Serial to Ethernet communication without Virtual COM software

Setup guide

**by Usconverters.com**

for Windows 7, 32-bit

When using a serial to Ethernet Device Server a Virtual COM software is usually used for creating a COM port in Windows Device Manger. This is the easiest way of creating and establishing a communication link, however if you for whatever reason wish to create a communication link without using a Virtual COM software this can also be accomplished with most Serial Ethernet Device Servers.

This guide is created for Windows 7, 32-bit and the Serial to Ethernet Device Server part XS1000 from USconverters.com, but same approach can be applied with other versions of Windows and other Device Servers.

1. **Assign a static IP address**

2. **Connect to the XS1000**

3. **Setting up a serial device**

4. **Putty**

5. **AccessPort and test**

1. Assign a static IP address.

Assign a static IP address to the network connection on which you connect the XS1000:
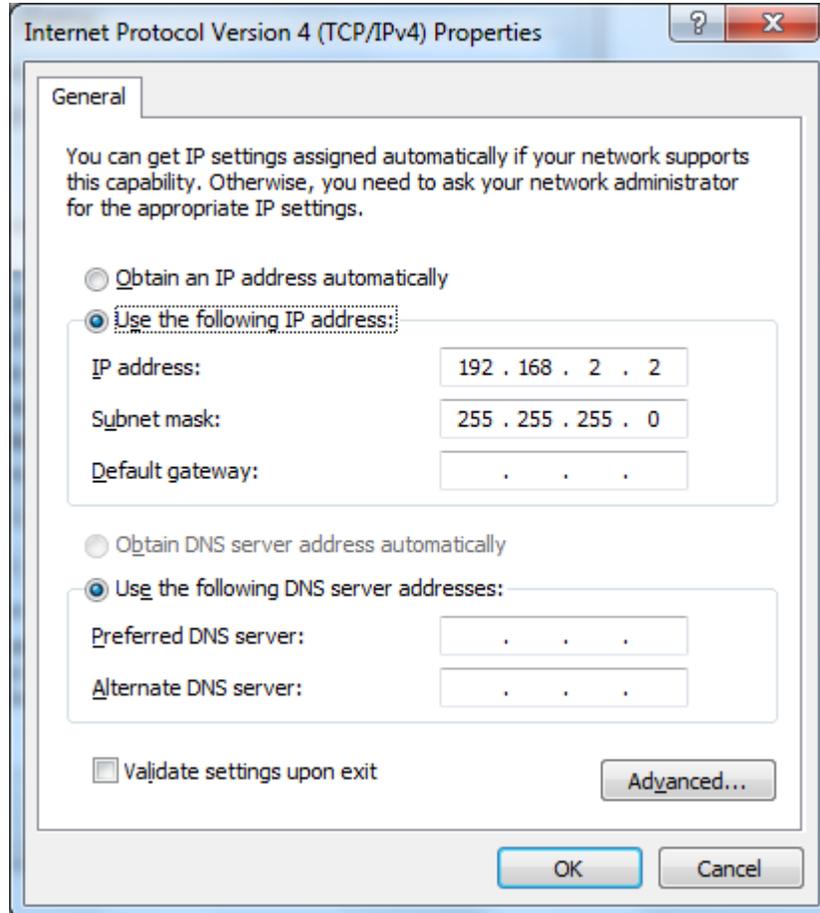
2. Connect to the XS1000

Connect the XS1000 to your computer with a cross-over Ethernet cable and turn on the power to the unit. Open a web-browser, enter 192.168.2.1 and check that you successfully can connect and log-in to the XS1000 (user name: admin, password: system). Make sure the settings are as below (these are the default settings):

TCP Control

Item	Value
Telnet Server/Client	⦿ Server ○ Client ○ Disable
Port Number	23
Remote Server IP Address	210 .200 .181 .102
Client mode inactive timeout	20 minute (1~99,0=Disable)
Server mode protect timeout	60 minute (1~98,0=Disable,99=Can't replace)

Update

Administrator Setting
TCP Mode
UDP Mode
UART
Reset Device

UDP

Item	Value		
Status	○ Enable ⦿ Disable		
Local Port	21		
	IP		Port
Remote Address	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0
	0 . 0 . 0 . 0		0

Update

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http://192.168.2.1/login.htm - Windows Internet Explorer

http://192.168.2.1/login.htm

File   Edit   View   Favorites   Tools   Help

Favorites   http://192.168.2.1/login.htm

Page ▾   Safety ▾   Tools ▾   ❓ ▾

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UART Control

| Item	Setting
Mode	RS232 ▾
Baudrate	57600 ▾
Character Bits	8 ▾
Parity Type	none ▾
Stop Bit	1 ▾
Hardware Flow Control	none ▾
Delimiter	☐ Character 1: 00 , ☐ Character 2: FF ☐ Silent time: 5 (1~255)*200ms ☐ Drop Character
	Update

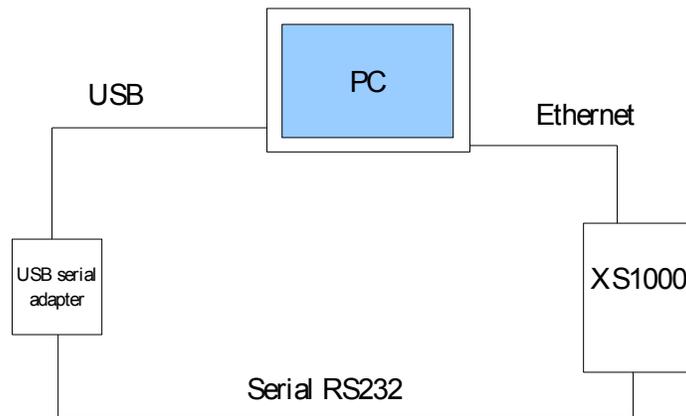Internet | Protected Mode: Off   ⬜ 95%

3. Setting up a serial device.

To be able to properly test this setup we connect a USB to RS232 serial adapter to the computer's USB port, install the drivers for this and connect it to the XS1000's COM port, (we can find the created COM port in Windows Device Manger as below image shows).
This COM port simulates a serial device connected to the XS100's COM port.
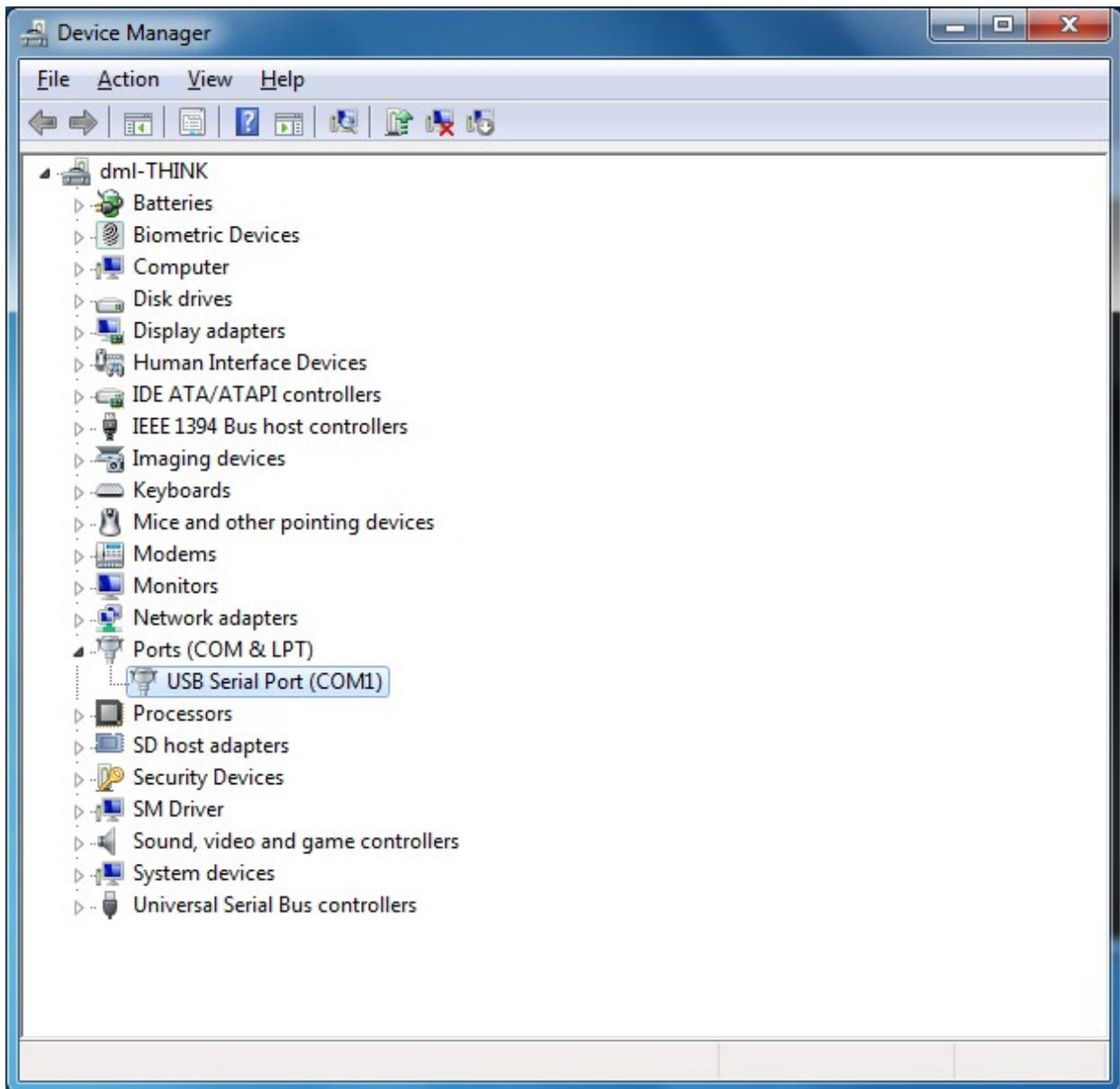
We have now created a loop going from your computer's Ethernet port to the XS1000's Ethernet, out of the XS1000's COM port, into the serial port of the USB to serial adapter which is connected to your computer's USB port.

```
                    ┌──────────┐
                    │┌────────┐│
        USB         ││   PC   ││     Ethernet
                    │└────────┘│
                    └──────────┘
     ┌──────────┐                    ┌──────────┐
     │USB serial│                    │          │
     │ adapter  │                    │  XS1000  │
     └──────────┘                    │          │
                                     └──────────┘
                    Serial RS232
```
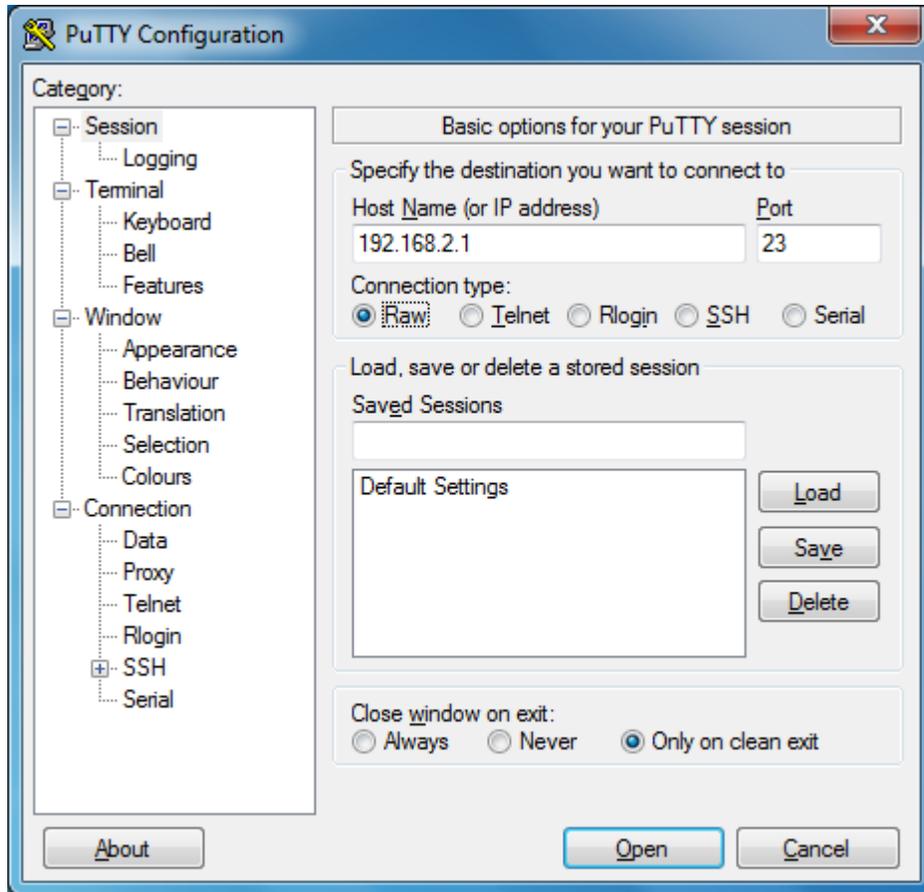
4. Putty

For sending and receiving data via Ethernet you will need the software called Putty, you can download it at www.USconverters.com or at the official website:

http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

Install and start Putty, make sure the setting are as shown in below image and click Open:
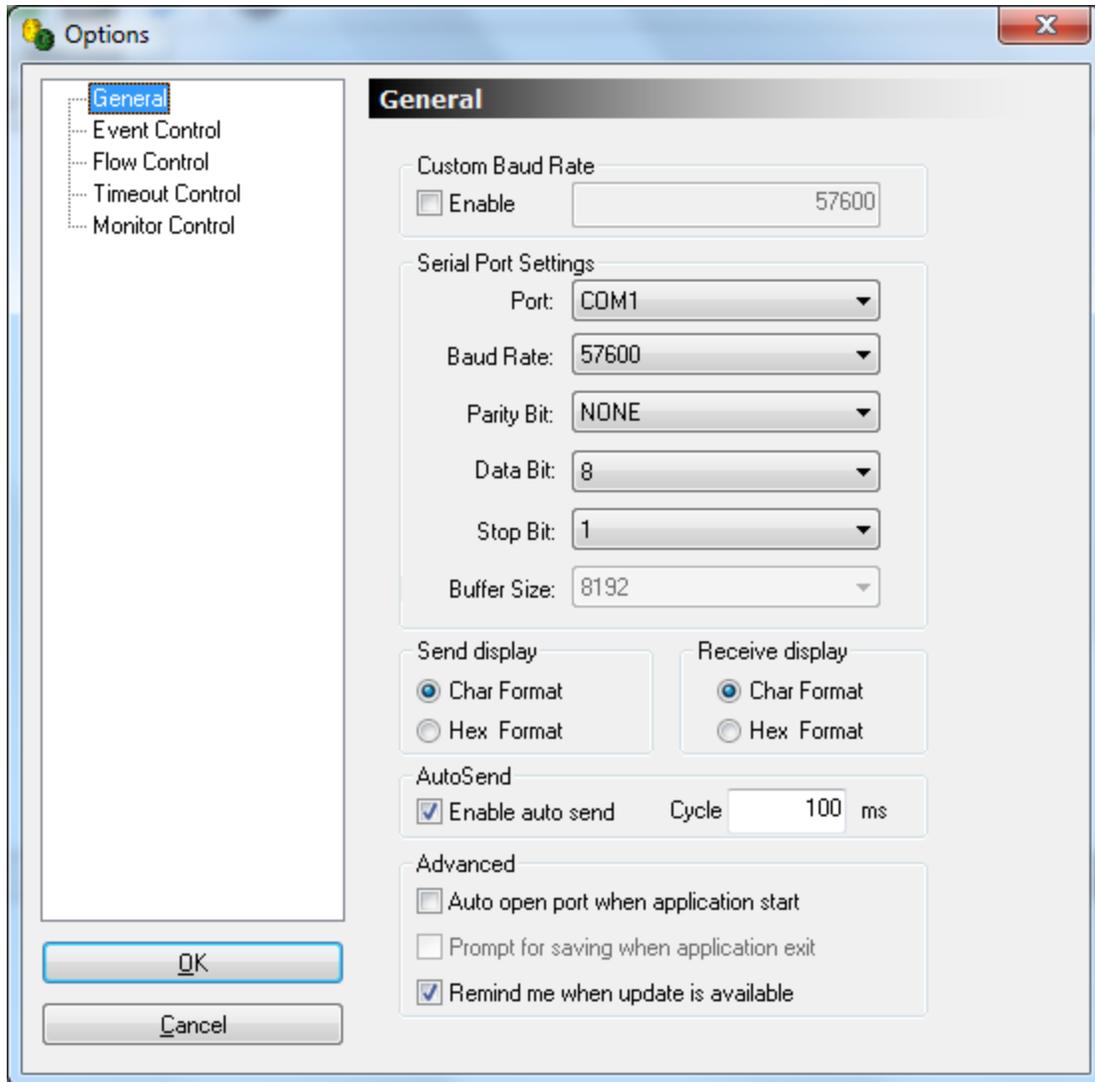
Putty will open a connection to the XS1000, standing by with a ready prompt:
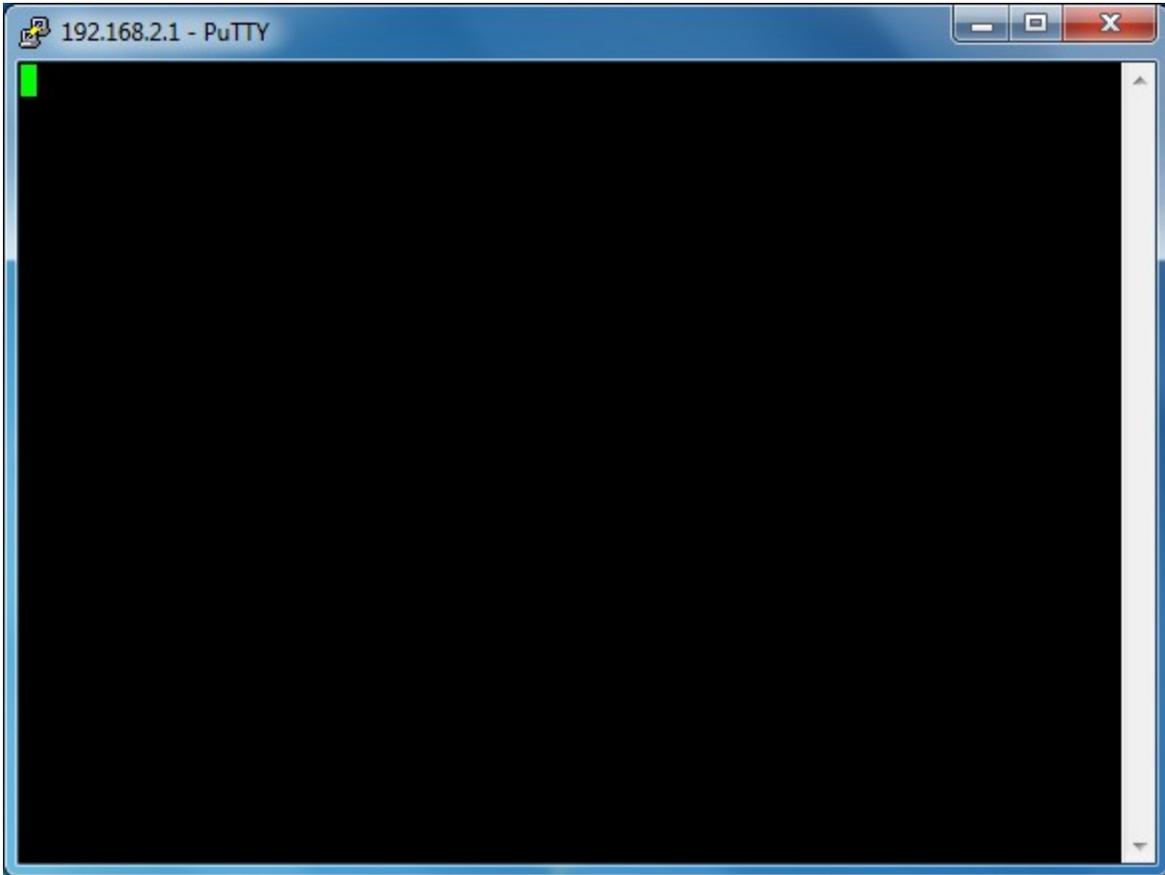
5. AccessPort

To be able to send and receive data via the serial side of this setup you will need the software called AccessPort which can be downloaded at www.USconverters.com.

Start AccessPort and click on Tools ➔ Configuration, make sure the settings are as shown below and click OK:

Open the COM port created by the USB serial adapter (COM 1) by clicking Tools ➔ Port Switch in AccessPort . You should now be able to enter a data string in the 'Send' window (lower window) and click the 'AutoSend' button where after you should be able to see the sent data being received by Putty.
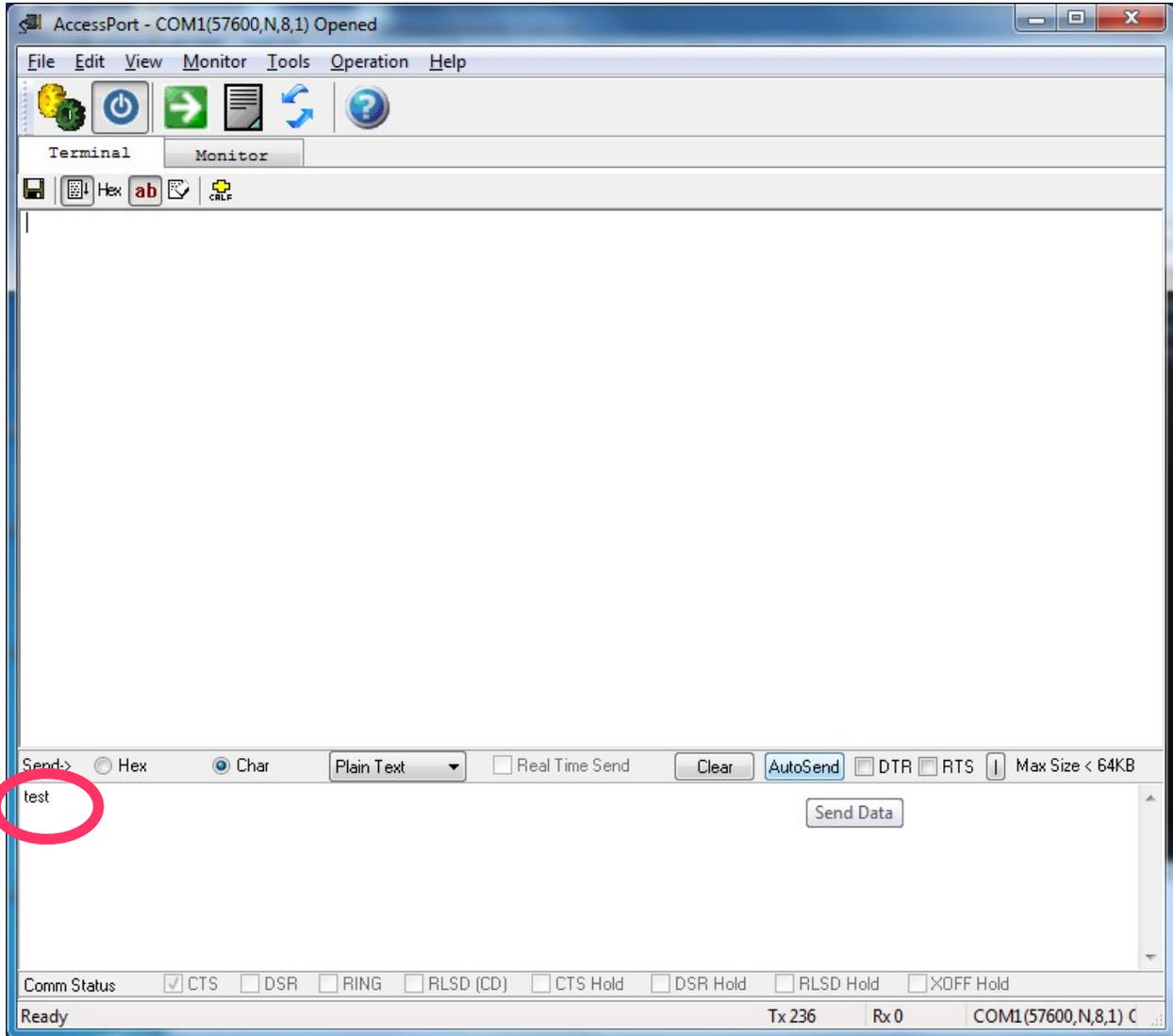
Data being received by Putty:
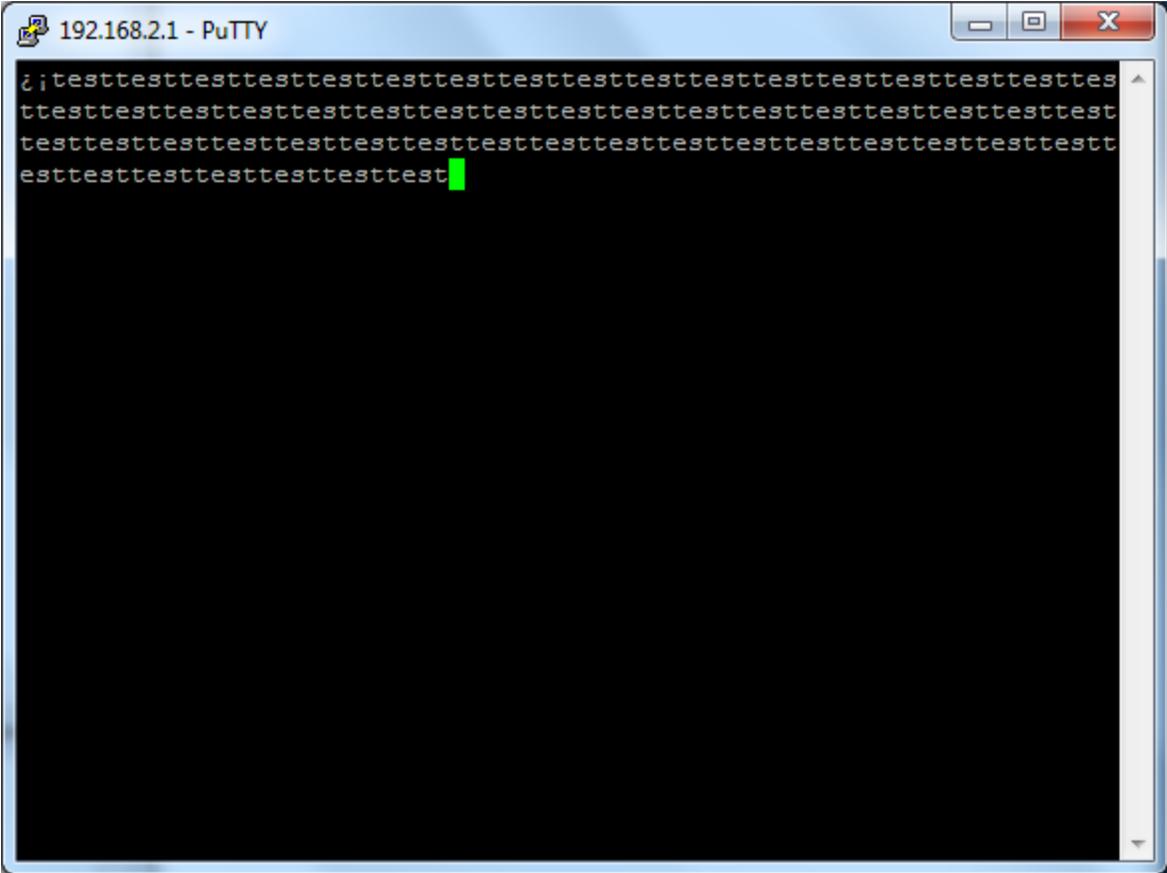
The same scenario works the other way around. Enter data strings at the Putty terminal and press Enter:
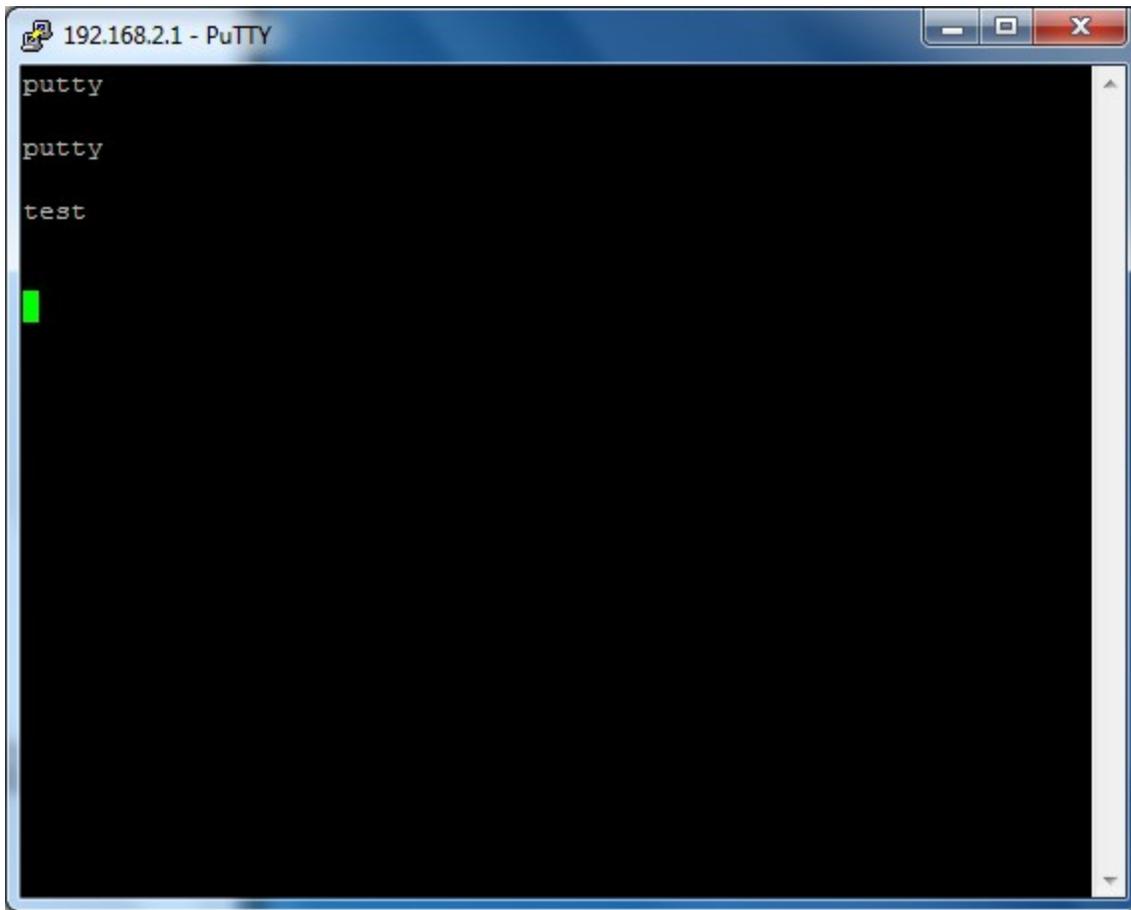
and you will receive the sent data strings in AccessPort's receive window: