



TRENDNET



User's Guide

TBW-103UB

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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that
- To which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

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

IMPORTANT NOTE: FCC Radiation Exposure Statement

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This device was tested for typical by stander conditions that may occur during use. To comply with FCC RF exposure requirements a minimum separation distance of 1.5 cm must be maintained between the user's body and the device, including the antenna.

TRENDnet declares TBW-103UB, (FCC ID: S92ZTBW-103UB) is limited in CH1~CH11 for 2.4 GHz by specified firmware controlled in U.S.A.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d) (2).

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.



Waste electrical and electronic products must not be disposed of with household waste. Please recycle where facilities exist. Check with you Local Authority or Retailer for recycling advice.



Table of Contents

Chapter 1. Introduction	1
■ System Requirements for Configuration:.....	1
Chapter 2. How to Install WLAN/Bluetooth driver and Utility	2
Software Setup	2
Hardware Setup	2
Chapter 3. Windows XP Installation Notes	4
Chapter 4. How to use the WLAN Utility(Station).....	6
4.1 TBW-103UB Configuration Tools	6
4.2 Open the WLAN Utility	6
4.3 More Setting	7
4.3.1 “General Connection Setting” group:.....	7
SSID :	7
Channel :	7
TX Rate :	7
Network Type :	7
Encryption :	7
Authentication Mode :	7
4.3.2 Encryption Setting :	8
Chapter 5. How to use the WLAN Utility(Access Point)	10
5.1 Introduction	10
Additional Setup Requirement.....	10
5.2 The 802.11g WLAN dongle Utility Screen	10
Chapter 6. How to use the Bluetooth Utility	12
6.1 Open Bluetooth utility.....	12
6.2 Local <i>Bluetooth</i> Device	12
6.3 Remote <i>Bluetooth</i> Devices	12
Icon Meanings.....	13
6.4 Bluetooth Service Buttons of Remote Device.....	13
Icon Meanings.....	14
6.5 Local Service List	14
6.6 Bluetooth Connection Management	15
Find Remote Devices	15
Inquire Device	15
Add Device from History List	15
Add a New Device by Entering Device Address.....	15
6.7 Connect and Disconnect	16
Connect	16
Disconnect.....	16

Chapter 1 Introduction

Thank you for using our WLAN/Bluetooth Combo product. This installation guide will help you install WLAN/Bluetooth Combo product and connect to the Internet quick & easy.

■ System Requirements for Configuration:

- A laptop or notebook computer with an available USB port (2.0 or 1.1)
- Windows XP or Windows 2000
- At least 32 MB of memory and a 300 MHz processor
- An 802.11g or 802.11b Access Point (*for Infrastructure mode*),
or another 802.11g or 802.11b wireless adapter (*for Ad-Hoc, peer-to-peer networking mode.*)

Chapter 2 How to install Bluetooth Utility and Driver

■ Software Setup

2.1 Insert the supplied Setup CD-ROM

Insert the supplied Setup CD into your CD-ROM drive , and you'll see the software installation window as shown below.



- 2.2 Click “802.11g WLAN Setup Driver” option and continue to click **Next** to complete the WLAN installation. Then return to the Setup Screen (shown above) and Click “**Class 2 Bluetooth Setup Driver**” to install the Bluetooth Utility. After both utilities are installed, restart your PC.

■ Hardware Setup

- 2.3 Connect the TBW-103UB adapter into your PC, it will automatically detect the device and alert a new USB device is found. Click “**Next**” to install drivers



2.4 When the following screen appears, click “**Continue Anyway**” to proceed.



2.5 Your PC will recognize the device of “TBW-103UB”, and click “**Next**” to install driver.

2.6 Last, click “**Finish**” to complete the installation.

2.7 After installation is completed, you’ll see the new icon appear in the Icon Tray.



Double-click the icon to launch the application and open the configuration tools dialog box to configure your adapter.

For more details about Wireless configuration utility, please refer to Wireless Utility section.

Chapter 3 Windows XP Installation Notes

Windows XP has a built-in configuration tool, **Windows XP Wireless Zero Configuration**, available to assist you in managing your wireless networks. you use the provided **TBW-103UB Utility** to manage your adapter.

When you use the Windows XP configuration tool and the WLAN Utility to configure the WLAN Dongle at the same time, the WLAN Utility icon does not display or is grayed out.

To use the **Wireless Utility** under Windows XP, you need to disable the default settings of your **Windows XP Wireless Zero Configuration** utility.

Follow the procedure below.

1. Right-click the **Wireless Utility** to **Exit** from the program. Do this before you try to access Windows XP Wireless Zero Configuration.



Figure 3-1 Wireless Utility Icon

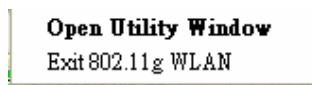


Figure 3-2 Right-click Menu of the System Tray Icon

2. Right-click the **Network Connections** icon in the task bar to open the **Wireless Network Connection Status** dialog box. Select **Properties**. See Figure 3-3.

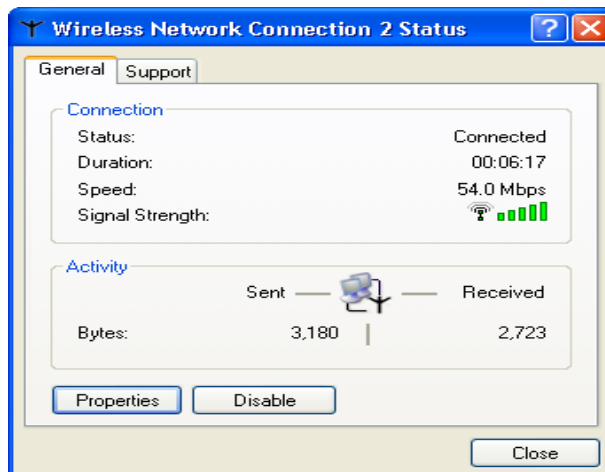


Figure 3-3 Wireless Network Connection Status Dialog Box

3. Choose the **Wireless Networks** tab in the Wireless Network Connection Properties dialog box, and uncheck the **Use Windows to configure my wireless network settings** checkbox. See Figure 3-4.

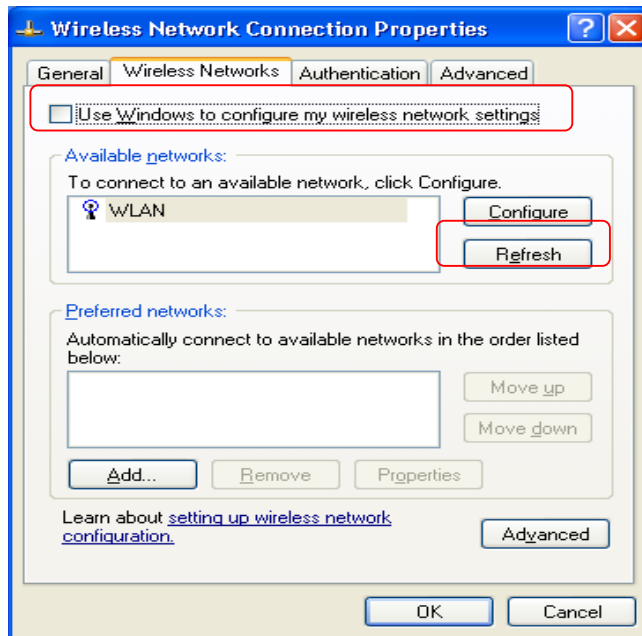


Figure 3-4 Wireless Network Connection Properties Dialog Box

4. Click **OK**. The Windows XP Wireless Zero Configuration is now disabled. You can now monitor and configure the adapter via **Wireless Utility**. If you wish to use the Windows XP Wireless Zero Configuration, refer to Figure 3-4, Using Wireless Zero Configuration for Managing the Adapter.

Chapter 4 How to use the Wireless Utility(Station)

4.1 TBW-103UB Wireless Utility

If you use the Windows XP, the “Zero Configuration” of Windows XP will be disable first , then WLAN Utility can be used.

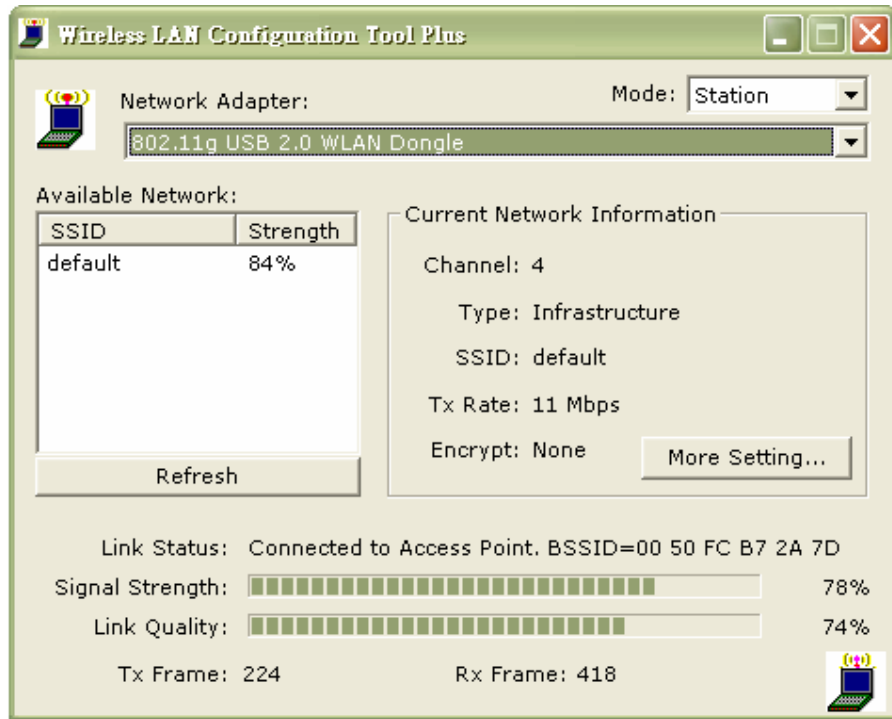


Figure 4-1

4.2 Open the Wireless Utility

The Window is as shown in “Figure 4-1”.

The adapter can be set at “Station” or “Access Point” Mode from the Mode drop down menu. Station mode is selected for the document.

- You can site survey the neighboring **SSID** site by pressing the “**Refresh**”, then sites name and signals strength of available **SSID** sites are shown on the “**Available Network**” field.
- Double click the SSID site from “Available Network” field, and the SSID can be connected directly.
- The information of the SSID is shown on the “Current Network Information”.
- Show the BSSID of connecting AP on the “Link Status” filed.
- “Signal Strength” and “Link Quality” shown on diagrammatic curve, and described with percentage.
- Record the number of TX frames on the filed of “TX Frame”.
- Record the number of RX frames on the filed of “RX Frame”.

4.3 More Setting

Click “More Setting “ of Figure 4-1 to enter “More setting “ window. The window is shown as “Figure 4-2”.

4.3.1 “General Connection Setting” group:

- Read the current status from the group if the “**Change**” button is not pressed.
- Press “Change” button for modifying the status, when the modification is finished, press “Apply” to save it. The button “**Change**” and “**Apply**” is alternately shown on the same position.

SSID:

The **SSID** (Service Set Identifier), also known as the Network Name, must be unique to distinguish itself as a particular wireless network. All wireless points in the network area share the same SSID. Type your network SSID in the SSID field to associate with access points or stations within the specified wireless LAN.

Channel:

This is the radio channel used by wireless devices within the network for communication. This command is only available while you are operating in the Ad hoc mode. Specify the operating radio frequency channel from the pull-down menu if you are the creator of the wireless network. If you are joining an existing network you do not need to select the channel; configure the SSID and click **Apply** changes.

Note: The available channels differ from country to country. The channel number must be the same between the entries/stations within the network, so that each station can communicate with the other stations

TX Rate:

Select the transmission rate by “Tx Rate” drop down menu.

Network Type:

Select the “Ad_Hoc” or “Infrastructure” Mode by the “Network Type” drop down menu.

Encryption:

Select the “**Enable WEP**” or “**Disable WEP**” by the “Encryption” drop down menu.

Authentication Mode:

Select the “**Open System**” , “**Shared Key**” mode or “**Auto**” from the “Authentication Mode” drop down menu.



Figure 4-2

4.3.2 Encryption Setting:

Press “**WEP Encryption Key Setting**” to enter the “WEP Key Setting” page shown as **Figure 4-3**.

- Select the “Open System”, “**Shared Key**” mode or “Auto” from the “authentication Mode” drop down menu.
- Press the “**Change**” button to modify the contents of “**WEP Key setting**”, when it is finished, press “**Apply**” to save it. The button “**Change**” and “**Apply**” is alternately shown on the same position.
- Select which key length 64, 128 or 256 bits will be modified or used by “**Key Length**” item.
- Select which key set will be use by the field of “**Default Key ID**”
- Modify the 4 sets key depending on the selected key length on the field of “Key Value”. The key value is used the hexadecimal format.

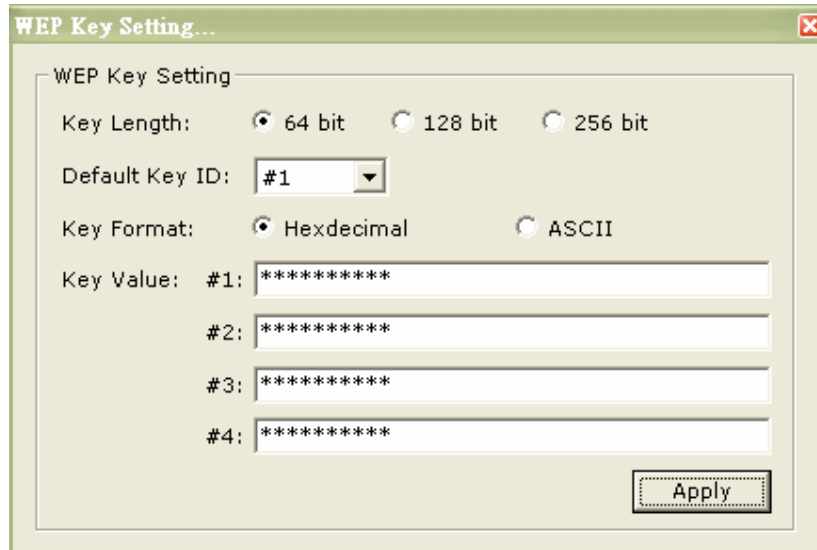


Figure 4-3

4.3.3 “Profile” group:

- Select the profile(Figure 4-2) that has been saved previously from the “Profile name” drop down menu, then press “Load ” button to load the status to use.
- Write the profile name on the field of “Profile name”, and press the “Save Current” button to save the current status on the profile.
- Select the profile name that wanted to delete from the “Profile name” drop down menu, and press “Delete” button to delete it

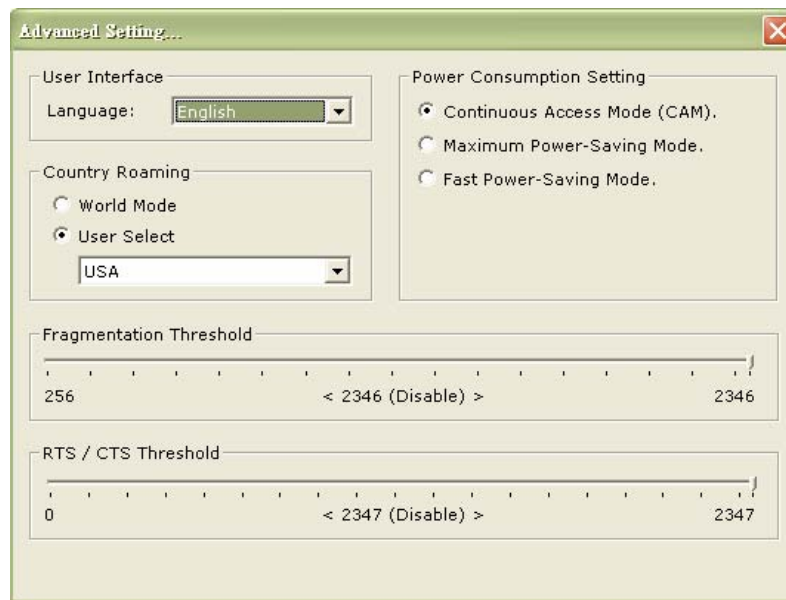


Figure 4-4

Chapter 5 How to use the Wireless Utility(Access Point)

5.1 Introduction

To set your TBW-103UB as an Access Point (AP) , reference In Access Point mode , your TBW-103UB as an AP. This allows you to set up your wireless network without using a dedicate AP device. Up to 16 wireless station can associate to TBW-103UB.

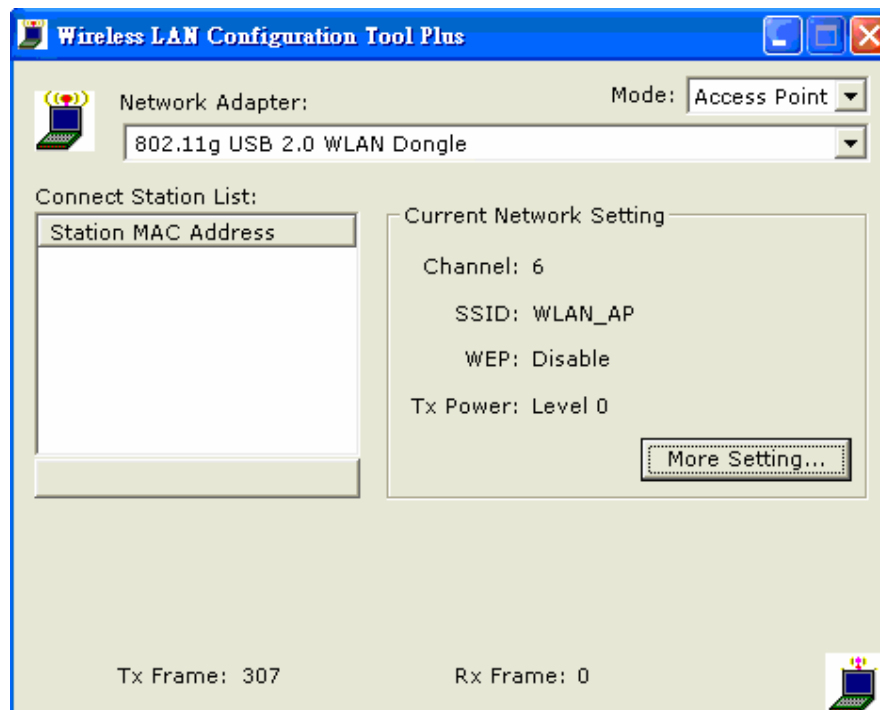
Additional Setup Requirement

To bridge wireless and wired using the TBW-103UB, The following requirement must be met.

1. The TBW-103UB must be installed a computer connect to the wired network.
2. Either configure network sharing or bridge the two interfaces (Wireless & Wired) on the computer.
3. Set the wireless station's IP address to be in the same subnet as the computer in which TBW-103UB is installed.

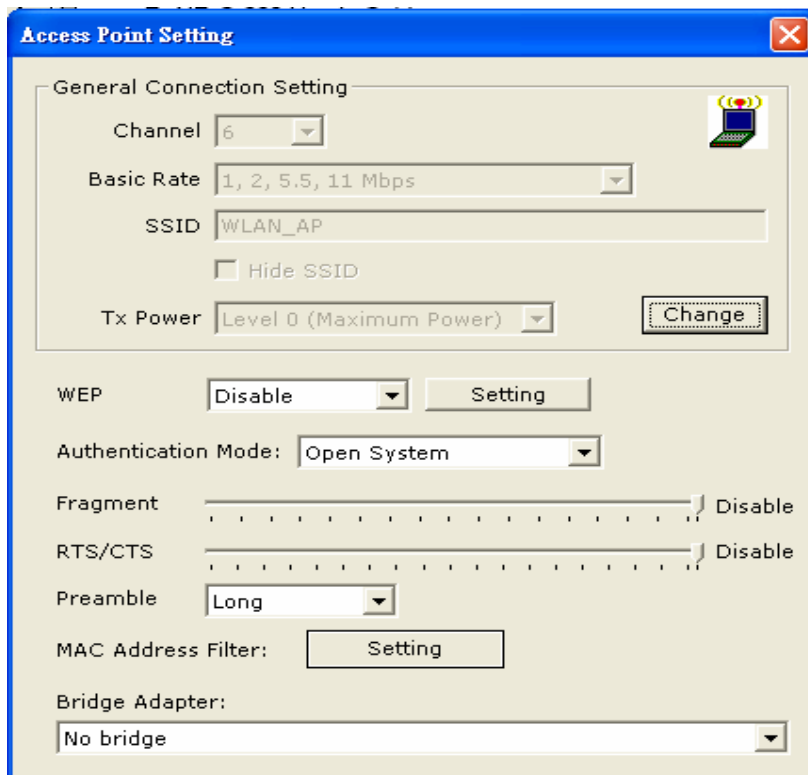
5.2 The 802.11g Wireless Utility Screen

5.2.1 Select "ACCESS POINT" in the MODE field to display the screen as shown.



ACCESS POINT Mode

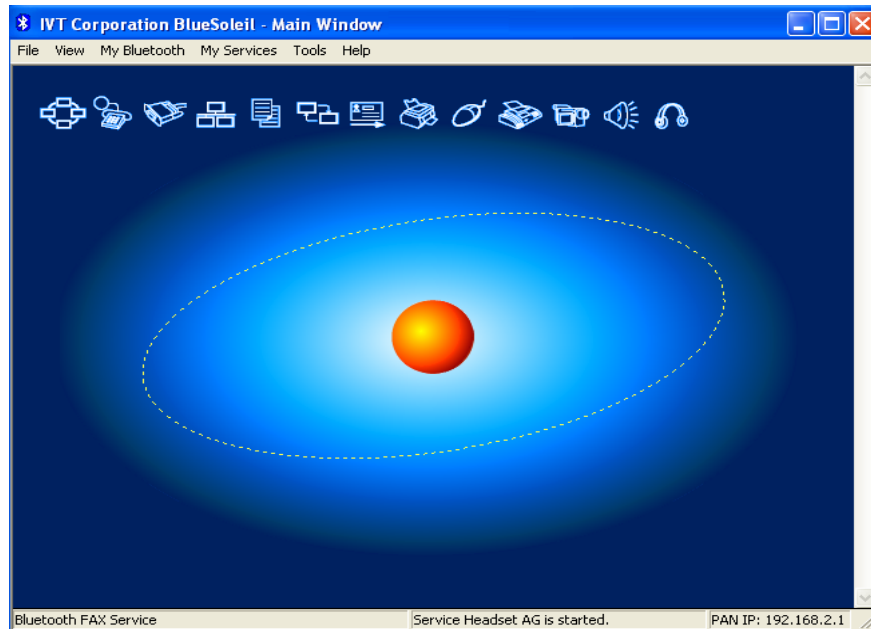
5.2.2 click "More Setting..." in the TBW-103UB screen to display the screen as shown.



Chapter 6 How to use the Bluetooth Utility

6.1 Open Bluetooth Utility

Double-click the Bluetooth icon to launch the application and open the configuration tools dialog box to configure your adapter.



6.2 Local *Bluetooth* Device

The Local *Bluetooth* enabled device, known as "**My Device**", represents the user's computer that is running BlueSoleil.

Operations:

- Hover mouse to display the local *Bluetooth* device's name or address (if without name).
- Click on the red ball to start or stop searching for *Bluetooth* devices in range.
- Right-click on the red ball to display a pop-up menu of related operations (e.g., General Inquiry, My Services, Security, etc.).

6.3 Remote *Bluetooth* Devices

Remote devices are other *Bluetooth* enabled devices that are in the *Bluetooth* radio range of your local device. BlueSoleil uses different icons to indicated different types of remtoe devices.

Icons

Devices	Icon	Devices	Icon
Personal Computer		Laptop	
Modem		Mobile	
PDA		LAN Access Point	
Keyboard		Mouse	
Microphone		HiFi Audio	
Loud Speaker		Headset	
Printer		Scanner	
FAX		Camera	
Game bar		Server	
Unknown device			

Icon Meanings

Remote devices can be in any of three states, which BlueSoleil indicates with different colors.

- White- Idle. The normal state of the device.
- Yellow- Selected. you have selected the device.
- Green- Connected. The device is connected to your computer.

Operations Single-click on the icon to select.

- Double-click on the icon to search for the services supports by the remote Bluetooth device .
- Right-click on the icon to display a pop-up menu of related operations (e.g. Refresh Services, Pair Devices, Connect, etc.).

6.4 Bluetooth Service Buttons of Remote Device

Service buttons at the top of the Main Window represent a range of *Bluetooth* services potentially supported by Remote Devices.

Services	Button Image	Services	Button Image
PAN		DUN	
SPP		LAP	
FTP		SYNC	
OPP		HCRP	
HID		FAX	
BIP		AV	
Headset			

Icon Meanings

There are 3 states for the service icons, indicated by different colors.

- **White**- Idle. The normal state.
- **Yellow**- Available. The *Bluetooth* service is available on the selected remote device.
- **Green**- Connected. The *Bluetooth* service is active in a connection with the remote device.

Operations

- Move your mouse over the service icon to display the name of the service.
- Single-click on the service icon to connect.
- Right-click on the service icon to display a pop-up menu of related operations.

6.5 Local Service List

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			

6.6 Bluetooth Connection Management

6.6.1 *Bluetooth* Connection Management includes:

Find Remote Devices

To set up a *Bluetooth* connection, the remote device must be found first. There are 3 ways to find remote devices in BlueSoleil.

Inquire Device

1. Single-click the red ball in the main window to start inquiry.
2. *Bluetooth* devices within the radio range will be shown around the center ball.
3. Wait for a few seconds until the names of all the devices are obtained.

Add Device from History List

The devices which had been found or connected can be added from the history device list directly.

1. Select menu **Tools | Add Device from History....** The **History** dialog box pops up.
2. Select the device from the list and click button **Add**, the device will be added to the main window.

Add a New Device by Entering Device Address

If the device cannot be found by **Inquiring**, you can enter the device address to add the device.

1. Select menu **Tools | Add New Device....** The **Add New Device** dialog pops up.
2. Enter the *Bluetooth* device address and click button **OK**, the device will be added to the main window.

Note: *The device type will be unknown if add it by inputting its Bluetooth address.*

6.7 Connect and Disconnect

Connect

1. Select a remote device and double click it to browse its services.
Bluetooth passkey may be asked if security level of either side is set to high and they are not paired devices.
After service browsing, the services the remote device supports are highlighted by changing the color of the service buttons on the top of the main window.
2. Single click one of the service button to connect.
After connection is setup, the remote device and the service button will turn green.

Note: Users can right click the remote device icon or the service button to pop up operation menu for connection.

Disconnect

Method 1: Select the remote device, right click the service button. On the popup menu, select **Disconnect**.

Method 2: Right click the device icon. On the pop-up menu, select **Disconnect | (the connection you want to disconnect)**.

Method 3: For FTP and Synchronization connection, close the operation window, the connection will be disconnected.

Method 4: Disconnect from the remote device directly.

Method 5: If the local *Bluetooth* device is removed or the remote device is powered off, all the connections will be disconnected. If the remote device moves out of the radio range, all the connections with the remote device will be disconnected in 1 minute.

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Product Warranty Registration

Please take a moment to register your product online.

Go to TRENDnet's website at <http://www.trendnet.com>

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