Tech Notes

LT-3100 Serial Port Redirector

This Tech Note describes how to install, configure, and verify the Serial Port Redirector (a virtual serial port redirector for Windows).

The Serial Port Redirector is a Windows application and driver that enables a Windows PC to take full advantage of the LT-3100 Satellite Communications System's Modem capabilities (Modem Data, SMS, and SBD) when the Windows PC is connected, directly or through a local network, to the LT-3100 Satellite Communications System using an Ethernet cable, thus eliminating the range limitations of old RS-232 serial cable installations. The Serial Port Redirector creates a virtual serial port for backward compatibility with old Windows applications requiring a Windows COM port.

Required Documentation

Serial Port Redirector License obtained from Lars Thrane A/S

Required Hardware & Dial-up

Personal Computer or Laptop. The following Windows 32 and 64-bit versions are support: Windows Vista, 7, 8, 8.1, 10, Server 2003, Server 2008, 2008 R2, Server 2012, 2012 R2.

LT-3100 Satellite Communication System with software version 1.03 or later (version 1.06 if used with Windows Dial-up Networking).

The PC and the LT-3100 Communication System shall be connected using an Ethernet cable – either directly or through a network (e.g. a router or switch).

Install Instructions

1) Download the latest version of the Serial Port Redirector from www.thrane.eu/lt-3100-iridium/ to the PC (if used with Windows Dial-up Networking, the version 2.8.11 or later is required).

2) Extract the content of the downloaded .zip file using your favorite archive tool (e.g. 7-Zip).

3) Run the extracted file named serial-port-redirector.msi. Windows may ask whether you want to allow the application to make changes to your device. If so, say Yes.

4) When Serial Port Redirector installer shows up, click on Next.
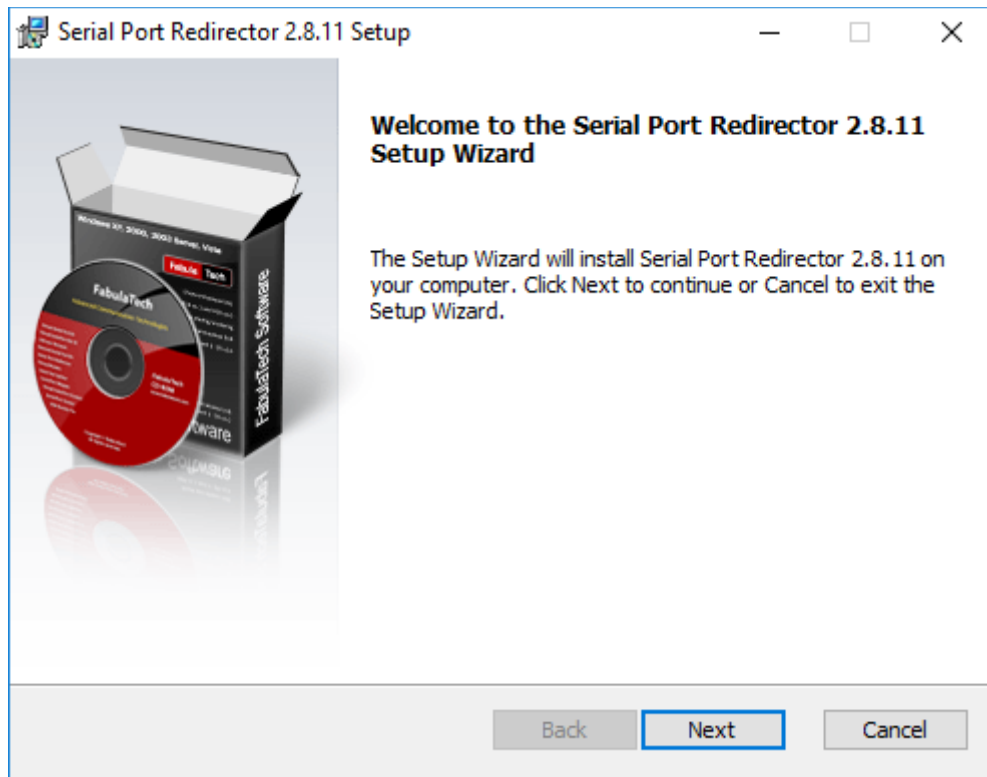
Figure 1 Installer greetings

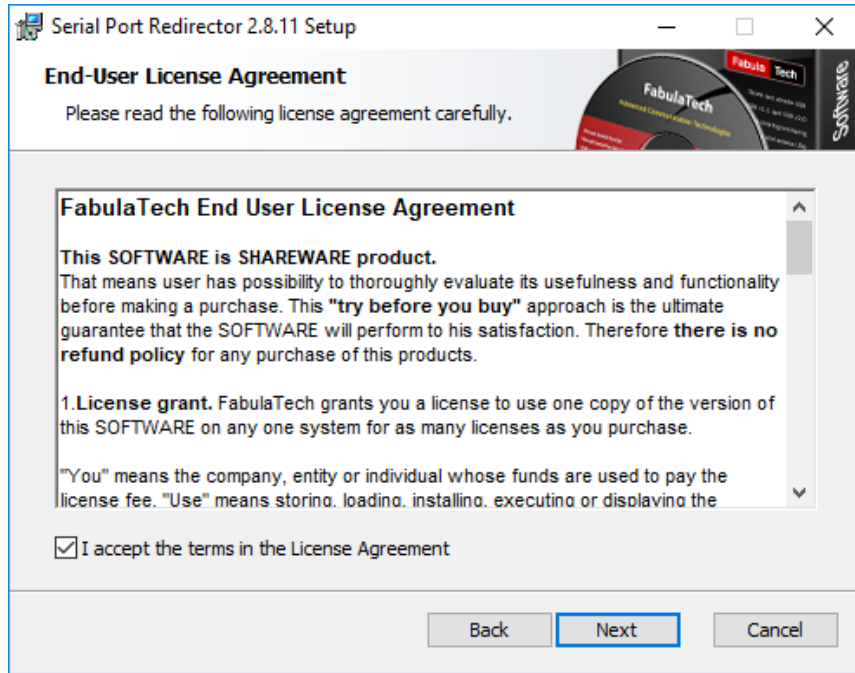5) On the next page check the "I accept the terms in the License Agreement" checkbox and click on Next.

Figure 2 Installer EULA

6) First select "I have license key and want to install full version", then copy the license obtained from Lars Thrane A/S into the text field and click on Next.
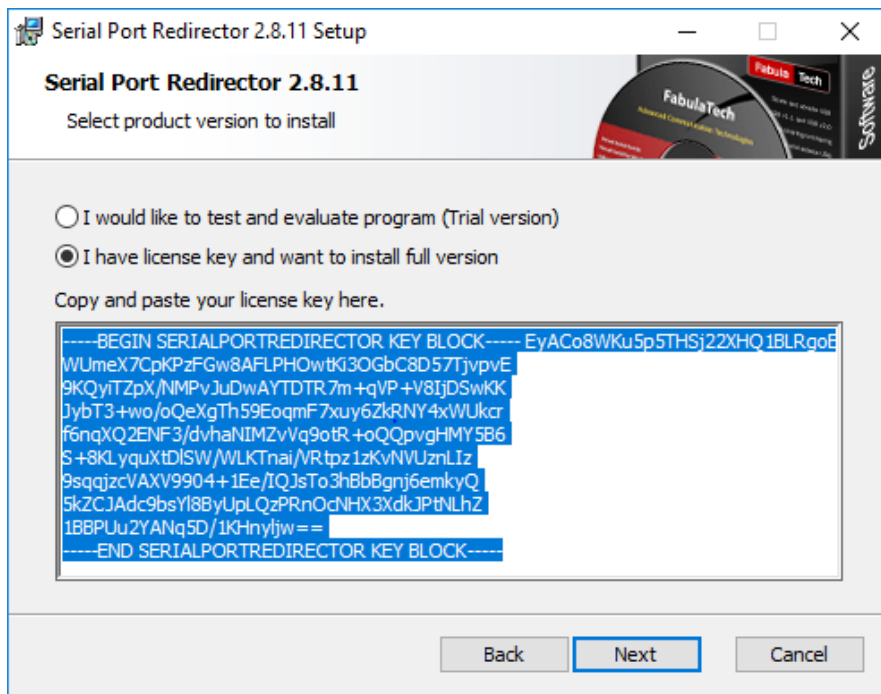

Figure 3 Installer license

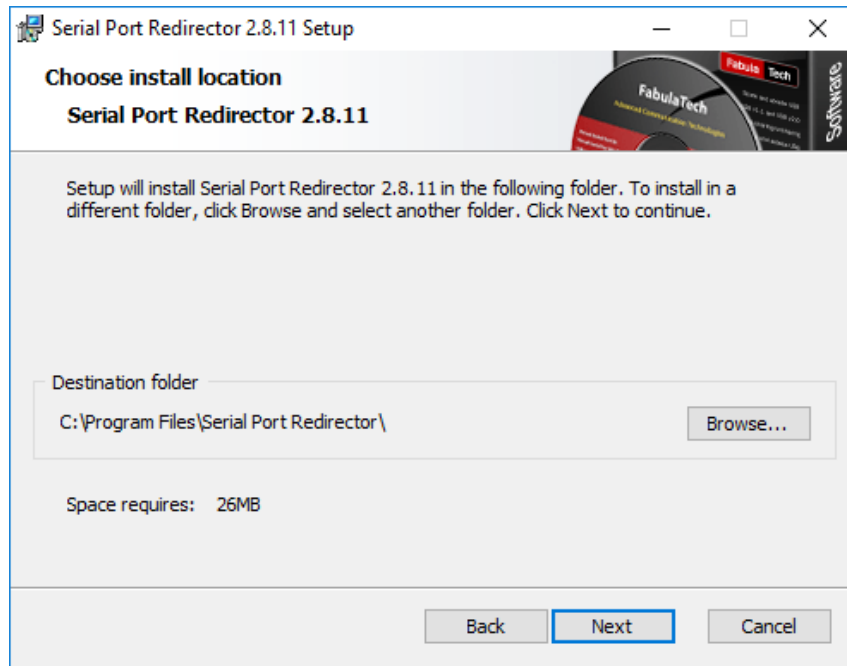7) Select a destination folder for the installation or keep the default and click on Next.

Figure 4 Installer location

8) It is recommended to keep the "Start Menu folder" checkbox checked, but to uncheck the "Desktop icon" (it is not necessary to manually start the Serial Port Redirector upon each power cycle of the PC). Click on Install to commence the install.
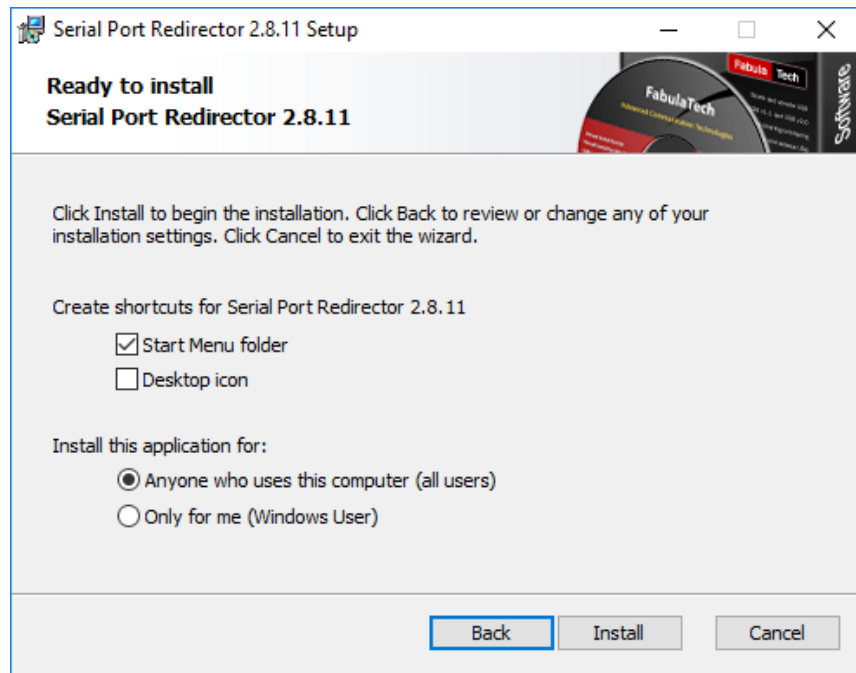
Figure 5 Installer install

9) When installation has successfully completed, the following page is shown. Uncheck the "View Quick Start guide" and click Finish.

Figure 6 Installer completed

Configuration Instructions

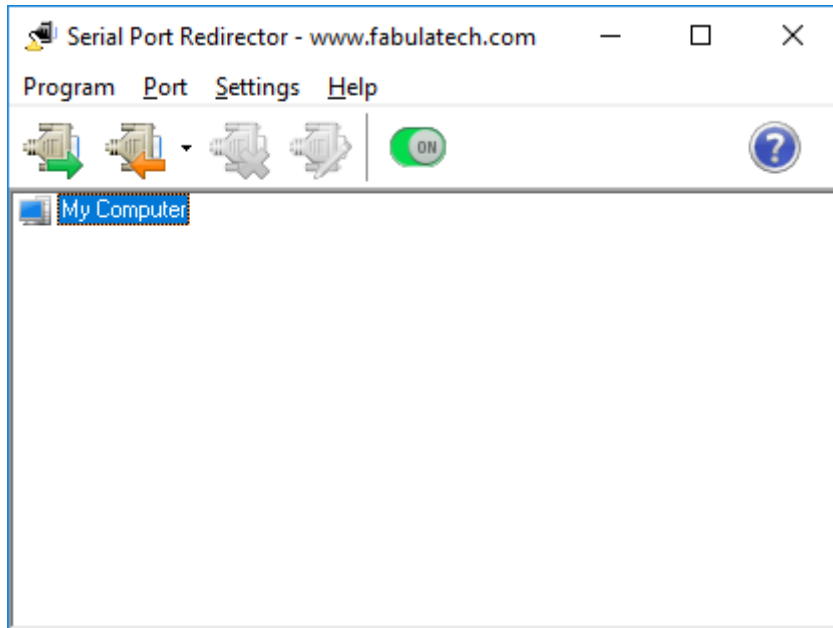1) If not already open and running, start the Serial Port Redirector from the Windows Start Menu.

Figure 7 Configuration clean install

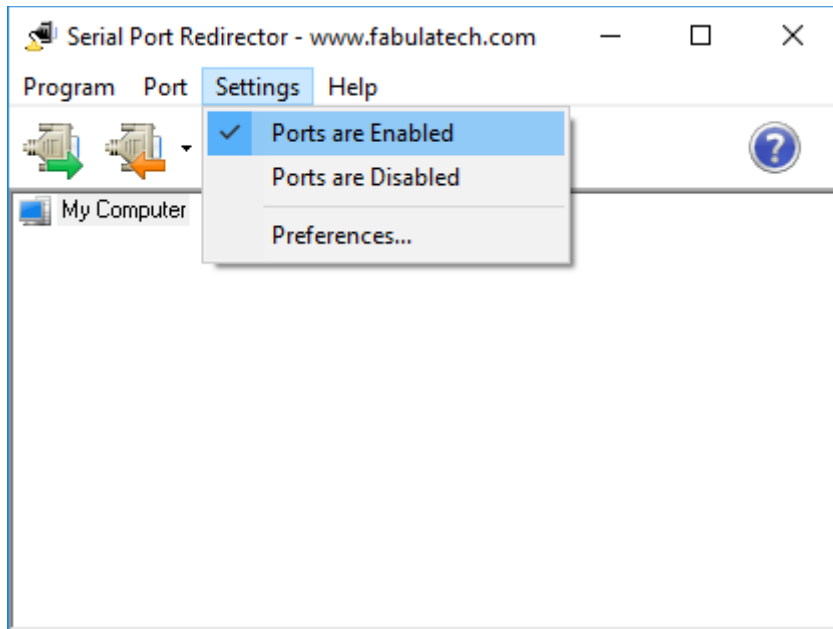2) First, enable the Serial Port Redirector by selecting the menu Settings - > Ports are Enabled:

Figure 8 Configuration enable
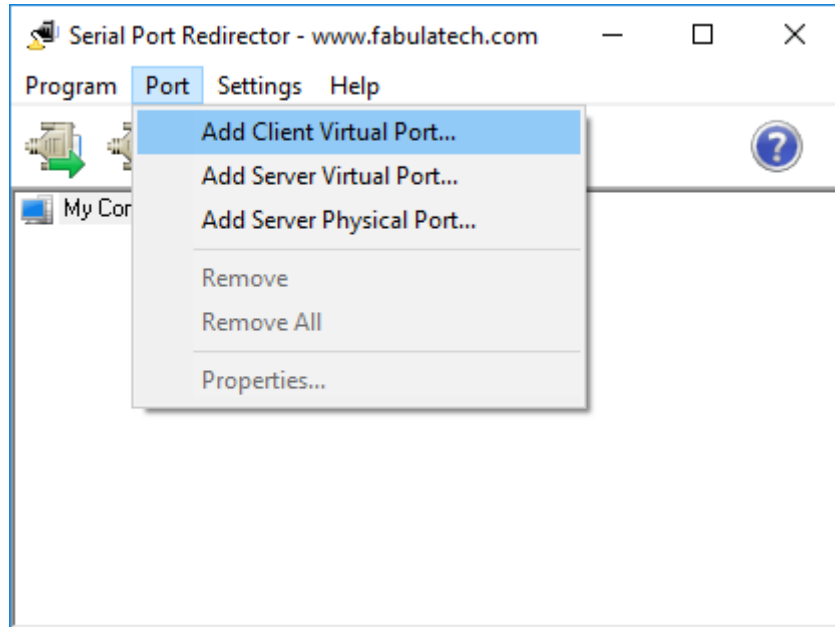
3) Click menu Port -> Add Client Virtual Port…

Figure 9 Configuration add port

4) In the "Virtual serial port" drop-down box, select an available COM port number. This will become the virtual COM port exposing the LT-3100 Satellite Communications System's Modem service to other Windows application(s).
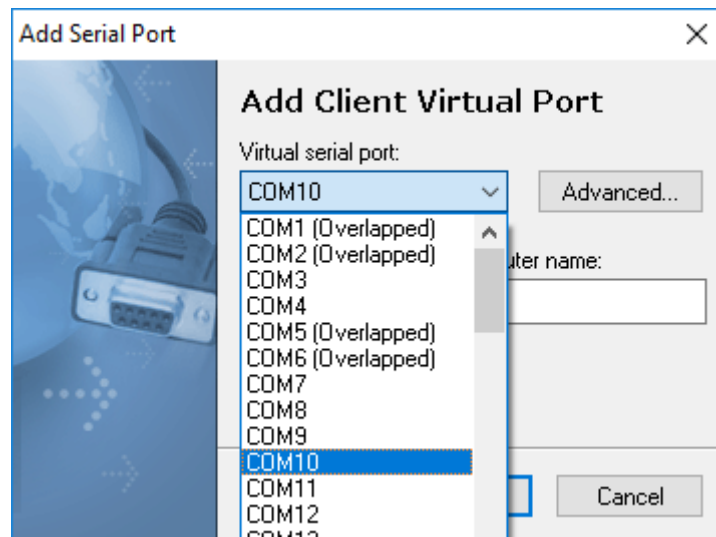

Figure 10 Configuration port selection

5) Next, enter the IP Address of the LT-3100 Satellite Communications System.

NOTE: The current IP Address of the LT-3100 Satellite Communications System can be obtained through the LT-3100 Satellite Communications System UI (Menu -> System -> Network: IP Address).

IMPORTANT: It is recommended to configure a static IP address for the LT-3100 Satellite Communications System (using the built-in web server: Configuration -> Network). Otherwise, the IP Address of the LT-3100 Satellite Communications System may change between power cycles, causing link failure between the Serial Port Redirector and the LT-3100 Satellite Communications System.
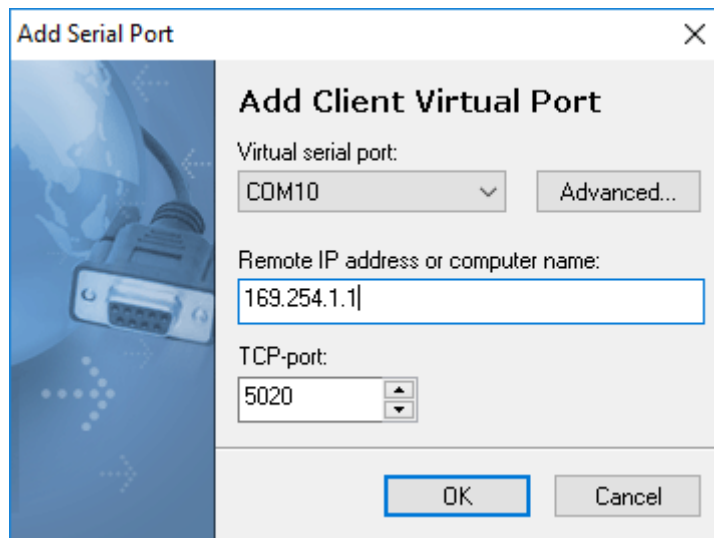
Figure 11 Configuration IP address

6) Enter TCP-port number **5020** and click on OK to complete the configuration. When configured correctly the new virtual COM port will be shown (the IP Address shown here may differ):
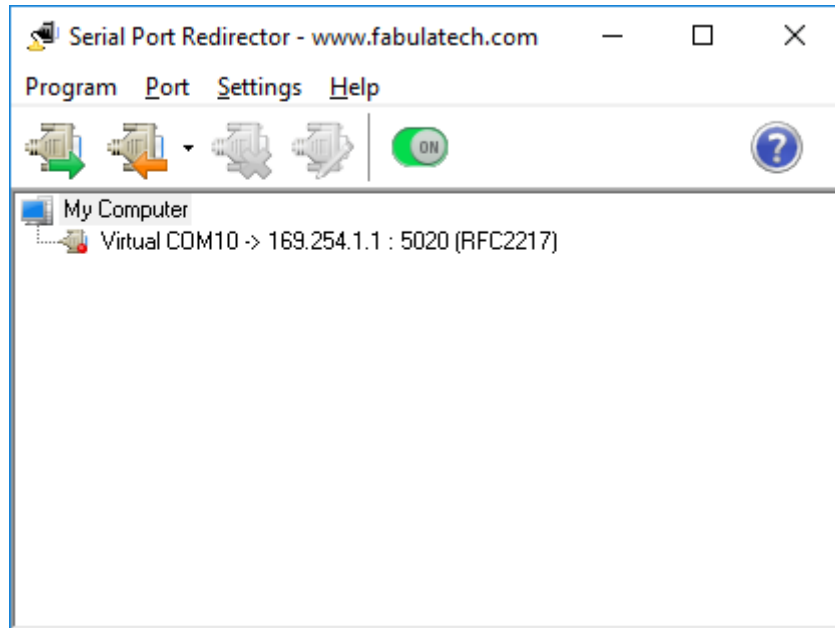

Figure 12 Configuration completed

7) Finally, the serial interface must be enabled at the LT-3100. Open an Internet Browser and enter the IP address of the LT-3100, e.g. 169.254.1.1. Press the login button and enter user name and password[1]. Then select the *Configuration -> data* menu and check the *Enable serial over network* box and press the *Apply* button.
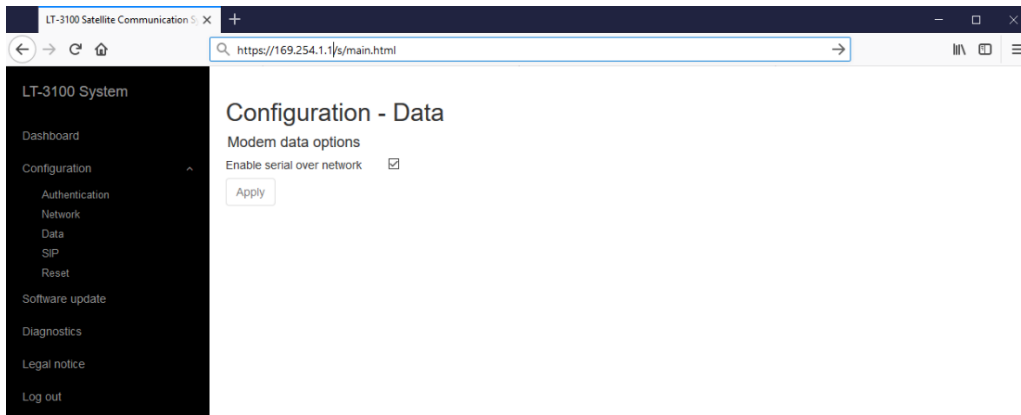
Figure 13 Enable serial interface

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[1] The default username and password are admin/admin.

Modem configuration

If the Serial Port Redirector is to be used with Windows Dial-up networking, a modem driver must be installed as well.

At the Windows start button enter "phone and modem" and select the *Phone and Modem – control panel* menu.
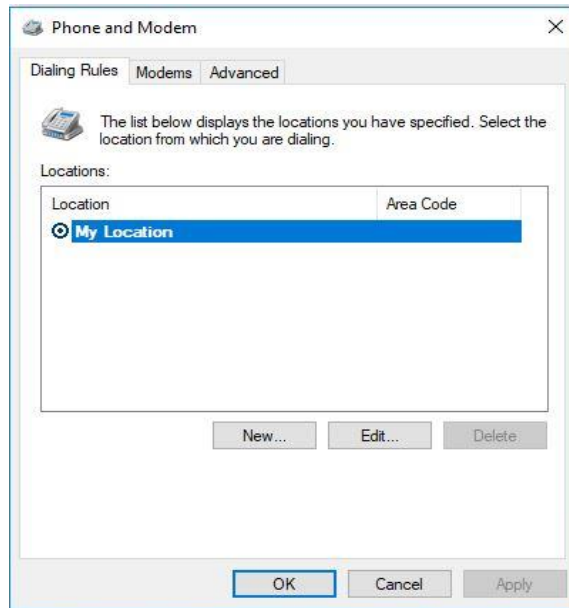
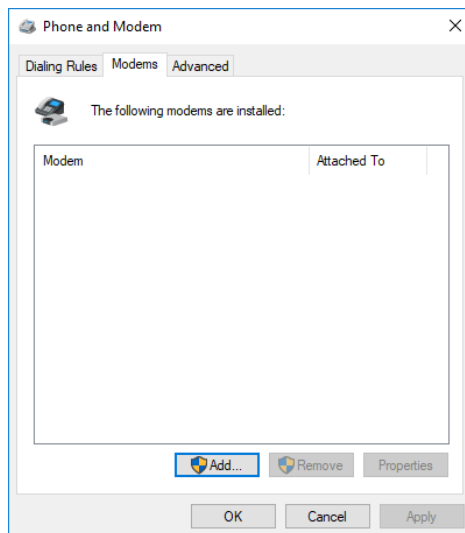*Figure 14 Phone and Modem*

Select the *Modems* tab.

Figure 15 Add new modem

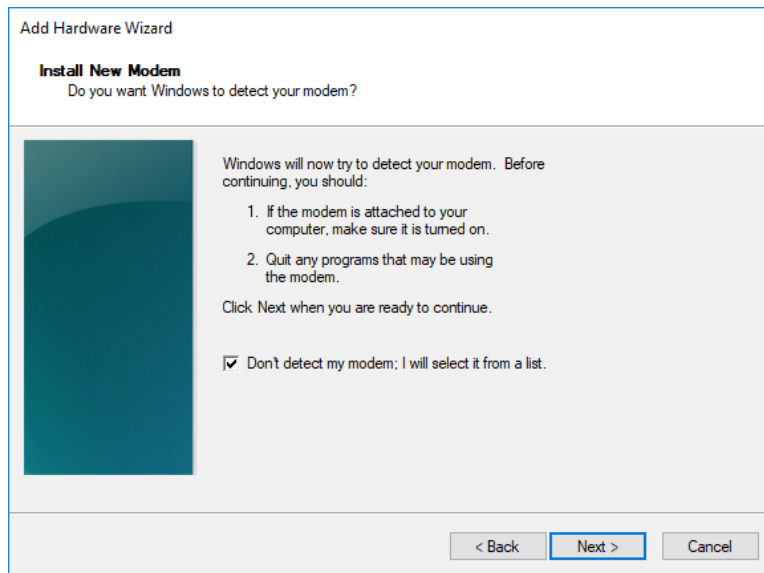Press the *Add* button to add a new modem.

Figure 16 Install new modem

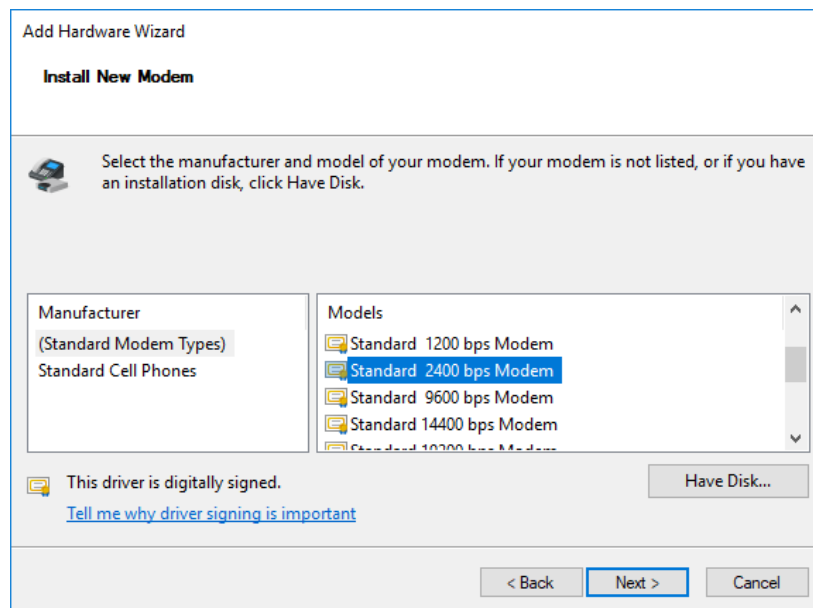Make sure to check the box: *Don't detect my modem*.

Press the *Next* button.

Figure 17 Standard 2400 bps Modem

Select a Standard 2400 bps Modem.
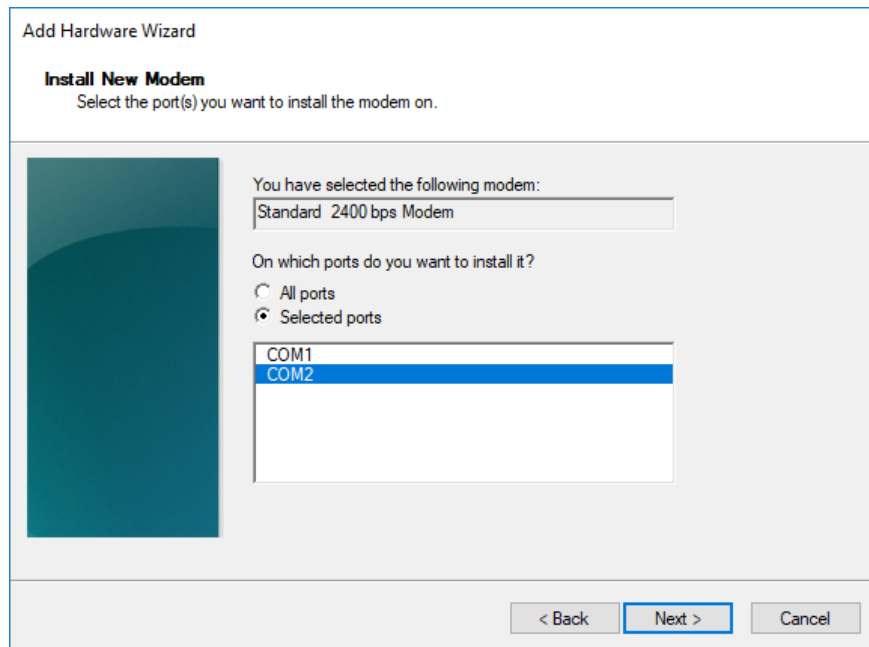
Press the *Next* button.

Figure 18 Select COM port
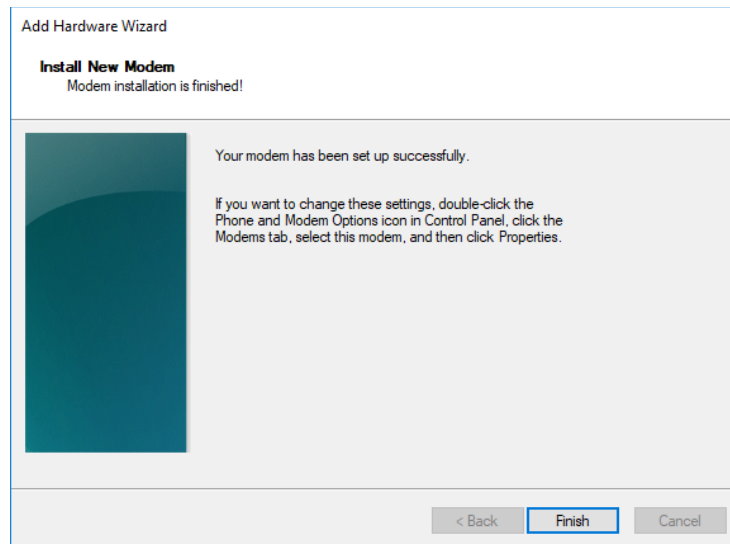
Select the COM port and press the *Next* button.

Figure 19 Finish the installation

Finish the installation.

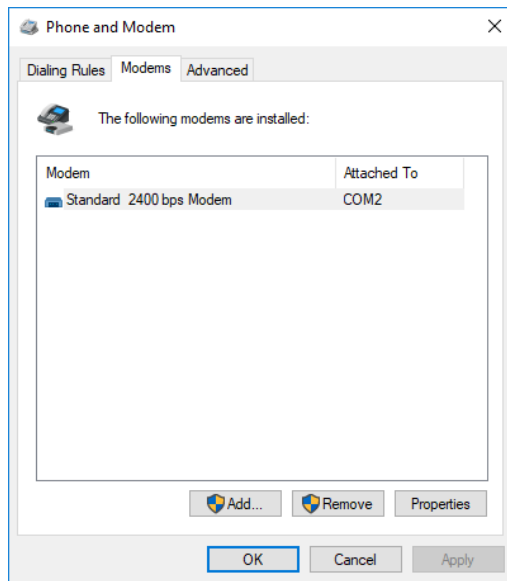The modem is now installed. Continue to configure the modem.

Figure 20 Set modem properties
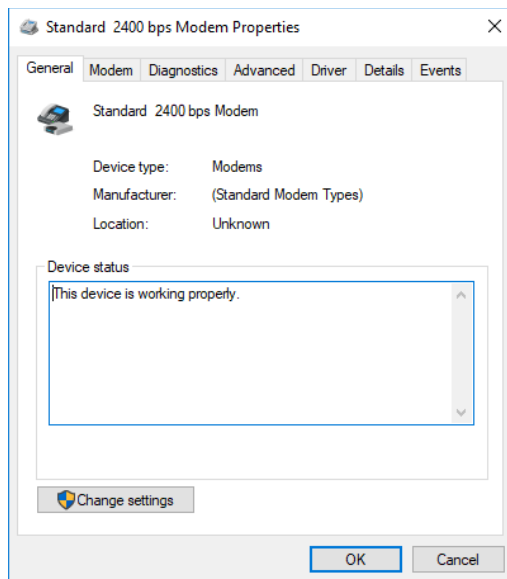
Press the *Properties* button.

Figure 21 Change setting
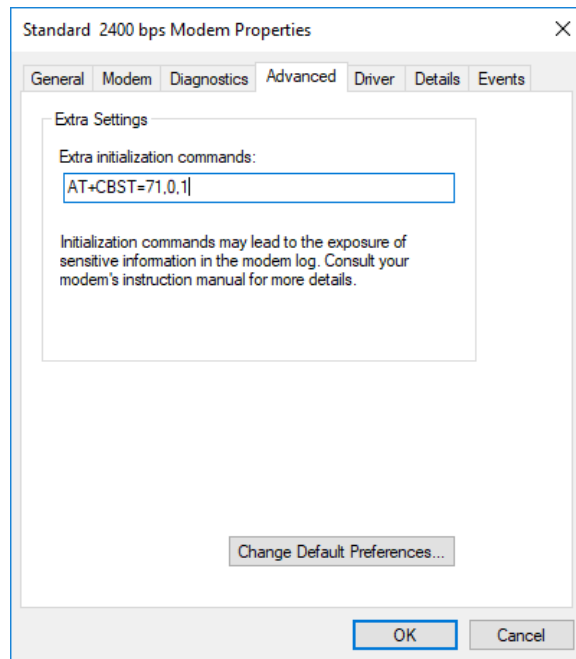
Press the *Change setting* button.

Figure 22 Modem Initialization

Press the *Advanced* tab and enter the *Extra initialization command*: AT+CBST=71,0,1.
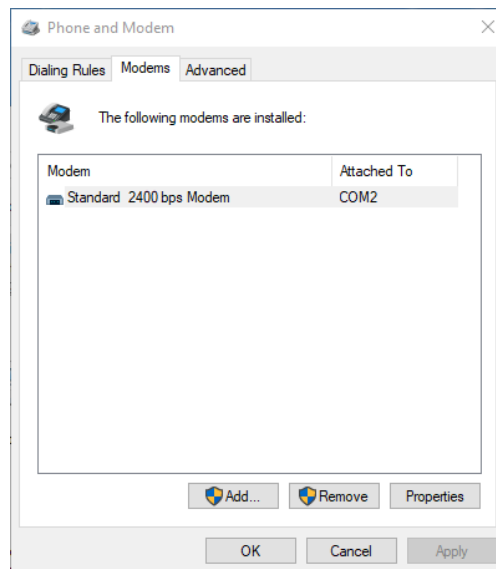
Press the *OK* button.

Figure 23 Modem installation and configuration finished

Press the *OK* button.

Verification Instructions

1) If not already open and running, start the Serial Port Redirector from the Windows Start Menu.

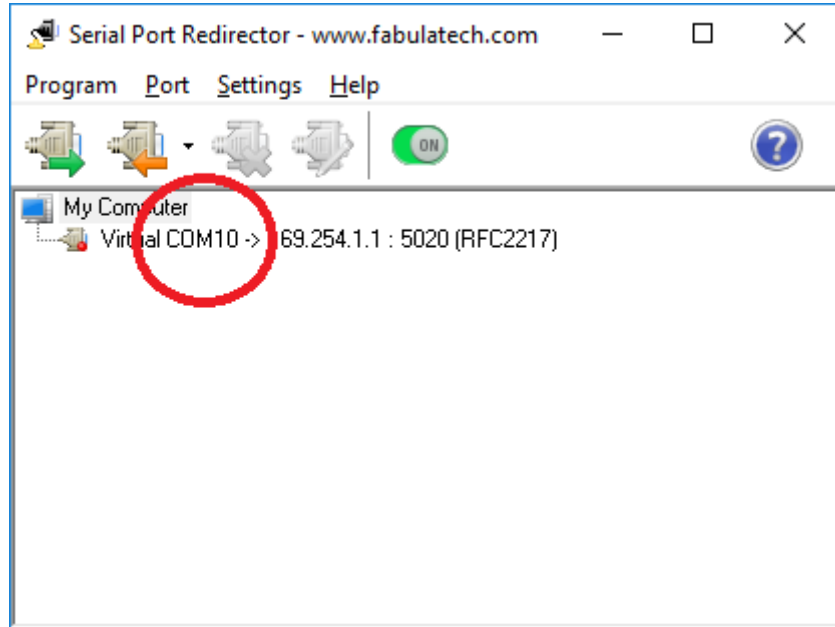2) Find the virtual COM port used by the Serial Port Redirector (highlighted by the red circle):

Figure 24 Verification find COM port

3) Start your favorite terminal emulator (e.g. PuTTY from www.putty.org) and open the COM port
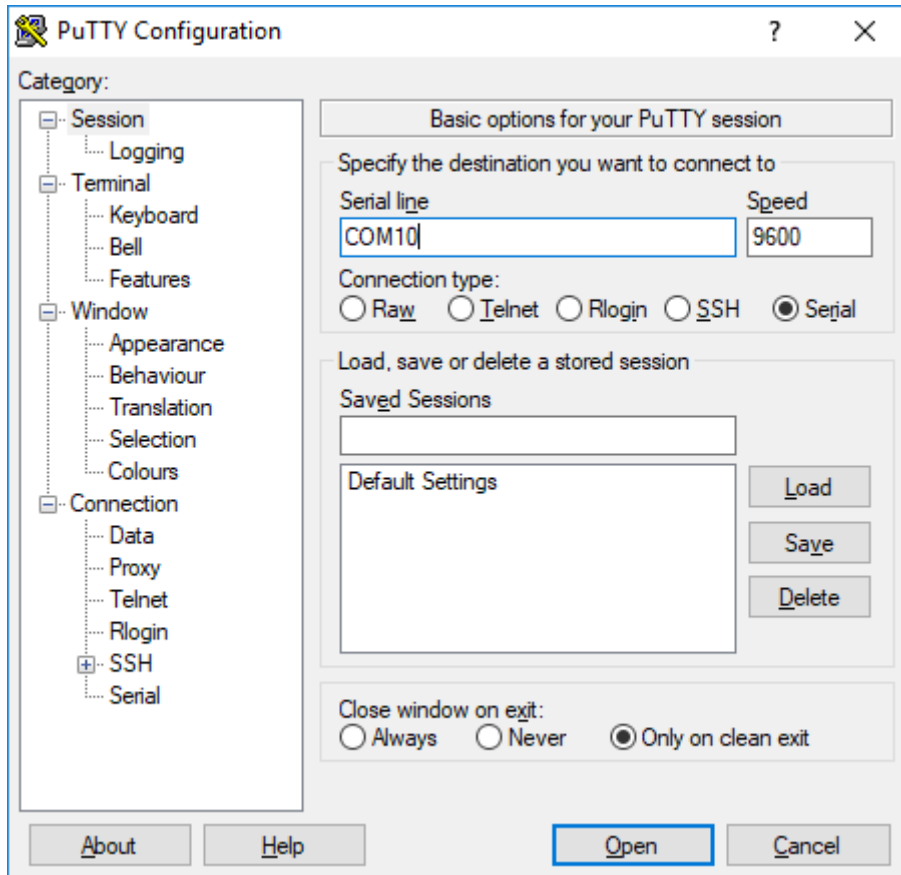selected for use by the Serial Port Redirector (see previous step) and baud rate set to 9600 baud.

Figure 25 Verification PuTTY setup

4) Enter the command "at" in your terminal emulator. If the LT-3100 Satellite Communications System
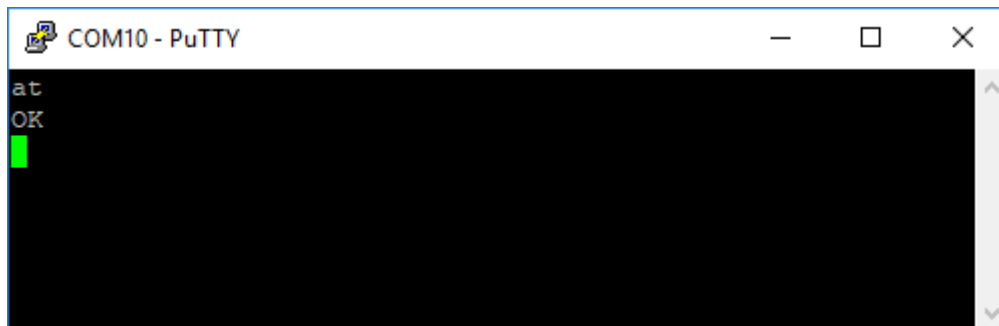responds with "OK", the Serial Port Redirector has been installed and configured correctly.

Figure 26 Verify AT command