Bluetooth[™] USB Adapter

User's Guide

Doc. No. 070102-02

FCC Part 15 Class B Registration

This model Bluetooth USB Adapter (Model No.: UBT1000) must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

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

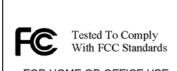
1) This device may not cause harmful interface, and

2) This device must accept any interface received, including interface that may cause undesired operation.

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

- Reorient or relocate the receiving antenna.
- Increase the 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.

Warring: Changes or modifications not expressly approved by party responsible for compliance could void the user the user authority to operate the equipment.



FOR HOME OR OFFICE USE



Caution:

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

U.S Service Center:

D-LINK CORPORATION

53 DISCOVERY DRIVE, IRVINE CA 92618, USA

TEL: 714-788-0805

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Technical Support

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Table of Contents

Part I:
Introductions
Features
Specifications
Standard
Interface
Frequency Band
Data Rate
Security
Typical Range
Topology
Antenna
RF Topology
LED indicator
Transmitter Power
Power Requirement
Physical Specification
Supported operating systems
Certification
Software Installation
Start Here
For Windows 98(SE)/ME/2000/XP
Software Un-installation
Hardware installation
Precaution
Getting Hooked Up
Setup Diagnostics
Part II:
About Bluetooh

About BTW	
Icons Used for Bluetooth Devices and Services	
Basic Operation	
Search for Bluetooth Devices	
In Windows 2000	
In Windows XP	
Pair	
To initiate pairing with a device	
How to use the service of File Transfer	
Configuration	
General	
Identity	
Security	
Accessibility	
Discovery	
Perform a periodic Search for Devices	
Determine which devices will be reported	
Information Exchange	
Local Services	
Client Application	
Network Access	
Hardware	
Version Info	
Notifications	
To associate a sound with a Bluetooth event:	
Troubleshooting	

Part I:

Installation Guide

- 1 -

INTRODUCTIONS

This BluetoothTM USB Adapter is specifically designed to plug into an available Universal Serial Bus port connecting to a desktop or laptop PC. It allows you to make short-range wireless connections between Bluetooth devices such as cellular phones, personal digital assistants (PDA), and desktop and notebook computers.

The BluetoothTM USB Adapter uses radio transmission, voice and data are thus transmitted almost immediately. BluetoothTM transmission ensures both protection from interference and secures data transfers. It helps people share and access the information that's important to them more easily.

Link your notebook with your handheld, mobile phone, printer and other BluetoothTM devices within your personal area network (PAN) via a secure short-range wireless radio link. Get rid of all those troublesome cables and automatically share documents, browse the Internet and synchronize calendars, address books and more.

Features

- Complies with Bluetooth 1.1 specification.
- Uses 2.4 GHz ISM frequency band.
- High-speed Wireless Transmissions, up to 723 Kbps Data Throughput.
- Enable wireless connectivity between a notebook computer and other bluetooth devices
- Connections within ranges up to 32 feet (10 meters).
- Provides a high degree of security for communications between Bluetooth devices.
- Connect with Bluetooth devices outside your PAN to quickly and easily share data, files and information with a friend or co-worker.
- Synchronize devices in your Personal Area Network to keep your data consistent.
- Plug and play installation in Windows98 /ME / 2000 / XP.

Specifications

Standard

• Bluetooth 1.1 specification compliant

Interface

- USB 1.1
- **Frequency Band**
 - 2.400 ~ 2.4835 GHz

Data Rate

Up to 723 Kbps

Security

Data encryption up to 128-bits

Typical Range

• Devices connect for access and data sharing within ranges up to 32 feet (10 meters)

- 2 -

Topology

• 8 devices point-to-multipoint

Antenna

• Built in the card

RF Topology

• Frequency hopping spread spectrum

LED indicator

• Power: Orange

Transmitter Power

• Output power meets Class 2 Requirement

Power Requirement

5V DC, 86mA (max.)

Physical Specification

Dimension: 69.53 (L) x 26.68 (W) x 9.19 (H) (mm)

Supported operating systems

• Windows 98/ ME /2000 /XP

Certification

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- FCC Part 15 in US
- EN300328 and EN300826 (EN301489-17) in European.

- 3 -

SOFTWARE INSTALLATION

Note: The BTW Software (Version 1.2.2.6 or above) should be installed well prior to the hardware installation.

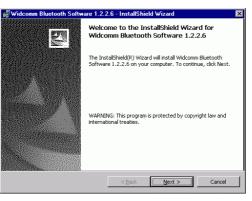
Start Here

Once the installation CD is inserted into the computer's CD-ROM drive, the *Auto-Run* function will automatically guide you to start the software installation. If the *Auto-Run* function is not workable, however, please open the installation CD to find "setup.exe" file and double-click the "setup" icon to continue.

Note: Before you install an upgraded version of the software, be sure to uninstall any previous version, which already exits in your computer. For details of un-installation procedures, refer to the later section titled "Software Un-installation".

For Windows 98(SE)/ME/2000/XP

1. On the Welcome screen, click the Next button.



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

License Agreement Please read the following license agreen	nent carefully.		
			Sec. (1997)
WIDCOMM, INC. ("WIDCO LICENSE THE WIDCOMM & THIS LICENSE AGREEMEN OF THE TERMS IN THIS THE TERMS CAREFULLY. ACCEPT THE TERMS OF J BUTTON YOU ACKNOWLEDO THIS AGREEMENT, UNDER	SOFTWARE AC NT (THE "SO ITION THAT AGREEMENT. BY CLICKIN FHIS LICENS GE THAT YOU	COMPANYING FTWARE") (YOU ACCEP) PLEASE RI IG ON THE SE AGREEMEI J HAVE REAL	TO T ALL EAD "I NT" D
I accept the terms in the license agreem I do not accept the terms in the license			
stalShield	agroomon		
	< Back	Next >	Cancel

3. On the *Device Information* screen, enter the required information:

- 4 -

Device Name—other Bluetooth-enabled devices, when inquiring about devices within radio range, will see this user-configured device name.

The name can be changed after the installation process through the BTW Configuration Panel.

Device Type—click the down arrow \bullet and choose **Desktop** or **Laptop** from the dropdown list. The device type can be changed after the installation process through the BTW Configuration Panel.

Click the **Next** button.

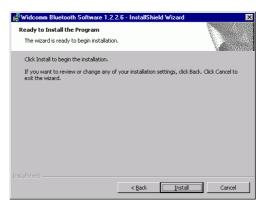
🛱 Widcomm Bluetooth Software 1.2.2.6 - InstallShield Wizard
Device Information Please enter information about your computer as you want other people in the Bluetooth Neighborhood to see it:
Device Name:
writer
Device Type:
Desktop
Desktop
Laptop
< Back Next > Cancel

4. On the *Destination Folder* screen, click the **Change** button to browse to a new destination folder for the BTW software. Otherwise, click the **Next** button to accept the default folder.

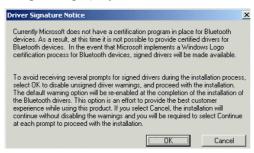


 The InstallShield Wizard is ready to install the BTW software. If you need to review or change any settings, click the **Back** button. Click the **Cancel** button to exit the Wizard. Otherwise, click the **Install** button

- 5 -



6. Click **OK** at the following message (only for Windows 2000/XP installation).



- 7. The *Installing Bluetooth Software* screen displays the installation progress. If prompted to insert the Windows CD, do so and follow the on-screen instructions.
- 8. When finished, click **Finish** to end the Installation Wizard.

🖥 Widcomm Bluetooth Software 1.2.2.6 - InstallShield Wizard 🛛 👔 👔				
	InstallShield Wizard Completed			
	The InstallShield Witzard has successfully installed Widcomm Bluetooth Software 1.2.2.6. Click Finish to exit the wizard.			
	< Back Finish Cancel			

- 6 -

9. Remember to restart your computer to have the new configuration take effect.



- 7 -

SOFTWARE UN-INSTALLATION

1. In Windows, go to **Start** →**Settings**→ **Control Panel**→ **Add or Remove Programs.**

- 8 -

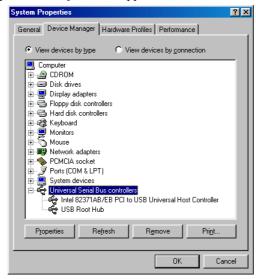
2. Select Windcomm Bluetooth Software... and click the Remove button.

HARDWARE INSTALLATION

Note: The hardware installation should be only performed when the software is well installed.

Precaution

Before the installation, make sure the USB port exists in your computer and is enabled. To check this, go to My Computer \rightarrow Control Panel \rightarrow System. Open the Device Manager tab. If the Universal Serial Bus controller device is found, it means your USB port is installed and enabled. If not, either no USB port is installed or the USB bios is not properly enabled. In this case, consult your computer dealer for USB support.



Getting Hooked Up

- 1. If the device is connected to the USB port on a desktop computer, use the included USB adapter cable to connect your BluetoothTM USB Adapter with your computer.
- 2. Firstly, you have to locate the USB host port of your system. Align the USB connector (the thinner end) of the USB adapter toward the USB host port, push evenly and steadily until it is seated.

- 9 -

3. Plug your BluetoothTM USB Adapter into the thicker end of the USB adapter cable.



4. As soon as the device is properly plugged to your computer, Windows will automatically detect the device and prompt the following message. Select "Install the software automatically (Recommended)" And press Next to continue.

Found New Hardware Wiz	ard		
	Welcome to the Found New Hardware Wizard		
	This wizard helps you install software for:		
	USB Bluetooth Device		
	If your hardware came with an installation CD or floppy disk, insert it now.		
	What do you want the wizard to do?		
	● Install the software automatically [Recommended] ○ Install from a list or specific location (Advanced)		
	Click Next to continue.		
	< Back Next > Cancel		

5. Select "Continue Anyway" with the following message.

Hardwa	re Installation
1	The software you are installing for this hardware: USB Bluetooth Device has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway

6. Press **Finish** to complete the hardware installation.

- 10 -	
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- 11 -

SETUP DIAGNOSTICS

Once the software is well installed, your computer should prompt a Bluetooth icon is on the bottom right corner. You may right click to set up the configuration.



Select Hardware. Check if USB Bluetooth device is on the devices list as below. If yes, it means your Bluetooth USB Adapter is well installed.

Bluetooth C	Configuration ?
Genera Local Ser	- I
Devices:	
Name	Туре
🔍 🖨 USB	Bluetooth Device USB
Device	Properties
Manuf	facturer: Cambridge Silicon Radio
Firmw	are Revision: Version 209
Devic	e Status: This device is working properly
Devic	e Address: 00:E0:98:9E:91:50
HCLV	ersion: Bluetooth HCI 1.1
HCI R	evision: 00D1
LMPN	/ersion: Bluetooth LMP 1.1
LMP 9	Sub Version: 00D1
	OK Cancel Apply Help



Part II:

Configuration &

Basic Operation Guide

- 13 -

ABOUT BLUETOOH

The term "Bluetooth" refers to a worldwide standard for the wireless exchange of data between two devices.

In order to exchange data, two Bluetooth devices must establish a connection. Before a connection is established, one device must request a connection with another. The second device accepts (or rejects) the connection. The originator of the request is known as the **client**. The device that accepts (or rejects) the request is known as the **server**. Many Bluetooth devices can act as both client and server.

A client Bluetooth device runs a software program that requests a connection to another device as part of its normal operation. For example, the program may request a connection to a remote computer, a printer, or a modem.

Becoming a Bluetooth client normally requires an action by the device operator, such as an attempt to browse a remote computer, print a file, or dial out on a modem.

Every Bluetooth device that provides a service must be prepared to respond to a connection request. Bluetooth software is always running in the background on the server, ready to respond to connection requests.

About BTW

BTW is the solution for the seamless integration of Bluetooth technology into personal computers.

Most Bluetooth-enabled devices have the capability to act as:

- A Bluetooth server—these devices provide one or more services, such as access to the Internet, to other Bluetooth devices.
- A Bluetooth client—these devices use the service(s) provided by Bluetooth servers.

Bluetooth devices that can act as both server and client can often do both at the same time.

BTW provides:

- Clients with the means:
 - □ To locate other Bluetooth devices in the immediate vicinity (inquiry)
 - \Box Discover the services that those devices offer (discovery)
 - \Box Connect to, use, and disconnect from those services.
- Servers with the means to include/exclude individual services in the list of services they provide to clients.
- Extensive security, including:
 - □ Authorization
 - □ Authentication
 - □ Encryption.

BTW supports:

- Windows 98SE (Second Edition).
- Windows ME (Millennium Edition)
- Windows 2000.

- 14 -

- Windows XP Professional
- Windows XP Home Edition.

BTW functions the same way, regardless of the supported version of Windows on which it is running.

The services supported by BTW are:

- Bluetooth Serial Port—establishes a Bluetooth wireless connection between two devices. The connection may be used by applications as though a physical serial cable connected the devices.
- **Dial-up Networking**—allows a Bluetooth client to use a modem that is physically attached to the Bluetooth server.
- **Fax**—allows a Bluetooth client to wirelessly send a fax using a device that is physically attached to the Bluetooth server.
- File Transfer—establishes a Bluetooth wireless connection that allows your computer to perform file system operations on another Bluetooth-enabled device—browse, drag/drop, open, print, cut/copy, paste, delete, rename, etc.
- Information Exchange—establishes a Bluetooth wireless connection between two devices so that they can exchange personal information manager data such as business cards, calendar items, email messages, and notes.
- **Information Synchronization**—establishes a Bluetooth wireless connection between two devices and uses the connection to synchronize Personal Information Manager data between the two devices.
- **Network Access**—establishes a Bluetooth wireless connection between the client and a server that is physically connected to the Local Area Network. If the client has permission (user name and password for the LAN), the wireless connection can be used as if the client were hardwired to the LAN.

All Bluetooth servers do not necessarily provide all of these services.

To determine the services provided by a Bluetooth device:

- 1. On the client, in the Folders pane of My Bluetooth Places, select Entire Bluetooth Neighborhood.
- 2. In the right pane of Entire Bluetooth Neighborhood, right-click anywhere *except on a device name* and select **Refresh** from the pop-up menu.
- 3. In the Folders pane of My Bluetooth Places, right-click a device and select **Discover Available Services** from the pop-up menu to update the available services list. The available services will be displayed in the right pane of My Bluetooth Places.

Icons Used for Bluetooth Devices and Services

Bluetooth icons provide at-a-glance feedback about a device or service's status by changing color. (See Errata for Windows XP device icons)

Device icons are blue in color with yellow accents in their "normal" state and green with yellow accents in their "connected" state. Devices that are paired with this computer display a "check mark" in the upper-left portion of their icon.

- 15 -

Device Icon Types			
Device Type	Normal	Connected	Paired
Cellular Telephone			
Desktop Computer			
Laptop Computer	X	Ŵ	
Modem			
Network	n ¶nj	r≓ ¶	r≓¶ J
Personal Digital Assistant (PDA)			×
Printer			
Unknown devices.	2	<u> </u>	1

Service icons are gray or yellow in color (or gray with yellow accents) in their "normal" state. In the "connected" state the primary color of the icon (gray or yellow) changes to green.

Service Icon Types				
Service Name	Normal	Connected		
Bluetooth Serial Port	ľ	La la		
Dial-up Networking	ι 			
Fax	l 🖉			
File Transfer				
Information Exchange		1		
Information Synchronization	-			
Network Access		L y		

Errata for Windows XP device icons

Windows XP Device Icons				
Device Type	Normal	Connected	Paired	
Desktop				
Laptop	N			
Modem	S			
Network Access Point	- A			
Personal Digital Assistant				
Printer	Normal States		R	
Telephone	8	(<u>)</u> →+		
Unknown Device	8		1	

- 16 -

Windows XP Service Icons			
Service Type	Normal	Connected	Not Available*
Dial-up Networking			
Fax	(II)		
File Transfer	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Information Exchange			
Network Access			
Serial Port			
Synchronization			
* Services may be unavailable	because they are in use	or because the necessary	hardware is not installed.

Icons for services that are not available have a red "X" in their lower-right corner. Services may be unavailable because they are in use or because the necessary hardware (such as a modem for Dial-up Networking) is not installed.

- 17 -

BASIC OPERATION

Precaution: For best performance, we recommend that the Bluetooth devices you are setting for transferring files should be within a range of 10 meters of each other.

Before you start communicating with a Bluetooth device, you need to:

- 1. Search Bluetooth devices in the vicinity.
- 2. **Pair** your PC with the device you do this by adding the device to a list of paired devices in your PC.

Search for Bluetooth Devices

In Windows 2000

1. In the Folders pane of My Bluetooth Places, Double-click Bluetooth→Search for devices.

File Edit wew	Bluetooth	Favorites	Tools	not	1996
Back - O	Search f	or devices		olders	
	Device C	onfiguration.		oluers	

2. Select **Entire Bluetooth Neighborhood** in the right pane. The device name(s) will show up if this computer has used the Bluetooth service.

網址① 🚯 My Bluetooth Places
My Device

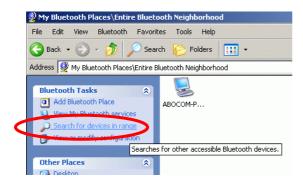
In Windows XP

1. In the Folders pane of My Bluetooth Places, Double-click Bluetooth→ Search for devices.



2. Select **Search for devices in range** in the left pane. The device name(s) will show up if this computer has used the Bluetooth service.

- 18 -



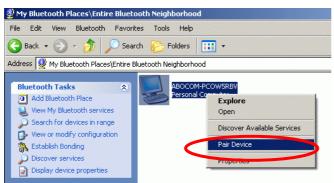
Pair

Pairing is the process of associating Bluetooth devices with each other so that they connect as soon as they get within range of each other.

You can initiate the pairing between two Bluetooth devices from your own PC or you can accept a request for pairing from the other device.

To initiate pairing with a device

1. Right click the device that you just found. Select **Pair Device**.



2. The Bluetooth Passkey Request screen will be present. Enter the Passkey to authenticate device identity and encrypt data.

- 19 -

Bluetooth l	Passkey Request		? ×	
P	The Bluetooth pairing procedure establishes a secret key that is used in all future connections to authenticate device identity and encrypt data.			
	Enter your passkey in th to establish a permanent			
	Device Name:	ABO-86RA34K4X	IGP	
	Bluetooth Passkey:	[
	OK	Cancel	Help	

3. Meanwhile, the remote device that is requested for connection will prompt the following message for you to enter the passkey. Click the prompted message to enter the passkey.

🔅 Bluetooth cor	nection request detected:	×
Passkey authenticati to access a bluetooth	on is required for "ABOCOM-PCC n service. Click here to proceed.	OW5RBV"
🚯 My Bluetooth Places	C:\WINDOWS\Sy	160

4. Enter a **passkey** (up to 16 digits) for both your PC and for the other device.

After the pairing procedures are completed, you may start using the local services that a Bluetooth server is capable of providing, which includes Bluetooth Serial Port, Dial-Up Networking, Fax, File Transfer, Information Exchange, Information Synchronization and Network Access.

How to use the service of File Transfer

The File Transfer service allows one Bluetooth device to perform file operations on the specified or default File Transfer directory (and the folders and files it contains) of another Bluetooth device.

On the Server PC,

1. From the **Bluetooth Configuration** panel, on the **Information Exchange** tab, enter the directory you want to share the folders with the other device. Click **OK**.

Bluetooth Configur	ation			? ×
Local Services	Client Applications	Hardware	Version Info	Notifications
General	Accessibility	Discovery	Informatio	on Exchange
File Transfer	Ay Shared Directory: Occonents and Settings's	leen'Bluetooth	Software\ftp\	Browse

On the Client PC,

1. In the Folders pane of My Bluetooth Places, select Entire Bluetooth Neighborhood.

-	20	-

- 2. In the right pane of **Entire Bluetooth Neighborhood**, right-click anywhere *except on a device name* and select **Refresh** from the pop-up menu.
- 3. In the Folders pane of **My Bluetooth Places**, right-click the device you already set to transfer files with and select **Discover Available Services** from the pop-up menu.



4. Double-click **Public Folder** to expand that folder. If there are additional folders inside the expanded folder then those additional folders may have to be expanded.

- 21 -

CONFIGURATION

General

You may determine the **device properties** and **basic system security settings** on the General tab of the Bluetooth Configuration Panel.

uetooth Configuration
Local Services Client Applications Hardware Version Info Notifications General Accessibility Discovery Information Exchange
Identity
IAI displayed to other Bluetooth devices in the area.
Computer name: myComputer
Computer type: Desktop
Security High: All Bluetooth devices attempting to connect to any service provided by this computer must provide a password before the connection proceeds. All data exchanged between this computer and the connecting Bluetooth device is encrypted.
Medium: Individual services provided by this computer can be configured to require a password before allowing the connection to proceed. Encryption can be enabled on a service-by-service basis. Security for individual services can be configured from the Local Services tab of the Bluetooth Configuration Panel.
Security mode: Medium
OK Cancel Apply Help

Identity

Computer Name	enter a unique name to identify this computer to other Bluetooth devices in the vicinity; this field cannot be left blank.
Computer type	select either Desktop or Laptop from the drop-down menu to help identify this computer to other Bluetooth devices in the vicinity.

Security¹

High	requires Bluetooth devices to authenticate (enter a Personal Identification
	Number (PIN)) before allowing a connection to be established. Your
	computer and the connected Bluetooth device will exchange data using
	encrypted links.
Medium	the default setting-security is configured at the service-level. Service level
	security means that each individual service must have its security settings
	(Authentication, Authorization and Encryption) set independently.

¹ If the security mode is "Medium" and service-level security is not configured, any Bluetooth device will be able to discover your computer and use its services.



Accessibility

In the Accessibility tab of the Bluetooth Configuration Panel, you will be able to **specify** which remote devices may access this computer.

Security settings configured in the **General**, **Local Services**, and **Client Applications** tabs may also affect which devices have access to this computer.

To allow other devices to discover this computer: select "Let other Bluetooth devices discover this computer" to permit remote Bluetooth devices to find and report this computer. If "Allow No devices to connect" (below) is selected, this option is not available.

Bluetooth (onfiguration	×
Local Ser Genera		
~	Specify which individual devices have access to this computer. Let other Bluetooth devices discover this computer. Allow: All devices to connect.	
	Add Device Delete OK Cancel Apply Help	
Let oth	er Bluetooth devices discover this computer.	
Allow.	All devices to connect.	ŝ
	All devices to connect.	2
	Only paired devices to connect. Only devices listed below to connect.	
		11

From the **Allow** drop-down-menu, you may select to control the types of devices that are allowed to connect to this computer.

No devices to connect	no remote devices are permitted to initiate a connection with
	this computer. However, this computer can still initiate
	connections (as a client) with remote Bluetooth devices.

- 23 -

All devices to connect	all remote devices are permitted to connect to this computer.			
Only paired devices to	only devices that have been paired with this computer are			
connect	allowed to connect to it.			
Only devices listed below to only the listed devices are allowed to connect to this compute				
connect	(see next section for details of adding and deleting devices).			

- 24 -

Discovery

In the Discovery tab of the Bluetooth Configuration Panel, you can determine:

- 1. whether your computer looks for other Bluetooth devices automatically,
- 2. how often it looks and,
- 3. what type of devices it looks for.

etooth Configu	ration			?
Local Services	Client Applications	Hardware Discovery	Version Info	Notifications
	Accessibility cify the specific device in a class that this com	s, classes of dev puter should dise	vices or types of cover and report	
Re	ook for other Bluetooth port all Bluetooth devic Iter Type Details		ery ito m	inutes
		F	dd Device	Delete
	ОК	Cancel		Help

Perform a periodic Search for Devices

When "Look for other Bluetooth devices" is selected, BTW automatically searches for devices every "X" minutes. X is an integer from 1 to 60. To change the time between auto inquiries, highlight the existing time and enter the new time.

Note: When My Bluetooth Places is first opened it performs an initial automatic search for devices even if "Look for other Bluetooth devices" is not enabled.

Determine which devices will be reported

BTW can screen out devices that you do not need to access.

The options are:

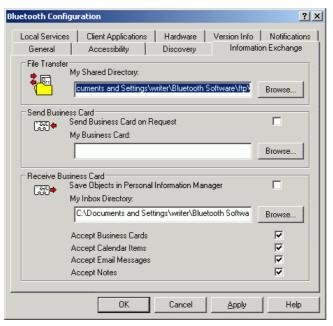
- Report all Bluetooth devices
- Report only selected Bluetooth devices

Select the desired option from the drop-down list.



Information Exchange

The Information Exchange service provides a way to send and receive Microsoft Outlook items to and from another Bluetooth device, such as a Personal Digital Assistant or notebook computer.



The settings on the Information Exchange tab of the Bluetooth Configuration Panel configure:

File Transfer

My Shared Directory: the directory configured in this section is the highest-level directory to which a remote Bluetooth computer has access. This directory and its sub directories are displayed in the remote device's My Bluetooth Places.

Click the Browse button and navigate to the directory that will be used as My Shared Directory.

Send Business Card

My Business Card: the path to the directory on this computer that contains your electronic business card.

Select the "Send Business Card on Request" option to allow remote devices to obtain your business card.

Click the Browse button and navigate to the directory that contains your business card.

Receive Business Card

My Inbox Directory: the path to the directory on this computer where inbound Personal

Information Manager items such as **Business cards**, **Notes**, **Calendar** entries and **Email** Messages will be saved.

- 26 -

Select the types of items you wish to accept by placing a checkmark in the appropriate boxes, and then click the **Browse** button to navigate to the directory where they should be saved.

Select the "Save Objects in Personal Information Manager" option to save incoming objects directly in the PIM. *When this option is selected, the path specified in "My Inbox Directory" is not used.*

- 27 -

Local Services

The settings on the Local Services tab of the Bluetooth Configuration Panel determine the configuration of the services provided by your computer to remote devices. Each service can be configured individually for security, name, and other settings.

Bluetooth Configuration				? X
General Accessibility Local Services Client Applications Double click a service name to s	Discov Hardv	vare Version		
Specify the services that this computer	r will provid			
File Transfer Information Synchronization Fax File Transfer Information Exchange Dial-Up Networking Network Access Bluetooth Serial Port	Startup Auto Auto Auto Auto Auto Auto	Not Required Not Required Not Required Not Required Not Required Not Required Not Required	Not Required Not Required Not Required Not Required Not Required Not Required Not Required	р р р р
•		Add Serial Se		•
OK	Can	cel <u>A</u> p	ply H	elp

The Local Services tab also includes options to add and delete user-defined serial services.

BTW Local Service names are:

- Bluetooth Serial Port
- Dial-Up Networking
- Fax
- File Transfer
- Information Exchange
- Information Synchronization
- Network Access

- 28 -

Client Application

Network Access

The Network Access service permits a Bluetooth client to use a Local Area Network connection that is physically attached to another Bluetooth device (the server).

Bluetooth Configu	ration			? ×
	Accessibility Client Applications s of the Bluetooth app application name to e	plications on this o	Version Info	ion Exchange
Application Na	ne	Authentication	Encryption	COM Port
Information Syr		Not Required	Not Required	
Fax File Transfer Information Exc Dial-Up Netwo Network Acce: Bluetooth Seria	king s	Not Required Not Required Not Required Not Required Not Required Not Required	Not Required Not Required Not Required Not Required Not Required Not Required	СОМЗ
			Add COM Port	Delete
	OK	Cancel		Help

Possible Network Access servers include:

- 1. Bluetooth-enabled computers that have a hardwired Ethernet connection.
- 2. Stand-alone Bluetooth Network Access Points.

The Bluetooth server must be specifically configured to provide the Network Access service.

After a Bluetooth device is configured as a Network Access server it cannot act as a Network Access client without being re-configured.

- 29 -

Hardware

The Hardware tab of the Bluetooth Configuration Panel provides basic information about the Bluetooth hardware installed on this computer and access to the Advanced Settings dialog box.

Bluetooth Configuration 🔹 👔 🔀
General Accessibility Discovery Information Exchange Local Services Client Applications Hardware Version Info Notifications
Devices:
Name Type
C USB Bluetooth Device USB
Device Properties
Manufacturer: Cambridge Silicon Radio
Firmware Revision: Version 209
Device Status: This device is working properly
Device Address: 00:E0:98:9E:91:50
HCI Version: Bluetooth HCI 1.1
HCI Revision: 00D1
LMP Version: Bluetooth LMP 1.1
LMP Sub Version: 00D1
Advanced
OK Cancel Apply Help

Devices:

Name	name of the device, e.g., My Bluetooth Device
Туре	type of the device, e.g., USB.

Device Properties:

Manufacturer	the name of the company that manufactured the device selected in the Devices section of this dialog box.		
Firmware Revision	the manufacturer's firmware version number.		
Device Status	indicates that the device is operating properly or that there is a problem/conflict.		
Device Address	the Bluetooth Device Address (BDA or BD_Addr) programmed into this device when it was manufactured.		
HCI Version	the version number of the Bluetooth Specification that the Host Controller Interface complies with.		

- 30 -

the revision number of the Bluetooth Specification that the Hos Controller Interface complies with.				
the version number of the Bluetooth Specification that the Link Manager Protocol complies with.				
the sub-version number of the Bluetooth Specification that the Link Manager Protocol complies with.				

Advanced displays the Advanced Settings dialog box, which allows you to select the country code and transmission power settings. *This option is not available on all systems*

Hardware Advanced Settings Dialog Box

When available, this dialog box is reached from the Hardware tab of the Bluetooth Configuration Panel.

Depending on the country in which the hardware is sold and/or in which it will be used, the Advanced button may not be present.

From this dialog box you can set the:

Country Code:	North America, Europe (except France), and
	Japan
	France and China
Maximum Transmission Power:	High
	Medium
	Low

- Click the **Apply** button to implement the changes. A dialog box appears with notification that the Bluetooth device attached to this computer must be reset before the change(s) will take effect.
- Click the **Yes** button to reset the Bluetooth device now—*all open Bluetooth connections will be closed.*
- Click the **No** button to save the changes—the changes will be applied the next time the Bluetooth device is reset or restarted.

- 31 -

Version Info

The Version Info tab of the Bluetooth Configuration Panel displays the name and version number of the software components of BTW.

There are **no options** to configure on this tab.

luetooth Configuration		<u>? ×</u>
General Accessibility	Discovery	Information Exchange
Local Services Client Applications	Hardware	Version Info Notifications
Widcomm Bluetooth Software 1.2.2.6 Module Name widcommsdk.dll wbtapi.dll csh.dll	Version 1.2.1 1.3.11 2.00.039	ns:
btxpshell.dll	1, 0, 0, 1	
btwpimif.dll	1.3.3	
btwdndis.sys	2.5.5	
bttray.exe btstackserver.exe	2.5.3 1.5.5	
btslbcsp.sys	1.5.5	
btsendto office.dll	1.0.4	
btsendto_notes.dll	1.0.3	
btsendto_notes.dii btsendto_explorer.exe	1.0.1	
btsec.dl	1.1.4	
btrez.dll	1.2.14	
btport.sys	1.2.10	
btosif_ol.dll	1.0.6	
btosif_notes.dll	1.0.5	
btosif.dll	1.0.4	•
http:\\ww	vw.widcomm.com	
OK	Cancel	Apply Help

- 32 -

Notifications

The Notifications tab of the Bluetooth Configuration Panel lets you associate a sound (Windows *.wav file) with specific Bluetooth events.

Bluetooth Configuration
General Accessibility Discovery Information Exchange Local Services Client Applications Hardware Version Info Notifications
Notify Events PIN Code Authentication Required
Bluetooth Port access Dial-Up service access Remote device tries to send FAX using your modem Remote device tries to create network connection Remote device tries to access your files Remote device tries to send you information items Remote device tries to send synchronize information items
Remote device tries to access your files Remote device tries to send you information items Remote device tries to send synchronize information items
Sound Name: (None) Browse
OK Cancel Apply Help

Sounds can be associated on an individual basis with several events, including:

- 1. When a PIN code is required
- 2. When a remote device attempts to access:
 - □ Files on this computer
 - □ A Bluetooth port
 - □ The Dial-up network service
 - □ The LAN Access service
 - \Box The Fax service.
- 3. When a remote device attempts to send:
 - □ Synchronization information.
 - $\square \quad Information items$

To associate a sound with a Bluetooth event:

- 1. From the Bluetooth Configuration Panel, select Notifications tab.
- 2. In the Notify column of the Events list, select the check box associated with the event.
- 3. In the Sound area of the Notifications tab, click the **Browse** button and navigate to the sound file (*.wav) to be used for notification. To preview the sound file, click the play (>) button.

4. Click the **OK** button to close the Bluetooth Configuration Panel.

Note: The sound will not play, even though it has been assigned, unless the Notify check box is selected.

- 34 -

TROUBLESHOOTING

CANNOT CONNECT TO A PAIRED DEVICE:

Paired devices are always displayed in My Bluetooth Places, even if the remote device is out of range or not powered up.

Verify that the remote member of the pair is within radio range and powered up and then attempt the connection again.

CANNOT DISCOVER SERVICES ON AN UN-PAIRED REMOTE DEVICE:

The remote device may not be powered up or may be out of range.

- Verify that the remote device is powered up.
- Verify that the remote device is in Connectable mode (Bluetooth Configuration Panel > Accessibility tab).
- Perform a Search for Devices to verify that the device is within range.

DIAL-UP NETWORKING SERVICE DOES NOT START:

The Dial-up Networking service will not start unless a properly configured modem is attached to the server.

- Verify that the modem is usable as a local device from the server.
- In the Bluetooth Configuration Panel, Local Services tab, double-click the Dialup Networking service:
 - ✓ Click the down arrow in the Modem field and select the modem that will be used to dial out
 - ✓ Click the OK button
 - ✓ Click the OK button to close the Bluetooth Configuration Panel.

HOW DO I DETERMINE THE BLUETOOTH DEVICE ADDRESS (BDA) OF MY HARDWARE DEVICE?

In the Bluetooth Configuration Panel, on the Hardware tab, in the Devices section, select the device you want to determine the address of. In the Device Properties section of the dialog box, the fourth entry, Device Address, is the BDA of the selected Bluetooth

HOW DO I DETERMINE THE VERSION NUMBER OF THE BLUETOOTH SPECIFICATION THAT THE HOST CONTROLLER INTERFACE (HCI) COMPLIES WITH?

- 35 -

In the Bluetooth Configuration Panel, on the Hardware tab, in the Device Properties section, the fifth entry provides Bluetooth Specification compliance information for the Host Controller Interface.

The sixth entry contains the Specification Revision information for the Host Controller Interface, if appropriate.

HOW DO I DETERMINE THE VERSION NUMBER OF THE LINK MANAGER PROTOCOL (LMP)?

In the Bluetooth Configuration Panel, on the Hardware tab, in the Device Properties section, the seventh entry provides Link Manager Protocol version number information.

The eighth entry contains the Link Manager Protocol sub-version number information, if appropriate.

HOW dO I FIND INFORMATION ABOUT THE BLUETOOTH HARDWARE ATTACHED TO MY COMPUTER?

In the Bluetooth Configuration Panel, select the Hardware tab

HOW DO I TEST A NETWORK ACCESS CONNECTION?

If the client is hardwired to the LAN, unplug the hardwired connection to ensure that the test checks the wireless connection rather than the hardwired connection.

If the server has access to the Internet, open a browser on the client and connect to the World Wide Web.

You may also Ping the server from the DOS prompt.

WHY DO I GET AN UNKNOWN PORT MESSAGE WHEN I ATTEMPT TO USE A BLUETOOTH SERIAL PORT?

The "Unknown Port" error message usually means an attempt was made to connect a port that was in use.

Additional Bluetooth Serial Ports can be added if they are required.

- 36 -