1.0

Bluetooth™

Bluetooth Module

Manual and

Application note

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Introduction

Bluetooth is an open specification for a cutting-edge technology that enables short-range wireless connections between desktop and laptop computers, personal digital assistants, cellular phones, printers, scanners, digital cameras and even home appliances — on a globally available band (2.4GHz) for worldwide compatibility. In a nutshell, Bluetooth unplugs your digital peripherals and makes cable clutter a thing of the past. Now you can connect your PDA or PC to Bluetooth™ enabled mobile phone with this Bluetooth™ adapter.

You can access e-mail & Internet no matter where you are with just a little help from your Bluetooth™ mobile phone.
Plus, when you are back in the office, you can hook yourself up to your office network as well as communicate with other Bluetooth™-enabled devices.

Chapter1

Supported profiles

Windows 98SE/ME

This Bluetooth Stack for Windows supports the following profiles. Please note that profiles HSP, PAN, BIP, A2DP, AVRCP and GAVDP are supported by Windows XP and Windows 2000 only.

(a) DUN

(b) FAX

(c) LAP

(d) SPP

(e) HID

(f) HCRP

(g) FTP

(h) OPP

Windows 2000/XP

(a) DUN

(b) FAX

(c) LAP

(d) SPP

(e) HID

(f) HCRP

(g) FTP

(h) OPP

(i) HSP

(j) PAN

(k) BIP

(l) A2DP

(m) AVRCP

(n) GAVDP

Supported languages

The Bluetooth Stack for Windows supports the following languages.

English
Danish
French
German
Italian
Japanese
Norwegian
Spanish
Swedish

The following languages are supported by Windows XP and Windows 2000 only.

Dutch
Korean
Simplified Chinese
Traditional Chinese
Russian
Finnish
Portuguese (Brazil)

Supported operating systems

The Bluetooth Stack for Windows supports the following operating systems.

Windows 98 Second Edition
Windows ME
Windows 2000 Professional (Service Pack 3 or above)
Windows XP Professional (Service Pack 1 or above)

Windows XP Home (Service Pack 1 or above)
Windows XP Tablet PC Edition
Windows XP Media Center Edition

Limitations

(a) External Bluetooth drivers cannot be "signed drivers" to receive Microsoft WHQL logo. Therefore, Microsoft's "Unsigned driver" warning messages may pop up during the software installation, Bluetooth headset, mouse or keyboard setup. Please install the drivers and then follow the on-screen instructions.

(b) On Swedish Windows XP, an error message (error code = 633) may be seen during dial-up. Please update the operating system to Windows XP Service Pack 2 or refer to Microsoft knowledge base #831717.

(c) Windows XP fast user switch is not supported. When switching to another user, the Bluetooth Manager is not launched. Please log off before switching to another user.

(d) If "automatic FAX receiving" is enabled on Microsoft FAX manager, and if DUN, FAX, or LAP profile icon is registered on Bluetooth Settings, and then Bluetooth's "resume from standby" may take a couple of minutes to turn on.

(e) Windows 98 Second Edition: If the "Install New Modem" dialog pops up when setting up a Bluetooth modem, mobile phone, or access point, please choose "Don't detect my modem; I will select from a list". Otherwise, the system may freeze during the modem detection. If the manual for your Bluetooth device does not specify a modem driver, then please select "Standard 33600bps modem".

(f) Before connecting or disconnecting a Bluetooth headset, please exit any voice or sound-related applications (e.g. Windows Messenger, Windows Media Player). The audio input and output may not be switched properly if those applications are running. This same precaution is important prior to system standby, hibernate or shutdown, and prior to turning off or unpluging the primary Bluetooth device.

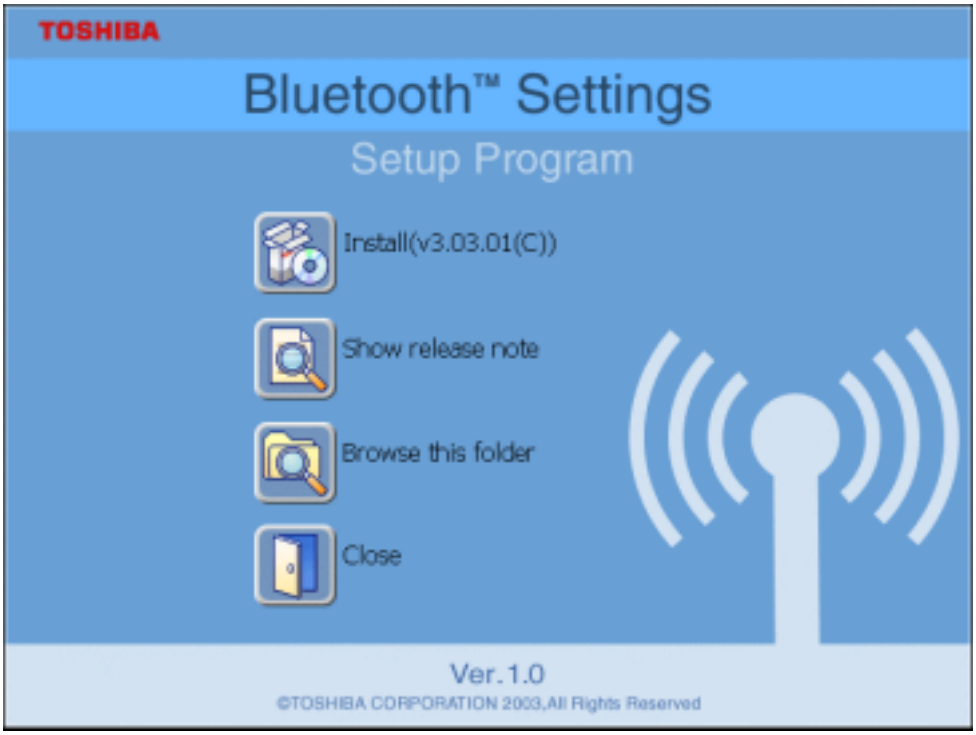
2

Chapter2

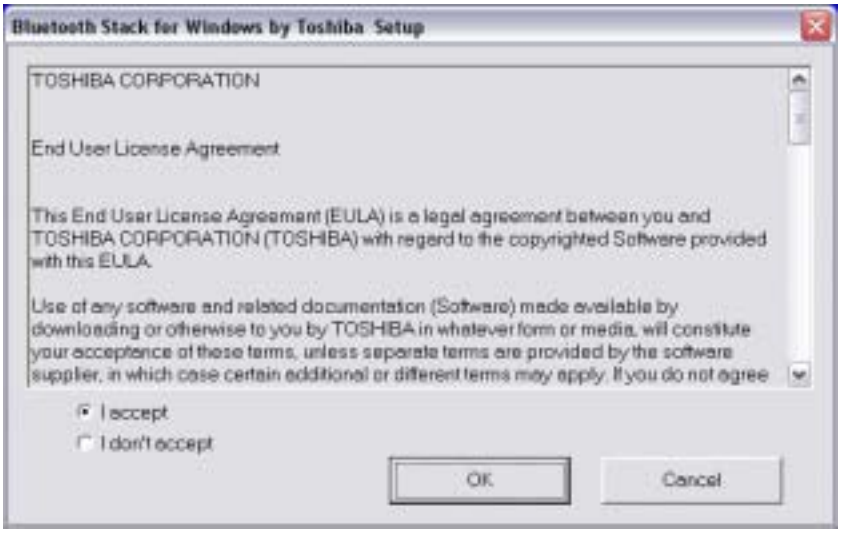
Setup for Windows 98SE/ME/2000/XP

Installing Bluetooth software for Windows

1. Please insert the accompanying CD and the setup menu should launch automatically. If the setup menu does not launch automatically, use Windows Explorer to navigate to the appropriate CD-ROM drive and run **"setup"**.

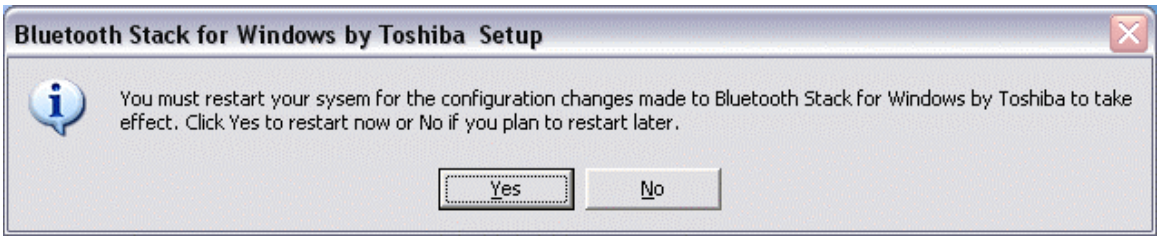


2. When the License Agreement screen is displayed, read the License Agreement, then click the radio button to the left of "**I accept**" and then click the "**Next**" button.



3. During the installation, the system will try to detect your Bluetooth device, please plug in your Bluetooth device and then click on the "**OK**" button.

4. When the installation is completed, please click on the "**Yes**" button to restart your system.



3

Chapter 3

Basic setting

Methods for registering new devices using the Bluetooth Utility shall now be described. A Bluetooth mouse shall be connected and set up using [Bluetooth Settings] as an example.

[Bluetooth Settings] provides two set-up methods: "Express Mode" and "Custom Mode."

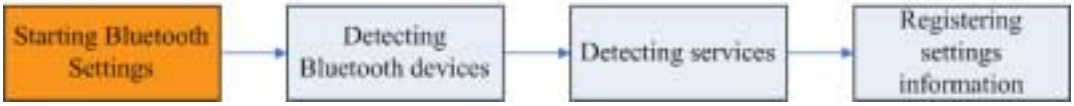
- **Express Mode**
  [Bluetooth Settings] will automatically detect and register services. If several services (profiles) are supported by the device the service that has been set to the highest priority shall be selected and registered.
  Express Mode is normally recommended for device set-up.

- **Custom Mode**
  After having been detected, the services supported by the device are displayed as a list, from which you can select the desired function(s).
  Custom Mode must be used to set up a device if, for example, you wish to use a modem station to send a fax (because in Express Mode, the DUN profile will be automatically selected since it has a higher priority than the FAX profile).

The differences between setting up the same device (a Bluetooth mouse) using Express Mode and Custom Mode are described on the following pages.

3.1 Express Mode Set-up

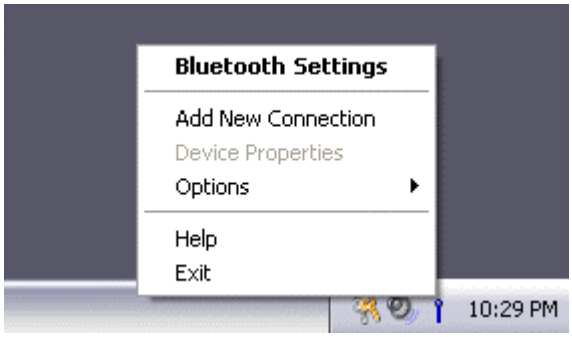
3.1.1 Starting Bluetooth Settings



1. **Click [Start]→[All Programs]→[Bluetooth]→[Bluetooth Settings].**
   (Under Windows 2000, click [Start]→[Programs]→[Bluetooth]→[Bluetooth Settings].)

Note

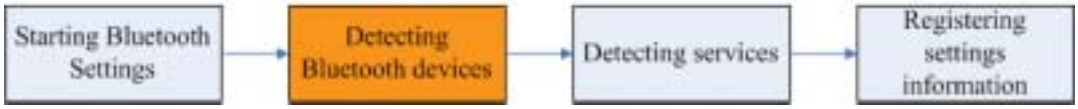
. The same result can be achieved by right-clicking on the Bluetooth icon in the task tray and selecting [Bluetooth Settings] from the menu that appears.



The [Bluetooth Settings] window below will appear when other devices have already been registered.

Please click the [New Connection] button to open the [Add New Connection Wizard] window. If no devices have been registered yet, please proceed directly to "Detecting Bluetooth Devices."

3.1.2 Detecting Bluetooth devices

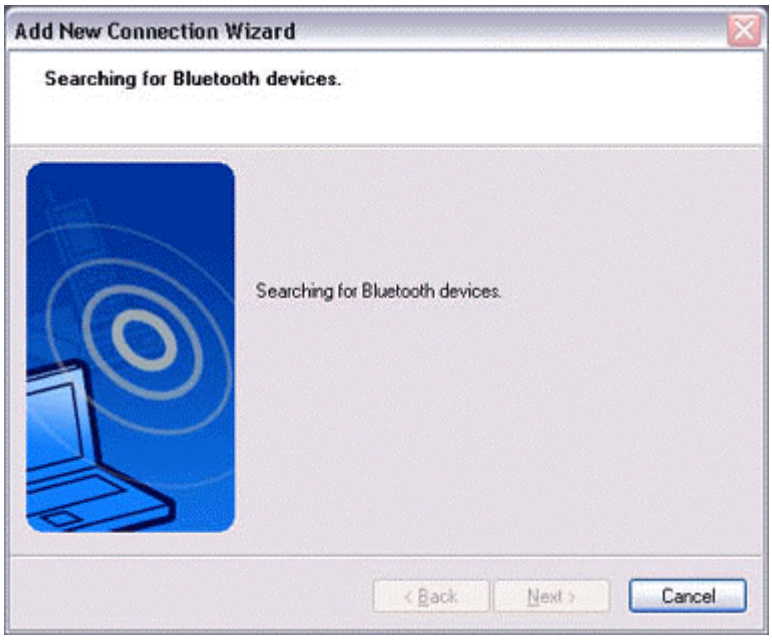


The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

1. **Switch the device power ON to make it connectable via Bluetooth.**

2. **Confirm that [Express Mode] has been selected in the [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window, and click on the [Next] button.**

Searching for Bluetooth devices will start.



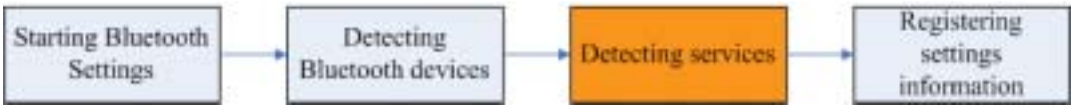
When the device has been detected, the name and address of the device will appear in the [Add New Connection Wizard (Select Device)] window.

Note

. If no device is found, please confirm that the device has been made connectable via Bluetooth, and click on the [Update] button.

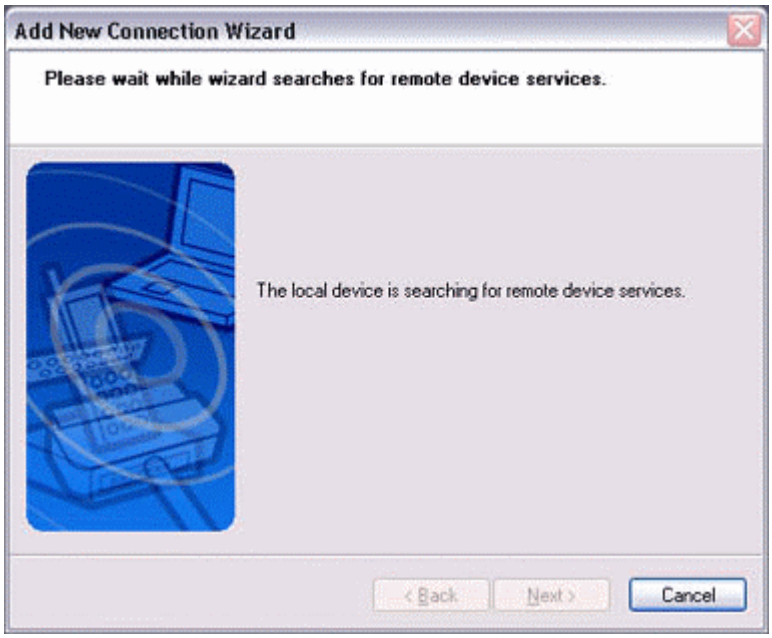
. A further device search will be performed.

3.1.3 Detecting services



1. **Select the device name from [Device List] and click on the [Next] button.**

Bluetooth device detection will commence.



Note

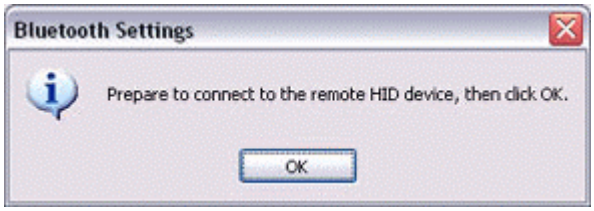
. If several services (profiles) are supported by the device, the service that has been set to the highest priority shall be automatically selected and set up in Express Mode. Please use Custom Mode if you wish to select desired services manually.

. When a service has been detected, a window prompting you to enter the Bluetooth passkey (PIN code) may appear. Please enter the passkey and click on the [OK] button.

. If you have not entered your Bluetooth passkey after a certain amount of time has passed, the connection process will be cancelled for security reasons. Please perform the passkey entry process again.

A message will appear prompting you to prepare the device for connection.

2. **Click on the [OK] button.**



Note

. When the settings information has been registered, a window prompting you to enter your Bluetooth passkey (PIN code) may appear. Please enter your passkey and click on the [OK] button.

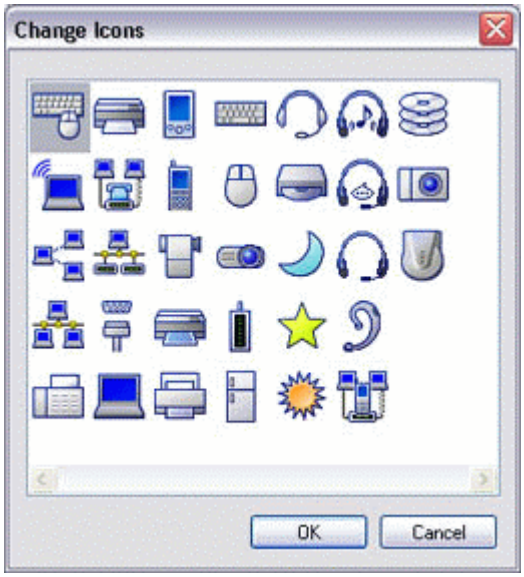
. If you have not entered your Bluetooth passkey after a certain amount of time has passed, the connection process will be cancelled for security reasons. Please perform the passkey entry process again.

The [Add New Connection Wizard (Connection Name Setup)] window will appear if a service has been properly detected.

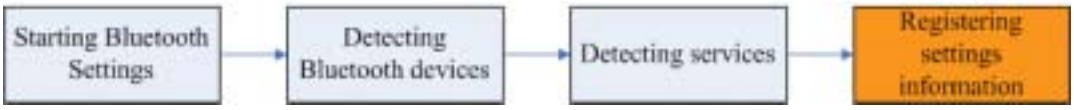
3. **Select the type and name of the icon to be displayed once the device has been registered, and click on the [Next] button.**

Note

. If you wish to change the icon, please click on the [Change Icon] button and select your preferred icon from the list that appears.

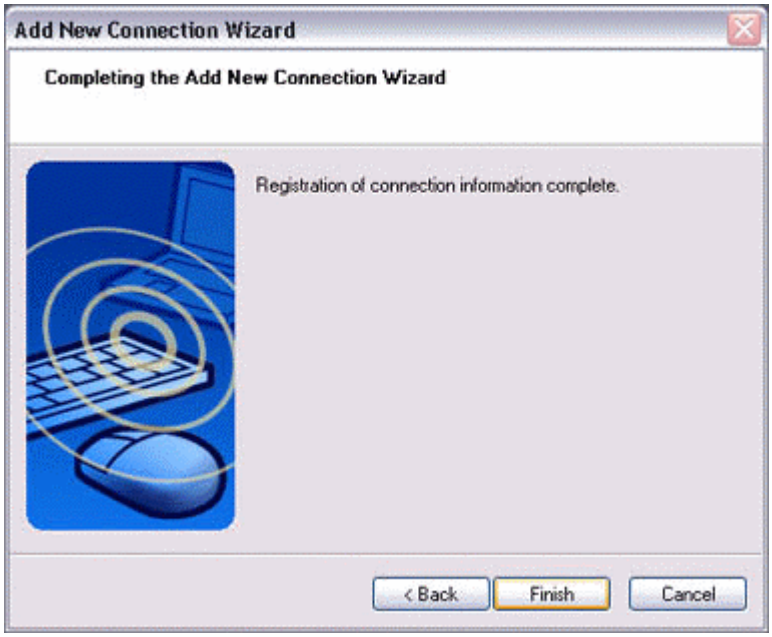


3.1.4 Registering settings information



The [Add New Connection Wizard (Completing the Add New Connection Wizard)] window will appear.

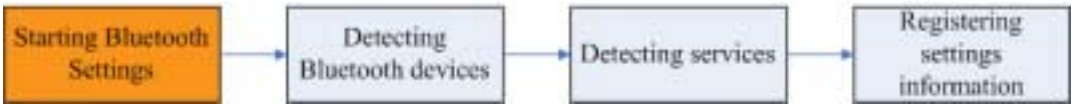
1. **Click on the [Finish] button**



The [Bluetooth Settings] window will appear.
The icons of the registered devices will appear, and the devices will be ready to use.

3.2 Custom Mode Set-up

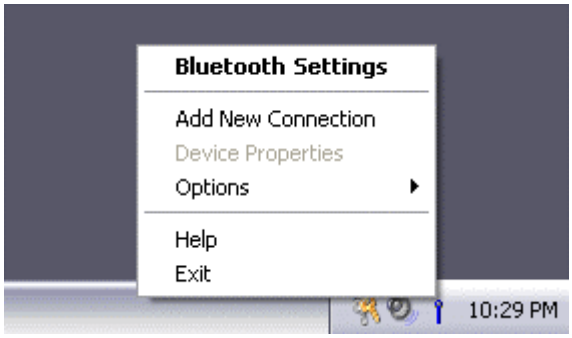
3.2.1 Starting Bluetooth Settings



1. **Click [Start]→[All Programs]→[Bluetooth]→[Bluetooth Settings].** (Under Windows 2000, click [Start]→[Programs]→[Bluetooth]→[Bluetooth Settings].)

   Note

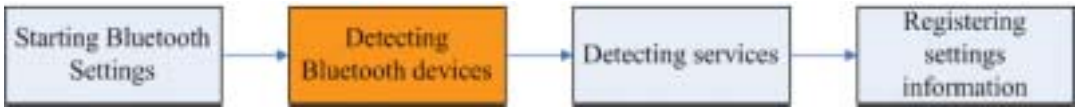
   . The same result can be achieved by right-clicking on the Bluetooth icon in the task tray and selecting [Bluetooth Settings] from the menu that appears.



The [Bluetooth Settings] window below will appear when other devices have already been registered.

Please click the [New Connection] button to open the [Add New Connection Wizard] window. If no devices have been registered yet, please proceed directly to "Detecting Bluetooth Devices."

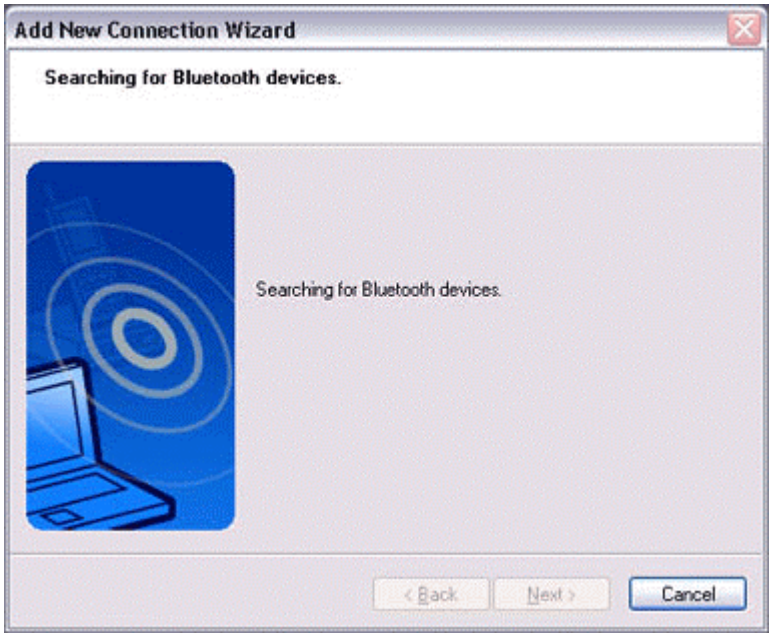
3.2.2 Detecting Bluetooth devices



The [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window will appear.

1. **Switch the device power ON to make it connectable via Bluetooth.**
2. **Confirm that [Custom Mode] has been selected in the [Add New Connection Wizard (Welcome to the Add New Connection Wizard)] window, and click on the [Next] button.**

Searching for Bluetooth devices will start.



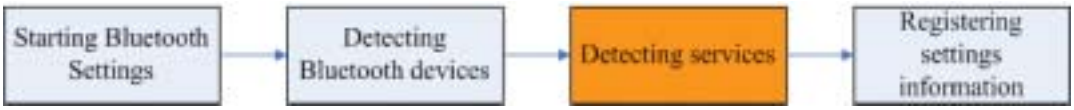
When the device has been detected, the name and address of the device will appear in the [Add New Connection Wizard (Select Device)] window.

Note

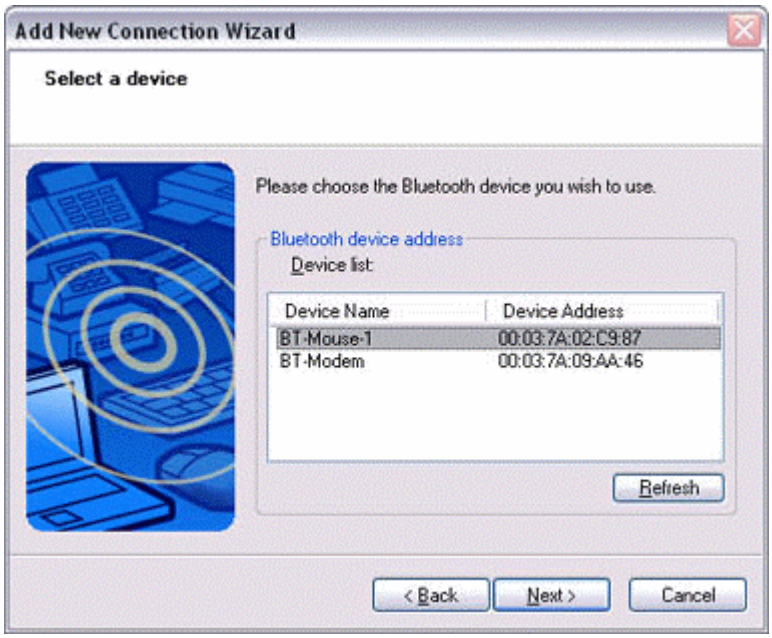
. If no device is found, please confirm that the device has been made connectable via Bluetooth, and click on the [Update] button.

. A further device search will be performed.

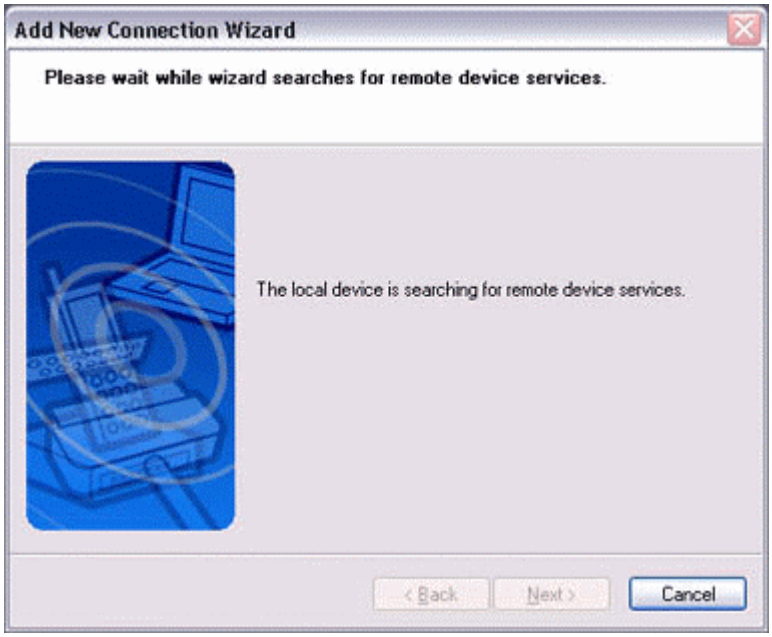
3.2.3 Detecting services



1. **Select the device name from [Device List] and click on the [Next] button.**

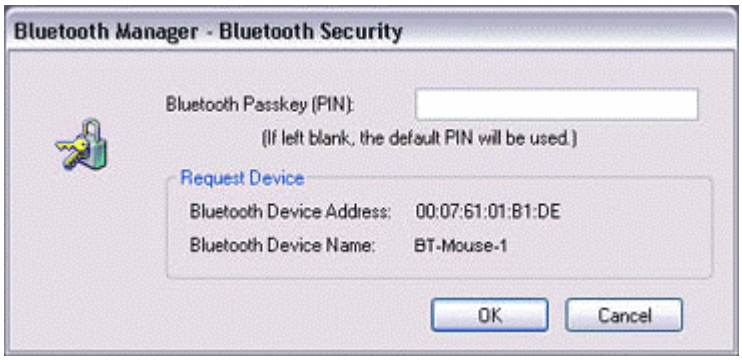


Bluetooth device detection will commence.



Note

. When a service has been detected, a window prompting you to enter the Bluetooth passkey (PIN code) may appear. Please enter the passkey and click on the [OK] button.

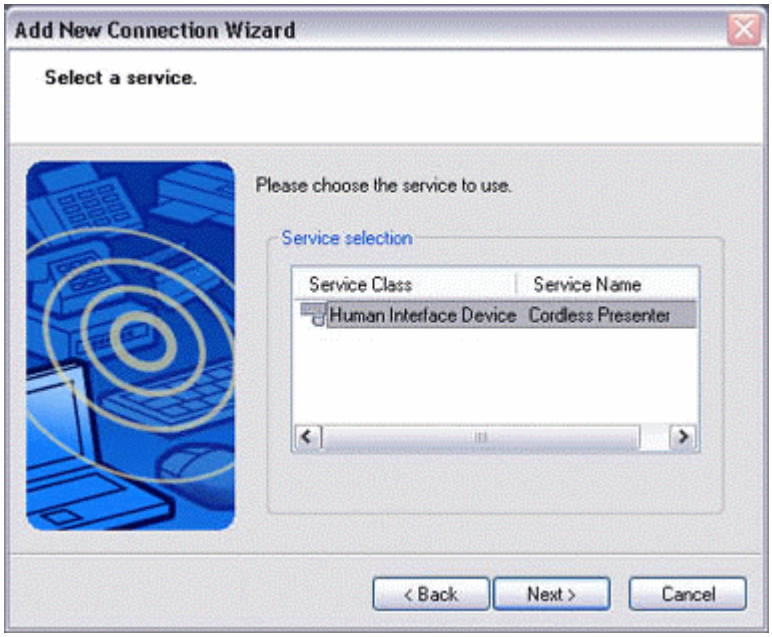


. If you have not entered your Bluetooth passkey after a certain amount of time has passed, the connection process will be cancelled for security reasons. Please perform the passkey entry process again.

. If you try to register a device that has already been registered, the following message will appear, and you will not be able to proceed with further operation. Please click on the [OK] button to close the message.

The services supported by the device will be displayed.

2. **Select the desired service and click on the [Next] button.**

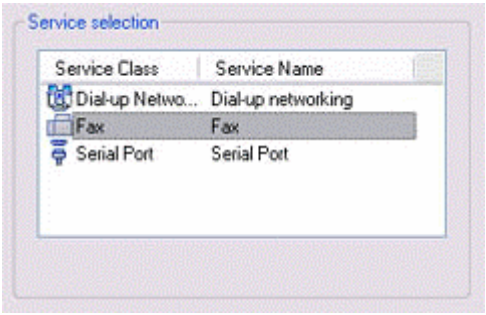


Note

. When a device supports several services

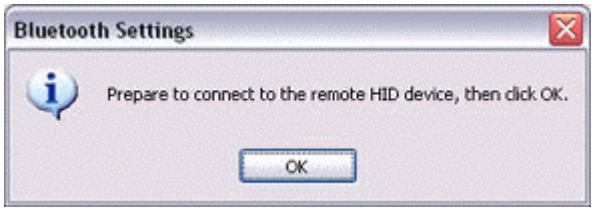
If the device supports several services, you can use Custom Mode to manually select the services (profiles) you wish to use from the list that appears under [Select Services].

Example: List of wireless modem station services



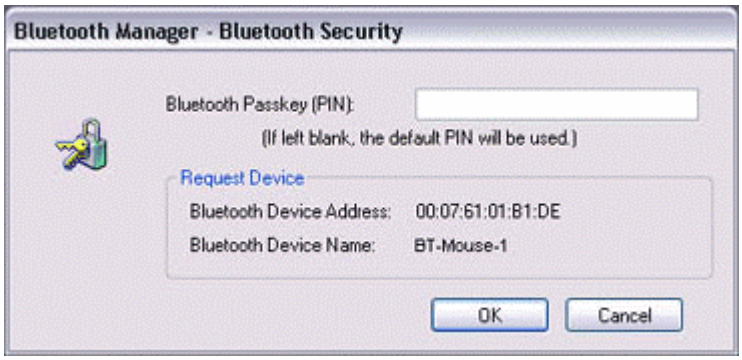
If Express Mode is used to perform the set-up, the highest-priority service in the device will be automatically selected and configured.

3. **Click on the [OK] button.**



Note

. When the settings information has been registered, a window prompting you to enter your Bluetooth passkey (PIN code) may appear. Please enter your passkey and click on the [OK] button.



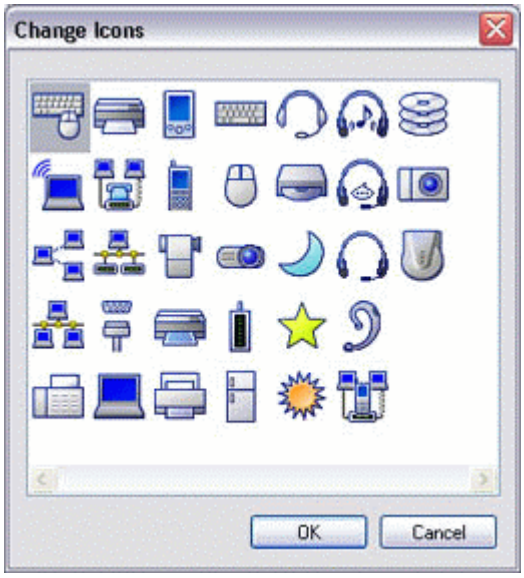
. If you have not entered your Bluetooth passkey after a certain amount of time has passed, the connection process will be cancelled for security reasons. Please perform the passkey entry process again.

The [Add New Connection Wizard (Connection Name Setup)] window will appear if a service has been properly detected.

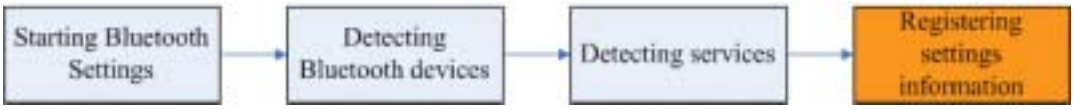
4. **Select the type and name of the icon to be displayed once the device has been registered, and click on the [Next] button.**

Note

. If you wish to change the icon, please click on the [Change Icon] button and select your preferred icon from the list that appears.

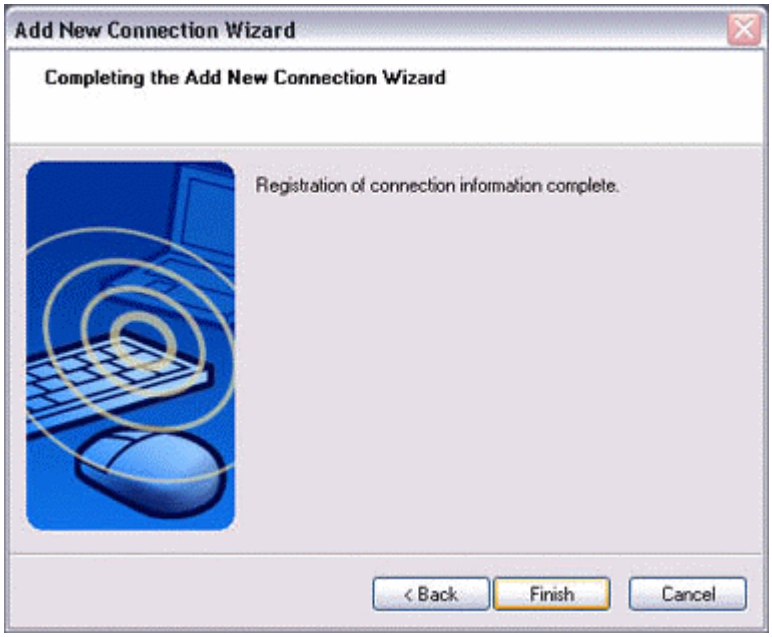


3.2.4 Registering settings information

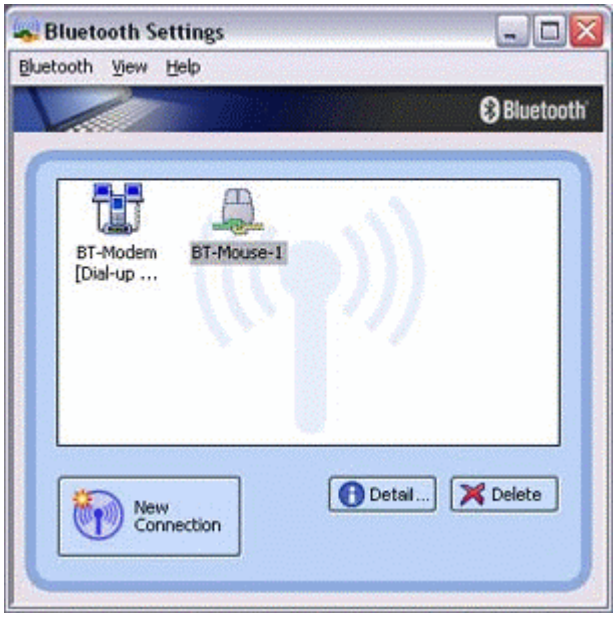


The [Add New Connection Wizard (Completing the Add New Connection Wizard)] window will appear.

1. **Click on the [Finish] button**



The [Bluetooth Settings] window will appear.
The icons of the registered devices will appear, and the devices will be ready to use.


Bluetooth Settings
Bluetooth View Help
Bluetooth
BT-Modem
[Dial-up ...
BT-Mouse-1
New
Connection
Detail...
Delete

4

Chapter 4

Making the most of your Bluetooth device

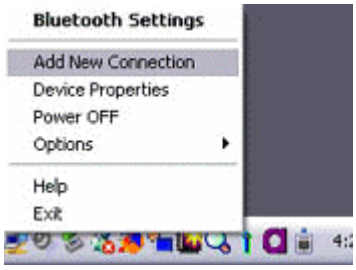
4.1 Connecting to the internet

4.1.1 Connecting to the internet using a modem station

Setting up the modem station

1. **Turn on the wireless modem station**.

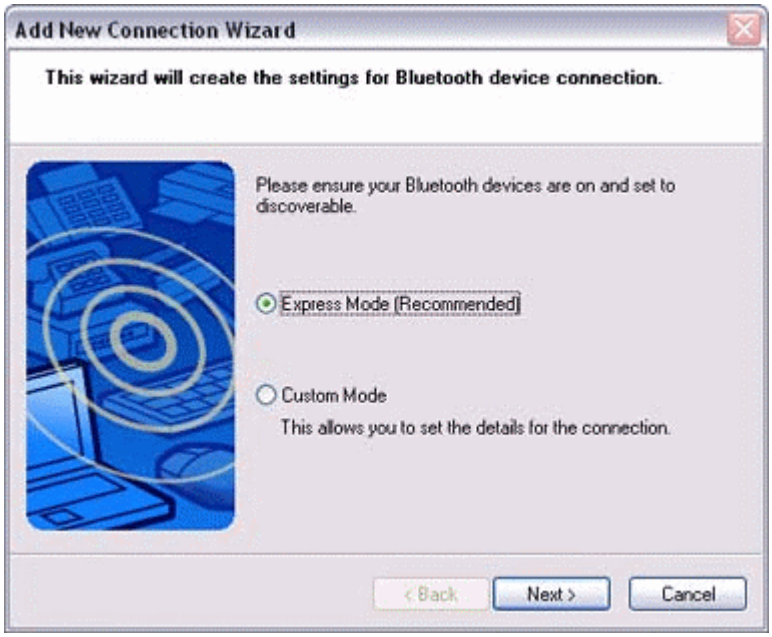
2. **Right-click the Bluetooth icon in the task tray, and then click on [Add New Connection]**.



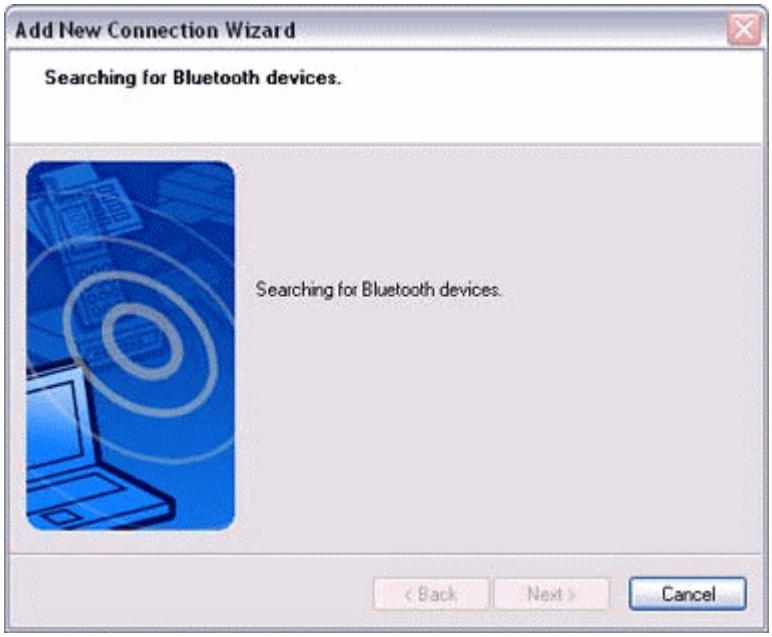
Note

. Alternatively, click [Start]→[All Programs]→[Bluetooth]→[Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

3. **Confirm that [Express Mode] has been selected, and then click on the [Next] button**.



The [Add New Connection Wizard (Searching for Bluetooth devices)] window will appear.



4. **Select the device name of the wireless modem station from [Device List], and then click on the [Next] button**.

The [Add New Connection Wizard (Searching for Services)] window will appear.

Once a service has been detected successfully, connection to the device and COM port creation will be performed automatically, after which the [Add New Connection Wizard (Modem Settings)] window will appear.

5. **If you are connecting to a wireless modem station for the first time, enter the passkey for the modem station under [Bluetooth Passkey (PIN code)], and then click on the [OK] button.**

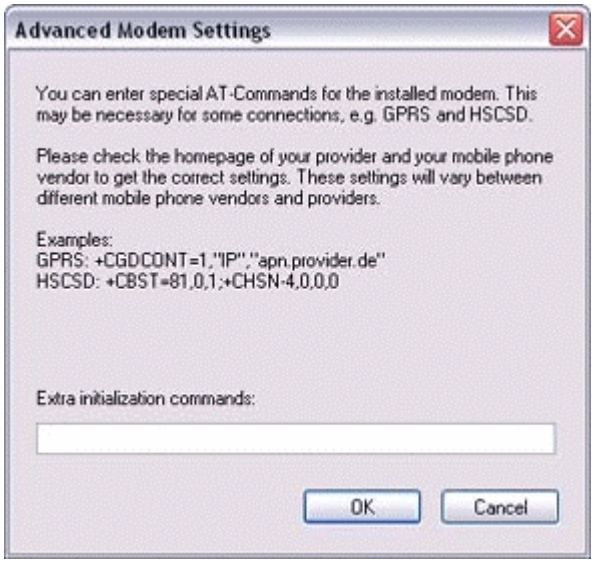
Once the program has finished searching for the devices, the [Add New Connection Wizard (Device Selection)] window will appear.

6. **Click on the [Next] button.**

Certain modems require you to configure initialization commands separately. Please click on the [Additional initialization Command Settings] button, enter the initialization commands in the following window, and then click on the [OK] button.

Note

. Please refer to the modem or mobile phone instruction manual for further detail or mobile phone instruction manual for further details on initialization commands.



7. **Enter the connection name (optional), telephone number (of your provider's access point), user name and password (as issued by your provider), and then click on the [Finish] button.**

Important

. The sample entries shown in the window are provided solely for purpose of explanation. Please use your own telephone number, ID and password according to the arrangement with your provider.

The settings will be registered, and an icon will appear in the [Bluetooth Settings] window.

Connecting to the Internet

1. **Start your browser, e-mail application or other application**

   Important

   . Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).

2. **Enter the URL of the Web page you wish to display and then press the [Enter] key, or use the e-mail tool to send/receive items or perform other activities.**

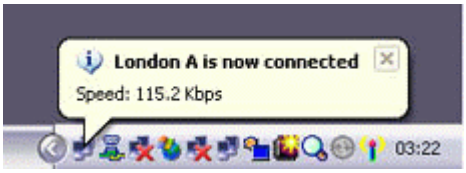
   The [Dial-up Connection] window will appear.

3. **Click on the [Connect] button**

Important

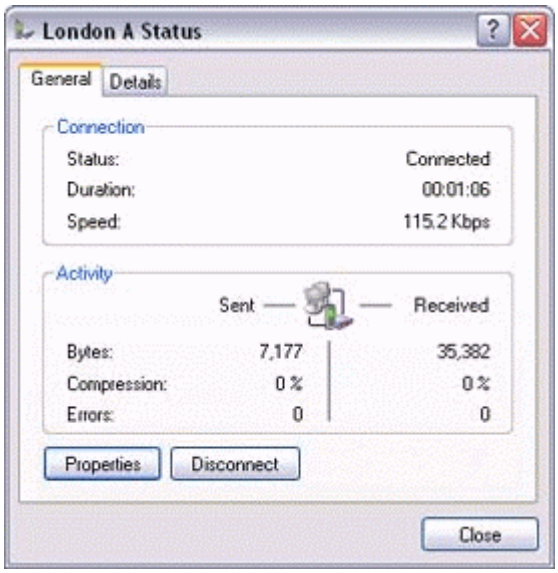
. A connection will be automatically established with the modem station if COM Auto Connect is available. If COM Auto Connect is not available, please manually connect to the modem station.

The following message will appear once you have connected to the Internet.



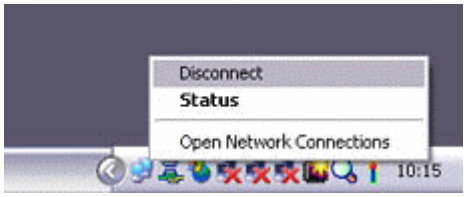
4. **End the connection**

The window below will appear if you double-click on the icon in the task bar.



Please click on the [Disconnect] button when you want to disconnect from the Internet.

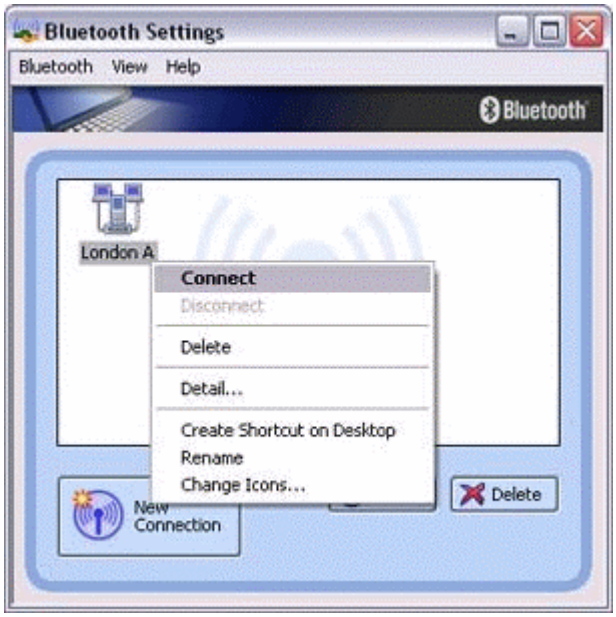
Alternatively, please right-click on the icon, and then click on [Disconnect].



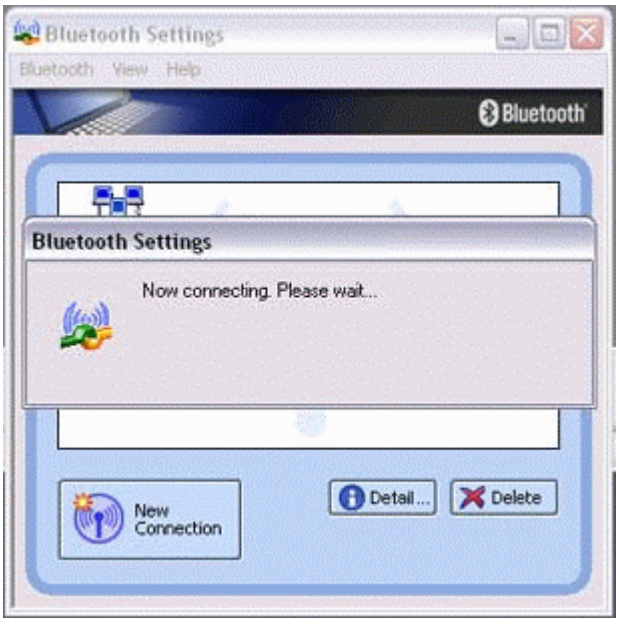
Note

. You can start an application to make an automatic connection to the Internet, but you can also make a manual connection using the connection destination icon. The procedure is described below.

1. **From the [Bluetooth Settings] window, right-click on the connection destination icon, and then click on [Connect] from the menu that appears**.



A window indicating that the connection is being established will appear.



If the connection has been established successfully, the connection icon and task tray will appear as shown below.

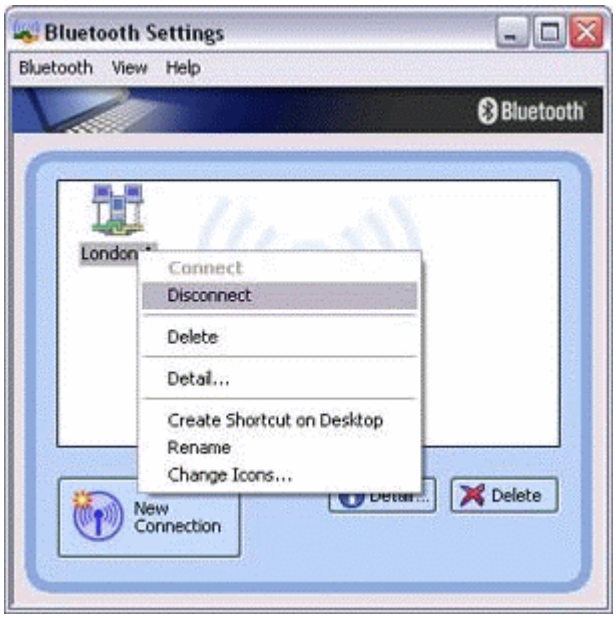
You will be able to browse Web pages using your browser and send and receive e-mail.

Important

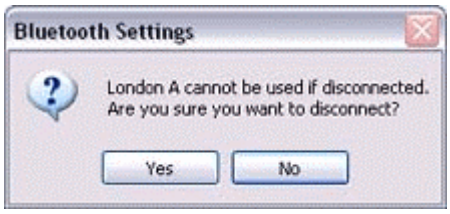
. Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).

2. **End the connection**

Right-click on the icon, and then click [Disconnect] to end the connection.



The following message will appear. Click on the [Yes] button.



When the icon appears as shown below, the connection will have ended.

4.1.2 Connecting to the internet using a mobile telephone

Important

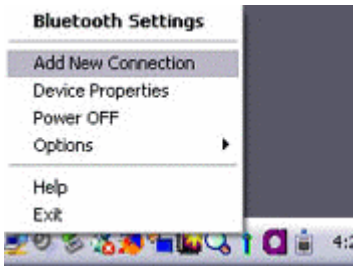
. In order to connect to the Internet, you must have already signed up with a provider and obtained a connection ID and password. Please ensure you have confirmed the ID, password and telephone number of your provider's access point before you begin the set-up process.

. A Bluetooth passkey (PIN code) is required for you to connect to the mobile telephone. Please make a note of your Bluetooth passkey before you start the set-up process.

Configuring a mobile telephone for use a modem

1. **Turn on the mobile phone, and set it to be connectable via Bluetooth**.

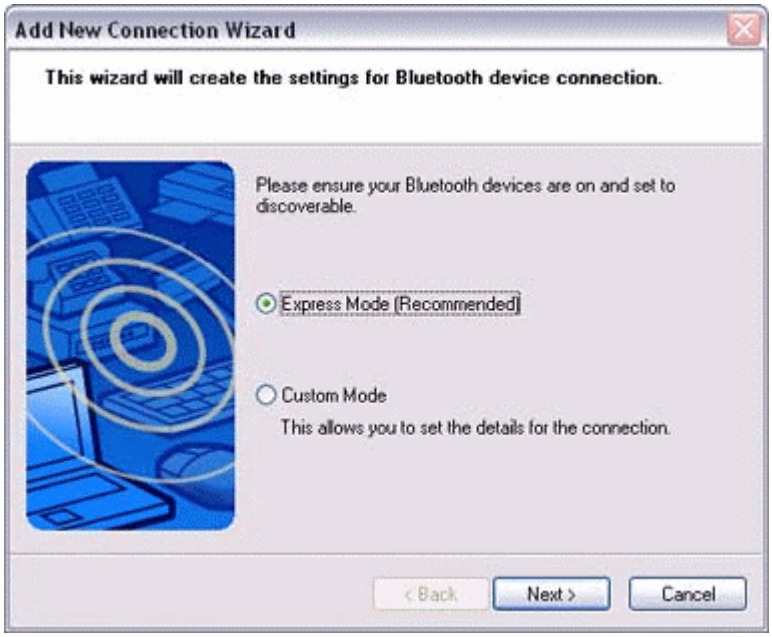
2. **Right-click the Bluetooth icon in the task tray, and then click on [Add New Connection]**.



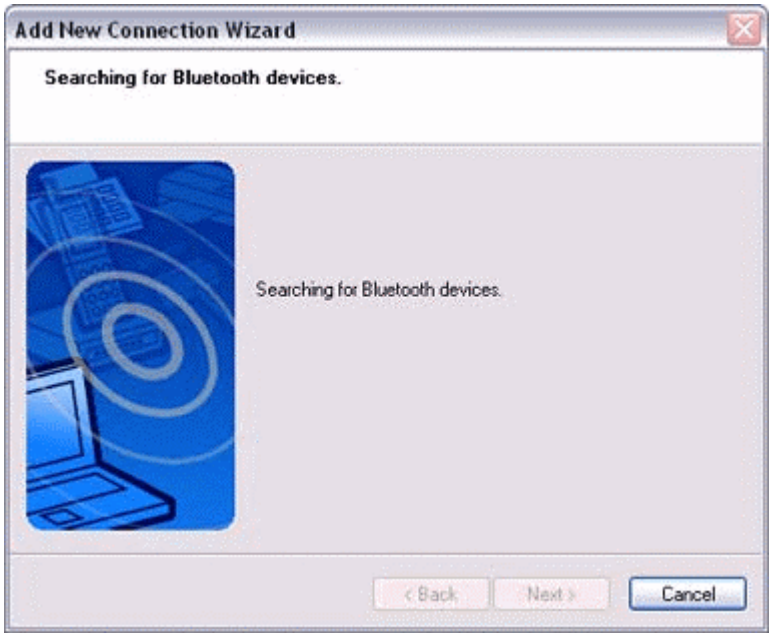
Note

. Alternatively, click [Start]→[All Programs]→[Bluetooth]→[Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

3. **Confirm that [Express Mode] has been selected, and then click on the [Next] button**.



The [Add New Connection Wizard (Searching for Bluetooth devices)] window will appear.



4. **Select the device name of the mobile telephone from [Device List], and then click on the [Next] button**.

The [Add New Connection Wizard (Searching for Services)] window will appear.

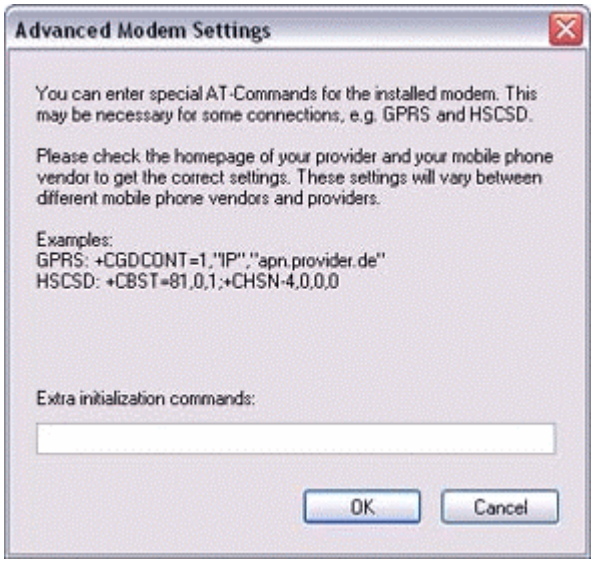
Once a service has been detected successfully, connection to the device and COM port creation will be performed automatically, after which the [Add New Connection Wizard (Modem Settings)] window will appear.

5. **If you are connecting to a mobile telephone for the first time, enter the passkey for the wireless modem station under [Bluetooth Passkey (PIN code)], and then click on the [OK] button.**

Once the program has finished searching for the devices, the [Add New Connection Wizard (Device Selection)] window will appear.

6. **Click on the [Next] button.**

Certain modems require you to configure initialization commands separately. Please click on the [Additional initialization Command Settings] button, enter the initialization commands in the following window, and then click on the [OK] button.



7. **Enter the connection name (optional), telephone number (of your provider's access point), user name and password (as issued by your provider), and then click on the [Finish] button.**

Important

. The sample entries shown in the window are provided solely for purpose of explanation. Please use your own telephone number, ID and password according to the arrangement with your provider.

The settings will be registered, and an icon will appear in the [Bluetooth Settings] window.

Connecting to the Internet

1. **Start your browser, e-mail application or other application**

   Important

   . Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).

2. **Enter the URL of the Web page you wish to display and then press the [Enter] key, or use the e-mail tool to send/receive items or perform other activities.**

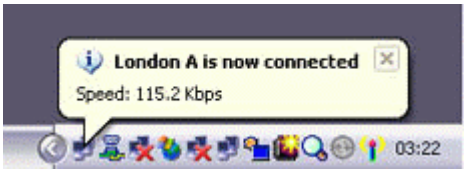
   The [Dial-up Connection] window will appear.

3. **Click on the [Connect] button**

Important

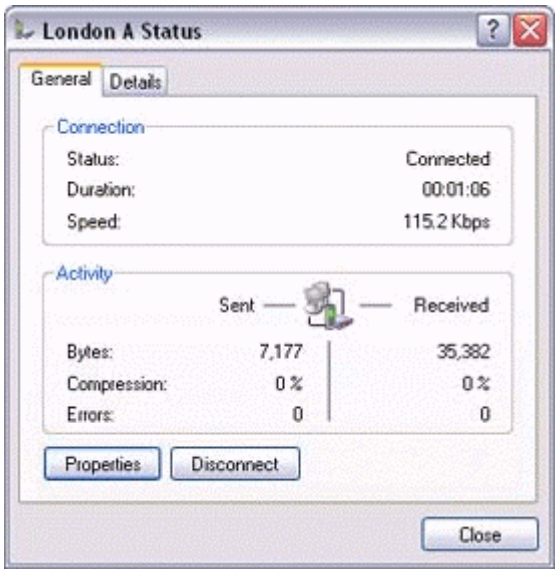
. A connection will be automatically established with the modem station if COM Auto Connect is available. If COM Auto Connect is not available, please manually connect to the mobile telephone .

The following message will appear once you have connected to the Internet.



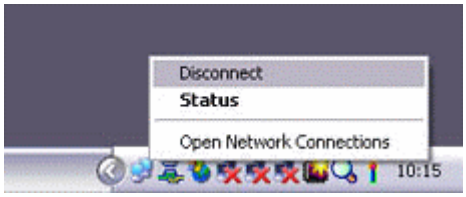
4. **End the connection**

The window below will appear if you double-click on the icon in the task bar.



Please click on the [Disconnect] button when you want to disconnect from the Internet.

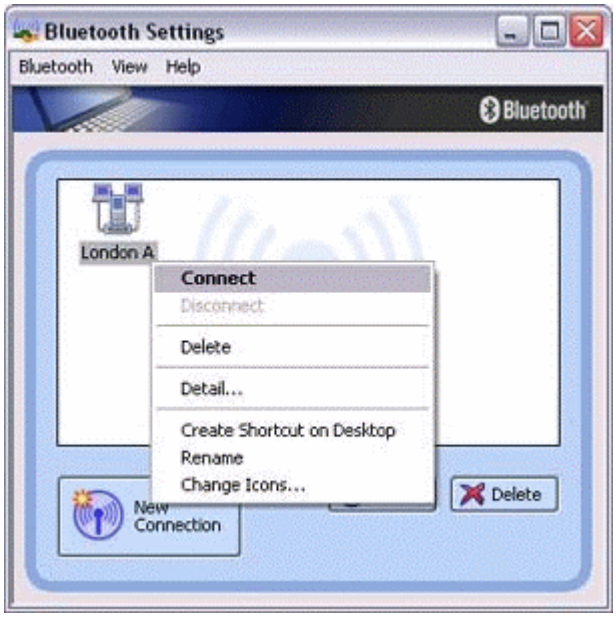
Alternatively, please right-click on the icon, and then click on [Disconnect].



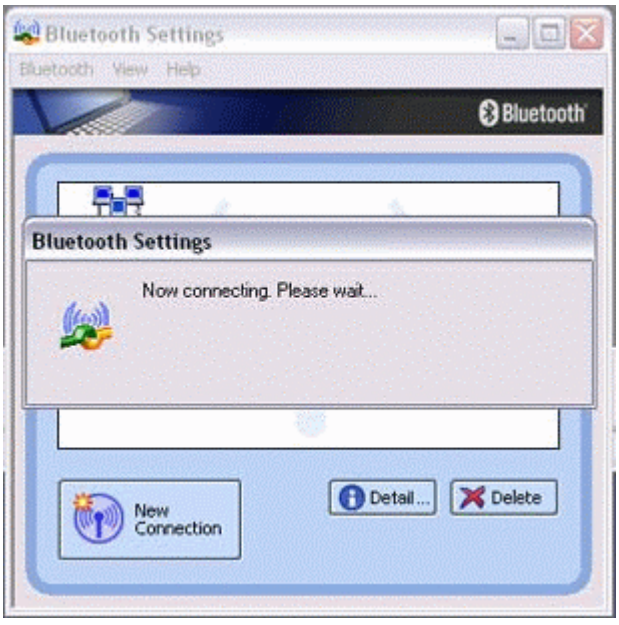
Note

. You can start an application to make an automatic connection to the Internet, but you can also make a manual connection using the connection destination icon. The procedure is described below.

1. **From the [Bluetooth Settings] window, right-click on the connection destination icon, and then click on [Connect] from the menu that appears**.



A window indicating that the connection is being established will appear.



If the connection has been established successfully, the connection icon and task tray will appear as shown below.

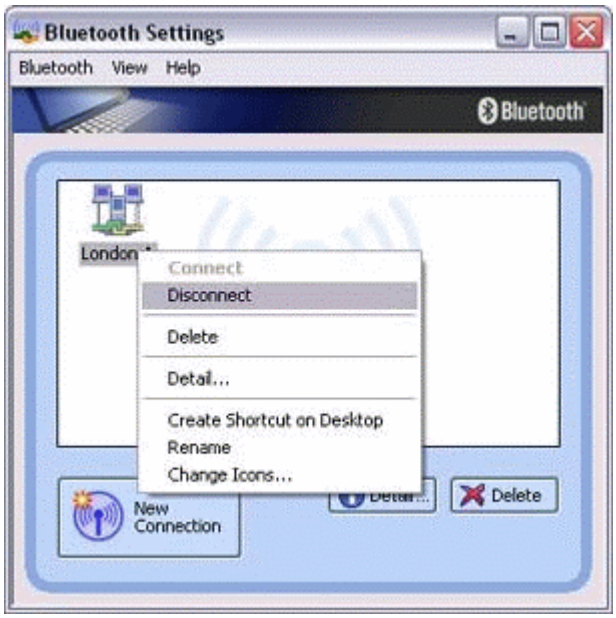
You will be able to browse Web pages using your browser and send and receive e-mail.

Important

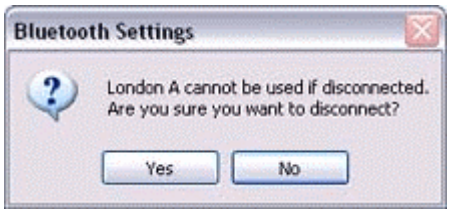
. Please enter the e-mail settings separately if you are going to use e-mail (the set-up method will vary with the application).

2. **End the connection**

Right-click on the icon, and then click [Disconnect] to end the connection.



The following message will appear. Click on the [Yes] button.



When the icon appears as shown below, the connection will have ended.

4.2 Connecting to a network[LAN]

4.2.1 Connecting to a LAN using an access point[LAP]

Setting up the access point

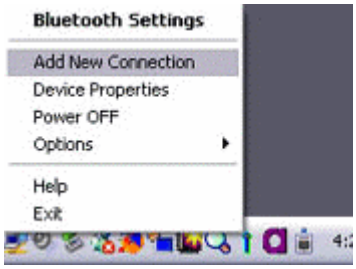
Important

. The access point must have been started and a normal connection already established to the network before the access point is set up. Please refer to the access point instruction manual for information on how to set up the access point.

. A Bluetooth passkey (PIN code) is required for you to connect to the access point. Please make a note of your Bluetooth passkey before you start the set-up process.

1. **Turn on the access point, and confirm that a connection has been established with the network**.

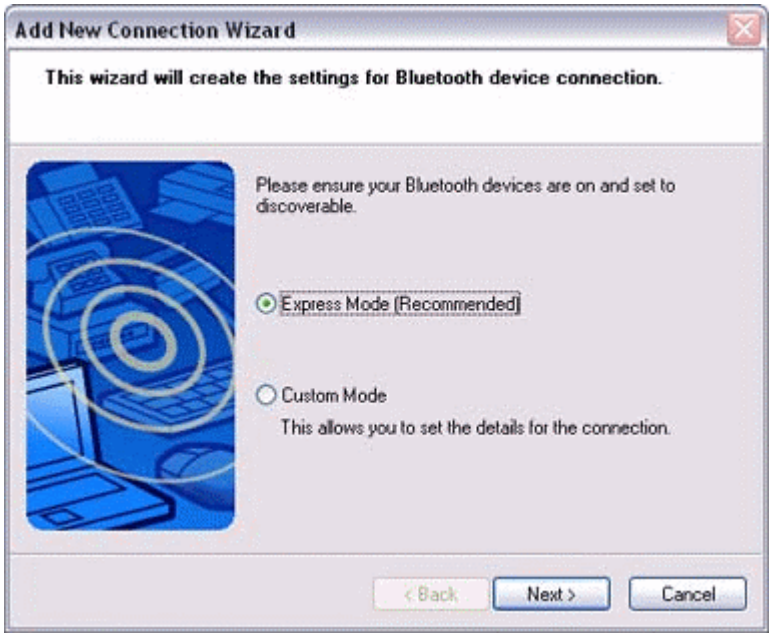
2. **Right-click the Bluetooth icon in the task tray, and then click on [Add New Connection]**.



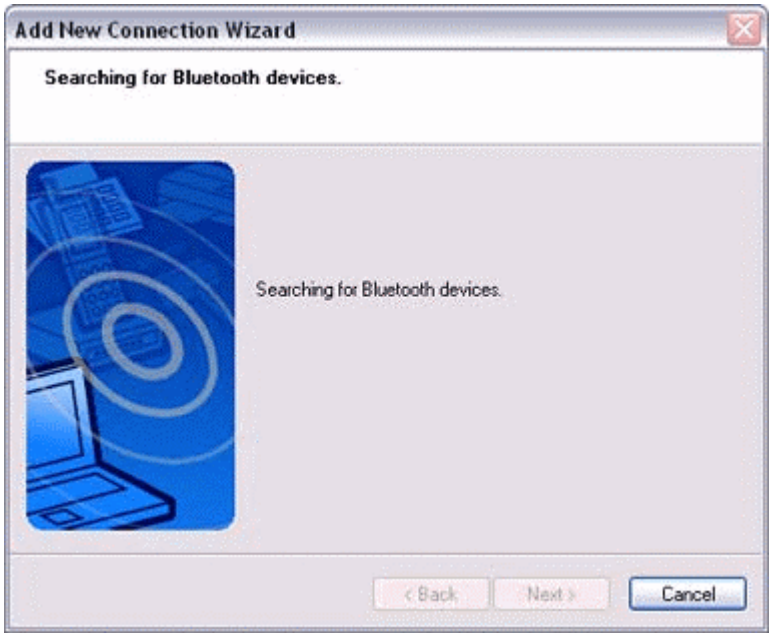
Note

. Alternatively, click [Start]→[All Programs]→[Bluetooth]→[Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

3. **Confirm that [Express Mode] has been selected, and then click on the [Next] button**.



The [Add New Connection Wizard (Searching for Bluetooth devices)] window will appear.



4. **Select the device name of the access point from [Device List], and then click on the [Next] button.**

You will be asked for the Bluetooth passkey in the window that appears.

5. **Enter the passkey under [Bluetooth Passkey (PIN code)], and then click on the [OK] button.**

Service detection and COM port creation will be performed automatically.
The [Add New Connection Wizard (Create Connection Destination)] window will appear.

6. **Enter the connection name, user name and password, then click on the [Next] button.**

Note

. The user name and password are entered here to allow you to connect to the access point.

The [Add New Connection Wizard (Confirm Dial-up Settings)] window will appear.

7. **Click on the [Confirm Settings] button.**

8. **Configure the connection method, and then click on the [OK] button.**
Set the connection destination used for the LAN connection set up in (6) above as

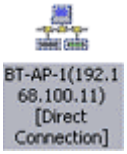
the default connection destination, and then select "Always dial my default connection."

9. **Click on the [Next] button.**

10. **Enter the type and name of the icon displayed after registration, and then click on the [Next] button.**
Please click on the [Next] button if you are satisfied with the settings.

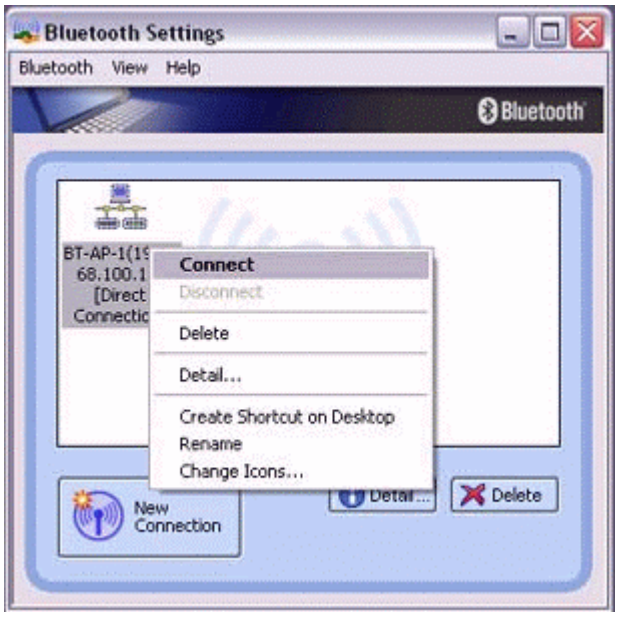
11. **Click on the [Finish] button.**

    The access point icon will be registered in the [Bluetooth Settings] window.



Connecting to a LAN(LAP)

1. **Right-click on the connection icon in the [Bluetooth Settings] window, and then click on [Connect].**



2. **Confirm that "Direct connection" has been selected under [Connection Destination], and then click on the [Connect] button**

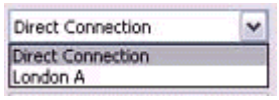
A connection will be initiated.

Note

. This is an example of what happens when you use "Direct connection" as a connection name under "Connect to access point." If a name different from the connection name is used, that name will appear under [Connection Destination].

. Please simply click on [Settings] if no user name or password have been entered (i.e., if those fields have been left blank)

. Please change the connection destination if a different connection name (for a dial-up connection) appears in [Connection Destination].



Once you connect to the network, Internet Explorer will start automatically, and you will be able to exchange data with other computers on the network.

Note

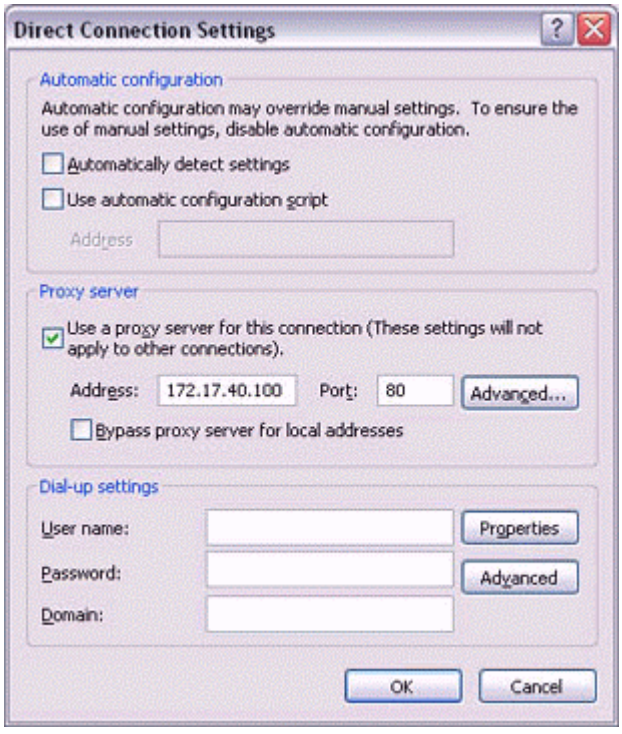
. Please follow the procedure below if you need to set up a proxy server to connect to the Internet (the following procedure is not necessary if the PC you are going to use has already been set up as a proxy server).

1. Select [Internet Options...] from the [Tools] menu in Internet Explorer.

The [Internet Options] window will appear.

2. Click on the [Connections] tab, and then click on the [Settings...] button.

3. Enter the IP address and port number of the proxy server under [Proxy Server], and then click on the [OK] button.



4.2.2 Connecting to a LAN using an access point[PAN]

Setting up the access point

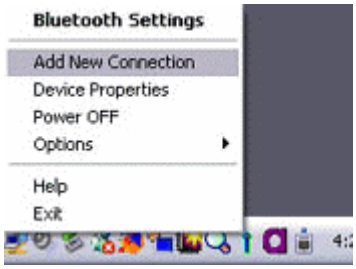
Important

. The access point must have been started and a normal connection already established to the network before the access point is set up. Please refer to the access point instruction manual for information on how to set up the access point.

. A Bluetooth passkey (PIN code) is required for you to connect to the access point. Please make a note of your Bluetooth passkey before you start the set-up process.

2. **Turn on the access point, and confirm that a connection has been established with the network**.

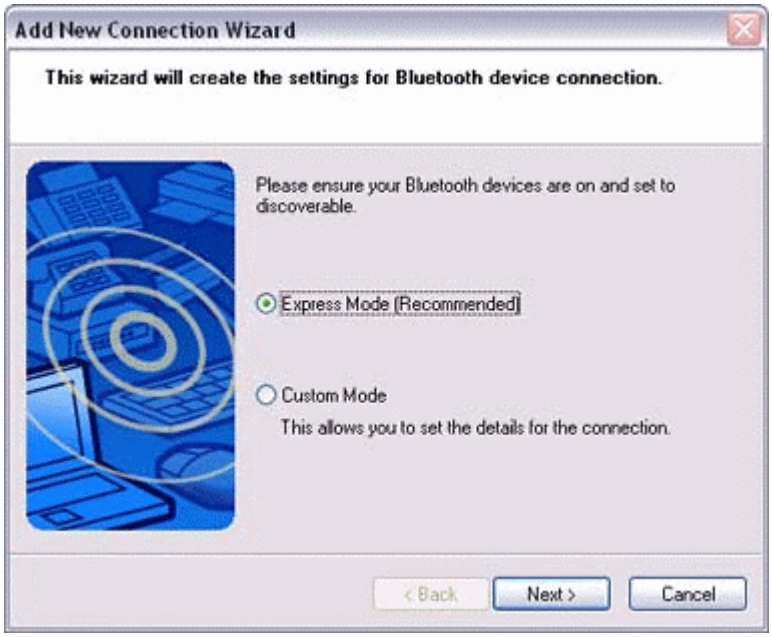
3. **Right-click the Bluetooth icon in the task tray, and then click on [Add New Connection]**.



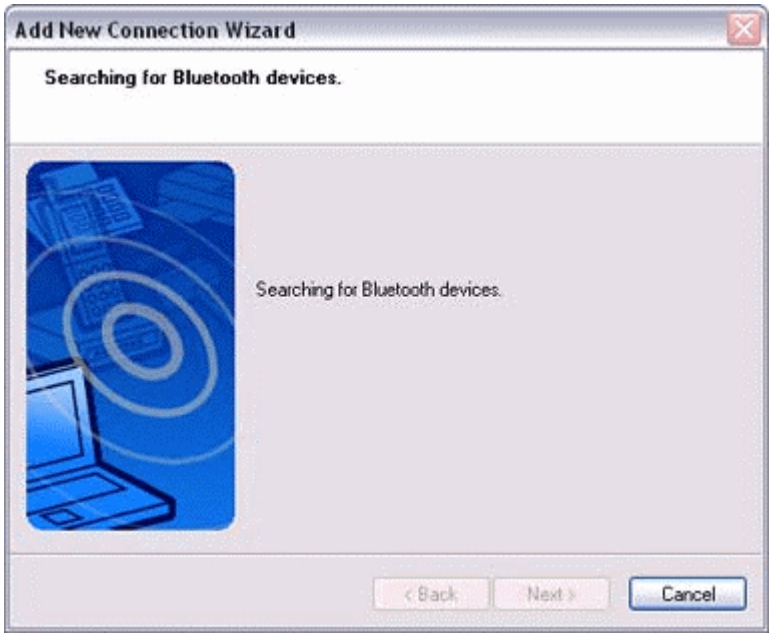
Note

. Alternatively, click [Start]→[All Programs]→[Bluetooth]→[Bluetooth Settings], and then click on [New Connection] from the active [Bluetooth Settings] window.

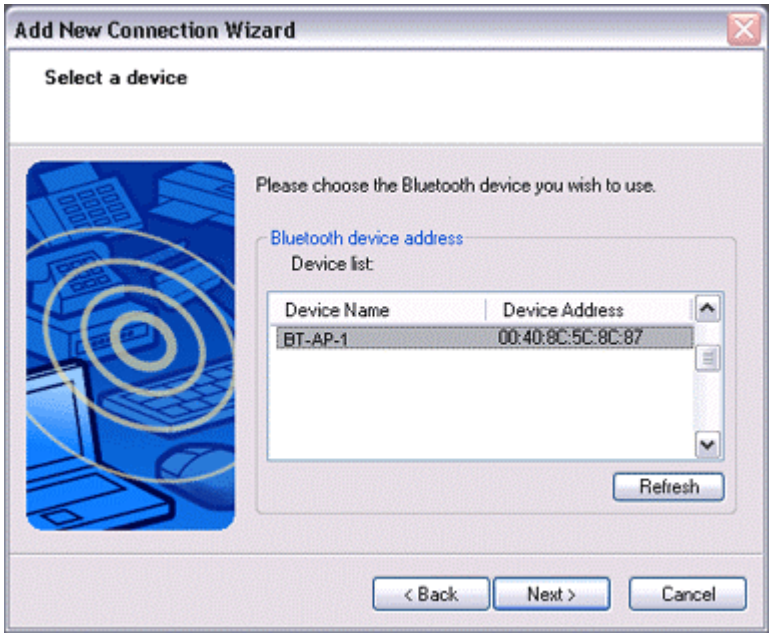
4. **Confirm that [Express Mode] has been selected, and then click on the [Next] button**.



The [Add New Connection Wizard (Searching for Bluetooth devices)] window will appear.

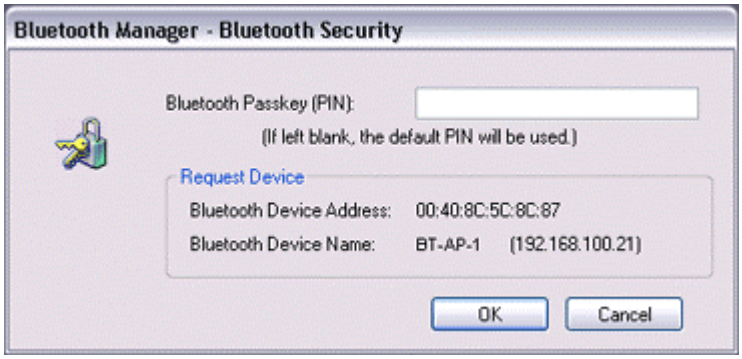


5. **Select the device name of the access point from [Device List], and then click on the [Next] button.**



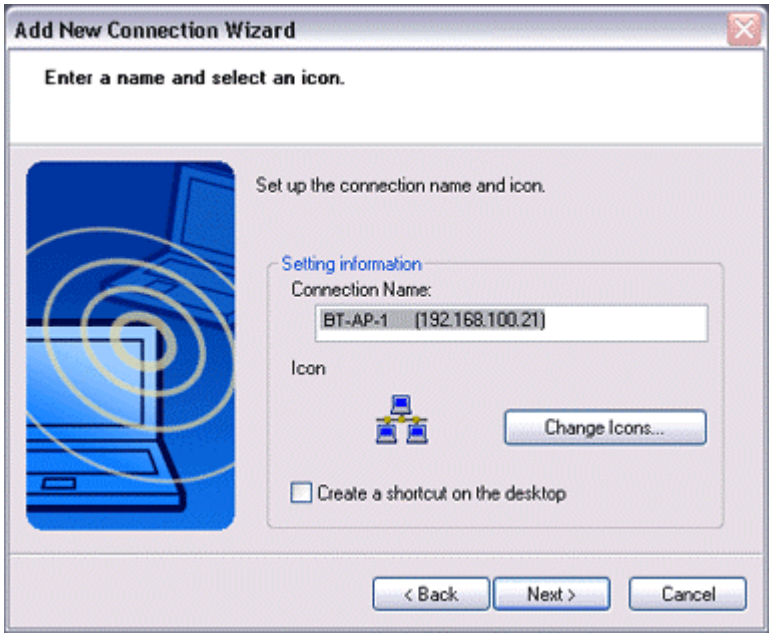
You will be asked for the Bluetooth passkey in the window that appears.

6. **Enter the passkey under [Bluetooth Passkey (PIN code)], and then click on the [OK] button.**



Service detection and COM port creation will be performed automatically.
The [Add New Connection Wizard (Connection Name Settings)] window will appear.

7. **Enter the type and name of the icon displayed after registration, and then click on the [Next] button.**
   Please click on the [Next] button if you are satisfied with the settings.



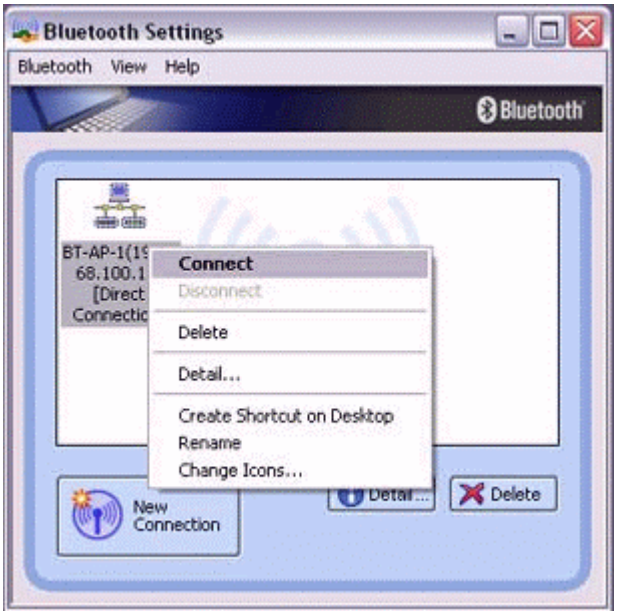
The [Add New Connection Wizard (Completing the Add New Connection Wizard)] window will appear.

8. **Click on the [Finish] button.**
   The access point icon will be registered in the [Bluetooth Settings] window.

This will complete the access point set-up process.

Connecting to a LAN(PAN)

1. **Right-click on the connection icon in the [Bluetooth Settings] window, and then click on [Connect].**



2. **Enter the passkey under [Bluetooth Passkey (PIN code)], and then click on the [OK] button.**

A connection will be initiated.

Note

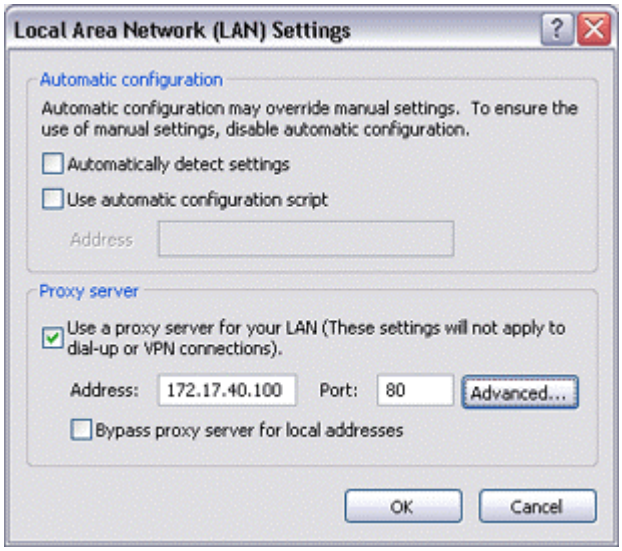
. Please follow the procedure below if you need to set up a proxy server to connect to the Internet (the following procedure is not necessary if the PC you are going to use has already been set up as a proxy server).

1. Select [Internet Options...] from the [Tools] menu in Internet Explorer.

The [Internet Options] window will appear.

2. Click on the [Connections] tab, and then click on the [Settings...] button.

3. Enter the IP address and port number of the proxy server under [Proxy Server], and then click on the [OK] button.



4.3 Sending files

You can send and receive files other than business card data with a Bluetooth-enabled PC or PDA.
Use "File transfer" in the Bluetooth Information Exchanger to exchange files.

Note

. The same operations will be valid as long as the PC and PDA support the FTP profile

. "File transfer" cannot be used to send or receive business card data. Please instead use "Object Push" to perform these activities.

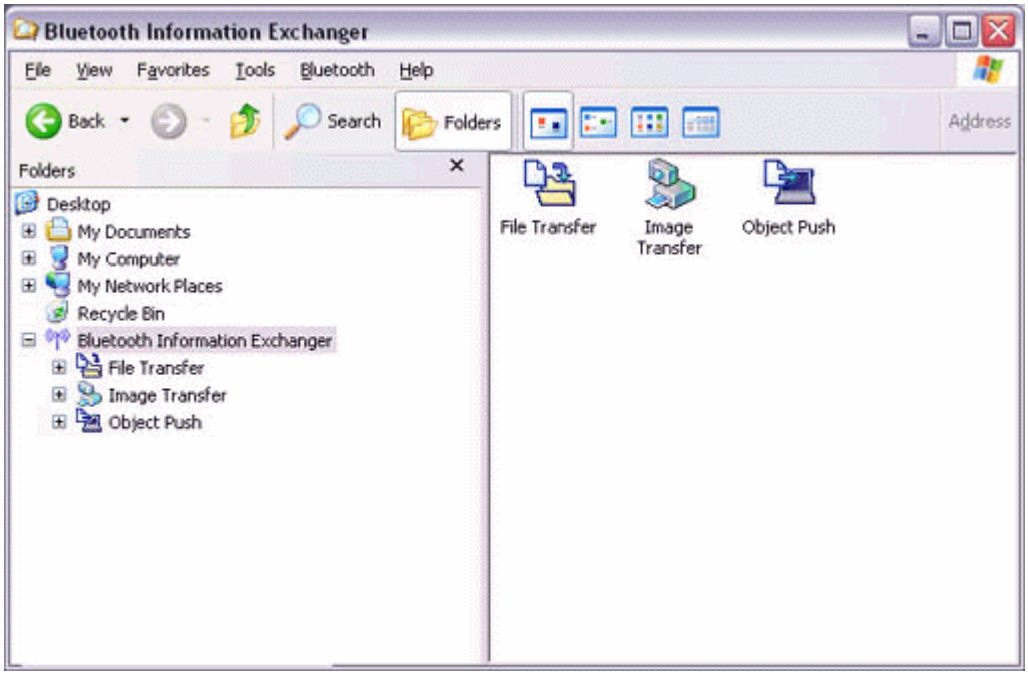
4.3.1 Exchanging files with a PC or PDA

Sending files to a PC or PDA

1. **Turn on the PC or PDA.**
2. **Double-click on the Bluetooth Information Exchanger icon on the Desktop.**

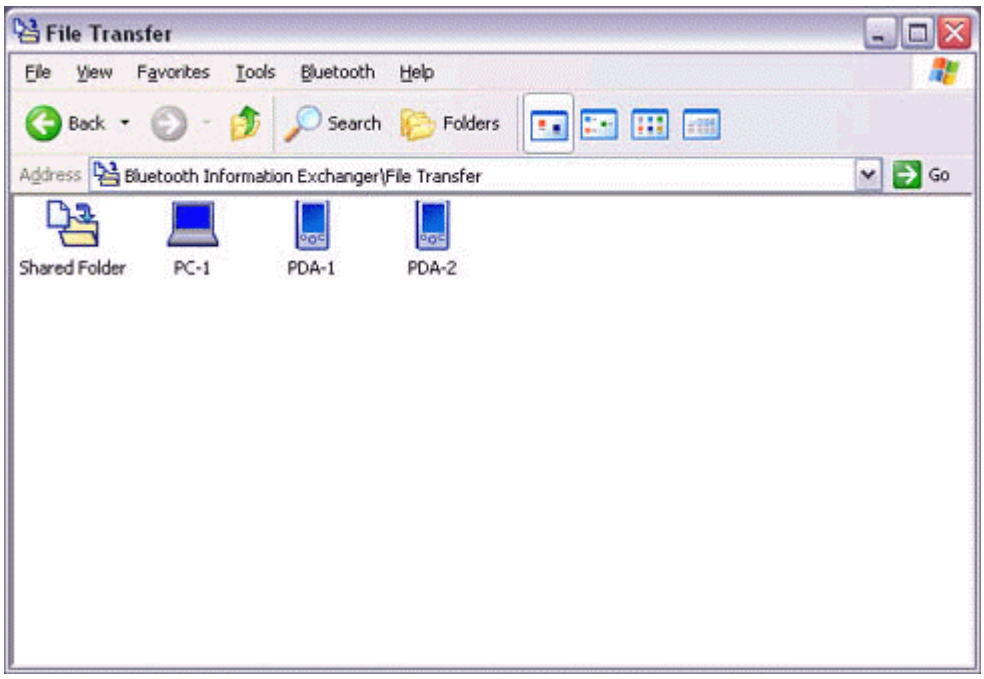
Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.



3. **Double-click on the [File transfer] icon.**

   A list of devices will appear in the [File transfer] window.

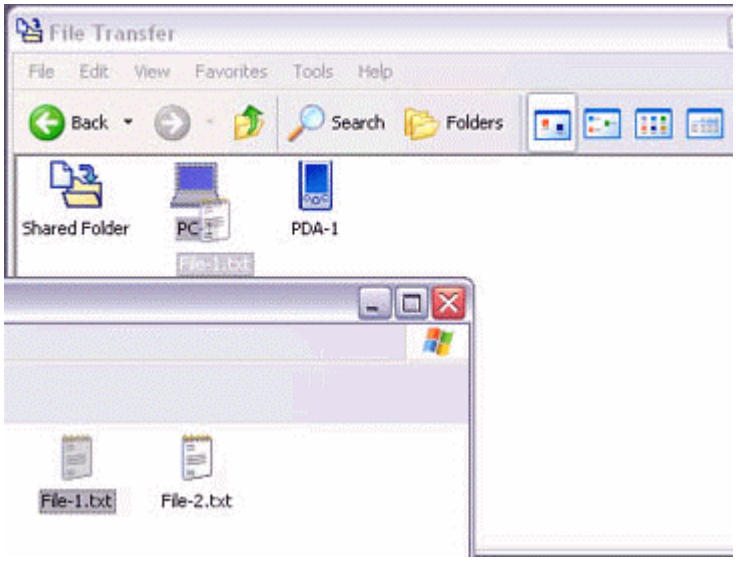


Note

. If the desired device does not appear in the list, please confirm that the device has been turned on, and then select [Bluetooth]→[Search Devices].
A device search will be performed.

. You can also use "Image transfer" when sending individual image files.

4. **Use the mouse to drag and drop the file you wish to send over the destination icon.**
   In this case, the file will be sent to a PC named "PC-1".



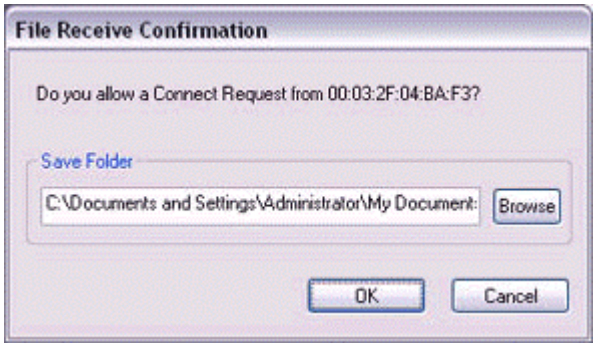
Note

. When using "File transfer", you can send individual files as well as entire folders.

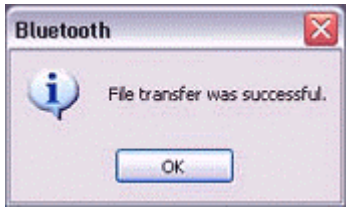
5. **Confirm that the file is being sent.**
   The file will be sent to the PC.

Note

. When sending files using "File transfer", a message requesting permission to receive the files may appear on the destination (receiving) device. The content of the message will vary with the Bluetooth software installed on the destination device, so please be sure to follow the instructions provided.
If you are using the Bluetooth Utility, a message similar to the one below will appear.



If the file has been sent successfully, the message below will appear.
Please click on the [OK] button.

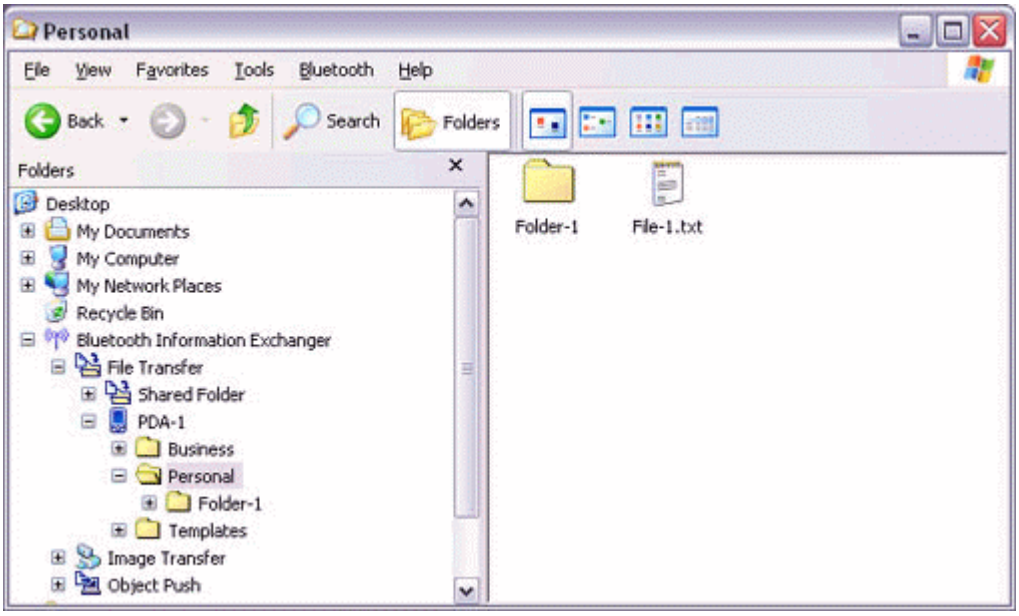


The message below will appear if the file transmission was unsuccessful.
Please click on the [OK] button to close the message, and repeat the procedure.

Note

. Files that have been sent will be saved in a file transfer shared folder on the destination device.

. Additionally, with "File transfer", you can open the shared folder on the destination device using Explorer, specify a subfolder, and then send the file there.



. You can use Properties in the Bluetooth Information Exchanger to change the location of the "Shared folder" on the hard drive.

Receiving files from a PC or PDA

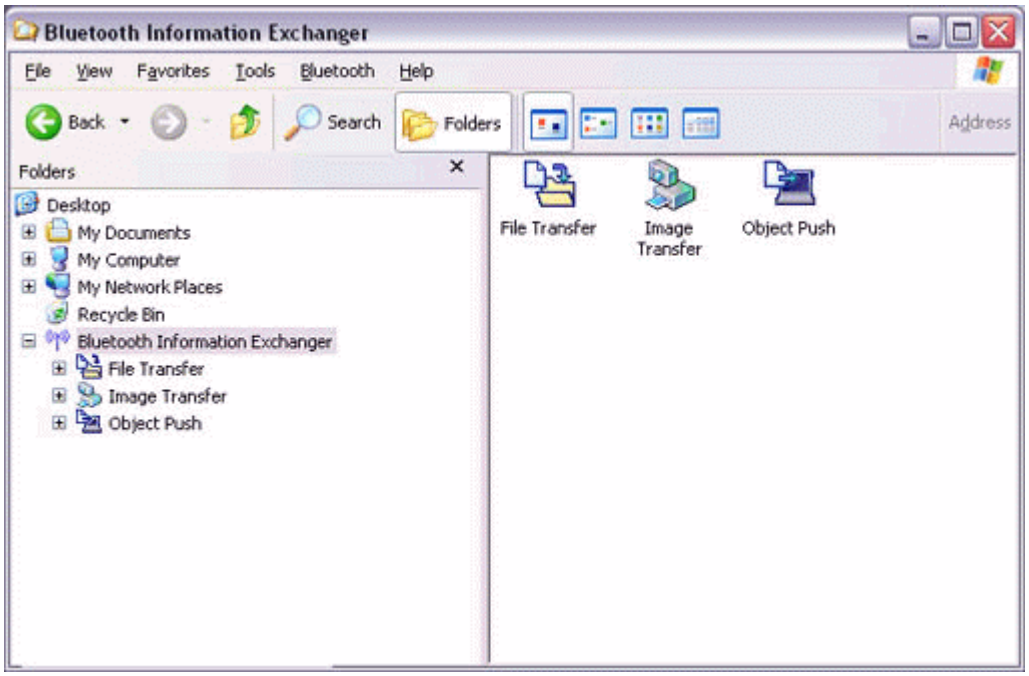
Your PC is able to receive files that have been saved in the shared folder on the destination PC or PDA. Received files will be saved in the shared folder under "File transfer".

1. **Turn on the PC or PDA.**
   Confirm that a Bluetooth connection has been enabled before proceeding.

2. **Double-click on the Bluetooth Information Exchanger icon on the Desktop**.

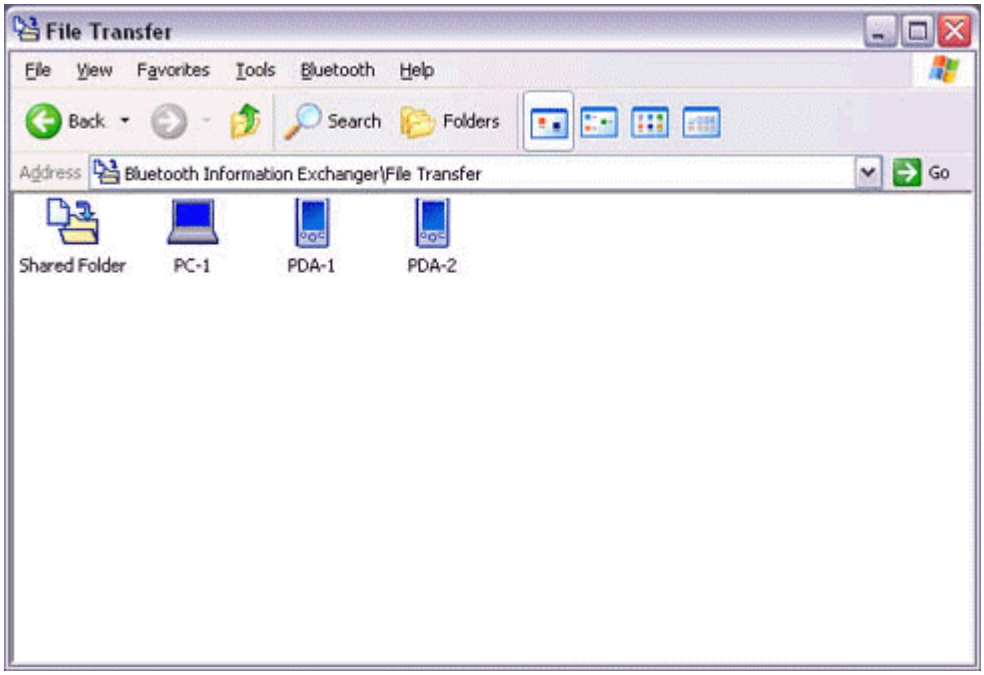
Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.



3. **Double-click on the [File transfer] icon**

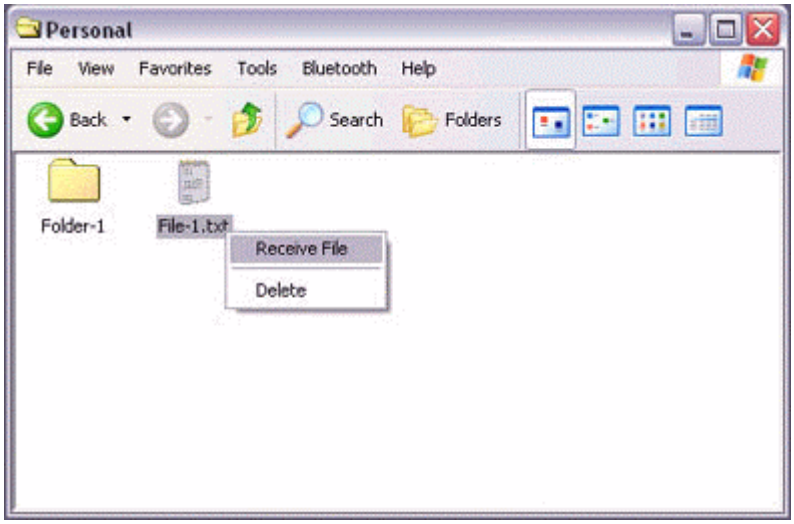
   A list of devices will appear in the [File transfer] window.



In this case, the file will be received from the PDA named "My Mobile".

4. **Double-click on the [PDA-1] icon**
   The file saved in the shared folder in "My Mobile" will appear.

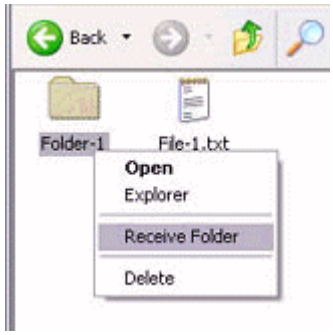
5. **Right-click on the file you wish to receive, and then select "Receive file".**



The file will be received from a PDA.

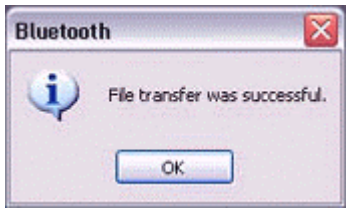
Note

. With "File transfer", you can send individual files as well as entire folders. Please right-click on the folder you wish to receive, and select "Receive folder".



Subsequent operations should be performed in the same manner as when receiving individual files.

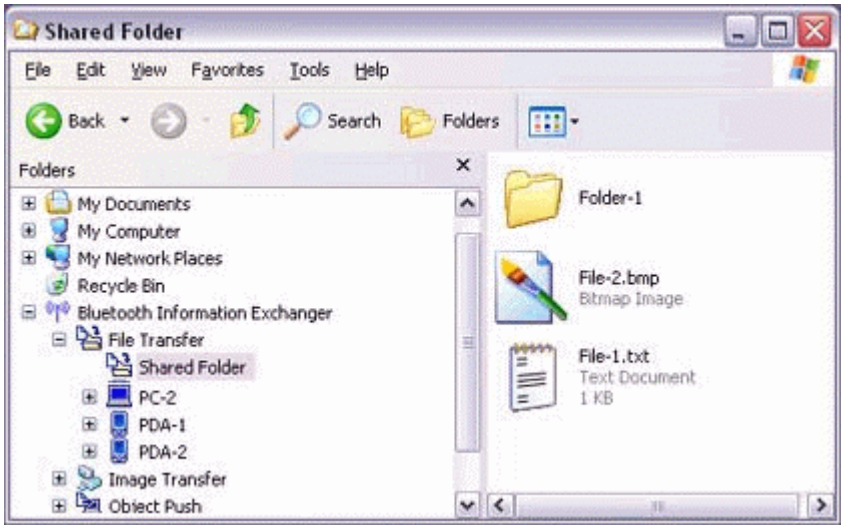
If the file has been received successfully, the message below will appear. Please click on the [OK] button.



The message below will appear if the file transmission was unsuccessful. Please click on the [OK] button to close the message, and repeat the procedure.

Note

. The received file will be saved in the "Shared folder" under "File transfer" in the Bluetooth Information Exchanger



You can use Properties under the Bluetooth Information Exchanger to specify the location of the "Shared folder" on the hard drive.

4.3.2 Sending images to a mobile telephone

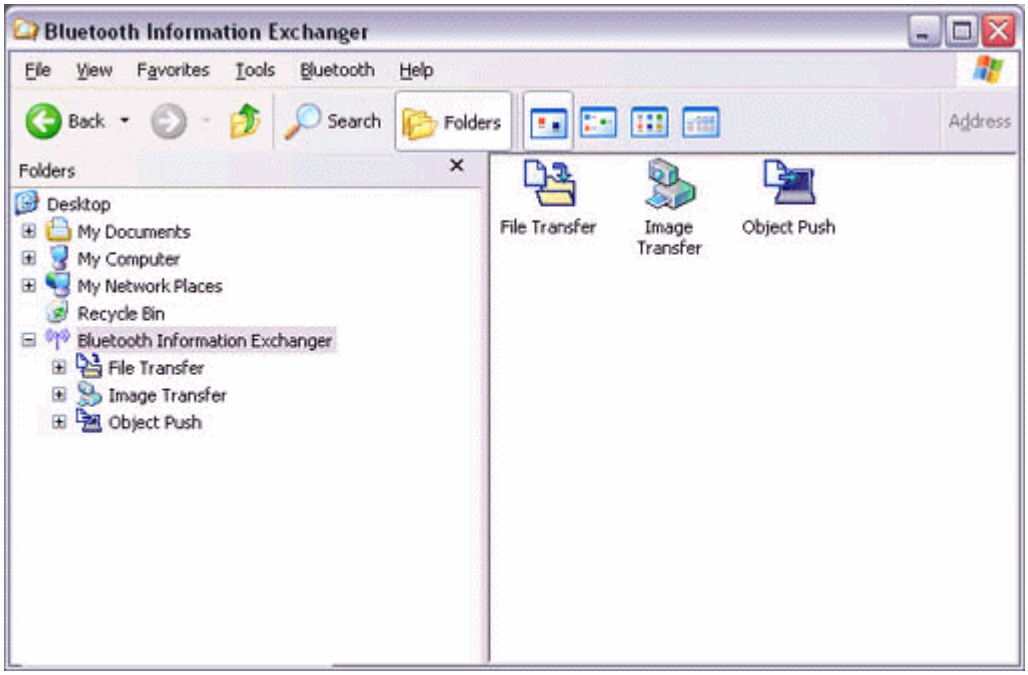
1. **Turn on the PC or PDA.**
2. **Double-click on the Bluetooth Information Exchanger icon on the Desktop.**

Note

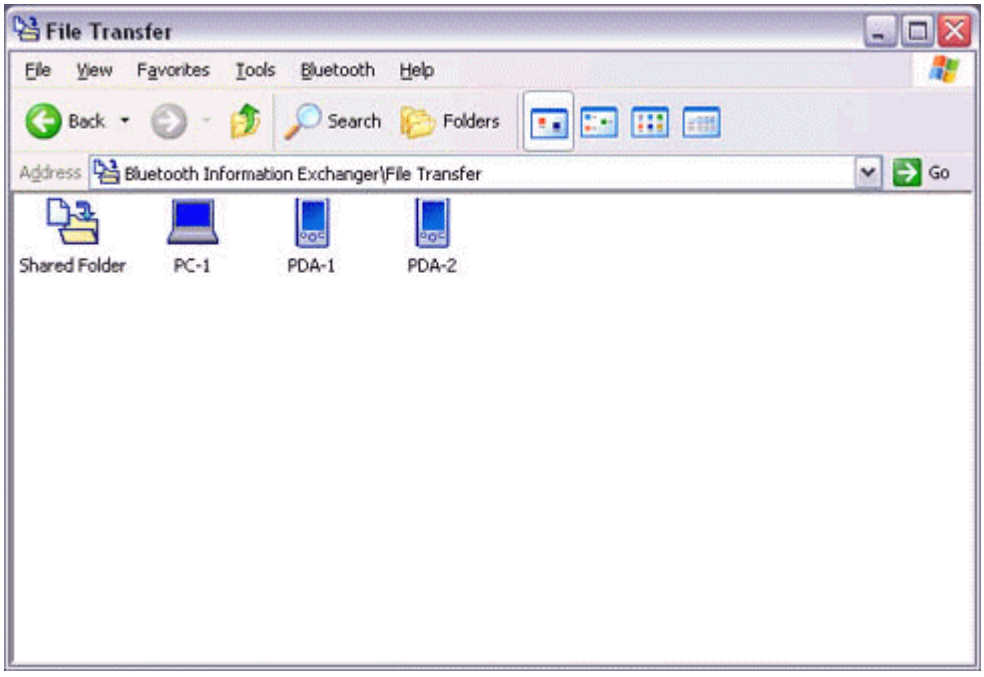
. The mobile telephone must support the BIP profile.

. The image file”(*.bmp)(*.jpg,*.jpeg)(*.png)” formats can be sent and received using "Image transfer".

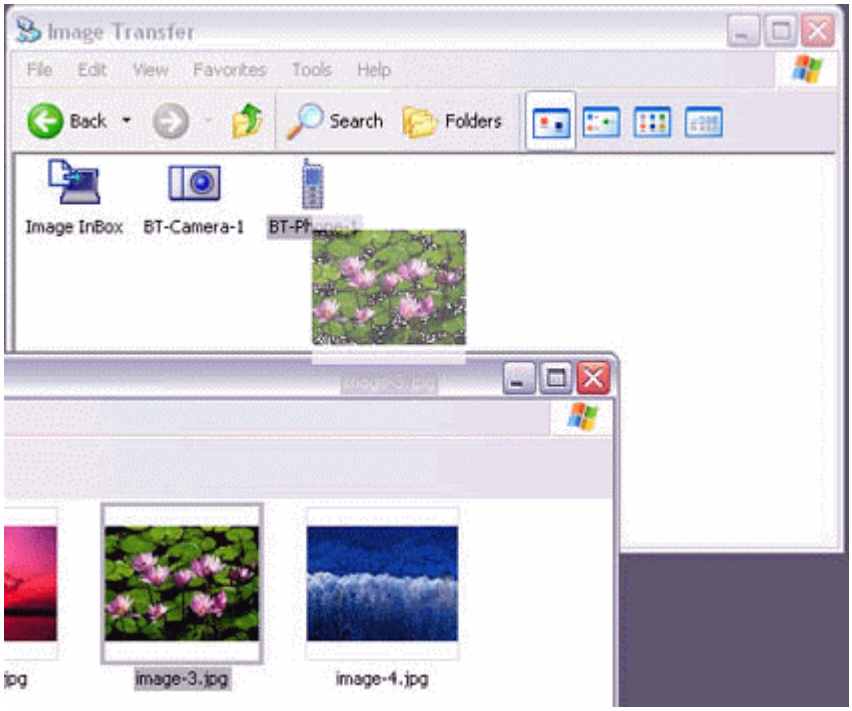
. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.



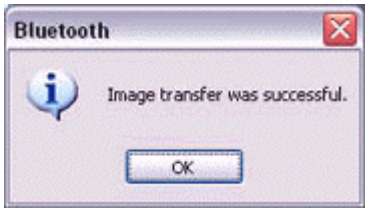
3. **Double-click on the [File transfer] icon.**
   A list of devices will appear in the [File transfer] window.



4. **Drag and drop the file you wish to send over the destination icon.**
   In this case, the image will be sent to a mobile telephone named "BT-Phone-1".



The image will be sent.
If the image has been sent successfully, the message below will appear.
Please click on the [OK] button.



The message below will appear if the image transmission was unsuccessful.
Please click on the [OK] button to close the message, and repeat the procedure.

4.4 Exchanging business card data with a PC or PDA

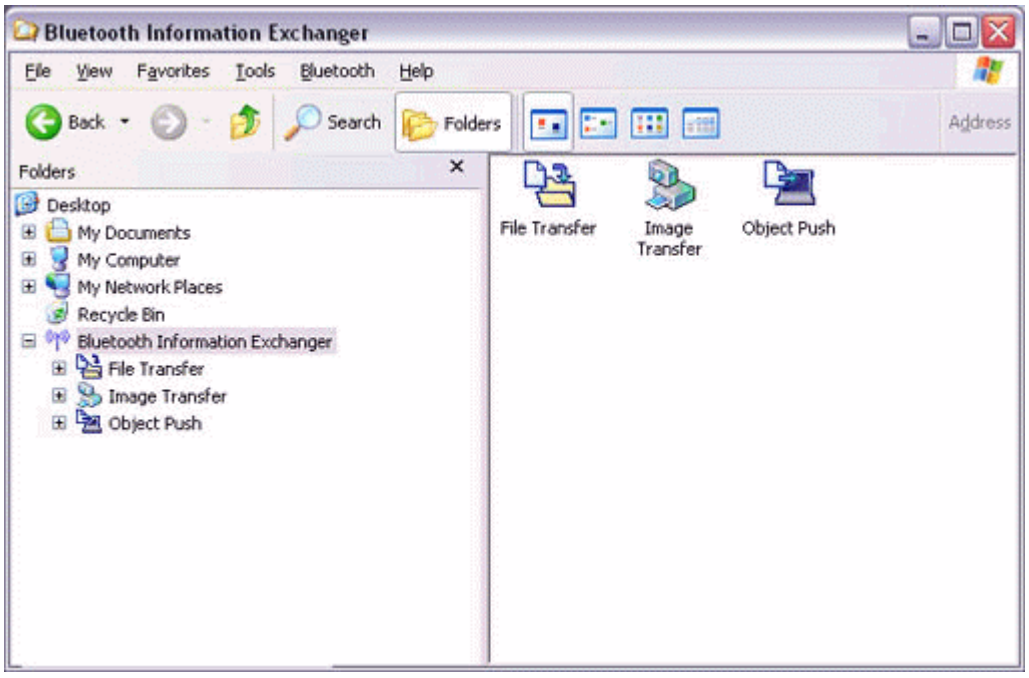
You can exchange business card data with a Bluetooth-enabled PC or PDA. Business card data are exchanged using "Object Push" under Bluetooth Information Exchanger.

Selecting a business card and sending it to a PC or PDA

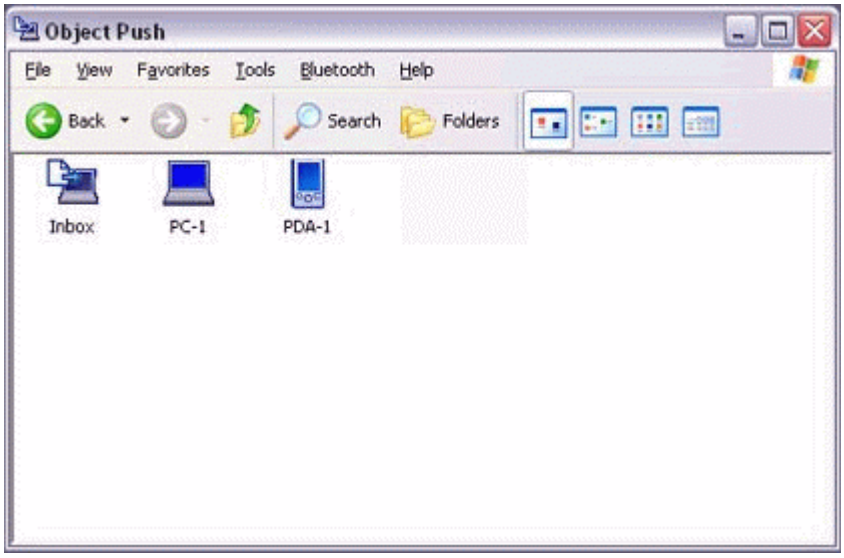
1. **Turn on the PC or PDA.**
2. **Double-click on the Bluetooth Information Exchanger icon on the Desktop.**

Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.



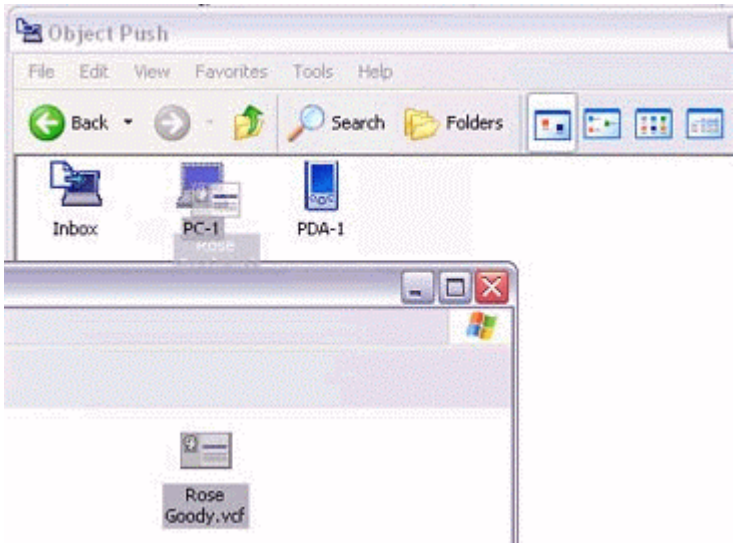
3. **Double-click on the [Object Push] icon.**
   A list of devices will appear in the [Object Push] window.



Note

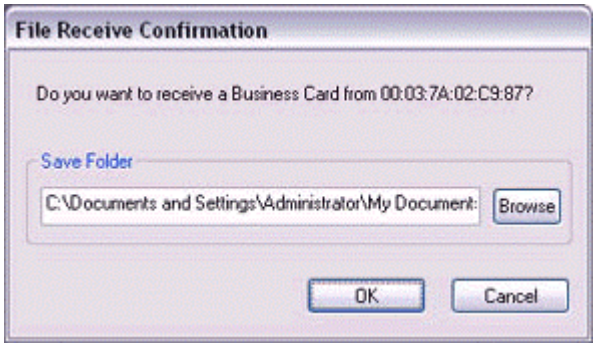
. If the desired device does not appear in the list, please confirm that the device has been turned on, and then select [Bluetooth]→[Search Devices].
A device search will be performed.

4. **Use the mouse to drag and drop the business card you wish to send over the destination icon**
In this case, the business card will be sent to a PC named "PC-1".

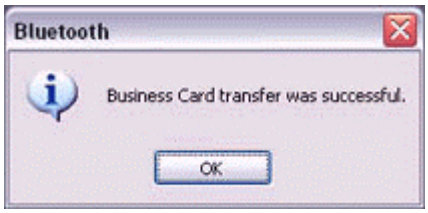


Note

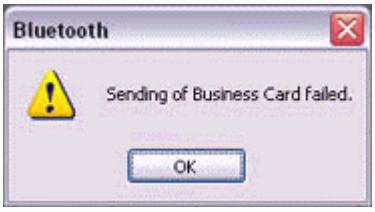
. When you try to send a business card, a message requesting permission to receive the card may appear on the device belonging to the other party (i.e., on the receiving end). The content of the message will vary with the Bluetooth software installed on the destination device, so please be sure to follow the instructions provided. If you are using the Bluetooth Utility, a message similar to the one below will appear.



If the business card has been sent successfully, the message below will appear. Please click on the [OK] button.



The message below will appear if the business card transmission was unsuccessful.
Please click on the [OK] button to close the message, and repeat the procedure.



Selecting your personal business card

You can prepare a business card bearing your name and other details such as your company and telephone numbers, and then send it to another party.

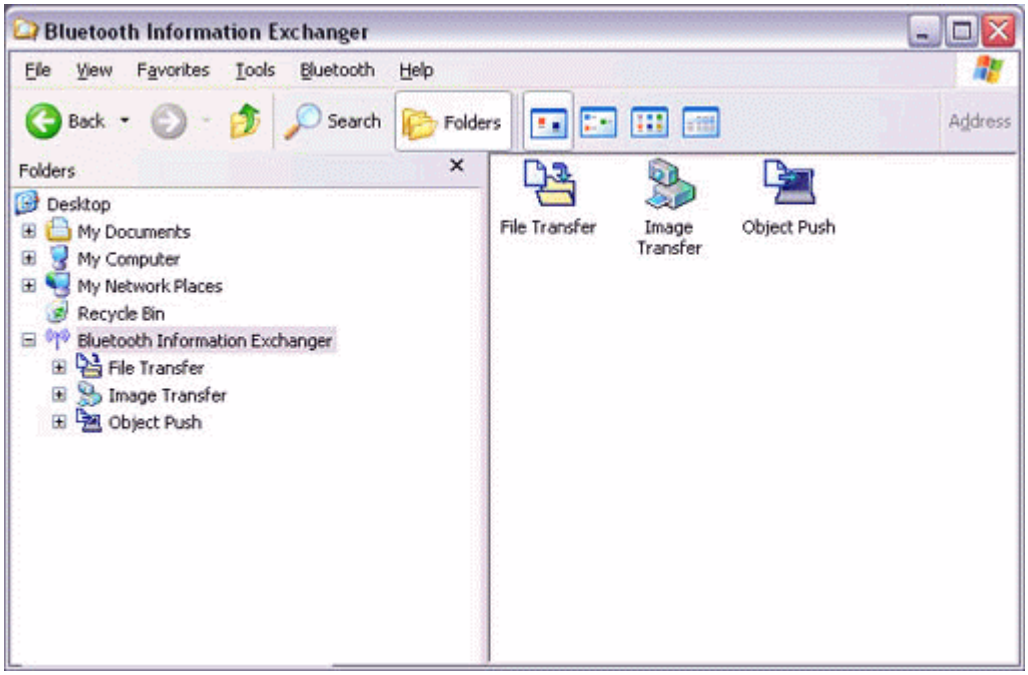
Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.

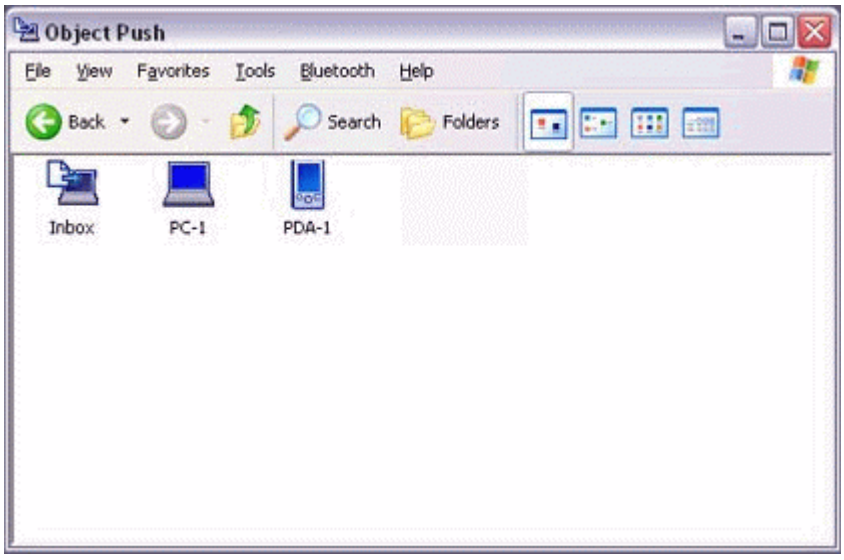
1. **Turn on the PC or PDA.**
2. **Double-click on the Bluetooth Information Exchanger icon on the Desktop.**

Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.



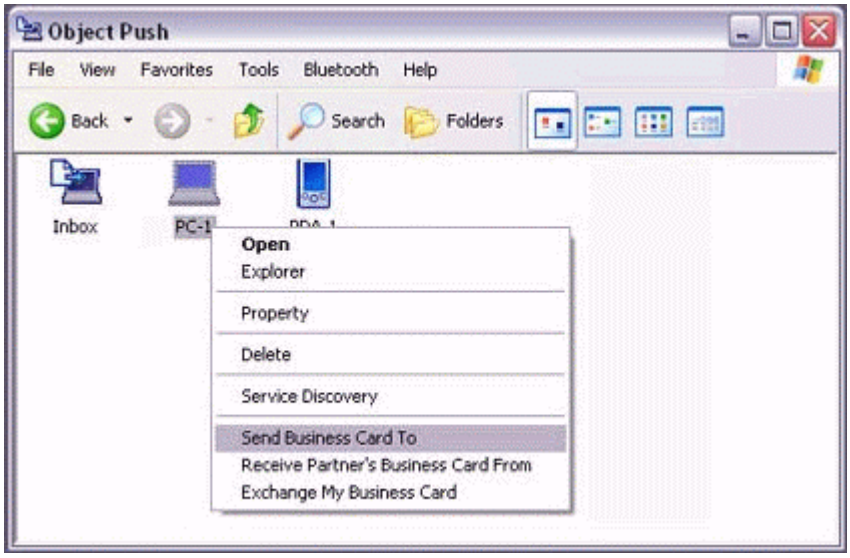
3. **Double-click on the [Object Push] icon.**
   A list of devices will appear in the [Object Push] window.



Note

. If the desired device does not appear in the list, please confirm that the device has been turned on, and then select [Bluetooth]→[Search Devices].
A device search will be performed.

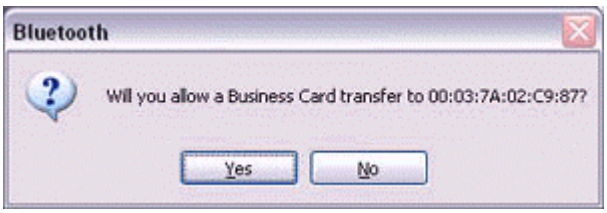
4. **Right-click on the destination icon, and then click on [Send business card To].**
   In this case, your personal business card will be sent to a PC named "PC-1".



The business card will be sent.

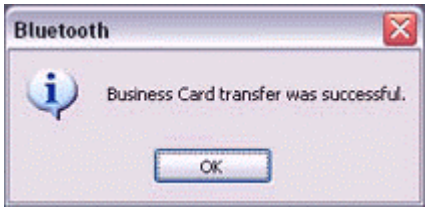
Note

. When you try to send a business card, a message requesting permission to receive the files may appear on the device belonging to the other party (i.e., on the receiving end). The content of the message will vary with the Bluetooth software installed on the destination device, so please be sure to follow the instructions provided. If you are using the Bluetooth Utility, a message similar to the one below will appear.

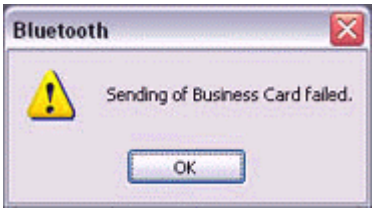


. Business cards that have been sent will be saved in the Inbox of the destination party.

If your business card has been sent successfully, the message below will appear. Please click on the [OK] button.



The message below will appear if the business card transmission was unsuccessful. Please click on the [OK] button to close the message, and repeat the procedure.



Note

. Data that has been sent will be saved in a folder for exchanged business cards on the destination device.

Receiving a business card from another party

You can prepare a business card bearing your name and other details such as your company and telephone numbers, and then send it to another party.

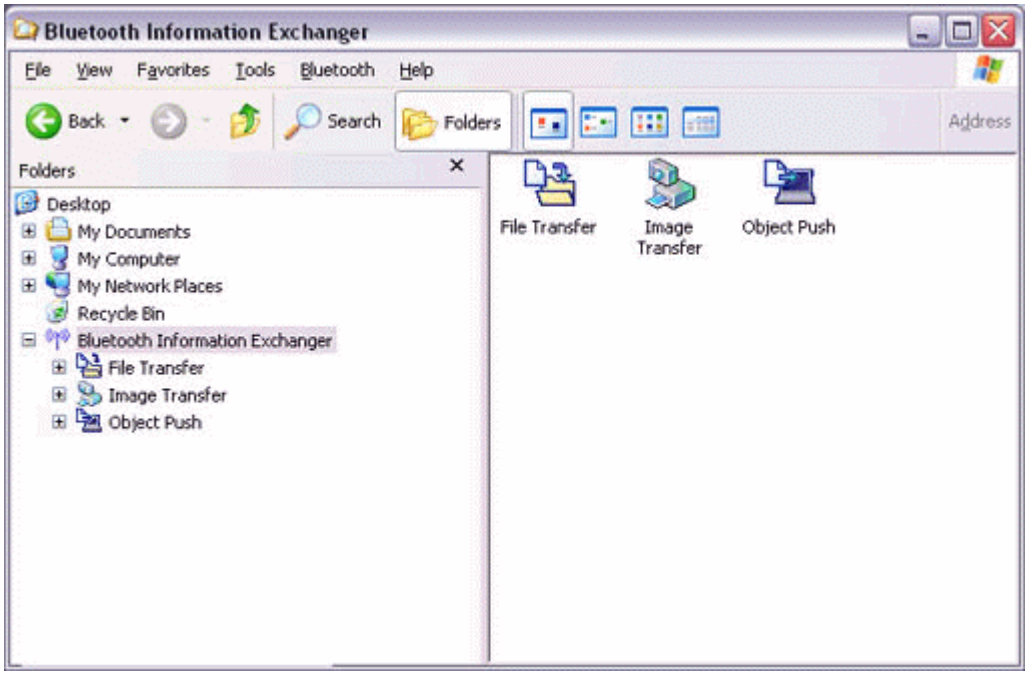
Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.

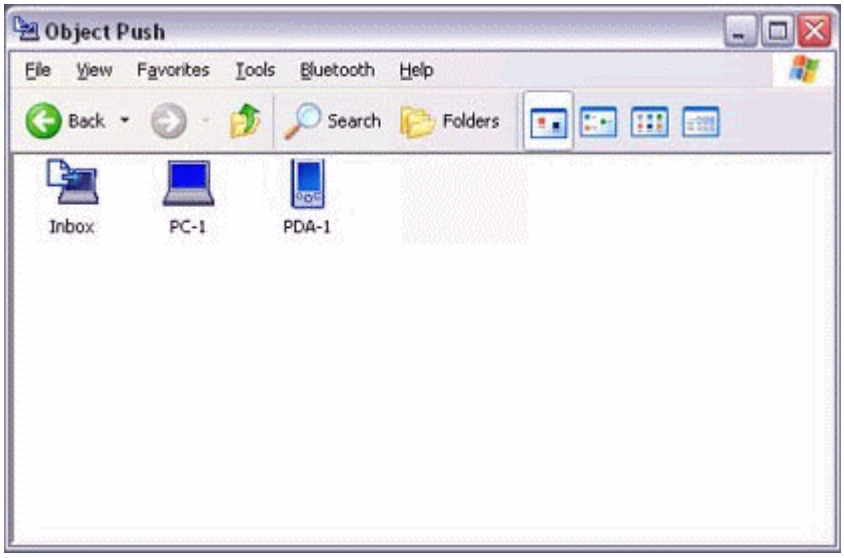
1. **Turn on the PC or PDA.**
2. **Double-click on the Bluetooth Information Exchanger icon on the Desktop.**

Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.



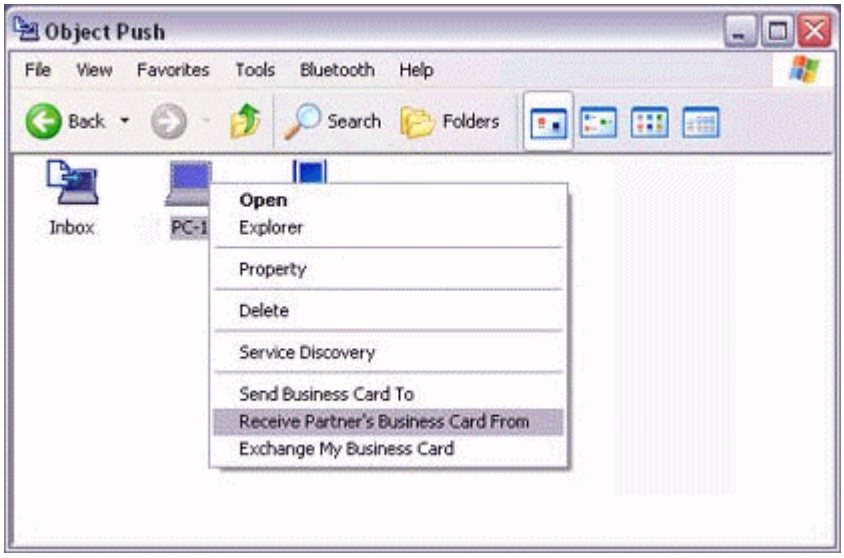
3. **Double-click on the [Object Push] icon.**
   A list of devices will appear in the [Object Push] window.



Note

. If the desired device does not appear in the list, please confirm that the device has been turned on, and then select [Bluetooth]→[Search Devices].
A device search will be performed.

4. **Right-click on the icon of the party whose card you wish to acquire, and then click on [Receive business card]**
   In this case, the business card of the other party will be acquired from a PC named "PC-1".



The business card will be received.

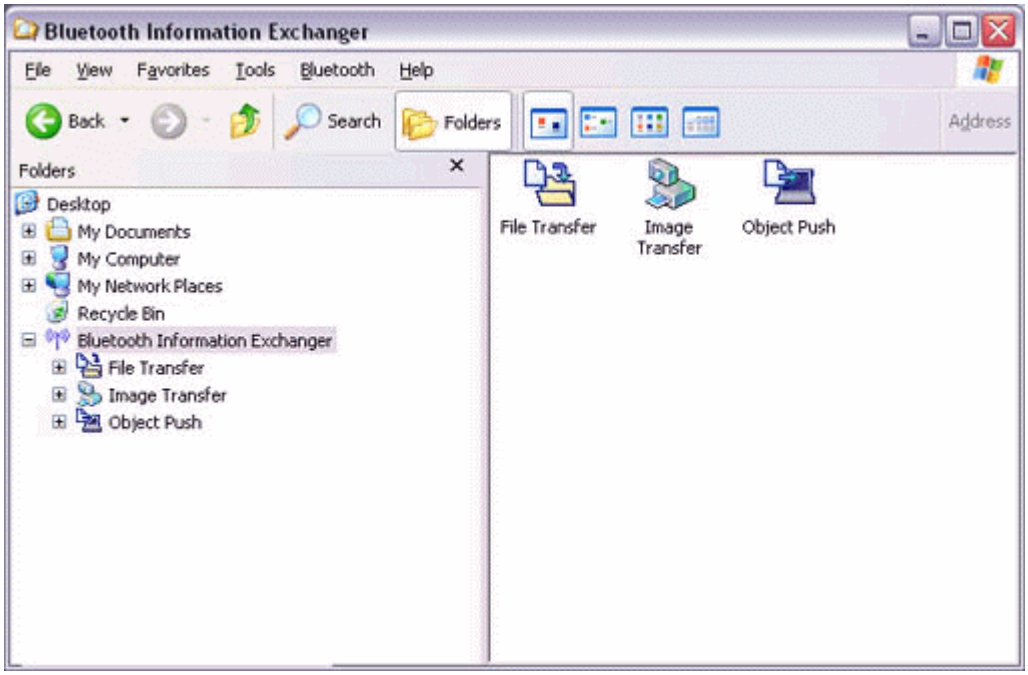
Exchanging business cards

Simultaneously exchange your business card with one belonging to another party.

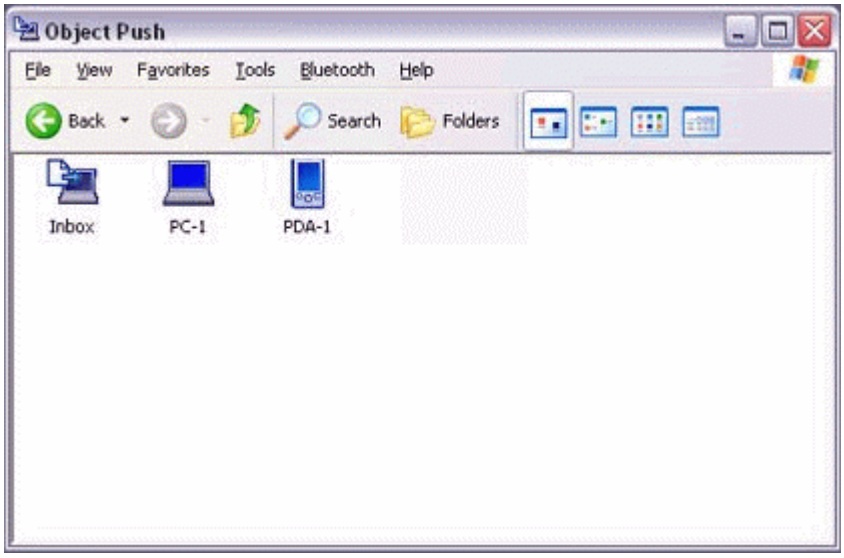
1. **Turn on the PC or PDA.**
2. **Double-click on the Bluetooth Information Exchanger icon on the Desktop.**

Note

. Alternatively, opening Explorer and clicking on the Bluetooth Information Exchanger folder will produce the same result.



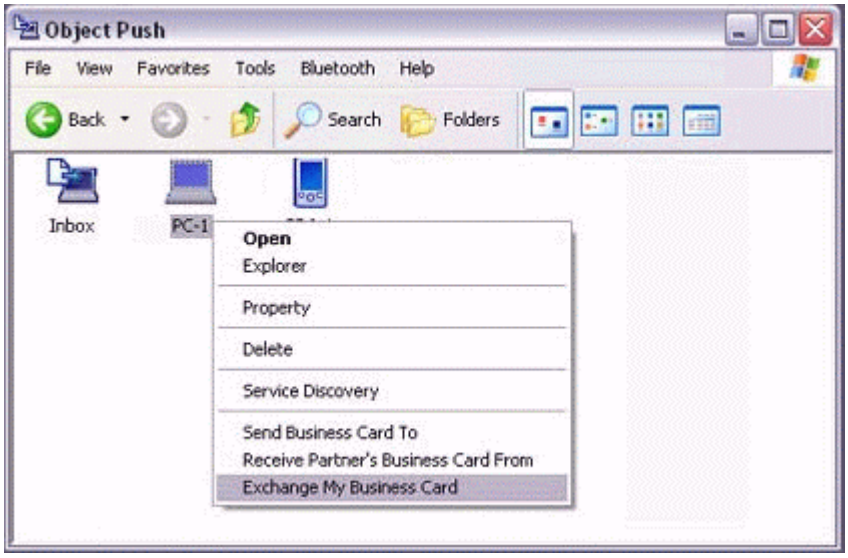
3. **Double-click on the [Object Push] icon.**
   A list of devices will appear in the [Object Push] window.



Note

. If the desired device does not appear in the list, please confirm that the device has been turned on, and then select [Bluetooth]→[Search Devices].
A device search will be performed.

4. **Right-click on the icon of the party with whom you wish to exchange business cards, and then click on [Object Push].**
   In this case, the business cards will be exchanged with a PC named "PC-1".

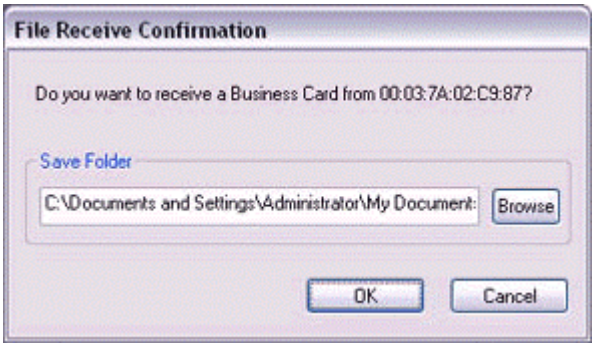


The business card from the party who executed the "Exchange business cards" command will be sent first.

Note

. When you try to send a business card, a message requesting permission to receive the files may appear on the device belonging to the other party (i.e., on the receiving end). The content of the message will vary with the Bluetooth software installed on the destination device, so please be sure to follow the instructions provided.

If you are using the Bluetooth Utility, a message similar to the one below will appear.



4.5 Synchronizing data with a PDA

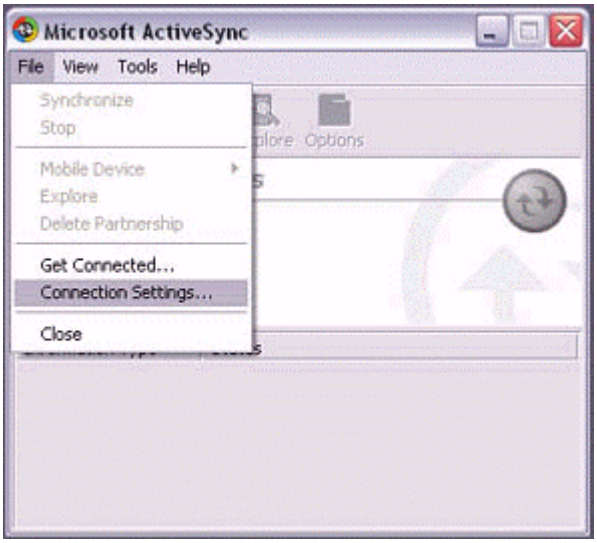
When you connect via Bluetooth instead of with a standard cable, you will always be able to synchronize your data without the hassle of having to connect the cable.

4.5.1 Connecting using ActiveSync

Preparing the PC

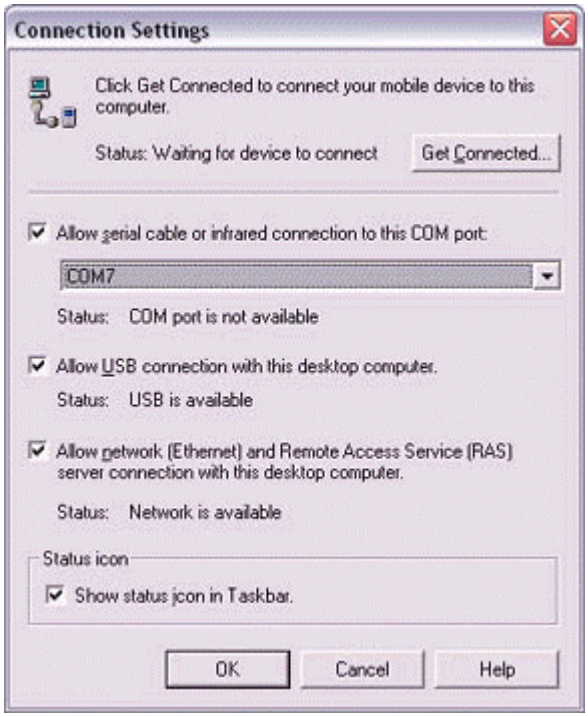
1. **On the PC, click on [Start]→[All Programs]→[Microsoft ActiveSync].**
   The initial ActiveSync set-up window will appear.
   It is assumed in the explanation below that no ActiveSync connections have been established with other devices.

2. **Click [File]→[Connection Settings].**



The [Connection Settings] window will appear.

3. **Place a check next to [Allow serial cable or infrared connection to this COM port], and then select "COM7".**



Note

. In the standard set-up, the port is configured to "COM7" (refer to Steps (3) and (4) under "Preparing the PDA" below). When using a different port, please also change the port number selected in this window

Preparing the PDA

1. **Tap on the Bluetooth icon in the bottom right of the screen**.