

COMM-0252 Serial Device Server WEB User Manual

Oct 19th, 2023

Version : V1.0



EESICO Egypt for Embedded Systems & Industrial Computers

520 Small Industries District -Third Settlement –New Cairo-Cairo - Egypt

TEL: (+202) 25736164/5

Fax: (+202) 24186583

Hotline: +2(01103002330-01103002660)

Sales@eesico.com

www.eesico.com

Foreword



Target Demographic

This manual is intended for installers and system administrators who are responsible for installing, configuring, or maintaining networks. This manual assumes that you understand all transport and management protocols used by the network.

This manual also assumes that you are familiar with the terminology, theoretical principles, practical skills, and specific expertise of network devices, protocols, and interfaces related to networking. You must also have experiences working with graphical user interfaces, command-line interfaces, simple network management protocols, and Web browsers.

Agreed

This manual uses the following conventions

GUI Agreed	Description
 Instruction	Descriptions of the content of the operation, with the necessary additions and explanations
 Notice	Reminds of the precautions to be taken during operation, improper operation may lead to data loss or equipment damage.

1 Overview

1.1 Product Description

COMM-0252 series is a serial port networking server that can provide 1/2 way RS-232/485/422 serial port and 1 way 10/100Base-T(x) network interface, which can centralise and manage dispersed serial devices and host computers easily and conveniently over the network. This series of devices can complete the RS-232/422/485 interface and the Ethernet interface between the two-way transparent data transmission, can make the serial devices immediately with networking capabilities.

Product feature: Support dynamic IP (DHCP) and static IP, support gateway and proxy server, can transmit data through the Internet. Provide two-way transparent data transmission, serial port to TCP/IP function, the user does not need to make any changes to the original system. Internal integration of ARP, IP, TCP, HTTP, ICMP, SOCKET, UDP and other protocols. All programs provide Chinese interface, with setup wizard, easy to operate.

1.2 Product Features

- supports 1/2-way RS-232/485/422 serial interface for remote control function;
- supports 1 channel 10/100Base-T(x) Ethernet interface;
- supports Reset key to restore factory settings;
- provides 5 channels of signals for each serial port, including RXD, TXD, RTS, CTS, GND;
- supports baud rate range 300-921600bps;
- supports custom baud rates;
- supports MCP, VCOM virtual serial port;
- supports ARP, IP, ICMP, UDP, TCP, HTTP, DHCP, MODBUS, and other protocols;
- support TCP Server, TCP/UDP Client, MCP&VCOM, Modbus Server/Client and other working modes;
- supports serial port $\pm 4\text{KV}$ anti-static protection, network port 1.5KVAC isolation protection;
- supports $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$ wide operating temperature;
- supports DC12~48V working voltage;

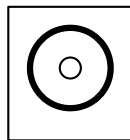
2 Hardware Description

2.1 Interface Description

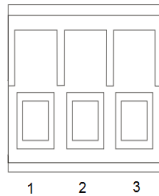
2.1.1 Power connector input definition

COMM-0252

The front panel of this series of devices provides power access to DC and 3PIN 5.08 power terminals with a power input range of 12-57.6 VDC. It is recommended to use a power adapter with a DC header size of 2.5mm inner diameter and 5.5mm outer diameter.



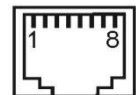
DC



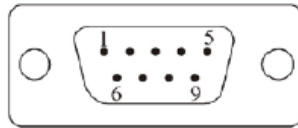
Terminal block	Power
1	V+
2	(PGND)
3	V-

2.1.2 Serial Port Pin Assignment (RJ45)

RJ45			RS-422
1	TXD	DATA+	TXD+
2	RXD	DATA-	TXD-
3	RTS		RXD+
4	CTS		RXD-
5	DSR		
6	GND	GND	GND
7	DTR		
8			

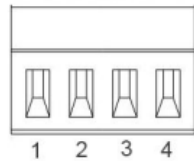


2.1.3 Serial Port Pin Assignment (DB9)



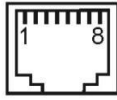
DB9(PIN)	RS-232C
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	RTS
8	CTS
9	NC

2.1.4 Serial Port Pin Assignment (RS-485/422)



3.81/5.08 terminal block	RS-485	RS-422	Explanation
1	T/R+	TX+	T/R+
2	T/R-	TX-	T/R-
3		RX+	RX+
4		RX-	RX-

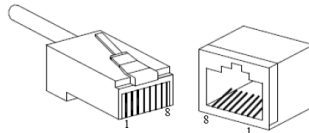
2. 1. 5 Ethernet Port PIN Assignment (RJ45)



RJ45	EIA/TIA 568B	Assignment	Explanation
1	Orange white	TX+	TX+
2	Orange	TX-	TX-
3	Green white	RX+	RX+
4	Blue	Data+	Data+
5	Blue White	Data-	Data-
6	Green	RX-	RX-
7	Brown white	Data+	Data+
8	Brown	Data-	Data-

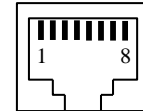
10/100BaseT(X) Ethernet port

10/100BaseT (X) Ethernet port is located in the front panel of the device; the interface type is RJ45, the pin distribution of RJ45 port is defined as below figure. It adopts unshielded twisted pair (UTP) or shielded twisted pair (STP) for connection, the distance should be less than 100m. 100Mbps connection adopts 100 Ω line cat.5, and 10Mbps connection adopts 100 Ω cat.3, cat.4, cat.5.

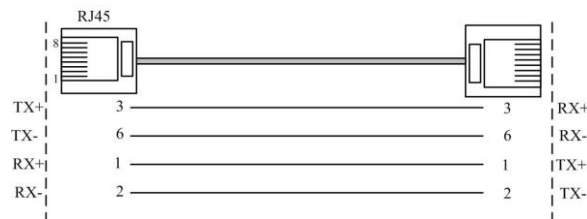


The RJ45 port supports auto MDI/MDI-X. For MDI connection, pins 1, 2, 3 and 6 are connected accordingly. For MDI-X port of serial device server, it adopts cross line: 1→3, 2→6, 3→1, 6→2. The 10Base-T/100Base-TX pin definitions in MDI/MDI-X applications are shown as below:

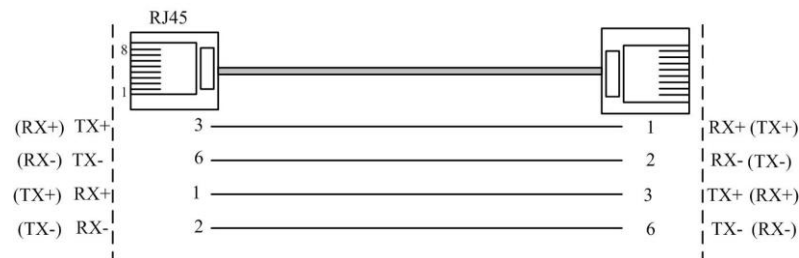
RJ 45	MDI Signal	MDI-X Signal
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4、5、7、8	—	—



MDI:



MDI-X:

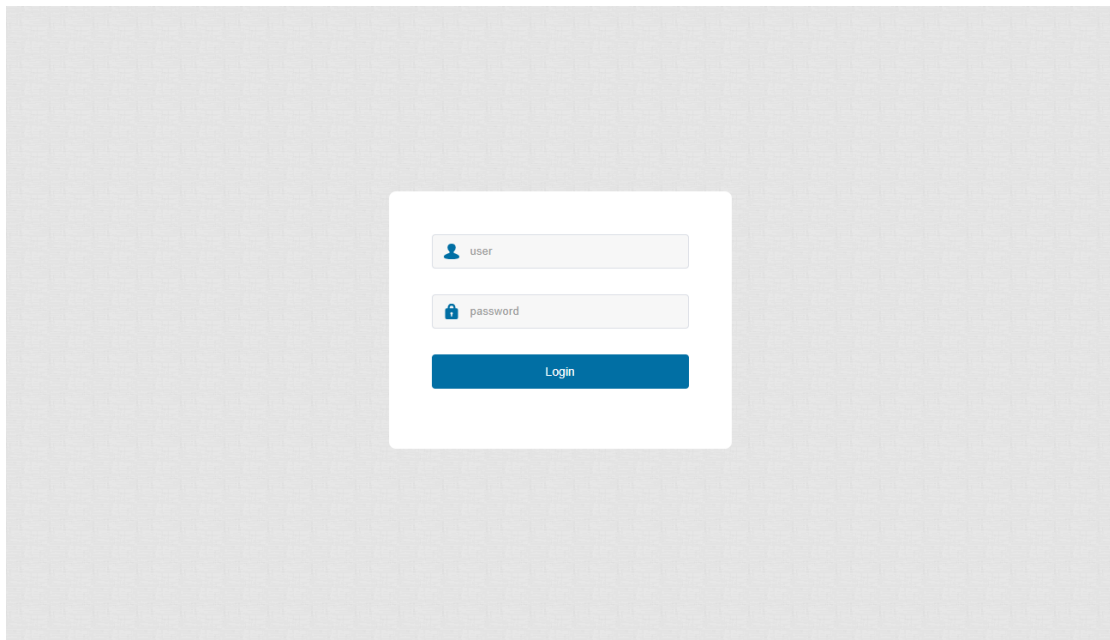


The MDI/MDI-X adaptive function facilitates the use of the 10/100BaseT(X) Ethernet interface of the series without considering the type of Ethernet cable, and the connection between the series and the equipment can be realised directly through the crossover wire or straight-through wire.

3 Web Page

3.1 Web Page Login

Users can open a web browser and enter the default address of the serial port server: `http://192.168.1.125` and press Enter. The login window will appear, as shown in the figure below, supporting Chinese and English switching. Enter the default user name: `admin` and password `admin`. Click <Login> button, you will see the serial server system status information.

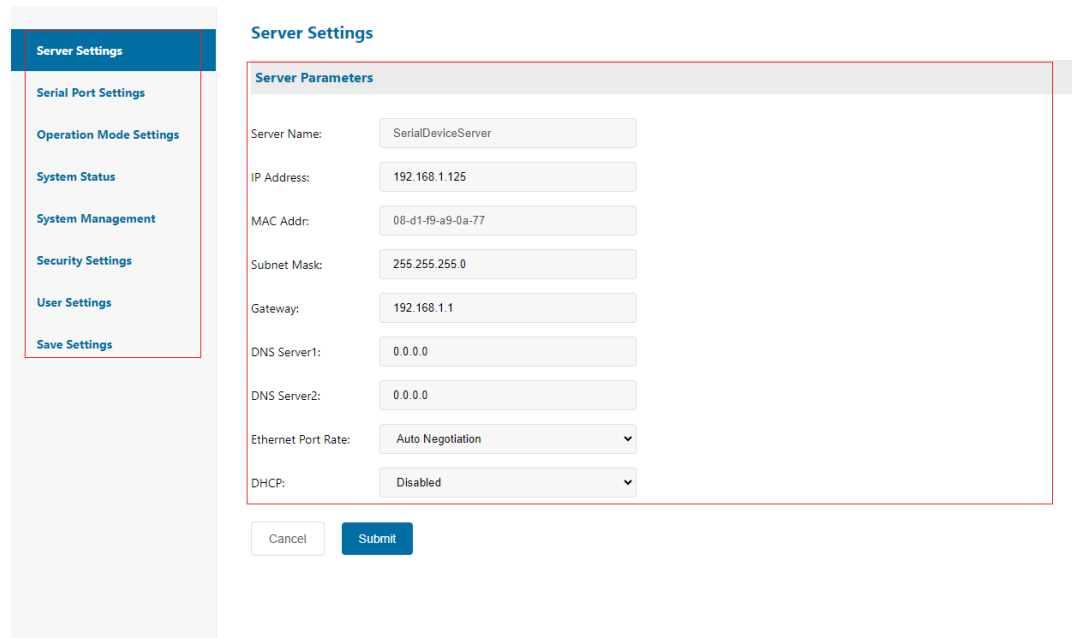


Explanations

1. When login the device, the IP network segment of PC should be consistent with the serial device server network segment.
2. When login at the first time, the IP address of PC is set to `192.168.1.x` (x represents 1~254, except 125), and the subnet mask is set to `255.255.255.0`, but the IP of PC cannot be the same as the serial device server, it means can't be `192.168.1.125`.
3. The Web Server of this device only provides read-only mode. If the user or password input is wrong or not entered, the browser will directly jump to read-only mode, and the user cannot set the relevant parameters. If the user needs to modify the corresponding parameters, please fill in the user name and password correctly.

3.2 Web page Components

The client side of the Web-based network management system is shown in the figure below and contains the setup navigation and operation areas.



District	Instruction
Setting up navigation	Select the corresponding navigation for all operating functions.
Operating area	Specific settings and operations for all functional modules

3.3 WEB PAGE DESCRIPTION

The menu of the Web network management mainly provides eight menu items: service settings, serial port settings, mode settings, system status, system management, security settings, user settings, and save settings. As shown in the table below.

Menu item	Submenu	Description
Service Setting	Service Parameter	Device model display, IP address, subnet mask, DHCP and other settings
Serial port setting	Serial port setting	Serial port type and basic parameter settings

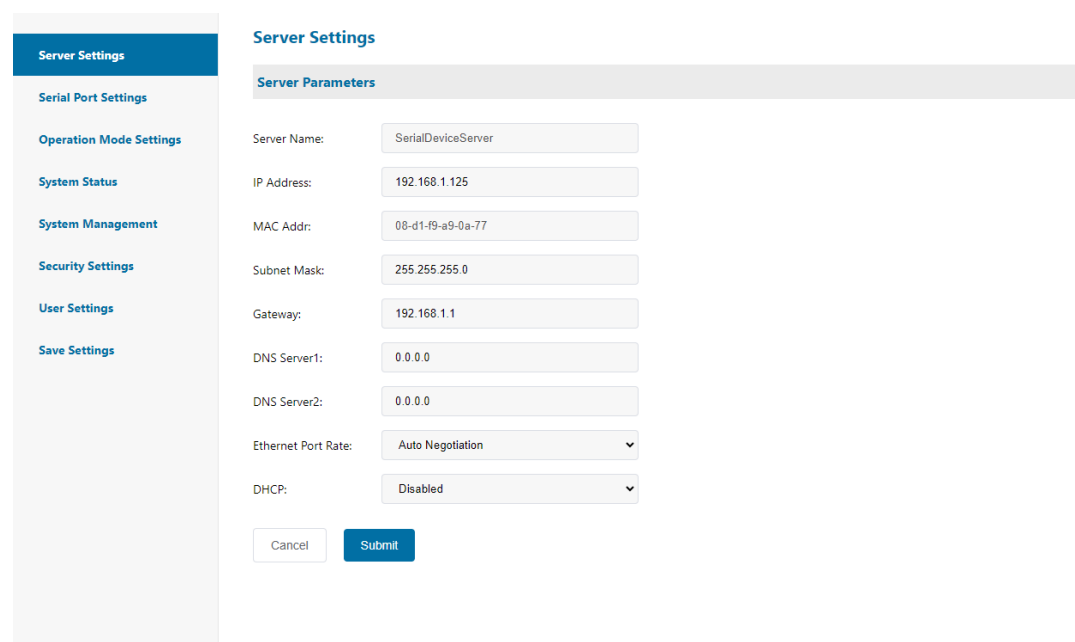
Mode setting	Working mode	Mode selection, consist of tcp Server/tcp client/udp client/MCP/VCOM/modbus server/modbus client,default to TCP Server mode
System Status	System status information	Tcp, udp connection status, serial port communication statistics display
System Management	System Information	View software version, hardware version, MAC address
	Restore Factory	Restore factory setting
	Upgrade Firmware	Upgrade firmware
Security Setting	IP Filter Setting	IP segments in the filtering range will not be able to access the server via WEB.
User Setting	Logout	Exit web user login
	Change Password	Change user password
Save Setting	Save and reboot	Reboot the device

4 BASIC SETTING

4.1 Service Setting

1. Panel Description

The panel display area shows the system information of this serial server very intuitively. The interface display is shown below:



Server Settings

Server Parameters

Server Name: SerialDeviceServer

IP Address: 192.168.1.125

MAC Addr: 08-d1-f9-a9-0a-77

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

DNS Server1: 0.0.0.0

DNS Server2: 0.0.0.0

Ethernet Port Rate: Auto Negotiation

DHCP: Disabled

Cancel Submit

2. Keyword Description

Device Model	Show device model
IP Address	Device IP Address
Subnet Mask	Device Subnet Mask
Gateway	Device Gateway Address
DNS Service 1	Primary DNS Address
DNS Service 2	Secondary DNS address
Network Port Rate	Auto-negotiation,10M half-duplex/full-duplex,100M half-duplex/full-duplex
DHCP	Whether to enable DHCP to get IP address,default disable

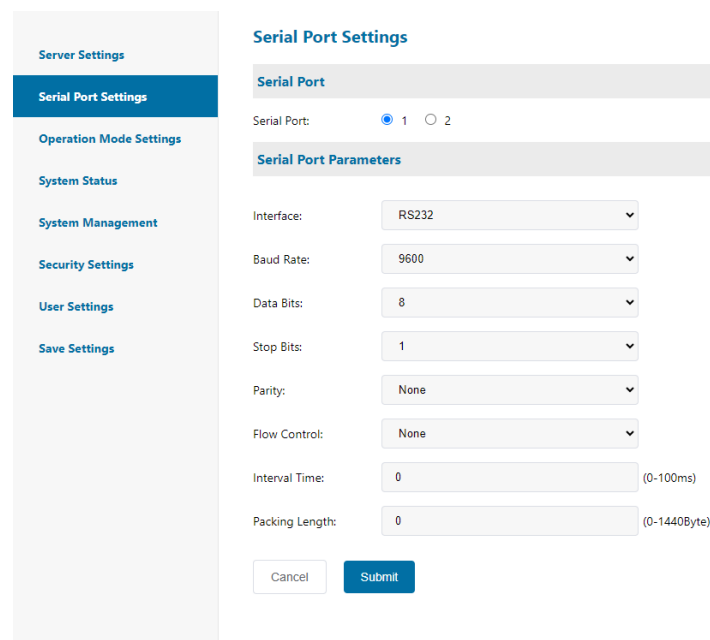
3. Instructions for operating steps

Step 1	Click the "Service Settings" interface in the navigation bar
Step 2	After the user modifies the corresponding configuration, click "Settings"

4.2 Serial port setting

1.Panel description

Users can view and set network interface information and DHCP status, as shown in the figure below.



2. Keyword description

Serial Port Selection	Select serial port 1 or serial port 2
-----------------------	---------------------------------------

Interface Type	Serial interface type selection, RS232/RS485/RS422
Baud Rate	Baud rate of serial port, 300~921600, or select customized, default 9600
Data Bit	Data bit, can choose 5/6/7/8
Stop Bit	Stop bit, selectable 1/1.5/2
Check Bit	Check digit, selectable Odd/Even, default None
Flow Control	Flow control, selectable None, RTS/CTS
Interval	Data packing interval, delay time within the packing rule.
Packing length	Data packing length, if the serial port receives a data frame smaller than this set length, it will delay the interval time to wait for whether there is any subsequent data coming.

3. Instructions for operating steps

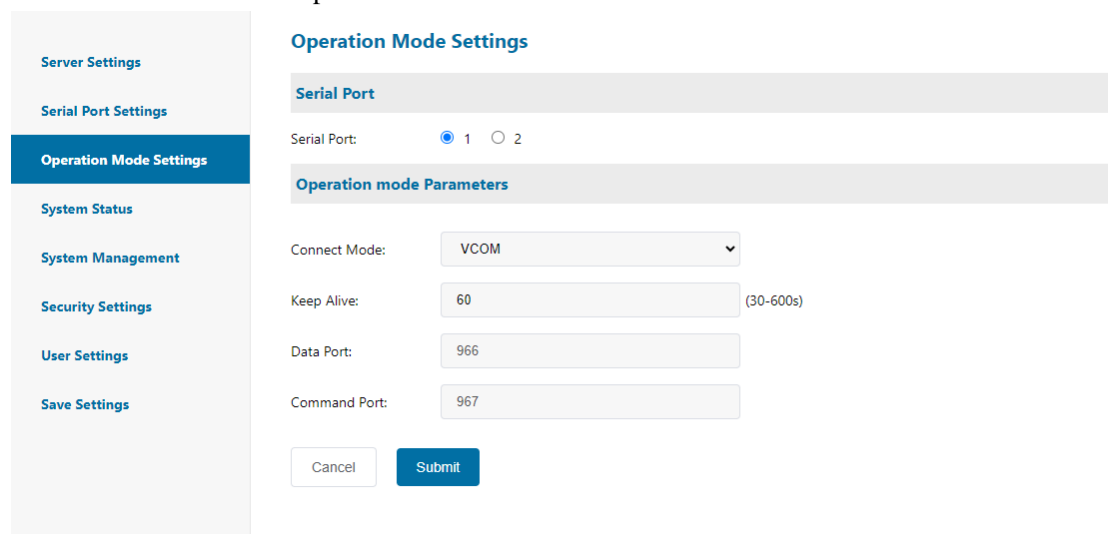
Step 1	Click the "Serial Port Settings" interface in the navigation bar.
Step 2	Users can modify the corresponding serial port parameter configuration and click "Settings"

4.3 Mode setting

4.3.1 VCOM mode

1.Panel description

TCP/IP virtual serial port mode works in windows system environment, through the driver to the serial port server port mapping into the local host of the virtual COM port, it makes the original COM port based on the operation of the upper end of the software does not need to do any modification like the application of the local real COM port, the driver can support the expansion of up to COM256.And each independent port can support multiple sessions, making the monitoring of serial devices more flexible and convenient, and multiple connection resources can also be connected to backup. The interface is shown as below:



The screenshot shows the 'Operation Mode Settings' web interface. On the left is a navigation sidebar with links: Server Settings, Serial Port Settings, Operation Mode Settings (highlighted), System Status, System Management, Security Settings, User Settings, and Save Settings. The main content area is titled 'Operation Mode Settings' and contains a 'Serial Port' section with radio buttons for '1' (selected) and '2'. Below this is the 'Operation mode Parameters' section with the following fields: 'Connect Mode' (dropdown menu showing 'VCOM'), 'Keep Alive' (input field with '60' and a range '(30-600s)' to its right), 'Data Port' (input field with '966'), and 'Command Port' (input field with '967'). At the bottom are 'Cancel' and 'Submit' buttons.

2. Keyword description

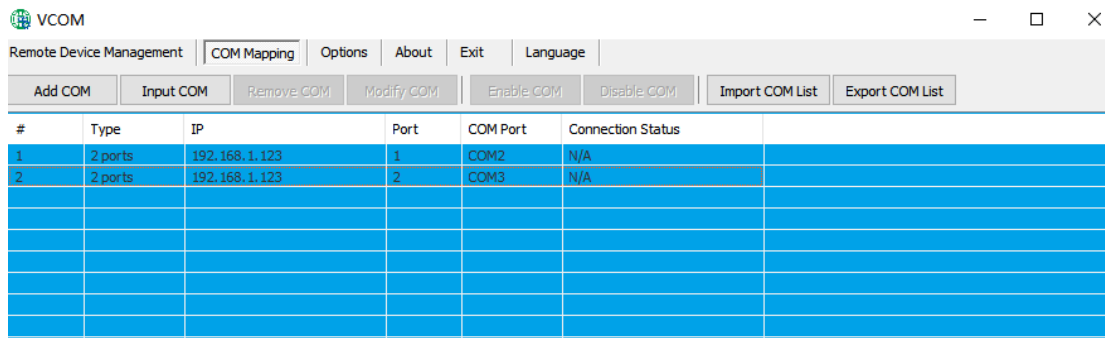
Serial Port Selection	Select serial port 1 or serial port 2
Connection Mode	Select working mode: VCOM
Keep Alive Time	After the connection takes effect, the device will send keep-alive detection messages at the interval set by this value to detect whether the connection is in a valid state.
Data Port	Cannot be modified, just press the default
Command Port	Cannot be modified, just press the default

3. Operation steps instructions

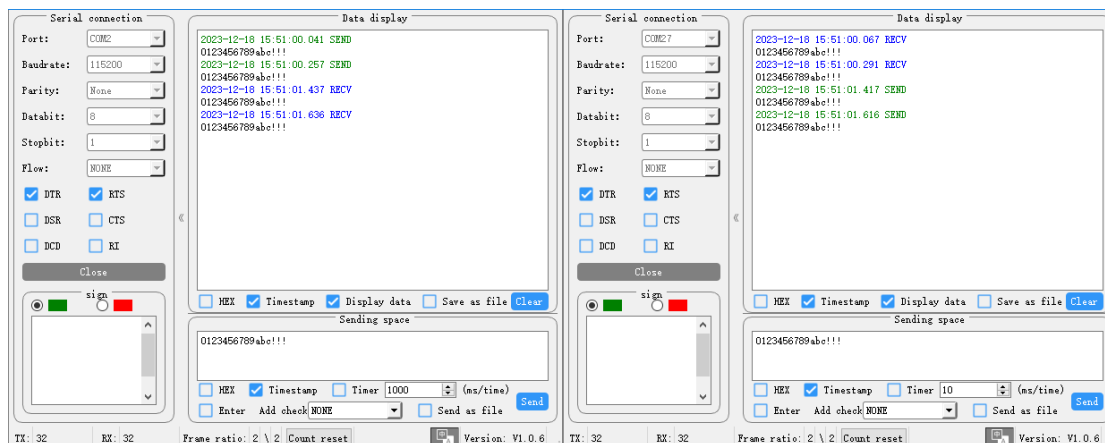
Step 1	Click the "Mode Settings" interface in the navigation bar
Step 2	The user sets the working mode to VCOM mode and clicks "Settings".

4. Mode operation instructions

1. Use the VCOM Utility tool, select "Communication Port Mapping", click "Add Communication Port", search for the device, and create a virtual serial port.



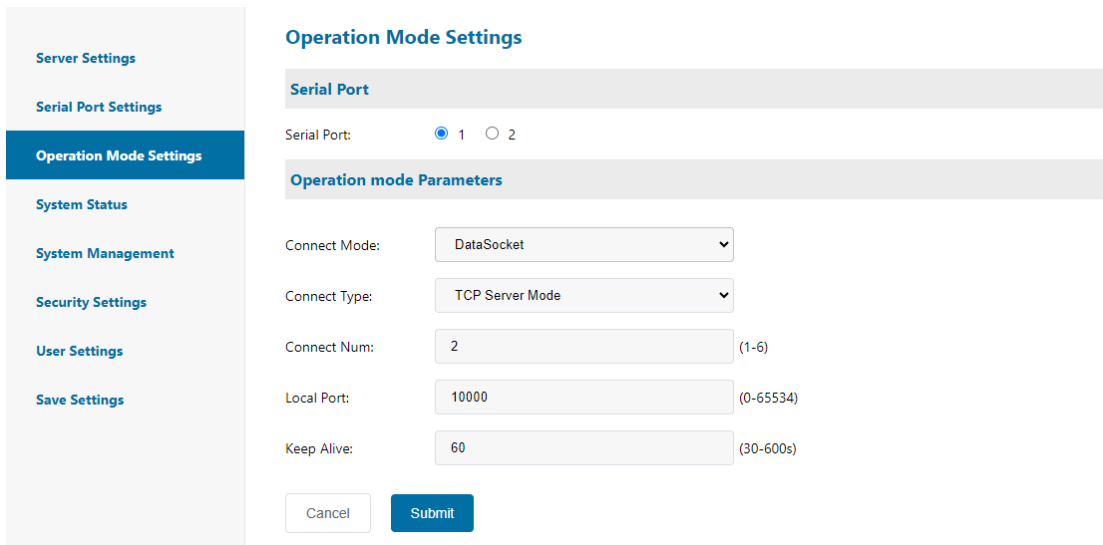
2. Use the serial port debugging assistant to open the virtual serial port and real serial port respectively to communicate.



4.3.2 TCP Server mode

1. Panel description

In TCP server mode, the serial server is assigned an IP port number and passively waits for host connection. When the host initiates a connection request and establishes a connection with the serial port server, the host can realize two-way transparent data transmission through the network connection and the serial port. TCP server mode supports up to 6 session connections at the same time, allowing multiple hosts to read or send Ethernet data to a serial device at the same time. The interface displays as shown below:



3. Keyword description

Serial Port Selection	Select Serial Port 1 or Serial Port 2
Connection Mode	Select the working mode as DataSocket
Connection Type	Select TCP Server Mode
Number of Connections	Maximum number of client connections, 1-6
Local Port	Listening port number, default 10000
Keep Alive Time	After the connection takes effect, the device will send alive probe messages at the interval of this setting to detect whether the connection is in a valid state or not.

4. Instructions for operating steps

Step 1	Click the "Mode Settings" interface in the navigation bar.
Step 2	The user selects the connection mode as DataSocket, the connection type as TCP Server Mode, sets the listening port, and clicks "Set".

4.3.3 TCP Client Mode

1. Panel Description

In TCP Client Mode, the Serial Server can actively establish a network connection with a user-specified host when the serial data arrives, and when the data transmission is finished, the Serial Server will automatically close the network connection according to the parameters of keep-alive time/idle timeout. Similarly, TCP client mode can support up to 6 session connections at the same time, enabling multiple hosts to read or send Ethernet data to a serial device at the same time. The interface is shown below:

Server Settings
Serial Port Settings
Operation Mode Settings
System Status
System Management
Security Settings
User Settings
Save Settings

Operation Mode Settings

Serial Port

Serial Port: ☒ 1 ☐ 2

Operation mode Parameters

Connect Mode: DataSocket
Connect Type: TCP Client Mode
Connect Num: 1 (1-6)
Keep Alive: 60 (30-600s)
Heartbeat Enable: Heartbeat Disable
Register Type: Register Package Disable

	Remote IP	Remote Port	Local Port (If 0, the system automatically allocates)
Remote IP1:	0.0.0.0	10000 (0-65534)	10000 (0-65534)
Remote IP2:	0.0.0.0	10001 (0-65534)	10001 (0-65534)
Remote IP3:	0.0.0.0	10002 (0-65534)	10002 (0-65534)
Remote IP4:	0.0.0.0	10003 (0-65534)	10003 (0-65534)
Remote IP5:	0.0.0.0	10004 (0-65534)	10004 (0-65534)

Heartbeat Packs and Registration Packs:

Heartbeat Enable: Network Heartbeat Packet
Heartbeat Time: 30 (1-65535s)
Heartbeat Encoding: ASCII
Heartbeat Content:
Register Type: Custom Register Package
Register Location: Connect To Send
Registration Encoding: ASCII
Register Content:

Remote IP	Remote Port	Local Port (If 0, the system automatically allocates)
Remote IP1:	0.0.0.0	10000 (0-65534)

2.Keyword description

Serial	Port	Select Serial Port 1 or Serial Port 2
--------	------	---------------------------------------

Selection	
Connection Mode	Select the working mode as DataSocket
Connection Type	Select TCP Client Mode
Number of Connections	Maximum number of client connections, 1-6
Keep Alive Time	After the connection takes effect, the device will send out alive probe messages at this interval to detect whether the connection is in a valid state or not.
Heartbeat Packet Enable	Turn off heartbeat packets: Not enabled Network heartbeat packets: send heartbeat packets to the server at regular intervals.
Heartbeat Packet Time	Heartbeat packet sending interval, 1-65535s
Heartbeat Packet Code	Encoding format: Ascii or Hex
Heartbeat Pack Contents	Customize heartbeat packet content
Package Type	Registration packet off: not enable MAC registration packet: send MAC address to server side Customized Registration Packet: Send customized registration packet to server side
Package Location	Connection Send: Sent when a connection is established with the server Data Carrying Send: Access the registration packet data at the top of each packet. Full Registration: Includes the above two cases
Package Code	Encoding format: Ascii or Hex
Packet Content	Customize the content of the registration packet
Remote IP/Port	Set the IP address and port number of the target host for connection

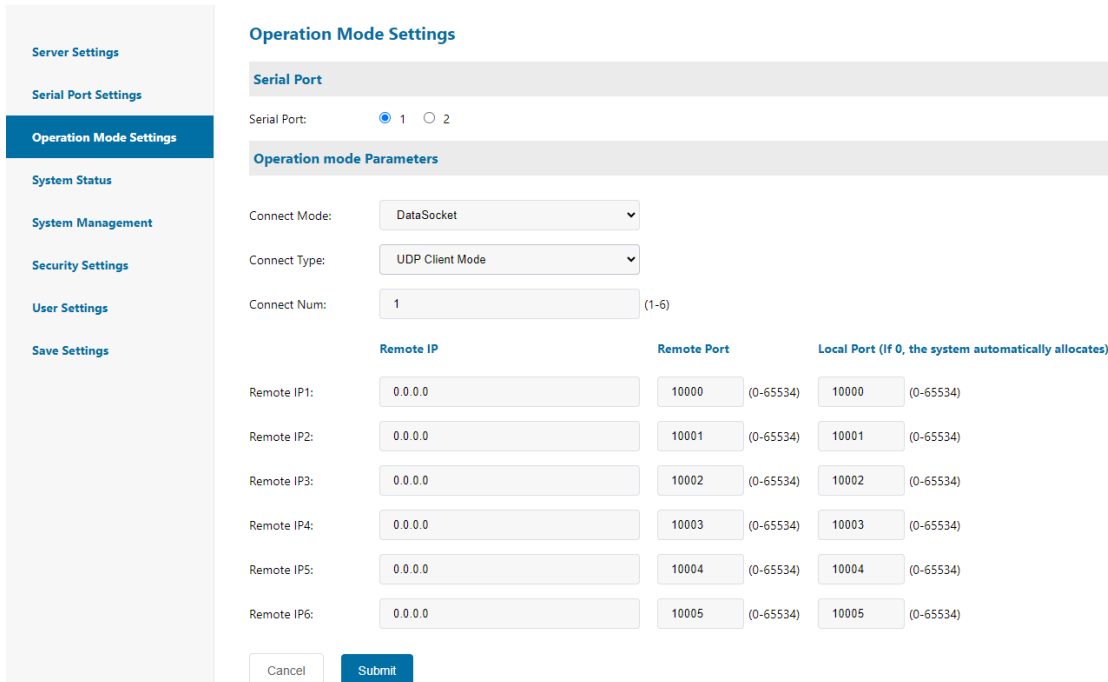
4. Instructions for operating steps

Step 1	Click the "Mode Settings" interface in the navigation bar.
Step 2	The user selects the connection mode as DataSocket and the connection type as TCP Client Mode.
Step 3	Set the IP address and port number of the server and click "Settings".

4.3.4 UDP Client mode

1. Panel description

In UDP mode, the interface displays as shown below:



2. Keyword Description

Serial Port Selection	Port	Select Serial Port 1 or Serial Port 2
Connection Mode		Select the operating mode as DataSocket
Connection Type		Select UDP Client Mode
Number of Connections		Maximum number of client connections, 1-6
Remote IP		Set the IP address and port number of the target host to connect to

3. Instructions for operating steps

Step 1	Click the "Mode Settings" interface in the navigation bar.
Step 2	The user selects the connection mode as DataSocket and the connection type as UDP Client Mode.
Step 3	Set the IP address and port number of the server and click "Settings".

4.3.5 Modbus Server mode

1. Panel description

The device is set as a Modbus server and acts as a slave station to respond to transaction requests. The interface displays as shown below:

Server Settings

Serial Port Settings

Operation Mode Settings

System Status

System Management

Security Settings

User Settings

Save Settings

Operation Mode Settings

Serial Port

Serial Port: ☒ 1 ☐ 2

Operation mode Parameters

Connect Mode:

Connect Type:

Connect Num: (1-6)

Local Port: (0-65534)

Keep Alive: (30-600s)

2. KEYWORD DESCRIPTION

Serial Port Selection	Port	Select serial port 1 or serial port 2
Connection Mode		Select the operating mode as Modbus
Connection Type		Select TCP Server Mode
Number of Connections		Maximum number of client connections, 1-6
Local Port		Listening port number, default 10000
Keep Alive Time		After the connection takes effect, the device will send out alive detection messages at the interval of this setting to detect whether the connection is in a valid state.

3. Instructions for operating steps

Step 1	Click the "Mode Settings" interface in the navigation bar.
Ste 2	The user selects the connection mode as Modbus, the connection type as TCP Server Mode, sets the listening port, and clicks "Set".

4.3.6 Modbus Client Mode

1. Panel Description

The device is set as a Modbus client, which is acting as a master and initiating the transaction request on its own initiative. The interface is displayed as below:

Server Settings

Serial Port Settings

Operation Mode Settings

System Status

System Management

Security Settings

User Settings

Save Settings

Operation Mode Settings

Serial Port

Serial Port: ☒ 1 ☐ 2

Operation mode Parameters

Connect Mode:

Connect Type:

Connect Num: (1-6)

	Remote IP	Remote Port	Local Port (If 0, the system automatically allocates)
Remote IP1:	<input type="text" value="0.0.0.0"/>	<input type="text" value="10000"/> (0-65534)	<input type="text" value="10000"/> (0-65534)
Remote IP2:	<input type="text" value="0.0.0.0"/>	<input type="text" value="10001"/> (0-65534)	<input type="text" value="10001"/> (0-65534)
Remote IP3:	<input type="text" value="0.0.0.0"/>	<input type="text" value="10002"/> (0-65534)	<input type="text" value="10002"/> (0-65534)
Remote IP4:	<input type="text" value="0.0.0.0"/>	<input type="text" value="10003"/> (0-65534)	<input type="text" value="10003"/> (0-65534)
Remote IP5:	<input type="text" value="0.0.0.0"/>	<input type="text" value="10004"/> (0-65534)	<input type="text" value="10004"/> (0-65534)
Remote IP6:	<input type="text" value="0.0.0.0"/>	<input type="text" value="10005"/> (0-65534)	<input type="text" value="10005"/> (0-65534)

2. Keyword Description

Serial Port Selection	Select serial port 1 or serial port 2
Connection Mode	Select the operating mode as Modbus
Connection Type	Select TCP Client Mode
Number of Connections	Maximum number of client connections, 1-6
Remote IP	Set the IP address and port number of the target host to be connected.

3. Instructions for operating steps

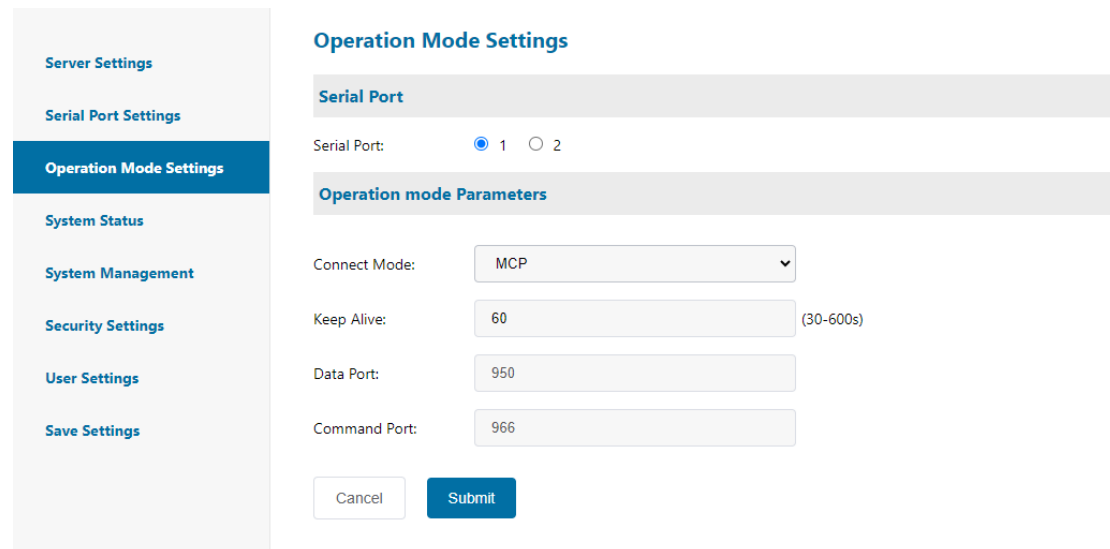
Step 1	Click on the "Mode Setting" screen in the navigation bar.
Step 2	User selects Modbus as the connection mode and TCP Client Mode as the connection type.
Step 3	Set the IP address and port number of the server and click "Set".

4.3.7 MCP Mode

1. Panel Description

TCP/IP virtual serial port mode works in windows system environment, through the driver to the serial port server port mapping into the local host of the virtual COM port, so that the original COM port based on the operation of the upper end of the software without any modification, like applying the local real COM port, the driver can support the expansion of up to COM256, and each independent port can support multiple sessions, making the monitoring of the

serial port device more flexible and convenient. And each independent port can support multiple sessions, making the monitoring of serial devices more flexible and convenient, and multiple connection resources can also be connected to backup. The interface is shown as below:



2. KEYWORD DESCRIPTION

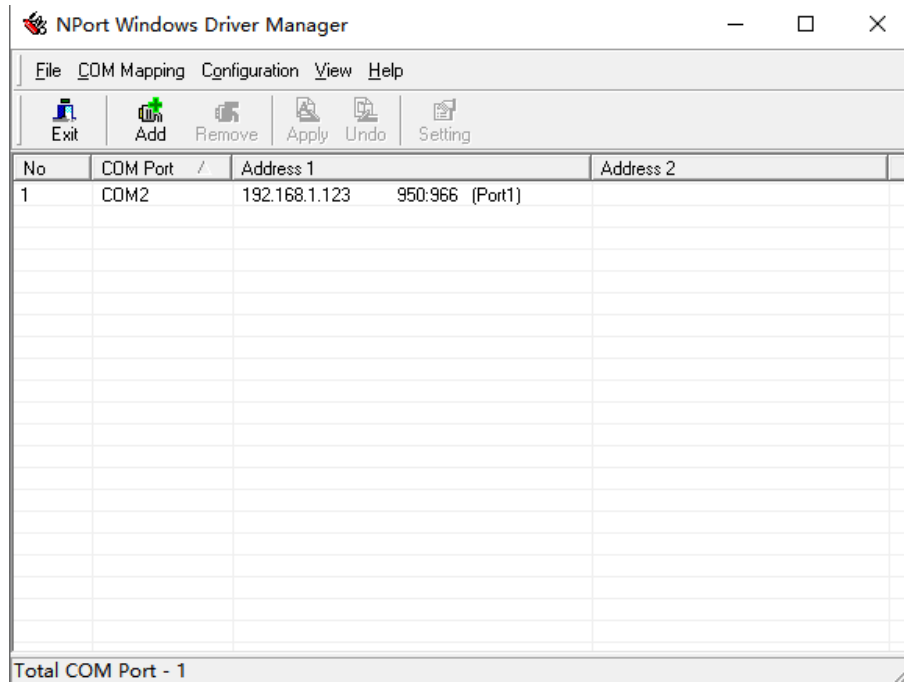
Serial Port Selection	Select serial port 1 or serial port 2
Connection Mode	Select the operating mode: MCP
Keep Alive Time	After the connection takes effect, the device will send alive detection messages at the set time interval to detect whether the connection is in a valid state.
Data Port	No modification, just press default
Command Port	No modification, just press default

3. Instructions for operating steps

Step 1	Click the "Mode Setting" screen in the navigation bar.
Step 2	The user can set the working mode as MCP mode and click "Set".

4. Mode operation instructions

1,.Using the Nport Administrator tool, select the "COM-Mapping" option, click the "Add" button to create a virtual serial port, and then click "Apply". After creating the virtual serial port, click "Apply".



2. Use the serial port debugging assistant to open the virtual serial port and the real serial port respectively to communicate.



4.4 System Status

1. Panel Description

TCP Status

Displays the current system TCP connection status

- Server Settings
- Serial Port Settings
- Operation Mode Settings
- System Status**
- System Management
- Security Settings
- User Settings
- Save Settings

System Status

Device Status Display

Status: TCP Status

Type	Local IP	Remote IP	Local Port	Remote Port	Snd_nxt	Rcv_nxt	Status
No Data							

UDP Status

Displays the current system UDP connection status

- Server Settings
- Serial Port Settings
- Operation Mode Settings
- System Status**
- System Management
- Security Settings
- User Settings
- Save Settings

System Status

Device Status Display

Status: UDP Status

Local IP	Remote IP	Local Port	Remote Port
No Data			

Serial Port Status

Displays the current system serial port configuration status and send/receive data statistics.

- Server Settings
- Serial Port Settings
- Operation Mode Settings
- System Status
- System Management
- Security Settings
- User Settings
- Save Settings

System Status

Device Status Display

Status: Serial Port Status ▼

Ser	Total RX	Total Tx	RTS	CTS	DTR	DSR
1	0	0	OFF	OFF	OFF	OFF
2	0	0	OFF	OFF	OFF	OFF

4.5 System Management

1. Panel Description

- Server Settings
- Serial Port Settings
- Operation Mode Settings
- System Status
- System Management
- Security Settings
- User Settings
- Save Settings

System management

System Information

Firmware Version: V1.27.6 Build20240506

Hardware Version: 40021254

Load Factory Default

Load Factory Default settings: Load Factory Default

Upgrade Firmware

Select The Firmware And Upgrade: Select File Upgrade

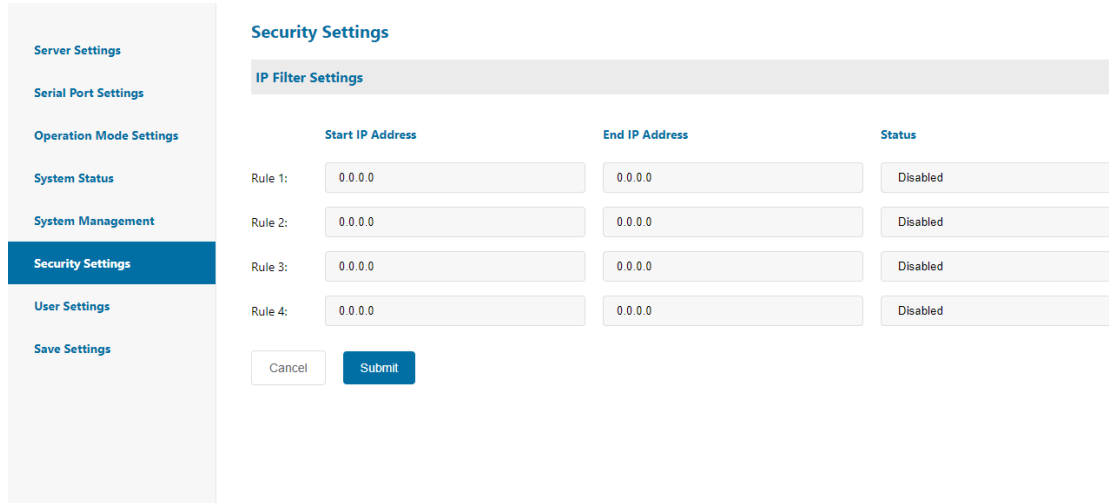
2.Keyword Description

Firmware Version	Display the firmware version number of the current device
Hardware Version	Display the hardware version number of the current device
Restore Factory	Restore factory settings
Firmware Upgrade	Software upgrade

4.6 Security Setting

1. Panel description

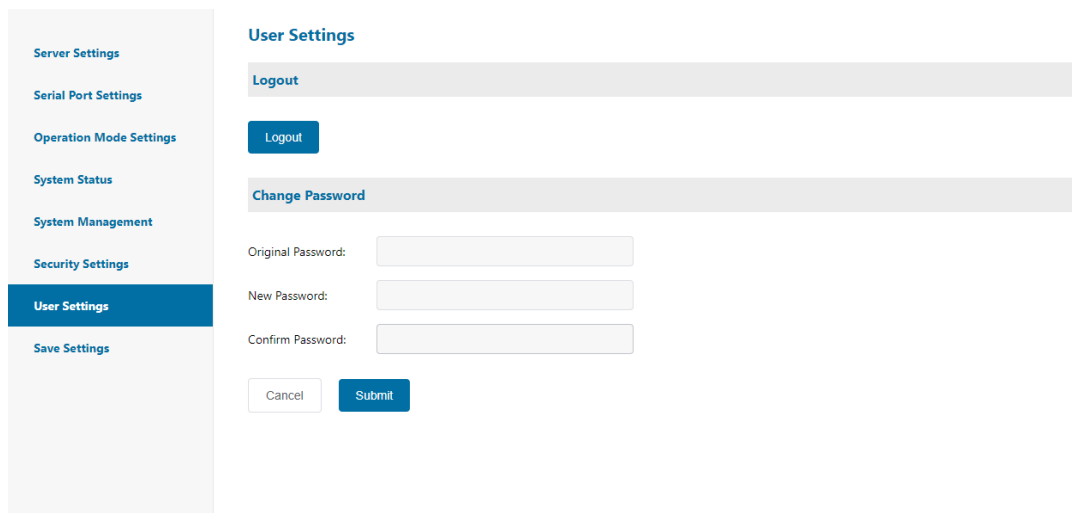
IP filtering settings, IP segments within the filtering range will not be able to access the server via WEB, the interface is displayed as below:



	Start IP Address	End IP Address	Status
Rule 1:	0.0.0.0	0.0.0.0	Disabled
Rule 2:	0.0.0.0	0.0.0.0	Disabled
Rule 3:	0.0.0.0	0.0.0.0	Disabled
Rule 4:	0.0.0.0	0.0.0.0	Disabled

4.7 User Setting

1. Panel Description



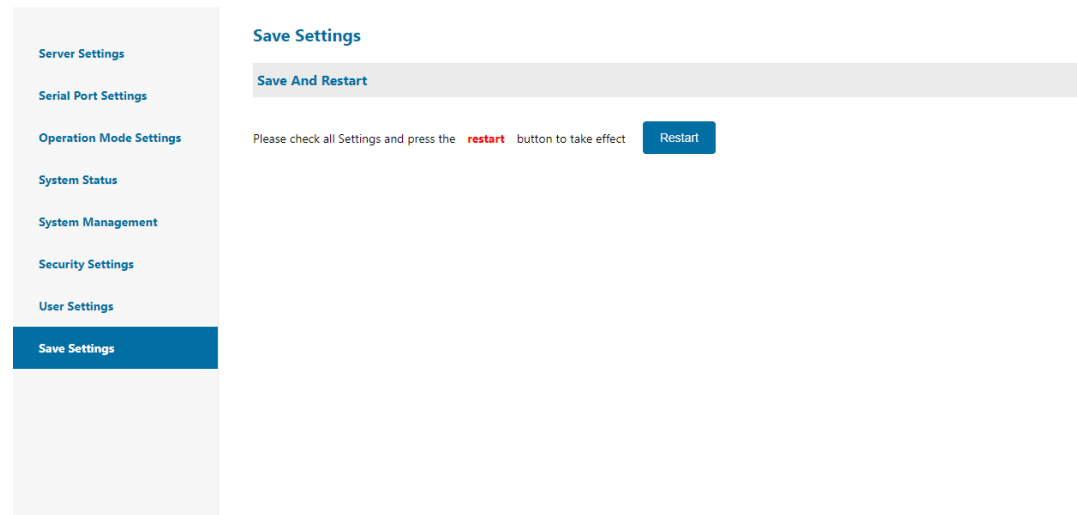
2.Keyword Description

Logging Out	Click to exit web login
Change Password	Enter your original and new passwords to change your user password

4.8 Save Setting

1. Panel description

Click restart to make the configuration take effect



5. Troubleshooting instruction

a) Unable to find the IP address of the serial server by running search

1. Firstly, check whether the physical connection is normal, the network cable (distinguishing between cross-wire and direct line) and the power supply is connected, observe the power indicator, LAN light, ACT (connected to the 10M network, the light is not lit, 100M when it is lit).
2. Is the host network card available and can it communicate with other local hosts
3. Close all the tools and software that can block broadcast packets (do not open the firewall that comes with the system)
4. Sudden abnormal disconnection while entering the configuration through the browser and setting the IP. For example: power failure, after which the device is not searched for and the IP is reset by entering the configuration through the console port.

b) Cannot open serial port

1. Ensure the normal operation of the network and whether it can ping the server.
2. Check the working status to see if the port is occupied.
3. If using VCOM mode to check if the configuration of the VCOM Utility is correct.
4. Delete the corresponding COM port from the registry and remap it.

c) Cannot transmit or receive data

1. Ensure that the serial port can be opened normally.
2. Check the frequency of the system light flashing, as fast flashing indicates data transmission and reception. If the light is not flashing fast, check the connection between the serial port and the top network, and the bottom serial device for wiring.

d) Forgot the set password

1. Press and hold the "reset" button for 5 seconds to restore the factory settings.

e) Transmitting and receiving data is garbled

1. Check if the wiring is correct. Our 485 wiring is 1A+, 2B -
2. Check if the line distance exceeds the standard distance and the quality of the line (which can also be achieved through extended line transceivers or optical isolation).
3. Check if the set baud rate matches the bottom device.
4. Detach from the client's top software and use the network or serial port to debug whether the assistant can receive normal data. If you can receive normal data, the problem may be related to the packing mechanism, you can go to the "Port Configure" to set the length of the packing and the waiting time of the packing.

f) The serial communication server acts as a dial-up server, and the connection has been established normally, but the client PC cannot open the web page when it enters the domain name in the address bar with IE browser; it can open the web

page when it enters the IP address.

1. Whether the DNS set in the serial communication server is real and valid.

g) The serial communication server acts as a dial-up server, and the connection has been established normally, but when the client PC opens a complex web page or downloads a large file using Internet Explorer, it often fails to open or download.

1. Check the [Serial Port] in the serial communication server settings to ensure that the [Flow Control] is consistent with the flow control of the MODEM. Usually MODEM flow control is RTS/CTS (Hardware Flow Control).
2. The negotiated DCE rate between MODEMs is too low, please dial again.

i) Cannot be connected as a TCP server

1. Confirm that there is no other PC connected to the corresponding port of the serial communication server: Enter the [Statistics] of the serial communication server to check the [Active TCP Information].
2. Whether [Authentication] in [Detailed Parameters] is [none].

If none of the above methods solves your problem, please contact the manufacturer.

6 Vcom Software Operating Instruction

6.1 Remote Devices Management

6.1.1 Device Search

After connecting the device, start the software "VCOM".

As in Figure 1, select remote devices Management--Add Device to bring up the search interface to find the IP address of the devices in your network.

Figure 2, select the "Search" button, you can find the IP address and basic information of all the devices in your network.

VCOM

Remote Device Management COM Mapping Options About Exit

Add Device Remove Device Login Settings Assign IP Logout Import Settings Export Settings Firmware Update Open in Browser

#	Type	MAC	IP	Device Description	Info	COM Number

The screenshot displays the VCOM Remote Device Management application. The main window has a menu bar with 'Remote Device Management', 'COM Mapping', 'Options', 'About', and 'Exit'. Below the menu is a toolbar with buttons: 'Add Device', 'Remove Device', 'Login', 'Settings', 'Assign IP', 'Logout', 'Import Settings', 'Export Settings', 'Firmware Update', and 'Open in Browser'. The main area contains a table with the following columns: '#', 'Type', 'MAC', 'IP', 'Device Description', 'Info', and 'COM Number'. The table is currently empty. An 'Add Device' dialog box is open, showing a 'Select/Clear All' checkbox (checked), a search bar, an 'IPv6' checkbox, and 'OK' and 'Cancel' buttons.

The screenshot displays the VCOM Remote Device Management application. The main window features a menu bar with 'Remote Device Management', 'COM Mapping', 'Options', 'About', and 'Exit'. Below the menu is a toolbar with buttons for 'Add Device', 'Remove Device', 'Login', 'Settings', 'Assign IP', 'Logout', 'Import Settings', 'Export Settings', 'Firmware Update', and 'Open in Browser'. The main area contains a table with the following columns: '#', 'Type', 'MAC', 'IP', 'Device Description', 'Info', and 'COM Number'. The table is currently empty. A 'Searching.....' dialog box is open, showing a single entry in its table:

#	Type	MAC	IPv4	IPv6
1	1 Port	90:7E:BA:84:93:E2	192.168.1.125	

The dialog box has a 'Cancel' button at the bottom right.

Figure 3

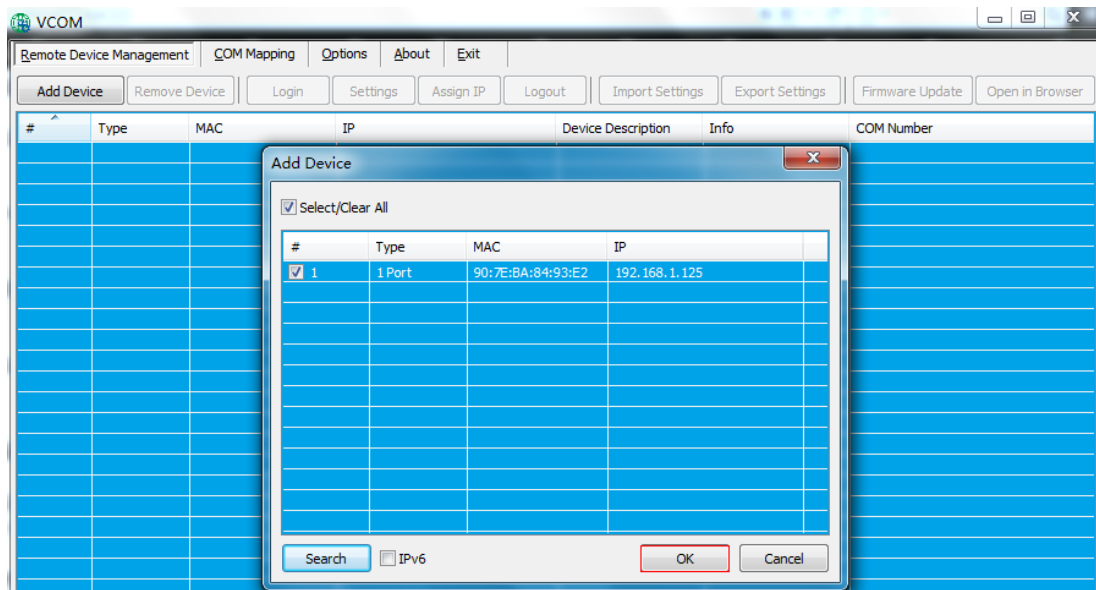
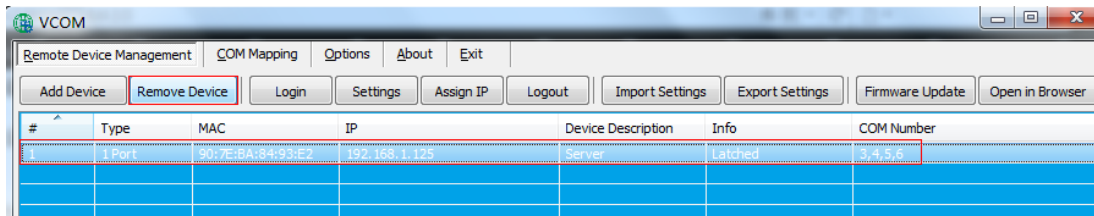


Figure 4

6.1.2 Deleting Serial Device Information

In the software "VCOM", first select the device information, and then in the Remote Device Management interface, click "Remove Device" to delete the device information, as shown in the following figure:



6.1.3 Login Device

In the software "VCOM", select remote devices Management interface, click the "Login" button to pop up, as shown in Figure 1 below, enter the password to complete the login, after the success of the following Figure 2 shows.

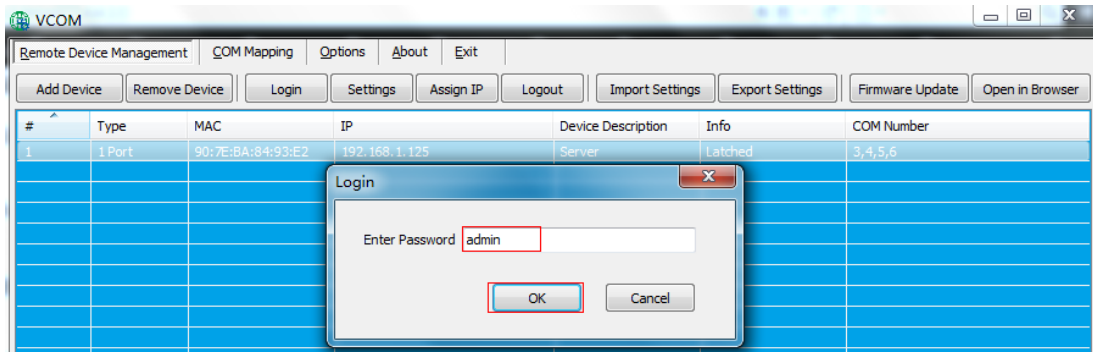


Figure 1

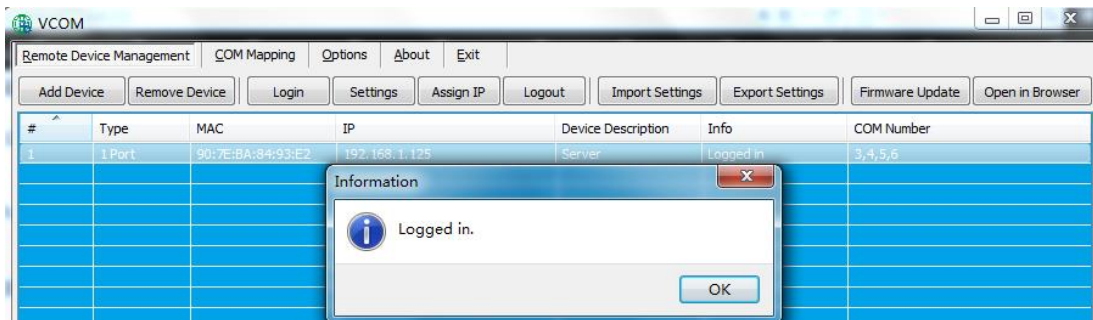


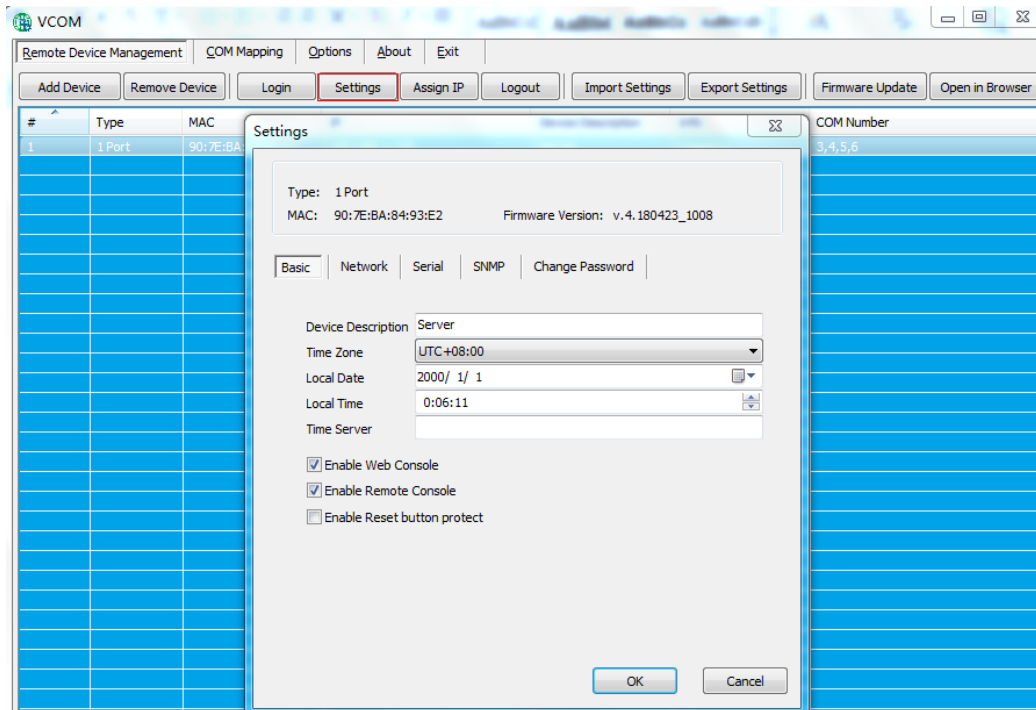
Figure 2

6.1.4 Configuration Information

After completing the device login, click the "Setting" button to pop up the interface as shown in the following figures:

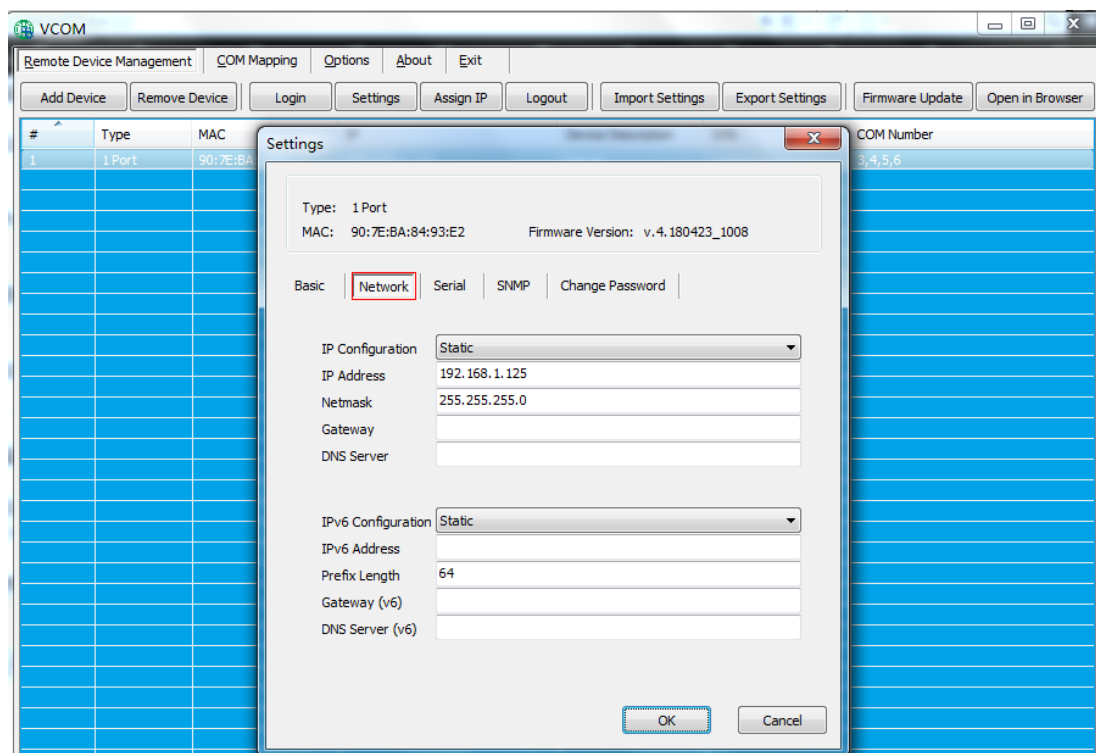
6.1.4.1 Basic

Display basic device information, maintain the following default states



6.1.4.2 Network

Used for IP related configuration, consistent with serial server configuration



6.1.4.3 Serial

The basic information configuration for ports is shown in Figure 1.

Double click on the corresponding item of "Settings" for the selected serial port, or select the corresponding serial port and click the "Configure" button to open the configuration interface as shown in Figure 2.

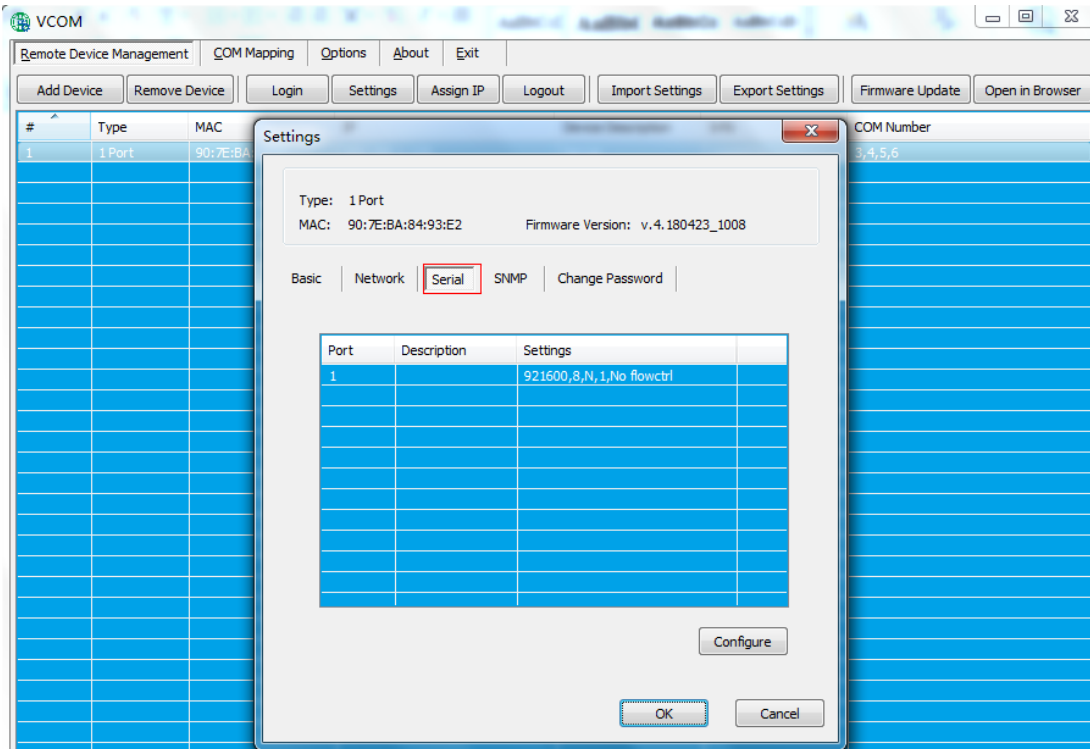


图 1

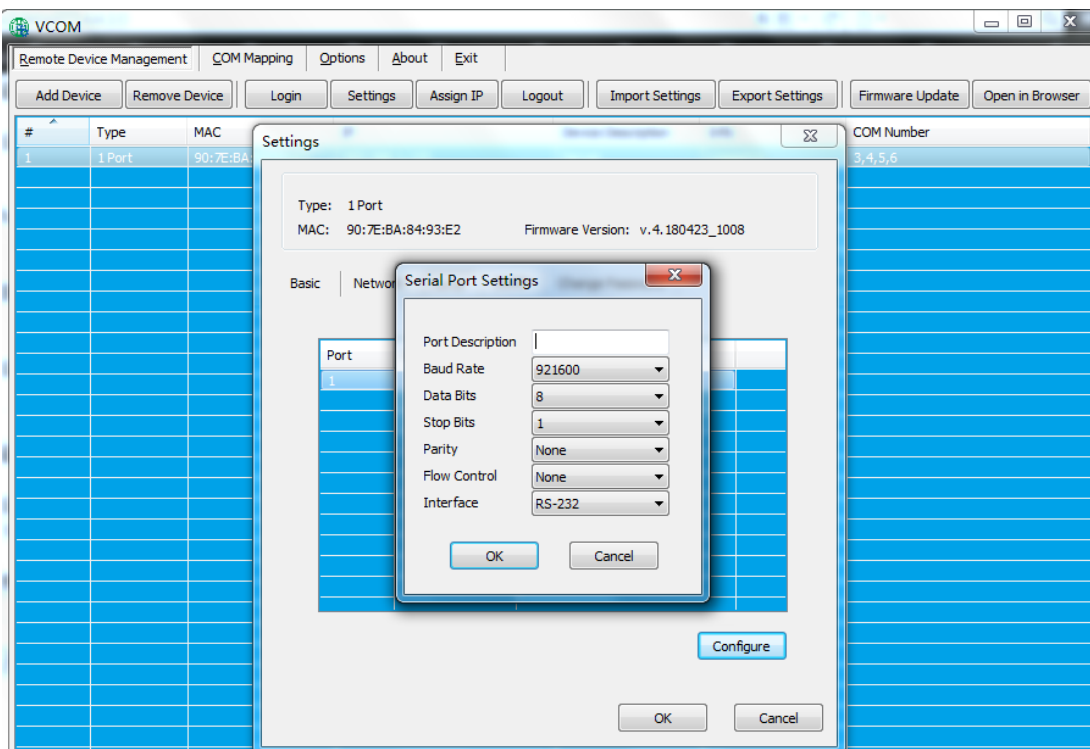
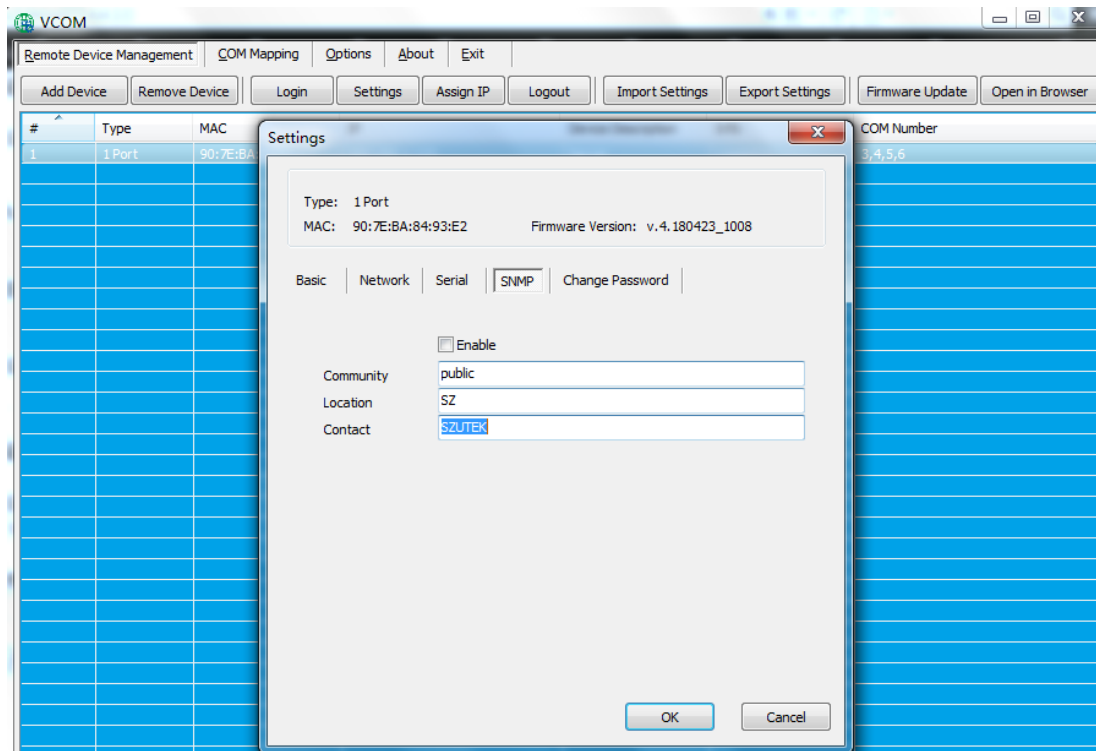


图 2

6.1.4.4 SNMP

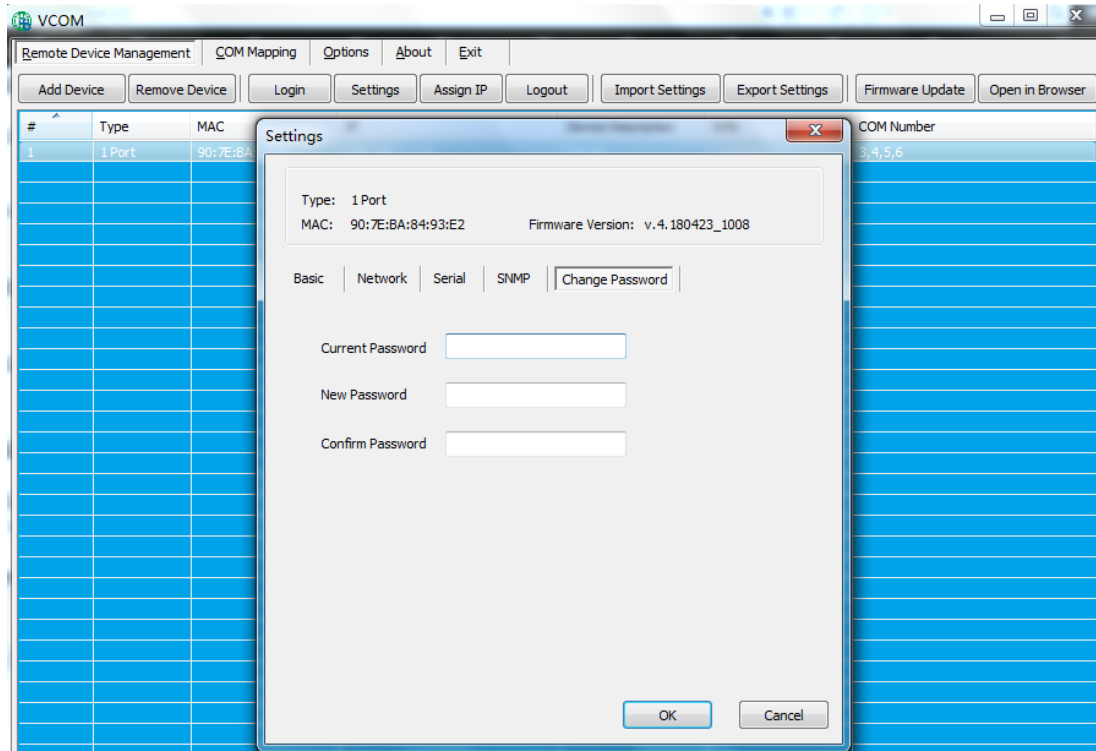
It is used to enable SNMP function, the configuration is the same as

serial device server.



6.1.4.5 Change Password

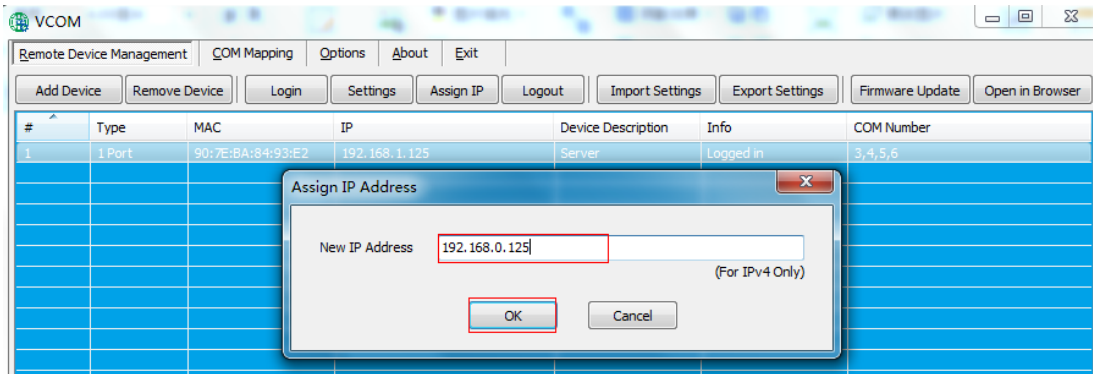
It is used to change the password for the serial device server, the configuration is the same as serial device server.



6.1.5 Assign IP

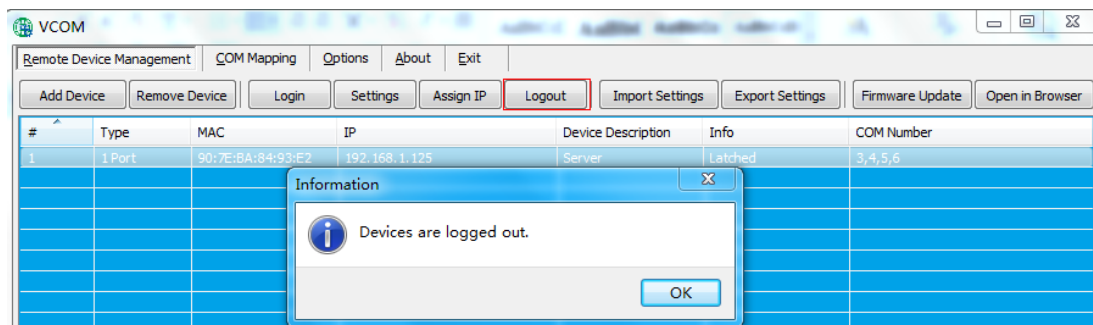
In "VCOM", select "remote devices Management", and click the "Assign

IP" button, it is shown as below. User can reset the IP address of serial device server (login operation is required before changing the IP).



6.1.6 Logout

In "VCOM", select "remote devices Management", and click "Logout" button, it is shown as below.



6.1.7 Import setting

In "VCOM", after login successfully, select "remote devices Management", click "Import Settings" button, it is shown as figure 1; click "Browse" to choose the saved or exported file(shown as figure 2), then click "ok" and wait(shown as figure 3).

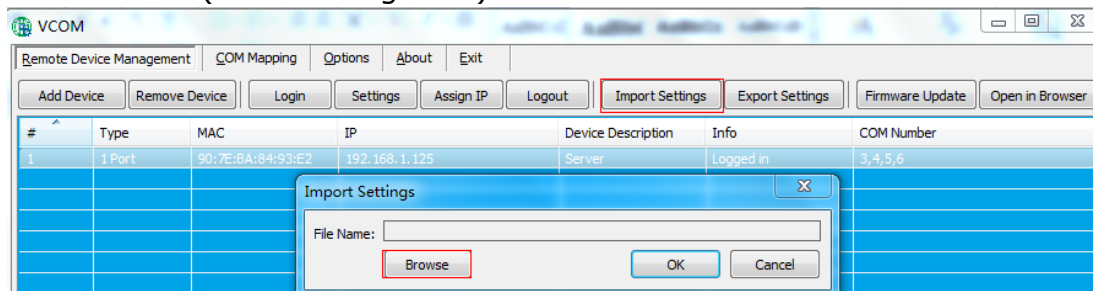


图 1

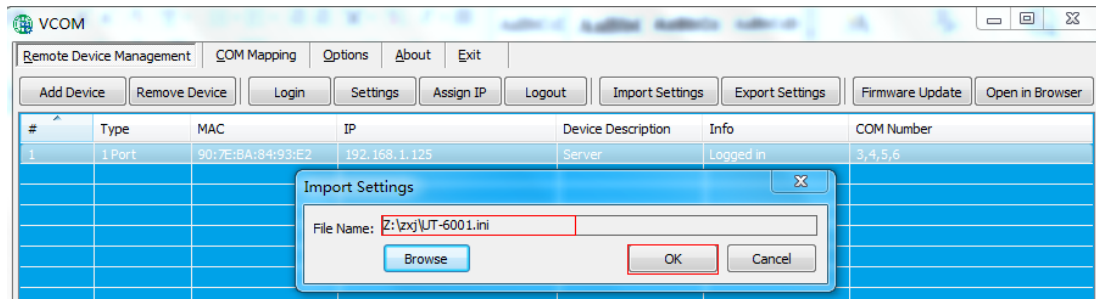


图 2

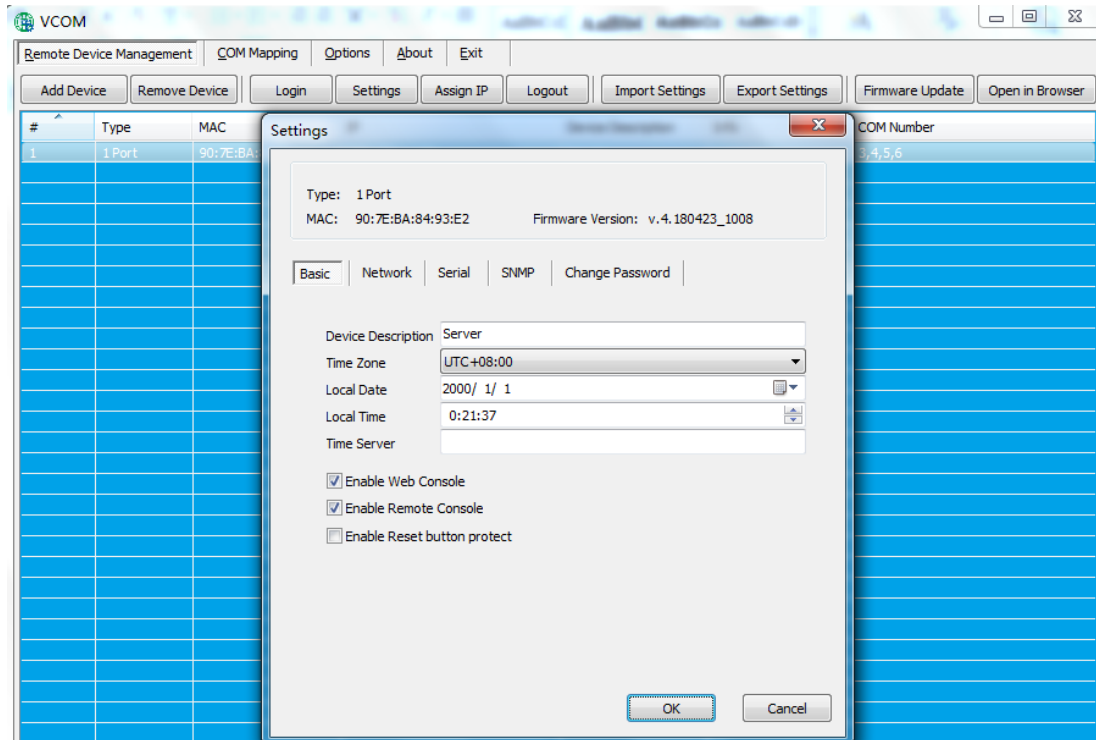


图 3

6.1.8 Export setting

In "VCOM", after login successfully, select "remote devices Management", and click "Export Settings" button, it is shown as Figure 1; click "Browse" to choose the saved or exported file(shown as figure 2), then click "ok", and wait(shown as figure 3).

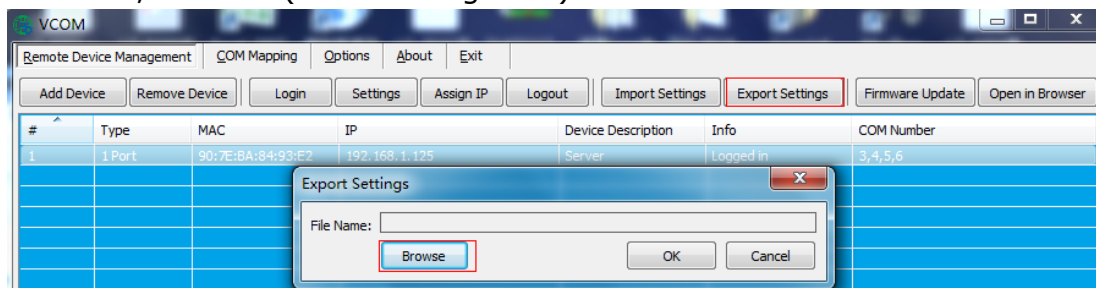
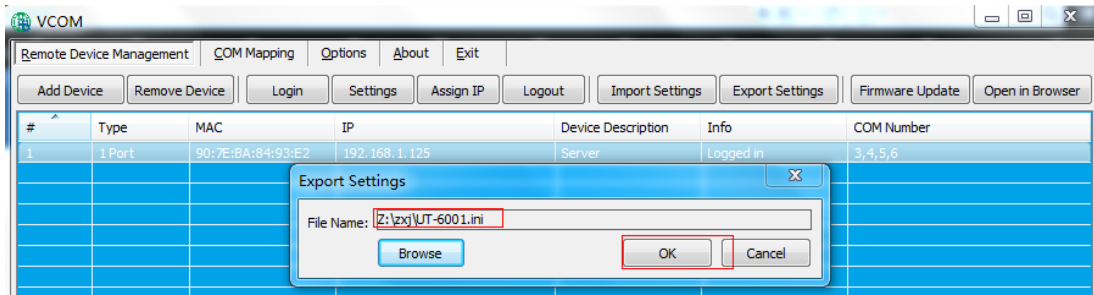
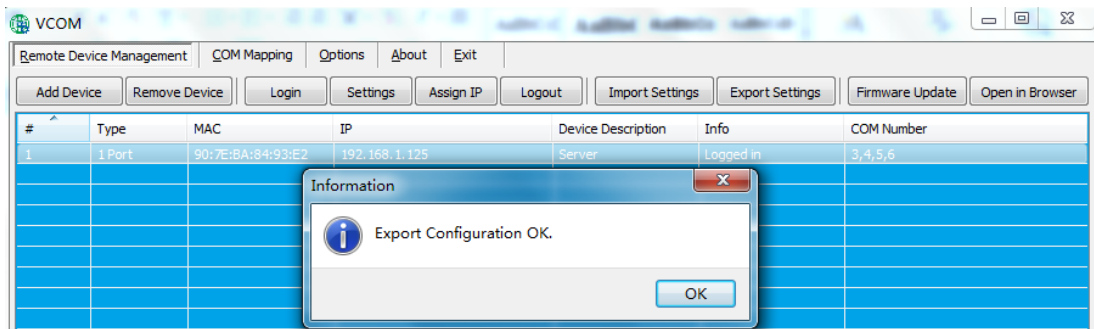


图 1



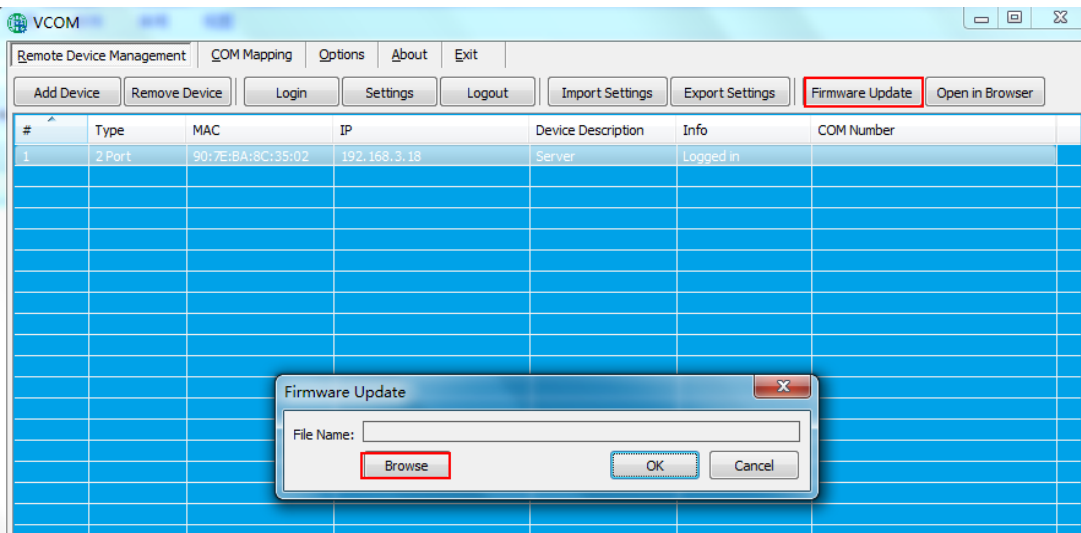
2



3

6.1.9 Firmware update

In "VCOM", after the device login successfully, select "remote devices Management", and click "Firmware Update" button, then click "Browse" to choose the updated file, click "ok"; After waiting 240s, the firmware update is completed.



6.1.10 Open in Browser

In "VCOM", select "remote devices Management", and click "Open in Browser", it is shown as below.

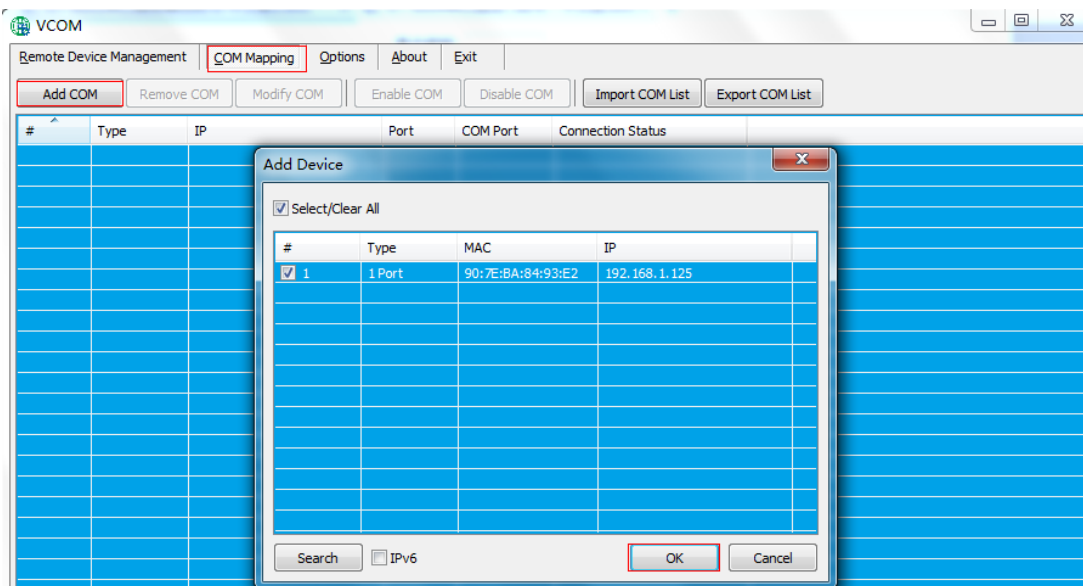
用户登录

登录

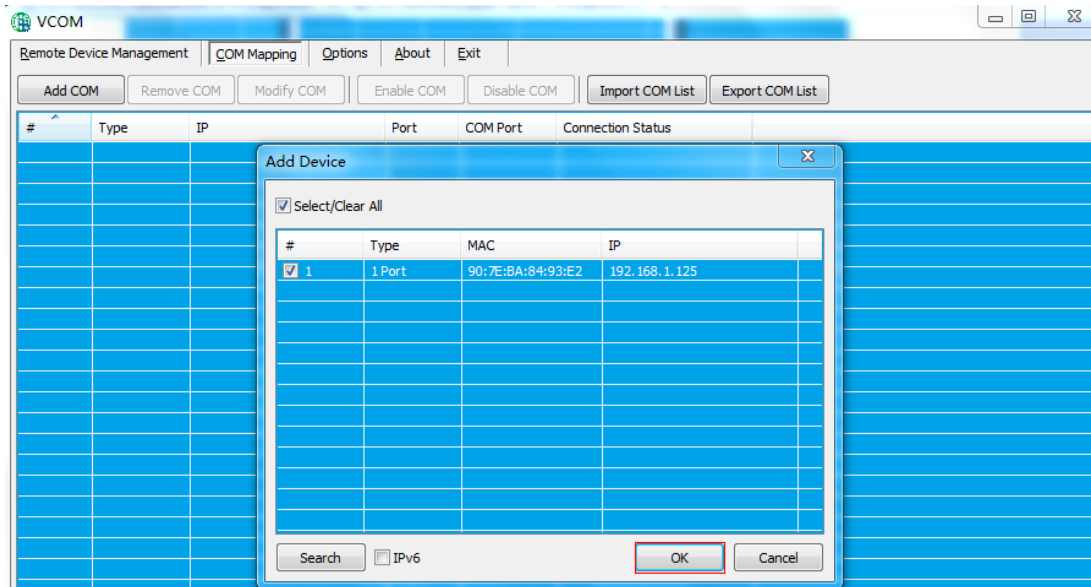
6.2 COM Mapping

6.2.1 Create COM

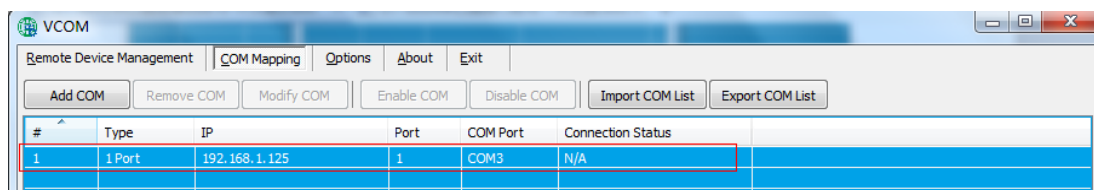
1、In the software “VCOM” , select COM Mapping—Add COM, “Add Device” interface is shown as below:



2、Select the device, and click “ok” in the “Add Device” interface:



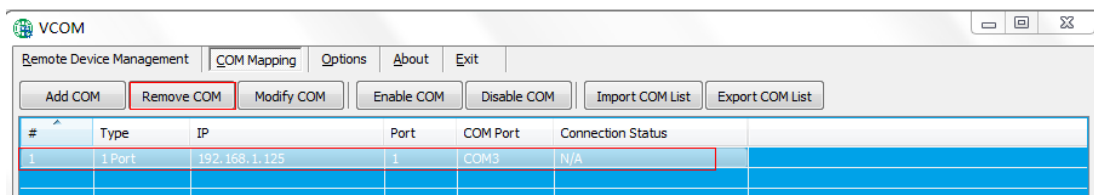
3. Then it is shown as below figure, the corresponding COM port is created successfully.



6.2.2 Remove COM

In the software "VCOM", first select the COM port to be removed, then select the COM

Mapping interface and click "Remove COM" to delete the COM port, it is as shown in the figure below:



6.2.3 Modify COM

In the software "VCOM", first select the COM port that needs to be deleted, then select the COM Mapping interface, click "Modify COM", the interface is as shown in figure 1 below, and then select "COM6" to change the corresponding "COM2" of Port1 to "COM6", it is as shown in figure 2:

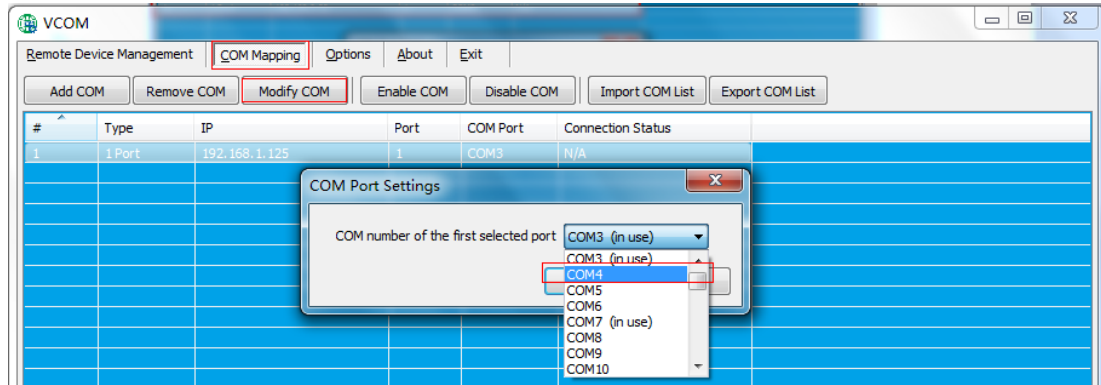


图 1

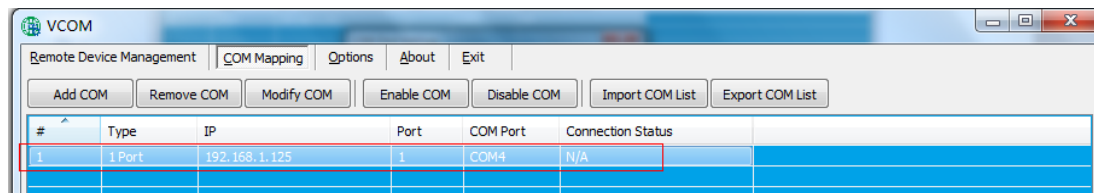
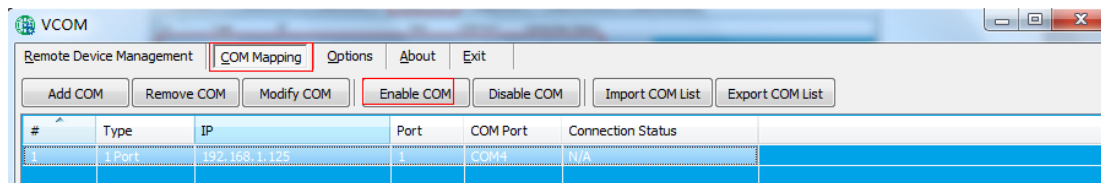


图 2

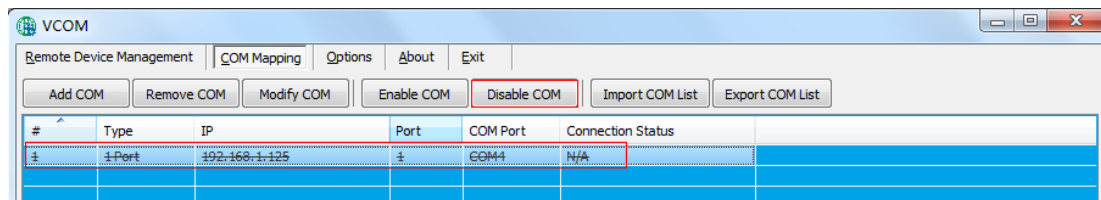
6.2.4 Enable COM

In the software "VCOM", first select the COM port that needs to be disabled, then select the COM Mapping interface, click "Enable COM" to disable the corresponding COM port, it is as shown below:



6.2.5 Disable COM list

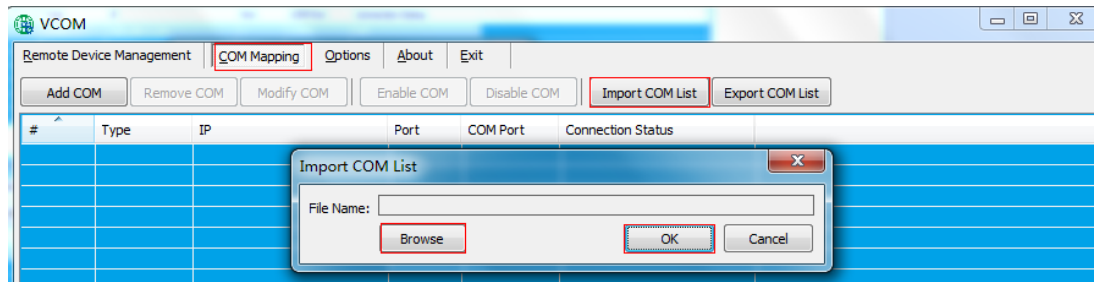
In the software "VCOM", first select the COM port that needs to be disabled, then select the COM Mapping interface and click "Disable COM" to disable the corresponding COM port, it is as shown in the figure below:



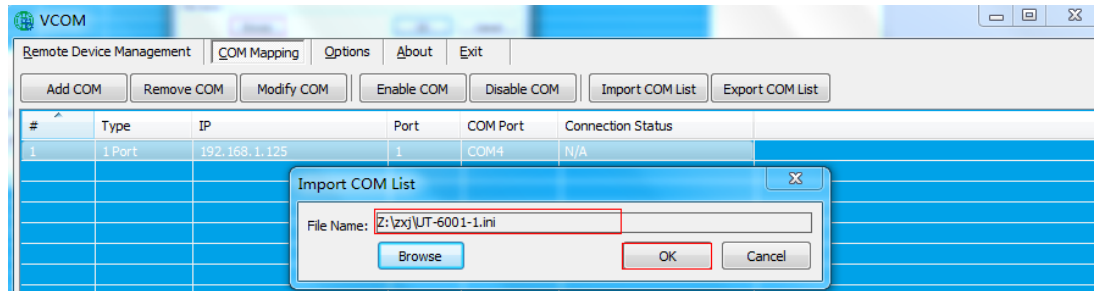
6.2.6 Import COM list

In the software "VCOM", select the "COM Mapping" interface, click "Import COM List", the interface is as shown in figure 1 below, and click "Browse" to select the path of COM port configuration information to be saved as shown in figure 2. Click "OK", then it is exported successfully as

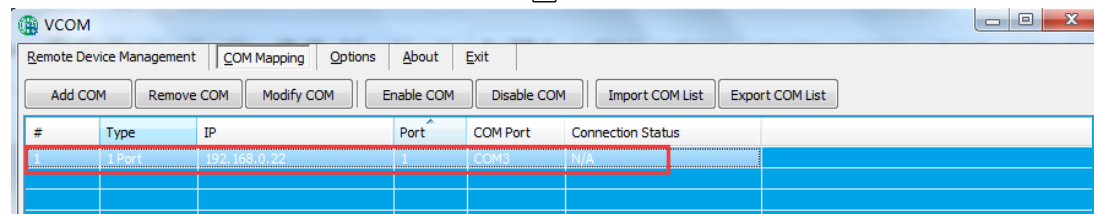
shown in figure 3:



1



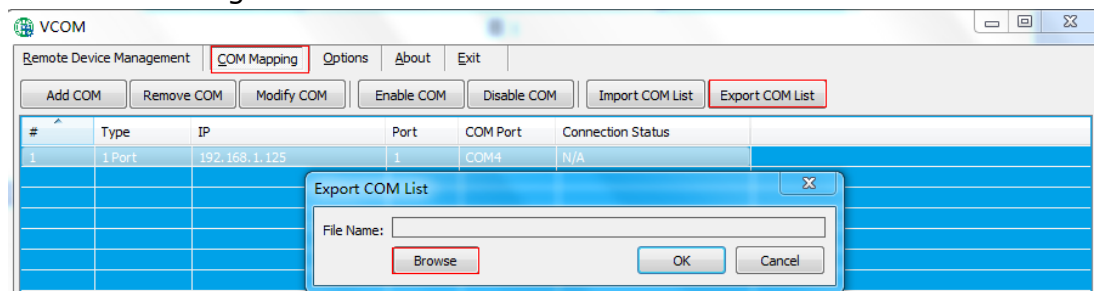
2



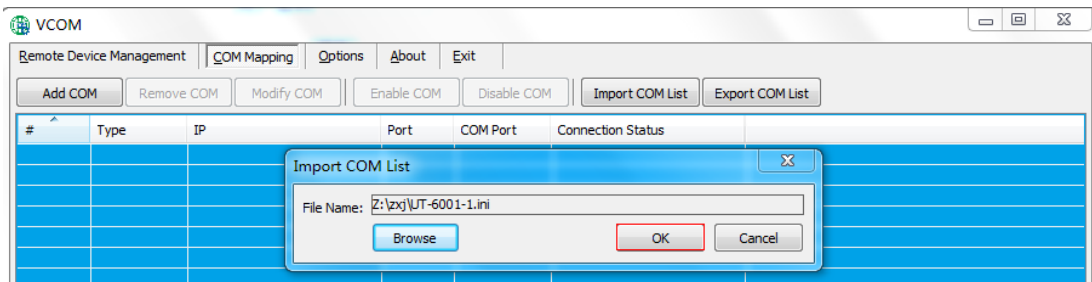
3

6.2.7 Export COM list

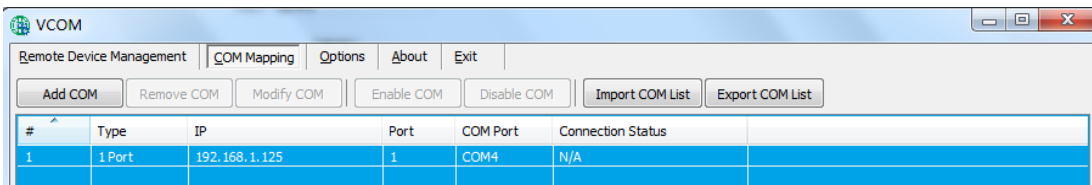
In the software "VCOM", select the COM Mapping interface, click "Export COM List", the interface is as shown in figure 1 below, and click "Browse" to select the path of COM port configuration information to be saved as shown in figure 2. Click "OK", then it is exported successfully as shown in figure 3:



1



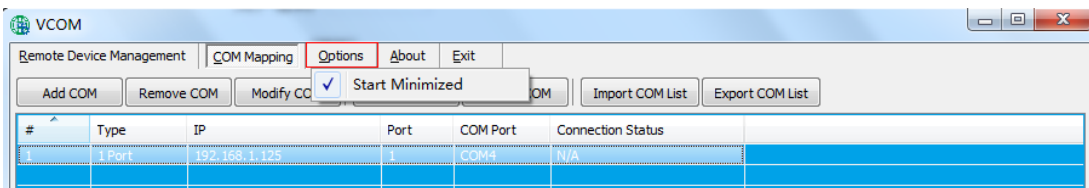
2



3

6.3 Options

Select whether to open VCOM software directly or to minimize opening it in the taskbar; the software is opened in the taskbar as a minimization by default. It is shown as below:



6.4 Exit

Click "Exit" button to exit the software.