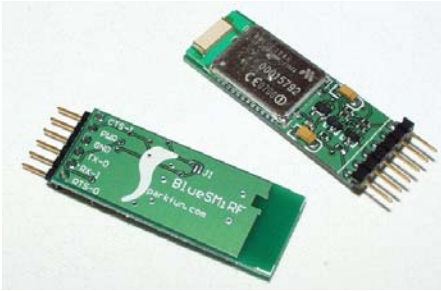


Setting Up the BlueSMiRF Bluetooth Module

By Abe Howell



BlueSMiRF Bluetooth Module

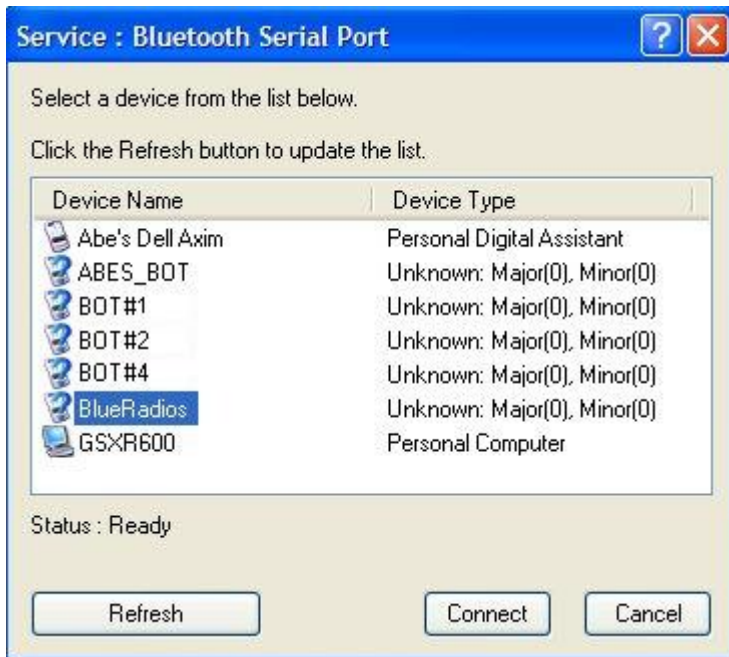
By default each BlueSMiRF module is shipped with a baud rate of 9600BPS, however, A.B.E. communicates at a rate of 115200BPS. Some of the steps aren't necessary, but changing the baud rate from the factory 9600BPS to 115200BPS must be done. If you're not interested in changing the Bluetooth radio's local/friendly name or service name then just perform the baud rate change.

We will be using **Hyper Terminal** to communicate with the BlueSMiRF, but first we need to establish a valid Bluetooth connection. Apply power to your A.B.E. board and make sure that your laptop/desktop has its Bluetooth turned on as well. Now right click on the Bluetooth icon located in the system tray as shown below.

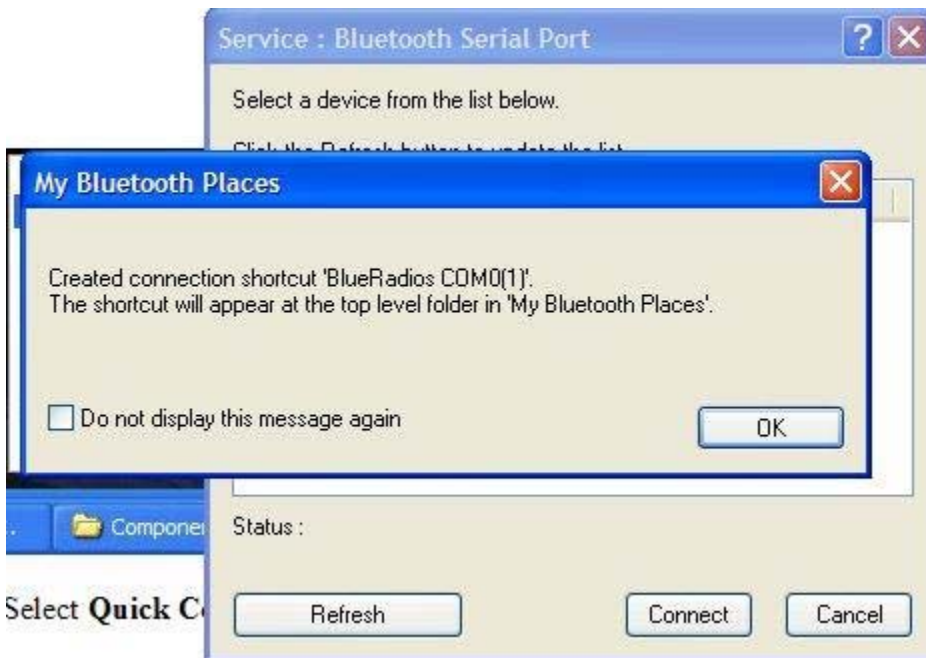


Select **Quick Connect**, **Bluetooth Serial Port** and finally **Other Devices...**

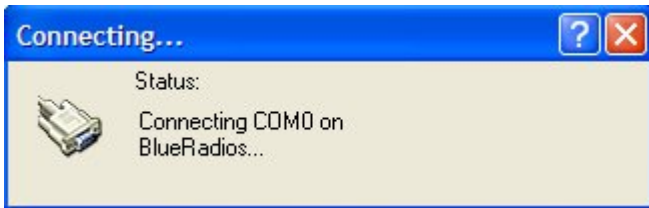
Next you will need to click the refresh button so that your computer scans for all local Bluetooth devices. Once the scan stops your device should be populated in the list. Simply select **BlueRadios** and click **Connect**.



You will receive a pop-up message notifying that a shortcut will be created in “**My Bluetooth Places**”.



Then another pop-up will notify you that the connection is being made.

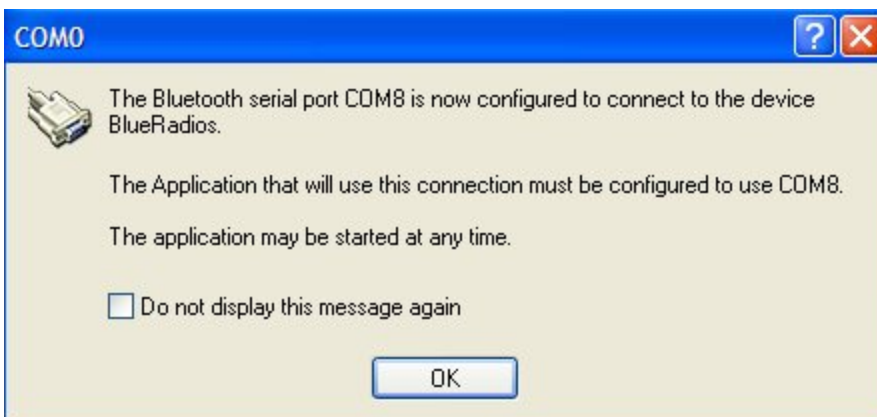


Next you will receive a message box requesting a Bluetooth PIN Code for the BlueRadios. The PIN is as follows: **default**

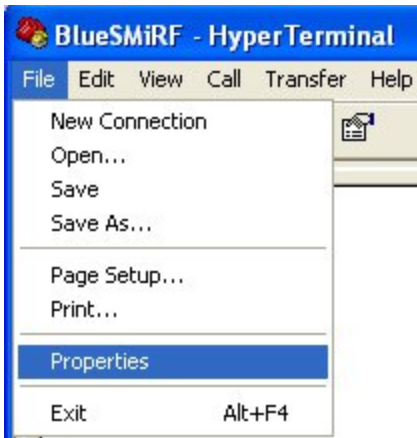
Type the pin in as shown above and click **OK**.



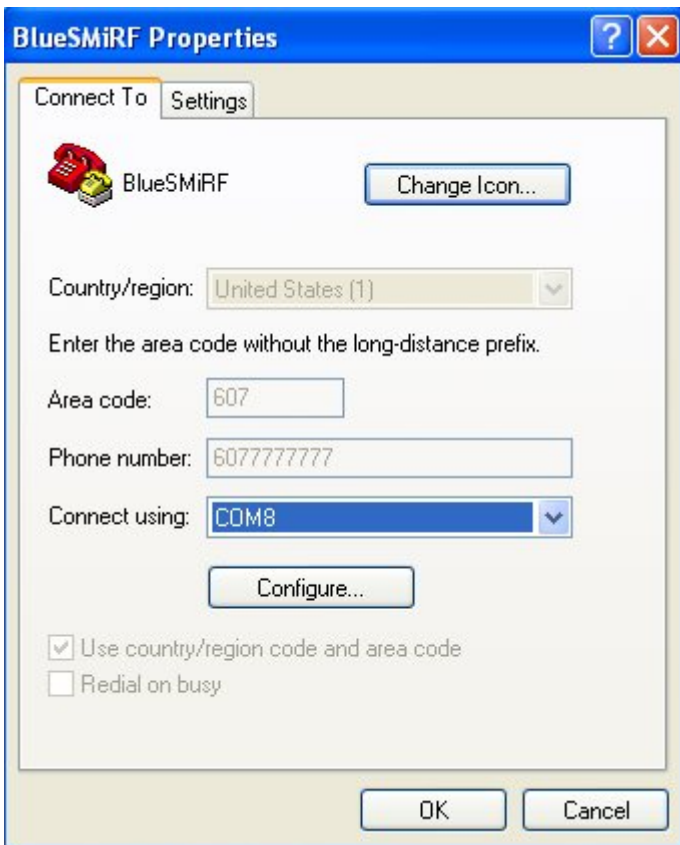
Finally you will receive a message notifying that the connection has been made and on which COM Port. For this example the connection has been made on **COM8**. You will need this for the next section when we connect using HyperTerminal.



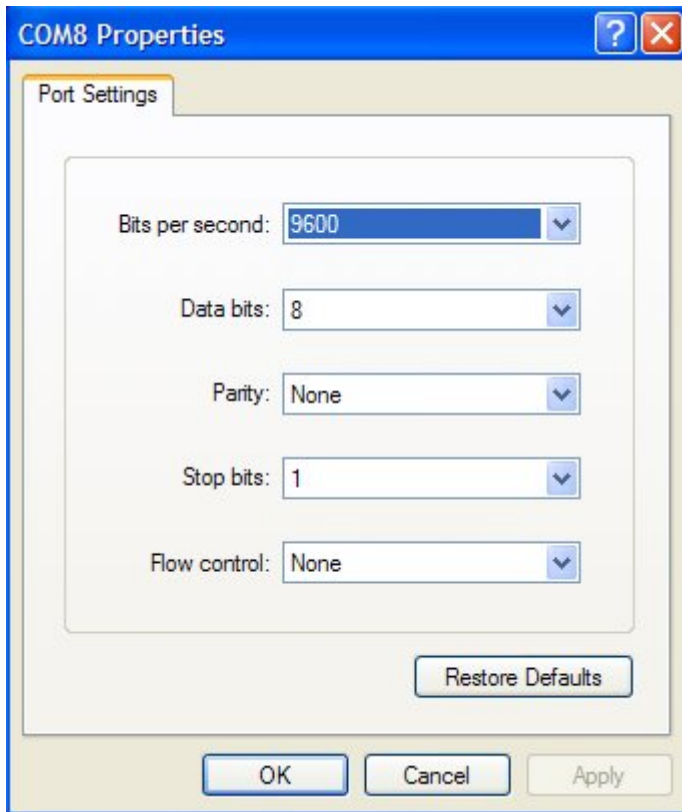
Next, create a HyperTerminal connection and then disconnect. Under the **File** menu select **Properties**. I've named my connection **BlueSMiRF**, but you can name yours anything you like.



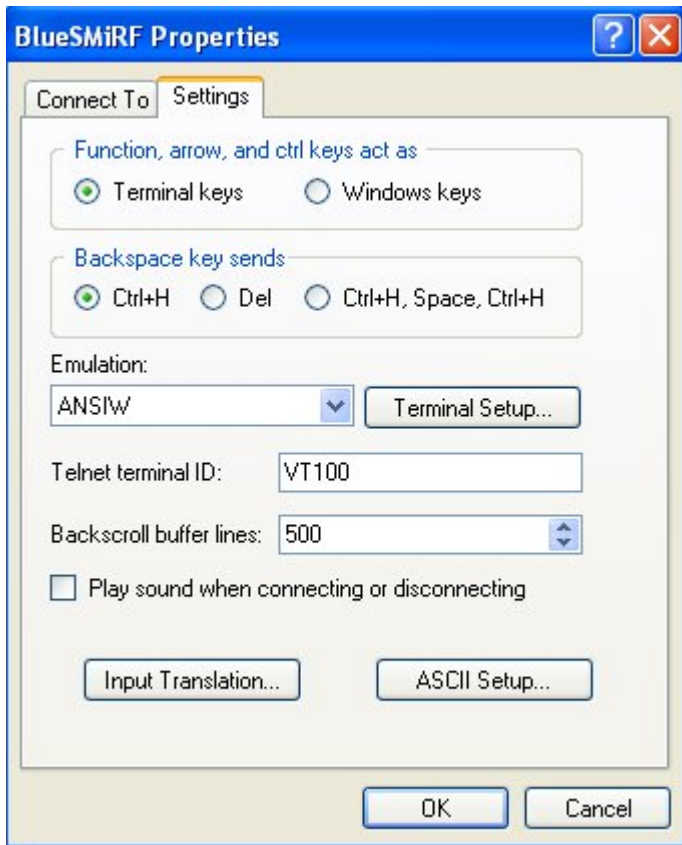
You will need to select the correct COM Port under **Connect Using:**



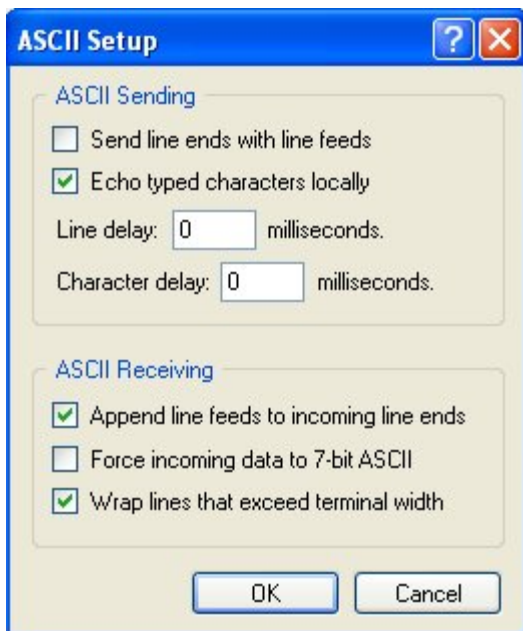
Then select **Configure** and configure the settings as shown below. When you're done click **OK**.



Now select the **Settings** tab



Then click the **ASCII Setup...** button and configure as shown below.



When you're done click OK and return back to the **Properties** screen and again click **OK**. In the HyperTerminal window type +++ followed by pressing the **Enter** key. This will place the Blue SMiRF in command mode and allow us to change various settings.

```
+++  
OK  
-
```

Next type **ATSW20,472,0,0,1** and press **Enter**. This command will change the baud rate from 9600BPS to the required 115200BPS.

```
+++  
OK  
ATSW20,472,0,0,1
```

To get the local/friendly name of our Blue SMiRF type **ATSI,2** followed by Enter. The factory default name is BlueRadios. We're going to change ours to **ABES_BOT**.

```
+++  
OK  
ATSI,2  
OK  
  
BlueRadios
```

To change the name to **ABES_BOT** simply type **ATSN, ABES_BOT** followed by the Enter key.

```
+++  
OK  
ATSI,2  
OK  
  
BlueRadios  
ATSN, ABES_BOT  
OK
```

Next we want to see what the Service Name is set to, so we type **ATSI,4** followed by the Enter. The factory default value is “**COM0**” We want to change ours to “**SERIAL PORT**”

```
OK  
ATSI,2  
OK  
  
BlueRadios  
ATSN, ABES_BOT  
OK  
ATSI,4  
OK  
  
COM0
```


To change the Service Name to “**SERIAL PORT**” we type **ATSSN,SERIAL PORT** followed by **Enter**.



```
OK

BlueRadios
ATSN, ABES_BOT
OK
ATSI, 4
OK

COM0
ATSSN, SERIAL PORT
OK
```

Finally, to check and make sure that our changes have persisted we type **ATSI,2** followed by **Enter** and **ATSI,4** followed by **Enter**. We should see the Blue SMiRF respond with **ABES_BOT** and **SERIAL PORT** respectively.

```
COM0
ATSSN,SERIAL PORT
OK
ATSI,2
OK

ABES_BOT
ATSI,4
OK

SERIAL PORT
```

As before you will need to create another Bluetooth Serial Port connection if you changed either the local/friendly or Service name. If you only changed the baud rate the previous Bluetooth Serial Port should allow you to connect with your BlueSMiRF, but will have to go in and change the baud rate from 9600 to 115200BPS under the **Port Settings** screen in **Hyper Terminal**. For additional information regarding the Blue SMiRF Bluetooth modules please refer to the BlueRadios AT Command Set document, which is available upon request from SparkFun Electronics at www.sparkfun.com