

## **Serial to Ethernet communication without Virtual COM software**

### **Setup guide**

by Nordfield.com

for BF430 on Windows XP/7, 32-bit

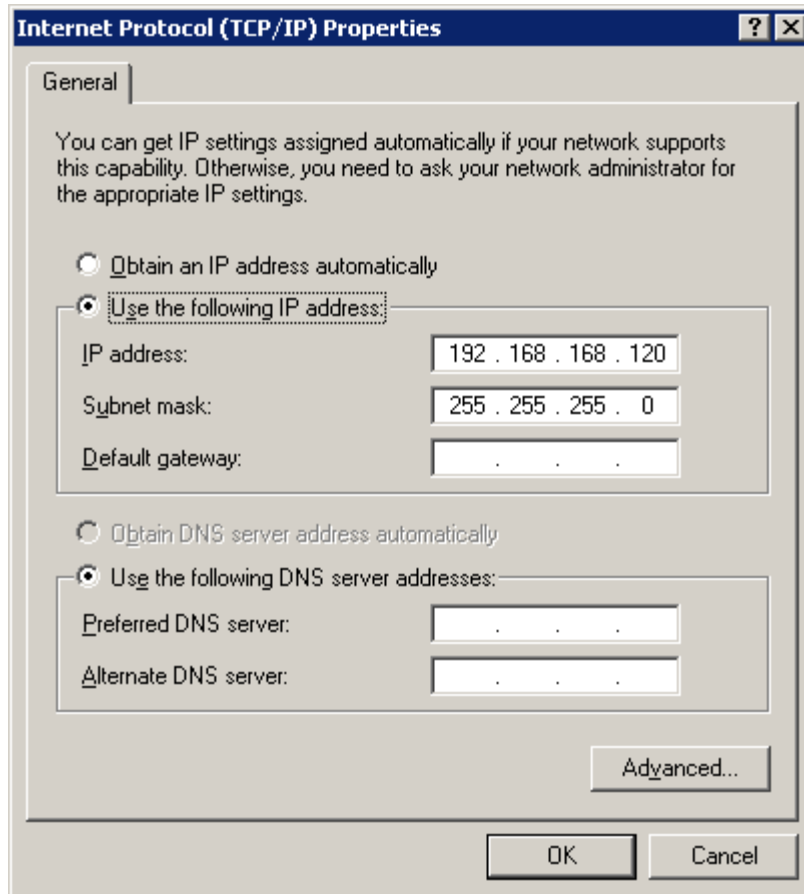
When using a serial to Ethernet Device Server a Virtual COM software is usually used for creating a COM port in Windows Device Manger. This is the easiest way of creating and establishing a communication link, however if you for whatever reason wish to create a communication link without using a Virtual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

This guide is created for Windows XP/7, 32-bit and the Serial to Ethernet Device Server part BF430 from Nordfield.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 BF430
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 BF430:



## 2. Connect to the BF430

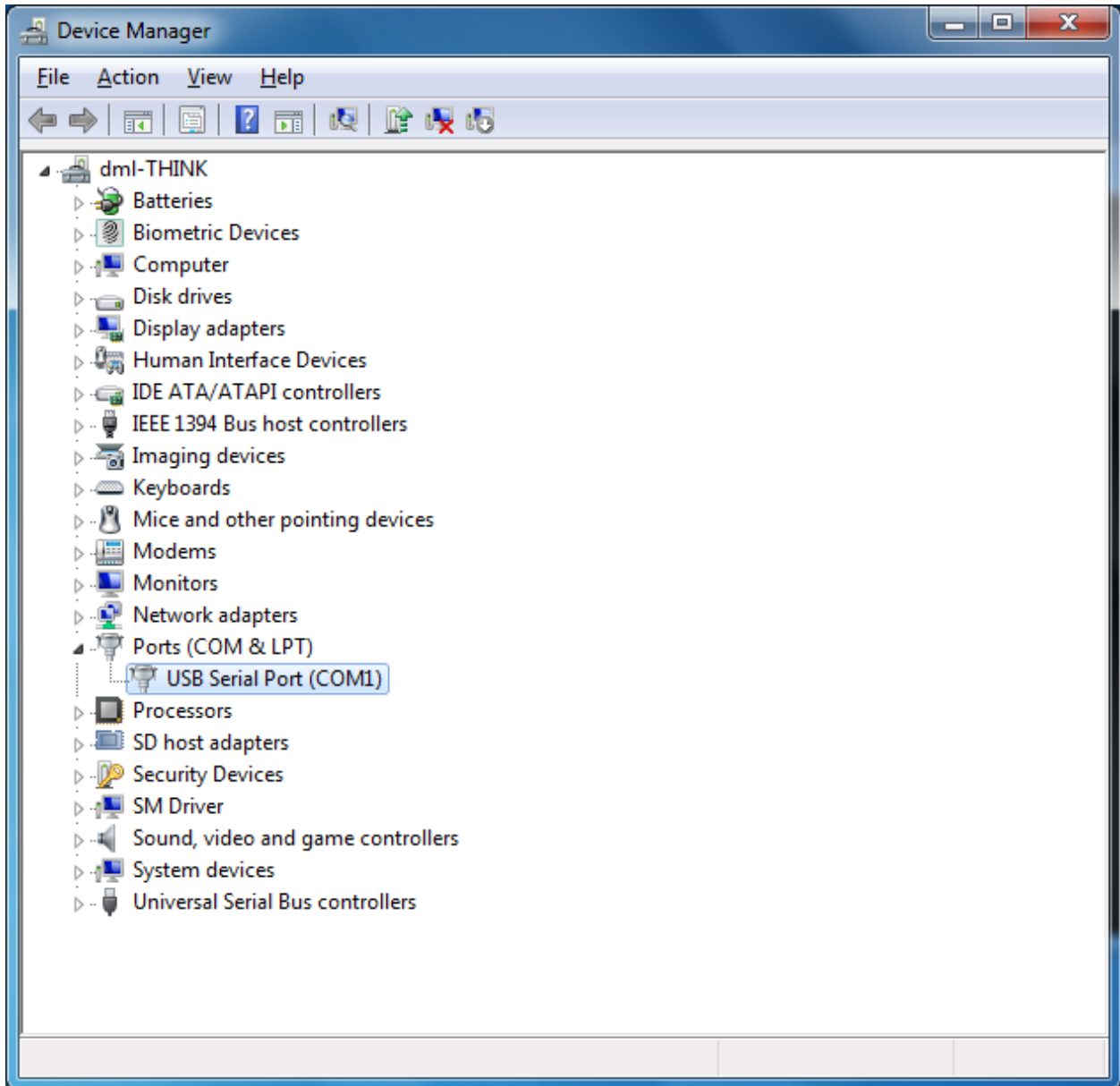
Connect the BF430 to your computer with a cross-over Ethernet cable and turn on the power to the unit.

Open a web-browser, enter 192.168.168.125 and check that you successfully can connect and log-in to the BF430 (user name: admin, password: admin). Make sure the use the default settings for the BF430, if needed reset the BF430 to factory settings.

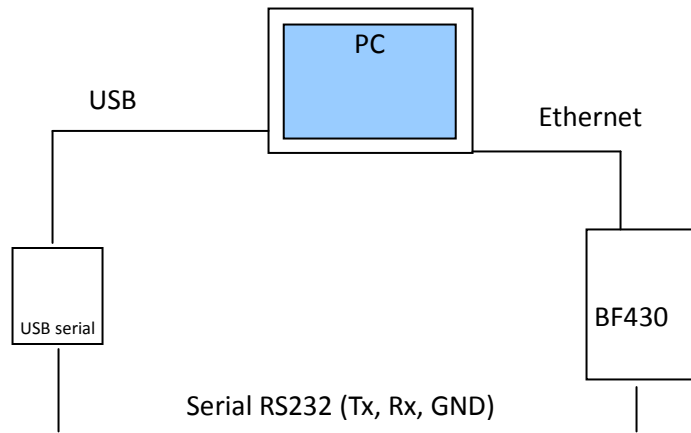
### 3. Setting up a serial device.

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 BF430'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 BF430's COM port.



We have now created a loop going from your computer's Ethernet port to the BF430's Ethernet, out of the BF430's COM port, into the serial port of the USB to serial adapter which is connected to your computer's USB port.



**Tx, Rx and GND must be properly connected.**

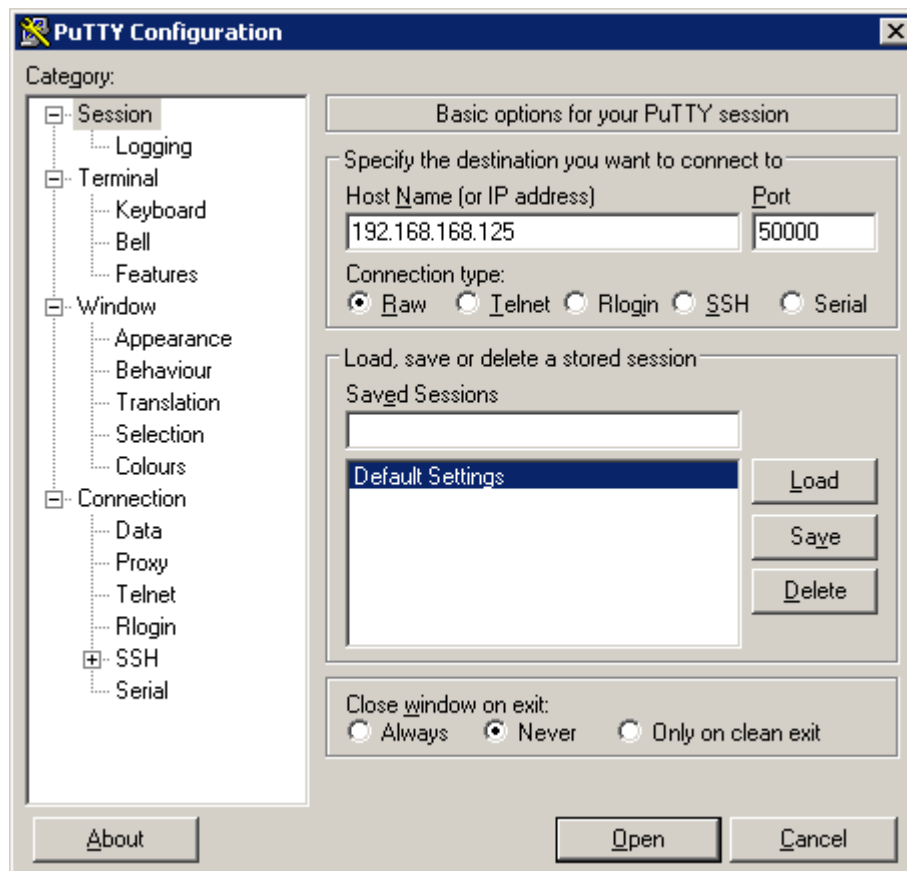
**Also make sure that the selector switch on the BF430 is in the RS232 position.**

#### 4. Putty

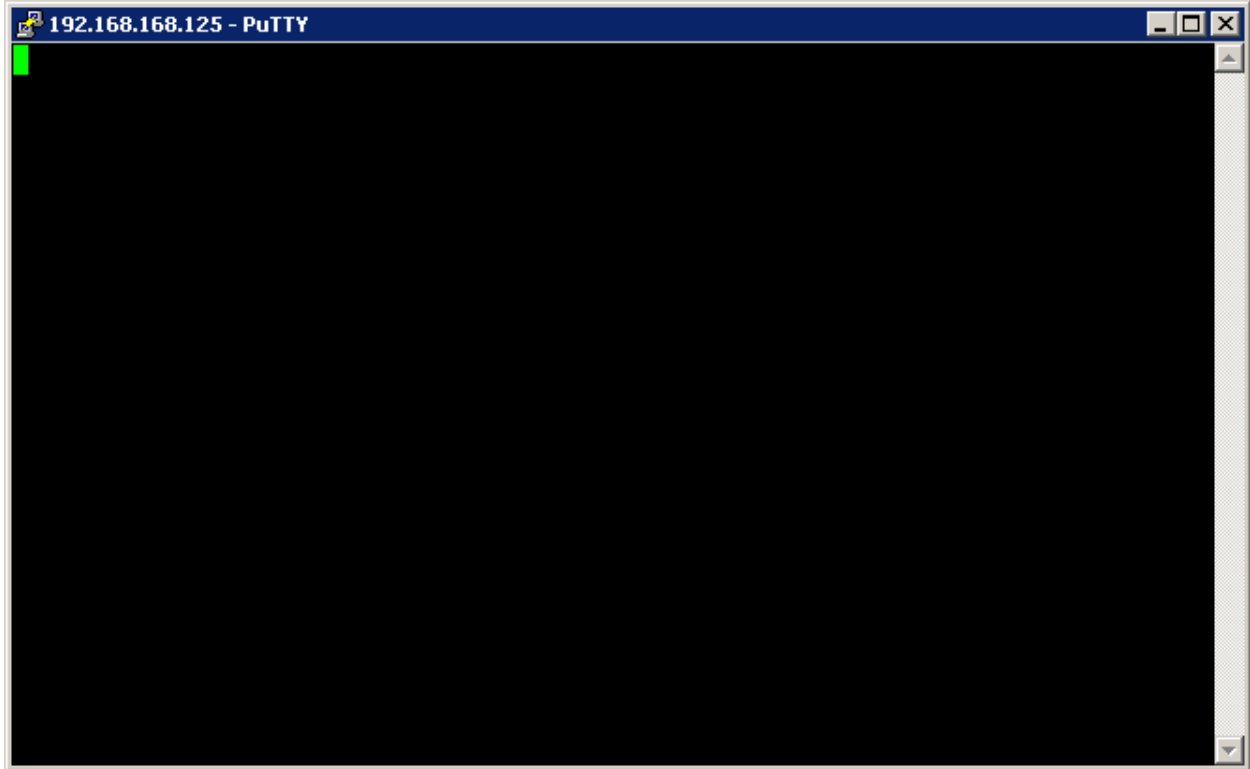
For sending and receiving data via Ethernet you will need the software called Putty, you can download it at [www.Nordfield.com](http://www.Nordfield.com) or at the official website:

<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:



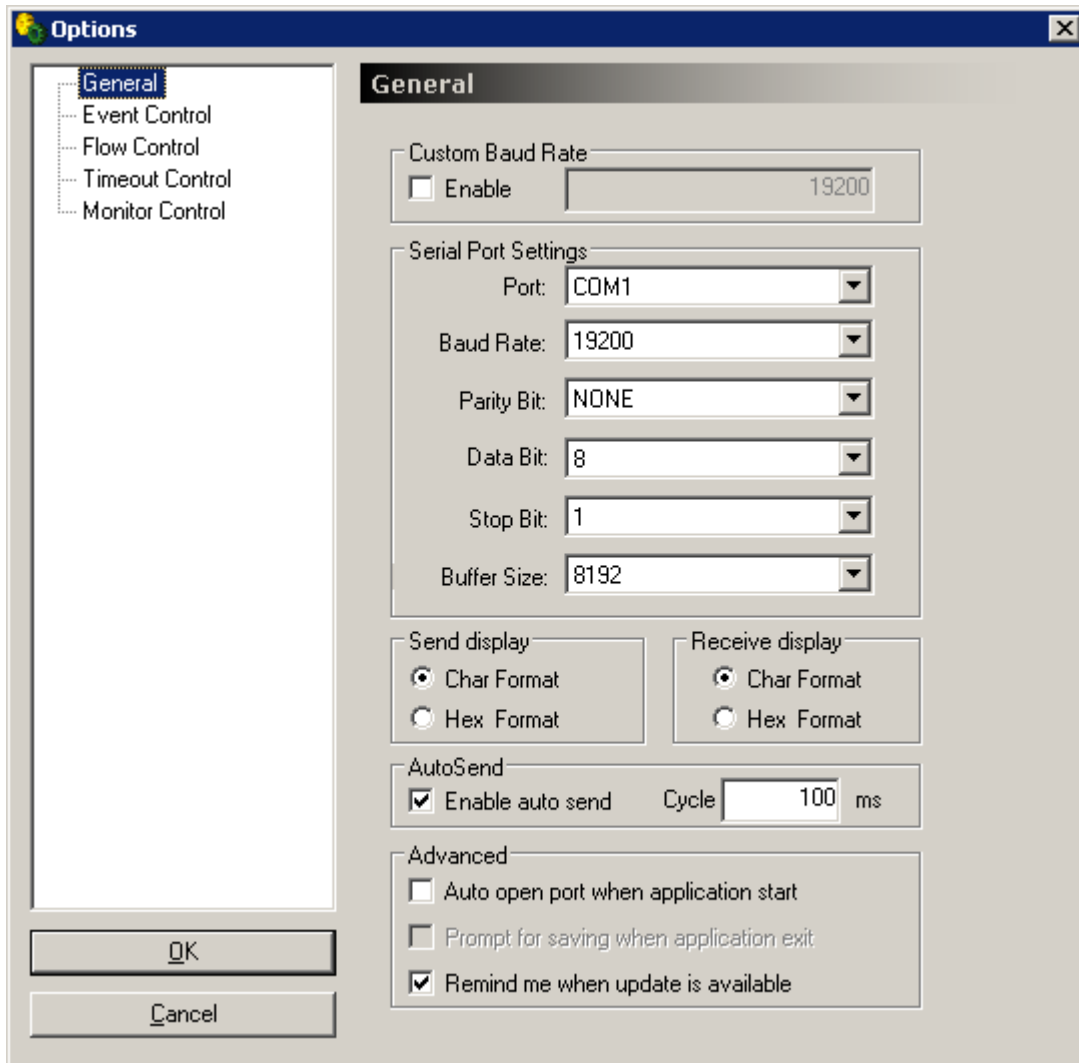
Putty will open a connection to the BF430, standing by with a ready prompt:



### 5. AccessPort

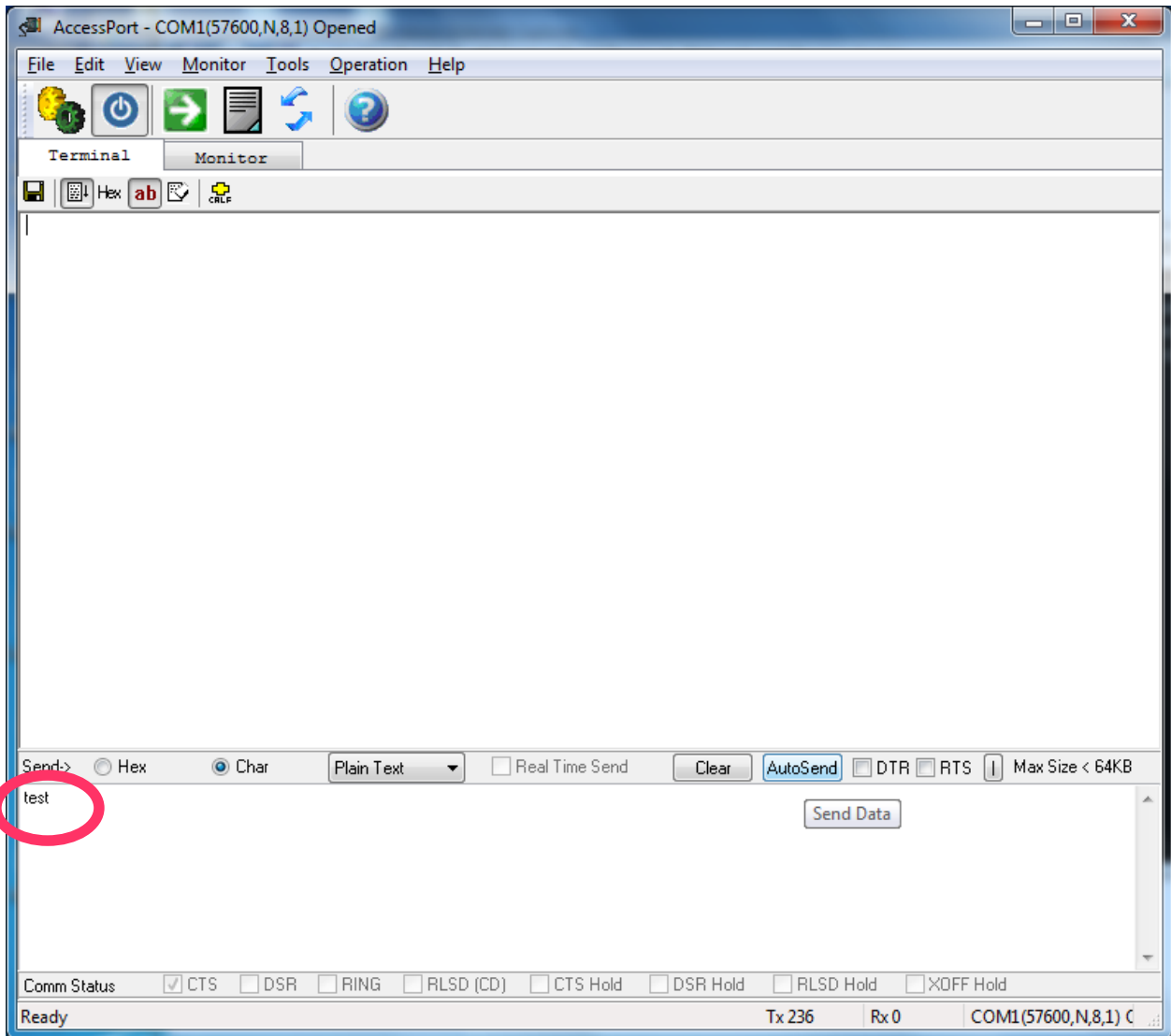
To be able to send and receive data via the serial side of this setup you will need the software called AccessPort which can be downloaded at [www.Nordfield.com](http://www.Nordfield.com).

Start AccessPort and click on Tools → Configuration, make sure the settings are as shown below (these are the default settings of the BF430 and USB serial adapter) and click OK:

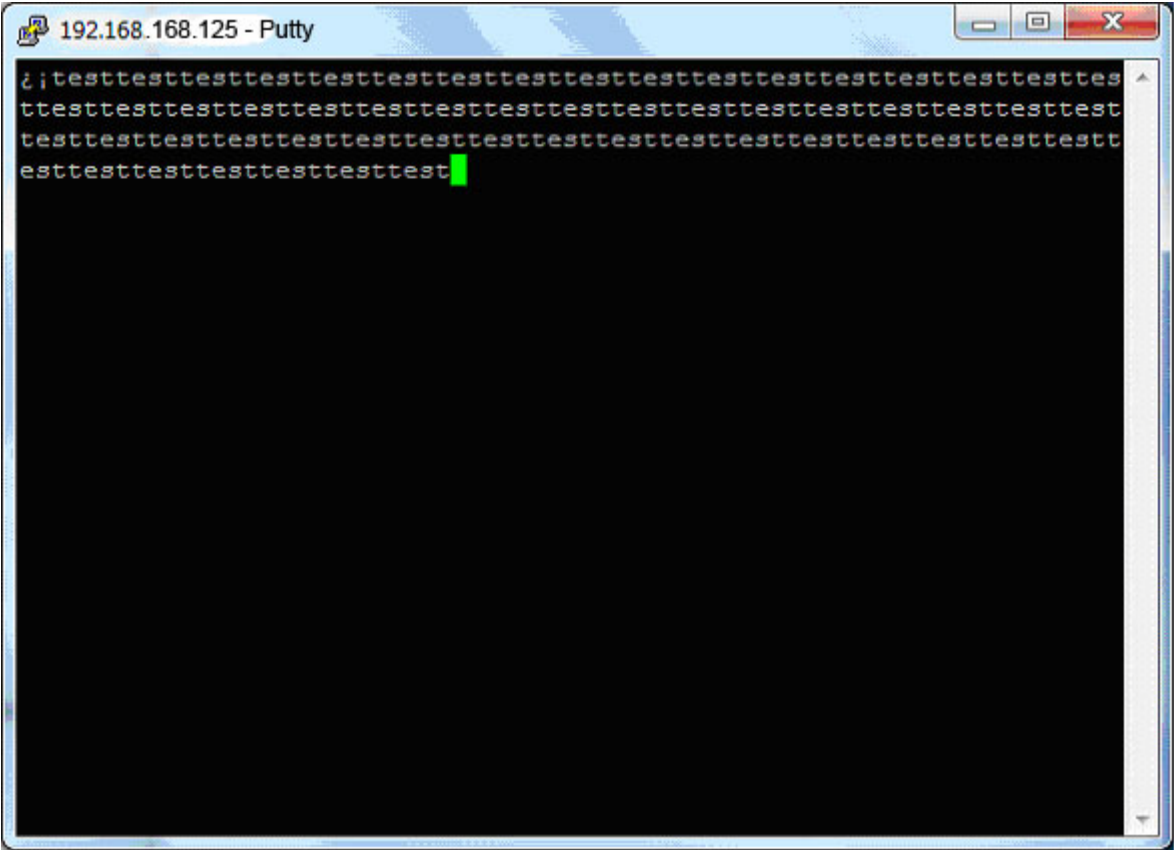




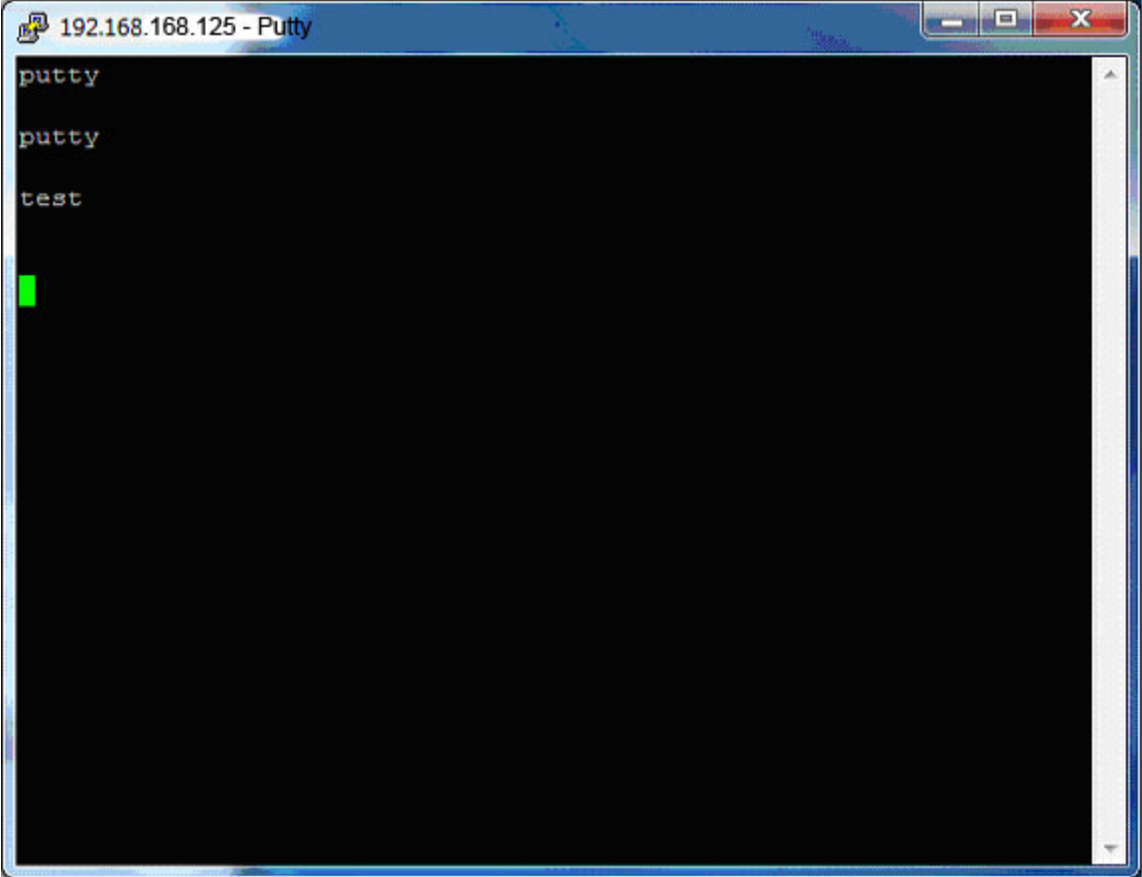
Open the COM port created by the USB serial adapter (COM 1) by clicking Tools → Port Switch in AccessPort . You should now be able to enter a data string in the 'Send' window (lower window) and click the 'AutoSend' button where after you should be able to see the sent data being received by Putty.



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:

