

User Manual



STE100A

Single Port

IP to Serial Device Server



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STE100A Operation Manual

Single Port IP to Serial Device Server

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WARNING:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference in which case the user will be required to correct the interference at his own expense. NOTICE: (1) The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. (2) Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

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Chapter 1 Introduction

1.1 Welcome

Thank you for choosing the **STE100A** Single Port IP to Serial Device Server. If you would like to skip right to the operation of this converter, proceed to Chapter 2.

This manual is used to explain the hardware installation procedures and operation of the **STE100A**, and present its capabilities and specifications. This manual is divided into 4 Sections, the Introduction, Installation, Operational, plus the **Vcom** application program (virtual COM) installation and usage.

1.2 Product Description

The IP Serial Server provides the serial device server for Windows hosts to control serial devices located virtually anywhere through TCP/IP or UDP/IP Ethernet connection. The IP Serial Server has the asynchronous RS-232 serial port connection on one side, and a 10/100 Mbps Ethernet connection on the other side. IP Serial Server can function in a UDP environment or as server or client for TCP connections. The application scenarios include direct IP mode, Virtual COM mode and paired mode. When in the paired mode one IP Serial Server will be set as a client while the other will act as a server for TCP connection.

1.3 Features

- 10/100Mbps Ethernet port
- 230.4kbps serial interface maximum baud rate
- TCP Server, TCP client, Virtual com mode, UDP Normal, UDP Listen
- Supports DHCP (client), HTTP (web management), ICMP, ARP, IP, UDP, TCP
- Easy to use with Windows® **Virtual Com** utility, **Vcom**
- Configuration by web browser
- Compact size 53x85x21(mm)
- Low power consumption with single + 12V to +48V input

1.4 Specifications

■ General	
	LED Ready, TP Link/Act, RS232 Tx/Rx
	Push button For Load Default Configuration and Reset System
	OS supported Windows® XP/2000/2003/2008/Vista/Win7/Win8 (for Vcom)
■ Serial Interface	RS-232
■ Serial Connector	DB-9 male
■ Baud rate	110 to 230.4Kbps
■ Data bits	5, 6, 7, 8
■ Stop bits	1, 1.5 for Data bits 5 mode; 1, 2 for data bits 6, 7, 8 mode
■ Parity	None, Even, Odd, Space, Mark
■ Flow Control	None, Hardware (RTS/CTS)
■ Data Packing Delimiter	1,2
■ LAN Interface	RJ-45 connector, IEEE802.3 10/100BaseT, Auto-negotiation, Full/Half-duplex
■ Communication Modes	TCP Server, TCP Client, Virtual COM mode, UDP Normal, UDP Listen
■ Protocols	TCP, UDP, IP, ARP, ICMP, HTTP, DHCP, ICMP Client requests connection at Power up TCP Inactivity Timeout (TCP alive time)
■ Management	Web, Firmware upgradeable
■ Security	Password Access
■ Power	DC Input, 12 to 48 VDC

- **Operating Temperature** 0 to 60 °C
- **Storage Temperature** -10 to 70 °C
- **Humidity** 0 to 90% non-condensing
- **DIN rail mount** Yes (optional kit)
- **Panel mount** Yes
- **Dimensions (WxDxH)** 53 x 85 x 21(mm)
- **Certifications** CE, FCC

1.5 Overview

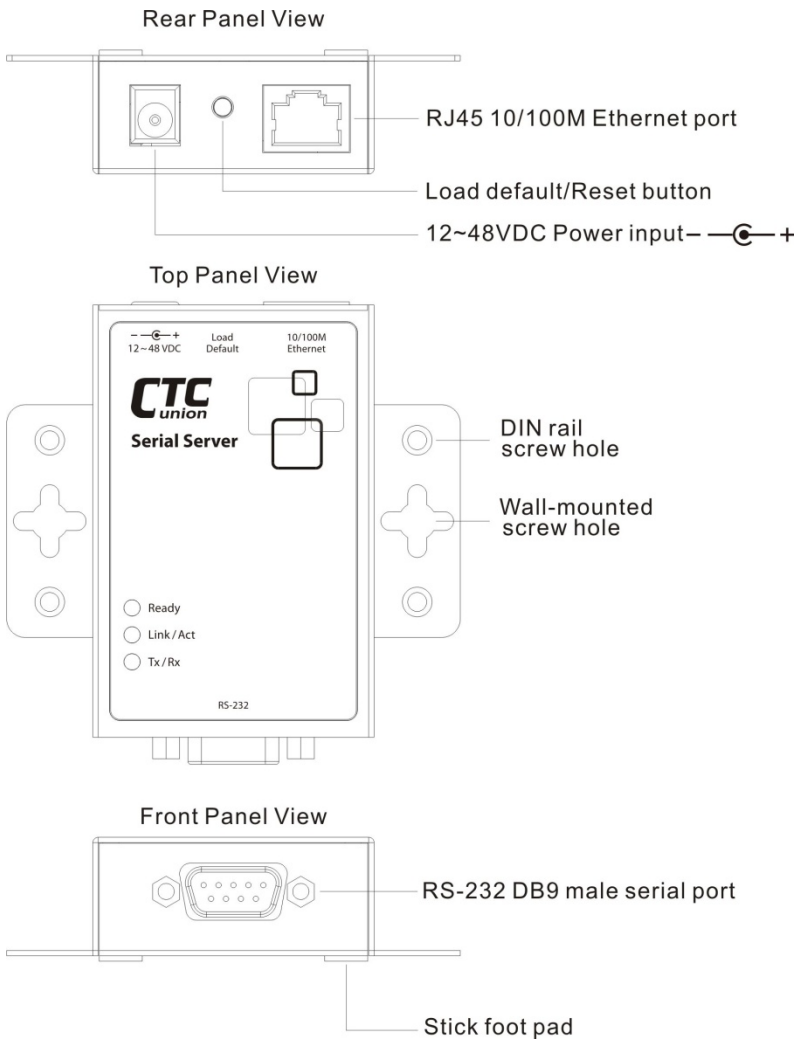


Figure 1.1 Panel designations of STE100A

1.5.1 Load Default Button

Load Default Setting

Press and hold this button for more than 3 seconds but less than 10 seconds, then release it to load the factory default settings. **STE100A** IP address will be restored to the default of 10.1.1.1 with net mask 255.0.0.0. Both the login ID and password will be reset to “admin”.

System Reset

Press and hold this button for more than 10 seconds to force a system reset (reboot).

1.5.2 LED Indicators

LED Name	Status	Description
Ready	On	Power is on and the device is ready.
	Off	Power is off or the device is not ready.
Link/Act	On	UTP is link.
	Blinking	UTP Tx/Rx is activity.
	Off	UTP is not link.
Tx/Rx	Blinking	RS-232 port is transmitting or receiving data.
	Off	No data is transmitting or receiving in RS-232 port.

1.6 Quick Guide to Installation and Management

There are two methods to install and manage STE100A.

Installation and Management by Web Browser

- Step 1: Plug in the power adaptor, connect this serial device server to Ethernet.
- Step 2: Press and hold the load default button for more than 3 seconds and less than 10 seconds, then release it. This will return the serial device server to factory default and it will respond to the IP address 10.1.1.1.
- Step 3: The user may configure the PC to the same IP domain, use web browser to link with <http://10.1.1.1> to manage it. The default login ID will be “admin” and the password will be “admin”.
- Step 4: The user configures this serial device server by web browser according to their application.
- Step 5: User may change this serial device server IP by web browser, too. After changing its IP address, the IP Server needs to do a system reset (or repower).

Installation and Configuration by Virtual COM Application

- Step 1: Plug in the power adaptor, connect this serial device server to Ethernet.
- Step 2: Find the Virtual COM Windows® application in CD, install it.
- Step 3: Use the Virtual COM application to locate the serial device server unit.
- Step 4: After the device is found, user may configure this serial device server by Virtual COM Windows® application according to their application.

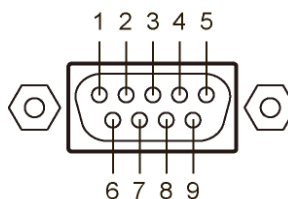
1.7 Interfaces

RJ45 Ethernet Pin Assignments

Pin	Name
1	TX+
2	TX-
3	RX+
6	RX-



RS-232 DB9 Male Pin Assignment

Pin	Name	I/O
1	DCD	Input
2	RD	Input
3	TD	Output
4	DTR	Output
5	GND	
6	DSR	Input
7	RTS	Output
8	CTS	Input





This serial device server performs as a **DTE** device. It needs to use an RS-232 cross cable to connect both PC and this unit;

- **Connect the STE100A to PC or DTE device without hardware flow control feature.**



PC or DTE Device		RS-232 X-over cable		STE100A
	TD	→	RD	
	RD	←	TD	
	GND	↔	GND	

- **Connect the STE100A to PC or DTE device with hardware flow control feature.**



PC or DTE Device		RS-232 X-over cable		STE100A
	TD	→	RD	
	RD	←	TD	
	RTS	→	CTS	
	CTS	←	RTS	
	DSR	←	DTR	
	DTR	→	DSR	
	GND	↔	GND	

STE100A needs to use a straight cable to connect a **DCE** device and this unit.

- **Connect the STE100A to DCE device without hardware flow control feature.**

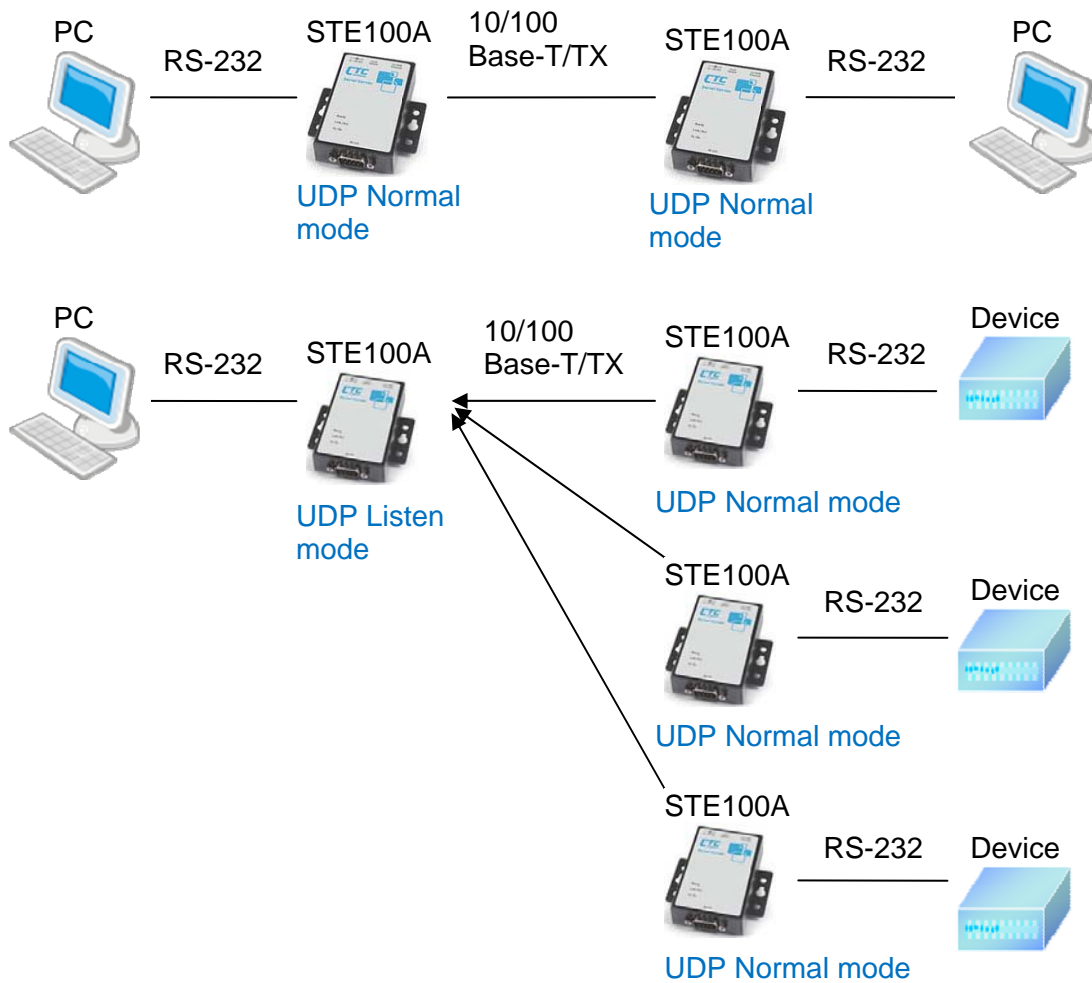
DCE Device		RS-232 1:1 cable		STE100A
	TD	←	TD	
	RD	→	RD	
	GND	↔	GND	

- **Connect the STE100A to DCE device with hardware flow control feature.**

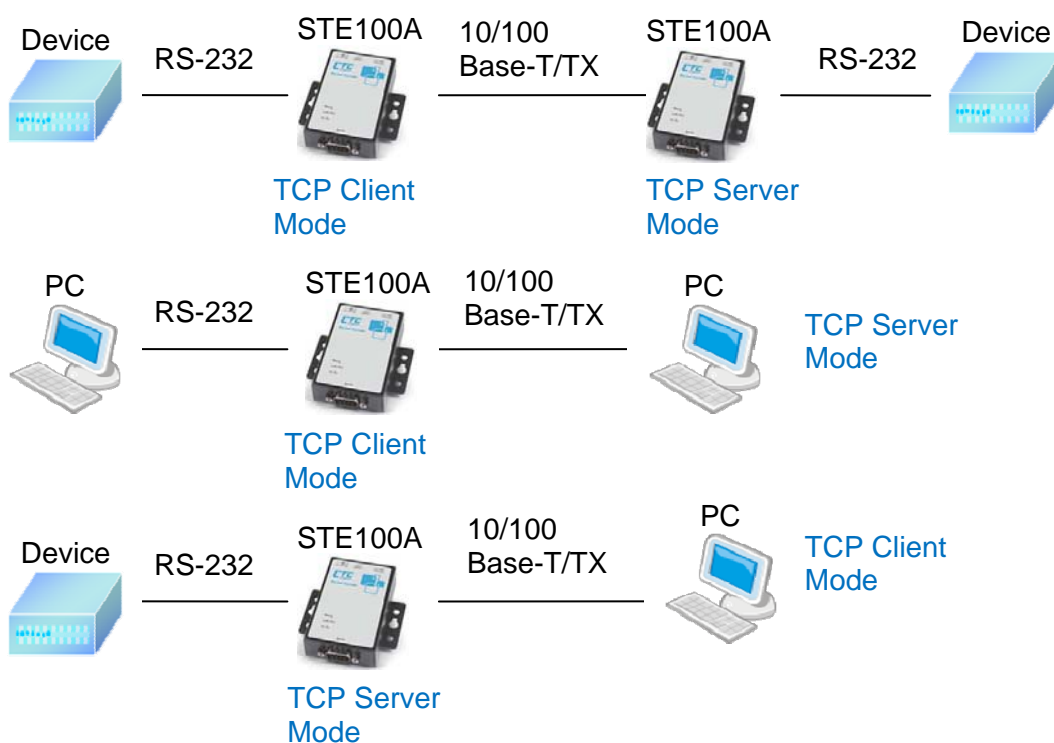
DCE Device		RS-232 1:1 cable		STE100A
	TD	←	TD	
	RD	→	RD	
	RTS	←	RTS	
	CTS	→	CTS	
	DSR	→	DSR	
	DTR	←	DTR	
	GND	↔	GND	

1.8 Typical Applications

● UDP



● TCP Server (Telnet Server) / TCP Client (Telnet Client)

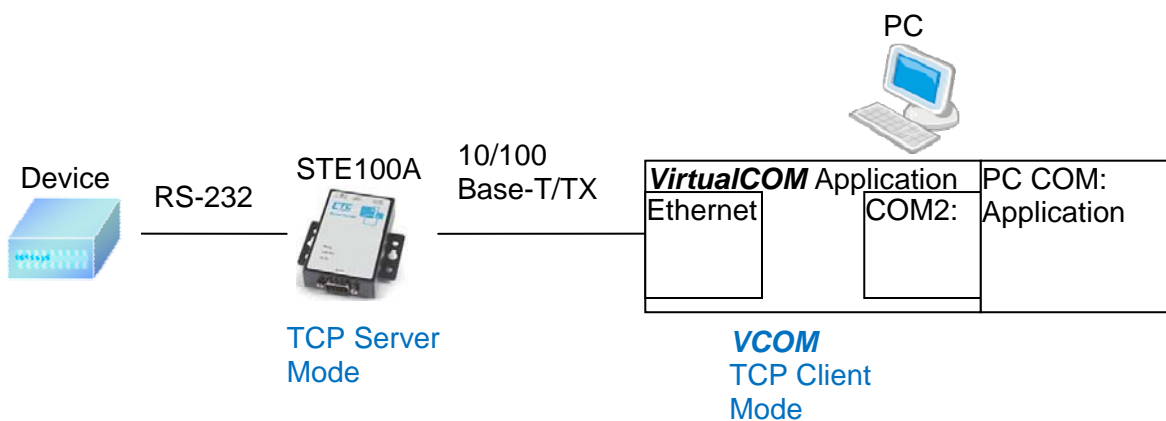


● VCOM

The purpose of **VCom** is to make the virtual COM port exhibit behavior that closely resembles that of a "real" COM port, i.e., a COM port driver for local serial port hardware. User applications use the **VCom** COM port redirector through one or more virtual COM ports that the redirector creates, as configured by the user.

When the application opens the virtual COM port, **VCom** makes an IP network connection to the **STE100A** server at the specified IP address and TCP/UDP port number that corresponds to the remote device on the server. The COM port redirector then begins relaying the application data stream between the virtual COM port and the device server.

The **VCom** serial port redirector for Windows® is configured using a control-panel style graphical user interface for creating virtual COM ports, configuring settings for individual COM ports, and configuring global settings affecting all COM ports. The **VCom** GUI also includes displays of virtual COM port activity and various diagnostic aids. **VCom** allows legacy serial programs that access the PC communications ports (COM1, COM2, etc.) to access the **STE100A** by IP address, just as if it were an actual communications port.



The equivalent software for a Unix/Linux operating system is commonly called a tty port redirector.

A number of open source projects exist for port redirection. Below are just a few of the more popular projects.

- com0com project (Windows)
- netfwd (BSD)
- remserial (Linux)
- serproxy (Linux, Windows)
- socat project (Linux)
- ser2sock.c (Linux, BSD)

Chapter 2 Operation

2.1 Getting Started

This section describes how to connect the **STE100A** to serial devices for the first time testing purposes.

Connecting to the Power

Connect **STE100A** to the 12 to 48 VDC power source. The **STE100A** is shipped with an AC switching power adapter with 12VDC output voltage. If the system is ready, the "Ready" LED will be lit.

Connecting to the Network

Connect the **STE100A** to the Ethernet network. The **STE100A** will indicate a valid Ethernet copper connection in the following ways:

1. The Link/Act LED will be turned on when the UTP is in link stage.
2. The Link/Act LED will be blinking when the UTP is transmitting or receiving data packets.

Connecting to the Serial Device

Connect the RS-232 serial cable between **STE100A** and the serial device. This serial device server performs as DTE device and needs to use an RS-232 cross-over cable if connecting to a PC. The **STE100A** uses a straight cable to connect to DCE devices, such as a modem.

2.2 Setup IP Address

Factory Default IP Address

Press and hold the load default button for more than 3 seconds and less than 10 seconds, then release it. This will default the serial device server so that the IP address is 10.1.1.1.

Setup IP Address by Web Page

User may use web browser and link to **STE100A** web page. After logging in with the default username/password of 'admin/admin', the user can change this serial device server IP address and other configuration parameters. After changing its IP address, the **STE100A** needs to do system reset or repower.

Setup IP address by VCOM Application

User may install VCOM windows application, and use it to locate the serial device server unit. After this device is found, user may configure this serial device server by VCOM Windows® program according to your application. Please refer to Chapter 4.

Chapter 3 Web Management

3.1 Login Page

User must configure the PC to the same default IP domain as **STE100A**, then use web browser to link to the **STE100A** IP address and manage it.

The **STE100A** home page will be a login window. The default login ID is “admin” and the password is “admin”.



STE100A USER LOG IN

Site: 10.1.1.1

ID:

Password:

If user forgets the login ID and password, please refer to section 1.5.1 to load default settings.

After login, user can see the Administrator, TCP Mode, UDP Mode, UART Mode, and Reset Device selection in left frame of web page. We will describe their operation in the following sections. There is an 'idle time' auto logout feature. The default is 5 minutes and it can be adjusted from 1~99 minutes.

The screenshot shows a web browser window with the URL <http://10.1.1.1/>. The page features the CTC union logo and a navigation menu on the left with the following items:

- Administrator
 - Authentication
 - System IP
 - System Status
 - Load default setting
 - Firmware update
- TCP Mode
- UDP Mode
- UART
- Reset Device

The main content area displays a table of system information:

Item	Value
Kernel Version	V1.3.7 2013/01/16
MAC Address	00-02-AB-0D-7F-B9
Target Name	<input type="text" value="STE100A"/> max:12
Idle Time Security	<input type="text" value="5"/> (1-99 minute) <input type="button" value="Update"/>

Below the table, there is a note:

Note:
Target name only can use "0-9","a-z","A-Z","_","-"

3.2 Administrator

Under the 'Administrator' heading, the user will be able to set/change the device password, configure the networking parameters, display the current firmware version, load the factory defaults, and perform any future firmware upgrade procedure.

3.2.1 Authentication

In this page, user can change login ID and Password. STE100A supports a maximum of 15 characters for password. Only the "0-9", "a-z", "A-Z" characters are allowed.

Setting	Value
Username	<input type="text" value="admin"/> max:15
Password	<input type="password" value="•••••"/> max:15
Confirm	<input type="password" value="•••••"/>
<input type="button" value="Update"/>	

Press "Update" to store data. Reset the device to take effect.

System Setting Saved!!
RESET to take effect

3.2.2 System IP

On this page, the user may change the system network configuration. If the *IP Configure* field is set to DHCP mode, all the other settings will be ignored, and the IP address will be assigned by DHCP server after resetting the device.

Setting	Value
IP Address	<input type="text" value="10"/> . <input type="text" value="1"/> . <input type="text" value="1"/> . <input type="text" value="1"/>
Subnet Mask	<input type="text" value="255"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>
Gateway	<input type="text" value="10"/> . <input type="text" value="1"/> . <input type="text" value="1"/> . <input type="text" value="254"/>
DNS	<input type="text" value="10"/> . <input type="text" value="1"/> . <input type="text" value="1"/> . <input type="text" value="254"/>
IP Configure	<input checked="" type="radio"/> Static <input type="radio"/> DHCP
VLAN Tag	<input checked="" type="radio"/> Disable <input type="radio"/> Enable : VLAN ID <input type="text" value="0"/>
<input type="button" value="Update"/>	

Press "Update" to store data. Reset the device to take effect.

System Setting Saved!!
RESET to take effect

Reset Device

3.2.3 System Status

On this page, the user can display the system information as below:

Kernel version: Kernel firmware version and build date.

MAC Address: MAC address of this unit.

Target Name: Device alias name. (The maximum length is 12 characters.)

Only the "0-9", "a-z", "A-Z", "_" (underscore), and "-" (dash) characters are allowed.

The 'idle time security' is an auto logout feature. It can be adjusted from 1~99 minutes

Item	Value
Kernel Version	V1.3.7 2013/01/16
MAC Address	00:02:AB:0D:7F:B9
Target Name	<input type="text" value="STE100A"/> max:12
Idle Time Security	<input type="text" value="5"/> (1-99 minute) <input type="button" value="Update"/>

Press "Update" to store the 'Target Name' and 'Idle Time' data, and then, **STE100A** will reset to take effect.

3.2.4 Load default setting

On this page, user may load and store the factory default setting into EEPROM.

However, the Network settings and MAC address will not be changed.

Load Default Setting to EEPROM

Load

Press "Load" to load default settings.

WARNING: Pressing the 'Load Default' button will immediately erase the flash with no further warning!!

Reset the device to take effect.

Setting Saved
RESET

Reset

3.2.5 Firmware update

On this page, user can update the firmware via Ethernet.

Step 1: Pressing the "Load" button will erase settings in flash.

Firmware update



Step 2: Wait for erase process to complete.
Processing please wait....

Step 3: Firmware Update by TFTP or Web.

There are two methods to do the Firmware Update action:

1. (By Web) Please type in or browse for the target image file in the input field, and then press "update" button to continue.
 2. (By TFTP client) Use MS Windows' Command Prompt window to run tftp client program.
Syntax: `c:\tftp -i 10.1.1.1 put FILE_DIRECTORY\FILENAME.bin`
 3. If the update process somehow goes wrong (like power failure), please connect to <http://10.1.1.1> to restart. (If possible, reset device first.)
 4. It takes about 45 seconds to complete the firmware update.
- You must be careful when performing this update procedure, to prevent any unexpected problem occurring.

Firmware Update by Web browser

Select the image file:

Browse...

Click "Update" to upload file: Update Cancel

Firmware Update by TFTP

There are two method to do the Firmware Update:

- 1. (By Web)Please browse to or type in the target image file in the upper input field, and then press update button to continue.**
- 2. (By TFTP client)Use MS Windows' Command Prompt window to run tftp client program.
Syntax: `c:\tftp -i 10.1.1.1 put FILE_DIRECTORY\FILENAME.bin`**
- 3. If the update process somehow goes wrong(like power failure), please connect to <http://10.1.1.1> to restart.(If possible, reset device first.)**
- 4. It takes about 45 seconds to complete the firmware update.**

You'd better carefully read the document regarding the update procedure, preventing the unexpected problem form occurring.

3.3 TCP Mode

When TCP mode is set to Server or Client mode, the UDP mode will be disabled automatically. When UDP mode is enabled, the TCP mode will be disabled automatically.

Item	Setting
Telnet Server/Client	<input checked="" type="radio"/> Server <input type="radio"/> Client <input type="radio"/> Disable
Reverse Telnet	<input type="radio"/> On <input checked="" type="radio"/> Off
CLI Mode	<input type="checkbox"/> Enable
Port Number	<input type="text" value="23"/>
Control Protocol	<input type="radio"/> RFC2217 <input checked="" type="radio"/> Port Number : <input type="text" value="6000"/>
Remote Server IP Address	<input checked="" type="radio"/> IP <input type="text" value="10"/> . <input type="text" value="1"/> . <input type="text" value="1"/> . <input type="text" value="2"/> <input type="radio"/> Domain Name <input type="text" value="0"/>
Client mode inactive timeout	<input type="text" value="20"/> second (1~65535,0=Disable)
Server mode protect timeout	<input type="text" value="60"/> second (2~65535,0=Disable,1=Can't replace)
<input type="button" value="Update"/>	

3.3.1 Telnet Server

Set the device to be a Telnet Server. In this case the Ethernet connected device is a Telnet client. In server mode, the Telnet port listens and waits for a host or other client to make a connection



3.3.2 Telnet Client

Set the device to be a Telnet Client. In the case the Ethernet connected device is a Telnet server or other STE100A in server mode.



3.3.3 Reverse Telnet

Reverse Telnet works the same as Telnet Server mode. The Telnet port listens for a connection after booting up.

When the user uses some Telnet clients that sometimes have errors, such as devices connected to the Microsoft interpretation of Telnet of Windows XP, then, user should choose Reverse Telnet mode.

3.3.4 CLI Mode

The Command Line Interface (CLI) allows user to configure and control STE100A directly through the UART interface. The CLI mode is only available when STE100A is in TCP Server Mode.

3.3.5 Port Number

This assigns the TCP server port number that the server will listen on for connecting clients. (Only for Server Mode)

3.3.6 Remote Server IP Address

When in Client mode, this device will automatically try to connect to the remote TCP server with this IP address.(Only for Client Mode)

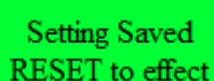
3.3.7 Client mode inactive timeout

When in Client mode, this parameter sets the time that device will maintain a connection until timeout, if there is no data transfer over the connection. After disconnecting, the device will try to build a new connection again immediately.

3.3.8 Server mode protect timeout

When in Server mode, this parameter sets the time that device will maintain a connection until timeout, if there is no data transfer over the connection. Once disconnected, only a Client can initiate a new connection to the Server.

Note: After setting, press "Update" to store setting and then reset the device to take effect.

A green rectangular box with the text "Setting Saved" on the top line and "RESET to effect" on the bottom line.A blue rectangular button with the text "Reset" inside.

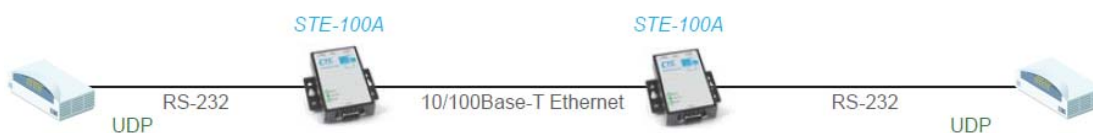
3.4 UDP Mode

When the UDP mode is enabled, the TCP mode will be disabled automatically. In this UDP mode, the Local Port will be assigned to this device. User can list the remote connection IP and Port of devices, for up to 10 remote devices.

Item	Value	
Mode	<input type="radio"/> Listen <input type="radio"/> Normal <input checked="" type="radio"/> Disable	
Local Port	<input type="text" value="21"/>	
Remote Address	IP	Port
	<input checked="" type="radio"/> <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> IP <input type="radio"/> <input type="text" value="0"/> Domain Name	<input type="text" value="0"/>
	<input checked="" type="radio"/> <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> IP <input type="radio"/> <input type="text" value="0"/> Domain Name	<input type="text" value="0"/>
	<input checked="" type="radio"/> <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> IP <input type="radio"/> <input type="text" value="0"/> Domain Name	<input type="text" value="0"/>
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	<input checked="" type="radio"/> <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> IP <input type="radio"/> <input type="text" value="0"/> Domain Name	<input type="text" value="0"/>
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	<input checked="" type="radio"/> <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> IP <input type="radio"/> <input type="text" value="0"/> Domain Name	<input type="text" value="0"/>

3.4.1 Mode

Listen : When this device is in UDP listen mode, it can only receive remote UDP data.
 Normal : When this device is in UDP normal mode, it can both receive and send UDP data to remote units.



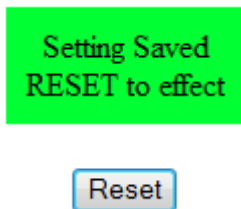
3.4.2 Local Port

Assign the UDP port here that this unit listens on.

3.4.3 Remote Address

The remote address table allows users to set several remote site IP addresses and ports. When sending data, the device will send UDP data to the IP addresses of the table.

Note: After setting, press “Update” to store settings. The device needs to reset for the settings to take effect.



3.5 UART

UART or Universal Asynchronous Receiver Transmitter refers to the ‘RS-232 serial port’ of the **STE100A** IP Serial Server. All of the port settings are done from this page.

Item	Setting
Baudrate	115200 ▾
Character Bits	8 ▾
Parity Type	none ▾
Stop Bit	1 ▾
Hardware Flow Control	none ▾
Uart Memory Overflow count	0M,0K,0Byte
Uart FIFO Overflow count	0times
Delimiter	<input type="checkbox"/> Character 1: 00 , <input type="checkbox"/> Character 2: FF <input type="checkbox"/> Silent time: 5 (1~255)*200ms <input type="checkbox"/> Drop Character
<input type="button" value="Update"/>	

RS-232 port setting page

Baud rate

Set the baud rate of UART interface. The **STE100A** supports 110, 300, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 and 230400 baud rates.

Character Bits

Set the number of data length of UART interface. The **STE100A** supports character bits of 5, 6, 7, or 8 bits.

Parity Type

Set the parity of UART interface. The **STE100A** supports parity settings of Odd, Even, Space, Mark or none.

Stop Bit

Set the stop bit length of UART interface. The **STE100A** supports 1, 1.5 or 2 stop bits.

Hardware Flow Control

Set the flow control mode of UART interface as enabled or as none.

UART Memory Overflow count

Show the message about the number of overflow bytes in network buffer.

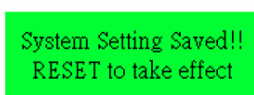
UART FIFO Overflow count

Show the message about the number of overflow times in UART RX buffer.

Delimiter

This sets the Character 1 and/or Character 2 to be used as the delimiter. Once the system detects the delimiter value of data received from UART, the data in the network buffer will be sent out by Ethernet. The Drop Character is set to drop delimiter or not of send out data. Silent time sets the time that system will check for how long no data has been received from UART. If this condition is enabled, system will send out data stored in network buffer to network once this condition is true or the received data will only be stored in network buffer.

Note: After setting, press “Update” to store settings. The device needs to reset for the settings to take effect.



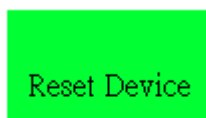
System Setting Saved!!
RESET to take effect



Reset Device

3.6 Reset Device

Pressing the “Reset” button will force the **STE100A** to do system reset action.



Reset Device



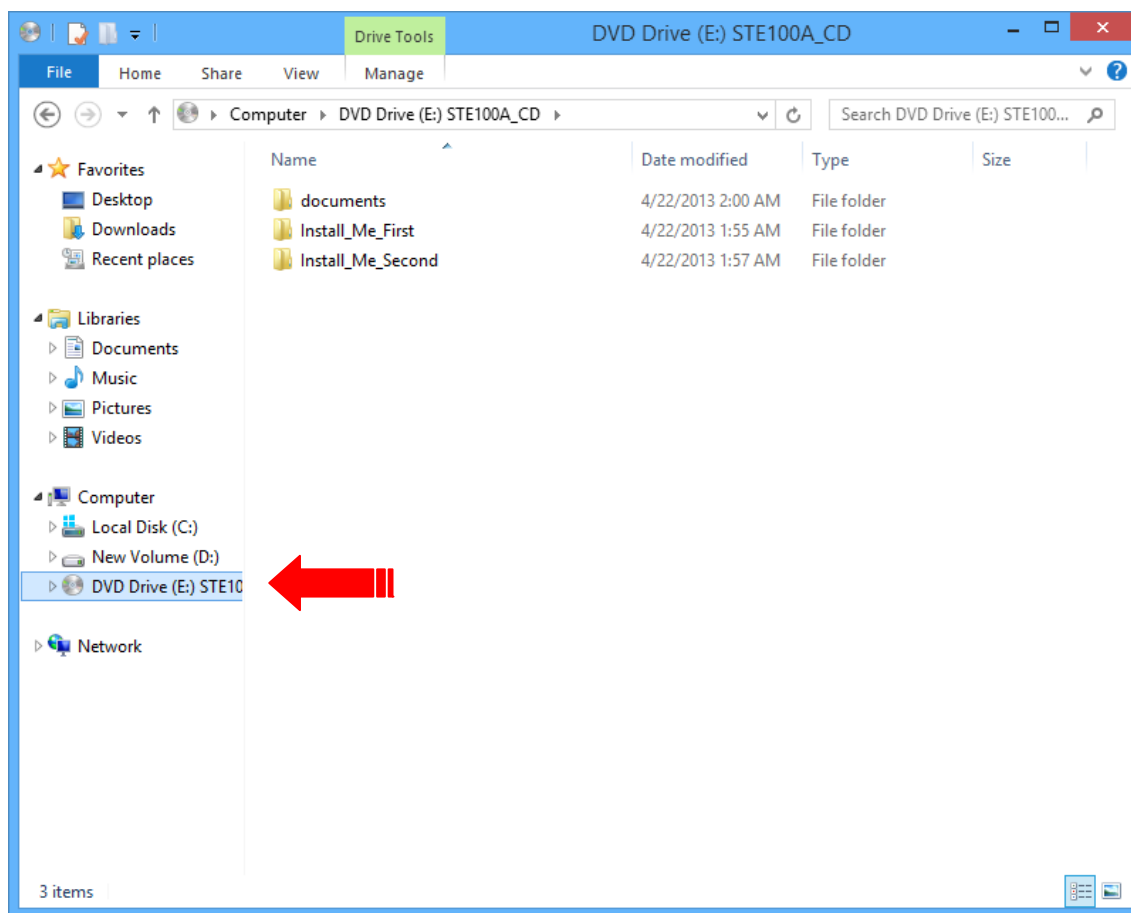
Reset

Chapter 4 VCOM

VCom lets you install and configure your **STE100A** easily over the network. Five function groups are provided to ease the installation process, allow COM mapping, and provide monitoring and IP location server functions. (**Note for Windows 8 users.** You must install the latest 4.1.3 version of WinPcap from the install CDROM or go to www.winpcap.org to download and install latest version first.)

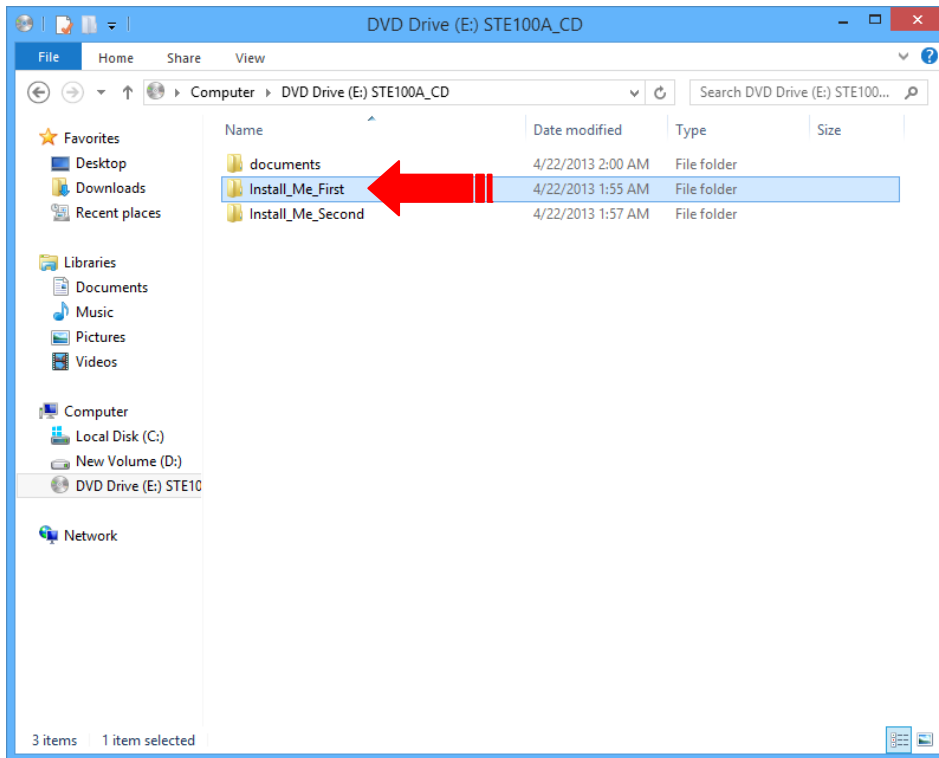
4.1 Installing Vcom

1. **Autorun** - In most cases, Windows default security settings will no longer let an inserted CD or DVD execute the autorun program. If a popup window does display, choose the option to open the files in a folder.



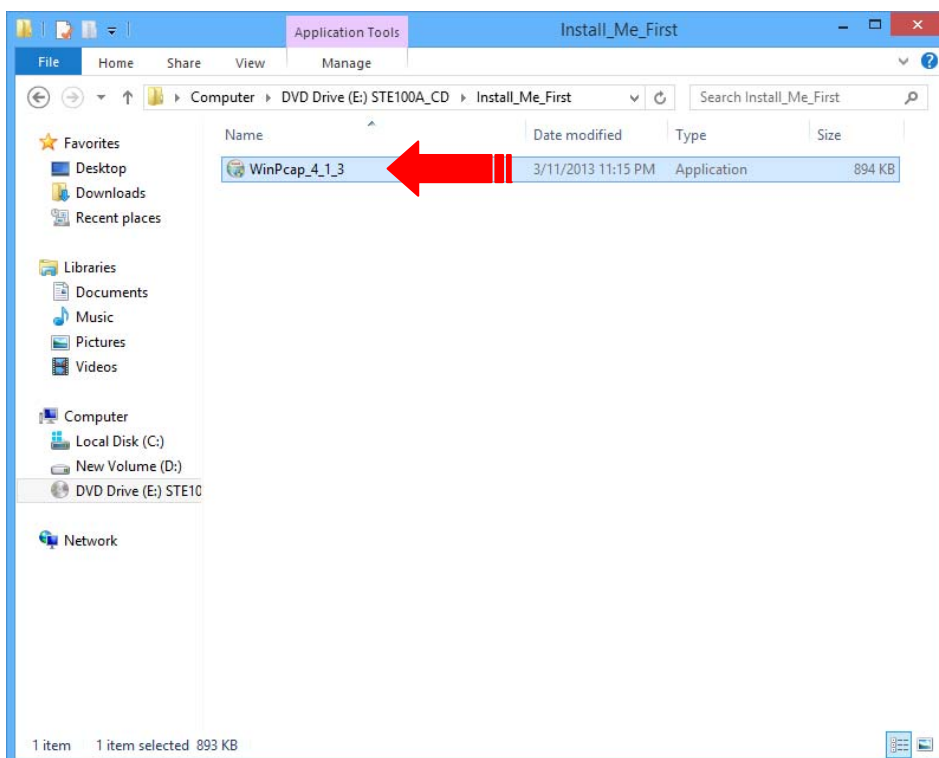
Located on the CD will be three folders. The "documents" folder will contain the STE100A user manual in PDF format and possibly other application notes. The "Install_Me_First" folder contains the WinPCap setup program, while the "Install_Me_Second" folder has the actual Vcom setup program.

2. First install WinPcap; double-click into the "Install_Me_First" folder.

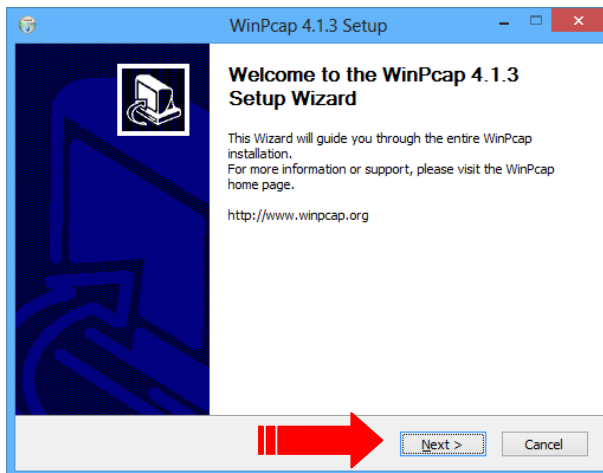


Run the setup program for WinPCap by double clicking it. This program, which is also required of packet capture programs such as Wireshark, will allow the Vcom program to access your PC NIC (Network Interface Card) and to discover and communicate with access units located on your local subnet.

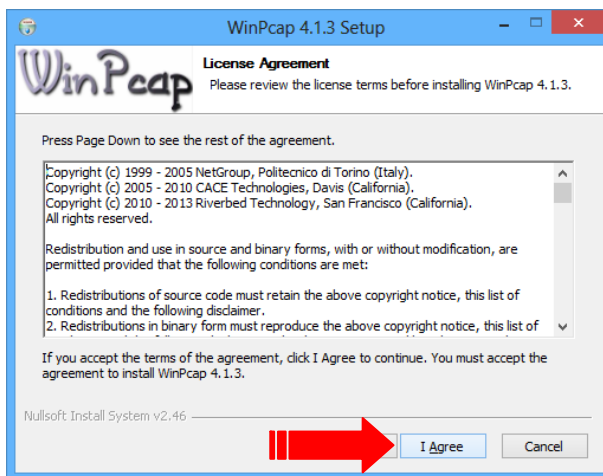
If the PC already has this version of WinPcap or newer, this step may be skipped.



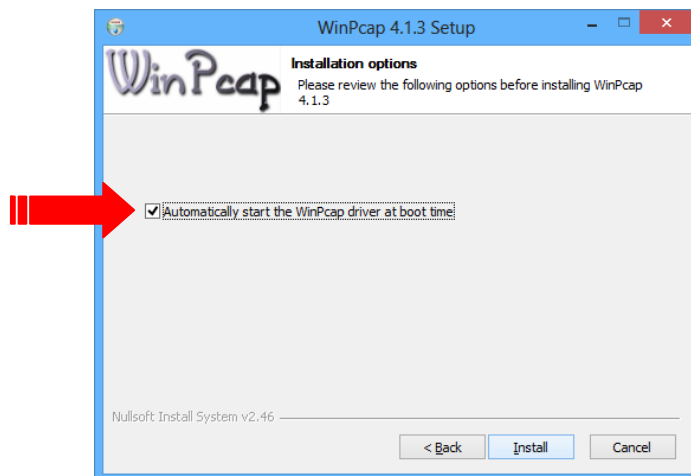
To continue setting up, click "Next" on the setup wizard



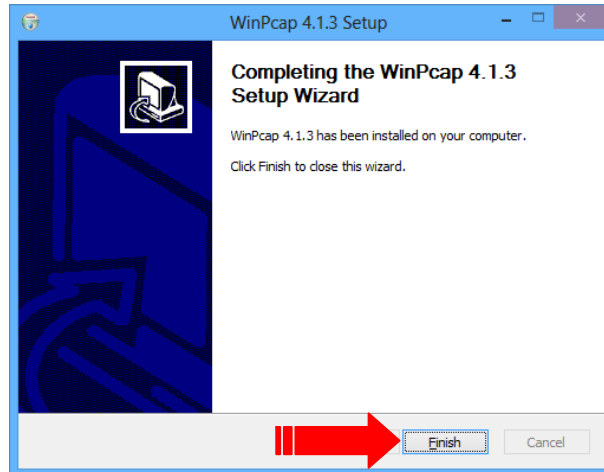
Click "I Agree" to the license terms of the WinPcap program.



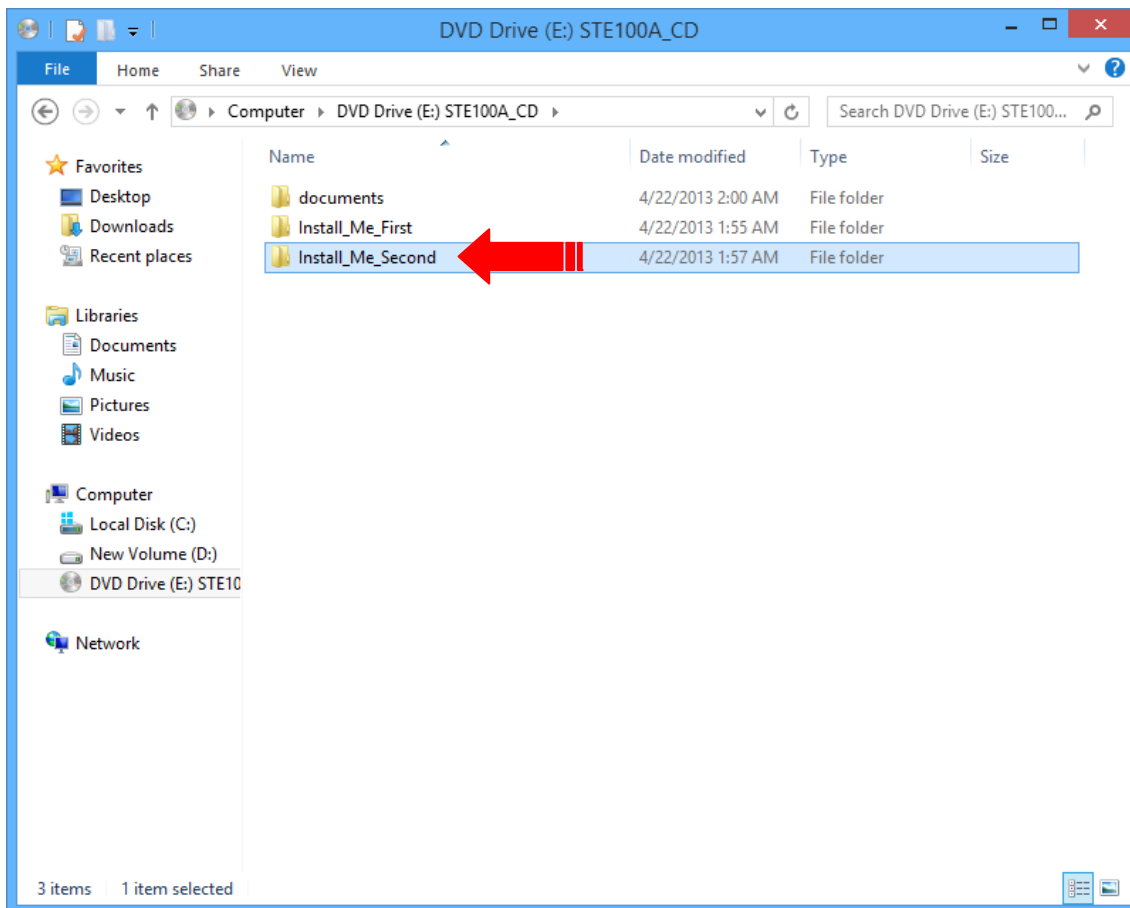
By default, the WinPcap driver will start automatically each time Windows boots. We recommend leaving this option checked.



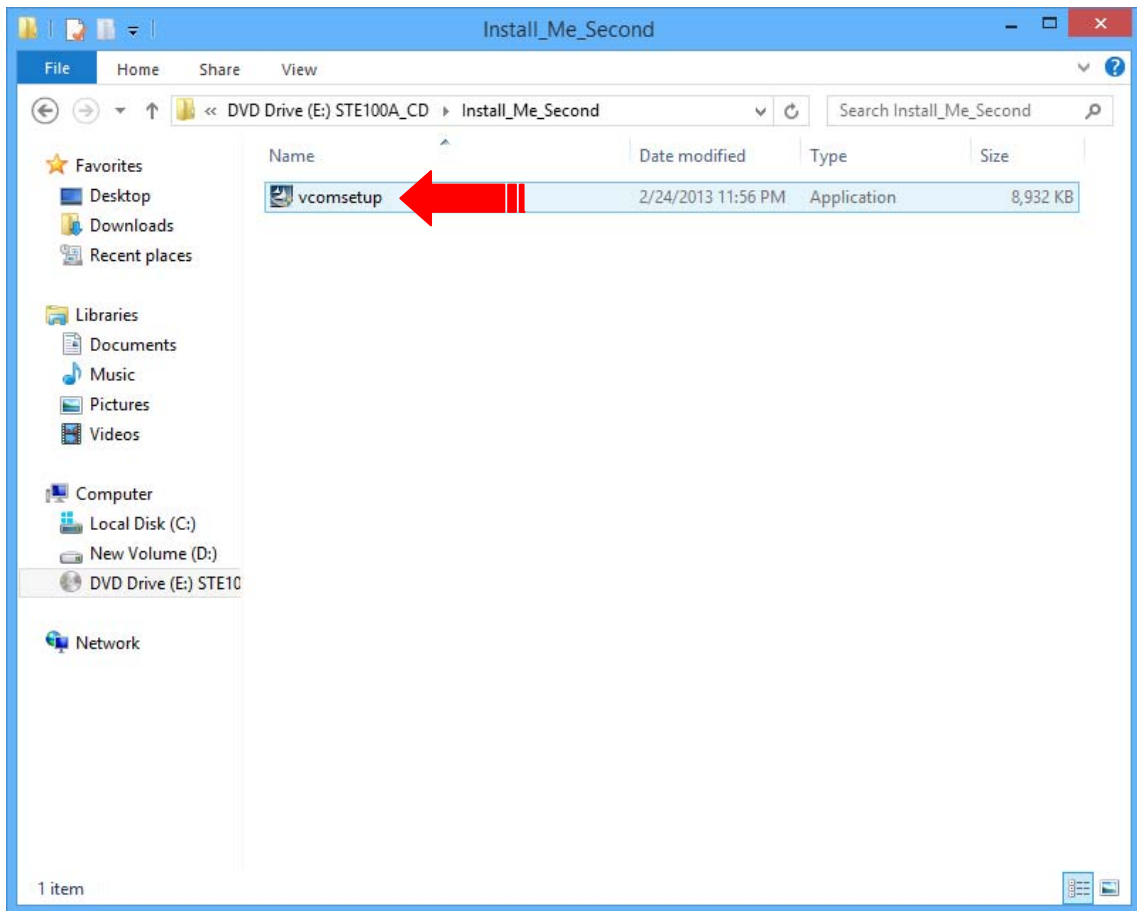
The setup program will run its course. At the completed window, click "Finish".



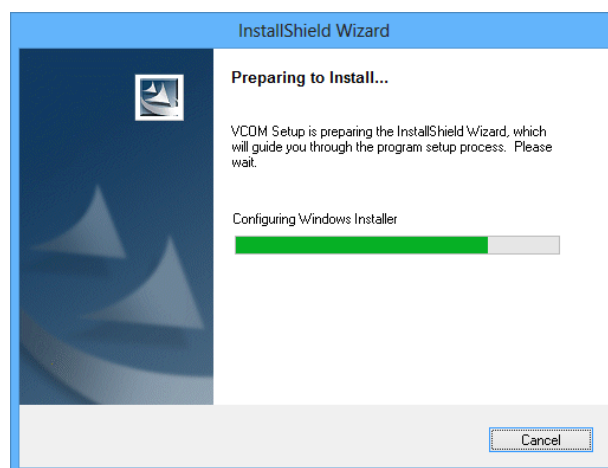
3. Setup Vcom - Return back to the root folder of the CD and this time, double-click into the "Install_Me_Second" folder.



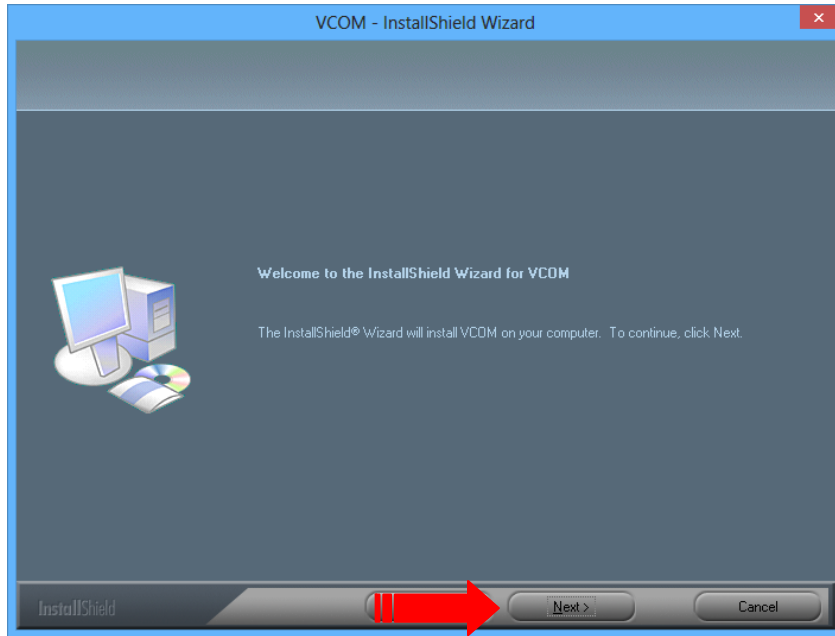
This folder contains the Vcom setup program, "vcomsetup". Double-click this file icon to start Vcom setup.



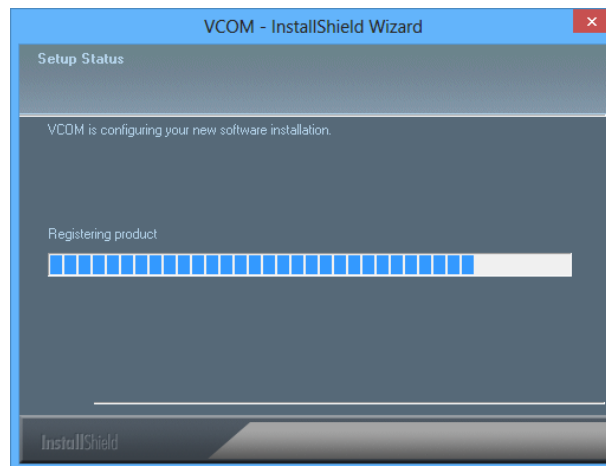
The setup files will be extracted in preparation for starting the actual setup program for Vcom.



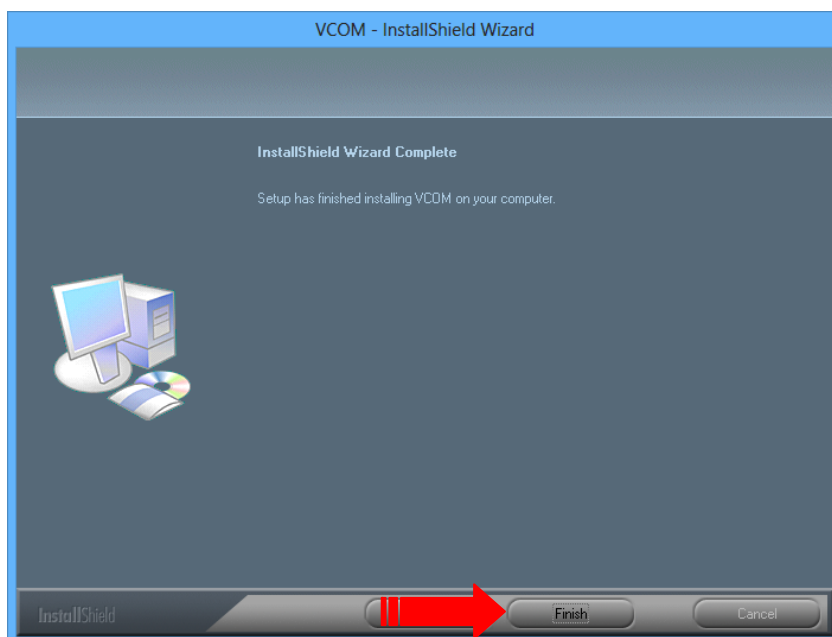
At the "Welcome" screen, click "Next".



The "Progress Bar" will indicate the status of installation.

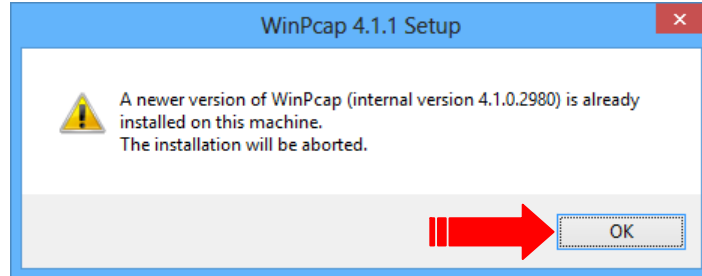


When Vcom has finished installing, close this window by clicking the "Finish" button.



The final action of the Vcom installer will be to try to install the WinPcap application. Because this embedded program is an older version (4.1.1), a "Newer Version" popup will appear. Click the "OK" button to keep the 4.1.3 version previously installed. This 4.1.3 version of WinPcap is required for Vcom to run on Windows 8.

Click **OK** to abort the WinPcap setup for 4.1.1

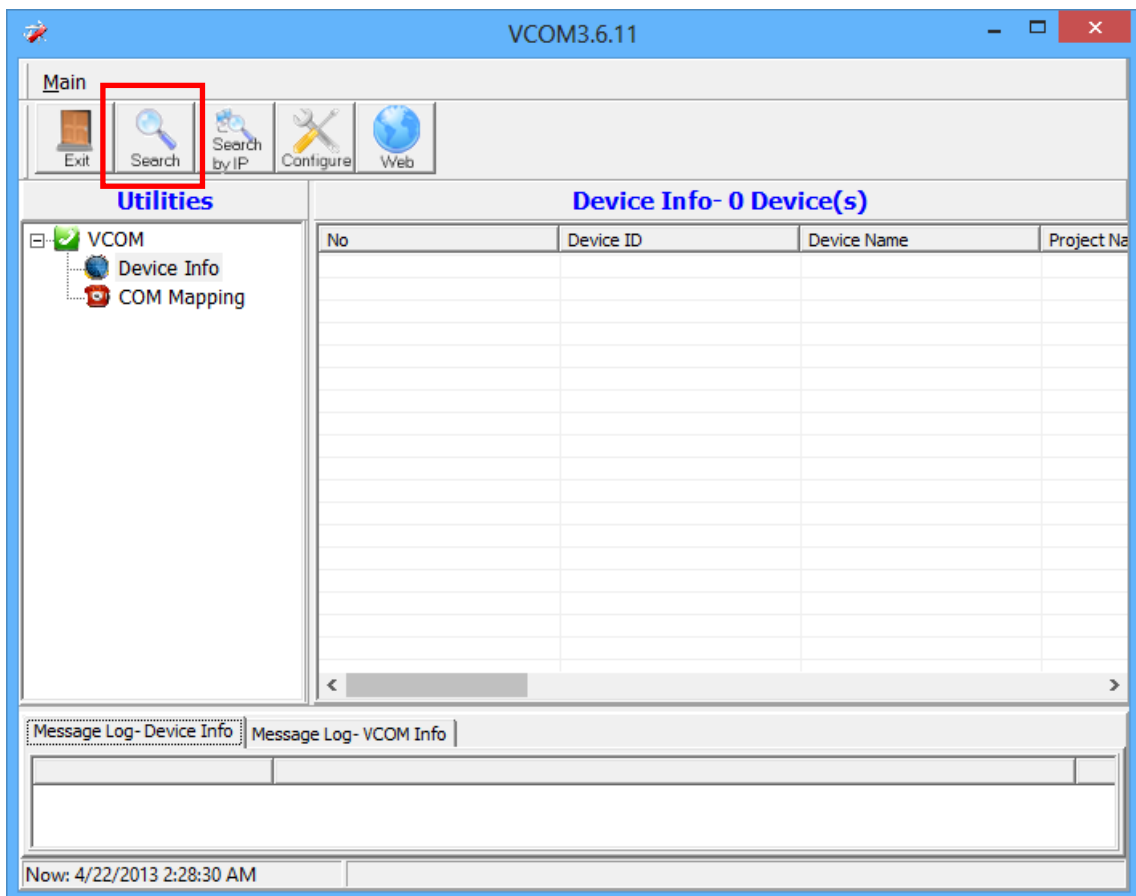


It is probably a very good idea to reboot your PC now. This will ensure that the WinPcap driver is loaded and running and that Vcom has automatically started.

4.2 Broadcast Search

The Broadcast Search function is used to locate all **STE100A** that are connected to the same LAN as your computer. Since the Broadcast Search function searches by MAC address and not IP address, all **STE100A** connected to the LAN will be located, regardless of whether or not they are part of the same subnet as the host.

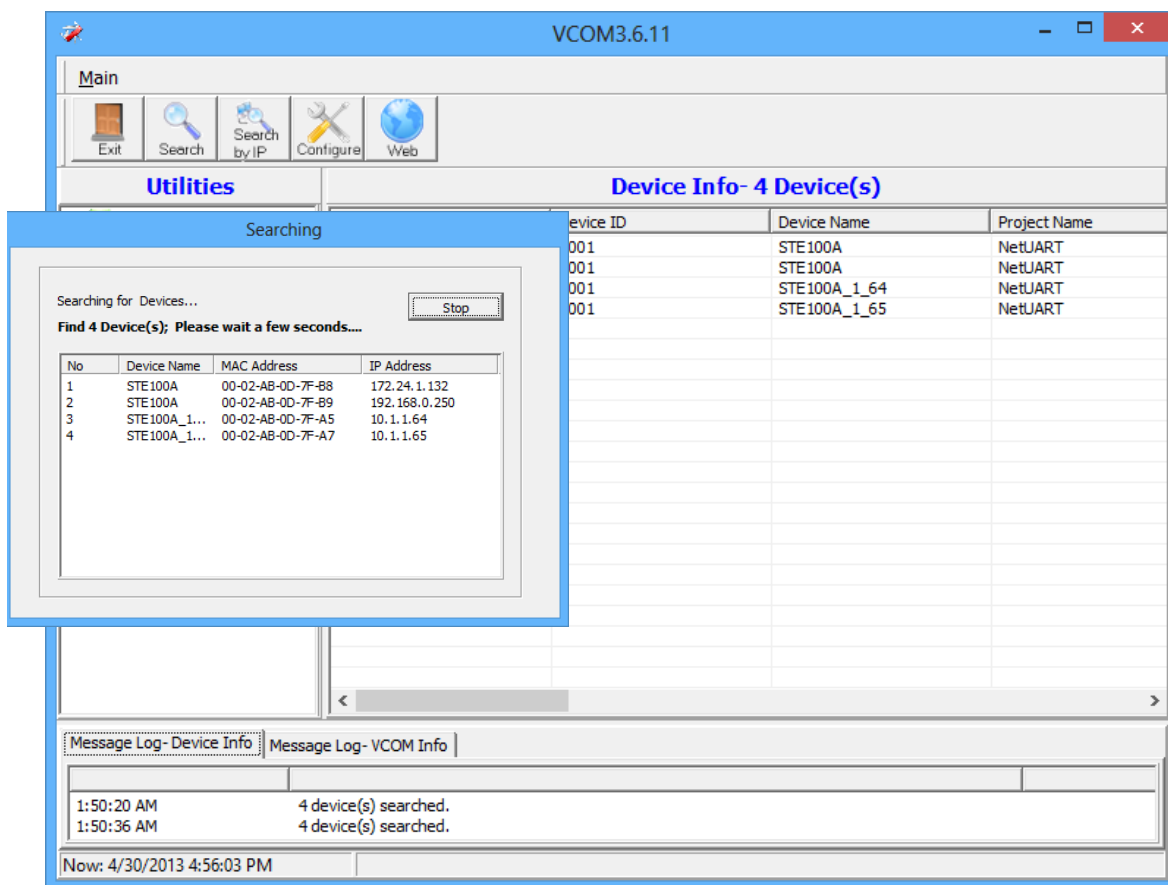
1. Click **Search** button.



The very first time that Vcom searches the network for **STE100A**, a "Windows Security Alert" will popup as Vcom accesses the network. To allow Vcom access through the Windows firewall, click the button labeled "Allow Access".

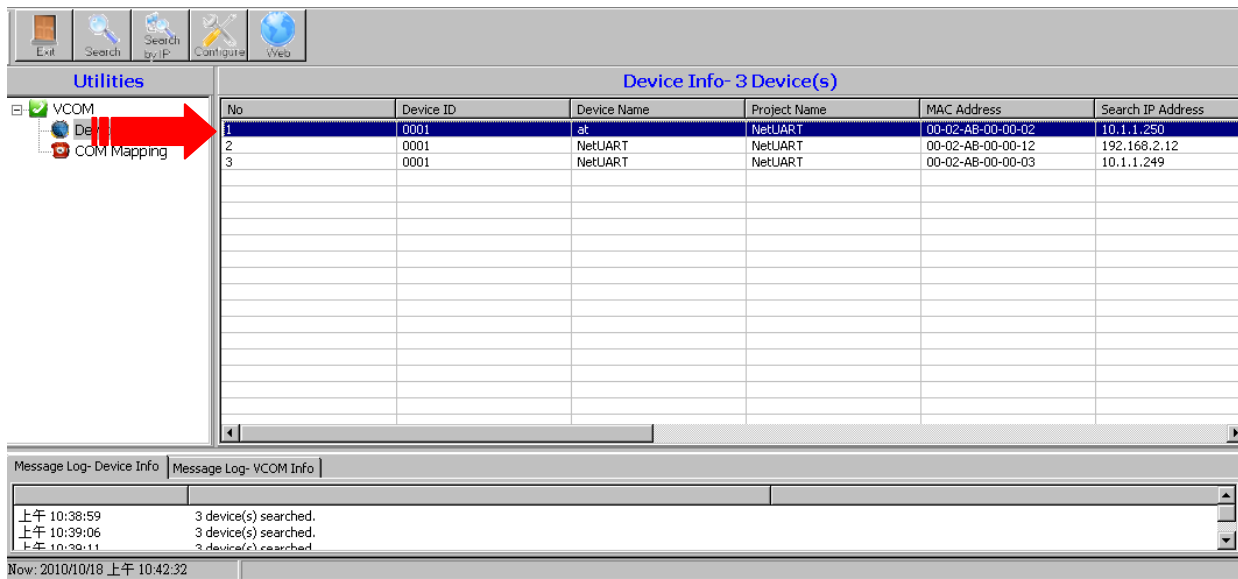


2. All **STE100A** connected to the local LAN will be found.

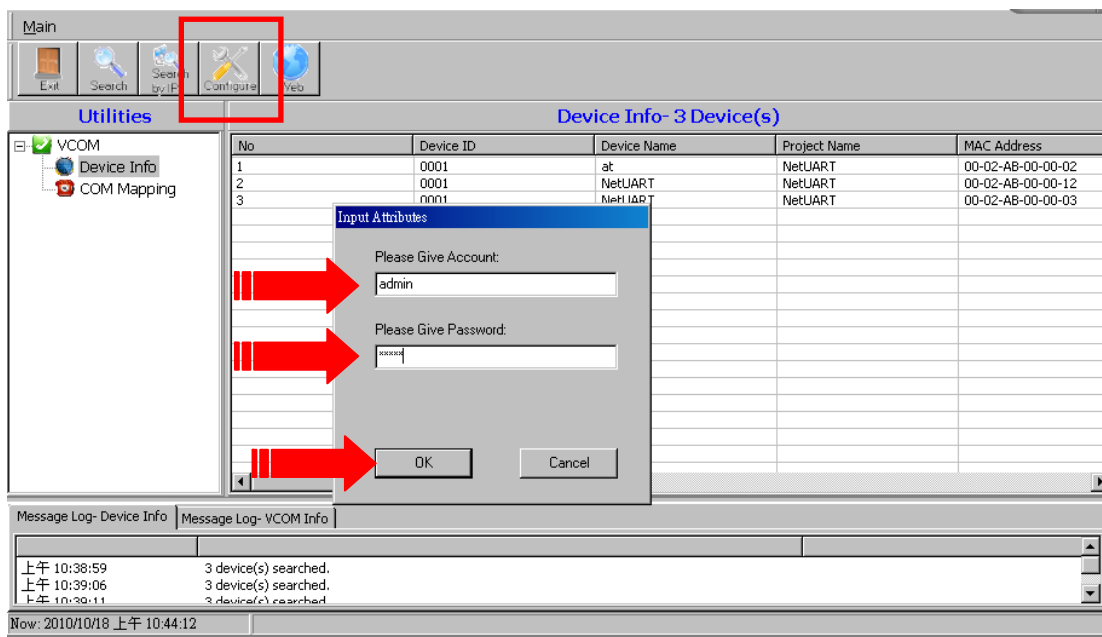


4.3 Configuration

1. Click the device that you want to configure. (**Note:** The IP address of STE100A must be on the same subnet as Vcom PC's IP subnet.)



2. Click the **Configure** button, then input account name and password; Press the **OK** button.



Important notice: The STE100A must have a password set in order to be managed via Vcom. Vcom is unable to handle "null password". If a null password was set via the STE100A web interface, the device must be again accessed by web interface and have a password set. Then Vcom will be able to login and access the STE100A.

3. Configure the device and press **OK** button. (Device configuration settings are explained in the Web Management Chapter 3.)

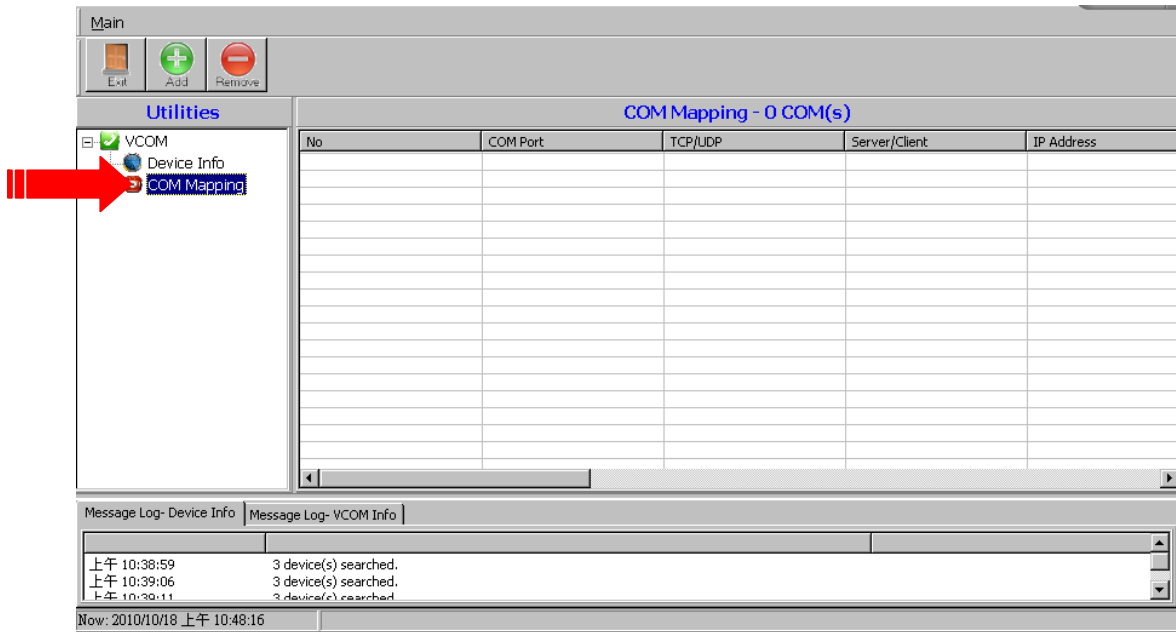
The screenshot shows a 'Configure Dialog' window with a blue title bar. The dialog contains several configuration fields:

- Domain Name 9:** A text input field containing the value '0'.
- Port 9:** A text input field containing the value '0'.
- Remote Setting 10:** A radio button group with two options: 'IP' (selected) and 'Domain Name'.
- IP 10:** A text input field containing the value '0.0.0.0'.
- Domain Name 10:** A text input field containing the value '0'.
- Port 10:** A text input field containing the value '0'.

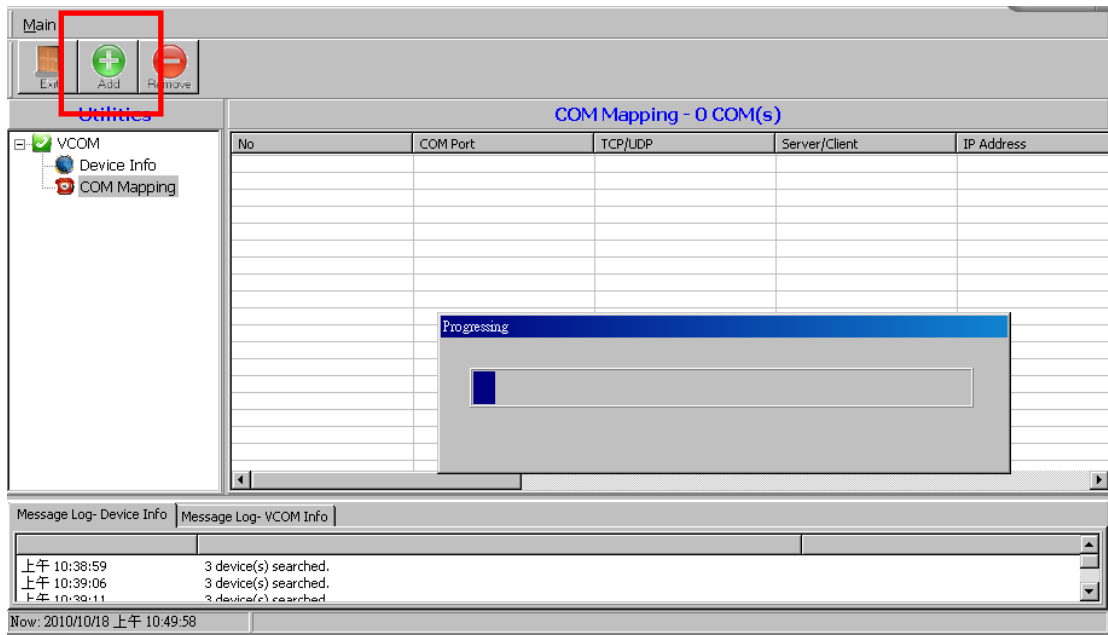
At the bottom of the dialog, there are two buttons: 'OK' (with a green checkmark icon) and 'Cancel' (with a red X icon). A large red arrow points directly to the 'OK' button.

4.4 COM Mapping

1. Click **COM Mapping**.



2. Click **Add** button and wait for while.



3. Click **OK** button to create com mapping.

Item	Description
TCP/UDP	Network Protocol
Server/Client	You must choose a side if you choose TCP
IP Address	TCP Server: Disabled TCP Client: Remote Server Address UDP : Remote Target Address
Local Port	Listen port
COM	Virtual Com port

Add VCOM

Rescan

No	Device Name	MAC Address	Search IP Address
1	at	00-02-AB-00-00-...	10.1.1.250
2	NetUART	00-02-AB-00-00-...	192.168.2.12
3	NetUART	00-02-AB-00-00-...	10.1.1.249

TCP/UDP TCP UDP

Server/Client Server Client

IP Address Local Port

COM COM Remote Port

Enable Control Connection

second(s) for reconnection interval.

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