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# USER MANUAL

## BLUETOOTH USB DONGLE

### ***Introduction***

Congratulations and thank you for choosing Bluetooth USB DONGLE.

### ***What is Bluetooth Wireless Technology?***

Bluetooth is a wireless protocol for audio and data communication between devices within a small distance of about 10m (33 ft). It uses the 2.4GHz international free spectrum to make 1Mbit connection links. It is a popular solution for replacing wire connections. Products with Bluetooth technology must be qualified and pass interoperability testing by the Bluetooth Special Interest Group prior to release.

### ***About BlueSoleil***

BlueSoleil is a Windows-based software from IVT that allows your *Bluetooth*® enabled desktop or notebook computer to wirelessly connect to other *Bluetooth* enabled devices. BlueSoleil allows MS Windows users to wirelessly access a wide variety of *Bluetooth* enabled digital devices, such as cameras, mobile phones, headsets, printers, and GPS receivers. You can also form networks and exchange data with other *Bluetooth* enabled computers or PDAs.

In order to connect and share services via *Bluetooth* wireless technology, two devices must support the same *Bluetooth* Profile(s) as well as opposite device roles (i.e., one must be the server, and the other must be the client). *Bluetooth* enabled devices often support multiple profiles, and if involved in multiple connections, can perform different device roles simultaneously.

BlueSoleil supports the following *Bluetooth* functions (Profiles) in the following device roles:

| *Bluetooth* Functions (Profiles) | Client | Server |
|---|---|---|
| AV Headphone* | √ | √ |
| Basic Image Profile | √ | √ |
| Dial-Up Networking | √ | |
| Fax | √ | |
| File Transfer | √ | √ |
| Headset* | √ | √ |
| Human Interface Device | √ | |
| LAN access | √ | √ |
| Object Push | √ | √ |
| Personal Area Networking | √ | √ |
| Printer | √ | |
| Serial Port | √ | √ |
| Synchronization | √ | √ |

***Notes:***

*• Only one Headset or AV Headphone connection can exist at a time, since there is only one virtual Bluetooth audio device.*

*• The Headset and AV Headphone Profiles do not work on Windows 98SE or Windows Me.*

## ***How to Use USB DONGLE?***

Your USB DONGLE lets you connect with other devices that have integrated Bluetooth technology. Your USB DONLE allows you to:

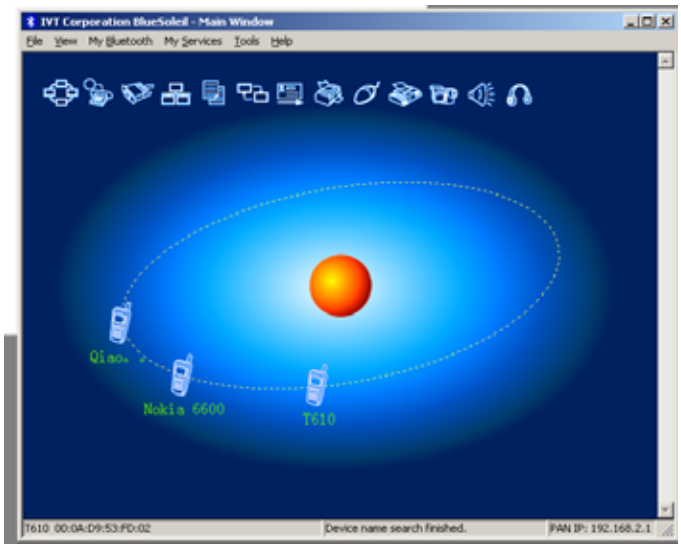
**(1)** Install the BlueSoleil in your PC or PDA.

**(2)** Insert the USB dongle to your computer.

**(3)** Start BlueSoleil.

The plug in and pull out of the USB dongle can be detected by BlueSoleil. You can start BlueSoleil first and then plug in a USB dongle.

**(4) Source Bluetooth devices**. Select menu **My Device | start service**. The following displayed:




## (5) Establish *Bluetooth* Connection

A connection is normally initiated from the client.

- On the server side, start the service.
- On the client side, initiate the connection.

## Start Service on Server

If BlueSoleil provides service, please start the service:

1. Change to Service Window.
2. Right-click the service icon, select **Start Service** on the pop-up menu.

## Initiate Connection on Client

In Main Window:

1. Single click my device, the center ball, to search the *Bluetooth* devices in range.
2. Search the selected *Bluetooth* device service by double-clicking the device icon.
   Service button on the top of the BlueSoleil Main Window will be highlighted if the service is supported by the device.
   Enter the same *Bluetooth* passkey on both devices if necessary to pair the two devices.
3. Connect.
   Single-click the highlighted service button to establish the connection

connection after finishing his job on Bluetooth.

# (6)Terminate *Bluetooth* Connection

After a connection is established between a client and a server, users can terminate it whenever he/she wants to. However, if the connection is terminated by force while data are being transmitted, some useful data may be lost. Please pay attention to this case.

### Terminate Connection on the Server

The way of terminating the connection on the server is to stop the service. This may lead to losing data if there is data transmission going on. Accordingly, it is recommended to terminate the connection on the client.

There are two ways to stop the service:

1. Select a started service and right click the service icon on the Service Window. On the popup menu, select **Stop Service**. The service icon turns white, and the service is stopped.
2. Select a started service. Select menu **My Services | Stop Service**. The service icon turns white, and the service is stopped.

Note: The status of the active service can also be obtained by selecting the menu item Status... from the context menu of the service icon.

### Terminate Connection on the Client

On the Main Window, select the remote device first and right click the service icon. On the popup menu, select **Disconnect**.

## *USB DONGLE supported Bluetooth functions*

- **AV Head phone**

The AV Headphone Profile enables users to use a Bluetooth enabled headphone to listen high-quality stereo music played in a computer.

### Typical Usage

- Listen to music using a *Bluetooth* enabled AV Headphone.
- Steps:

1. Connect to AV Headphone.
2. Play music using media player software on your computer. Music will be transmit wirelessly to the headphone.

## • Basic Imaging

The Basic Imaging Profile (BIP) enables users to receive pictures from a *Bluetooth* device such as digital camera, mobile phone, or other compatible device. It also enables remote control of shooting, display, and other imaging functions.

### Typical Usage

- Control Camera to take pictures
- Receive pictures sent from BIP-enabled digital devices
- Control Camera to Take Pictures

Steps:

1. Connect to the camera. A *Bluetooth* Camera Controller will appear, Figure 1.
2. Click the button to capture the image. The captured image will be transmitted to your computer and displayed.

`

Figure 1 *Bluetooth* Camera Controller

### Receive Pictures

1. Assign the directory where you would like to save image files pushed from the client device. Click My Services | Properties. Click on the Basic Image Push tab. In the Set the image directory field, browse to select the file location. Click OK.
2. Start the BIP service.
3. Send pictures from the remote device. For instructions, refer to the user documentation for the remote device.

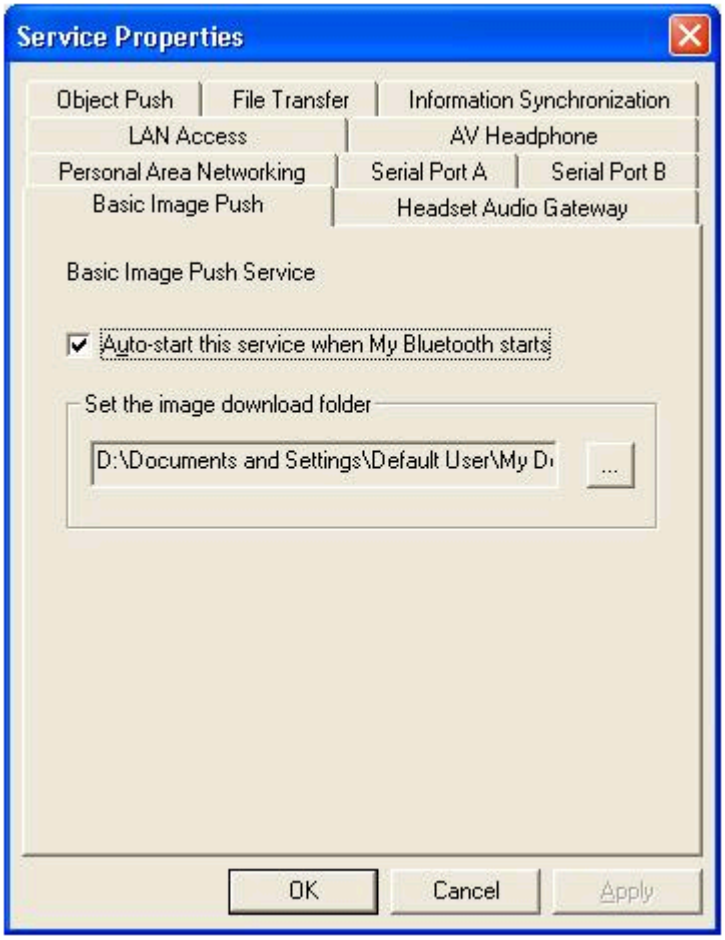



Figure 2 Service Configuration

## • Bluetooth Synchronization

The *Bluetooth* Synchronization (SYNC) Profile enables users to synchronize PIM objects on their computer with that of other *Bluetooth* enabled computers as well as *Bluetooth* enabled mobile phones, PDAs, and other devices.

Four kinds of objects are supported:

- Contacts (*.**vcf**)
- Calendars (*.**vcs**)
- Notes (*.**vnt**)
- Messages (*.**vmg**)

Supported Outlook versions: MS Outlook 2000, Outlook 2002 (xp), Outlook 2003.

## Typical Usage

- Synchronize your computer with a *Bluetooth* enabled mobile phone

Steps:

1. Connect to the mobile phone's Synchronization service.

2. A synchronization dialog will appear (refer to Figure 1). Click on the Start button to synchronize. Contacts, calendars, notes and emails in MS Outlook will be synchronized with those on the phone

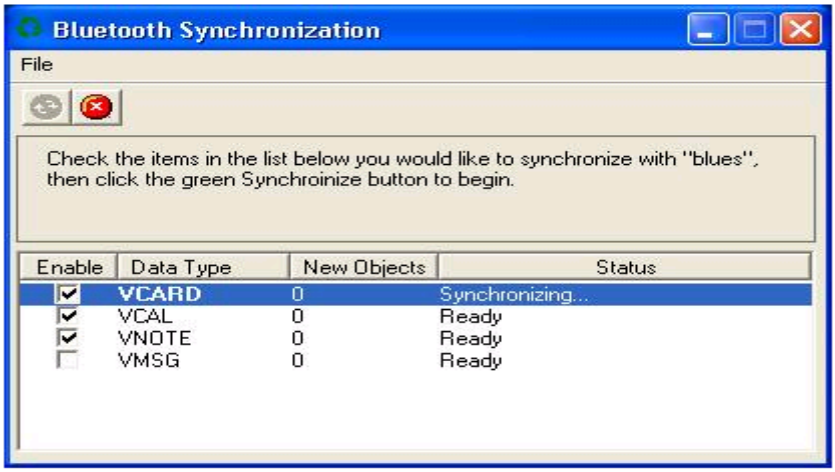



Figure 1: Start To Synchronize Information

Note:

- Users can start synchronization from MS Outlook using the Bluetooth Add-In menus and buttons installed with BlueSoleil.

- BlueSoleil can act as synchronization server. Click My Services | Properties. Click on the Information Synchronization tab (Figure 2), and select the type of PIM objects that you would like to synchronize.

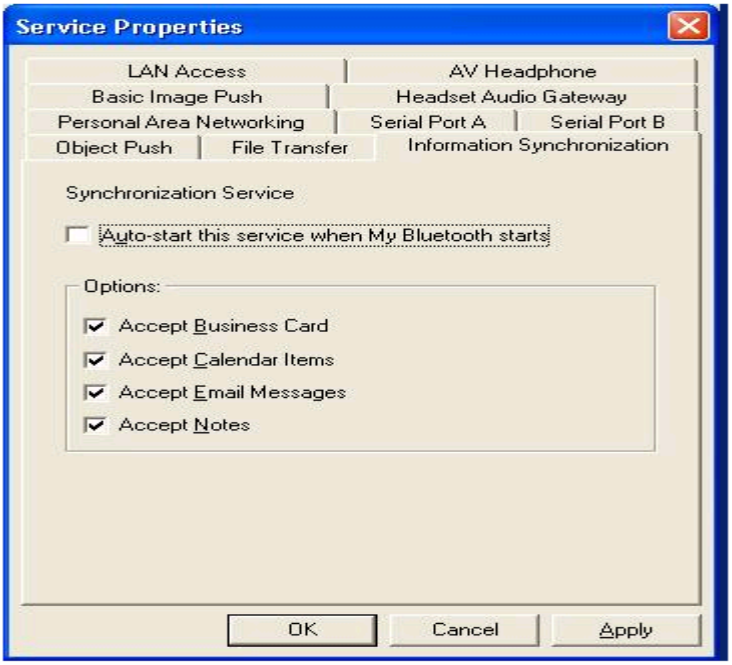



Figure 2: Service Configuration

- # Dial-Up Networking

The *Bluetooth* Dial-up Networking (DUN) Profile enables users to wirelessly dial-up to Internet through a *Bluetooth* modem or a mobile phone that supported the DUN Profile.

### Typical Usage

- Dial-up to Internet via a *Bluetooth* enabled mobile phone.
- Dial-up to Internet via a *Bluetooth* enabled modem.

## Dial-up to Internet via a *Bluetooth* mobile phone

1. Connect to the phone's Dial-Up Networking Service.
2. The **Dial-Up Dialog** will appear. Enter the dial-up number, User name, and Password. Make sure the correct dial-up number is entered, then click on the Dial button.

Note: The default dial-up number *99***1# only works with certain GPRS phones and service providers. If necessary, enter the correct dial-up number for your Internet Service Provider (ISP).

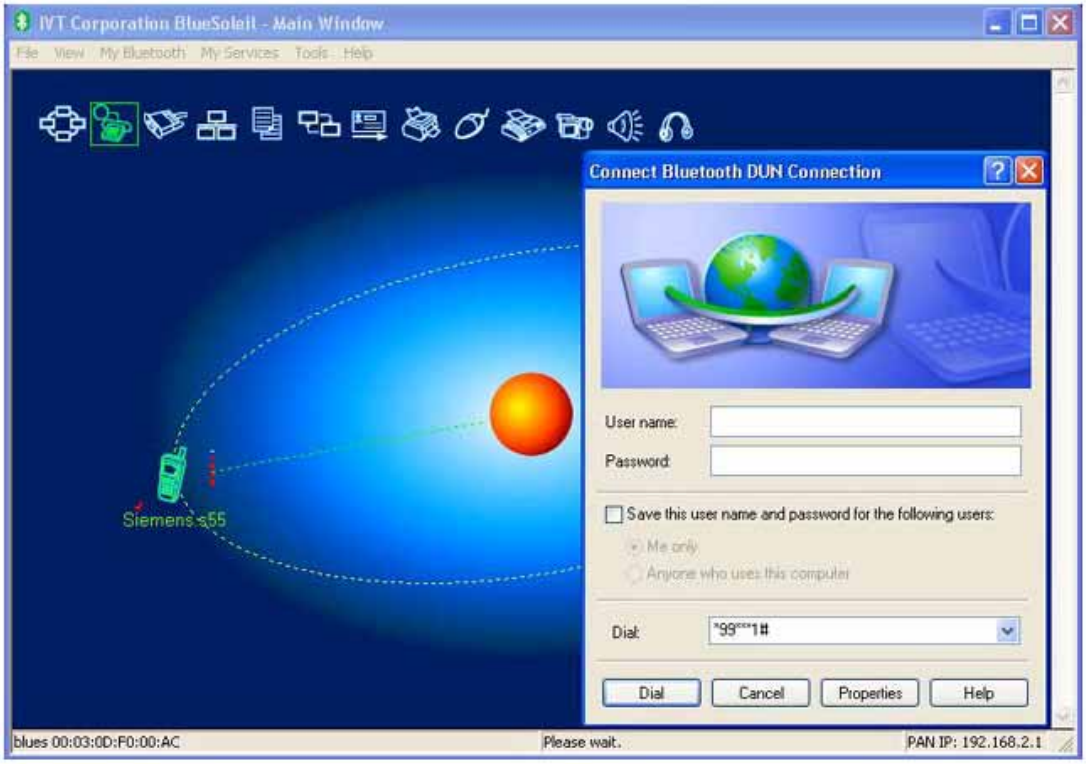



Figure 1 Dial-Up Dialog

- **Note**: After you successfully connect, a screen will ask if you would like to create a dial-up shortcut on your desktop. This would allow you to conveniently dial up and connect by simply clicking on the shortcut, without having to manually start BlueSoleil

- # FAX

The *Bluetooth* FAX profile enables users to send fax from a computer via a *Bluetooth* enabled mobile phone or modem.

### Typical Usage

- Send fax via a *Bluetooth* enabled mobile phone.
- Send fax via a *Bluetooth* enabled modem.

## Send Fax via *Bluetooth* enabled mobile phone

1. Connect to the mobile phone's FAX service.
2. Use your fax software to send the message.

### Send Fax via *Bluetooth* enabled modem

1. Connect to the modem's fax service.
2. Start your fax software. Configure your fax software for the Bluelet Fax Modem (NOT the Bluelet Modem). Refer to your fax software ' s user documentation for instructions.
3. Use your fax software to send the message.

## • File Transfer

The File Transfer Profile (FTP) enables users to transfer files and/or folders between *Bluetooth* enabled laptops, desktops, PDAs, mobile phones, etc.

### Typical Usage

- Connect to a Bluetooth enabled mobile phone and transfer files or folders to/from the phone.
- Share a folder on your computer with other *Bluetooth* enabled devices.
- Access a shared folder on another *Bluetooth* enabled device.

### Connect to a Phone

Steps:

1. Connect to the phone's FTP service.
2. The phone's folders are shown in a window. Users can copy/paste/delete files or folders.

### Share a Folder on Your Computer with other *Bluetooth* Enabled Devices

Steps:

1. Select the folder you would like to use for file sharing and define the remote user privileges. Click **My Services | Properties**. Click on the File Transfer tab.

   **Share this folder:** Browse to select the folder your would like to share.

**Share Permissions:** Select Read and Write to allow others to copy, paste or delete files/folders in this folder. Select Read Only to allow others to only browse and copy files/folders from this folder.

2. Start the FTP service in BlueSoleil. Do not initiate the connection in BlueSoleil.
3. Browse your computer from the remote device. For instructions, refer to the user documentation for the remote device. When the remote device attempts to connect to your computer, the Bluetooth Service Authorization screen may appear. Click Yes.
4. After successfully connecting, the remote device can browse, copy, paste, and/or delete files on your computer, depending on the remote folder privileges you allowed. For instructions, refer to the user documentation for the remote device.

## Access a Shared Folder on Another *Bluetooth* Enabled Device

1. On the remote device, designate the folder/files to share. Enable file sharing on the remote device. For instructions, refer to the user documentation for the remote device.
   Note: If you do not enable file sharing on the remote device, BlueSoleil will not be able to discover the device ' s file sharing service
2. Start the FTP service and initiate the connection in BlueSoleil
3. A Remote Shared Folder screen will appear, displaying shared files/folders on the remote device, Use the screen to browse, copy, paste, and/or delete files, depending on your folder privileges

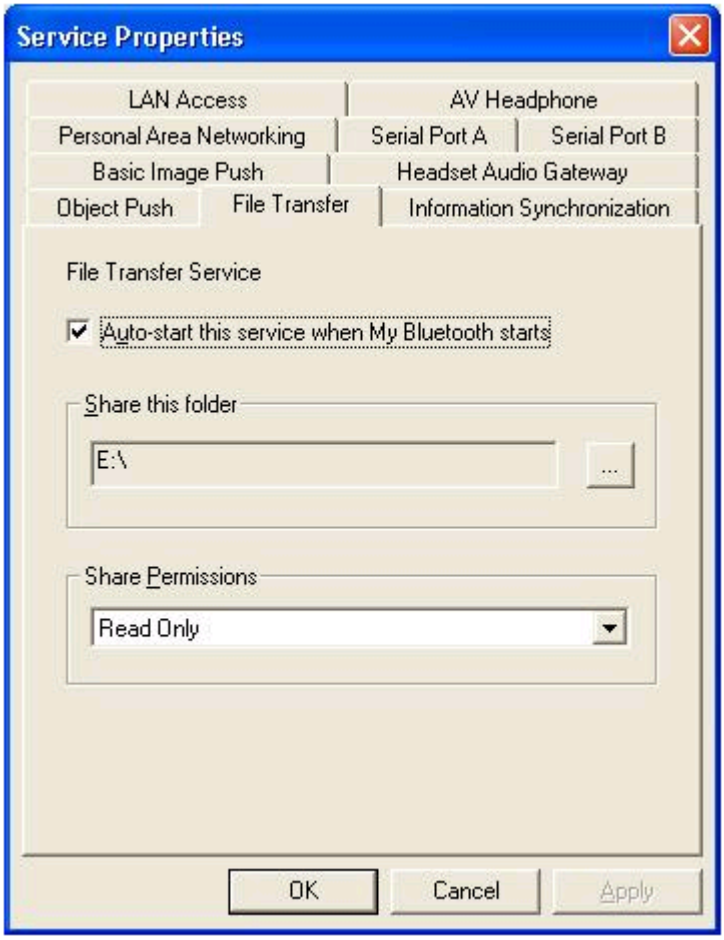



Figure 1: Service Configuration

- # Headset

The Headset Profile enables users to use a *Bluetooth* headset as wireless earplug or microphone.

### Typical Usage

- Use Headset as a device for audio input/output.

#### Use Headset as Sound Input/Output Device

Steps:

1. Connect to the *Bluetooth* enabled headset.
2. Play music on your computer or chat using network meeting tools. You may need to press a multifunction button on your headset to transmit audio between the computer and the headset.

Note: For most Bluetooth enabled headsets, after you have successfully connected for the first time, you can quickly reconnect to BlueSoleil by simply pressing a multifunction button on the headset..

- # Human Interface Device

The *Bluetooth* Human Interface Device (HID) profile enables users to use *Bluetooth* enabled HID Device such as keyboard, mice or joystick to control your computer.

### Typical usage

- Connect a *Bluetooth* enabled Mouse and a Keyboard to Your Computer.

### Connect a *Bluetooth* Mouse and a Keyboard to Your Computer

1. Connect the *Bluetooth* enabled mouse to your computer.
2. Connect the *Bluetooth* enabled keyboard to your computer. Before you can use BlueSoleil to connect, you may need to press a button on the keyboard to make it discoverable.

Note:

- The first time you connect the mouse or keyboard to your computer, the Found New Hardware Wizard will automatically launch. In the first screen of the wizard, DO NOT INSERT ANY CD and click Next. Follow the next screens until you complete the wizard. If the wizard reappears, cancel the wizard. You should be able to use the mouse or keyboard with your computer.
- The *Bluetooth* enabled mouse/keyboard can automatically re-connect to your computer after you successfully establish the initial connection.

- # LAN Access

The *Bluetooth* LAN Access Profile (LAP) allows users to access a Local Area Network (LAN) via a *Bluetooth* enabled LAN access point.

## Typical Usage

- Accesses a Local Area Networking via a *Bluetooth* enabled LAN access point.
- Use your computer as a LAN Access Point.

## Access a LAN via a *Bluetooth* enabled Access Point (AP)

1. Connect to the LAN AP's LAP service.
2. In the **Connect *Bluetooth* LAP Connection** dialog, enter the user name and password if necessary. Click **Connect**.

Figure 1 Connect *Bluetooth* LAP Connection

## Use your computer as a LAN Access Point (Advanced Users Only)

1. Start the *Bluetooth* LAP Access service on BlueSoleil.
2. Specify any static IP addresses for LAP clients (Alternatively, you can use DHCP to have the system dynamically assign IP addresses).
   (1) In the **Network Connections** window, right click **Incoming Connection**, then select **Properties** (Figure 2).

Figure 2 : Select Properties On the Pop-up Menu

(2) Select **Incoming Connections Properties | Networking** -> **Internet Protocol (TCP/IP)**, and click on the **Properties** button. (Figure 3)

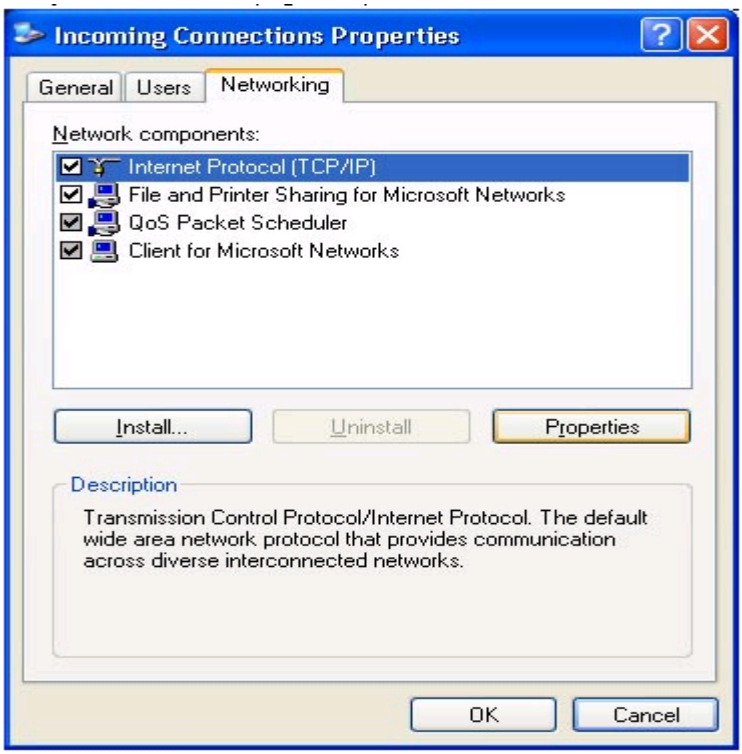
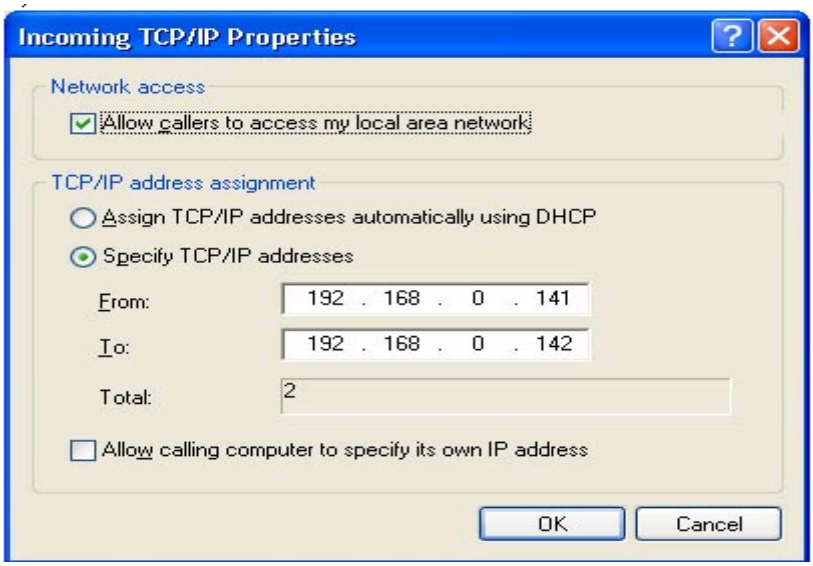


Figure 3 : Internet Protocol (TCP/IP) Network Component

(3) Select **Specify TCP/IP addresses** and enter the range of IP addresses assigned to LAP clients (Figure 4).




1. Figure 4 : Enter the IP Addresses

Note: In order to use a Windows 98SE/Me system as an access point, you must have already installed a Dial-up Adapter and the Windows Direct Cable Connection component on the system.

- # Object Push

The *Bluetooth* Object Push profile (OPP) enables users to send and receive Personal Information Management (PIM) data objects (Including messages, notes, calendars items, and Business cards) to and from a *Bluetooth* enabled PDA or mobile phone.

The objects supported:

- Contacts (*.**vcf**)
- Calendars (*.**vcs**)
- Notes (*.**vnt**)
- Messages (*.**vmg**)

### Typical Usage

- Push objects to a *Bluetooth* enabled mobile phone or PDA

- Receive objects from a *Bluetooth* enabled mobile phone or PDA

Note: If you would like to push PIM objects to a PDA, make sure that the PDA is ready to receive a PIM object before you start. If necessary, enable Object Push on the PDA. For instructions, refer the PDA ' s user documentation.

## Push Objects to a *Bluetooth* Mobile Phone

There are two ways to push objects:

1. From BlueSoleil **Main Window**:

   Double-click on the mobile phone or PDA icon to browse for service information. The Object Push Service icon should be highlighted at the top of the screen. Right click the Object Push Service icon, and in the pop-up menu click Send My Card.(Figure 1)

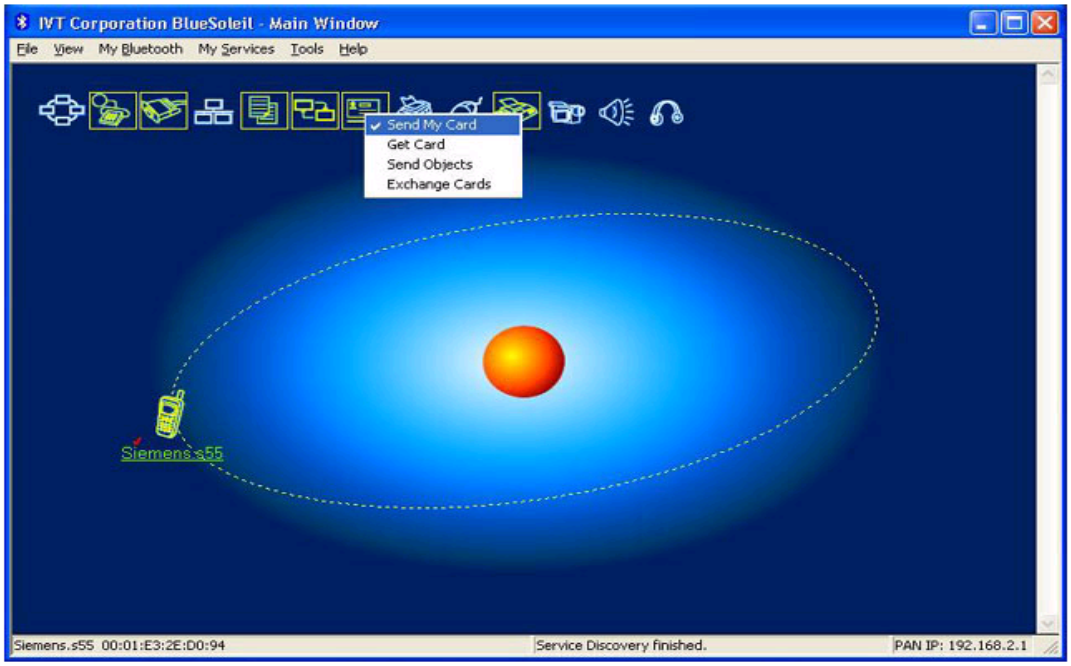



Figure 1: Send Object

- **Send My Card:**
  Send your default business card.

- **Get Card:**
  Get the default business card of the phone.
- **Send Objects:**
  Select some objects (PIM files in *.vcf, *.vcs, *.vnt, *.vmg) and send to phone.
- **Exchange cards:**
  Have your computer and the phone to exchange their default business cards.

2. From MS Outlook:
   (1) Select the contact that you would like to send.
   (2) In Outlook, click on the **Push** button on the toolbar, or click **File | Push**.

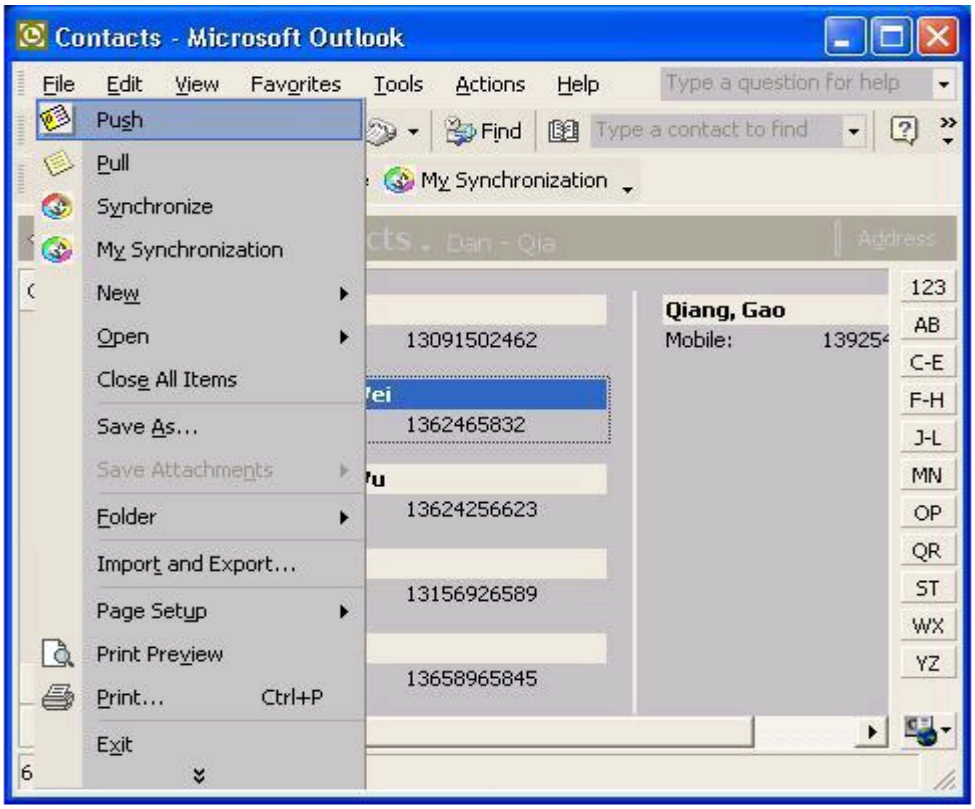



Figure 2 Outlook *Bluetooth* Add-in

(3) The *Bluetooth* Neighbors screen will appear. In the device list, select the phone or PDA that you wish to push the contact to. Click on the Push button.

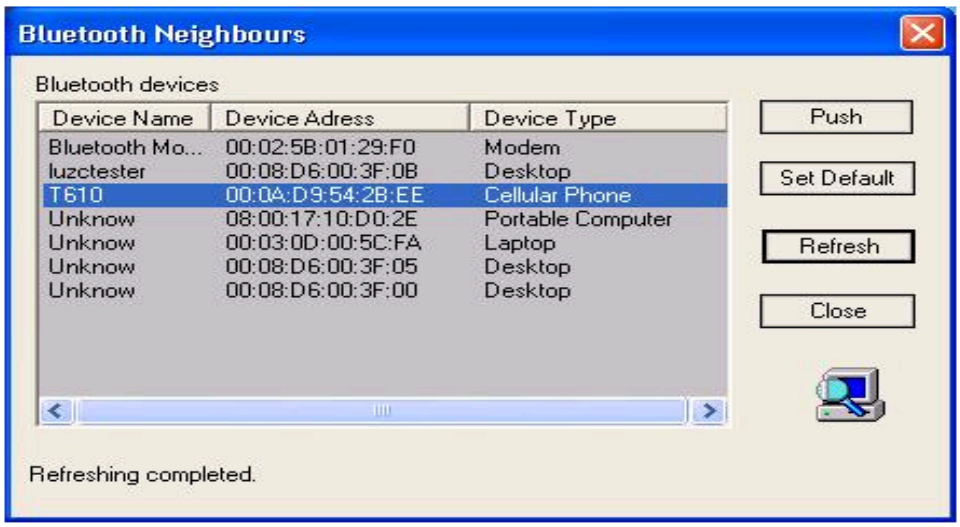



Figure 3 Select the Remote Device

## Receive Objects from a *Bluetooth* Phone

Steps:

1. Configure the parameters for the object push. From the Main Window, click **My Service | Properties.** Click on the **Object Push** tab.

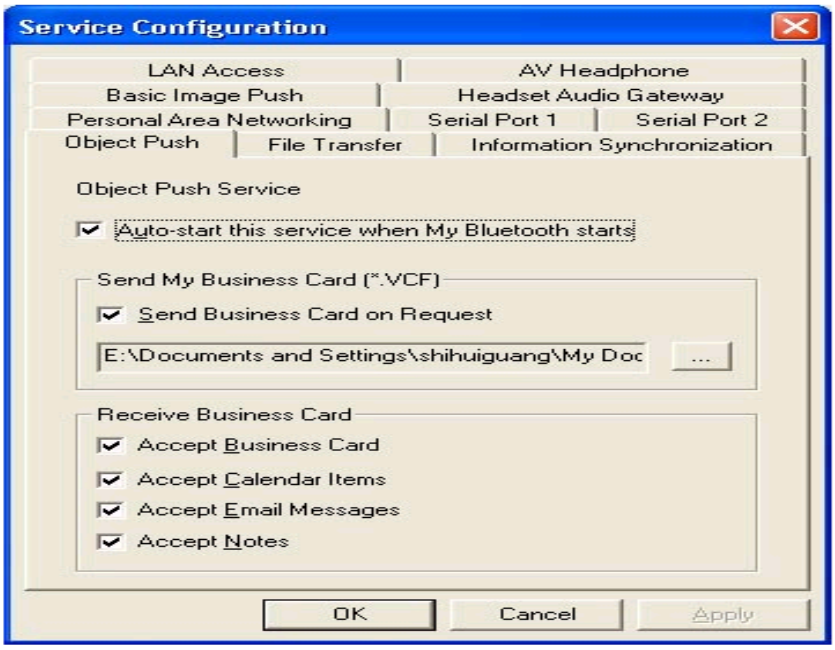
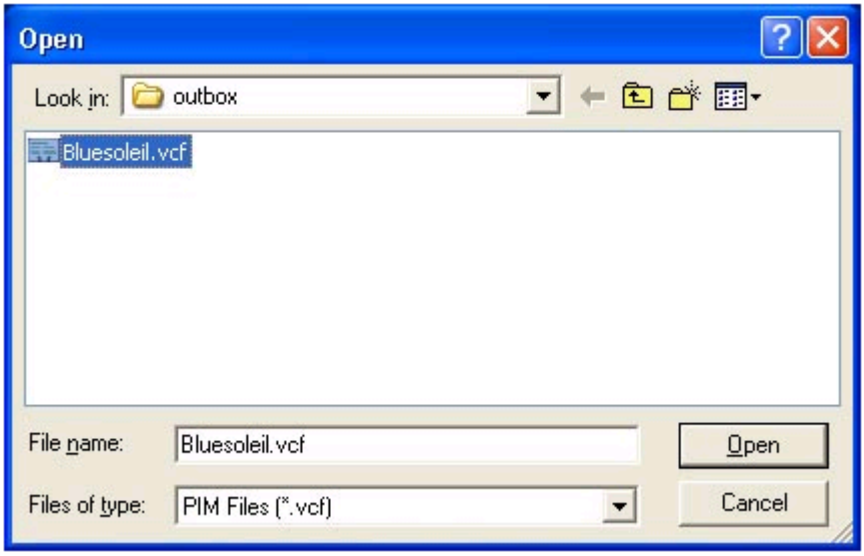



Figure 1: Object Push Service Configuration

2. Start Object Push service. Do not initiate a connection, only start the service so that your computer will be ready to receive objects.
3. Send objects from the phone. For instructions, refer to your phone's user documentation.

Notes:

- BlueSoleil creates a Bluetooth folder (with Inbox and Outbox subfolders) in your My Documents folder for use with Object Push. The Inbox is used to save objects received from other devices. The Outbox is used to save objects sent out from your computer.
- Your can set your default business card by clicking My Services | Object Push. In the Send My Business Card field, browse to select a contact as your default business card.




- # Personal Area Network

The *Bluetooth* Personal Area Networking (PAN) Profile enables PCs, laptops, PDAs, and other *Bluetooth* enabled devices to form either of two kinds of PAN networks. In a Group ad-hoc Network (GN), which functions as an isolated network, multiple PAN Users (PANUs) are linked together via a GN controller. Alternatively, a PAN can consist of multiple PANUs linked to a Network Access Point (NAP), which provides access to external Local Area Network (LAN) infrastructure. BlueSoleil supports all three of these device roles — GN (controller), PANU, and NAP.

## Typical Usage

- Group Ad-hoc Network (Peer-to- peer networking)
  One device acts as the GN, and others function as PANU devices. These computers can visit each other or use an application based on TCP/IP.

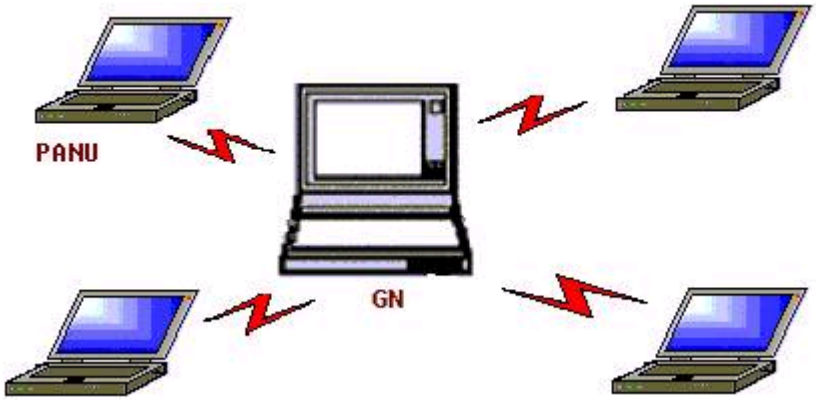



Figure 1: Group Ad-hoc Network

Access a LAN via a Network Access Point (or a Computer Acting as a NAP)

After the computers connect to the NAP, they become members of the LAN and can directly communicate with other computers in the LAN.

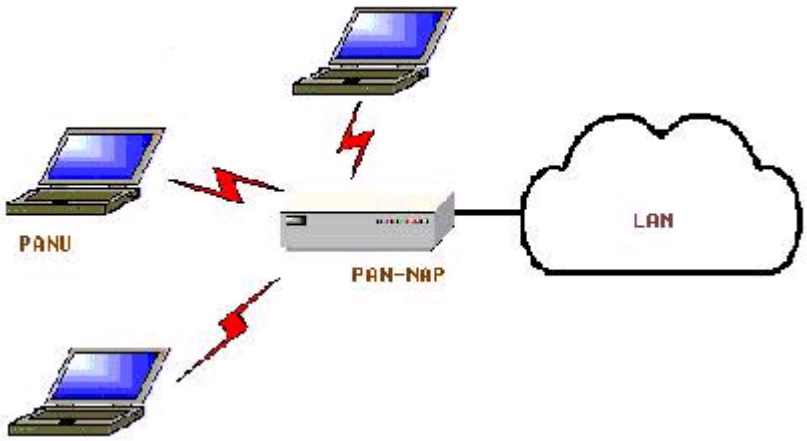



Figure 2: Access LAN Via PAN-NAP

### Connecting the PAN User (PANU)

1. Connect to the server's Personal Area Network service .
2. Wait for a few seconds for BlueSoleil to obtain and display your computer's IP address.

## Configuring the NAP/GN

Click ***Bluetooth*** **Service | Properties** and click on the **Personal Area Network** tab.

- Scenario 1: Group Ad-hoc Network

  Select **Set up *Bluetooth* Personal Area Network** and **Enable DHCP Server** (Figure 3).
  A DHCP server will be started on the GN . The PANU can obtain an IP address automatically from this DHCP server if the PANU does not set static IP address for the **BT Network Adapter**.

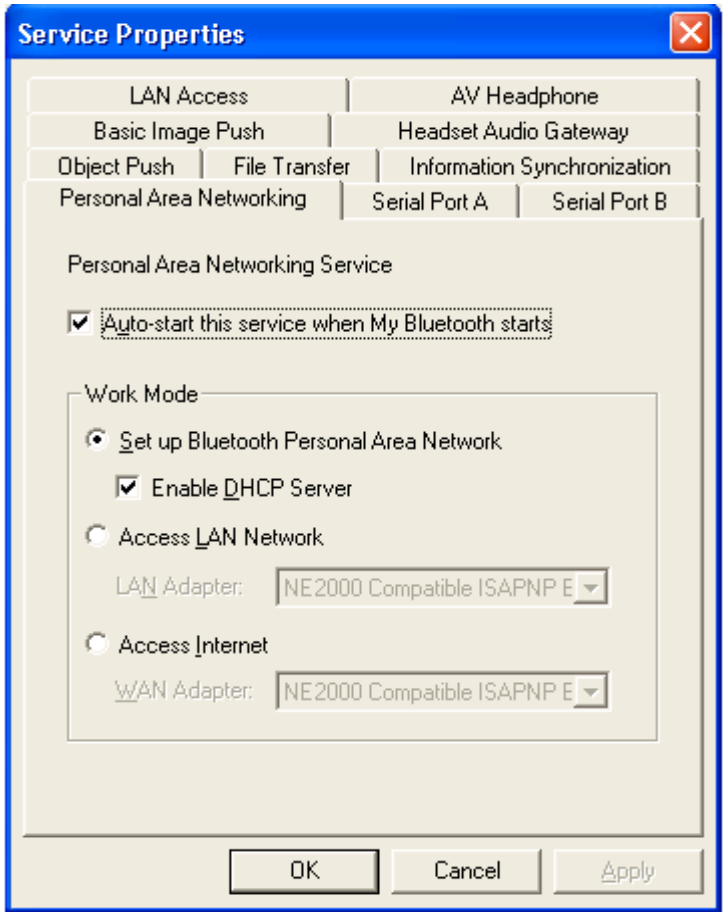



Figure 3: Set Up *Bluetooth* Personal Area Network

- Scenario 2 : Access LAN via PAN-NAP
  Select **Access LAN Network** and select a physical network adapter, through which the NAP connects to a LAN, as the **LAN Adapter** (Figure 4).

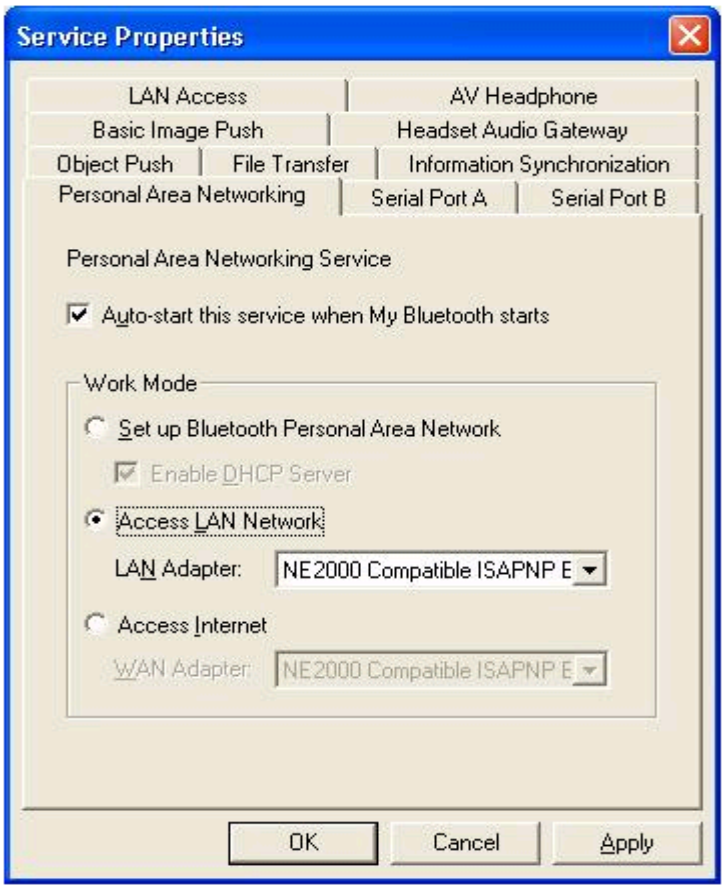



Figure 4: Access LAN Network

- **Scenario 3 : Access Internet via NAP**
  Select **Access Internet** and select a physical network adapter, through which the NAP connects to Internet, as the **WAN Adapter** (Figure 5). It will automatically enables **NAT** (Network Address Translation, please refer to Windows Help Topic) function and a DHCP server.

Note: The BT Network Adapter on the PANU side must be set to obtain an IP address automatically. The IP address is in the form of 192.168.2.xxx, such as 192.168.2.1.

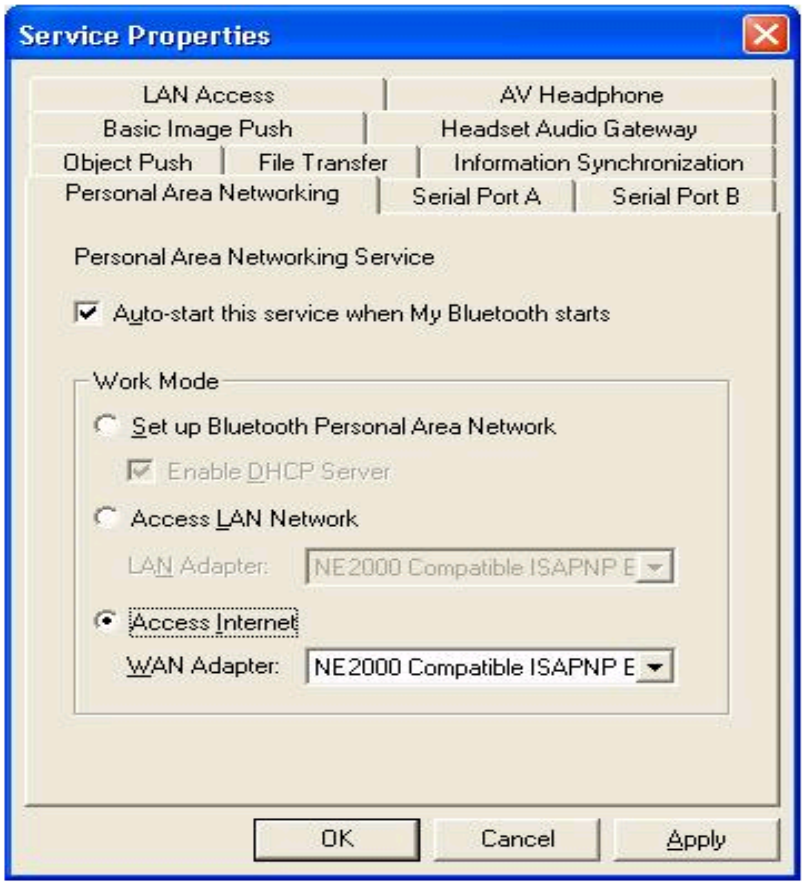



Figure 5: Access Internet

- # Printer

The *Bluetooth* Printer Profile (HCRP) enables your compter to connect to a *Bluetooth* enabled printer.

## Typical Usage

- Print documents to a *Bluetooth* enabled Printer.

### Print Documents to a Bluetooth Printer

1. Connect to the printer's printer service.
2. (a) If your computer does not have the correct printer drivers installed, BlueSoleil will prompt you to do so (Figure 1).

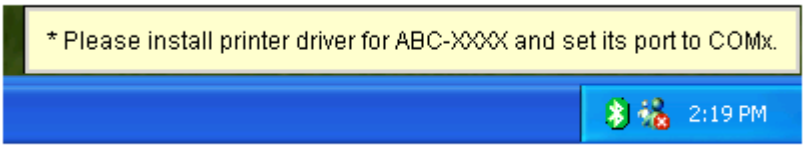



Figure 1 *Bluetooth* Printer Driver Is Not Installed

Install the driver for the printer, and remember to set the printer port to the correct COM port number. To determine the correct COM port number, in the Main Window, right-click on the device icon. In the pop-up menu, select Status.

(b) If the printer driver has been installed, a message indicates the *Bluetooth* printer is ready (Figure 2).

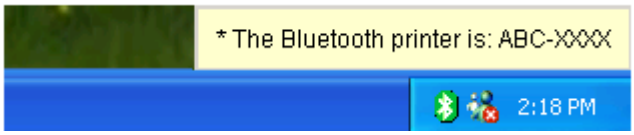



Figure 2 Printer Driver Is Ready

3.Print documents using the *Bluetooth* enabled printer. In the application, be sure to select the correct printer and printer port.

- ## Serial Port

The *Bluetooth* Serial Port Profile (SPP) provides PCs, laptops, PDAs, GPS receivers, cordless serial adapters, and other Bluetooth enabled devices with a virtual serial port, enabling them to connect with each other wirelessly via *Bluetooth* instead of a serial cable.

BlueSoleil supports four *Bluetooth* Serial Ports for out-going connections and two *Bluetooth* Serial Ports for incoming connections.

### Typical Usage

- Connect to other *Bluetooth* enabled devices via the Serial Port.

## Connect to a PDA

Steps:

1. Connect the PDA's Serial Port service.
2. Use ActiveSync or any software that uses a serial connection.

Note:

- Serial Port Auto-Connection function
  Once a target device is assigned to a specific serial port, (e.g., COM5), whenever an application opens that serial port, BlueSoleil will automatically connect to the target device. Similarly, whenever an application closes the Bluetooth serial port, BlueSoleil will stop the connection. To check which devices are assigned to which COM ports, click Tools | Configurations | Quick Connect...
- Some applications only allow you to use a limited range of COM port numbers. If the application does not allow you to use a COM port number assigned by BlueSoleil, you will not be able to use BlueSoleil with your application.

# Additional Information

- **START/STOP Bluetooth Service**

The Local Service List displays all the *Bluetooth* services supported by the local computer. Use this screen to start/stop services.

| Services | Icons | Services | Icons |
|---|---|---|---|
| PAN | | SPP | |
| OPP | | FTP | |
| SYNC | | LAP | |
| A2DP | | BIP | |
| Headset AG | | | |

## Icon Meanings

There are 3 states for the local *Bluetooth* services, indicated by different icon colors.

- White- Idle. The service has not been started.
- Yellow- Started. The local *Bluetooth* service has been started.
- Green- Connected. Some remote device has connected to the service.

## Operations

- Single-click on the icon to select the service.
- Double-click on the icon to Start/Stop a service.
- Right-click to display a pop-up menu of related operations.

## USB DONGLE Specification

# Features

- Bluetooth v1.1 and v1.2 specification
- Support Firmware Upgrade
- Excellent compatibility with cellular telephones
- Minimum external components
- Built-in Antenna
- Low Power Modes Available
- Park,Sniff,Hold and Deep Sleep
- Operation range: 10m (Bluetooth Class 2)
- Frequency band: 2.4Ghz unlicensed ISM band
- LED status indicator
- Support Piconet,up to 7 Slaves
- Weight:7.33g
- Size: 52*18.4*9.8mm

Product Description

Bluetooth USB Dongle is a quick and inexpensive solution as a Bluetooth plug-on modules to computers. It enables computer to communicate with any Bluetooth peripherals (such as computers, PDAS, moblie phones, printer) wirelessly.

The Bluetooth USB Dongle is a Class 2 Bluetooth sub-system using BlueCore3-Rom chipset from leading Bluetooth chipset supplier Cambridge silicon Radio.the power by the PC.The Host Interface in USB Line.

The Bluetooth USB Dongle support the following functions:

- ✧ Dial-up Networking
- ✧ FAX
- ✧ File Transfer
- ✧ LAN Access
- ✧ Generic Object Exchange
- ✧ Personal Area Networking
- ✧ Printer
- ✧ Serial Port

Applications

- PCs,PDAs

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.

FCC NOTE:

**THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**