误模拟(P)		
白、豪新程序	裂作用式(M)		
- 11 19	。 参 监视(N)		照 调试(D)
	内存分配(Y) 曲编译所有的PLC程序(A)	•	票 监视(M) 票 运行(B)
- () ()			
	传送①	•	

3. Open the configuration interface.

	▲ 在线工作(W) Ctrl+V 目动在线(N)	V . 8 W
	操作模式(M) 监视(Q)	· 8四四百百日名 三百百日
14 74 74 74 14 16 94/8#46	出 编译所有的气化程序(A) F 程序检查历读(S)	7 痒()
5	傳送因) 部分傳送回 保护回 遠所有內存区(5)	
副序1 (D0)停止 符号	(1)(3) (2)(3)(5) (2)(3)(3)(5) (2)(3)(3)(3)(3)(3)(3)(3)(3)(3)(3)(3)(3)(3)	* 信息の 17 小の第和単元役置(0) () 1155
21 1。25年2月1日 22 町町時業第10日 23 碧敏(石) 24 役重(5)		 □ 内存+(○) □ 内存+(○M(B) ■査(○)→(○) ■ 論具目ま(□) □ 計算用ま(□) □ 計算用ま(□)
	2 4 2.0	 (回) 5748年(10) (回) 5748年(10) (回) 5748年(10) (回) 5748年(10) (回) 5748年(10)

4. Set the PLC RS232C serial port parameters to 19200, 8, 1, E. the protocl is Host Link.



5. Write the parameters in PLC.

文件(E) 透	项(O) 帮助(H)		^.
启动/C	一直在前面(T) 设定缺省(S)	9置RS232C读口	串行选项端口│内置输入没
·通信 ()	传送到PLC(P) 从PLC传送(F) 校验(V)	格式	模式
	写保护(W)	8,1,E 💌	Host Link
	双工设定(D)		1
記始码 (禁止 (2) 2010	0x0000	- 結束码 の 接收字符 の CRIF	256 :

6. Connect Omron PLC to ABOX com0/com1 with CPM cable, set the COM0/COM1 parameters to 19200, 8, 1, E.

🔁 基本设置	串口设	置			
P 用户设置	COMO	COM1			
 ■ 用户功能 ■ 車口设置 ◎ 虚拟串口 ● 数据监控 ■ VPN ▲ 系统工具 		波 載 梭 停	特案: [据位: [验位: [止位: [19200 V 8 V EVEN V 1 V	

7. After write in, virtual serial port com0 corresponds to local serial port com13 for example.

 ≁ 设置向导 ● 基本设置 	虚拟串口	
■ 😬 用户设置 ■ 冊 用户功能	ABaz	我的电脑
● 中口夜盘 。● 虚拟串口 ● 数据监控		
♀ VPN		

8. enable the virtual serial port.



9. Serial port connection, choose the virtual com port.

直接在线	×
执行自动在线。 选择一个连接类型并单击[连接]按钮。	
连接类型 ● 串口连接 (包括使用USB串口转换线时) PC串口 COM13 ■ 在波特率115,200bps连接	Serial
C USB连接 通过串口电缆PLC将自动与PC进行直接连接。 自动连接到CompoWay/P的组件是不可行的。	
直接 取消	

10. The connection is successful.

第11日 CLANDARD (1915) 第11日 第 第11日 第11日 第11日 第 第11日 第11日 第11日	9 MRAGI INATI MEDINI 448000	- 0 X
日前日间, 田田, 日本市市, 日二	○ 長はない ●★★★ ● ★ ● ● ● ● ● ● ● ● ●	
- 以以久 多日日日を 際な	2日中心(1一つの古日北戸米)[ほど田)なおな()() 豊岡原町	
○第2日の合(あきび日回)当	後辺 変変症 性性 なるを非非対象症を対	
使使国际体强强化	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	
· () · · · · · · · · · · · · · · · · · ·	。 (後年4. 新規件1) 1984年 (6-1)	ŕ
···································		
	(*)	
IN/IN/	NA 20: HEE 14	

5-6. XINJE XDE/XG/XLE series PLC Ethernet port VPN transparent transmission

1. Connect the ABOX with configuration tool, and check the ABOX LAN parameters, confirm the ABOX LAN gateway, the defaulted value is 192.168.1.1, subnet mask is 255.255.255.0. VPN only can be used for remote login.

🙀 АВох		X
文件(F) 工具(T) 帮助(H)		
连接设备ID: 020-003-001-0306	5-0000(局域网)	
🥕 设置向导 🧍 	局域网参数	
- 论 设备安全	局域网	热点
🗏 🖶 用户功能	开启DHCP服务: TRUE 🗸	AP // 启用热点
市 串口设置	IP(网关): 192、168、1、1	ESSID: XINJE ABOX
· ⋧* 虚拟串山 · ● 数据监控	子网掩码: 255、255、255、0	密码: XINJEABOX
. YPN		
□ 🔨 系统工具		
多 ABox重启		
- 🤮 初始化 🗸		返回下一步

2. Fix the PLC Ethernet port IP which needs to VPN, PLC IP must be in the same gateway of ABOX, take the default gateway as an example, PLC IP is 192.168.1.XX(XX range is

2~251). XINJE XDE configuration is shown as below:

	PLC1 - ethernet Set	×
PLC Config I/O Password PLC Serial Port ethemet Pulse BD ED ED 4GBOX WBOX	general remote communication ethemet port: 8 Automatically obtain IP address Image: Communication of the second structure of the se	
	Read From PLC Write To PLC OK Cancel	

3. After setting the PLC IP, connect the Ethernet cable to the ABOX LAN port, after ABOX logging on the server successfully, open the configuration tool to link the present ABOX, click user function→VPN, click write to start VPN.

ABox					×
文件(F) 工具(T) 帮助(H	H)				
连接设备ID: 020-003-001-	0306-0000(局域网)				
🔺 设置向导 🤺					
🛛 🔮 用户设置	VPN				
🛛 🔯 设备安全					
- 剩 服务器		虚拟网关: 1	92.168.1.1		
🛛 👫 用户功能					
🖶 📴 串口设置		子网掩码: 2	55 - 255 - 255 - 0		
- 🛫 虚拟串ロ		虚拟网段: 1	92 - 168 - 1 - 252	~	
● 🌒 数据监控		~ 1	92 - 168 - 1 - 254		
VPN VPN					
🛛 🔨 系统工具					
多 ABox重启					
 ● 初始化 × 					写入、启动VPN

4. When it shows the following image "Initialization Sequence Completed", it means the connection is successful, it can make the transparent transmission.

[E] [C:\Program Files (x86)\XINJE\XINJEConfig\openvpn\openvpn_x64\openvpn.ovpn] OpenVPN 2.4.5 F4:EXIT F1:USR1 F2:USR	2 F3:HUP -	- 🗆 🗙
dress=busdev@xinje.com		~
Mon Aug 06 09:05:02 2018 VERIFY OK: depth=0, C=CN, ST=JS, L=WuXi, O=XinJe, OU=BusDev, CN=ser	ver, name=ABOXRS	A, emailAddr
ess=busdev@xinje.com		
Mon Aug 06 09:05:02 2018 Control_Channel: TLSv1.2, cipher TLSv1.2_ECDHE-RSA-AES256-GCM-SHA38-	4, 1024 bit RSA	
Mon Aug 06 09:05:02 2018 [server] Peer Connection Initiated with [AF_INET]127.0.0.1:1194		
Mon Aug 06 09:05:04 2018 SENT CONTROL [server]: 'PUSH_REQUEST' (status=1)		
Mon Aug 06 09:05:04 2018 PUSH: Received control message: 'PUSH_REPLY,route-gateway 192.168.1.	1, ping 10, ping-	restart 120,
ifconfig 192.168.1.252 255.255.255.0, peer-id 0, cipher AES-256-GCM		
Mon Aug 06 09:05:04 2018 OPTIONS IMPORT: timers and/or timeouts modified		
Mon Aug 06 09:05:04 2018 OPTIONS IMPORT:ifconfig/up options modified		
Non Aug 06 09:05:04 2018 OPTIONS IMPORT: route-related options modified		
Non Aug 06 09:05:04 2018 OPTIONS IMPORT: peer-id set		
Non Aug 06 09:05:04 2018 OPTIONS IMPORT: adjusting link_mtu to 1659		
Non Aug 06 09:05:04 2018 OPTIONS IMPORT: data channel crypto options modified		
Non Aug 06 09:05:04 2018 Data Channel: using negotiated cipher AES-256-GCM		
Non Aug 06 09:05:04 2018 Outgoing Data Channel: Cipher ALS-256-GCM initialized with 256 bi	t key	
Non Aug 06 09:05:04 2018 Incoming Data Channel: Cipher AES-256-GCM initialized with 256 bi	t key	
Non Aug U6 U9:U5:U4 2018 interactive service msg_channel=U		
		- Far
Non Aug 06 09:05:04 2018 IAP-WIN32 device [LK A M 2] opened: \\. \Global\{02061529-D3DC-45C/-	SADF-4D4D2628975	r).tap
Non Aug 06 09:05:04 2018 IAP-Windows Driver version 9.21		
NON AUG UG U9:U5:U4 2018 NOTIFIED IAP-WINDOWS GRIVER TO SET A DRUF IP/NETMASK OF 192.108.1.20	92/255.255.255.u	on interfac
e (02001529-D5D-450(-6ADF-4D4D20269(5)) [DHUF-SETV: 192.106.1.0, lesse-time: 31530000] Hun Aug 06 00.05:04 0019 Concersion APD Fluck and intervent [14] [0006150D D92 4567 0405 4P4]	ດຂດດດຽວຍີ	
Mon Aug 00 09:05:04 2016 Successful AAF Flush on Interface [14] (0201529-D5DC-45C/-6ADF-4D4	0202091011	
Non Aug 06 09:05:04 2018 do_IIConnig, tt-/dia_IIConnig_IPV0_Setup-0		
Han Aug 06 09:05:09 2018 IEST NOTES. 070 succeeded Ten-0 Tet-1 a-0 u/u-up	- auth-recebe a	ntion to pro
ant Aug of 03.03.03.2018 WARMAND, this configuration may cache passwords in memory use the	e auth nocache t	ptron to pre
Ven Aug 06 00:05:00 2018 Initialization Sequence Completed		
mon hug of 03.03.2010 Interation bequence completed		~

5. In the process of VPN transparent transmission, please do not close the above window. Open the PLC software, connecting the PLC IP can remote downloading program to the PLC.

	XNet Communication Config					
C	config Service					
	connect mode: find device by V					
	网络号: 192.168					
	站点号: 1.200					
	service is running v2.0.001					
[Modbus OK Cancel					

6. The connection is successful.



5-7. Siemens 200-SMART series PLC Ethernet port VPN transparent transmission

1. Siemens S7-200-SMART series PLC Ethernet port defaulted IP is 192.168.2.1, connect the PLC with PC through Ethernet cable, set the PC IP to 192.168.2.xxx(eg. 192.168.2.200).

Internet 协议版本 4 (TCP/IPv4) 属性	×
常规	
如果网络支持此功能,则可以获取自动排 络系统管理员处获得适当的 IP 设置。	能能的 IP 设置。否则,你需要从网
○ 自动获得 IP 地址(<u>O</u>)	
●使用下面的 IP 地址(S):	
IP 地址(I):	192.168.2.200
子网掩码(<u>U</u>):	255.255.255.0
默认网关(<u>D</u>):	· · ·
○ 自动获得 DNS 服务器地址(B)	
●使用下面的 DNS 服务器地址(E):	
首选 DNS 服务器(P):	· · ·
备用 DNS 服务器(<u>A</u>):	· · ·
□退出时验证设置(L)	高级(1)
	确定取消

2. Open Siemens 200-SMART software, link the PLC.

通信	×
通信接口 Intel(R) Ethernet Connection (3) I218-V.TCPIP.Auto.1 ▼	按下 "编辑" 按钮以更改所选 CPU 的 IP 数据和站名称。按下 "闪 烁指示灯" 按钮使 CPU 的 LED 持续闪烁,以便目测找到连接的 CPU. MAC 地址 00:00:00:00:00:00 闪烁指示灯 IP 地址 192.168.2.1 编辑 子树掩码 -0.0.0 0.0.0.0 0 默认网关 0.0.0.0 站名称 (ASCII 字符 a-z、0-9、-和.)
查找 CPU 添加 CPU 编辑 CPU 删除 CPU	
	确定取消

3. ABOX defaulted gateway is 192.168.1.1, set the Siemens PLC IP to 192.168.1.xxx.

系统块							>
	模块		版本	输入	输出	订货号	
CPU SB EM 0	CPU ST20 (DC/DC/	DC)	V02.03.01_00.00	10.0	Q0.0	6ES7 288-1ST20-0AA0	
EM 1 EM 2							
EM 4 EM 5							
 EM 5 ○ 通信 ○ 数字里输入 ○ [11.0 - II.7] ○ 数字里输出 ○ 保持范围 ○ 安全 ○ 启动 		以太阿端 ↓ IP 地 背景时间 选择通 10 BS485 端 通过 R3	】 □ 地址: □ 地址: 子阿摘码: 默认网关: 站名称:	的值,不能通 192,168 255,255 192,168 () () () () () () () () () () () () ()	 . 1 . 150 . 255 . 0 . 1 . 1 	e政 一 一 通 自信参数	
						确定	取消

4. Download the parameters to the PLC.

下载

下载	×
将块下载到 CPU 选择要下载的块。	
① 下载已成功完成!!	
块 ▼ 程序块 ▼ 数据块	送项 ▼ 从 RUN 切换到 STOP 时提示 ▼ 从 STOP 切换到 RUN 时提示
▶ 系领块 ② 单击获取帮助和支持	□ 成切后天闭灯店框 下载 关闭

5. Connect the PLC and ABOX LAN port with Ethernet cable. After ABOX logging on the server, link the present ABOX with configuration tool. Click user function→VPN, click write to startup the VPN.

ABox		×
文件(F) 工具(T) 帮助	I(H)	
连接设备ID: 020-003-001	-0306-0000(远程)	
 → 设置向导 ● ● 用户设置 □ ● ● 用户功能 	VPN	
- 🐨 串口设置 - 🚰 虚拟串口 - 資 数据监控	虚拟网关: 192 . 168 . 1 . 1 子阿掩码: 255 . 255 . 255 . 0 虚拟网段: 192 . 168 . 1 . 252 ~	
। ≺ 系统工具	~ 192.168.1 254 VPN功能如果没有效果,请尝试将适配器选 择为"跟随系统"(我的电脑配置)。	写入、启动VFM

When it shows the following image "Initialization Sequence Completed", it means the 6. connection is successful, it can make the transparent transmission now.

	[C:\Pr	ogram	Files (x8	6)\XINJ	E\XINJEConfig\openvpn\openvpn_x64\openvpn.ovpn] OpenVPN 2.4.5 F4:EXIT F1:USR1 F2:USR2 F3:HUP — 🛛 🛛 🛛	
dre Ver	ss=bu	sdev(Dxinje.	com	VERTEV OK doweb-0 C-CM CT-IC I-M-V: 0-V:wIs OH-BusDay CM-servers some-ABOVECA servitAdd	^
	nug =bugd	ഡ ഗ ഡിയ	nio co	 	VERIFIOR. depth-0, C-CN, SI-JS, L-WAR, O-AINJE, OD-DUSDEV, CN-SERVER, MAME-ADOAASA, EMAIIAUD	
saa Kon	Aug		111J8.CO 2•05•02		Control Channel II Sul 2 cinhor II Sul 2 RCDUR-RS4-482276-4CW-SU4284 1024 hit RS4	
llon	Aug	ňã ň	9.00.02 9.05.02	2018	Conver Deer Connection Initiated with AF INFT12700 1:194	
lon	Aug	ŇĂŇ	9.05.02	2018	SENT CONTROL [server]: 'PUSH REQUEST' (status=1)	
lon	Aug	06 Ö'	9:05:04	2018	PIISH: Received control message: 'PIISH REPLY route-gateway 192, 168, 1, 1, ping 10, ping-restart 120,	
ifc	onfig	192	168.1.	252 2	55,255,255.0,peer-id 0.cipher AES-256-GCM	
llon	Aug	06 0'	9:05:04	2018	OPTIONS IMPORT: timers and/or timeouts modified	
llon	Aug	06 0'	9:05:04	: 2018	OPTIONS IMPORT:ifconfig/up options modified	
llon	Aug	06 0	9:05:04	2018	OPTIONS IMPORT: route-related options modified	
llon	Aug	06 0'	9:05:04	: 2018	OPTIONS IMPORT: peer-id set	
lon	Aug	06 0	9:05:04	2018	OPTIONS IMPORT: adjusting link_mtu to 1659	
lon	Aug	06 0	9:05:04	2018	OPTIONS IMPORT: data channel crypto options modified	
llon	Aug	06 0	9:05:04	2018	Data Channel: using negotiated cipher AES-256-GCM	
llon r	Aug	06 0	J:U5:U4	: 2018	Uutgoing Data Channel: Cipher AES-250-GCM initialized with 250 bit key	
non F	Aug		3:UD:U4	2018	incoming Data Channel: Cipner ADS-200-GCM initialized with 200 bit Key	
non F	Aug		3:05:04).05.04	2018	Interactive service msg_channel-0	
Mon	Aug		9.00.04 9.05.04	2010	uppen_tun TAP-WIN22 device [[2] + 國 2] energed: \\ \Clebal\{02061528-D38C-45C7-S48F-48482628875F} + an	
llon	Aug	na n	9.00.0 1 9.05.04	2010	TAP-Windows Driver Version 9 21	
lon	Aug	ŇĂŇ	9.05.04	2018	Notified TAP-Windows driver to set a DHCP IP/netmask of 192 168 1 252/255 255 255 0 on interfac	
e {	02061	529-1	D3BC-45	C7-8A	BF-4B4B2628975F} [DHCP-serv: 192.168.1.0. lease-time: 31536000]	
llon	Aug	06 0	9:05:04	2018	Successful ARP Flush on interface [14] {02061529-D3BC-45C7-8ABF-4B4B2628975F}	
llon	Aug	06 0	9:05:04	2018	do_ifconfig, tt->did_ifconfig_ipv6_setup=0	
llon	Aug	06 0	9:05:09	2018	TEST ROUTES: 0/0 succeeded 1en=0 ret=1 a=0 u/d=up	
lon	Aug	06 0	9:05:09	2018	WARNING: this configuration may cache passwords in memory use the auth-nocache option to pre	
ven	t thi	S				
lon	Aug	06 0	9:05:09	2018	Initialization Sequence Completed	
						1 V

7. Do not close the above window in the process of VPN transparent transmission, open Siemens PLC software, click add CPU in PLC—setting, fill in the PLC IP 192.168.1.150.

通信	×
通信接口 Intel(R) Ethernet Connection (3) I218-V.TCPIP.Auto.1 找到 CPU 添加 CPU 192.168.1.150 编辑 CPU IP 地址 192.168 · 1 · .150 符号名称(可选)	按下 "编辑" 按钮以更改所选 CPU 的 IP 数据和站名称。按下 "闪 烁指示灯" 按钮使 CPU 的 LED 持续闪烁,以便目测找到连接的 CPU. MAC 地址 00:00:00:00:00:00 闪烁指示灯 量 确定 取消 站名称(ASCII 字符 a-z、0-9、-和.)
查找 CPU 添加 CPU 编辑 CPU 删除 CPU	
	确定

8. Click ok to connect the PLC successfully.

		- 0 ×
文件编辑视图 PLC 调试 工具 帮助		
RUN STOP 编译 上传 下载 设定 目 LHAX 清除 🖓)通过 RAM 创建 DB	
操作 传送 存储卡 信息	修改	
主要 平 🔾 🔾 🖓 🖓 上传 🗸 🐥 下载 🤟	- 協議入 - 改 删除 - 図 詞 □ 🕾 🖻 🙆 🔛 🔮 🛸 🐩 は 🛫 ╧ → ++ 〇 田 □ - 22 💕 🖾 🖉 😤	
□-42 坝目 		
	90750L	
1911-1912 (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915) (1915		
	对 CPU 中的存储卡进行编程 法接受 化合物 化合物 化合物合物合物合物合物合物合物合物合物合物合物合物合物合物合物	
系统快		
田 2 輸入注释	→ 単主 "银彦" 五裕	
回 回 时钟	块 选项	
□ 4 通信 3 輸入注释 □ 3 輸入注释	□ 程序块 □ 成功后关闭对话框 □	
	▶ 频频次	
日 通 浮点运算		
● 11 整数运算	② 单击获取帮助和支持 设定 关闭	
■ 逻辑运算 ▲ 輸入注释		
□		
		4
		2
□ 福 调用子例程 💿 符号表 🖩 状态图表 🗎 数据块	光	
LAD 程序段 1, 行 1, 列 1 INS 🥚 已连接 192.168.1.1	150 100%	0

- 5-8. Weinview MT8071iE HMI VPN transparent transmission
- 1. Touch the right bottom button to set the HMI IP.



2. Press the set button, fill in the password to enter IP setting interface.

17			i line	N.I.I.I	1
	tit the second parameters				and an Antipart
	Cancel	Ser =			

3. Set the HMI IP address, make the HMI IP and ABOX IP in the same gateway.



4. Open the ABOX configuration interface, click user function \rightarrow VPN, click write, startup VPN.

≯ 设置同导 ● 基本设置 ● 用户设置	VPN						
■ 用户功能		虚拟网关:	192	168	1	1	
₩ ₩ ₩ # □ ₩ # □ 1 1 1 1 1 1 1 1 1 1 1 1 1		子网摘码:	255	265	255	0	
● 数据监控		虚拟网段:	192	168	1	252	
🕎 VPN			192	168	1	254	
🔨 系统工具							

5. After the VPN is successful, cannot close the following window.

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6. Open the Weinview HMI software, create a new project.

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7. Click download in project file (PC->HMI).

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8. after the compiling is passed, set the HMI IP to 192.168.1.200.

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