Using Bluetooth

Introduction

Bluetooth-equipped devices can communicate without wires, using frequency-hopping spread spectrum (FHSS) radio frequency (RF) to transmit and receive data in the 2.4 GHz Industry Scientific and Medical (ISM) band (802.15.1). Bluetooth wireless technology is specifically designed for short-range (30 feet/10 meters) communication and low power consumption.

EDAs with Bluetooth capabilities can exchange information (e.g., files, appointments, and tasks) with other Bluetooth enabled devices such as phones, printers, access points, and other mobile computers. To use the Bluetooth phone as a modem, create a dial-up modem connection between the Bluetooth mobile computer and a Bluetooth enabled phone.

Symbol mobile computers with Bluetooth technology use the StoneStreet Bluetooth stack. To program Bluetooth within the EDA refer to the Microsoft Embedded Visual C++ help.

Adaptive Frequency Hopping

Adaptive Frequency Hopping (AFH) is a method of avoiding fixed frequency interferers, and can be used with Bluetooth voice. All devices in the piconet (Bluetooth network) must be AFH-capable in order for AFH to work. There is no AFH when connecting and discovering devices. Avoid making Bluetooth connections and discoveries during critical 802.11b communications. AFH for Bluetooth consists of four main sections:

- Channel Classification - A method of detecting an interference on a channel-by-channel basis, or pre-defined channel mask.

- Link Management - Coordinates and distributes the AFH information to the rest of the Bluetooth network.

- Hop Sequence Modification - Avoids interference by selectively reducing the number of hopping channels.

- Channel Maintenance - A method for periodically re-evaluating the channels.

When AFH is enabled, the Bluetooth radio "hops around" (instead of through) the 802.11b high-rate channels. AFH coexistence allows Symbol mobile computers to operate in any infrastructure.

The Bluetooth radio in this EDA operates as a Class 2 device power class. The maximum output power is 2.5mW and the expected range is 32.8 feet (10 meters). A definition of ranges based on power class is difficult to obtain due to power and device differences, and whether one measures open space or closed office space.

NOTE   It is not recommended to perform Bluetooth wireless technology inquiry when high rate 802.11b operation is required.

Security

The current Bluetooth specification defines security at the link level. Application-level security is not specified. This allows application developers to define security mechanisms tailored to their specific need. Link-level security occurs between devices, not users, while application-level security can be implemented on a per-user basis. The Bluetooth specification defines security algorithms and procedures needed to authenticate devices, and if needed, encrypt the data flowing on the link between the devices. Device authentication is a mandatory feature of Bluetooth while link encryption is optional.

Pairing of Bluetooth devices is accomplished by creating an initialization key that is used to authenticate the devices and create a link key for them. Entering a common PIN number in the devices being paired generates the initialization key. The PIN number is never sent over the air. By default, the Bluetooth stack responds with no key when a key is requested (it is up to user to respond to the key request event). Authentication of Bluetooth devices is based-upon a challenge-response transaction. Bluetooth allows for a PIN number or passkey that is used to create other 128-bit keys used for security and encryption. The encryption key is derived from the link key used to authenticate the pairing devices. Also worthy of note is the limited range and fast frequency hopping of the Bluetooth radios that makes long-distance eavesdropping difficult.

Recommendations are:

- Perform pairing in a secure environment
- Keep PIN codes private and don't store the PIN codes in the mobile computer
- Implement application-level security.

Turning the Bluetooth Radio Mode On and Off

Turn off the Bluetooth radio to save power or if entering an area with radio restrictions (e.g., an airplane). When the radio is off, other Bluetooth devices cannot see or connect to the EDA. Turn on the Bluetooth radio to exchange information with other Bluetooth devices (within range). Communicate only with Bluetooth radios in close proximity.

NOTE   To achieve the best battery life in EDAs with multiple radios, turn off radios not in use.

Disabling Bluetooth

To disable Bluetooth, tap *Bluetooth* icon - *Disable Bluetooth*. The *Bluetooth* icon changes to indicate that Bluetooth is disabled.
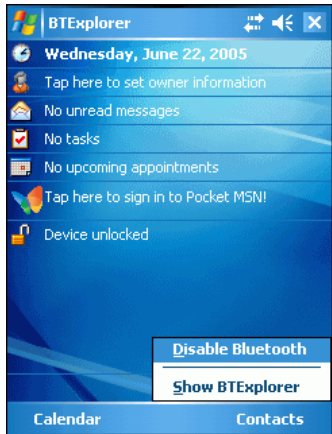

Figure 3-1   *Disable Bluetooth*

Enabling Bluetooth

To enable Bluetooth, tap *Bluetooth* icon - *Enable Bluetooth*. The *Bluetooth* icon changes to indicate that Bluetooth is enabled.
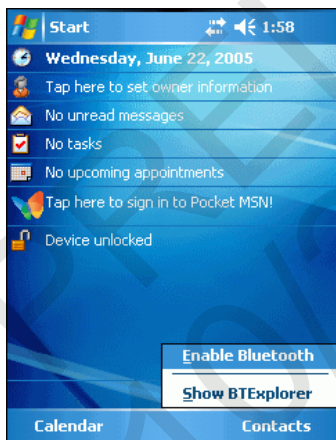

Figure 3-2   *Enable Bluetooth*

Bluetooth Power States

Cold Boot

Performing a cold boot on the EDA turns off Bluetooth after initialization (which takes a few moments). It is normal to see the *Bluetooth* icon appear and disappear, as well as a wait cursor, when initialization proceeds in all modes.

Warm Boot

Performing a warm boot on the EDA returns Bluetooth to the last state after initialization.

Suspend

Suspending the EDA turns off Bluetooth.

NOTE Suspending the EDA powers off the Bluetooth radio and drops the piconet (Bluetooth connection). When the EDA resumes, it take approximately 10 seconds for the Bluetooth radio driver to re-initialize the radio.

Resume

When the EDA resumes, Bluetooth turns on if it was on prior to suspend.

Modes

The BTExplorer application has two mode for managing Bluetooth connections: Wizard Mode and Explorer Mode. The Wizard Mode is for novice Bluetooth users and the Explorer Mode is for experienced Bluetooth users. To switch between modes, select *View - Wizard Mode* or *View - Explorer Mode.*

Wizard Mode

Wizard Mode provides a simple process for discovering and connecting to Bluetooth devices.

NOTE Switching between Wizard Mode and Explorer Mode closes all active connections.

The following steps provide an example for using the Wizard to connect to remote devices.

1. Tap the *Bluetooth* icon and select *Show BTExplorer*. The *BTExplorer* window appears.

2. Tap *File - New Connection*. The *New Connection Wizard* window appears.

Figure 3-3 *New Connection Wizard Window*

3. Select an action from the drop-down list. Options include:

 • Explore Services on Remote Device

- Pair with a Remote Device
- Active Sync via Bluetooth
- Browse Files on Remote Device
- Connect to Headset
- Connect to Internet Using Access Point
- Connect to Internet Using Phone/Modem
- Connect to a Personal Area Network
- Send or Exchange Objects
- Associate Serial Port.

> ✓ **NOTE** If you select *Active Sync via Bluetooth*, ensure that the Bluetooth software is set up properly on the host device.

4. Tap **Next**. The *BTExplorer* searches for Bluetooth devices in the area and displays the devices in the *Select Remote Device* window.

Figure 3-4   *Select Remote Device Window*

5. Select a device from the list and then tap **Next**. The *Connection Favorite Options* window appears.

Figure 3-5   *Connection Favorite Options Window*

6. Select the *Save As Favorite* check box to save this service in the *Favorite* view.

7. In the *Favorite Name* text box, enter a name for this service that will appear in the *Favorite* list.

8. Tap **Next**. The *Connection Summary* window appears.

Figure 3-6 *Connection Summary Window*

9. Tap **Connect** to connect to the service.

Explorer Mode

The *Explorer Mode* window is easy to navigate and provides greater control to users familiar with Bluetooth. The menu bar provides quick access to the options and tools used to connect to devices. To access Explorer Mode, tap *View - Explorer Mode*.
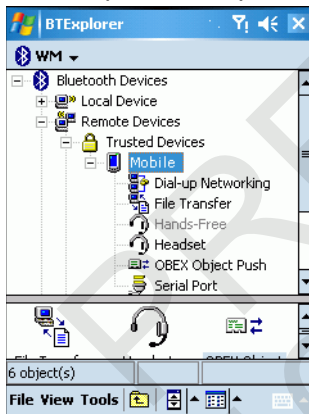
Figure 3-7 *Explorer Mode Window*

You can also use the "tap and hold" technique to view available options. Scroll bars and view options are similar to those on the Windows desktop. The tree structure lists the following sub-items:

- Local Device - This EDA

- Remote Device - Other Bluetooth devices
    - Trusted Devices - Bonded (paired) Bluetooth devices
    - Untrusted Devices - Discovered devices that are not bonded

- Favorites - Selected services that are set as *Favorite* for quick access.

✓ **NOTE**   Switching between Wizard Mode and Explorer Mode closes all active connections.

Discovering Bluetooth Device(s)

The EDA can receive information from discovered devices without bonding. However, once bonded, the EDA and a bonded device exchange information automatically when you turn the Bluetooth radio on.

To find Bluetooth devices in the area:

1. Ensure that the Bluetooth device to discover is in discoverable mode.

2. Ensure that the two devices are within 30 feet (10 meters) of one another.

3. Tap the *Bluetooth* icon and select *Show BTExplorer*. The *BTExplorer* window appears.

Figure 3-8   *BTExplorer Window*

4. Tap and hold *Remote Devices* and select *Discover Devices* from the pop-up menu. The EDA searches for Bluetooth devices in the area.
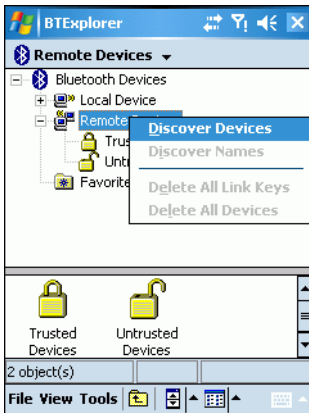

Figure 3-9   *Discover Devices*

The discovered devices display in the *Untrusted Devices* folder.

**Figure 3-10**   *Discovered Devices Listed in Untrusted Folder*

Bonding with Discovered Device(s)

A bond is a relationship created between the EDA and another Bluetooth device in order to exchange information in a secure manner. Creating a bond involves entering the same PIN on the two devices. After creating a bond and turning on the Bluetooth radios, the devices recognize the bond and can exchange information without re-entering a PIN.

To bond with a discovered Bluetooth device:

1. Discover remote devices. See *Discovering Bluetooth Device(s) on page 3-7*.

2. In the *Untrusted Devices* folder, tap and hold on a device to pair with.
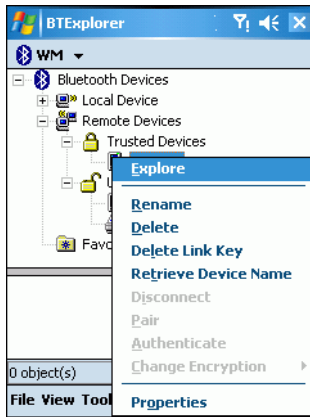
Figure 3-11   *Pairing a Remote Device*

3. Select *Pair* from the pop-up menu. The *PIN Code Request* window appears.
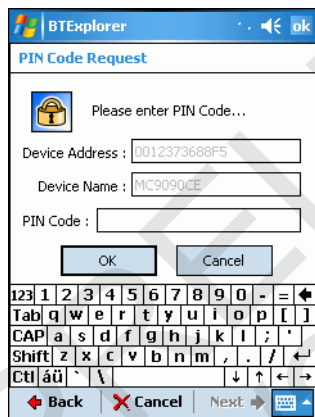
Figure 3-12   *PIN Code Request Window*

4. In the *PIN Code:* text box, enter the PIN number (between 1 and 16 characters) and then tap **OK**.

5. On the remote device, enter the same PIN number.

6. The devices pair and the device name moves to the *Trusted Devices* folder.
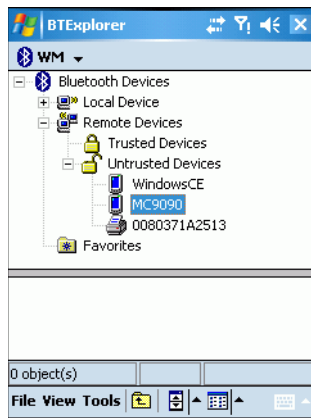
Figure 3-13 *Bonded (Paired) Discovered Device*

Renaming a Bonded Device

To rename a bonded device:

1. Launch *BTExplorer.*

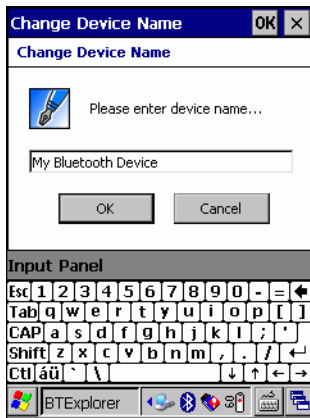**2.** Tap and hold the device to rename.
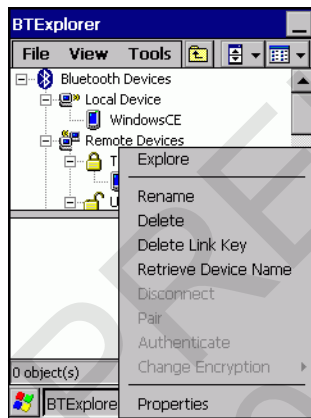
Figure 3-14 *Rename Device Selection Dialog Box*

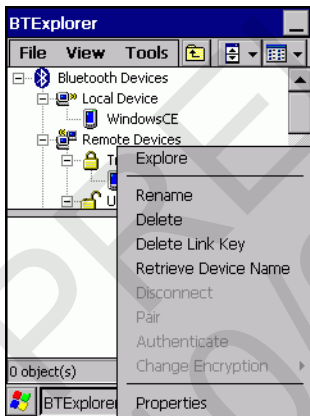3. Select *Rename* in the pop-up menu. The *Change Device Name* window appears.

Figure 3-15 *Change Device Name Window*

4. Enter a new name for the bonded device in the text box. Tap **OK**.

Deleting a Bonded Device

To delete a device no longer needed:

1. Launch *BTExplorer.*

2. Tap and hold the device to delete and select *Delete* in the pop-up menu.

Figure 3-16 *Deleting a Bonded Device*

3. A confirmation dialog appears. Tap **Yes**.

Accepting a Bond

When a remote device wants to bond with the EDA, enter a PIN when requested to grant permission.

1. Ensure that the EDA is set to discoverable and connectable. See *Bluetooth Settings on page 3-25*. When prompted to bond with the remote device the *PIN Code Request* window appears.

Figure 3-17   *PIN Code Request Window*

2. In the *PIN Code:* text box, enter the same PIN entered on the device requesting the bond. The PIN must be between 1 and 16 characters.

3. In the *Device Name*: text box, edit the name of the device requesting the bond, if desired.

4. Tap **OK** to create the bond. The EDA can now exchange information with the other device.

Discovering Services

Before using services, first discover remote devices and then bond to those devices.

To determine what services are available on a bonded remote device:

1. Tap the *Bluetooth* icon and select *Show BTExplorer*.

2. In *BTExplorer* window, tap and hold on the remote device and select *Explore* from the pop-up menu.
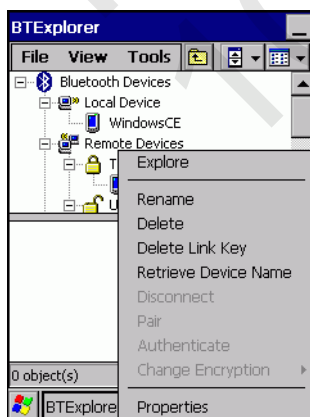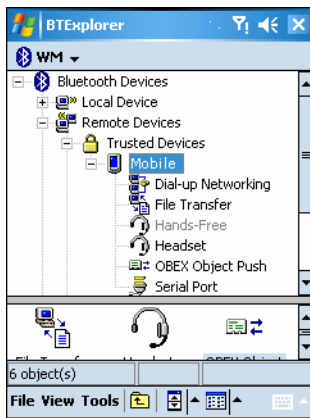

Figure 3-18   *Discovering Services*

The EDA communicates with the remote device and lists the services under the device name.

Figure 3-19   *List of Discovered Services*

Some examples of available services are:

- File Transfer Services
- Dial-Up Networking Services
- OBEX Object Push Services
- Headset or Hands-Free Services
- Serial Port Services.

See the following sections for information on these services.

File Transfer Services

To transfer files between the EDA and another Bluetooth enabled device:

1. Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2. Discover and bond (pair) with the remote access point. See *Bonding with Discovered Device(s) on page 3-8*.

3. In *BTExplorer,* select the *Remote Devices* folder.

4. Select the *Trusted Devices* folder.

5. Tap the remote device folder.

6. Tap and hold on the remote device and select *Explore* from the pop-up menu.

7. Tap and hold on *File Transfer* and select *Connect*. The remote device's accessible folders appear.

8. Select a folder. The contents of the folder appear in the sub-window.
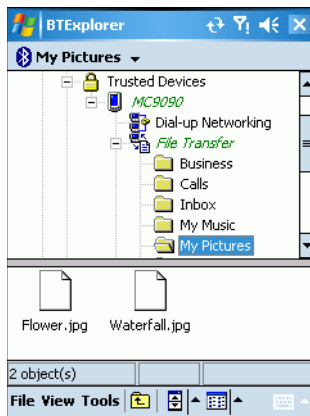
Figure 3-20   *Remote Device Folders*

9. Tap and hold on the file. A pop-up menu appears.

10. Select the action to perform:

- *New* - create a new file or folder on the remote device
- *Delete* - delete the selected file on the remote device.
- *Get File* - copy the file from the remote device to the EDA.
- *Put File* - copy a file from the EDA to the remote device.

Creating a New File or Folder

To create a new folder or file on the remote device:

1. Tap and hold on the file and select *New - Folder* or *New - File*. The *Create New Folder* or *Create New File* window appears.

2. Enter the name for the new folder or file.

3. Tap **OK** to create the new folder or file on the remote device.

Deleting a File

To delete a file from the remote device:

1. Tap and hold on the file and select *Delete*.

2. In the *Delete Remote Device File* dialog box tap **OK**.

Getting a File

To copy a file from a remote device:

1. Tap and hold on the file and select *Get*. The *Save Remote File* window appears.

2. Navigate to the directory to save the file.

3. Tap **Save**. The file is transferred from the remote device to the EDA.

Copying a File

To copy a file to a remote device:

1. Tap and hold on the file and select *Put*. The *Send Local File* window appears.

2. Navigate to the directory to save the file and select a file.

3. Tap **Open**. The file copies from the EDA to the remote device.

Connecting to the Internet Using an Access Point

This section explains how to access a Bluetooth-enabled LAN access point (AP) for a network connection. Use Internet Explorer to connect to a server.

1. Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2. Discover and bond (pair) with the remote access point. See *Bonding with Discovered Device(s) on page 3-8*.

3. In *BTExplorer,* select the *Remote Devices* folder.

4. Select the *Trusted Devices* folder.

5. Tap the remote device folder.

6. Tap and hold on the remote device and select *Explore* from the pop-up menu.

7. Tap and hold *LAN Access using PPP* service and select *Connect* from the pop-up menu. The EDA connects with the access point.

8. Tap *Start - Internet Explorer*. The *Internet Explorer window* appears*.*

9. In the address field, enter an internet address and tap the **Enter** button. The web page loads.

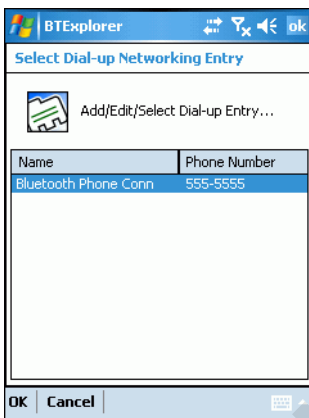## Dial-Up Networking Services

To use a phone that has Bluetooth capabilities as a modem for the EDA, create a Bluetooth modem connection on the EDA and send information to the phone using Bluetooth. The phone relays the information over the phone line and sends back to the EDA any information that was requested over the connection. After creating a modem connection to the Bluetooth phone, you can reuse it.

Prior to creating a connection, ensure the following:

*   Bluetooth phone is turned on.

*   Bluetooth phone is discoverable. (Some phones must also be pairable to accept a bonding request. For more information, refer to the phone documentation.)

*   EDA's and phone's Bluetooth radios are turned on.

*   EDA and phone are within range of each other (30 feet/10 meters).

Before setting up dial-up networking, obtain dial-up information and other necessary settings for the office network or ISP. To create a new Bluetooth connection:

1. Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2. Discover and bond (pair) with the remote device. See *Bonding with Discovered Device(s) on page 3-8*.

3. In *BTExplorer,* select the *Remote Devices* folder.

4. Select the *Trusted Devices* folder.

5. Tap the remote device folder.

6. Tap and hold on *Dial-up Networking* and select *Connect* from the pop-up menu. The *Select Dial-up Networking Entry* window appears.

Figure 3-21   *Select Dial-up Networking Entry Window*

> *NOTE*   If a dial-up entry is not listed, see *Adding a Dial-up Entry on page 3-18*.

7. Select a dial-up entry.

8. Tap **OK**. The EDA begins to communicate with the phone. If required, the phone requests permission to communicate with the EDA.

9. Confirm the connection on the phone. The *Network Log On* window appears.

Figure 3-22   *Network Log On Window*

10. In the *User name:* text box, enter the user name for this connection.

11. In the *Password:* text box, enter the password for this connection.

12. In the *Domain:* text box, enter the domain for this connection, if required.

13. Tap **OK**. The phone begins dialing, then connects to the network.
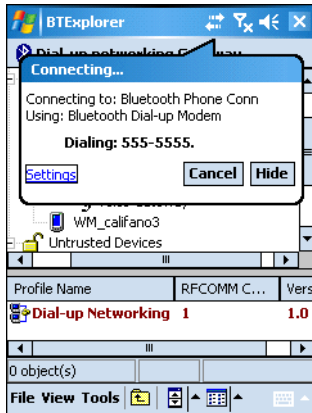
Figure 3-23   *Connecting to Bluetooth Phone*

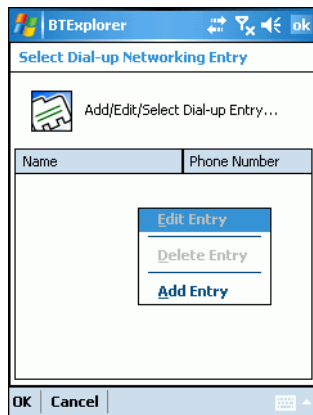14. To end a session, tap the *Connection* icon and then tap **Disconnect** in the dialog box.

Figure 3-24   *Connectivity Dialog Box*

Adding a Dial-up Entry

To add a dial-up entry:

1.   In the *Select Dial-up Networking Entry* window, tap and hold, then select *Add Entry* from the pop-up menu.

Figure 3-25   *Add Dial-Up Entry*

The *Add Phone Book Entry* window appears.
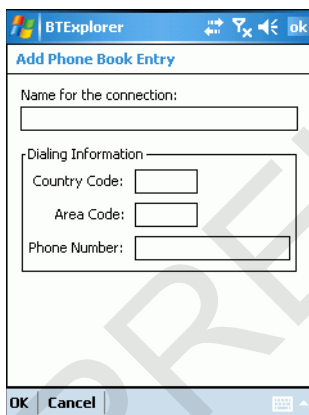
2.   In the *Name for the connection:* text box, enter a name for this connection.

3.   In the *Country Code:* text box, enter the country code for the country that you are calling.

4.   In the *Area Code:* text box, enter the area code.

5.   In the *Phone Number:* text box, enter the phone number.

6.   Tap **OK**.

Object Exchange Push Services

Object Exchange (OBEX) is a set of protocols that allows sharing objects such as Contacts or pictures using Bluetooth.

To exchange contact information with another Bluetooth enabled device:
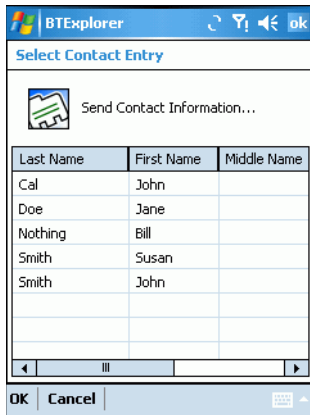
1.   Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2.   Discover and bond (pair) with the remote device. See *Bonding with Discovered Device(s) on page 3-8*.

3.   In *BTExplorer,* select the *Remote Devices* folder.

4.   Select the *Trusted Devices* folder.

5.   Tap the remote device folder.

6.   Tap and hold on *OBEX Object Push* and select *Connect*. The *OBEX Object Push* window appears.

7.   In the *Action* drop-down list, select one of the following options: *Send Contact Information*, *Swap Contact Information*, *Fetch Contact Information*, or *Send a Picture*.

Sending a Contact

To send a contact to another device:

1.   Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2.   Discover and bond (pair) with the remote device. See *Bonding with Discovered Device(s) on page 3-8*.

3.   In *BTExplorer,* select the *Remote Devices* folder.

4.   Select the *Trusted Devices* folder.

5.   Tap the remote device folder.

6.   Tap and hold on *OBEX Object Push* and select *Connect*. The *OBEX Object Push* window appears.

Figure 3-26   *OBEX Object Push Window*

7.   In the *Action:* drop-down list, select *Send Contact Information*.

8. Tap 🔲 . The *Select Contact Entry* window appears.

Figure 3-27   *Select Contact Entry Window*

9. Select a contact to send to the other device.

10. Tap **OK**.

11. Tap **OK** to send the contact to the other device and display a confirmation dialog box on the other device to accept the contact. A *Send Contact* dialog appears.

12. Tap **Ok**.

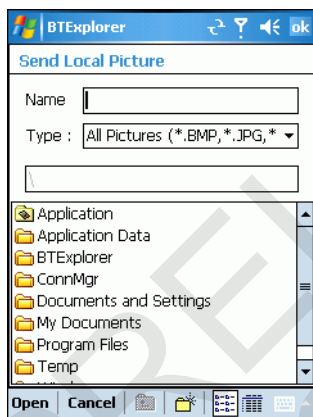### Sending a Picture

To send a picture to another device:

1. Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2. Discover and bond (pair) with the remote device. See *Bonding with Discovered Device(s) on page 3-8*.

3. In *BTExplorer,* select the *Remote Devices* folder.

4. Select the *Trusted Devices* folder.

5. Tap the remote device folder.

6. Tap and hold on *OBEX Object Push* and select *Connect*. The *OBEX Object Push* window appears.

Figure 3-28   *OBEX Object Push Window*

7. In the *Action:* drop-down list, select *Send A Picture*.

8. Tap ⟦...⟧ . The *Send Local Picture* window appears.

Figure 3-29   *Send Local Picture Window*

9. Navigate to the picture to send to the other device.

10. Tap **Open**.

11. Tap **OK** to send the picture to the other device and display a confirmation dialog box on the other device to accept the picture. A *Send Picture* dialog appears.

12. Tap **Ok**.

Headset Services

To connect to a Bluetooth headset:

1. Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2. Discover and bond (pair) with the headset. See *Bonding with Discovered Device(s) on page 3-8*.

3. In *BTExplorer,* select the *Remote Devices* folder.

4.   Select the *Trusted Devices* folder.

5.   Tap the remote device folder.

6.   Tap and hold on the remote device and select *Explore*. A headset service item appears.

7.   Tap and hold on the headset service name and select *Connect*. The EDA connects to the headset. Refer to the headset user manual for instructions on communicating with a Bluetooth device.

To adjust the microphone gain:

1.   Tap and hold on the headset service item and select *Adjust Microphone* from the pop-up menu. The *Microphone Properties* window appears.

2.   Select the slider and adjust the gain.

3.   Tap **OK**.

Serial Port Services

Use the wireless Bluetooth serial port connection as you would a physical serial cable connection. Configure the application that will use the connection to the correct serial port.

To establish a serial port connection:

1.   Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2.   Discover and bond (pair) with the remote device. See *Bonding with Discovered Device(s) on page 3-8*.

3.   In *BTExplorer,* select the *Remote Devices* folder.

4.   Select the *Trusted Devices* folder.

5.   Tap the remote device folder.

6.   Tap and hold *Serial Port* and select *Connect* in the pop-up menu. The *Remote Service Connection* window appears.
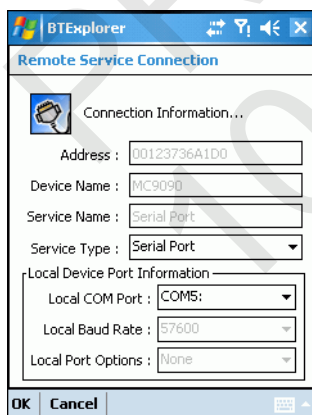
Figure 3-30   *Remote Service Connection Window*

7.   In the *Local COM Port:* drop-down list select a COM port.

8.   Tap **OK**.

ActiveSync Using Serial Port Services

✓ **NOTE** By default, COM ports COM4, COM5, and COM9 are Bluetooth virtual ports. If an application opens one of these ports, the Bluetooth driver activates and guides you through a Bluetooth connection.

Use the wireless Bluetooth serial port connection for ActiveSync just as you would a physical serial cable connection. You must configure the application that will use the connection to the correct serial port.

To establish an ActiveSync connection:

1. On the host computer, ensure the Bluetooth software is set up properly.

2. Ensure the mobile computer is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

3. Discover and bond (pair) with the remote device.See *Bonding with Discovered Device(s) on page 3-8*.

4. In *BTExplorer,* select the *Remote Devices* folder.

5. Select the *Trusted Devices* folder.

6. Tap the remote device folder.

7. Tap and hold *ActiveSync* and select *Connect* in the pop-up menu.
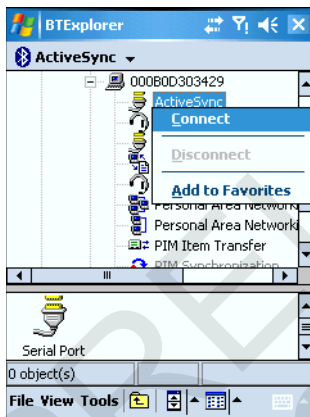
Figure 3-31 *Connect to ActiveSync Service*

8. The *Remote Service Connection* window appears In the *Local COM Port* drop-down list select a COM port.
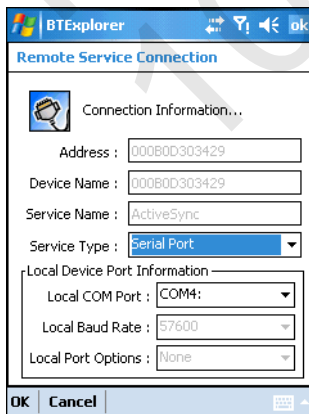
Figure 3-32 *Remote Service Connection Window*

9. Tap **OK**. The mobile computer communicates with the host computer and ActiveSync initates.

Personal Area Network Services

Connect two or more Bluetooth devices to share files, collaborate, or play multi-player games.

To establish a Personal Area Network connection:

1. Ensure the EDA is discoverable and connectable. See *Bluetooth Settings on page 3-25*.

2. Discover and bond (pair) with the remote device. See *Bonding with Discovered Device(s) on page 3-8*.

3. In *BTExplorer,* select the *Remote Devices* folder.

4. Select the *Trusted Devices* folder.

5. Tap the remote device folder.

6. Tap and hold *Personal Area Network* and select *Connect* in the pop-up menu.

Bluetooth Settings

Use the *BTExplorer Settings* window to configure the operation of the *BTExplorer* application. Tap *Tools - Settings*. The *BTExplorer Settings* window appears.

Device Info Tab

Use the *Device Info* tab to configure the EDA's Bluetooth connection modes.
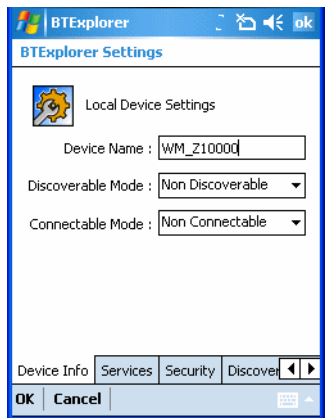
Figure 3-33 *BTExplorer Settings - Device Info Tab*

Device Name	Displays the name of the EDA.
Discoverable Mode	Select whether or not the EDA is discoverable by other Bluetooth devices.
Connectable Mode	Select whether or not the EDA is connectable by other Bluetooth devices.

Services Tab

Use the *Services* tab to add or delete Bluetooth services.
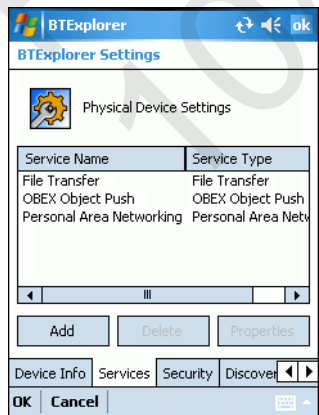
Figure 3-34 *BTExplorer Settings - Services Tab*

To add a service:

1. Tap **Add**. The *Add Local Service* window displays.
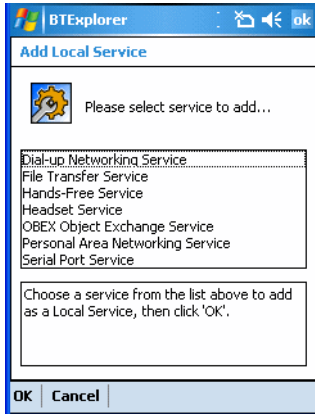
Figure 3-35   *Add Local Service Window*

2. In the list, select a service to add.

3. Tap **OK**. The *Edit Local Service* window displays for the selected service.

4. Select the appropriate information and then tap **OK**. See the following sections for information on the available services.

Dial-Up Networking Service

Dial-up Networking allows other Bluetooth devices to access a dial-up modem.
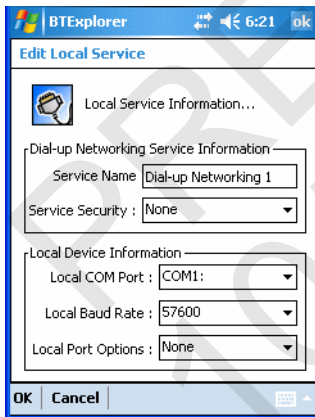
Figure 3-36   *Add Local Service Window*

Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are *None*, *Authenticate*, or *Authenticate/Encrypt*.
Local COM Port	Select the COM port.
Local Baud Rate	Select the communication baud rate.
Local Port Options	Select the port option.

File Transfer Service

File transfer allows other Bluetooth devices to browse files.
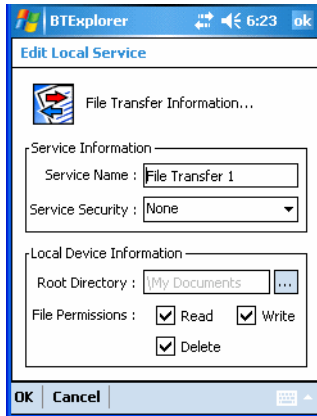
Figure 3-37 *File Transfer Information Window*

Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are *None*, *Authenticate*, or *Authenticate/Encrypt*.
Root Directory	Select the directory that other Bluetooth devices can access.
File Permissions	Select the file permissions for the selected directory. Check the appropriate box to grant read access, write access, and delete access.

Hands-Free Service

Hands-Free Service allows connection to hands-free devices.
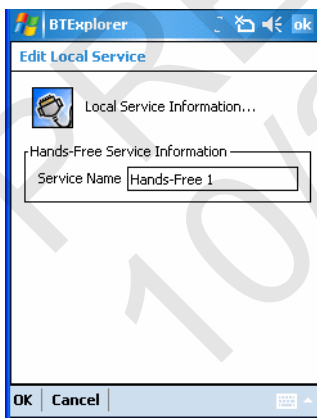
Figure 3-38 *Hands-Free Service Window*

Service Name	Lists the name of the audio service.

Headset Service

Headset Service allows connection to headset devices.
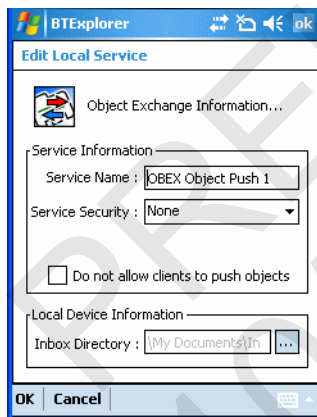
Figure 3-39 *Headset Service Window*

Service Name   Lists the name of the audio service.

OBEX Object Push Service

OBEX Object Push allows other Bluetooth devices to push contacts, business cards, pictures, appointments, and tasks to the EDA.
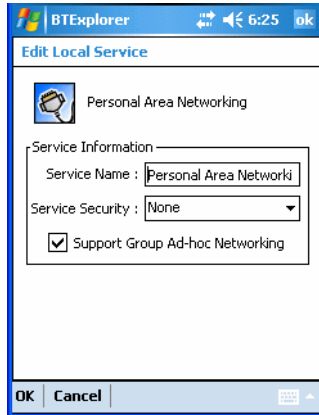
Figure 3-40 *OBEX Exchange Information Window*

Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are *None*, *Authenticate*, or *Authenticate/Encrypt*.
Do not allow clients to push objects	Disables clients from pushing objects to the EDA.
Inbox Directory	Select a directory where another Bluetooth device can store files.

Personal Area Networking Service

Personal Area Networking hosts a Personal Area Network which allows communication with other Bluetooth devices.

Figure 3-41 *Personal Area Networking Window*

Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are *None, Authenticate,* or *Authenticate/Encrypt.*
Support Group Ad-Hoc Networking	Select to enable Ad-Hoc networking.

Serial Port Service

Serial port allows other Bluetooth devices to access COM ports.

Figure 3-42 *Serial Port Service Window*

Service Name	Displays the name of the service.
Service Security	Select the type of security from the drop-down list. Options are *None*, *Authenticate*, or *Authenticate/Encrypt*.
Local COM Port	Select the COM port.
Local Baud Rate	Select the communication baud rate.
Local Port Options	Select the port option.

Security Tab

To adjust the security settings for an individual service, select the *Services* tab first, then select the individual service, then *Properties*.


Figure 3-43   *BTExplorer Settings - Security Tab*

Use PIN Code (Incoming Connection)	Select for automatic use of the PIN code entered in the *PIN Code* text box. It is recommended not to use this automatic PIN code feature. See *Security on page 3-2* for more information.
PIN Code	Enter the PIN code.
Encrypt Link On All Outgoing Connections	Select to enable or disable encryption. Use encryption whenever possible.

Discovery Tab

Use the *Discovery* tab to set and modify discovered devices.
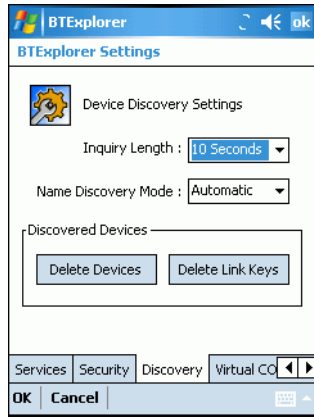
Figure 3-44   *BTExplorer Settings - Discovery Tab*

|	
Inquiry Length	Sets the amount of time the EDA takes to discover Bluetooth devices in the area.
Name Discovery Mode	Select either *Automatic* or *Manual*.
Discovered Devices	Deletes all discovered devices and link keys.

Virtual COM Port Tab

Use the *Virtual COM Port* tab to select the COM ports for Bluetooth communication.
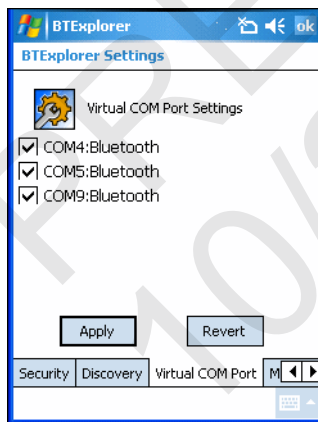
Figure 3-45   *BTExplorer Settings - Virtual COM Port Tab*

COM4:Bluetooth	Enable or disable COM Port 4.
COM5:Bluetooth	Enable or disable COM Port 5
COM9:Bluetooth	Enable or disable COM Port 9

Miscellaneous Tab
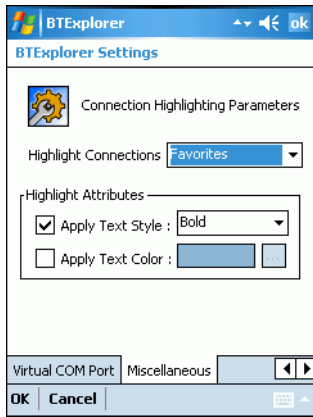
Figure 3-46   *BTExplorer Settings - Miscellaneous Tab*

Highlight Connections	Select the connection type to highlight when connected. In the Wizard Mode, the only options are *Favorites* or *None*. In the Explorer Mode the options are *None*, *Tree View Only*, *List View Only*, or *Tree and List View*.
Apply Text Style	Select the text style to apply to the connection text.
Apply Text Color	Select the text color to apply to the connection text.