Just like when connecting to any Bluetooth device, you also need to enter a passkey when connecting to a Bluetooth hands-free headset. The passkey is fixed and cannot be changed on a Bluetooth headset. Before you connect it to your device, check for the proper passkey in the manufacturer's documentation.

To connect a Bluetooth hands-free headset

1. Make sure that both your device and the Bluetooth headset are turned on and within close range, and that the headset is discoverable. Refer to the manufacturer's documentation to find out how to set the headset in discoverable mode.

2. Tap **Start > Settings > Connections** tab.

3. Tap **Bluetooth > Devices** tab > **New Partnership**. Your device searches for other Bluetooth-enabled devices and displays them in the list.

4. Tap the name of the Bluetooth headset, then tap **Next**.

5. Enter the passkey of the Bluetooth headset, then tap **Next**.

6. Select the check box for the **Hands Free** service, then tap **Finish**.

Beam information using Bluetooth

You can beam information, such as contacts, calendar items, and tasks, as well as files from your device to your computer or to another Bluetooth-enabled device.

Note   If your computer does not have built-in Bluetooth capability, you need to connect and use a Bluetooth adapter or dongle on your computer.

To beam information from your device to a computer

1. Turn on Bluetooth on your device, and make your device discoverable. For information about this, see "To turn Bluetooth on and make your device discoverable".

2. You also need to set Bluetooth on your computer to discoverable mode. Do one of the following:

   • If your computer has Windows XP SP2 and your computer's built-in or external Bluetooth adapter is supported by Windows XP SP2, open **Bluetooth Devices** from the Control Panel. Click the **Options** tab, then select the **Turn discovery on** and the **Allow Bluetooth devices to connect to this computer** options.

   • If the Bluetooth adapter on your computer was installed using a third-party provided driver, open the Bluetooth software that came with the Bluetooth adapter. This software varies by manufacturer, but in most cases, you will find a

Bluetooth Configuration utility which you can open from the Control Panel. After Bluetooth Configuration opens, click the **Accessibility** tab, then select **Let other Bluetooth devices to discover this computer**. Refer to the Bluetooth adapter's documentation for more information.

3. Create a Bluetooth partnership between the two devices. For information about creating a partnership, see "Bluetooth partnerships".

After a partnership has been created successfully, your computer is ready to receive Bluetooth beams.

4. On your device, tap and hold an item to beam. The item can be an appointment in your calendar, a task, a contact card, or a file.

5. Tap **Beam [type of item]**.

6. Tap the device name to which you want to send the beam.

7. If you beamed an Outlook item and it is not automatically added to Outlook, select **File > Import and Export** in Outlook to import it.

To beam information to a Bluetooth-enabled device such as another Pocket PC, follow steps 3 and onwards in the above procedure.

Notes • If the computer or device you want to beam to cannot be detected by your device, make sure that its Bluetooth is turned on, set to discoverable mode, and it is within close range (10 meters) of your device.

• If you beamed an Outlook item to the computer and it is not automatically added to Outlook, select **File > Import and Export** on your computer to import it into Outlook.

Use the device as a Bluetooth modem

You can connect your device to a notebook or desktop computer through Bluetooth and use the device as a modem for the computer. To connect your device to the computer through Bluetooth, you need a Bluetooth radio adapter (or USB Bluetooth dongle) for your computer.

To set up a Bluetooth connection between the device and the computer

(in Windows XP SP2)

1. On your device, turn on Bluetooth and set it to discoverable mode.

2. Connect a Bluetooth radio adapter on your computer. (Refer to the manufacturer's documentation for details on how to install).

   After a Bluetooth radio adapter is installed on your computer, the Control Panel and System Tray will have the **Bluetooth Devices** icon. Double-click this icon.

3. In the Bluetooth Devices window, click **Add**.

4. The Add Bluetooth Device Wizard opens. Select the **My device is set up and ready to be found** check box, then click **Next**.

5. The wizard then detects your device and displays its name in the dialog box. Select the device name, then click **Next**.

6. Select **Let me choose my own passkey**, then enter a passkey (1 up to 16 digits) that will serve as an identification number for establishing a secure connection between your device and the computer. Click **Next**.

7. A confirmation message then appears on your device. Tap **Yes** to accept the connection, enter the same passkey, then tap **Next**.

8. On the computer, click **Finish** to exit the wizard.

9. On your device's Partnership Settings screen, you can change the display name for the computer, then tap **Finish**.

10. Now, open the Wireless Modem program on your device. Tap **Start > Programs > Wireless Modem**.

11. Select **Bluetooth** as the **Connection Type**.

12. To use your phone as a GPRS modem, set the **Access point name** (APN). To set, tap **Menu > APN Setting**, enter the access point name, then tap **Done**.

13. Tap **Menu > Start** on your device.

After successfully connecting your phone to the computer via Bluetooth, the next thing to do is to add your device as a Bluetooth modem to your computer.

To add the device as a Bluetooth modem

1. On the computer, tap **Start > Control Panel > Phone and Modem Options**.

2. Click the **Modems** tab. Check if there is a Bluetooth modem, "Generic Bluetooth Modem" or "Standard Modem over Bluetooth Link", listed. If there is, skip to step 6.

3. If there is no Bluetooth modem listed in the Modems tab, click **Add**.

4. In the Add Hardware Wizard, click **Next**.

5. In the Select Bluetooth Device screen, select the device name then click **OK**.

6. In the Modems tab, select the Bluetooth modem listed then click **Properties**.

7. Click the **Advanced** tab, then in the **Extra initialization commands** text box, enter:

   > AT+CGDCONT=1,"IP","APN"

   where APN is the access point name provided by your mobile network operator to give you access to the Internet. Then click **OK**.

8. Click **OK** to exit the Phone and Modem Options.

Your device is now set up as a Bluetooth modem. For details about how to connect to the Internet, see "To dial-up and connect to the Internet" in this chapter.

Use another Bluetooth phone as a modem

You can use another phone that has Bluetooth as a modem for your device to browse the Internet or to transfer other information.

To do this, create a Bluetooth modem connection on your device and then send information to the phone by using Bluetooth. The phone relays the information over the mobile phone network and then sends back to your device any information that you had requested over the connection.

Once you create a modem connection to the Bluetooth phone, you can reuse it whenever you want to use the phone as a modem. Make sure that Bluetooth is turned on and discoverable on both your device and the phone, and that the two are within close range.

Note Normally, you will need another phone as a modem only if your Pocket PC device has no integrated phone capability.

To configure and use a Bluetooth phone as a modem for your device

1. On your device, tap **Start > Settings > Connections** tab **> Connections**.
2. Tap **Add a new modem connection**.
3. Enter a name for the connection.
4. In the **Select a modem** list, tap **Bluetooth**.
5. Tap **Next**.
6. If the phone appears in the **My Connections** list, skip to step 11.
7. If the phone does not appear in the **My Connections** list, tap **New Partnership**, and follow the remaining steps.
8. Select the phone from the list and tap **Next**.
9. Enter a passkey and tap **Next**.
10. Enter the same passkey on the phone and tap **Finish**.
11. In the **My Connections** list on your device, select the phone and tap **Next**.
12. Enter the phone number to dial for this connection and tap **Next**.
13. Enter the required logon information for this connection and tap **Finish**.

6.5 Using Wi-Fi

Wi-Fi provides wireless Internet access over distances of up to 100 meters. To use Wi-Fi on your device, you need access to a wireless access point of your service provider. When you are in public places such as in a coffee shop or restaurant, you will need access to their public wireless access points (also referred to as "hotspots").

Note   The availability and range of your device's Wi-Fi signal depends on the number, infrastructure, and other objects through which the signal passes.

To connect to a Wi-Fi network

1. Open the **Comm Manager**.

2. Tap the **Wi-Fi** button to turn on/off the wireless function. The Wi-Fi icon indicates the wireless status.

   : Wi-Fi is turned on.

   : Wi-Fi is turned off.

3. After Wi-Fi has been turned on, your device then scans for available wireless networks in your area. The network names of the detected wireless networks will be displayed on a pop-up message window. Tap the desired wireless LAN, then tap **OK**.

   Multiple Networks Detected

   Select a network to connect to:
   - ◉ wlan [Security-enabled]
   - ○ FAETEST [Security-enabled]

   OK   Menu

4. On the next pop-up message window, tap **The Internet** if the wireless LAN connects your device to the Internet. Otherwise, tap **Work** if the wireless LAN connects your device to a private network.

5. If the wireless LAN is secured by a network key,enter this key,
then tap **Connect**.
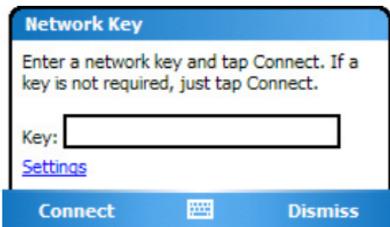
Next time you use your device to detect wireless networks, you
will not see the pop-up message windows again, and you will not
be prompted to enter the network key of the previously accessed
wireless network (unless you perform a hard reset which will
erase custom settings on your device).

Note   Wi-Fi networks are self-discoverable, which means no additional steps
are required for your device to connect to a Wi-Fi network. It may be
necessary to provide a username and password for certain closed
wireless networks, however.

To save battery power while connected to a Wi-Fi network
1. Tap **Start > Settings > Connections** tab > **Wireless LAN** to
open the Wireless LAN Settings screen.
2. On the **Power Mode** tab of the Wireless LAN Settings screen,
move the **Power Save Mode** slider to a position that optimizes
performance with the least power consumption.

For example, move the slider to the left (Best Performance) to have the optimal WLAN performance; move to the right (Best Battery) to obtain the maximum battery usage.
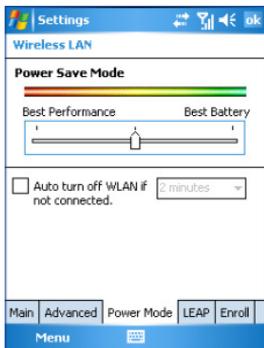
To check the Wireless LAN status

You can check the current wireless connection status from the following three screens of your device:

- **Title bar**. When you enable Wi-Fi on your device, the Wi-Fi ON icon ( ) will appear on the title bar.

  After Wi-Fi is turned on, your device scans for available wireless networks and the wireless signal icon ( ) appears on the title bar. The arrows in this icon will move back and forth while your device is scanning for a wireless LAN signal. Once your device successfully connects to a wireless LAN, the arrows stop moving.

- **Wireless LAN screen - Main tab**. Here, it shows the name of the wireless network that your device is currently connected to. The configuration and signal quality of the wireless network are also shown.
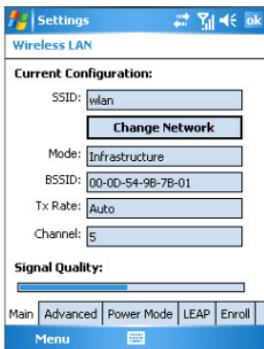
- **Configure Wireless Networks screen**. Tap **Start > Settings > Connections** tab > **Network Cards > Wireless** tab. This screen displays the wireless networks currently available.

- To connect to a wireless network in the list, tap and hold on the desired network, then tap **Connect**.

- Tap a wireless network in the list to view or change its connection settings.

- You can also add new wireless networks, if available, by tapping **Add New**.

6.6 Using Wireless Modem

Wireless Modem allows you to use your device as an infrared, USB, or Bluetooth modem for another device, such as your notebook computer.

Follow the procedures in this section to set up your device as an infrared or USB modem. To learn how to set up your device as a Bluetooth modem, see "Use the device as a Bluetooth modem" in this chapter.

Notes • Before activating Wireless Modem, make sure your device has a SIM card installed, and you have set up a GPRS or phone dial-up modem connection on your device. For more information about setting up a GPRS connection, see "To set up a GPRS connection to the Internet". For more information about setting up a phone dial-up connection, see "To set up a dial-up connection to your ISP".

    Also make sure you have connected your device to a computer (via infrared, USB or Bluetooth).

• When you activate Wireless Modem, ActiveSync will be disabled automatically.

To set up your device as an infrared or USB modem

1. On your device, tap **Start > Programs > Wireless Modem**.
2. In the **Connection Type** list, select how your device is connected to the computer: **IrDA** if via infrared, or **USB** if through USB cable connection.
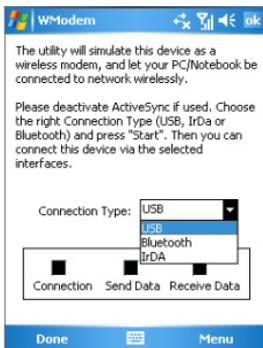
3. To use your device as a GPRS modem, set the GPRS **Access point name**. To do so, tap **Menu > APN Setting** and enter the access point name.

4. Point your device at the infrared port of your notebook, or plug in the USB cable adapter between your device and the notebook.

5. Tap **Menu > Start**.

6. The next thing to do is to add your device as an infrared or USB modem onto your notebook.

To add your device as an infrared modem to your notebook

1. After you tap **Menu > Start** on the Wireless Modem screen of your device, the Found New Hardware dialog box will then appear on your notebook and will show that your device has been detected as an infrared modem. In this dialog box, make sure that **Install the software automatically (Recommended)** is selected then click **Next**.

2. Wait for Windows to finish installing the infrared modem, then click **Finish**.

3. You can now connect your computer to the Internet. Follow the steps in "To dial up and connect to the Internet."

To add your device as a USB modem to your computer

1. After you tap **Menu > Start** on the Wireless Modem screen of your device, your computer will automatically detect that your

device has been connected. The Found New Hardware dialog box will then appear on your computer.

2. In the Found New Hardware dialog box, select **Install from a list or specific location (Advanced)** and click **Next**.

3. Select **Search for the best drivers in these locations**.

4. Insert the Getting Started Disc into your CD drive. Select the **Include this location in the search** check box. Click **Browse** and choose the CD drive and root folder where the modem driver is located, then click **Next**.

5. Wait for the installation to complete, then click **Finish**.

6. Click **Start > Settings > Control Panel**.

7. Double-click **Phone and Modem Options**.

8. Click the **Modems** tab. Select the new modem from the **Modem** list, then click **OK**.
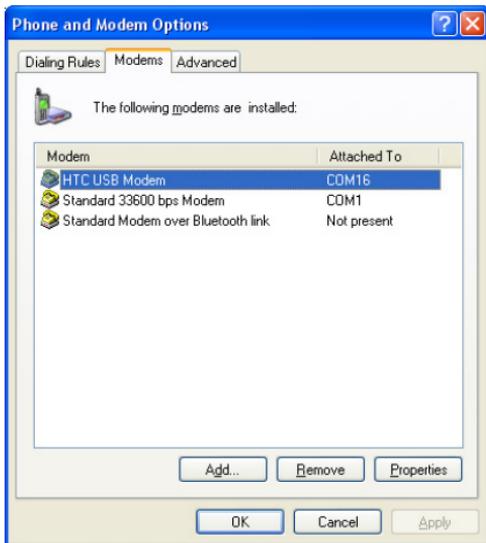
9. You can now connect your computer to the Internet. Follow the steps in "To dial up and connect to the Internet."

To dial up and connect to the Internet

Once the computer recognizes your device as a modem, you can now use the computer to dial up and connect to the Internet.

1. On your computer, click **Start > Settings > Control Panel**.

2. Double-click **Network Connections**.

3. Click **File > New Connection**.

4. In the New Connection Wizard, click **Next**.

5. Click **Connect to the Internet** then click **Next**.

6. Select **Set up my connection manually** then click **Next**.

7. Select **Connect using a dial-up modem** then click **Next**.

**8.** Select the infrared, USB or Bluetooth modem that you previously installed, then click **Next**.
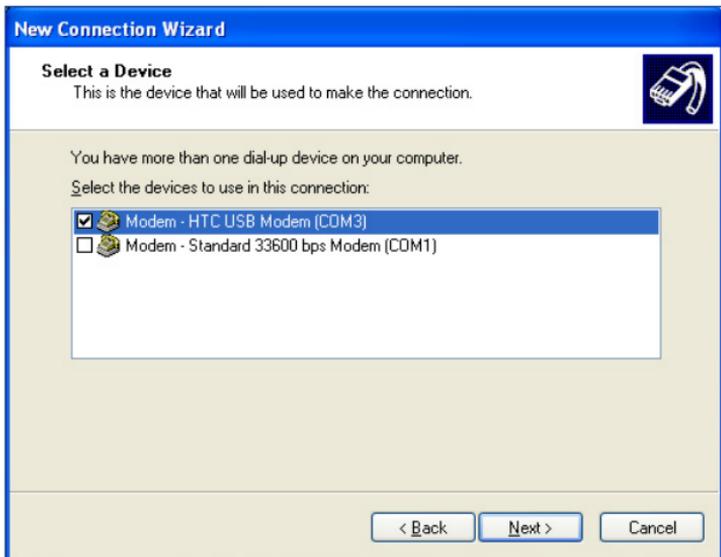
Selecting the USB modem

9. Enter a descriptive name for this connection, then click **Next**.

10. If you are connecting to the Internet via GPRS, enter the telephone number as *99#. Otherwise, enter your ISP's dial-up phone number, then click **Next**.

11. Under **Internet Account Information**, you may not need to enter a user name and password when using GPRS. Just click **Next** to proceed.

12. Click **Finish** to exit the wizard.

13. The Connect dialog box then opens. Click **Dial** to dial up and connect to the Internet.

Next time you want to dial up again from your computer, click **Start > Settings > Control Panel**, double-click **Network Connections**, then double-click the modem connection.
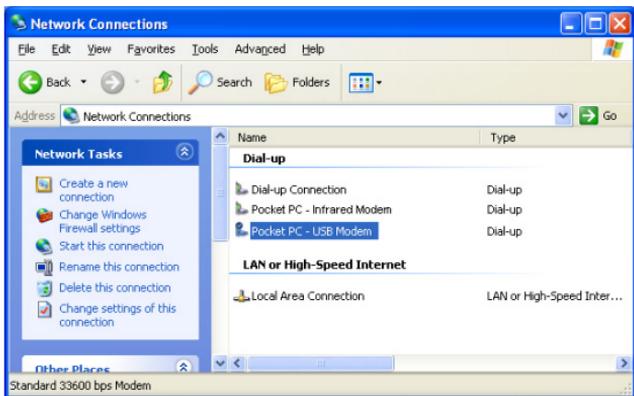
Note   To dial up to the Internet, you can also use the dialer program, **USBModem_Dialer.exe**, that is included in the Getting Started Disc. You will find it in the \OEM\APPS\Drivers\GSM USB Modem directory of the CD.

To end the modem session

•   On the Wireless Modem screen, tap **Done** or tap **Menu > Stop**.

6.7 Using Terminal Services Client

The **Terminal Services Client** allows you to log on to a PC running Terminal Services or Remote Desktop, and use all the resources available on that PC. For example, instead of running Word Mobile on your device, you can run the PC version of Word and access the .doc files available on that PC.

To connect to a Terminal Server

1. On your device, tap **Start > Programs > Terminal Services Client**.
2. Enter the server name.
3. You can also select a server name in **Recent servers** if you have recently connected to a server.

4. Select the **Limit size of server desktop to fit on this screen** check box if you want to use programs that have been specifically sized for use with your device.

5. Tap **Connect**.

To navigate within Terminal Services Client

When connected to a remote server, you may notice that the screen is displaying more than one horizontal and vertical scroll bar. Use these scroll bars to either scroll the contents on the PC, or to scroll the PC display through the Terminal Services Client window.

To make sure you are scrolling the PC display through Terminal Services Client, use the five directional buttons at the bottom of the Terminal Services Client window. To better fit information on the screen, select the **Limit size of server desktop to fit on this screen** check box. For best results, the programs on your desktop PC should be maximized.

To disconnect without ending a session

1. From the Terminal Services Client screen on your device, tap **Start > Shutdown**.

2. Tap **Disconnect**.

Notes • Do not use the **Start** menu on your device.

• If a network administrator has configured Terminal Services Client on your device to reconnect to disconnected sessions, and you previously disconnected from a Terminal Server without ending the session, the Terminal Services Client reconnects to that session.

To disconnect after ending a session

1. From the Terminal Services Client screen on your device, tap **Start > Shutdown**.

2. Tap **Log Off**.

Chapter 7

**Exchanging Messages
and Using Outlook**

7.1 E-mail and Text Messages

Messaging is where all of your e-mail accounts and your text message account are located. You can send and receive Outlook e-mail, Internet e-mail through an Internet service provider (ISP), as well as SMS (Short Messaging Service) text messages using your mobile phone network. You can also access e-mail from work using a VPN connection. For more information about e-mail and text messages, see Help on the device.

Set up Outlook e-mail

When starting ActiveSync on your computer for the first time, the Synchronization Setup Wizard prompts you to set up a synchronization relationship. This allows you to synchronize Outlook e-mail and other information between your device and your computer or the Exchange Server. If you have already set up synchronization through the wizard, then your device is ready to send and receive Outlook e-mail. For information about the Synchronization Setup Wizard, see "To install and set up ActiveSync on the computer" in Chapter 4.

If you have not set up a synchronization relationship yet, do the following to set up your device to synchronize Outlook e-mail:

1. To synchronize remotely, you need to set up and connect to an over-the-air connection (GPRS or ISP dial-up). For more details, see the procedures in "Connecting to the Internet" in Chapter 6.

2. Disconnect your device from your computer or LAN. (If you have an over-the-air connection, there is no need to disconnect).

3. Tap **Start > Programs > ActiveSync**.

4. If you want to synchronize e-mails directly with the Exchange Server on a private network such as your corporate network, follow the steps in "Synchronizing directly with Exchange Server" in Chapter 4.

5. Choose which information types to synchronize. Make sure **E-mail** is selected. For details, follow the steps in "To change which information is synchronized" in Chapter 4.

Everytime you want to manually send or receive Outlook e-mail on your device, just connect your device to your computer, LAN, or over-the-air connection, then tap **Sync** on the ActiveSync screen or tap **Menu > Send/Receive** in Outlook on your device.

For details about scheduling automatic synchronization or setting a synchronization time with the Exchange Server, see "Schedule synchronization with Exchange Server" in Chapter 4.

Set up a POP3/IMAP4 e-mail account
You need to set up an e-mail account that you have with an Internet service provider (ISP) or an account that you access using a VPN server connection (typically a work account) before you can send and receive mail.

1. Tap **Start > Messaging**.
2. Tap **Menu > Tools > New Account**.
3. Enter your e-mail address, then tap **Next**. **Auto configuration** attempts to download necessary e-mail server settings so that you do not need to enter them manually.
4. Once **Auto configuration** has finished, tap **Next**.
5. Enter your name (the name you want displayed when you send e-mail), user name, and password; tap **Next**.

Select the **Save Password** check box if you want to save your password so that you do not need to enter it again.

If **Auto configuration** was successful, the **Your name** and **User name** fields automatically get populated. Tap **Next**, then **Finish** to complete setting up your account, or tap **Options** under **Server information** to access additional settings. For example:

- Change the time intervals for downloading new messages.
- Limit the amount of messages that are downloaded and authentication method for outgoing mails.
- Download full messages or parts of messages.

If **Auto configuration** is unsuccessful or you have an account you access using a VPN server connection, contact your ISP or network administrator for the following information and enter it manually:

Setting	Description
User name	Enter the user name assigned to you by your ISP or network administrator. This is often the first part of your e-mail address, which appears before the at sign (@).
Password	Choose a strong password. You have the option to save your password so you do not need to enter it each time you connect to your e-mail server.
Domain	Not required for an account with an ISP. May be required for a work account.
Account type	Select POP3 or IMAP4.
Account name	Enter a unique name for the account, such as Work or Home. This name cannot be changed later.
Incoming mail server	Enter the name of your e-mail server (POP3 or IMAP4).
Outgoing mail server	Enter the name of your outgoing e-mail server (SMTP).
Require SSL connection	Select this to ensure you always receive e-mail for this account using an SSL connection. This enables you to receive personal information more securely. Please note that if you select this and your ISP does not support an SSL connection, you will not be able to connect to receive e-mail.
Outgoing mail requires authentication	Select this if your outgoing e-mail server (SMTP) requires authentication. Your user name and password from above will be used.
Use separate settings	Select this if your outgoing e-mail server requires a different user name and password than the ones you entered before.

Outgoing server settings:	
User name	Enter your user name for the outgoing e-mail server.
Password	Enter your password for the outgoing e-mail server.
Domain	Enter the domain of the outgoing e-mail server.
Require SSL for outgoing mail	Select this to ensure you always send e-mail from this account using an SSL connection. This enables you to send personal information more securely. Note that if you select this and your ISP does not support an SSL connection, you will not be able to send e-mail.

Tip   You can set up several e-mail accounts in addition to your Outlook e-mail account.

Send and receive messages

To compose and send a message

1. In the message list, tap **Menu > Go To** and select an account.
2. Tap **New**.
3. Enter the e-mail address or text message address of one or more recipients, separating them with a semicolon. To access addresses and phone numbers from Contacts, tap **To**.
4. Enter your message. To quickly add common messages, tap **Menu > My Text** and tap a desired message.
5. To check the spelling, tap **Menu > Spell Check**.
6. Tap **Send**.

Tips • To enter symbols, tap **Shift** using the on-screen keyboard.
- To set the priority, tap **Menu > Message Options**.
- If you are working offline, e-mail messages are moved to the Outbox folder and will be sent the next time you connect.
- If you are sending a text message and want to know if it was received, before sending the message, tap **Menu > Tools > Options**. Tap **Text** and select the **Request delivery notification** check box.

To reply to or forward a message

1. Open the message and tap **Reply**, or **Menu > Reply All**, or **Menu > Forward**.
2. Enter your response. To quickly add common messages, tap **Menu > My Text** and tap a desired message.
3. To check the spelling, tap **Menu > Spell Check**.
4. Tap **Send**.

Tips • To see more header information, scroll up.
- To always include the original message, from the list view, tap **Menu > Tools > Options > Message** tab, and select the **When replying to e-mail, include body** check box.

- In the Outlook E-mail account, you will send less data if you do not edit the original message. This may reduce data transfer costs based on your rate plan.

To exclude your e-mail address when replying to all

When you reply to all the recipients of an e-mail, your own e-mail address will also be added to the recipient list. You can customize ActiveSync so that your e-mail address will be excluded from the recipient list.

1. In ActiveSync on your device, tap **Menu > Options**.

2. Select the **E-mail** information type and tap **Settings**.

3. Tap **Advanced**.

4. In the **Primary e-mail address** text box, enter your e-mail address.

5. Tap **OK**.

To add an attachment to a message

1. In a new message, tap **Menu > Insert** and tap the item you want to attach: **Picture**, **Voice Note**, or **File**.

2. Select the file you want to attach, or record a voice note.

To receive attachments

An attachment sent with an e-mail message or downloaded from the server appears below the subject of the message. Tapping the attachment opens the attachment if it has been fully downloaded, or marks it for download the next time you send and receive e-mail. You can also download attachments automatically with your messages if you have an Exchange Server mail account.

If you have an Outlook e-mail account, do the following:

1. Tap **Start > Programs > ActiveSync**.
2. Tap **Menu > Options**.
3. Tap **E-mail > Settings**, then select **Include file attachments**.

If you have an IMAP4 e-mail account with an Internet service provider (ISP) or an account that you access using a VPN server connection (typically a work account), do the following:

1. Tap **Start > Messaging**.
2. Tap **Menu > Tools > Options**.
3. Tap the name of the IMAP4 account.
4. Tap **Next** until you reach **Server information**, and tap **Options**.
5. Tap **Next** twice, and select **Get full copy of messages** and **When getting full copy, get attachments**.

Tip   To store attachments on a storage card rather than on the device, tap **Menu > Tools > Options > Storage** tab, and select the **Store attachments on storage card** check box.

Download messages

The manner in which you download messages depends on the type of account you have:

- To send and receive e-mail for an Outlook e-mail account, begin synchronization through ActiveSync. For more information, see "Set up Outlook e-mail" in this chapter.

- To send and receive e-mail messages for an e-mail account that you have with an ISP or that you access using a VPN server connection (typically a work account), download messages

through a remote e-mail server. For more information, see "To download messages from the server" later in this chapter.

• Text messages are automatically received when phone is turned on. When your phone is turned off (in flight mode), messages are held by your service provider until the next time your phone is turned on.

To download messages from the server

To send and receive e-mail messages for an e-mail account that you have with an ISP or that you access using a VPN server connection (typically a work account), you first need to connect to the Internet or your corporate network, depending on the account.

1. Tap **Menu > Go To** and tap the account you want to use.

2. Tap **Menu > Send/Receive**. The messages on your device and e-mail server are synchronized: new messages are downloaded to the device Inbox folder, messages in the device Outbox folder are sent, and messages that have been deleted from the server are removed from the device Inbox folder.

Tip   If you want to read the entire message, tap **Menu > Download Message** while in the message window. If you are in the message list, tap and hold the message, and tap **Download Message.** The message will download the next time you send and receive e-mail. This will also download message attachments if you selected those options when you set up the e-mail account.

Individually sign and encrypt a message

Encrypting an Outlook e-mail message protects the privacy of the message by converting it from plain, readable text into cipher (scrambled) text. Only the recipient who has the authorization key can decipher the message.

Digitally signing a message applies your certificate with the authorization key to the message. This proves to the recipient that the message is from you and not from an imposter or a hacker, and that the message has not been altered.

**To digitally sign and encrypt a new message**

1. In the message list, tap **Menu > Go To > Outlook E-mail**.

2. Tap **New**.

3. Tap **Menu > Message Options**.

4. Select the **Encrypt message** and **Sign message** check boxes, and tap **OK**.
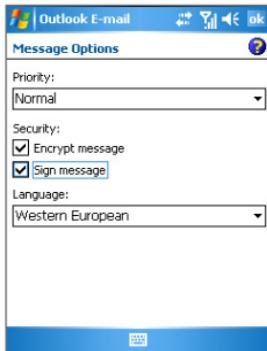
Verify the digital signature on a signed message you receive

To verify a digital signature in the message that you receive, do the following:

1. Open the Outlook e-mail message that has been digitally signed.

2. At the top of the message, tap **View Signature Status**.

3. Tap **Menu > Check Certificate**.
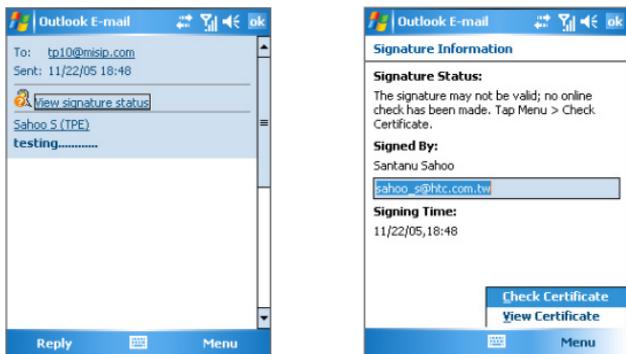
To view the details of the certificate in the message, tap **Menu > View Certificate**.

Note   There can be several reasons why a digital signature is not valid. For example, the sender's certificate may have expired, it may have been revoked by the certificate authority, or the server that verifies the certificate is unavailable. Contact the sender to report the problem.

Manage folders

Each Messaging account has its own folder hierarchy with five default Messaging folders: Inbox, Outbox, Deleted Items, Drafts, and Sent Items. The messages you receive and send through the account are stored in these folders. You can also create additional folders within each hierarchy. The Deleted Items folder contains messages that have been deleted on the device. The behavior of the Deleted Items and Sent Items folders depends on the Messaging options you have chosen.

If you use an Outlook e-mail account, e-mail messages in the Inbox folder in Outlook will be synchronized automatically with your device. You can select to synchronize additional folders by designating them for synchronization. The folders you create and the messages you move will then be mirrored on the e-mail server. For example, if you move two messages from the Inbox folder to a folder named Family, and you have designated Family for synchronization, the server creates a copy of the Family folder and copies the messages to that

folder. You can then read the messages while you are away from your PC.

If you use a text message account, messages are stored in the Inbox folder.

If you use a POP3 account and you move e-mail messages to a folder you created, the link is broken between the messages on the device and their copies on the e-mail server. The next time you connect, the e-mail server will detect that the messages are missing from the Inbox folder on the device and will delete them from the e-mail server. This prevents having duplicate copies of a message, but it also means that you will no longer have access to messages that you move to folders created from anywhere except the device.

If you use an IMAP4 account, the folders you create and the e-mail messages you move are mirrored on the e-mail server. Therefore, messages are available to you anytime you connect to your e-mail server, whether it is from your device or PC. This synchronization of folders occurs whenever you connect to your e-mail server, create new folders, or rename/delete folders when connected. You can also set different download options for each folder.

7.2 MMS Messages

Creating and sharing multimedia messages (**MMS**) with your friends and family are easy with your device. You can attach pictures or video, and an audio clip in an MMS. You can even use the device camera to capture photos and video clips while composing a new MMS message, and send them along with your message.

Notes • Please note that MMS is a charged service. In order to use MMS successfully, this has to be provisioned on your mobile account. Please contact the wireless service provider to have this provisioned as part of your calling plan.

• Please ensure the size of the MMS is within the limits of the wireless service provider if sending to another mobile phone user or sending to an e-mail address.

To access MMS

1. Tap **Start > Messaging**.

2. Tap **Menu > Go To > MMS**.
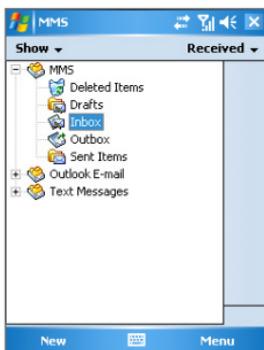
MMS message folders

Change MMS settings

When you send an MMS message, an SMS notification message will first be sent to the recipient, while your MMS message will be temporarily stored on an MMS server of your wireless service provider. When others send you an MMS message, similarly, the MMS message will be stored on the MMS server until you retrieve it. Hence, your device must be configured with the location of the MMS server for you to be able to send and receive MMS messages on your device.

When you purchase your device, it is already preset with your wireless service provider's MMS server settings. If you accidentally lost the preset settings or you changed to another wireless service provider, follow the steps below to configure MMS settings.

To configure MMS settings

1. Tap **Start > Messaging**.

2. Tap **Menu > Tools > Options**.

3. Tap **MMS** in the accounts list to configure settings. The MMS Configuration screen appears.

4 In the **Preferences** tab, select or clear the provided check boxes according to your needs. You can choose to keep track of your MMS messages, retrieve messages immediately, accept or reject messages, and request a delivery or read receipt. You can also specify a resolution for images you send and message delivery attempts.

5. Tap the **Servers** tab and check if your device is preset with MMS server settings.

If there are no preset settings, tap **New** and enter the following information, which you can get from your wireless service provider:
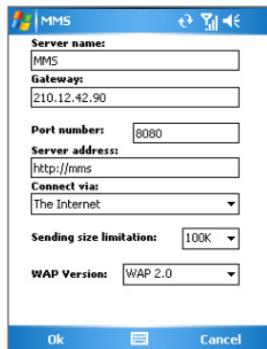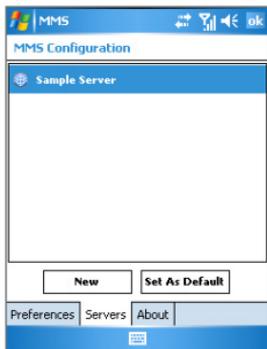
• **Server name**. A descriptive name, such as your wireless service provider name.

• **Gateway**. Location of the MMS server, which is usually in the form of an IP address.

• **Port number**. HTTP port number used for connecting to the MMS server and for file transfer.

• **Server address**. URL address of the MMS server.

• **Connect via**. Select **The Internet** from the list.

• **Sending size limitations**. Select the maximum MMS message size allowed by your wireless service provider.

      • **WAP version**. Select either **WAP 1.2** or **WAP 2.0**, depending on which one is being used by your wireless service provider.

6. Tap **OK**.

    The MMS server settings will then be added as an entry on the MMS Configuration screen.

Note   If you add several MMS service providers to the MMS Configuration screen, you can choose one as your default MMS provider. Select the MMS provider's name in the list then tap **Set As Default**.

Create and send MMS messages

After configuring the required settings, you can start to compose and send MMS messages.

To compose an MMS message

You can compose MMS messages in a combination of various slides, where each slide can consist of a photo, audio or video clip, and/or text.

1. On the MMS screen, tap **New**.

2. On the Choose a Media Message screen, tap a preset template, or tap **Custom** to open a blank MMS message.

Note   If you prefer to always use a blank MMS message, select the **Always choose custom** check box.

3. In **To**, enter the recipient's phone number or e-mail address directly, or tap **To**, **Cc**, or **Bcc** to choose a phone number or an e-mail address from Contacts.

4. Enter a subject for your message.

5. Tap the **Insert** icon (🖼) to select and insert a photo or video clip.

    When selecting a photo or video clip, you can:

    • Tap 🖼 to view it first.

    • Tap **Select** to use the selected photo or video clip and insert it into the MMS message you are composing.

    • Tap **Exit** to quit selection and return to the MMS message.

6. Enter text and insert audio clips by tapping the respective areas. See "To add predefined text strings to an MMS message" and "To add an audio clip to an MMS message" for details.

7. To add more slides, tap **Menu > Insert Slide**. Repeat steps 5 and 6 to insert a photo/video, text, and audio into each slide that you added.

   While on a slide, you can:

   • Tap ● to preview the slide.

   • Tap ◀ to go to the previous slide.

   • Tap ▶ to go to the next slide.

8. While composing an MMS message, you can also do the following:

   • Tap **Menu > Message Options > Background** to choose a background color from the list.

   • Tap **Menu > Message Options > Text Above** or **Message Options > Text Below** to make the included text appear above or below the photo/video.

   • Tap **Menu > Message Options > Send Options** to specify the sending time, validity, priority, class, and other settings for a message.

9. Tap **Send** to send the MMS message.

Notes You can also send an MMS message directly from the Pictures & Videos or Camera program. Do one of the following:

   • In Pictures & Videos, select a picture from My Pictures, and tap **Menu > Send**. In **Select an account**, tap **MMS**.

   • Capture a photo or an MMS video clip using the camera, and tap the **Send** icon. In the Send File dialog box, tap **Send via MMS**.

To create an MMS message from a template
   • Tap **Menu > New from Template** to compose a message using a predefined template.

Note To save a message as a template, open the message and tap **Menu > Save as Template**.

To add predefined text strings to an MMS message

You can instantly add text to any slide from a list of predefined words or phrases, called Canned Text.

- Tap 🗐 to add a text string from the Canned Text list.

- To edit or delete a phrase on the Canned Text list, tap and hold a string, then tap **Edit** or **Delete** from the shortcut menu. To create and add a new phrase to the list, tap **New**.

To add an audio clip to an MMS message

You can add audio clips to your MMS message. However, you can add only one audio clip per slide.

1. Tap **Insert an audio clip**.

   By default, it will open My Sounds folder. To navigate to any other folder containing audio files, tap the Down arrow (▼) next to the My Sounds folder.

2. Select an audio file. When selected, you can:

   - Tap ▶ to play the audio clip.

   - Tap ⏸ to pause, or tap ⏹ to stop playback.

   - Tap **Select** to insert it into your MMS message.

   - Tap **Exit** to quit selection and return to your MMS message.

   - To record a new audio clip and add it to your MMS message, tap 🔳. This activates the recording control mode. Tap ● to start recording, and ⏹ to stop recording. The new audio clip is automatically inserted into your MMS message.

View and Reply to MMS messages

To view an MMS message

- Use the playback controls ▶, ⏸, and ⏹.

- Tap **Objects** to see a list of files included in the message. To save a file, select it, and tap **Menu > Save**.

- View the slides manually by scrolling through the message using the Navigation Control.

To reply to an MMS message

• Tap **Menu > Reply** to reply to the sender of the message, or tap **Menu > Reply All** to reply to all persons listed in To, Cc, and Bcc of the message.

7.3 Pocket MSN Messenger

MSN Messenger delivers the features of MSN Messenger to your device. With Pocket MSN Messenger you can do the following:

• Send and receive instant messages.

• See which contacts are online or offline.

• Subscribe to status updates for selected contacts so you know when they come online.

• Block contacts from seeing your status or sending you messages.

Before you can use MSN Messenger, your device must be connected to the Internet. For information about setting up an Internet connection, see "Connecting to the Internet" in Chapter 6.

Note   You must have either a Microsoft .NET Passport or Hotmail account to use MSN Messenger. If you have a Hotmail.com or MSN.com e-mail address, you already have a Passport. To get a Passport account, go to **http://www.passport.com**. To get a Hotmail account, go to **http://www.hotmail.com**.

To start MSN Messenger

1. Tap **Start > Programs > Pocket MSN**.

2. Tap **MSN Messenger**.

To sign in or out

• To sign in, tap anywhere on the MSN Messenger screen. Enter the e-mail address and password for your Passport or Hotmail account, and tap **Sign In**. Signing in may take several minutes, depending on your connection speed.

• To sign out, tap **Menu > Sign Out**. Your status changes to **Offline**.

To add or delete contacts

- To add a contact, tap **Menu > Add a Contact**, and follow the instructions on the screen.

- To delete a contact, tap and hold the contact's name, and tap **Delete Contact**.

To send an instant message

1. Tap the contact to whom you want to send a message.

2. Enter your message in the text entry area at the bottom of the screen, and tap **Send**.

Tip To quickly add common phrases, tap **Menu > My Text** and select a phrase in the list.

7.4 Calendar

Use **Calendar** to schedule appointments, including meetings and other events. Your appointments for the day can be displayed on the Today screen. If you use Outlook on your PC, you can synchronize appointments between your device and PC. You can also set Calendar to remind you of appointments with a sound or flashing light, for example.

You can look at your appointments in several different views (Day, Week, Month, Year, and Agenda). To see detailed appointment information in any view, tap the appointment.

To schedule an appointment

1. Tap **Start > Calendar**.

2. Tap **Menu > New Appointment**.

3. Enter a name for the appointment, and enter information such as start and end times.

4. To schedule an all-day event, in the **All Day** box, tap **Yes**.

5. When finished, tap **OK** to return to the calendar.

Notes • All-day events do not occupy blocks of time in Calendar; instead, they appear in banners at the top of the calendar.

   • To cancel an appointment, tap the appointment and tap **Menu > Delete Appointment**.

Tip   To have the time entered automatically in Day view, tap the time slot for the new appointment, and tap **Menu > New Appointment**.

To send a meeting request

Use Calendar to schedule meetings via e-mail with contacts who use Outlook or Outlook Mobile.

   1. Tap **Start > Calendar**.

   2. Schedule a new appointment, or open an existing one and tap **Edit**.

   3. Tap **Attendees**.

   4. Tap the name of the contact you want to invite.

   5. To invite each additional attendee, tap **Add** and tap the name.

   6. Tap **OK**.

   7. The meeting request will be sent to the attendees the next time you synchronize your device with your PC.

Note   When attendees accept your meeting request, the meeting is automatically added to their schedules. When their response is sent back to you, your calendar is updated as well.

To set a default reminder for all new appointments

You can have a reminder automatically turned on for all new appointments you schedule.

   1. Tap **Start > Calendar**.

   2. Tap **Menu > Options > Appointments** tab.

   3. Select the **Set reminders for new items** check box.

   4. Set the time when you want the reminder to alert you.

   5. Tap **OK** to return to the calendar.

7.5 Contacts

Contacts is your address book and information storage for the people and businesses you communicate with. Store phone numbers, e-mail addresses, home addresses, and any other information that relates to a contact, such as a birthday or an anniversary date. You can also add a picture or assign a ring tone to a contact.

From the contact list, you can quickly communicate with people. Tap a contact in the list for a summary of contact information. From there, you can call or send a message.

If you use Outlook on your PC, you can synchronize contacts between your device and PC.

To create a contact on your device
1. Tap **Start > Contacts**.
2. Tap **New** and enter the contact information.
3. When finished, tap **OK**.

Tips
- If someone who is not in your list of contacts calls you or sends you a message, you can create a contact from Call History, or from the message by holding a phone number and tapping **Save to Contacts** from the shortcut menu.
- In the list of contact information, you'll see where you can add a picture or assign a ring tone to a contact.

To create a contact on your SIM card
1. Tap **Start > Programs > SIM Manager**. This opens the SIM Manager program.
2. Tap **New** and enter a contact name and phone number.
3. Tap **Save** to save the information on your SIM card.

To change contact information
1. Tap **Start > Contacts**.
2. Tap the contact.
3. Tap **Menu > Edit** and enter the changes.
4. When finished, tap **OK**.

Tip: To change contact information on your SIM card, tap **Start > Programs > SIM Manager**, then tap a SIM contact and edit it. After modifying, tap **Save**.

To work with the contact list

There are several ways to use and customize the contact list. Here are a few tips:

1. Tap **Start > Contacts**.

2. In the contact list, do any of the following:

   • In Name view, you can search for a contact by entering a name or number, or by using the alphabetical index. To switch to Name view, tap **Menu > View By > Name.**
   • To see a summary of information about a contact, tap the contact. From there you can also make a call or send a message.
   • To see a list of available actions for a contact, tap and hold the contact.
   • To see a list of contacts employed by a specific company, tap **Menu > View By > Company**, then tap the company name.

To copy SIM contacts to your device

If you have saved contacts on your SIM card, you can copy them into Contacts on your device.

1. Tap **Start > Programs > SIM Manager**.

2. Select the desired item, or select all SIM contacts by tapping **Menu > Select All**.

3. Tap **Menu > Save To Contacts**.

To copy contacts to the SIM card

Only one phone number per contact name can be stored on a SIM card. When you copy a contact that has several phone numbers to your SIM card, SIM Manager saves each number under a separate name. To save each number with a different contact name, SIM Manager appends an indicator at the end of each name, for instance, /M to indicate a mobile phone number. You can edit this indicator first before you start copying contacts to your SIM card.

1. Tap **Start > Programs > SIM Manager**, then tap **Menu > Tools > Options**.

2. On the Options screen, select the check boxes of the types of phone numbers that you want to be added to the SIM card.

3. Under the **Mark** column, you can change the indicator that will be appended to the SIM contact names for each phone number type.

4. After modifying, tap **OK**.

5. Tap **Menu > Contacts to SIM**.

6. Select the check boxes of the contacts that you want to copy to your SIM card, then tap **Save**.

To find a contact on your device

There are several ways to find a contact when your contact list is long.

1. Tap **Start > Contacts**.

2. If you are not in Name view, tap **Menu > View By > Name**.

3. Do one of the following:
   • Begin entering a name or phone number in the provided text box until the contact you want is displayed. To show all contacts again, tap the text box and clear the text, or tap the arrow to the right of the text box.
   • Use the alphabetical index displayed at the top of the contact list.
   • Filter the list by categories. In the contact list, tap **Menu > Filter**, then tap a category you've assigned to a contact. To show all contacts again, select **All Contacts**.

To find a contact online

In addition to having contacts on your device, you can also access contact information from your organization's Global Address List (GAL). GAL is the address book that contains all user, group, and distribution list e-mail addresses of your organization, and it is stored on the Exchange Server. By having direct online access to it from your device,

it is quick and easy for you to plan a meeting and e-mail a meeting request immediately to anyone in your organization.

Access to the GAL is available if your organization is running Microsoft Exchange Server 2003 SP2 and you have completed your first synchronization with the Exchange Server.

1. Synchronize with Exchange Server if you have never done so.

2. Tap **Start > Contacts > Menu > View By > Name**.

3. Do any of the following:

   • In Contacts, tap **Menu > Find Online**.

   • In a new message, tap the **To** box. Tap **Menu > Add Recipient > Menu > Find Online**.
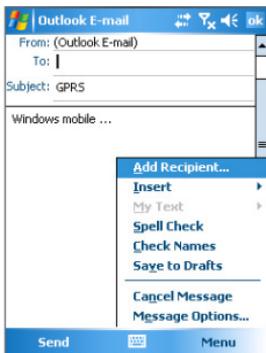
   • In a new meeting request using Calendar, tap **Attendees** and then tap **Menu > Find Online**.

4. Enter the part or full contact name and tap **Find**. Tap **Select** to choose the desired contact(s) from the list.
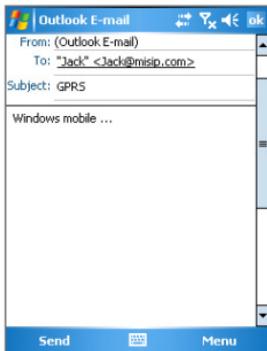
Notes • Your device must be set up with a data connection.

• You can search on the following information as long as that information is included in your organization's GAL: First name, Last name, E-mail name, Display name, E-mail address, or Office location.

7.6 Tasks

Use **Tasks** to keep track of things you need to do. A task can occur once or repeatedly (recurring). You can set reminders for your tasks and you can organize them using categories.

Your tasks are displayed in a task list. Overdue tasks are displayed in red.

To create a task
1. Tap **Start > Programs > Tasks**.
2. Tap **Menu > New Task**, enter a subject for the task, and fill in information such as start and due dates, priority, and so on.
3. When finished, tap **OK**.

Tip   You can easily create a short, to-do-type task. Simply tap the **Tap here to add a new task** box, enter a subject, and press ENTER. If the task entry box is not available, tap **Menu > Options** and select the **Show Tasks entry bar** check box.

To change the priority of a task
Before you can sort tasks by priority, you need to specify a priority level for each task.

1. Tap **Start > Programs > Tasks**.
2. Tap the task you want to change the priority for.
3. Tap **Edit** and in the **Priority** box, tap a priority level.
4. Tap **OK** to return to the task list.

Note   All new tasks are assigned a Normal priority by default.

To set a default reminder for all new tasks
You can have a reminder automatically turned on for all new tasks you create.

1. Tap **Start > Programs > Tasks**.
2. Tap **Menu > Options**.
3. Select the **Set reminders for new items** check box.
4. Tap **OK** to return to the task list.

> **Note**　The new tasks must have due dates set in order for the reminder to take effect.

To show start and due dates in the task list

1. Tap **Start > Programs > Tasks**.
2. Tap **Menu > Options**.
3. Select the **Show start and due dates** check box.
4. Tap **OK**.

To locate a task

When your list of tasks is long, you can display a subset of the tasks or sort the list to quickly find a specific task.

1. Tap **Start > Programs > Tasks**.
2. In the task list, do one of the following:
   - Sort the list. Tap **Menu > Sort By**, and tap a sort option.
   - Filter the list by category. Tap **Menu > Filter**, and tap the category you want displayed.

> **Tip**　To filter your tasks further, tap **Menu > Filter > Active Tasks** or **Completed Tasks**.

7.7 Notes

Notes helps you to quickly capture thoughts, questions, reminders, to-do lists, and meeting notes. You can create handwritten and typed notes, record voice notes, convert handwritten notes to text for easy readability, and send notes to others.

Enter information in Notes

There are several ways to enter information in a note. You can enter typed text by using the on-screen keyboard or handwriting recognition software. You can use the stylus to write or draw directly on the screen.

To set the default input mode for Notes

If you frequently add drawings to your notes, you may find it helpful to set **Writing** as the default input mode. If you prefer typed text, select **Typing**.

1. Tap **Start > Programs > Notes**.
2. In the note list, tap **Menu > Options**.
3. In the **Default mode** box, tap one of the following:
   • **Writing** if you want to draw or enter handwritten text in a note.
   • **Typing** if you want to create a typed note.
4. Tap **OK**.

To create a note
1. Tap **Start > Programs > Notes**. In the note list, tap **New**.
2. Tap the **Input Selector** arrow next to the **Input Method** icon on the menu bar, tap the input method you want, and enter your text.
3. If the **Input Selector** arrow is not displayed, tap the **Input Method** icon.
4. When finished, tap **OK** to return to the note list.

Notes   To select handwritten text, tap and hold next to the writing. As soon as dots appear, and before they form a complete circle, quickly drag across the writing.

If a letter crosses three ruled lines, it is treated as a drawing rather than text.

To draw in a note
1. Tap **Start > Programs > Notes**.
2. In the note list, tap **New**.
3. To draw on the screen, use the stylus like a pen.
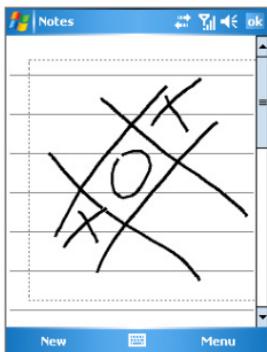
Drawing on the screen

4. A selection box appears around your drawing.
5. When finished, tap **OK** to return to the note list.

Note   To select a drawing (for example, to copy or delete it), tap and hold the drawing briefly. When you lift the stylus, the drawing is selected.

Record a voice note
You can create a stand-alone recording (voice note) or you can add a recording to a note.

To create a voice note
1. Tap **Start > Programs > Notes**.
2. Do one of the following:
   • To create a stand-alone recording, record from the note list.
   • To add a recording to a note, create or open a note.
3. If you do not see the Recording toolbar, tap **Menu > View Recording Toolbar**.
4. Tap the **Record** icon (●) to begin recording.
5. Hold your device's microphone near your mouth or other source of sound.
6. Tap the **Stop** icon (■) when finished recording.

7. If you are adding a recording to a note, tap **OK** to return to the note list when finished.

8. If you are recording in an open note, an icon will appear in the note.

9. If you are creating a stand-alone recording, the recording will appear in the note list.

Tip To quickly create a recording, press and hold the VOICE COMMAND button, then you can begin to record after a beep sound. Release the button when you are finished.

To change recording formats

1. Tap **Start > Settings > Personal** tab **> Input**.

2. Tap the **Options** tab, and select the desired format you want in the **Voice recording format** list.

3. Tap **OK**.

Note You can also change recording formats from within Notes. In the note list, tap **Menu > Options > Global Input Options** link (at the bottom of the page).

Chapter 8

Experiencing Multimedia
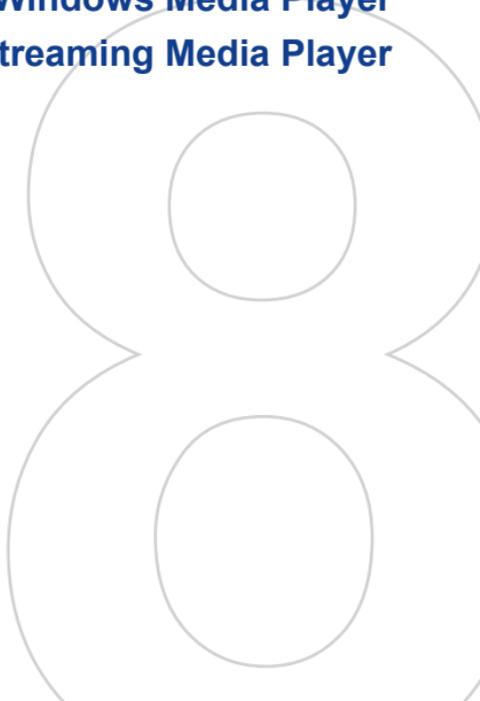
8.1 Using Camera

Taking photos and recording video clips along with audio are easy with your device's built-in camera.

Before capturing a photo or video clip, adjust the lens found at the back of the device to one of the following modes:

Normal mode - to take shots at normal range

Macro mode - to take shots at close-up range

To open the Camera screen
• Tap **Start > Programs > Camera**; or
• Tap **Start > Programs > Pictures & Videos > Camera** icon; or
• Press the CAMERA button on your device.

CAMERA button

To exit the Camera
• Tap the exit icon (✖).

Capture modes
The camera on your device allows you to capture pictures and video clips by using various built-in modes with flexibility. The Camera mode is set to the Photo capture mode by default. The upper left corner of the screen displays the active capture mode. To switch to other capture modes, do any of the following:

• Tap ◖ or ◗ on the screen.
• Press NAVIGATION left or right.

Current capture mode
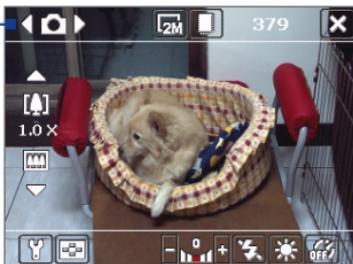
The available capture modes of the camera are as follows:

- **Photo**: Captures standard still images.
- **Video**: Captures video clips, with or without accompanying audio.
- **MMS Video**: Captures video clips suitable for sending via MMS.
- **Contacts Picture**: Captures a still image and gives you the option to immediately assign it as a Photo ID for a contact.
- **Picture Theme**: Captures still images and places them within frames.
- **Panorama**: Captures a sequence of still images continuously in one direction, and allows stitching of all the images to create a panoramic view of a scenery.
- **Sports**: Captures a sequence of still images (3, 5, 7, or 10) automatically.
- **Burst**: Captures a sequence of still images (maximum 30) as long as the CAMERA button on the device or the ENTER button on the NAVIGATION is kept pressed.

File formats supported

Using the above capture modes, the camera in your device captures files in the following formats:

Capture type	Format
Still image	JPEG
Video	MPEG-4 (.mp4)
MMS Video	H.263 baseline (.3gp), MPEG-4 (.mp4)
Panorama / Sports / Burst	JPEG

Camera controls

Use the following device buttons and on-screen controls to take photos or video clips and to modify settings.

The CAMERA and ENTER buttons

Press the CAMERA button on the device to open the Camera screen. If already on the Camera screen, you can use either the CAMERA button or the ENTER button as the shutter release.

- Press the CAMERA button or the ENTER button to take a photo or contacts picture.
- Press the CAMERA button or the ENTER button to start recording video; press it again to stop recording.
- Press the CAMERA button or the ENTER button each time when taking photos for a picture theme or panorama.
- To take consecutive shots in Sports mode, press the CAMERA button or the ENTER button shortly, then move your device to follow the movement of your subject.
- Press and hold the CAMERA button or the ENTER button when taking consecutive shots in Burst mode.

The Navigation Control
- Press NAVIGATION up or down to increase or decrease the zoom level.
- Press NAVIGATION left or right to go to the previous or next sequential capture mode.

On-screen controls and indicators
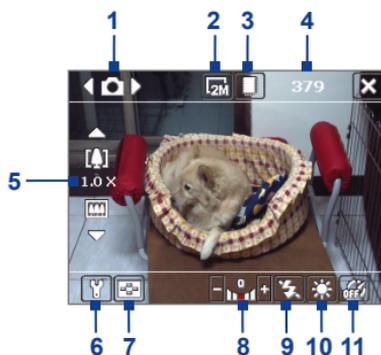
Photo mode

Video mode
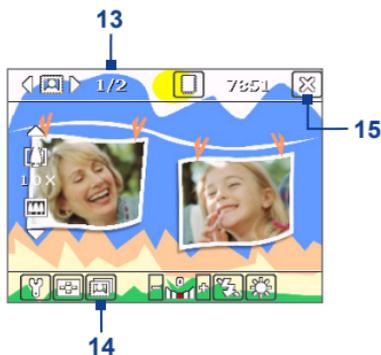
Picture Theme mode

1. **Mode Switching control**. Tapping the left/right arrow (◀ / ▶) on the screen allows you to switch the capture mode.

2. **Resolution**. The resolution icon (▉ₛ / ▉ₘ / ▉ₗ / ▉₁ₘ / ▉₂ₘ) indicates the current resolution. Tap to toggle among the different resolutions.

3. **Storage**. Tap to toggle between saving captured photos or video clips on the device memory (▯) or on the memory card (▢).

4 Remaining information indicator. In Photo, Contacts Picture, Picture Theme, Panorama, Sports, and Burst modes, this shows the remaining, available shots of pictures based on current settings. In Video and MMS Video modes, this shows the remaining duration that can be recorded. While recording video, this shows the recorded duration.

5 Zoom control. Tapping the up/down arrow (▲ / ▼) or tapping 🔍 / 🔎 on the screen allows you to zoom in or zoom out.

6 Camera Settings. Tap the **Tool** icon (🔧) to open the Camera Settings screen.

7 Picture Viewer. Tap the **Viewer** icon (▣) to view the picture or video in Pictures & Videos.

8 Brightness. Tapping the minus/plus icon (▬ / ➕) decreases or increases the brightness level.

9 Flash Light. Tap to turn on or off the flash light that is located at the back of your device. When the flash light is on, the camera gives off a flash when taking photos.

10 White Balance. Tap to toggle among the different white balance settings: Auto (🖼), Daylight (☀), Night (🌙), Incandescent (💡), and Fluorescent (🔲).

11 Self-timer. Tap to set the Self-timer to 2 seconds, 10 seconds, or off when in the Photo, Contacts Picture, or Sports mode. When you press the ENTER button or the CAMERA button to capture a still image, it starts to count down, and then captures a still image after the assigned time (2 seconds or 10 seconds).

12 Recording indicator. This shows a red, blinking indicator while video recording is in progress.

13 Progress indicator. In Picture Theme, Panorama, Sports, and Burst modes, this shows the total number of consecutive shots.

14 Template Selector icon. In Picture Theme mode, tap 🖼 to toggle among the different templates.

15 Exit. Tap the **Exit** icon (✖) to exit the Camera program.

Still image capture modes

While using Still Image capture modes, such as **Photo**, **Contacts Picture**, **Picture Theme**, **Panorama**, **Sports**, and **Burst**, you can capture still image(s) by pressing the CAMERA button on the device or the ENTER button on the NAVIGATION. Still images will be saved in JPEG format.

While capturing an image in the Picture Theme capture mode, you can select a preset template. To view and select from different templates, tap 🔳 on the Camera screen. Depending on the chosen template, one or more photos may need to be taken for the template.

Video capture mode

While using the **Video** capture mode, you can press the CAMERA button or the ENTER button to start recording a video clip (with audio if desired). To stop recording, press the CAMERA button or the ENTER button again. Your device displays the first frame of the captured video clip by default on the Review screen.

Before you capture a video clip, you can specify the desired length of recording in terms of time or file size on the Camera Settings screen.

Video clips will be saved in MPEG-4 format.

MMS Video capture mode

The **MMS Video** capture mode makes it convenient for you to capture a video file and then send it via MMS. Press the ENTER button or the CAMERA button to start recording a video clip (with audio if desired). To stop recording, press the ENTER button or the CAMERA button again.

The recording length of MMS video is fixed. Recording automatically stops when the preset length is reached. However, you can manually stop recording the video anytime. The time indicator at the upper right side of the Camera screen indicates the time limit.

You can specify the capture format to be either H.263 or MPEG-4 on the Camera Settings screen; however, the ideal format for MMS is

H.263 (3GPP). After you capture the video file, tap on the Review screen to send the file through MMS.

The Review screen

After taking a still image or recording a video clip, you can view the image or video clip on the **Review screen**. In addition, you can tap the icons at the bottom of the Review screen to delete a captured image or video, send it via e-mail or MMS, and more.

Review screen icons

Photo, Video, MMS Video, Panorama, and Picture Theme modes

Contacts Picture mode

Sports and Burst modes

1 **Back**. Tap to go back to Camera screen.

2 **Delete**. Tap to remove the captured image or video.

3 **Send**. Tap to send via e-mail or MMS.

4 **View**. Tap to view the image in the Pictures & Videos

program, or play the captured video in Windows Media Player.

5 **Assign to Contacts**. Tap to associate the photo to a selected contact.

6 **Browse**. After you have taken photos in Sports or Burst mode, the total number of consecutive shots is shown in the lower right corner of the Review screen. Tap the up/down arrow ( ) to browse through the sequence of photos.

To change the display duration of the Review screen

1. Tap to open the Camera Settings screen.

2. On the Camera Settings screen, tap . The Advanced menu then appears.

3. Tap **Review Duration**, then tap the desired time length for displaying captures on the Review screen.

Zooming

While capturing a still image or a video clip by using the camera, you can zoom in to make the object in focus move closer, and you can zoom out to make the object move farther away. In all capture modes, use NAVIGATION on your device, or tap the triangular Up arrow above the Zoom Ratio indicator, to zoom in your subject. When the zooming limit is reached, you will hear a beep. To zoom out, press NAVIGATION down, or tap the Down arrow. The camera zoom range for a picture or a video clip depends on the capture mode and capture size. The following is a summary.

Capture mode	Capture size setting	Zoom range
	2M (1600 x 1200)	No zooming available
	1M (1280 x 1024)	No zooming available
Photo	Large (640 x 480)	1.0x to 4.0x
	Medium (320 x 240)	1.0x to 8.0x
	Small (160 x 120)	1.0x to 8.0x

Capture mode	Capture size setting	Zoom range
Video	CIF (352 x 288)	No zooming available
	Large (320 x 240)	No zooming available
	Medium (176 x 144)	1.0x to 2.0x
	Small (128 x 96)	1.0x to 2.0x
MMS Video	Medium (176 x 144)	1.0x to 2.0x
	Small (128 x 96)	1.0x to 2.0x
Contacts Picture	Large (640 x 480)	1.0x to 4.0x
	Medium (320 x 240)	1.0x to 8.0x
	Small (160 x 120)	1.0x to 8.0x
Picture Theme	Determined by the current template	Depends on the size of the template currently loaded
Panorama	Large (640 x 480)	1.0x to 4.0x
	Medium (320 x 240)	1.0x to 8.0x
	Small (160 x 120)	1.0x to 8.0x
Sports	Large (640 x 480)	1.0x to 2.0x
	Medium (320 x 240)	1.0x to 8.0x
Burst	1M (1280 x 1024)	No zooming available
	Large (640 x 480)	1.0x to 2.0x
	Medium (320 x 240)	1.0x to 8.0x

Note The capture sizes available for certain capture formats also vary from one capture mode to another. The zoom range has been calculated based on the following ratio:

- 1.0x = normal size (no zooming)
- 2.0x = double enlargement
- 4.0x = four times enlargement
- 8.0x = eight times enlargement

The Camera Settings screen
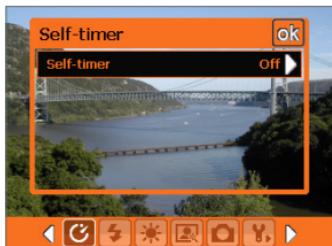
Camera Settings screen in Photo mode

While capturing a still image or video clip using any capture modes, tap the **Tool** icon (🔧) to access the Camera Settings screen. The Camera Settings screen allows you to configure the capture settings.

When you tap the icons at the bottom of the Camera Settings screen, different menus will appear. Some menus and options may be available only in certain capture modes.

To navigate the Camera Settings screen

You can either tap on-screen or press the Navigation Control buttons to navigate the Camera Settings screen.

1 Tap an icon to display the desired menu.

Alternatively, when using the Navigation Control, press NAVIGATION down first. The background of the icon bar at the bottom then becomes black. Now, press NAVIGATION left/right or tap the left/right arrow (◀ / ▶) to navigate to the icon of the desired menu. Once the desired menu is displayed, press NAVIGATION up.

2 Tap an option on the menu to open a submenu of available settings.

Alternatively, press NAVIGATION up/down to select an option, then press NAVIGATION right to open its submenu.

3 Tap or press the ENTER button to select a setting and close the submenu.

Alternatively, press NAVIGATION up/down to select a setting, then press NAVIGATION left to close the submenu.

For more information about the different menus and settings, see the succeeding sections.

Self-timer menu

• **Self-timer**. Select the Self-timer option for capturing images: **Off**, **2 seconds**, or **10 seconds**. Selecting 2 seconds or 10 seconds delays the capturing by the specified time after you press the CAMERA button or the ENTER button.

Template menu

• **Template**. Select a template (in Picture Theme mode only).

Panorama Settings menu

• **Direction**. Choose in what direction images will be stitched in a panorama.

• **Stitch Count**. Select the desired number of snapshots to be taken and stitched into a panorama.

• **Auto Stitch**. When the Auto Stitch is **On**, the camera automatically stitches snahpshots into one single file. If Auto Stitch is **Off**, the snapshots are saved as separate files.

Sports Settings menu

• **Snapshots**. Select the number of consecutive shots to capture.

Flash Light menu

- **Flash Light**. Set this option to **On** to turn on the flash light (located at the back of your device) so that you can shoot photos or video clips in a dark-lit environment. This also allows the camera to give off a flash when taking photos. The flash flight is available for use in all capture modes except in Sports and Burst modes.

Ambience menu

- **White Balance**. Select a white balance setting type such as Fluorescent, Night, etc. to suit your lighting environment.

- **Effect**. Choose a special effect such as Grayscale, Sepia, etc., to apply to your photos or video clips.

Capture Settings menu

- **Resolution**. Select the desired image or video size.

- **Quality**. Select the JPEG image quality level for all captured still images. You can choose from **Basic**, **Normal**, **Fine**, and **Super Fine**.

- **Storage**. Select where you want to save your files. You can either save the files to the main memory or to a storage card.

Capture Mode menu

- **Mode**. Switch between different capture modes such as Photo, Video, Contacts Picture, and more. For more information about these modes, see "Capture modes" earlier in this chapter.

Advanced menu

Tap the left/right icon in this bar to switch between the menu pages in the Advanced menu.

Alternatively, when using the Navigation Control buttons, keep pressing down until this bar is selected (bar becomes black in color). Press left/right to switch between the menu pages.

- **Capture Format**. Select the desired file format.

- **Shutter Sound**. Choose whether or not you want the camera to make a shutter sound when you press the ENTER button or the CAMERA button to take photos or record video clips.

- **Grid**. Choose whether or not to show a grid on the Camera screen. Showing a grid helps you frame and center your subject more easily and accurately.

Grid

- **Keep Backlight**. Choose whether to turn the backlight on or off while using the camera. This overrides your device backlight settings while you are using the camera.

- **Review Duration**. Set a time length for displaying the captured image/video on the Review screen before automatically saving it and returning to the live Camera screen. Select **No Limit** if

you do not want to impose a time limit. Select **No Review** to immediately return to the live Camera screen after capturing.

- **Flicker Adjustment**. When taking indoor shots, flicker on the camera screen may be caused by inconsistencies between the vertical scan rate of the camera display and the flicker frequency of fluorescent lighting. To reduce flicker, you can change the flicker adjustment setting to **Auto** or to the proper frequency (**50Hz** or **60Hz**) of the country where your device is being used.

- **Record with Audio**. Select **On** to record audio with the captured video clips. This is selected by default. If you select **Off** and then capture a video clip, it will have no audio.

- **Prefix**. Specify how to name captured images and video clips. When **Default** is selected, the file name of each new captured file is set to "IMAGE" or "VIDEO" followed by a sequential number, for example: IMAGE_001.jpg. You may also choose to name files using either the current **Date** or **Date & Time** as the prefix.

- **Counter**. By default, the newly captured image or video files are named with a prefix and some sequential numbers, such as 001, 002, and so on. To reset the numbering to "001" for your captured files, tap **Reset**.

- **Recording Limit**. Specify the maximum time or file size for recording.

- **Template Folder** (in Picture Theme mode only). By default, templates are stored in the \My Documents\Templates folder on the device's **Main Memory**. If you transferred some templates to a storage card (via File Explorer), set this option to **Main + Card** to specify that templates are located in both the main memory and the storage card.

- **Adjust**. This option allows you to adjust the camera display properties, such as **Contrast**, **Saturation**, **Hue**, and **Sharpness**.
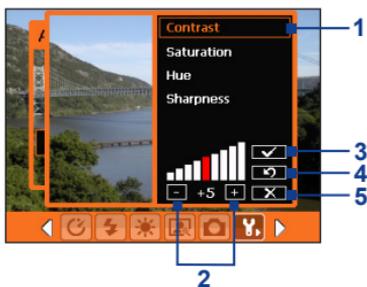
1. In the submenu, tap one of the properties to adjust.
   Alternatively, press NAVIGATION up/down to select a property.
2. To increase/decrease the value, tap the plus/minus icon or press NAVIGATION left/right. The live Camera screen on the background immediately displays the effect of changes.
3. Tap to save the settings and close the submenu.
4. Tap to reset all properties to their default.
5. Tap to close the submenu without applying and saving the changes.

8.2 Using Pictures & Videos

The **Pictures & Videos** program collects, organizes, and sorts images and video clips in the following formats on your device.

File Type	File Extensions
Image	*.bmp, *.jpg
GIF animation	*.gif
Video	*.avi, *.wmv, *.mp4, *.3gp

You can view the pictures as a slide show, beam them, send them via e-mail, edit them, or set them as the background on the Today screen.

To copy pictures, GIF animation files, and video clips to your device

You can copy pictures, GIF animation files, and video files from your PC and view them on your device.

• Copy the pictures, GIF animation files, and video files from your PC or a storage card to the My Pictures folder on your device. (You can also copy video files to the My Videos folder.)

For more information about copying files from your PC to your device, see ActiveSync Help on your PC.

Note   You can also copy pictures, GIF animation files, and video files from your PC to your device using a memory card. Insert the memory card into the memory card slot on your device, then copy the files from your PC to the folder you created on the memory card.

To view pictures

1. Tap **Start > Programs > Pictures & Videos**. The images in the My Pictures folder appear as thumbnails by default.

2. Select a picture and tap **View**. If you cannot find a picture in the default My Pictures folder, go to another folder by tapping the Down arrow (▼).

To play GIF animation files

1. Tap **Start > Programs > Pictures & Videos**.

2. Select a picture and tap **View**. The GIF Animation program then opens and plays the animation.

The down arrow

The media icon

Tap to view the selected image
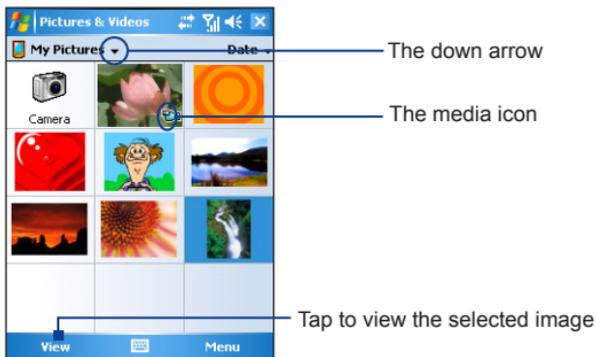
To play videos with audio

1. Tap **Start > Programs > Pictures & Videos**. By default, the contents of the My Pictures folder will be shown.

2. To find the video clips that you captured, tap the down arrow (▾) next to the My Pictures folder and tap My Documents. Next, tap My Videos. Video clips are displayed as thumbnails by default, which appear with a media icon (🎞).

3. Tap to select a video and play it in Windows Media Player.

To view slide shows

You can view your pictures as a slide show on your device. Pictures are shown in full-screen view with 5-second intervals between slides.

1. Tap **Start > Programs > Pictures & Videos**.

2. Tap **Menu > Play Slide Show**.

Note   You can specify how pictures are scaled to optimize their display in a slide show. Tap **Menu** > **Options**, then tap **Portrait Pictures** or **Landscape Pictures** on the **Slide Show** tab.

Tap anywhere on the screen to display the Slide Show toolbar, which you can use to stop or pause the slide show, rotate the view, and more. Press NAVIGATION right or left to move forward or backward through the slides.

To sort pictures and video clips

If you store a large number of pictures or video clips on your device, you may find it helpful to sort them to quickly find a specific picture or clip. You can sort by name, date, and size.

1. Tap **Start > Programs > Pictures & Videos**.

2. Tap the sort list (labeled **Date** by default), and select the item you want to sort by (**Name**, **Date**, or **Size**).

To delete a picture or video clip

Do any of the following to remove a picture or a video clip:

- Select a picture or video clip on the Pictures & Videos screen, and tap **Menu > Delete**.

- Tap and hold the thumbnail of the picture you want to delete, then tap **Delete**.

Tap **Yes** to confirm the deletion.

To edit a picture

You can rotate, crop, and adjust the brightness and color contrast of your pictures.

1. Tap **Start > Programs > Pictures & Videos**.

2. Tap the picture you want to edit.

3. Tap **Menu > Edit**, and do any of the following:

    - To rotate a picture 90 degrees counterclockwise, tap **Rotate**.

    - To crop a picture, tap **Menu > Crop**. Next, tap and drag to select the area to crop. Tap inside the box to crop, or tap outside the box to cancel cropping.

    - To adjust the brightness and contrast levels of a picture, tap **Menu > AutoCorrect**.

Note   To undo an edit, tap **Menu > Undo**. To cancel all unsaved edits you made to the picture, tap **Revert to Saved**.

To set a picture as the Today screen background

You can use a picture as the background on the Today screen.

1. Tap **Start > Programs > Pictures & Videos**.

2. Select the picture you want to set as the background.

3. Tap **Menu > Set as Today Background**.

4. In **Transparency level**, select a higher percentage for a more transparent picture, or a lower percentage for a more opaque picture.

5. Tap **OK**.

To send pictures and video clips via e-mail
You can send pictures and video clips to other devices via e-mail.

1. First, set up Messaging to send and receive messages.

2. From the program, select the item you want to send.

3. Tap **Menu > Send**, and select one account (such as Outlook E-mail or MMS) to send the attached item.

4. A new message is created with the item attached.

5. Enter the recipient name and subject, and tap **Send**. The message will be sent the next time you synchronize your device.

Note Pictures and video clips are saved automatically before they are sent.

To beam a picture or video clip
You can beam a picture or video file to another mobile device using Infrared.

1. Tap **Start > Programs > Pictures & Videos**.

2. Select the picture or video file you want to beam.

3. Tap **Menu > Beam**.

4. Select a device to beam the file to.

5. Tap **OK**.

To assign pictures to contacts
You can assign a picture to a contact so that you can easily identify the contact at any point of time.

1. Tap **Start > Programs > Pictures & Videos**.

2. Select the picture you want to assign to a contact.

3. Tap **Menu > Save to Contact**.

4. Tap the contact, or navigate and tap **Select** to choose the contact from your Contacts list.

To customize more image settings

1. Tap **Start > Programs > Pictures & Videos**.
2. Select the picture for which you want to configure further settings.
3. Tap **Menu > Options**. The Options screen appears, allowing you to:
   - Resize a picture so that it can be sent faster through e-mail.
   - Set the direction of rotation for the Rotate function.
   - Configure the view settings during slide shows and activate screensaver options.

8.3 Using Windows Media Player

You can use Microsoft Windows Media Player 10 Mobile for Pocket PC to play digital audio and video files that are stored on your device or on a network, such as on a Web site.

Using Windows Media Player, you can play both audio and video files. These are the following file formats that are supported by this version of Windows Media Player.

Video File Formats Supported	File Extensions
• Windows Media Video • MPEG4 Simple Profile • H.263 • Motion JPEG • 3GPP2	.wmv, .asf .mp4 .3gp .avi .3g2

Audio File Formats Supported	File Extensions
• Windows Media Audio • MP3 • MIDI • AMR Narrow Band • AMR Wide Band • AAC • 3GPP2	.wma .mp3 .mid, .midi, .rmi .amr .awb .m4a .gcp

About the controls

The following are available controls on the Windows Media Player.

This control		Does this
1	▶ �II	Plays/Pauses a file.
2	⊡	Displays the video in full screen.
3	🌐	Displays a Web site where you can find music and videos to play.
4	━━●━━	Adjusts the playback progress of a selected file.
5	⏮	Skips to the beginning of the current file or to the previous file.
6	⏭	Skips to the next file.
7	⊖	Decreases the volume level.
8	⊕	Increases the volume level.
9	🔊	Turns the sound on or off.

Note   You can rewind and fast-forward files by pressing and holding the Left/ Right controls.

About the screens and menus

Windows Media Player has three primary screens:

- **Playback screen**. The default screen that displays the playback controls (such as Play, Pause, Next, Previous, and Volume) and the video window. You can change the appearance of this screen by choosing a different skin.

- **Now Playing screen**. The screen that displays the Now Playing playlist. This special playlist indicates the current file being played and any files that are "queued up" to play next.

- **Library screen**. The screen that lets you quickly find your audio files, video files, and playlists. It contains categories such as My Music, My Videos, My TV, and My Playlists.

At the bottom of each screen, you can open a **Menu**. The commands on this menu vary, depending upon which screen you are viewing. For more information about the commands in these menus, see Help on your device.

About licenses and protected files

Some content (such as digital media files downloaded from the Internet, CD tracks, and videos) have associated licenses that protect them from being unlawfully distributed or shared. Licenses are created and managed by using digital rights management (DRM), which is the technology for securing content and managing its access rights. Some licenses may prevent you from playing files that have been copied to your device. Files that have licenses associated with them are called "protected files."

If you want to copy a protected file from your PC to your device, use the desktop Player to synchronize the file to your device (instead of dragging the file from a folder on your PC to a folder on your device, for example). This will ensure that the license is copied along with the protected file. For more information about synchronizing files to your device and other mobile devices, see desktop Player Help.

Note   You can view the protection status for a file by checking its file properties (tapping **Menu** > **Properties**).

Copy files to your device

Use the latest version of the desktop Player (Windows Media Player 10 or later) to synchronize digital media files to your device (instead of dragging a file from a folder on your PC to a folder on your device, for example). Using the desktop Player ensures that licenses are copied with protected files.

Always synchronize the files to a storage card that is inserted into your device. Do not synchronize to a storage card that is inserted into a storage card reader. In addition, do not synchronize to the internal storage location (RAM) in your device.

To synchronize content to your device automatically

  1. On your PC, start Windows Media Player.

  2. Insert a 32-MB or larger storage card into your device, and then connect your device to your PC.

  3. If you have not set up synchronization between your device and PC, the Device Setup Wizard opens on your PC.

  4. In the wizard, click **Automatic**, select the **Customize the playlists that will be synchronized** check box, and then select the playlists that you want to synchronize.

  5. Click **Finish**.

  6. The files begin synchronizing to your device. The next time you connect your device to your PC while the desktop version of Windows Media Player is running, synchronization will start automatically.

To synchronize and copy content manually to your device

  1. If you have not set up synchronization between your device and PC, follow steps 1 to 5 in "To synchronize content to your device automatically", except that you should click **Manual** synchronization.

  2. To choose files to synchronize and copy to your device, do the following:

  • Click the **Library** tab.

- In the rightmost pane, click the drop-down list and select **Sync List**.

- In the Playlist which is the leftmost pane, select a desired playlist.

- In the File List which is the middle pane, multi-select desired files then drag them to the Sync List.

- Click the **Start Sync** button found at the bottom of the Sync List.

Playlist

File List   Sync List
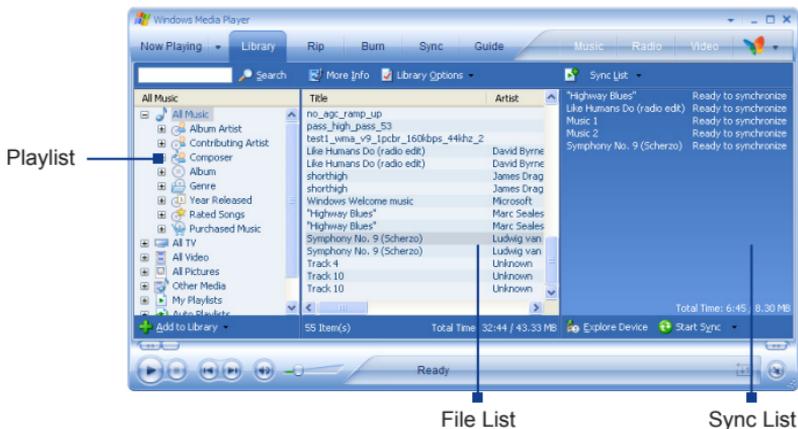
Note   Audio files copy faster if the desktop Player is configured to automatically set the quality level for audio files copied to your device. For more information, see desktop Player Help on the PC.

Play media

To play items on your device
Use the library on Windows Media Player Mobile to find and play songs, videos, and playlists that are stored on your device or removable storage card.

   1. If you are not on the Library screen, tap **Menu > Library**.

   2. On the Library screen, tap the Library arrow (near the top of

the screen), then tap the media storage that you want use, for example, Storage Card.

3. In most cases, Windows Media Player Mobile automatically updates the library. However, you can manually update the library to ensure that it contains new files that you recently copied to your device or storage card. Tap **Menu > Update Library** to manually update the library list.

4. Select a category (for example, My Music or My Playlists).

5. Tap and hold the item that you want to play (such as a song, album, or artist name), then tap **Play**.

Note　To play a file that is stored on your device but is not in a library, on the Library screen, tap **Menu > Open File**. Tap and hold the item that you want to play (such as a file or a folder), then tap **Play**.

To play an item on a network
Use the **Open URL** command to play a song or video that is stored on the Internet or on a network server.

1. If you are not on the Library screen, tap **Menu > Library**.

2. Tap **Menu > Open URL**.

3. Do one of the following:

- In the **URL** box, enter a network address.
- In the **History** box, tap a URL that you have previously used.

Note　To play an item on a network, you must be connected to a network. For more information about creating a remote connection between your device and a network, see Connections Help on your device.

Troubleshooting

If you encounter a problem while using the Windows Media Player, a number of resources are available to help you troubleshoot the issue.

For more information, see the Troubleshooting Windows Media Player Mobile page at the Microsoft Web site (http://www.microsoft.com/windows/windowsmedia/player/windowsmobile/troubleshooting.aspx).

8.4 Using Streaming Media Player

The **Streaming Media** program allows you to stream live broadcasts or on-demand media content from the Web. You do not have to wait until the entire media content is completely downloaded before watching the video or hearing the sound. The media is sent in a continuous stream to your device and is played as it arrives, along with the audio.

Button control		Function
1	▶ ⏸	Play/Pause
2	▭	Jog Bar (for scrubbing video)
3	🔍	Zoom out
4	🔍	Zoom in
5	⏮	Stop
6	🔇	Mute
7	⊖	Decrease volume
8	⊕	Increase volume
9	70%	Current volume level

The Streaming Media program allows you to play **3GP** and **MPEG-4** files. It also supports playback of **SDP** (Session Description Protocol) files. An SDP file is a text file that contains the format, broadcast times, media content, and other information about a live broadcast, or it may contain a playlist and links to prerecorded media files if you are viewing on-demand streaming media.

To access streaming content via Internet Explorer

In Internet Explorer, you can open a Web page containing RTSP links to streaming media content then play the content in the Streaming Media program.

1. Tap **Start > Internet Explorer**.
2. In the address bar, enter the URL address of the Web page that contains the RTSP link to the desired *.3gp, *.mp4, or *.sdp file.
3. On the Web page, tap the RTSP link.
4. Streaming Media then automatically opens and starts playing the file. During playback, use the button controls to play/pause, zoom in or out, adjust the sound volume, and more.

To stream media files directly on the Streaming Media Player

Streaming Media only supports RTSP links when you stream *.3gp and *.mp4 files directly on the program.

Note   Before you launch the Streaming Media program, make sure that you are connected to the Internet.

1. Tap **Start > Programs > Streaming Media**.
2. From the program, tap **Connect**.
3. Enter the URL for the Web site (rtsp://) and the file name.

   Alternatively, if you already accessed RTSP links before, you can simply tap an RTSP link in the **History** list to play previously viewed content.

4. Tap **Connect**.
5. Streaming Media then starts playing the file. During playback, use the button controls to play/pause, zoom in or out, adjust the sound volume, and more.

To view streaming video file information

You can view the properties and general information of a streaming video clip, such as file format, audio codec, dimension, frames, and duration of the video.

- Tap **Menu > Properties** from the program.

To configure streaming video connection settings

Tap **Menu > Options** to configure the following settings:

- **Connect via**. Choose whether you want to connect to the Internet or corporate network (intranet) to locate a streaming video clip.

- **UDP port range**. Specify a range of port numbers to use for streaming.

- **Media buffer**. Specify the memory space (in terms of duration) to allot for storing video and audio data while streaming media.

Chapter 9

Using Other Applications

9.1 Word Mobile

Word Mobile is a streamlined version of Microsoft Word. Word documents created on your PC can be opened and edited on your device. You can also create and edit documents and templates in Word Mobile and save them as ***.doc**, ***.rtf**, ***.txt**, and ***.dot** files.

You can have only one document open at a time. When you open a second document, the first one is saved and closed automatically.

To create a Word file

1. In Word Mobile, tap **New**. You will see either a blank document or template, depending on what you have selected as the default template.
2. Enter text as desired.
3. Tap **Menu**, then choose whether to set the font, paragraph alignment and indentation, insert the date, do a spelling check, and more.
4. When finished, tap **OK** to save and close the file.

When you close a newly created document, it is automatically named after the first several words in the document and placed in the Word Mobile document list. You can easily rename the document with a more meaningful name and move it to another folder or a storage card.

Note   Word Mobile does not fully support some features of Microsoft Word such as revision marks and password protection. Some data and formatting may be lost when you save the document on your device. To see a complete list of features that are not supported in Word Mobile, see Help on your device.

9.2 Excel Mobile

Excel Mobile makes it easy for you to open and edit Excel workbooks and templates created on your PC. You can also create new workbooks and templates on your device.

To create an Excel file

1. In Excel Mobile, tap **New**. You'll see either a blank worksheet

or template, depending on what you've selected as the default template.

2. Tap a cell to select it. Using the on-screen keyboard, enter your data then tap the **Enter** key.

3. Tap **Menu**, then choose whether to insert cells, charts, symbols or functions, format rows and columns, and more.

4. When finished, tap **OK** to save and close the file.

Tips • Work in full-screen mode to see as much of your workbook as possible.

• Tap **View > Zoom** and select a percentage so that you can easily read the worksheet.

Note Excel Mobile does not fully support some features such as formulas and cell comments. Some data and formatting may be lost when you save the workbook on your device. To see a complete list of features that are not supported in Word Excel, see Help on your device.

9.3 Viewing Slide Shows with PowerPoint Mobile

With **PowerPoint Mobile**, you can open and view slide show presentations created on your PC. Slide shows in ***.ppt** and ***.pps** format created using PowerPoint '97 and later can be viewed in PowerPoint Mobile.

Many presentation elements built into the slide shows such as slide transitions and animations will play back on the device. If the presentation is set up as a timed slide show, one slide will advance to the next automatically. Links to URLs are also supported.

Features not supported in PowerPoint Mobile include:

- **Notes.** Notes written for slides will not be visible.
- **Rearranging or editing slides**. PowerPoint Mobile is a viewer only.
- **Some file formats.** Files created in ***.ppt** format earlier than

PowerPoint '97 and HTML files in ***.htm** and ***.mht** formats are not supported.

To start a slide show presentation

1. Tap **Start > Programs > PowerPoint Mobile**.
2. In the presentation list, tap the slide show you want to view.
3. Tap the current slide to advance to the next slide.
4. To navigate between slides, tap ▲| **> Next** or **Previous**, or tap **Go to Slide** and tap the slide you want to view.

If the presentation is set up as a timed slide show, slides will advance automatically.

Notes • If you have zoomed in to see a slide in more detail, you cannot navigate to another slide until you zoom out.

• Tapping **Next** or **Previous** may play an animation on a slide rather than navigate to another slide.

To stop a slide show

• In a PowerPoint Mobile presentation, tap ▲| **> End Show**.

9.4 Using ClearVue PDF

ClearVue PDF allows you to open and view Portable Document Format (PDF) files. These files usually have a ***.pdf** file extension.

To open a PDF file on your device

1. Tap **Start > Programs > ClearVue PDF**.
2. Tap **File > Open** to view a list of PDF files on your device.
3. Tap the file you want to view.

To navigate through a PDF document

You can do any of the following:

• Tap the Up, Down, Right, and Left arrow keys on the horizontal and vertical scrollbars to move to the desired direction of the page.

- Press NAVIGATION up, down, right, and left to move up or down a page or scroll through the pages.
- Tap the space between the arrow keys and the scrollbar with your stylus to move one screen towards the desired position.
- Tap anywhere on the screen with your stylus and drag it to move around the page so that you can view all the areas.

To enlarge or reduce the display size
   1. Open a pdf file you want to view.
   2. Tap **Zoom**.
   3. Select a predefined zoom ratio, or **Page Width** or **Whole Page**.
   4. Tap **Custom** to set an arbitrary zoom ratio.

9.5 Using MIDlet Manager

MIDlets are Java applications that can run on mobile devices. Your device supports Java 2 Micro Edition, J2ME. The **MIDlet Manager** allows you to download Java applications, such as games and tools that are specifically designed for mobile devices. Although some Java applications and games have already been installed on your device, the Java MIDlet Manager gives you the flexibility of installing and managing additional J2ME applications from the Internet.

To install MIDlets from the Internet
   1. Locate the MIDlet/MIDlet suite while connected to the Internet.
   2. Select the MIDlet/MIDlet suite to download.
   3. Confirm to start downloading.
   4. Run the file(s) to install.

To install MIDlets from a PC
You can install the MIDlets/MIDlet suites on your device from a PC using the USB sync cable, infrared, or Bluetooth. MIDlets copied to your device are automatically saved in the My Documents folder. However, you can copy the MIDlet file(s) from a PC to any of the following temporary folders on your device from where MIDlet Manager can install them.

- Device memory: ../My Device/My Documents/My MIDlets
- Storage card: ../My Device/Storage Card

Note   If the My MIDlets folder does not exist in My Documents, you can create one with the same folder name. However, a folder named Storage Card automatically appears after you insert a storage card into your device.

To install a MIDlet/MIDlet suite
1. Tap **Start > Programs > MIDlet Manager > Menu > Install > Local**.
2. From the list, tap the MIDlet/MIDlet suite that you want to install.
3. Confirm to complete the installation.

Note   To remove a MIDlet file from the temporary folder, tap and hold the file then tap **Delete** from the shortcut menu.

To run MIDlets on your device
1. Tap **Start > Programs > MIDlet Manager**.
2. Tap a MIDlet to run.

To view the MIDlets currently running
- Tap the down arrow on the top left of the MIDlet Manager screen, then tap **Running**.

Note   To view the most recently used MIDlets, tap **Show** > **Recent**.

To stop running a MIDlet
1. Tap the down arrow on the top left of the MIDlet Manager screen, then tap **Running**.
2. Tap and hold a MIDlet on the Running MIDlets screen, and tap **Stop**.

Note   To stop all MIDlets currently running on your device, tap **Menu** > **Stop All**.

Manage MIDlets/MIDlet suites

You can organize the MIDlets into groups and define custom groups. You can also change the default settings for a MIDlet.

To associate a MIDlet/MIDlet suite to a group

If you installed several MIDlets/MIDlet suites to your device, you can categorize them into groups.

1. Tap and hold on a MIDlet/MIDlet suite, then tap **Group**.
2. Choose a preset group, or tap **New** if you want to create a custom group, then tap **OK**.

After you have assigned MIDlets/MIDlet suites to respective groups, the group names will appear in the Show menu and you can display them by group.

To select a sorting order

1. Tap the down arrow on the top right of the MIDlet Manager screen to open the **Sort By** menu.
2. Choose to sort by **Name** or by **Size**.

To change the display name of a MIDlet

1. Tap and hold a MIDlet, and tap **Rename**.
2. Enter a new name for the MIDlet, then tap **OK**.

Note You cannot change the name of a MIDlet suite.

To uninstall a MIDlet/MIDlet suite

Before you uninstall a MIDlet/MIDlet suite, make sure that it is not running.

1. Tap and hold the MIDlet/MIDlet suite, and tap **Uninstall**.
2. Tap **OK** to confirm.

Note You cannot uninstall a single MIDlet from a MIDlet suite; you can uninstall only the complete MIDlet suite.

To check storage space

• Tap **Menu > System Info** on the MIDlet Manager screen to see how much device storage space is used by MIDlets.

To select a type of connection

• Tap **Menu > Choose Network Typ**e on the MIDlet Manager screen, and select the type of connection that you will use for downloading MIDlets to your device.

To configure MIDlet security

You can adjust security settings for each MIDlet/MIDlet suite.

   1. Tap and hold a MIDlet.

   2. Tap **Security** from the shortcut menu.

Note that some features may not be available for all MIDlets/MIDlet suites. The following are the security options that you can set for a running MIDlet/MIDlet suite.

Security Option	Description
Net Access	Determines whether a MIDlet/MIDlet suite can access the Internet.
Local Connectivity	Enables a MIDlet/MIDlet suite to access services, such as infrared and Bluetooth.
App Auto Run	Enables a MIDlet/MIDlet suite to run at specified times, or any time.
Messaging	Determines whether a MIDlet/MIDlet suite can send and/or receive SMS messages.
Multimedia Recording	Enables a MIDlet/MIDlet suite to record sounds and images.

Note   For a list of error messages that you may receive while managing and using MIDlets/MIDlet suites on your device, see Help on your device.

9.6 Using ZIP

This feature allows you to save memory and increase the storage capacity of your device by compressing files in the conventional ZIP format. You can view and extract archive files received from various sources. You can also create new ***.zip** files on your device.

Start ZIP and Open .zip files

You can use **ZIP** to either archive files or open an existing archive file on your device. Each time you start ZIP on your device, it searches for files that have the .zip file extension, and displays these files on the Archive List screen.

To start ZIP on your device

- Tap **Start > Programs > ZIP**.

To open a ZIP file and extract files

1. Open a file using any of the following:

   - Select a file and tap **File > Open Archive**.
   - Tap and hold a file and tap **Open Archive**.
   - Double-tap a file.
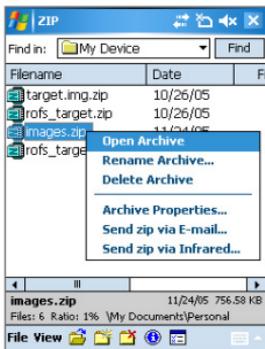
Note   You cannot select multiple ZIP files.

2. The files contained in the zip file are then displayed. Select files by doing one of the following:

- Tap to select a file.
- To select several files, tap **Action** and make sure **Multi-Select Mode** selected. Select files by tapping each file. (Tap a selected file to deselect it).
- To select all files, tap **Action > Select All**.

3. Tap **Action > Extract**.
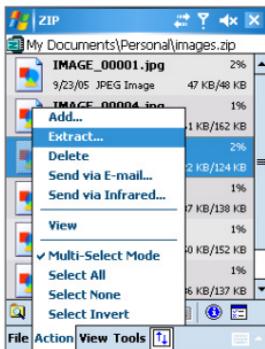
4. Choose a folder in which files will be extracted to, then tap **Extract**.

To create a zip archive

1. Tap **File > New Archive**.
2. On the Save As screen, enter a zip file name and choose a folder in which to save the zip file. You can also choose whether the zip file will be saved on the device's main memory or a storage card.
3. Tap **Save**.
4. Tap **Action > Add**.
5. Double-tap the folder that contains the files you want to archive.
6. Select files by doing one of the following:
   - Tap to select a file.

- • To select several files, hold and tap on the screen, then select **Multi-Select Mode**. Select files by tapping each file. (Tap a selected file to deselect it).

- • To select all files, hold and tap on the screen, then tap **Select All**.

7. Tap **Add**.

8. Tap **File > Close Archive**.

9. After closing the zip file, you can tap **File > Find Archive** to search for all zip files and display them on the Archive List screen.

9.7 Using Voice Speed Dial

You can record voice tags so that you can dial a phone number or launch programs simply by speaking a word.

Create a voice tag for a phone number

1. Tap **Start > Contacts** to open the Contacts list.

2. Do one of the following:

- • Tap and hold the desired contact, then tap **Add Voice Tag**.
- • Select the desired contact, then tap **Menu > Add Voice Tag**.
- • Tap the desired contact to open the contact's detailed screen, then tap **Menu > Add Voice Tag**.

3. Select the phone number that you want to create a voice tag, then tap the Record button (●).

4. When completed, a **Voice Tag** icon ( ) will be displayed on the right of the item.
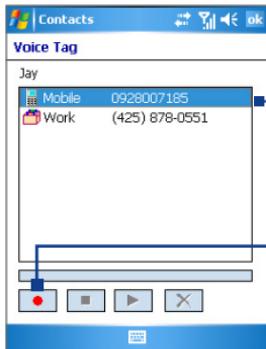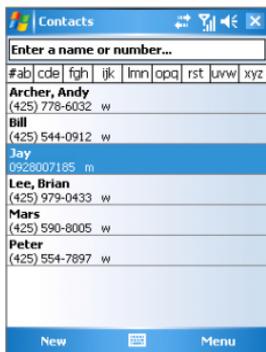
Select the desired phone number.

Tap the Record button to start recording.

5. When you create a voice tag for the item, you can do one of the following:

- Tap the **Record** button (●) to rebuild the voice tag.
- Tap the **Play** button (▶) to play the voice tag.
- Tap the **Delete** button (✕) to delete the voice tag.

Tip To ensure voice recognition accuracy, please record your voice in a quiet place.

Create a voice tag for a program

1. Tap **Start > Settings > Personal** tab **> Voice Speed Dial**.

2. The **Application** tab displays a list of all installed programs on your device. The procedure for creating a voice tag for a program is the same as the procedure for creating a voice tag for a phone number.

3. After you have created a voice tag for a program, you can then launch the program by saying the recorded voice tag after tapping **Start > Programs > Voice Speed Dial**.

Make a call or launch programs using a voice tag

1. Tap **Start > Programs > Voice Speed Dial**.

2. After a "beep" sound, say the recorded voice tag that you have assigned to the phone number you want to call or the program you want to launch. The system will repeat the voice tag and then dial out or launch the program automatically.

Note   If the system cannot recognize your voice tag, please speak clearly and reduce the surrounding noise, then try again.

To view and test the voice tags you have created

1. Tap **Start > Settings > Personal** tab **> Voice Speed Dial**.

2. The **Voice Tag** tab displays a list that contains all the voice tags you have created. Select an item in the list, and you can do one of the following:

   • Tap the **Record** button (🔴) to rebuild the voice tag.

   • Tap the **Play** button (▶) to play the voice tag.

   • Tap the **Delete** button (✕) to delete the voice tag.

Appendix

A.1 Regulatory Notices

Regulatory Agency IDs

For regulatory identification purposes, your product is assigned a model number of HERM100.

To ensure continued reliable and safe operation of your device, use only the accessories listed below with your HERM100.

The Battery Pack has been assigned a model number of PA16A, HERM160 or HERM161.

This product is intended for use with a certified Class 2 Limited Power Source, rated 5 Volts DC, maximum 1 Amp power supply unit.

European Union Notice

Products with CE marking comply with the R&TTE Directive (99/5/EC), the EMC Directive (89/336/EEC), and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms (in parentheses are the equivalent international standards).

- **EN 60950-1 (IEC 60950-1)**
  Safety of InformationTechnology Equipment.

- **ETSI EN 301 511**
  Global system for mobile communications (GSM); Harmonized EN for mobile stations in the GSM 900 and GSM 1800 bands, covering essential requirements of article 3.2 of the R&TTE directive (1995/5/EC).

- **ETSI EN 301 489-1**
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements.

- **ETSI EN 301 489-7**
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 7: Specific conditions for mobile

and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS).

- **ETSI EN 301 489-17**
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2.4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment.

- **EN 301 489-24**
  Electromagnetic compatibility and radio spectrum matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 24: Specific conditions for IMT-2000 CDMA direct spread (UTRA) for mobile and portable (UE) radio and ancillary equipment.

- **EN 301 908**
  Electromagnetic compatibility and radio spectrum matters (ERM); Base stations (BS) and user equipment (UE) for IMT-2000 third generation cellular networks.

- **ETSI EN 300 328**
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques.

- **EN 50360:2001**
  Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz - 3 GHz).

- **EN 50392:2002**
  Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz - 300 GHz) - General public.

$CE0560$ ①

This equipment may be operated in:							
AT	BE	BG	CH	CY	CZ	DE	DK
EE	ES	FI	FR	GB	GR	HU	IE
IT	IS	LI	LT	LU	LV	MT	NL
NO	PL	PT	RO	SE	SI	SK	TR

Federal Communications Commission Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 TV reception, which can be determined by turning the equipment on and off, 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 or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to the device that are not expressly approved by High Tech Computer Corporation may void the user's authority to operate the equipment.

Safety Precautions for RF Exposure

Tests for SAR are conducted using standard operating positions specified by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operation can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (for example, at the ear and worn on the body) as required by the FCC for each model. (Body-worn measurements may differ among phone models, depending upon available accessories and FCC requirements). For body-worn operation, to maintain compliance with FCC RF exposure guidelines, use only High Tech computer, Corp. approved accessories. When carrying the phone while it is on, use the specific High Tech Computer Corp. supplied or approved carrying case, holster, or other body-worn accessory.

Use of non High Tech Computer Corp. approved accessories may violate FCC RF exposure guidelines and should be avoided.

SAR Information

- 0.572 W/kg @ 10g (CE)
- 0.614 W/kg @ 1g (FCC)

WEEE Notice

The Directive on Waste Electrical and Electronic Equipment (WEEE), which entered into force as European law on 13th February 2003,

resulted in a major change in the treatment of electrical equipment at end-of-life.

The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal.

The WEEE logo (shown at the left) on the product or on its box indicates that this product must not be disposed of or dumped with your other household waste. You are liable to dispose of all your electronic or electrical waste equipment by relocating over to the specified collection point for recycling of such hazardous waste. Isolated collection and proper recovery of your electronic and electrical waste equipment at the time of disposal will allow us to help conserving natural resources. Moreover, proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment. For more information about electronic and electrical waste equipment disposal, recovery, and collection points, please contact your local city centre, household waste disposal service, shop from where you purchased the equipment, or manufacturer of the equipment.

RoHS Compliance

This product is in compliance with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003, on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) and its amendments.

A.2 PC Requirement to Run ActiveSync 4.x

To connect your device to the PC, you must have Microsoft®
ActiveSync® program installed on your PC. ActiveSync 4.x is included
in the **Getting Started CD**, which is compatible with the following
operating systems and applications:

- Microsoft® Windows® 2000 Service Pack 4
- Microsoft® Windows® Server 2003 Service Pack 1
- Microsoft® Windows® Server 2003 IA64 Edition Service Pack 1
- Microsoft® Windows® Server 2003 x64 Edition Service Pack 1
- Microsoft® Windows® XP Professional Service Packs 1 and 2
- Microsoft® Windows® XP Home Service Packs 1 and 2
- Microsoft® Windows® XP Tablet PC Edition 2005
- Microsoft® Windows® XP Media Center Edition 2005
- Microsoft® Windows® XP Professional x64 Edition
- Microsoft® Outlook® 98, Microsoft® Outlook® 2000 and
  Microsoft® Outlook® XP, and Microsoft® Outlook® 2003
  messaging and collaboration clients
- Microsoft® Office 97, excluding Outlook
- Microsoft® Office 2000
- Microsoft® Office XP
- Microsoft® Office 2003
- Microsoft® Internet Explorer 4.01 or later (required)
- Microsoft® Systems Management Server 2.0

A.3 Specifications

System Information	
Processor	400MHz Samsung stacked CPU
Memory	- ROM : 128 MB - RAM : 64 MB SDRAM
Operating System	Windows Mobile™ Version 5.0

Power	
Battery	Rechargeable Lithium-ion polymer battery, 1350 mAh
Charging Time	3 hours
Battery Life (estimates)	Standby time: up to 200 hours for GSM; 180 ~ 250 hours for UMTS. Talk time (Screen off): 4 ~ 5 hours for GSM; 2 ~ 4 hours for UMTS. Media playback: 8 hours (WMV); 12 hours (WMA)
AC Adapter	AC input: 100 ~ 240V AC, 50/60 Hz DC output: 5V and 1A

Display	
LCD Type	2.8" transflective TFT-LCD with backlight LEDs, touch-sensitive screen
Resolution	240 x 320 with 65,536 colors
Alignment	Portrait and Landscape

WCDMA / GSM / EDGE Module	
Functionality	UMTS (2100 for Europe, 850/1900 for USA) GSM/GPRS/EDGE (850, 900, 1800, and 1900)
Mode	Dual (GSM)
Internal Antenna	Yes

Physical	
Dimensions	112.5 mm (L) x 58 mm (W) x 21.95 mm (T)
Weight	176g (with battery)

Camera Module	
Type	Main camera: 2 Mega pixel color CMOS camera with adjustable lens for normal and macro shooting, and with flash light Second camera: Color CMOS CIF camera
Resolution	Photo: 1600x1200, 1280x1024 (SXGA), 640x480 (VGA), 320x240 (QVGA), 160x120 (QQVGA) Video: 352x288 (CIF), 320x240 (QVGA), 176x144 (QCIF), 128x96
Digital Zoom	Up to 8x

Controls and Lights	
Navigation Buttons	• 5-way Navigation Control • Five program buttons : MESSAGING, INTERNET EXPLORER, CAMERA, COMM MANAGER, VOICE COMMAND • Two phone functions : TALK and END • START MENU button • Two OK buttons • VIDEO CALL button • Two soft keys • Jog Wheel • POWER button • RESET button
Hardware Keyboard	QWERTY keyboard with two additional soft keys, and an ambient sensor that detects low light and automatically illuminates the keyboard.

LEDs	The left LED shows a blinking Blue light for Bluetooth system notification of powered-up and ready to transmit radio frequency signal, and a blinking Green light for Wi-Fi status. When both Bluetooth and Wi-Fi are enabled, their lights blink alternately.
	The right (bi-color) LED shows Green and Amber lights for UMTS/GSM standby, UMTS/GSM message, UMTS/GSM network status, notification, and battery charging status.

Audio	
Audio Controller	AGC
Microphone/Speaker	Built-in/Dual, Hands-free
Headphone	AMR/AAC/WAV/WMA/MP3 codec

Connections	
Infrared	IrDA SIR
I/O Port	mini-USB (for USB, serial, audio, and power connections)
Car Antenna Connector	External connector for WCDMA, GSM and EDGE
Wireless Connection	Bluetooth, Wi-Fi

Expansion Slots	
Card Slot	Micro SD

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