# AmbiCom Bluetooth Solutions

# User Manual for Win98SE

**June 25, 2002**

# 1. Introduction

This user manual covers the product features, release notes, installation procedures, and operating procedures for AmbiCom's Bluetooth applications.

Bluetooth wireless technology is a global standard for low-cost and low-power small form factors to connect multiple devices such as computers, mobile phones, PDAs, printers, LAN and WANs to each other. It provides fast and reliable digital transmission of both voice and data over 2.4GHz ISM open band. AmbiCom's Bluetooth wireless technology offers the following features:

- **Cable Replacement**
  Establishes a wireless Personal Area Network with other Bluetooth devices within the operating range, without the hassles of wiring and configuration.
- **Ad-hoc Networking**
  Supports both data and voice between two or more devices wirelessly.
- **Secure Wireless Connections**
  Built-in authentication, encryption and authorization applications ensure secure information access and transmission.
- **LAN and WAN Access Points**
  LAN and WAN access such as Web, email, E-commerce, and VPN.

# 2. Product Features

With AmbiCom's Bluetooth CompactFalsh Card with PCMCIA adapter, USB Adapter or UART Adapter and Bluetooth software, you can establish wireless connections between your computer and other Bluetooth wireless devices. The features include:

- Device Discovery
- Name Discovery
- Service Discovery
- File Transfer
- Object Push for files, objects and business cards
- Blue Chat that allows users to instantly send and receive text messages
- Internet Access through Dial-Up Networking
- Connection to LAN through LAN Access Point

AmbiCom provides Bluetooth Neighborhood software application that integrates all of the above features into one single application.

# 3. Release Notes

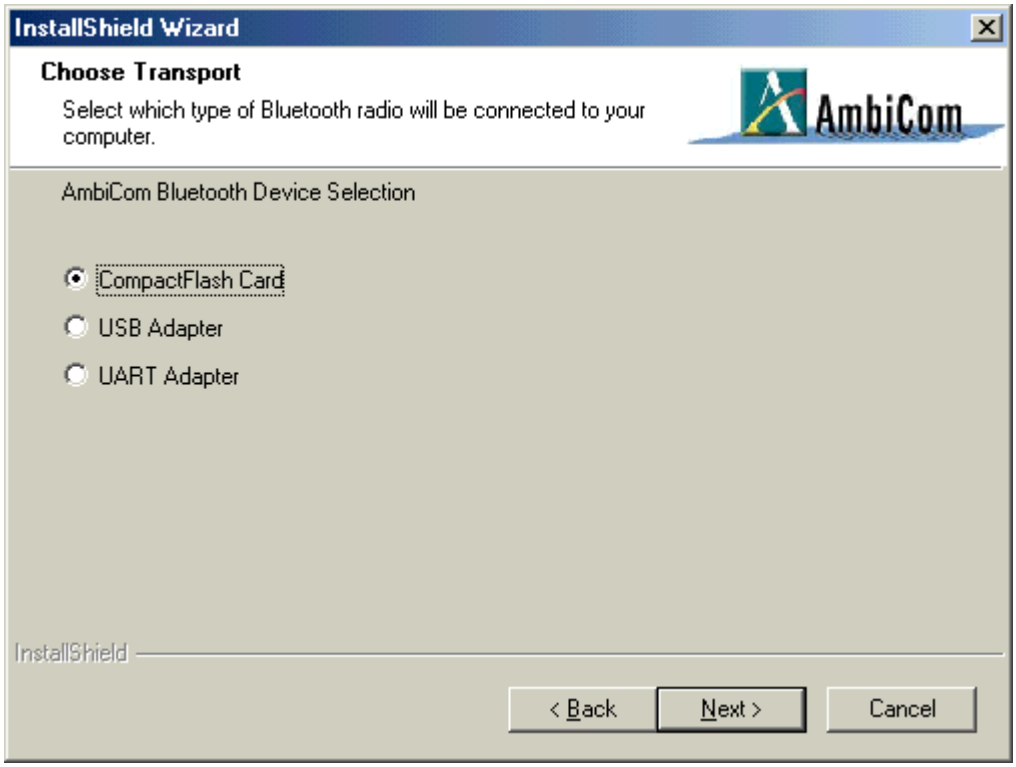
- We support Windows 98SE on this release
- This release supports the AmbiCom Bluetooth CompactFlash, USB Dongle, USB module, and UART Adapter.
- SIG 1.1 compliant Bluetooth protocol stack.

- We support Device Discovery, Name Discovery, Service Discovery, Pairing, Object Push, File Transfer, Dial-Up and LAN access Networking in this release.
- Audio is not supported in this release.
- When two devices are performing Device Discovery at the same time, they will not discover each other. Please do not run Bluetooth Neighborhood at the same time.

# 4. Installation Procedures for Windows 98SE

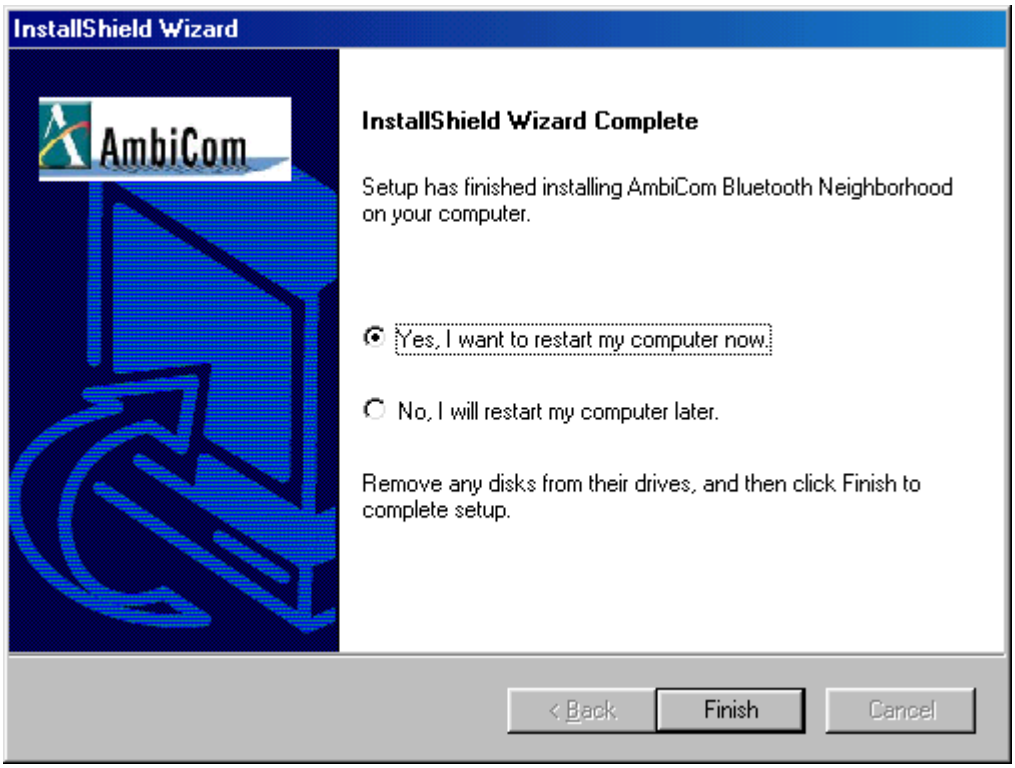
**Important Notes: Make sure you have installed the Dcom 98.exe from Microsoft on your Win98SE system before you install the AmbiCom Bluetooth software.**

1. Insert the AmbiCom Bluetooth Installation CD into your laptop CD-ROM drive.
2. Run AmbiCom Bluetooth ***Setup.exe*** and follow the on-screen instruction to install the application program.
3. The following window will appear at the start of the installation process:




4. Choose the device you have and click “Next” to continue. Simply follow the on-screen instructions. At the end of the installation, the system will pop up several windows to install some devices. This is because the system is installing some virtual devices for the software to use. Please be patient and wait until the system finishes.

5. After the system is finished installing the virtual devices, please click Finish to reboot your system.



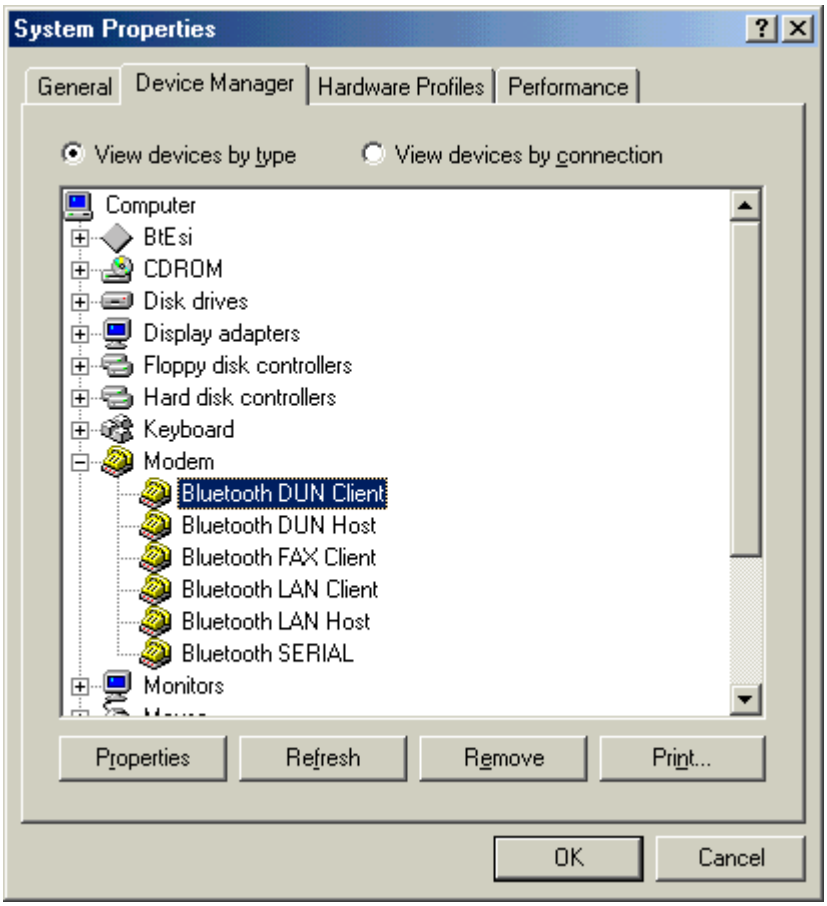

6. After you have restarted your laptop, please connect your ***AmbiCom Bluetooth CompactFlash, USB or UART Adapter to*** your laptop. The system will automatically install the driver for you. After the system installed the driver you need reboot your system. Now you are ready to execute Object Push, File Transfer and Blue Chat by using Bluetooth Neighborhood. Please see the section "**How to Run Bluetooth Neighborhood**" and skip the following steps. If you want to use the Dial-up Networking and LAN Access, please observe the following steps.

## ***Installation Procedures for Dial-Up Networking***

If you have a Bluetooth phone/modem, we recommend that you continue installing the corresponding components.

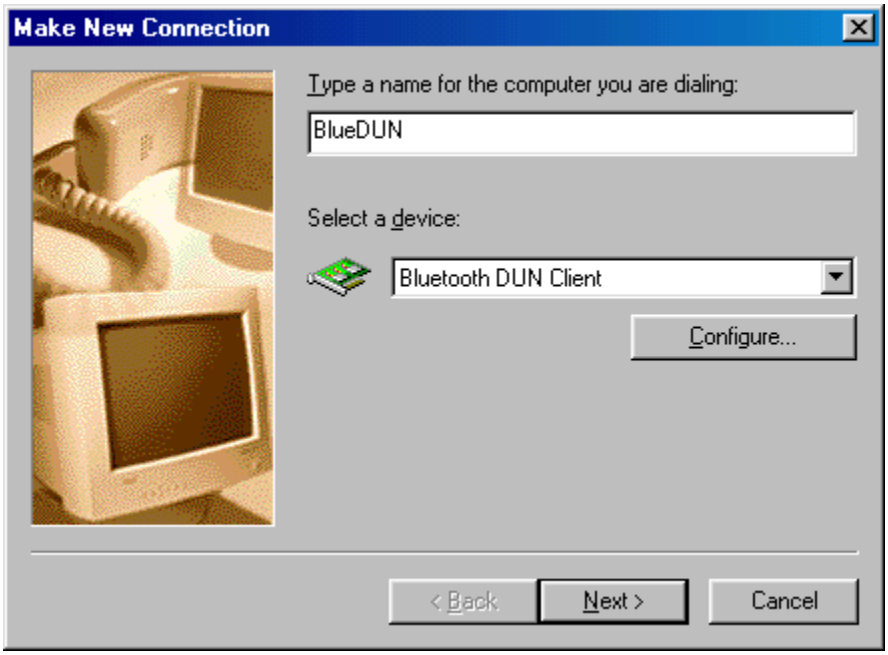
Note:

During the software installation, you will see several modems installed in your system. You can go to **Device Manager**, click **Modem** to view all the modems. For Dial-Up and LAN Access networking, we will use those modems to set up.

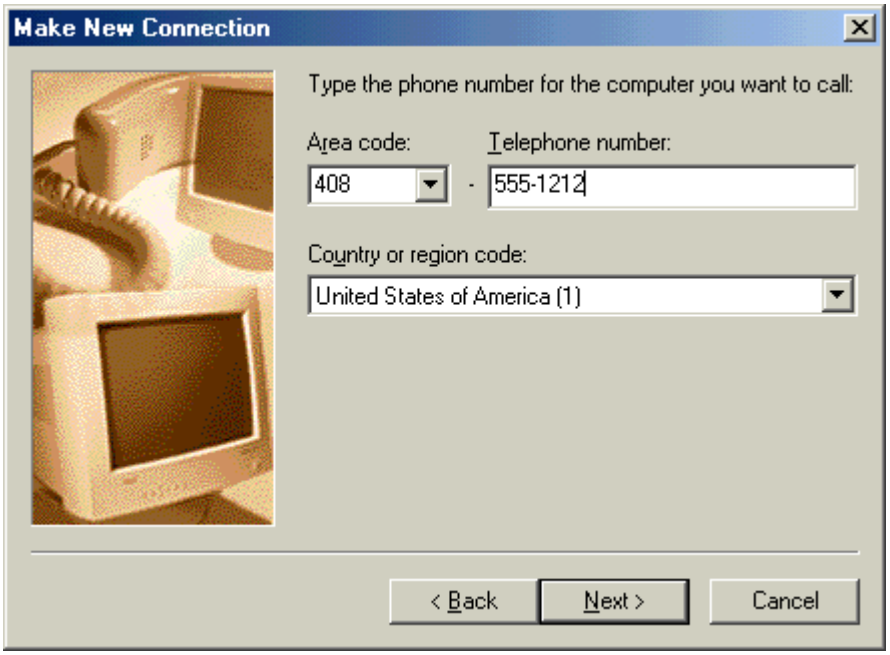



1. From **Control Panel**, go to **Dial-up Networking** and **create a New Connection** for Bluetooth Dial-Up Networking**.** Following the on-screen instructions to set up a connection for the Bluetooth Dial-up Networking. During the setup, the system will ask you to select a modem for dial-up, please select the modem ***Bluetooth DUN Client***. Click Next.

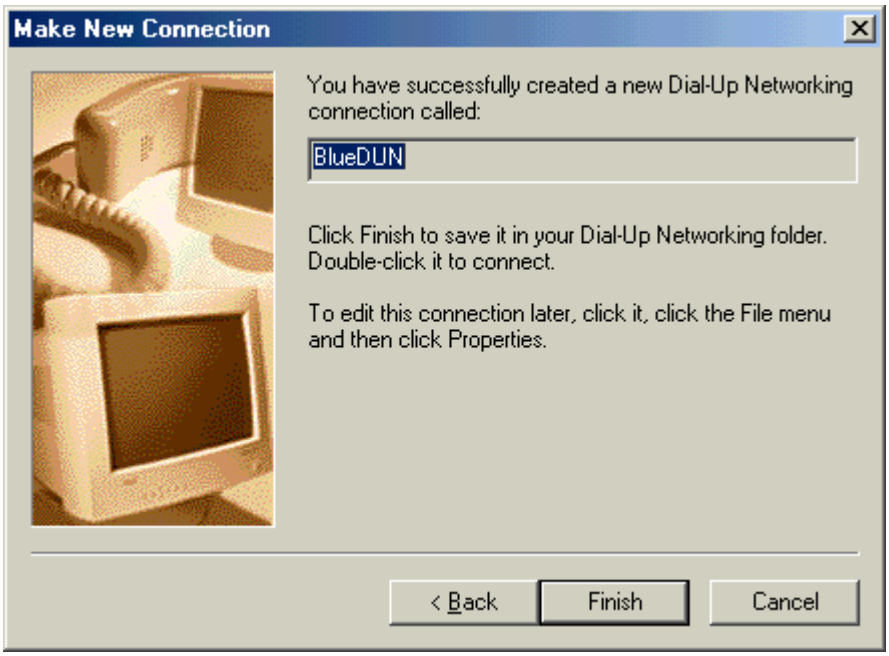
2. Click Next.




3. Click Next.



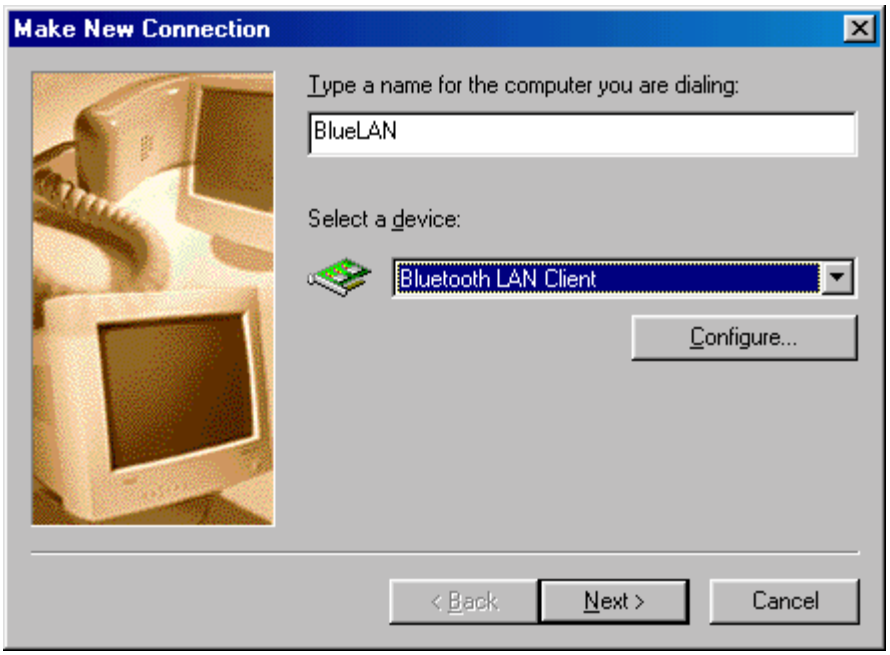
4. Click Finish.




Follow the on-screen instructions to complete the setup.

## ***Installation Procedures for LAN Access***

1. For LAN Access, the installation procedure is almost identical to dial-up networking. The only difference is under **"Make New Connection"**, choose **"Bluetooth LAN Client"** instead**.**

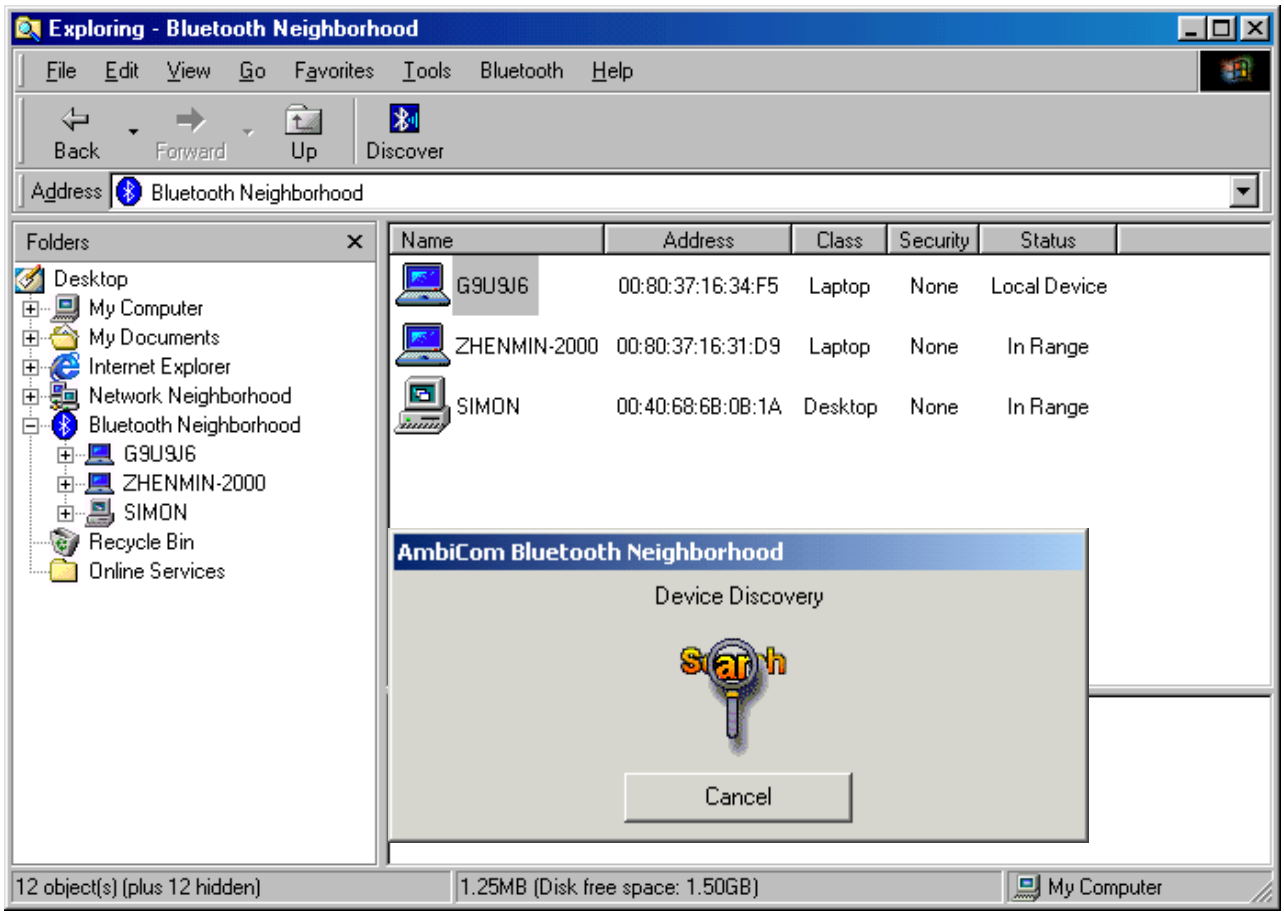



Click "**Next**" to continue the installation.

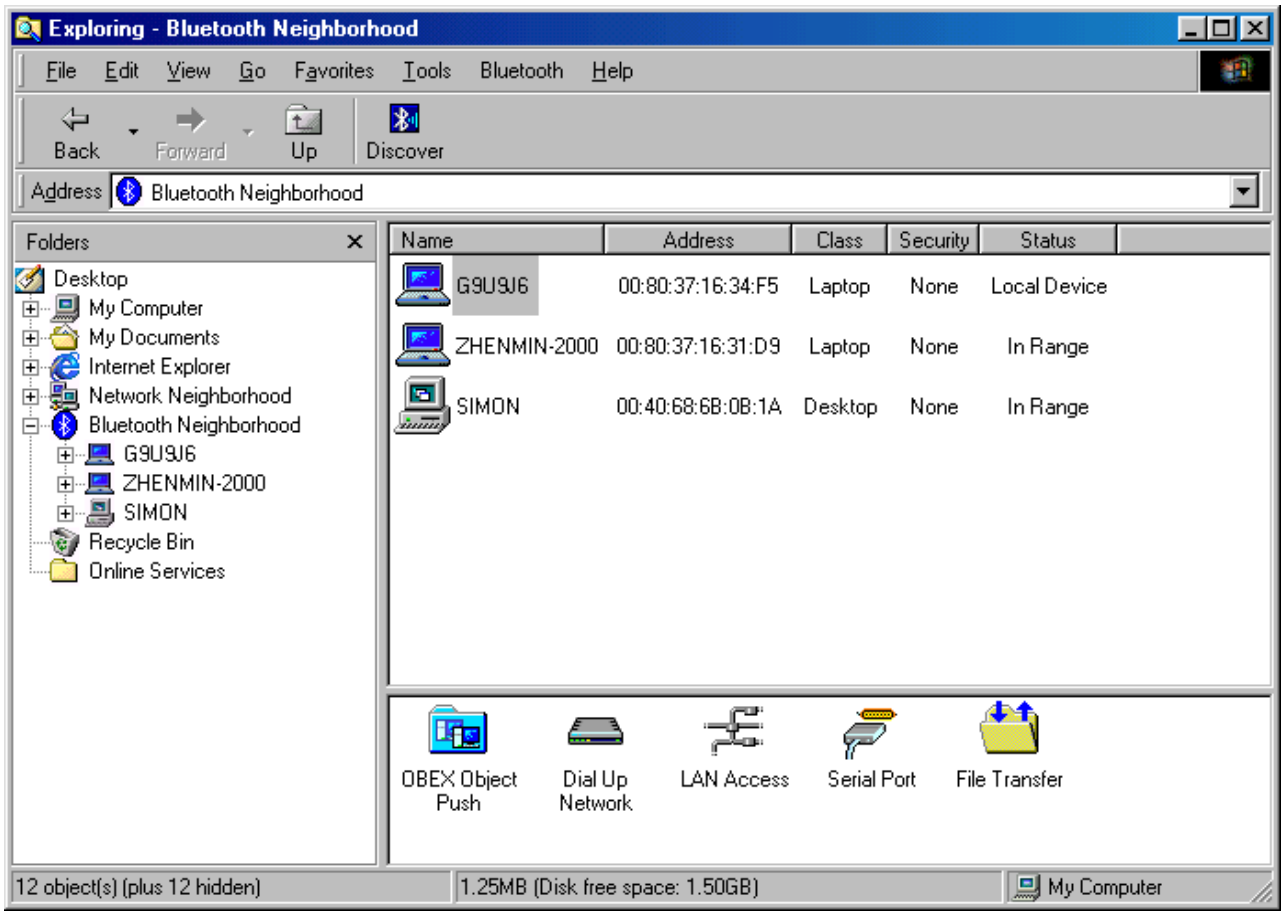
# 5. How to Run Bluetooth Neighborhood

1. You will find a Bluetooth Neighborhood shortcut on your Desktop.

2. Upon opening Windows Explorer, you will find the "Bluetooth Neighborhood" icon. Double-click on it and Bluetooth Neighborhood will start to run. You can see a Bluetooth Neighborhood GUI at the right-hand side of Windows Explorer, and the window "Device Discovery" will appear. When it finds all the Bluetooth devices within the operating range, the "Device Discovery" window will disappear. The discovery process includes device discovery and name discovery.



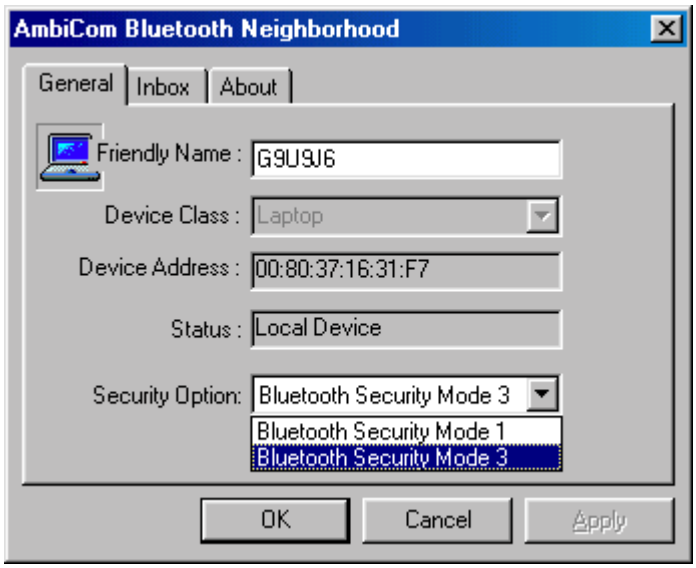
3. After finding the devices, you can click on one of the devices and its services and capabilities will be listed. In the Device List Window (at the right of Windows Explorer), the first device is always the local device.



## Security Mode

1. Our software provides two levels of security mode: security level 1 and security level 3. At security level 3, a PIN code will be required when other Bluetooth enabled devices try to connect with you. The PIN code entered needs to be the exact same one entered on both machines. This will give you more security. If you set your PC in security level 1, then there is no PIN code needed.

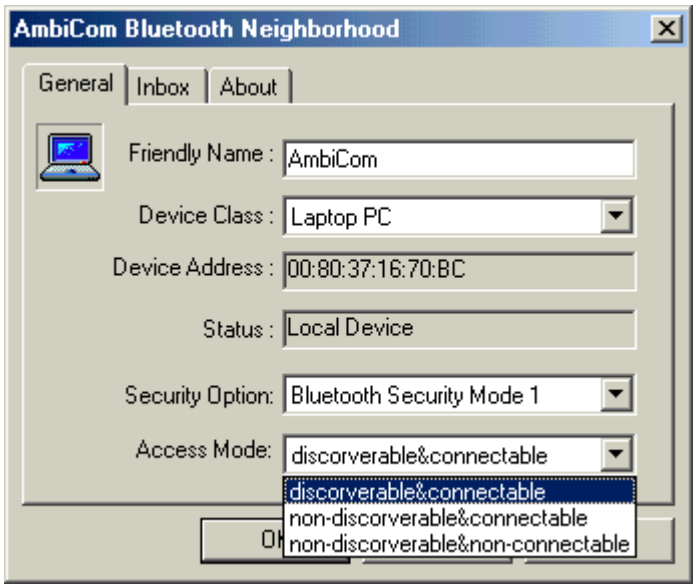
2. You can go to Bluetooth Neighborhood to set the security level. Choose “Local Device”, click the right button of your mouse, and then select “Property”. You will see the following window.



## Access Mode

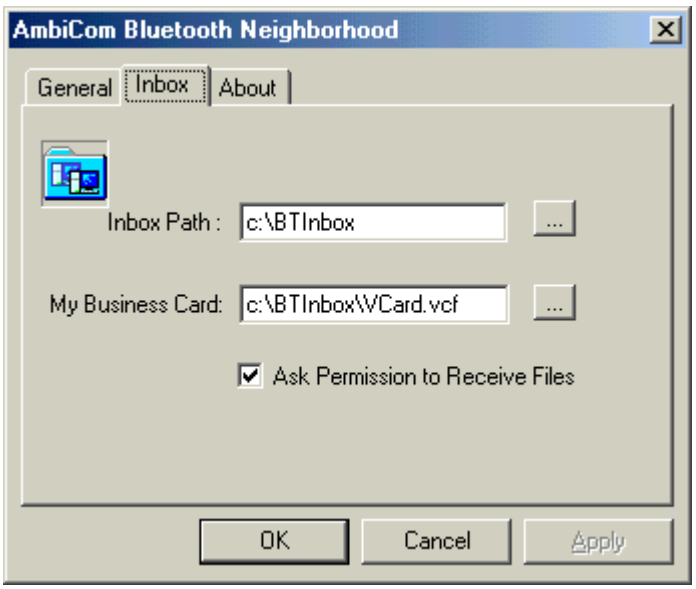
1. Our software provides three options of access mode: discoverable&connectable, non-discoverable&connectable and non-discoverable&non-connectable. At the discoverable& connectable mode, you will allow the other Bluetooth enabled devices to find and connect to you. At other two options, you will allow them to find you, but cannot connect to you. Or they cannot find you nor connect to you.

2. You can go to Bluetooth Neighborhood to set the Access mode. Select Local Device, click the right button of your mouse and select "Property". You will see the following window.

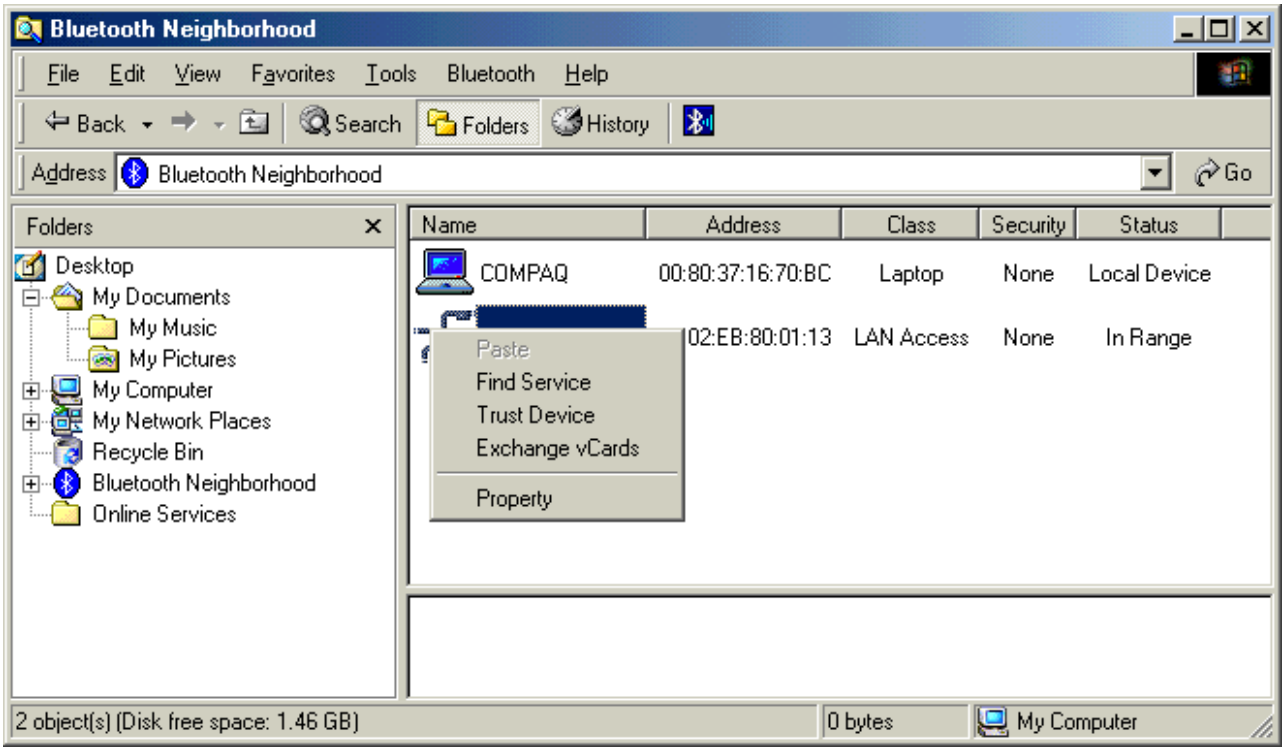


## Exchange vCards

1. When you perform Exchange vCard, you need to go to the local device's property to set up "My Business Card" path first, as shown in the following window. The default path is "C:\BTInbox".

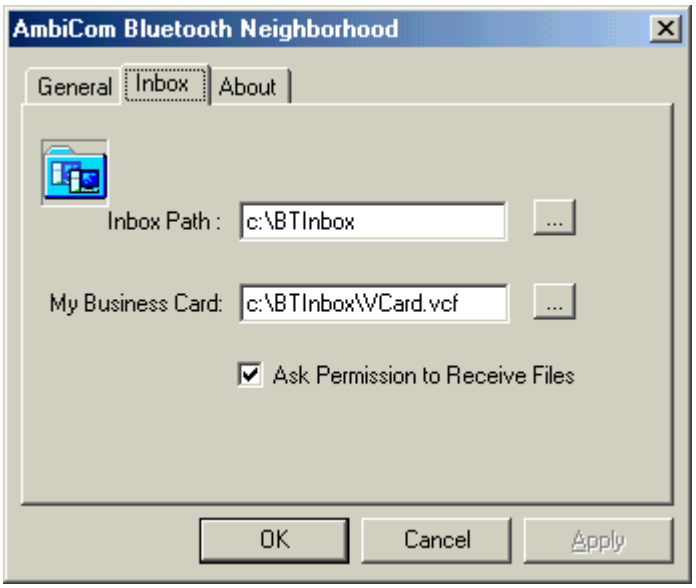



2. Then you click the device that you want to exchange vCard with. You will see the following window. Click on "Exchange vCards", and you will send your business card to this device, also you will get his business card to your device.

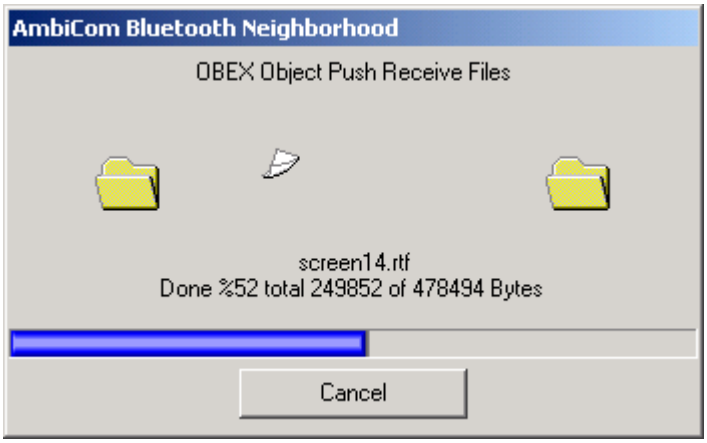


## Object Push

1. Before you perform Object Push, Please set up your Inbox path first. This directory will save files that you receive. The default path is “C:\BTInbox”.

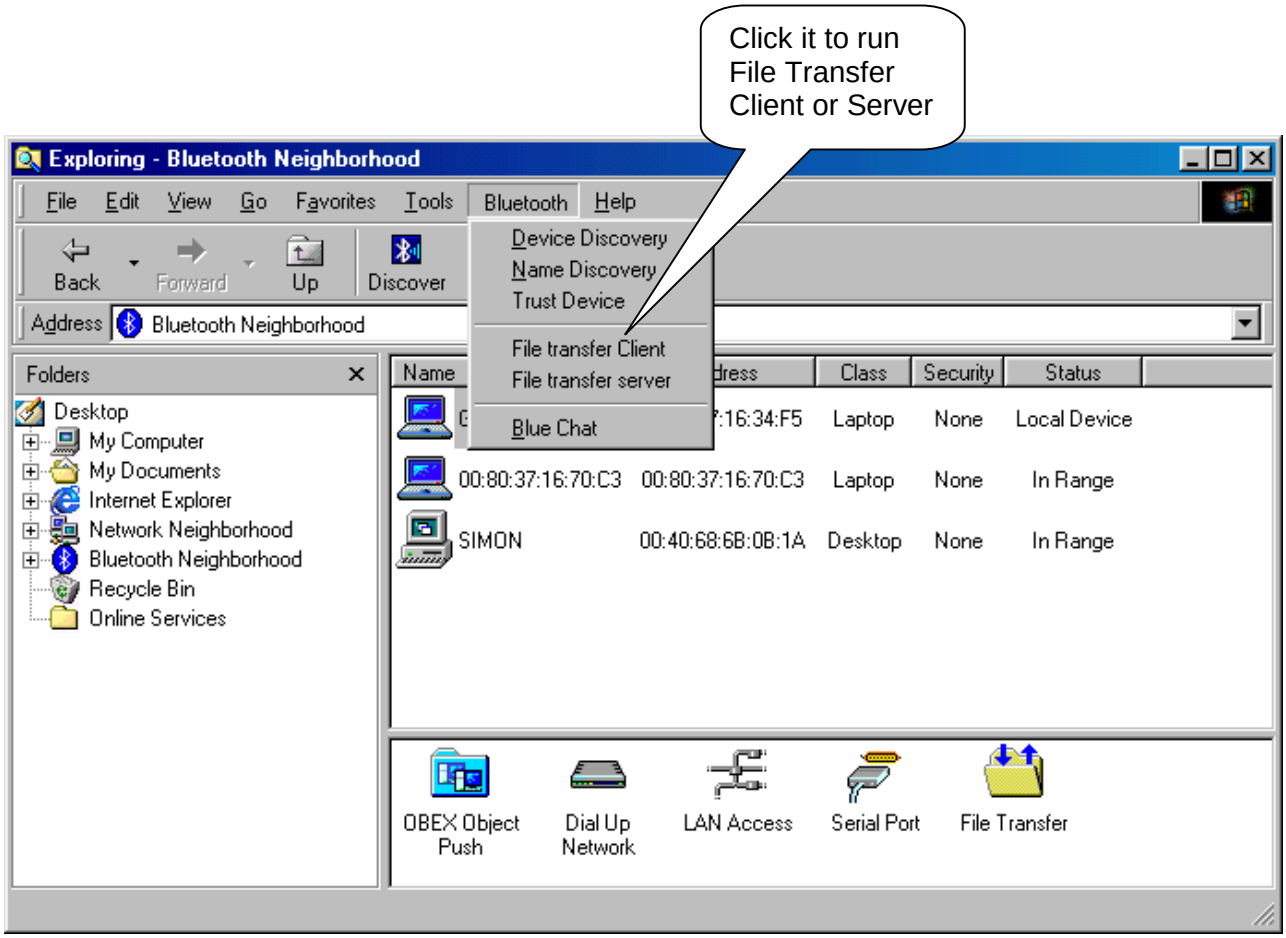


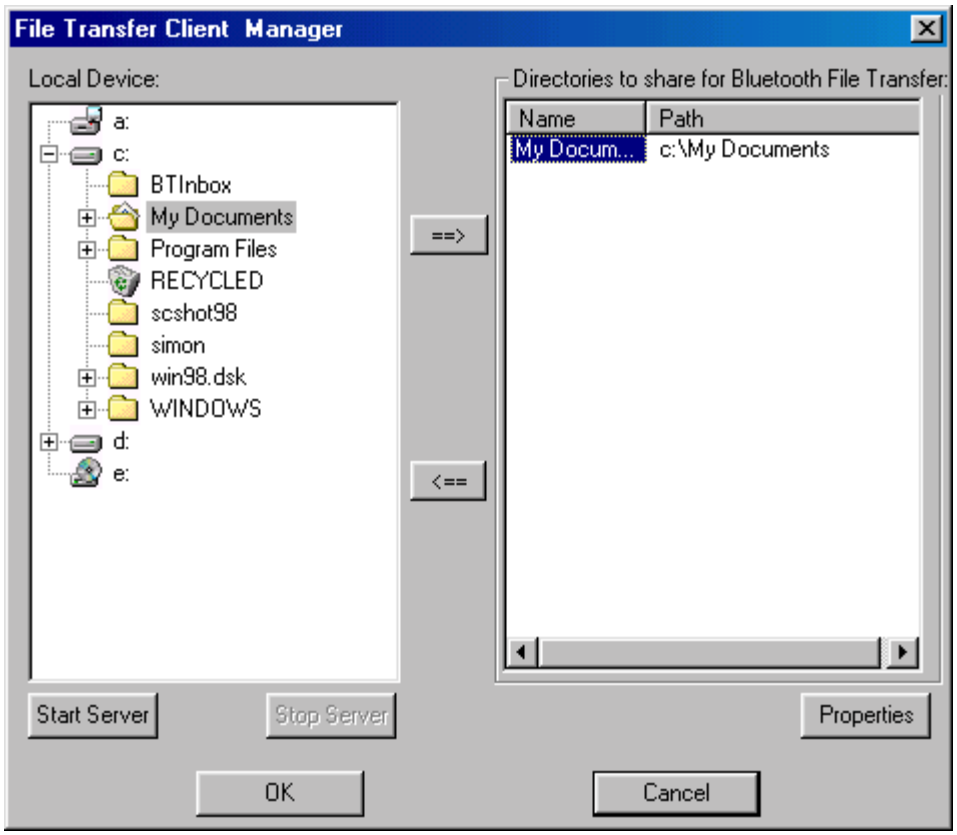

2. When you perform Object Push, simply **Drag** the file that you want to send, and **Drop** it to the Bluetooth Device that you want to receive on the left hand side in Windows Explorer. You also can use **Copy** and **Paste** to do the object transfer between two Bluetooth devices. When you perform Object Push, you will see a dialog box indicating the status like the window below.



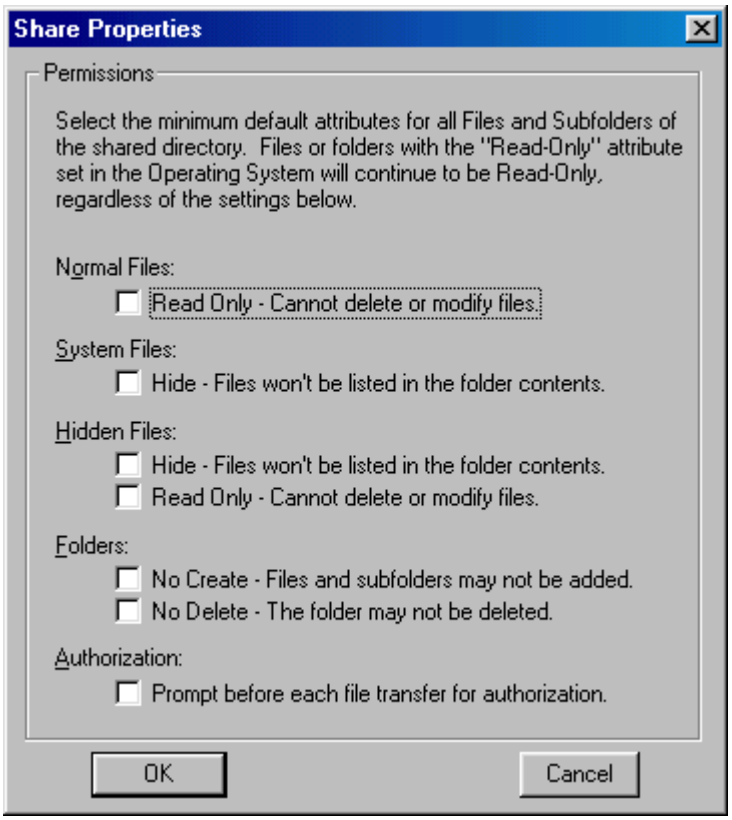
## File Transfer

1. To execute File Transfer, open Windows Explorer, select “Bluetooth” on the menu bar and click on “File Transfer Client ” or “File Transfer Server”. To activate File Transfer on both ends, the application on the remote computer also needs to run File Transfer at the same time.



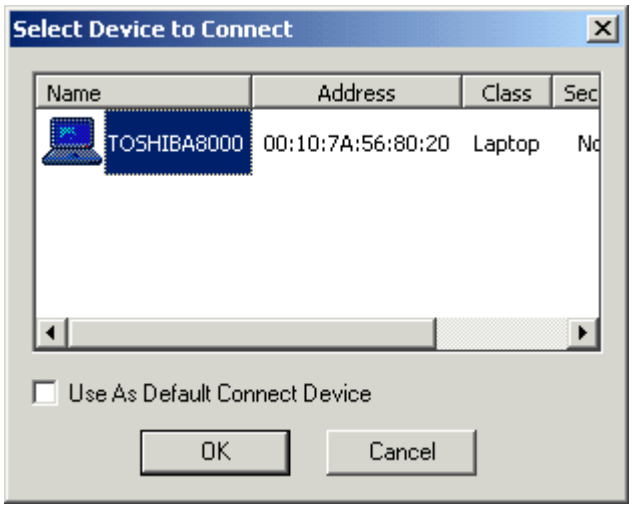



2. After you share the directory and files, you can select them and click the “Properties” button to configure those directory or files.

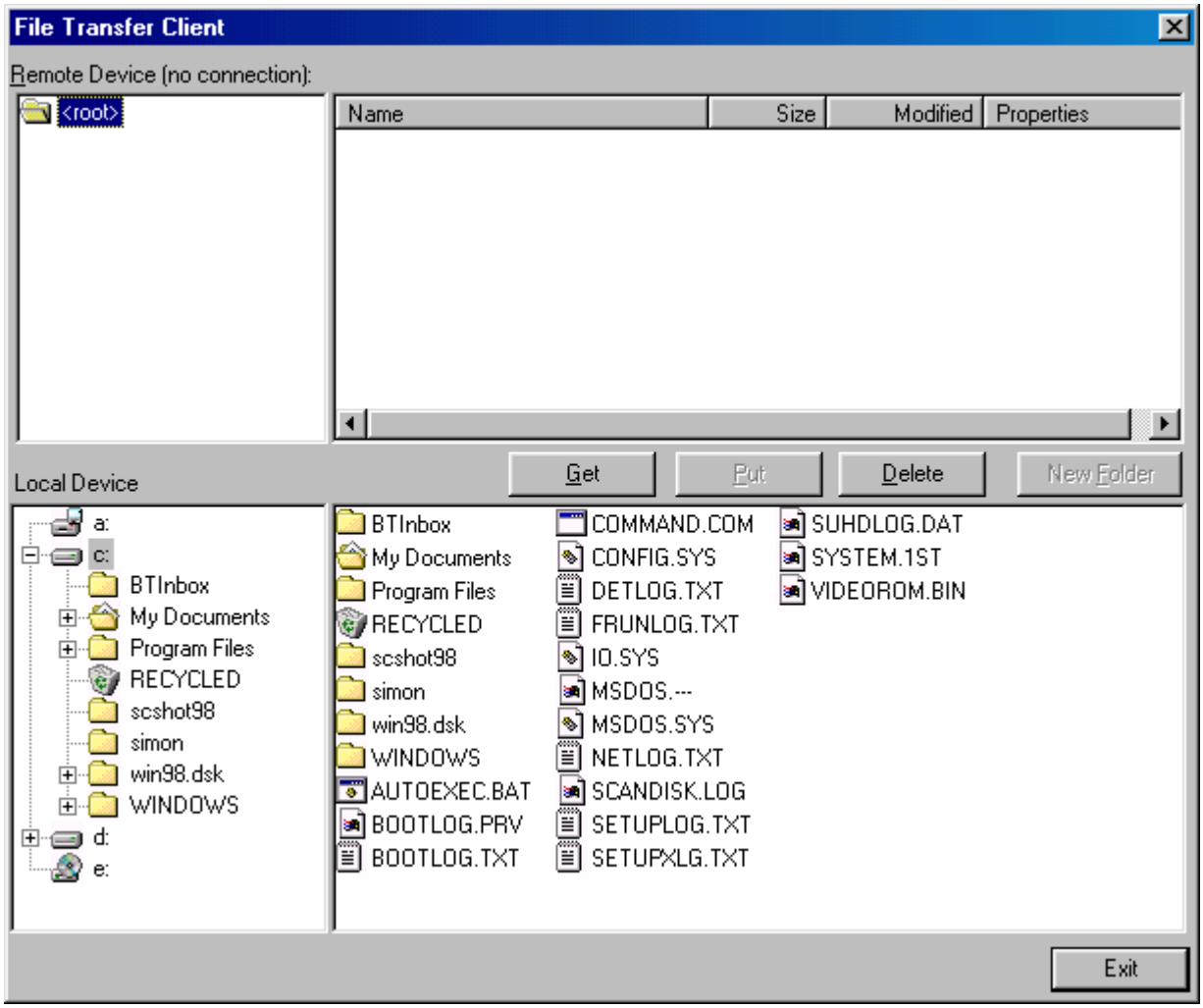



In this window, you can define the attribute of the Directory or file that you shared, give the permission for the “File Transfer Client “ to use.

3. When you click on the “File Transfer Client” menu to run it, the system will show a “Select Device to Connect” window for you to choose which device you want to connect.

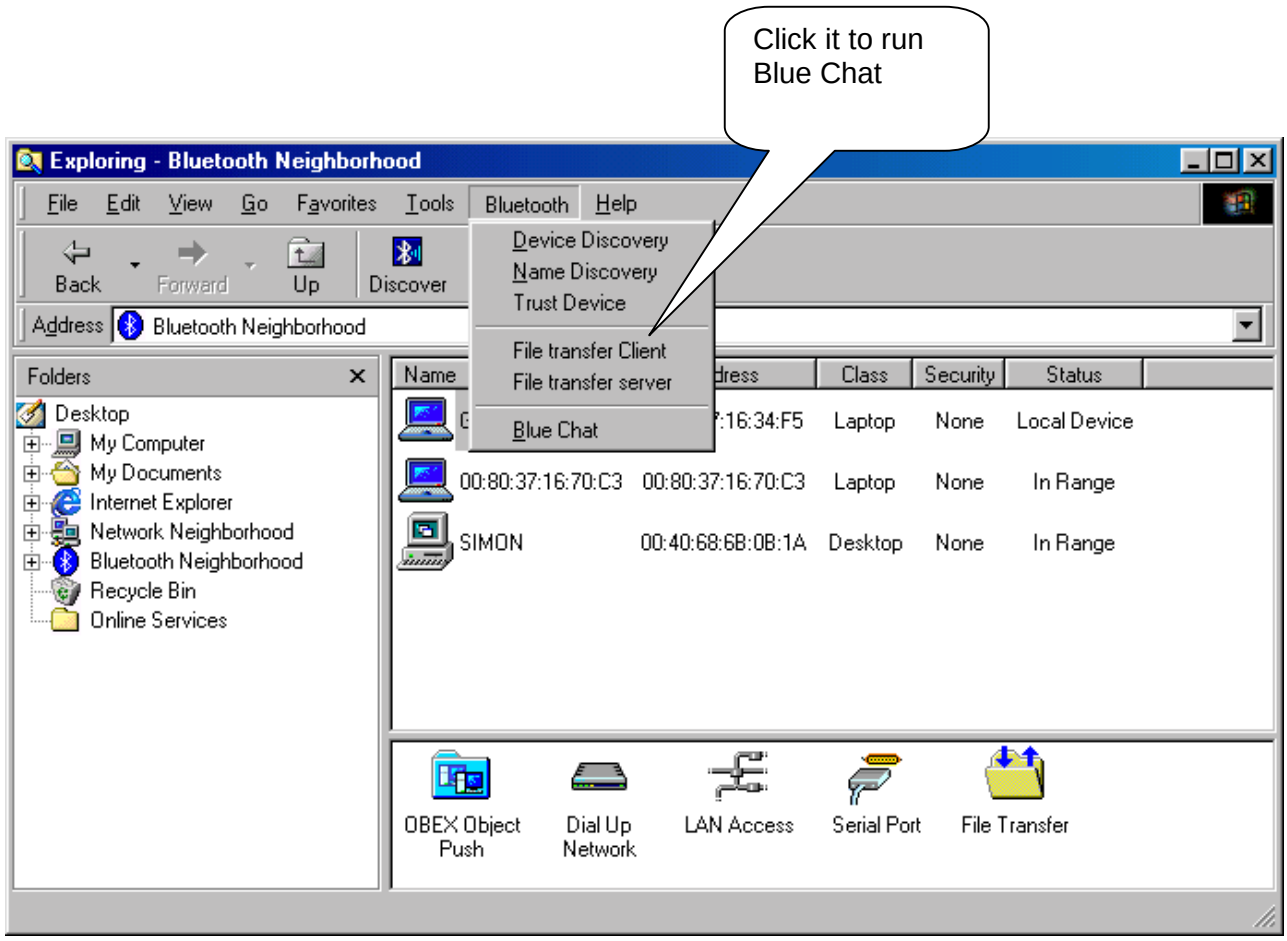


4. After you select the remote device that runs the File Transfer Server, the following window will appear. You will see the directory and file shared by the File Transfer Server. You can get file or directory from the File Transfer Server or place file or directory to the File Transfer Server. Also, you can create new folder in the Shared Directory from File Transfer Server.

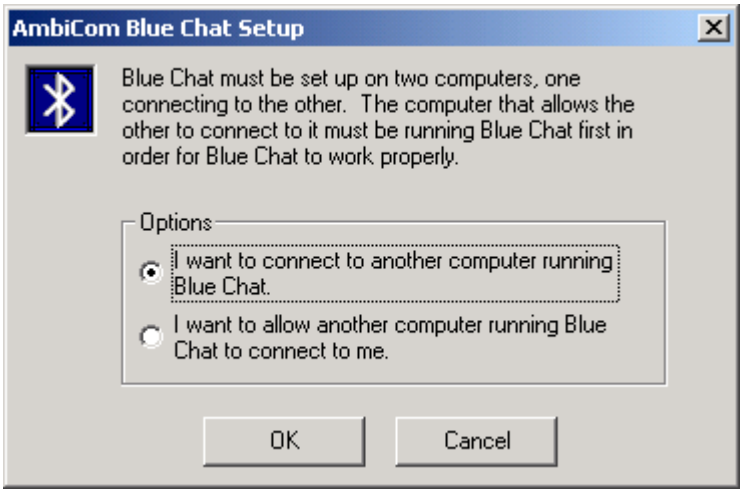


## Blue Chat

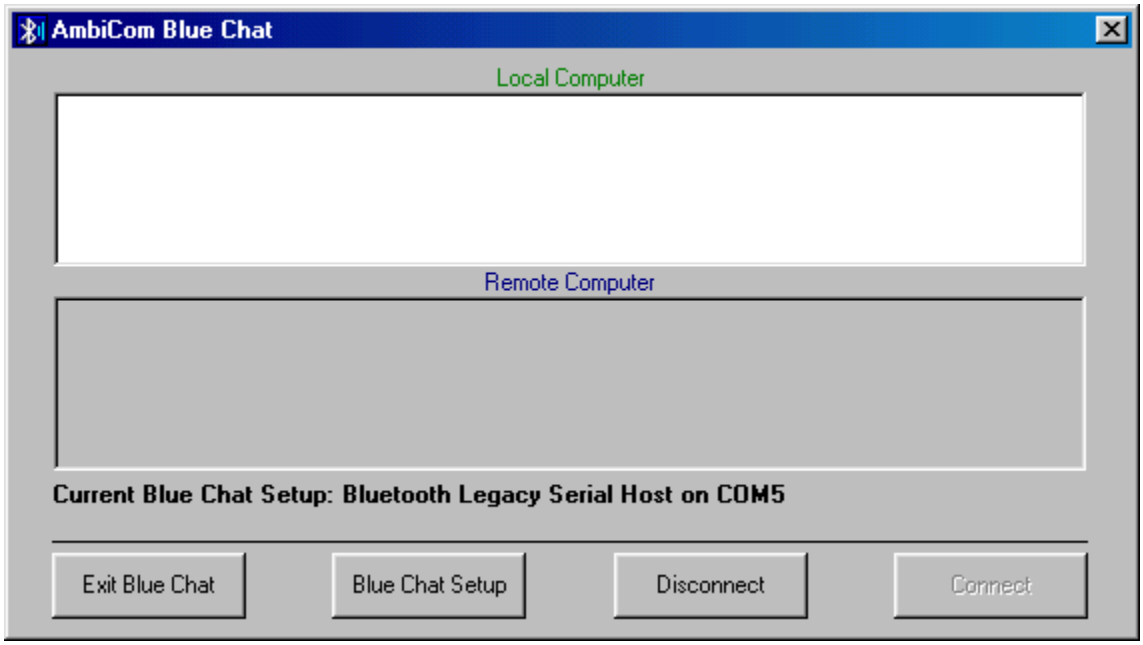
1. To execute Blue Chat, open Windows Explorer, select “Bluetooth” on the menu bar and click on “Blue Chat.” To have Blue Chat working on both ends, the application on the remote computer also needs to run Blue Chat at the same time.



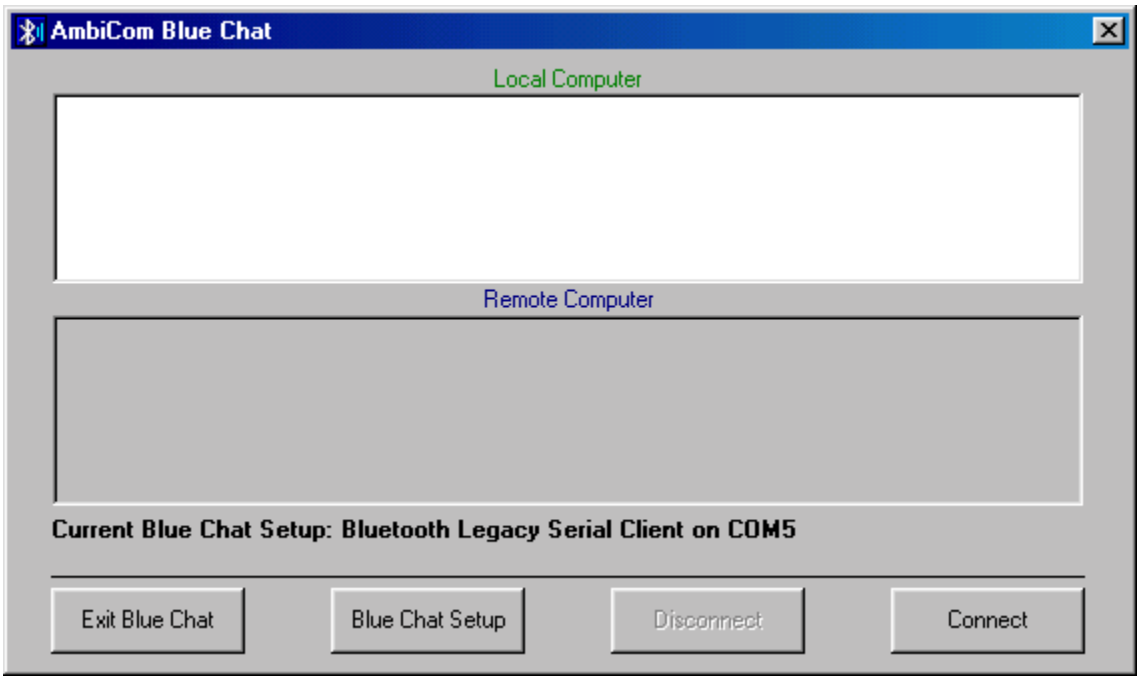
2. After selecting “Blue Chat”, the following window will appear, prompting you to choose the direction of the connection setup.



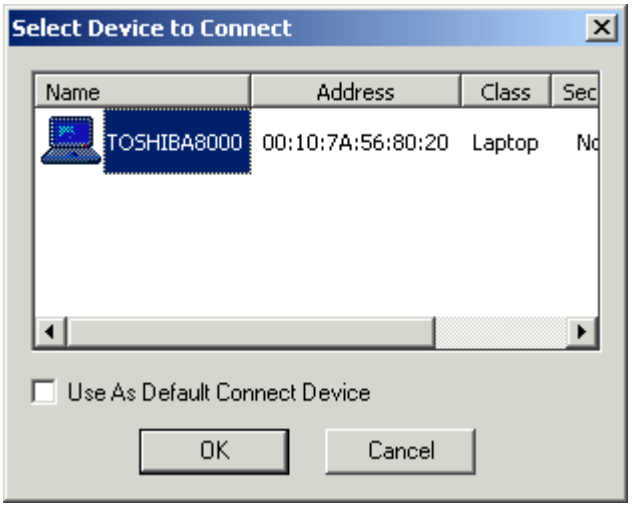

3. In the above window, two options are shown. You can either choose to connect to someone or wait for connection. If you want other people to communicate with you, simply select the lower checkbox and click “OK” and the following window will appear.



4. If you want to connect to a remote device, select the first option, “I want to connect to another computer running Blue Chat,” and click “OK” to see the following window. Click “Connect” to continue.




5. The system will show the following window in which you can select which device you wish to connect. Upon selecting the desired device, click “OK” to establish the connection.




6. Now the two Bluetooth devices can connect to each other. You can type any text message in the Local Computer dialogue window and see the corresponding message from the Remote Computer as well.

# Dial-Up Networking

Note:

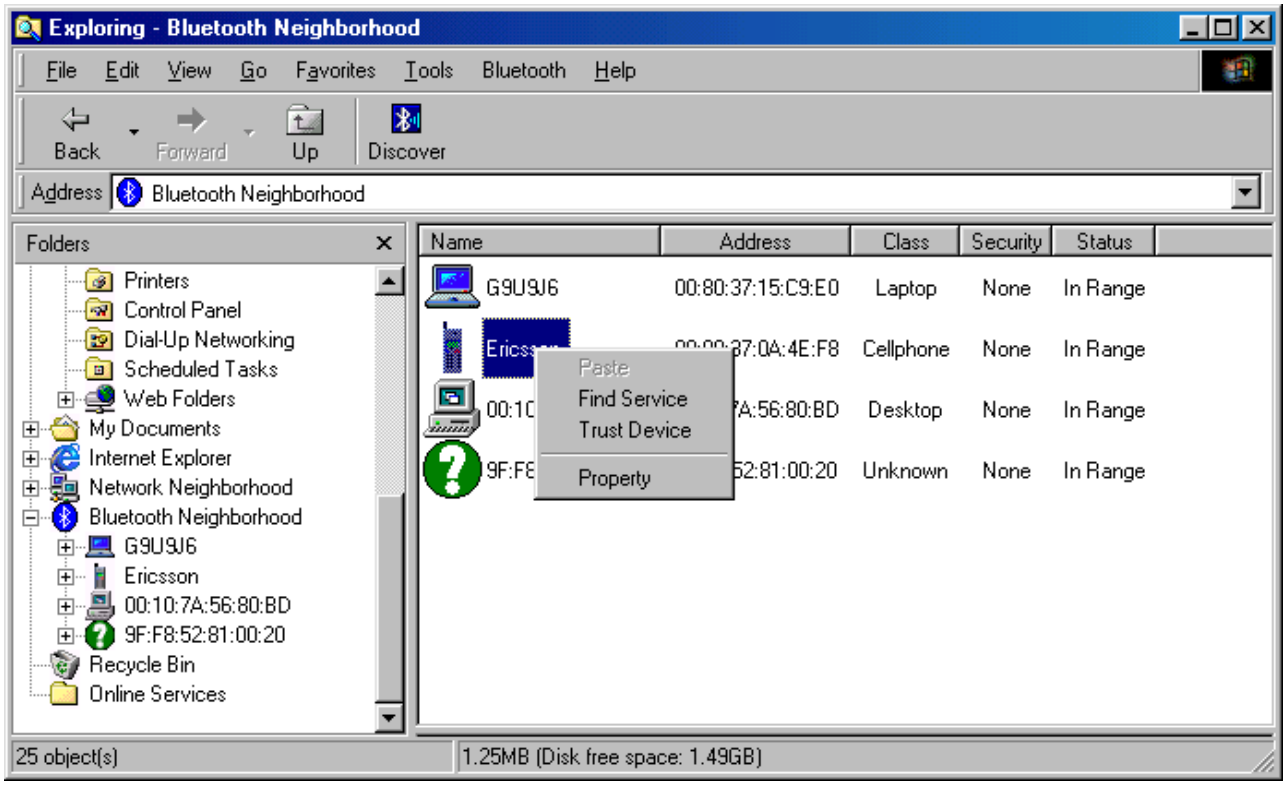
The requirement to set up Dial-up Networking is to provide the Internet Service Provider information (ISP); user name, password, and the phone number.

For some Bluetooth enabled devices such as **Cellular Phones**, before you perform Dial-up, you need to execute ***Trust Device*** first. The following window shows you how to do so. For phone configuration, you need set it to the ***Ready to pair*** mode. You can refer the phone manual. After you paired your phone with the Bluetooth device, the software will remember the trust profile. You don't need to do this every time when you execute the Dial-up networking.

***On Nokia Cell Phone***
You have to set the security level 3 in the Bluetooth Neighborhood. Choose "Local Device", click the right button of your mouse, and then select "Property". Select under ***security option*** "***Bluetooth Security Mode 3***" and then follow the wizard manual.

***On Ericsson Cell Phone***
Select menu Extra > Bluetooth> Paired devices > Add devices > Phone Accepts
Click Yes to assign the phone name and will show ***Ready to pair*** mode

***On the computer***
After discover the phone, right click on the mouse and choose Trust Device.
Insert the password.



***On Ericsson Phone***

- Click Yes on the phone to Add to paired devices > insert the Password click yes

***On Computer***

- Insert the PIN number in the computer (the same that you inserted the password on the phone)

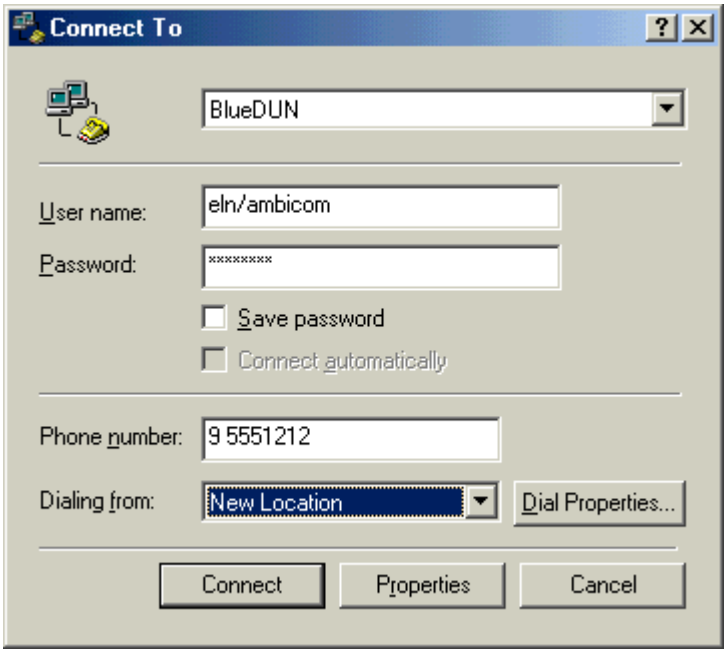
***On Phone***

- Show Pairing successful

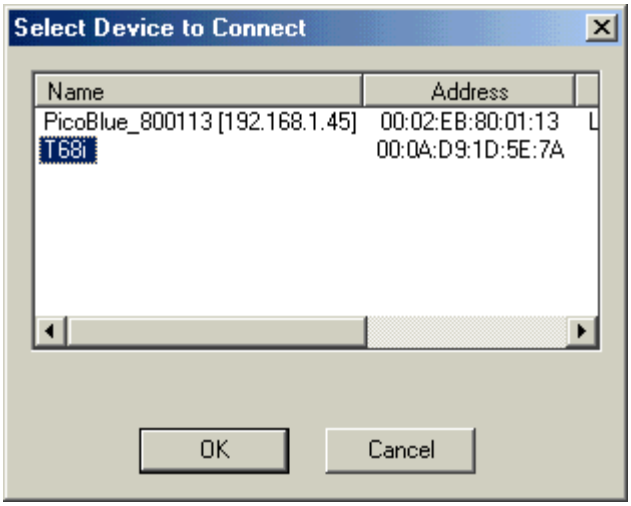
***On Computer***

Change the status to **Trusted** in the Bluetooth Neighborhood

1. After you have created a new connection, run AmbiCom Bluetooth Neighborhood application first. It will find all the Bluetooth devices within the range. If you find devices such as Bluetooth phone/modem or Dial-Up Networking Access Point, you can proceed to establish the connection you just created. The system will show the following window. Fill in the necessary information and click **Dial**.




2. The system will now show the following window in which you can select the Bluetooth device you would like to connect. Click **OK** to establish an Internet connection to an ISP.




3. In the above window, select T68 (The Phone name) and click OK to dial to ISP.

## LAN Access

The setup procedures for LAN Access are almost identical to Dial-Up Networking. Please go to "Dial-up Networking" to establish a new connection. It is not necessary to provide the phone number, user name and password to establish the connection.

# 6. Uninstalling AmbiCom's Bluetooth Neighborhood

1. Please click "Start", go to "Programs", click "AmbiCom Bluetooth Neighborhood", and select "Uninstall Bluetooth Neighborhood", follow the screen instruction.

2. After rebooting your system, please go to "Device Manager" to find "BtEsi", and remove "AmbiCom Bluetooth Kernel".

# 7. Technical Support

Please visit AmbiCom Web site http://www.ambicom.com for online technical support. If you wish to speak to our support staff, please call 1-408-562-0168.

# AmbiCom Bluetooth Solutions

## User Manual for Win2000

June 25, 2002

# 1. Introduction

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- Device Discovery
- Name Discovery
- Service Discovery
- File Transfer
- Object Push for files, objects and business cards
- Blue Chat that allows users to instantly send and receive text messages
- Internet Access through Dial-Up Networking
- Connection to LAN through LAN Access Point

AmbiCom provides Bluetooth Neighborhood software application that integrates all of the above features into one single application.

# 3. Release Notes

- We support Windows 2000 on this release
- This release supports the AmbiCom Bluetooth CompactFlash, USB Dongle, USB Adapter, and UART Adapter.
- SIG 1.1 compliant Bluetooth protocol stack.

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- Audio is not supported in this release.
- When two devices are performing Device Discovery at the same time, they will not discover each other. Please do not run Bluetooth Neighborhood at the same time.

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2. Run AmbiCom Bluetooth ***Setup.exe*** and follow the on-screen instruction to install the application program.
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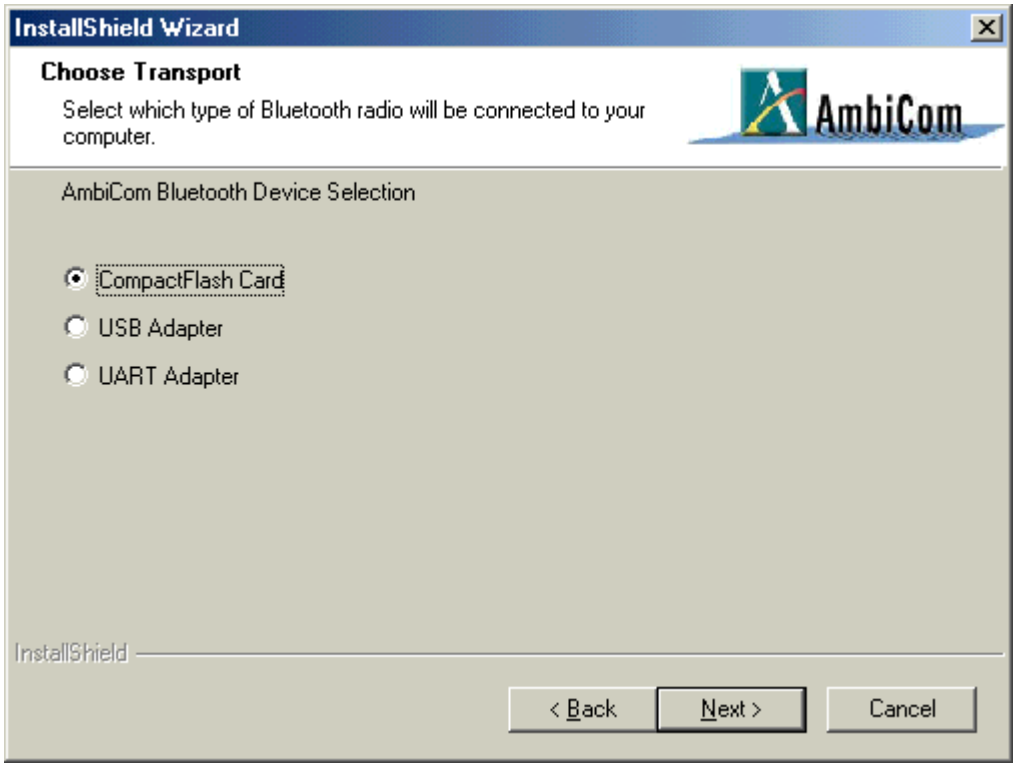
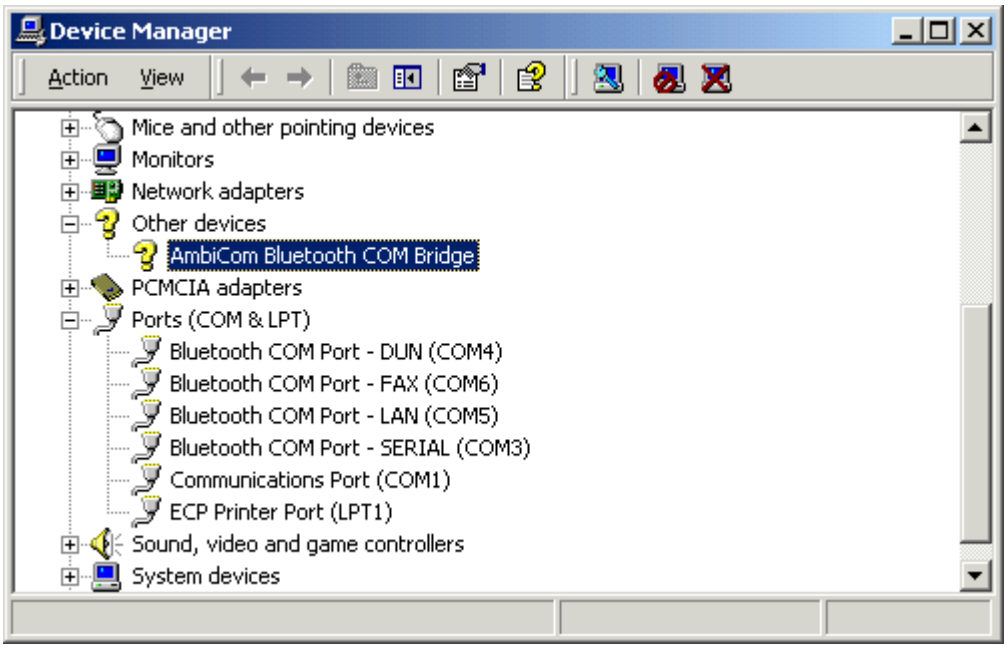



4. Choose the device you have and click **Next** to continue. Simply follow the on-screen instructions.

5. After you finished the installation, in the “Device Manager”, you will see the following window.



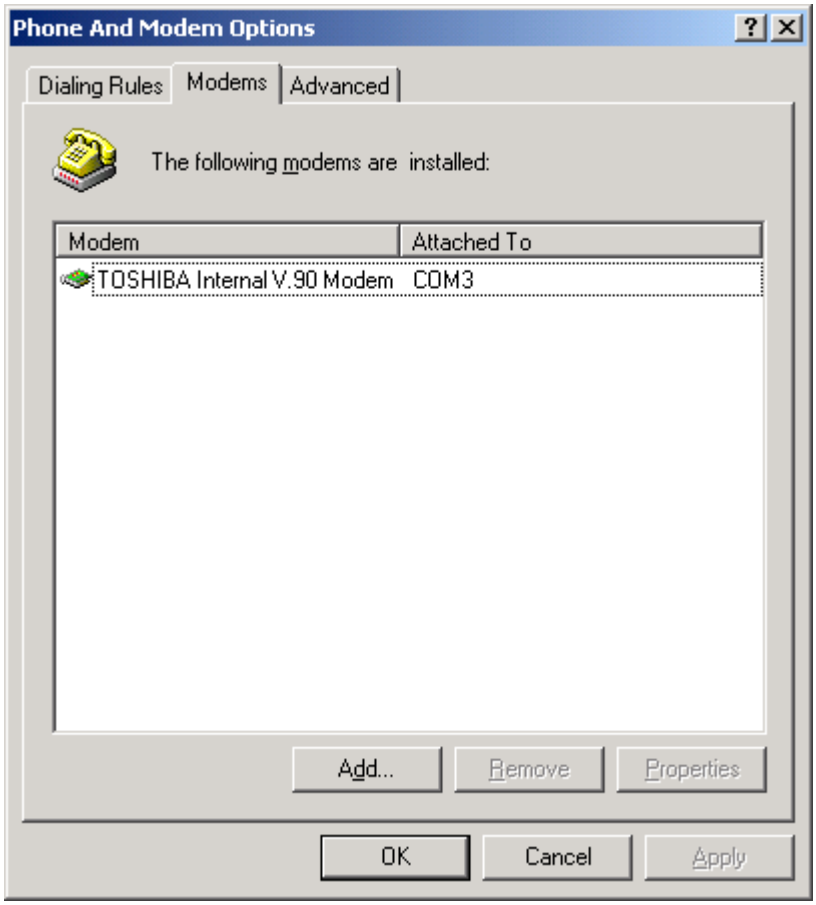

In this window, you can see the **AmbiCom Bluetooth COM Bridge** has a question mark. This is OK because it is a special device and was designed to appear as such.

6. After you have restarted your laptop, please connect your ***AmbiCom Bluetooth CompactFlash, USB or UART Adapter*** to your laptop. The system will automatically install the driver for you. After the system installed the driver you need reboot your system. Now you are ready to execute Object Push, File Transfer and Blue Chat by using Bluetooth Neighborhood. Please see the section ***How to Run Bluetooth Neighborhood*** and skip the following steps. If you want to use the Dial-up Networking and LAN Access, please observe the following steps.

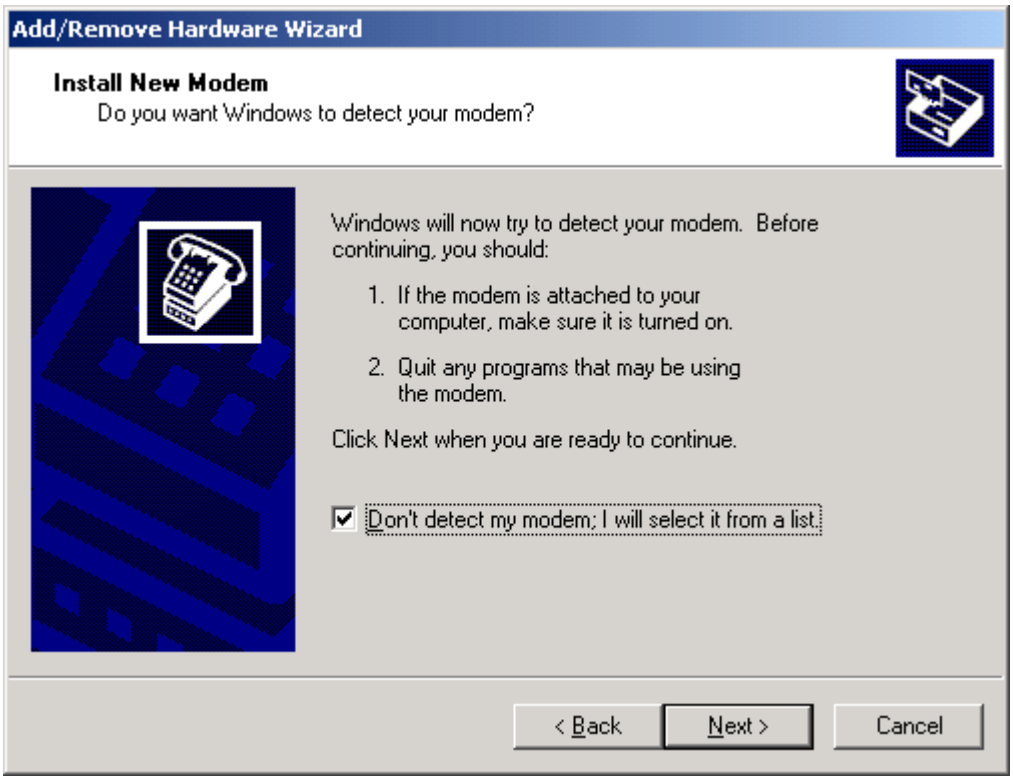
## ***Installation Procedures for Dial-up Networking***

If you have Bluetooth phone/modem, then you should continue to install the corresponding components.

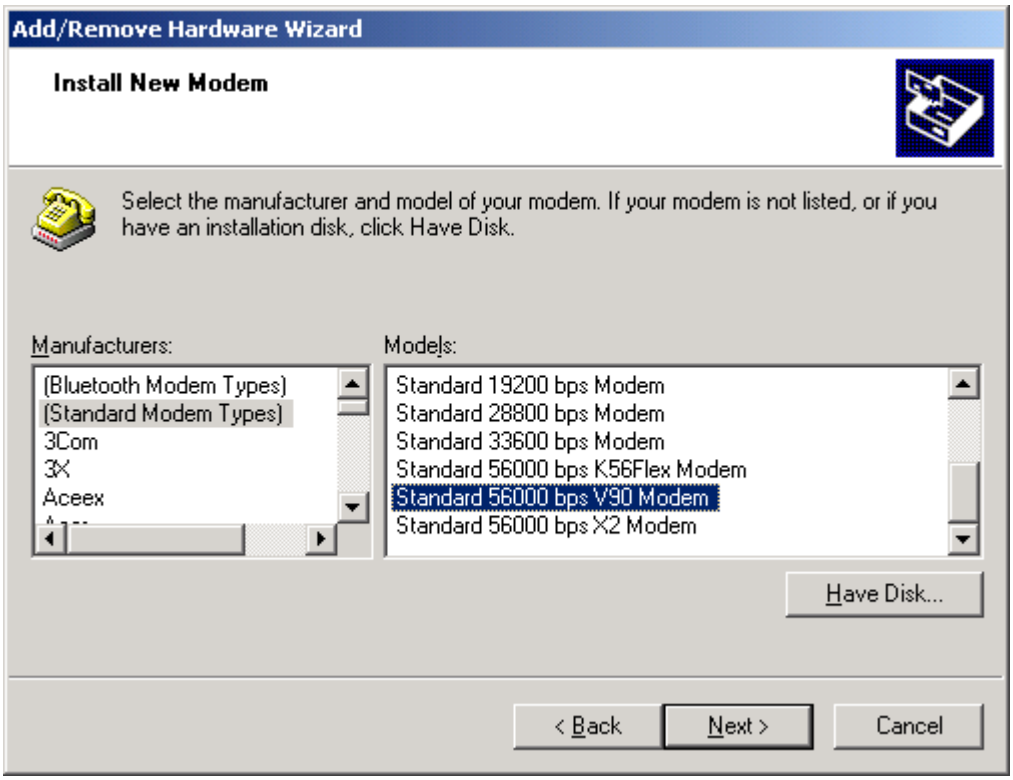
1. Go to **Control Panel**, click on **Phone and Modem Options** to add a new mode for Bluetooth Dial-Up Networking**.**



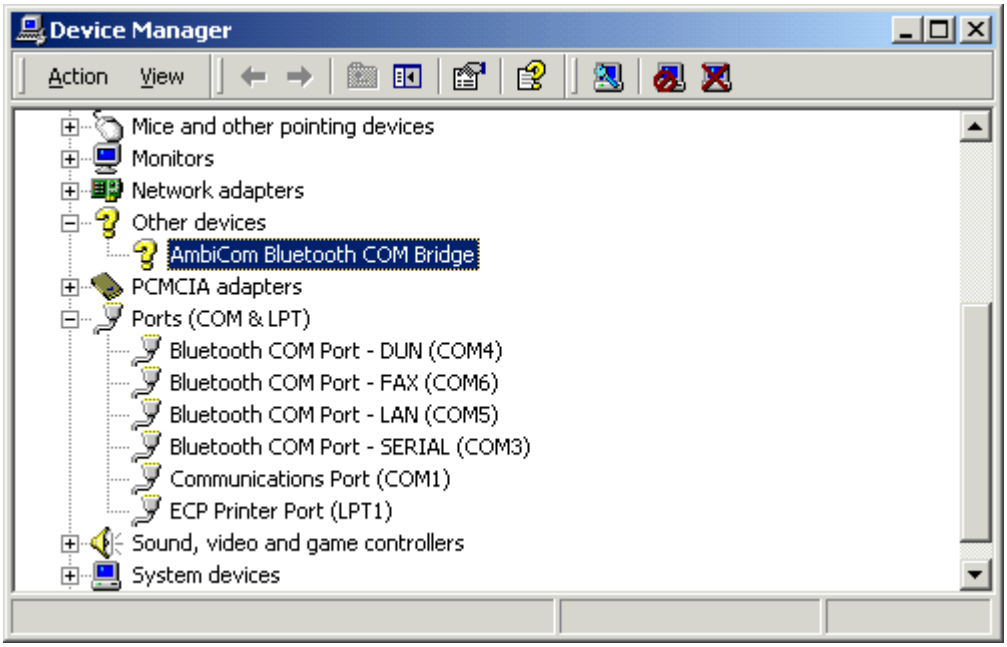

2. Click **Add** and you will see *Add/Remove Hardware Wizard*, Check the checkbox ***Don't detect my modem I will select it from a list***. and click **Next**.



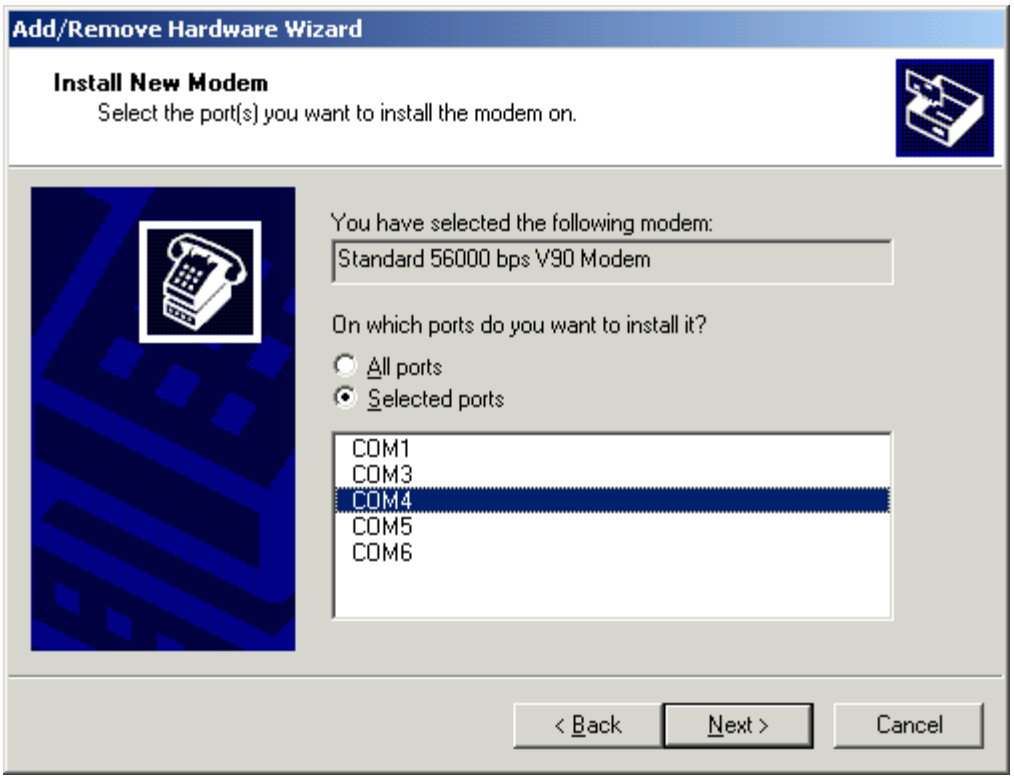

3. After you click **Next**, the following window will appear. Select ***Standard 56000bps V90 Modem*** as the Bluetooth modem. Click **Next** to continue.




4. After you click **Next**, the following window will appear asking you which **COM** Port you will use. Before selecting, you should go to **Device Manager > Ports (COM & LPT)** to find out which COM port is associated with "**Bluetooth COM Port - DUN**" *(assume Com 4 for DUN).*



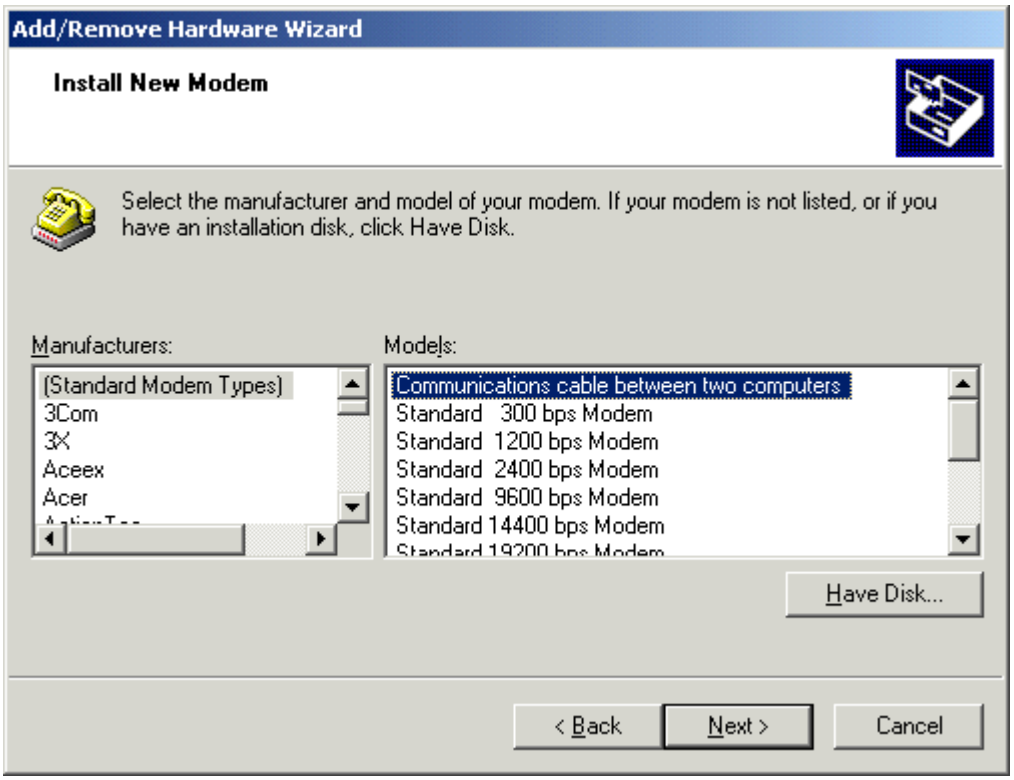
Refer to the above window to select the correct COM Port for your Bluetooth DUN modem (assume COM 4 for DUN).




5. Click **Next** to finish the modem installation. After you installed the Bluetooth Modem, ***Standard 56000bps V90 Modem***, you can treat it as a normal modem. Now, you are ready to create a Dial-up networking connection through the Bluetooth Phone/Modem.

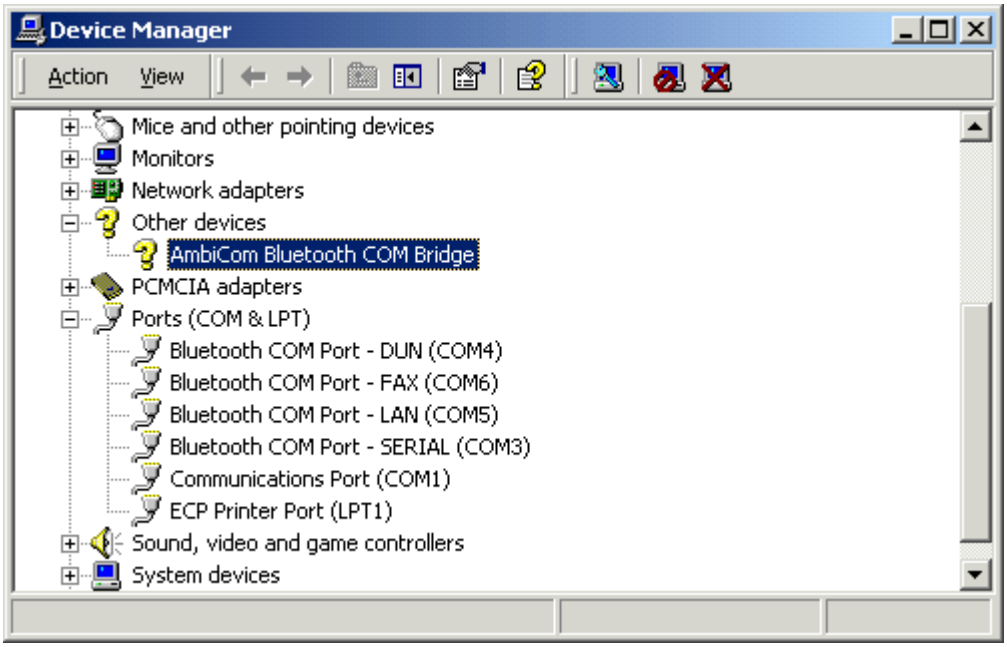
## ***Installation Procedures for LAN Access***

1. For the LAN Access, the installation procedure for modem is almost the same as Dial-up networking. The only difference is under installing new modem where you should select ***Communications Cable between two computers*.**

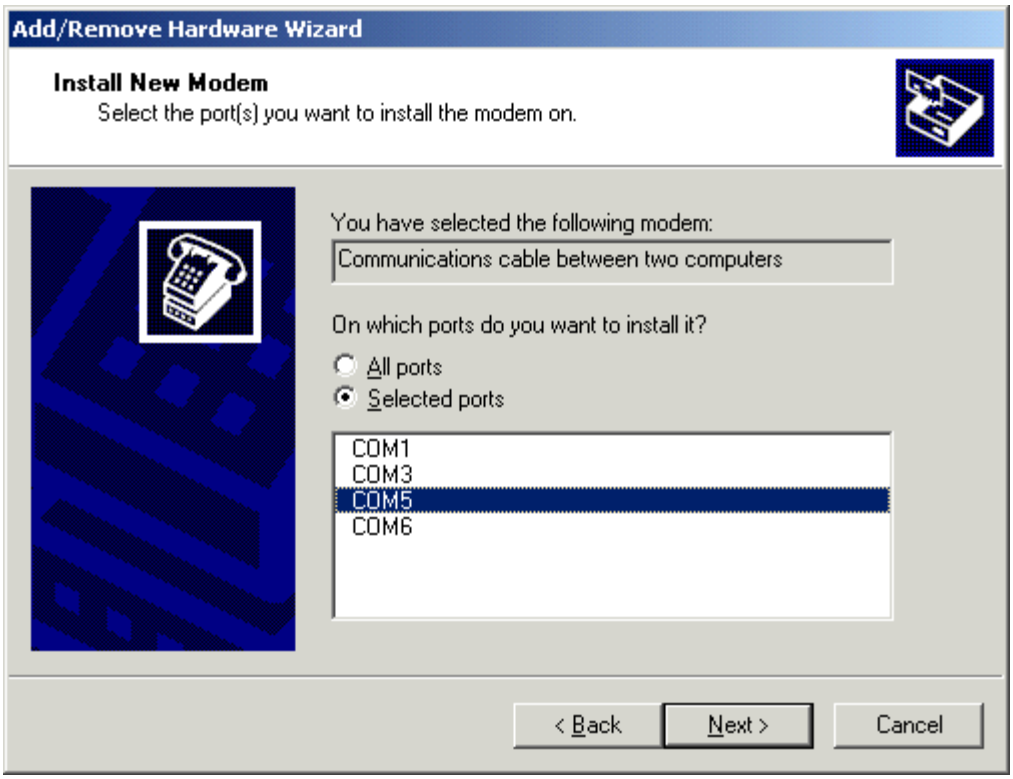



2. Click **Next** to continue the installation.

3. After you click **Next**, the following window will appear asking you which COM Port you will use. Before selecting, you should go to **Device Manager** to find out which COM port is associated with "**Bluetooth COM Port - LAN**".



Refer to the above window to select the correct COM Port for your Bluetooth LAN modem.

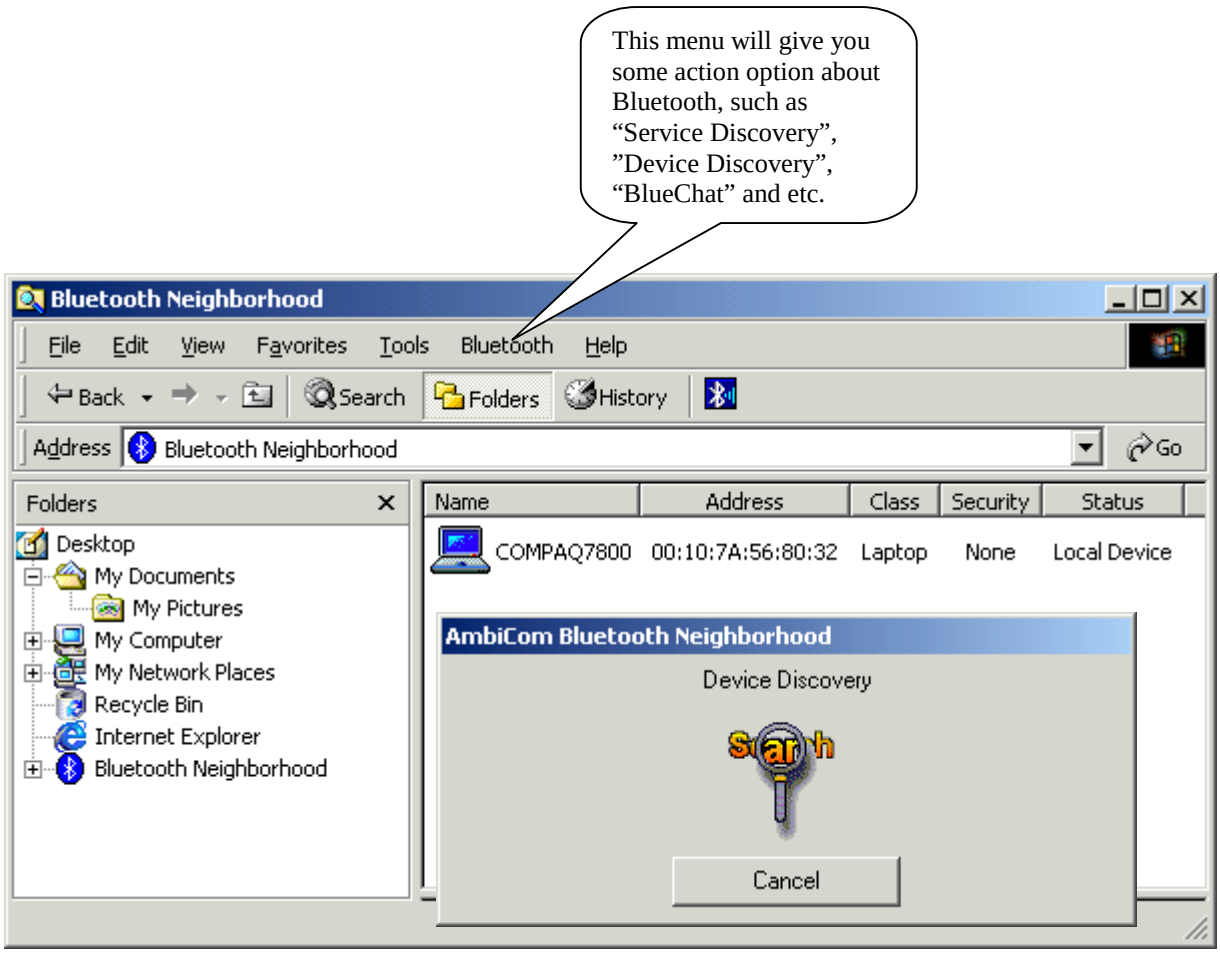



4. After you install the ***Communication cable between two computers***, you are ready to create a new network connection through LAN Access Point.

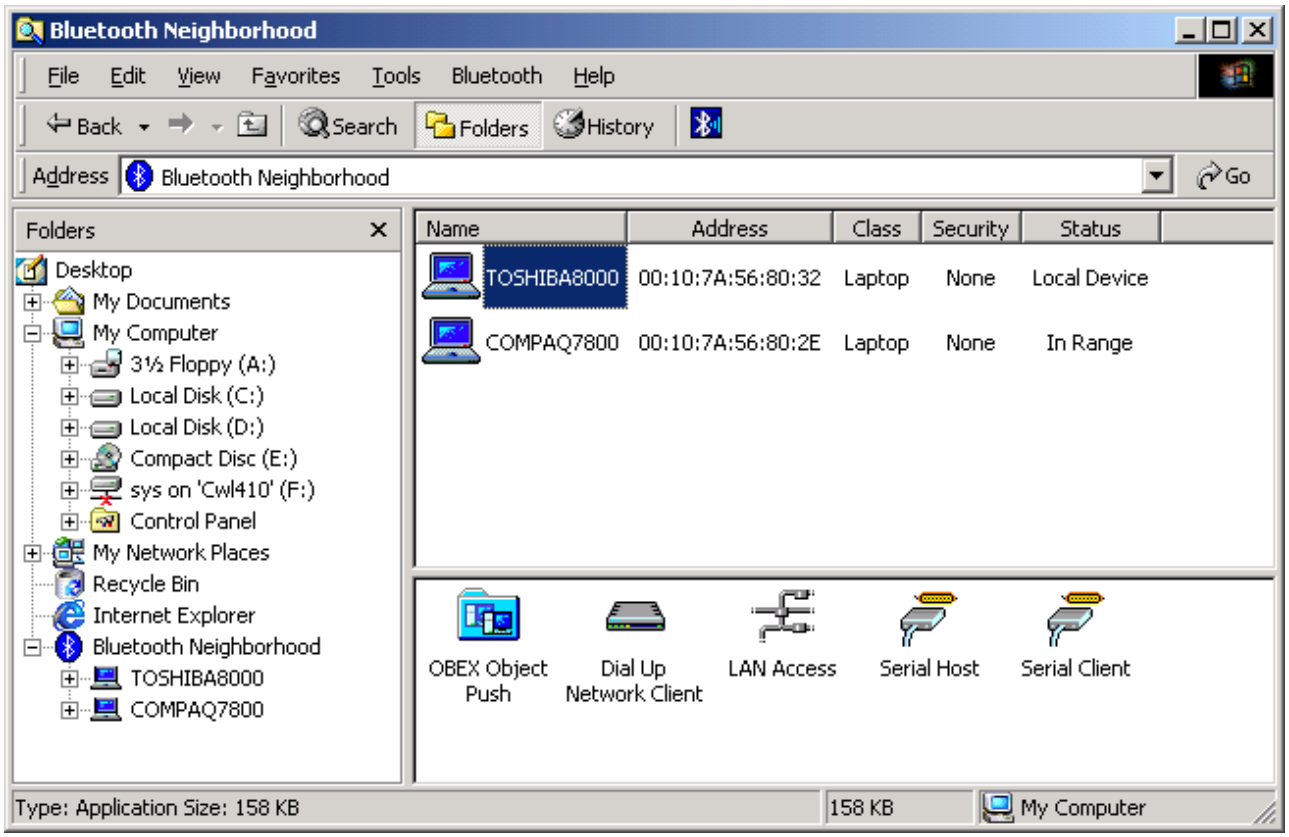
# 5. How to Run Bluetooth Neighborhood

1. You can find a shortcut on the Desktop - Bluetooth Neighborhood.

2. Go to **Windows Explorer** and find the icon **Bluetooth Neighborhood**. Double-click on it to start the program. You can see a Bluetooth Neighborhood GUI at the right-hand side of Windows Explorer, and the window *Device Discovery* will appear. When it finds all the Bluetooth devices within the range, the *Device Discovery* window will disappear. The discovery process includes device discovery and name discovery.



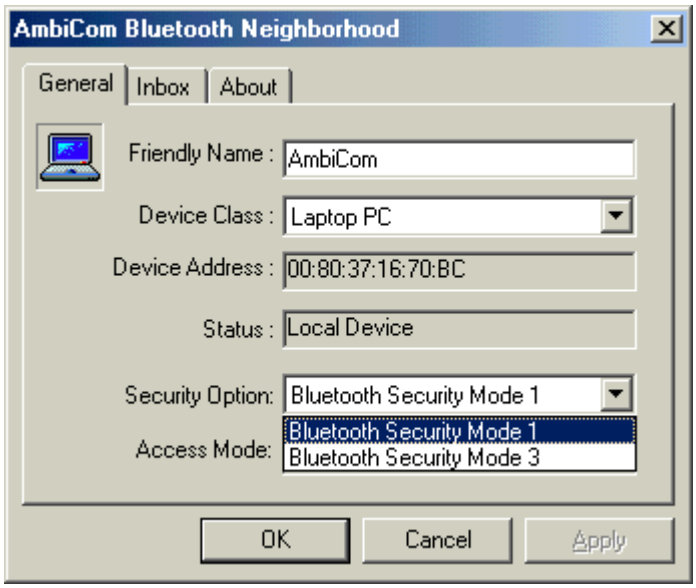

3. After finding the devices, you can click one of the devices and see what services that device can provide. In the Device List Window (at the right-hand side of Windows Explorer), the first device is always the local device.


Bluetooth Neighborhood
File Edit View Favorites Tools Bluetooth Help
Back Search Folders History
Address Bluetooth Neighborhood
Go
Folders
Desktop
My Documents
My Computer
3½ Floppy (A:)
Local Disk (C:)
Local Disk (D:)
Compact Disc (E:)
sys on 'Cwl410' (F:)
Control Panel
My Network Places
Recycle Bin
Internet Explorer
Bluetooth Neighborhood
TOSHIBA8000
COMPAQ7800
Name Address Class Security Status
TOSHIBA8000 00:10:7A:56:80:32 Laptop None Local Device
COMPAQ7800 00:10:7A:56:80:2E Laptop None In Range
OBEX Object Push
Dial Up Network Client
LAN Access
Serial Host
Serial Client
Type: Application Size: 158 KB
158 KB
My Computer

## Security Mode

1. Our software provides two levels of security mode: security level 1 and security level 3. At security level 3, a PIN code will be required when other Bluetooth enabled devices try to connect with you. The PIN code entered needs to be the exact same one entered on both machines. This will give you more security. If you set your PC in security level 1, PIN codes will not be needed.

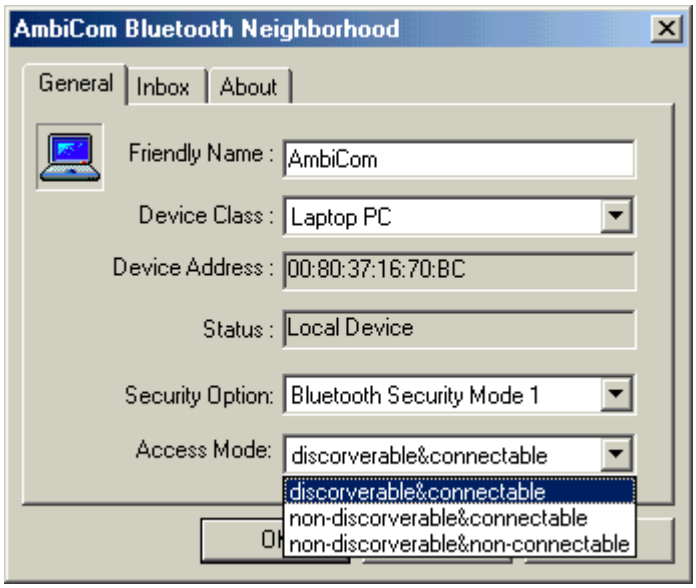
2. You can go to Bluetooth Neighborhood to set the security level. Choose the local device, right-click it and select Property. You will see the following window.



## Access Mode

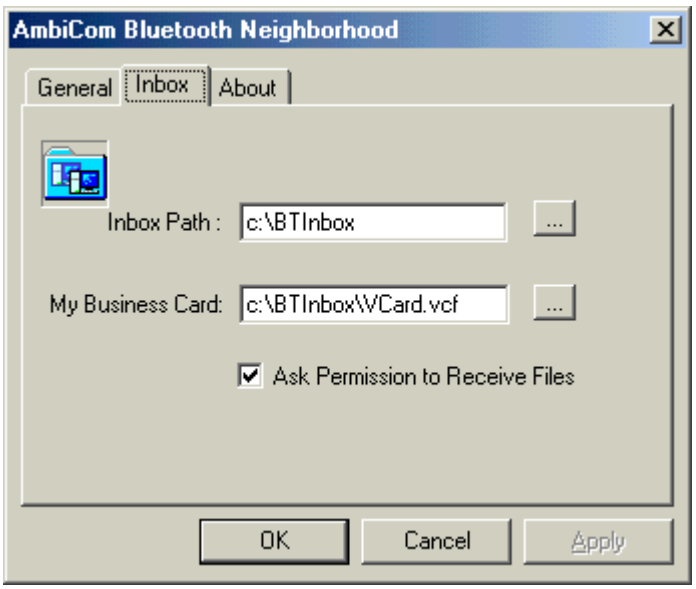
1. Our software provides three options of access mode: discoverable&connectable, non-discoverable&connectable and non-discoverable&non-connectable. At the discoverable& connectable mode, you will allow other Bluetooth enabled devices to find and connect to you. At other two options, you will allow them to find you, but cannot connect to you. Or they cannot find you nor connect to you.

2. You can go to Bluetooth Neighborhood to set the Access mode. Choose the local device, right-click on it and choose Property. You will see the following window.

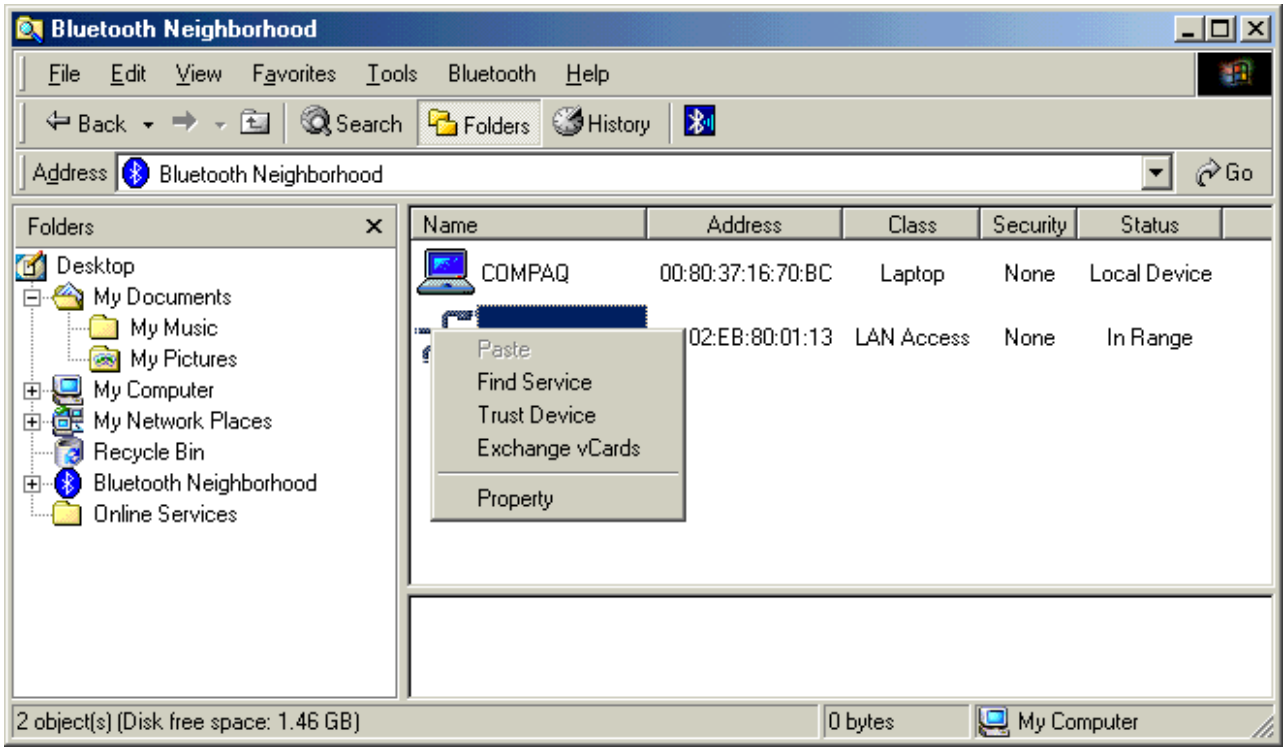


## Exchange vCards

1. When you perform Exchange vCard, you need to go to the local device's property to set up "My Business Card" path first, as shown in the following window. The default path is "C:\BTInbox".

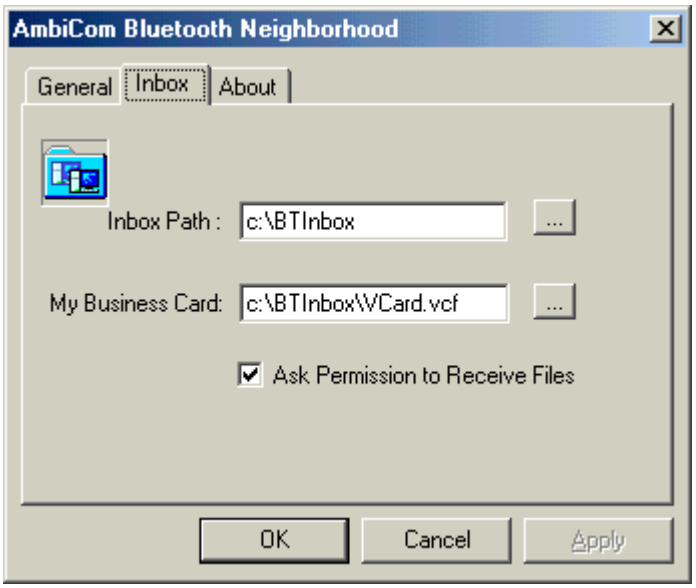



2. Now you click the device that you want to exchange vCard with. You will see the following window. Click "Exchange vCards" and you will send your business card to this device and vice versa.

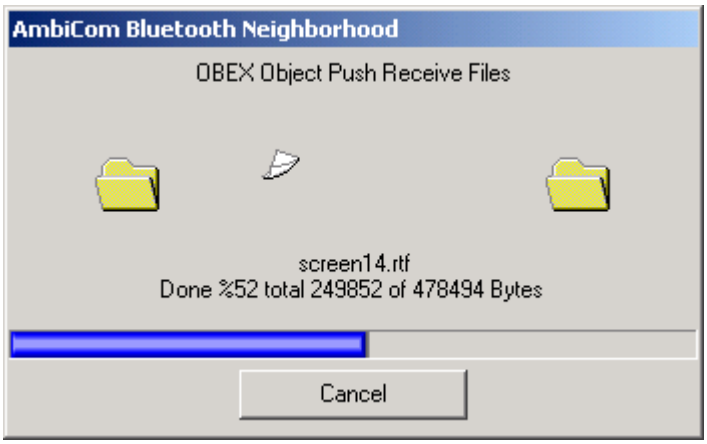


## Object Push

1. Before you perform Object Push, please set up your inbox path first. This directory will save files that you receive. The default path is “C:\BTInbox”.

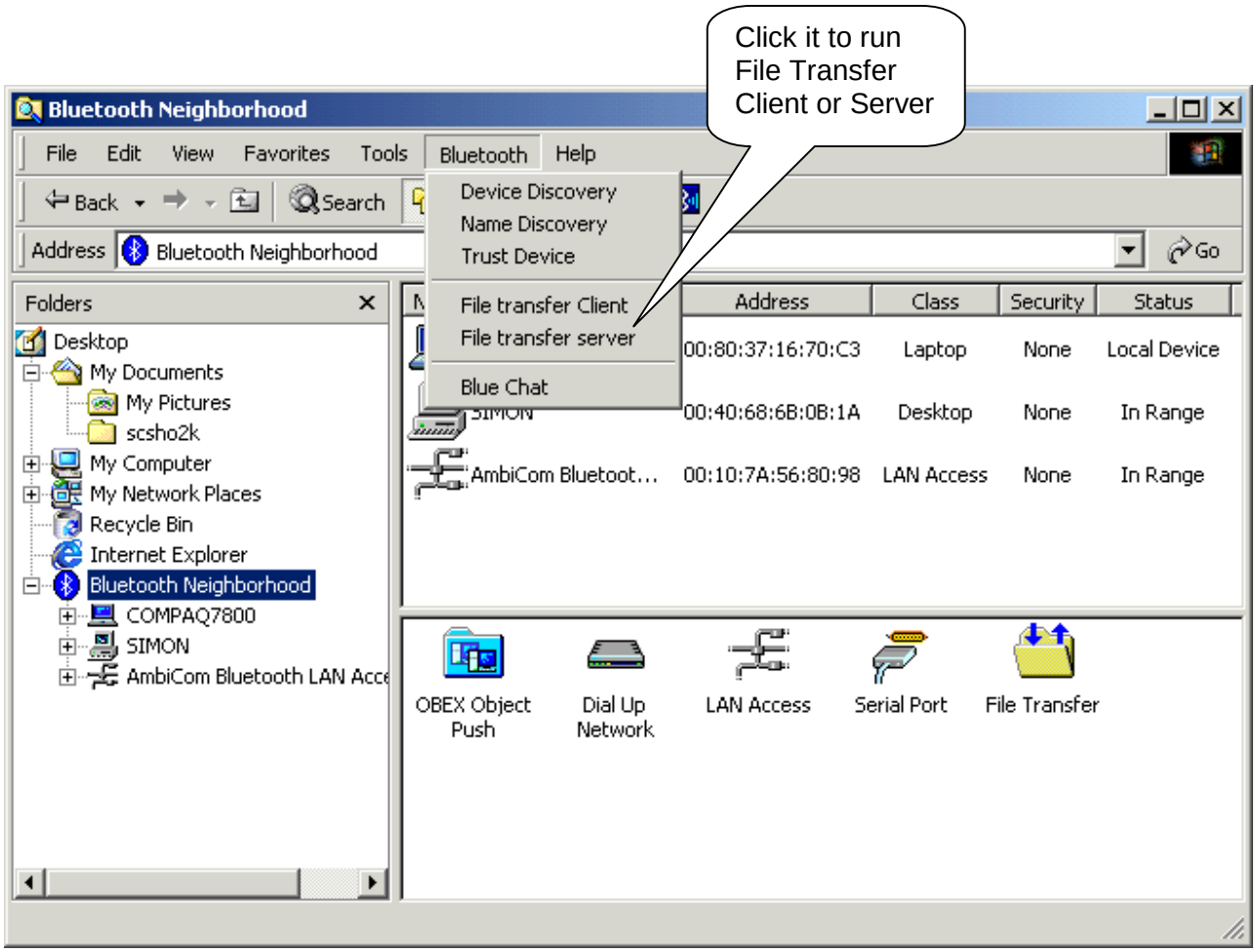



2. When you perform Object Push, simply **Drag** the file that you want to send and **Drop** it to the Bluetooth Device that you want to receive on the left side of Windows Explorer. You also can use **Copy** and **Paste** to do the object transfer between two Bluetooth devices. When you perform Object Push, the status will be shown on the following window.

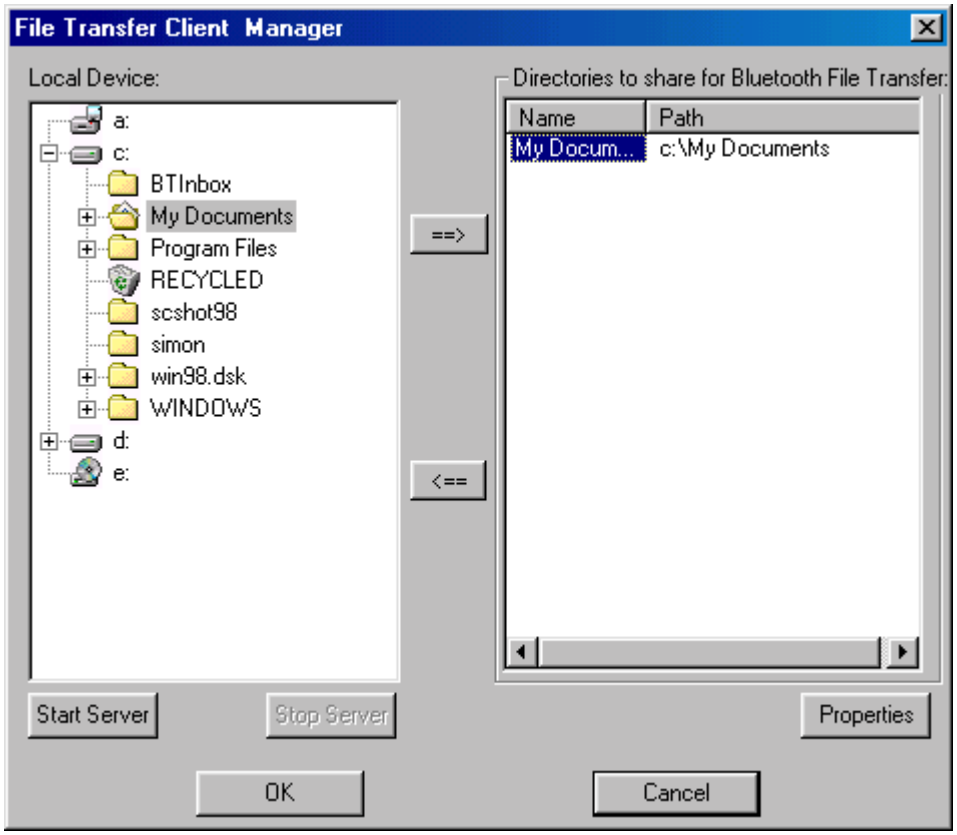


## File Transfer

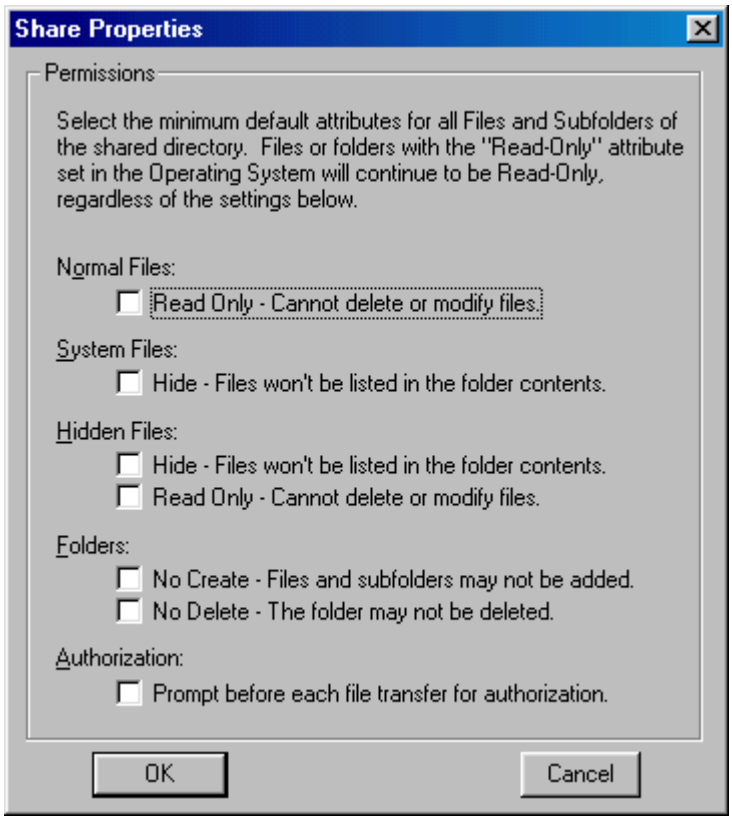
1. To execute File Transfer, open Windows Explorer, select **Bluetooth** on the menu bar and click on **File Transfer Client** or **File Transfer Server.** To activate File Transfer on both ends, the application on the remote computer also needs to run File Transfer at the same time.



2. The following window shows the File Transfer Server. In the File Transfer Server, you can select the directory or file on the left-hand side of the window and share it by using the arrow button to transfer it to the right-hand side of window. The directory or files in the right-hand side of the window are those that have been shared for the File Transfer Client to use.

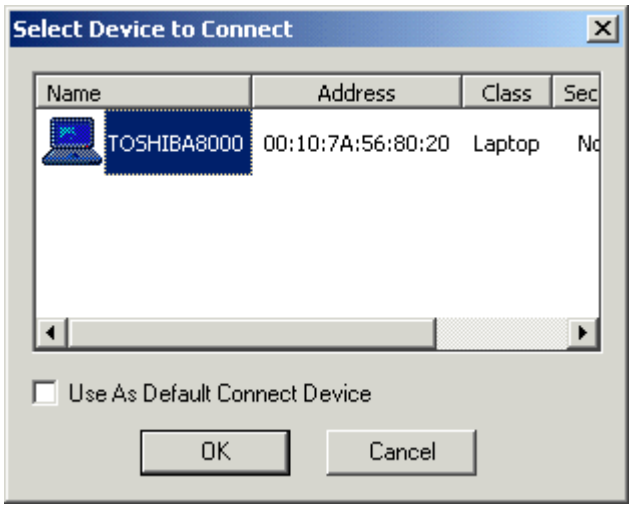



3. After you share the directory and files, you can configure them by clicking on the *Properties* button.

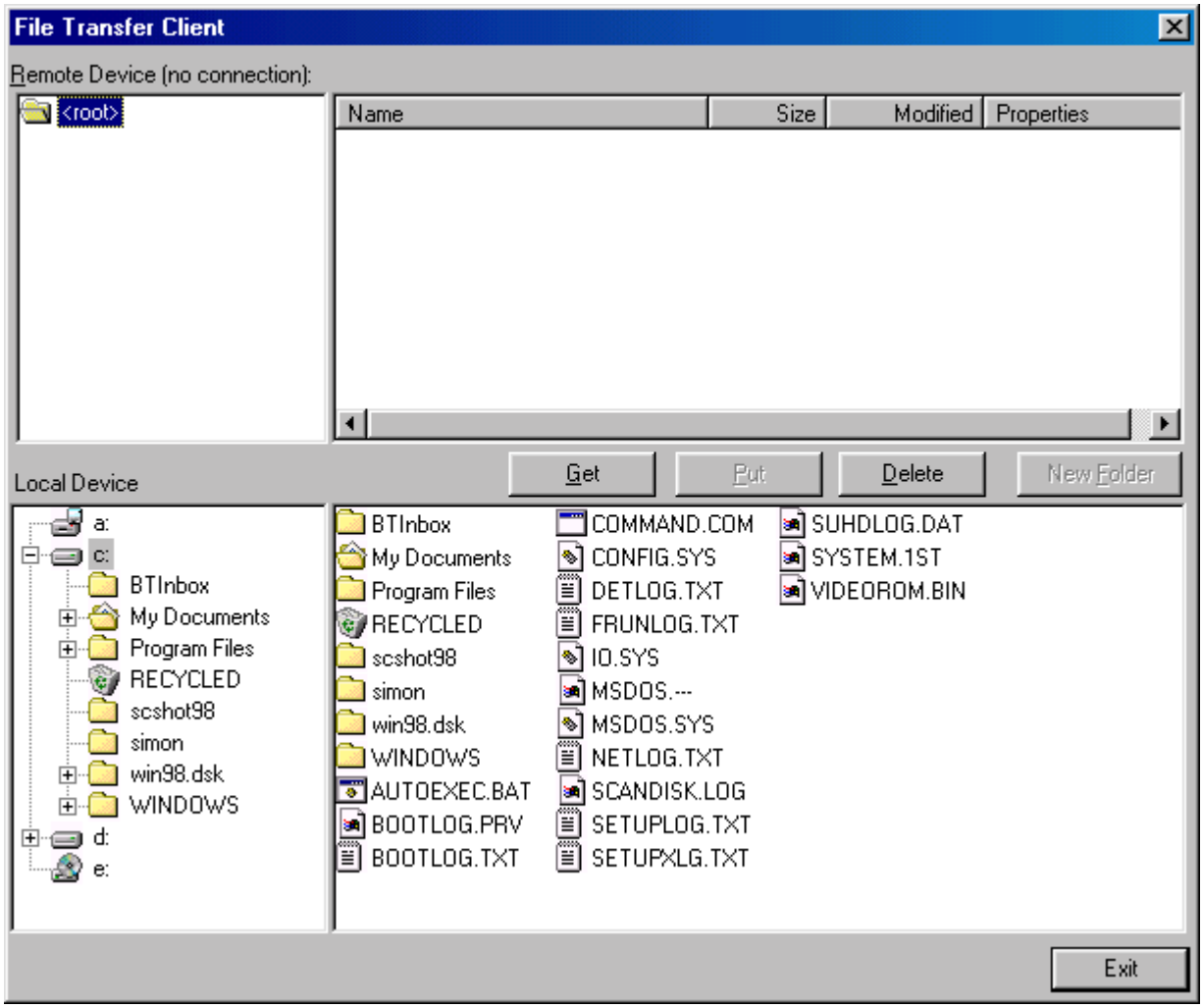



In this window, you can define the attribute of the directory or file that you shared, give the permission for the *File Transfer Client* to use.

4. When you click the *File Transfer Client* menu to run it, the system will show a *Select Device to Connect* window for you to choose which device you want to connect.

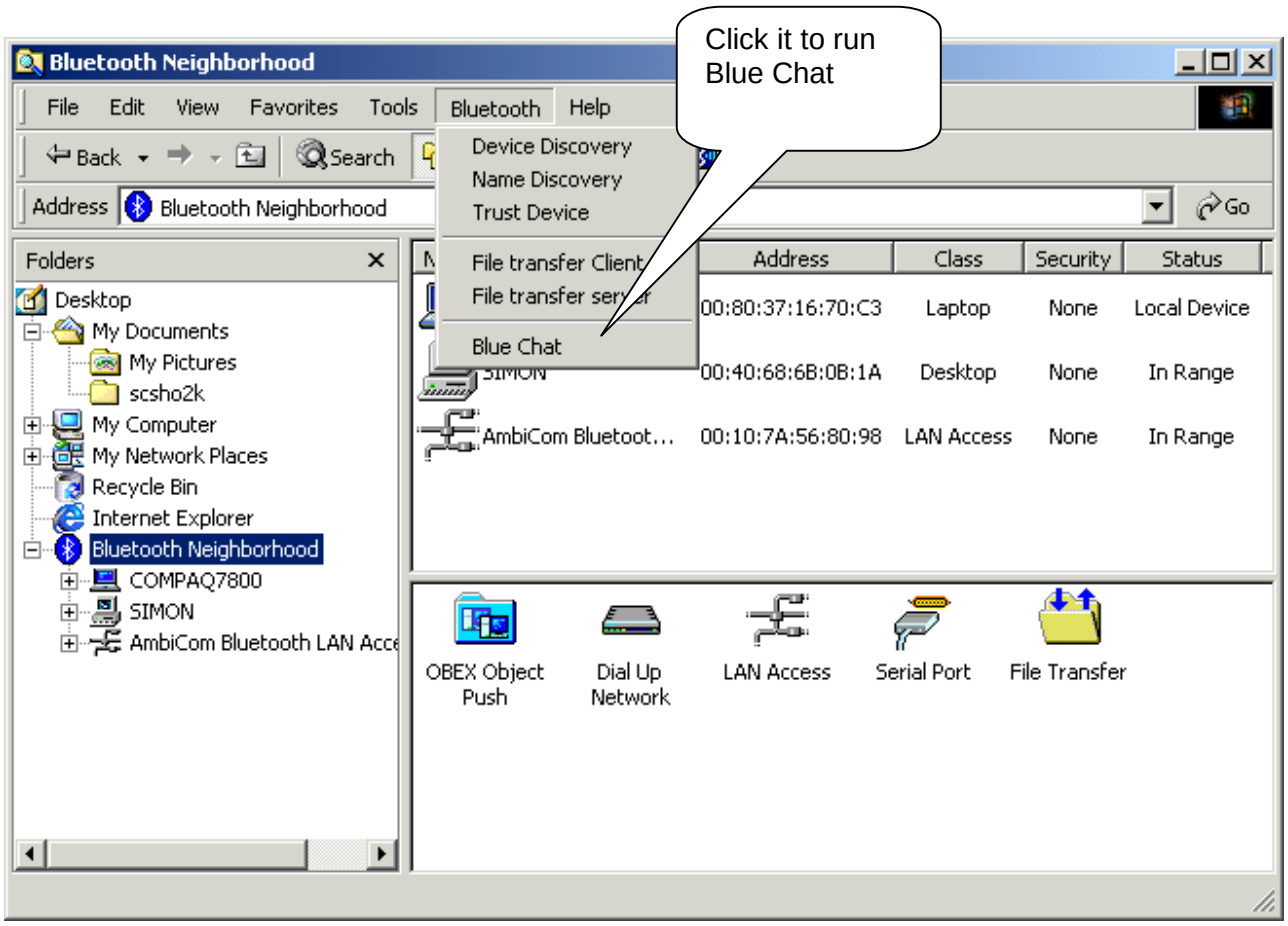


5. After you select the remote device that runs the File Transfer Server, the following window will appear. You will see the directory and file shared by the File Transfer Server. You can get file or directory from the File Transfer server or place file or directory to the File Transfer Server. Also you can create new folder in the Shared Directory from File Transfer Server.

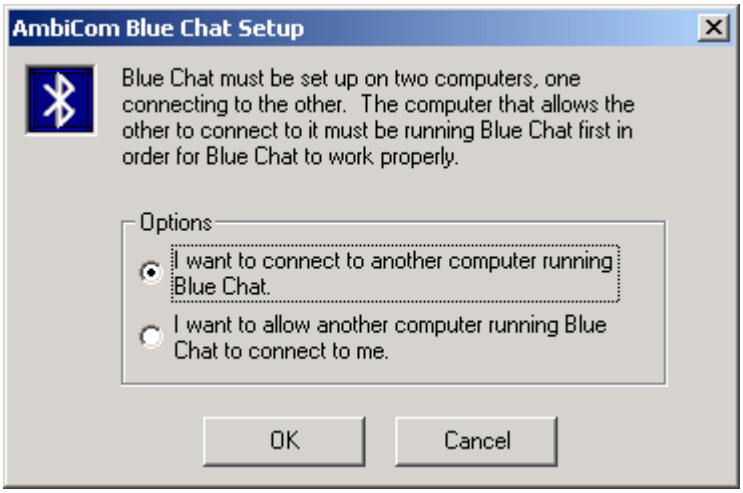


## Blue Chat

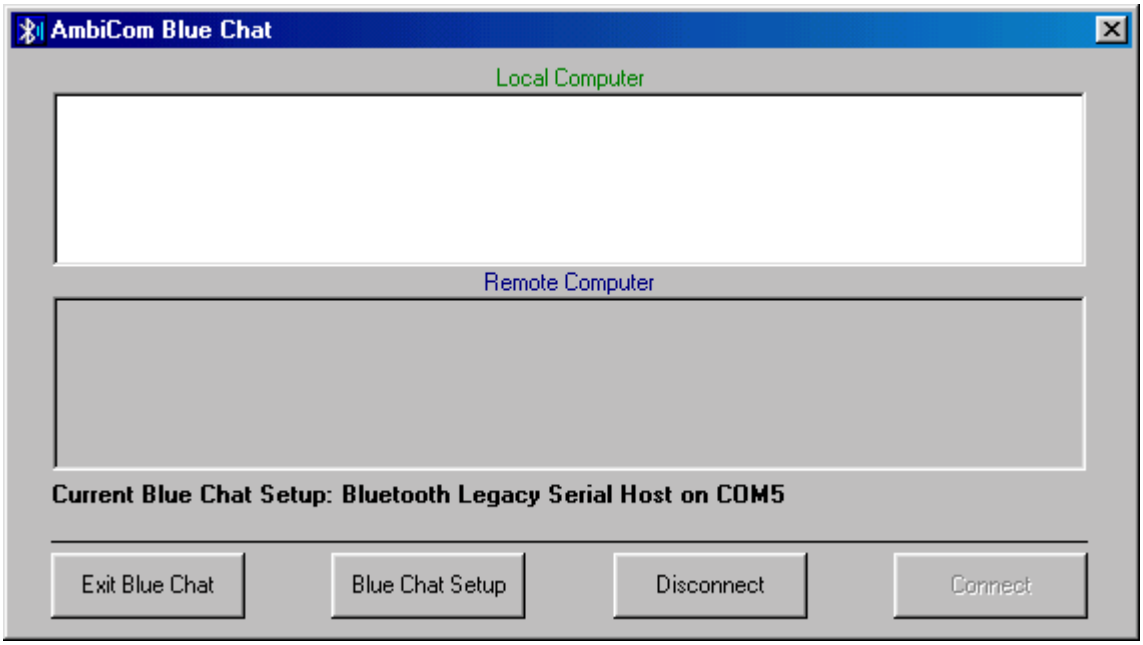
1. For Blue Chat, click *Blue Chat* on Bluetooth Menu on Windows Explorer Menu bar. To have Blue Chat working on both ends, the application on the remote computer also needs to run at the same time.



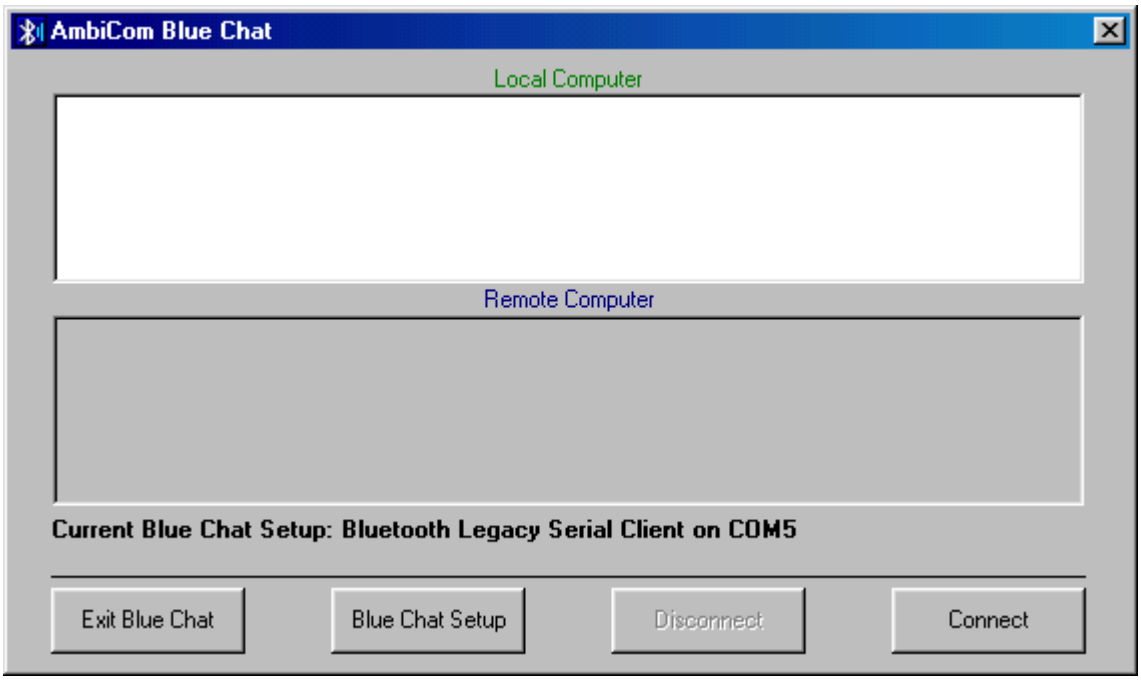
2. After you click *Blue Chat*, the following window will appear.



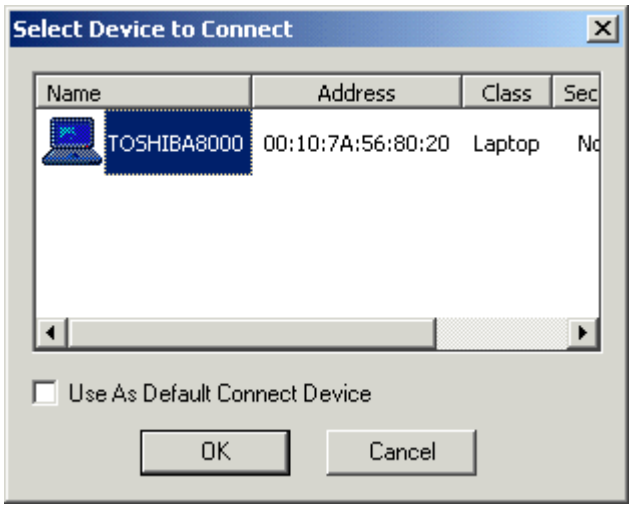

3. In the above window, two options are shown. You can choose to either connect to someone or wait for connection. If you want other people to communicate with you, simply check the lower checkbox and click **OK** and the following window will appear.



4. If you want to connect to a remote device, check the first option. Click **OK** and the following window will appear.




5. Now click **Connect**, the system will prompt you with the following window and you can select which device you want to connect.




6. Select the Bluetooth Device you want to connect and then click **OK**. The two Bluetooth devices now can connect to each other. You can type any text messages within the Local Computer window and you can see the messages from Remote Computer as well.

# Dial-Up Networking

Note:

For some Bluetooth enabled devices such as **Cellular Phones**, before you perform Dial-up, you need to execute ***Trust Device*** first. The following window shows you how to do so. For phone configuration, you need set it to the ***Ready to pair*** mode. You can refer the phone manual. After you paired your phone with the Bluetooth device, the software will remember the trust profile. You don't need to do this every time when you execute the Dial-up networking.

***On Nokia Cell Phone***

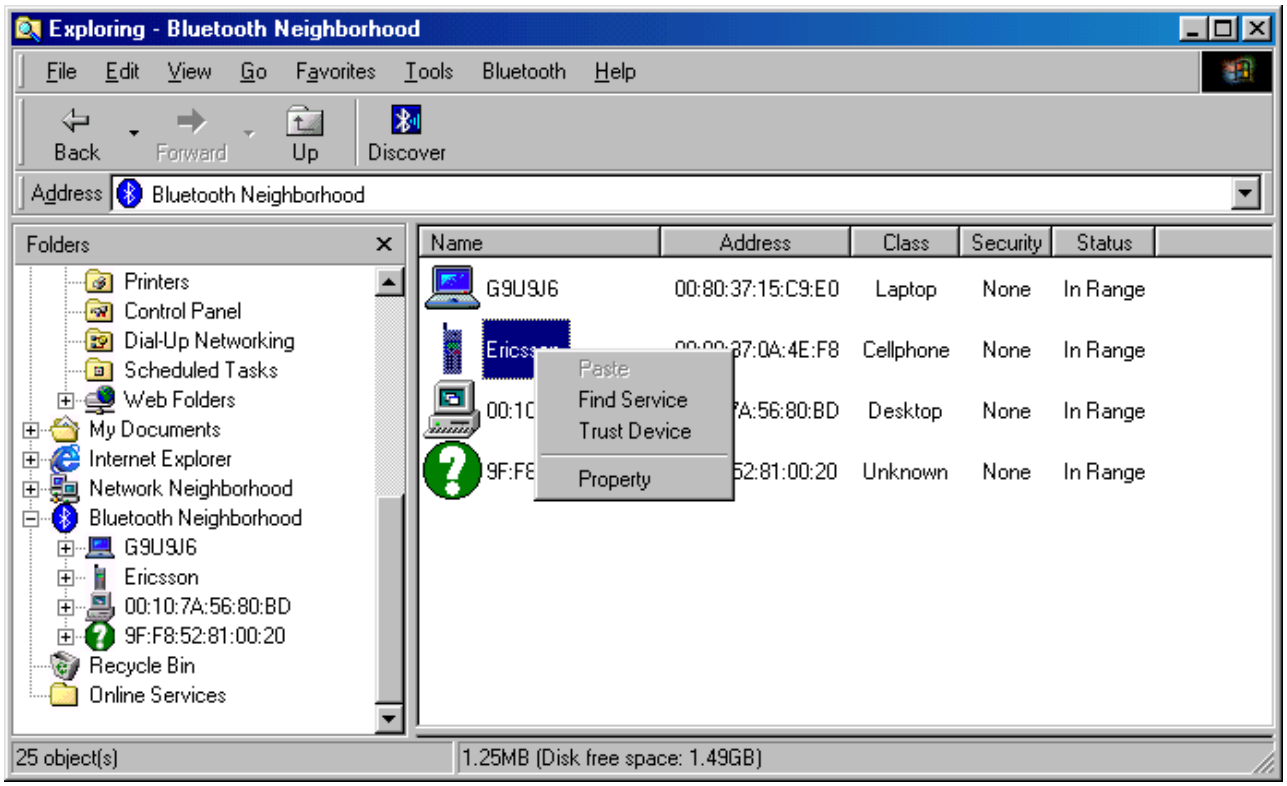
You have to set the security level 3 in the Bluetooth Neighborhood. Choose "Local Device", click the right button of your mouse, and then select "Property". Select under ***security option*** "***Bluetooth Security Mode 3***" and then follow the wizard manual.

***On Ericsson Cell Phone***

Select menu Extra > Bluetooth> Paired devices > Add devices > Phone Accepts
Click Yes to assign the phone name and will show ***Ready to pair*** mode

***On the computer***

After discover the phone, right click on the mouse and choose Trust Device.
Insert the password.




***On Ericsson Phone***

- Click Yes on the phone to Add to paired devices > insert the Password click yes

***On Computer***

- Insert the PIN number in the computer (the same that you inserted the password on the phone)

***On Phone***

- Show Pairing successful

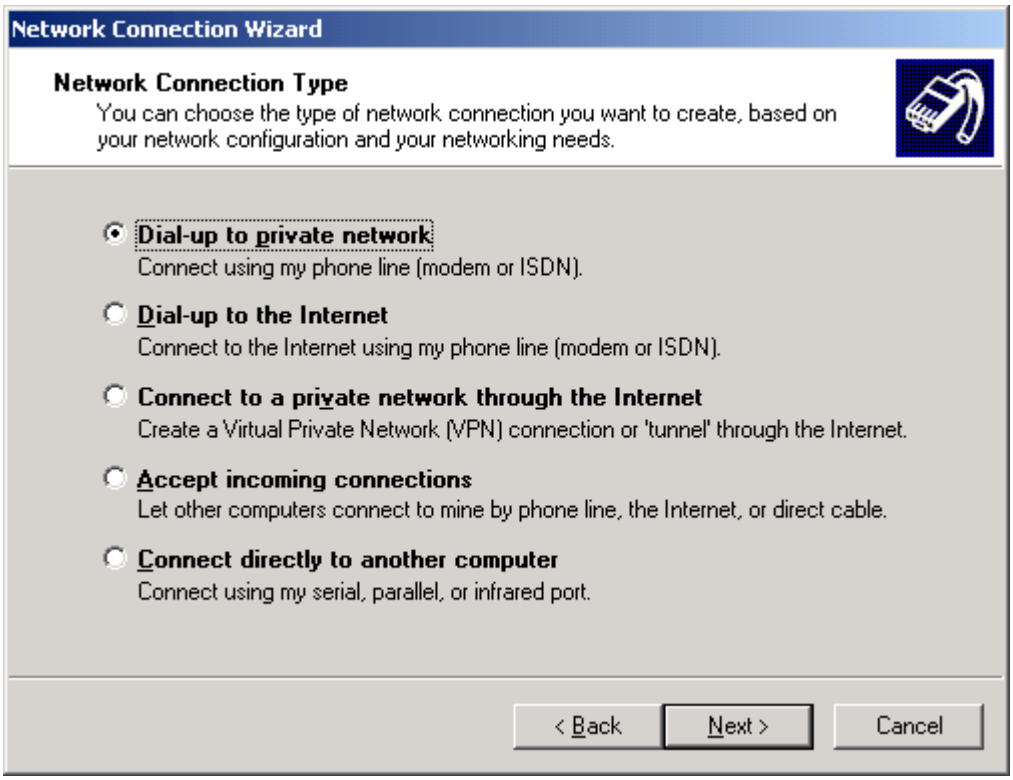
***On Computer***

- Change the status to **Trusted** in the Bluetooth Neighborhood

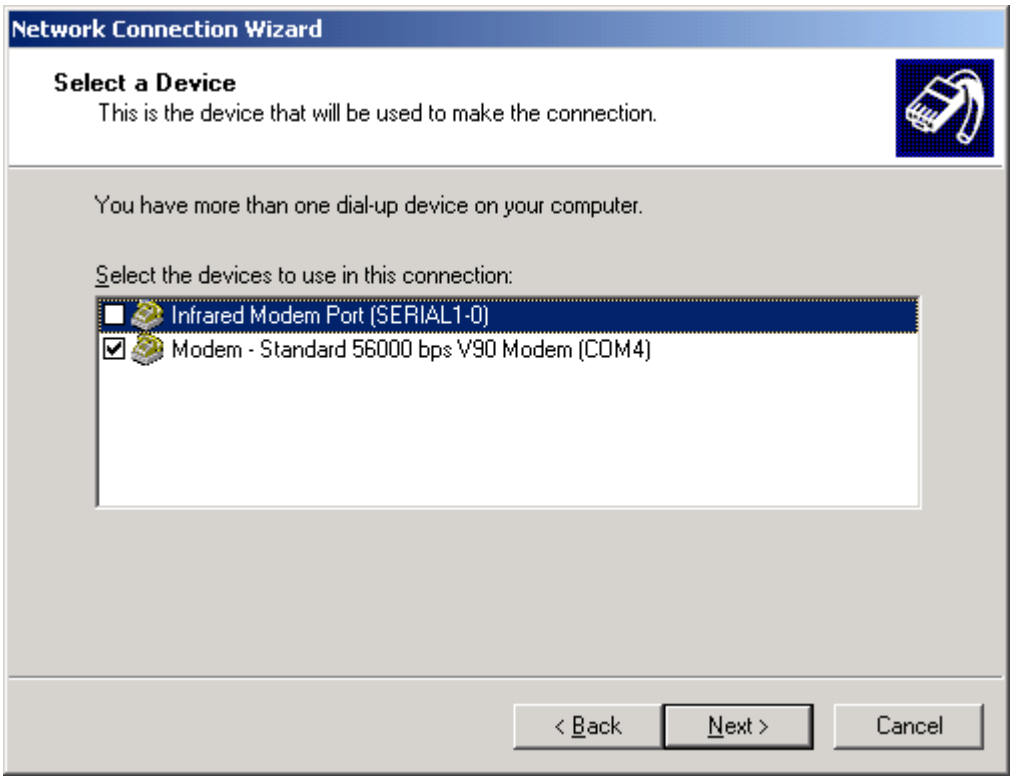
The requirement to set up Dial-up Networking is to provide the Internet Service Provider information (ISP); user name, password, and the phone number.

1. For Dial-Up Networking, please go to the **Control Panel** and find **Network and Dial-up Connections** to create a new connection. When you create the connection for the Dial-Up networking, please use the "***Standard 56000bps V90 Modem***" that you installed before. If you haven't installed that modem, please refer to the Installation section.

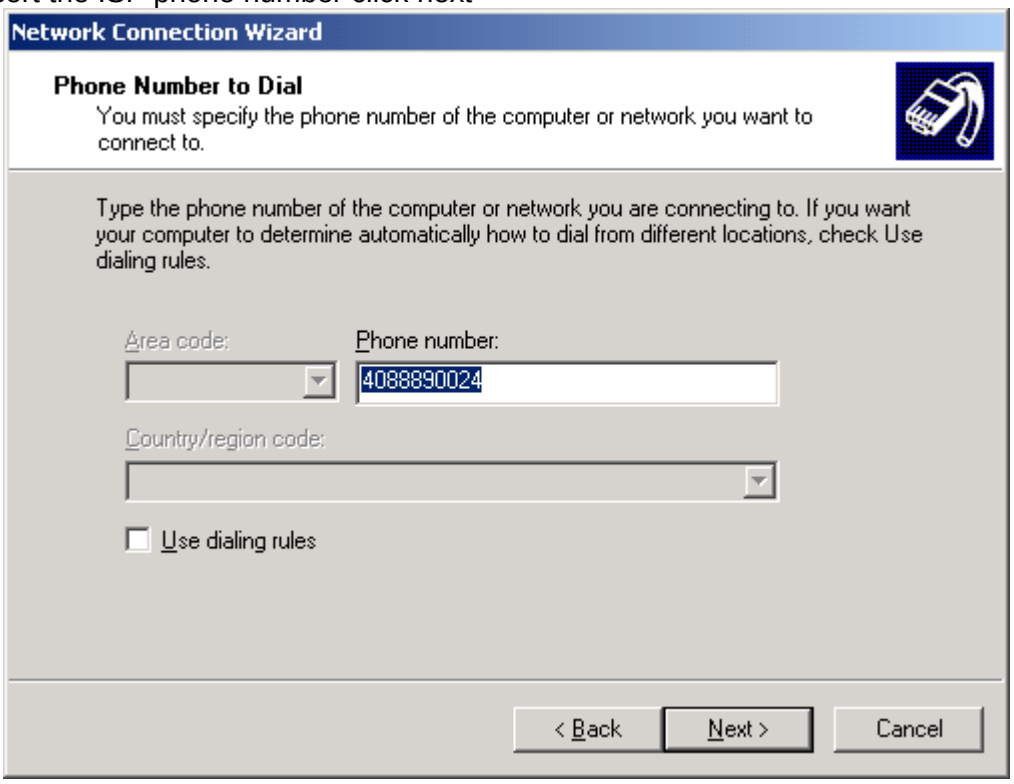
2. Choose "**Dial up to private network**", click Next



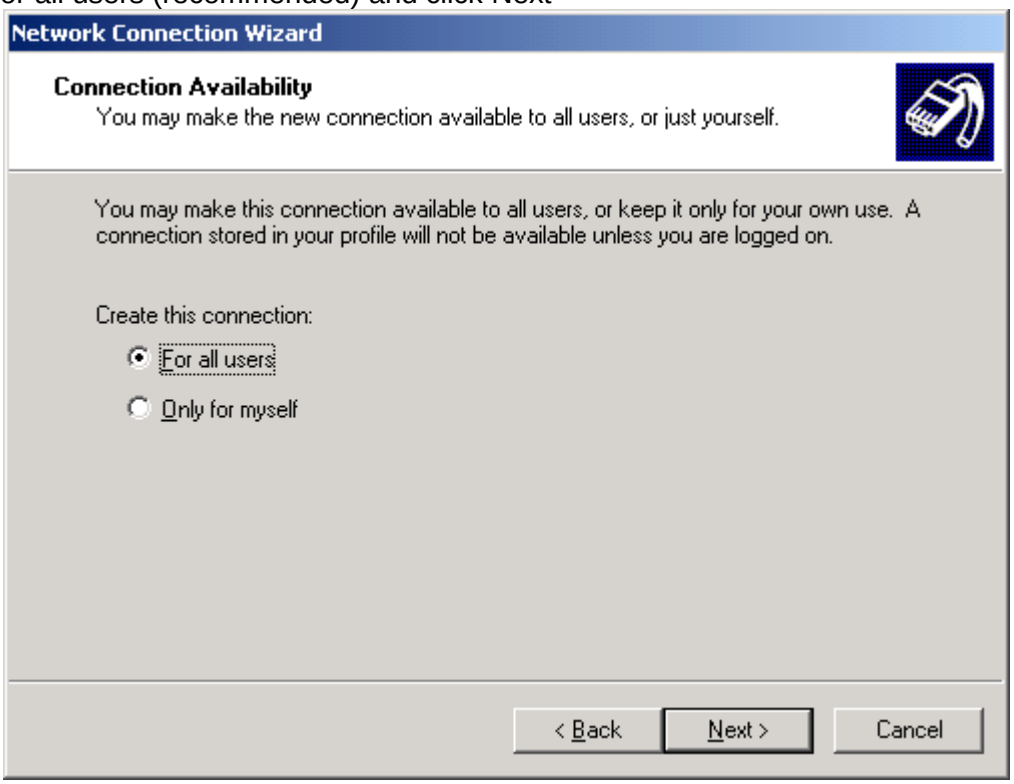
3. Check the **Modem - Standard 56000bps V90 Modem** (assume COM4 for DUN) and click Next.




4. Insert the ISP phone number click next

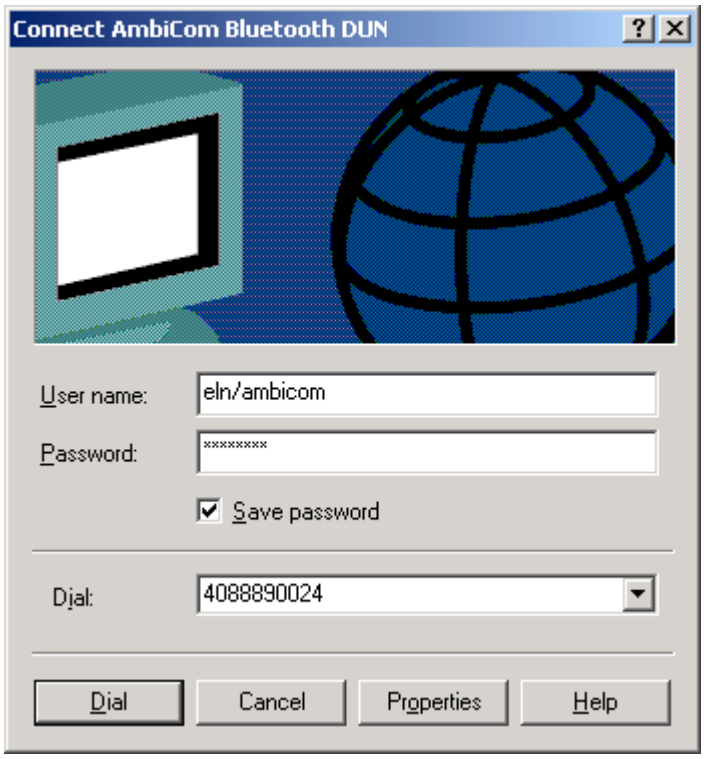


5. Check for all users (recommended) and click Next

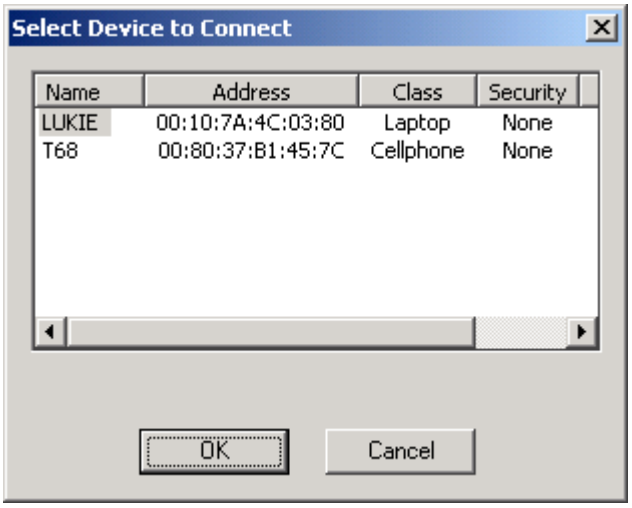



6. Create the name of the DUN Connection and check to add a shortcut to your desktop (Recommended)

6. After you have created a new connection, you should run AmbiCom Bluetooth Neighborhood application first. It will find the Bluetooth devices within the range. If you find devices such as Bluetooth phone/modem or Dial-Up Networking Access point, you can start the connection you just created by click the **AmbiCom Bluetooth DUN** icon in your desktop, the system will show the following window.




7. Click **Dial** and a window will appear for you to select the Phone, which Bluetooth device you want to connect.

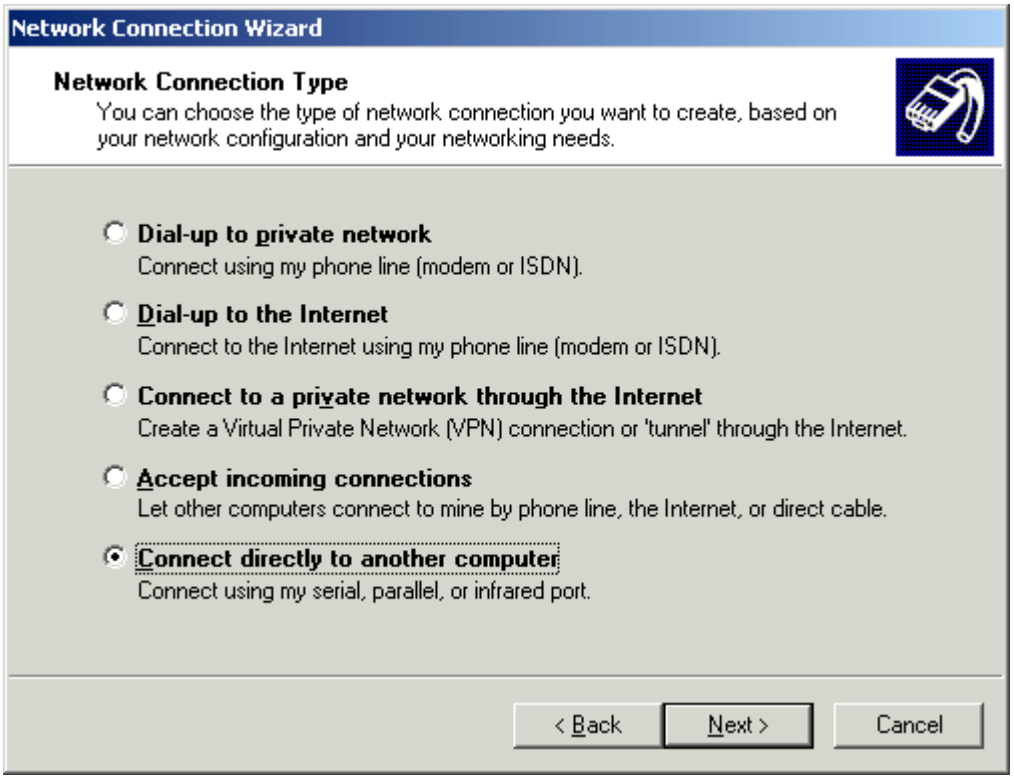



8. In the above window, select T68 (The Phone name) and click **OK** to dial to ISP.

## LAN Access

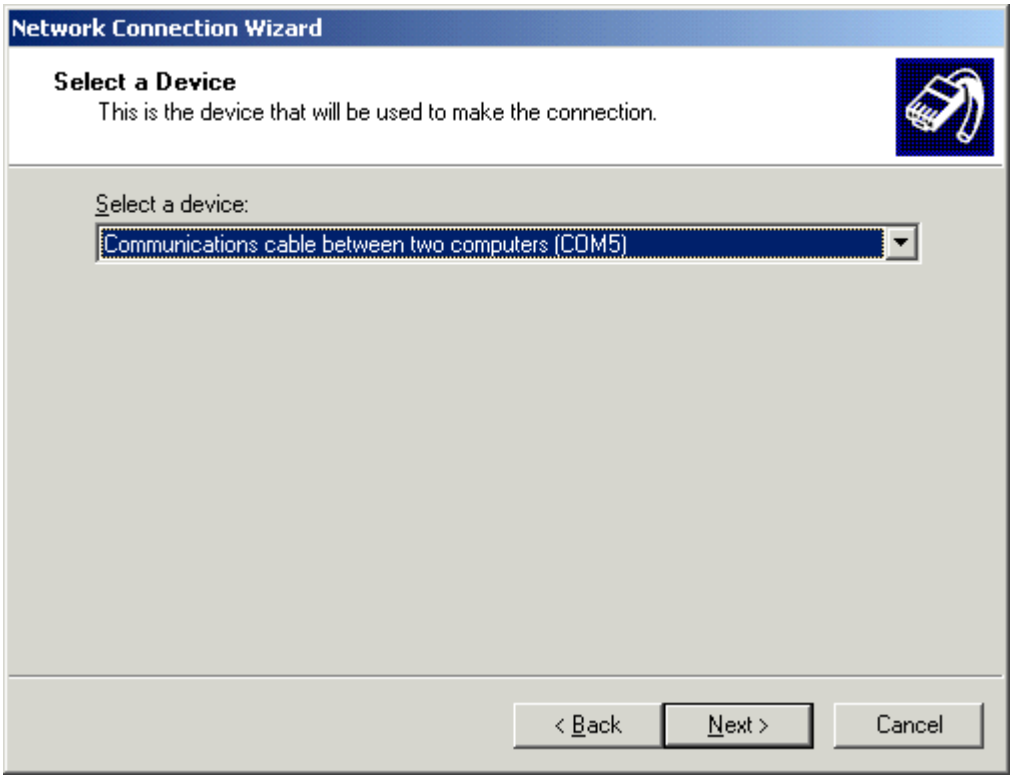
For LAN Access, the setup is almost identical to Dial-Up Networking. You need to create a ***Communications cable between two computers*** modem in your system. For details on how to install this modem, please refer to the Installation Section. When you have the ***Communications cable between two computers*** modem set up, please go to Network Connections to create a new connection. It is not necessary to provide phone number, user name and password to make the connection.

1. Go to Control Panel -> Network and Dial-up Connections, click *Make new Connection*, a *New Connection Wizard* window will appear. Click **Next** and you will see the following window.



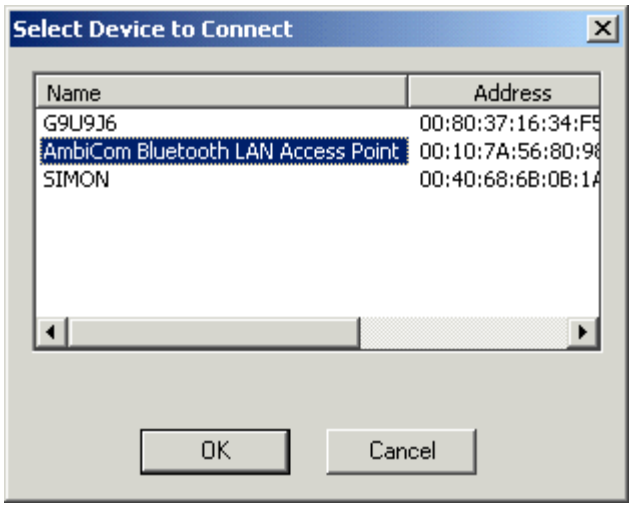

2. Select the ***Connect directly to another computer*** option and click **Next** to continue the installation.

3. Select the ***Guest*** option and click **Next** to continue.



4. Select the ***Communications cable between two computers*** modem that you installed earlier. If you haven't installed that modem, please refer to the Installation section and follow the on-screen instructions to complete the installation.

5. After you create a new connection, you should run AmbiCom Bluetooth Neighborhood application first. It will find the Bluetooth devices within the range. If you find a device such as the Bluetooth LAN Access point, you can start the connection you just created and the system will show the following window.




6. In the above window, select ***AmbiCom Bluetooth LAN Access Point*** and click **OK** to make an Internet connection.

# Uninstall The AmbiCom Bluetooth Neighborhood

Please click **Start**, go to **Programs**, find **AmbiCom Bluetooth Neighborhood** and select **Uninstall Bluetooth Neighborhood**. Follow the on-screen instructions to complete the uninstallation.

# 7. Technical Support

Please visit AmbiCom Web site http://www.ambicom.com for online technical support. If you wish to speak to our support staff, please call 1-408-562-0168.

# AmbiCom Bluetooth Solutions

# User Manual for WinME

**June 25, 2002**

# 1. Introduction

This user manual covers the product features, release notes, installation procedures, and operating procedures for AmbiCom's Bluetooth applications.

Bluetooth wireless technology is a global standard for low-cost and low-power small form factors to connect multiple devices such as computers, mobile phones, PDAs, printers, LAN and WANs to each other. It provides fast and reliable digital transmission of both voice and data over 2.4GHz ISM open band. AmbiCom's Bluetooth wireless technology offers the following features:

- **Cable Replacement**
  Establishes a wireless Personal Area Network with other Bluetooth devices within the operating range, without the hassles of wiring and configuration.
- **Ad-hoc Networking**
  Supports both data and voice between two or more devices wirelessly.
- **Secure Wireless Connections**
  Built-in authentication, encryption and authorization applications ensure secure information access and transmission.
- **LAN and WAN Access Points**
  LAN and WAN access such as Web, email, E-commerce, and VPN.

# 2. Product Features

With AmbiCom's Bluetooth CompactFalsh Card with PCMCIA adapter, USB Adapter or UART Adapter and Bluetooth software, you can establish wireless connections between your computer and other Bluetooth wireless devices. The features include:

- Device Discovery
- Name Discovery
- Service Discovery
- File Transfer
- Object Push for files, objects and business cards
- Blue Chat that allows users to instantly send and receive text messages
- Internet Access through Dial-Up Networking
- Connection to LAN through LAN Access Point

AmbiCom provides Bluetooth Neighborhood software application that integrates all of the above features into one single application.

# 3. Release Notes

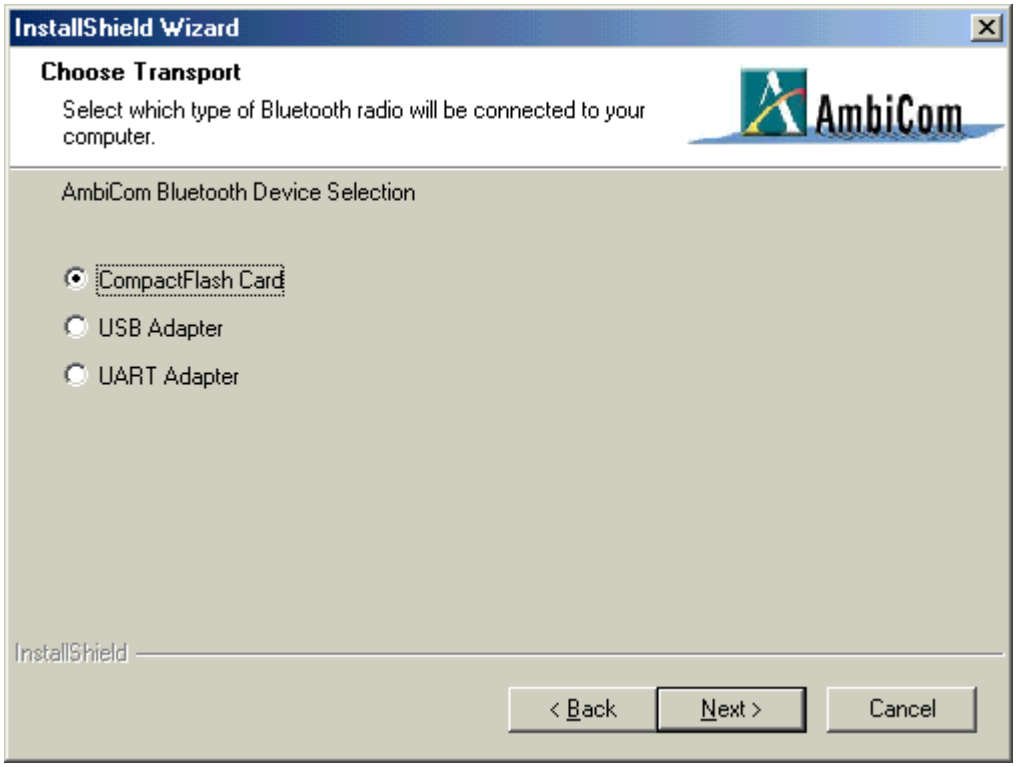
- We support Windows ME on this release
- This release supports the AmbiCom Bluetooth CompactFlash, USB Dongle, USB Adapter, and UART Adapter.
- SIG 1.1 compliant Bluetooth protocol stack.

- We support Device Discovery, Name Discovery, Service Discovery, Pairing, Object Push, File Transfer, Dial-Up and LAN access Networking in this release.
- Audio is not supported in this release.
- When two devices are performing Device Discovery at the same time, they will not discover each other. Please do not run Bluetooth Neighborhood at the same time.

# 4. Installation Procedures for Windows ME

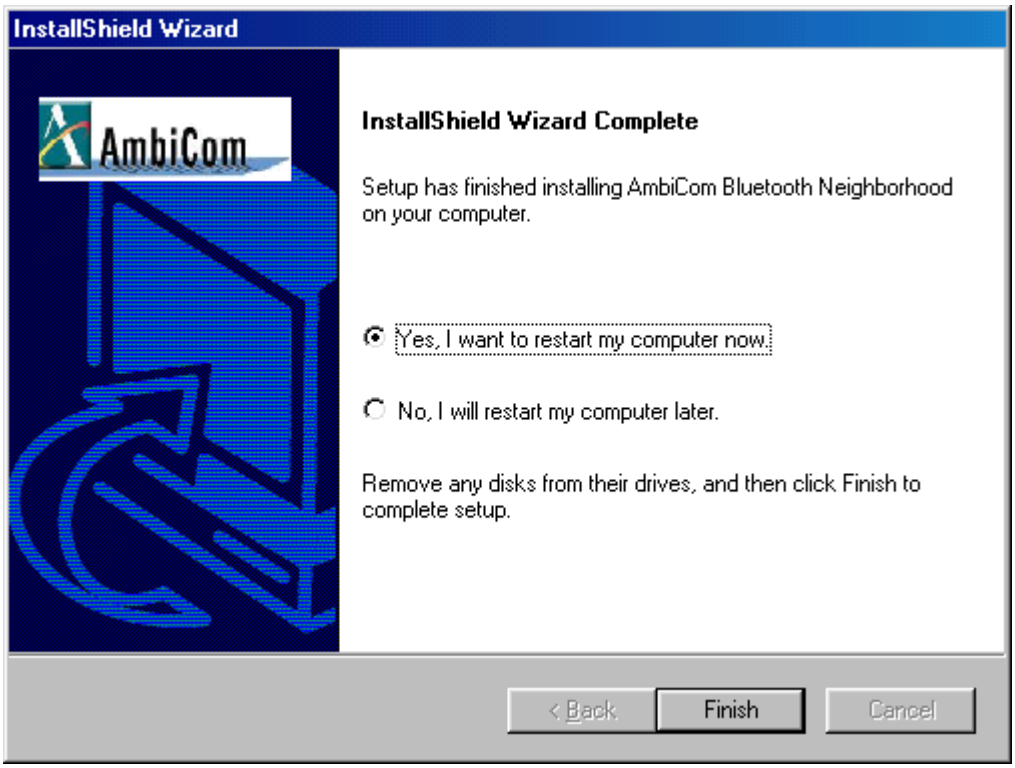
**Important Notes: Make sure you have installed the Dcom 98.exe from Microsoft on your WinME system before you install AmbiCom Bluetooth software.**

1. Insert the AmbiCom Bluetooth Installation CD into your laptop CD-ROM drive.
2. Run AmbiCom Bluetooth ***Setup.exe*** and follow the on-screen instruction to install the application program.
3. The following window will appear at the start of the installation process:




4. Choose the device you have and click **Next** to continue. Simply follow the on-screen instructions. At the end of the installation, the system will show several windows to install some devices. This is because the system is installing some virtual devices for the software to use. Please be patient and wait until the system finishes.

5. After the system is finished installing the virtual devices, please click **Finish** to reboot your system.



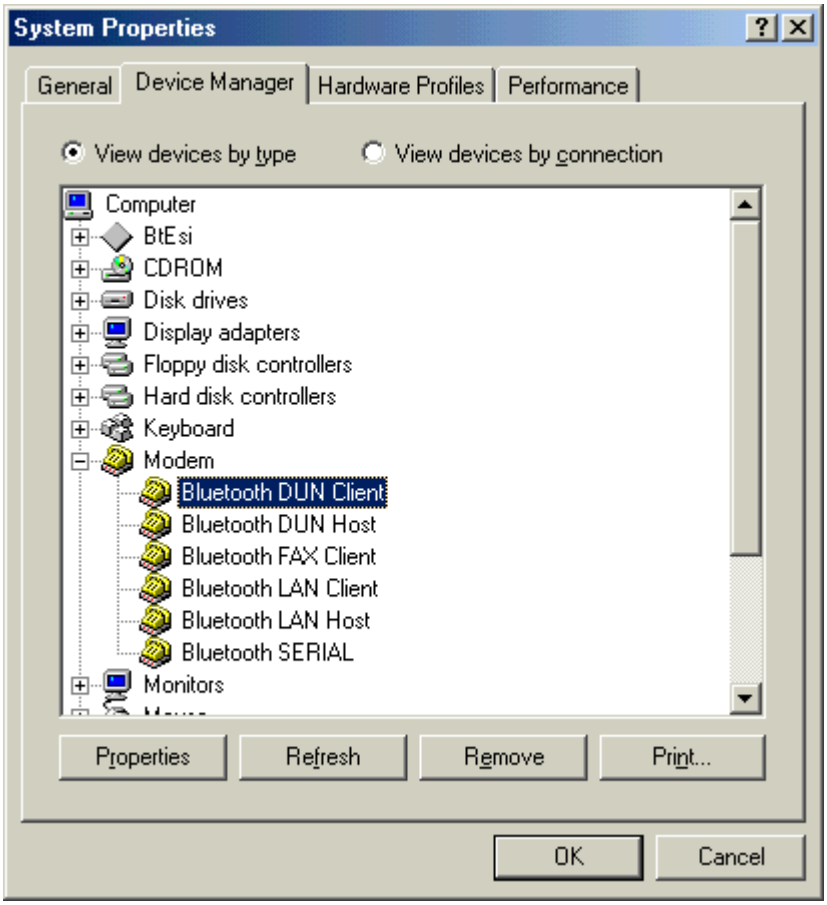

6. After you have restarted your laptop, please connect your ***AmbiCom Bluetooth CompactFlash, USB or UART Adapter to*** your laptop. The system will automatically install the driver for you. After the system installed the driver you need reboot your system. Now you are ready to execute Object Push, File Transfer and Blue Chat by using Bluetooth Neighborhood. Please see the section ***How to Run Bluetooth Neighborhood*** and skip the following steps. If you want to use the Dial-up Networking and LAN Access, please observe the following steps.

## ***Installation Procedures for Dial-Up Networking***

If you have a Bluetooth phone/modem, we recommend that you continue installing the corresponding components.

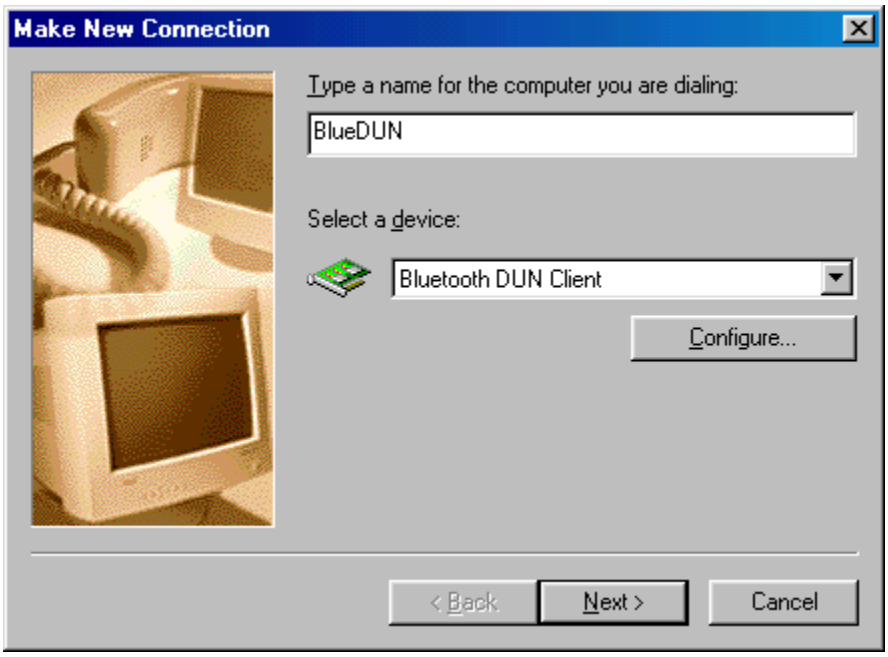
Note:

During the software installation, you will see several modems installed in your system. You can go to **Device Manager**, click **Modem** to view all the modems. For Dial-Up and LAN Access networking, we will use those modems to set up.

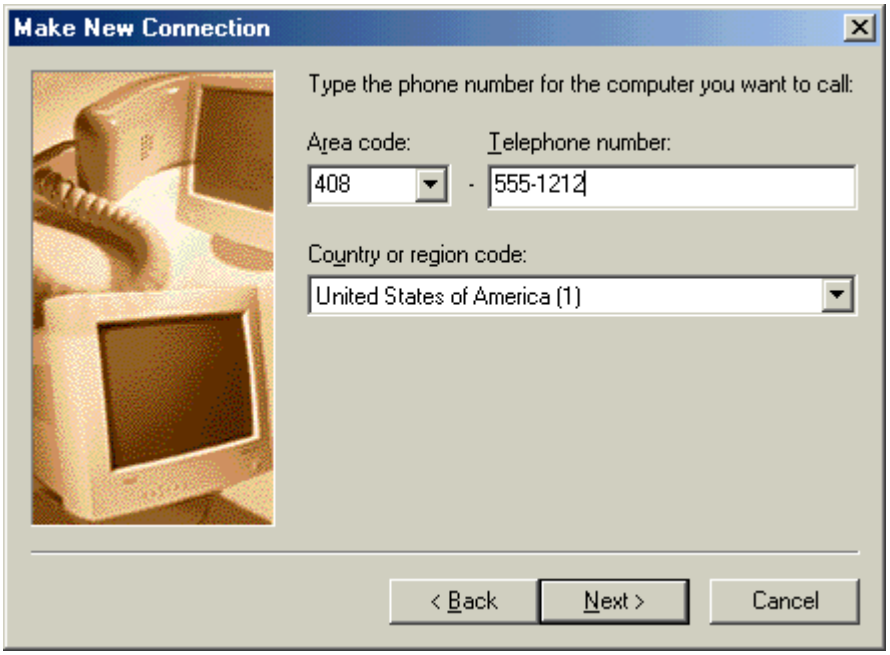



1. From **Control Panel**, go to **Dial-up Networking** and **create a New Connection** for Bluetooth Dial-Up Networking**.** Following the on-screen instructions to set up a connection for the Bluetooth Dial-up Networking. During the setup, the system will ask you to select a modem for dial-up, please select the modem ***Bluetooth DUN Client***. Click Next.

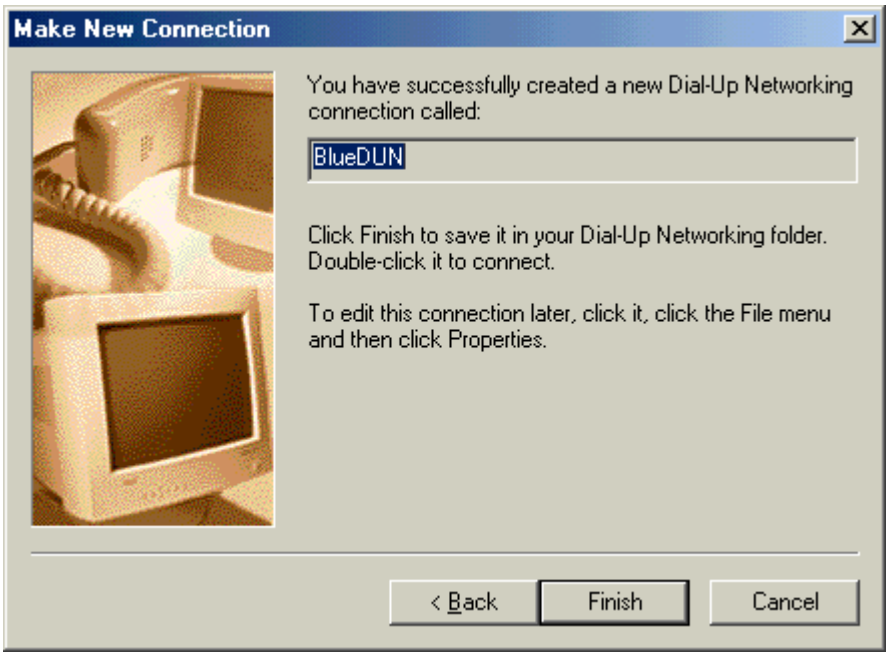
2. Click Next.




3. Click Next.



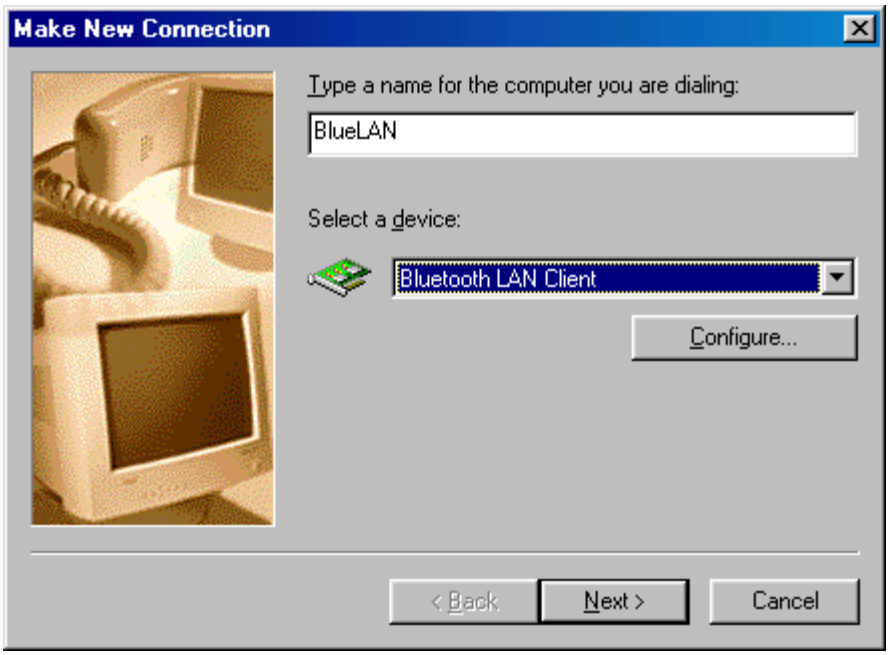

4. Click Finish.




Follow the on-screen instructions to complete the setup.

## ***Installation Procedures for LAN Access***

1. For LAN Access, the installation procedure is almost identical **to Dial-Up networking**. The only difference is under ***Make New Connection*** where you should select ***Bluetooth LAN Client*.**

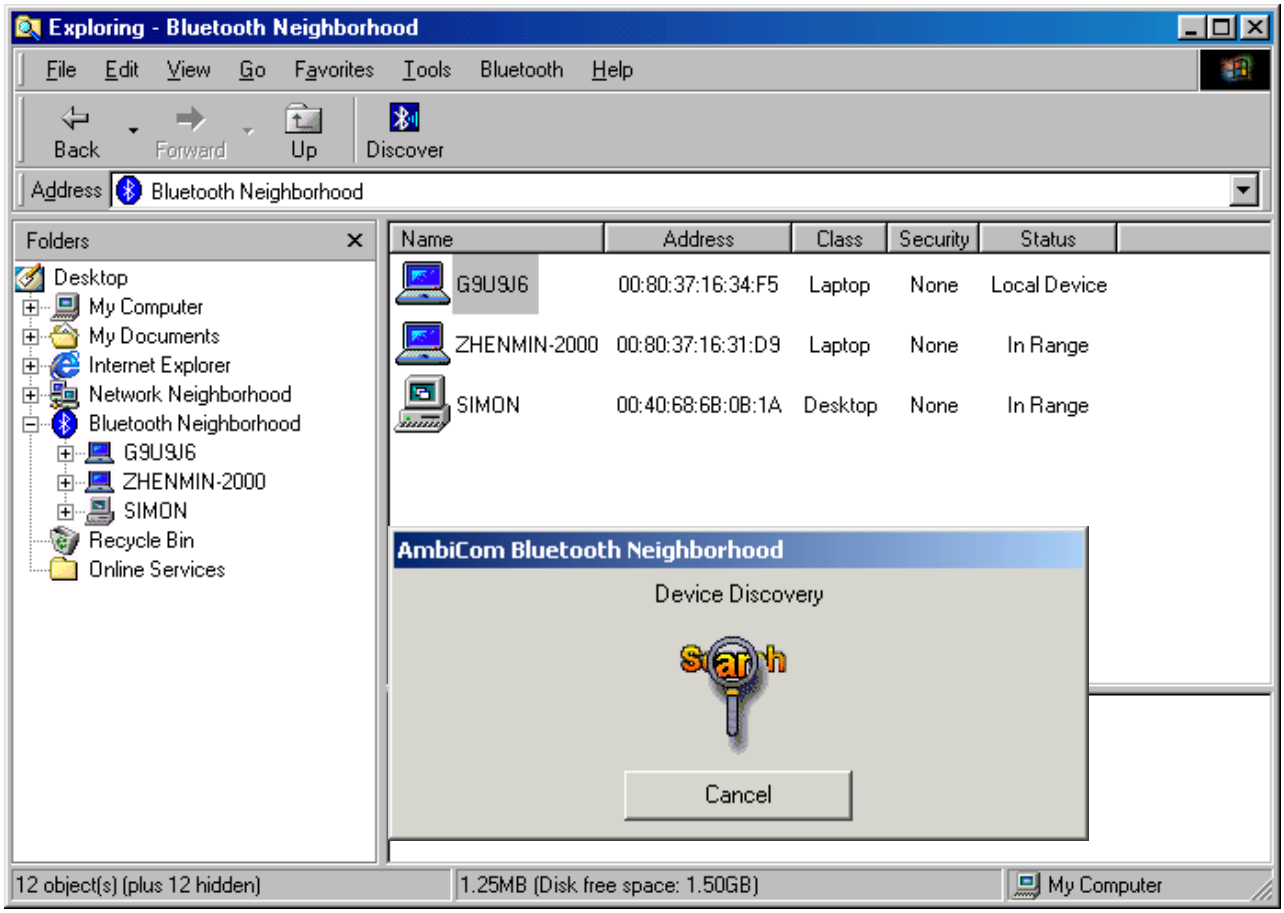



Click **Next** to continue the installation.

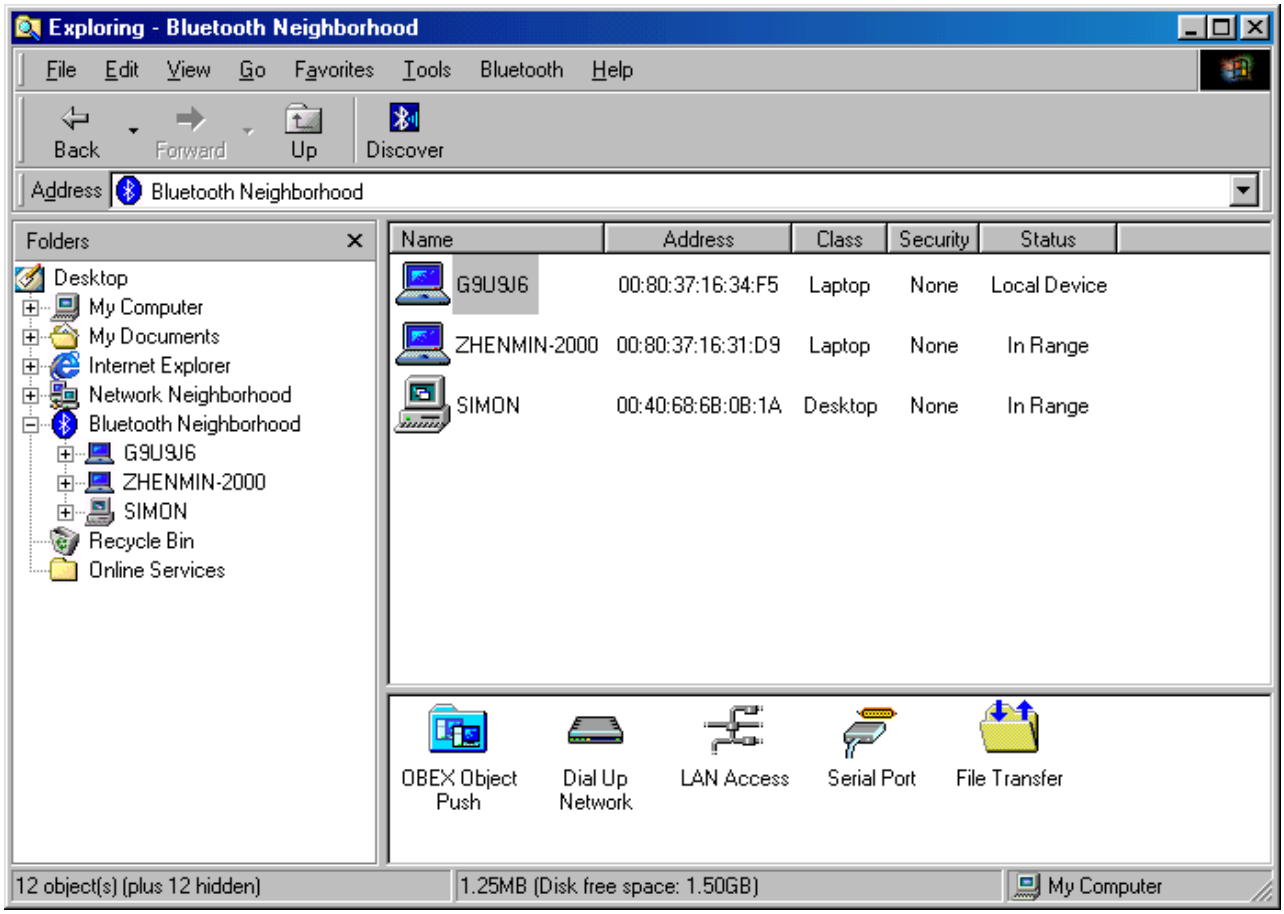
# 5. How to Run Bluetooth Neighborhood

1. You will find a Bluetooth Neighborhood shortcut on your Desktop.

2. Upon opening Windows Explorer, you will find the ***Bluetooth Neighborhood*** icon. Double-click on it and Bluetooth Neighborhood will start to run. You can see a Bluetooth Neighborhood GUI at the right-hand side of Windows Explorer. The *Device Discovery* window will appear when it finds all the Bluetooth devices within the operating range. The discovery process includes device discovery and name discovery.



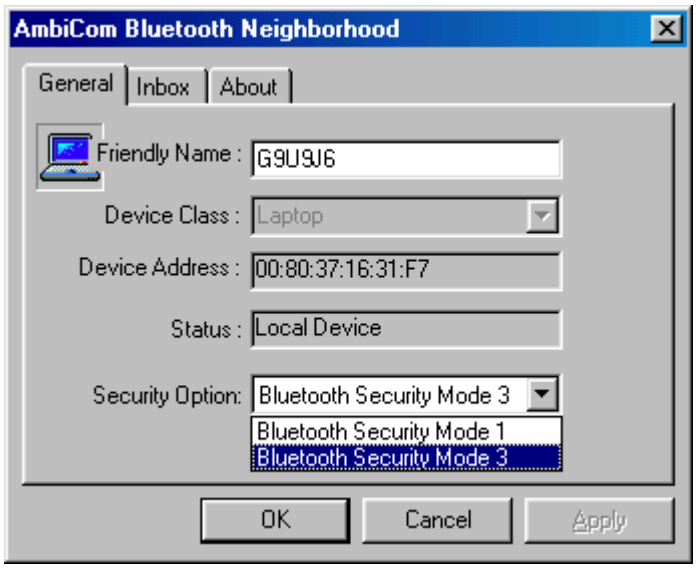
3. After finding the devices, you can click on one of the devices and its services and capabilities will be listed. In the Device List Window (at the right of Windows Explorer), the first device is always the local device.



## Security Mode

1. Our software provides two levels of security mode: security level 1 and security level 3. At security level 3, a PIN code will be required when other Bluetooth enabled devices try to connect with you. The PIN code entered needs to be the exact same one entered on both machines. This will give you more security. If you set your PC in security level 1, PIN codes will not be needed.

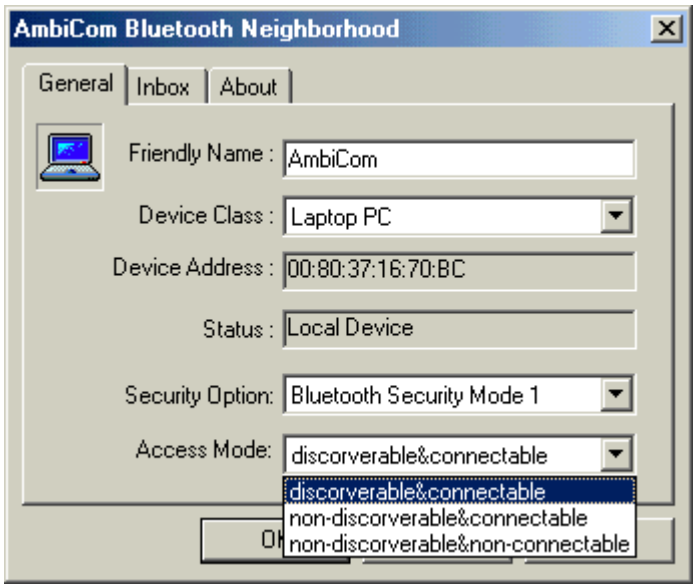
2. You can go to the Bluetooth Neighborhood to set the security level. Select the local device, right-click on it and select Property. You will see the following window.



## Access Mode

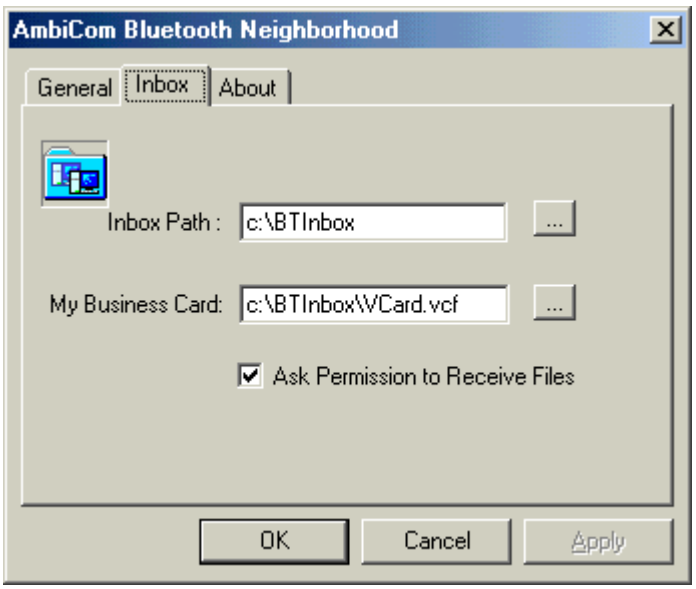
1. Our software provides three options of access mode: discoverable&connectable, non-discoverable&connectable and non-discoverable&non-connectable. At the discoverable& connectable mode, you will allow other Bluetooth enabled devices to find and connect to you. At other two options, you will allow them to find you, but cannot connect to you. Or they cannot find you nor connect to you.

2. You can go to the Bluetooth Neighborhood to set the Access mode. Select the local device, right-click on it and select Property. You will see the following window.

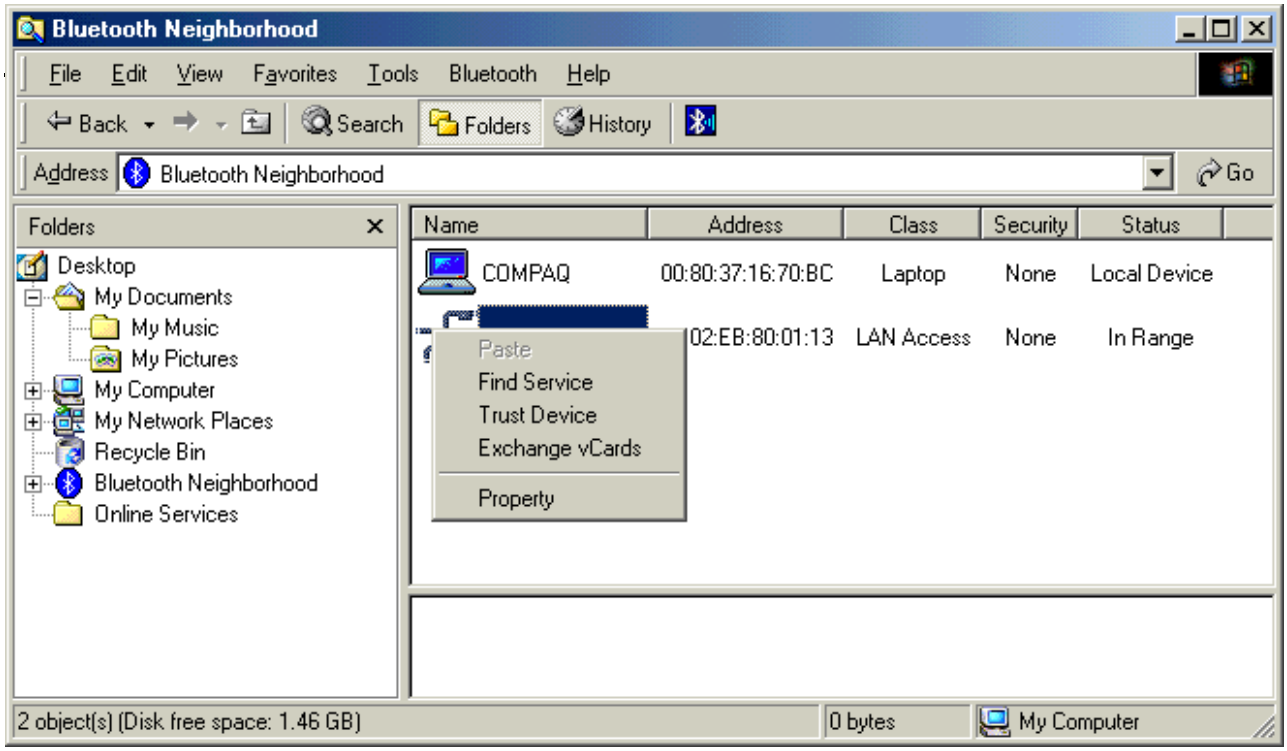


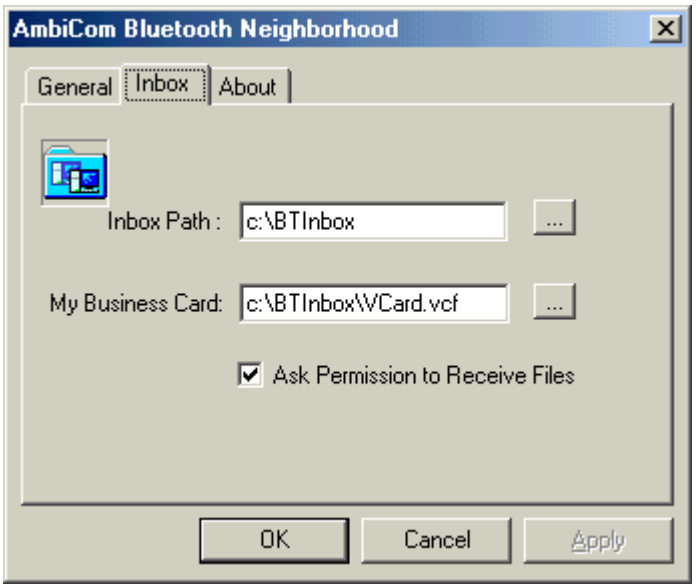
## Exchange vCards

1. When you perform Exchange vCard, you need to go to the local device's Property to set up ***My Business Card*** path first, as shown in the following window. The default path is "C:\BTInbox".

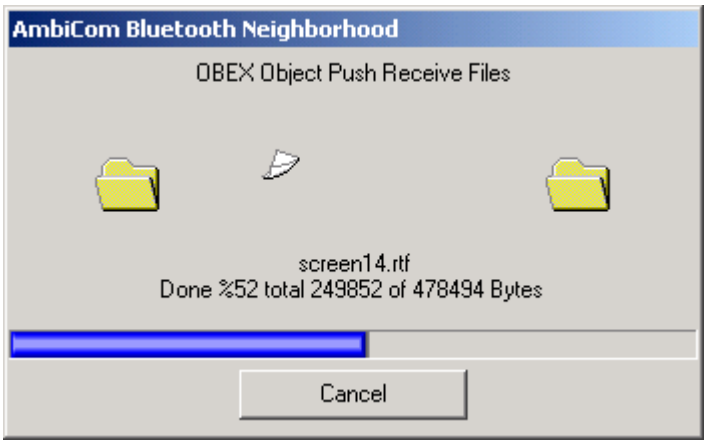



2. Now click the device that you want to exchange vCard with. You will see the following window. Click ***Exchange vCards*** and you will send your business card to the device and vice versa.



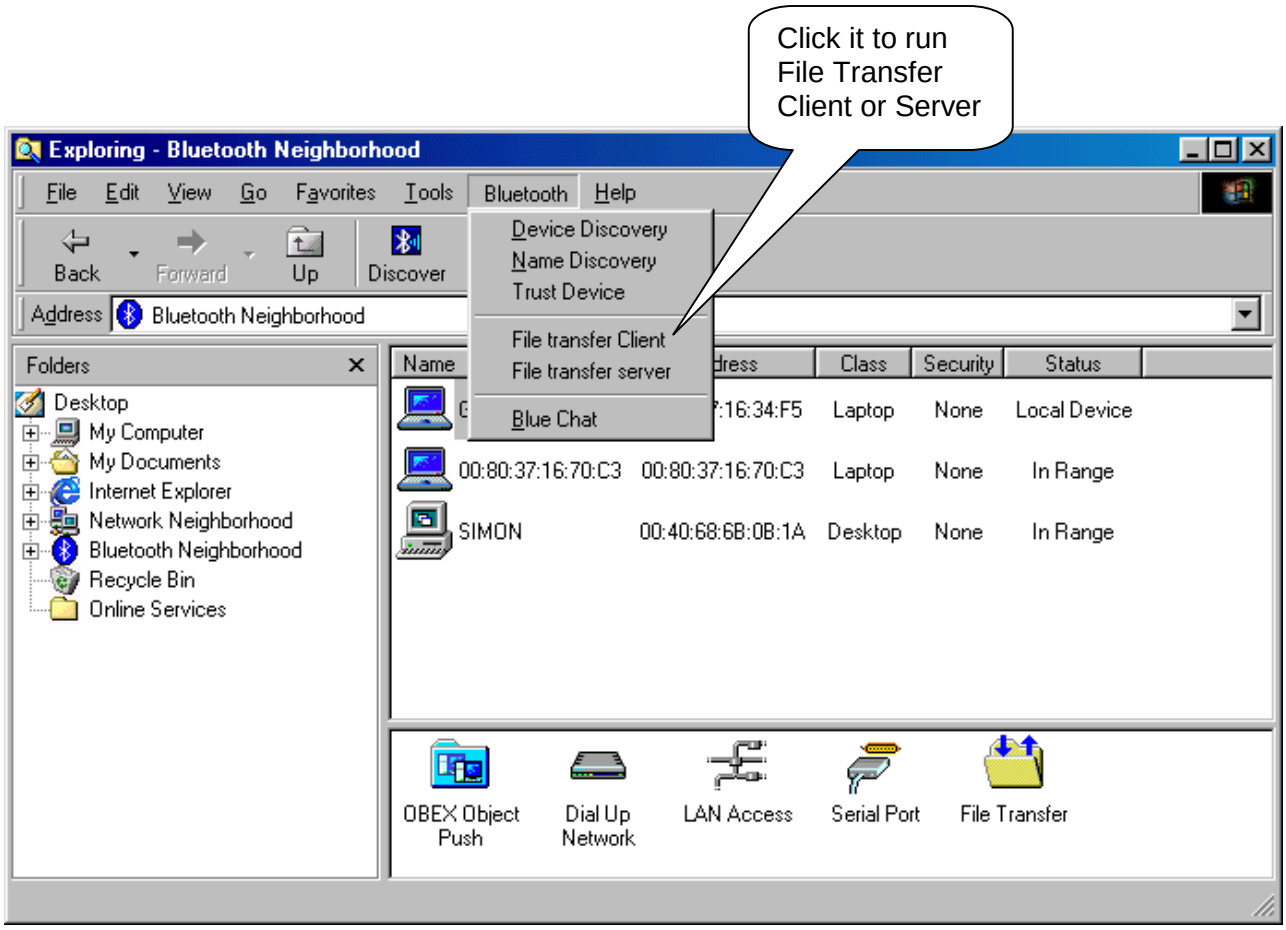


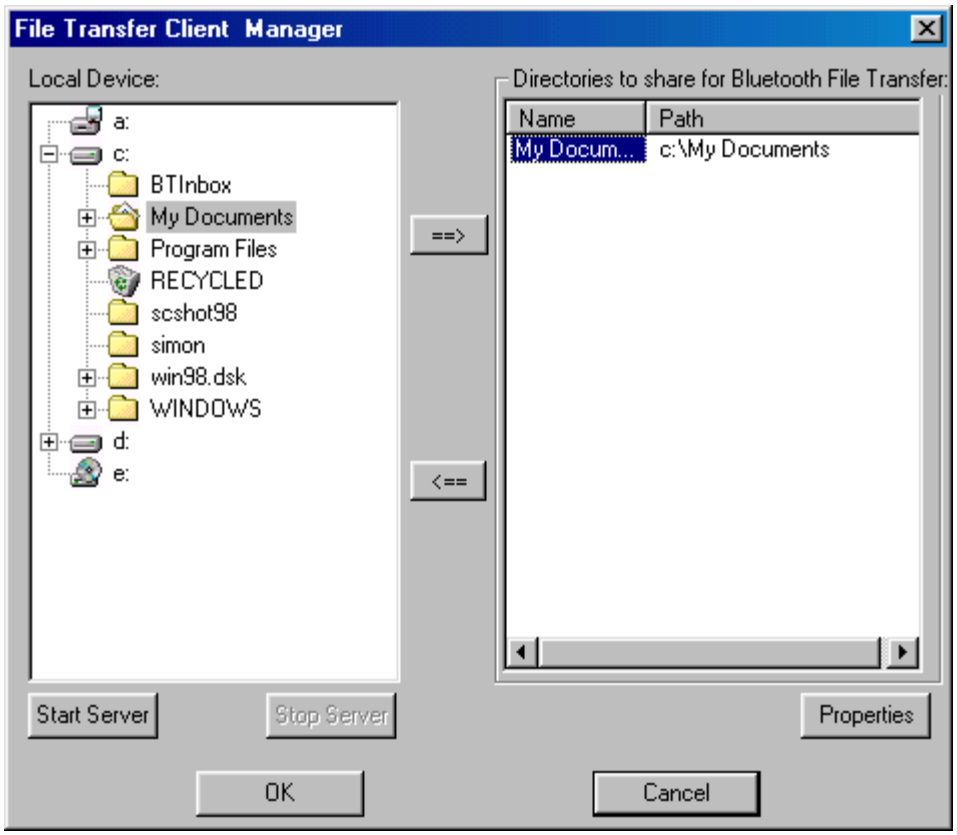

2. When you perform Object Push, simply **Drag** the file that you want to send, and **Drop** it to the Bluetooth Device that you want to receive on the left-hand side in Windows Explorer. You also can use **Copy** and **Paste** to do the object transfer between two Bluetooth devices. When you perform Object Push, the dialog box will show you the status.



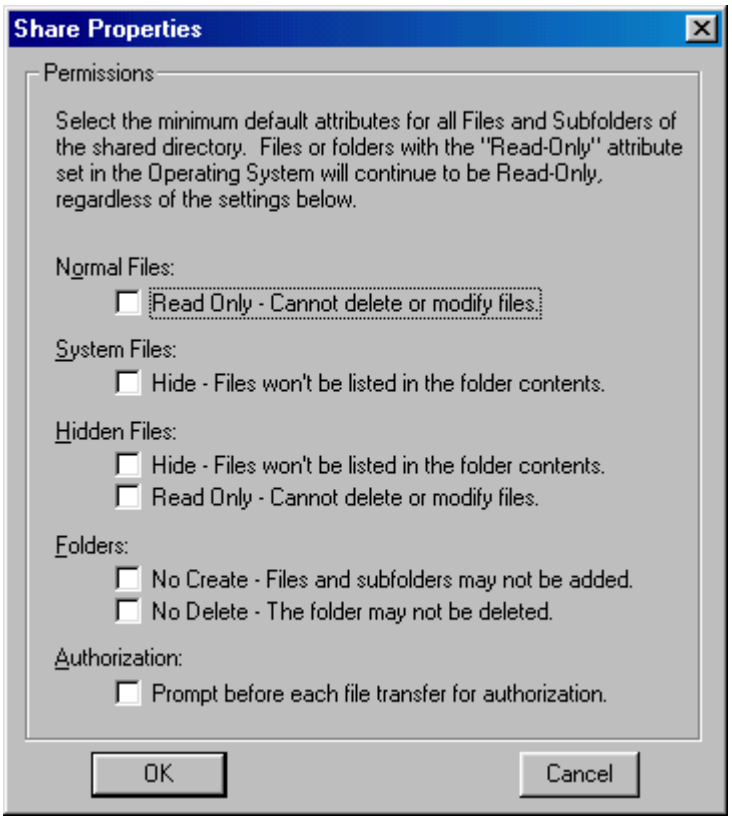
## File Transfer

1. To execute File Transfer, open Windows Explorer, select “Bluetooth” on the menu bar and click on ***File Transfer Client*** or ***File Transfer Server***. To have File transfer working on both ends, the application on the remote computer also needs to run File Transfer at the same time.



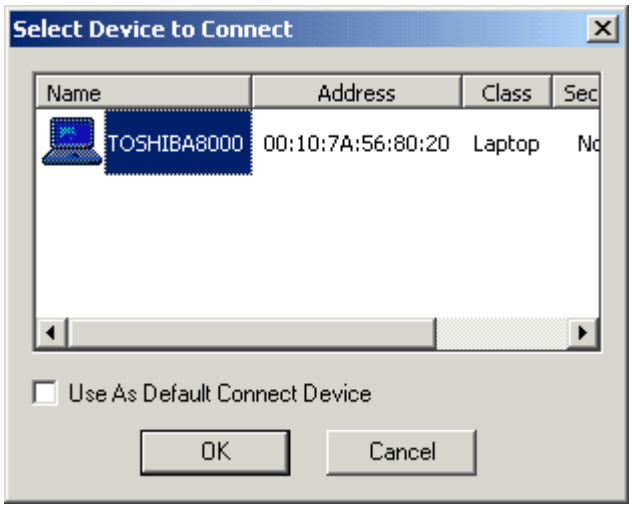



2. After you share the directory and files, you can select them and click the ***Properties*** button to configure those directory or files.

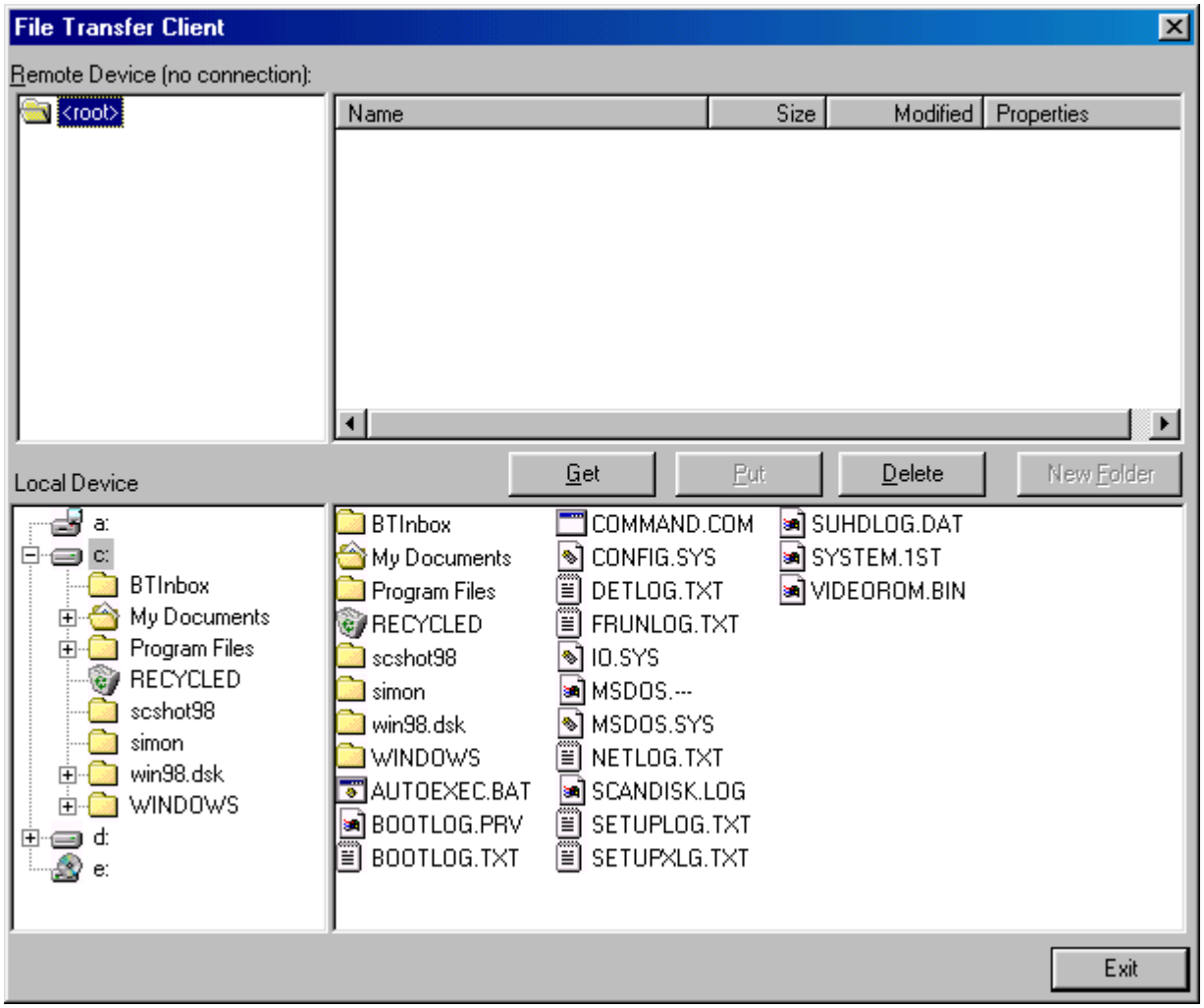



In this window, you can define the attribute of the Directory or file that you shared, give the permission for the ***File Transfer Client*** to use.

3. When you click on the ***File Transfer Client*** menu to run it, the system will show a *Select Device to Connect* window for to chose which device you want to connect.

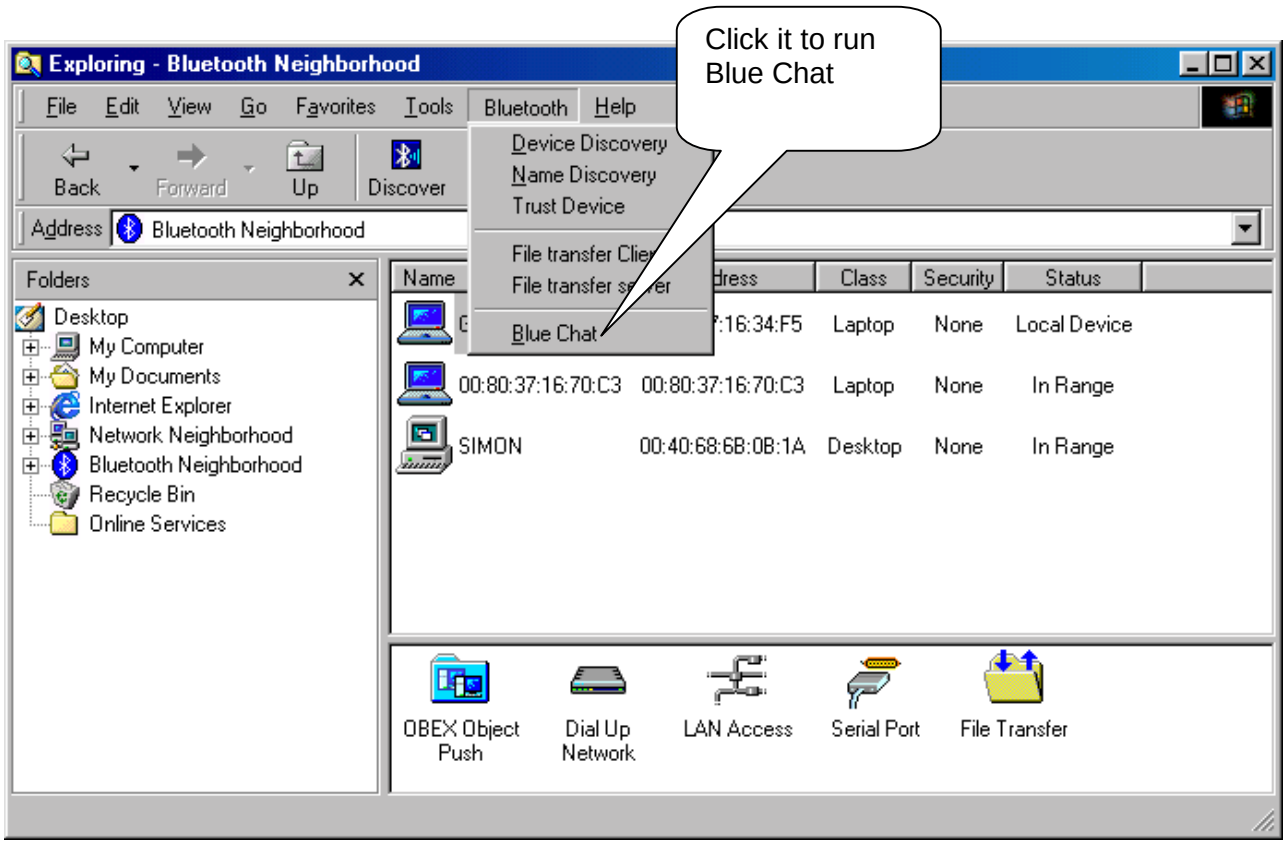


4. After you select the remote device that runs the File Transfer Server, the following window will appear. You will see the directory and file shared by the File Transfer Server. You can get file or directory from the File Transfer Server or place file or directory to the File Transfer Server. Also, you can create new folder in the Shared Directory from File Transfer Server.

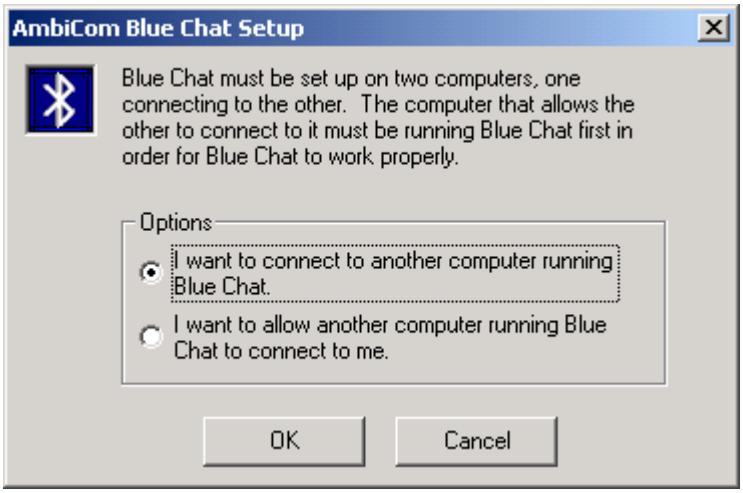


## Blue Chat

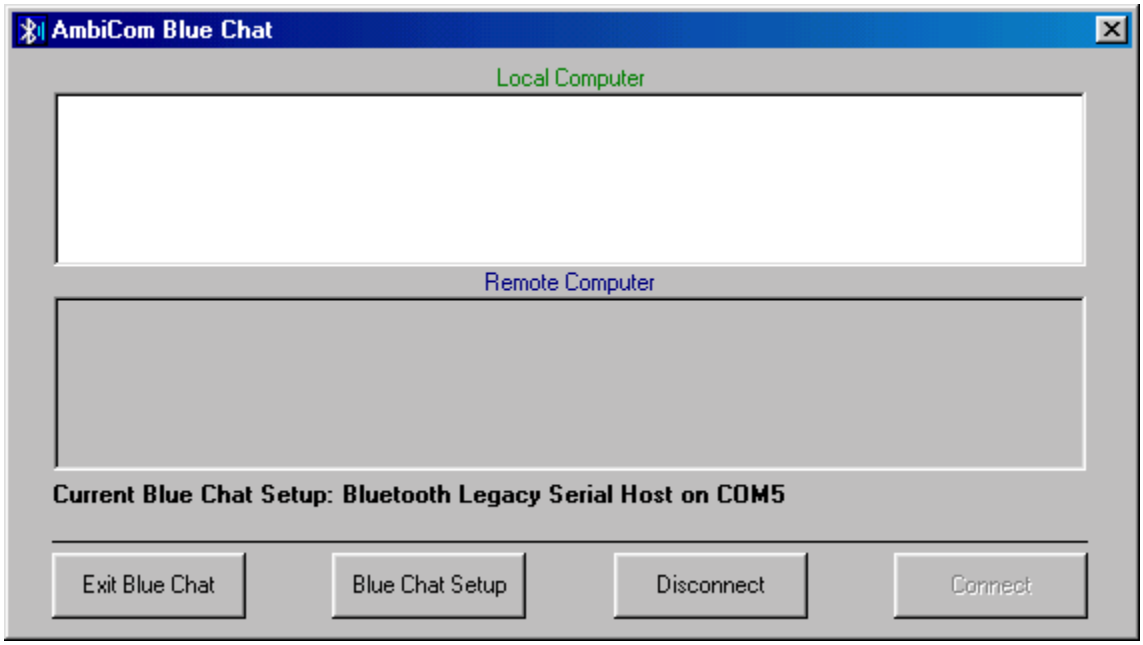
1. To execute Blue Chat, open Windows Explorer, select “Bluetooth” on the menu bar and click on “Blue Chat.” To have Blue Chat working on both ends, the application on the remote computer also needs to run Blue Chat at the same time.



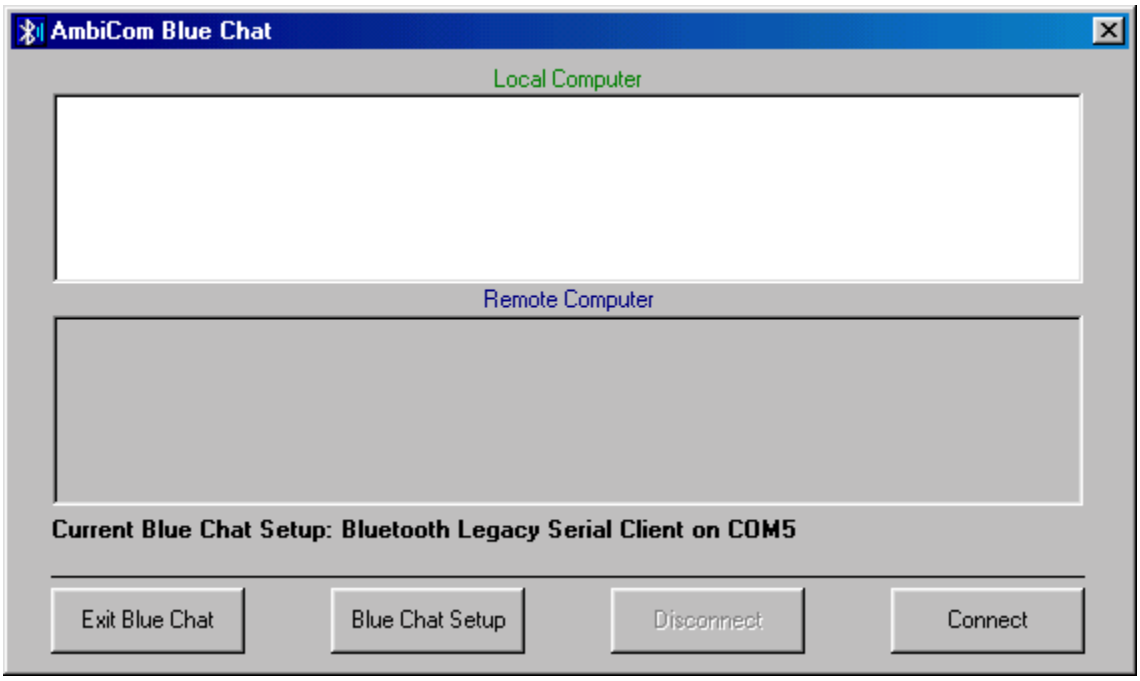
2. After selecting ***Blue Chat***, the following window will appear, prompting you to choose the direction of the connection setup.



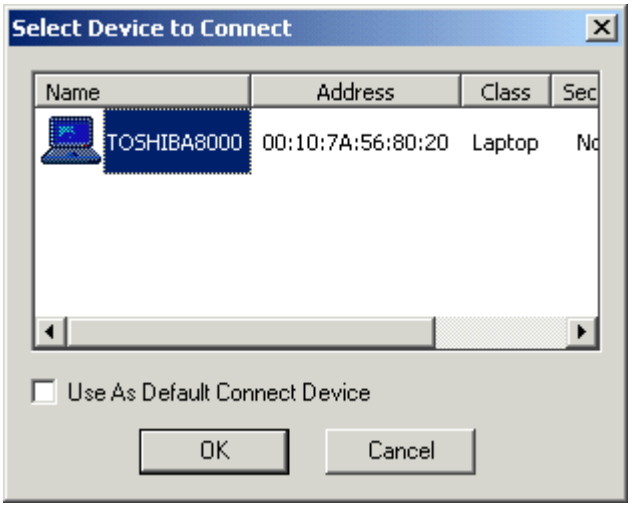

3. In the above window, two options are shown. You can either choose you want to connect to someone or wait for connection. If you want other people to communicate with you, simply select the lower checkbox, click **OK** and the following window will appear.



4. If you want to connect to a remote device, select the first option, ***I want to connect to another computer running Blue Chat*** and click **OK** to see the following window. Click **Connect** to continue.




5. The system will show the following window in which you can select which device you wish to connect. Upon selecting the desired device, click **OK** to establish the connection.




6. Now the two Bluetooth devices can connect to each other. You can type any text message in the Local Computer dialogue window and see the corresponding message from the Remote Computer as well.

# Dial-Up Networking

Note:

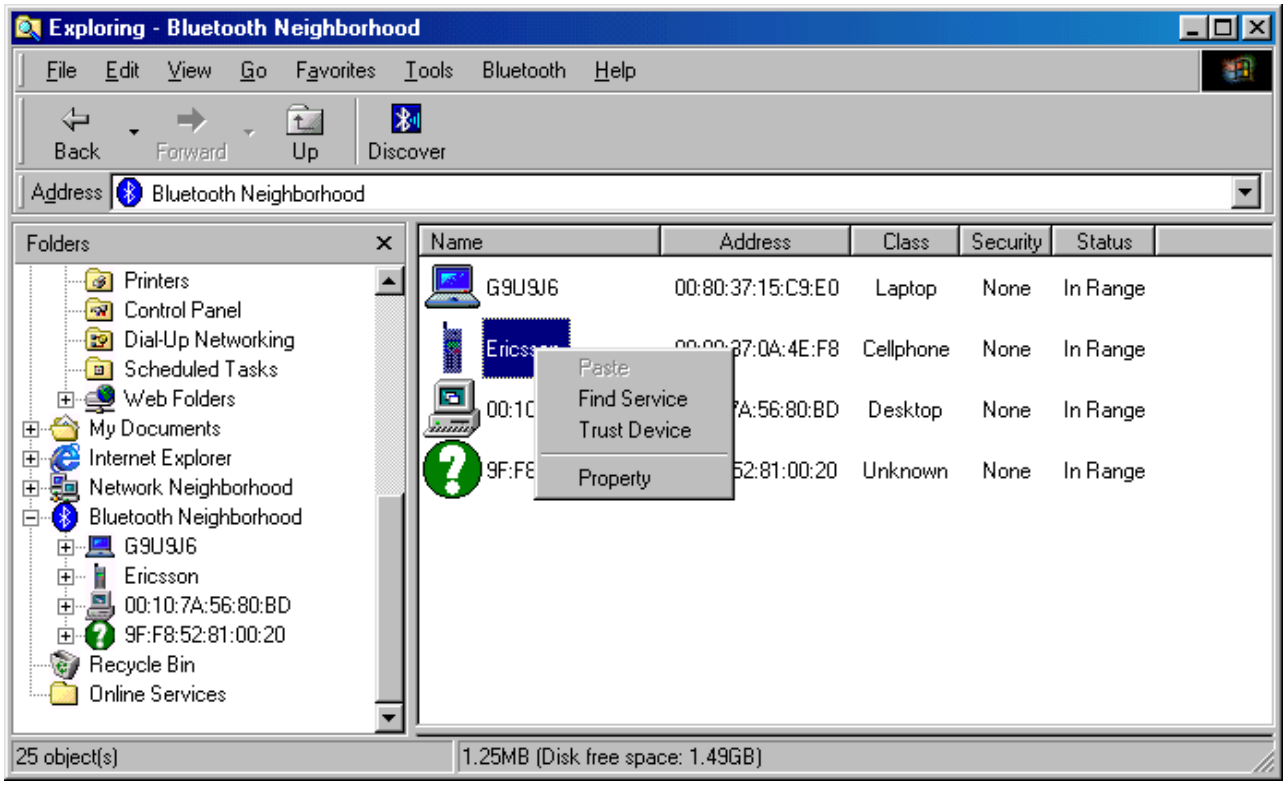
The requirement to set up Dial-up Networking is to provide the Internet Service Provider information (ISP); user name, password, and the phone number.

For some Bluetooth enabled devices such as **Cellular Phones**, before you perform Dial-up, you need to execute ***Trust Device*** first. The following window shows you how to do so. For phone configuration, you need set it to the ***Ready to pair*** mode. You can refer the phone manual. After you paired your phone with the Bluetooth device, the software will remember the trust profile. You don't need to do this every time when you execute the Dial-up networking.

***On Nokia Cell Phone***
You have to set the security level 3 in the Bluetooth Neighborhood. Choose "Local Device", click the right button of your mouse, and then select "Property". Select under ***security option*** "***Bluetooth Security Mode 3***" and then follow the wizard manual.

***On Ericsson Cell Phone***
Select menu Extra > Bluetooth> Paired devices > Add devices > Phone Accepts
Click Yes to assign the phone name and will show ***Ready to pair*** mode

***On the computer***
After discover the phone, right click on the mouse and choose Trust Device.
Insert the password.



***On Ericsson Phone***

- Click Yes on the phone to Add to paired devices > insert the Password click yes

***On Computer***

- Insert the PIN number in the computer (the same that you inserted the password on the phone)

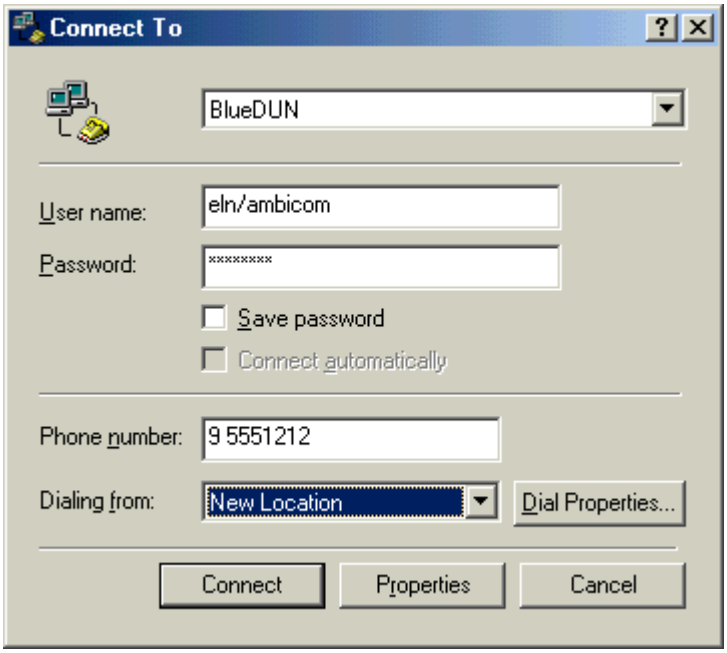
***On Phone***

- Show Pairing successful

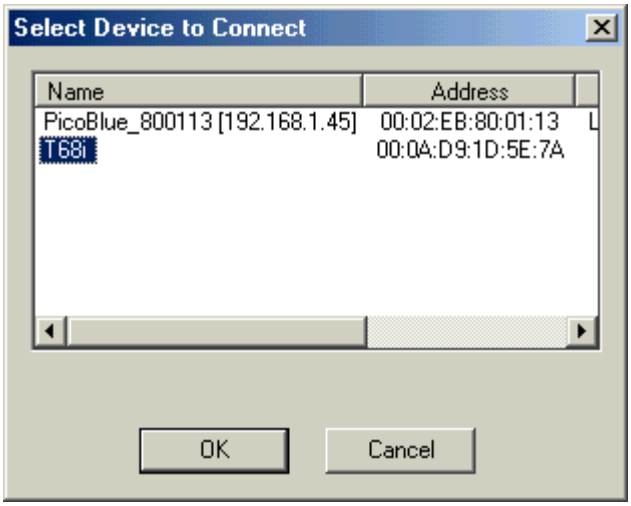
***On Computer***

Change the status to **Trusted** in the Bluetooth Neighborhood

1. After you have created a new connection, run AmbiCom Bluetooth Neighborhood application first. It will find all the Bluetooth devices within the range. If you find devices such as Bluetooth phone/modem or Dial-Up Networking Access Point, you can proceed to establish the connection you just created. The system will show the following window. Fill in the necessary information and click **Dial**.




2. The system will now show the following window in which you can select the Bluetooth device you would like to connect. Click **OK** to establish an Internet connection to an ISP.




3. In the above window, select T68 (The Phone name) and click OK to dial to ISP.

## LAN Access

The setup procedures for LAN Access are almost identical to Dial-Up Networking. Please go to Dial-up Networking to establish a new connection. It is not necessary to provide phone number, user name and password to establish the connection.

# 6. Uninstalling AmbiCom's Bluetooth Neighborhood

1. Please click **Start**, go to **Programs**, click **AmbiCom Bluetooth Neighborhood**, select **Uninstall Bluetooth Neighborhood** and follow the on-screen instructions.

2. After rebooting your system, please go to **Device Manager** to find **BtEsi** and remove ***AmbiCom Bluetooth Kernel***.

# 7. Technical Support

Please visit AmbiCom Web site http://www.ambicom.com for online technical support. If you wish to speak to our support staff, please call 1-408-562-0168.

# AmbiCom Bluetooth CompactFlash Card
# BT2000-CF

## User Manual for Pocket PC

**Dec 02, 2002**

# 1.0 Product Description

With the AmbiCom Bluetooth CompactFlash Card and Bluetooth software, you can establish wireless links between your Pocket PC and other Bluetooth wireless devices. Currently, we provide the following services through the Blue Neighbors and Phone Manager:

- Device Discovery
- Service Discovery
- Name Discovery
- Object Push (Transfer file between two Bluetooth enabled devices)
- Dial-Up Networking
- LAN Access Networking
- Phone Manager

This product can work with Compaq iPAQ, HP Jornada and CASIO CASSIOPEIA running on Windows CE 3.0.

# 2.0 Installation Procedure

1. You should first install Microsoft ActiveSync software on your Host PC.
2. Establish a partnership between your PDA and host PC through a serial or USB connection.
3. Run “AmbiCom Blue Neighbors for Windows CE.exe” from AmbiCom Bluetooth software CD and install all the Bluetooth components on to your PDA.
4. After you installed the software, reset your PDA.

## 2.1 Add the AmbiCom Blue Neighbors to your “Today” list.

After installing the software click Start->Today. Verify whether a banner is added for AmbiCom Bluetooth. If not, click on “Today” to get a setting page. From there, make a check to AmbiCom Blue Neighbors. An “AmbiCom Bluetooth” banner will be added to your “Today” list.

## 2.2 Hot Swapping feature

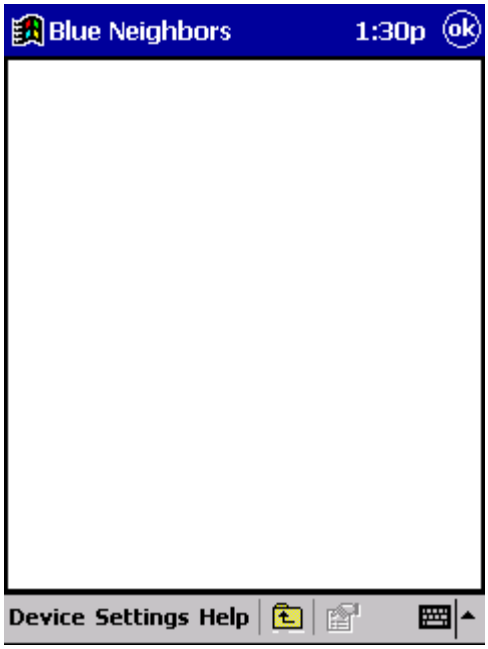
AmbiCom Bluetooth CF Card supports hot swapping feature. However, it is recommended to exit the Blue Neighbor program before removing the CF card from the slot.

# 3.0 How to use Blue Neighbors

## 3.1 Open Blue Neighbors

1. After you install the software, insert your AmbiCom Bluetooth CF Card into the PCMCIA slot. **Double click or click and hold "AmbiCom Bluetooth" banner** in "Today" list. You should get a pop up window. Select "Blue Neighbors".
2. Using Blue Neighbors, you can perform ObjectPush, Device Discovery, Service Discovery, Name Discovery and Pairing.
3. For the Dial-Up and LAN Access functions, see "Using Dial Up Networking" and "Using LAN Access Networking" for further information.

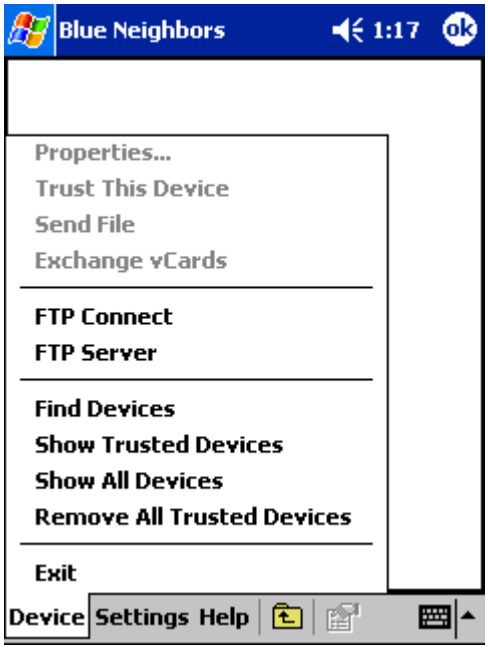
When you open the Blue Neighbors, you will see the following window.




Select "Device" option to get more options or select "Settings" to set the Blue Neighbors. How to set the various features is explained on Section 3.2.

## 3.2 Discovering and Pairing Devices

When you select “Device” option in the tool bar, you will get a pop up menu as shown in the picture

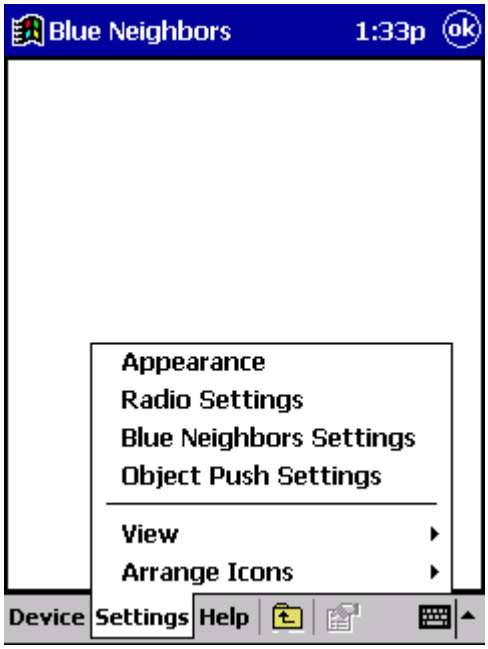



Click “Find Devices” to discover all the other devices around you. After discovering devices, you can do pairing as follows:

- Double click a device that you want to pair with.
- Click “Trust This Device” for pairing. If you are pairing with Ericsson cell phone, make sure that the phone you are trying to pair with is in pairing mode (See “How to use Dial-up Networking” in the following section for how to set Ericsson phone in pairing mode).
- When asked, enter the PIN key.
- You can click on “Device->Show Trusted Devices” to get the devices that are already paired and trusted earlier.
- If you want to see all the devices, which are discovered, click “Show All Devices”. If you want to see only trusted devices click “Device->Show Trusted Devices”.

## 3.3 Change default settings

Select “Setting” option in the tool bar to get a following pop up menu.




### 3.3.1 Appearance

This option allows you to set your device name and device type.

### 3.3.2 Radio Settings

This option allows you to set the security mode. You can set either security level 1 or security level 3. Security level 1 means no security. It is in-secure connection. Devices will not do any security procedures while connecting each other. Security level 3 means link level security. User will be authenticated during the connection. While establishing connection, device will ask the passkey (PIN key). If a same number is entered in both devices then authentication will complete successfully and connection continues or else connection will not establish.

### 3.3.3 Blue Neighbors Setting

If you want to retrieve the name of the device in range enable “Automatically retrieve name of devices in range” by checking the check box.

### 3.3.4 Object Push Setting

This option allows you to set the Inbox path and name of the default vCard. Inbox path is the path to directory where received object will be stored. VCard is the name of the object, which will send to selected device when you select “Device->Exchange vCard”.

### 3.3.5 View

This option allows you to set the icon type.

### 3.3.6 Arrange icons

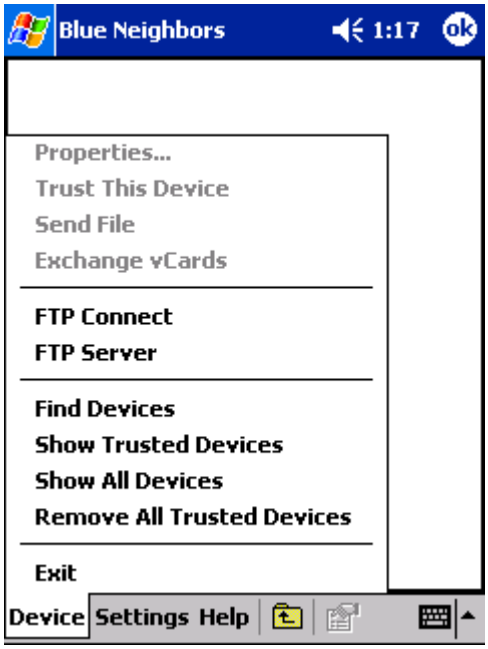
This option allows you to arrange the icons depending on name, address or by type.

## 3.4 Send an object

After discovering the devices, select a device for which you want to send an object. Now click Device->Send file. It will open a window in which you can select a file to send.

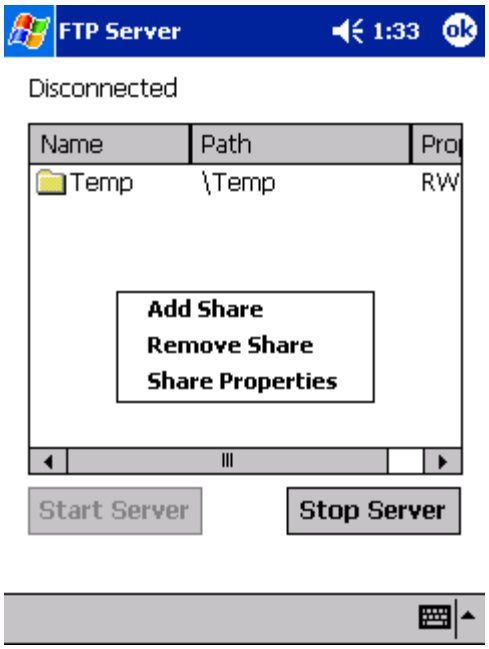
# 4.0 Using File Transfer

When you select “Device” option in the tool bar, you will get a pop up menu as shown in the picture

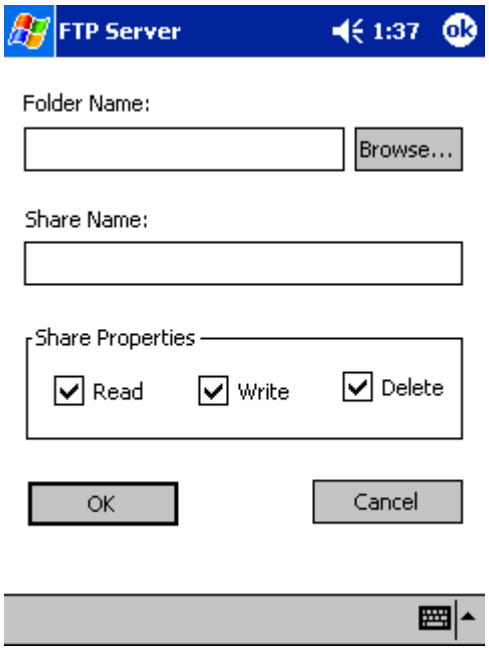



## 4.1 File Transfer Sever

When you click the **FTP Server** on the above window, the following window will show up. Use your pen click and hold the screen, the menu will pop up. You can add the new share directory or remove it. you also can configure the shared directory. After you done it, you just simply click the “**Start Server**” button, the FTP server will start running.

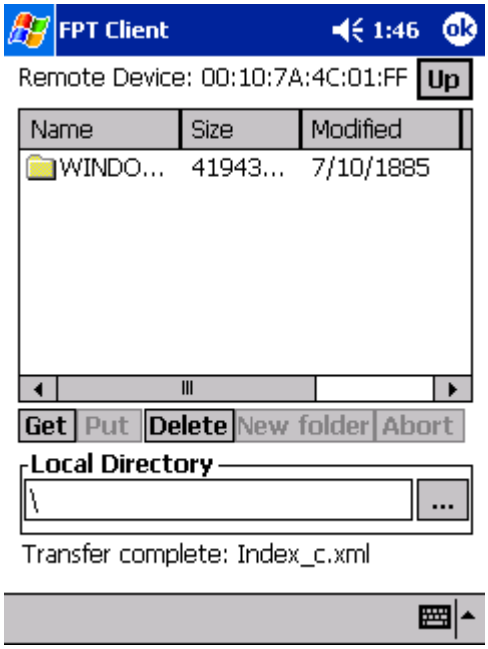



When you click the “Add Share”, the following window will pop up to let you add the new share directory. You can give the different permission, also you can give the different name for your shared directory.



## 4.2 File Transfer Client

Double click on the Bluetooth device that is displayed after the discovery. A pop up menu will show up. you click the **FTP Connect** on the screen, the following window will show up.




You will see the shared directory from the FTP server. You also can configure the directory that you send or receive file by setting the “Local Directory”.

# 5.0 Using Dial-up Networking

Double click on any Bluetooth device that is displayed after the discovery. A pop up menu will show all the services support by that device. If the device supports dial-up networking, choose that service.

## 5.1 Device Configuration

1. Insert AmbiCom CF Card into PDA.
2. Create a new modem connection in your Windows CE device

    - Find the prompt "To create a new modem connection, go to Modem Settings." in the connection group, and Click the "Modem".
    - Select "New Connection..."
    - Enter a name for your connection.
    - Select " AmbiCom Bluetooth Modem " for your dialup modem. (***DO NOT select AmbiCom_inc-BT2000E***)
    - Use the default baud rate in your system.
    - Click "Next"
    - Enter "Country code", "Area code" and "Phone number".
    - Click "Next"
    - Uncheck the box "Wait for dial tone before dialing".
    - Click "Finish" to complete your configuration.

## 5.2 Device Pairing with Ericsson Cell Phone

1. On Phone
    - Select menu "Extras"
    - Select "Bluetooth"
    - Select "Paired devices"
    - Select "Add Device"
    - Select "Phone accepts"
2. On PDA
   If you are pairing with any device other than Ericsson cell phone, refer to section "**How to discover other devices and pairing with them?**" If you are pairing with the Ericsson cell phone then you can either use the wizard, which is easier or follow the below explained guidelines. Usage of the wizard is explained later.
    - Double click AmbiCom Bluetooth panel in "Today" window. Click "Blue Neighbors".
    - Find the Bluetooth devices around it
    - Double click Ericsson cell phone with which you want to do pairing.
    - Select "Trust this Device" in pop-up Menu.

3. Enter passkey on the phone first and then enter the same passkey on the PDA after the dialog window pops up.

4. Follow instruction on the phone to save the paired device.

5. After you finish the pairing, the Blue Neighbors will remember the paired Device (i.e. the cell phone), so it is not necessary to do pairing again when you use the same phone next time.

## 5.3 Using Wizard

1. Double click or click and hold the “AmbiCom Bluetooth” banner in the “Today” list. You will get a popup menu. Select “Dial Up Setup Wizard”. You will get the window shown below.

2. Select a phone type and then click “Next”. **Currently you can use this wizard only for Ericsson cell phone.**

3. After this, you will get a window shown on the following page. Read the message in the window and have your phone ready for pairing. After this, click “Next” to continue.

***Note: If you have paired the PDA with Ericsson phone previously, delete that paired device name from your phone first. On your phone, set to "Extras -> Bluetooth -> Paired devices" and select the paired device name you want to pair again. Press 'Yes' button and select 'delete'.***

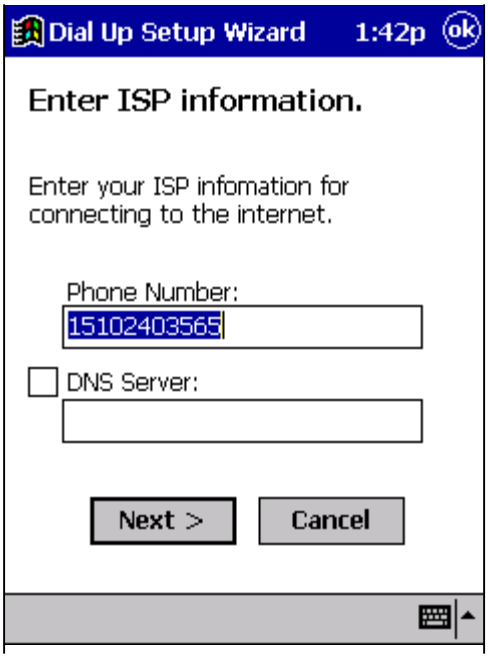
4. Your PDA will search the phone for pairing. You will get the window shown below as a result of successful search of a phone. Click "Next" to continue.

However, if the wizard gets more than one phone, it will display the following dialog box with all the nearby Bluetooth phones that are in discoverable/pairing mode.

Click on the phone you want to use and click “Connect”.

5. Your phone will ask you to enter a PIN number. Enter your PIN number there. Enter the same PIN number on your PDA. If the pairing is successful, the wizard will continue for the dial up setup procedure.

6. Enter the phone number and DNS server name (if applicable) in the window when prompt shown on the following page.




7. Click Next to get another window and complete the process.

## 5.4 Dial-up to ISP

Select the cell phone icon in the AmbiCom Bluetooth banner. It will connect you to the cell phone with which you have done pairing. After that, it will connect you to an ISP using that cell phone. If you have more than one paired phone, the last selected phone will be used.

***Note: If you have more than one paired phone on your PDA and want to select different phone, go to "Blue Neighbors" and double click on the phone you want to use and select "Dial Up".***

## 5.5 Disconnect from the Dial Up Server

If you want to disconnect, click "Today" and then click the network connection icon, which is located in the lower right corner of the screen. It will display a dialog box where you can select "Disconnect" to disconnect from the network.

# 6.0 Using LAN Access Networking

When you install the AmbiCom Blue Neighbors software, a new connection is made for the use of LAN Access point. If you want to connect to LAN Access point, select Start->Programs->Connections. You will find an icon called “AmbiCom BTLAN”. Double click this icon, it will show you the lists of devices found. Select the LAN Access Point device and then click “Connect” to connect with the LAN Access point.

Another way is to double click on any Bluetooth device that is displayed after the discovery. A pop up menu will show all the services supported by that device. If the device supports LAN Access networking, choose that service, and when you click the “Dial up” option, the system will bring up the “Connections” window. In this window, you will find an icon called “AmbiCom BTLAN”. Double click this icon, and then click “Connect” to connect to the LAN Access point.

If you are using the Pocket PC 2002, if the device supports LAN Access networking, choose that service, and when you click the “Dial up” option, the system will bring up a dialog window. You can click the “Connect” to connect to the LAN Access point.

## 6.1 Disconnect from the LAN Access Point

If you want to disconnect click “Today” first and then click the network connection icon that is located in the lower right corner of the screen. It will display a dialog box where you can select “Disconnect” to disconnect from the network.

# 7.0 Using Phone Manager

The major function of phone manager is to manage the Phone Book and SMS (Short Message Service) through PDA instead of the phone. A Bluetooth link will be established between the phone and the PDA.

**From Blue Neighbors**

1. Double click or click and hold “AmbiCom Bluetooth” banner in “Today” list.
2. Click Blue Neighbors
3. Click the “Device” option in the tool bar. Select “Find Devices” option in the pop up menu, which will discover devices in the surrounding area.
4. After discovering devices, select a particular cell phone and double click it to open a pop up menu. Make sure that the cell phone you select is already paired up with your device. Otherwise, you need to do pairing first before proceeding this section.
5. Select “Phone Manager” option to open the phone manager.

**From AmbiCom Bluetooth banner**

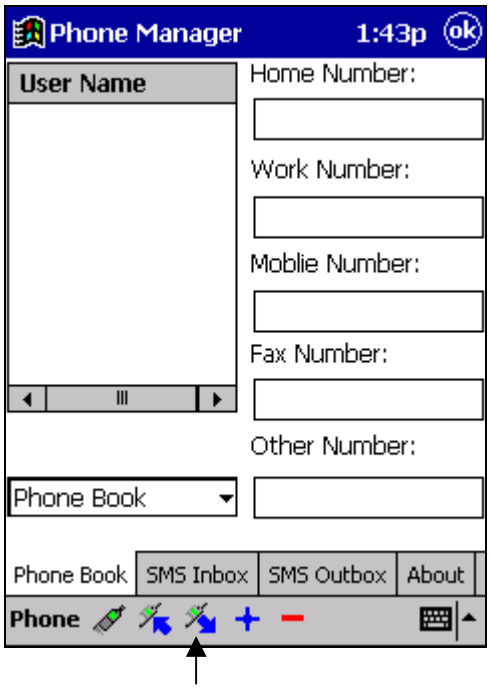
1. Double click or click and hold “AmbiCom Bluetooth” banner in “Today” list.
2. Select “Phone Manager” in the pop up window.

***Note: If you have more than one paired phone on your PDA, you need to select which phone you want to use first. Go to “Blue Neighbors” and double click on the phone you want to use and select “Phone Manager”.***

## 7.1 Phone Books

### 7.1.1 Get Contact Information from Cell Phone

You can get all the contact information from your cell phone by clicking the cell phone icon with outward directing arrow icon. You can also select “Phone Book” or “SIM Book” option to get contact information.

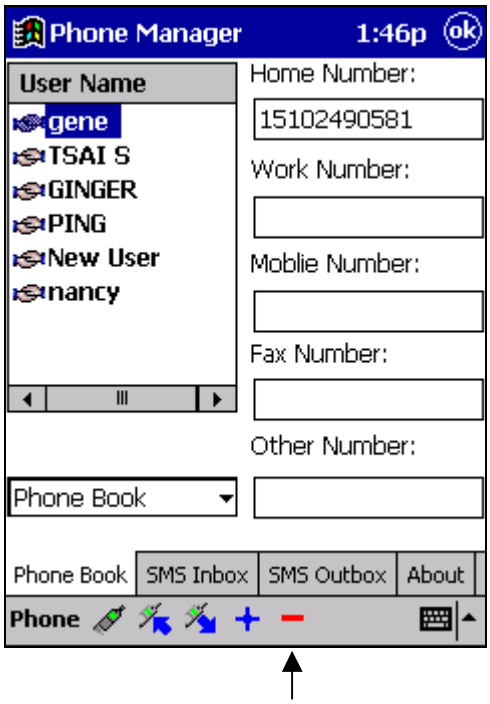



### 7.1.2 Modify and Save Information

After getting the information, you can modify any information. To save the modification, click the cell phone with inward directing arrow icon.

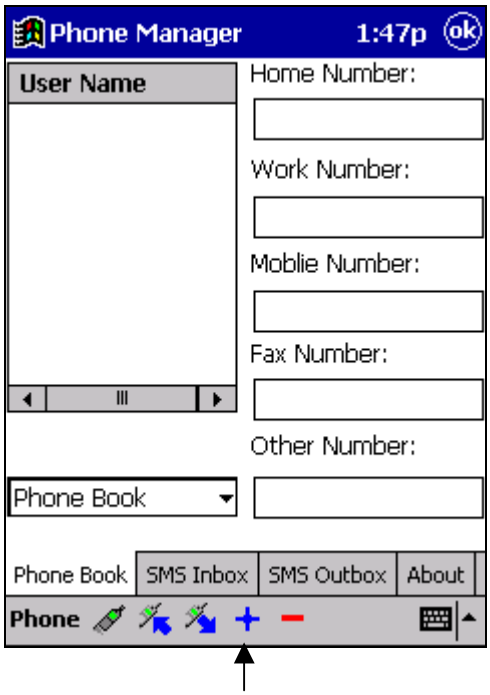
### 7.1.3 Delete Information

To delete any user contact, select user name and then click the red colored bar icon.




### 7.1.4 Add New User

To add new contacts, choose the blue plus sign icon or select "Phone" option in menu and click "Add User". Fill user name and all other related information and click phone with inward direction arrow icon to save in the cell phone.

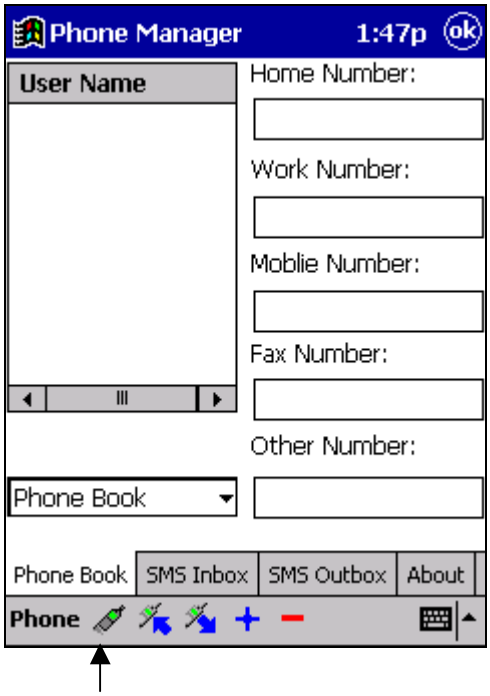


### 7.1.5 Change the User Name

First select the user name that you want to rename and then click once on that user name. This will then allow you to edit the name. Make appropriate changes and save it.

### 7.1.6 Disconnect from Phone

To disconnect, click the cell phone icon or select “Phone->Disconnect” option.




## 7.2 SMS Messages

### 7.2.1 Get Messages from Inbox of the Cell Phone through SMS

Select SMS Inbox page in menu bar displayed at the bottom. Click outward direction arrow to get all the messages in the SMS Inbox of the cell phone. To open a particular message, double click the message.

### 7.2.2 Delete a SMS Message

Select a message and click delete icon (icon with red colored bar).

### 7.2.3 Send a SMS Message

Select SMS Outbox page. You have the following three options to open outbox message:

1. Click the blue colored plus sign icon to open a new window. Type your message and phone number to whom you want to send the message and click the send button.
2. Click “Phone” option in the lower left corner of the device and then click Send message.
3. Or you can simply double click the white screen.

# 8.0 Un-installation Procedures

1. Make sure you remove the AmbiCom Bluetooth CF Card from the PCMCIA slot.
2. Click the “Start” on the upper left corner of the screen and then select “Settings”.
3. On the lower left corner of the screen, you will see “System”. Click it.
4. Click the “Remove Programs”.
5. Select “AmbiCom Blue Neighbors for Windows CE” then click “Remove”.

# AmbiCom Bluetooth Solutions

## User Manual for WinXP

June 25, 2002

# 1. Introduction

This user manual covers the product features, release notes, installation procedures, and operating procedures for AmbiCom's Bluetooth applications.

Bluetooth wireless technology is a global standard for low-cost and low-power small form factors to connect multiple devices such as computers, mobile phones, PDAs, printers, LAN and WANs to each other. It provides fast and reliable digital transmission of both voice and data over 2.4GHz ISM open band. AmbiCom's Bluetooth wireless technology offers the following features:

- **Cable Replacement**
  Establishes a wireless Personal Area Network with other Bluetooth devices within the operating range, without the hassles of wiring and configuration.
- **Ad-hoc Networking**
  Supports both data and voice between two or more devices wirelessly.
- **Secure Wireless Connections**
  Built-in authentication, encryption and authorization applications ensure secure information access and transmission.
- **LAN and WAN Access Points**
  LAN and WAN access such as Web, email, E-commerce, and VPN.

# 2. Product Features

With AmbiCom's Bluetooth CompactFlash with PCMCIA, USB Adapter or UART Adapter and Bluetooth software, you can establish wireless connections between your computer and other Bluetooth wireless devices. The features include:

- Device Discovery
- Name Discovery
- Service Discovery
- File Transfer
- Object Push for files, objects and business cards
- Blue Chat that allows users to instantly send and receive text messages
- Internet Access through Dial-Up Networking
- Connection to LAN through LAN Access Point

AmbiCom provides Bluetooth Neighborhood software application that integrates all of the above features into one single application.

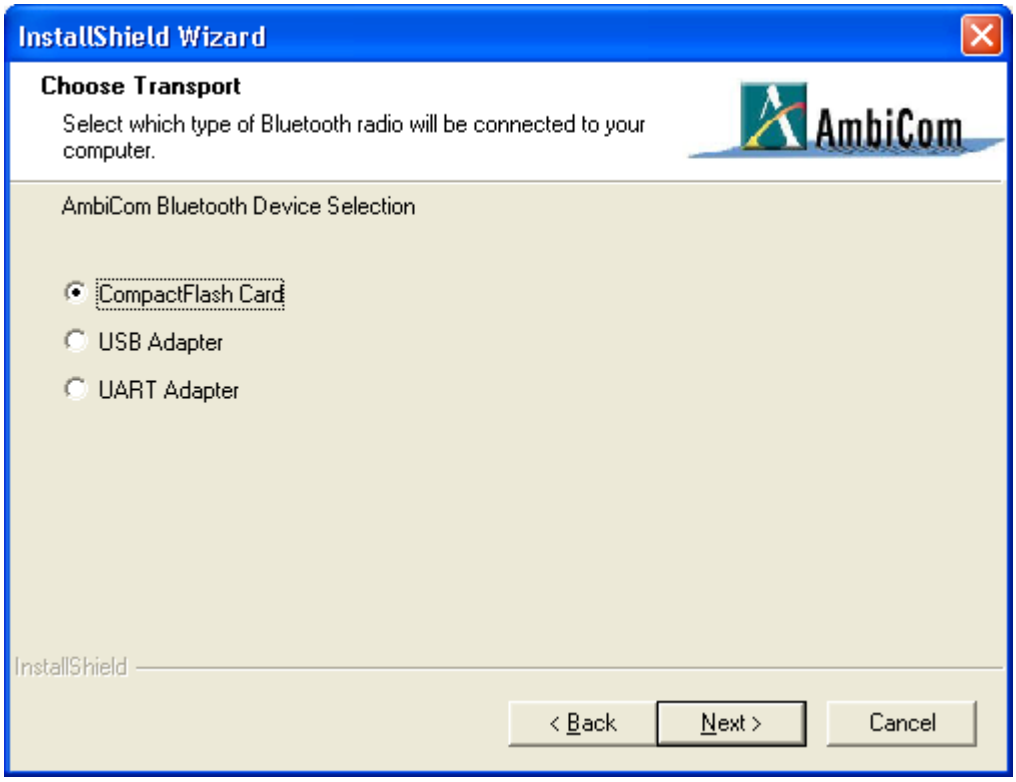
# 3. Release Notes

- We support Windows XP on this release
- This release supports the AmbiCom Bluetooth CompactFlash, USB Dongle, USB Adapter, and UART Adapter.
- SIG 1.1 compliant Bluetooth protocol stack.

- We support the Device Discovery, Name Discovery, Service Discovery, Pairing, Object Push, File Transfer, Dial-Up Networking and LAN Access Networking in this release.
- Audio is not supported in this release.
- When two devices are performing Device Discovery at the same time, they will not discover each other. Please do not run Bluetooth Neighborhood on both devices at the same time.

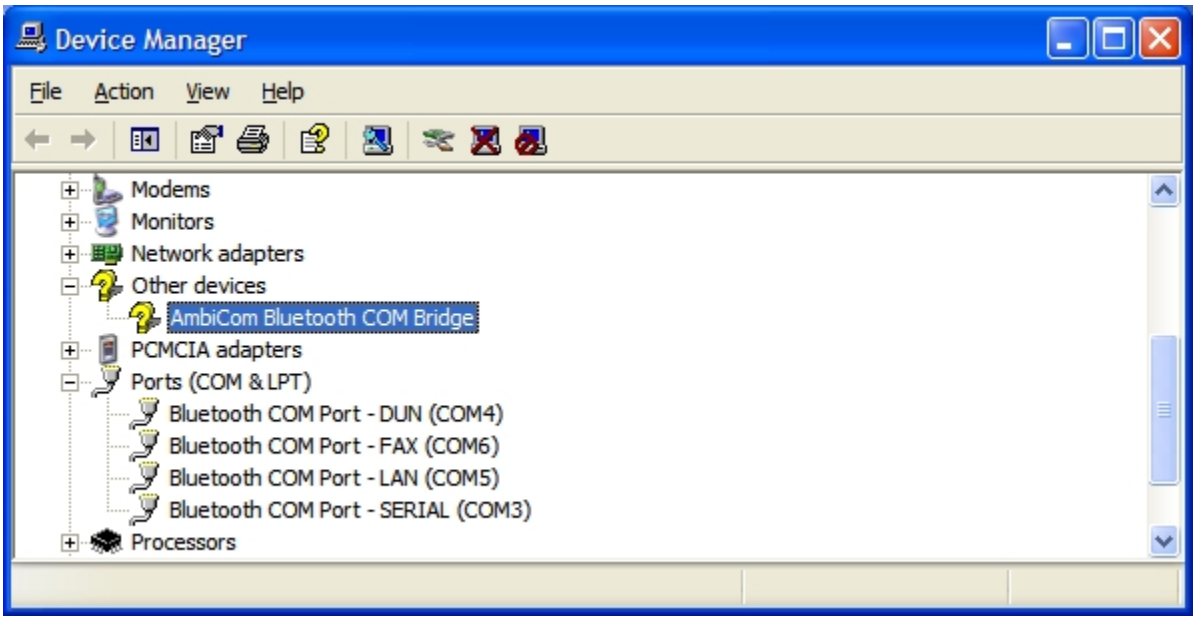
# 4. Installation Procedures for Windows XP

1. Insert the AmbiCom Bluetooth Installation CD into your laptop CD-ROM drive.
2. Run AmbiCom Bluetooth ***Setup.exe*** and follow the on-screen instruction to install the application program.
3. The following window will appear at the start of the installation process:




Select the device you have and click **Next** to continue. During the installation, the following windows will appear indicating additional new devices are being installed.

Click ***Continue Anyway*** to complete the installation. After this installation, you can go to **Device Manager** and find those devices under ***Other devices*** and ***Ports (COM & LPT)*** shown in the following window.



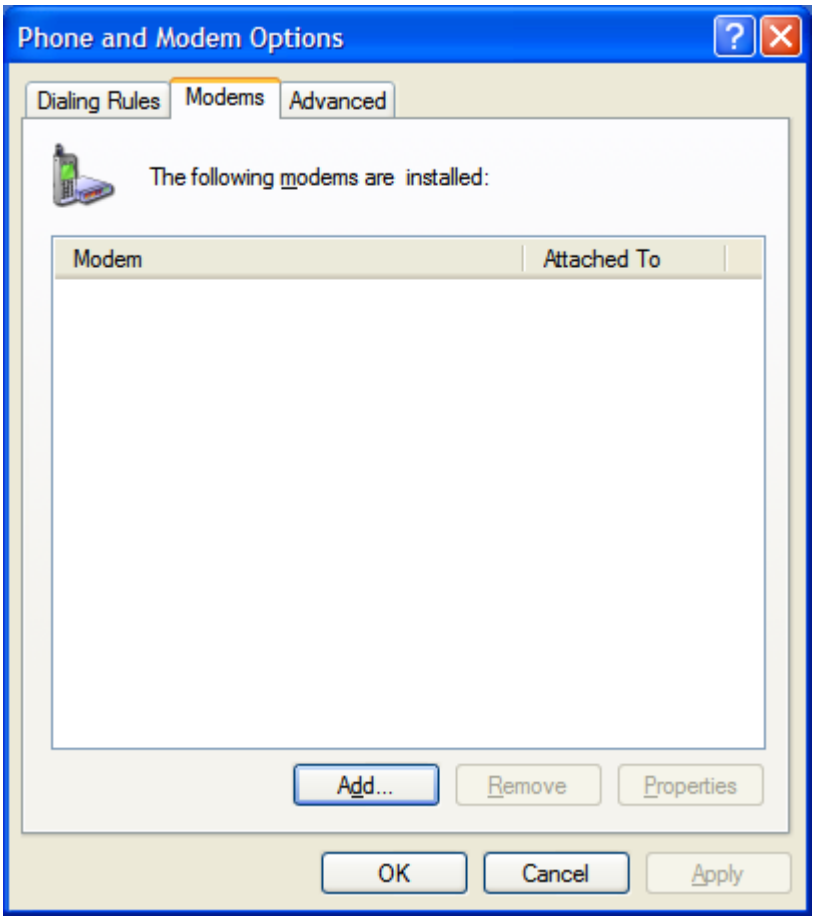

In this window, you can see that ***AmbiCom Bluetooth COM Bridge*** has a question mark. This is OK because it is a special device and was designed to appear as such.

4. After you have restarted your laptop, please connect your ***AmbiCom Bluetooth CompactFlash, USB or UART Adapter to*** your laptop. The system will automatically install the driver for you. After the system installed the driver you need reboot your system. Now you are ready to execute Object Push, File Transfer and Blue Chat by using Bluetooth Neighborhood. Please see the section "**How to Run Bluetooth Neighborhood**" and skip the following steps. If you want to use the Dial-up Networking and LAN Access, please observe the following steps.

## ***Installation Procedures for Dial-up Networking***

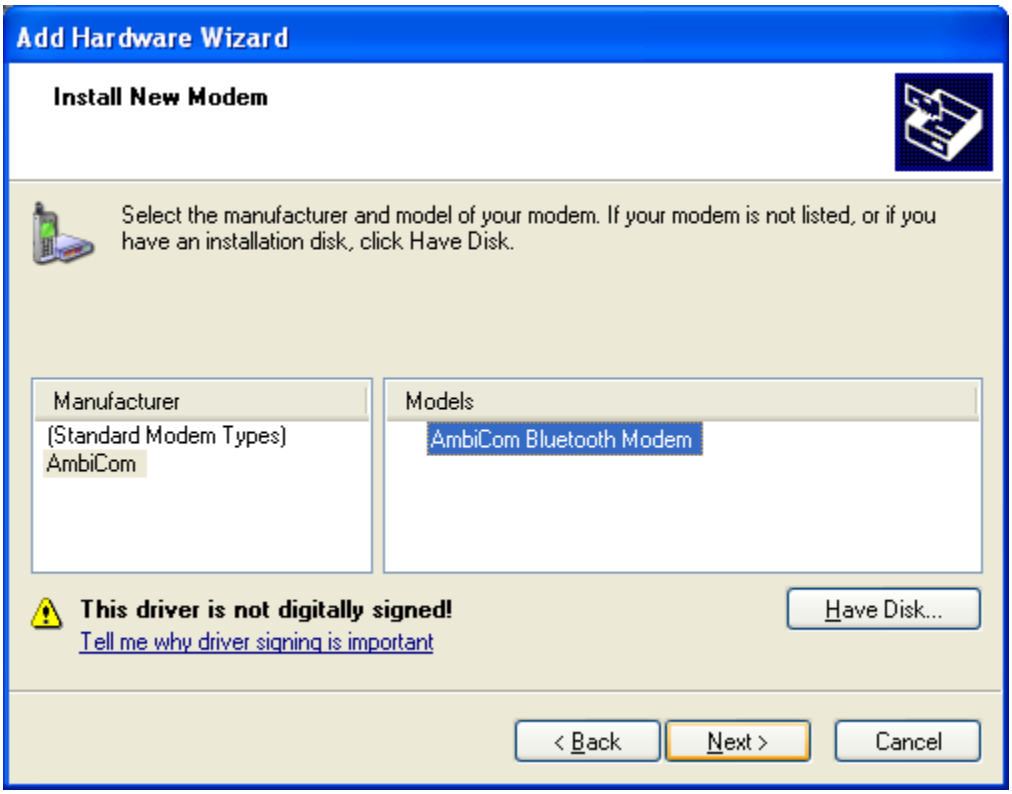
If you have Bluetooth phone/modem, then you should continue to install the corresponding components.

1. Go to **Control Panel**, click on ***Phone and Modem Options*** to add a new mode for Bluetooth Dial-Up Networking**.**



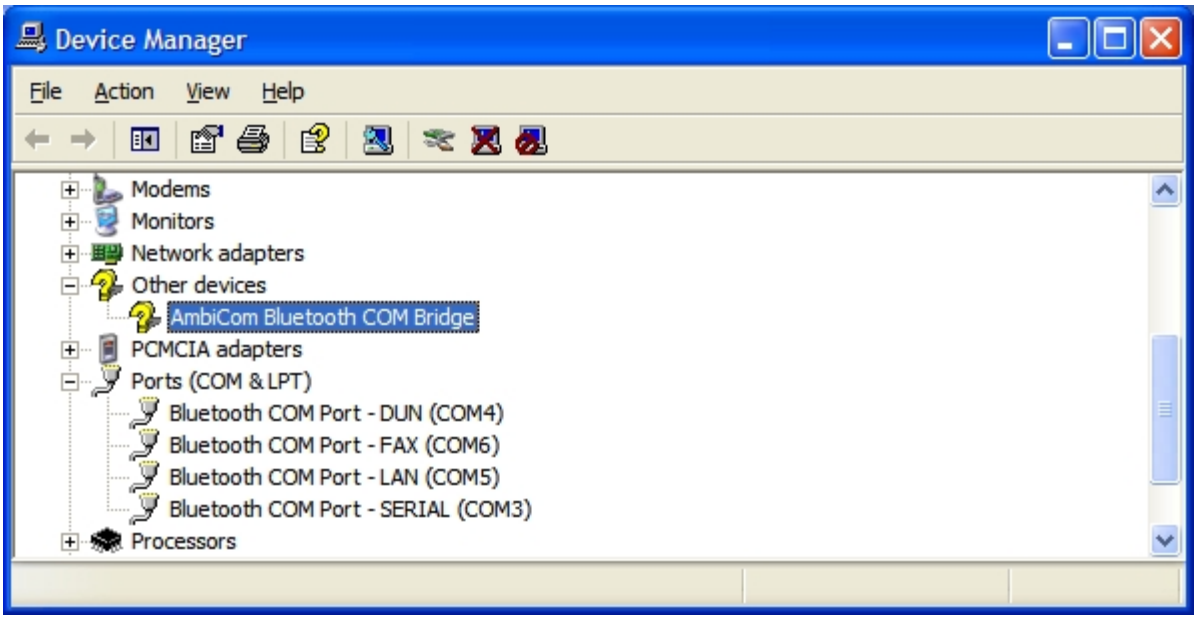

2. Click **Add** to see ***Add/Remove Hardware Wizard***, Check the checkbox ***Don't detect my modem I will select it from a list*** and click **Next**.

3. After you click **Next**, the following window will appear. Select the ***AmbiCom*** as the ***Bluetooth modem*** and click **Next** to continue.

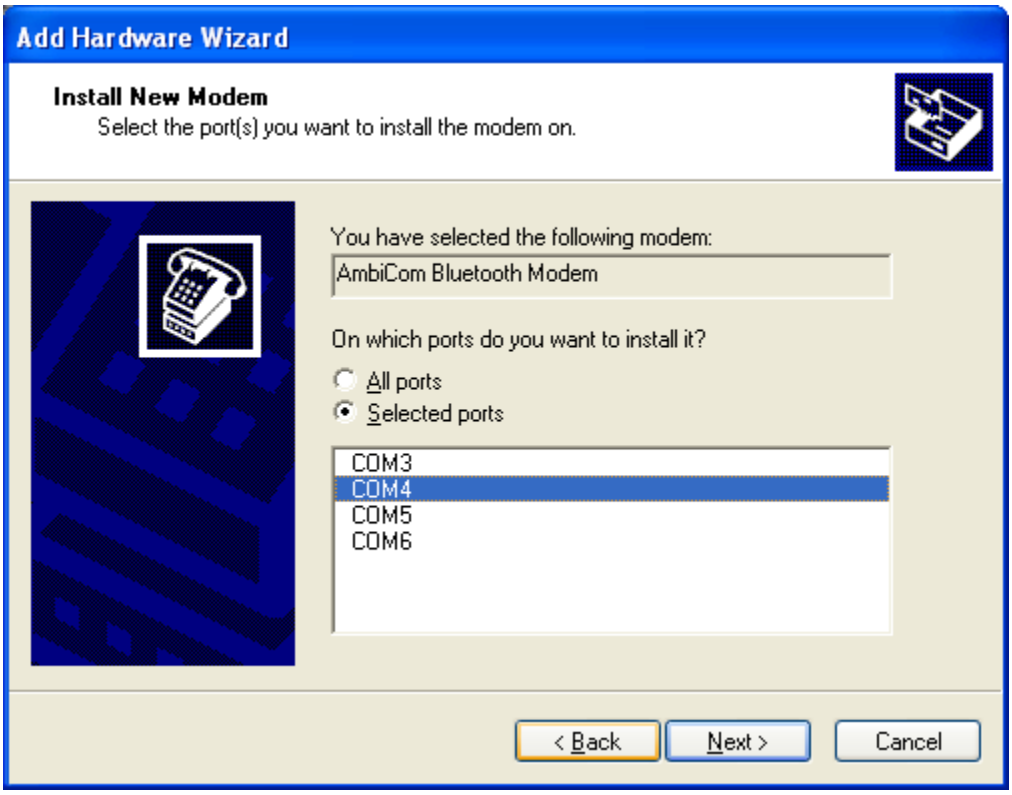


**Note:** If you want to use this modem to perform Dial-Up networking with your Bluetooth cellular phone, it's possible some phones may not work properly. If it doesn't work, you should contact your cellular phone vendor for special modem driver.

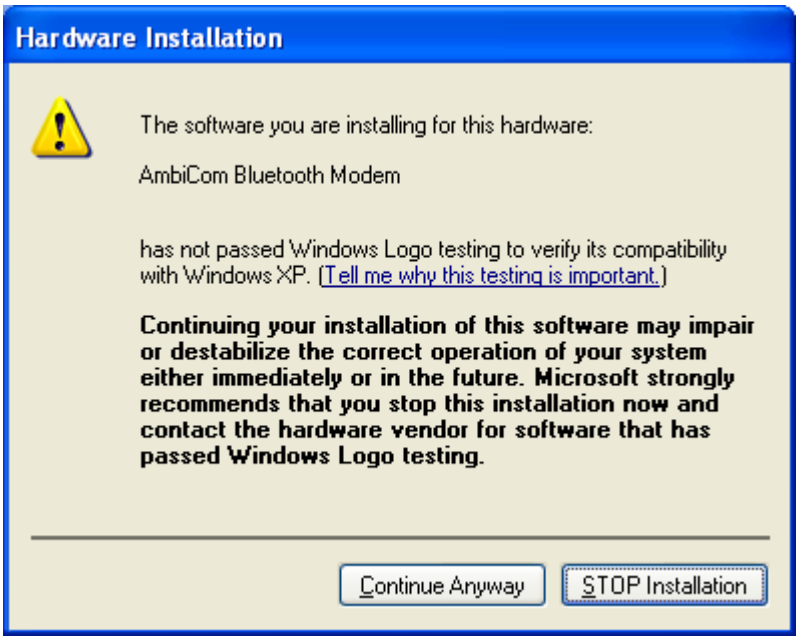
4. After you click **Next**, the system will ask you which **COM** Port you will use. Before selecting, you should go to **Device Manager > Ports (COM & LPT)** to find out which COM port is associated with ***Bluetooth COM Port – DUN*** *(assume COM 4 for DUN)*.




Refer to the above window to select the correct COM Port for your Bluetooth DUN modem.



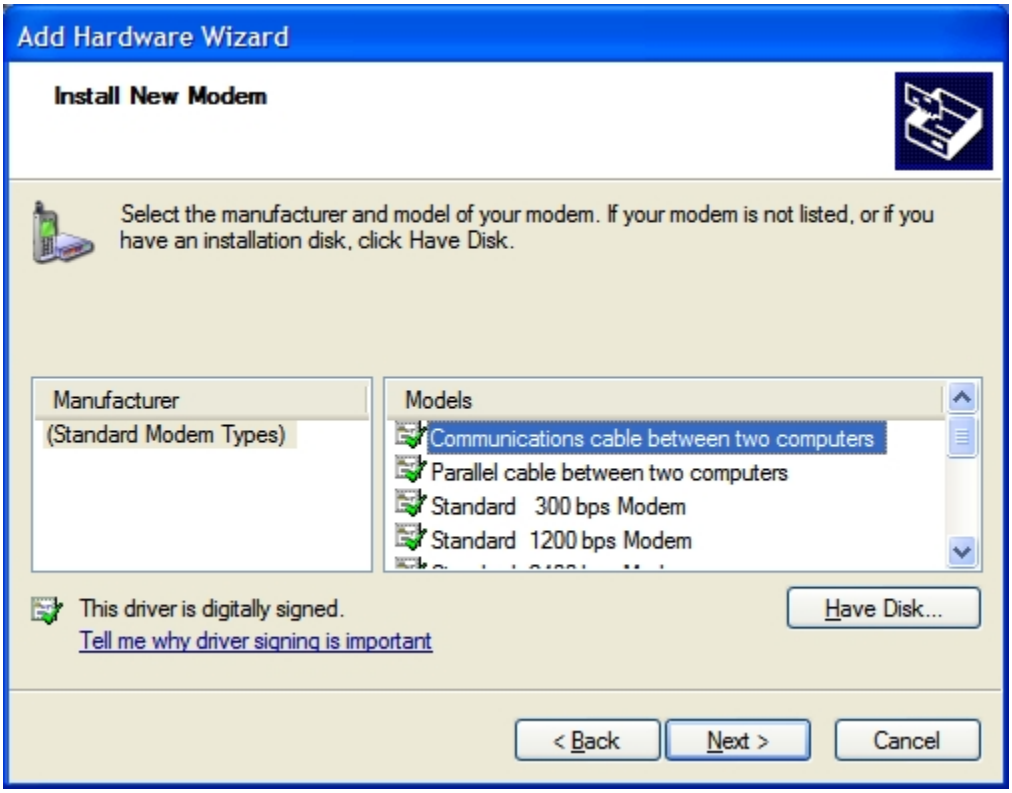

After you click **Next**, the following window will appear.




5. Click **Continue Anyway** to complete the modem installation. After you installed the Bluetooth Modem ***Ambicom Bluetooth Modem***, you can treat it as a normal modem. Now, you are ready to create a Dial-Up networking connection through the Bluetooth Phone/Modem.

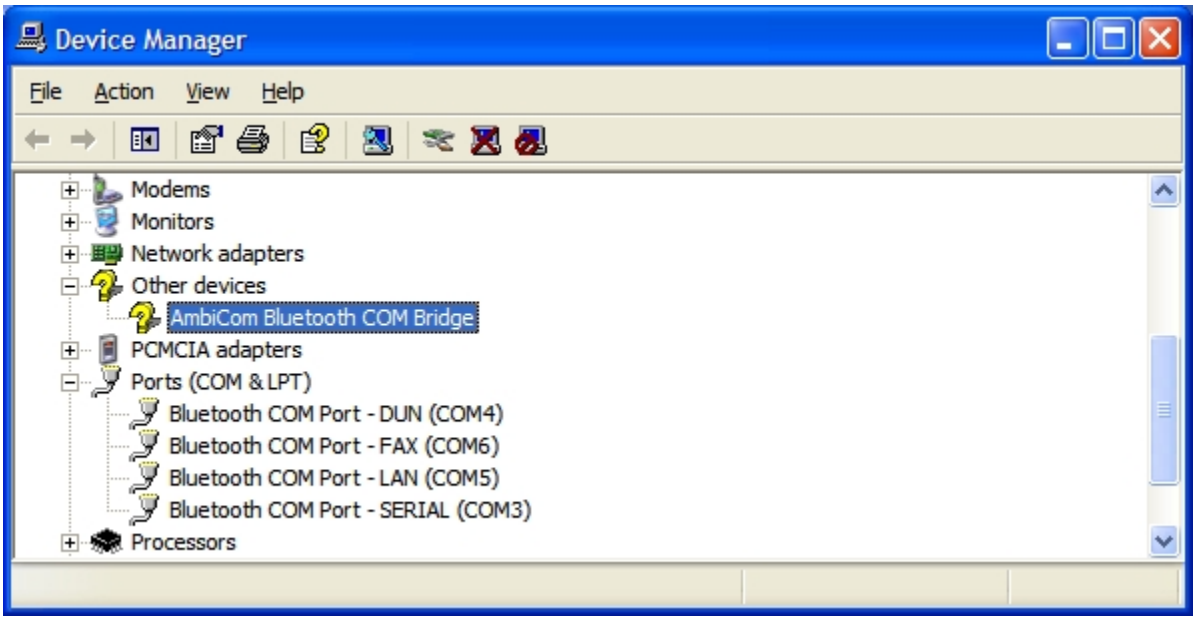
## ***Installation Procedures for LAN Access***

6. For LAN Access, the installation procedure for modem is almost the same as Dial-Up networking. The only difference is under ***Installing New Modem*** where you should select ***Communications Cable between two computers*** instead.

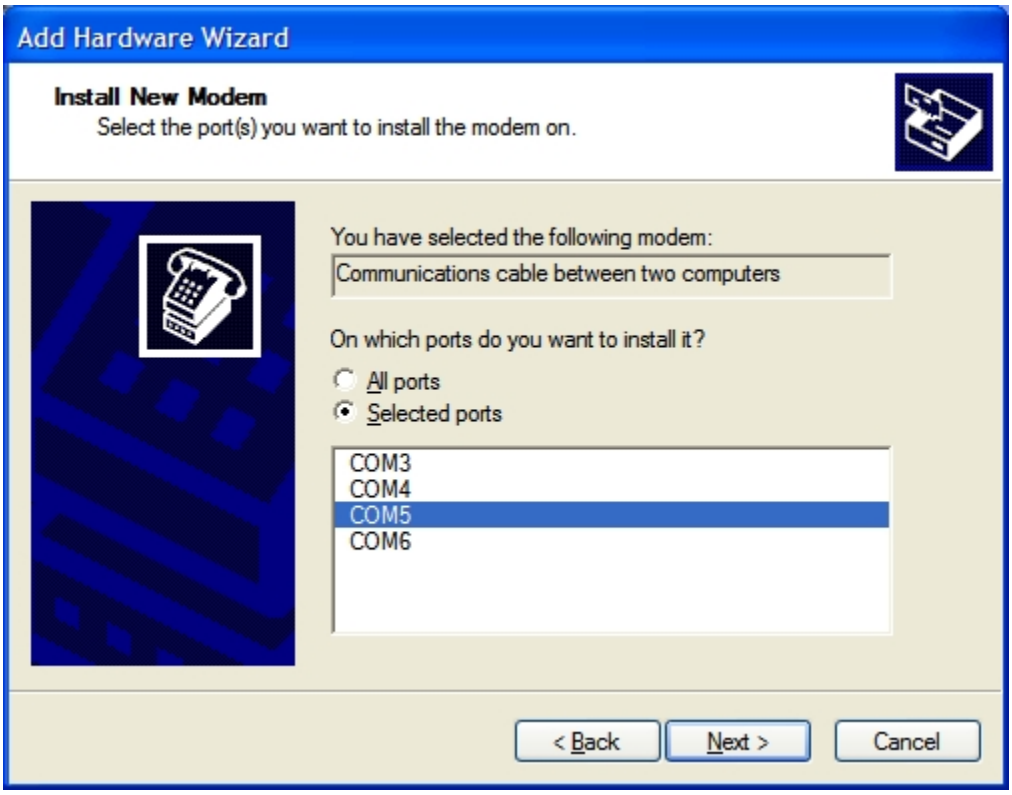



7. Click **Next** to continue the installation.

8. After you click **Next**, the system will show a window asking you which **COM** Port you will use. Before performing the selection, you should go to **Device Manager** to find out which **COM** port is associated with ***Bluetooth COM Port - LAN***.




Refer to the above window to select the correct COM Port for your Bluetooth LAN modem.

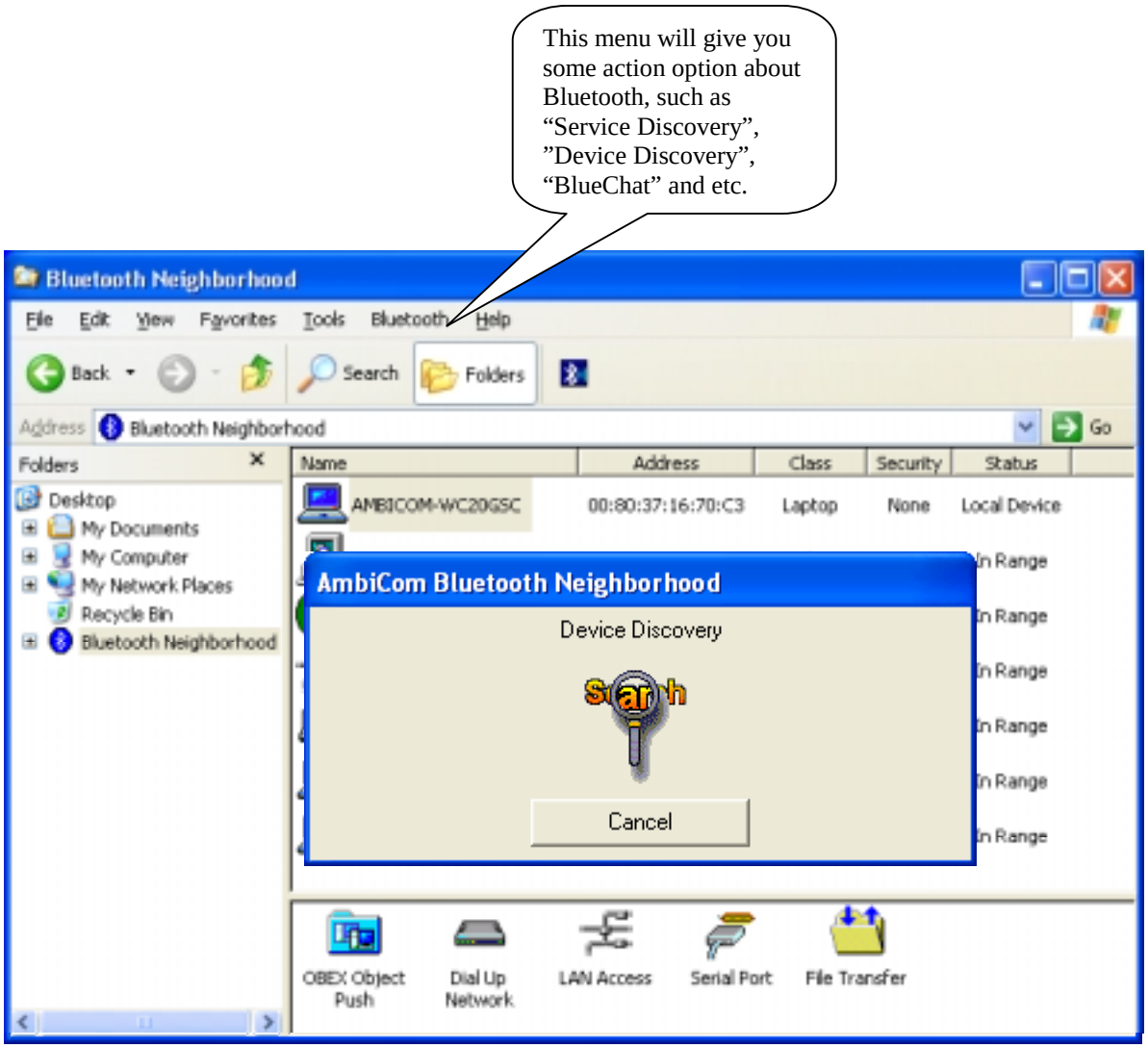



9. After you install ***Communications cable between two computers***, you are ready to create a new network connection through LAN Access Point.

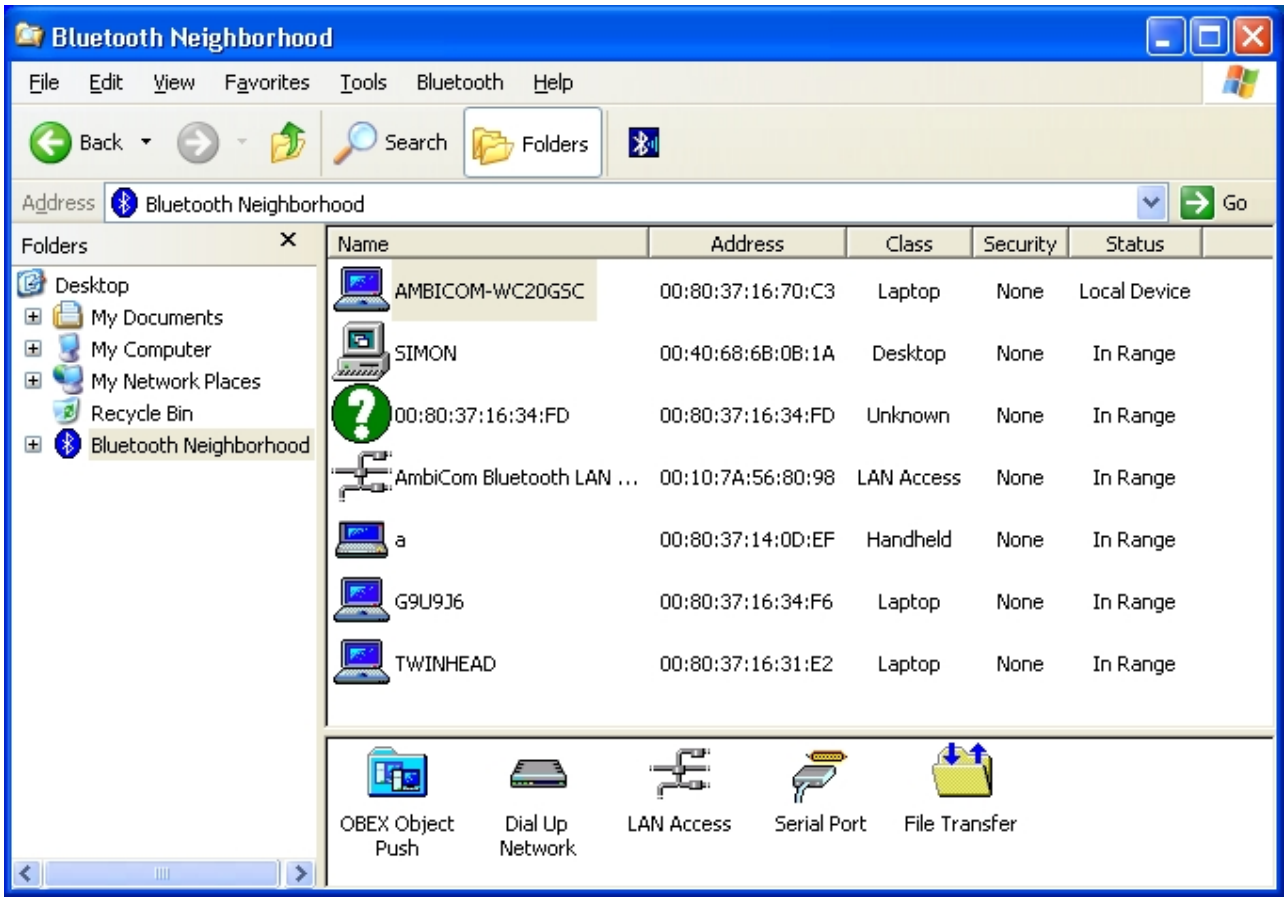
## How to Run Bluetooth Neighborhood

1. You can find a shortcut on the Desktop - Bluetooth Neighborhood.

2. Please go to the Windows Explorer, you will find an icon labeled ***Bluetooth Neighborhood***. Double-click on it to run Bluetooth Neighborhood. You can see a Bluetooth Neighborhood GUI at the right-hand side of Windows Explorer, and the window *Device Discovery* will appear. When all the Bluetooth devices within the range are found, the *Device Discovery* window will disappear. The discovery process includes device discovery and name discovery.




3. After finding the devices, you can click on one of the devices and see what services that device can provide. In the *Device List Window* (at the right-hand side of Windows Explorer), the first device is always the local device.


Bluetooth Neighborhood
File Edit View Favorites Tools Bluetooth Help
Back
Search
Folders
Address Bluetooth Neighborhood
Go
Folders
Desktop
My Documents
My Computer
My Network Places
Recycle Bin
Bluetooth Neighborhood
Name Address Class Security Status
AMBICOM-WC20GSC 00:80:37:16:70:C3 Laptop None Local Device
SIMON 00:40:68:6B:0B:1A Desktop None In Range
00:80:37:16:34:FD 00:80:37:16:34:FD Unknown None In Range
AmbiCom Bluetooth LAN ... 00:10:7A:56:80:98 LAN Access None In Range
a 00:80:37:14:0D:EF Handheld None In Range
G9U9J6 00:80:37:16:34:F6 Laptop None In Range
TWINHEAD 00:80:37:16:31:E2 Laptop None In Range
OBEX Object Push
Dial Up Network
LAN Access
Serial Port
File Transfer

## Security Mode

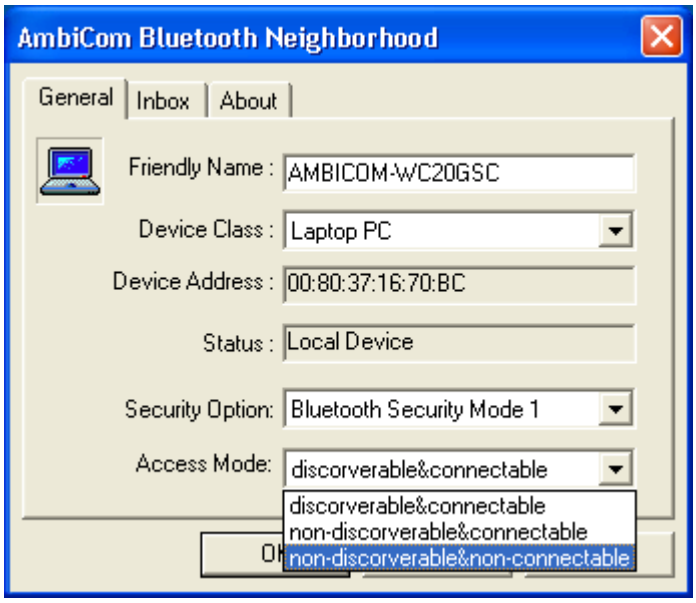
1. Our software provides two levels of security mode: security level 1 and security level 3. At security level 3, a PIN code will be required when other Bluetooth enabled devices try to connect with you. The PIN code entered needs to be the exact same one entered on both machines. This will give you more security. If you set your PC in security level 1, PIN codes will not be needed.

2. Security levels can be set in Bluetooth Neighborhood. Select the local device, right-click it, select *Property* and you will see the following window.

## Access Mode

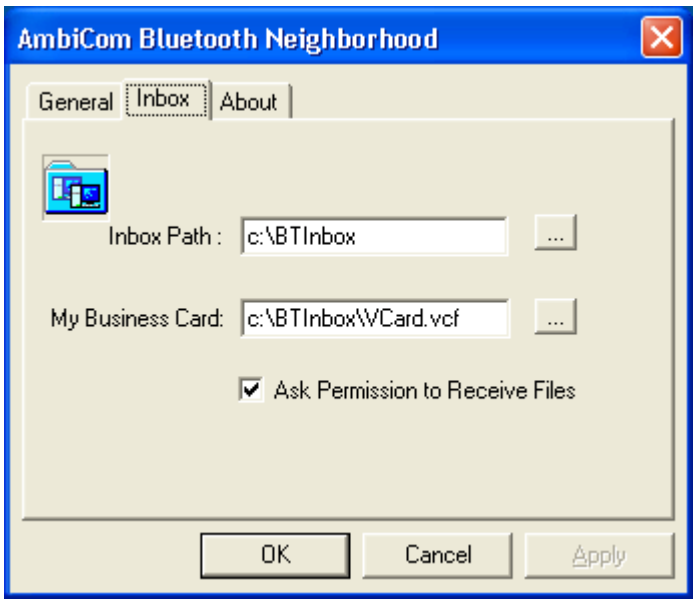
1. Our software provides three options of access mode: discoverable&connectable, non-discoverable&connectable and non-discoverable&non-connectable. At the discoverable& connectable mode, you will allow other Bluetooth enabled devices to find and connect to you. To run the other two options, you will allow them to find you, but cannot connect to you. Or they cannot find you nor connect to you.

2. You can go to Bluetooth Neighborhood to set the Access mode. Choose the local device, right-click it, select Property and you will see the following window.

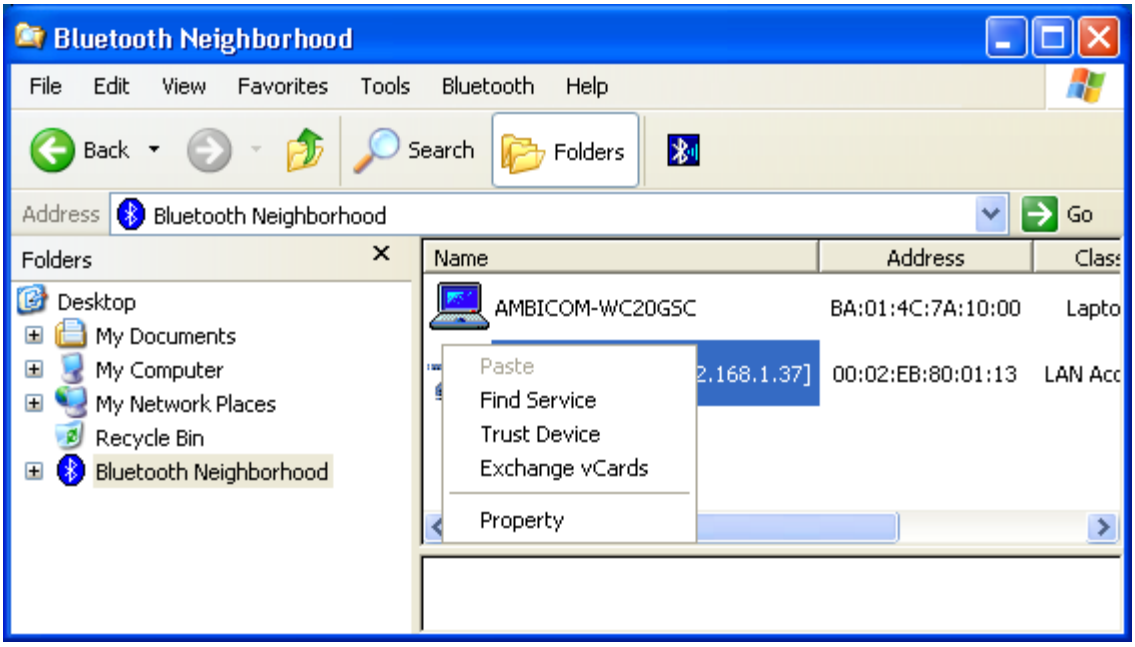


## Exchange vCards

1. When you perform Exchange vCard, you need go to the local device 's property to set up ***My Business Card***" path first, as shown in the following window. The default path is "C:\BTInbox".

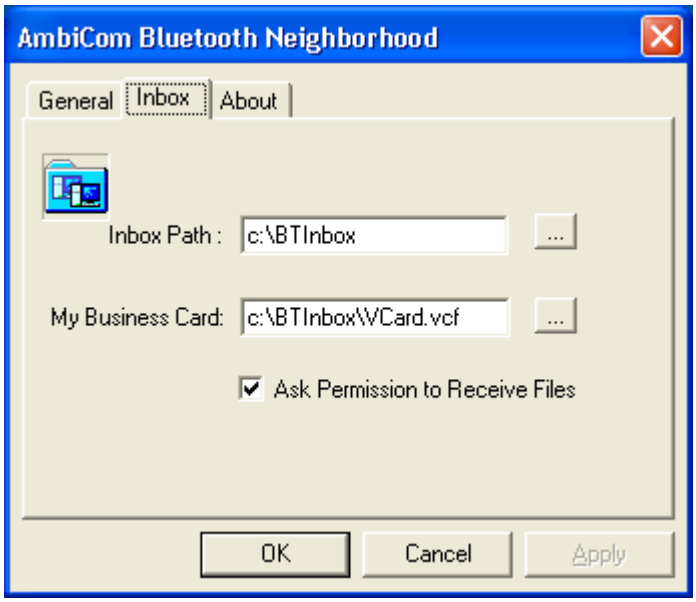



2. Now you click the device that you want to exchange vCard with. You will see the following window. Click ***Exchange vCards*** and you will send your business card to this device and vice versa.

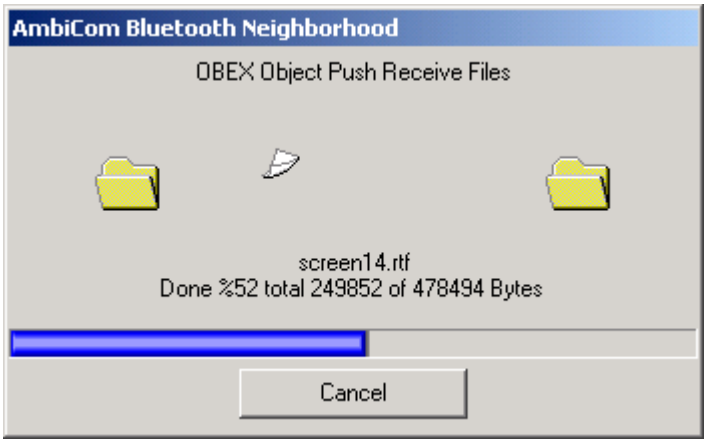


## Object Push

1. Before you execute Object Push, please set up your inbox path first. This directory will save files that you receive. The default path is “C:\BTInbox”.

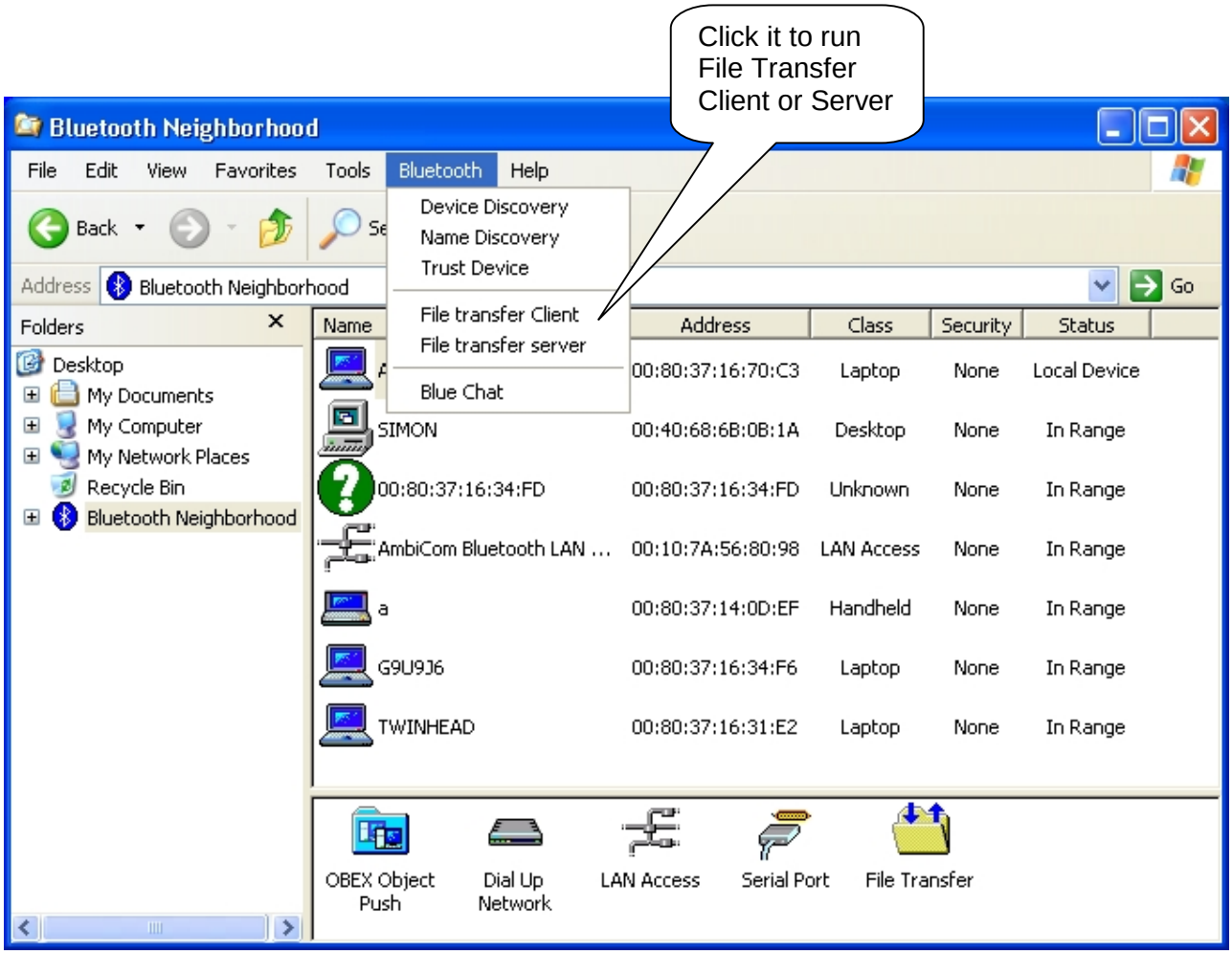



2. When you execute Object Push, simply **Drag** the file that you want to send, and **Drop** it to the Bluetooth Device that you want to receive on the left-hand side in Windows Explorer. You also can use **Copy** and **Paste** to do the object transfer between two Bluetooth devices. When you perform Object Push, you will see a dialog box like the one below indicating the status.

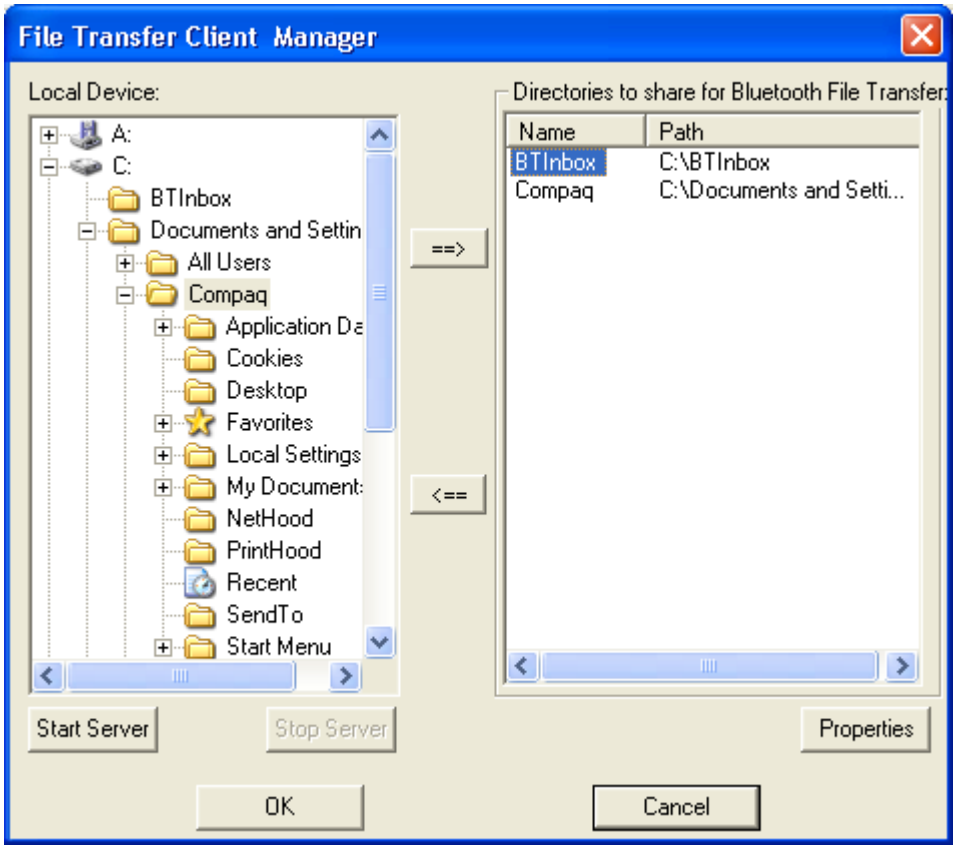


## File Transfer

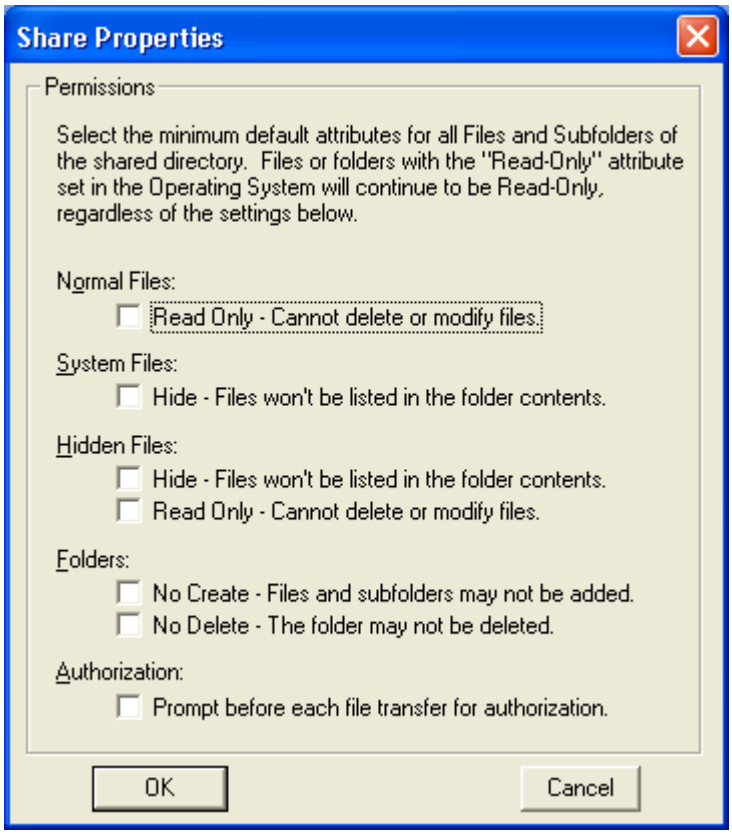
1. To execute File Transfer, open Windows Explorer, select ***Bluetooth*** on the menu bar and click on ***File Transfer Client*** or ***File Transfer Server***. To have File transfer working on both ends, the application on the remote computer also needs to run File transfer at the same time.



2. The following window shows the File Transfer Server. In the File Transfer Server, you can select the directory or file on the left-hand side of the window, and share it by using the arrow button to transfer it to the right side of window. The directory or files in the right-hand side of the window are those that have been shared for the File Transfer Client to use.

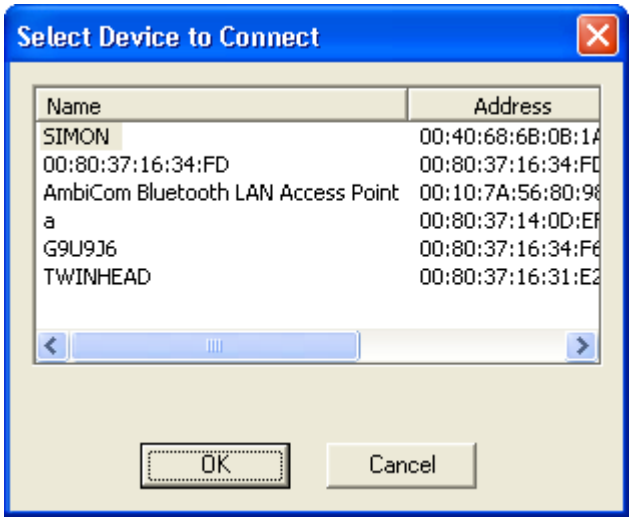



3. After you share the directory and files, you can select them and click the **Properties** button to configure those directory or files.

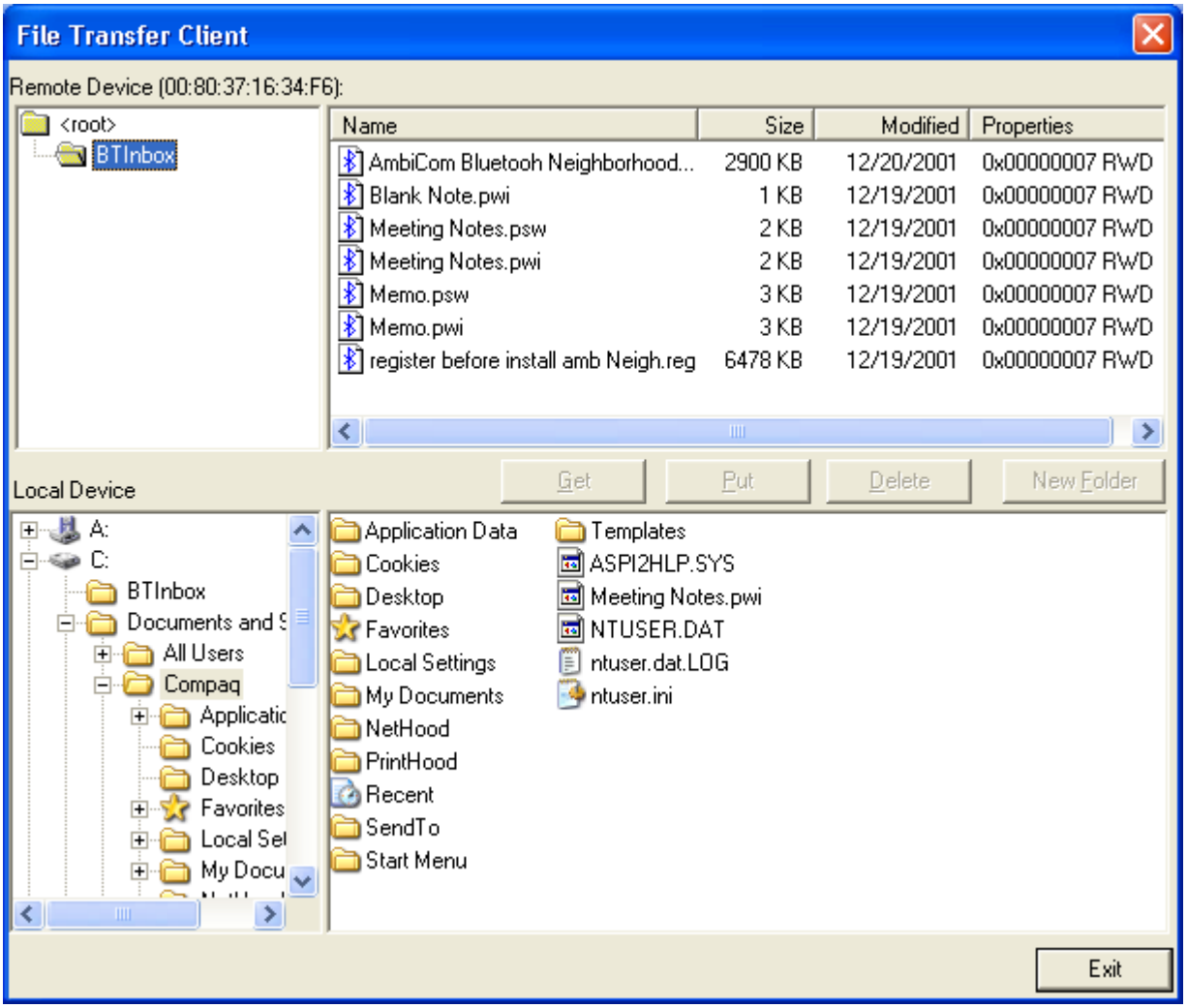



In this window, you can define the attribute of the directory or file that you shared, give the permission for the “File Transfer Client “ to use.

4. When you click on the ***File Transfer Client*** menu to run it, the system will show a ***Select Device to Connect*** window for you to choose which device you want to connect.

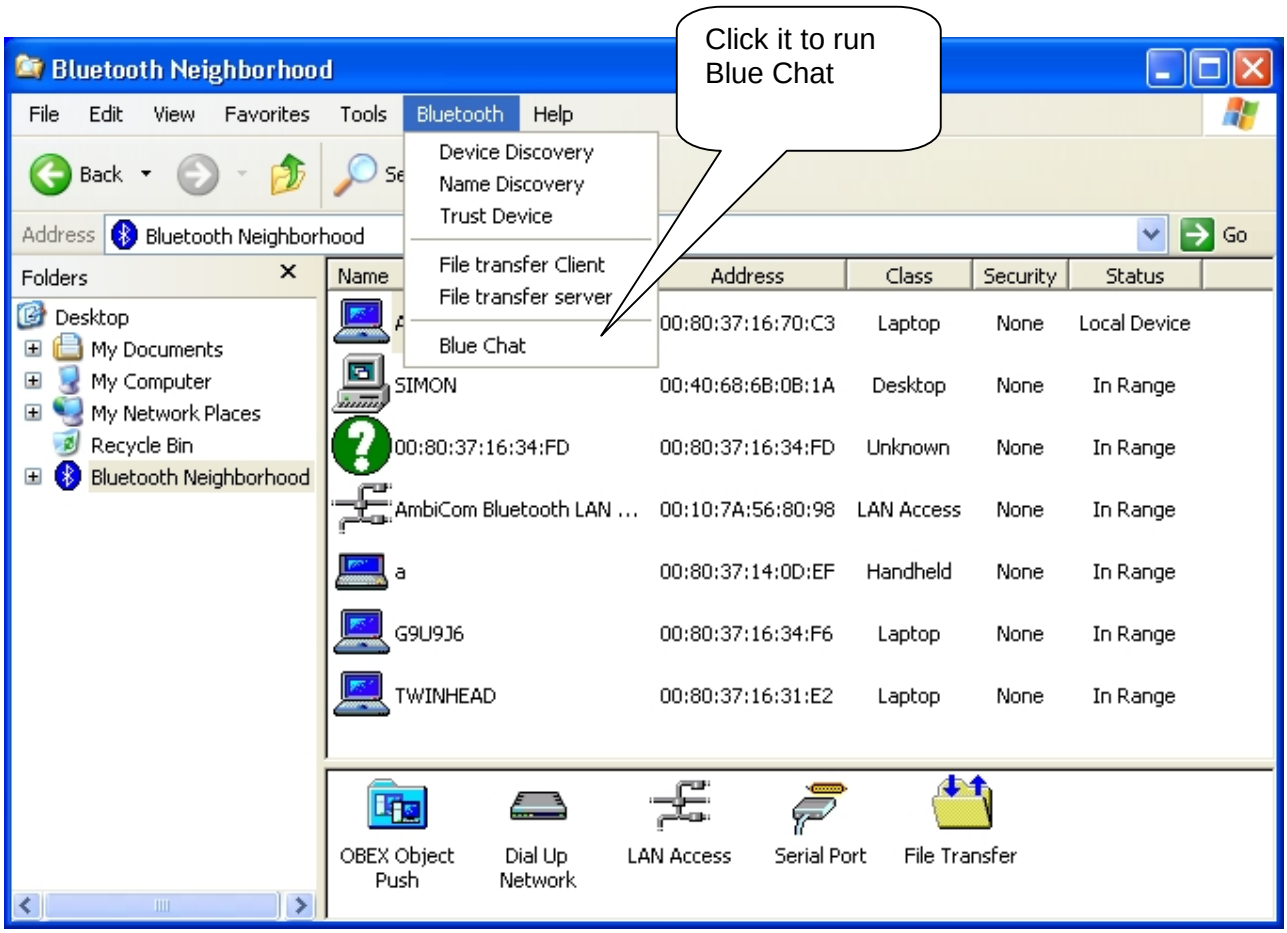


5. After you select the remote device that runs the File Transfer Server, the following window will appear. You will see the directory and file shared by the File Transfer Server. You can get file or directory from the File Transfer Server or place file or directory to the File Transfer Server. Also, you can create new folder in the Shared Directory from File Transfer Server.



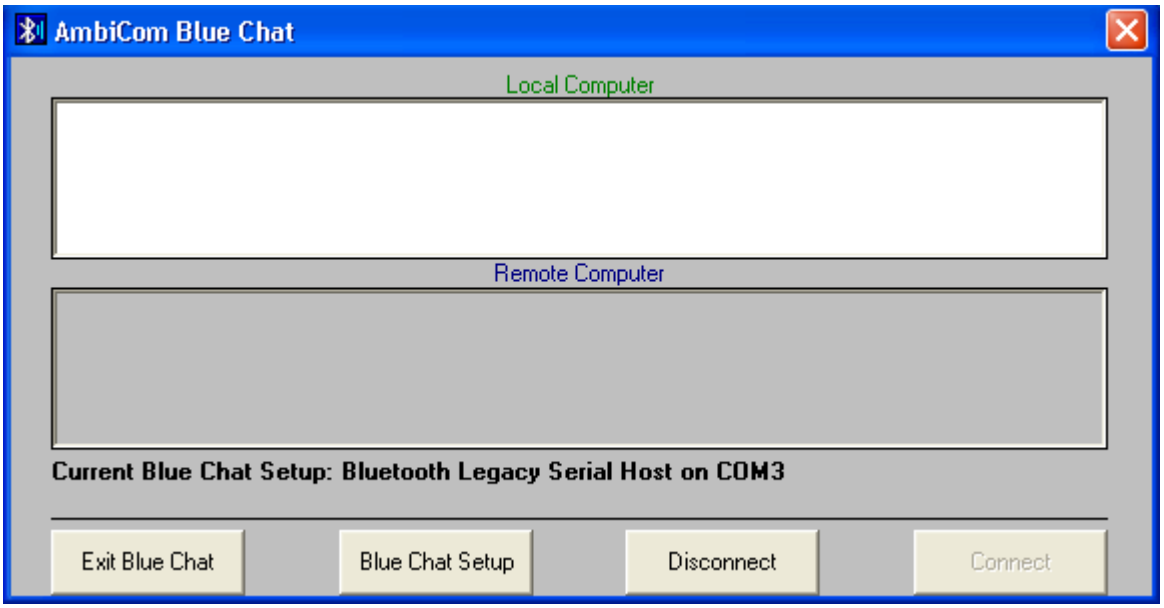
## Blue Chat

1. To execute Blue Chat, click ***Blue Chat*** on the ***Bluetooth Menu*** on Windows Explore Menu bar. To have Blue Chat working on both ends, the application on remote computer also needs to run Blue Chat at the same time.

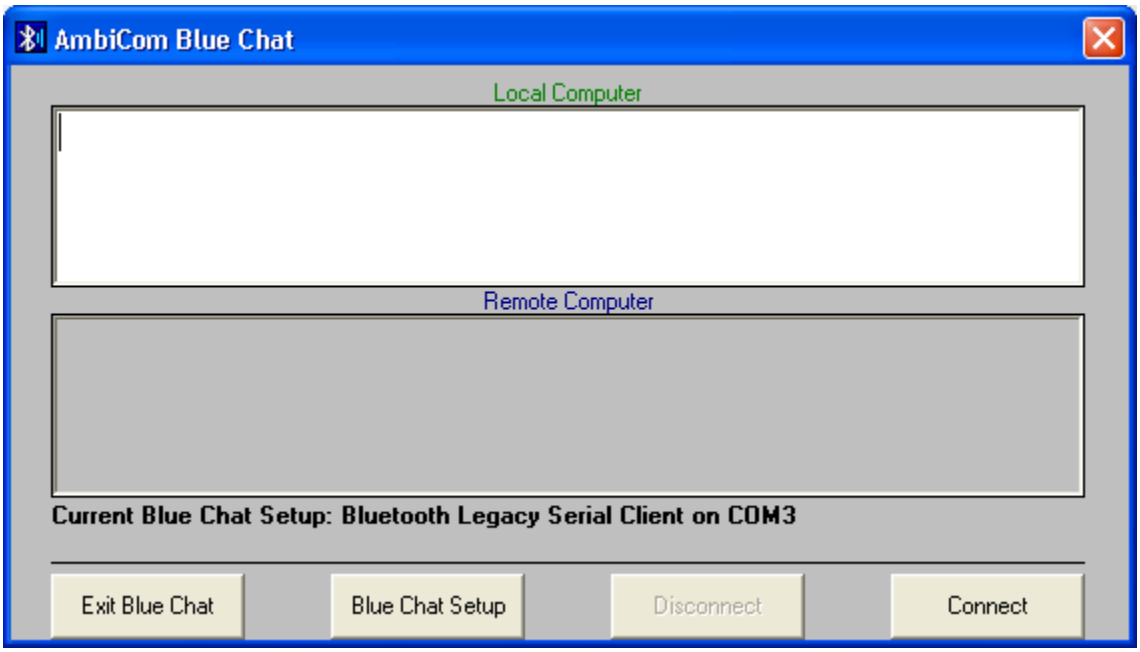


2. After you click on ***Blue Chat***, the following window will appear.

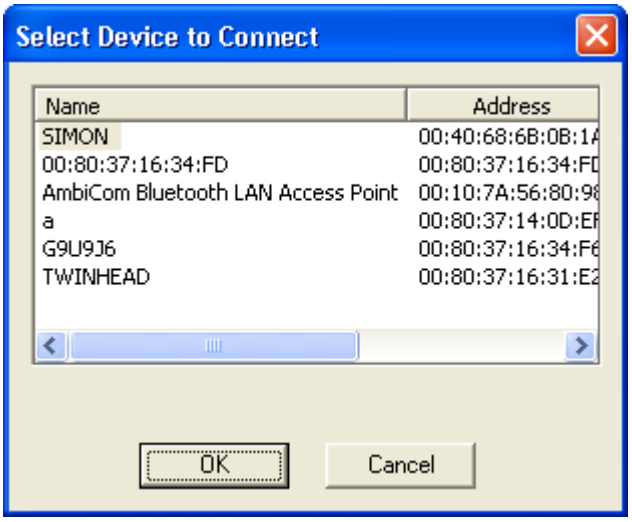
3. In the above window, two options are shown. You can either choose to connect to someone or wait for connection. If you want other people to communicate with you, simply check the lower checkbox, click **OK** and the following window will appear.




4. If you want to connect to a remote device, check the upper checkbox. Click **OK**, the following window will appear.




5. Click **Connect**, you will see the following window from which you can select the device you wish to connect.




6. Select a Bluetooth Device you wish to connect, and click **OK**. The two Bluetooth devices now can connect to each other. You can type any text messages within Local Computer window and you can see the messages from the Remote Computer as well.

# Dial-Up Networking

Note:

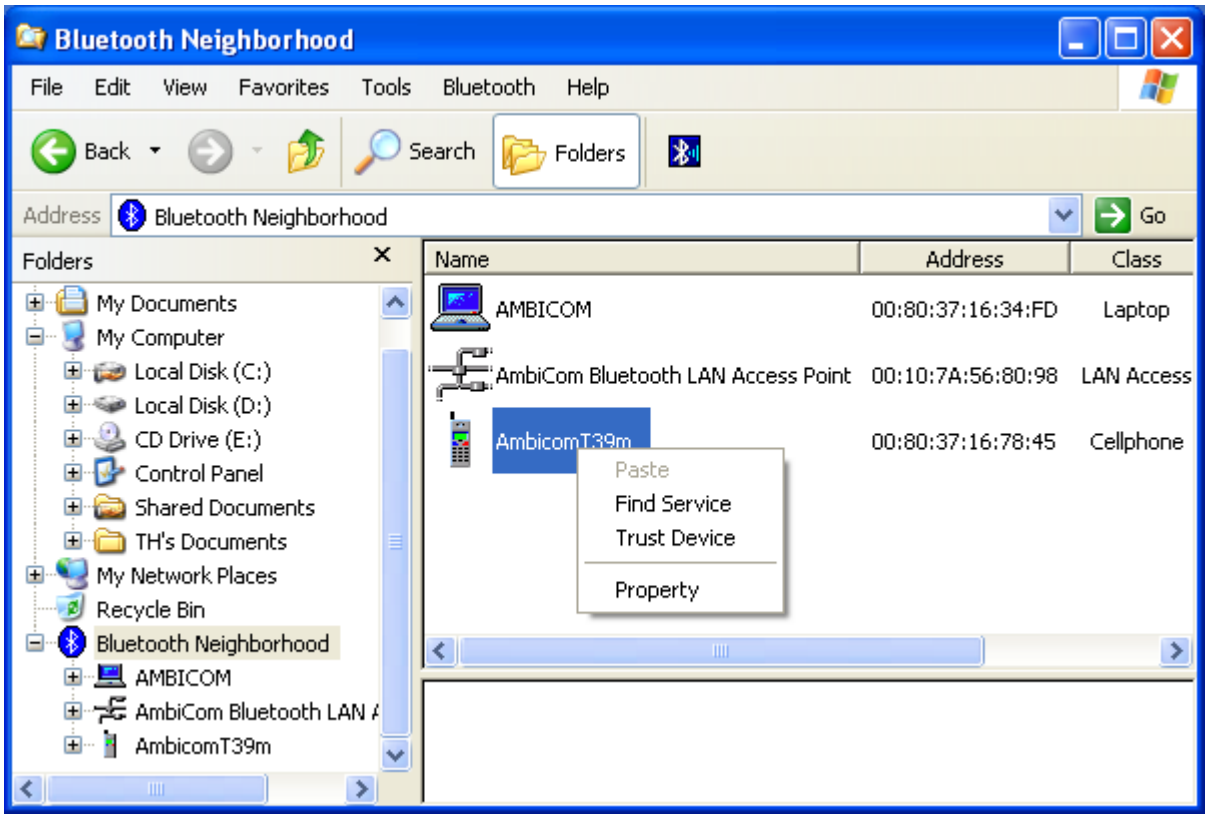
For some Bluetooth enabled devices such as **Cellular Phones**, before you perform Dial-up, you need to execute ***Trust Device*** first. The following window shows you how to do so. For phone configuration, you need set it to the ***Ready to pair*** mode. You can refer the phone manual. After you paired your phone with the Bluetooth device, the software will remember the trust profile. You don't need to do this every time when you execute the Dial-up networking.

***On Ericsson Cell Phone***

Select menu Extra > Bluetooth> Paired devices > Add devices > Phone Accepts
Click Yes to assign the phone name and will show ***Ready to pair*** mode

***On the computer***

After discover the phone, right click on the mouse and choose **Trust Device**.
Insert the password.




***On Ericsson Phone***

- Click **Yes** on the phone to Add to paired devices > insert the Password click yes

***On Computer***

- Insert the PIN number in the computer (the same that you inserted the password on the phone)

***On Phone***

- Show Pairing successful

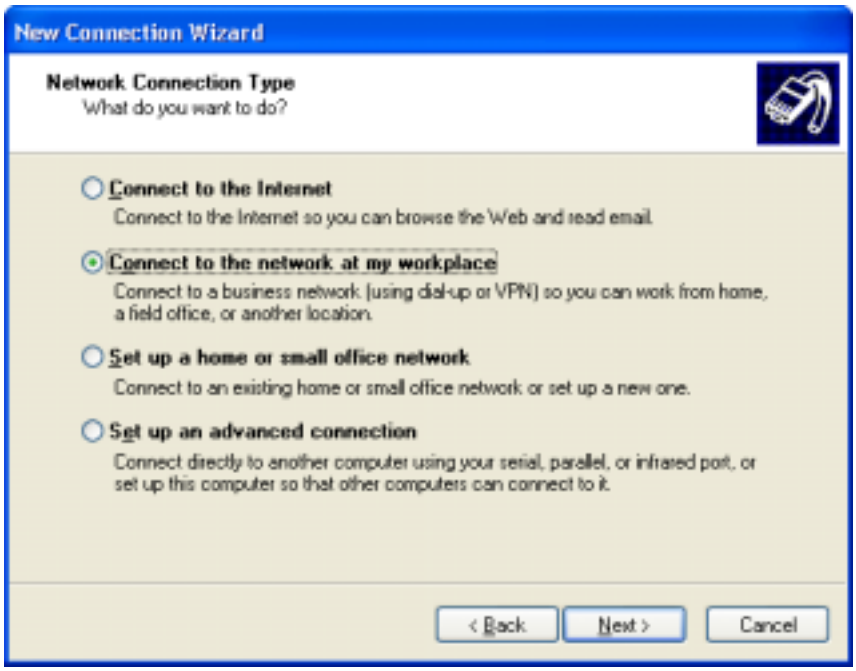
***On Computer***

- Change the status to ***Trusted*** in the Bluetooth Neighborhood

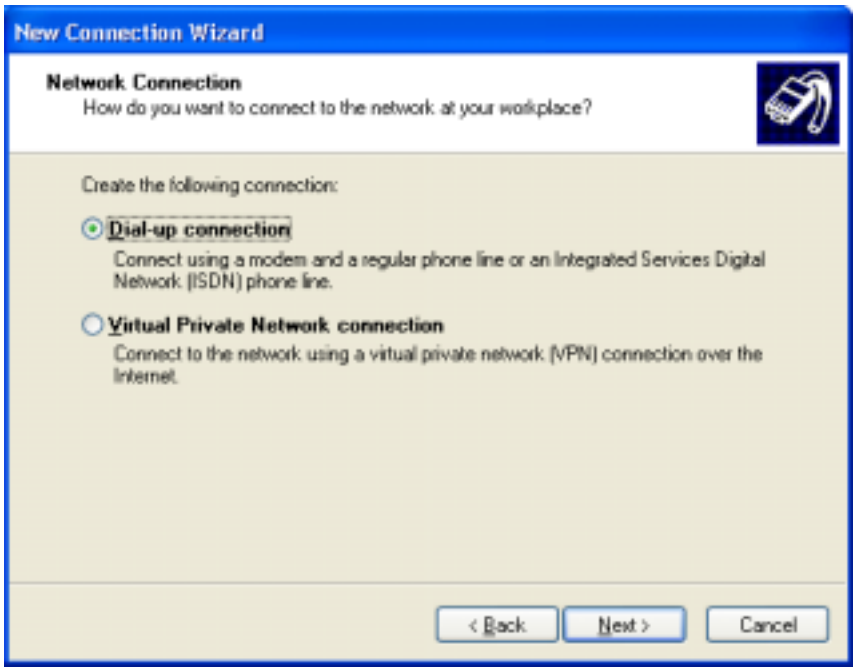
The requirement to set up Dial-up Networking is to provide the Internet Service Provider information (ISP); user name, password, and the phone number.

1. For Dial-Up Networking, please go to **Control Panel** and find ***Network Connections*** to create a new connection. When you create the new connection for the Dial-Up networking, please use the ***AmbiCom Bluetooth Modem*** that you installed earlier. If you haven't installed that modem, please refer to the Installation section. Continue the process by click Next.

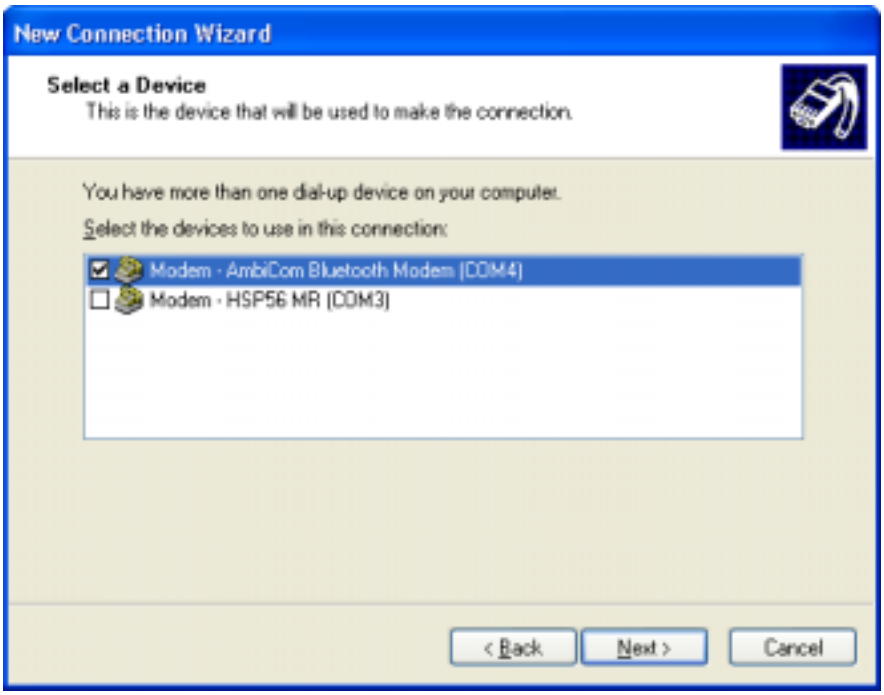
2. Choose the option ***"Connect to the network at my workplace".*** Click Next.



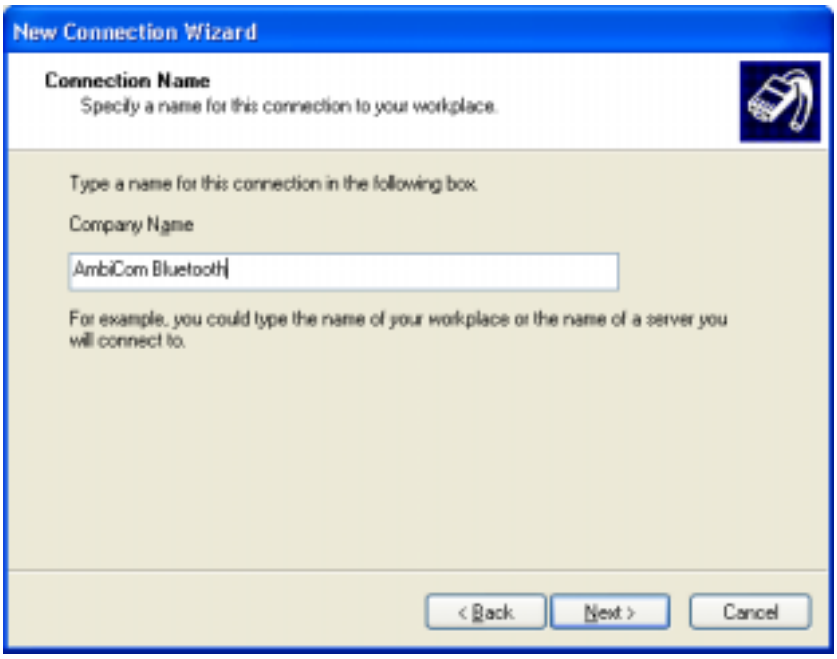

3. Choose ***"Dial-up connection"*** option and then click Next.



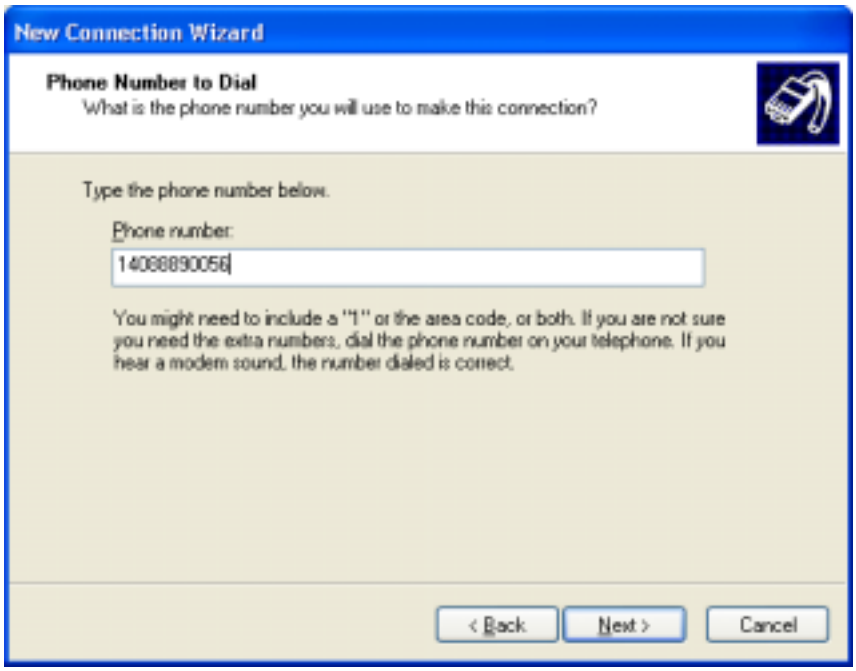

4. Ensure that Modem Ambicom Bluetooth Modem (Assume Com4 is checked mark). Click Next.



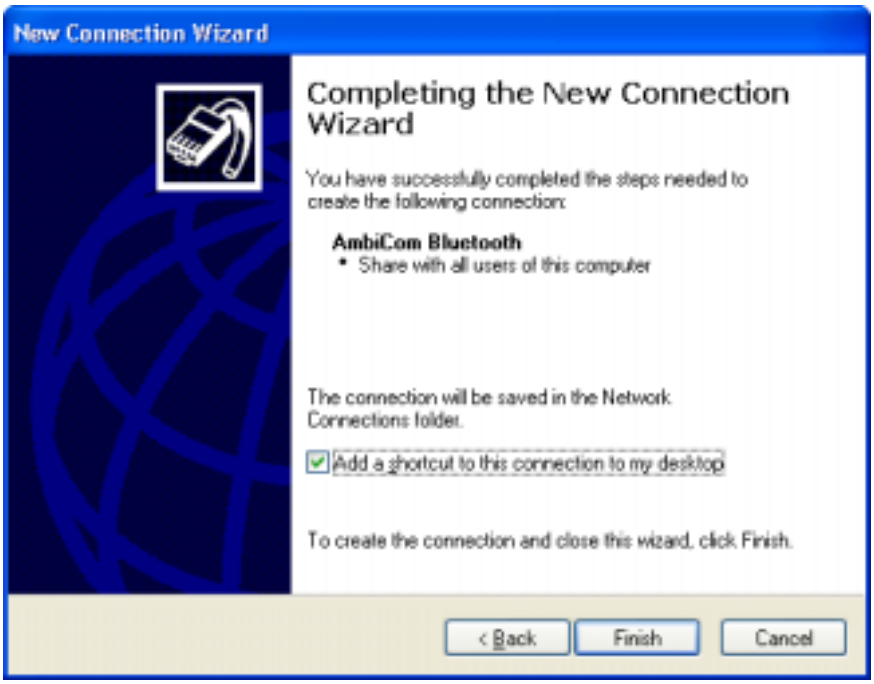

5. Specify the name of Application. Click Next.




6. Insert the Internet Service Provider (ISP)'s phone number. Click Next.



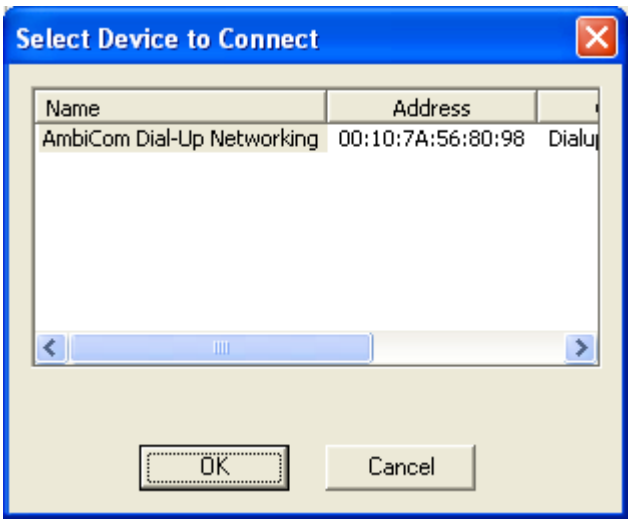

7. Check if the column box (recommended) if you want to add this connection to the desktop. Click Finish.




8. After you have created a new connection, you should run AmbiCom Bluetooth Neighborhood application first. It will find the Bluetooth devices within the range. If you find devices such as Bluetooth phone/modem or Dial-Up Networking Access point, you can start the connection you

just created by clicking the **AmbiCom Bluetooth** in your desktop, the system will show the following window.

9. Click **Dial**, a window will appear for you to select the Phone, which Bluetooth device you want to connect.

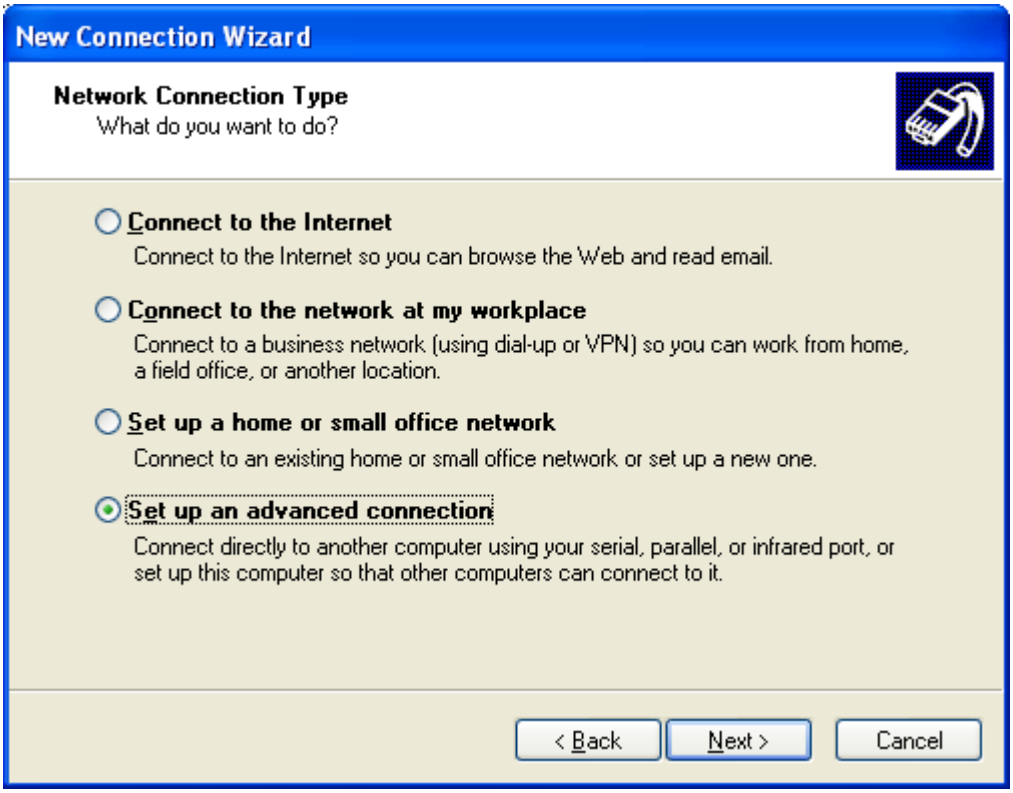



10. In the above window, select AmbiCom Bluetooth Dial-Up Networking (the phone name) and click **OK** to make an Internet connection to ISP.

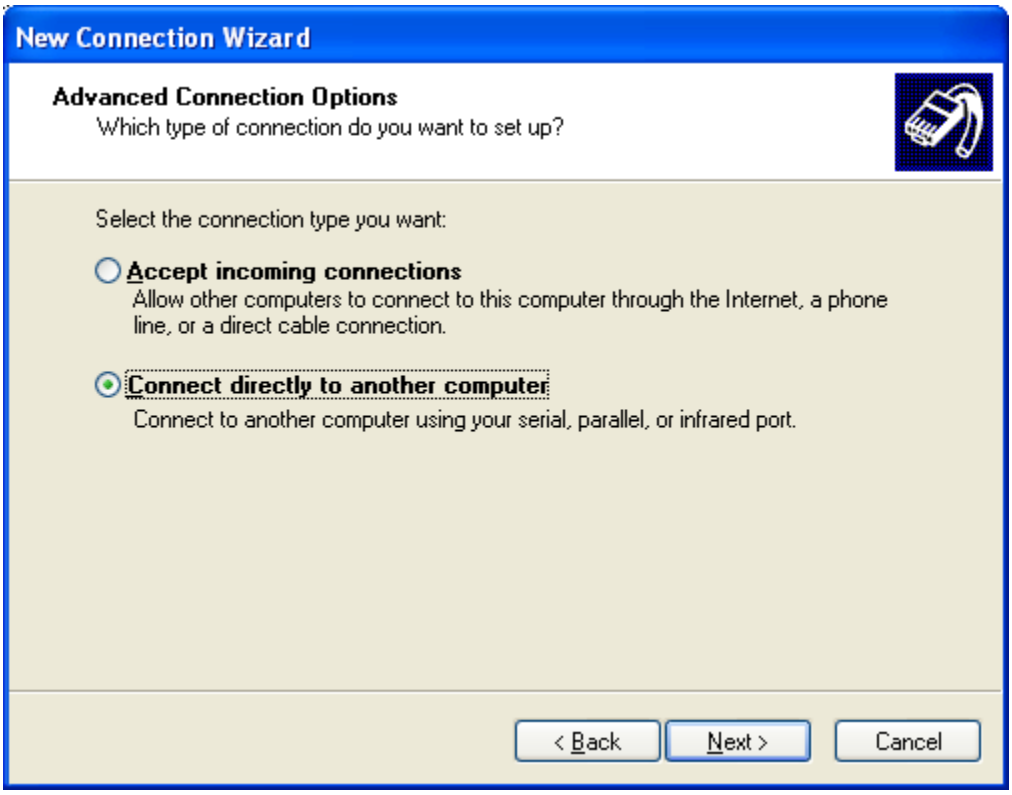
## LAN Access

For LAN Access, the setup is almost identical to Dial-Up Networking. You need to create a ***Communications cable between two computers*** modem in your system. For details on how to install this modem, please refer to the Installation Section. When you have the **Communications cable between two computers** modem set up, please go to the ***Network Connections*** to create a new connection. It is not necessary to provide phone number, user name and password to make the connection.

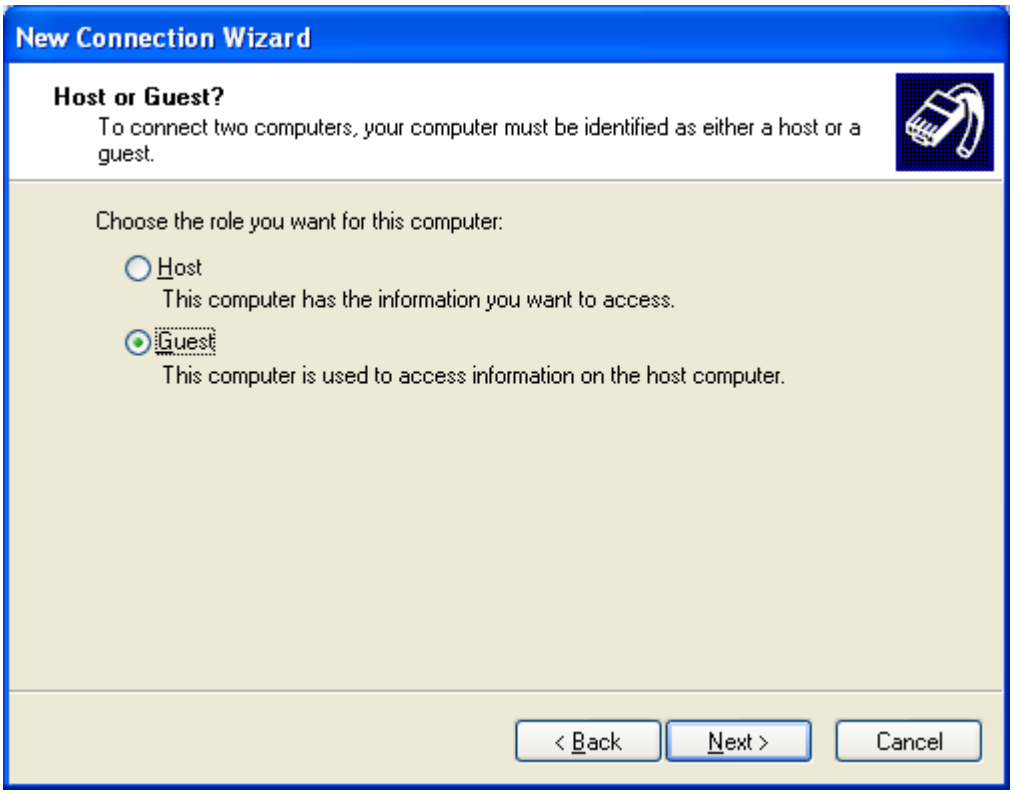
1. Go to **Control Panel** -> **Network Connections**, click ***Create a new Connection***, and a ***New Connection Wizard*** window will appear. Click **Next** and you will see the following window.



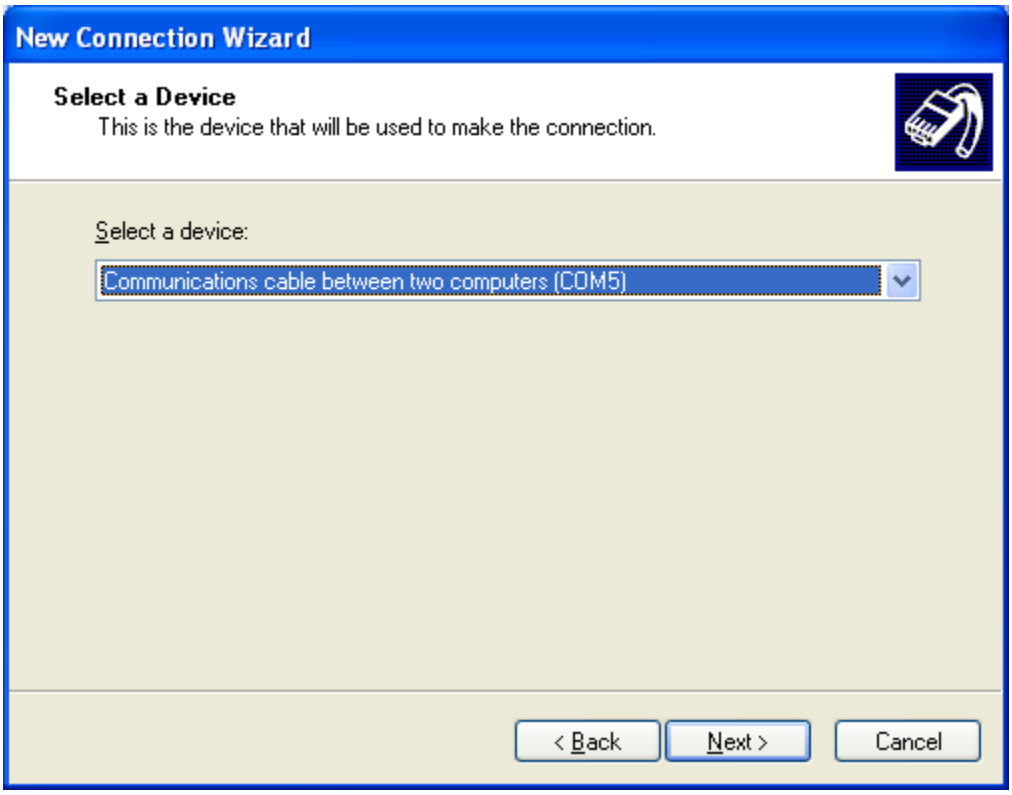

2. Select the ***Set up an advanced connection*** option, and click **Next** to continue the installation.




3. Select the ***Connect directly to another computer*** option and click **Next** to continue.

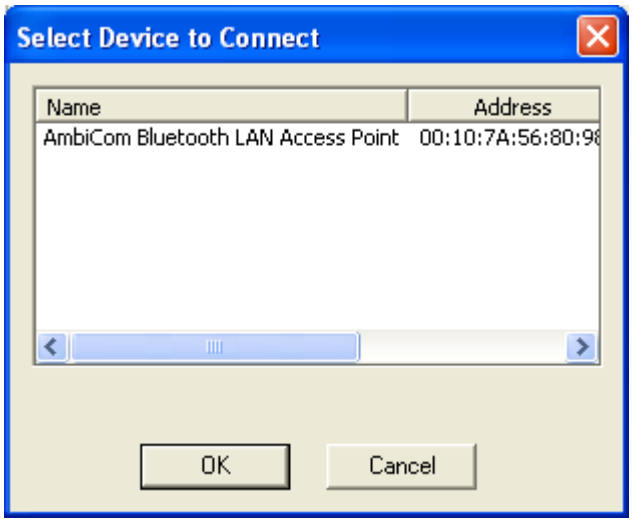



4. Select the ***Guest*** option and click **Next** to continue.




11. Select the ***Communications cable between two computers*** modem that you installed before. If you haven't installed that modem, please refer to the Installation Section. Then follow the on-screen instructions to complete the installation.

12. After you create a new connection, you should run AmbiCom Bluetooth Neighborhood application first. It will find the Bluetooth devices within the range. If you find a device such as the Bluetooth LAN Access point, you can start the connection you just created and the system will show the following window.




13. In above window, you selected AmbiCom Bluetooth LAN Access Point. Click **OK** to make an Internet connection.

# 6. Uninstall the AmbiCom Bluetooth Neighborhood

Please click **Start**, go to **Programs**, find **AmbiCom Bluetooth Neighborhood,** and select the ***Uninstall Bluetooth Neighborhood***. Follow the on-screen instructions to finish the uninstallation.

# 7. Technical Support

Please visit AmbiCom Web site http://www.ambicom.com for online technical support. If you wish to speak to our support staff, please call 1-408-562-0168.

FCC COMPLIANCE STATEMENT:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

INFORMATION TO USER:
This equipment has been tested and found to comply with the limits of 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 the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit difference from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment

RF Exposure Statement :

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.