

2.0

BLUETOOTH 56K FAX MODEM

Product Name: Bluetooth modem

Model No.: 4300A, 4161A

Applicant: Zoom Telephonics, Inc.

User's manual

REGULATORY STATEMENTS

FCC Certification

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of electronic equipment.

Part15, Class B

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interface, and
2. This device must accept any interface received, including interface that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - ◆ Reorient or relocate the receiving antenna.
 - ◆ Increase the distance between the equipment and receiver.
 - ◆ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

CAUTION:

1. To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.
2. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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1. Introduction



The Bluetooth 56K wireless modem is a 56K modem equipped with Bluetooth function. It provides a standard V.92 Modem for WAN communication and access to Internet. With a Bluetooth adapter, you can dial up to access the network via this device wirelessly. Bluetooth technology brings you more freedom and mobility; it allows you to mobilize your PC within the effective range of this Bluetooth modem.

Package Contents

- Bluetooth 56K Wireless Modem
- One AC adapter
- RJ-11 phone cable
- RS-232 Cable (DB-9pin)
- Quick Start Guide
- Driver CD (User's Manual inside)

Note:

If any of these items are missing from the retail package, contact your supplier immediately.

2. Specifications

2.1. Features

V92 Modem

- ITU-T V.92 and K56flex
- V.34 (33.6 kbps), V.32 bis, V.32, V.22 bis, V.22, V.23, and V. 21; Bell 212A and 103
- Flow control and speed buffering
- Automatic format/speed sensing
- V.22bis fast connect
- One RS232 connector for Host PC (DTE) interface

Bluetooth Function

- Wireless interface complies with Bluetooth Core Specification V1.1
- Main chip: CSR BlueCore 2
- Protocol: Bluetooth 2.4 GHz ISM band frequency hopping
- Output Power: Class 1 Bluetooth radio
- Data Rate: 723 kbps
- Special feature:
 - Modify bluetooth device name.
 - Enable/disable authentication.
 - Change pin code.

2.2. Specifications

- Communication software compatible AT command sets
- 3.3V low power consumption
- Bluetooth or RS-232 (D-SUB9) interface Switch
- Provides LEDs for showing status information

2.3. Certification

- FCC Part 68, 15B , 15C and CE / LVD

2.4. Mechanical

- Dimension: 96 x64 x 22.1 mm (L x W x H)

2.5. Environment Operating Ranges

- Operation : 0 ~ 50°C , Humidity 10 ~ 90%
- Storage : -20 ~ 90°C , Humidity 10 ~ 90%

2.6. Power Consumption

- Operation: 175mA / 6V (Avg), 220mA/6V (Max)
- Standby: 52mA/6V

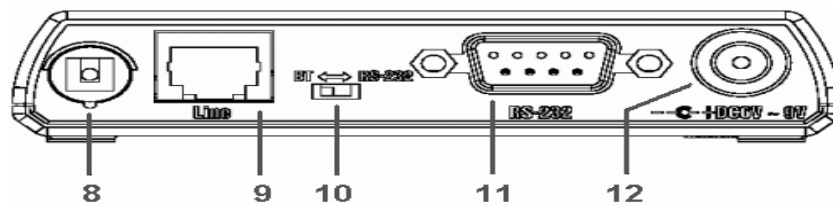
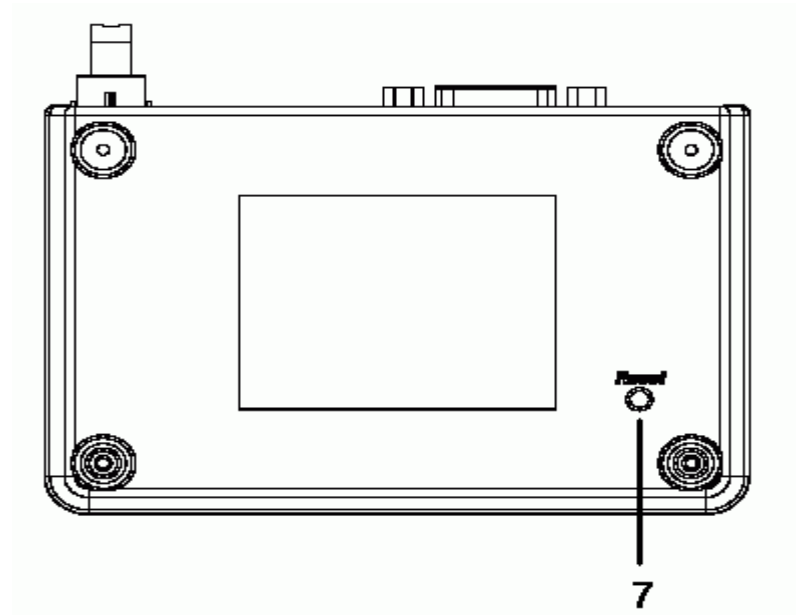
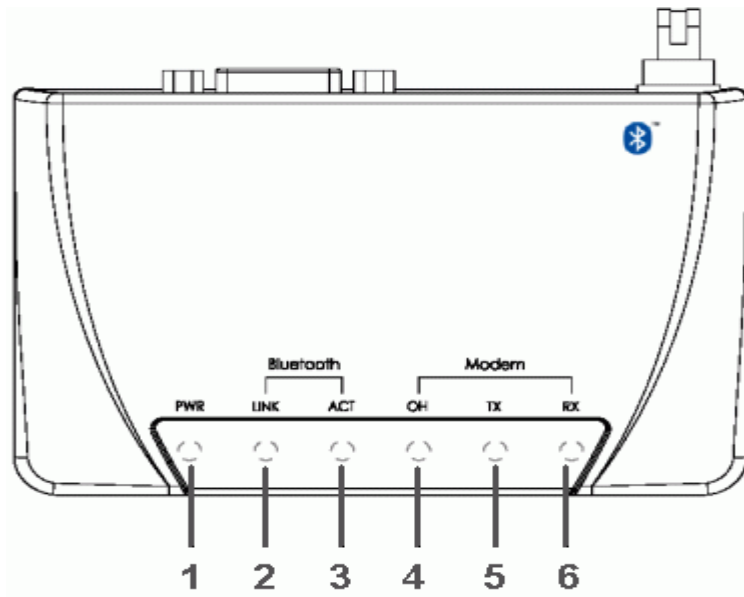
2.7. LED Indication

- Power LED: Power ON/OFF
- Link LED: Bluetooth Link
- ACT LED: Bluetooth Active
- OH LED: Off-Hook
- TX LED: Data Transmit
- RX LED: Data Receive

2.8. Driver Support

- Windows 98SE/ME/2000/XP
- Mac O.S 10.3 or above


3. Product Shape



1. **Power LED indicator:** Lights when the Bluetooth Modem powers on.
2. **Link LED indicator:** Lights when Bluetooth Modem is linked by a remote device.
3. **ACT LED indicator:** Blinks when data is transferring via Bluetooth connection.
4. **OH LED indicator:** Lights when Bluetooth Modem is dialing or gets connected.
5. **TX LED indicator:** Blinks when Bluetooth Modem is transmitting data.
6. **RX LED indicator:** Blinks when Bluetooth Modem is receiving data.
7. **Pin Code Reset Button:** Resets the pin code back to the default value.
8. **Antenna:** Bluetooth 2.4GHz antenna.
9. **RJ-11 Socket:** PSTN (Telephone) Line in for Modem.
10. **Mode Switch:** To select generic or Bluetooth Modem mode.
11. **RS-232 connector:** Connects to PC's COM port when it is in generic mode.
12. **Power Jack:** Power source connector.

4. Bluetooth Modem Mode

4.1. Getting Started

1. Turn the switch to "BT" side  .
2. Connect the telephone line to the RJ-11 socket
3. Plug in the AC adapter to the power outlet.

4.2. How to dial-up under Widcomm Bluetooth Windows (BTW)

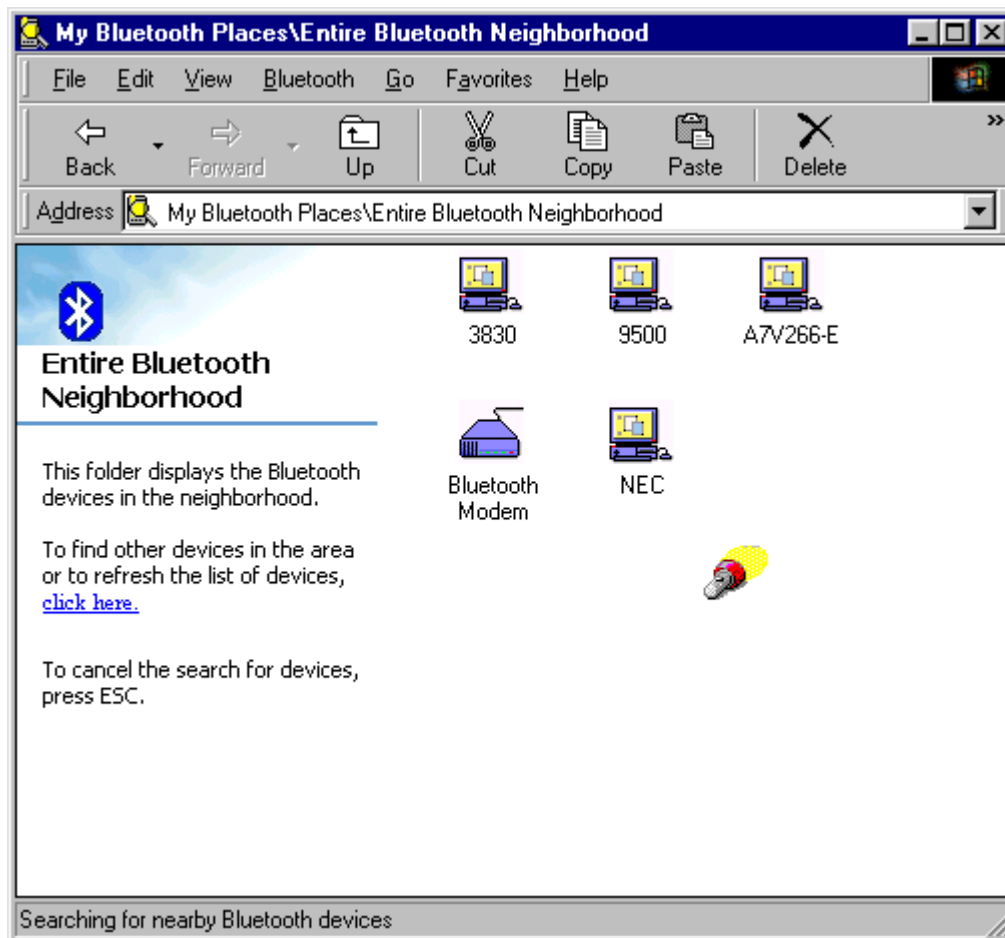
The Following procedures are using the Bluetooth software as reference on how to use the Bluetooth Modem to access the Internet. The user should follow accordingly based on the Bluetooth software in hand.

For Windows 98

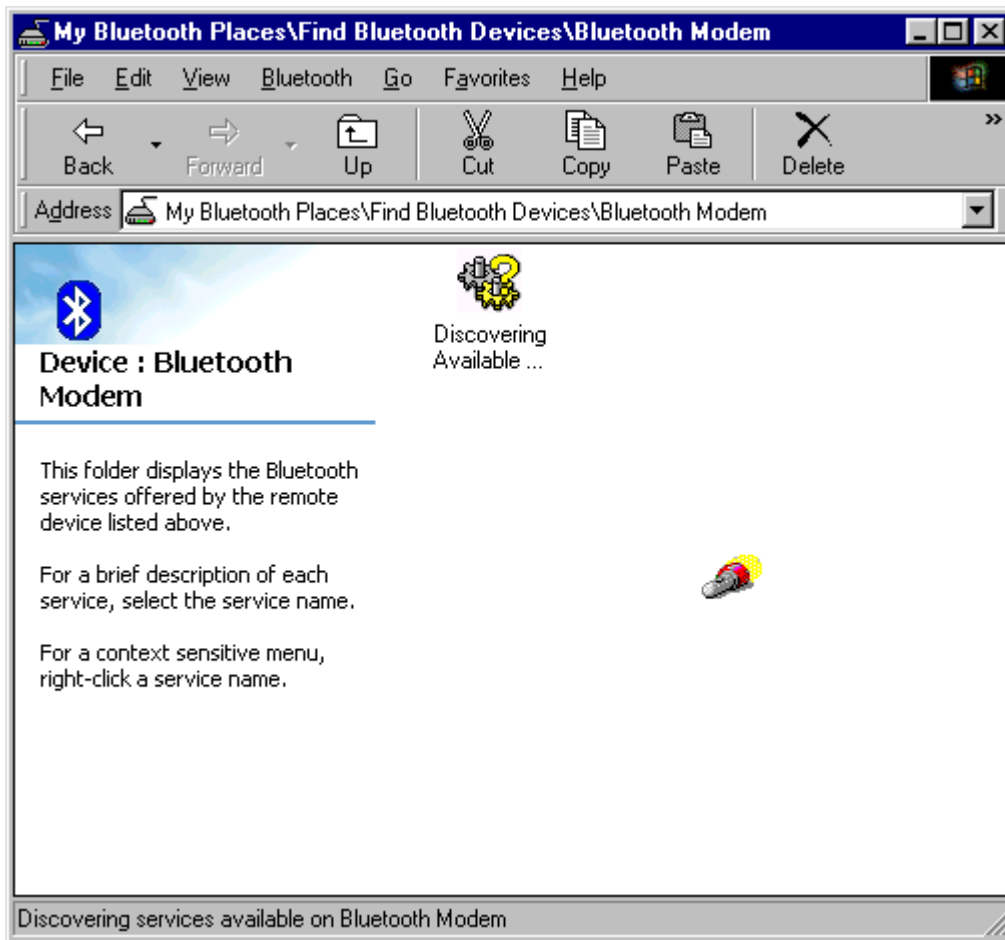
1. Double click the "My Bluetooth Places" icon on the desktop. The following window will pop-up. Double click the "Find Bluetooth Devices" icon.



- Bluetooth software will start searching the surrounding remote devices. Find the **"Bluetooth Modem"** icon and then double click on it.



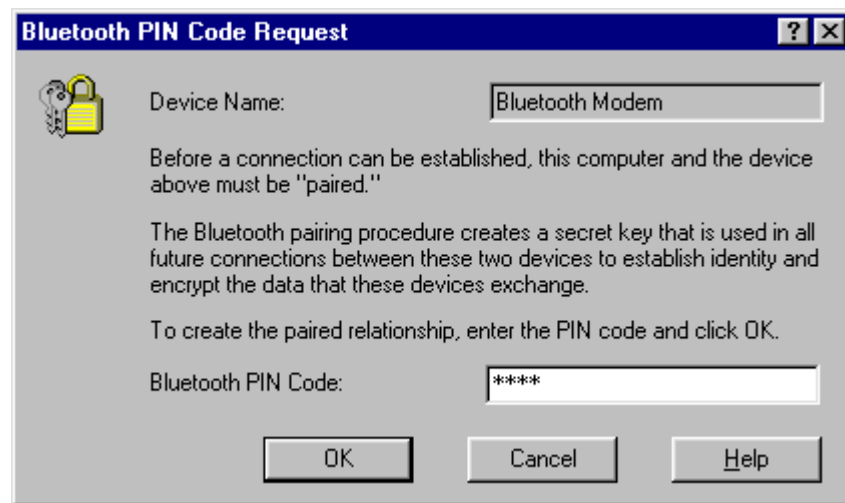
3. The service start discovery.



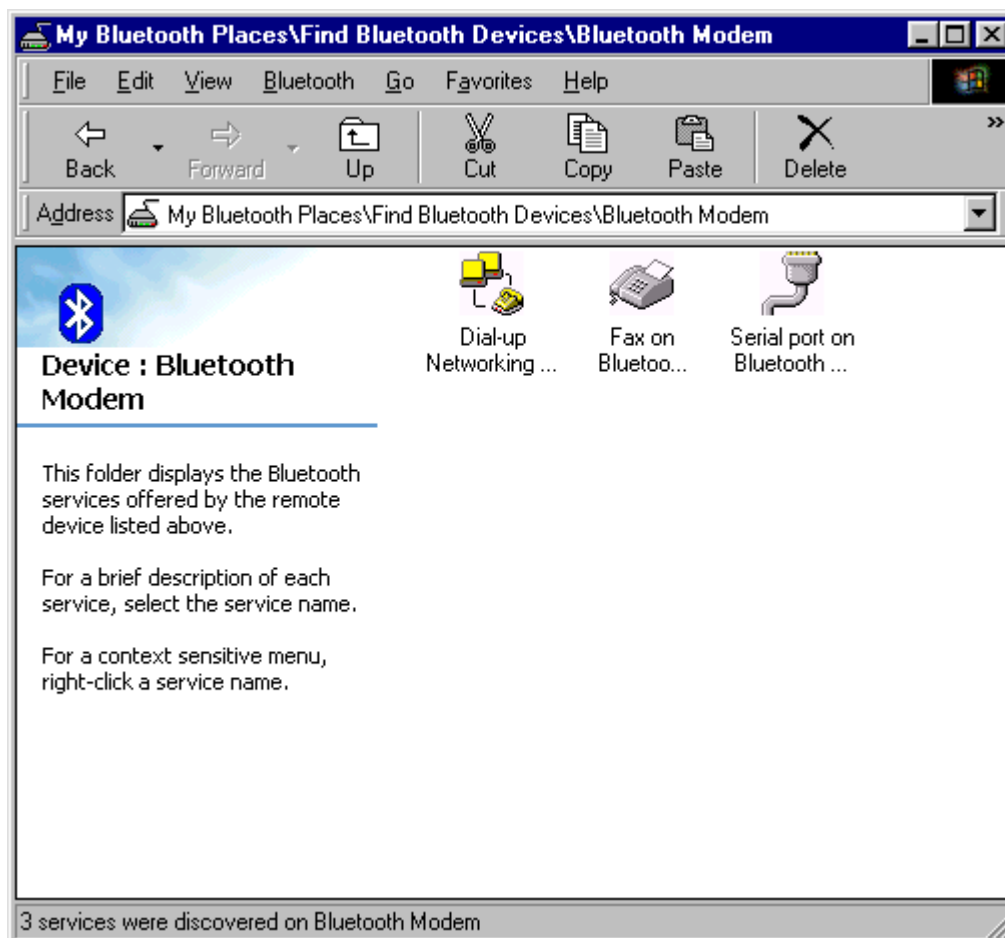
4. Then windows will ask you a 4-digit PIN Code to pair with the Bluetooth Modem. You can find the PIN Code on the bottom of your Bluetooth Modem. The default Pin code is "1111".



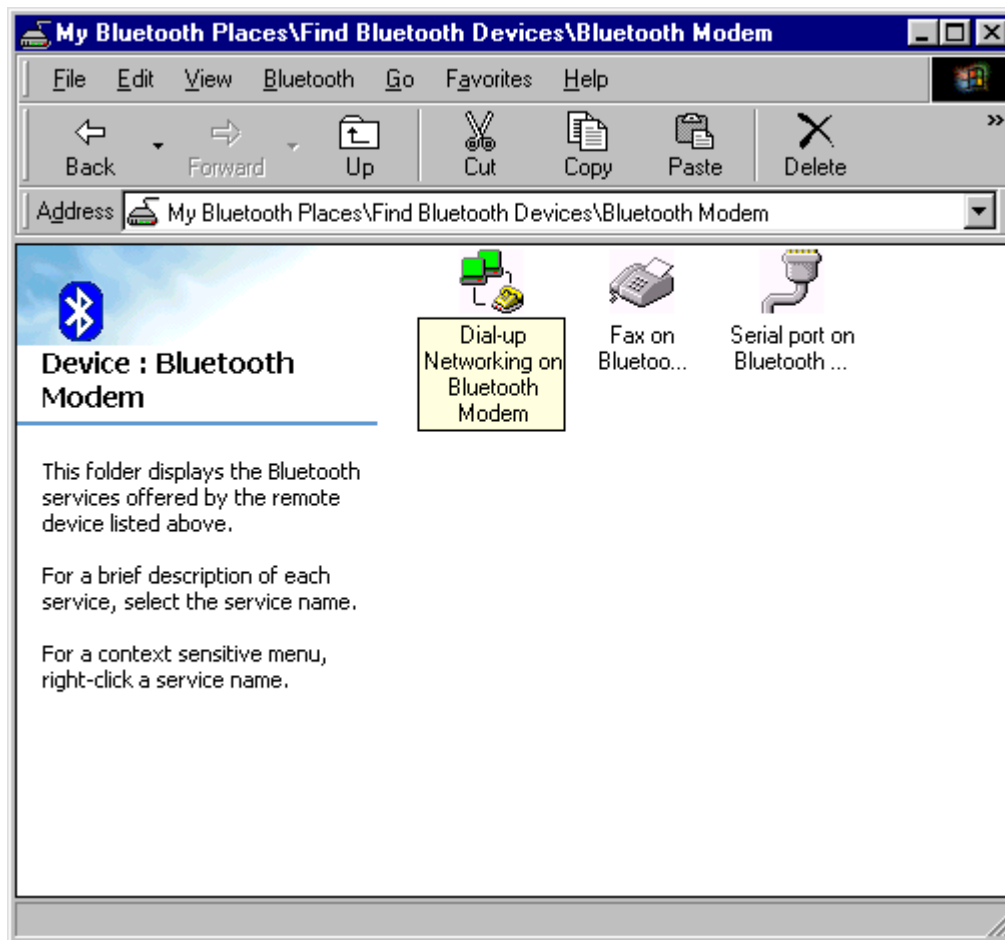
5. Key in the PIN Code and click the "OK" button.



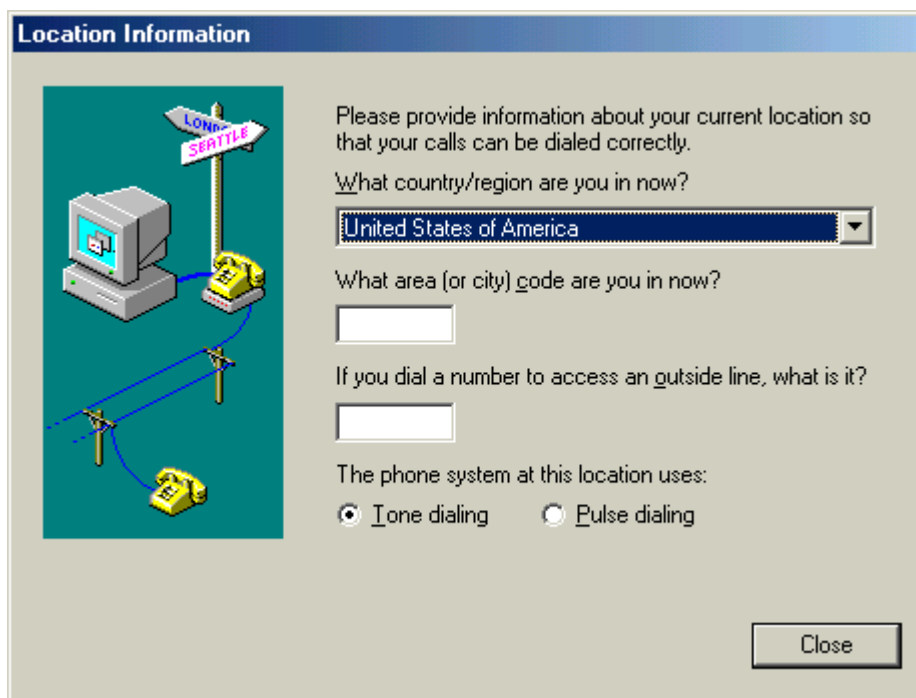
6. When Bluetooth Modem has been paired, it will show 3 services. Double click on "Dial-up Networking on Bluetooth Modem" service icon.



7. When the connection is established, the service icon will change the color to green.



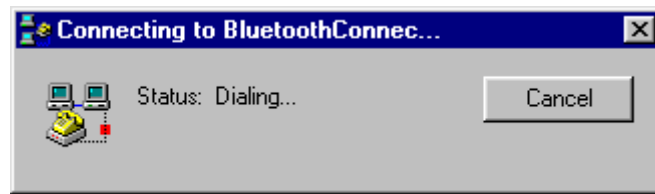
8. If you are using the dial-up connection first time, the following window will pop out. Type in the area code of your location, and then click the "**Close**" button.



9. The "**Connect To**" window will auto pop-up. Please key in the user name, the password, and the phone number. You can get the information from your ISP (Internet Service Provider) and then click the "**Connect**" button.



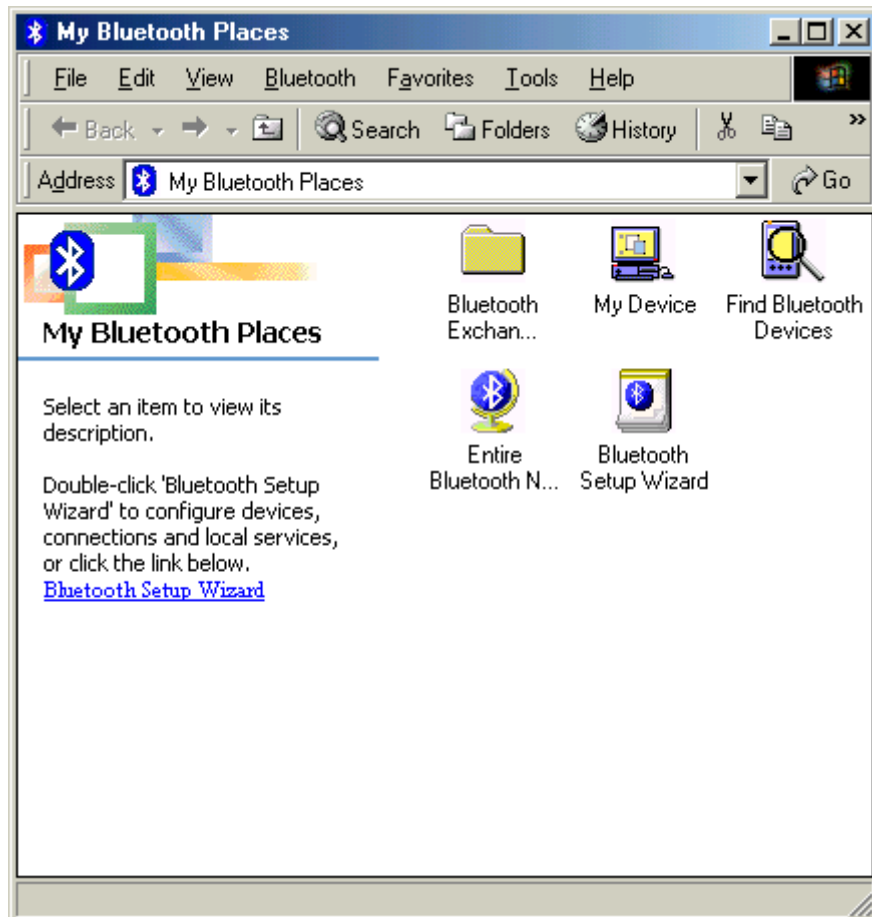
10. The Bluetooth Modem starts dialing.



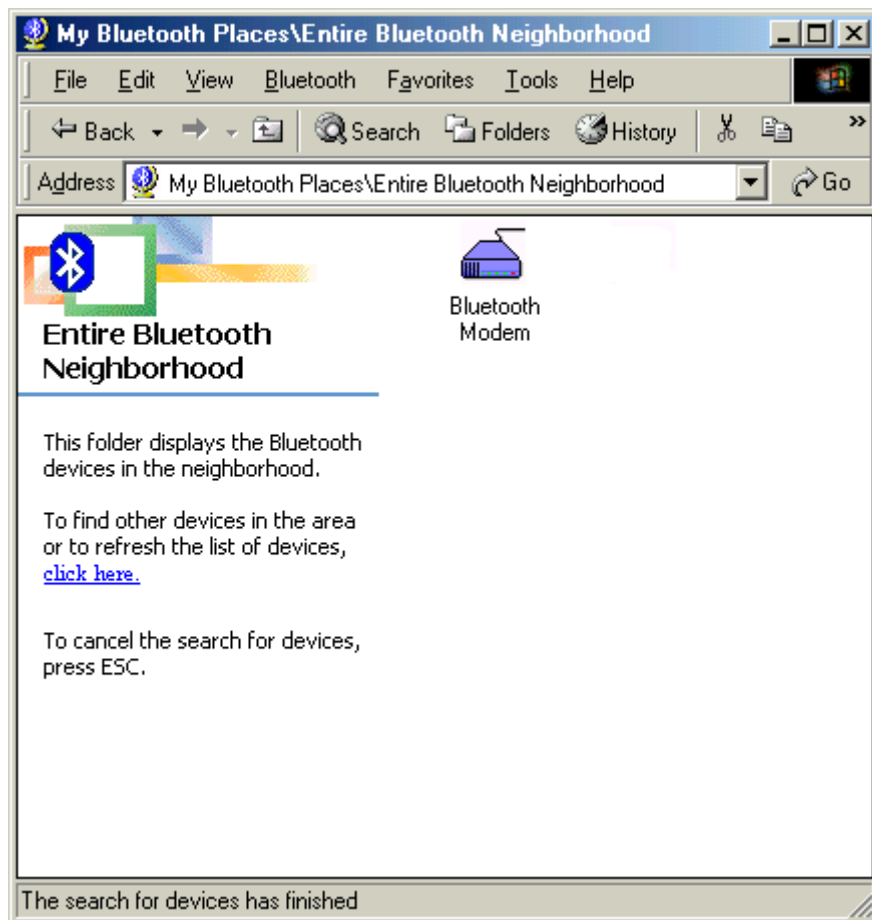
11. Once the connection is established you can run a web browser.

For Windows ME

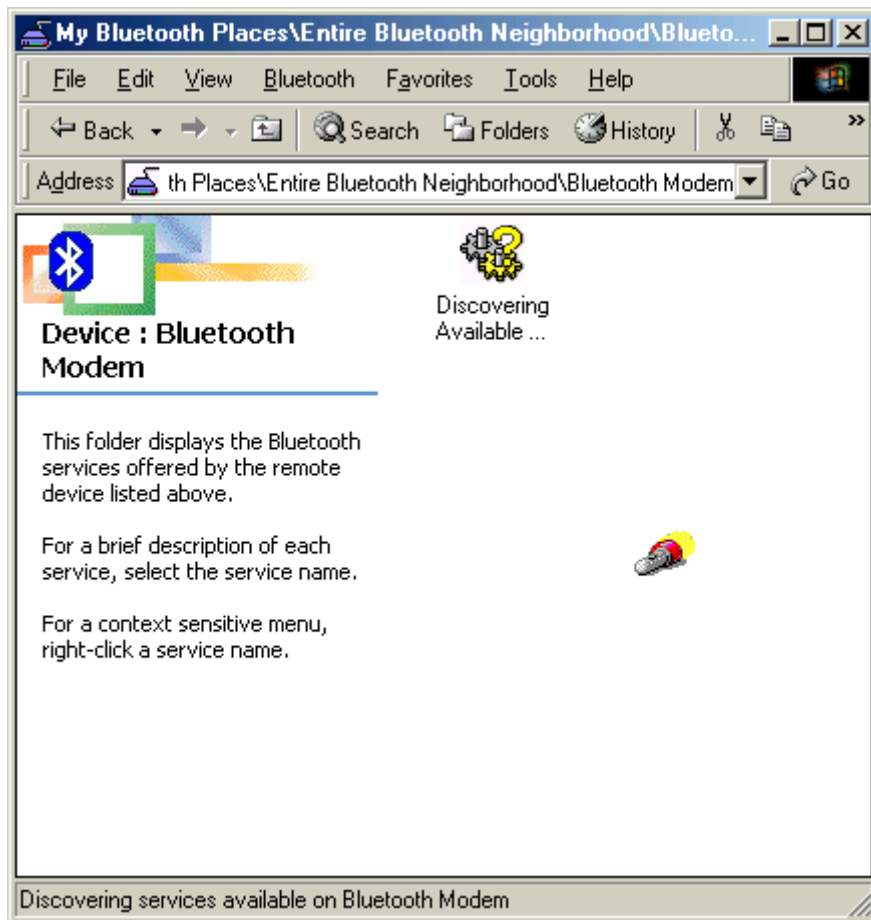
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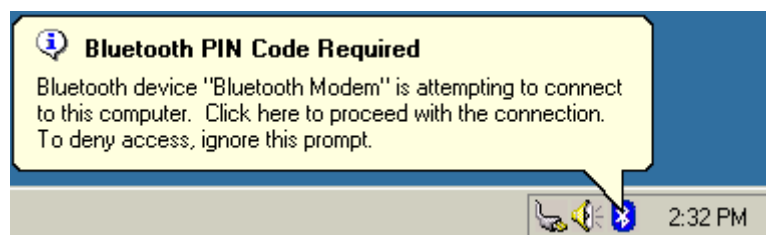
- Bluetooth software will start searching the surrounding remote devices.
Find the **"Bluetooth Modem"** icon and then double click on it.



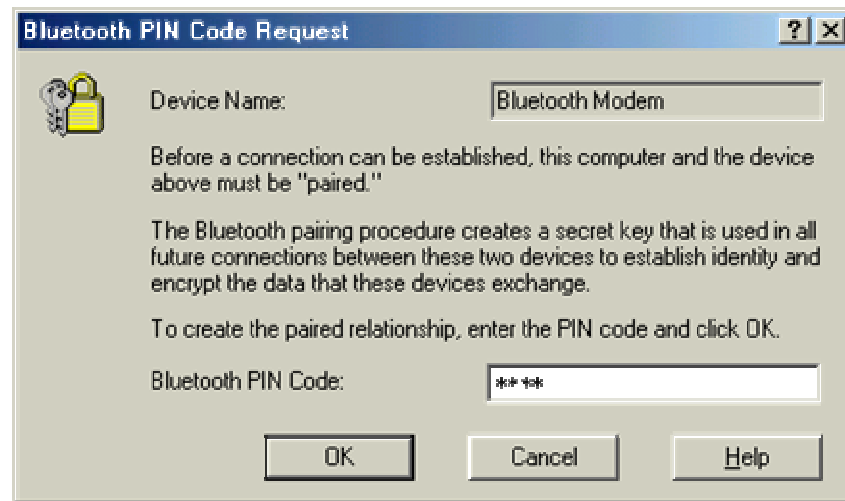
3. The service start discovery.



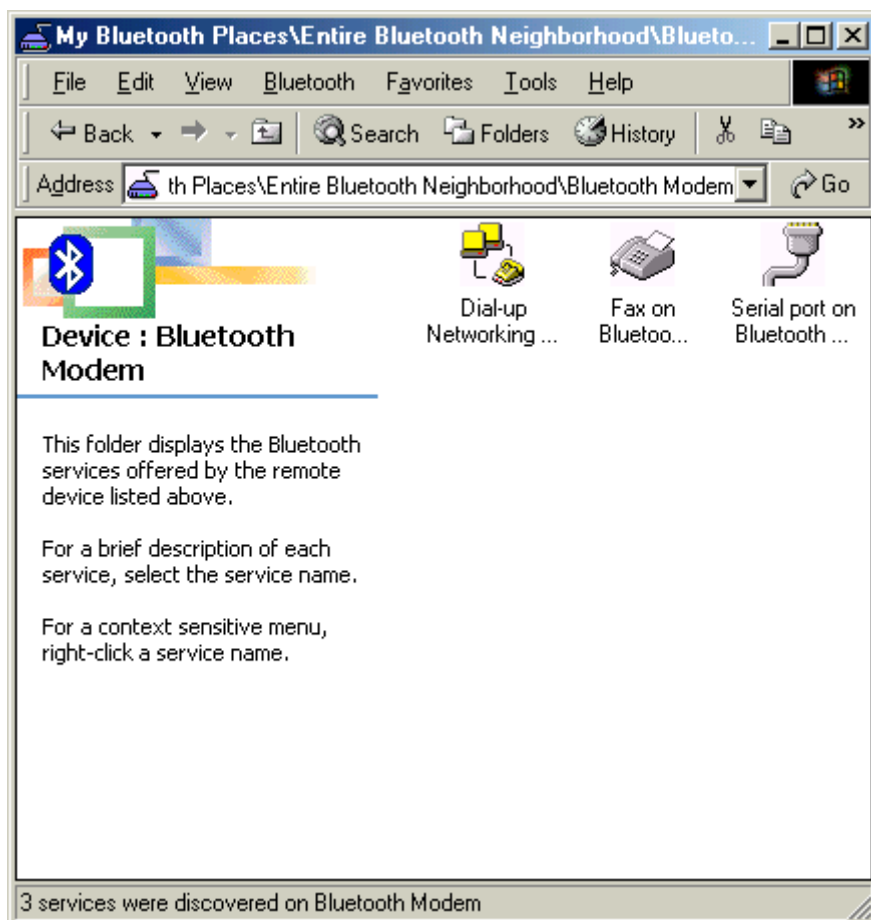
4. Then windows will ask you a 4-digit PIN Code to pair with the Bluetooth Modem. You can find the PIN Code on the bottom of your Bluetooth modem. The default Pin code is "1111".



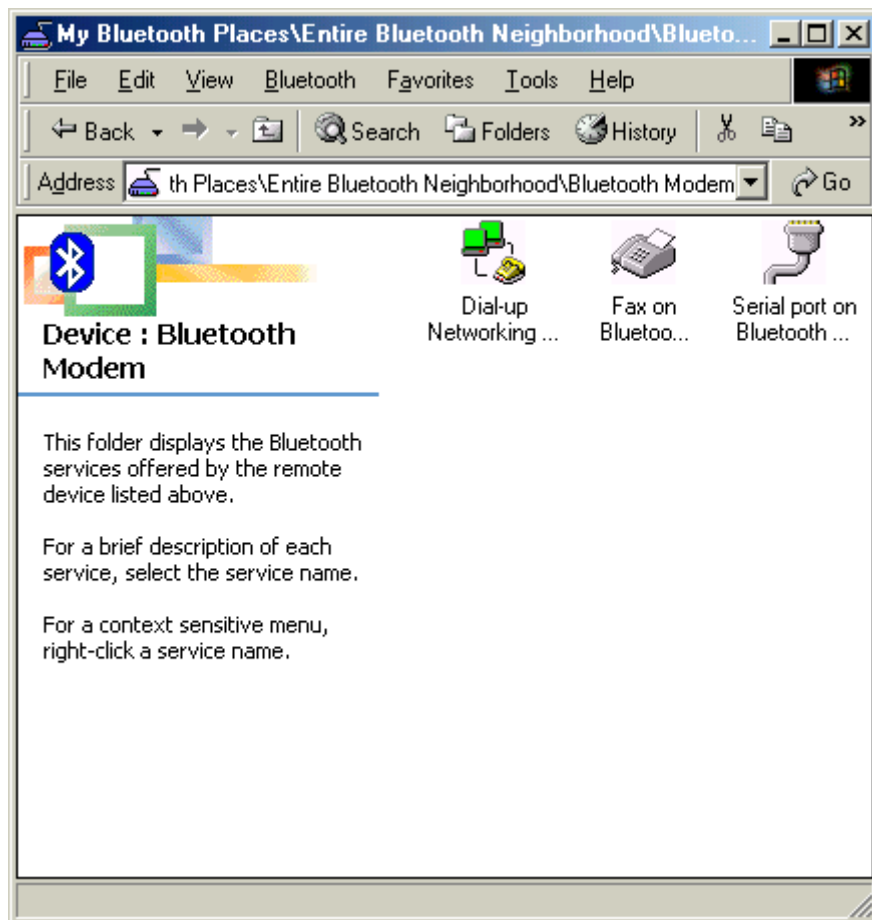
5. Key in the PIN Code and click the "OK" button.



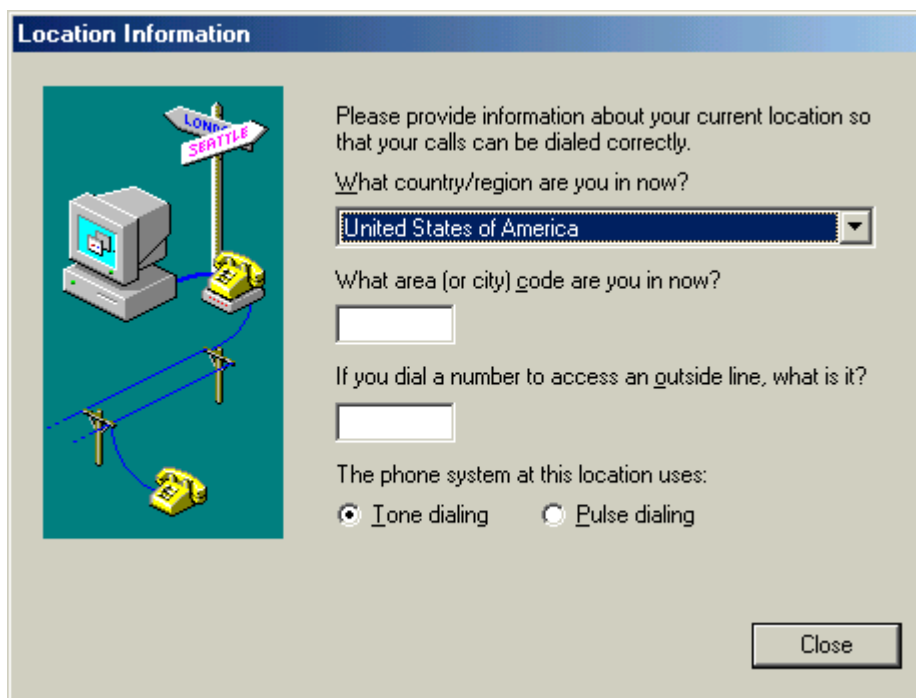
6. When Bluetooth Modem has been paired, it will show 3 services. Double click on "**Dial-up Networking on Bluetooth Modem**" service icon.



7. When the connection is established, the service icon will change the color to green.



8. If you are using the dial-up connection first time, the following window will pop out. Type in the area code of your location, then click the "**Close**" button.



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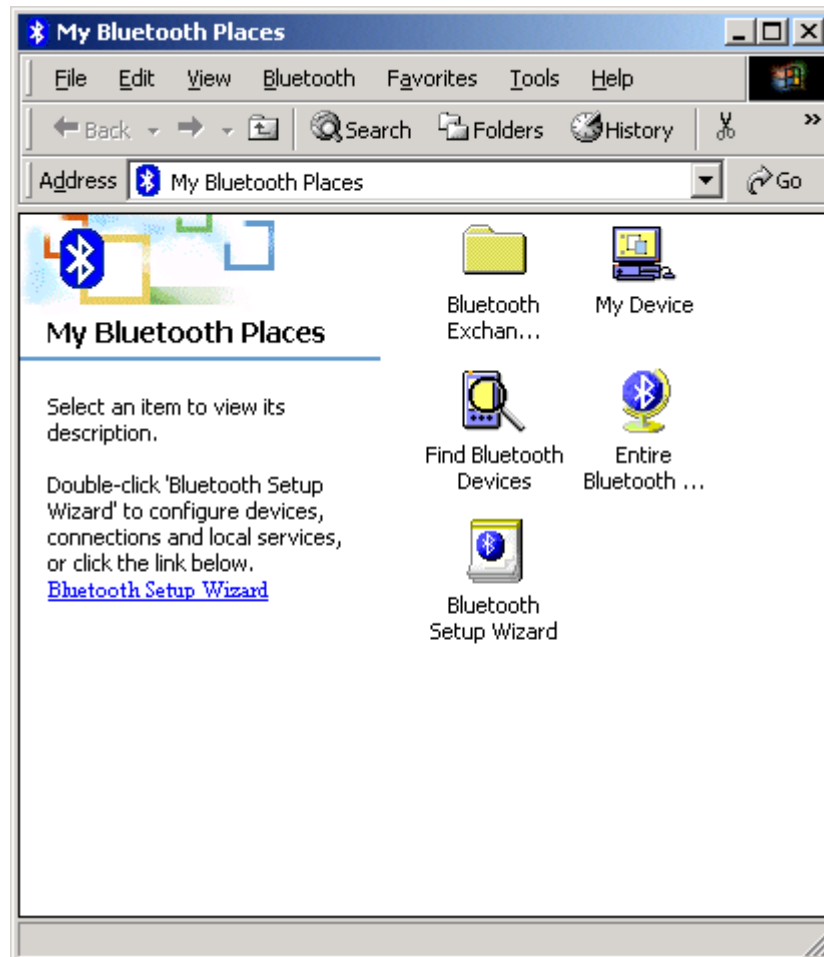
10. The Bluetooth Modem starts dialing.



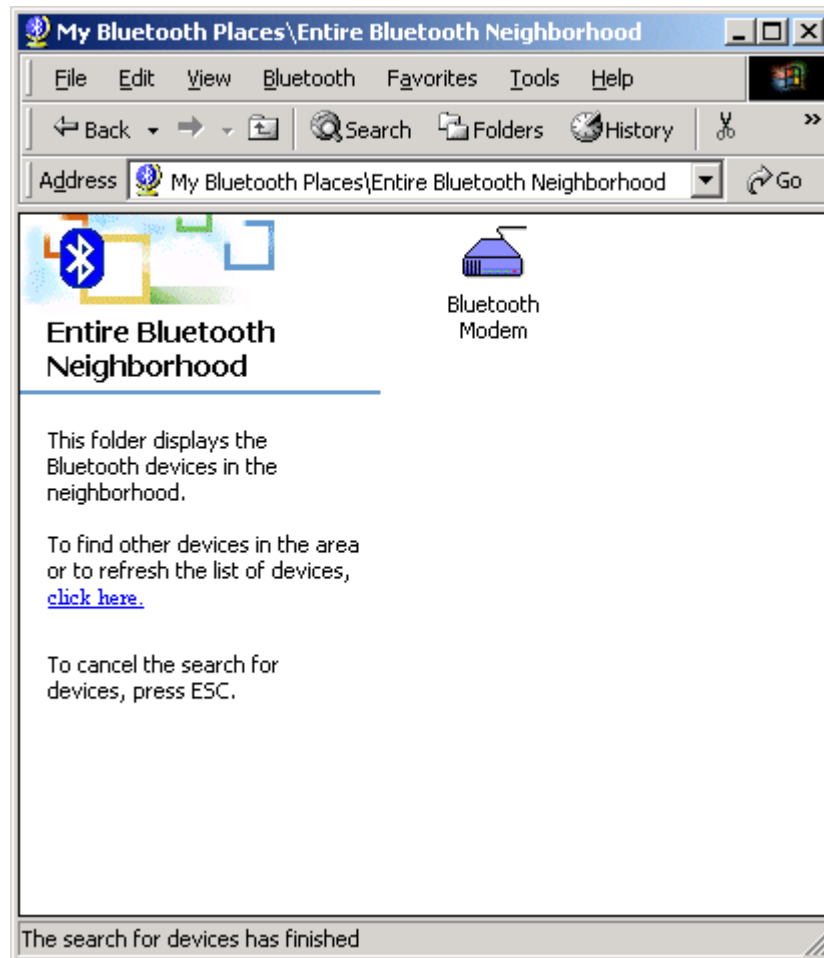
11. Once the connection is established you can run a web browser.

For Windows 2000

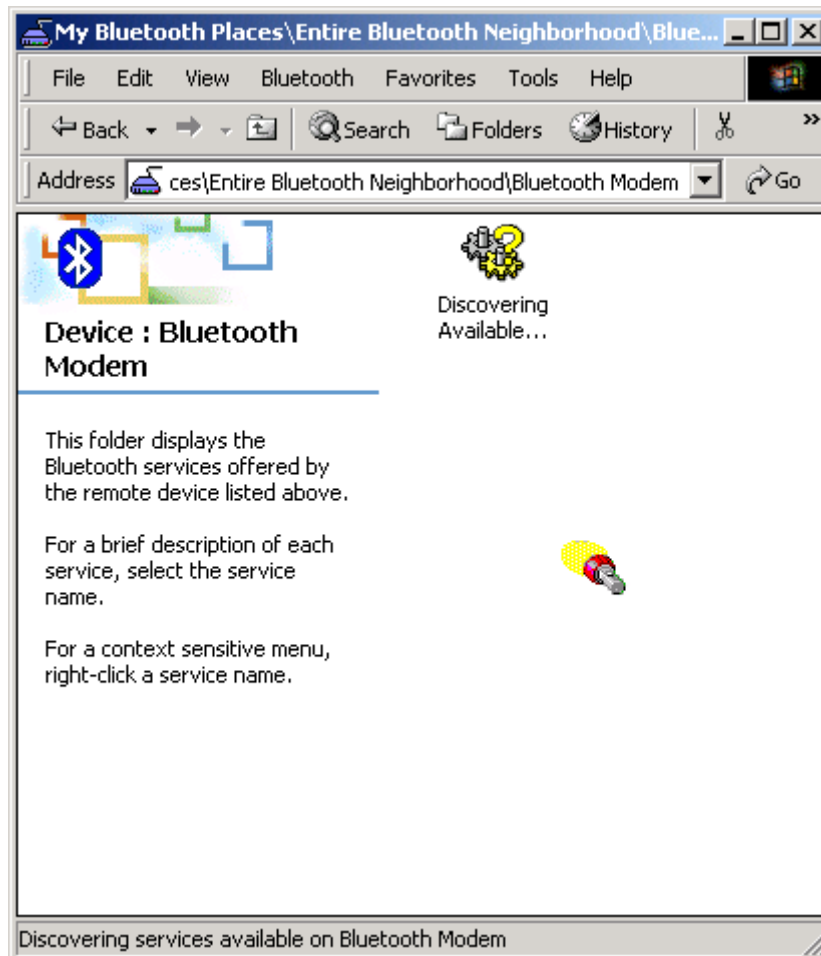
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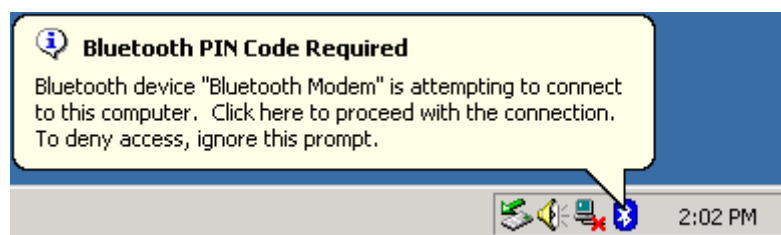
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Find the **"Bluetooth Modem"** icon and then double click on it.



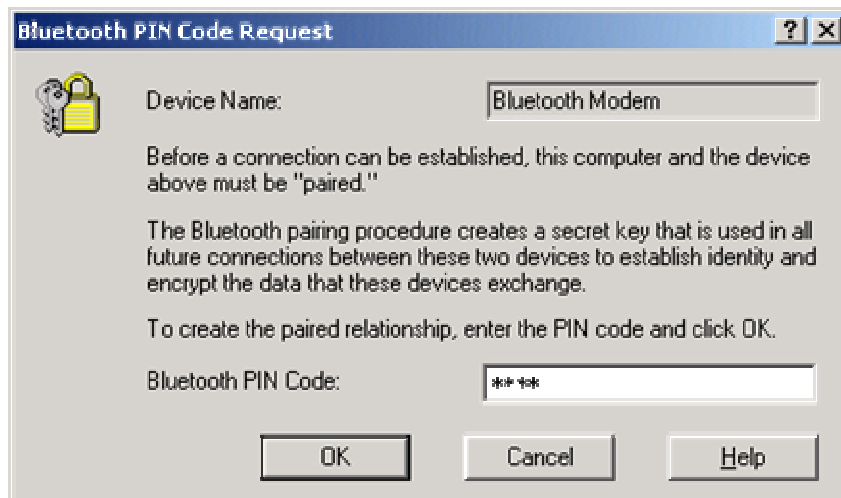
3. The service start discovery.



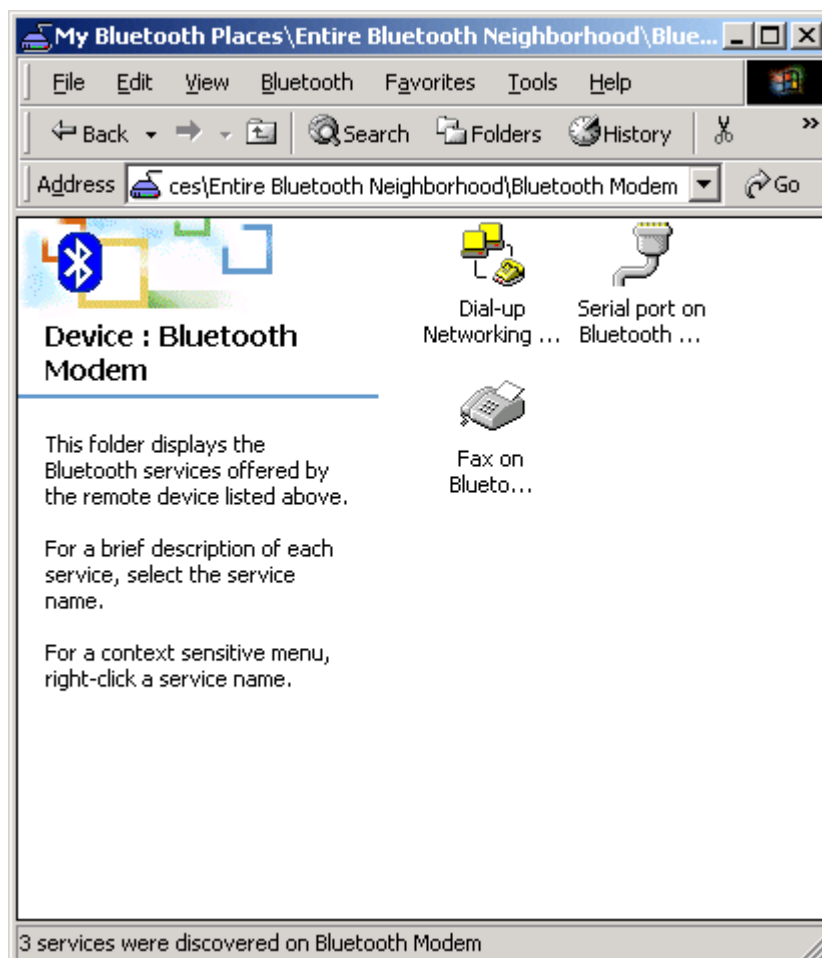
4. Then windows will ask you a 4-digit PIN Code to pair with the Bluetooth Modem. You can find the PIN Code on the bottom of your Bluetooth modem. The default Pin code is "1111".



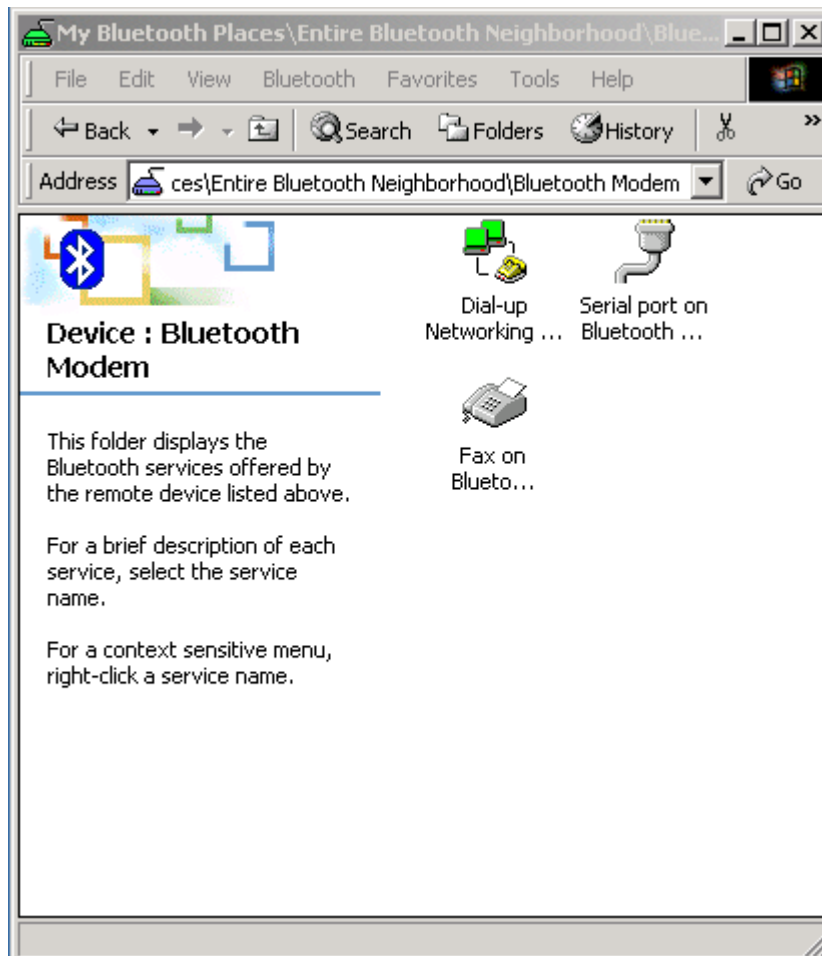
5. Key in the PIN Code and click the "OK" button.



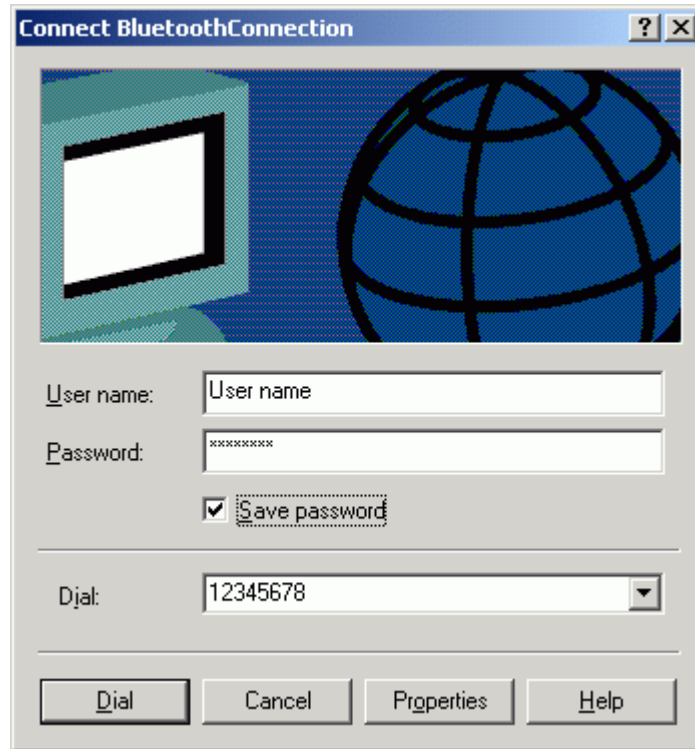
6. When Bluetooth Modem has been paired, it will show 3 services. Double click on "Dial-up Networking on Bluetooth Modem" service icon.



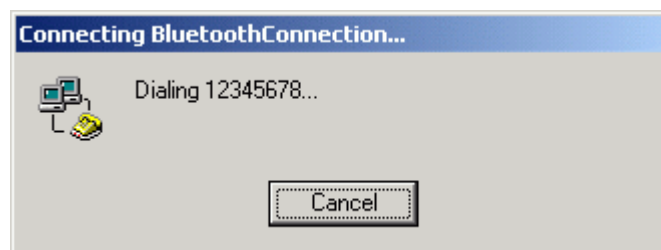
7. When the connection is established, the service icon will change the color to green.



8. The "**Connect To**" window will auto pop-up. Please key in the user name, the password, and the phone number. You can get the information form your ISP (Internet Service Provider) and then click the "**Connect**" button.



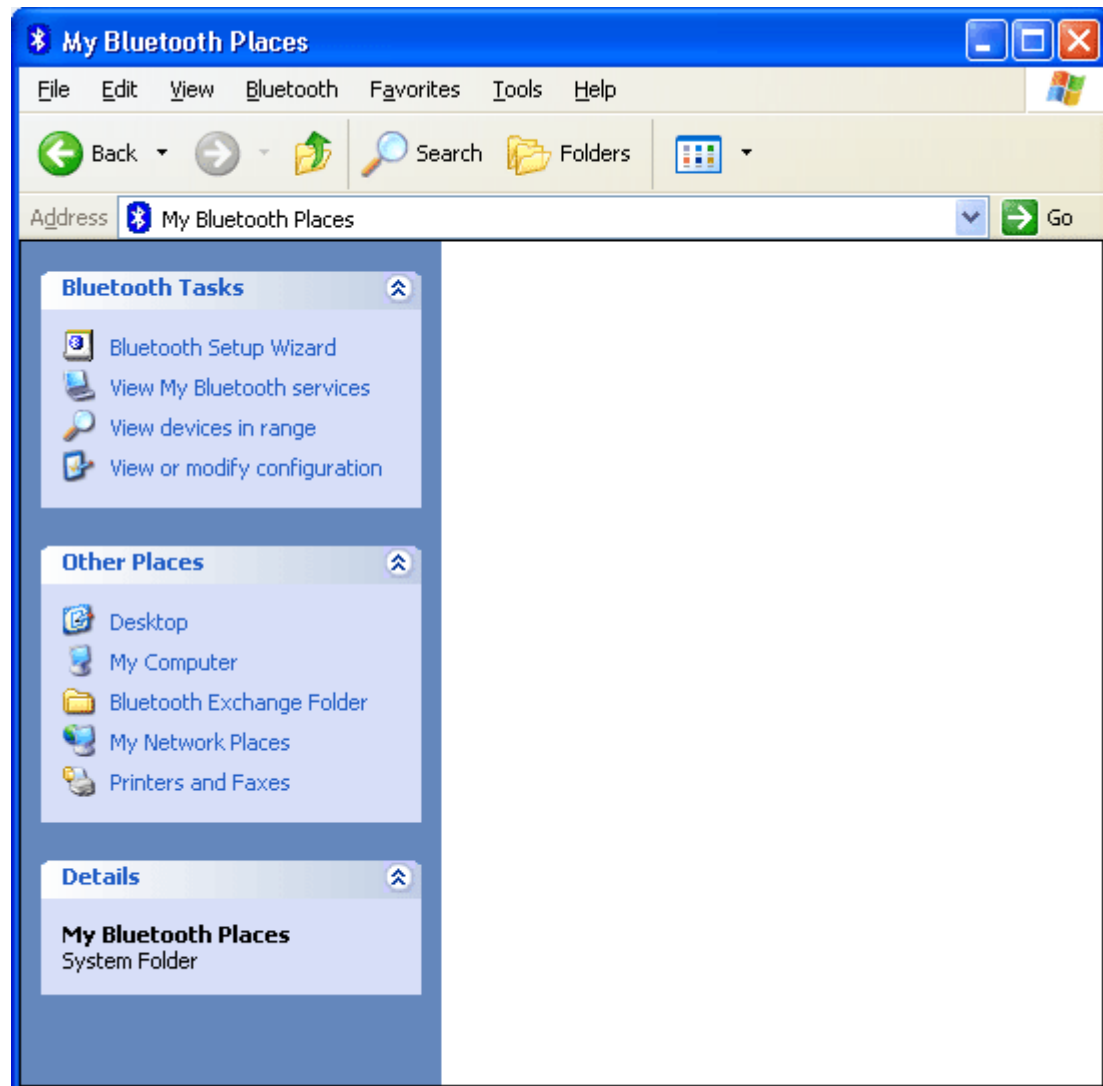
9. The Bluetooth Modem start dialing.



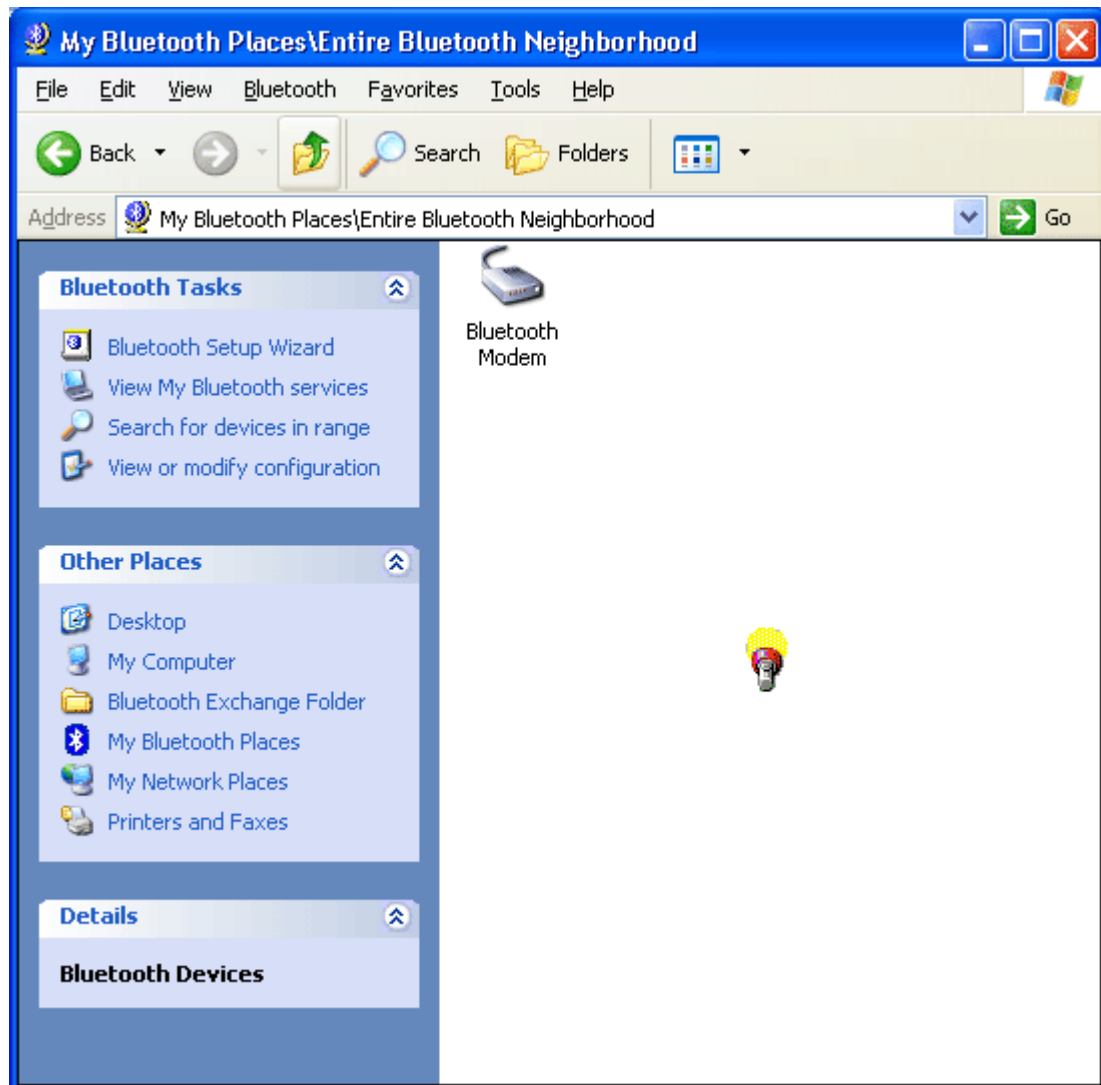
10. Once the connection is established you can open your web browser.

For Windows XP

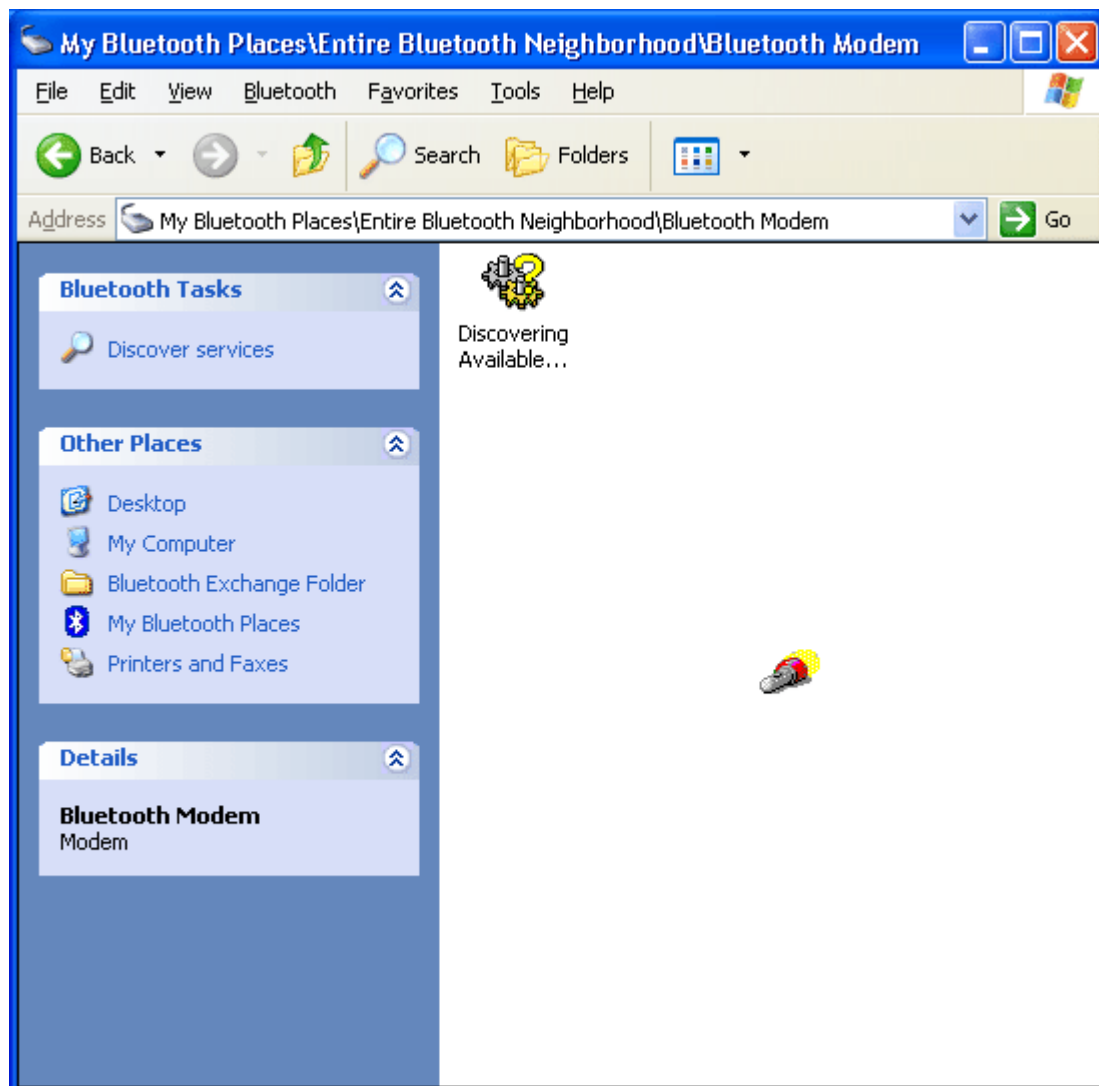
1. Double click the "**My Bluetooth Places**" icon on the desktop. The following window will pop-up. Click the "**View devices in range**" item in "**Bluetooth Tasks**".



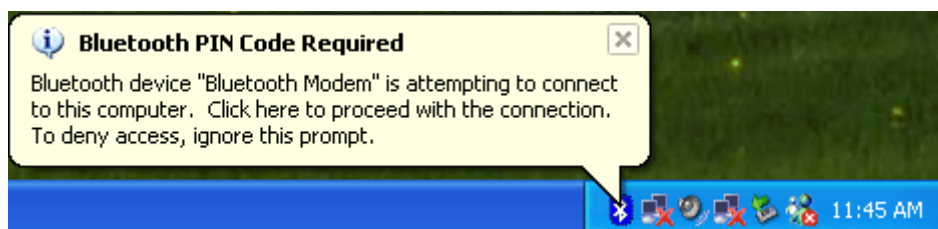
- Bluetooth software will start searching the surrounding remote devices.
Find the **"Bluetooth Modem"** icon and then double click on it.



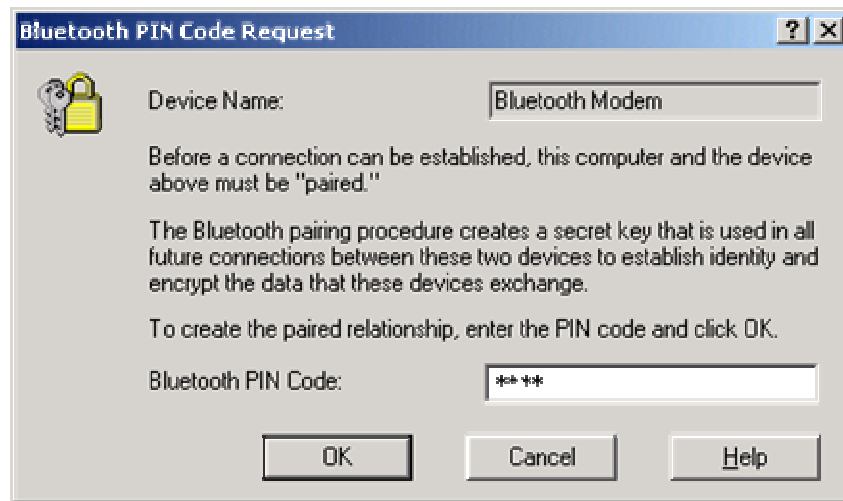
3. The service start discovery.



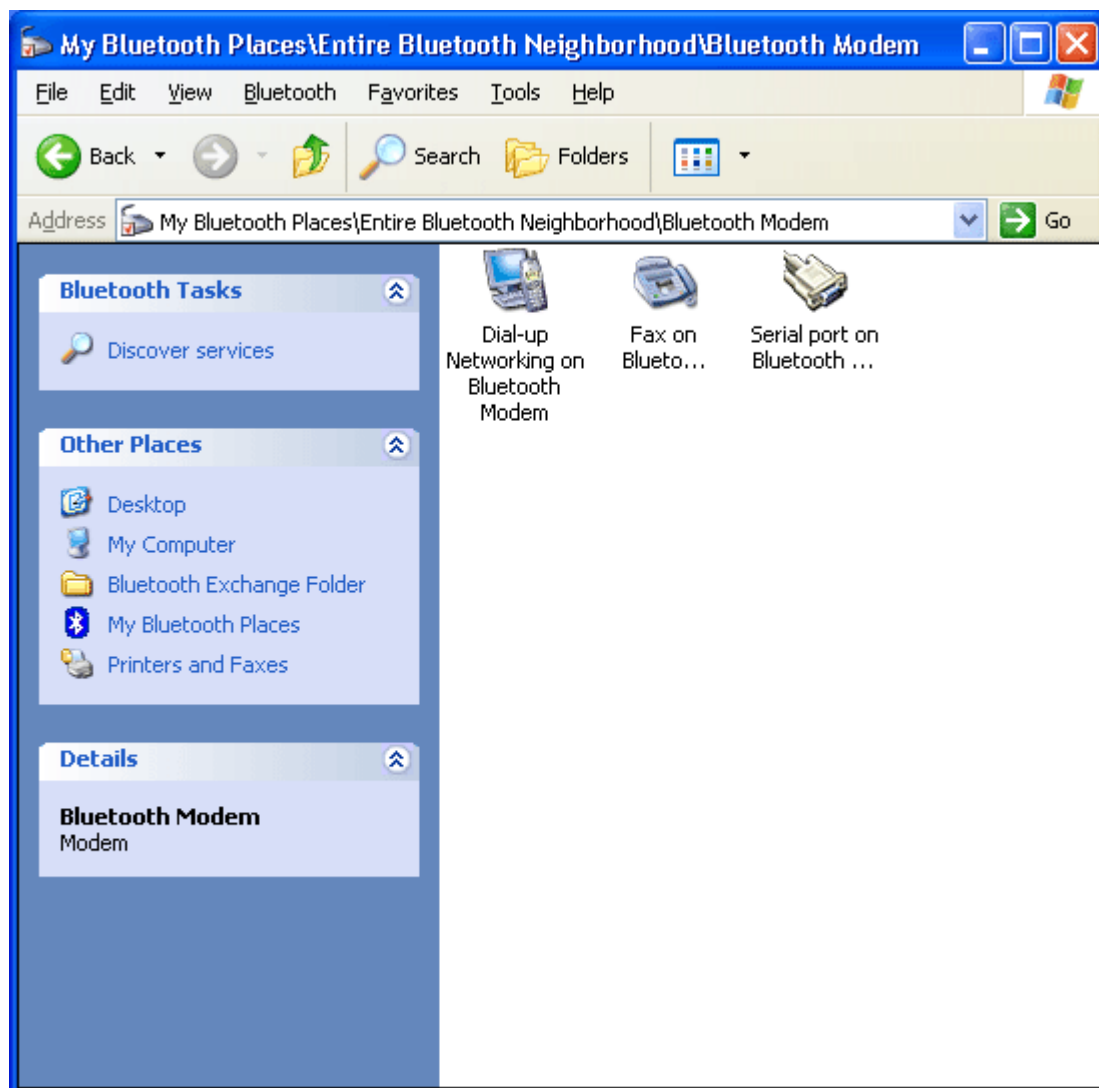
4. Then windows will ask you a 4-digit PIN Code to pair with the Bluetooth Modem. You can find the PIN Code on the bottom of your Bluetooth modem. The default ping code is "1111".



5. Key in the PIN Code and click the "OK" button.



- When Bluetooth Modem has been paired, it will show 3 services. Double click on "**Dial-up Networking on Bluetooth Modem**" service icon.



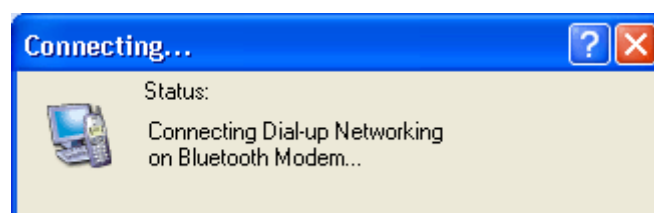
- When the connection is established, the service icon will change the color to green.



8. The "**Connect BluetoothConnection**" window will auto pop-up. Please key in the user name, the password, and the phone number. You can get the information form your ISP (Internet Service Provider) and then click the "**Dial**" button.



9. The Bluetooth Modem starts dialing.



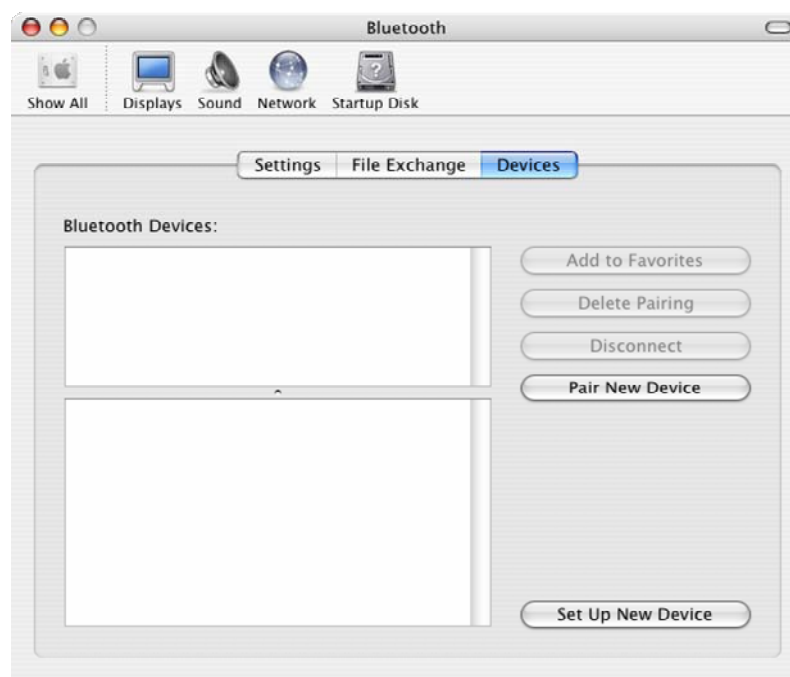
10. Once the connection is established you can open your web browser.

4.3. How to use dial-up network under MAC O.S. 10.3

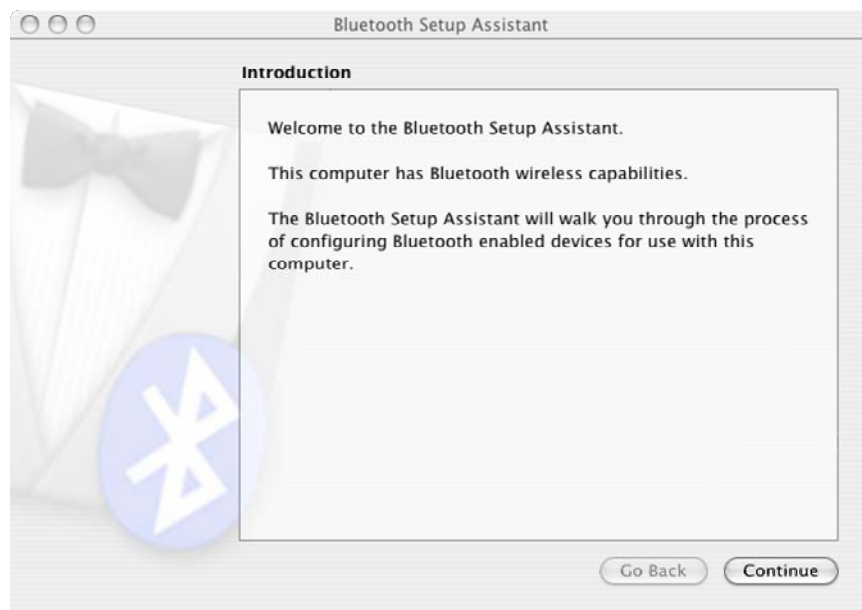
1. To use dial-up network function under MAC O.S.10.3, first from “**system preference**” click hardware “**Bluetooth**” icon



2. System will show the “Bluetooth” windows, please click “**Devices**” → “**Set Up New Device**” start setup with “**Bluetooth setup assistant**”.



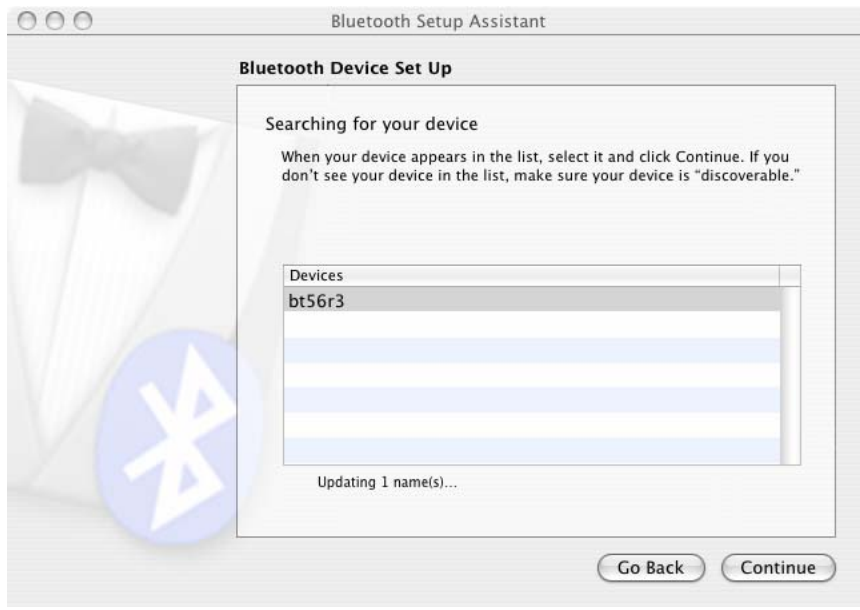
3. At “**Bluetooth Setup assistant**” welcome screen please click “**Continue**” to next step.



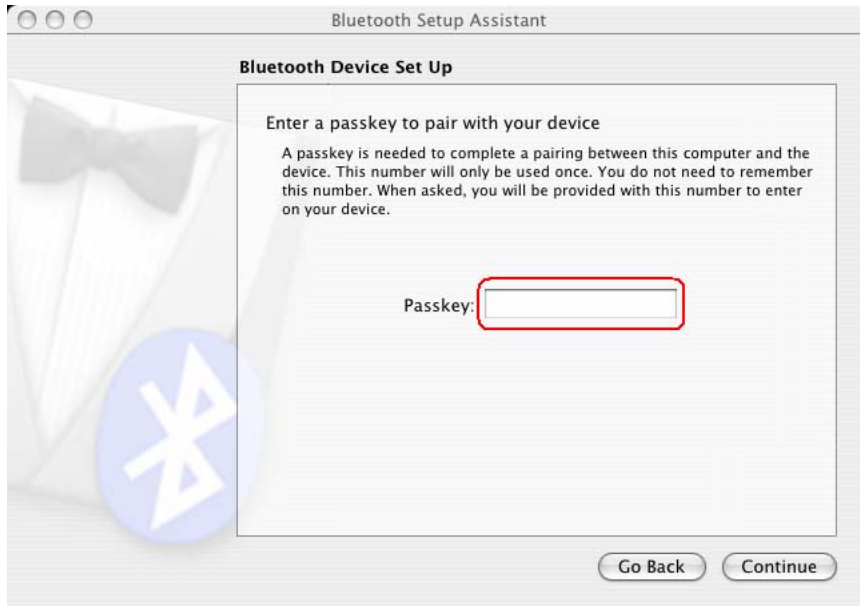
4. In this step please “**Other Device**” in “**Select Device Type**” window and click “**Continue**” button to next step.



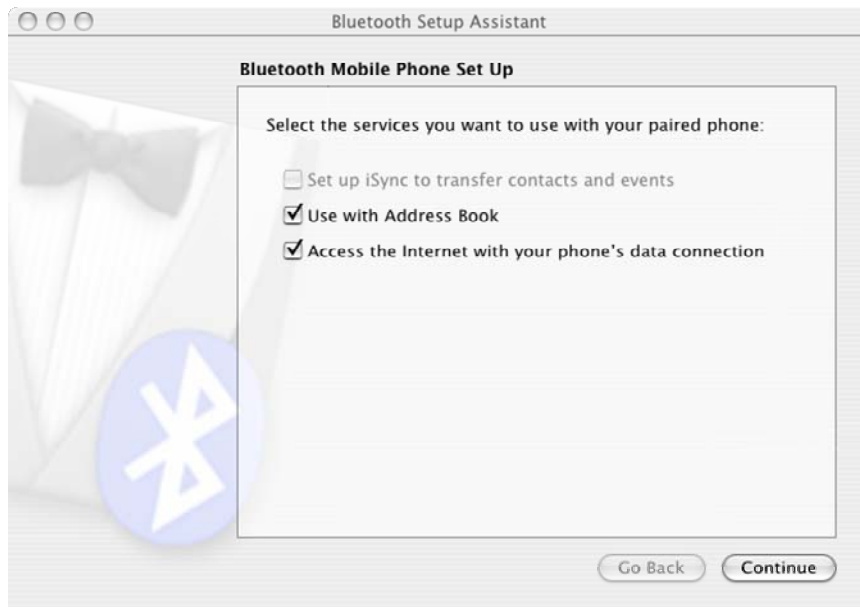
5. In this page please select “**bt56r3**” in “**Devices**” window and click “**Continue**” button to next step



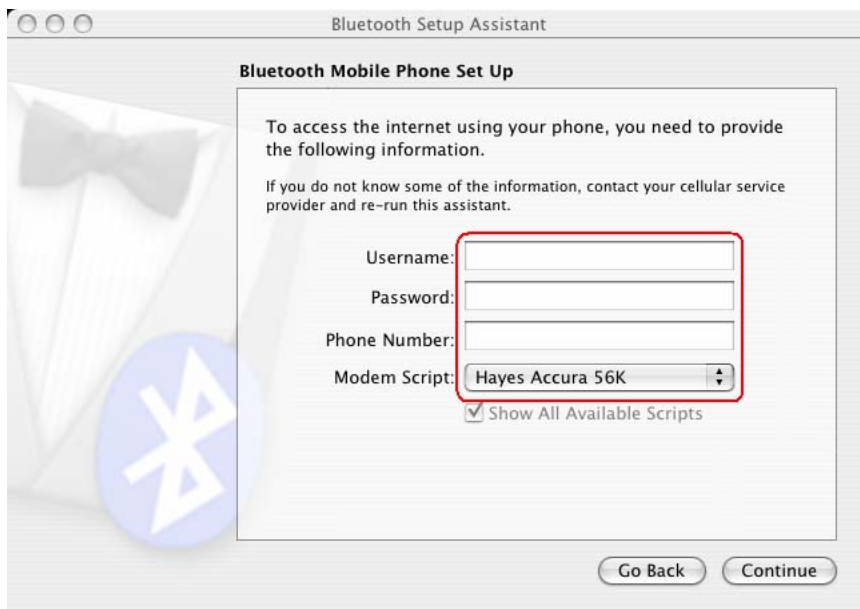
6. In this page please key in passkey the default passkey is “**1111**” and click “**Continue**” button to next step



7. In “**Bluetooth Mobile Phone Set Up**” page please select the service with your phone click “**Continue**” button to next step



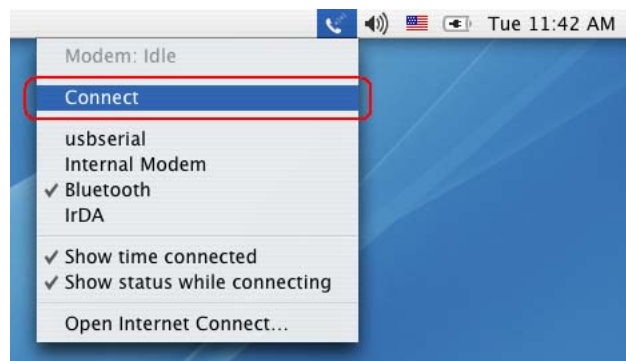
8. In this page you should key in your ISP “**Username**”, “**Password**”, and “**Phone number**” and remember change Modem Script to “**Hayes Accura 56K**” and click “**Continue**” button to next step.



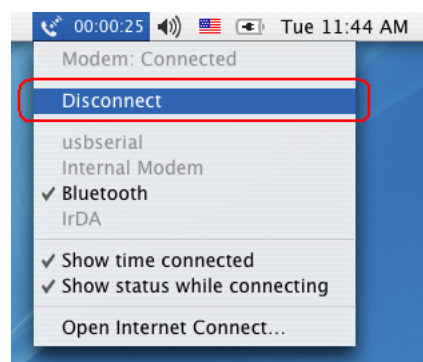
9. In this page you are complete your Bluetooth dial up network setting, please click “**Quit**” button to finish “Bluetooth setup assistant”.



10. To use your dial-up network function please click phone icon on task bar, and click “**Connect**”, please make sure “**Bluetooth**” is selected.




11. The connected time will show on next the phone icon, if you want to disconnect the connection just click “**Disconnect**”.



5. Generic Modem Mode

5.1 Getting Started

1. Turn the switch to "RS-232" side  .
2. Connect the telephone line to the RJ-11 socket.
3. Plug in the RS-232 cable male connector to RS-232 connector of Bluetooth Modem and plug in the female connector to your PC.
4. Plug in the AC adapter to the power outlet.

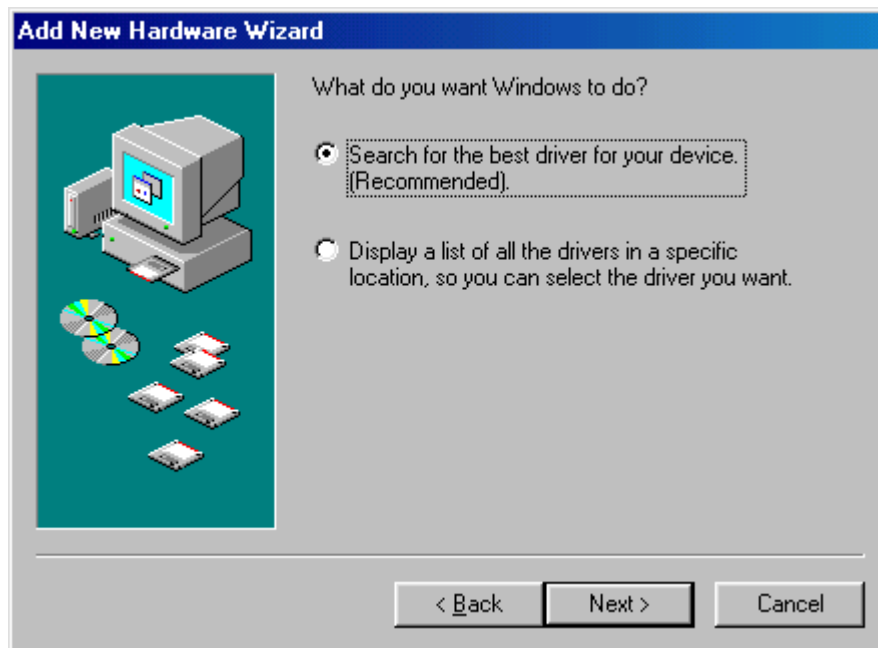
5.2 Driver Installation under Windows

For Windows 98

1. Make sure your PC is powered on and you are running the Windows operating system. Then system will recognize the device and display the "**Add New Hardware Wizard**" dialog box. Please insert the driver CD and then click the "**Next**" button.



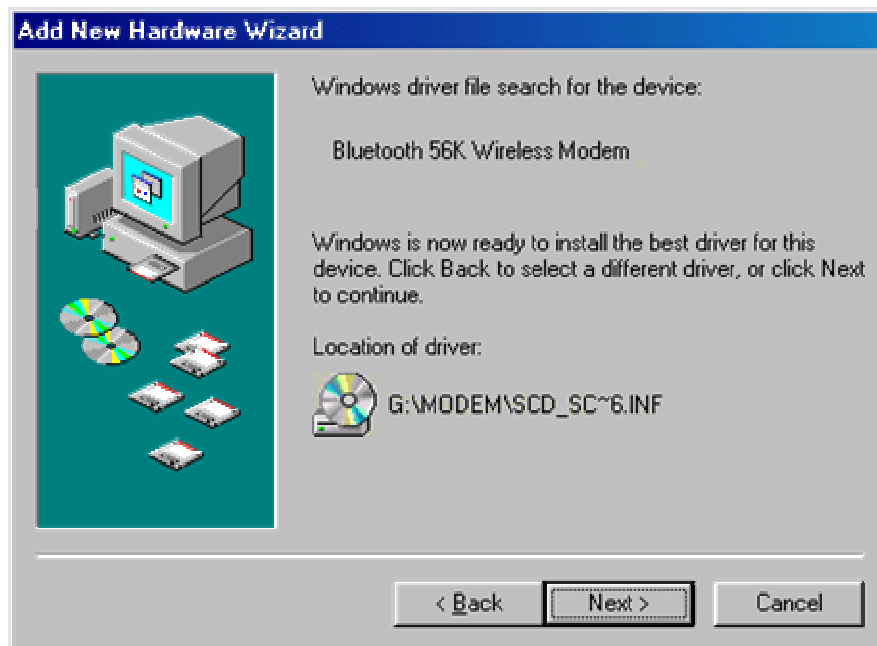
2. Select "**Search for the best driver for your device (Recommended)**", then click the "**Next**" button.



3. Select "**Specify a location**" and type "**G:\Modem**" (where G:\ is the path of your CD-ROM drive) in the location or you can click the "**Browse**" button to select, and then click the "**Next**" button.



4. Please click the **"Next"** button, the driver then installs itself.



5. Click the **"Finish"** button to complete the installation process.

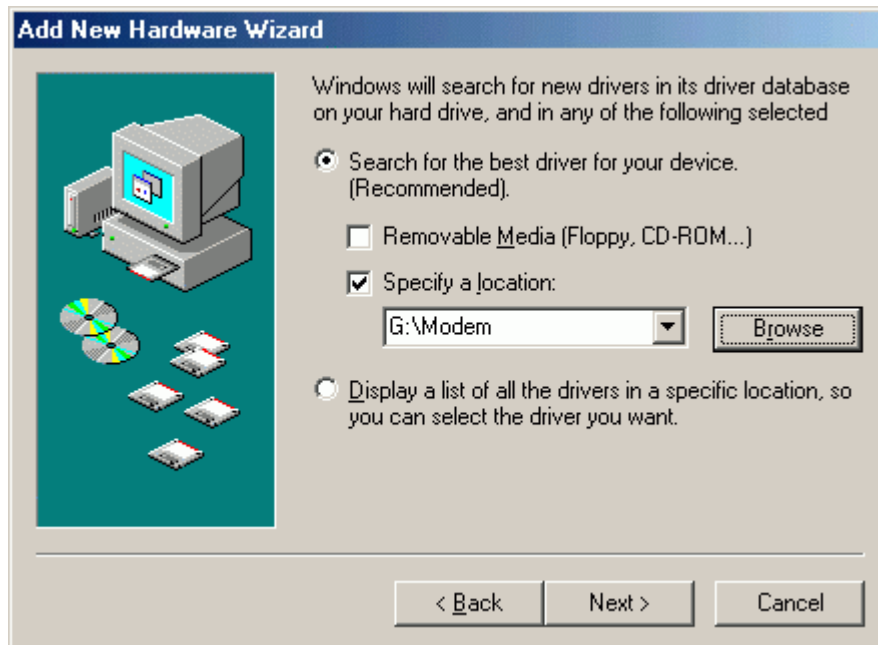


For Windows ME

1. Make sure your PC is powered on and that you are running the Windows operating system. Then system will recognize the device and display the **"Add New Hardware Wizard"** dialog box. Please insert the driver CD and then click the **"Next"** button.



2. Select "**Search for the best driver for your device.**" then choose "**Specify a location**" and type "**G:\Modem**" (where G:\ is the path of your CD-ROM drive) in the location or you can click the "**Browse**" button to select, then click the "**Next**" button.



3. Click the "**Next**" button, the driver then installs by itself.



4. Click the **"Finish"** button to complete the installation process.



For Windows 2000

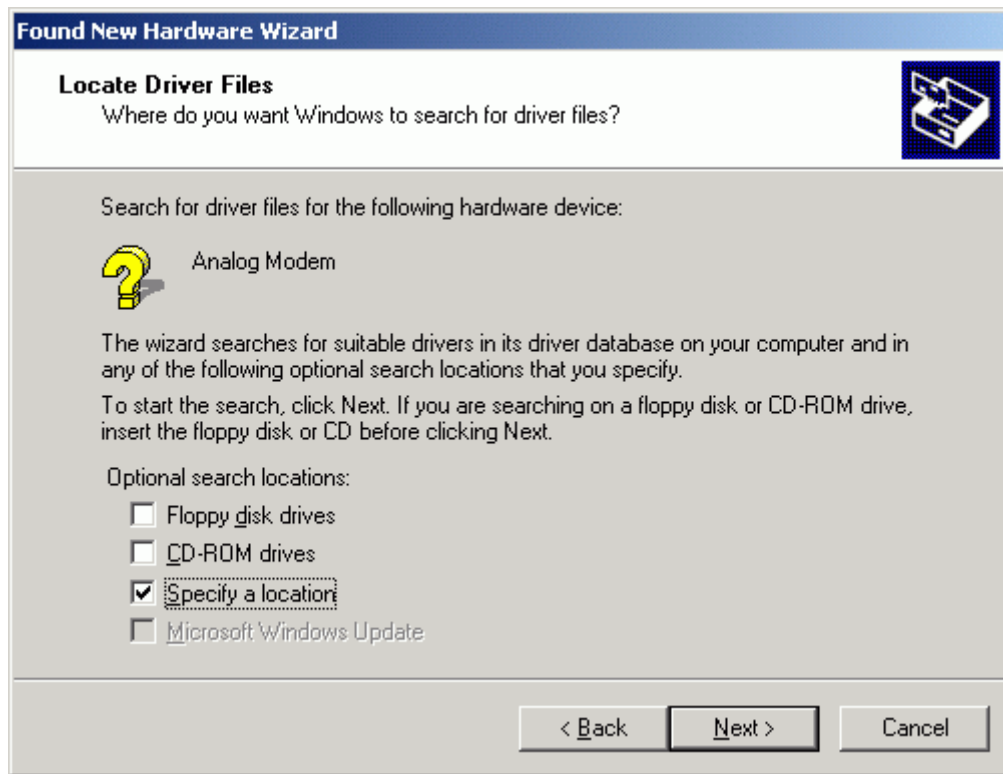
1. Make sure your PC is powered on and that you are running the Windows operating system. Then system will recognize the device and display the "**Found New Hardware Wizard**" dialog box. Please insert the driver CD then click the "**Next**" button.



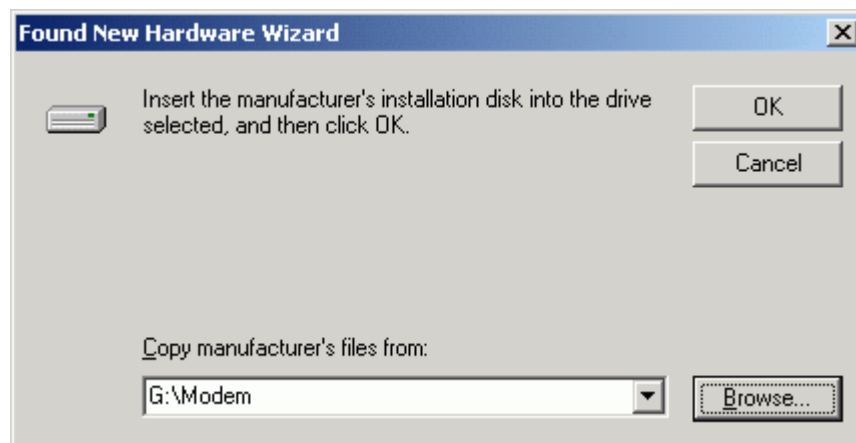
2. Select "**Install the software automatically (Recommended)**", then click the "**Next**" button.



3. Select "**Specify a location**" then click the "**Next**" button.



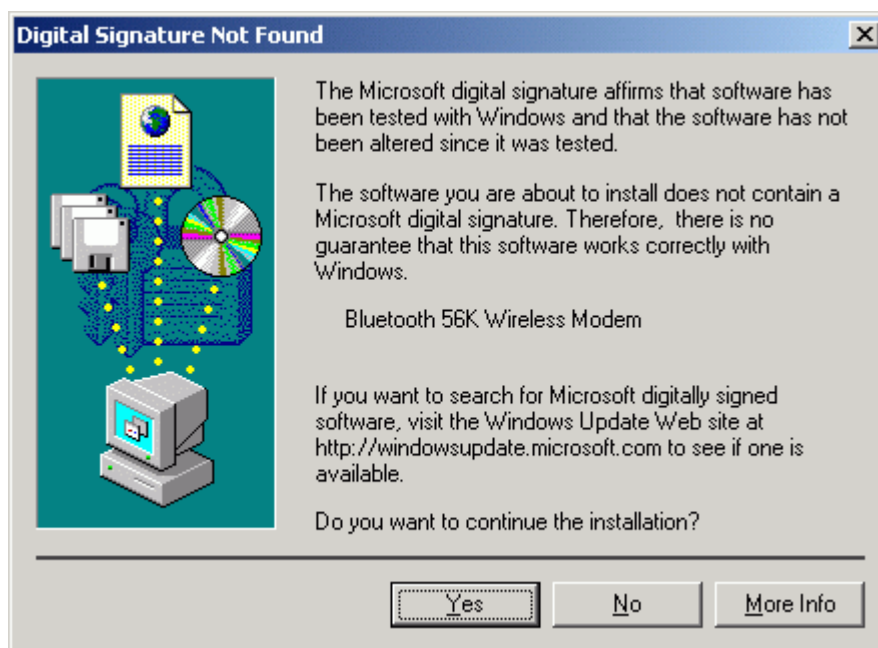
4. Type "**G:\Modem**" (where G:\ is the path of your CD-ROM drive) in the location or you can click the "**Browse**" button to select, then click the "**Next**" button.



5. Click the **"Next"** button, the driver then installs by itself.



6. Windows will search for and recognize the driver of the device, then display one message. Please click the **"Yes"** button. Windows will then automatically copy the driver files and related files into the system.



7. After copying the driver files, click the **"Finish"** button to complete the installation process.

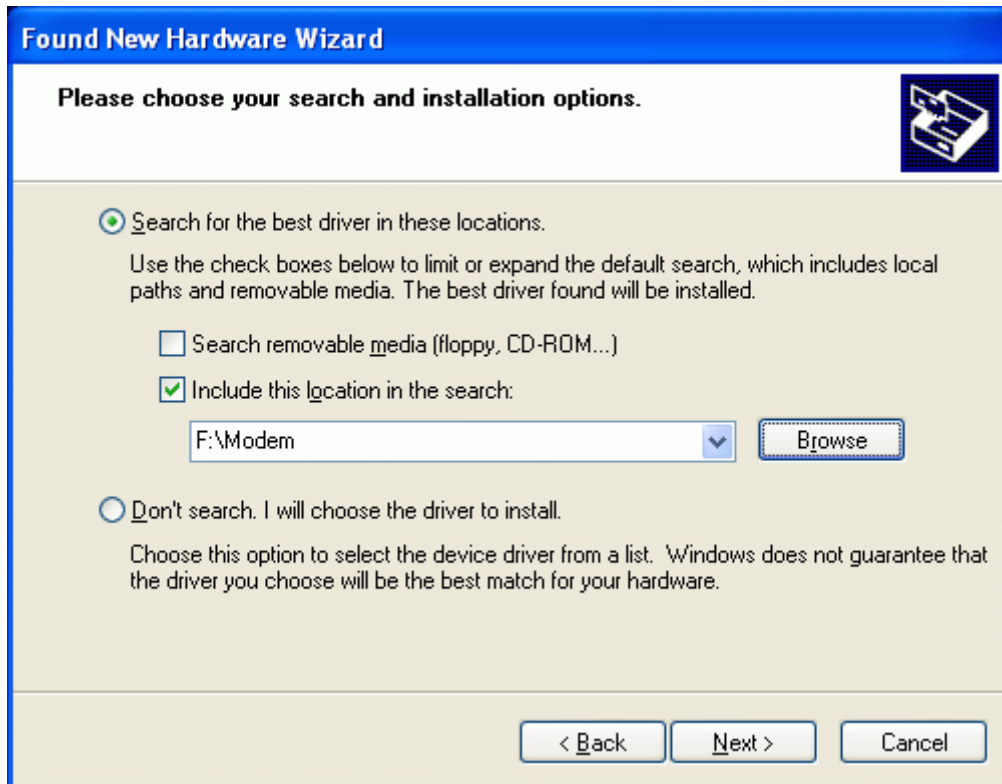


For Windows XP

1. Make sure your PC is powered on and that you are running the Windows operating system. Then system will recognize the device and display the **"Found New Hardware Wizard"** dialog box. Select **"Install from a list or specific location (Advanced)"**, insert the driver CD then click the **"Next"** button.



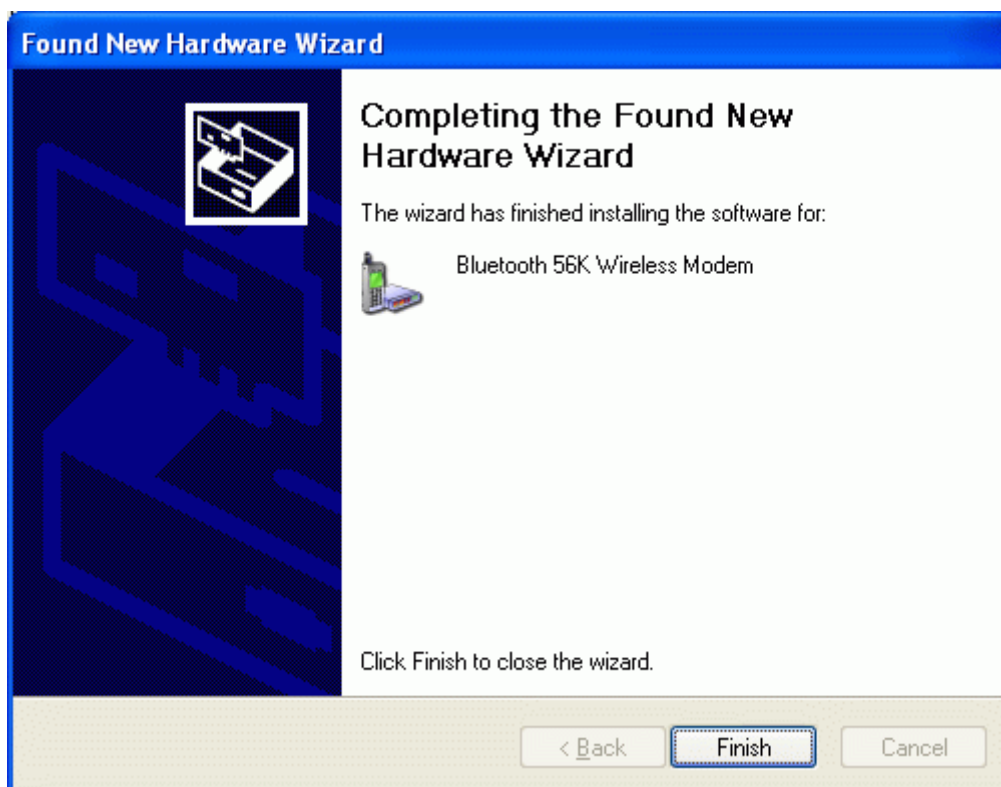
2. Select "**Search for the best driver in these locations.**" and choose "**Include this location in the search:**" then type "**F:\Modem**" (where F:\ is the path of your CD-ROM drive) in the location or you can click the "**Browse**" button to select,. Click the "**Next**" button.



- Windows will search for and recognize the driver of the device, then display one message. Please click the "**Continue Anyway**" button. Windows will then automatically copy the driver files and related files into the system.



- After copying the driver files, click the "**Finish**" button to complete the installation process.




5.3 How to dial-up under Windows

Please refer to the Windows Operating System user guide to setup a dial-up connection.

6. How to use BTModemUtility?

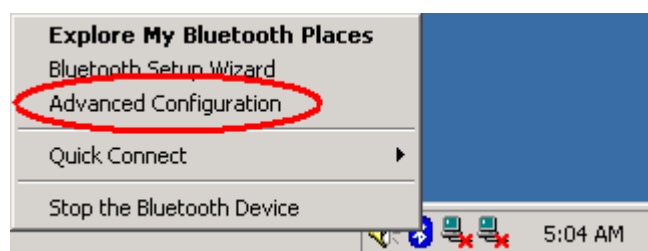
This utility can change the name and Pin Code of the Bluetooth modem device. This utility can be found in the driver CD. (The path is: \Modem\Utility)

Before you change pin code, please notes these steps.

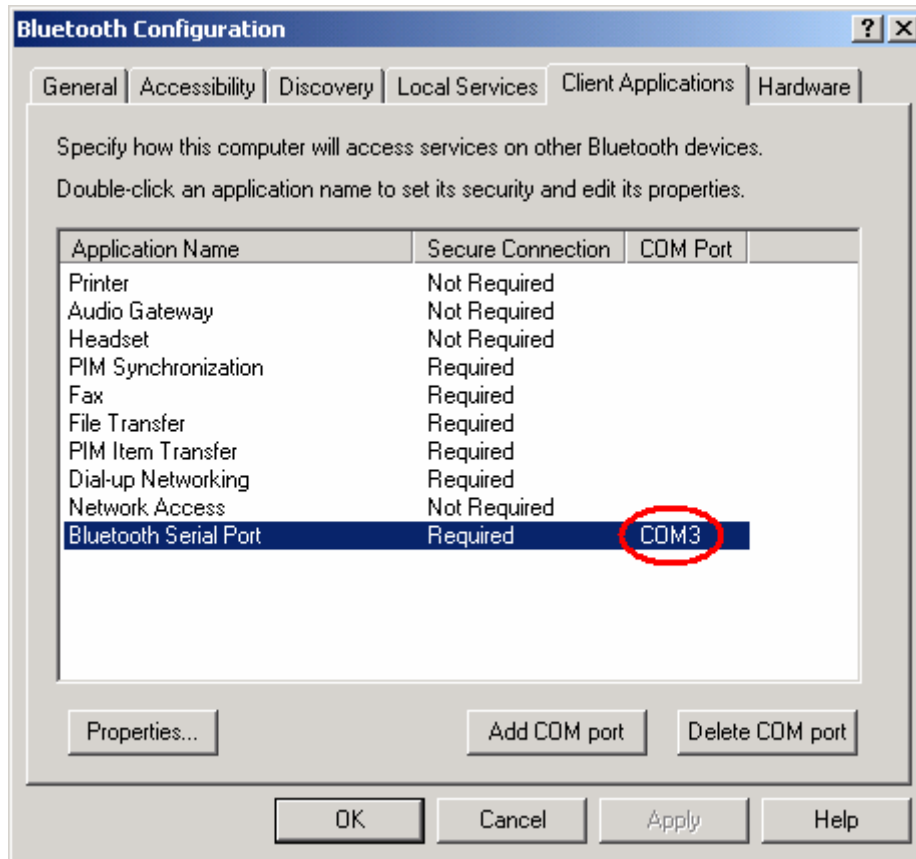
1. Turn the switch to "BT" side .
2. Pull out and plug in the AC adapter to the power outlet to reset the modem. Now you can change your pin code.
3. If you forget your pin code, press the "Reset" button for 3 seconds and then release it. The setup will become to default setting.

6.1. Check your serial port number first. (For WIDCOMM BTW)

1. In the Windows system tray, right-click the Bluetooth icon and select "Advanced Configuration".

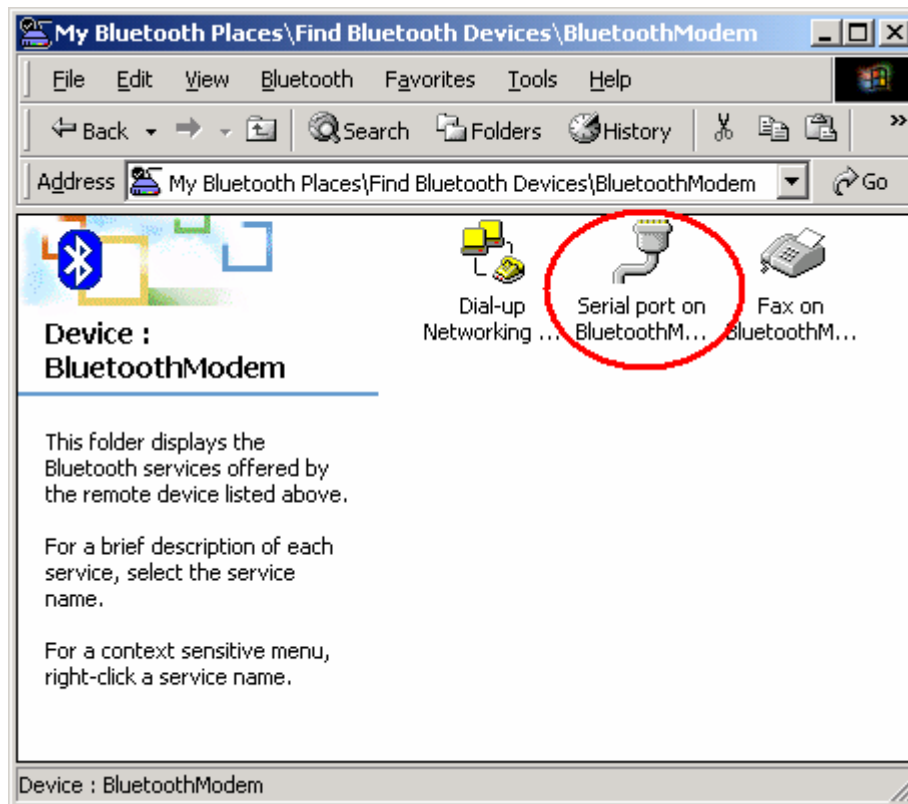


2. From the Bluetooth menu, select "Client Applications", check the "Bluetooth Serial Port". (In this case the Bluetooth serial Port is set at COM3).

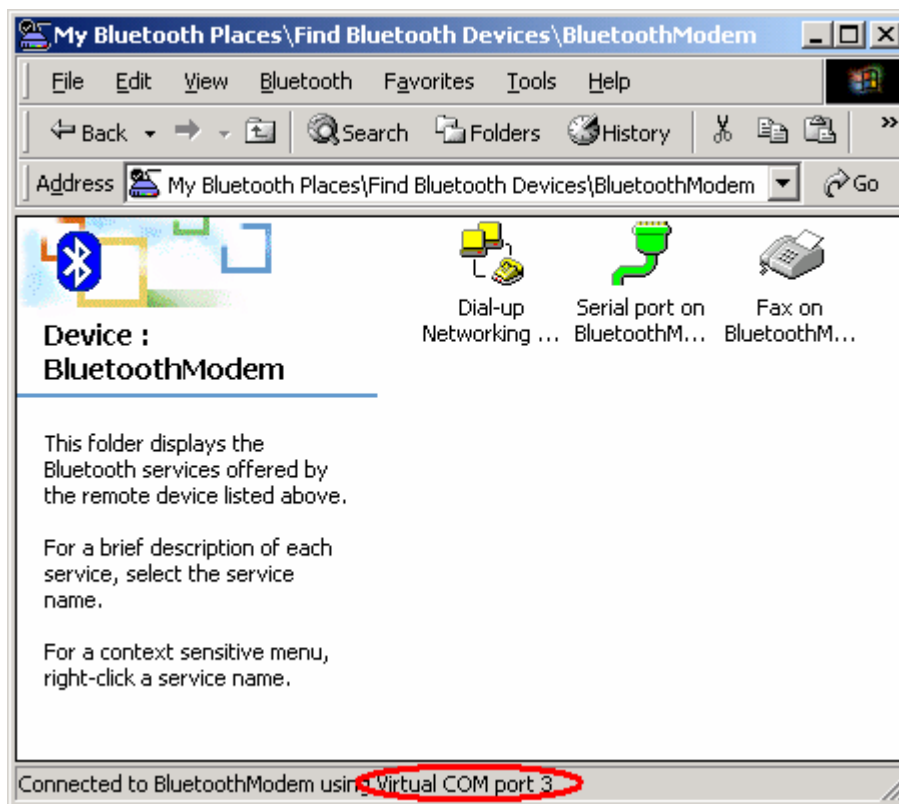


6.2. Getting Started

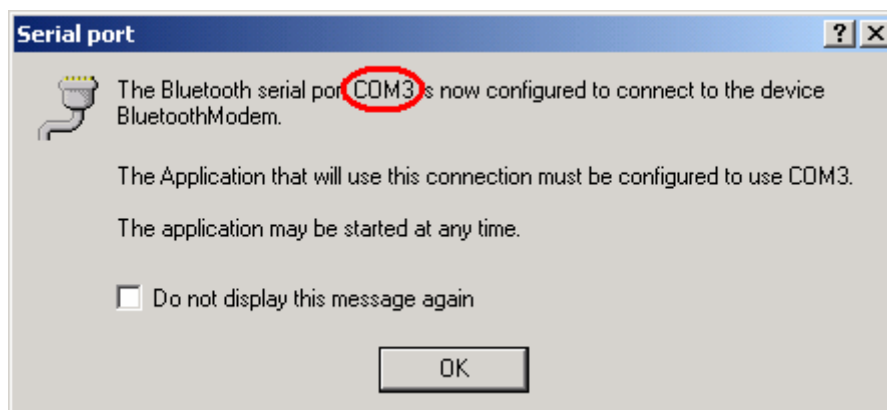
1. Double click the "**Serial port on Bluetooth Modem**" icon to connect.



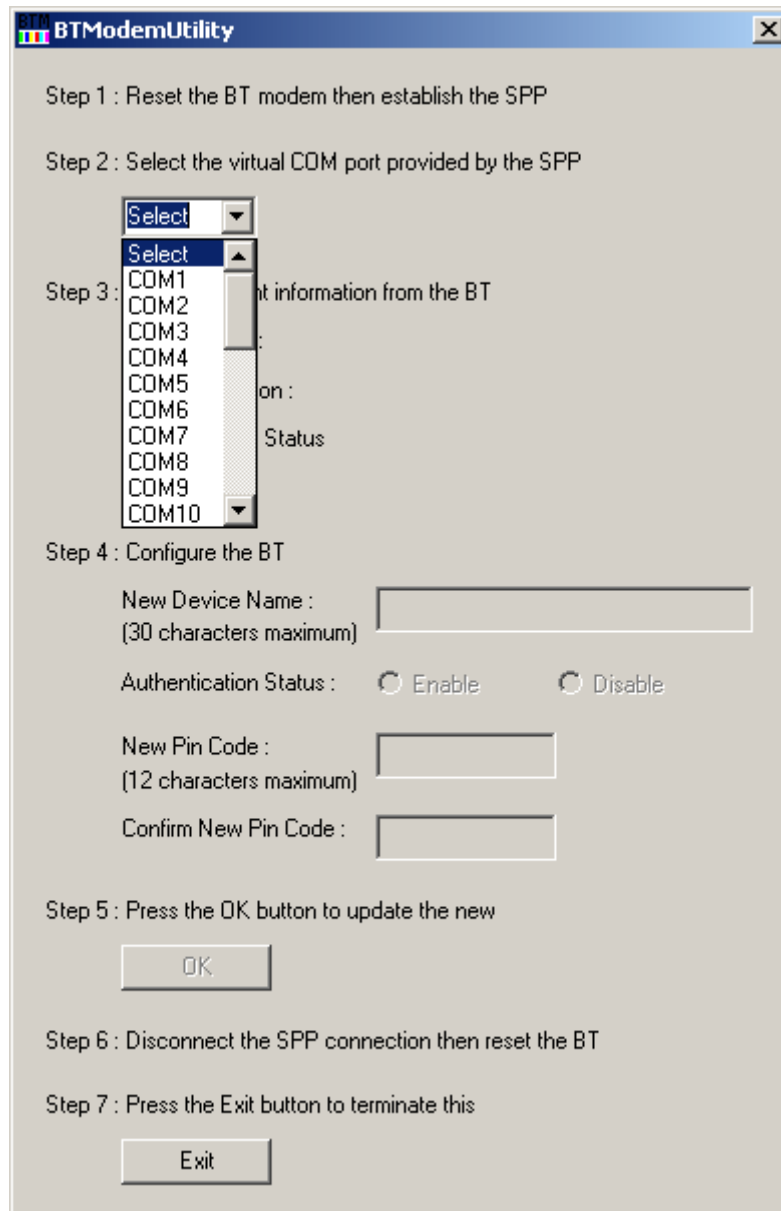
2. You can find the serial port number on the bottom of the screen. (In this case the Bluetooth serial Port is set at COM3).



3. We recommend you NOT to select "Do not display this message again". That will allow you to find out your virtual COM port next time.



4. Then run the **"BTModemUtility"** from your CD path:\Utility\BTModemUtility.exe. If you choose the wrong virtual COM port, it will show **"Fatal Error: Receive data timeout."**, **"Fatal Error: Failed to send data out."** or **"Fatal Error: Cannot open the selected COM port."**. Please check your COM port in **"step 2"**.



5. You will see target device information on the screen. The default Pin Code is 1111. You can change the device name and a new Pin Code.

Note: The device name and Pin Code have to be alphanumeric.

The screenshot shows the 'BTModemUtility' application window with the following content:

- Step 1 :** Reset the BT modem then establish the SPP
- Step 2 :** Select the virtual COM port provided by the SPP
COM3 (selected in a dropdown menu)
- Step 3 :** Get the current information from the BT
 - Device Name : BluetoothModem
 - Firmware Version : 1.3
 - Authentication Status : Enable
 - Pin Code : 1111
- Step 4 :** Configure the BT
 - New Device Name : [text input field] (14 characters maximum)
 - Authentication Status : Enable Disable
 - New Pin Code : [text input field] (12 characters maximum)
 - Confirm New Pin Code : [text input field]
- Step 5 :** Press the OK button to update the new
[OK button]
- Step 6 :** Disconnect the SPP connection then reset the BT
- Step 7 :** Press the Exit button to terminate this
[Exit button]

6. If you choose **"Disable Authentication Requirement"**, you won't have to enter the Pin Code next time. Then press **"OK"**, and **"Exit"**.

The screenshot shows the BTModemUtility application window with the following content:

Step 1 : Reset the BT modem then establish the SPP

Step 2 : Select the virtual COM port provided by the SPP
COM3

Step 3 : Get the current information from the BT

Device Name :	BluetoothModem
Firmware Version :	1.3
Authentication Status :	Enable
Pin Code :	1111

Step 4 : Configure the BT

New Device Name : [Empty text box]
(14 characters maximum)

Authentication Status : Enable Disable

New Pin Code : [Empty text box]
(12 characters maximum)

Confirm New Pin Code : [Empty text box]

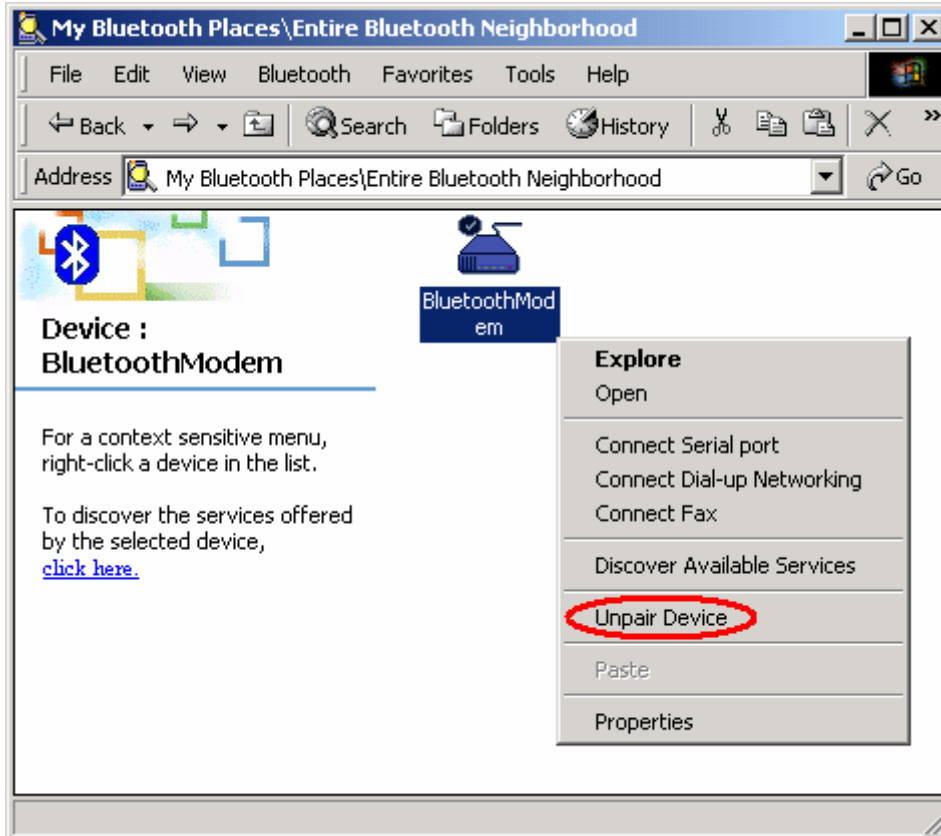
Step 5 : Press the OK button to update the new
OK

Step 6 : Disconnect the SPP connection then reset the BT

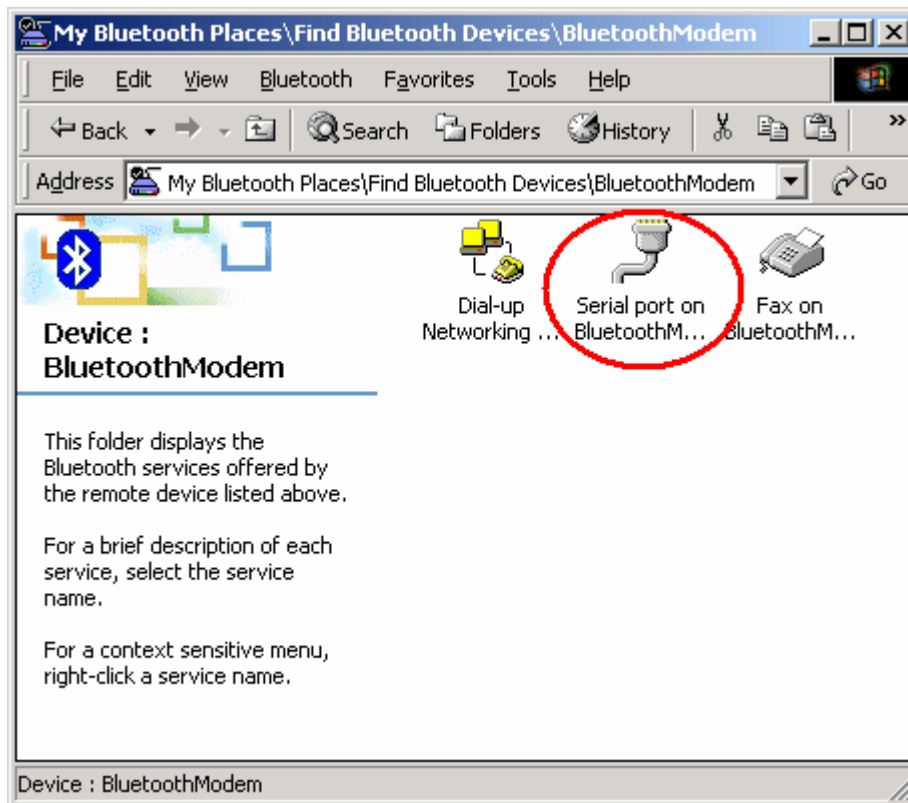
Step 7 : Press the Exit button to terminate this
Exit

7. After changing to a new device name or Pin Code, you must unpair the device.

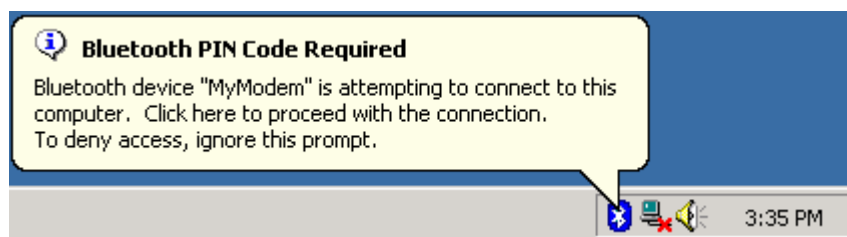
Note: Select the device and right click the mouse button to choose “Pair Device” or “Unpair Device”.



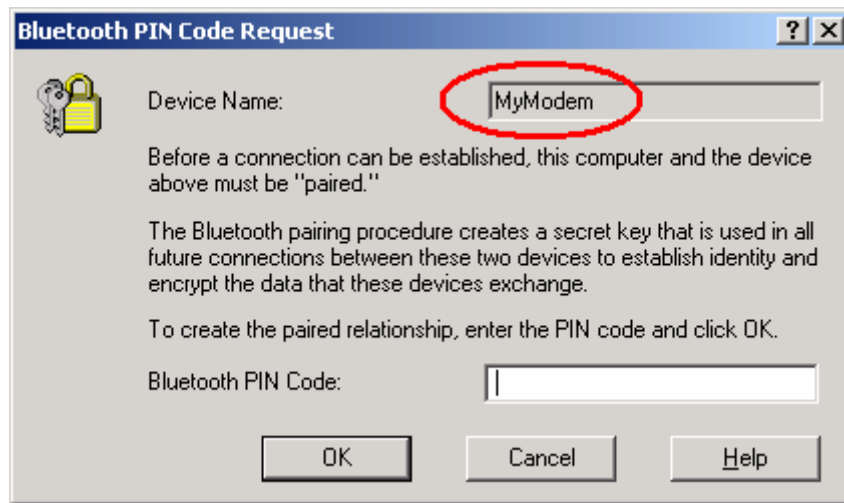
8. Then you select one of the Bluetooth Modem function.



9. The device will require you to enter the new Pin Code



10. You will see the new device name in the request window, and you can enter the new PIN Code to complete the pairing process.



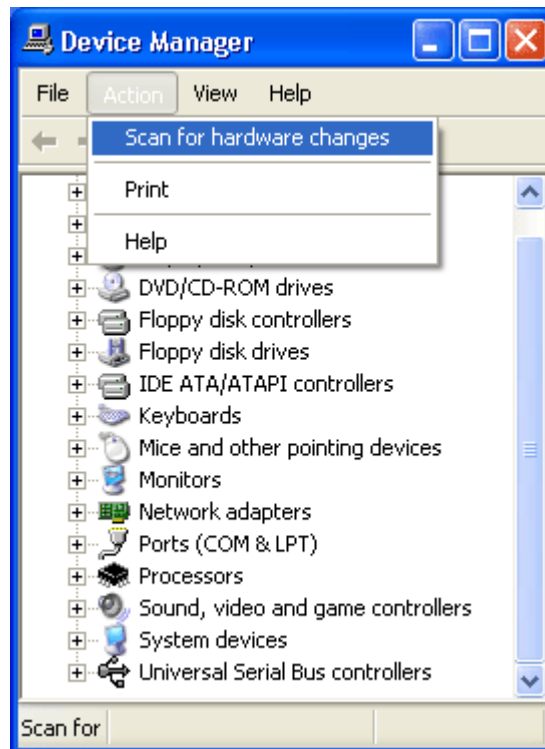
7. How to use Modem Country Region?

This utility can change the country region of the Bluetooth modem device. This utility can be found in the driver CD. (The path is: \Modem\Utility)

Before you change country region, please notes these steps.

For RS-232 Mode

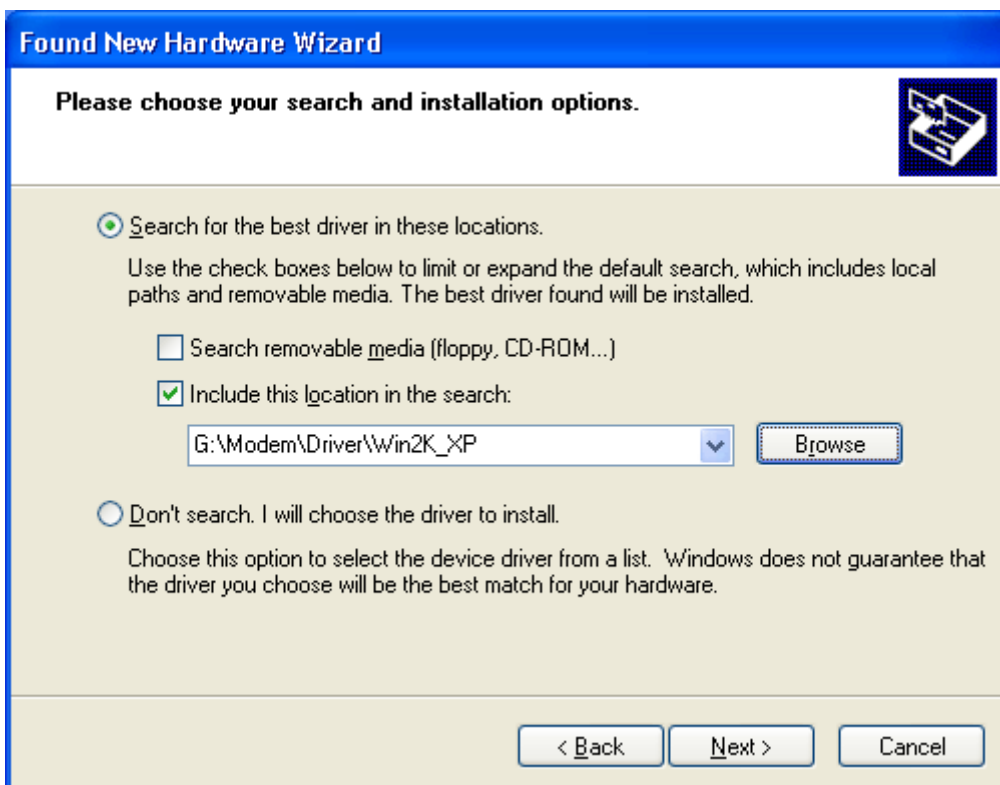
1. Turn the switch to "RS-232" side . And connect with your RS-232 cable.
2. "Scan for hardware changes" in Device Manager.



3. Choose "Install from a list of specific location (Advanced)".



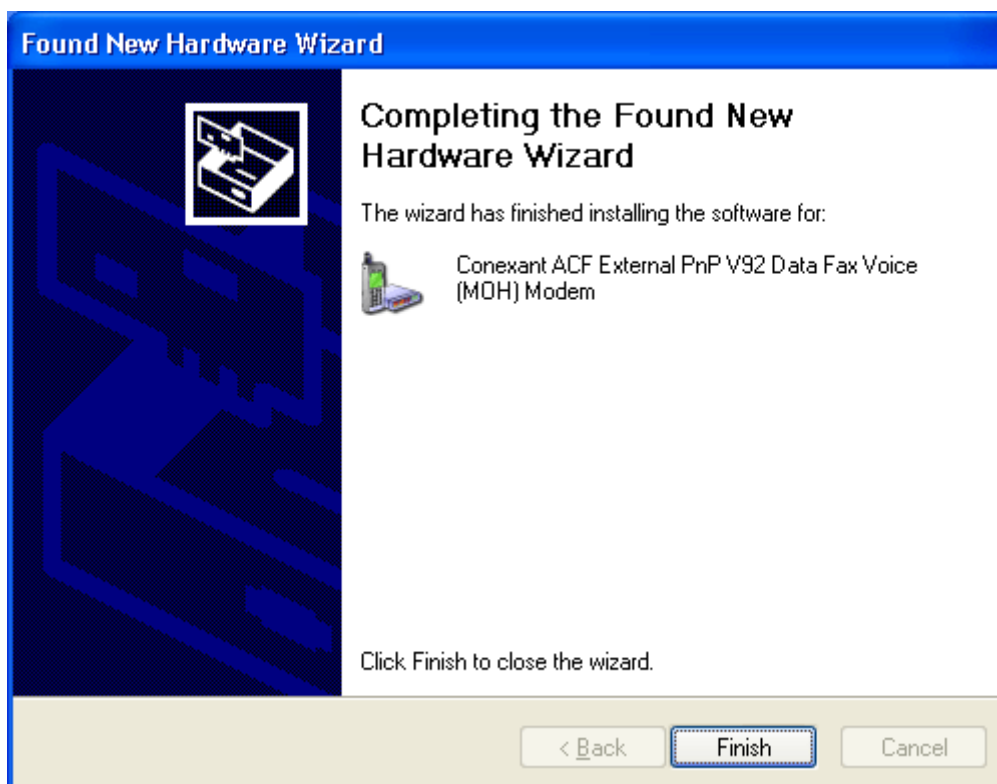
4. Choose "Search for the best driver in these locations" → "Include the location in the search". And press "Browse" to the path in CD-ROM.



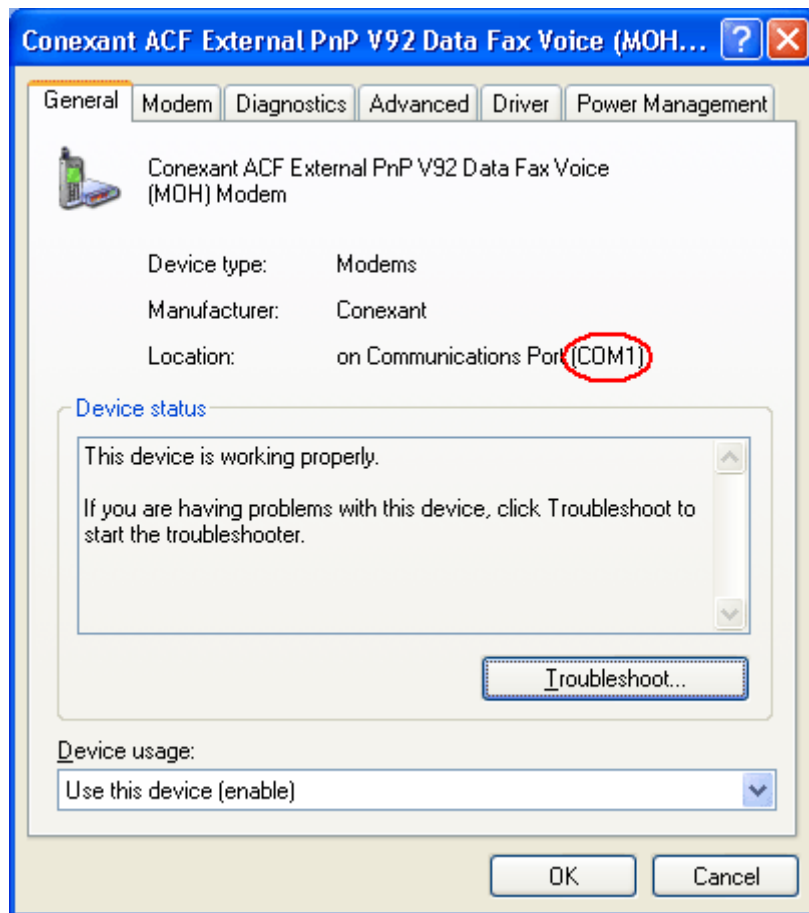
5. Press "Continue Anyway".



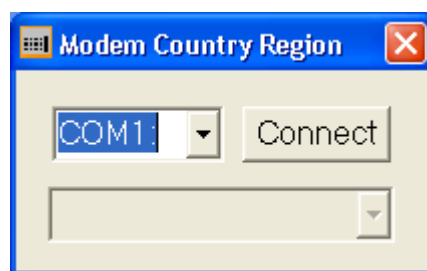
6. Press "Finish".



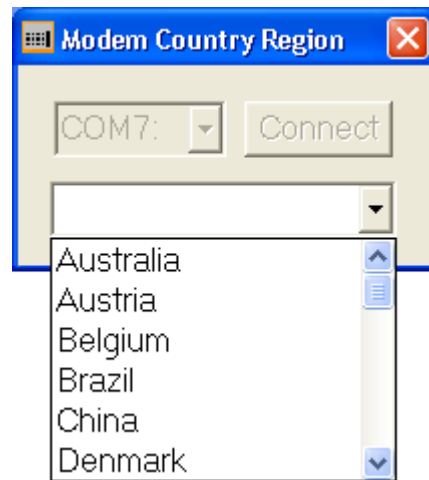
7. Check your COM port in "Device Manager" → "Property" → "General". (In this case the serial port is COM1).



8. Select your COM port.



9. Select your country.

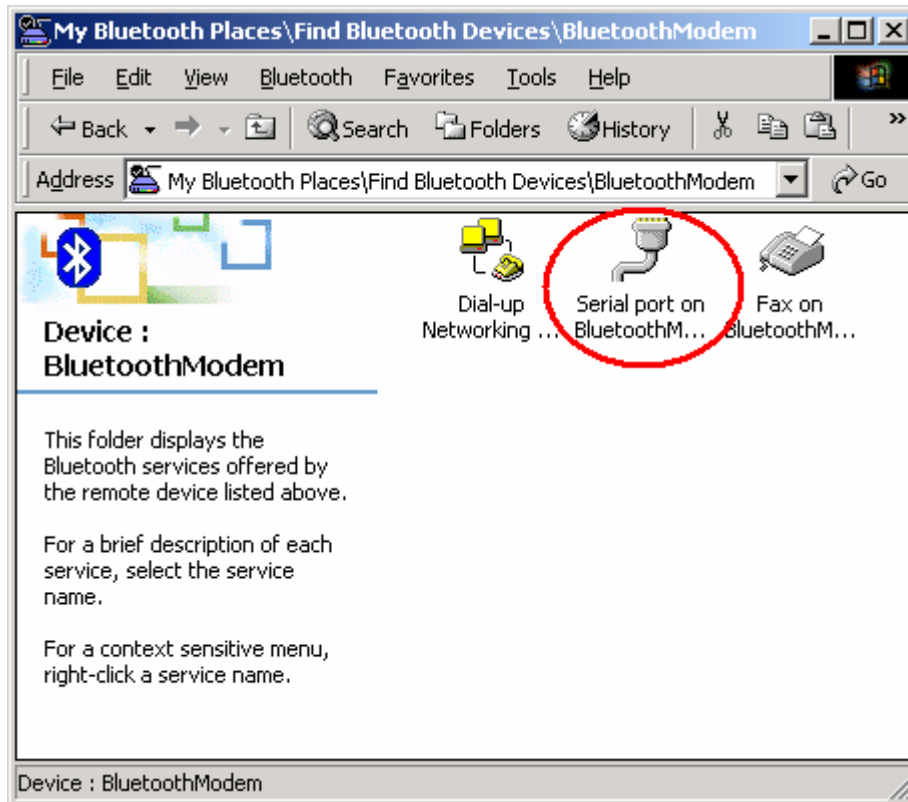


10. Press "OK" to finish country region setting.

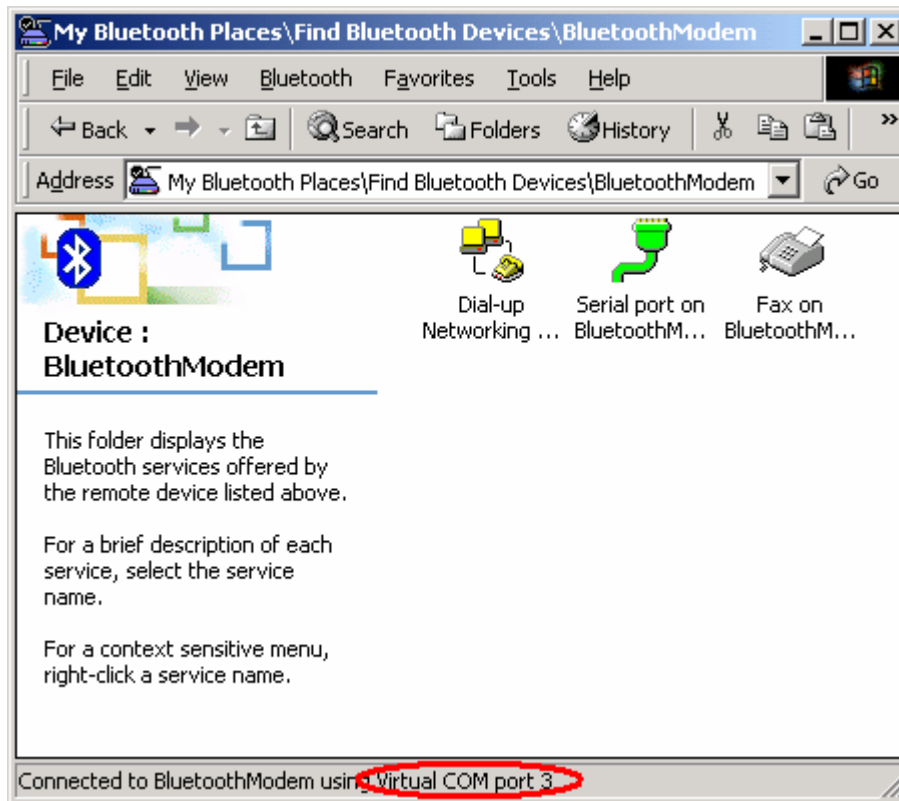


For BT Mode

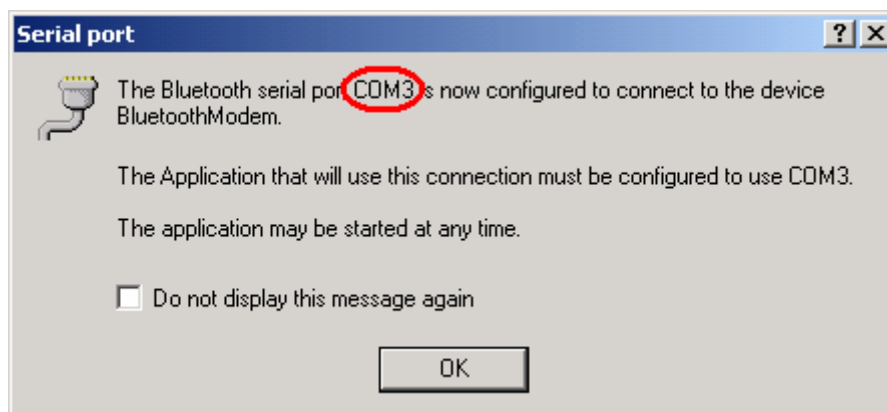
1. Turn the switch to "BT" side .
2. Double click the "Serial port on Bluetooth Modem" icon to connect.



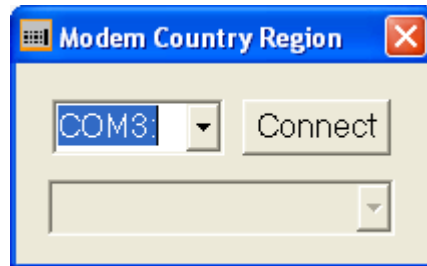
3. You can find the serial port number on the bottom of the screen. (In this case the Bluetooth serial Port is set at COM3).



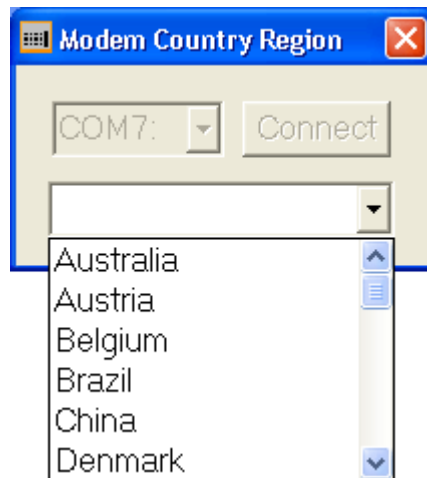
4. We recommend you NOT to select “Do not display this message again”. That will allow you to find out your virtual COM port next time.



5. Select your COM port.



6. Select your country.



7. Press "OK" to finish country region setting..

