

Setup Guide for Serial to Ethernet Converter XS1200

This guide shows you how to create a virtual COM port, configure parameters and test run the XS1200.

This installation guide is based on Windows 10 64-bit but same installation procedure is used for other versions of Windows.



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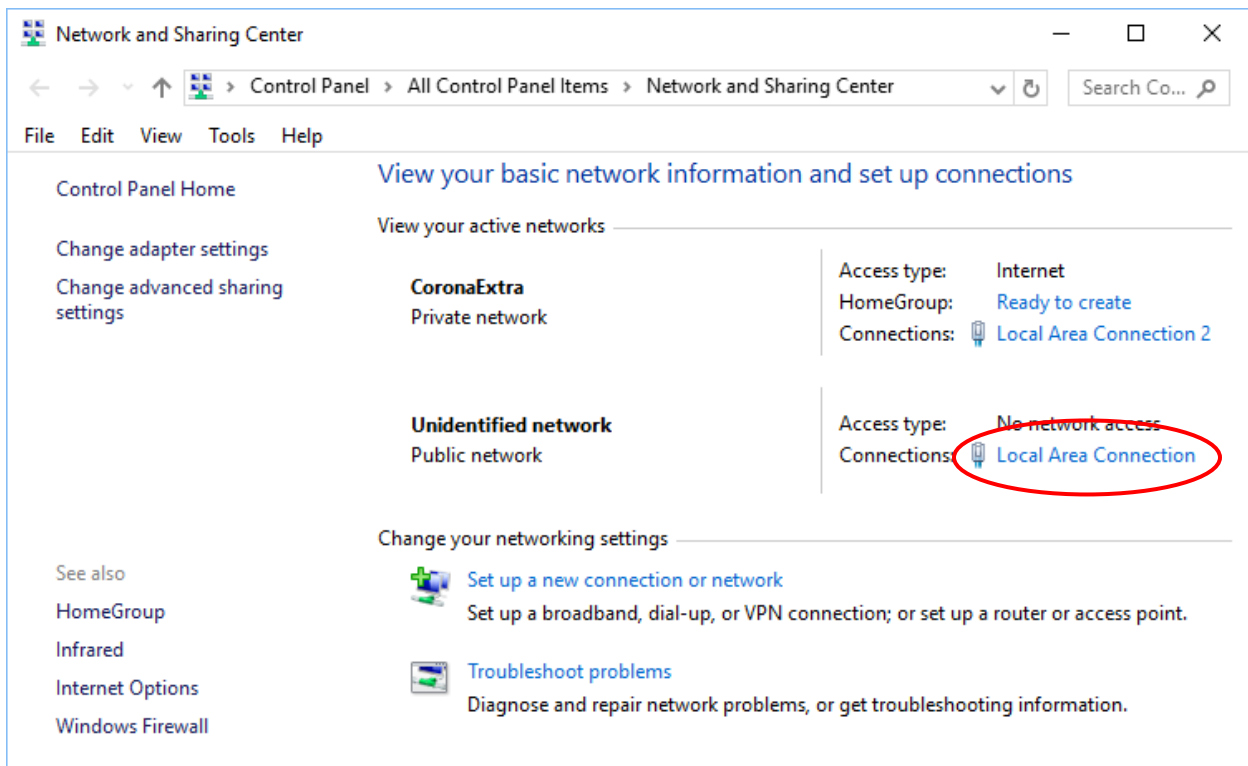
Connecting the XS1200

1. Connect the XS1200 to your computer using a standard cross over cable (EIA/TIA T568B) LAN cable.
2. Connect the XS1200 to the power supply and turn on the power.

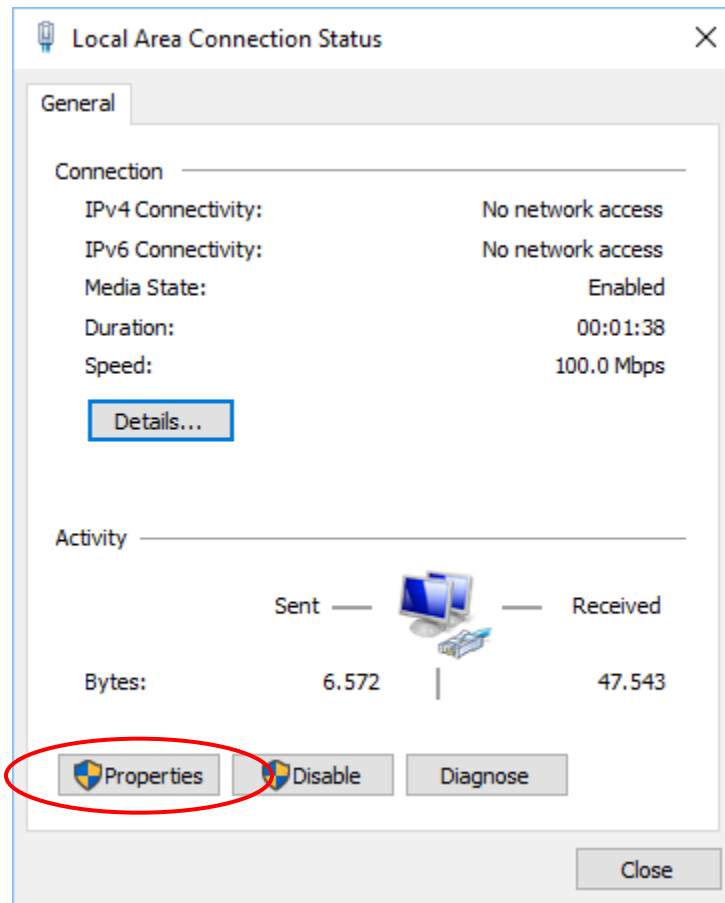
Assigning a static IP

The XS1200's IP address is **192.168.2.125**. For your computer to be able to find the XS1200 you need to assign a static IP address in the 192.168.2.2 to 192.168.2.254 range to the network connection to where you connect the XS1200:

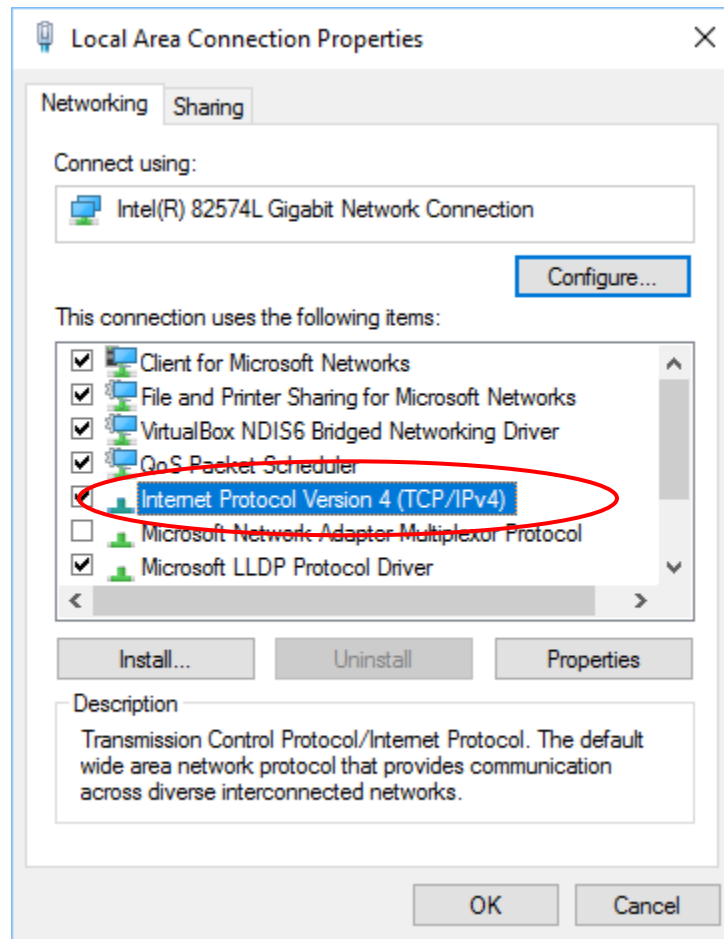
1. Click Start and go to: Control Panel\All Control Panel Items\Network and Sharing Center.
2. Click on 'Local Area Connection' (this is the connection where the XS1200 is connected). If you have not connected the XS1200 to your computer, or if the cable is incorrectly connected you might not be able to see this 'Local Area Connection', so make sure the XS1200 is properly connected to your computer:



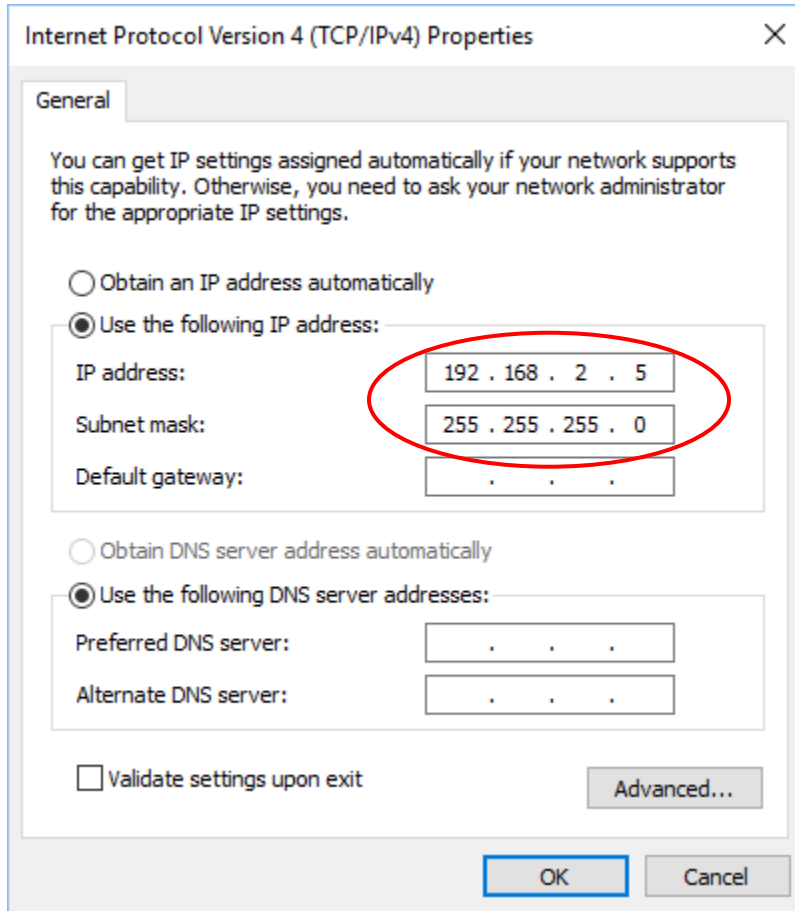
3. Click on 'Properties'.



4. Highlight the 'Internet Protocol' and click 'Properties'.



5. Enter a static IP address in the **192.168.2.2 to 192.168.2.254** range (except 192.168.2.125 which is the XS1200's IP address) and a Subnet mask of 255.255.255.0 and click OK. Click OK at the Local Area Connection Properties window and close the Local Area Connection Status window. You have now assigned a static IP address to the network connection where to the XS1200 is connected.



Configuration and virtual COM port Software

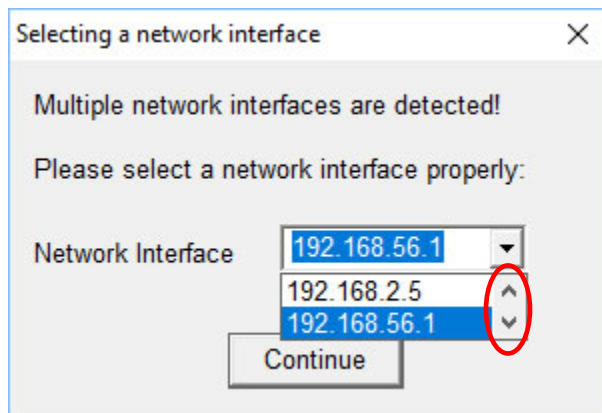
To be able to create a serial COM port on your computer which the XS1200 can connect through, you need to use a Virtual COM software.

You can use the XS1200 Configuration/VCOM software to create a virtual COM port or you can use almost any other type of virtual COM port software such USC-VCOM (free downloadable from www.usconverters.com), PortShare or Fabulatech. Please contact our tech support if you have questions regarding VCOM software.

Download the most recent version of the virtual COM port software called AXR2E from www.usconverters.com. Unzip the downloaded folder and install the software.

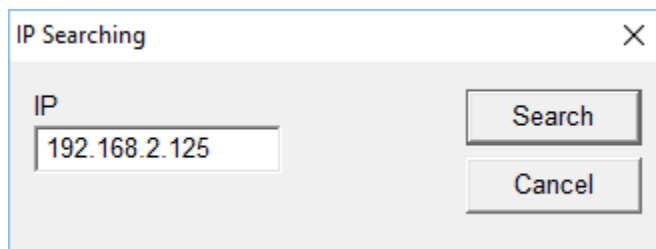
After installing the “AXR2E_Configuration_UTILITY_Setup” file (either the 32-bit version or the 64-bit version) you can start the software. **Make sure to start the software as Administrator**, otherwise you might not be able to create COM port successfully. You start the software as Administrator by finding the “AXR2E Configuration Utility” in the Windows start menu, right-click and select “More”, then click “Start as Administrator”.

If your computer has more than one network connection you need to select the wireless network which is in the same subnet as the XS1200:

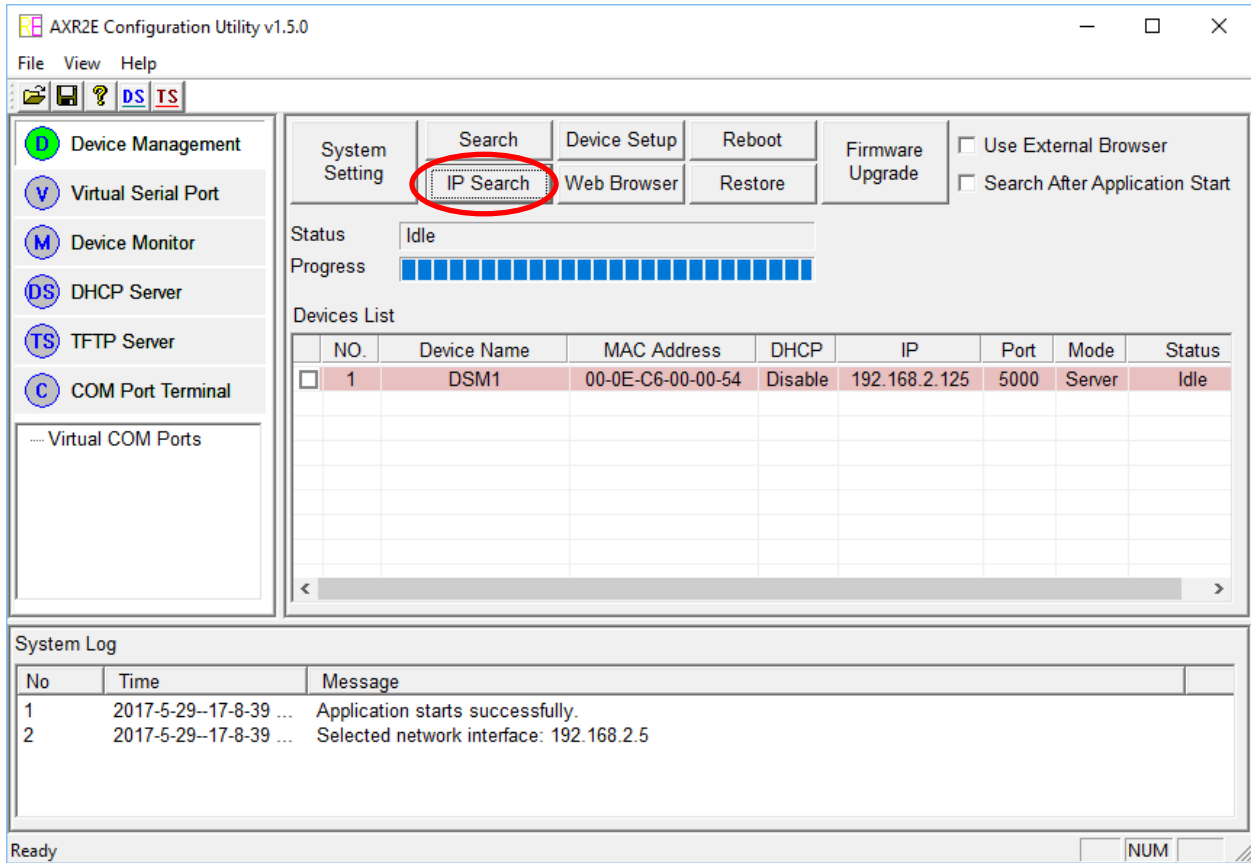


Use the up/down arrows to scroll through the IPs if there are more than two IPs.

Click the “IP Search” button once the software is open and enter the XS1200’s IP address as shown below:



The software should now find the XS1200 and list it as shown below:



Select the XS1200 from the device list and click "Device Setup" and the settings window will open:

The screenshot shows a 'Device Setup' window with two tabs: 'Network Setting' and 'Serial Port Setting'. The 'Network Setting' tab is active. The window contains several input fields and checkboxes for configuring network parameters. At the bottom, there are three buttons: 'Submit', 'Save', and 'Load'.

Field	Value
Device Name	DSM1
MAC Address	00-0E-C6-00-00-54
DHCP	Disable
Server/Client	Server
Static IP	192.168.2.125
Data Listening Port	5000
Destination Port	5000
Destination Hostname/IP	192.168.2.2
Netmask	255.255.255.0
Gateway	192.168.2.1
DNS Server	168.95.1.1
Transmit Timer	100
Data Packet Type (UDP)	<input type="checkbox"/>
Data Packet Type (TCP)	<input checked="" type="checkbox"/>
Auto connect after reboot	<input type="checkbox"/>
Management Packet Type (Broadcast)	<input checked="" type="checkbox"/>
Management Packet Type (Multicast)	<input type="checkbox"/>
Accessible IP Addresses (Enable)	<input type="checkbox"/>
IP 1	0.0.0.0
IP 2	0.0.0.0
IP 3	0.0.0.0
IP 4	0.0.0.0
SMTP Configuration Parameters (Domain Name)	
SMTP Configuration Parameters (From Address)	
SMTP Configuration Parameters (To Address 1)	
SMTP Configuration Parameters (To Address 2)	
SMTP Configuration Parameters (To Address 3)	
Event Enable/Disable (IP Change)	Disable
Event Enable/Disable (Cold Start)	Disable
Event Enable/Disable (Password Change)	Disable
Event Enable/Disable (Authentication Fail)	Disable

Device Setup

Network Setting | Serial Port Setting

Baud Rate: 115200

Data Bits: 8

Parity: None

Stop Bits: 1

Flow Control: None

RS-485 Mode: 0

0: Sleep
1: Single Twisted Pair Half-Duplex
2: Single Twisted Pair Half-Duplex or
Double Twisted Pair Full-Duplex (Slave)
3: Double Twisted Pair Full-Duplex (Master)

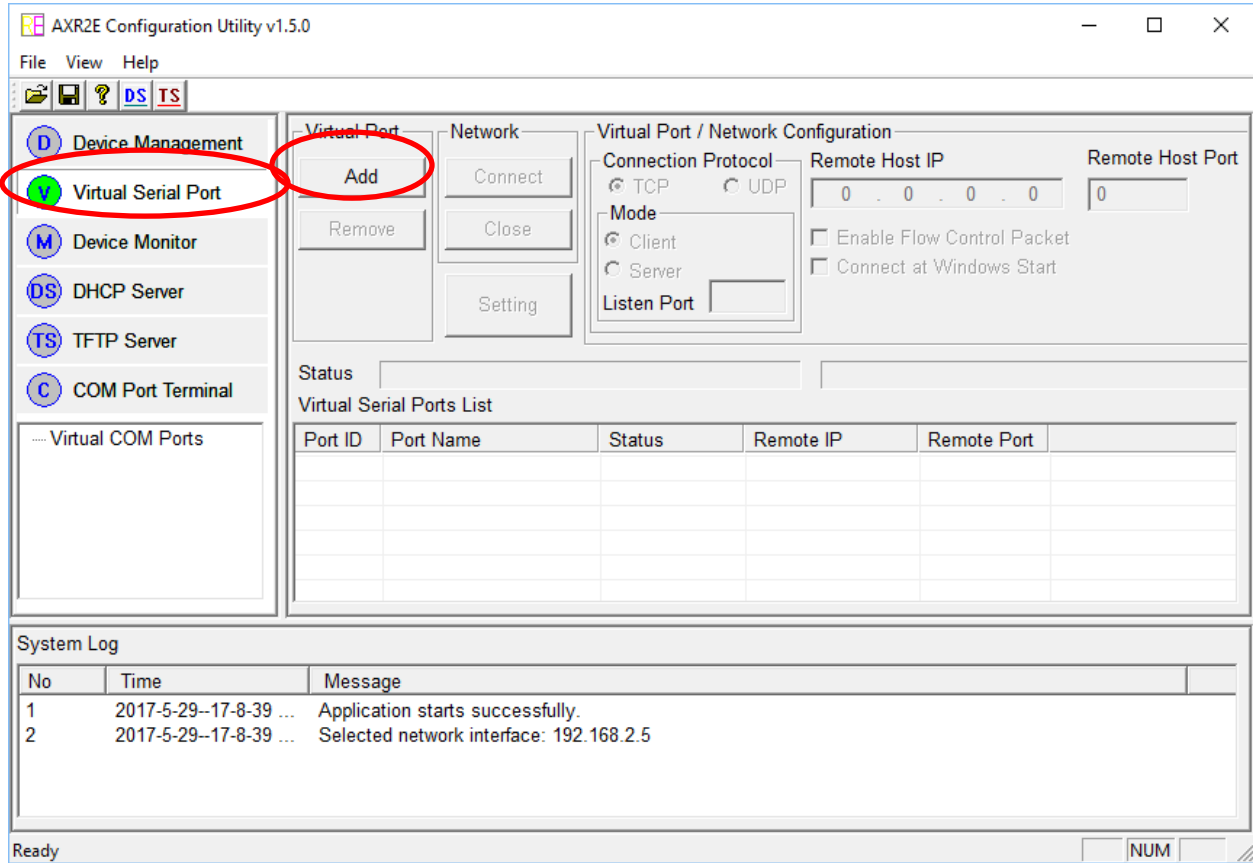
Submit Save Load

Creating a COM port with VCOM

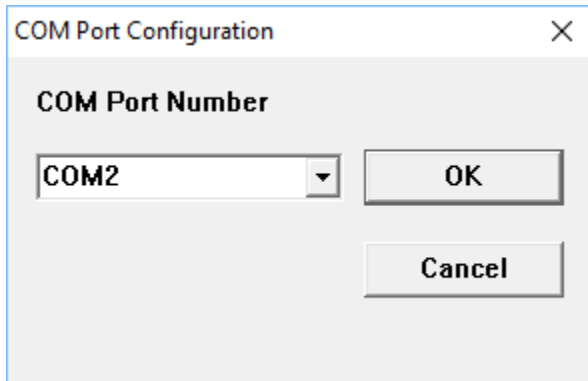
A virtual COM port can be created by using the AXR2E Configuration Utility or it can be created by using alternative VCOM software such as PortShare, Fabulatech or USC-VCOM.

Here we show how to create the virtual COM port in the AXR2E Configuration Utility.

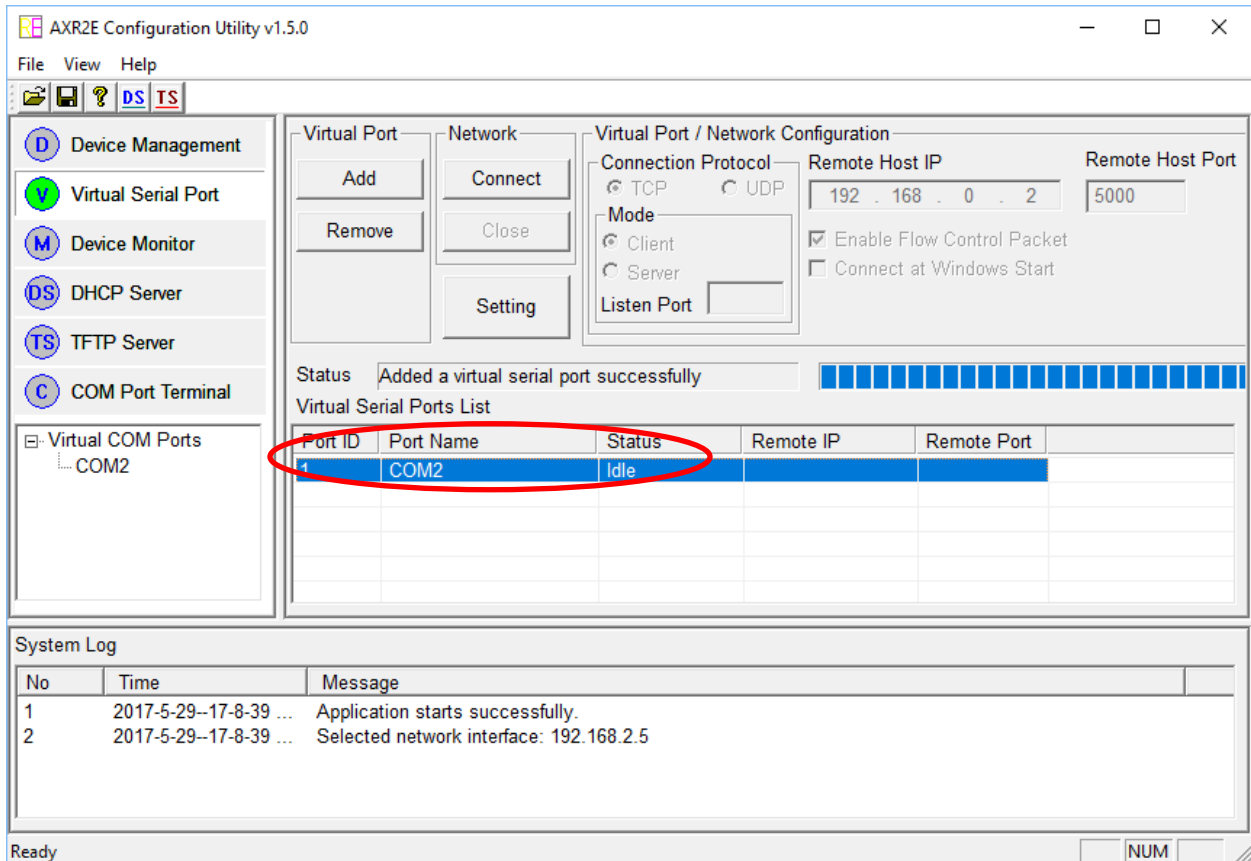
Go to the “Virtual Serial Port” menu and click the “Add” button:



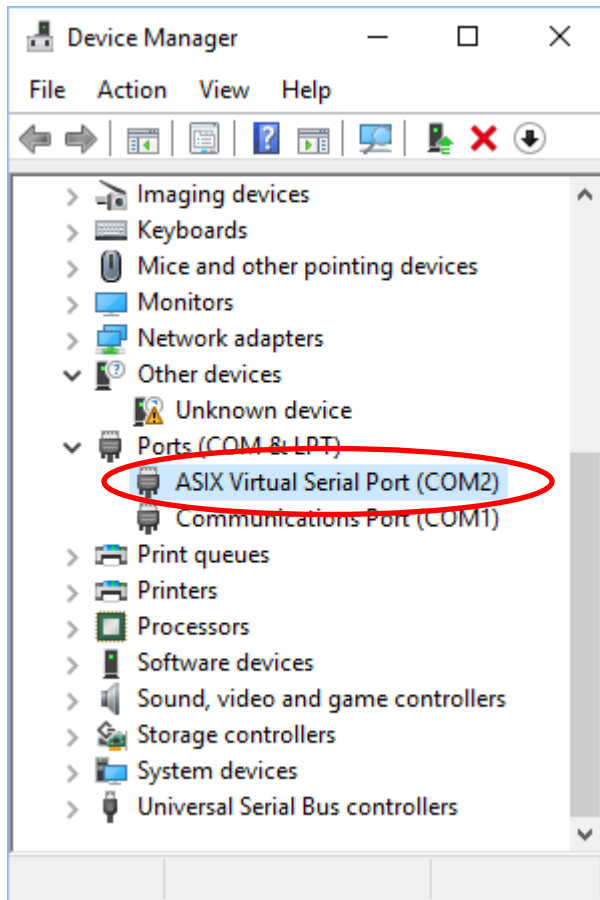
Select a COM port number:



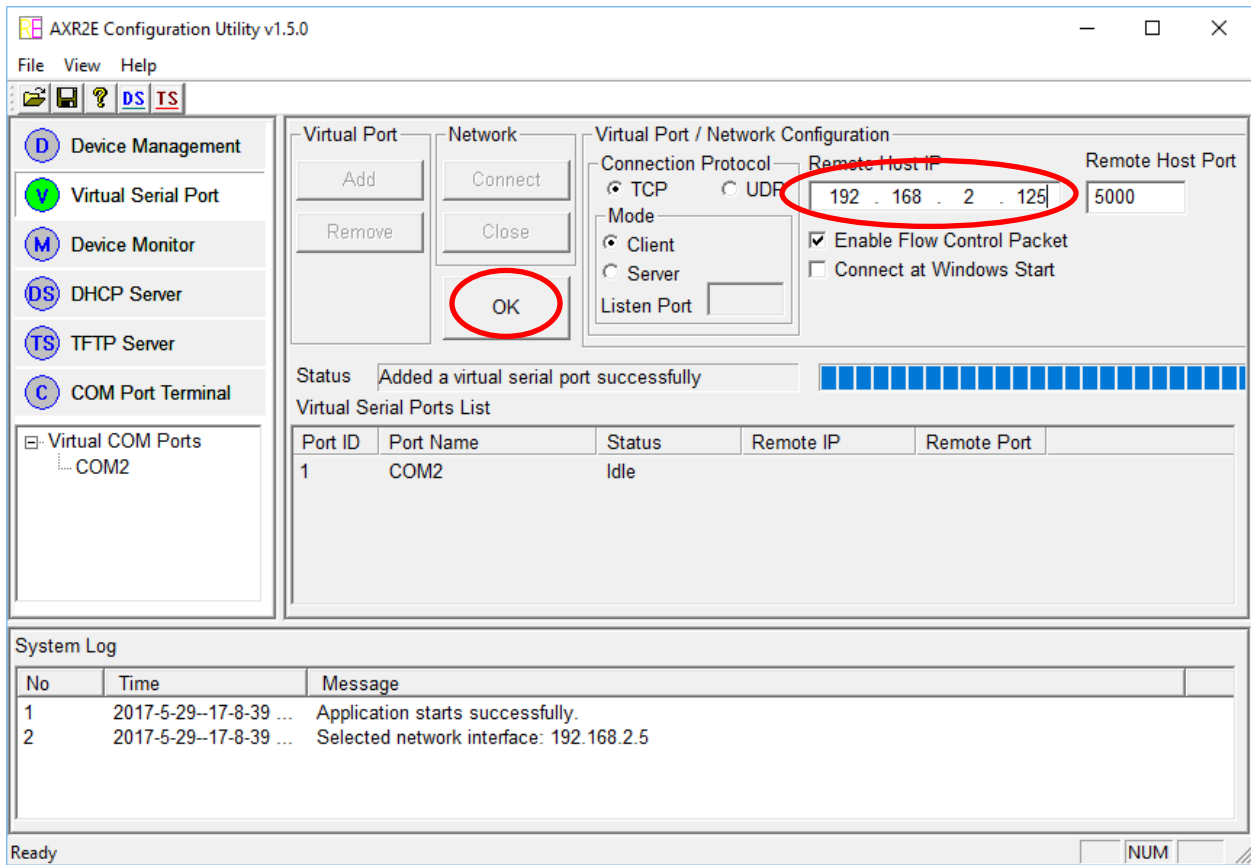
The COM port should now be listed in the Virtual Serial Ports List:



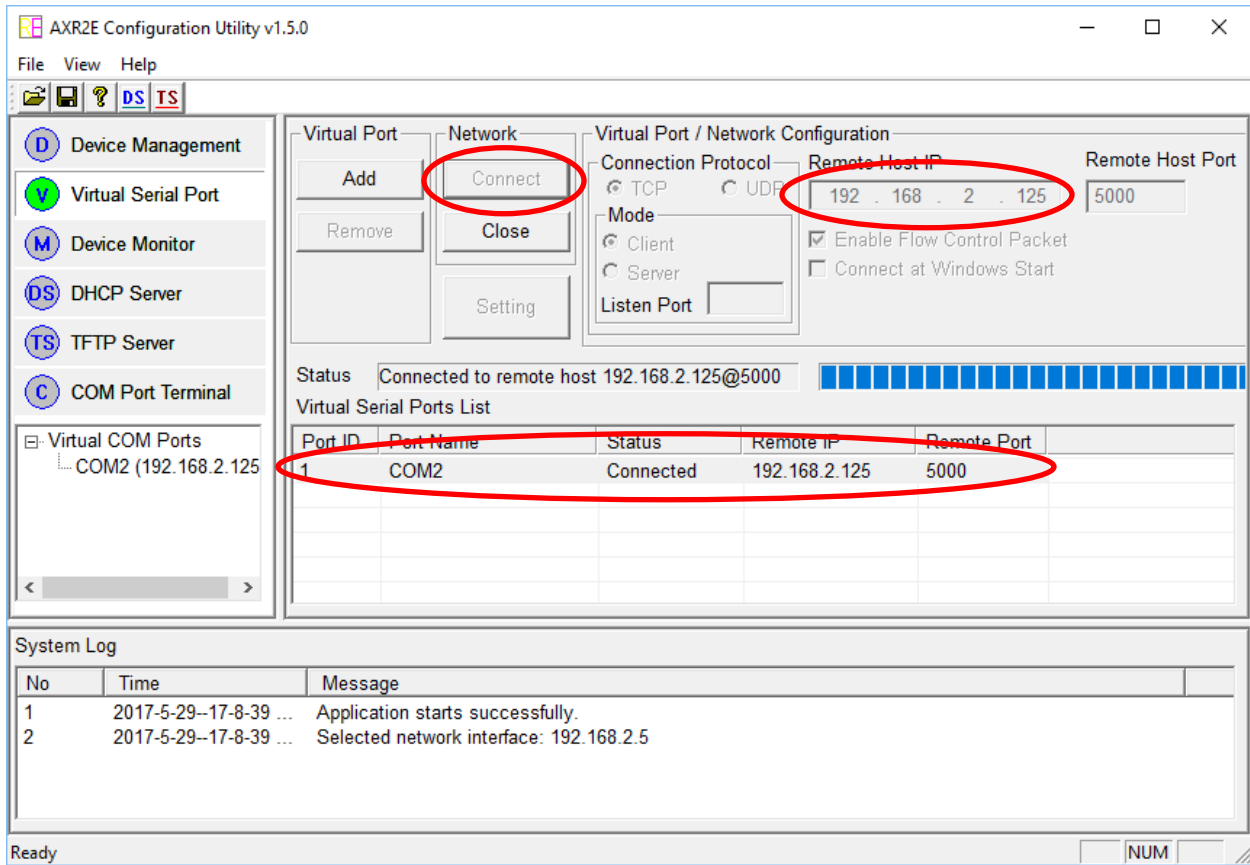
Check in Windows Device Manager to see if the COM port has been successfully created:



Click the "Setting" button and enter the XS1200's IP address (192.168.2.125), and click OK:



Click the “Connect” button and the software will open the COM port, ready to send and receive data:



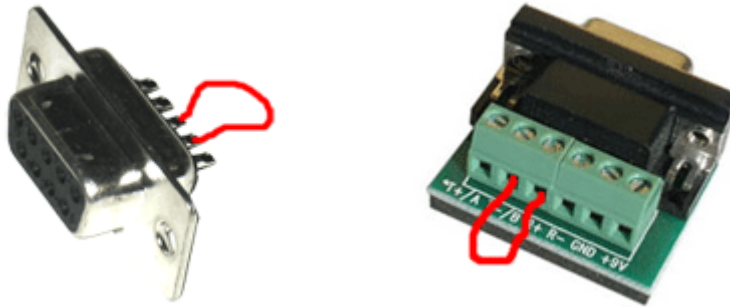
You have now successfully created a virtual COM port!

Alternatives to this virtual COM port software are USC-VCOM, PortShare and Fabluatech.

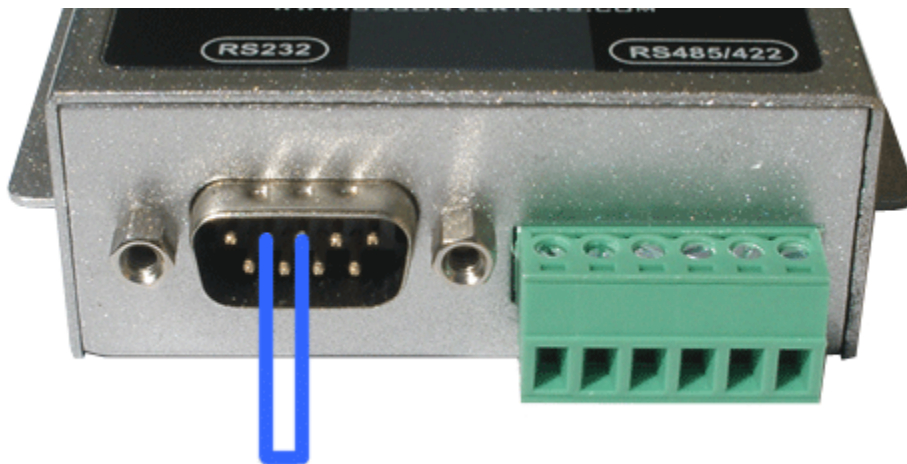
Making a loop-back test

To test if the XS1200 is working correctly and the drivers and cabling has been successfully setup you can make a loop-back test. This will verify if you can send and receive data both ways, from LAN to serial and serial to LAN.

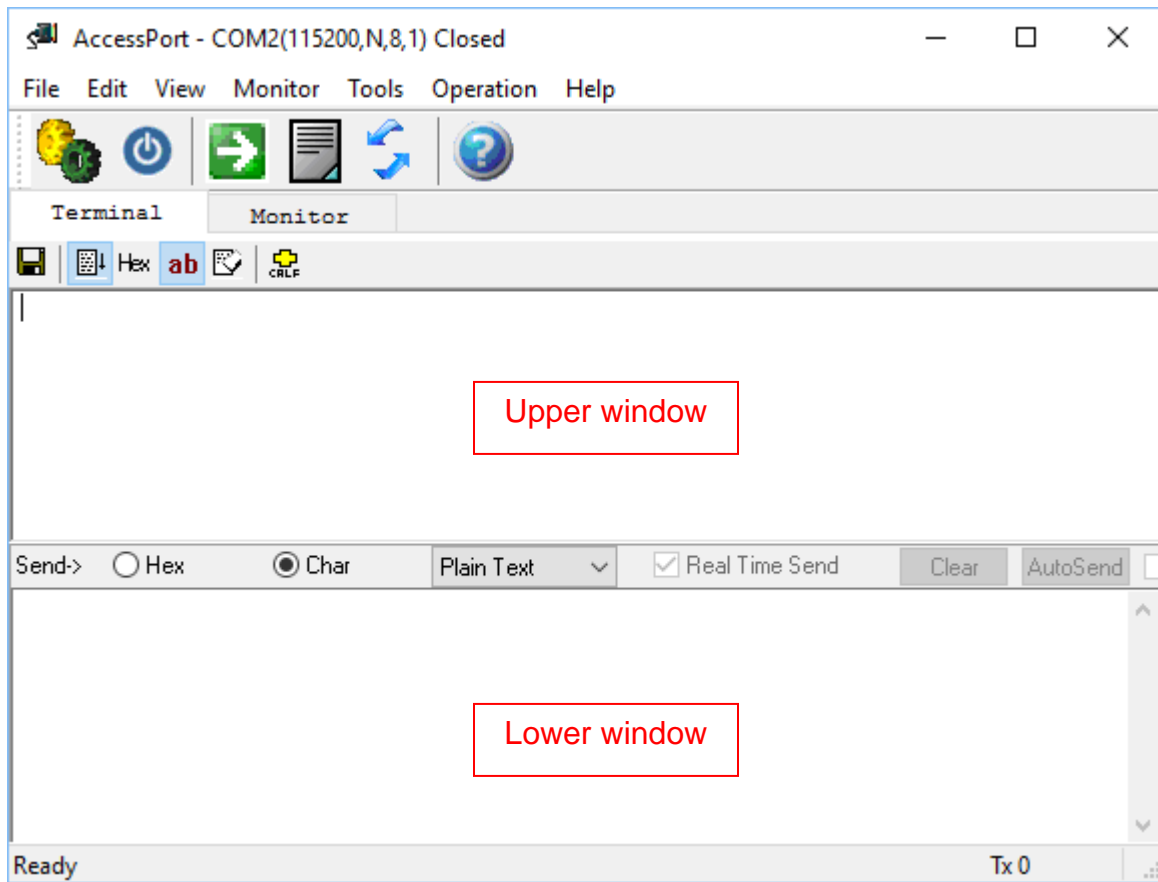
To confirm that the XS1200 can send and receive data you now need to connect the TX pin to the RX pin (pin 3 to pin 2) at the DB9 connector on the XS1200. The easiest and safest way to do this is by making a loop-back plug from a female DB9 connector or terminal header such as pictured below:



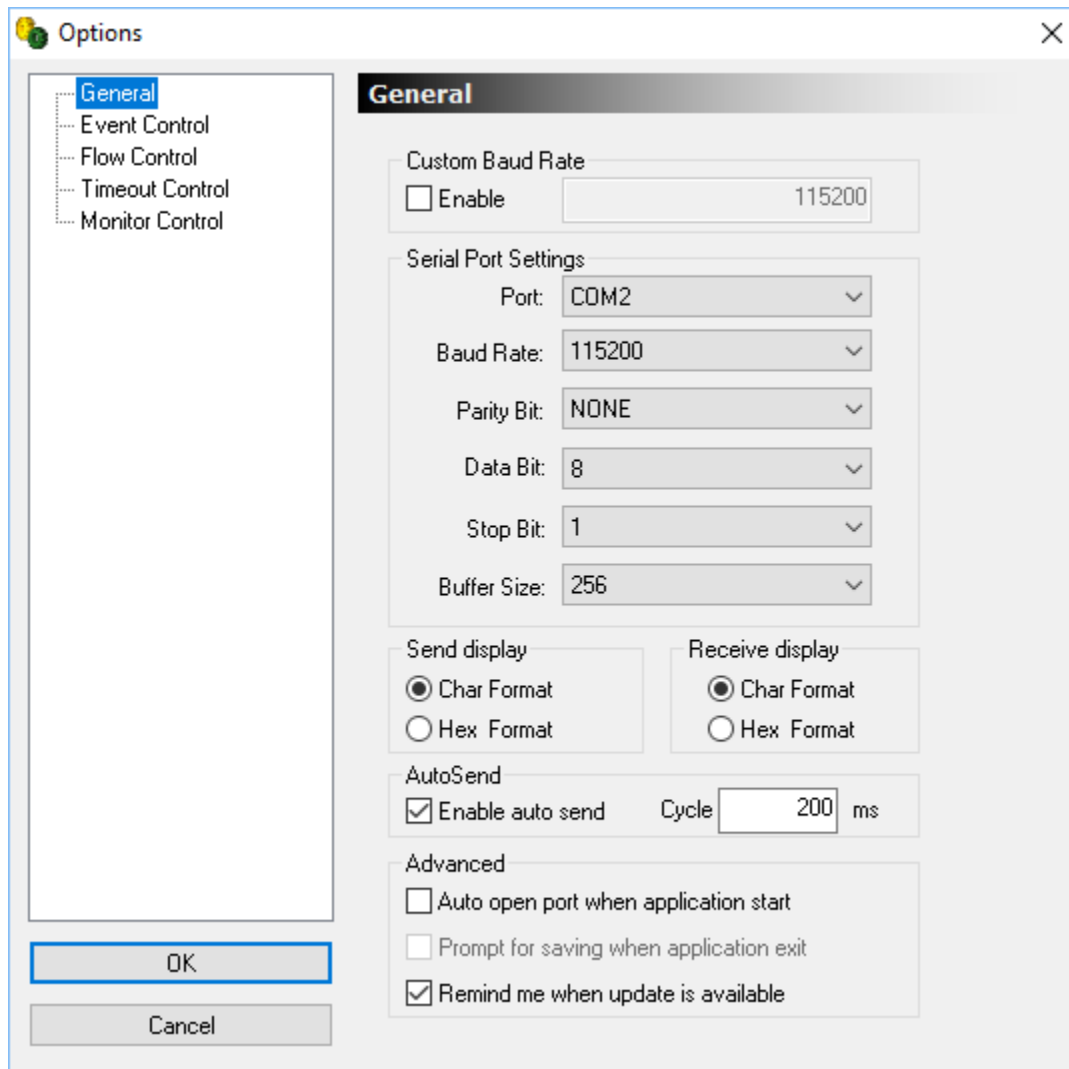
If you do not have any of these available you can manually make a connection from pin 2 to pin 3 at the DB9 connector by carefully using a piece of wire or even a paper clip to short the pins, as shown in the image below. Be careful not to short any other pins since this might damage the adapter.



Download AccessPort from www.usconverters.com. When you start AccessPort the first time you will be welcomed with the window shown below. The upper window is the 'receive' window where you receive data, and the lower window is the 'send' window where you can enter a text string to send.

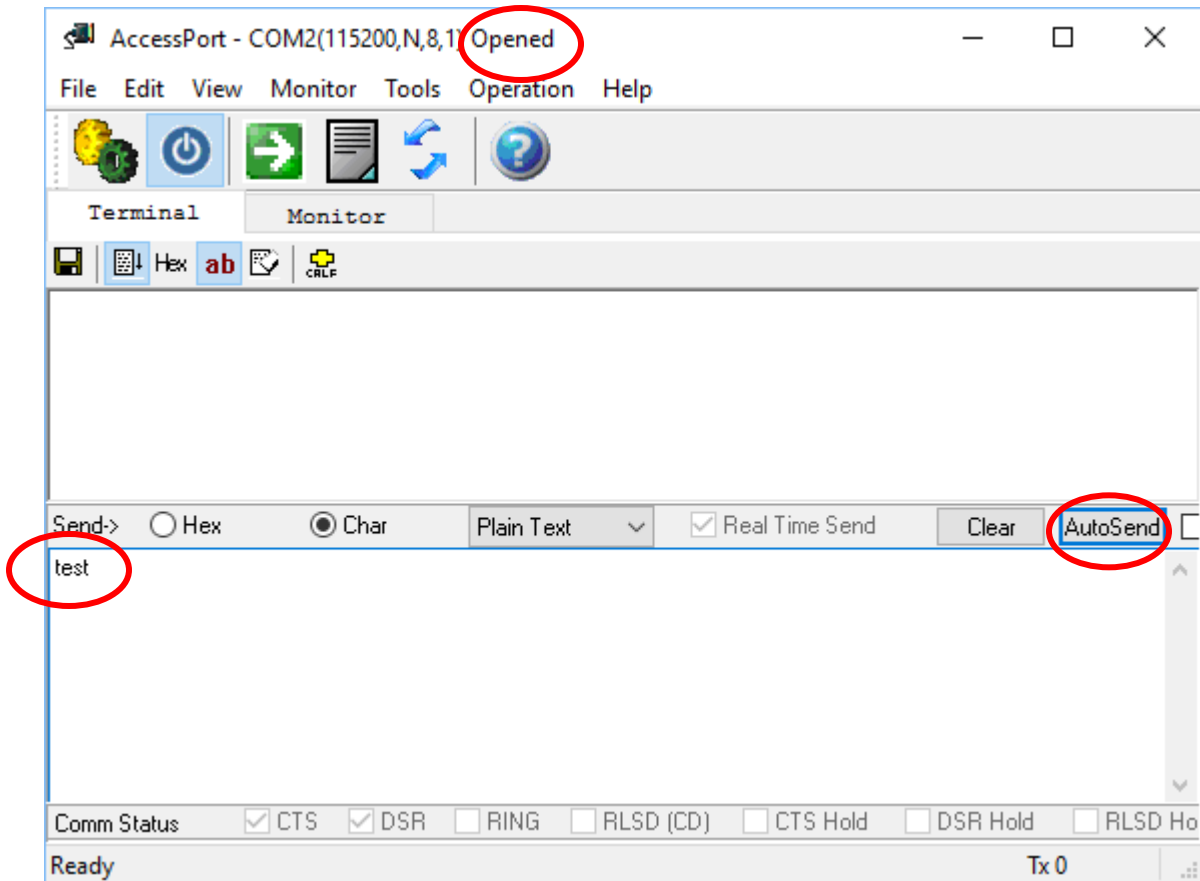


Click Tools -> Configuration in the menu bar, this will open the configuration window. Enter the correct information. In this case we have created COM port 2 so we select COM 2:



Click OK, this will automatically open the selected COM port if it has been correctly created by the Virtual COM software, and if the XS1200 is properly connected to your computer.

Enter a text string in the lower window and click the AutoSend button:



AccessPort will now start sending the text string to the COM port, the 'Link' and 'TX/RX' LED lights on the XS1200 should now start flashing.

When the COM port has been opened by AccessPort, the status parameters in VCOM should be similar to this:

AXR2E Configuration Utility v1.5.0

File View Help

Virtual Port / Network Configuration

Connection Protocol: TCP UDP

Mode: Client Server

Remote Host IP: 192 . 168 . 2 . 125

Remote Host Port: 5000

Enable Flow Control Packet

Connect at Windows Start

Status: Connected to remote host 192.168.2.125@5000

Virtual Serial Ports List

Port ID	Port Name	Status	Remote IP	Remote Port
1	COM2	Connected	192.168.2.125	5000

System Log

No	Time	Message
1	2017-5-29--17-8-39 ...	Application starts successfully.
2	2017-5-29--17-8-39 ...	Selected network interface: 192.168.2.5

AXR2E Configuration Utility v1.5.0

File View Help

System Setting

Search: IP Search

Device Setup: Web Browser

Reboot: Restore

Firmware Upgrade

Use External Browser

Search After Application Start

Status: Idle

Progress

Devices List

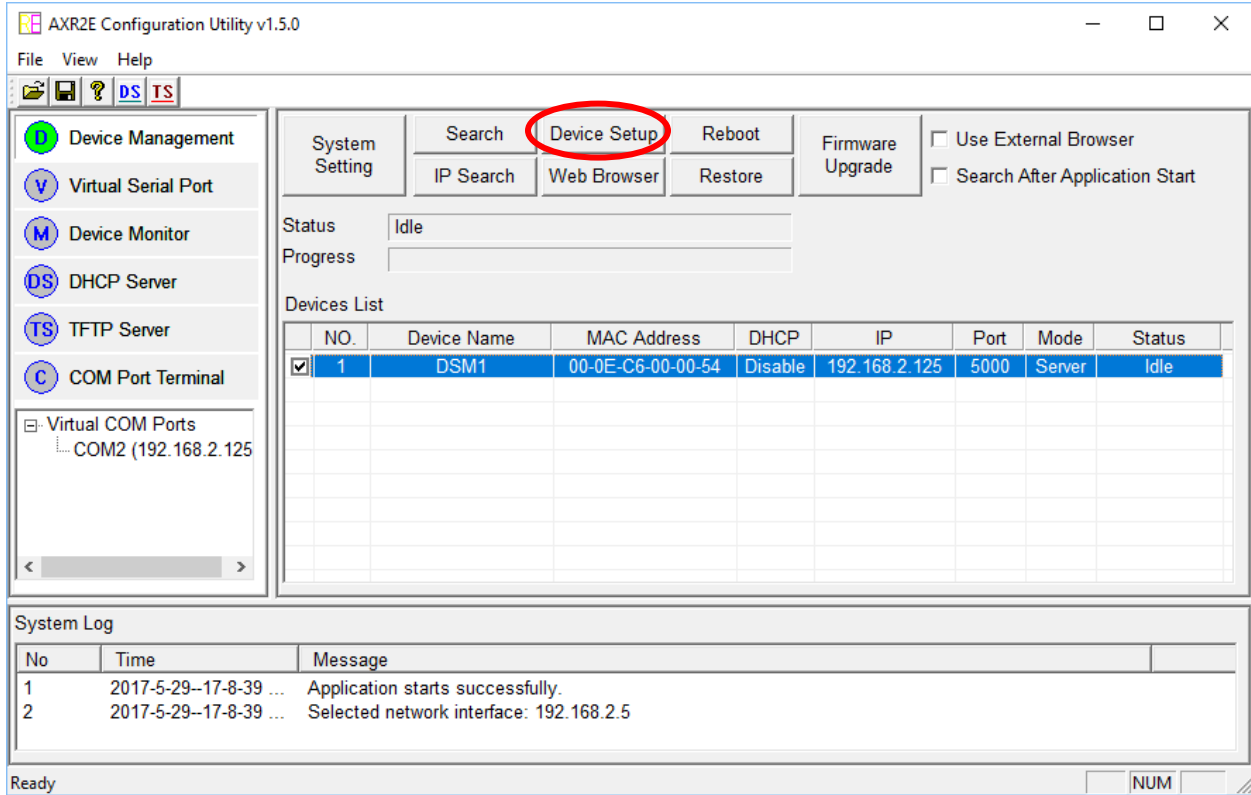
	NO.	Device Name	MAC Address	DHCP	IP	Port	Mode	Status
<input type="checkbox"/>	1	DSM1	00-0E-C6-00-00-54	Disable	192.168.2.125	5000	Server	Idle

System Log

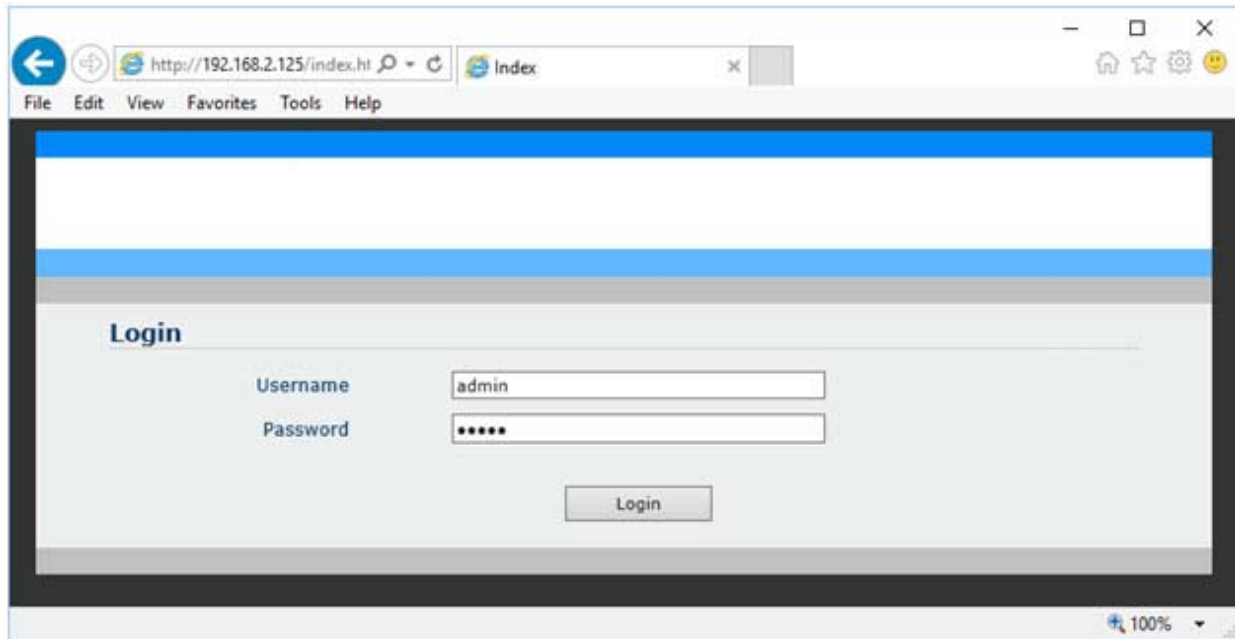
No	Time	Message
1	2017-5-29--17-8-39 ...	Application starts successfully.
2	2017-5-29--17-8-39 ...	Selected network interface: 192.168.2.5

Configuring the parameters using a web-browser

To configure the XS1200's parameters you can click on the 'Device Setup' button within the AXR2E Configuration software:



An alternative (and recommended) way of configuring the XS1200 is to use a web browser. Simply open a web browser and enter the IP address of the XS1200 in the address field:



The user name and passwords are both: admin

Basic Advance Security Logout

Serial Settings

Device Name

Data Baud Rate

Data Bits

Data Parity

Stop Bits

Flow Control

Serial Type

Network Settings

DHCP Client

Static IP Address

Static Subnet Mask

Static Default Gateway

Static DNS Server

Connection Type

Transmit Timer
Please enter an integer between 10~65535 ms

Server/Client Mode

Server Listening Port
Please enter an integer between 1024~65535

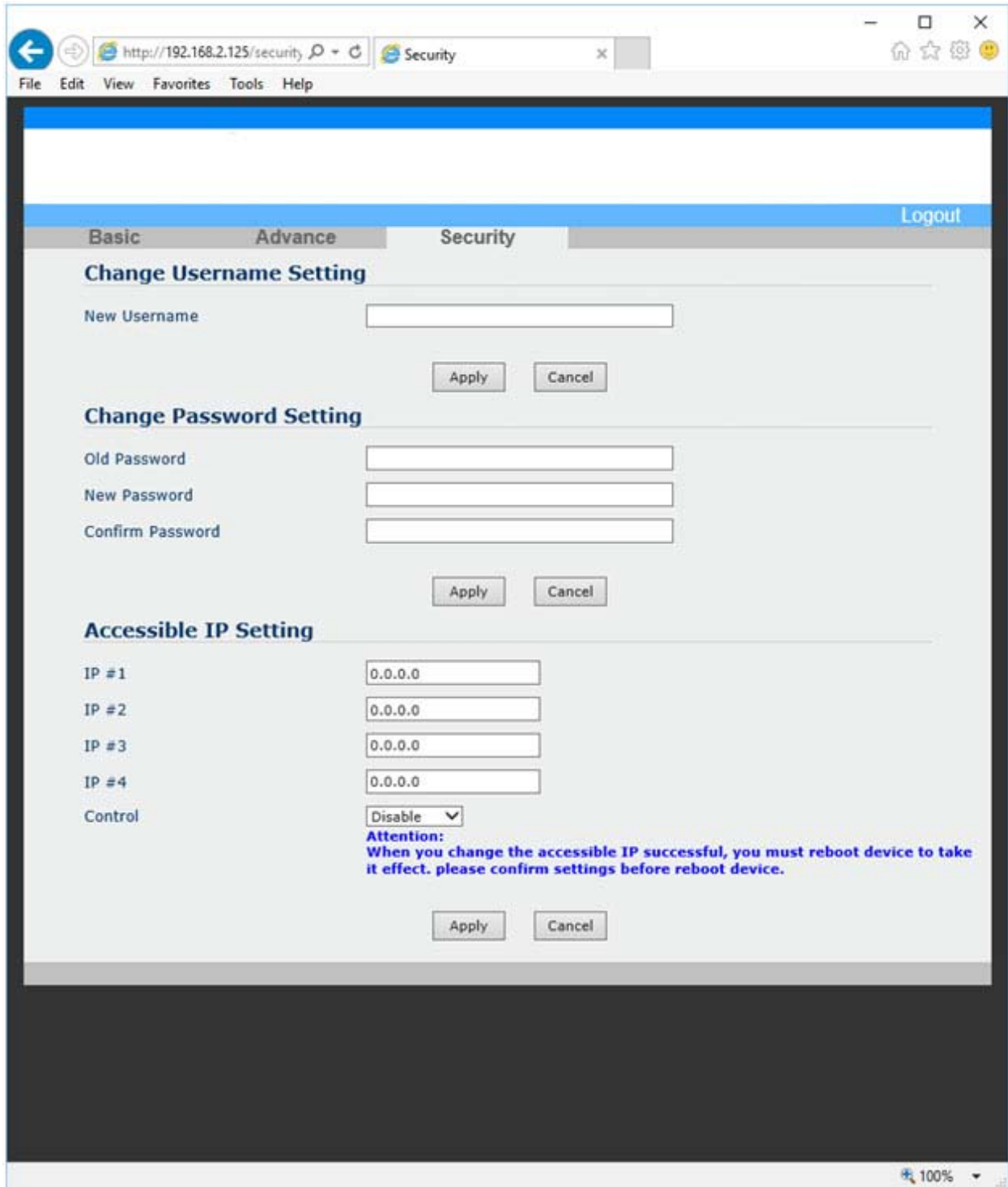
Client Destination Host Name/IP
Please enter host name or IP address

Client Destination Port
Please enter an integer between 1024~65535

The screenshot shows a web browser window with the address bar displaying `http://192.168.2.125/advsett`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The page content is organized into several sections:

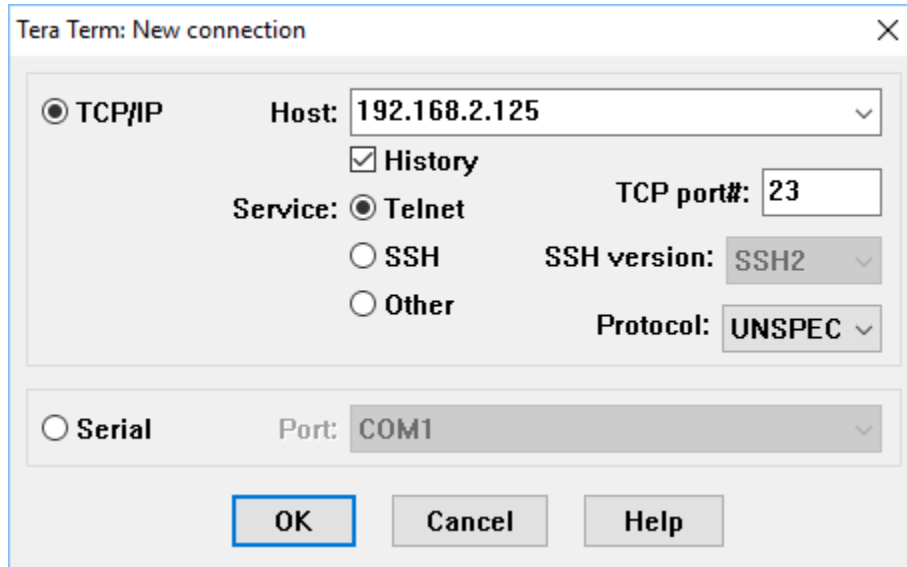
- Basic** | **Advance** | **Security** | [Logout](#)
- Temperature**
Temperature: °C
- Firmware Upgrade Settings**
TFTP Server IP:
File Name:
- E-mail Settings**
E-mail Server Address/IP:
Please enter host name or IP address
From E-mail Address:
To E-mail Address 1:
To E-mail Address 2:
To E-mail Address 3:
- Auto Warning Report Settings**
Cold Start: ▾
Authentication Failure: ▾
Local IP Address Changed: ▾
Password Changed: ▾

The browser's status bar at the bottom right shows a zoom level of 100%.



Configuring the parameters using Telnet

Create a Telnet connection to the XS1200 by using a terminal software such as Putty or Tera Term. Use the settings as shown below:



The image shows a screenshot of the 'Tera Term: New connection' dialog box. The 'TCP/IP' option is selected with a radio button. The 'Host' field contains '192.168.2.125'. The 'History' checkbox is checked. The 'Service' section has 'Telnet' selected with a radio button, while 'SSH' and 'Other' are unselected. The 'TCP port#' field contains '23'. The 'SSH version' dropdown is set to 'SSH2'. The 'Protocol' dropdown is set to 'UNSPEC'. Below the TCP/IP section, the 'Serial' option is unselected, and the 'Port' field contains 'COM1'. At the bottom, there are three buttons: 'OK', 'Cancel', and 'Help'. The 'OK' button is highlighted with a blue border.

Username and password are both "admin":

```

192.168.2.125:23 - Tera Term VT
File Edit Setup Control Window Help
username: admin
password:
Successful login through telnet
telnet> help
help
quit
reboot
Usage: passwd
      Old Password:
      New Password:
      Re-enter New Password:
Usage: username <user name>
Usage: ipconfig
Usage: setip <ip addr>
Usage: setmask <netmask>
Usage: setgateway <ip addr>
Usage: setdns <ip addr>
Usage: serialport <baud rate> <data bits> <parity> <stop bits> <flow ctrl>
      <baud rate>: 0: 921600      5: 9600
                  1: 115200     6: 4800
                  2: 57600      7: 2400
                  3: 38400      8: 1200
                  4: 19200
      <data bits>: 0: 5          2: 7
                  1: 6          3: 8
      <parity>:    0: Odd       2: None
                  1: Even
      <stop bits>: 0: 1         1: 1.5   2: 2
      <flow ctrl>: 0: Xon/Xoff  2: None
                  1: Hardware
Usage: setmode <mode>
      <mode>: 0: SERVER      1: CLIENT
Usage: setsrport <port>
Usage: setdstport <port>
Usage: dhcpclient <status>
      <status>: 0: disable   1: enable
Usage: connecttype <protocol>
      <protocol>: 0: TCP     1: UDP
Usage: transmitimer <time>
      <time>: time in ms
Usage: saveconfig
Usage: accessip <index> <ip addr>
      <index>:  index of accessible IP
      <ip addr>: accessible IP address
Usage: setaccip <mode>
      <mode>: 0: disable   1: enable
Usage: setems <e-mail server domain name>
Usage: setemf <e-mail address>
Usage: setent1 <e-mail address>
Usage: setent2 <e-mail address>
Usage: setent3 <e-mail address>
Usage: emconfig
Usage: setaw <cold start> <authentication fail> <ip changed> <password changed>
      <cold start>:          0: Disable  1: Enable
      <authentication fail>: 0: Disable  1: Enable
      <ip changed>:          0: Disable  1: Enable
      <password changed>:   0: Disable  1: Enable
Usage: rs485 <mode>
      <mode>: 0: $leep          2: Double Twisted Pair FD (Slave)
            1: Single Twisted Pair HD  3: Double Twisted Pair FD (Master)
Usage: setdsthn <Host name/IP>
Usage: tftpsrv <ip addr>
Usage: filename <file name>
Usage: dlfirmware
Usage: seteep <HEX RegStartAddr> <HEX Byte 0> <HEX Byte 1>...<HEX Byte N>
Usage: dbgmsg <mode>
      <mode>: 0: Disable   1: Enable
Usage: connstatus
Usage: ping xxx.xxx.xxx.xxx
Usage: setdef
telnet>

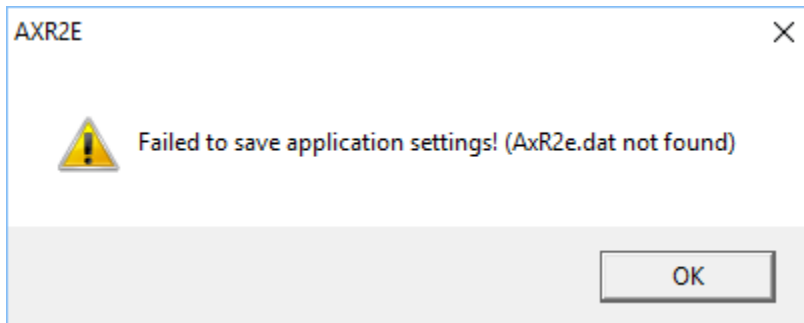
```

Use the commands “help” or “sethelp” to get an overview of the parameters. Please refer to the full command list for all available commands.

Known issues

Problem:

Configuration utility shows this error when exiting:



Cause:

If the configuration utility was not started with Administrator rights this error will show up when closing the software.

Solution:

Always start the configuration software with Administrator rights.