Bluetooth
Compact Flash Card

User's Guide

Version 1.0

REGULATORY INFORMATION

Federal Communications Commission Interference Statement

The 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 instruction, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment dose 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:

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- 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.

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IMPORTANT NOTE:

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- EN 300 328
- EN 301 489 -1, EN 301 489 -17
- EN 60950

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1 Introduction To BTW-CE

BTW-CE is the solution for the seamless integration of Bluetooth technology into devices that use the Pocket PC operating system. It provides Pocket PCs 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
- Enable/disable individual services
- Security features, on a service-by-service basis, including:
  - Authentication
  - Authorization
  - Encryption.

This User's Guide is divided into four major sections:

- Introduction
- Configuring BTW-CE—see the sections on the Bluetooth Control Panel
- Using BTW-CE—see the sections on the Bluetooth Manager
- Using Remote Device Services—an overview of how to use services provided by remote Bluetooth devices.

NOTE: *If your Pocket PC uses external (not built-in) Bluetooth hardware, see section 1.3.2 for installation assistance.*

1.1 BLUETOOTH ICON

The Bluetooth icon in the lower-right corner of the Today screen provides quick access to the Bluetooth Control Panel.

It also provides visual feedback about whether Bluetooth is "on" or "off":

- When BTW-CE is active ("on") the Bluetooth icon is blue .
- If BTW-CE is disabled ("off") the icon appears grayed with a red X in the lower right corner .

1.2 APPLY POWER TO THE BLUETOOTH HARDWARE

If the Bluetooth hardware is an integral part of the device (built-in), the first screen of the Bluetooth Control Panel has ON/OFF buttons to apply/remove power to the hardware (Figure 4).

When the Bluetooth hardware is an expansion device, power is applied/removed by inserting/removing the card (Figure 5).

1.3 INSTALLATION

1.3.1 Integrated (Built-in) Bluetooth Hardware

BTW-CE is factory-installed in Flash memory on your device; no installation is required.

1.3.2 External (Add-on) Bluetooth Hardware

If a prior version of BTW-CE is installed on the handheld computer it must be uninstalled before proceeding. See Section 1.4 for uninstall instructions.

1.3.2.1 Requirements

1. A desktop computer with:
   - Microsoft Windows 98SE, Me, 2000 or XP operating system
   - CD-ROM drive
   - Microsoft ActiveSync, version 3.0 or greater.
2. A handheld computer capable of accepting a CompactFlash card
3. One of the following Bluetooth CompactFlash cards:
   a) Brainboxes
   b) Samsung
   c) Sharp.

1.3.2.2 Installation

1. Insert the Bluetooth CompactFlash card into the handheld device and connect it to the desktop computer. Microsoft ActiveSync will automatically establish a connection.
2. On the desktop computer:
   a) Insert the BTW-CE compact disc into the CD-ROM drive.
   b) When the Welcome screen appears, Click Next to continue.
   c) Click Yes to accept the License Agreement and install the software on the desktop computer.

NOTE: *If the connection between the handheld and the desktop computers is not open, an error message appears: "**On the next PDA connection, the installed applications will be downloaded to the device**." Installation will resume when ActiveSync detects a connection to handheld device.*

3. On the handheld device: tap Yes to accept the default directory and install the software.
4. On the desktop computer: Click OK to close the Download Complete dialog box, and then click Finish.
5. On the handheld device:
   a) Follow any on-screen instructions that may appear.
   b) Perform a "soft" reset of the handheld computer.

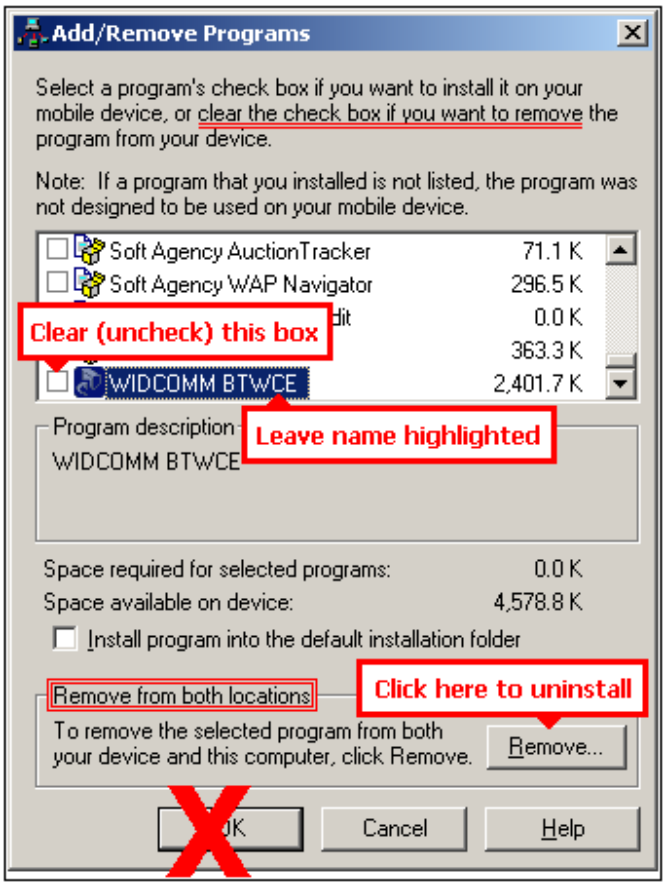
NOTE: *A **soft** reset leaves installed applications and stored data intact.*
*A **hard** reset deletes ALL downloaded applications on the handheld.*
See the handheld computer's documentation for additional information.

1.4 UNINSTALL A PRIOR VERSION OF BTW-CE

1. Connect the handheld computer, via its cradle and Microsoft ActiveSync, to the desktop computer.
2. On the desktop computer, in the system tray, double-click the ActiveSync icon.
3. From the ActiveSync Tools menu, click Add/Remove Programs…
4. In the list of applications installed on the handheld computer, clear (un-check) WIDCOMM BTWCE. Verify that WIDCOMM BTWCE is still highlighted (see Figure 1).
5. Click the Remove button (***DO NOT*** click the OK button, see Figure 1).
6. Click OK to acknowledge the Remove Application notification.

The prior version of BTW-CE will be uninstalled on both the handheld and desktop computers (follow any additional on-screen instructions may appear on the desktop computer to complete the uninstall process).

Figure 1: ActiveSync's Tools > Add/Remove Programs... dialog box



2 Bluetooth Control Panel: Configuring BTW-CE

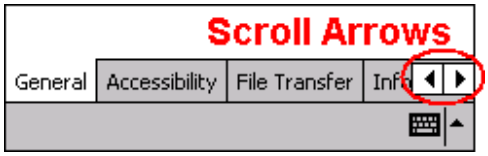
BTW-CE provides a Control Panel to adjust Bluetooth settings.

To access the Control Panel, in the lower-right corner of the Today screen, tap the Bluetooth icon .

BTW-CE can have multiple saved configurations. Individual configuration sets are saved in profiles, which can be quickly loaded to meet the appropriate situation. See Section 2.1.1 for more information about profiles.

The Control Panel has seven tabs. All tabs are not visible on the screen at the same time; use the arrows (Figure 2) to the right of the tab names to scroll back-and-forth and expose the different tabs.

Figure 2: Control Panel tabs scroll arrows

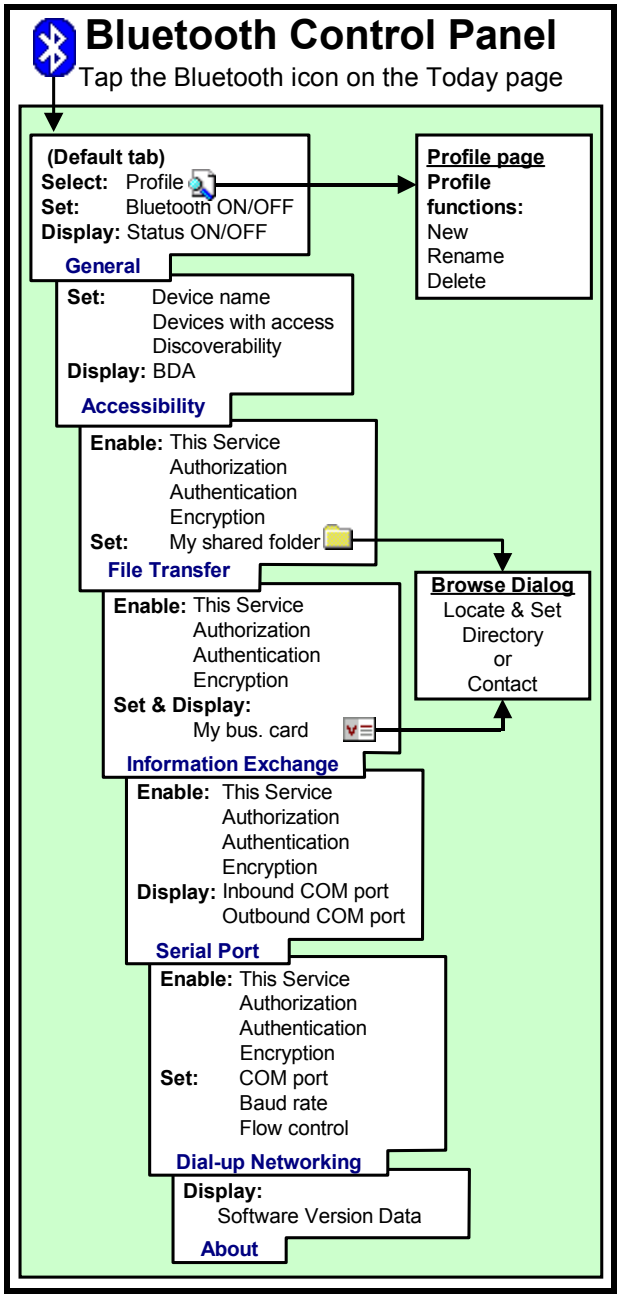


The Control Panel's tabs are (see Figure 3):

- General
  - User profile selection
  - Bluetooth status (ON/OFF) indicator
  - Hardware power control (ON/OFF).
- Accessibility
  - Set the device name
  - The device's Bluetooth Device Address (BDA)
  - Determine which remote devices are allowed to connect
  - Determine whether remote devices can "see" this Pocket PC.
- Service tabs—BTW-CE can provide four services. They are:
  - File Transfer—set the highest-level directory on this Pocket PC that remote devices will be able to access.
  - Information Exchange—Set the default business card (Pocket Outlook contact entry)
  - Serial Port—Bluetooth serial port information
  - Dial-up Networking—configure the COM port, baud rate and flow control.
- About—there are no configurable options on this tab.
  - Software version information
  - Copyright information
  - Website and Technical Support links.

Each of these tabs is explained in detail in the remainder of this section.

Figure 3: Configuration overview



2.1 GENERAL TAB

There are two options on this screen:

- **Current Profile**: to change the active profile, tap the down-arrow in the "Current profile:" field and select the new profile from the drop-down list. The current profile will be saved, and the settings from the selected profile will be loaded.
  To add, delete, or rename a profile, tap (see Section 2.1.1).
- **Bluetooth Status:**
  - Integrated Bluetooth hardware (see Figure 4)
  - External Bluetooth hardware (CompactFlash or PC expansion card) (see Figure 5 on the next page).

When Bluetooth is OFF, no connections, incoming or outgoing, are possible.

When Bluetooth is ON, Bluetooth is always "up" and battery drain is significantly greater than when Bluetooth is disabled. *To conserve battery power, do not enable Bluetooth when it is not being used.*

Figure 4: Control Panel, General tab, integrated hardware

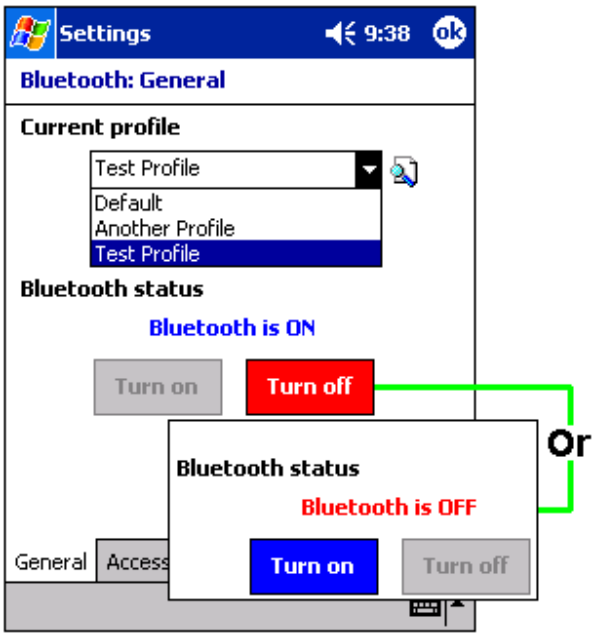
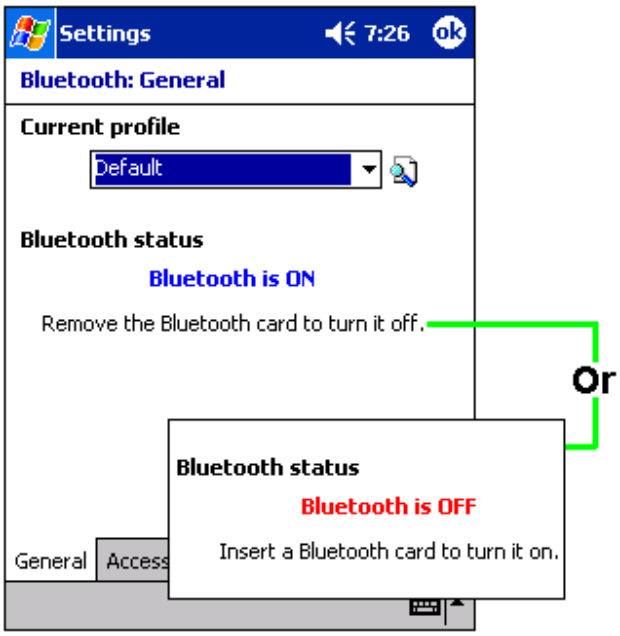


Figure 5: Control Panel, General tab, external hardware



2.1.1 Profiles

Profiles are accessed and managed from the Control Panel, General Tab. They allow:

- Different users to quickly re-configure a Pocket PC to their personal preferences. For example, if Joe and Mary both use the same Pocket PC, but each uses it for a different purpose, selecting a pre-configured profile will alter the settings to those of the appropriate user.
- A single user to quickly re-configure a Pocket PC for a different environment. If Joe uses his device primarily at the office, but also uses it when traveling, he can easily switch to a pre-configured profile, which has more secure settings for hotel, airport and similar "public" environments.

All Bluetooth settings are saved in the active profile. A profile named "Office," for example, may include Bluetooth Authentication and Encryption settings, and connection shortcuts to specific services on work-related Bluetooth devices. A profile named "Public" on the same device may only allow the owner's laptop computer to connect to the Pocket PC. When the "Public" profile is selected, only the Bluetooth settings related to that profile are active, the "Office" profile settings have no affect.

When the Pocket PC is turned off, BTW-CE saves the last-used profile and reloads that profile the next time the device is turned on.

The Profile options (available from the Control Panel, General Tab) are:

- A list of existing profiles—when BTW-CE is started for the first time the only profile listed will be "Default." To enable a profile, tap it.
- accesses a screen from which you can:
  - Add a profile
  - Rename a profile
  - Delete a profile.

2.1.1.1 Create A New Profile

1. From the Today screen, tap the Bluetooth icon .
2. From the General tab, tap .
3. From the Add/Delete Profiles screen:
   a) Tap the New button
   b) Enter a descriptive name for the new profile, for example, "Office."
   c) Select an existing profile on which to base the new profile.
4. Tap the OK button.

The new profile does NOT automatically become the active profile; to activate the new profile, select it from the "Current Profile" field on the General Tab.

2.1.1.2 Rename or Delete a Profile

1. From the Today screen, tap the Bluetooth icon .
2. From the Bluetooth Control Panel, General tab, tap .
3. From the Add/Delete Profiles screen:
   a) Tap a profile name, then the Rename button and enter the new name.
   Or
   b) Tap a profile name, then the Delete button.

2.1.1.3 Save Configuration Settings In A Profile

When you make changes to the Pocket PC's configuration, those changes are automatically saved when you select a different profile, turn Bluetooth off, or shut down the Pocket PC.

To save a specific configuration:

1. Select (or create and then select, see Section 2.1.1.1) the desired profile (for example "Travel") from the Current Profile field on the General Tab.
2. Setup the Pocket PC (see Section 2) so that it behaves in the desired manner.
3. Tap OK
4. Close the Control Panel; the changes are saved automatically.

To use the Travel profile and its associated configuration in the future, from the Control Panel, General Tab, select "Travel" from Current Profile drop-down list.

To avoid saving unwanted changes to a regularly used profile, create a new profile that is based on the profile currently in use (see Section 2.1.1.1), select the new profile, and then make the changes while the new profile is active.

NOTE: *If Bluetooth is not ON, changes will not be saved. The error box to the right appears unless* **Don't show this message again** *has been selected.*

2.2 ACCESSIBILITY TAB

Figure 6: Control Panel, Accessibility tab

All information on this tab is saved with the active profile, including the device name.

The options on the Accessibility tab are:

- Device Identification:
  - Name—the name of this device, as displayed to remote devices when the associated profile is active. To change the device name associated with this profile, highlight the name and enter the new name.
  - Address—the Bluetooth Device Address (BDA) of this device. This information is permanently associated with the Bluetooth hardware during the manufacturing process and cannot be changed.
- Accessibility:
  - Allow other devices to connect—when this option is enabled, other devices are permitted to connect to this device. Two mutually exclusive sub-options provide additional refinement. They are:
    - All devices—select this option to allow all devices to connect.
    - Paired devices only—select this option to allow only devices that have a paired relationship (see Section 3.2.2.1) with this device to connect.
  - Other devices can discover me—when this option is enabled, other Bluetooth devices can see and report this device.
    Even though remote devices cannot discover this device unless this option is checked, if a remote device has this device's Bluetooth Device Address, that device may still be able to connect to this device (see Note below).

NOTE: *The ability of remote devices to connect is also subject to security restrictions and whether Bluetooth is enabled on this device.*

2.3 BTW-CE SERVICE TABS

The functions that a Pocket PC can provide to other devices are called "Services."

The services that this Pocket PC is capable of providing are:

- File Transfer—file-related operations such as get a file/use a file/delete a file, etc.
- Information Exchange—Send the default business card (Pocket Outlook contact) on request.
- Serial Port—Bluetooth serial port operations. Bluetooth serial ports are used as a replacement for a physical cable between devices.
- Dial-up Networking—provide access, via a phone line or other access system, to a remote computer network such as an Internet service.

Each of these tabs is explained in detail in the remainder of this section.

2.3.1 Common Options

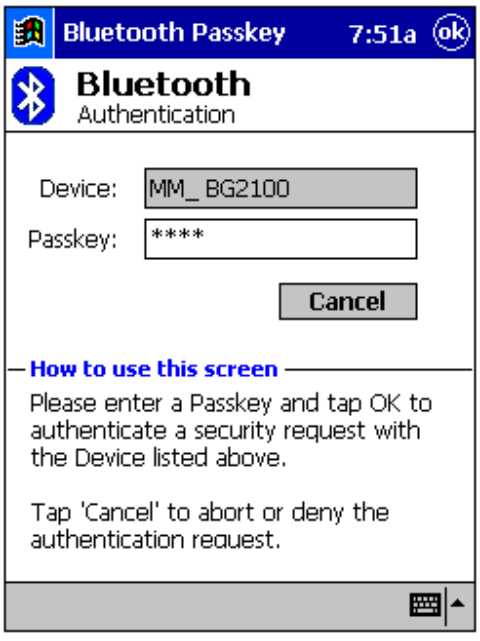
All of the services have some common settings. Even though the options are the same, in each case they are specific to the service being configured on the individual tabs.

The common options are listed under the **About this service** heading on each individual service tab. They are:

- **Enable service:** check this option to have the service start when BTW-CE initializes. When this option is enabled the service is enabled and "listening" for connection attempts when Bluetooth is enabled.
- **Authorization required:** check this option to require that each attempt to establish a connection be individually authorized. When Authorization is enabled and a remote device attempts to connect to this service, BTW-CE asks if the connection should be permitted (see also Section 3.2.2.2, Permissions).
- **Authentication (PIN) required:** check this option to require a Personal Identification Number (PIN code, also called a password or passkey) or a Link Key from the remote device before allowing the connection.
  When this option is enabled and a remote device attempts to establish a connection, the Bluetooth Passkey screen (Figure 7) appears. Enter the passkey to allow the connection to proceed, or tap the OK button to deny permission for the connection.
  If the notification is ignored, the connection attempt will time out (fail).
- **Encryption required:** check this option to require that all the data exchanged between this device and the remote Bluetooth device be encrypted.
  Encryption depends on the key that is used for Authentication; if Authentication is not enabled, Encryption will not be available.
  Only the data exchanged by the Bluetooth devices is encrypted.

The individual services, and their unique options, are explained in the remainder of this section.

Figure 7: Bluetooth Passkey screen



2.3.2 File Transfer Tab

Figure 8: Control Panel, File Transfer tab

The options on this tab only affect *incoming File Transfer connections.*

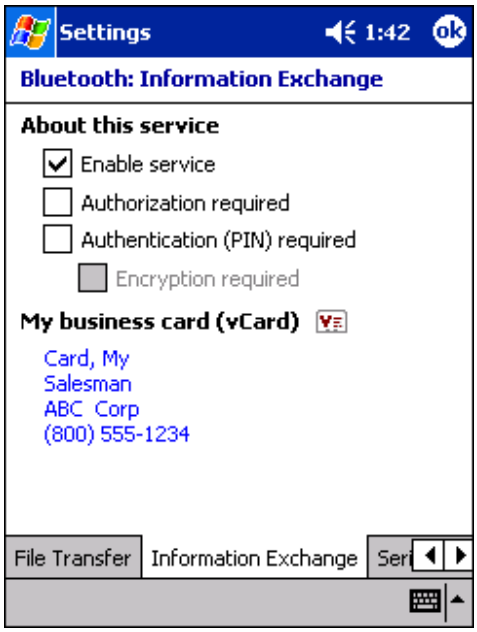
All of the Common Options (see Section 2.3.1) are available.

There is one additional configurable item: "My shared folder," which allows you to specify the default File Transfer directory, the highest level directory on this Pocket PC that remote devices have access to.

To change the default File Transfer directory, tap , navigate to the desired directory, and then tap the OK button.

2.3.3 Information Exchange Tab

Figure 9: Control Panel, Information Exchange tab



The Common Options (see Section 2.3.1) on this tab only affect *incoming Information Exchange connections.*

There is one additional configurable item: "My business card (vCard)".

The "My business card" information comes from a selected record in the Contacts list of Pocket Outlook. Information from the selected record is sent to remote devices on request. It is also the contact information that is sent when you select "Send your business card to one or more recipients" while using Business Card Exchange.

The default selection is "none" (no information).

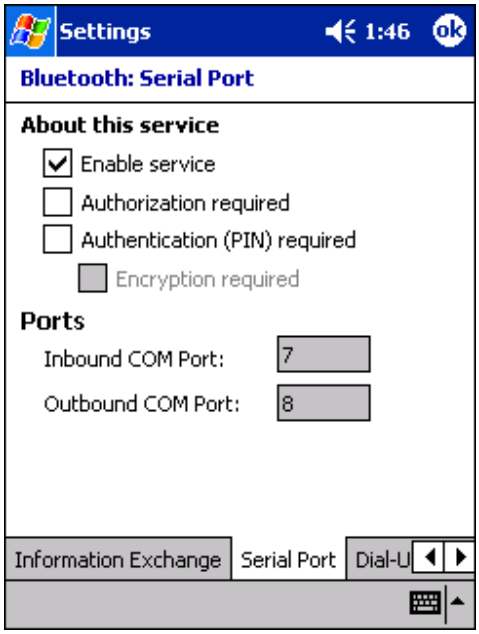
To select a vCard, tap , choose a contact from the list, and then tap OK.

To discontinue sending contact information when it is requested, tap , choose "(none)" from the list, and then tap OK.

If you reach the contacts list by mistake, tap OK to return to the previous screen.

2.3.4 Serial Port Tab

Figure 10: Control Panel, Serial Port tab



The options on this tab only affect *incoming Serial Port connections.*

All of the Common Options (see Section 2.3.1) are available.

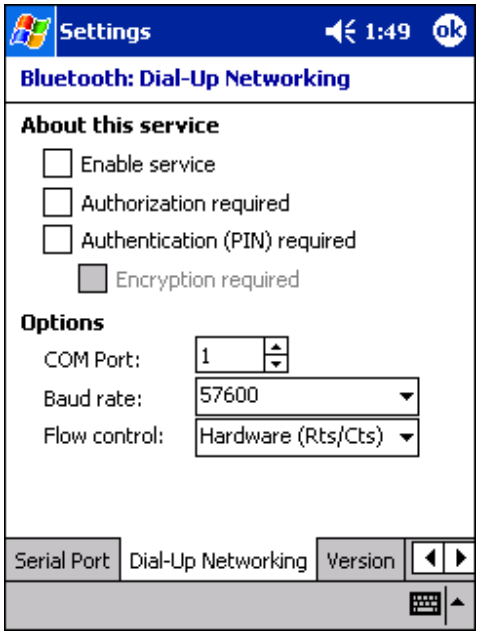
There are two additional, non-configurable items:

- Inbound COM Port: the local communications port that is used for inbound serial connections.
- Outbound COM Port: the local communications port that is used for outbound serial connections.

The Inbound and Outbound COM ports are permanently assigned and cannot be changed.

2.3.5 Dial-up Networking Tab

Figure 11: Control Panel, Dial-up Networking tab



The options on this tab only affect *incoming Dial-up Networking connections.*

All of the Common Options (see Section 2.3.1) are available.

There are three additional items:

- COM Port: select the communications port to be used.
- Baud rate: tap the down-arrow and select a baud rate from the drop-down list. The options range from 1,200 to 115,200 baud, in nine steps.
- Flow control: tap the down-arrow and select the type of flow control to be used from the drop-down list. The options are:
  - Off
  - Hardware (Rts/Cts).

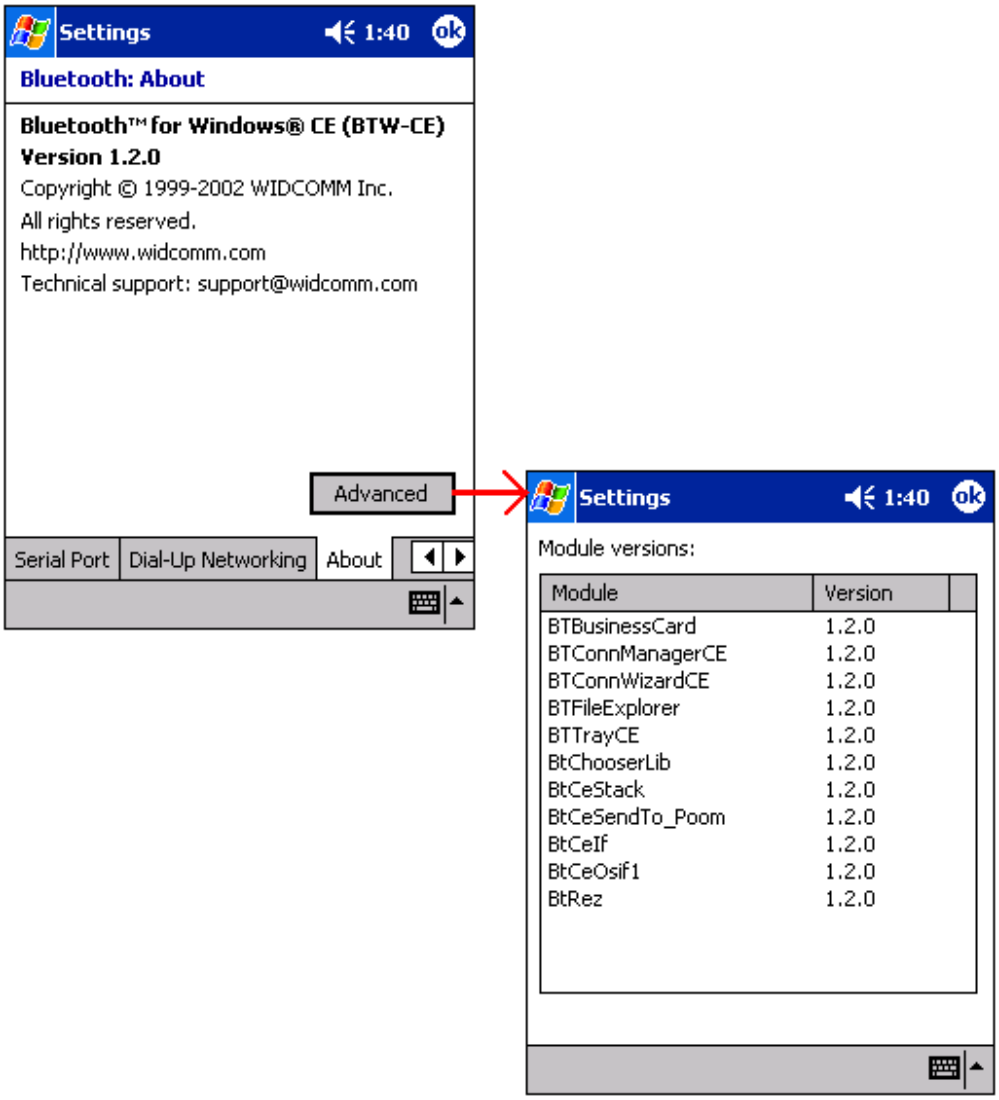
2.4 ABOUT TAB

This tab provides:

- Release Version information
- Copyright notice
- Website address
- Technical support email contact address
- An Advanced Button, which displays a screen that contains version information about the individual software modules that make up BTW-CE.

There are no configurable options on this tab.

Figure 12: Control Panel, About tab



3 Bluetooth Manager: Using BTW-CE

To access the Bluetooth Manager:

From the Today screen, tap > Programs > Bluetooth Manager.

The Bluetooth Manager has (see Figure 13):

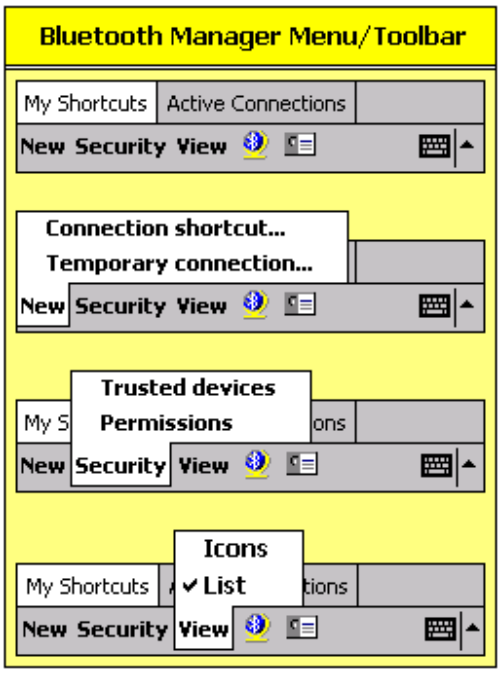
- Two tabs:
  - My shortcuts—displays shortcuts and establishes connections
  - Active Connections—displays active incoming and outgoing connections
- Three menus:
  - New
    - Connection shortcut…—create a new connection shortcut using the Bluetooth Connection Wizard
    - Temporary connection…—create a connection without creating a permanent shortcut.
  - Security
    - Trusted devices—pair/un-pair with other devices
    - Permissions—determine which services are offered, on an individual basis, to trusted devices.
  - View—controls the on-screen display (icons or list).
- Two icons:

  Accesses the Bluetooth Connection Wizard, which helps you setup connections with remote Bluetooth devices. This icon is a shortcut to the New > Connection shortcut… menu item.

  Accesses the Bluetooth Business Card Exchange screen, which allows you to:
    - Get a business card from a remote device
    - Send your business card to a remote device
    - Exchange business cards with a remote Bluetooth device.

These options are explained in detail in the remainder of this section.

Figure 13: Bluetooth Manager Menu/Toolbar



3.1 TABS

The two tabs at the bottom of the Bluetooth Manager screen are:

- My shortcuts
- Active Connections.

3.1.1 My Shortcuts Tab

The default tab on the Bluetooth Manager is My Shortcuts. This screen displays the shortcuts that have been created for connections to other devices. The shortcut icons provide visual feedback about the status of the connection they are linked to (see Figure 14).

Figure 14: Connection status displayed by icon color

The double-tap is context sensitive:

- If the connection is not open—double-tap the shortcut to establish a connection
- If the connection is open—double-tap the shortcut to display the connection Status screen (Figure 15).

Connections can also be opened/closed, and other options accessed, using the tap-and-hold technique. If you tap a shortcut and hold the stylus in place for a few seconds, a context sensitive menu appears.

The options on the context sensitive menu are dependant on the state of the connection:

- Connection open
- Connection not open.

3.1.1.1 Connection Open—Context Sensitive Menu Options

From the My Shortcuts screen, tap-and-hold a connection shortcut that is associated with an OPEN connection to access the context sensitive menu.

The Menu options are:

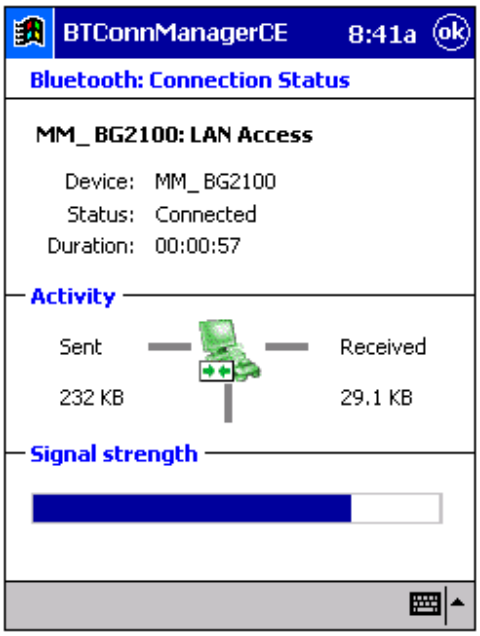
- Disconnect—close the open connection
- Status—select this option to display the Connection Status screen (Figure 15) (double-tap default)
- View Icons—displays the shortcuts as large icons
- View List—displays the shortcuts as a list with small icons.

3.1.1.2 Connection Status Screen

This screen displays:

- The connection's name
- The remote device's name
- The connection status: Connected/Not Connected
- The length of time the connection has been active
- Activity information:
  - Bytes Sent
  - Bytes Received
- A graphic signal strength indicator.

Figure 15: Connection Status screen



3.1.1.3 Connection Inactive—Context Sensitive Menu Options

From the My Shortcuts screen, tap-and-hold a connection shortcut that is associated with an INACTIVE connection to access the context sensitive menu.

The menu options are:

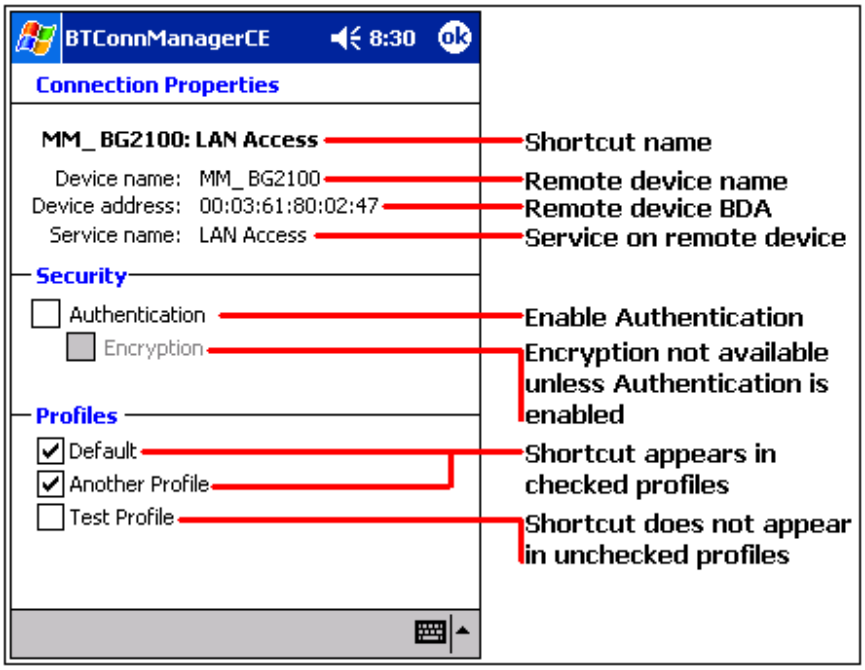
- Connect—select this option to establish a connection (double-tap default).
- Rename—select this option to rename the shortcut. This option is often used to rename shortcuts that were created in a group (see Section 3.2.1.1 for information about creating shortcuts); when multiple shortcuts are created at the same time they are given default names and no option is provided at that point to change the default.
- Delete—select this option to permanently delete the shortcut.
- Properties—select this option to display the Connection Properties screen (Figure 16).
- View Icons—displays the shortcuts as large icons
- View List—displays the shortcuts as a list with small icons.

3.1.1.4 Connection Properties Screen

This screen displays:

- The connection's name
- Connection Properties—non-configurable information about the remote device, including:
  - The remote device name
  - The remote device Bluetooth Device Address (BDA)
  - The name of the service on the remote device that this shortcut accesses.
- Security—enable/disable Authentication and Encryption.
- Profiles—a list of the available profiles on this device. To assign, or remove, this connection shortcut to/from a profile, select or clear the profile's associated check box.

Figure 16: Connection Properties screen



3.1.2 Active Connections Tab

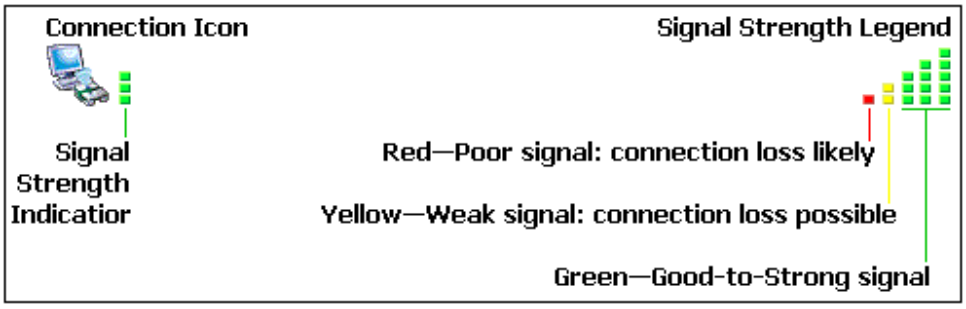
This tab displays the currently active Outgoing and Incoming Connections on the Pocket PC.

To the right of each active connection icon is a signal strength indicator (Figure 17).

Tap-and-hold a connection to access a context sensitive menu. The menu options are:

- Disconnect—close this connection
- Status—display the connection Status screen (Section 3.1.1.2 and Figure 15).

Figure 17: Active Connections screen, signal strength indicator



3.2 MENUS

There are three menus on the bottom of the Bluetooth Manager. They are:

- New
- Security
- View.

3.2.1 New

The New menu has two options. They are:

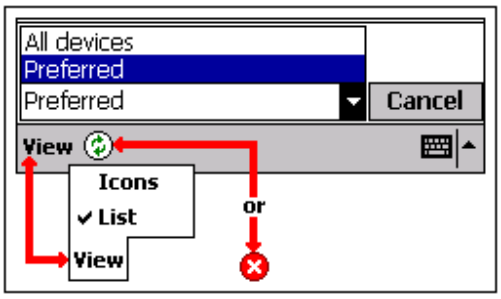
- Connection shortcut…
- Temporary connection….

When either of these options is selected the Bluetooth Connection Wizard walks you through the process of creating the shortcut or temporary connection.

The "Select a device:" screen on the wizard asks you to select a device that offers the service you want to use. Located at the bottom of this wizard screen (Figure 18) are:

- A drop-down menu with two options:
  - Preferred—when this option is selected the wizard attempts to display only those devices that offer the desired service.
  - All devices—select this option to have the wizard display all devices in the vicinity, without regard to the type of service(s) they offer.
- The View menu, which has two options:
  - Icons—displays the found devices as large icons
  - List—displays the found devices in a list.
- An icon—the icon that is displayed is determined by what the wizard is doing:
  - The wizard is searching for devices. When the desired device appears on the screen, tap the device to select it and stop the search.
    To stop an in-process search, tap .
  - The wizard has completed its search for devices. Tap to search again or refresh the screen.
- Cancel button—tap this button to close the "Select a device:" screen and return to the previous screen without changing the selected device.

Figure 18: Bottom of the Select a device wizard screen (composite overview)



3.2.1.1 Connection shortcut…

The "Connection shortcut…" menu option creates a shortcut to one or more services on a remote device, but does not establish a connection.

A shortcut to each selected service appears on the My Shortcuts tab of the Bluetooth Manager. To use the connection, double-tap the shortcut, or tap-and-hold and select Connect from the popup menu.

To create a new shortcut:

1. From the Bluetooth Manager's New menu, select Connection Shortcut… (or tap) to start the Bluetooth Connection Wizard:
2. On the first wizard screen, choose either:
   a) "Show all services, let me pick later." This is the default option; when it is selected BTW-CE will display all devices in the vicinity on a future wizard screen—after a device is chosen from that list, all services provided by that device will be displayed, and you will be able to pick one or more services for which shortcuts will be created.

      Or

   b) Tap a specific type of service. When a specific type of service is selected, BTW-CE displays only those devices that potentially offer that service. When the wizard is complete, only the chosen service on the chosen device will have a shortcut placed on the My Shortcuts screen.
3. Tap the Next button to display the second wizard screen, and:
   a) Tap to display the "Select a device:" screen. Tap a device name: BTW-CE returns to the second wizard screen and populates the "Select a device:" field with the chosen device.
   b) Tap the Secure Connection option to enable Authentication and Encryption, if desired.
      When this option is enabled, the Pass Key Needed screen (similar to the screen in Figure 7) appears. Enter the correct code in the Passkey field and tap the Next button. A dialog box appears while pairing takes place and the services offered by the device are discovered, and then the wizard automatically precedes to the last screen.
      Even when this option is NOT enabled, if Authentication is enabled on the remote device, a PIN code will be required the first time a connection is attempted.
4. Tap the Next button to display the last screen, tap the selection box of each service for which a shortcut should be created, and then tap the Finish button. A shortcut for each selected service is placed on the My Shortcuts screen and given a default name.

If a specific service was chosen in step 1b, the last screen is different; it does not allow you to select a service other than the one specified in step 1b. The displayed screen (Figure 19) instead provides additional information about the selected service, including:

1. The name of the device that will provide the service.
2. The name of the service to be provided.
3. A "Connection name:" field, which contains the default name for this shortcut; the shortcut name can be changed before proceeding. To change the name, highlight it, enter the new name, and then tap the Finish button.

Figure 19: Connection Wizard, specific service chosen, last screen

3.2.1.2 Temporary connection…

A temporary connection may be useful in some situations, for example when accessing a public printer while traveling.

Temporary Connection, in this context, means that a permanent shortcut is not placed on the My Shortcuts screen. The connection is, however, associated with the QuickConnect icon on the My Shortcuts screen.

The QuickConnect icon will always establish a connection to the most recently used temporary connection.

To Create a Temporary Connection, from the Bluetooth Manager's New menu, select "Temporary Connection…."

The connection wizard will walk you through the process of establishing the new connection; the process is the same as that for creating a new connection shortcut (see Section 3.2.1.1) with the following exceptions:

- Multiple connections cannot be created.
- No permanent shortcut is placed on the My Shortcuts screen.

If the QuickConnect shortcut is deleted, the next time a temporary connection is created the QuickConnect shortcut will be re-created.

If the QuickConnect shortcut is renamed and then deleted, the next time a temporary connection is created the shortcut will be re-created with its default name (QuickConnect).

3.2.2 Security

The Security menu has two options. They are:

- Trusted devices
- Permissions.

3.2.2.1 Trusted devices

Trusted Devices are those devices that have been "paired" with this Pocket PC.

When two devices have been paired they share, and exchange prior to each connection, an internally-generated security key. This security key, called a Link Key, is based on a unique Bluetooth Device Address, a random number, and a user-defined password.

To pair with another device:

1. From the Bluetooth Manager, Security menu, select "Trusted devices…"
2. On the Trusted devices screen, tap New
3. On the Device Pairing screen:
   a) Tap
   b) Tap a device on the "Select a Bluetooth device" screen to return to the prior screen and populate the "Device:" field.
   c) Enter the correct password in the "Passkey:" field
4. Tap OK.

To Break (Remove) a Paired Relationship

1. From the Bluetooth Manager, Security menu, select "Trusted devices…"
2. Tap a device name to select it
3. Tap the Delete button, and then tap Yes in the confirmation dialog.

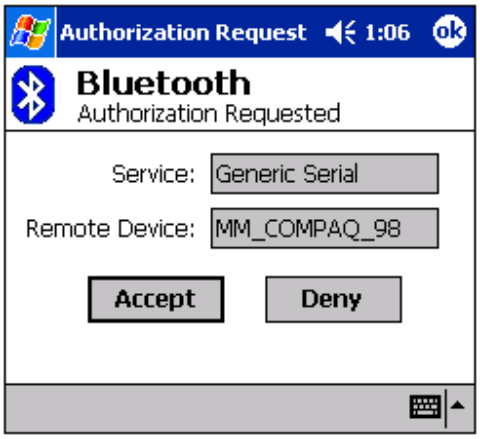
3.2.2.2 Permissions

To understand Permissions you must understand Authorization.

Authorization is, in essence, a way of saying Yes or No; "May I use this service?" "Yes (or No)" is the answer.

When Authorization is enabled for a service (see Section 2.3.1) and a remote device attempts to access that service, the Authorization Requested screen appears (Figure 20); you must tap the Accept or the Deny button to proceed. Even if the connection times out (fails), you must still tap a button to clear the screen and proceed with normal activity.

Figure 20: Authorization Requested



When a remote device is paired (see Trusted Devices, Section 3.2.2.1) with this Pocket PC, Authorization can be handled automatically, on a service-by-service basis. Permissions lets you specify which of the services provided by this Pocket PC that a specific paired device is ***automatically*** authorized to use*, provided the service being authorized has Authorization enabled.*

NOTE: *If a service does not have Authorization enabled, setting permissions for a paired device that uses that service will have no effect. However, the Permissions settings are saved in the current profile; if Authorization is enabled for this service in the future, Permissions will take effect.*

By default, when a device pairs with this Pocket PC, that device is authorized to use all of the Pocket PC's services.

To modify Permissions for a Paired Device:

From the Bluetooth Manager, Security menu, select Permissions:

1. Tap a device name to select it (only paired devices appear in the list)
2. Select the services that the device is ***automatically*** permitted to use by selecting or clearing the boxes in front of the service names.
3. Tap OK to return to the My Shortcuts screen.

Services for which Permissions have been granted will bypass the Authorization Requested screen; services for which Permissions have NOT been granted will still require you to press the Accept or Deny button on the Authorization Requested screen before allowing the connection to proceed.

NOTE: *Permissions do not affect devices that are not paired with the Pocket PC.*

3.2.3 View

The View menu has two options. They are:

- Icons—select this option to view the on-screen shortcuts as large icons
- List—select this option to view the on-screen shortcut in list format.

3.3 ICONS

There are two icon shortcuts on the bottom the Bluetooth Manager screen. They are:

- New connection shortcut
- Business Card Exchange

3.3.1 New Connection Shortcut

This icon is a shortcut to the New > Connection shortcut… menu item. See Section 3.2.1.1 for information on how to create a new connection shortcut.

3.3.2 Business Card Exchange

Business Card Exchange is accessible from:

- An icon on the Bluetooth Manager's menu bar
- From Start > Programs > Card Exchange.

Business Card Exchange allows you to:

Send your business card to one or more remote devices.

Request a business card from one or more remote devices

Exchange business cards with one or more remote devices.

NOTE: *To Send or Exchange business card(s) you must first specify your default business card in the Bluetooth Control Panel, Information Exchange tab (see Section 2.3.3).*

To Send, Request or Exchange Business Cards

1. From the Bluetooth Manager, tap the business card icon .
2. Tap the Send, Request or Exchange icon, as appropriate
3. From the "Select a Bluetooth device" screen, tap the name of the remote device and then tap OK.

4 Using Remote Device Services

This section provides overview instructions for using services provided by other devices.

4.1 Serial Port

The use of a Bluetooth wireless serial port connection is identical to the use of a physical cable serial port connection between two devices.

As with a physical connection, the application that will use the connection must be configured to use the correct serial port.

To determine the communications port assigned to the Bluetooth serial port:

1. From the Today Screen, tap the Bluetooth icon to open the Bluetooth Control Panel.
2. Use the scroll arrows at the bottom-right of the screen to expose the Serial Port tab, and then select the Serial Port tab.
   The Outbound COM Port is listed in the lower portion of the screen.
   Configure the application that will use the Bluetooth Serial Port to send data to this port.

NOTE: *For information about configuring your application's outbound COM port, refer to the application's documentation.*

3. From Bluetooth Manager's My Shortcuts screen open the Bluetooth serial port connection to the remote device.
4. Send/Receive data from the application.

4.2 Dial-up Networking: Connect to a Remote Computer

Dial-up Networking allows you to connect to a remote computer via a phone line. Once connected, you can browse the Internet, check your email, etc.

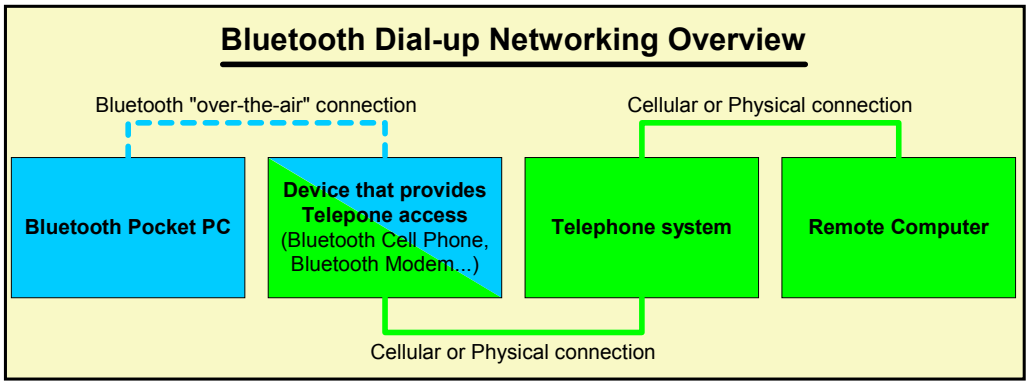
The remote Bluetooth device that will provide the Dial-up Networking service must have access to a telephone system (either a physical or cellular connection).

Devices that might provide the Dial-up Networking service include:

- Bluetooth-enabled cellular telephones
- Bluetooth-enabled desktop computers that are attached to a telephone system
- Bluetooth modems.

The remote computer to which you are connecting must also be attached to the phone system and capable of answering a call.

Figure 21: Dial-up Networking overview



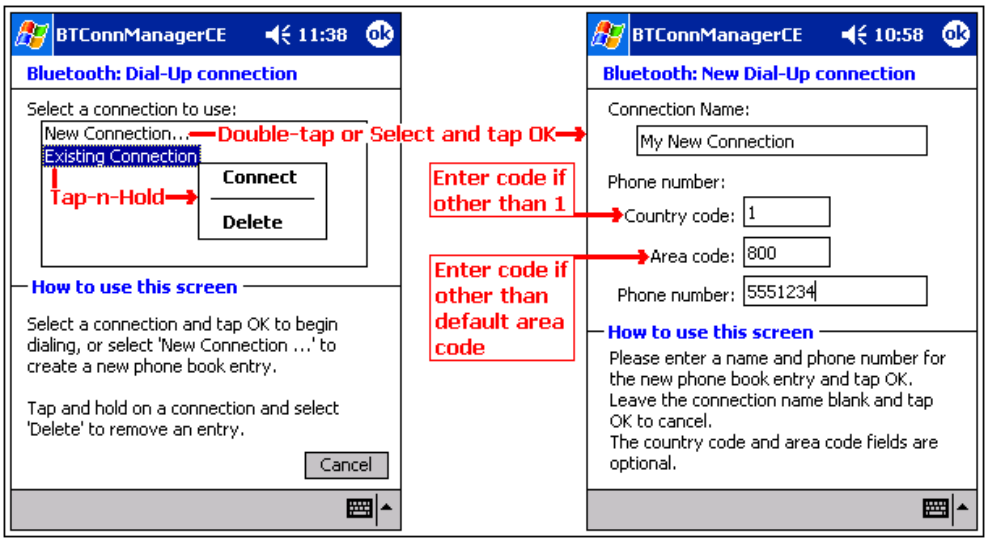
To use Dial-up Networking:

1. Create a shortcut to the device that will provide telephone access (see Section 3.2.1.1).
2. From the Bluetooth Manager, My Shortcuts tab, tap-and-hold the Dial-up Networking connection shortcut, and then select Connect from the pop-up menu.
3. On the first Bluetooth: New Dial-up Connection screen (Figure 22, left), double-tap New Connection…
4. On the second Bluetooth: New Dial-up Connection screen (Figure 22, right):
   a) Enter a name for the connection
   b) If dialing outside of the default country setting, enter the country code
   c) If dialing outside of the default area code setting, enter the area code
   d) Enter the phone number to be dialed.
5. Tap OK

To proceed with the connection, you must complete the Windows CE screen(s) that follow(s). Refer to the Windows CE documentation for assistance.

After the connection is active, open a web browser on the Pocket PC.

Figure 22: Dial-up Networking, overview (composite screenshot)



4.3 BLUETOOTH FILE EXPLORER

Bluetooth File Explorer appears automatically when a File Transfer connection is established. It allows you to:

- Navigate the directory structure of the remote device
- View files and folders on the remote device
- Create new folders on the remote device
- Send files to, and Get files from the remote device
- Delete files on the remote device.

NOTE: *File operations on the remote device are limited to the remote device's configured FTP root directory and its sub-directories.*

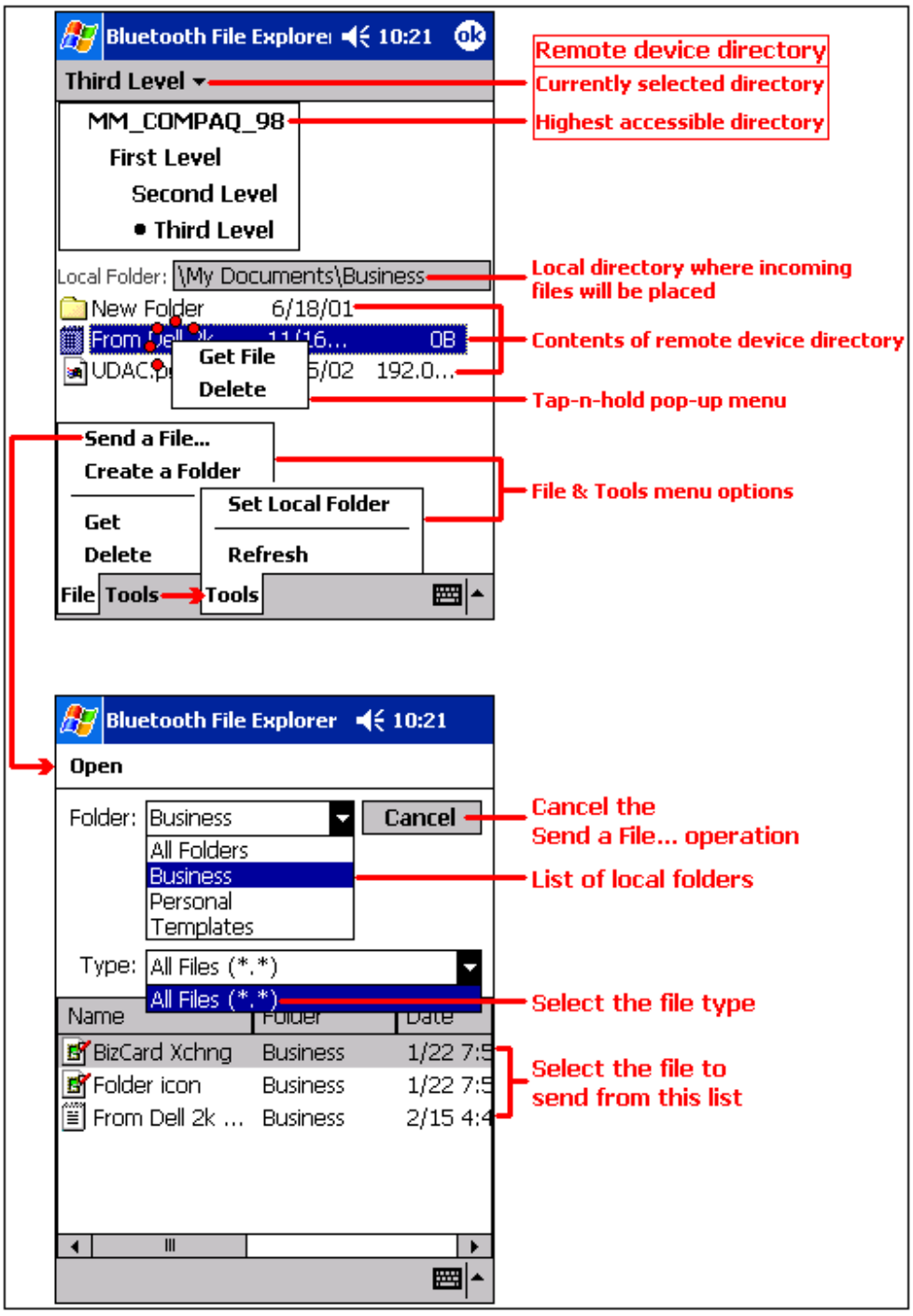
Bluetooth File Explorer also allows you to set the folder on your Pocket PC that will receive inbound files. This folder is configurable on an individual basis for each connection shortcut.

Bluetooth File Explorer has two menus:

- File:
  - Send a File…
  - Create a Folder
  - Get
  - Delete.
- Tools:
  - Set Local Folder
  - Refresh.

Figure 23 on the next page is an overview of Bluetooth File Explorer.

Figure 23: Bluetooth File Explorer overview (composite screenshot)



4.3.1 Change the Remote Device Folder

To move down in the directory structure of the remote device, tap the new folder in the main portion of the Bluetooth File Explorer window.

To move up in the directory structure of the remote device, tap the down-arrow to the right of the currently selected folder and select the new folder from the drop-down list.

4.3.2 File Menu

All of the instructions in the subsections that follow assume that there is an open File Transfer connection with a remote device.

4.3.2.1 Send a File to the Remote Device

To send a file to the remote device, from the File menu, tap Send a File… to display the Open screen.

The options on the Open screen are:

- Folder—tap the down-arrow and select the folder that contains the file to be sent.
- Type—the only option is "All Files (*. *)
- A list of files in the selected folder; tap the file to be sent
- Cancel button—aborts the Send a File… operation.

The selected file is sent automatically when it is tapped, without further intervention, and the Bluetooth File Explorer main screen reappears.

4.3.2.2 Create a Folder on the Remote Device

To create a folder on the remote device, navigate to the folder in which the new folder will be placed, and then, from the File menu, tap Create a Folder. Enter a name for the new folder while the default name (New Folder) is highlighted.

4.3.2.3 Get a File From the Remote Device

To get a file from the remote device:

1. Navigate to the folder on the remote device that contains the file
2. Tap the desired file to highlight it
3. From the File menu, tap Get.

The file is copied to the local folder listed in the Local Folder field near the top of the screen.

This operation can also be performed using the tap-and-hold technique: tap-and-hold the desired file and select Get from the pop-up menu.

4.3.2.4 Delete a File on the Remote Device

To delete a file on the remote device: tap the file to be deleted to highlight it, then, from the File menu, tap delete. Tap OK in the confirmation dialog box.

This operation can also be performed using the tap-and-hold technique: tap-and-hold the desired file and select Delete from the pop-up menu. Tap OK in the confirmation dialog box.

4.3.3 Tools Menu

4.3.3.1 Set Local Folder

The local folder, i.e. the folder on the Pocket PC where incoming files are placed, can be configured on an individual basis for each connection shortcut.

To configure the local folder:

1. From the Tools menu, tap Set Local Folder
2. Use the drop-down menu at the top of the screen to navigate to the desired folder
3. Tap OK to return to the Bluetooth File Explorer main screen.

The Local Folder field is updated to reflect the new folder selection.

NOTE: *The Local Folder information is associated with the shortcut to the connection that is open and is saved with the active profile. A different Local Folder can be associated with each File Transfer shortcut.*

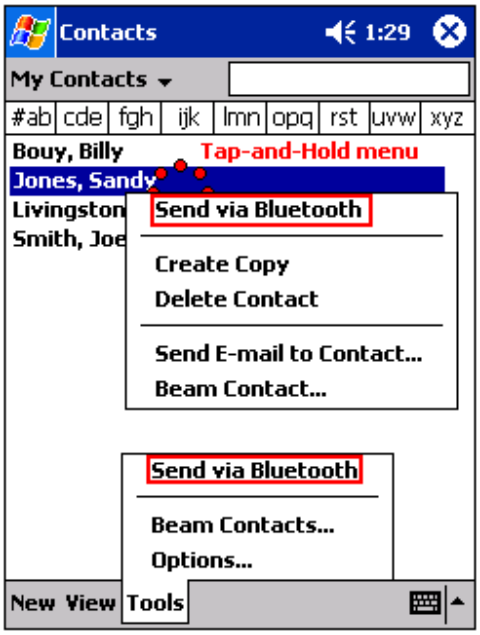
4.3.3.2 Refresh

To refresh the list of displayed files and folders on the remote device, from the Tools menu, tap Refresh.

4.4 SEND VIA BLUETOOTH

Pocket Outlook contacts, calendar items, and tasks can be sent individually or collectively to a remote device.

Figure 24: Send via Bluetooth menus



To send data via Bluetooth transfer:

1. From the Start menu, Programs, open Calendar, Contacts or Tasks
2. Highlight the item(s) to be sent
3. Tap-and-hold the item(s), and from the pop-up menu, tap Send via Bluetooth.
4. On the Select a Bluetooth device screen, tap the name of the destination device, and then tap OK.