

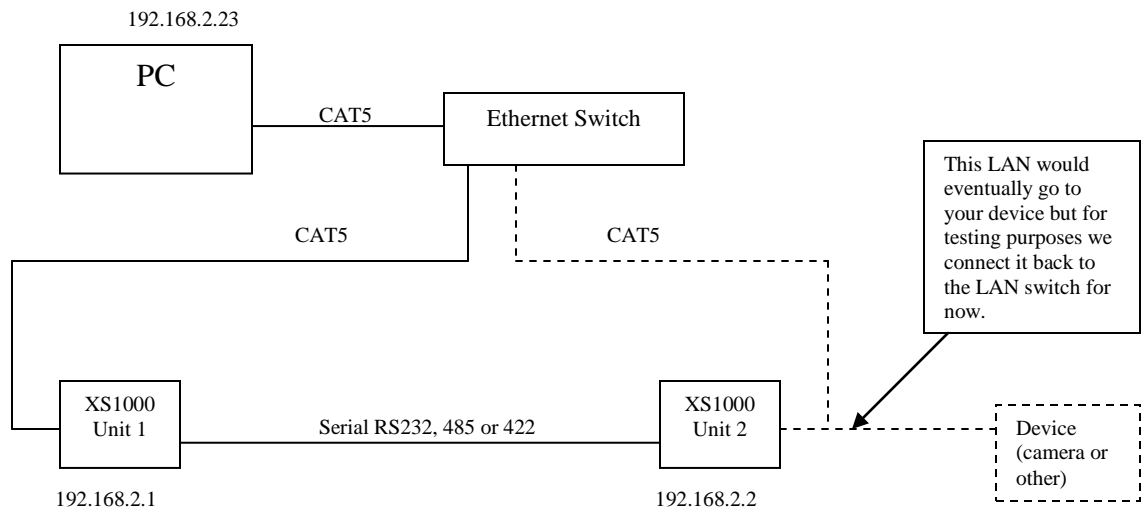
# Tunneling Mode over Serial

for XS1000/BF430

This guide describes how to setup and test communication between two serial device servers over the serial RS232/422/485 link.

This guide is based on the XS1000 serial device server with Windows XP.

The devices should be setup as following:



If RS232, connect:	Tx on unit 1 to Rx on unit 2 Rx on unit 1 to Tx on unit 2
If RS485, connect:	D+ on unit 1 to D+ on unit 2 D- on unit 1 to D- on unit 2
If RS422, connect:	Tx- on unit 1 to Rx- on unit 2 Rx- on unit 1 to Tx- on unit 2 Tx+ on unit 1 to Rx+ on unit 2 Rx+ on unit 1 to Tx+ on unit 2

Set the static IP address of your computer. In this example we use 192.168.2.23.

**Internet Protocol (TCP/IP) Properties** [?] [X]

**General**

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 2 . 23

Subnet mask: 255 . 255 . 255 . 0

Default gateway: . . . .

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . . .

Alternate DNS server: . . . .

Advanced...

OK Cancel

Log in to the XS1000 unit 1 and check the IP address is 192.168.2.1. (this is the default).

The screenshot shows a web browser window titled "http://192.168.2.1/ - Windows Internet Explorer". The address bar shows "http://192.168.2.1/". The browser has a menu bar with "File", "Edit", "View", "Favorites", "Tools", and "Help". Below the menu bar is a "Favorites" section with a star icon and a list of links: "http://192.168.2.1/" and "http://192.168.2.2/". The main content area is titled "Administrator Setting". On the left side, there is a sidebar with links: "Administrator", "Setting", "TCP Mode", "UDP Mode", "UART", "Reset", and "Device". The main content area contains a table with the following information:

Kernel Version	V1.42 2009/07/29
MAC Address	00:11:22:51:0D:33
Nickname	NetUART
IP Setting	
IP Address	192 . 168 . 2 . 1
Subnet Mask	255 . 255 . 255 . 0
Gateway	0 . 0 . 0 . 0
IP Configure	<input checked="" type="radio"/> Static <input type="radio"/> DHCP
Password Setting	
Username	admin max:15
Password	..... max:15
Confirm	.....
<input type="button" value="Update"/>	
Load Default Setting to EEPROM <input type="button" value="Load"/>	

The IP address "192 . 168 . 2 . 1" is highlighted with a red circle. The browser status bar at the bottom shows "Done", "Internet", and "100%".

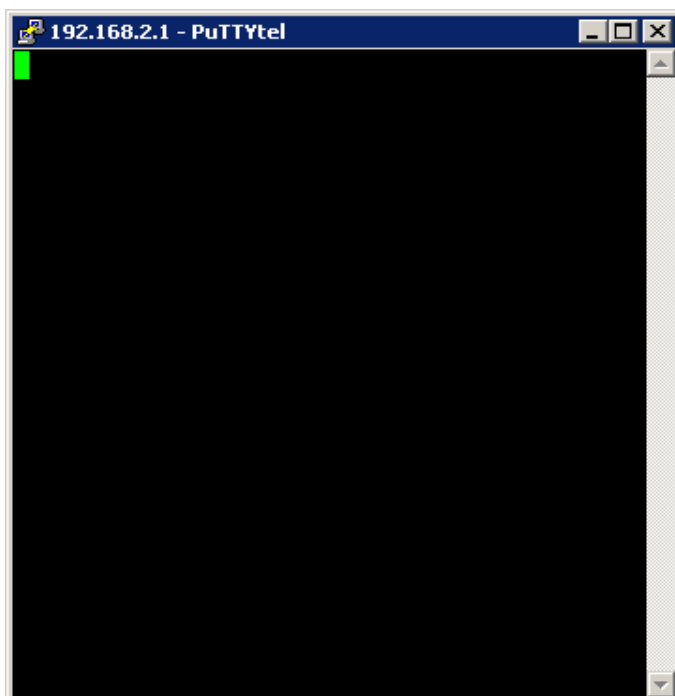
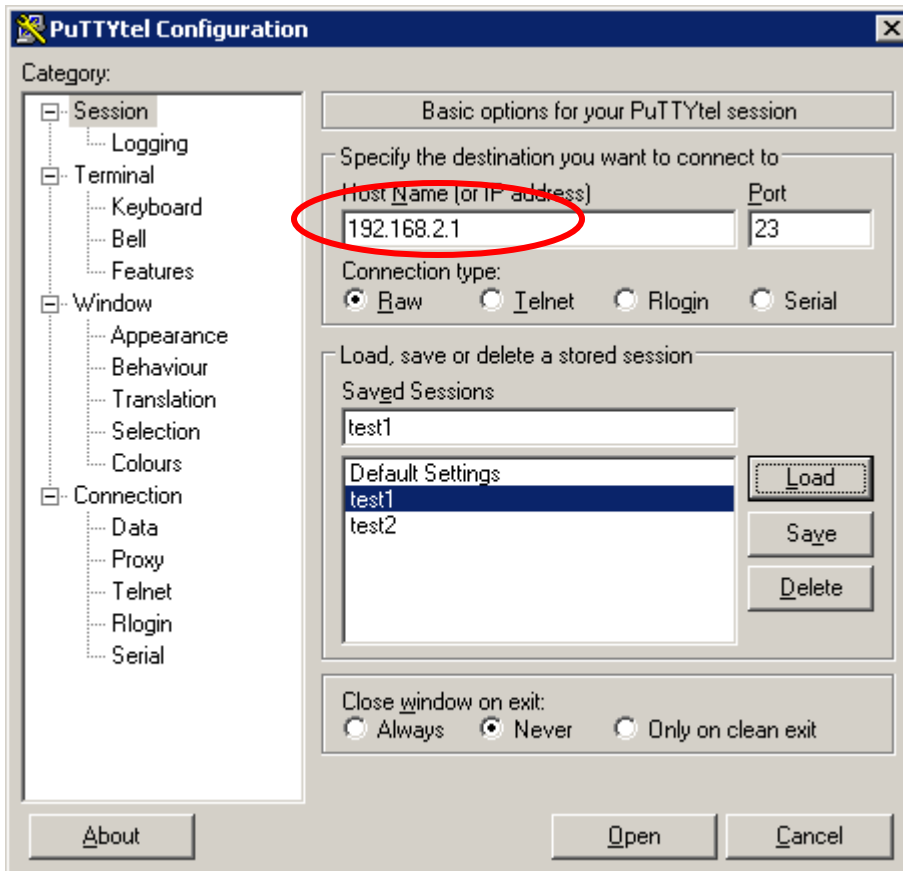
Log in to XS1000 unit 2 and set the IP address to 192.168.2.2.

The screenshot shows a web browser window titled "http://192.168.2.2/ - Windows Internet Explorer". The address bar shows "http://192.168.2.2/". The browser has a menu bar with "File", "Edit", "View", "Favorites", "Tools", and "Help". Below the menu bar is a "Favorites" section with a star icon and a list of links: "http://192.168.2.1/" and "http://192.168.2.2/". The main content area is titled "Administrator Setting". On the left side, there is a sidebar with links: "Administrator", "Setting", "TCP Mode", "UDP Mode", "UART", "Reset", and "Device". The main content area contains a table with the following information:

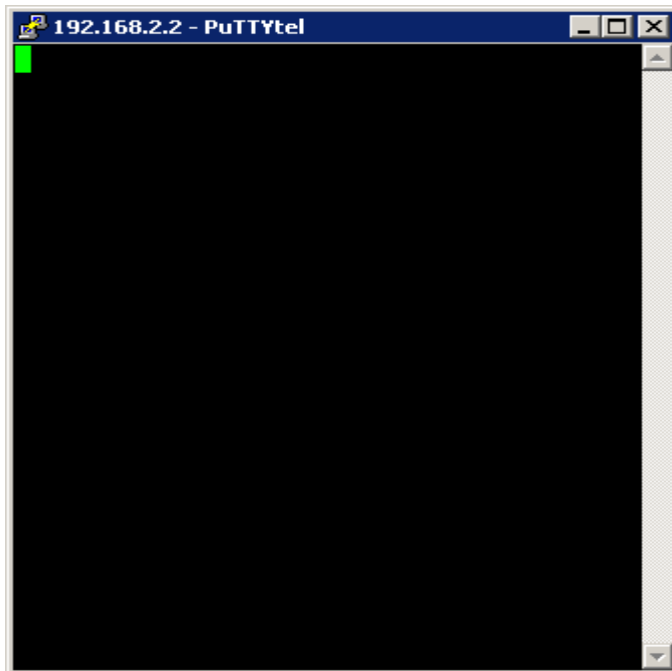
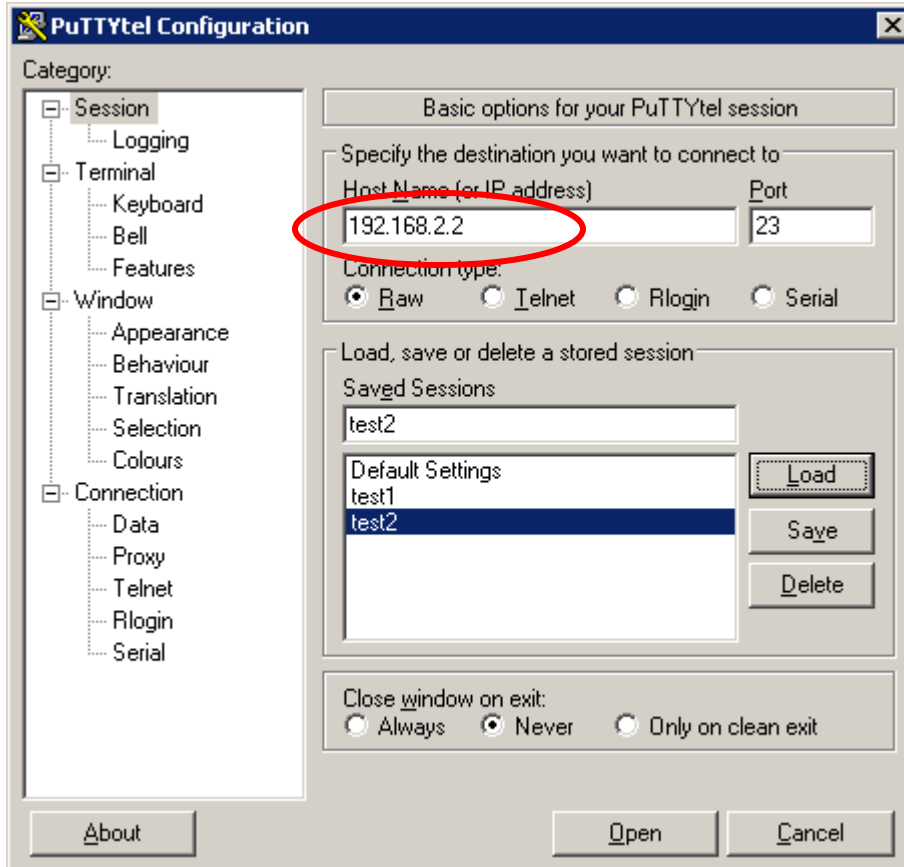
Kernel Version	V1.43 2010/01/21
MAC Address	00:11:22:6C:28:75
Nickname	NetUART
IP Setting	
IP Address	192 . 168 . 2 . 2
Subnet Mask	255 . 255 . 255 . 0
Gateway	192 . 168 . 2 . 1
IP Configure	<input checked="" type="radio"/> Static <input type="radio"/> DHCP
Password Setting	
Username	admin max:15
Password	..... max:15
Confirm	.....
Update	
Load Default Setting to EEPROM	Load

The IP address "192 . 168 . 2 . 2" is highlighted with a red circle. The "Update" button is located below the password fields. The "Load Default Setting to EEPROM" button is located at the bottom of the form.

Start Putty (can be downloaded from [www.Nordfield.com](http://www.Nordfield.com)) and open a connection to each XS1000. Here are the settings for unit 1:



Here are the settings for unit 2:



With the two sessions open, one for each XS1000, you can now send data back and forth between the two units over the serial connection via LAN.

