Serial Gateway User Manual

Models:

SE3012/5011/5041/5044/5144/5244

MG3012/5011/5041/5044/5144/5244

Release: 2019-1-24
Version: V1.2.0

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http://www.comark.cn

Revise History:

Version	Date	Reason
V1.0.0	2017.5	Found document
V1.1.0	2017.9.28	Add SE3012&MG3012
V1.2.0	2019.1.24	Add Serial Gateway to add Modbus NetType, mapping, Log display function

Text agreed on:

In reading this manual, please note the following:

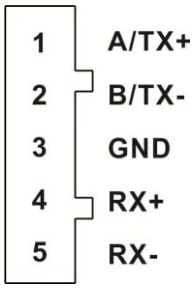
Description: Necessary explanatory information in the process of using a serial gateway

Notice: Matters needing special attention in using serial port gateway

Contents

1 RS-232/485/422 Serial Port

This series of serial interfaces provides 5-Pin industrial terminals with 5.08mm spacing.
SE3012 MG3012



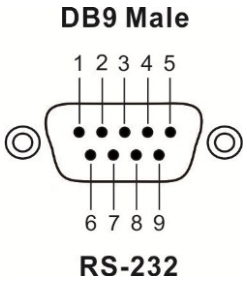
RS-485 Serial Port:

Pin	Pin Define
1	A
2	B
3	GND
4	—
5	—

RS-422 Serial Port:

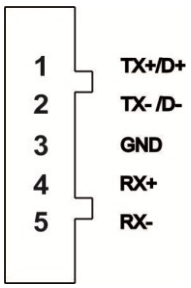
Pin	Pin Define
1	TX+
2	TX-
3	GND
4	RX+
5	RX-

RS-232 Serial Port:



Pin	Pin Define
1	—
2	RXD
3	TXD
4	—
5	GND
6	—
7	—
8	—
9	—

SE5011/5041 MG5011/5041:



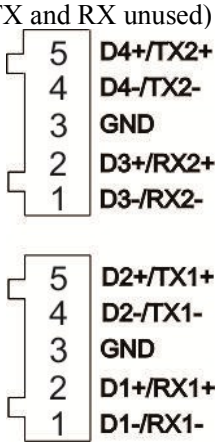
RS-485 Serial Port:

Pin	Pin Define
1	D+
2	D-
3	GND
4	—
5	—

RS-422 Serial Port:

Pin	Pin Define
1	TX+
2	TX-
3	GND
4	RX+
5	RX-

SE5044/5144/5244 MG5044/5144/5244(TX and RX unused)



RS-485 Serial Port:

Pin	Pin Define
1	D1/3-
2	D1/3+
3	GND
4	D2/4-
5	D2/4+

2 Serial Port Configuration

Before making this device configuration, make sure that the necessary software is installed on your computer and that the network is properly configured.

The minimum configuration requirements for a user's computer are as follows:

- Installing the operating system (such as Windows XP/2000, etc.)
- Installing Ethernet Card
- Installing Web browsers (IE6.0 and above)
- Install and start the TCP/IP protocol

2.1 Network Visit

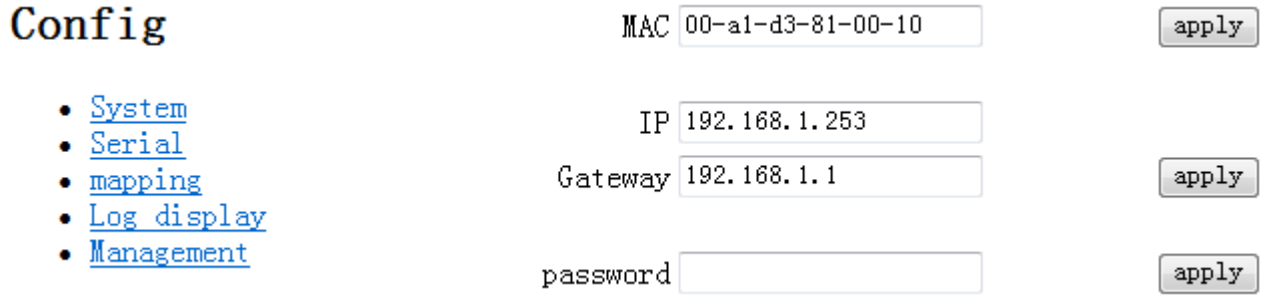
Device Default IP address is: 192.168.1.253, subnet mask: 255.255.255.0. When accessing devices through the Web, the IP of the device and computer must be in the same local domain network. You can access the Web configuration interface for a device using a standard Web browser such as Internet Explorer (ie browser).Before you access the device through a Web browser, the device's Ethernet port is connected to your LAN or directly to your PC network.

Step 1: pen IE browser on PC.

Step 2: Enter the IP address in the address bar of the IE browser, such as "192.168.1.199", press the "enter" key.

Step 3: Enter the username and password in the pop-up dialog box. (username admin, password 123)

Click OK to enter the device Web configuration interface.



MAC ADDRESS

The hardware address of the device is made up of 48 specialist (6 bytes),16 binary digits, its uniqueness (not recommended customers to independently modify).

IP ADDRESS

IP address is assigned to the connection in the Internet addresses of the devices on a 32-bit length. IP address is made up of two fields: the network number field (net-ID) and host number field (host-ID). IP addresses by the Defense data network network information center (NIC) for distribution. In order to facilitate the management of IP addresses and IP addresses are divided into five categories. As shown below:

Network Type	Address Range	Available IP Network Range
A	0.0.0.0～126.255.255.255	1.0.0.0～126.0.0.0
B	128.0.0.0～191.255.255.255	128.0.0.0～191.254.0.0
C	192.0.0.0～223.255.255.255	192.0.0.～223.255.254.0
D	224.0.0.0～239.255.255.255	None
E	240.0.0.0～246.255.255.255	None
Other Address	255.255.255.255	255.255.255.255

Where a, b, and c addresses are unicast (unicast) address of class d addresses for multicast (multicast) address; Class e addresses are reserved for future special uses. Currently used in the IP address belongs to a, b, and c addresses.

IP address in dotted decimal way. Each IP address is represented as 4 decimal integers separated by decimal points, one for each integer bytes, such as 10.110.50.101.

This series devices only support a static IP address, manually set the specified IP address and gateway. Through the IP address can be set by accessing the device's configuration page. Set a new IP address required to log in again.

Step 1: In the navigation on the left side, select "system settings."
Step 2: Modify a device's IP address and gateway, the equipment and access device hosts on the same local area network.
Step 3: Click "settings" to set the IP address to take effect and prompted to log into the Web interface again.
-----End

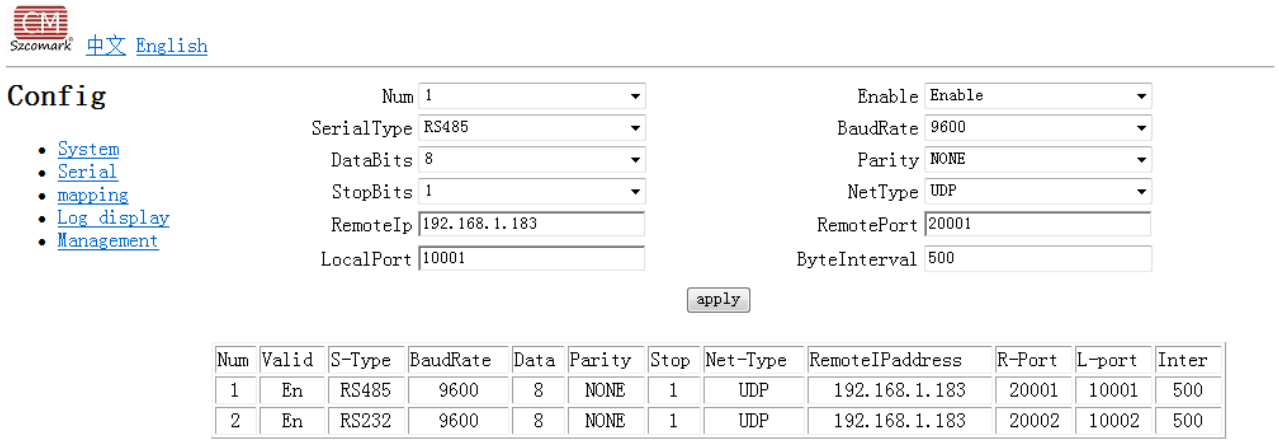
User Password

This series devices provide only a user name password to modify. This function allows you to modify the password for the current user name.

Step 1: In the navigation on the left side, select "system settings."
Step 2: Sets the password for the new user name.
Description:User name cannot be changed (default: admin).
Step 3: Click "settings", set the user name replaced the current user name, need to log in again.
------End

2.2 Function Menu

A detailed introduction and configuration approach will be made in this chapter.



Num	Valid	S-Type	BaudRate	Data	Parity	Stop	Net-Type	RemoteIPaddress	R-Port	L-port	Inter
1	En	RS485	9600	8	NONE	1	UDP	192.168.1.183	20001	10001	500
2	En	RS232	9600	8	NONE	1	UDP	192.168.1.183	20002	10002	500

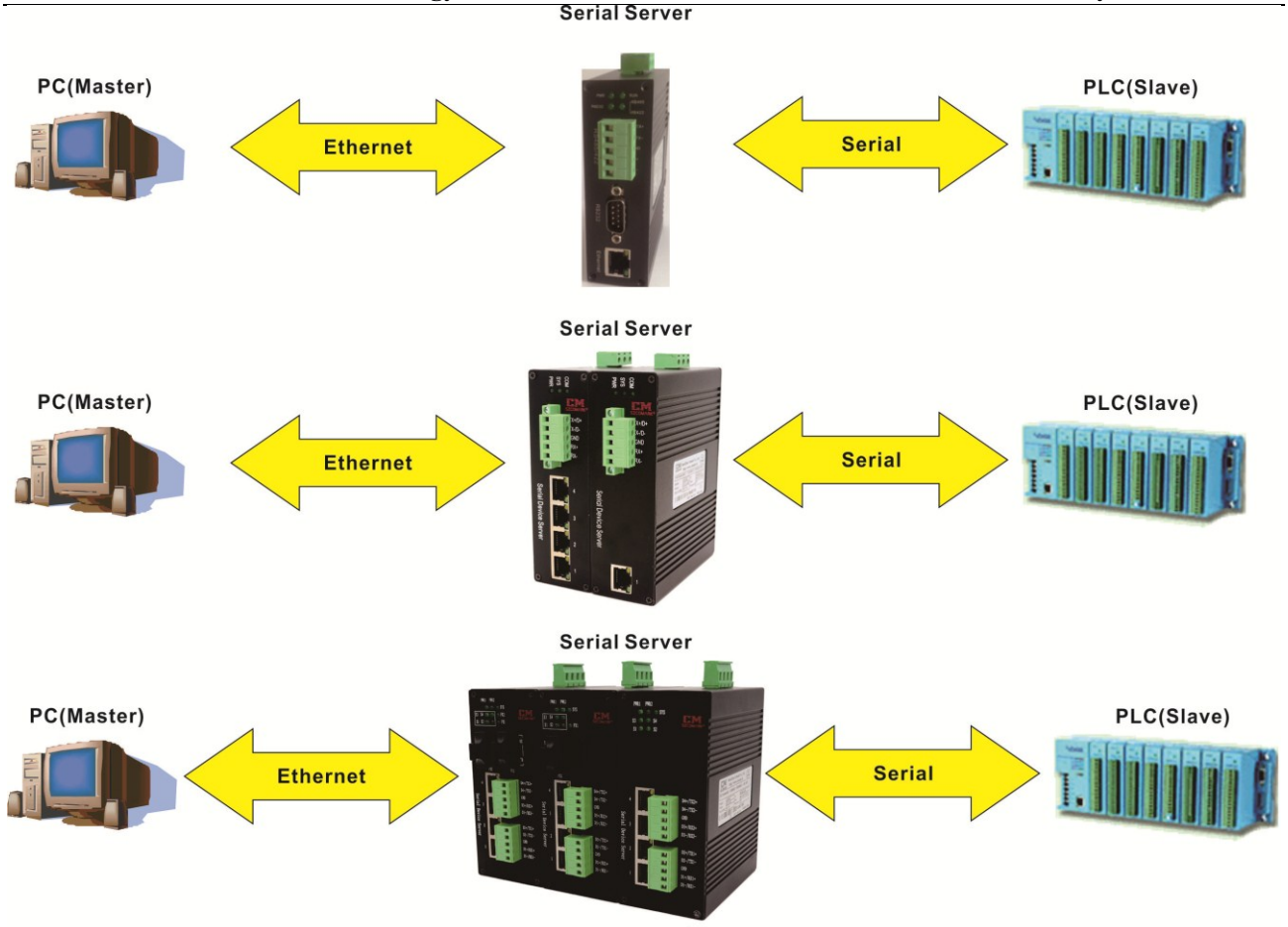
Value	Value Range	Description
Serial Port	1~4	Select the serial number you want to set.
Baud Rate	110,300,1200, 2400,4800,9600,19200, 38400,57600,115200 default:9600	Set the baud rate for this serial port. The baud rate represents the format of the data bits transmitted per second, a parameter that measures the speed of the communication.
Data Bits	5~8 Default:8	Sets the data bits for this serial port. Data bits refer to the number of bits of actual data in each byte, which is the parameter to measure the actual data bits in the communication.
Stop Bits	1,2 Default:1	Sets the stop bit for this serial port. The stop bit is used to identify the end of a packet data. The stop bit is not only used for packet transmission end flags, but also provides the opportunity for correcting synchronous clocks between computers. The more bits that are used to stop bits, the greater the degree of tolerance for synchronization of different clocks. However, because the stop bits occupy the data space, excessive stop bits will result in a decrease in data transmission speed.
Parity	even, none, odd. Default: none	Sets the parity bit for this serial port. Parity is used to determine whether the received data bits are wrong. For even and odd parity, the serial port sets the parity bit, and a value ensures that the transmitted data has an occasional or odd logical high. For 1 and 0 checksums, it does not really check data, simple value bits logic high or low logic, so that the receiver can know a bit state, determine whether there is noise interference or transmit and receive data is not synchronized. Even: Odd checksum, if the checksum is set to "odd", the number of 1 in the sending data is odd, the check digit is "0"; the parity bit is "1" when the number of 1 in the sending data is even. None: No checksum, when data is sent, if the check digit is set to "none", no check digit is sent, or a checksum is sent. Odd: Parity, if the checksum is set to "odd", the number of sending data is odd, 1, the check digit is "1"; the parity bit is "0" when the number of 1 in the sending data is even.

Mode	Disabled, Tcpclient, Tcpserver, Udp, ModbusTCP(RTU_MASTER), ModbusTCP(RTU_SLAVE), ModbusTCP(ASCII_MASTER), ModbusTCP(ASCII_SLAVE), Default: Disabled	Set the data to the Ethernet switch and transmit the working mode of the serial port. Tcpclient: In this working mode, the serial port actively connects the remote IP destination ports. With Tcpserver into pairs used. Tcpserver: In this working mode, the serial port listens for the client connection. With Tcpclient into pairs used. The Udp:UDP protocol does not establish a connection to send and receive data only to the destination port of the remote IP when transferring using the UDP protocol. MODBUS TCP(RTU_MASTER): Master communication mode is Modbus TCP, asynchronous serial transmission(RS-422/485),Corresponding communication mode is MODBUS RTU for slave. MODBUS TCP(RTU_SLAVE): Asynchronous serial transmission(RS-422/485),Corresponding communication mode is MODBUS RTU for master. Slave communication mode is Modbus TCP. MODBUS TCP(ASCII_MASTER): Master communication mode is Modbus TCP, asynchronous serial transmission(RS-422/485),Corresponding communication mode is MODBUS ASCII for slave. MODBUS TCP(ASCII_SLAVE): Asynchronous serial transmission(RS-422/485),Corresponding communication mode is MODBUS ASCII for master. Slave communication mode is Modbus TCP. Disabled: Close the serial port.
Local Port Number	1~65534	Set the local port number for this serial port.
RemotePort Number	1~65534	Set this serial port through Ethernet communication remote device destination port number.
RemotePort IP Address	xxx.xxx.xxx.xxx	Sets the IP address of the remote device that this serial port communicates via Ethernet.
Bytes Max Delay	0~999 default:500	Serial to Ethernet data time interval, when the set time interval is reached, data forwarding, you can set the value of 0-999.

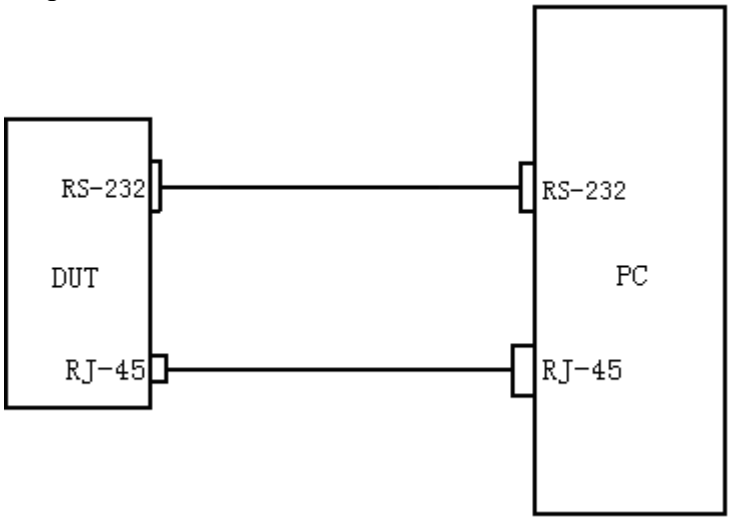
2.3 Serial Port Work

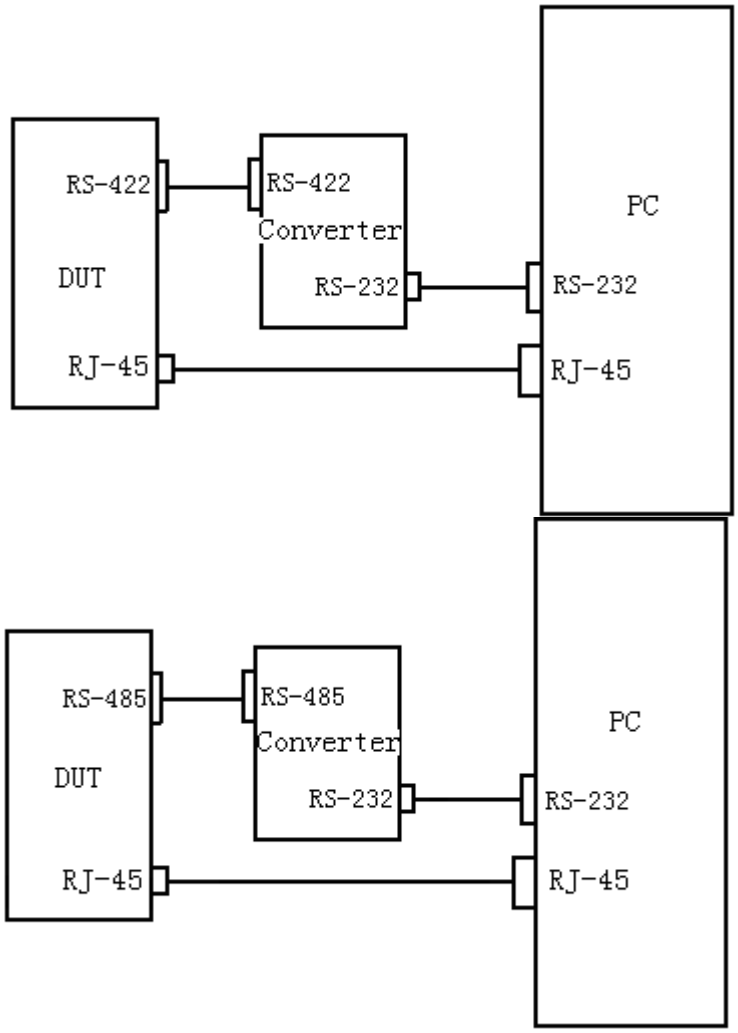
- **Serial Port Work(Applied to the actual field work mode)**

  PC port of the host computer connected to the Ethernet port of this series of devices,This series of equipment serial port and the lower computer PLC serial port connected(RS-232/485/422),Implement the transmission of TCP to serial link on the Ethernet link.



➢ Building a simple configuration environment:





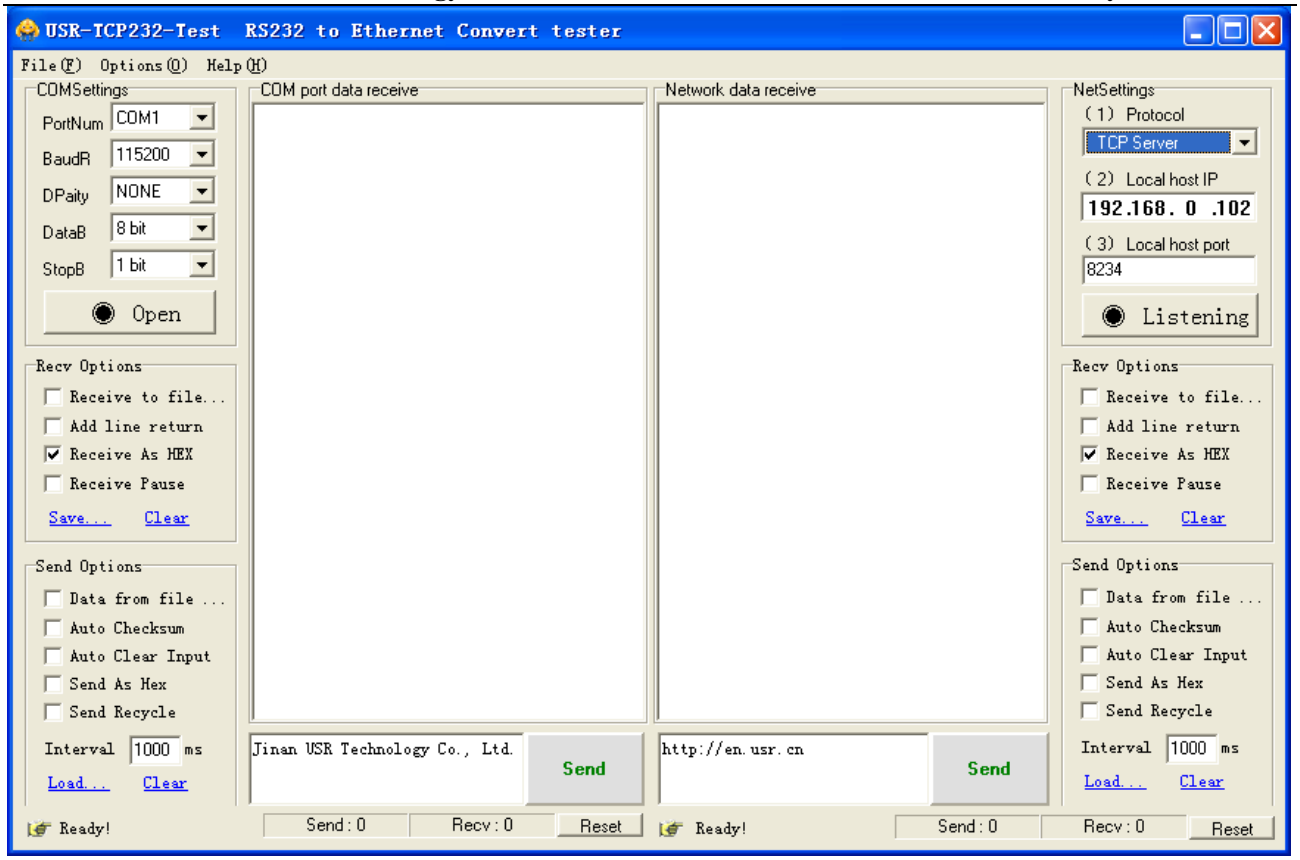
Description: Computer needs to have a serial port, because the computer is RS-232 serial port need to use the RS-485/422 serial port RS-485/422 to RS-232 converter.

- Connection Wiring:

  According to different serial lines to connect the different line sequence (RS-485 connect the 2 root line A/D+ connect RS-485 transfer RS-232 Converter to the R+, B/D-connector R; RS-422 4-wire TX+/RX+ connect RS-422 to RS-232 converter T+/R+, TX-/RX-Converter T-/R-)

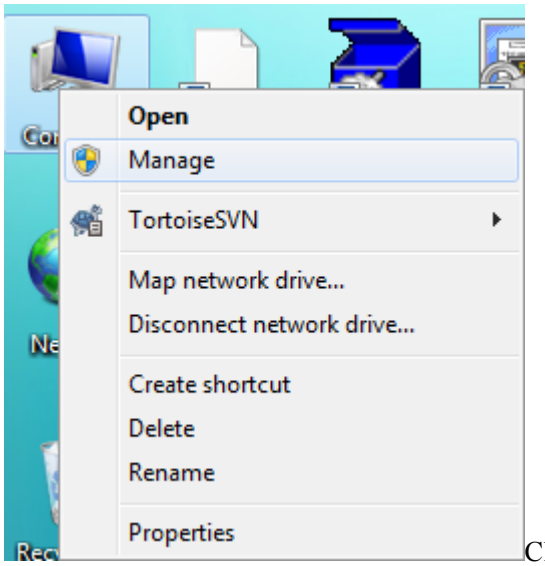
- Computer Installation Serial Software:

The software is used as the EXE format directly double-click, as shown in the following illustration.

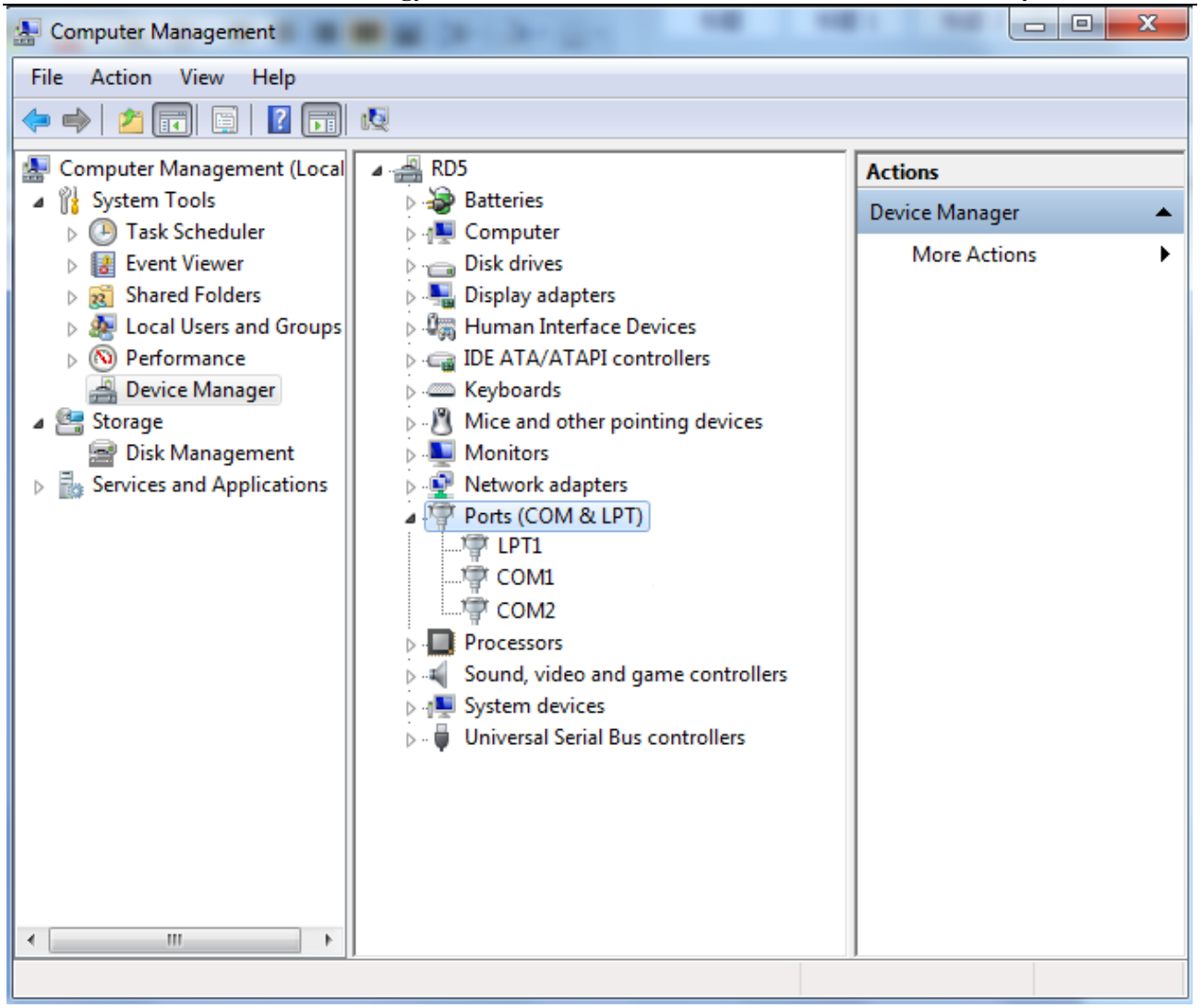


➢ Choose Physical Serial Port

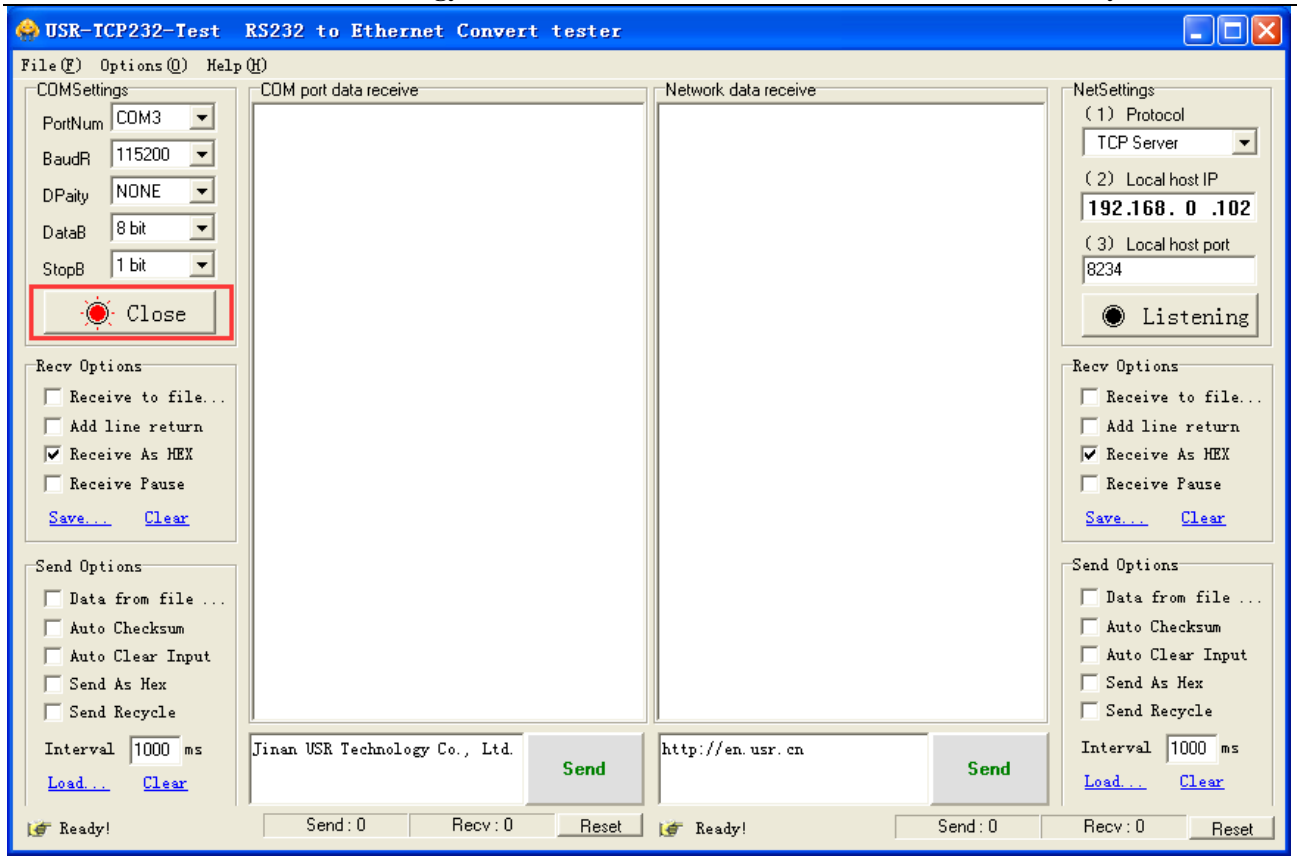
Click the "My Computer" management to appear as shown in the following illustration



Click on the Device Manager and then click the port information to appear in the red box of the computer's serial information

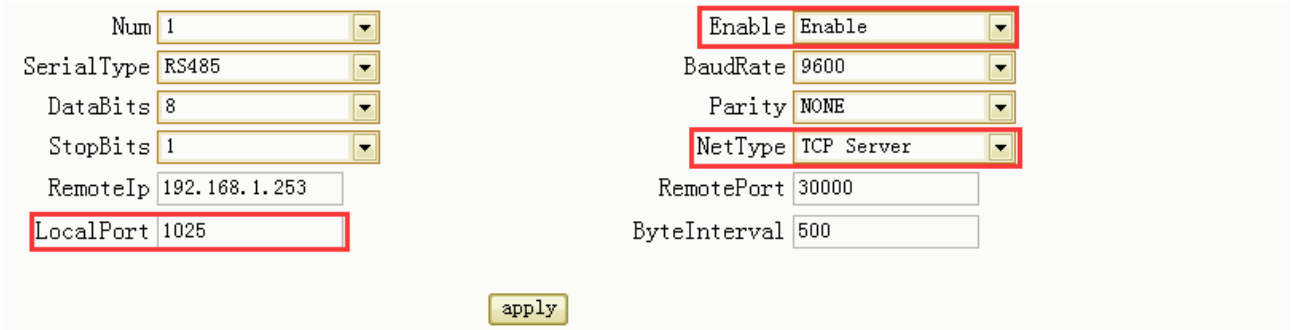


Select the correct serial number after the single-machine open port appears the following status



2.3.1 TCP Server Mode

Configuring the TCP server mode parameter is shown in the following illustration:

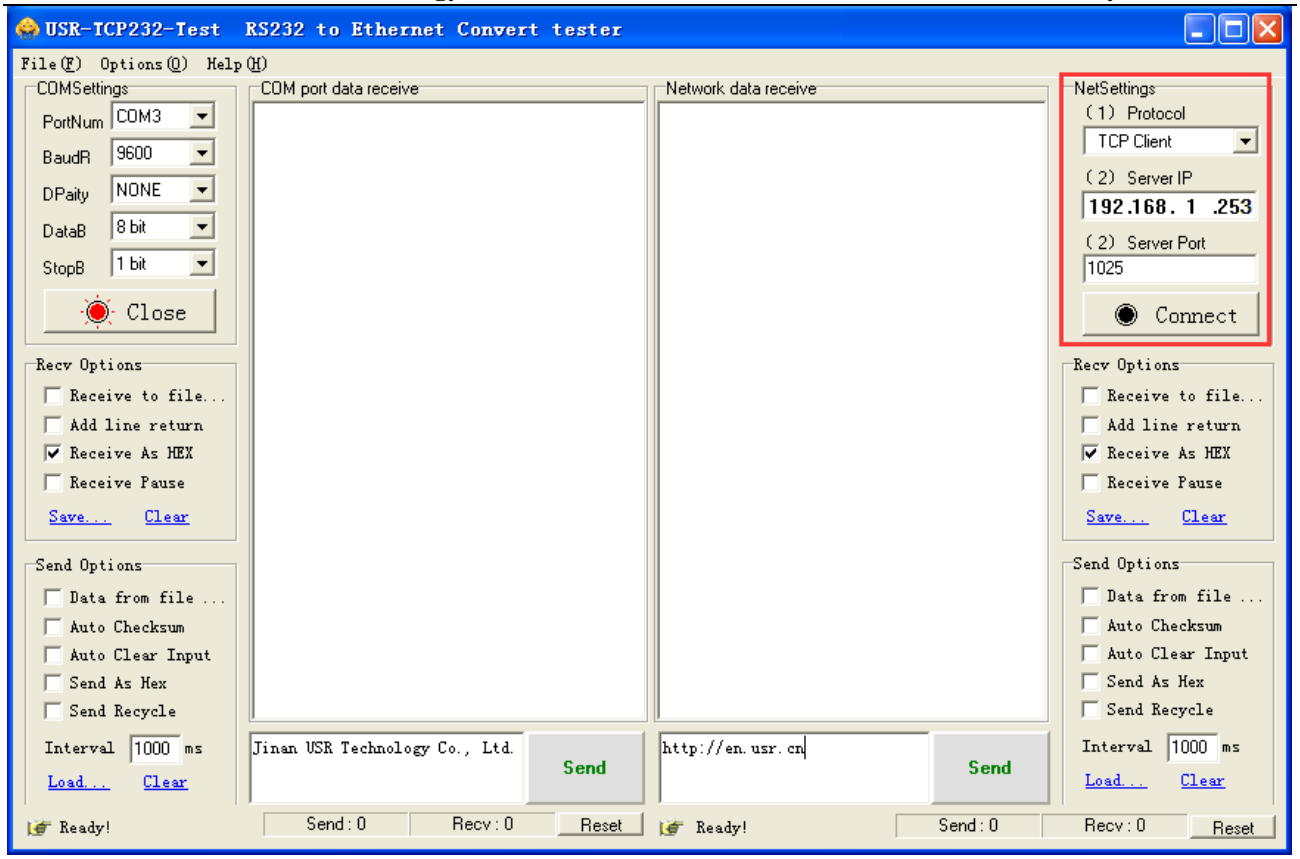


Num	Enable	Type	BaudRate	Data	Parity	Stop	NetType	RemoteIP	RPort	Lport	Interval
1	Enable	RS485	9600	8	NONE	1	TCP Server	192.168.1.253	30000	1025	500

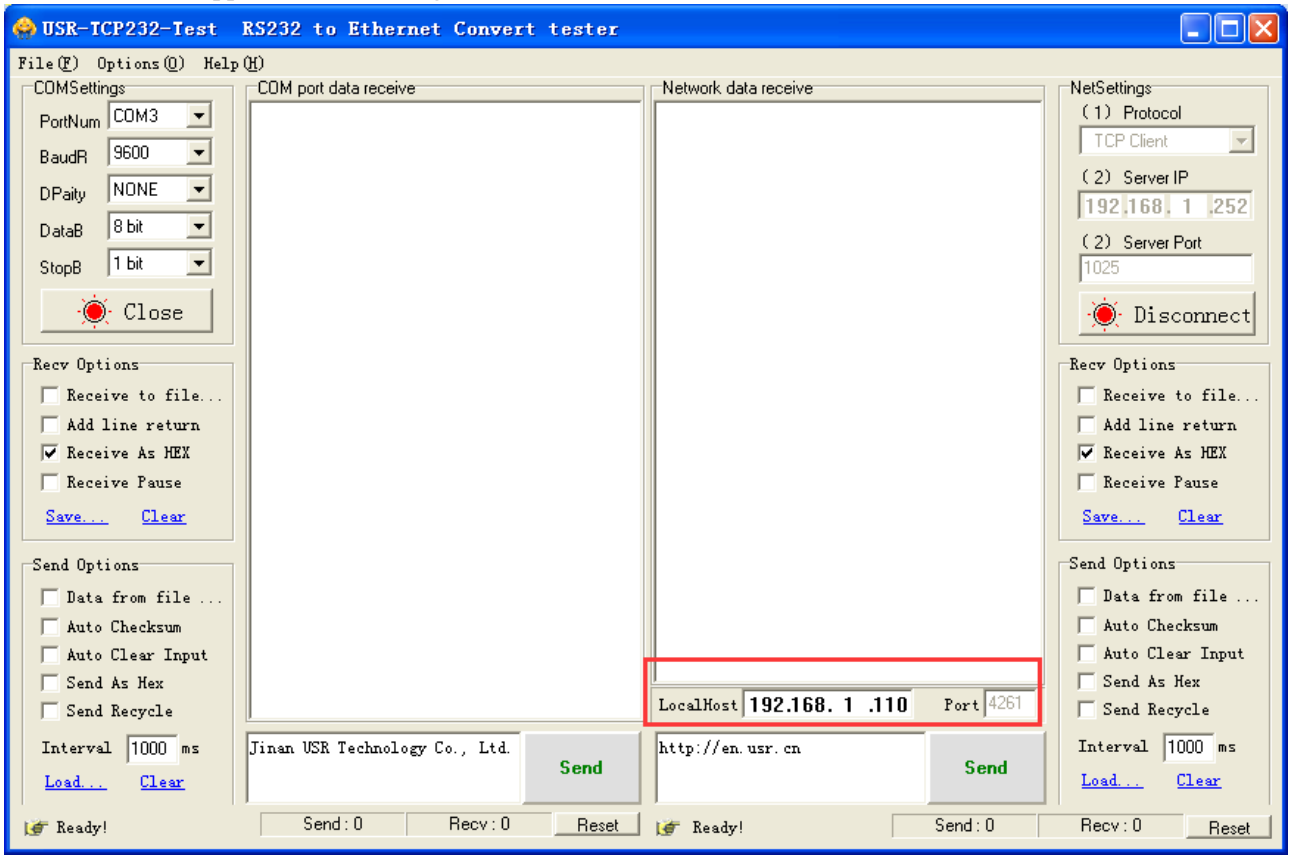
When a device is a TCP server, only the local port number is configured (For multiple serial devices different serial ports need to set a different local port number)

【Local Port】

The device as TCP server provides a TCP port software parameter configuration diagram that is connected to other TCP/IP nodes, as follows: (PC Active to connect device so protocol selects TCP Client, IP for device IP192.168.1.253, port number for device local port number1025)



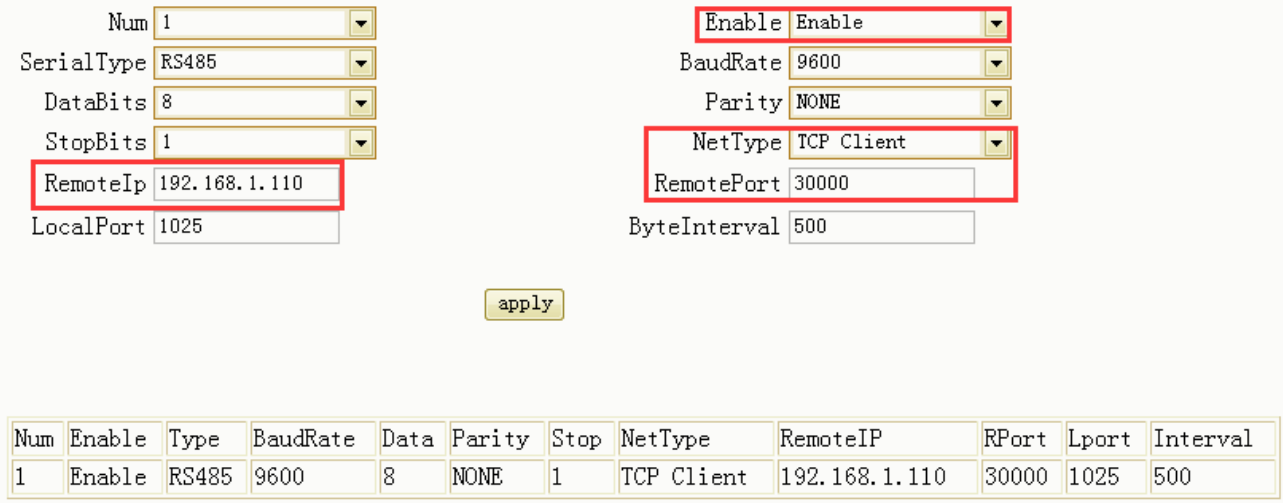
Click Connect to appear in the next Figure red box will be normal communication.



In the Send area, select the packets you want to send, as shown in the following illustration.

2.3.2 TCP Client Mode

Configure the TCP client mode parameters as shown in the following illustration:



Num	Enable	Type	BaudRate	Data	Parity	Stop	NetType	RemoteIP	RPort	Lport	Interval
1	Enable	RS485	9600	8	NONE	1	TCP Client	192.168.1.110	30000	1025	500

As a TCP client side, the device proactively connects to TCP/IP network devices on Ethernet, such as PCs. You need to tell the device which network address and TCP port number to connect when the condition meets. When the socket is established, the device will send the data received from the corresponding serial port through the socket, conversely, the data received from the socket will be sent to the corresponding serial port.

For TCP client settings options: Remote port, IP address configuration options are interpreted as follows:

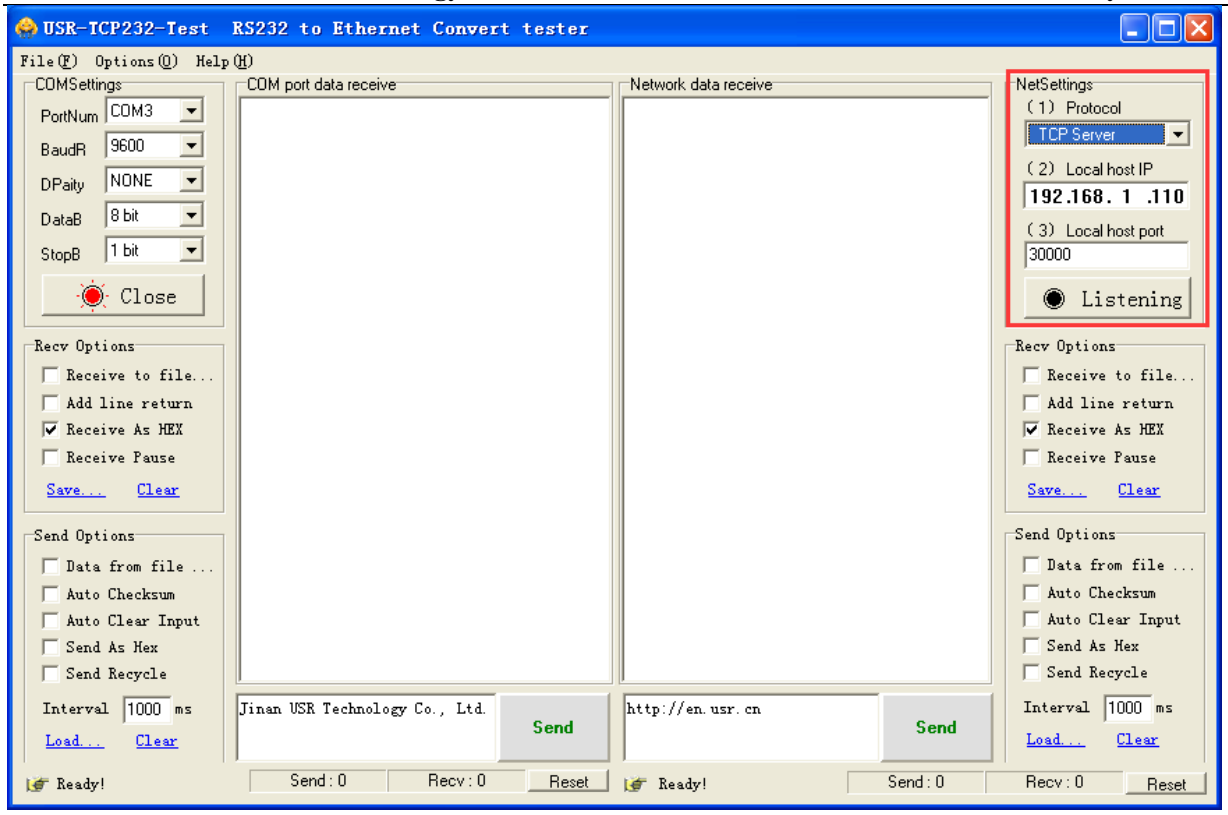
【Remote Port】

The TCP port number to which the device connects. (For multiple serial devices different serial ports need to set a different remote port number)

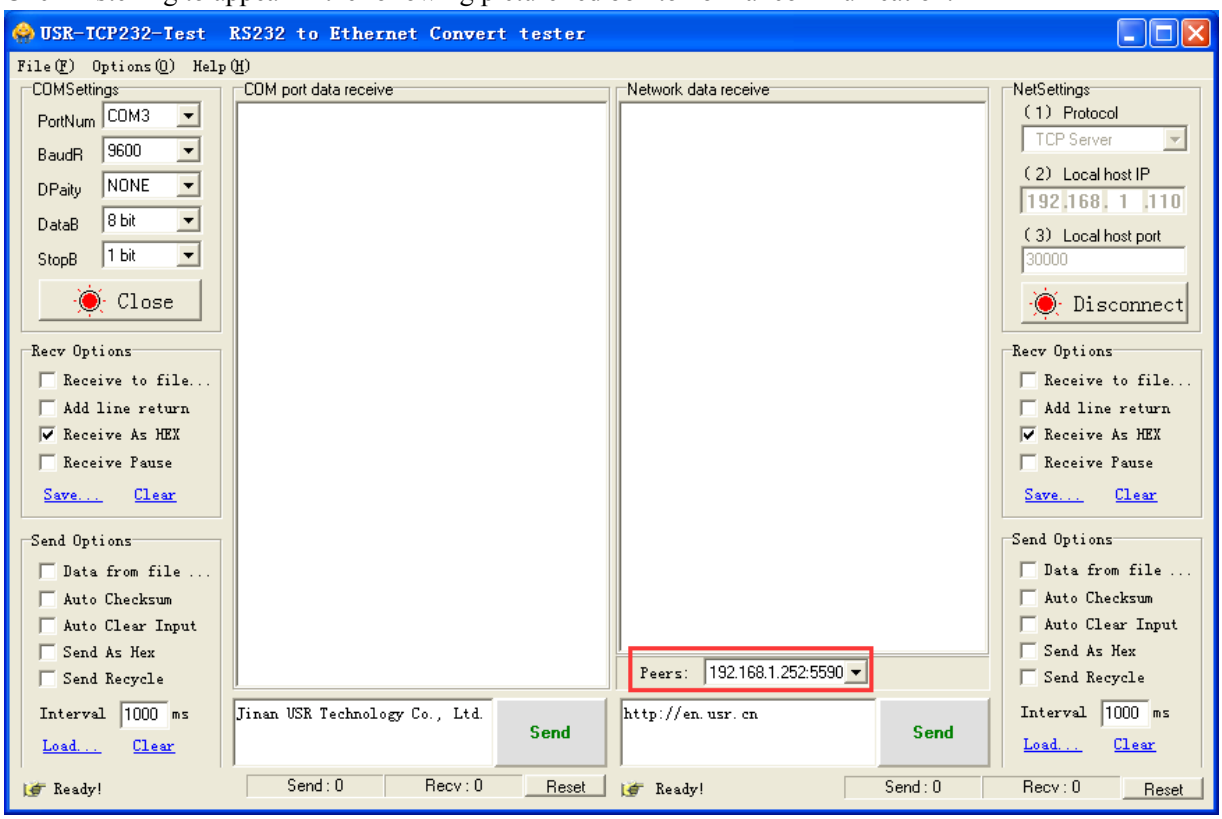
【IP Address】

The IP address or domain name address that the device connects to, both of which correspond to the host address on the Internet.

The software parameter configuration diagram is as follows: (The device actively connects the PC so the protocol selects TCP server, IP for PC 192.168.1.110, port number for the device remote port number 30000)



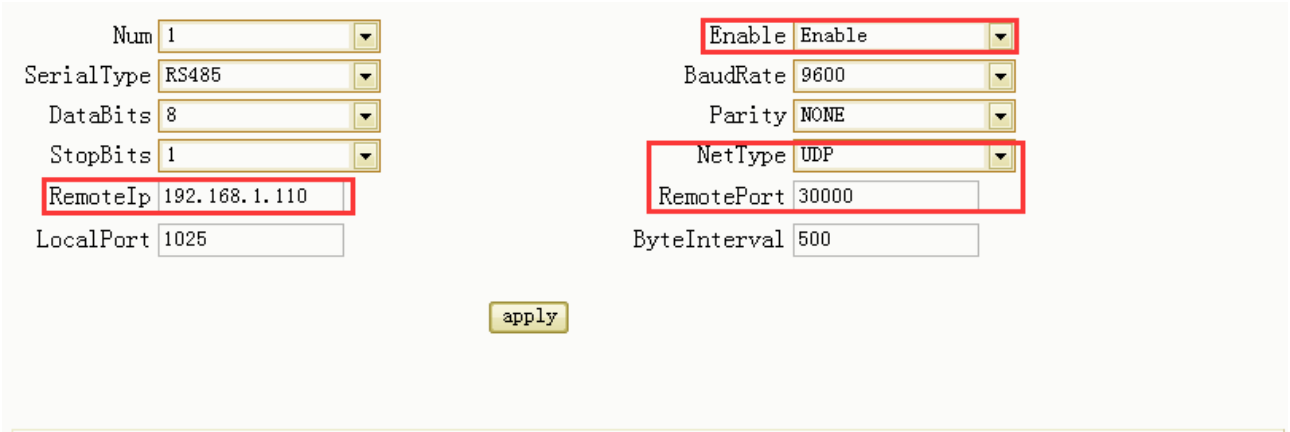
Click Listening to appear in the following picture red box to normal communication.



In the Send area, select the packets you want to send, as shown in the following illustration.

2.3.3 UDP Mode

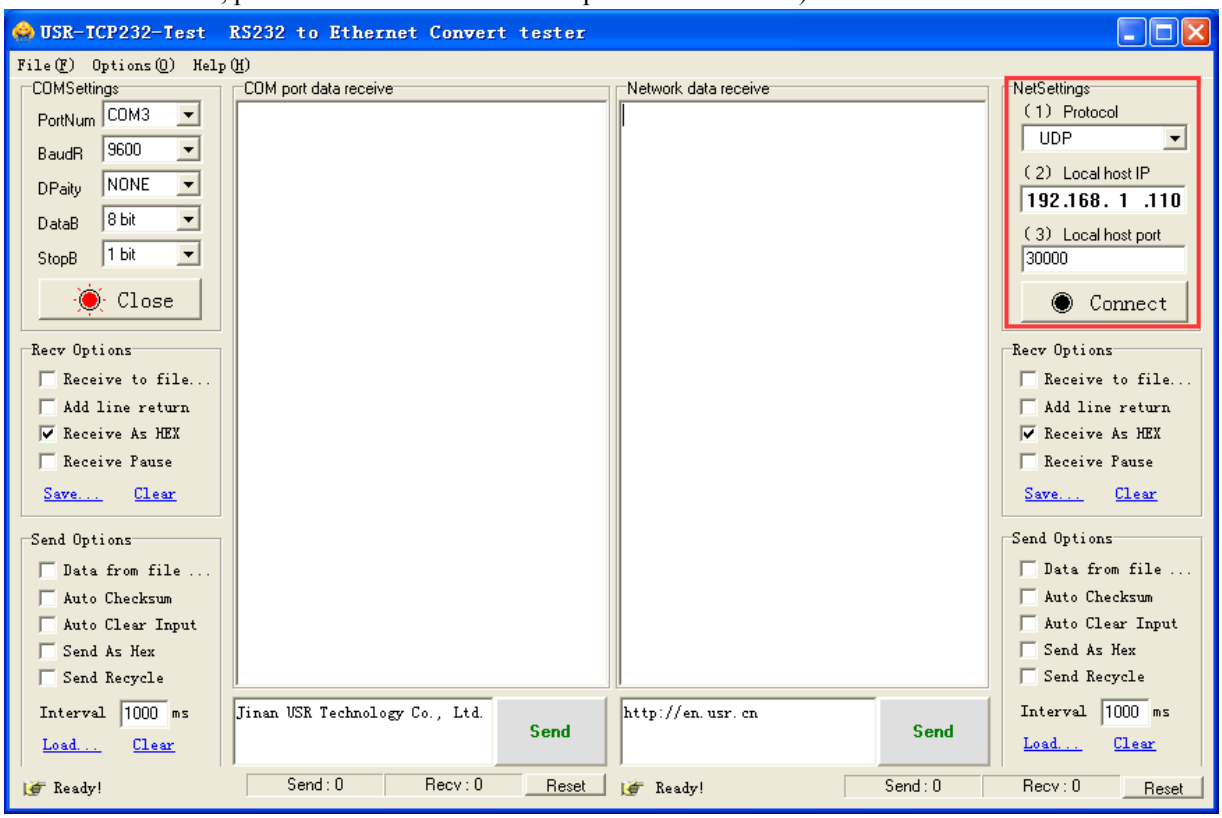
Configure UDP mode parameters as shown in the following illustration:



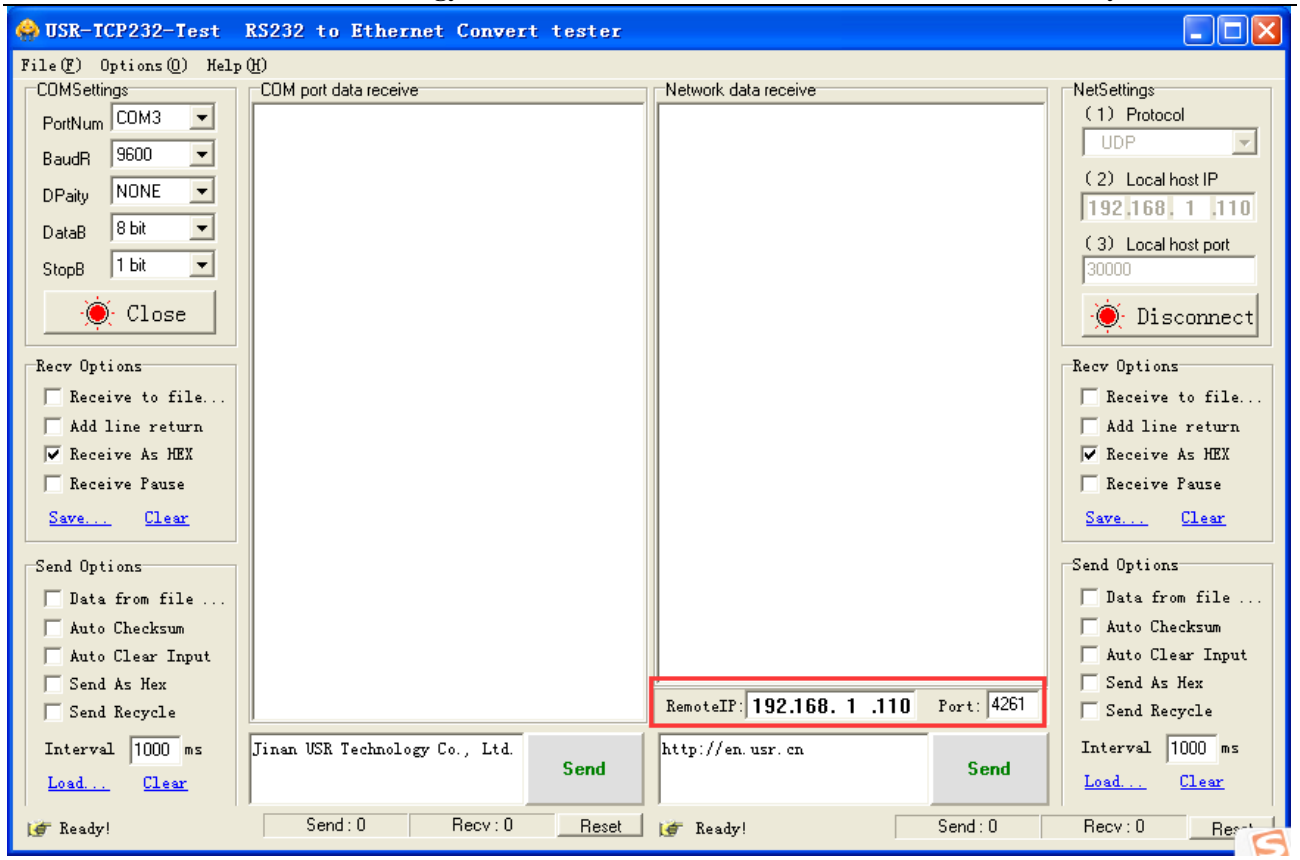
Num	Enable	Type	BaudRate	Data	Parity	Stop	NetType	RemoteIP	RPort	Lport	Interval
1	Enable	RS485	9600	8	NONE	1	UDP	192.168.1.110	30000	1025	500

In UDP working mode, the device is both the server side and the client side. UDP-related configuration options have remote port, IP address. UDP supports peer-to-peer, and configuration is similar to TCP mode. (For multiple serial devices different serial ports need to set a different remote port number)

The software parameter configuration diagram is as follows: (protocol selects UDP, IP for PC IP 192.168.1.110, port number for device remote port number 30000)



Click Connect to appear in the next Figure red box will be normal communication.

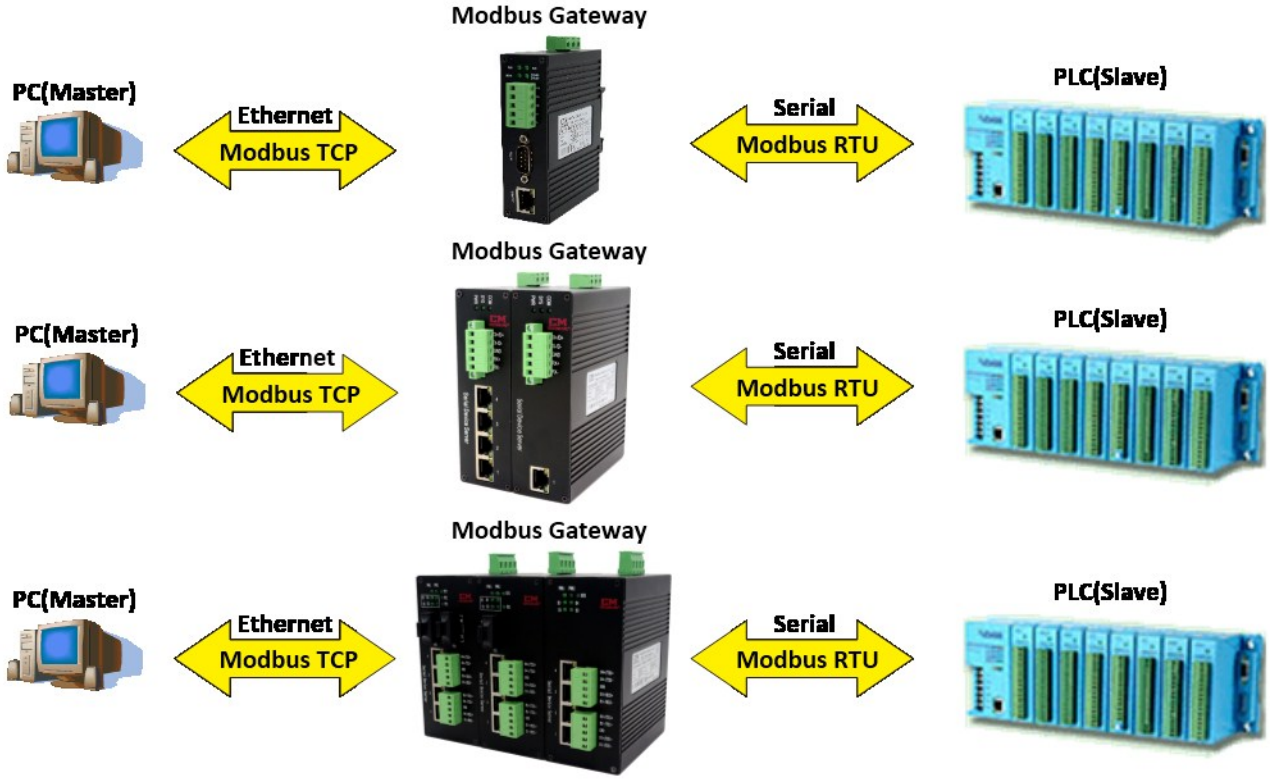


In the Send area, select the packets you want to send, as shown in the following illustration.

Notice:RS-485 as half-duplex mode only one serial port to send another serial port can only receive data; RS-232/422 can send both bidirectional for full duplex mode.

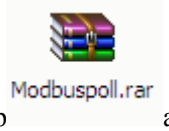
2.3.4 ModbusTCP(RTU_MASTER) Mode

PC port of the host computer connected to the Ethernet port of this series of devices, This series of equipment serial port and the lower computer PLC serial port connected(RS-232/485/422), Implement the transmission of Modbus RTU on the Modbus TCP to serial link on the Ethernet link.



Serial Port Work(For Example)

1:Computer Installation Modbus test software

Unzip 

and install 

software

Unzip 

and install 

software

2:Modbus Functional Verification Test

Configuring Web Serial Parameters

Input device default IP 192.168.1.253 on IE browser, click the serial port configuration page configuration serial parameter: Take serial port RS-485 as example configuration as shown in the following illustration

Num	1	Enable	Enable
SerialType	RS485	BaudRate	9600
DataBits	8	Parity	NONE
StopBits	1	NetType	ModbusTCP(RTU_MASTER)
RemoteIp	192.168.1.110	RemotePort	30000
LocalPort	502	ByteInterval	500

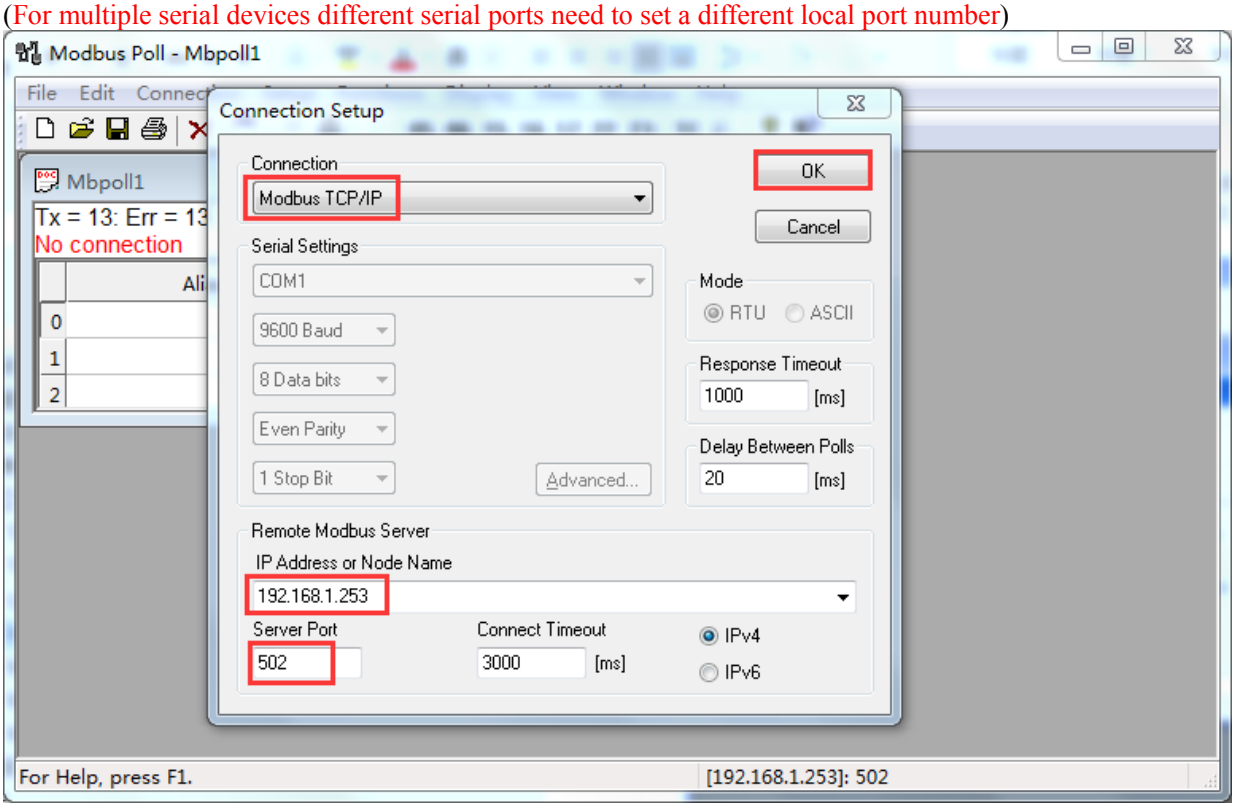
apply

Num	Valid	S-Type	BaudRate	Data	Parity	Stop	Net-Type	RemoteIPaddress	R-Port	L-port	Inter
1	En	RS485	9600	8	NONE	1	ModbusTCP(RTU_MASTER)	192.168.1.110	30000	502	500

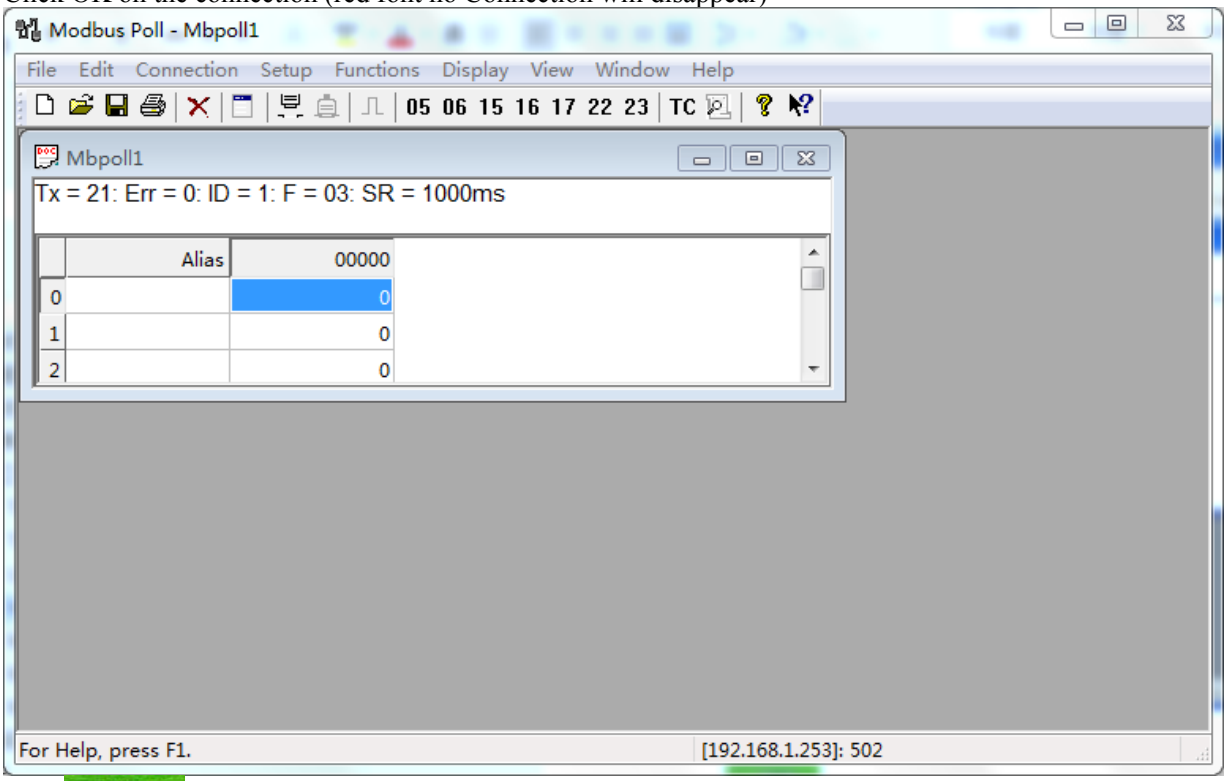
3:Run Modbus test software

Open software configuration, parameter configuration is consistent with the Web display.

Click Connection, select TCP/IP,IP address write device IP 192.168.1.253,Port write local port number 502. (For multiple serial devices different serial ports need to set a different local port number)

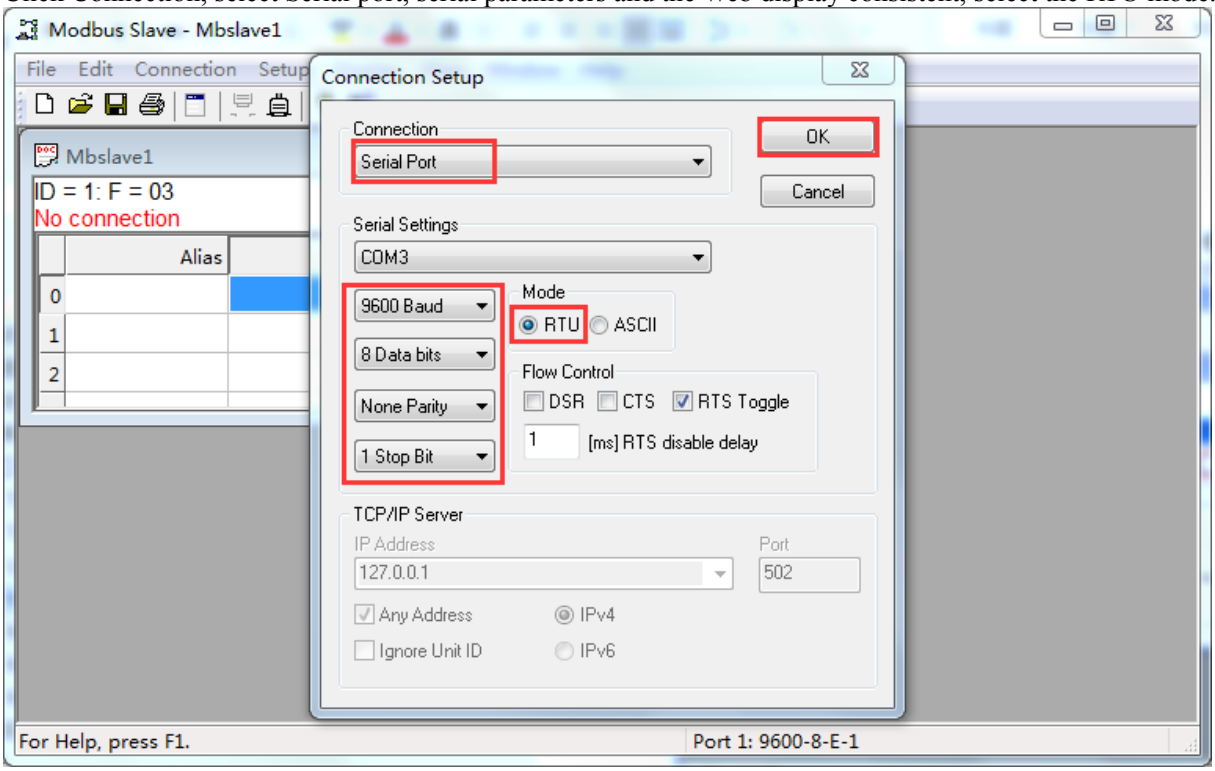


Click OK on the connection (red font no Connection will disappear)



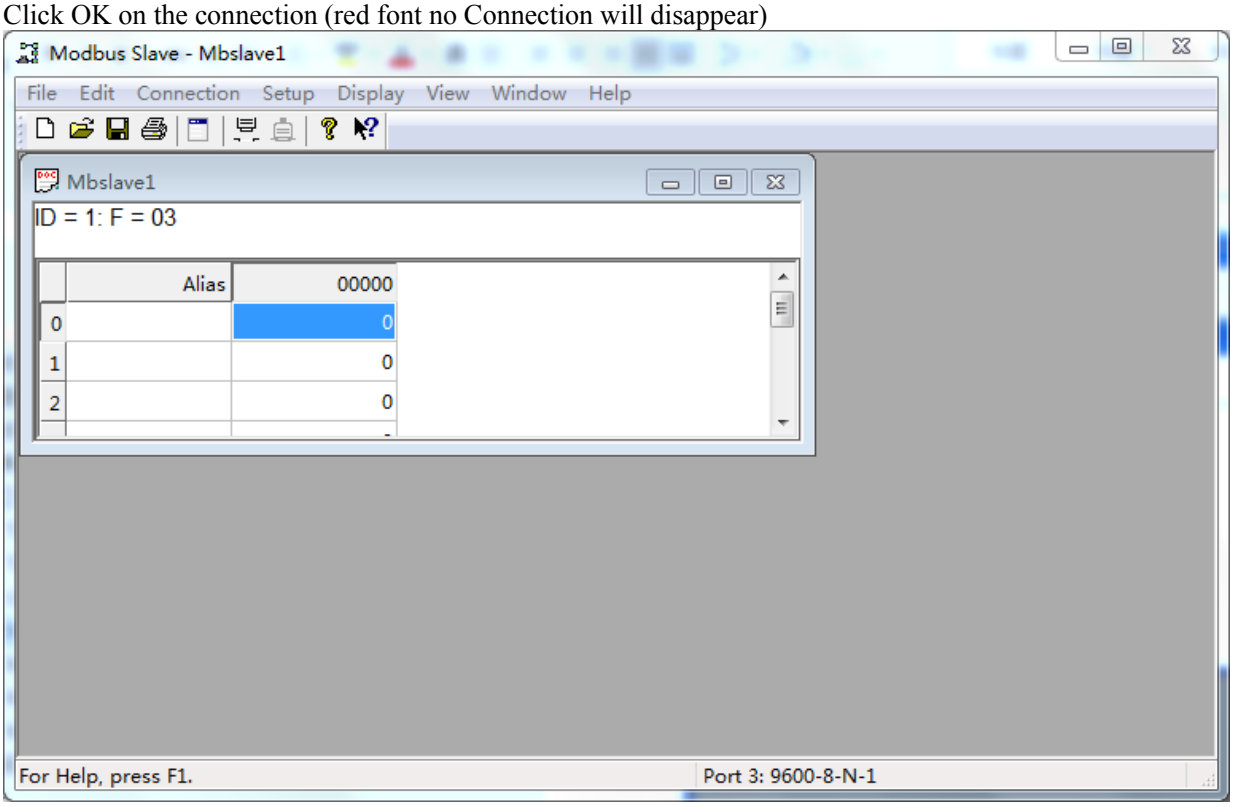
Open software configuration, parameter configuration is consistent with the Web display.

Click Connection, select Serial port, serial parameters and the Web display consistent, select the RTU mode.

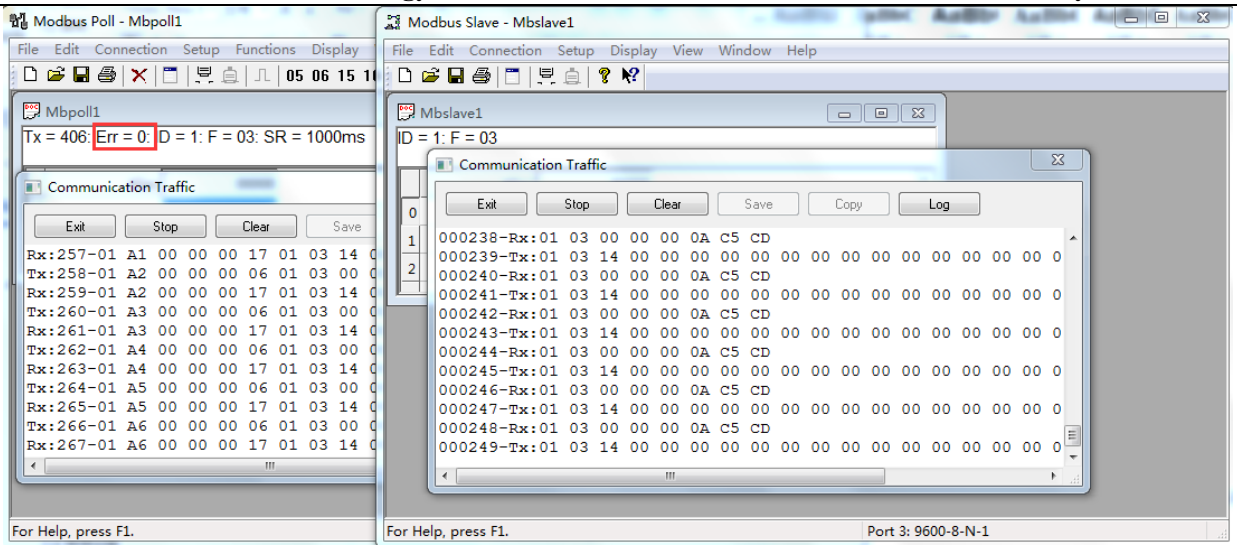


Select the correct communication port

Click OK on the connection (red font no Connection will disappear)



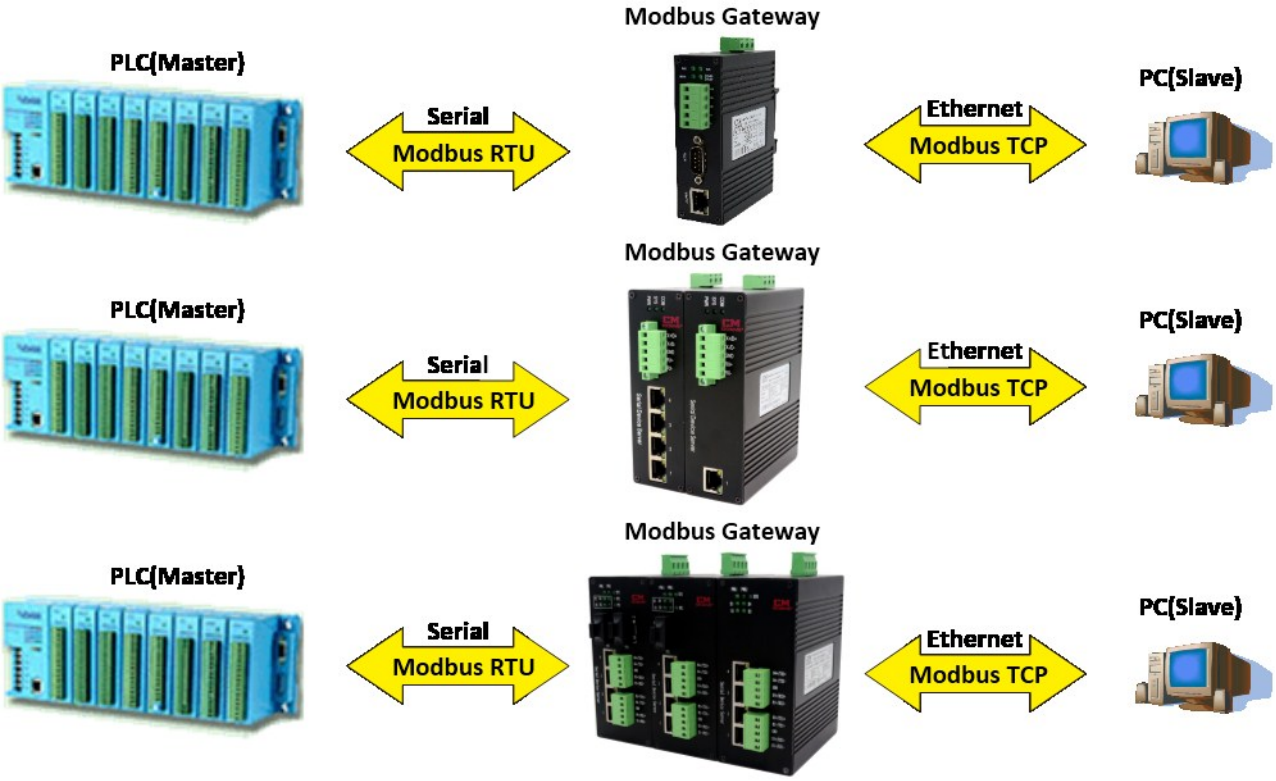
4:transmit-receive Modbus data



The error is 0 for the test to pass normally. According to this method, test RS-232/422 serial communication sequentially.

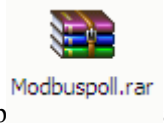
2.3.5 ModbusTCP(RTU_SLAVE) Mode

This series of equipment serial port and the host computer PLC serial port connected(RS-232/485/422) , PC port of the lower computer connected to the Ethernet port of this series of devices, Implement the transmission of Modbus RTU on the Modbus TCP to serial link on the Ethernet link.



Serial Port Work(For Example)

1:Computer Installation Modbus test software



Unzip and install 

software

Unzip 

and install 

software

2:Modbus Functional Verification Test

Configuring Web Serial Parameters

Input device default IP 192.168.1.253 on IE browser, click the serial port configuration page configuration serial parameter: Take serial port RS-485 as example configuration as shown in the following illustration

Num	1	Enable	Enable
SerialType	RS485	BaudRate	9600
DataBits	8	Parity	NONE
StopBits	1	NetType	ModbusTCP(RTU_SLAVE)
RemoteIp	192.168.1.110	RemotePort	30000
LocalPort	502	ByteInterval	500

RTU SLAVE SETTING

Number	Enable	RemoteIp	RemotePort	ID(e.g.,3 or 5-7)
1	Enable	192.168.1.111	502	1-1
2	Disable	192.168.2.100	10000	100-200

apply

Num	Valid	S-Type	BaudRate	Data	Parity	Stop	Net-Type	RemoteIPaddress	R-Port	L-port	Inter
1	En	RS485	9600	8	NONE	1	ModbusTCP(RTU_SLAVE)	192.168.1.110	30000	502	500

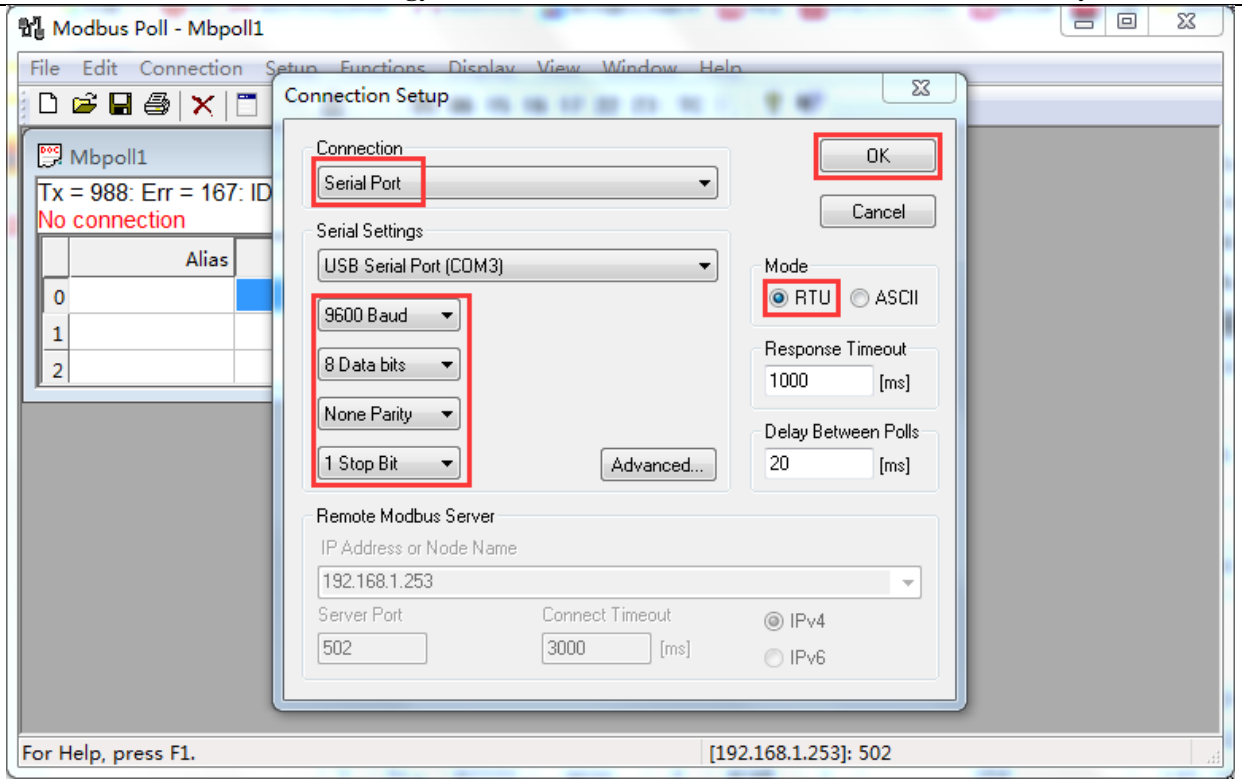
Remote IP address, remote port, and slave ID for configuring SLAVE, The range of ID can be one or one consecutive value, but cannot be repeated. (For multiple serial devices different serial ports need to set a different remote port number)

3:Run Modbus test software

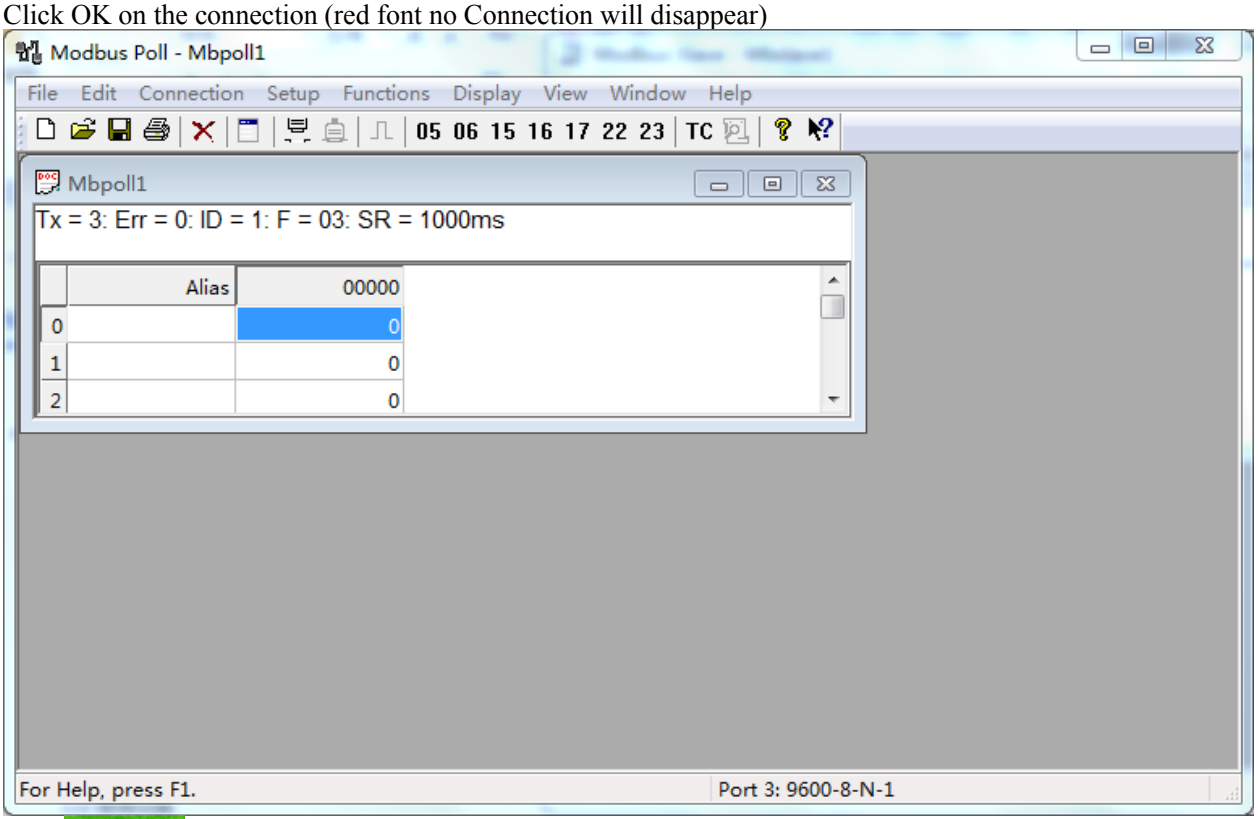
Open 

software configuration, parameter configuration is consistent with the Web display.

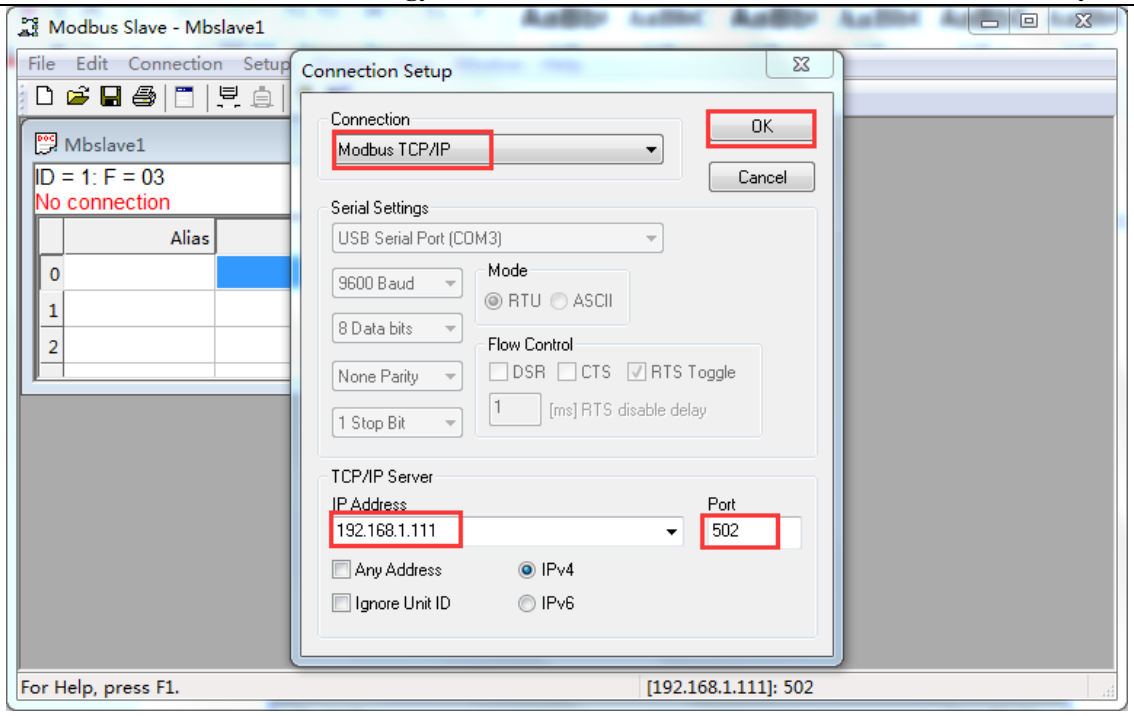
Click Connection, select Serial port, serial parameters and the Web display consistent, select the RTU mode.



Click OK on the connection (red font no Connection will disappear)

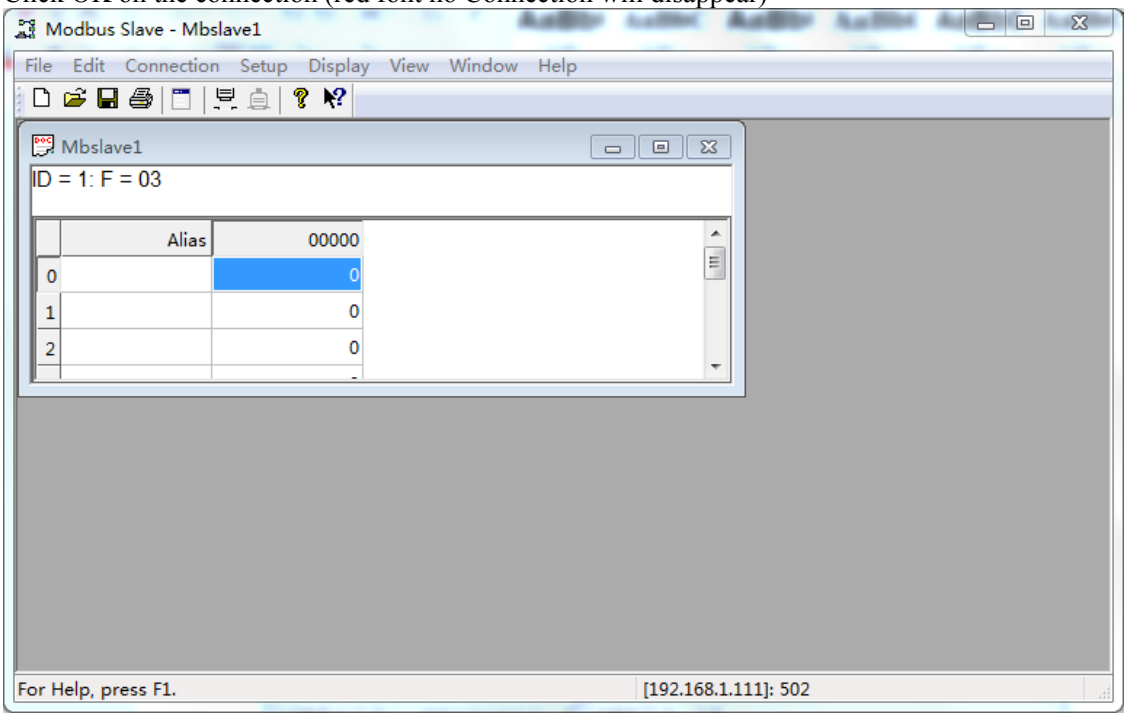


Open software configuration, parameter configuration is consistent with the Web display.
Click Connection, select TCP/IP,IP address write Slave IP 192.168.1.111,Port write remote port number 502.

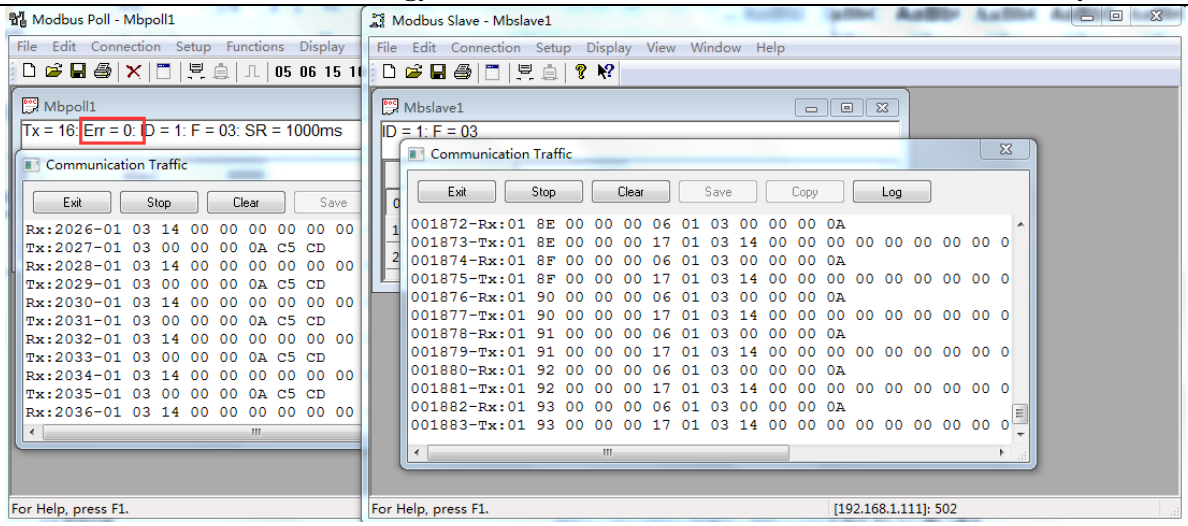


Select the correct communication port

Click OK on the connection (red font no Connection will disappear)



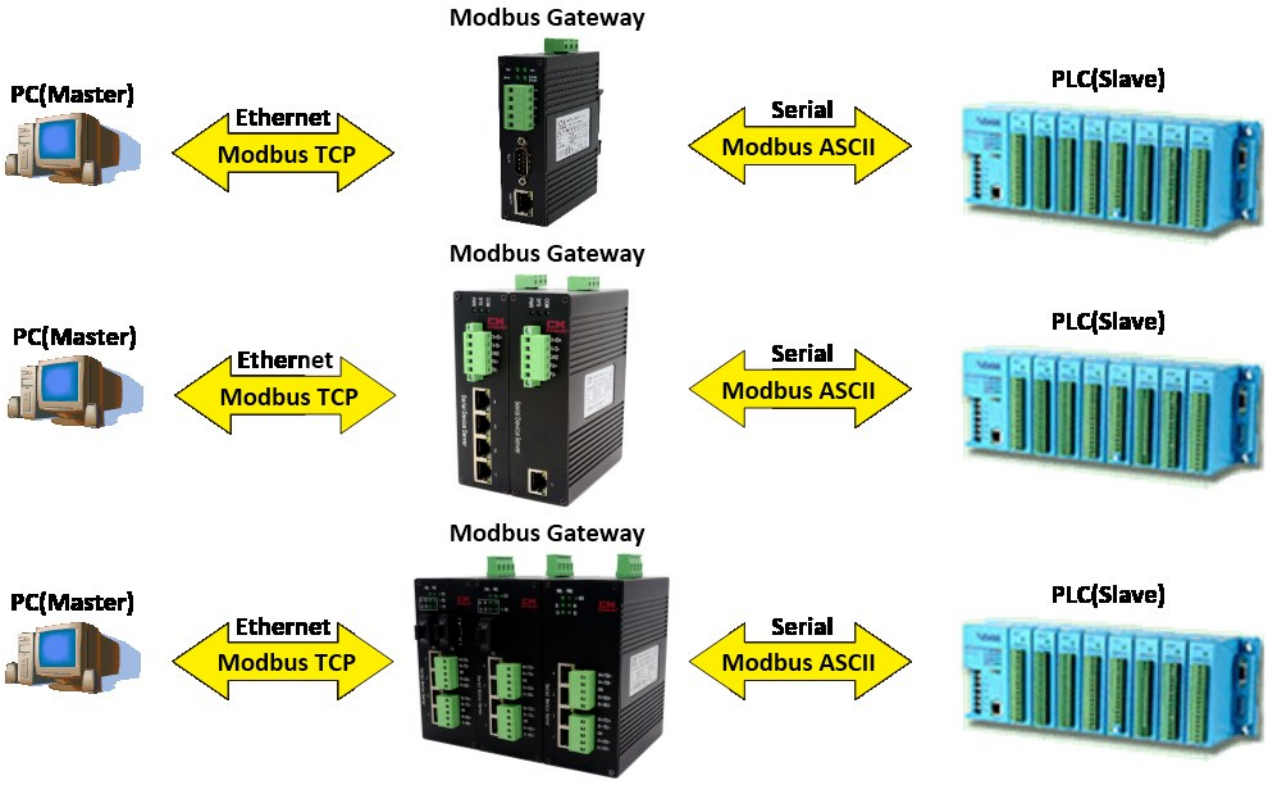
4:transmit-receive Modbus data



The error is 0 for the test to pass normally. According to this method, test RS-232/422 serial communication sequentially.

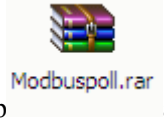
2.3.6 ModbusTCP(ASCII_MASTER) Mode

PC port of the host computer connected to the Ethernet port of this series of devices,This series of equipment serial port and the lower computer PLC serial port connected(RS-232/485/422),Implement the transmission of Modbus ASCII on the Modbus TCP to serial link on the Ethernet link.



Serial Port Work(For Example)

1:Computer Installation Modbus test software



Unzip and install 

software

Unzip 

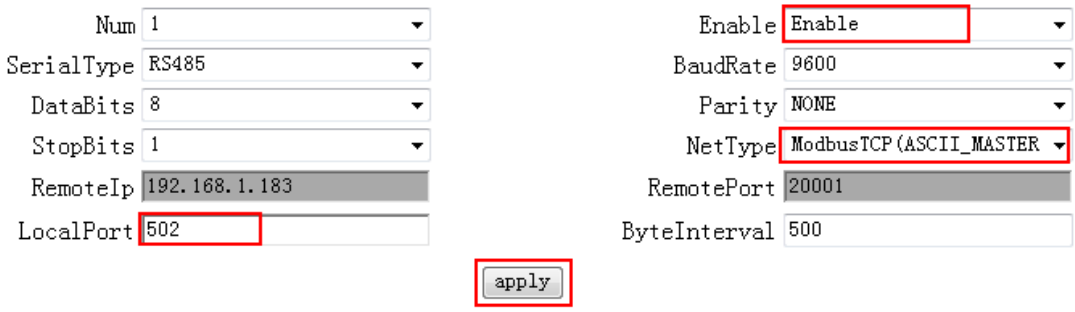
and install 

software

2:Modbus Functional Verification Test

Configuring Web Serial Parameters

Input device default IP 192.168.1.253 on IE browser, click the serial port configuration page configuration serial parameter: Take serial port RS-485 as example configuration as shown in the following illustration



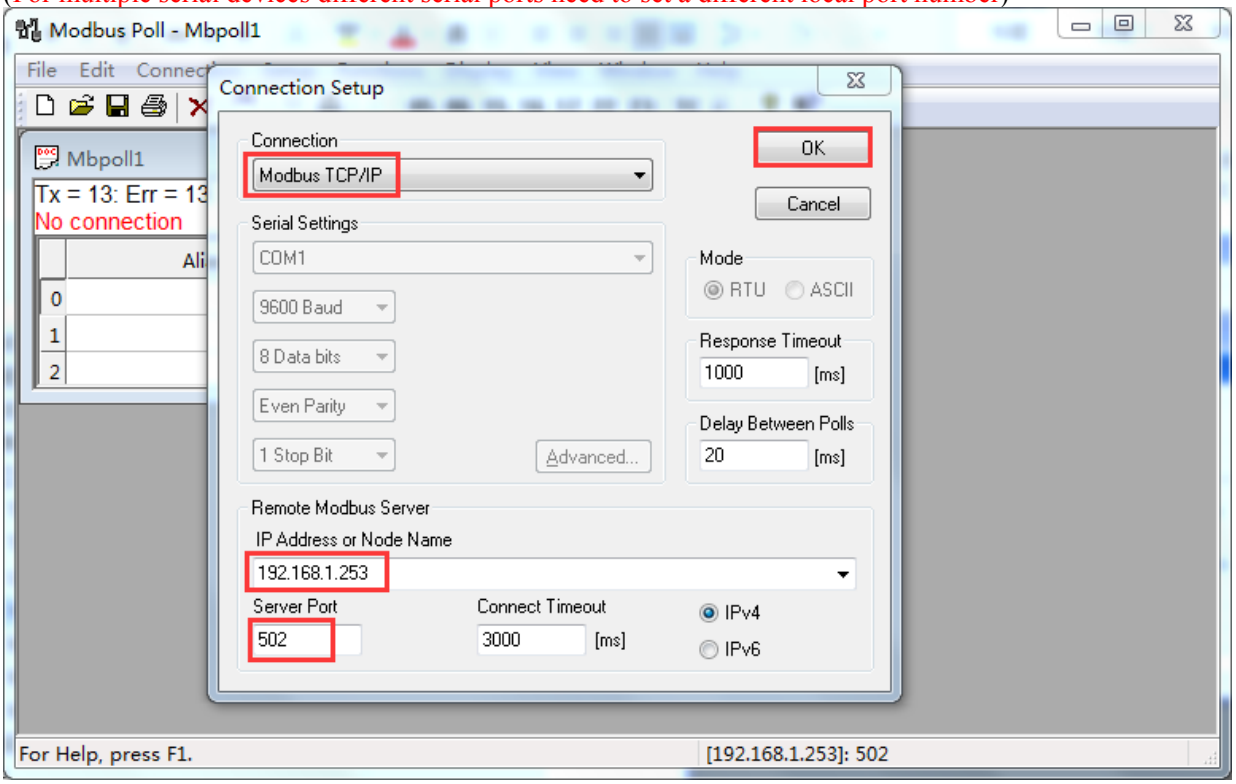
Num	Valid	S-Type	BaudRate	Data	Parity	Stop	Net-Type	RemoteIPaddress	R-Port	L-port	Interr
1	En	RS485	9600	8	NONE	1	ModbusTCP(ASCII_MASTER)	192.168.1.183	20001	502	500

3:Run Modbus test software

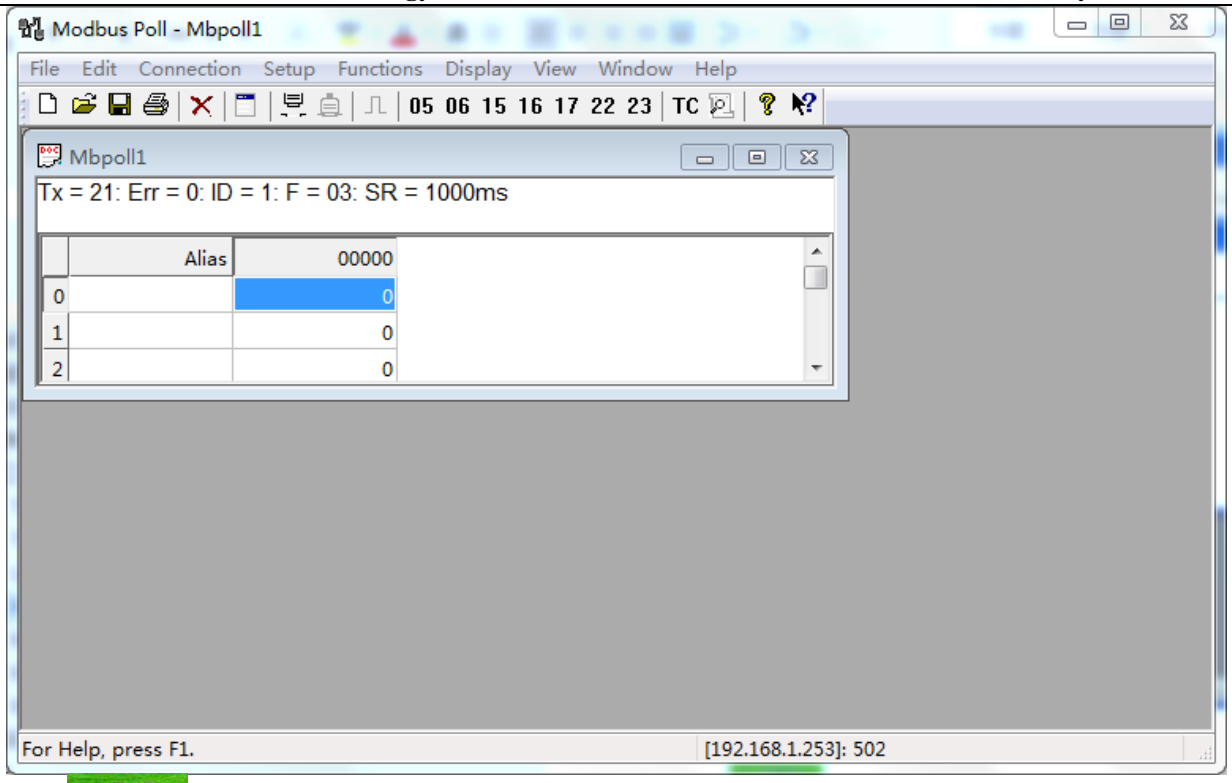
Open 

software configuration, parameter configuration is consistent with the Web display.

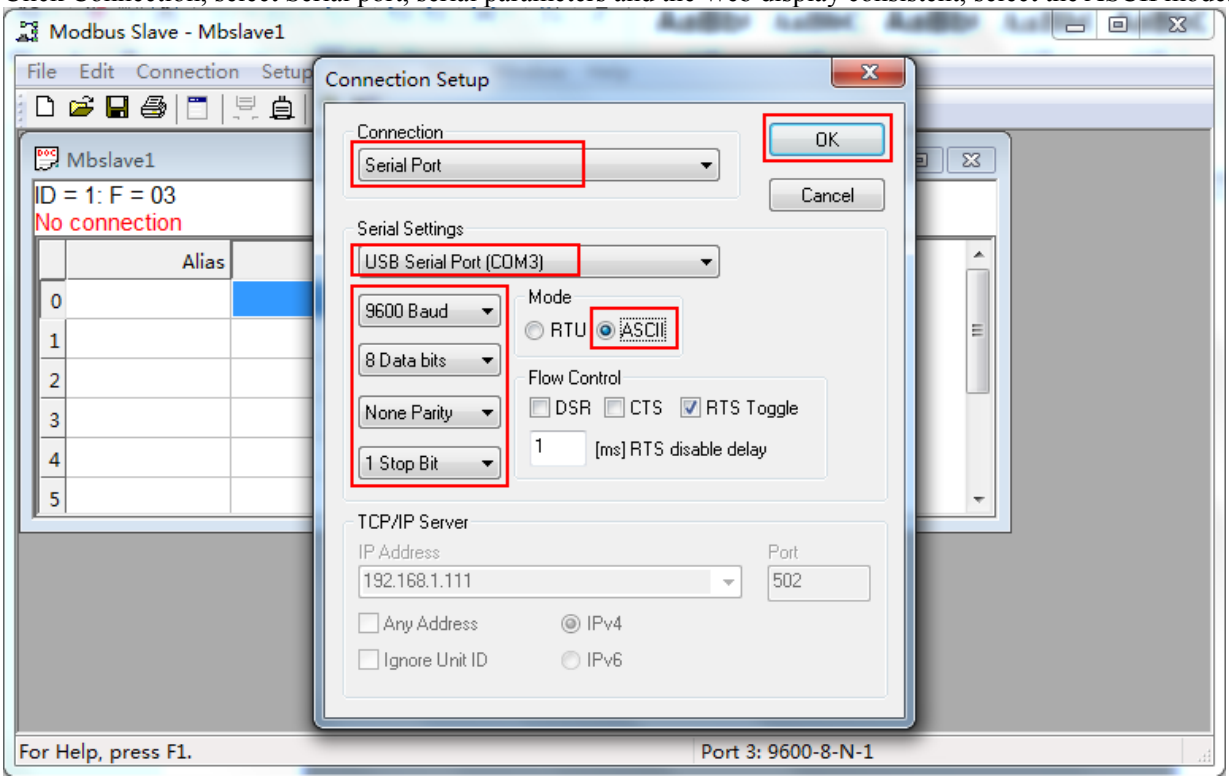
Click Connection, select TCP/IP,IP address write device IP 192.168.1.253,Port write local port number 502. (For multiple serial devices different serial ports need to set a different local port number)



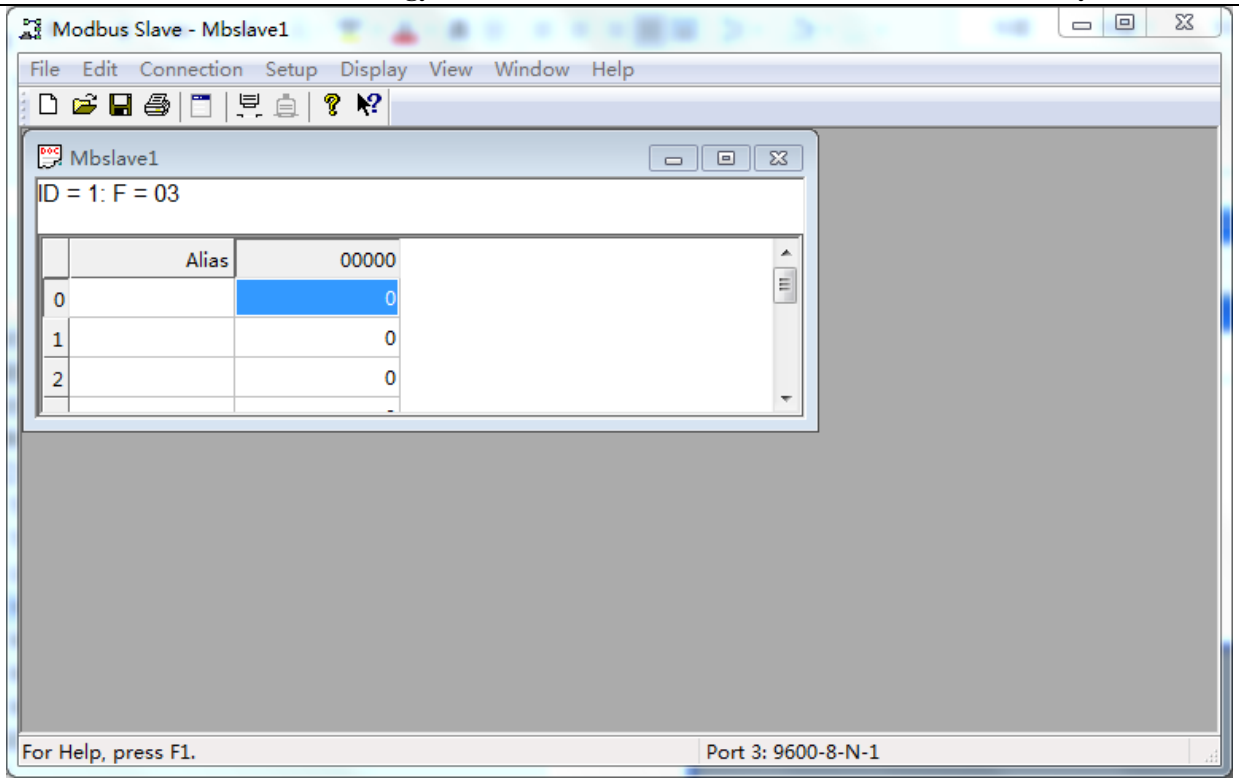
Click OK on the connection (red font no Connection will disappear)



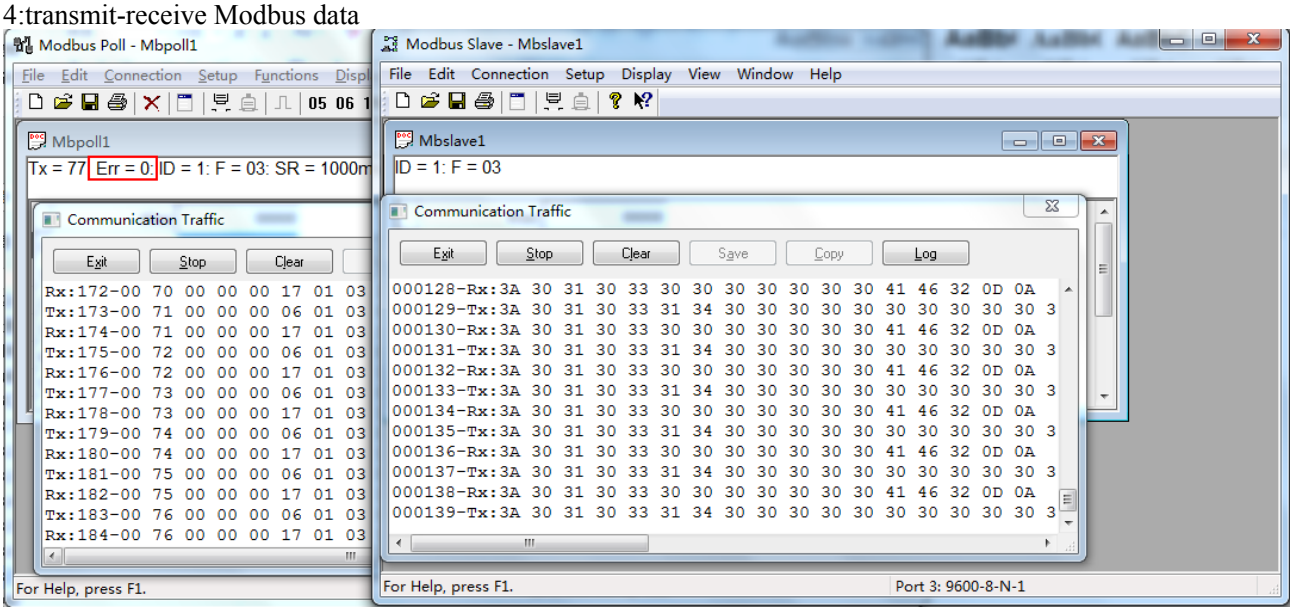
Open software configuration, parameter configuration is consistent with the Web display.
Click Connection, select Serial port, serial parameters and the Web display consistent, select the ASCII mode.



Select the correct communication port
Click OK on the connection (red font no Connection will disappear)



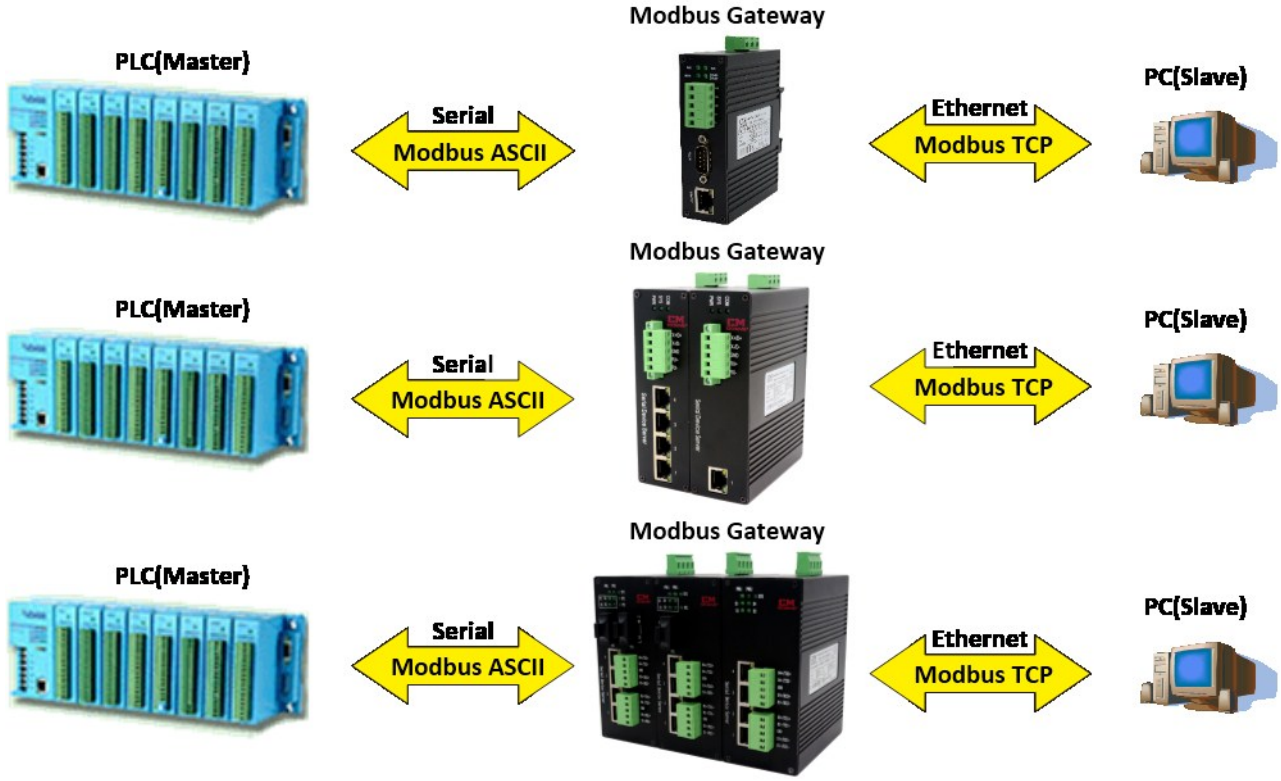
4:transmit-receive Modbus data



The error is 0 for the test to pass normally. According to this method, test RS-232/422 serial communication sequentially.

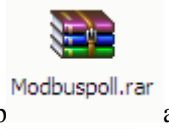
2.3.5 ModbusTCP(ASCII_SLAVE) Mode

This series of equipment serial port and the host computer PLC serial port connected(RS-232/485/422) , PC port of the lower computer connected to the Ethernet port of this series of devices, Implement the transmission of Modbus ASCII on the Modbus TCP to serial link on the Ethernet link.



Serial Port Work(For Example)

1:Computer Installation Modbus test software

Unzip 

and install 

software

Unzip 

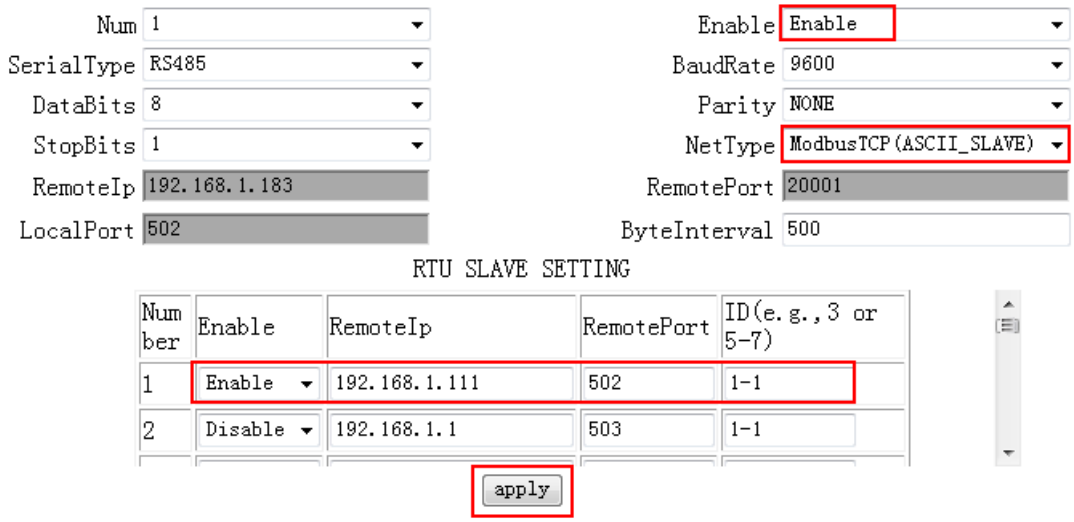
and install 

software

2:Modbus Functional Verification Test

Configuring Web Serial Parameters

Input device default IP 192.168.1.253 on IE browser, click the serial port configuration page configuration serial parameter: Take serial port RS-485 as example configuration as shown in the following illustration

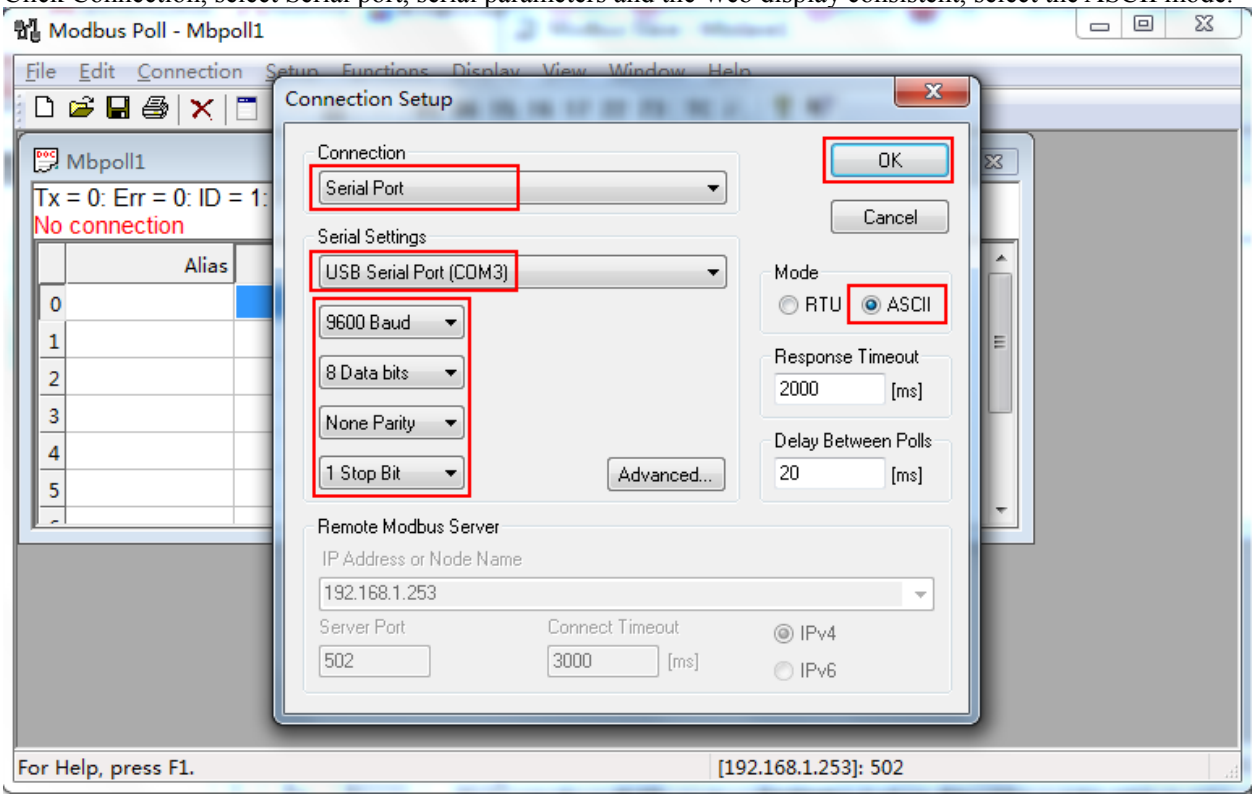


Num	Valid	S-Type	BaudRate	Data	Parity	Stop	Net-Type	RemoteIPaddress	R-Port	L-port	Inter
1	En	RS485	9600	8	NONE	1	ModbusTCP(ASCII_SLAVE)	192.168.1.183	20001	502	500

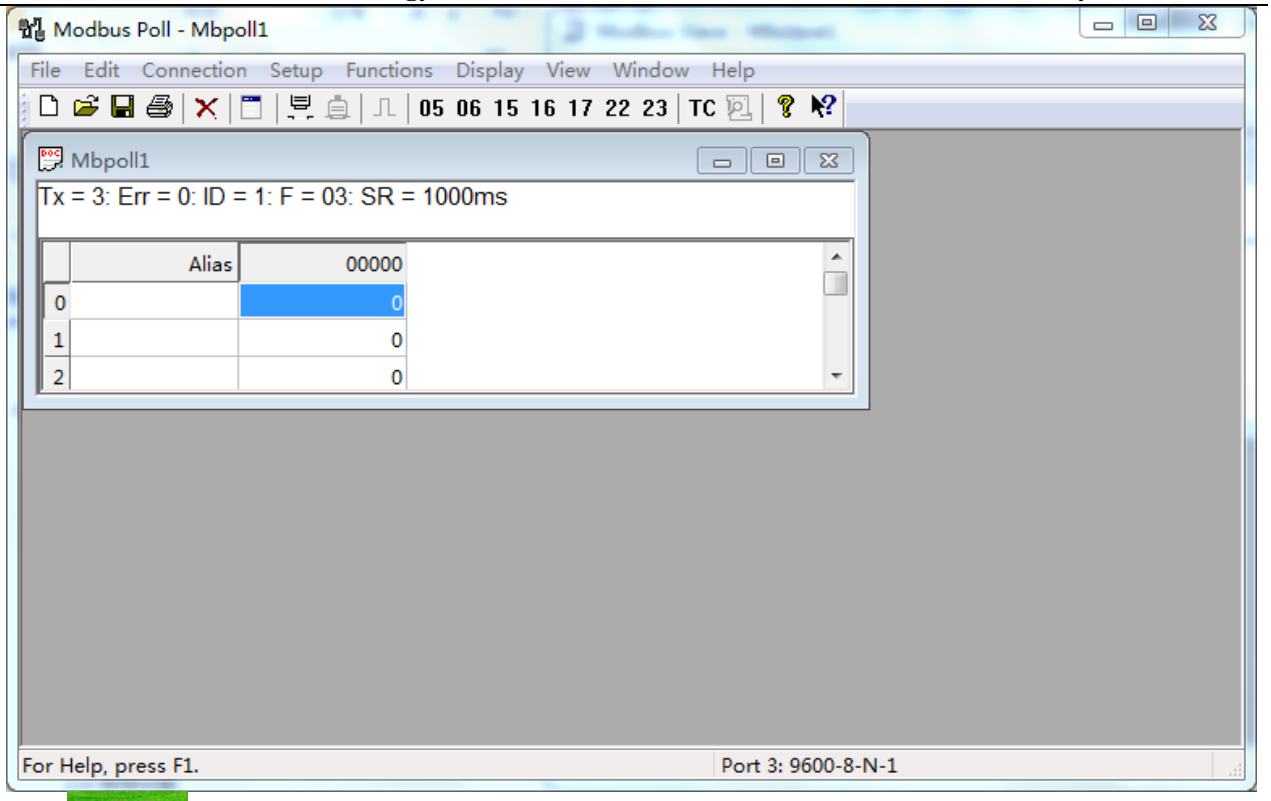
Remote IP address, remote port, and slave ID for configuring SLAVE, The range of ID can be one or one consecutive value, but cannot be repeated. (For multiple serial devices different serial ports need to set a different remote port number)

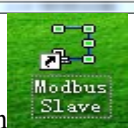
3:Run Modbus test software

Open software configuration, parameter configuration is consistent with the Web display.
Click Connection, select Serial port, serial parameters and the Web display consistent, select the ASCII mode.

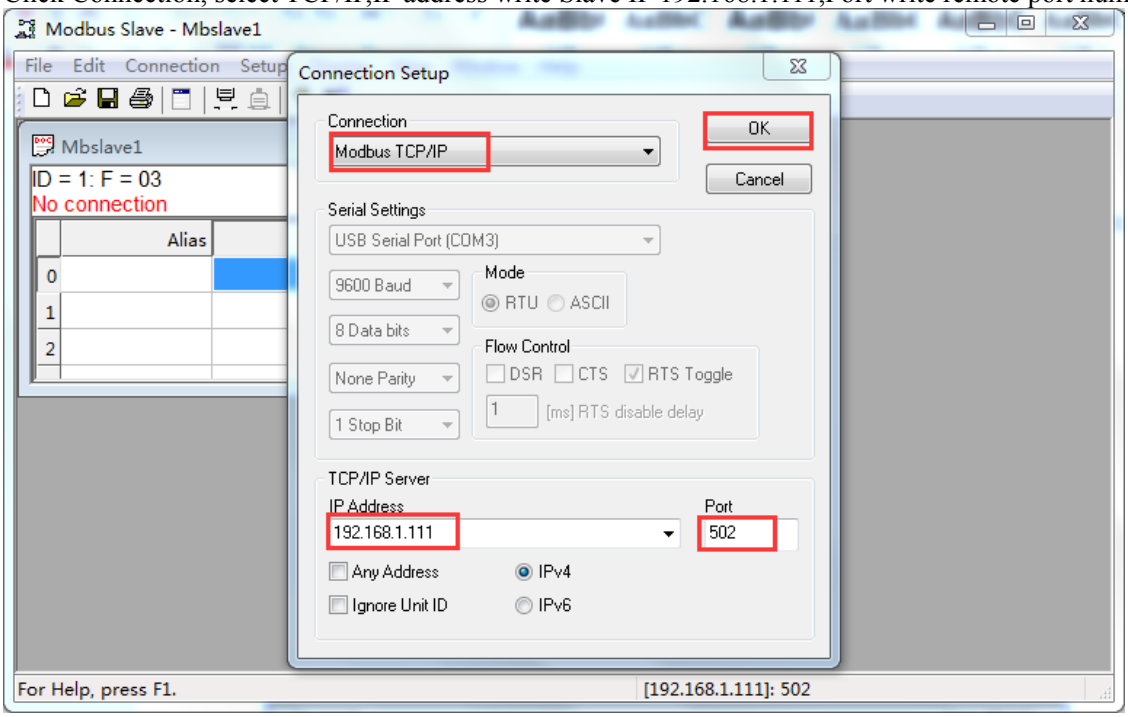


Click OK on the connection (red font no Connection will disappear)

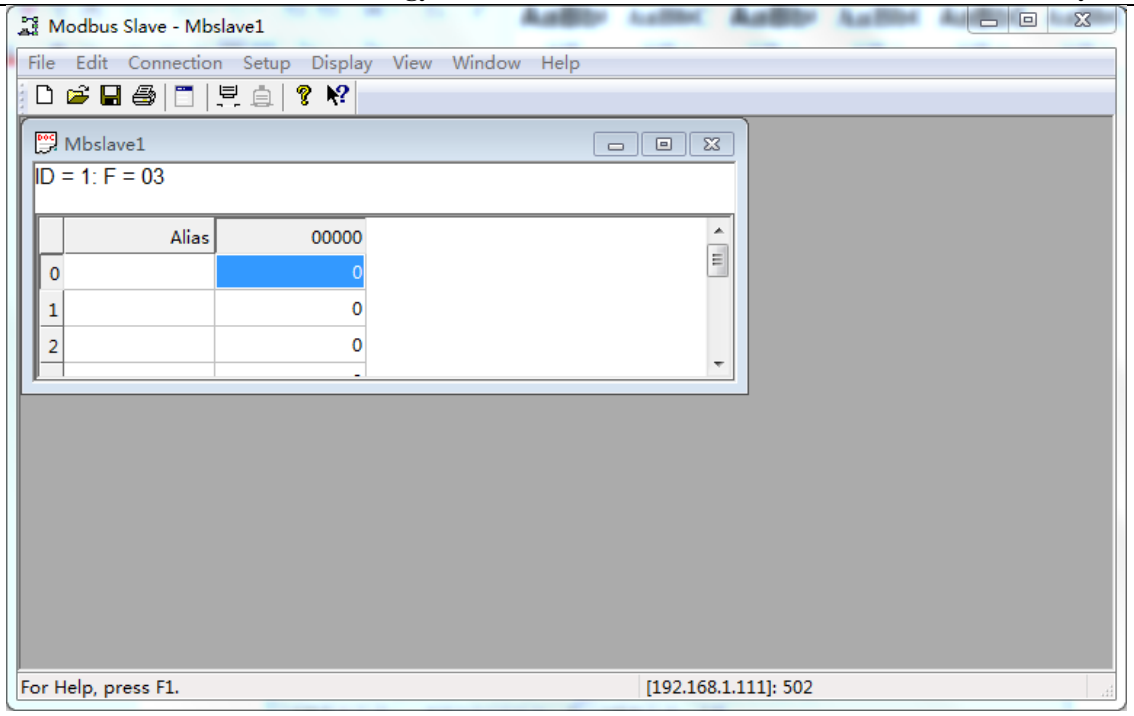


Open 

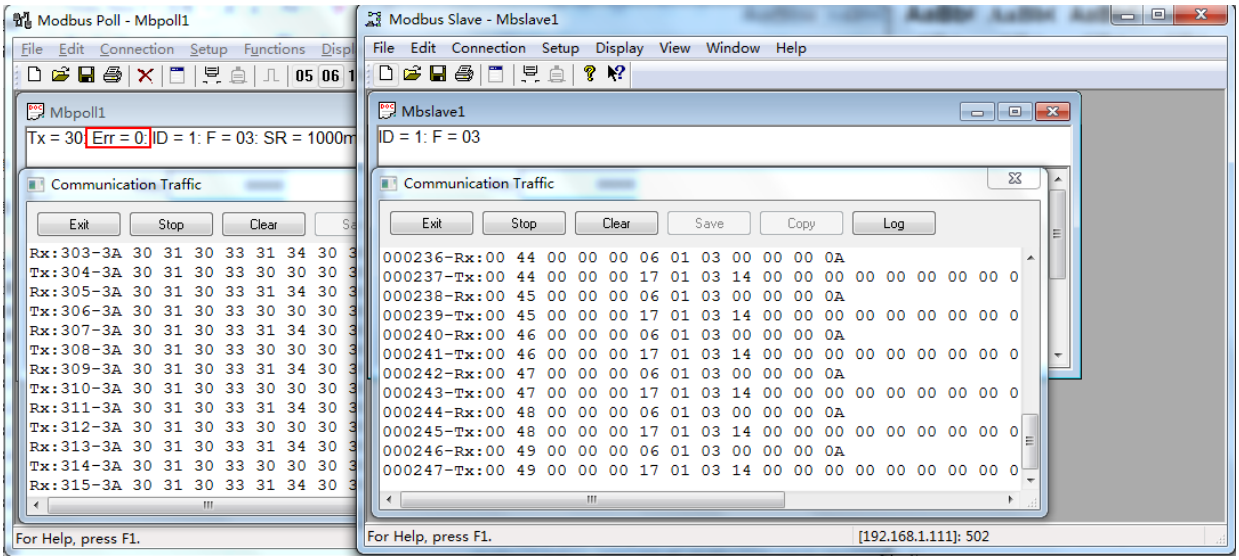
software configuration, parameter configuration is consistent with the Web display.
Click Connection, select TCP/IP,IP address write Slave IP 192.168.1.111,Port write remote port number 502.



Select the correct communication port
Click OK on the connection (red font no Connection will disappear)



4:transmit-receive Modbus data



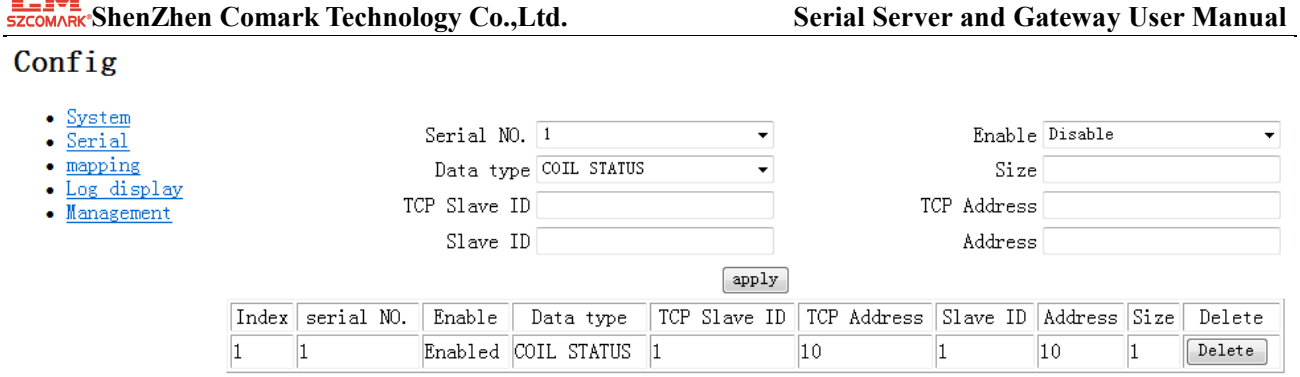
The error is 0 for the test to pass normally. According to this method, test RS-232/422 serial communication sequentially.

2.4 Mapping

The mapping function is used to realize the mismatch between the slave address and the slave address issued by the master station, which requires the serial port gateway to remap the slave station ID and realize the normal communication between the master station and the slave station Modbus data. This function is supported only by serial gateway products, and the mode of serial port must work in ModbusTCP(RTU_MASTER) or ModbusTCP(ASCII_MASTER).

2.4.1 Function Menu

A detailed introduction and configuration approach will be made in this chapter.

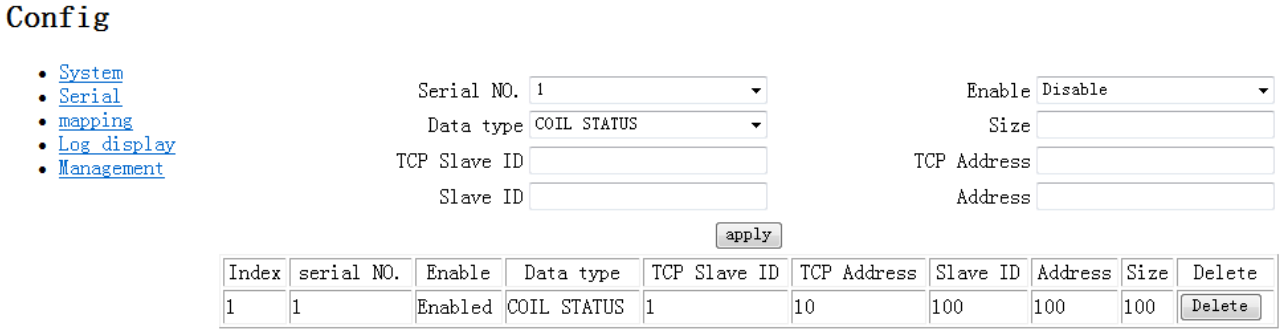


Value	Value Range	Description
Serial NO.	1~2	Select the serial number you want to set.
Enable	Enable, Disable	Set up the mappings' enabling and disabling. When the disable function is selected, the current mapping table item will be deactivated, and the modbus will communicate with the non-mapped function in this state.
Data type	READ COIL STATUS, INPUT STATUS, HOLDING REGISTER, INPUT REGISTER	Function codes descriptions: READ COIL STATUS for COIL(0x01), INPUT STATUS for Discrete Input(0x02), HOLDING REGISTER for Holding Registers(0x03), INPUT REGISTER for Input Registers(0x04)
Size	1~65535	Sets the Size for the max quantity of TCP Address and Address.The sum of Size and TCP Address, or the sum of Size and Address, should be less than 65535.
TCP Slave ID	1~247	Sets the TCP Slave ID for Modbus Master ID.
TCP Address	0~65535	Sets the TCP Address for starting address of Modbus Master Code. The sum of Size and TCP Address, or the sum of Size and Address, should be less than 65535.
Slave ID	1~247	Sets the TCP Slave ID for Modbus Slave ID.
Address	0~65535	Sets the Address for starting address of Modbus Slave Code. The sum of Size and TCP Address, or the sum of Size and Address, should be less than 65535.

2.4.2 Mapping Application

The mapping function is used to solve the problem that the modbus master station ID and the address are not the same as the modbus slave station ID and address, and can also realize the normal communication between the master station and the slave station.。

Configuring the mapping parameter is shown in the following illustration:



As shown above, configure the read coil with a master station ID of 1, a starting address of 10 to 110, and a map to a slave station ID of 100 and a starting address of 100 to 200.

【Delete】

If you need to delete the mapping entry, you can choose to click "Delete".

Notice: The maximum mapping items per serial port are 32.

2.5 Log display

Log display function is used to start debugging phase, when master-slave data transfer, it is used to analyze the correctness of receiving or sending Modbus messages by serial gateway.

Log display Function Sets The Button Description

Button Value	Value Range	Description
Show	-	Enable log display function, log display maximum support for 120 records.
Close	-	Close log display function.
Reset	-	Reset log record.

2.6 Manage Settings

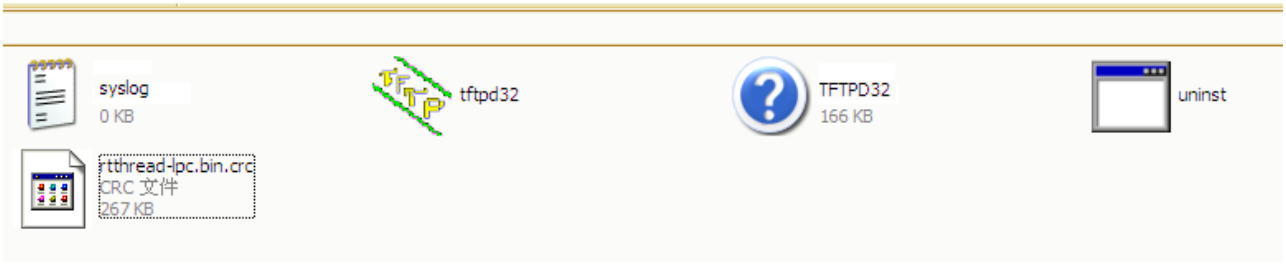
Remote Upgrade

This series provides remote firmware upgrade operation using TFTP (Trivial File Transfer Protocol, trivial file transfer protocol) upgrade, TFTP does not require authentication in the connection process control applies does not require complex interaction between a client and server environment. By TFTP firmware upgrade function you can update your device software. Before you upgrade your device software, please make sure that the device is properly connected with the TFTP server.

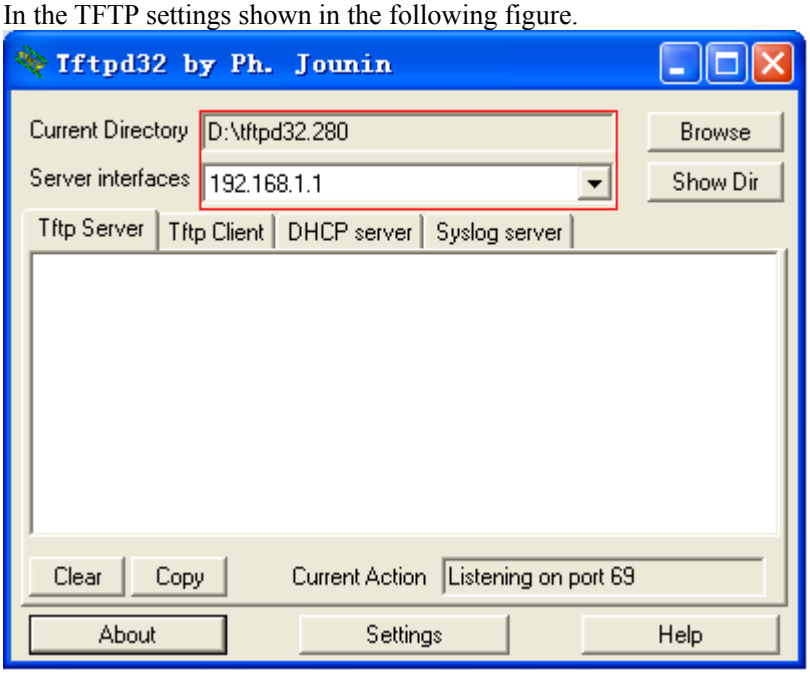
Step 1: Open the attached "tftpd32.exe".

tftpd32.280.rar

Step 2: Sets the IP address of the TFTP server in the TFTP and Firmware stored paths. If the TFTP server IP address is "192.168.1.1", the firmware "rtthread-LPC.bin.CRC" stored in the TFTP server "D:\tftpd32.280".



In the TFTP settings shown in the following figure.



Step 1: In the navigation on the left side, select "manage settings" and enter the TFTP firmware upgrade page.
Step 2: Sets the IP address of the TFTP server and the name of the upgrade software.
Step 3: Click the "upgrade", a software upgrade.
Description:Upgrade may take several minutes, do not disconnect the power during the upgrade process, or other settings.
Step 4: System automatically reboot after the upgrade is complete.
------End

Management Sets The Button Description

Button Value	Value Range	Description
save		Save the configuration data for the current user (power failure invalid configuration information).
save&reboot	-	Save the current configuration data and restart the device by the user.
reboot	-	Do not save the current configuration data to restart the device by the user.
factory	-	Restore serial port data all data from the system to the factory settings.

3 Maintenance and Service

From the date of product shipment, the company offers a five year product warranty. According to the product specification, during the warranty period, if no fault in the product or feature fails, the company will be free for the user to repair or replace the product. But the promise was not covered due to improper use, accidents, natural disasters, incorrect operation or damage caused by incorrect installation.

In order to ensure that consumers benefit from the company's management-series serial server products, can get help and problem solving in the following ways:

Internet service.

Technical support service

Product repair or replacement

3.1 Internet service

Through the company's Web site can get more useful information and tips. Website: http://www.comark.cn

3.2 Technical support service

Users who use the company's products, you can call our technical support Office, the company has a professional technical engineers to answer your questions and help you the first time you experience the product, or use. Free service hotline: 86-755-26055466.

3.3 Product repair or replacement

Product repair, replacement or refund, should confirm the company's technical staff first, then contact the sales staff and get treatment. Above should be dealt with according to the procedures, consultation with the company's technical personnel and sales personnel to complete the repair, replacement or return of the product.