## Bluetooth<sup>™</sup> CompactFlash Card

User's Guide

Doc. No. 091902-01

#### FCC Part 15 Class B Registration

This model Bluetooth CompactFlash card (CBT1000) 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:**

- 1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environments,
- under 47 CFR 2.1093 paragraph (d) (2).

#### **U.S Service Center:**

D-LINK CORPORATION

53 DISCOVERY DRIVE, IRVINE CA 92618, USA

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#### Licensed Software

Bluetooth for Windows (BTW) is the licensed software owned by WIDCOMM, Inc. ("WIDCOMM").

#### **Technical Support**

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## Part I:

## **Installation Guide**

### INTRODUCTIONS

The Bluetooth<sup>TM</sup> CompactFlash Card 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 Bluetooth<sup>TM</sup> CompactFlash Card** uses radio transmission, voice and data are transmitted almost immediately. Bluetooth<sup>TM</sup> transmission ensures both protection from interference and secure 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 Bluetooth<sup>TM</sup> 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

- Uses 2.4 GHz ISM frequency band.
- High-speed Wireless Transmissions.
- 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.
- Ease of use.

## SPECIFICATIONS

Standard	Bluetooth 1.1
Host Interface	CompactFlash
Antenna	Build in the card
LED Indicator	Power: Green LED
Frequency Range	2.4000-2.4835 GHz
Typical Range	Devices connect for access and data sharing within ranges up to 32 feet (10 meters)
Security	Data encryption up to 128-bits
RF Technology	Frequency hopping spread spectrum(FHSS)
Topology	8 devices, point-to-multipoint
Transmitter Power	Output power meets Class 2 requirements
Physical Specifications	Weight: 10 g
	Dimension: 51(L) X 43(W) X 3.3(H) mm
Environment	Operating Temperature: 0~65°C ambient temperature
Specifications	Storage Temperature: -20~75°C ambient temperature
	Operating humidity: 95% maximum (non-condensing)
	Storage humidity: 95% maximum (non-condensing)
Supported OS	
(For Notebook PC)	Windows98/ME/2000/XP
(For PDA/Pocket PC)	Windows CE
EMC Certification	FCC Part 15 in US
	EN300328 and EN300826 (EN301489-17) in Europe

## 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	ent carefully.		
······································			
WIDCOMM, INC. ("WIDCO LICENSE THE WIDCOMM S THIS LICENSE AGREEMED YOU ONLY ON THE CONDI OF THE TERMS IN THIS THE TERMS CAREFULLY. ACCEPT THE TERMS OF BUTTON YOU ACKNOWLEDO THES AGREEMENT, UNDER	OMM") IS 1 COFTWARE A IT (THE ") TION THA AGREEMEN BY CLICK CHIS LICE E THAT Y STAND IT	WILLING T ACCOMPANY SOFTWARE" I YOU ACCI I. PLEASE ING ON THI NSE AGREEI OU HAVE R AND AGREE	D ING D TO EPT ALL READ E "I WENT" EAD E TO BE
• I accept the terms in the license agreem	ent		
$\bigcirc$ I do not accept the terms in the license $a$	agreement		
	< Back	Next >	Cancel

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

**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 drop-down list. The device type can be changed after the installation process through the BTW Configuration Panel.

Click the **Next** button.

Device Name:			2000
writer			
Device Type:			
Decktop		<b>T</b>	
Desktop			
Laptop			

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.

< <sup>■</sup> Widoom	n Plustooth Software 1.2.1	2.6 - InstallShir	d Minord	
Destinati Click Nex	on Folder It to install to this folder, or clic	k Change to insta	ll to a different folde	r.
	Install Widcomm Bluetooth Sc C:\Program Files\Widcomm\Bl	ftware 1.2.2.6 to	: A	Change
		< <u>B</u> ack	Next >	Cancel

5. 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

Widcomm Bluetooth Software 1.2.2	2.6 - InstallSh	ield ₩izard	×
Ready to Install the Program The wizard is ready to begin installation	I.		
Click Install to begin the installation.			
If you want to review or change any of exit the wizard.	your installation	n settings, click Back.	Click Cancel to
	< <u>B</u> ack	Install	Cancel

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.



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



## SOFTWARE UN-INSTALLATION

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

#### For PDA

Insert the CF card into the CE-based PDA by aligning the CF card with wide connection toward the CF slot.



#### For Notebook PC

- 1. Plug the CF card into the PCMCIA Adapter. The CF card is then turning into a conventional PCMCIA type II PC Card.
- 2. Align the PC Card toward the PC Card slot with brand label facing upward, as shown below.



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



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

Found New Hardware Wiz	ard
	Completing the Found New Hardware Wizard
	The wizard has finished installing the software for:
	USB Bluetooth Device
	Click Finish to close the wizard.
	< <u>B</u> ack Finish Cancel

### **SETUP DIAGNOSTICS**

Once the software is well installed, your computer should prompt a Bluetooth icon icon 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 CompactFlash Card is well installed.

	Bluetooth Configuration
	General Accessibility Discovery Information Exchange Local Services Client Applications Hardware Version Info Notifications
	Devices:
<	Name Dee 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:E0:98:95:91:50 HCI Version: Bluetooth HCI 1.1 HCI Revision: 00:D1 LMP Version: Bluetooth LMP 1.1 LMP Sub Version: 00:D1
	OK Cancel Apply Help

## Part II:

## **Configuration &**

## **Basic Operation Guide**

## 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)
  - Discover the services that those devices offer (discovery)
  - □ 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
  - $\square$  Encryption.

BTW supports:

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

Device Icon Types			
Device Type	Normal	Connected	Paired
Cellular Telephone			
Desktop Computer			
Laptop Computer	Ŵ	Ŵ	<b>N</b>
Modem			
Network	<mark>2</mark> 01 ∟ <mark>4</mark>		<b>9</b> 1 ∟
Personal Digital Assistant (PDA)			
Printer			
Unknown devices.	3	3	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	2	L.		
Dial-up Networking	<b>∭</b> 1   L 🏈	r Ø		
Fax		<b></b>		
File Transfer				
Information Exchange				
Information Synchronization				
Network Access				

Errata for Windows XP device icons

Windows XP Device Icons					
Device Type	Normal	Connected	Paired		
Desktop					
Laptop					
Modem	Ś		EV.		
Network Access Point					
Personal Digital Assistant					
Printer	N.		star i st		
Telephone	8	 ≠+			
Unknown Device	8		<b>X</b>		

Windows XP Service Icons				
Service Type	Normal	Connected	Not Available*	
Dial-up Networking	ţ,			
Fax	E			
File Transfer	1	- <b>1</b>	<b>N</b>	
Information Exchange				
Network Access				
Serial Port				
Synchronization	$\langle \rangle$			
* 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.

## **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, view	Bluetooth	Favorites	Tools	not	
a read	Search for	devices			
	Device Co	nfiguration.		biders	••••

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



#### In Windows XP

1. In the Folders pane of My Bluetooth Places, Double-click **Bluetooth** $\rightarrow$  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.



#### 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.

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 the field below and click the OK button to establish a permanent paired relationship with this device.					
	Device Name:	ABO-86RA34K4XGP				
	Device Name: Bluetooth Passkey:	ABO-86RA34K4XGP				

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	nnection request detected:	×
Passkey authenticati to access a bluetoot	on is required for "ABOCOM-PC n service. Click here to proceed	OW5RBV"
🚯 My Bluetooth Places	C:\WINDOWS\Sy	1

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	Informati	on Exchange		
File Transfer	File Transfer My Shared Directory: Ocuments and Settings'eleen'Bluetooth Software'ltp					

#### On the Client PC,

- 1. 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 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.

### CONFIGURATION

#### General

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

	ces Client Applications Hardware Version Info Notifications
General	Accessibility Discovery Information Exchange
- Identity -	
TOM	Enter a unique name in the Computer Name field. This name will be
	displayed to other Bluetooth devices in the area.
	Computer name: myComputer
	Computer type: Deskton
Security	
@ <b>0</b>	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
	ndividual services can be configured from the Local Services tab of the Bluetooth Configuration Panel
	Security mode: Medium

#### 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 <b>Desktop</b> or <b>Laptop</b> from the drop-down menu to help identify this computer to other Bluetooth devices in the vicinity.			
1				

Security<sup>1</sup>

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.

#### 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.

<sup>1</sup> 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.

Bluetooth Configu	ıration			<u>? ×</u>
Local Services General	Client Applications Accessibility	Hardware Discovery	Version Info     Informatio	Notifications   n Exchange
<b>──0</b> Spe	cify which individual d	evices have acce es discover this co	ess to this comput	ter.
Allo	ow: All devices to co	nnect.	ľ	]
I		Ac	dd Device	Delete
	OK	Cancel		Help

Let other Bluetooth devices discover this computer.

Allow:	All devices to connect.
	No devices to connect. All devices to connect.
	Only paired devices to connect. Only devices listed below to connect.

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

 $\mathbf{\nabla}$ 

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.				
All devices to connect all remote devices are permitted to connect to this co					
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 computer				
connect	(see next section for details of adding and deleting devices).				

#### 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.

Bluetooth Conf	guration
Local Service General	s Client Applications Hardware Version Info Notifications Accessibility Discovery Information Exchange
<b>≜î</b> a∎	pecify the specific devices, classes of devices or types of devices within a class that this computer should discover and report.
ſ	Look for other Bluetooth devices Every 10 minutes Report all Bluetooth devices
	Filter Type Details
	Add Device Delete

#### 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.

Bluetooth Configu	Iration			<u>?</u> ×
Local Services General	Client Applications	Hardware Discovery	Version Info Informatio	Notifications on Exchange
File Transfer	ly Shared Directory: cuments and Settings\wri	ter\Bluetooth S	oftware\ftp\	Browse
⊂Send Busines: E∰∳ S M	: Card end Business Card on Rec ly Business Card:	quest		
				Browse
Receive Busin S	ess Card ave Objects in Personal In ly Inbox Directory:	formation Mana	ager	
	C:\Documents and Settin	gs\writer\Bluet	ooth Softwa	Browse
4 4 4	ccept Business Cards ccept Calendar Items ccept Email Messages			ব ব
A	ccept Notes			
	ОК	Cancel	Apply	Help

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.

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.* 

#### 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.

uetooth Configu	ration					<u>?</u> ×
General	Accessibility	Discovery Information Exchange			ge	
Local Services	Client Applications	Hardv	vare Versi	on Info	n Info 📔 Notifica	
Double click a service name to set its security and start-up properties. Specify the services that this computer will provide to other Bluetooth devices.						
Service Name		Startup	Authorization	Auther	ntication	E
Information Syr	nchronization	Auto	Not Required	Not Re	equired	R
Fax		Auto	Not Required	Not Re	equired	1
File Transfer		Auto	Not Required	Not Re	equired	ħ.
Information Exc	:hange	Auto	Not Required	Not Re	equired	P.
Dial-Up Networ	rking	Auto	Not Required	Not Re	equired	P.
Network Acces	35	Auto	Not Required	Not Re	equired	ħ.
Bluetooth Seria	l Port	Auto	Not Required	Not Re	equired	ħ.
•						F
			Add Serial S	ervice	Delete	
	OK	Can	cel	pply	He	lp

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

### **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 Configuration			? ×
General Access Local Services Client A Set the properties of the Blu Double-click an application	sibility Discovery pplications Hardware uetooth applications on this of name to edit its properties.	Informati   Version Info computer.	on Exchange
Application Name Information Synchronizati Fax File Transfer Information Exchange Dial-Up Networking Network Access Bluetooth Serial Port	Authentication Not Required Not Required Not Required Not Required Not Required Not Required Not Required	Encryption Not Required Not Required Not Required Not Required Not Required Not Required	COM Port
	DK Cancel	Add COM Port	Delete 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.

#### 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.

uetooth Configuration	?
General Accessibility Discovery Local Services Client Applications Hardware	Information Exchange Version Info Notifications
Devices:	
Name	Туре
😋 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:**

Jernees.	
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.
HCI Revision	the revision number of the Bluetooth Specification that the Host Controller Interface complies with.
LMP Version	the version number of the Bluetooth Specification that the Link Manager Protocol complies with.
LMP Sub Version	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.

### 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.

etooth Configur	ation			?
General	Accessibility	Discovery	Informatio	n Exchange
Local Services	Client Applications	Hardware	Version Info	Notifications
Widcomm Bluetoc	oth Software 1.2.2.6 (	component versio	ns:	
Module Name		version		
WICCOMMSCK.CII		1.2.1		
wotapi.dii		1.3.11		
csn.all		2.00.035		
btxpsneit.dll		1,0,0,1		
bhudedia ava		1.3.3		
bttrau ava		2.0.0		
btotackserver ev	·0	155		
btelboep eve	(C	1.2.5		
btsendto office	dii	1.2.3		
btsendto_ontes	dli	103		
btsendto_notes	er exe	101		
btsec.dll	01.040	114		
btrez dll		1214		
htnort sus		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		
	ОК	Cancel		Help

#### Notifications

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



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.
  - □ 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.

### 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:
  - $\checkmark$  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?

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.