

Document Name: User Manual for SC10EKE Serial to Ethernet Converter.

SC10EKE is Serial to Ethernet Converter.
It is an Interface Converter between Ethernet and RS232 / RS485 / RS422 devices.

TECHNICAL SPECIFICATIONS

Communication Interfaces	
Ethernet Interface	10 / 100 Base Mbps (Auto Detecting)
Serial Interface	2 Ports COM1 is RS232 and COM2 is RS485 / RS422
Baud Rates	1200 bps to 230400 bps
Network Protocols	ARP, UDP, TCP, IP, ICMP, HTTP, DHCP
Operation Mode	TCP Server/Client, UDP Client
Configuration	Through a Utility on a PC and through HTTP
Mechanical : Connectors	
RS232	DB9 Male
RS485/RS422	4 Pin Howder
Ethernet	RJ45
Dimensions	90 * 70 * 27 mm (W * D * H)
Power Supply	
External Power Supply	24V DC, 300mA
Environmental	
Operating Temperature	0°C to 50°C

Table – 1

INSTALLATION PROCEDURE

- ⇒ Power ON the device.
- ⇒ The “SYS” LED (Green) will glow and flash.
- ⇒ Insert RJ45 jack into the RJ45 socket of the converter.
- ⇒ LAN Green LED on RJ45, is blinking.
- ⇒ When you finish these procedures and LED displays are as shown, the hardware is properly installed and On-line. You can use the Setup Tool **SC10Config** to setup the IP Address, Subnet Mask . For the advance setup/device setting please use the IE or other Browsers. Refer to the section below for details.

LED INDICATIONS

- SYS : CPU health. Flashes once a second.
- TX : Data transmitting signal from network the LED will blink.
- RX : Data receiving from serial side LED will blink.

RESET BUTTON

Press the Reset button. Turn ON the power and wait for 3 seconds. Converter will reset to factory default.

CONFIGURATION OF SC10EKE USING TOOL SC10 CONFIG

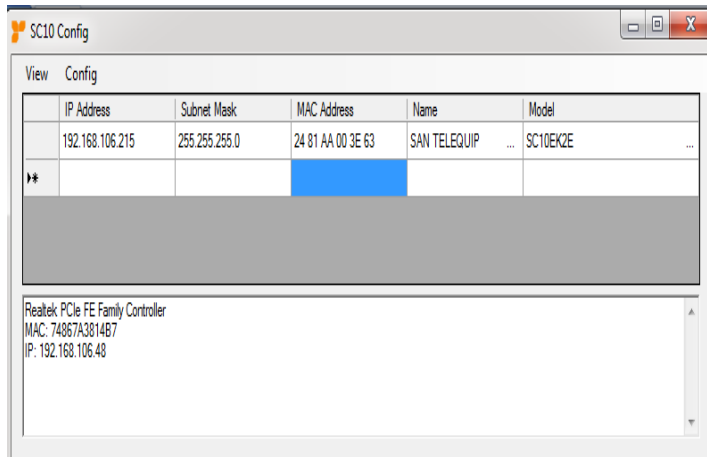


Figure 1

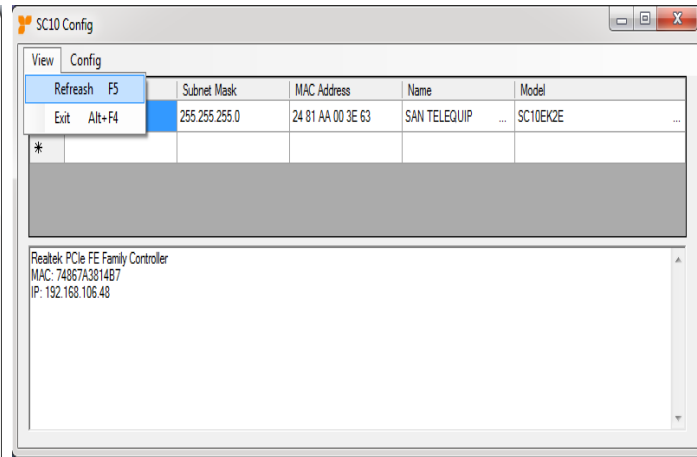


Figure 2

SC10Config utility used to detect and setup the SC10EKE on the Network as shown in figure 1. Run the program from SC10EKE folder provided in the CD. When you activate the tool it will detect the installed SC10EKE as shown in the Figure 2. The SC10Config Tool can setup only one SC10EKE at a time. Please shut down or off-line other SC10EKE converters.

The Default IP address is 192.168.0.100
 View -- Refresh (Figure 2).
 File--- Exit

Note: Configuration happens only when the device password is empty.

SC10CONFIG SETUP TOOL FUNCTIONS

Click on the Config & select “IP Address” to change the IP address and subnet as shown in Figure 3

Remark: Always run the View -- Refresh after any changes for confirmation as shown in Figure 2

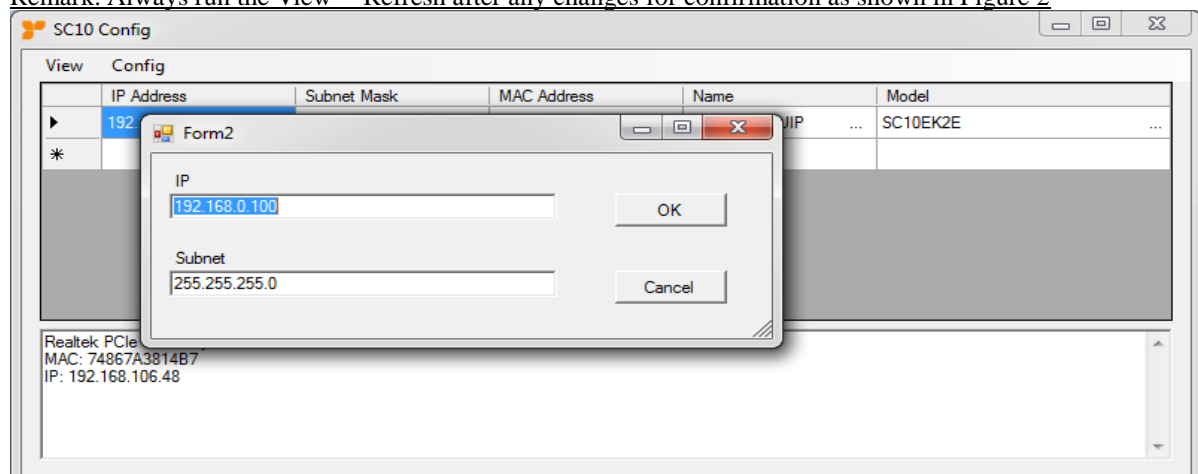


Figure 3

CONFIGURATION THROUGH HTTP (IE OR OTHER BROWSERS)

In addition of IP address and Subnet mask, specific device settings can be set through HTTP protocol. No special software will be required. Click on “device setting” figure4, will open a new window in browser to login into the device figure5. Alternatively, if IP address of the converter is already known, you can connect to the converter directly by providing IP address in the URL field of browser.

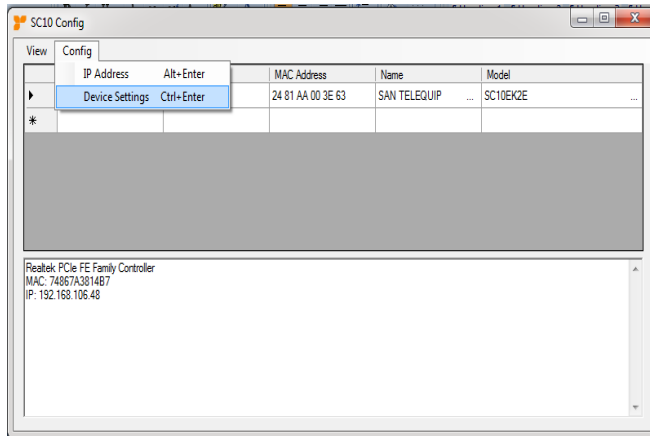


Figure 4

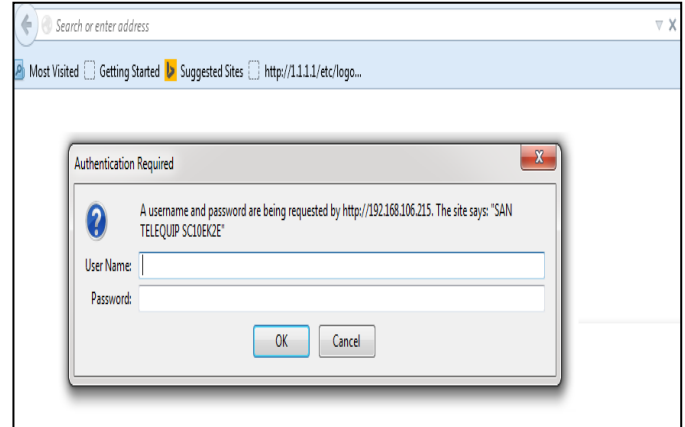


Figure5

- Activated IE
- The first Login frame will show up.
- Enter the User name and password as Figure 5.
- If you cannot login, it means you have to key in the password.
- If you do not know the password you can reset the device by using reset button.

User Name : admin

Password : Empty

Note: If the domain of the converter is different from the computer running the browser, the login page won't appear unless the converter's "Gateway Address" has been correctly set.

Device Settings

Status

SAN TELEQUIP		SC10EK2E	
Status Network RS232 RS485/422 System	Network		
	IP Address	192.168.0.100	
	Subnet Mask	255.255.255.0	
	Gateway	192.168.0.2	
	MAC Address	24-81-AA-00-3E-63	
	Packets Sent/Received	464/1023	
	System		
	System Up Time	0/00:02:16	
	Firmware Release	2017/03/20 1.1243	
	Serial Number	29911020035	

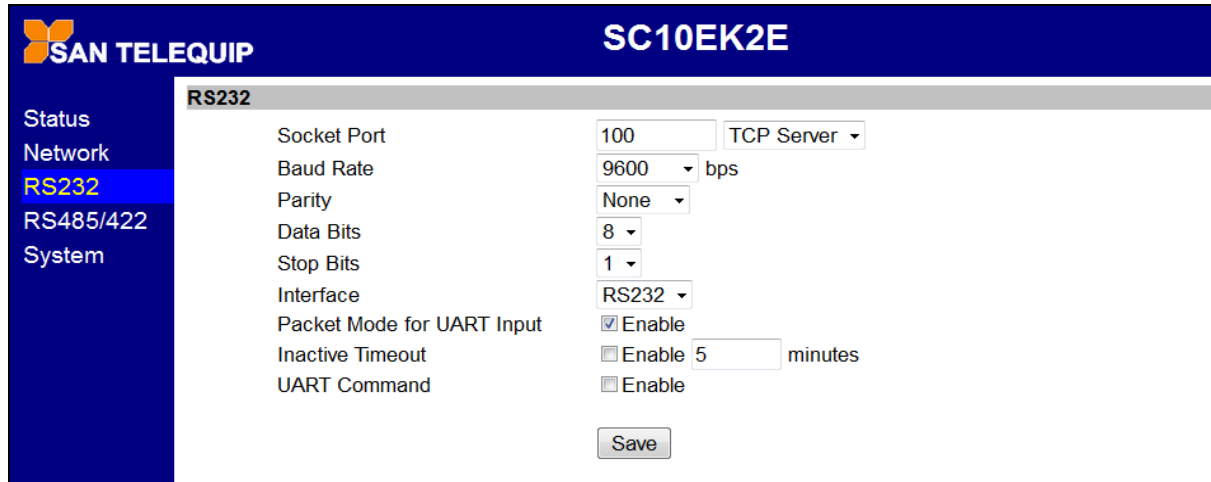
1. IP Address : Default value is “192.168.0.100”.
2. Subnet Mask : Default value is “255.255.255.0”.
3. Gateway Address : Default value is “192.168.0.2”
4. MAC Address : Default MAC address.

Network

SAN TELEQUIP		SC10EK2E	
Status Network RS232 RS485/422 System	Network		
	Network Link Speed	Auto	
	DHCP	<input type="checkbox"/> Enable	
	IP Address	192.168.106.215	
	Subnet Mask	255.255.255.0	
	Gateway	192.168.0.2	
	DNS Server	168.95.1.1	
	<input type="button" value="Save"/>		

1. Network Link speed : Auto by default (to be confirmed)
2. DHCP : DHCP client mode could be enabled / disabled. If DHCP enabled, there should be a DHCP Server on the network. If DHCP disabled IP address, Subnet mask and Gateway address should be manually assigned.
3. IP address : If DHCP client mode is enabled and there is a DHCP Server on the network, this field will be assigned by DHCP server automatically otherwise enter manually.
4. Subnet mask : If DHCP client mode is enabled and there is a DHCP Server on the network, this field will be assigned by DHCP server automatically otherwise enter manually.
5. Gateway address : Gateway is a device which connects local network to external network. Please type it correctly. If there is no Gateway on the network, just leave as “0.0.0.0”. If DHCP client mode enabled and there is a DHCP Server on the network, this field will be assigned by DHCP server automatically.
6. DNS Server : DNS Server IP will be provided by Network Admin.

RS232



The screenshot shows the configuration page for RS232 in the SC10EK2E device. The left sidebar has 'RS232' selected. The main area contains the following settings:

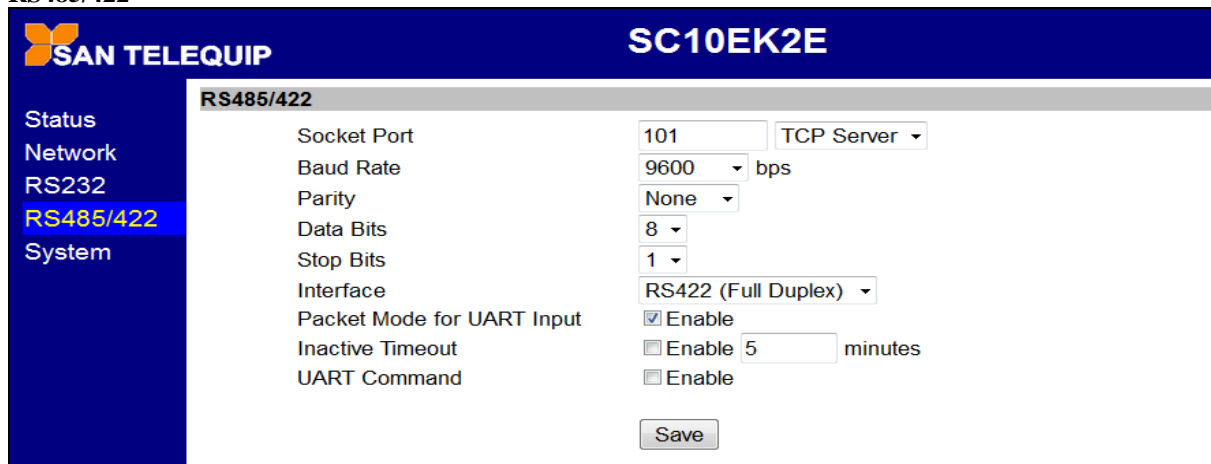
- Socket Port: 100 (dropdown), TCP Server (dropdown)
- Baud Rate: 9600 (dropdown), bps
- Parity: None (dropdown)
- Data Bits: 8 (dropdown)
- Stop Bits: 1 (dropdown)
- Interface: RS232 (dropdown)
- Packet Mode for UART Input: Enable
- Inactive Timeout: Enable 5 (input) minutes
- UART Command: Enable

A 'Save' button is located at the bottom of the configuration area.

Port 1 is RS232

1. Socket Port : TCP Server, TCP Client, UDP
A socket port assigned to the serial port
2. Baud rate : 1200bps to 230400bps.
3. Parity : None, Even, Odd, Mark, Space
4. Data Bits : 7,8
5. Stop Bits : 1,2
6. Interface : RS232
7. Packet Mode for UART Input : This is for some applications to write command to control setting.
8. Inactive Timeout : To identify whether the socket is active or dead. If there is no any data transferred within the defined timeout period, then it probably a dead socket, and the socket will be closed automatically. A new connection can be accepted again. The timeout period can be set by users to fit different kinds of application
9. UART Command : This is for some applications to write command to control setting.

RS485/422



The screenshot shows the configuration page for RS485/422 in the SC10EK2E device. The left sidebar has 'RS485/422' selected. The main area contains the following settings:

- Socket Port: 101 (dropdown), TCP Server (dropdown)
- Baud Rate: 9600 (dropdown), bps
- Parity: None (dropdown)
- Data Bits: 8 (dropdown)
- Stop Bits: 1 (dropdown)
- Interface: RS422 (Full Duplex) (dropdown)
- Packet Mode for UART Input: Enable
- Inactive Timeout: Enable 5 (input) minutes
- UART Command: Enable

A 'Save' button is located at the bottom of the configuration area.

Port 2 is RS482/422

1. Socket Port : TCP Server, TCP Client, UDP
A socket port assigned to the serial port
2. Baud rate : 1200bps to 230400bps.
3. Parity : None, Even, Odd, Mark, Space

4. Data Bits : 7,8
5. Stop Bits : 1,2
6. Interface : RS485(Half Duplex), RS422 (Full Duplex)
7. Packet Mode for UART Input ; This is for some applications to write command to control setting.
8. Inactive Timeout : To identify whether the socket is active or dead. If there is no any data transferred within the defined timeout period, then it probably a dead socket, and the socket will be closed automatically. A new connection can be accepted again. The timeout period can be set by users to fit different kinds of application
9. UART Command : This is for some applications to write command to control setting.

System

SAN TELEQUIP		SC10EK2E		
Status Network RS232 RS485/422 System	Administration			
	Administrator	<input type="text" value="admin"/>		
	Password	<input type="text"/>		
	Product Name	<input type="text" value="SAN TELEQUIP"/>		
	Product Model	<input type="text" value="SC10EK2E"/>		
	Services			
	HTTP Server	<input checked="" type="checkbox"/> Enable Port:	<input type="text" value="80"/>	
	Telnet Console	<input type="checkbox"/> Enable Port:	<input type="text" value="23"/>	
	System Tools			
	Ethernet MAC Address	<input type="text" value="24-81-AA-00-3E-63"/>	<input type="checkbox"/> Set	
Firmware Backup	<input type="button" value="Backup"/>			
Restore Default Settings	<input type="button" value="Default"/>			
Reboot System	<input type="button" value="Reboot"/>			
<input type="button" value="Save"/>				

1. Administrator : The default is admin.
2. Password : Self changeable, the default is none (empty)
3. Product Name : The default is SAN TELEQUIP
4. Product Model : The default is SC10EKE
5. HTTP Server : Enable/Disable, the port default is 80
6. Telnet Server : Enable/Disable, the port default is 23
7. Ethernet MAC Address : Unique MAC (Media Access Control) address – Factory set
8. Firmware Backup : Once all the configurations are set and the SC10EKE working properly, you may want to backup your configuration. Backup can be used when the new firmware is uploaded.
9. Restore Default Setting : If you forget to setup password or made incorrect setting then press Restore default setting.
10. Reboot System : After change parameters, Save and reboot.

PORT 1: RS232 COMMUNICATION PORT DETAILS

RS232 Port Details of SC10EKE (Port1)

Pin No.	SIGNAL of SC10EKE
9 Pin D Male	
2	RX
3	TX
5	GND
7	RTS
8	CTS
4	DTR
6	DSR
9	DCD

CABLE DETAILS OF SC10EKE

For RS232 Side

SC10EKE Side	COM Port Side
TX	RX
RX	TX
RTS	CTS
CTS	RTS
DSR	DTR
DTR	DSR

PORT 2: RS485/422 COMMUNICATION PORT DETAILS

For RS422

SIGNAL of SC10EKE	Will Connect to
T +	RX + of your device.
T --	RX -- of your device.
R +	TX + of your device.
R --	TX -- of your device.

For RS485, 2 wire

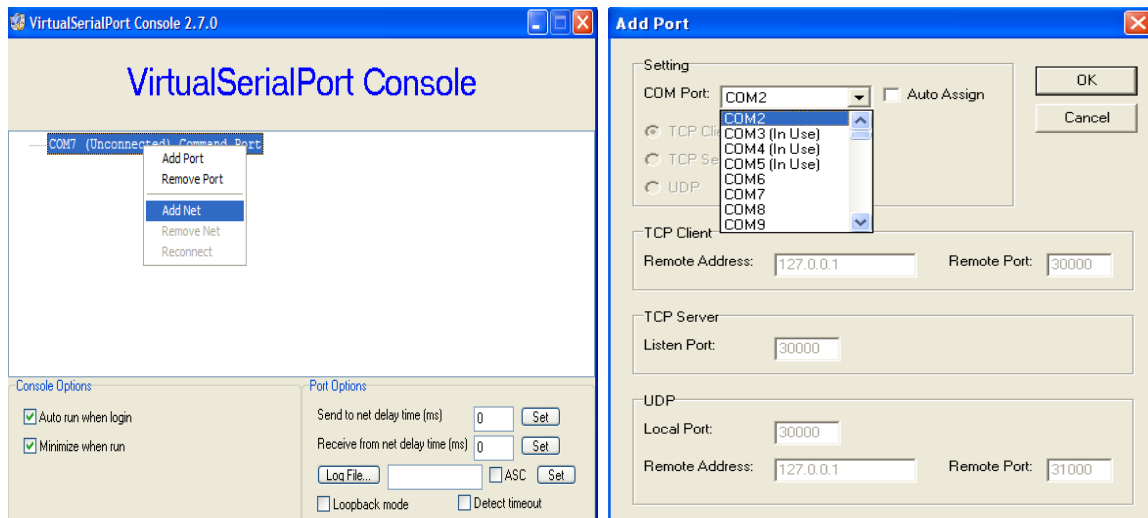
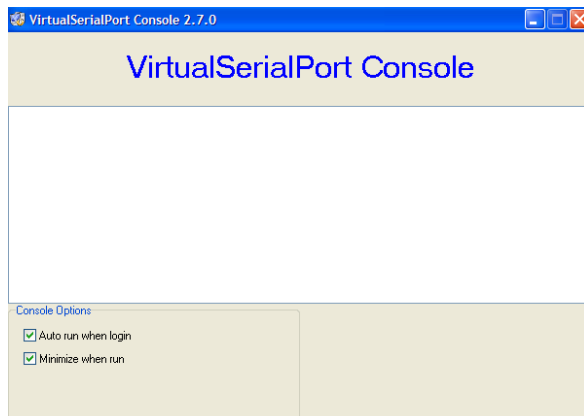
SIGNAL of SC10EKE	Will Connect to
D +	TX + of your device.
D --	TX -- of your device.

POWER SUPPLY

24V DC Powered through 2 Pin screw type connector OR External 230V SC Adapter.

CONFIGURATION FOR VIRTUAL SERIAL PORT CONSOLE: VER 2.7

- Unzip from SC10EKEConfig\Virtual Com\Vserport.zip in the enclosed CD.
- Double click on required exe File.
- Follow the below screens to install the Virtual Com Port.
- Right Click inside the above screen to get “Add the Port Option “



Add Port

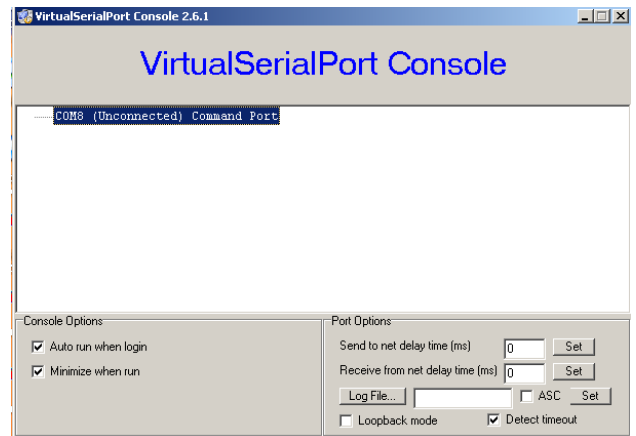
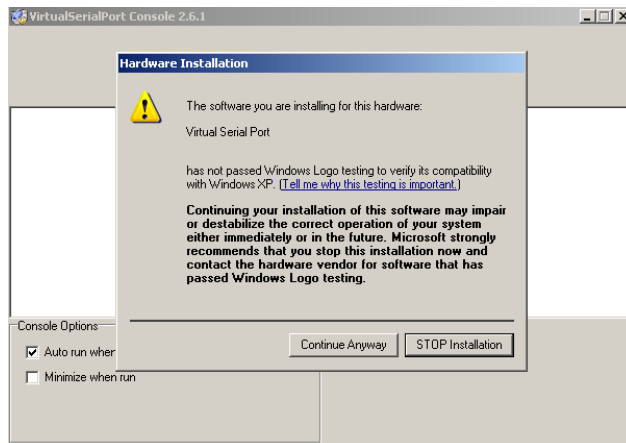
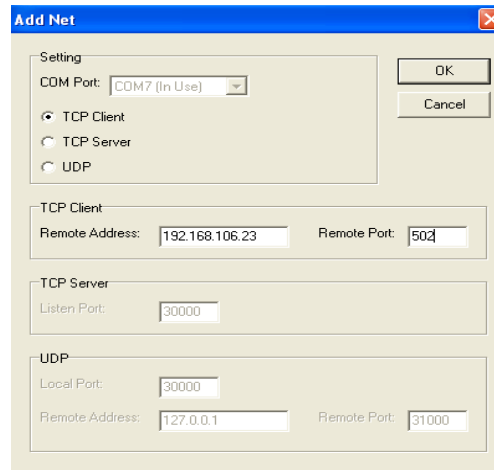
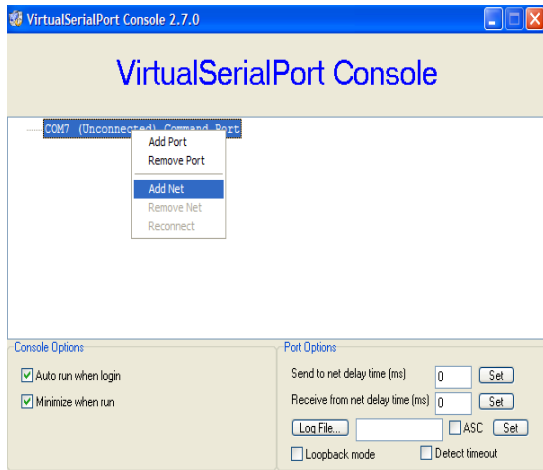
- The following screens below will appear.
- Select “Continue Anyway”.
- Selected COM Port will be added. Port no’s 8 in the picture is only for reference.

SAN Telequip (P) Ltd.,
504 & 505, Deron Height, Baner Road,
Baner, Pune 411045 India
Tel: 020- 65001587,9764027070,8390069393
email : info@santelequip.com

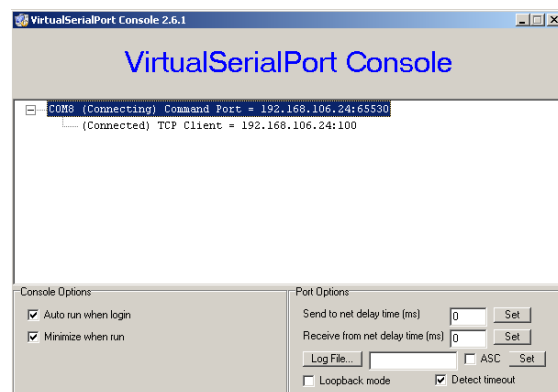
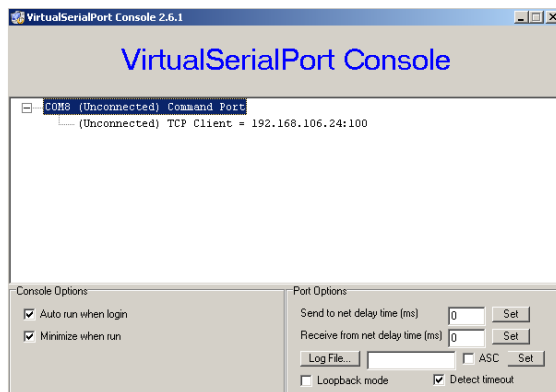


Connecting. Converting. Leading!

- Right Click on the added COM port & choose Add Net option. The snap shots are below
- In the next screen you are required to insert Network details



Following screens are the confirmation of the IP selected & communication established



Congratulations!!! The Virtual Com Port is installed