2 Windows Mobile

This chapter introduces Microsoft Windows Mobile 5.0 for Pocket PC. While using the CN3 Mobile Computer, keep these key points in mind:

- Tap **Start** on the navigation bar, located at the top of the screen, to quickly move to programs, files, and settings. Use the command bar at the bottom of the screen to perform tasks in programs. The command bar includes menus, icons, and the onscreen keyboard.

- Tap and hold an item to see a pop-up menu containing a list of actions you can perform. Pop-up menus give you quick and easy access to the most common actions.

Below is a list of Windows Mobile components described in this chapter. Tap **Start** > **Help**, then select a topic on your CN3 Computer to find additional information on Windows Mobile components.

Windows Mobile 5.0 Components

Microsoft ActiveSync (**page 36**)
Microsoft Pocket Outlook (**page 38**)
Word Mobile (**page 60**)
Excel Mobile (**page 62**)
PowerPoint Mobile (**page 64**)
Windows Media Player for Windows Mobile (**page 65**)
Using Internet Explorer Mobile (**page 68**)

Software Builds

See **"Learning Software Build Versions" on page 3** to determine which Intermec build of Windows Mobile 5.0 is on your unit.

Where to Find Information

This chapter describes your CN3 Computer hardware, provides an overview of the programs on your CN3 Computer, and explains how to connect your CN3 Computer to a desktop, a network, or the Internet. For instructions on setting up your CN3 Computer and installing ActiveSync, see the Quick Start Guide. The following is a guide to more information to assist you use your CN3 Computer.

For information on:	See this source:
Programs on your mobile computer.	This chapter and mobile computer Help. To view Help, tap **Start** > **Help**, then select a topic.
Additional programs that can be installed on the mobile computer.	The *Windows Mobile Companion CD*.
Connecting to and synchronizing with a desktop.	The Quick Start Guide or *ActiveSync Help* on your desktop. To view Help, click **Help** > **Microsoft ActiveSync Help**.
Last-minute updates and detailed technical information.	The Read Me files, located in the Microsoft ActiveSync folder on the desktop and on the *Windows Mobile Companion CD*.
Up-to-date information on your Windows Mobile.	**www.microsoft.com/windowsmobile/resources/communities/default.mspx**

Windows Mobile and many of the technologies supported by the CN3 Computer are not from Intermec. Many of the utilities and features on a Windows Mobile device come directly from Microsoft without any modification from Intermec. There may be certain Microsoft-specific issues that Intermec would not be able to support, so contact our front-line support personnel to determine the best source of assistance.

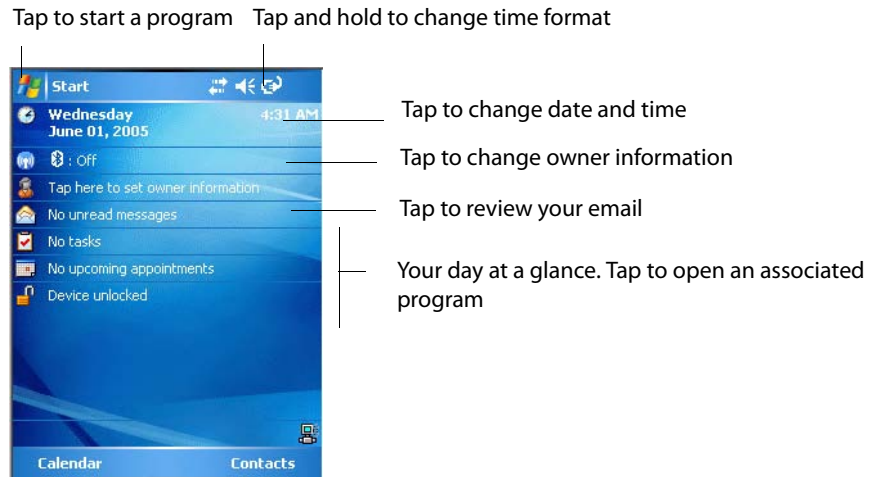Use these URLs for additional information about Microsoft Windows Mobile (Pocket PC):

• **msdn.microsoft.com/support/**

• **support.microsoft.com/**

• **news.microsoft.com** *(a free support option)*

Basic Usage

Learning to use your CN3 Computer is easy. This section describes the basic concepts of using and customizing your CN3 Computer.

Today Screen

When you turn on your CN3 Computer for the first time each day *(or after four hours of inactivity)*, you see the **Today** screen. You can also display it by tapping the **Start** flag at the top left of your display and then **Today**. On the Today screen, you can see important information for the day.

Tap to start a program   Tap and hold to change time format

Tap to change date and time

Tap to change owner information

Tap to review your email

Your day at a glance. Tap to open an associated program

To customize what is displayed on the Today screen, including the background image, tap **Start** > **Settings** > the **Personal** tab > the **Today** icon.

Status icons display information such as low batteries or when the CN3 Computer is connected to a desktop or to the Internet. You can tap an icon to open the associated setting or program.

Programs

You can switch from one program to another by selecting it from the **Start** menu. (You can customize which programs you see on this menu. For information, see "Adjusting Settings" on page 33.) To access some programs, tap **Start** > **Programs**, and then the program name.

You can also switch to some programs by pressing a program icon. Your CN3 Computer has one or more program icons located on the front or side of the computer. The icons on the icons identify the programs to which they switch.

Note: Some programs have abbreviated labels for check boxes and drop-down menus. To see the full spelling of an abbreviated label, tap and hold the stylus on the label. Drag the stylus off the label so that the command is not carried out.

The following is a partial list of programs that are on your CN3 Computer, in the order they appear in the Start menu. Look on the *Windows Mobile Companion CD* for additional programs that you can install onto your CN3 Computer.
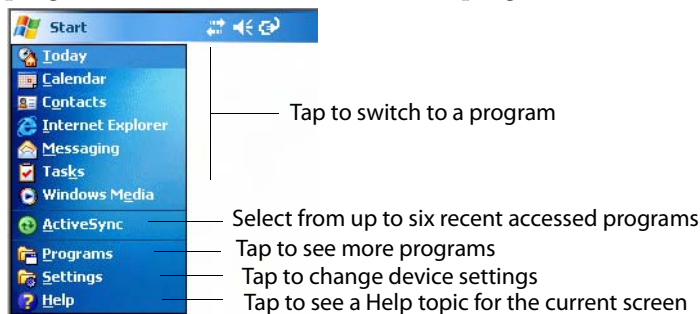
Keep track of your appointments and create meeting requests.

Contacts Keep track of your friends and colleagues.

Internet Explorer Browse Web and WAP (Wireless Application Protocol) sites, and download new programs and files from the Internet.

Messaging Send and receive e-mail messages.

Tasks Keep track of your tasks.

Windows Media Play digital audio and video files that are stored on your CN3 Computer or on a network.

Navigation Bar and Command Bar

The navigation bar is located at the top of the screen. It displays the active program and current time, switch to programs, and close screens.

Tap to switch to a program

Select from up to six recent accessed programs
Tap to see more programs
Tap to change device settings
Tap to see a Help topic for the current screen

Use the command bar at the bottom of the screen to perform tasks in programs. The command bar includes menu names, functions, and the **Input Panel** icon, when needed. To create a new item in the current program, tap **New**. To see the name of a icon, tap and hold the stylus on the icon. Drag the stylus off the icon so that the command is not carried out.

Pop-up Menus

Use pop-up menus to quickly perform an action on an item. For example, you can use a pop-up menu to delete or make a copy of an item. To access a pop-up menu, tap and hold the item on which you want to perform the action. When the menu appears, tap the action you want to perform, or tap anywhere outside the menu to close the menu without performing the action.

Tap and hold to display the pop-up menu

Lift the stylus and tap the action you want

Tap outside to close without performing an action
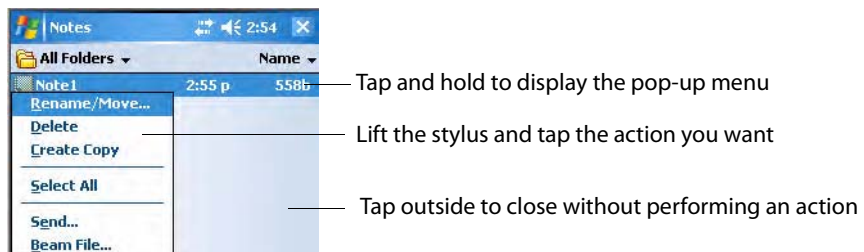
Notifications

When you have something to do, your CN3 Computer notifies you in a variety of ways. For example, if you have set up an appointment in Calendar, an e-mail message arrives, or a friend sends you an instant message, you are notified in any of the following ways: a message box appears on the screen, a sound (which you can specify) is played, a light flashes on your CN3 Computer, or the CN3 Computer vibrates. You can choose the notification types.

Entering Information

You can enter information on your CN3 Computer in several ways, depending on the type you have and the program you are using:

|	
Synchronizing	Using Microsoft ActiveSync, synchronize or copy information between your desktop and CN3 Computer. For more information on ActiveSync, see *ActiveSync Help* on your desktop.
Typing	Using the input panel, enter typed text into the CN3 Computer. Do this by tapping keys on the onscreen keyboard or by using handwriting recognition software.
Writing	Using the stylus, write directly on the screen.
Drawing	Using the stylus, draw directly on the screen.
Recording	Create a stand-alone recording or embed a recording into a document or note.

Use the input panel to enter information in any program on your CN3 Computer. You can either type using the onscreen keyboard or write using **Block Recognizer**, **Letter Recognizer**, or **Transcriber**. In either case, the characters appear as typed text on the screen.

To show or hide the input panel, tap the **Input Panel** icon. Tap the arrow next to the **Input Panel** icon to see your choices.

Select an input method

Tap to see your choices
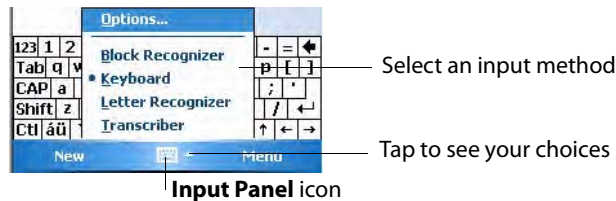
Input Panel icon

When you use the input panel, your CN3 Computer anticipates the word you are typing or writing and displays it above the input panel. When you tap the displayed word, it is inserted into your text at the insertion point.

The more you use your CN3 Computer, the more it learns to anticipate.

Tap a text box to display the input panel

Tap to insert anticipated word

Tap characters on the onscreen keyboard to enter them
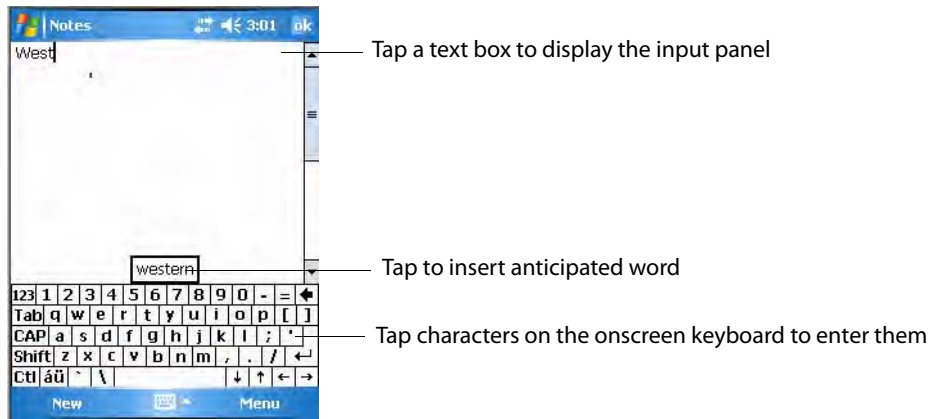
Input

To change word suggestion options, such as the number of words suggested at one time, tap **Start** > **Settings** > the **Personal** tab > **Input** > the **Word Completion** tab.
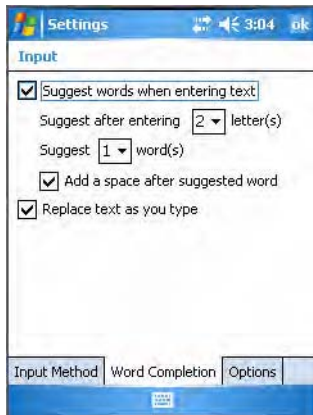
Typing With the Onscreen Keyboard

Tap the input panel arrow, then tap **Keyboard**. On the soft keyboard that is displayed, tap the keys with your stylus.

• To type a single uppercase letter or symbol, tap the **Shift** key. To tap multiple uppercase letters or symbols, tap the **CAP** key.

• To convert a letter to uppercase, tap, and hold the stylus on the letter and drag up.

• To add a space, drag the stylus to the right across at least two keys.

• To backspace a character, drag the stylus to the left across multiple keys.

• To insert a carriage return, tap and hold the stylus anywhere on the keyboard and drag down.

To use larger keys, tap the input panel arrow, tap **Options**, select "Keyboard" from the **Input method** drop-down list, then select **Large keys**.
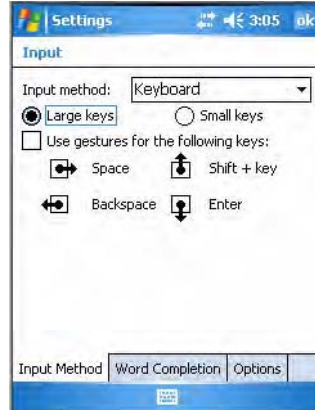
Using Block Recognizer

Character recognition software gives you a fast and easy method for entering information in any program on your CN3 Computer. Letters, numbers, and punctuation you write are translated into typed text.

Tap the input panel arrow, then tap **Block Recognizer**. Write a letter in the box. When you write a letter, it is converted to typed text that appears on the screen.

For specific instructions on using Block Recognizer, with Block Recognizer open, tap the question mark next to the writing area.

Tap for assistance
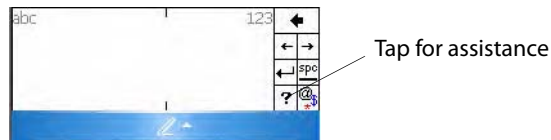
Using Letter Recognizer

With Letter Recognizer, you can write letters using the stylus just as you would on paper.

Tap the input panel arrow, then tap **Letter Recognizer**. Write a letter in the box. When you write a letter, it is converted to typed text that appears on the screen. For specific instructions on using Letter Recognizer, with Letter Recognizer open, tap the question mark next to the writing area.

Tap for assistance
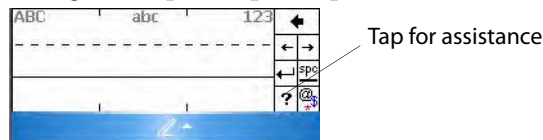
Using Transcriber

With Transcriber, you can write anywhere on the screen using the stylus just as you would on paper. Unlike Letter Recognizer and Block Recognizer, you can write a sentence or more of information. Then, pause and let Transcriber change the written characters to typed characters.

Tap the input panel arrow, then tap **Transcriber**. Tap **ok**, then write any-where on the screen.

For specific instructions on using Transcriber, with Transcriber open, tap the question mark in the lower, right-hand corner of the screen.
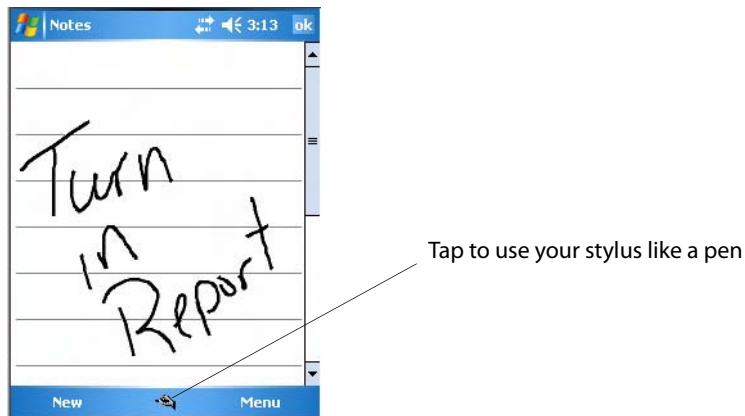
 Tap for assistance

Selecting Typed Text

If you want to edit or format typed text, you must select it first. Drag the stylus across the text you want to select.

You can cut, copy, and paste text by tapping and holding the selected words and then tapping an editing command on the pop-up menu, or by tapping the command under **Menu**.

Writing on the Screen

In any program that accepts writing, such as the Notes program, and in the **Notes** tab in Calendar, Contacts, and Tasks, you can use your stylus to write directly on the screen. Write the way you do on paper. You can edit and format what you have written and convert the information to text at a later time. Tap the **Pen** icon to switch to writing mode. This action displays lines on the screen to help you write

 Tap to use your stylus like a pen

Note: Some programs that accept writing may not have the **Pen** icon. See documentation for that program to see how to switch to writing mode.

Selecting the Writing

If you want to edit or format writing, you must select it first.

1 Tap and hold the stylus next to the text you want to select until the insertion point appears.

2 Without lifting, drag the stylus across the text you want to select.

If you accidentally write on the screen, tap **Menu** > **Undo** and try again. You can also select text by tapping the **Pen** icon to deselect it and then dragging the stylus across the screen.

You can cut, copy, and paste written text in the same way you work with typed text: tap and hold the selected words and then tap an editing command on the pop-up menu, or tap the command under **Menu**.

Converting Writing to Text

You can convert words you write in print or cursive to text by tapping **Menu** > **Tools** > **Recognize**. If a word is not recognized, it stays in its original form.

If you want to convert only certain words, tap **Pen** to disable the writing function, tap twice over the word or phrase to highlight, then tap **Menu** > **Tools** > **Recognize**.

Before Recognition

After Recognition
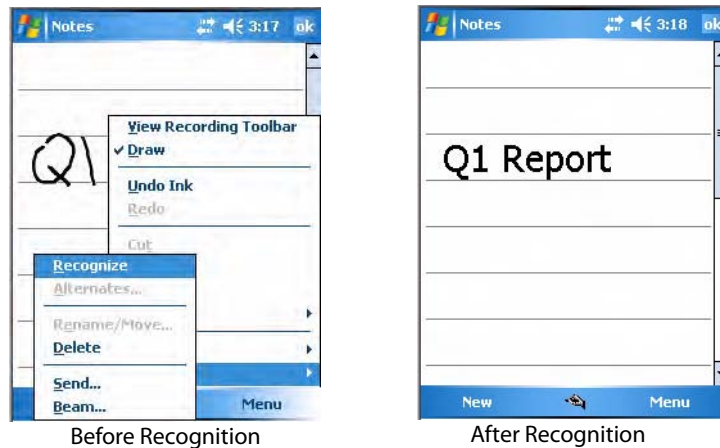
If the conversion is incorrect, you can choose different words from a list of alternates or return to the original writing. To do so, tap and hold the incorrect word (tap one word at a time). On the pop-up menu, tap **Alternates**. Tap the word use from the menu with a list of alternate words, or tap the writing at the top of the menu to return to the original writing.

Tap to return to the original writing

Or tap the word you want to use
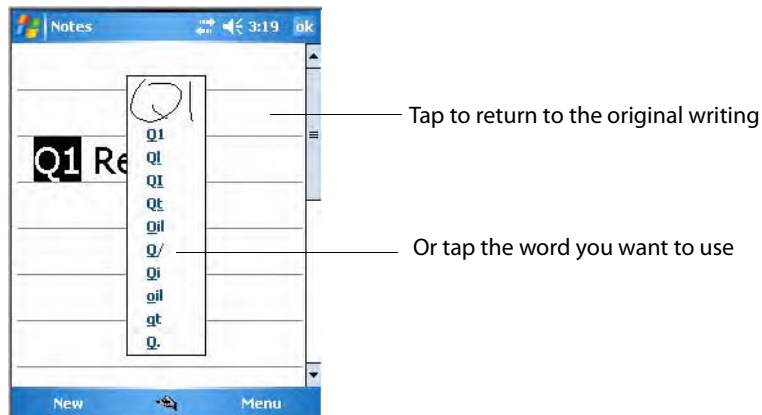
Tips for getting good recognition:

• Write neatly.

• Write on the lines and draw descenders below the line. Write the cross of the "t" and apostrophes below the top line so they are not confused with the word above. Write periods and commas above the baseline.

- For better recognition, try increasing the zoom level to 300% by selecting **Menu** > **Zoom**. Recognition is not good under a 150% zoom.

- Write the letters of a word closely and leave big gaps between words so that the CN3 Computer can easily tell where words begin and end.

- Hyphenated words, foreign words that use special characters such as accents, and some punctuation cannot be converted.

- If you add writing to a word to change it (such as changing a "3" to an "8") after you attempt to recognize the word, the writing you add is not included if you attempt to recognize the writing again.

Drawing on the Screen

You can draw on the screen in the same way that you write on the screen. The difference between writing and drawing on the screen is how you select items and how they are edited. For example, you can resize selected drawings, while you cannot resize writing.

Creating a Drawing

Select **Menu** > **Draw**, then draw a line to initiate a drawing box. Subsequent strokes in or touching the drawing box become part of the drawing.

The drawing box indicates the boundaries of the drawing

Note: You may want to change the zoom level so that you can easily work on or view your drawing. Tap **Menu** > **Zoom**, then select a zoom level.

Selecting a Drawing

If you want to edit or format a drawing, you must select it first. Tap and hold the stylus on the drawing until the selection handle appears. To select multiple drawings, deselect the **Pen** icon and then drag to select the drawings you want.

You can cut, copy, and paste selected drawings by tapping and holding the selected drawing and then tapping an editing command o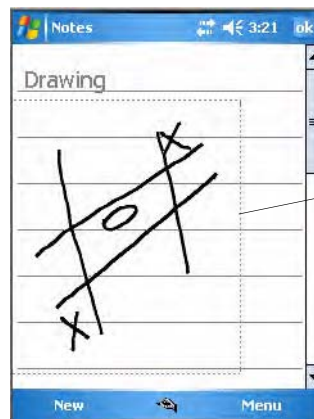n the pop-up menu, or by tapping the command under **Menu**. To resize a drawing, make sure the **Pen** icon is not selected, and drag a selection handle.

Recording a Message

In any program where you can write or draw on the screen, you can also quickly capture thoughts, reminders, and phone numbers by recording a message.

In the Messaging program, you can add a recording to an e-mail message. In Calendar, Tasks, and Contacts, you can include a recording in the **Notes** tab. In the Notes program, you can create a stand-alone recording or add a recording to an open note.

Tap **Menu** > **View Recording Toolbar** to add the recording toolbar to the bottom of the screen.

1 Hold the CN3 Computer's microphone near your mouth or source of sound.

2 Tap the red circle to start your recording.

3 Tap the black box when finished. If you are recording in an open note, an icon appears in the note, like in the following sample. If you are creating a stand-alone recording, it appears in the note list.

4 To play a recording, tap the recording icon in the open note or tap the recording in the note list.

Note: To quickly create a recording, hold down the Record hardware button. When you hear the beep, begin your recording. Release the button when you are finished. The new recording is stored in the open note or as a stand-alone recording if no note is open.

To play a recording, tap it in the list or tap its icon in the note.
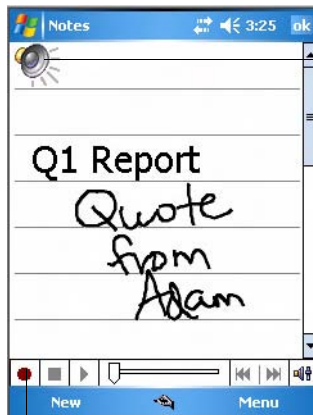
Indicates an embedded recording

Tap to begin recording

Using My Text

When using Messaging, use **My Text** to quickly insert preset or frequently used messages into the text entry area. To insert a message, tap **Menu** > **My Text**, then select a message.

- To quickly add common messages, tap **Menu** > **My Text** and tap a desired message.

- To edit a My Text message, tap **Menu** > **My Text** > **Edit My Text Messages**. Tap the message you want to edit and enter new text at the bottom of the screen.
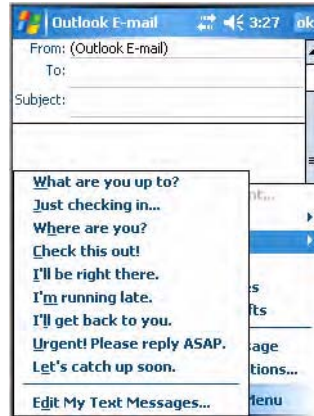
Finding and Organizing Information

You can use the File Explorer to find files on the CN3 Computer, and organize these files into folders, and move files using the cut or copy-and-paste methods. Tap **Start** > **Programs** > the **File Explorer** icon.
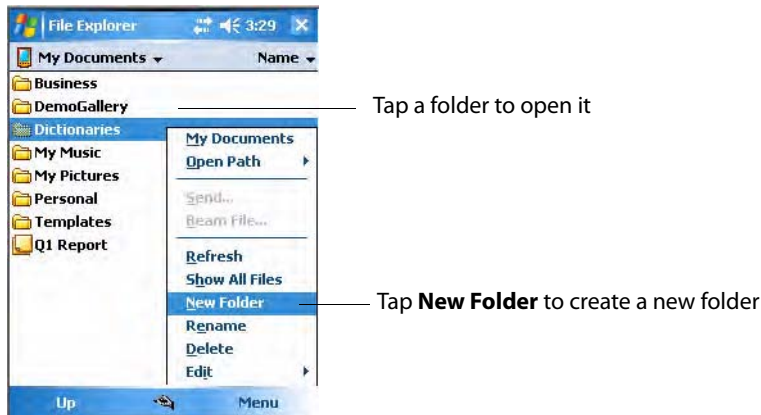
For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **File Explorer**.

Customizing Your CN3 Computer

You can customize by adjusting settings and installing additional software.

Adjusting Settings

To adjust settings to fit the way you work, tap **Start** > **Settings** > either the **Personal** tab or the **System** tab located at the bottom of the screen.

Note: The **Phone** applet in the **Personal** tab is available only on CN3 Computers with built-in phones.

Menus	To customize what appears on the **Start** menu.
Owner Information	To enter your contact information.
Today	To customize the look and information displayed on the Today screen.
Clock & Alarms	To change the time or to set alarms.
Power	To maximize battery life.

Adding or Removing Programs

Programs added to your CN3 Computer at the factory are stored in ROM (Read Only Memory). You cannot remove this software, and you cannot accidentally lose ROM contents. ROM programs can be updated using special installation programs with a *.XIP extension. All other programs and data files added to your CN3 Computer after factory installation are stored in RAM (Random Access Memory).

You can install any program created for the CN3 Computer, as long as there is enough memory. A popular place to find software for your CN3 Computer is on the Windows Mobile Web site (**www.microsoft.com/windowsmobile/resources/communities/default.mspx**).

Adding Programs Using ActiveSync

Install the appropriate software for your CN3 Computer on your desktop before installing it on your CN3 Computer.

1 Determine your CN3 Computer and processor type so that you know which version of the software to install. Tap **Start** > **Settings** > the **System** tab > the **About** icon > the **Version** tab, then make a note of the information in **Processor**.
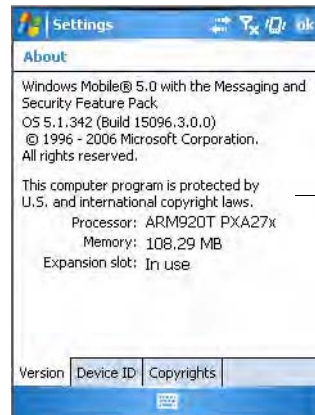
Note this information

2 Download the program to your desktop (or insert the CD or disk that contains the program into your desktop). You may see a single *.XIP, *.EXE, or *.ZIP file, a SETUP.EXE file, or several versions of files for different CN3 Computer types and processors. Be sure to select the program designed for the Windows Mobile and your CN3 Computer processor type.

3 Read any installation instructions, Read Me files, or documentation that comes with the program. Many programs provide special installation instructions.

4 Connect your CN3 Computer and desktop.

5 Double-click the *.EXE file.

• If the file is an installer, the installation wizard begins. Follow the directions on the screen. Once the software is installed, the installer automatically transfers the software to your CN3 Computer.

• If the file is not an installer, an error message stating that the program is valid but it is designed for a different type of computer is displayed. Move this file to your CN3 Computer. If you cannot find any installation instructions for the program in the Read Me file or documentation, use ActiveSync Explore to copy the program file to the Program Files folder on your CN3 Computer. For more information on copying files using ActiveSync, see *ActiveSync Help*.

Once installation is complete, tap **Start** > **Programs**, and then the program icon to switch to it. For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **File Explorer**.

Adding a Program Directly from the Internet

1 Determine your CN3 Computer and processor type so that you know which version of the software to install. Tap **Start** > **Settings** > the **System** tab > the **About** icon > the **Version** tab, then make a note of the information in **Processor**.

2 Download the program to your CN3 Computer straight from the Internet using Pocket Internet Explorer. You may see a single *.XIP, *.EXE, or *.ZIP file, a SETUP.EXE file, or several versions of files for different CN3 Computer types and processors. Be sure to select the program designed for the Windows Mobile and your CN3 Computer processor type.

3 Read program installation instructions, Read Me files, or other documentation. Many programs provide installation instructions.

4 Tap the file, such as a *.XIP or *.EXE file to start the installation wizard. Follow the directions on the screen.

Adding a Program to the Start Menu

Tap **Start** > **Settings** > the **Personal** tab > the **Menus** icon, then the check box for the program. If you do not see the program listed, you can either use File Explorer on the CN3 Computer to move the program to the **Start Menu** folder, or use ActiveSync on the desktop to create a shortcut to the program and place the shortcut in the **Start Menu** folder.
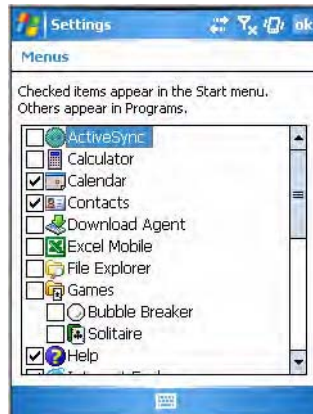
Using File Explorer on the CN3 Computer

Tap **Start** > **Programs** > the **File Explorer** icon, locate the program (tap the folder list, labeled **My Documents** by default, then **My Device** to see a list of all folders on the CN3 Computer). Tap and hold the program and tap **Cut** on the pop-up menu. Open the **Start Menu** folder located in the **Windows** folder, tap and hold a blank area of the window, and tap **Paste** on the pop-up menu. The program now appears on the **Start** menu. For more information on using File Explorer, see "Finding and Organizing Information" on page 32.

For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **File Explorer**.

Using ActiveSync on the desktop

Use the Explorer in ActiveSync to explore your CN3 Computer files and locate the program. Right-click the program, and then click **Create Shortcut**. Move the shortcut to the **Start Menu** folder in the Windows folder. The shortcut now appears on the **Start** menu. For more information, see *ActiveSync Help*.

Removing Programs

Tap **Start** > **Settings** > the **System** tab > the **Remove Programs** icon. If the program does not appear in the list of installed programs, use File Explorer on your CN3 Computer to locate the program, tap and hold the program, and then tap **Delete** on the pop-up menu.

Microsoft ActiveSync

Visit the following Microsoft Web site for the latest in updates, technical information, and samples:

www.microsoft.com/windowsmobile/resources/communities/
default.mspx

Using Microsoft ActiveSync, you can synchronize the information on your desktop with the information on your CN3 Computer. Synchronization compares the data on your CN3 Computer with your desktop and updates both computers with the most recent information. For example:

• Keep Pocket Outlook data up-to-date by synchronizing your CN3 Computer with Microsoft Outlook data on your desktop.

• Synchronize Microsoft Word and Microsoft Excel files between your CN3 Computer and desktop. Your files are automatically converted to the correct format.

Note: By default, ActiveSync does not automatically synchronize all types of information. Use ActiveSync options to turn synchronization on or off for specific information types.

With ActiveSync, you can also:

- Back up and restore your CN3 Computer data.
- Copy (rather than synchronize) files between your CN3 Computer and desktop.
- Control when synchronization occurs by selecting a synchronization mode. For example, you can synchronize continually while connected to your desktop or only when you choose the synchronize command.
- Select which information types are synchronized and control how much data is synchronized. For example, you can choose how many weeks of past appointments you want synchronized.

Before you begin synchronization, install ActiveSync on your desktop from the *Windows Mobile Companion CD*. For more information on installing ActiveSync, see your Quick Start card. ActiveSync is already installed on your CN3 Computer.

After installation is complete, the ActiveSync Setup Wizard helps you connect your CN3 Computer to your desktop, set up a partnership so you can synchronize information between your CN3 Computer and your desktop, and customize your synchronization settings. Your first synchronization process automatically begins when finished using the wizard.

After your first synchronization, look at Calendar, Contacts, and Tasks on your CN3 Computer. Notice that information you have stored in Microsoft Outlook on your desktop was copied to your CN3 Computer, and you did not have to type a word. Disconnect the CN3 Computer from your computer and you are ready to go!

Once you have set up ActiveSync and completed the first synchronization process, you can initiate synchronization from your CN3 Computer. To switch to ActiveSync on your CN3 Computer, tap **Start** > **Programs** > the **ActiveSync** icon. Note that if you have a wireless LAN card, you can synchronize remotely from your CN3 Computer.

For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **ActiveSync**.

For information about using ActiveSync on your desktop, start ActiveSync on your desktop, and then see *ActiveSync Help*.

View the connection status

Tap to synchronize via IR or to change synchronization

Tap to connect and synchronize
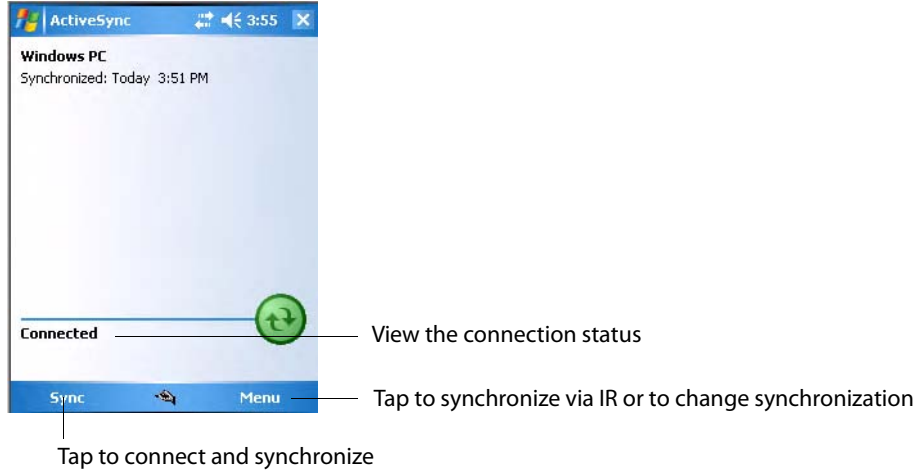
For more information about ActiveSync on your CN3 Computer, switch to ActiveSync, tap **Start** > **Help**, then select a topic.

Microsoft Pocket Outlook

Microsoft Pocket Outlook includes Calendar, Contacts, Tasks, Messaging, and Notes. You can use these programs individually or together. For example, you can use e-mail addresses stored in Contacts to address e-mail messages in Messaging.

Using ActiveSync, you can synchronize information in Microsoft Outlook or Microsoft Exchange on your desktop with your CN3 Computer. You can also synchronize this information directly with a Microsoft Exchange server. Each time you synchronize, ActiveSync compares the changes you made on your CN3 Computer and desktop or server and updates both computers with the latest information. For information on using Active-Sync, see *ActiveSync Help* on the desktop.

You can switch to any program by tapping it on the **Start** menu.

Calendar: Scheduling Appointments and Meetings

To switch to Calendar on the CN3 Computer, tap **Start** > **Calendar**.

Use Calendar to schedule appointments, including meetings and other events. You can check your appointments in one of several views (Day, Week, Month, Year, and Agenda) and set Calendar to remind you of appointments with a sound or other method.

Appointments for the day can display on the Today screen.

If you use Outlook on your desktop, you can synchronize appointments between your CN3 Computer and desktop.

Tap to go to Today

Tap to display and edit appointment details
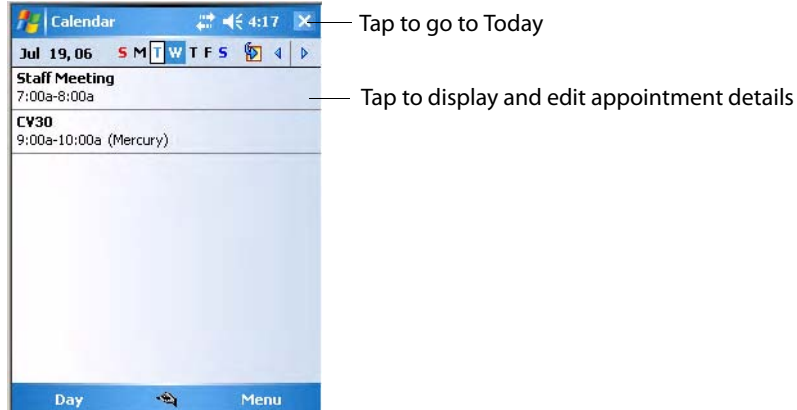
Synchronizing Calendar

Calendar items stored on your CN3 Computer can be synchronized with calendar items on your desktop or Microsoft Exchange Server. (Note that you can only synchronize information directly with an Exchange Server if your company is running Microsoft Mobile Information Server 2002 or later.) Calendar synchronization is automatically selected in ActiveSync.

Calendar items entered on one computer are copied to the other during synchronization. Handwritten notes and drawings are saved as metafiles (pictures).

For information on synchronization, see *ActiveSync Help* on the desktop.

Why Use Categories in the Calendar?

Use categories to group related tasks, contacts, and appointments. Then, use these groupings to quickly display only the information you want. For example, you can easily share your CN3 Computer with another by assigning your appointments to a category with a special project's name. You can then use this category to filter Calendar and only display appointments for that project.

Note: In Month View, the day of an appointment assigned to the Holiday category appears in red.

This day was assigned the Holiday category.

Tap to access the Year view

What's an All Day Event?

An appointment can either be a normal appointment or an all day event, which lasts the full day or spans many days. Examples include a trade show, a vacation, or a seminar. You can also use all day events to schedule an annual event, such as a birthday or anniversary. In this case, change the Status box to Free (you may need to scroll to see it) so that it does not show time as busy in your calendar. All day events do not occupy blocks of time in Calendar; they appear in banners at the top of the calendar.

Note: You cannot modify or create all-day events with attendees on the CN3 Computer. If you create all day events with attendees on your desktop, use ActiveSync to copy such events to the CN3 Computer, then view them in Calendar. For more information on copying files, see *ActiveSync Help*. To use the CN3 Computer to schedule an appointment with attendees lasting all day, set type to "Normal," then adjust the date and time appropriately.

This describes the all-day event

Tap to access the Week view

What's a Recurrence Pattern?

If you have an appointment or task that you do on a regular basis, such as a weekly team meeting or a monthly status report, enter the item once and set a recurrence pattern for it. If the default patterns in the list are not what you need, you can create your own pattern using the wizard.
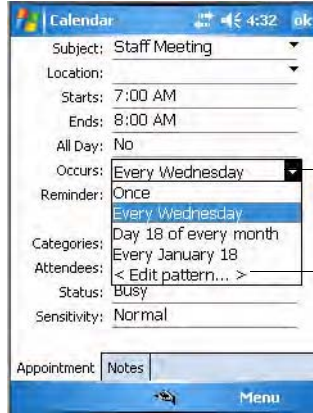
Select your recurrence pattern from this list

Select <edit pattern> to access the wizard with which to customize your recurrence.

Viewing Appointments

You can view appointments in one of several views (Agenda, Day, Week, Month, and Year). In Agenda view, upcoming appointments are displayed in bold. To see detailed appointment information in any view, tap the appointment. To see a list of available actions for an appointment, tap and hold the appointment. Tap **Start** > **Today** to see appointments for the day.

Month view displays symbols to indicate the types of appointments you have on a given day. An upward triangle indicates a morning appointment; a downward triangle indicates an afternoon appointment. If you have appointments in the morning and afternoon, a solid square is displayed. If you have an all day event not marked Free, a hollow square is displayed.

This displays a morning appointment

This displays an all-day event not marked "Free"

This displays appointments in morning and afternoon

This displays an afternoon appointment

Tap this to access the Year view

Creating or Changing an Appointment

To create an appointment, tap **Menu** > **New Appointment**. To select a new date from a pop-up calendar, tap the display date. To enter or select a new time, tap the display time. Enter the appointment details, and when finished, tap **ok** to return to the calendar.

If you are working in Day view, tap and hold the time slot for the new appointment, then select **New Appointment** to have the time automatically entered for you.

To change an appointment, tap it in the calendar, and then tap **Edit**. Change any appointment detail by tapping it and entering the new information. Tap the arrows to the right of the description and location boxes to choose from previous entries.

When entering a time, you can type military and abbreviated time forms, such as 2300 (becomes 11:00 PM), 913pm (becomes 9:13 PM), 911 (becomes 9:11 AM), and 9p (becomes 9:00 PM).

Tap to return to calendar, saved automatically
Tap to choose from predefined text
Tap to choose from previous defined locations

Tap to select a time

Tap to select a date

Notes is a good place for maps and directions
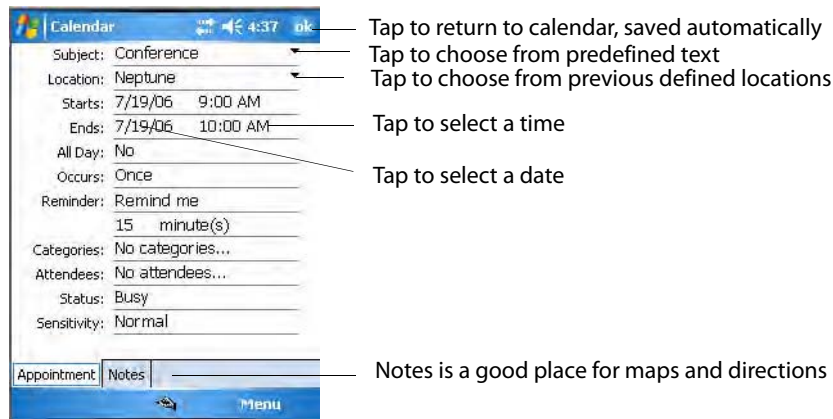
Creating an All-Day Event

To create an all-day event, do the following. To change an all-day event, switch to **Day** or **Agenda**, tap the event listed at the top of the calendar, then tap **Edit**. Change any appointment detail by tapping it and entering the new information.

1 Tap **Menu** > **New Appointment**.

2 Tap **All Day**, then select **Yes**.
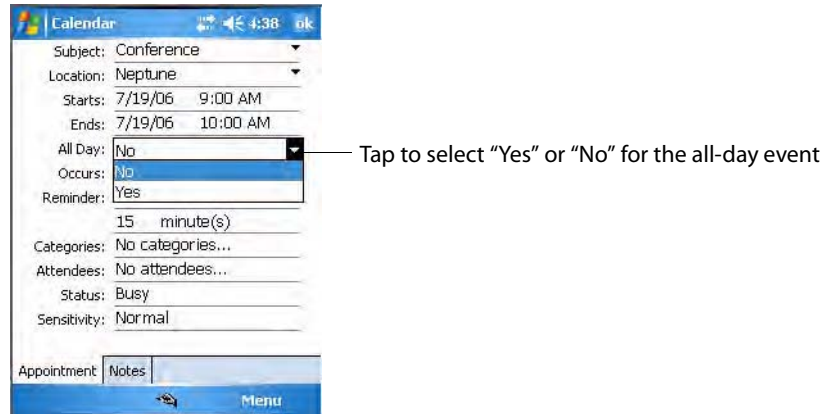
Tap to select "Yes" or "No" for the all-day event

You cannot modify or create all day events with attendees on the CN3 Computer. If you create all-day events with attendees on your desktop, use ActiveSync to copy such events to the CN3 Computer. Then, view them in Calendar. For more information on copying files, see *ActiveSync Help*. To use the CN3 Computer to schedule an appointment with attendees lasting all day, set type to **Normal**, then adjust date and time accordingly.

Setting a Reminder for an Appointment

Do the following to set a reminder for an appointment in the calendar:

1 Tap the appointment, then tap **Edit** to change the appointment.

2 Tap **Reminder** and select **Remind me**.

3 To change how many minutes before the appointment you are reminded, tap the minutes displayed, then select the new minutes from a drop-down or enter the new minutes. Tap **minutes** to change hours, days, or weeks.

Tap this to enable the reminder feature
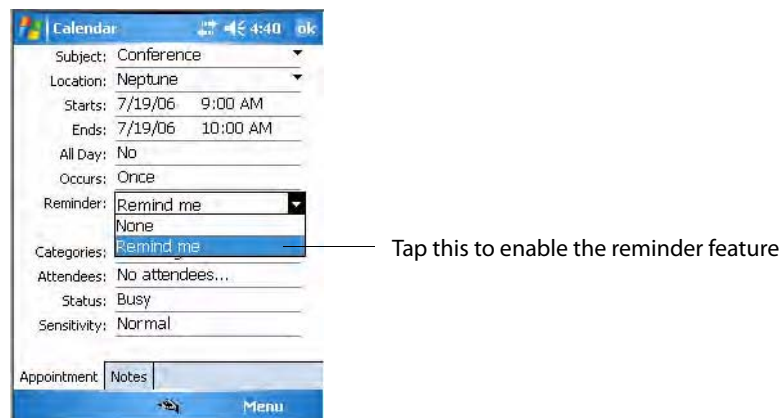
Note: To automatically set a reminder for all new appointments, in the calendar, tap **Menu** > **Options** > the **Appointments** tab, check **Set reminders for new items**, then tap the number and timeframe options to change the information given.

Tap this to set reminders for new appointments

To choose how you are reminded, for example by a sound, tap **Start** > **Settings** > the **Personal** tab > the **Sounds & Notifications** icon.

Adding a Note to an Appointment

You can add written or typed notes and even recordings (if your CN3 Computer supports recordings) to an appointment. This is a good place for maps, drawings, and other detailed information. *To edit an existing note, tap the appointment in the calendar, tap **Edit**, then tap the **Notes** tab.*

1 In the calendar, tap the appointment, then tap **Edit**.

2 Tap the **Notes** tab to enter notes. For specific instructions, tap **Start** > **Help**, then select a topic.
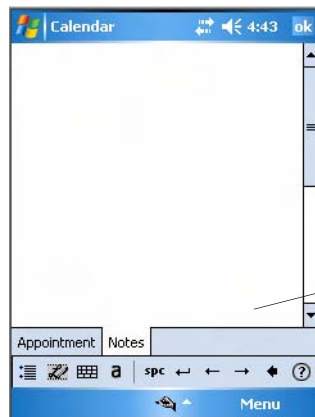
Use your stylus to write or draw information here

Making an Appointment Recurring

Do the following to make a recurring appointment:

1 In the calendar, tap the appointment, then tap **Edit**.

2 Tap **Occurs** and select a pattern from the list. Or, to create a new pattern, tap **<Edit pattern...>**, and follow the steps in the wizard.

Select your recurrence from the drop-down list

Select <edit pattern> to customize your recurrence
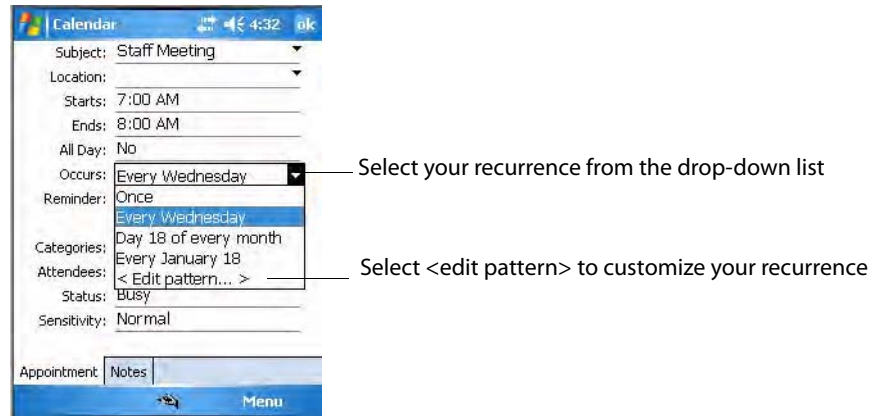
Assigning an Appointment to a Category

To find an appointment assigned to a category, tap **Menu** > **Filter**, then select the type of appointment that you want displayed. To show all appointments again, tap **Menu** > **Filter** > **All Appointments** to clear all categories.

1 In the calendar, tap the appointment, tap **Edit**, then tap **Categories**.

2 Check the categories to which you want to assign the appointment.

3 To create a new category, tap **New**, enter the category name, then tap **Done**. The new category is automatically checked in the list.

4 Tap **ok** to return to the appointment.

A check mark indicates a selected category
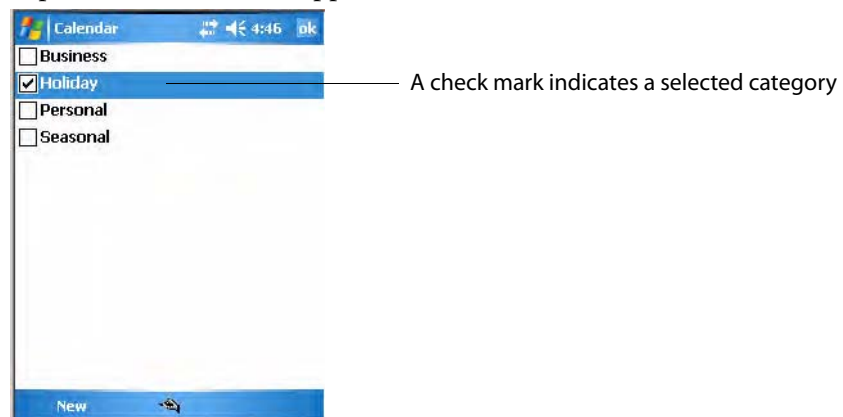
Sending a Meeting Request

Use Calendar to schedule meetings with people who use Outlook or Pocket Outlook. When attendees receive a meeting request, they can accept or decline the meeting. If they accept the request, the meeting is automatically added to their schedule, their response is sent back to you, and your calendar is updated.

Before you can send a meeting request, you must enter e-mail addresses in Contacts Help and set up Messaging to send and receive messages. For more information on sending and receiving meeting requests, open either the Calendar application or the Messaging application, tap **Start** > **Help**, then select a topic.

If you are sending the meeting request through a connection to an ISP or the network, rather than through synchronization with your desktop, tap **Menu** > **Options** > the **Appointments** tab. From the **Send meeting request via** drop-down list, tap the service to use to send the request.

1 Tap to hold a timeslot in the calendar, then tap **New Appointment**.

2 Enter the meeting information, hide the onscreen keyboard, if needed, then tap **Attendees**. Only those contacts with e-mail addresses are displayed. Select the contacts you want to invite, then tap **Add** to return to the list.

3 Repeat this procedure until you have everyone you want to invite to the meeting, then tap **ok**.

4 Messaging automatically creates a meeting request and sends it to the attendees the next time you synchronize with your desktop. Textual notes entered in the **Notes** tab (excluding writing) are also sent.

To remove a person, highlight that person, then tap **Delete**

Finding an Appointment

- Tap **Start** > **Programs** > the **Search** icon, enter the appointment name, tap the **Type** arrow and select "Calendar" from the drop-down list, and then tap **Search**. You can tap the **Search for** drop-down arrow to select from a list of previously searched items or phrases.

  Note for future access, this is added to your Start menu in the Recent Programs area, via **Start** > **Search**.

- To find an appointment assigned to a category, tap **Menu** > **Filter**, then select the type of appointment that you want displayed. To show all appointments again, tap **Menu** > **Filter** > **All Appointments** to clear all categories.

Tap to select or enter a phrase
Tap to select where to search for this phrase
Tap to see details
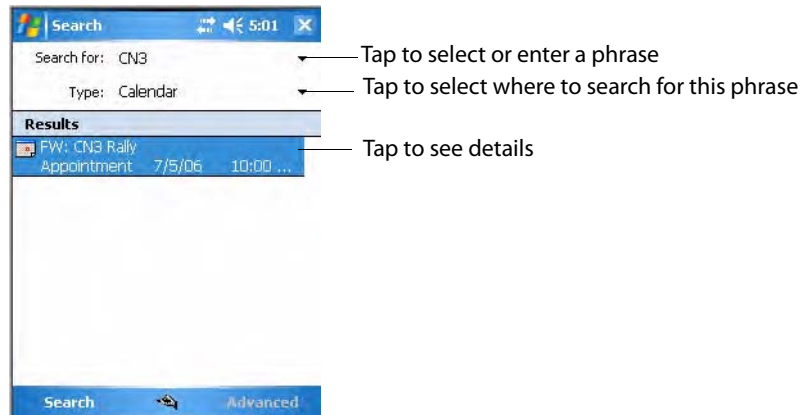
Deleting an Appointment

1 In the calendar, tap and hold the appointment.

2 On the pop-up menu, tap **Delete Appointment**. The next time you synchronize, the appointment is also deleted from the desktop.

Changing Calendar Options

In the calendar, tap **Menu** > **Options**, tap either tap, make your changes, then tap **ok** to return to the calendar.

- Tap the **General** tab to change the calendar view.
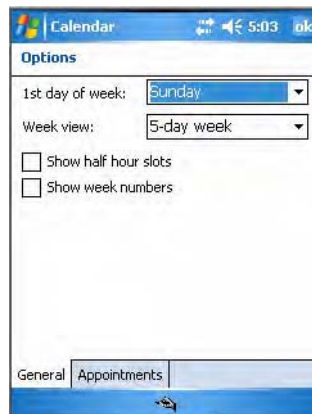
- Tap the **Appointments** tab to select what **Show icons** appointment indicators should appear when you view appointment contents. Tap and hold an icon to see its name. Selected icons are in black.

Contacts: Tracking Friends and Colleagues

To switch to Contacts on the CN3 Computer, tap **Start** > **Contacts**.

Contacts maintains a list of your friends and colleagues so that you can easily find the information you are looking for, whether you are at home or on the road. You can enter both personal and business information.

If you use Microsoft Outlook on your desktop, you can synchronize contacts between your CN3 Computer and your desktop.

Tap and enter part of a name to find it in the list

Tap to see additional phone numbers, e-mail addresses

Tap to display and edit contact details

Tap to create a new contact

Creating a Contact

1 Tap **New**, then use the input panel to enter a name and other contact information. Scroll down to see all available fields.

2 To assign the contact to a category, scroll to and tap **Categories**, then select a category from the list. In the contact list, you can display contacts by category.

3 To add notes, tap the **Notes** tab. You can enter text or draw. For information on creating notes, see **"Notes: Capturing Thoughts and Ideas" on page 54**.

4 When finished, tap **ok** to return to the contact list.

— Tap to return to the list, entry saved automatically

— Scroll to see more fields
— Use **Notes** to include maps and directions
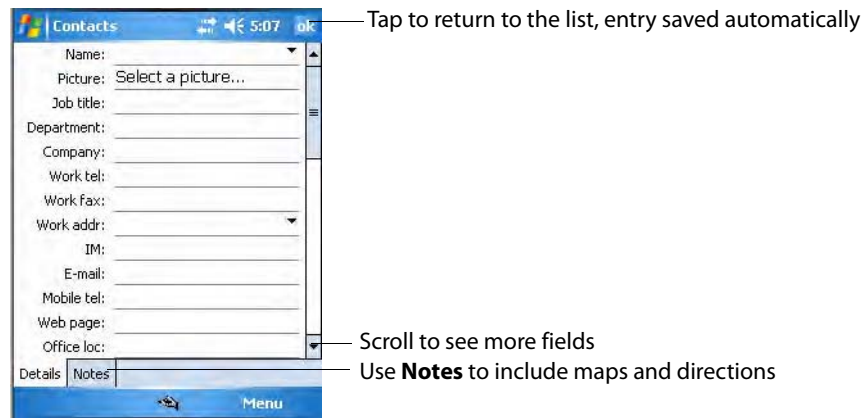
Synchronizing Contacts

Contacts stored on your CN3 Computer can be synchronized with Outlook contacts stored on your desktop or with Mobile Information Server 2002 or later.

New items entered in one location are copied to the other during synchronization. Handwritten notes and drawings are saved as pictures when synchronizing with your desktop, but are removed when synchronizing with a server.

For information on synchronization, see *ActiveSync Help* on the desktop.

Viewing Contacts

The contact list displays the contact name and the first primary phone number or e-mail address specified for that contact. Contacts are ordered by name of contact or company. *You can change the appearance of the Contacts list by tapping Menu > Options.*

• Tap the default letter (**h**ome, **w** ork, **m**obile, or **e**-mail) to the right of the contact to see additional phone numbers and e-mail addresses.

• Use the up/down controls on your keypad to highlight a contact, then press the left/right controls on your keypad to change the default number, displayed as a letter to the right of the contact name. The default number is highlighted in the contact's summary, like the sample below.

• To see more contact information, tap the contact.

• To see a list of available actions for a contact via a pop-up menu, tap and hold the contact.

- To see a list of contacts employed by a specific company, tap **Menu** > **View By** > **Company**. Then, tap the desired company name.
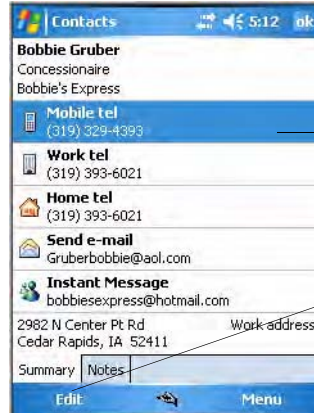
Indicates the default number

Tap to edit the default number

Creating or Changing a Contact

- To create a contact, tap **New**. To enter notes, tap the **Notes** tab. When finished, tap **ok** to return to the contact list. *New contacts are added to the displayed category.*

- To change a contact, tap it in the contact list, and then tap **Menu** > **Edit**. To cancel edits, tap **Menu** > **Undo**. When finished making changes, tap **ok** to return to the contact list.

Note: If you enter a name with more than two words, the middle word is recorded as a middle name. If your contact has a double first or last name, tap the **Name** arrow and enter the names in the proper box.

Tap to access the **Name** fields

Tap outside the box to close and return to details

Adding a Note to a Contact

You can add written or typed notes and even recordings (if your CN3 Computer supports recordings) to a contact. Notes are handy for maps and drawings. *To edit an existing note, tap the contact, tap **Menu** > **Edit**, then tap the **Notes** tab.*

1 In the contact list, tap the contact.

2 Tap the **Notes** tab. For instructions, tap **Start** > **Help**, then select a topic.

Use your stylus to write or draw your information

Tap to activate the input panel
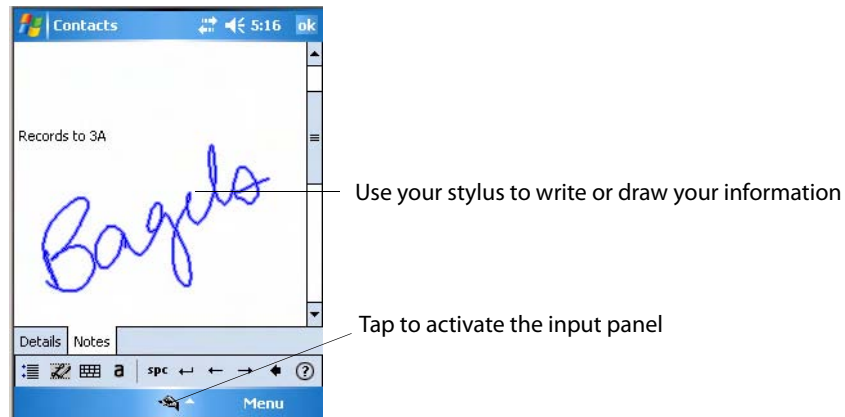
Assigning a Contact to a Category

1 In the contact list, tap the contact, and then tap **Menu** > **Edit**.

2 Scroll to, tap **Categories**, then check categories to assign to the contact.

3 To create a new category, tap **New**, enter the category name, then tap **Done**. The new category is automatically checked in the list.

4 Tap **ok** to return to the contacts.

A check mark indicates a selected category
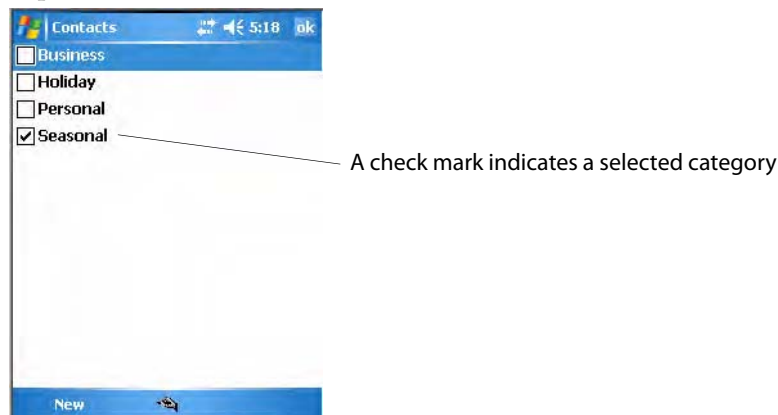
Copying a Contact

Press and hold a contact for a pop-up menu, then select **Copy Contact**; or if a contact is already highlighted, tap **Menu** > **Copy Contact**.

Sending a Message to a Contact

Press and hold a contact for a pop-up menu, then select **Send E-mail** or **Send SMS** depending on the type of message being sent. To send an e-mail message, you must have an e-mail address configured for the contact. To send an SMS (Short Messaging Service) message, you must have an SMS number for the contact, which is usually the mobile phone number.

Finding a Contact

Use any of the following methods to find a contact. To quickly move through a long list of contacts, tap one of the sets of letters displayed at the top to view contact names beginning with those letters.

- Tap **Start** > **Programs** > the **Search** icon, enter the contact name, tap the **Type** arrow and select "Contacts" from the drop-down list, and then tap **Search**. *You can tap the **Search for** drop-down arrow to select from a list of previously searched items or phrases.*

  Note for future access, this is added to your Start menu in the Recent Programs area, via **Start** > **Search**.

- From Contacts, start typing a contact name until you see it displayed on the screen. To show all contacts again, tap the text box at the top of the screen and clear the text, or tap the arrow to the right of the text box.

- To find a contact assigned to a category, tap **Menu** > **Filter**, then select the type of contact to display. To show all contacts again, tap **Menu** > **Filter** > **All Contacts** to clear all categories.

- To view the names of companies for which your contacts work, in the contact list, tap **Menu** > **View By** > **Company**. The number of contacts that work for that company is displayed to the right of the company.

Deleting a Contact

Press and hold a contact for a pop-up menu, select **Delete Contact**, then select **Yes**; or if a contact is already highlighted, tap **Menu** > **Delete Contact**, then select **Yes**.

Changing Contacts Options

In the contact list, tap **Menu** > **Options**, make your changes, then click **ok** to return to the Contacts list.
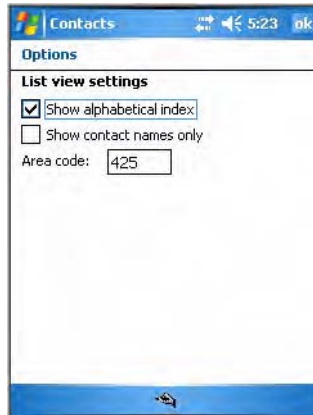
Tasks: Keeping a To Do List

To switch to Tasks on your CN3 Computer, tap **Start** > **Tasks**.

Use Tasks to keep track of what you have to do. A variety of task information can display on the Today screen. If you use Microsoft Outlook on your desktop, you can synchronize tasks between your CN3 Computer and desktop. To change the way information is displayed, tap **Menu** > **Options**.

Use this to assign a task quickly
Indicates a high priority
Tap to display or edit details

Tap and hold to display a pop-up menu
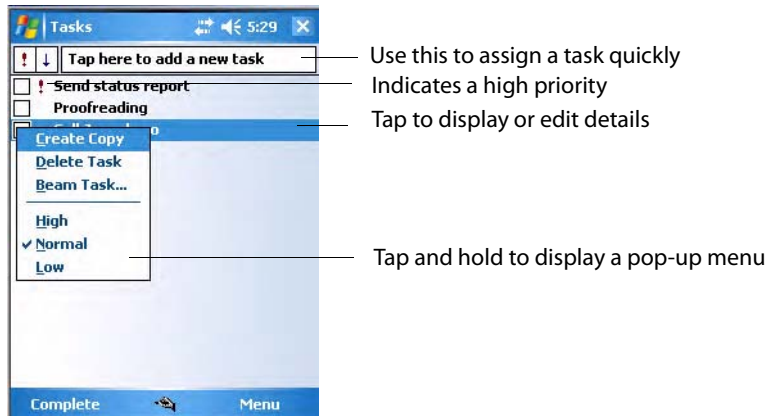
Creating a Task

To quickly create a task with only a subject, tap **Tap here to add a new task** and enter your task information.

- To quickly create a task, enter text in the **Tap here to add a new task** box at the top of the screen. If you do not see this box, tap **Menu** > **Options**, then check **Show Tasks entry bar**.

- To create a task with detailed information, such as start and due dates, tap **New**. To enter notes, tap the **Notes** tab. You can enter a start date and due date or enter other information by first tapping the field. If the input panel is open, you need to hide it to see all available fields. You can

enter text or draw. For information on creating notes, see **"Notes: Capturing Thoughts and Ideas" on page 54**.

- To change a task, tap it in the task list, and then tap **Edit**. Using the onscreen keyboard, enter a description. To assign the task to a category, tap **Categories** and check categories from the list. In the task list, you can filter tasks by category. When finished, tap **ok** to return to the task list.
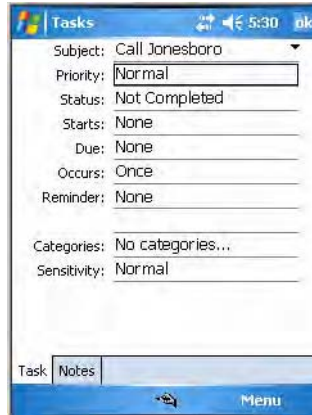
Synchronizing Tasks

Tasks stored on the CN3 Computer can synchronize with Microsoft Outlook on your desktop. Task synchronization is automatic in ActiveSync.

New items entered on one computer are copied to the other during synchronization. Handwritten notes and drawings are saved as metafiles (pictures). For information, see *ActiveSync Help* on the desktop.

Notes: Capturing Thoughts and Ideas

To switch to Notes on your CN3 Computer, tap **Start** > **Programs** > the **Notes** icon.

Note for future access, this is added to your Start menu in the Recent Programs area, via **Start** > **Notes**.

Notes helps you quickly capture your ideas, notes, and thoughts. You can create a note using written and typed text, drawings, and recordings. You can also share your notes with others through e-mail, infrared, and synchronization with your desktop.

To create documents with advanced formatting or templates, such as bulleted lists and tabs, use word processing software developed for your CN3 Computer, such as Word Mobile.

Tap to change the sort order of the list
Tap to open a note or play a recording

Tap and hold to display a pop-up menu

Tap to record
Tap to create a new note
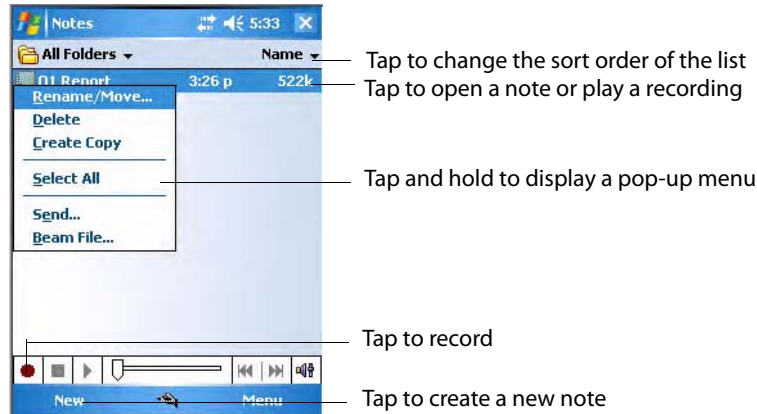
Creating a Note

To create your note, tap **New**, then write, draw, type, or record your information. For information about using the input panel, writing and drawing, and creating recordings, see **"Basic Usage" on page 22**.

- **Writing**
  Using the stylus, write directly on the screen.

- **Drawing**
  Using the stylus, draw directly on the screen.

- **Typing**
  Using the input panel, enter typed text into the CN3 Computer. Do this by tapping keys on the onscreen keyboard or by using handwriting recognition software.

- **Recording**
  Create a stand-alone recording or embed a recording into a note.

Synchronizing Notes

Notes can synchronize between your desktop and CN3 Computer either through notes synchronization or file synchronization. Notes synchronization synchronizes the notes on your CN3 Computer with Outlook Notes on your desktop. File synchronization synchronizes all notes on the CN3 Computer with the My Documents folder for the CN3 Computer on your desktop.

To synchronize your notes through notes synchronization, first select the Notes information type for synchronization in ActiveSync. The next time you synchronize, all notes in My Documents and its subfolder on your CN3 Computer appear in Outlook Notes on your desktop. Notes that contain only text appear as regular notes in Outlook on your desktop, while notes containing written text or drawings appear in the device format. In addition, all notes in the Notes group in Outlook on the desktop appear in Notes on the CN3 Computer.

To synchronize your notes as files, in ActiveSync, select the Files information type for synchronization and clear the Notes information type. When you select Files, the My Documents folder for the CN3 Computer is cre-

ated on your desktop. All .PWI files placed in the My Documents folder on your CN3 Computer and all .DOC files placed in the My Documents folder for the CN3 Computer on your desktop are synchronized. Password-protected files cannot be synchronized.

ActiveSync converts documents during synchronization. For information on synchronization or file conversion, see *ActiveSync Help* on the desktop.

Note: When you delete or change an item on either your desktop or the CN3 Computer, the item is changed or deleted in the other location the next time you synchronize.

Note: If you synchronize your notes using file synchronization and then later decide to use notes synchronization, all of your notes are synchronized with Outlook on your desktop and no longer store in the My Documents folder for the CN3 Computer.

Messaging: Sending and Receiving E-mail Messages

To switch to Messaging on your CN3 Computer, tap **Start** > **Messaging**.

You can receive Internet e-mail messages and SMS messages in Messaging. Internet e-mail messages are sent by using an address you receive from your Internet service provider (ISP) or your employer. SMS messages are sent and received through your wireless phone service provider by using a phone number as the message address.

You can send and receive e-mail by synchronizing with your desktop, or by connecting to a Post Office Protocol 3 (POP3) or Internet Message Access Protocol 4 (IMAP4) mail server. You need to set up an e-mail account for each method that you use except for Microsoft ActiveSync, which is set up by default. The ActiveSync folder on your CN3 Computer stores messages that you send and receive through synchronization with a desktop. Account names appear as folders in the folder list (located on the left, under the navigation bar) in the Messaging message list.

With synchronization, messages are synchronized between the CN3 Computer Inbox and the PC Inbox by using ActiveSync and Microsoft Exchange or Microsoft Outlook. For more information, see "Synchronizing E-mail Messages" on the next page.

When connecting to a POP3 or IMAP4 server, you use a modem to connect to your Internet service provider (ISP) or a modem card to connect to the local area network to which your e-mail server is connected. You can also use your phone to connect by using a cellular line connection. For more information, see "Connecting to a Mail Server" on page 58.

Synchronizing E-mail Messages
After selecting Messaging for synchronization in ActiveSync, e-mail messages are synchronized as part of the general synchronization process. During synchronization:

- Messages are copied from the Inbox folder on your desktop or the Microsoft Exchange server to the Inbox folder on your CN3 Computer. (Note that you can only synchronize information directly with an Exchange Server if your company is running Microsoft Mobile Information Server 2002 or later.) By default, you receive messages from the last three days only, the first 100 lines of each new message, and file attachments of less than 100 KB in size.

- Messages in the Outbox folder on your CN3 Computer are transferred to Exchange or Outlook and then sent from those programs.

- The messages on the two computers are linked. When you delete a message on your CN3 Computer, it is deleted from your desktop the next time you synchronize.

- Messages in subfolders in other e-mail folders in Outlook are synchronized only if they were selected for synchronization in ActiveSync.

For information on initiating Messaging synchronization or changing synchronization settings, see *ActiveSync Help* on your desktop or tap **Start** > **Help**, then select a topic.

Managing E-mail Messages and Folders

Each e-mail account and SMS account has its own folder hierarchy with five default folders: Inbox, Outbox, Deleted Items, Drafts, and Sent Items. The messages you receive and send through the mail account are stored in these folders. You can also create additional folders within each hierarchy. The Deleted Items folder contains messages that were deleted on the CN3 Computer. The behavior of the Deleted Items and Sent Items folders depends on the Inbox options you have chosen.

The behavior of the folders you create depends on whether you are using ActiveSync, SMS, POP3, or IMAP4.

- *If you use ActiveSync,* e-mail messages in the Inbox folder in Outlook automatically synchronize with your CN3 Computer. You can select to synchronize additional folders by designating them for ActiveSync. The folders you create and the messages you move are then mirrored on the 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 into that folder. You can then read messages while away from your desktop.

- *If you use SMS,* messages are stored in the Inbox folder.

- *If you use POP3* and you move e-mail messages to a folder you created, the link is broken between the messages on the CN3 Computer and their copies on the mail server. The next time you connect, the mail server sees that the messages are missing from the CN3 Computer Inbox and deletes them from the server. This prevents you from having duplicate copies of a message, but it also means that you no longer have access to

messages that you move to folders created from anywhere except the CN3 Computer.

- *If you use IMAP4*, the folders you create and the e-mail messages you move are mirrored on the server. Therefore, messages are available to you anytime you connect to your mail server, whether it is from your CN3 Computer or desktop. This synchronization of folders occurs whenever you connect to your mail server, create new folders, or rename/delete folders when connected.

For all accounts except ActiveSync, you can access folder options by tapping **Menu** > **Tools** > **Manage Folders**.

Connecting to a Mail Server

In addition to synchronizing e-mail messages with your desktop, you can send and receive e-mail messages by connecting to an e-mail server using a modem or network card connected to your CN3 Computer. You need to set up a remote connection to a network or an ISP, and a connection to your e-mail server. For more information, see **"Remote Access (Modems)" on page 118**.

When you connect to the e-mail server, new messages are downloaded to the CN3 Computer Inbox folder, messages in the CN3 Computer Outbox folder are sent, and messages that were deleted on the e-mail server are removed from the CN3 Computer Inbox folder.

Messages that you receive directly from an e-mail server are linked to your e-mail server rather than your desktop. When you delete a message on your CN3 Computer, it is also deleted from the e-mail server the next time you connect based on the settings selected in ActiveSync.

You can work online or offline. When working online, you read and respond to messages while connected to the e-mail server. Messages are sent as soon as you tap **Send**, which saves space on your CN3 Computer.

When working offline, once you have downloaded new message headers or partial messages, you can disconnect from the e-mail server and then decide which messages to download completely. The next time you connect, Inbox downloads the complete messages you have marked for retrieval and sends the messages you have composed.

Setting Up or Changing an Account

To set up a a POP3 or IMAP4 e-mail account, tap **Menu** > **Tools** > **Options** > **New Account**. Follow instructions in the New Account Wizard.

To set up an SMS account, tap **Menu** > **Switch Accounts**, and then tap **SMS**. Follow the instructions on the screen.

To change options for an account, tap **Menu** > **Tools** > **Options** > the name of the account, and follow the instructions on the screen.

To delete an account, tap **Menu** > **Tools** > **Options**, tap and hold the name of the account, and then tap **Delete**.

Note: You can set up several e-mail accounts including your ActiveSync account, but you can set up only one SMS account, which you cannot delete once it is set up.

Downloading Messages from the Server

Note that receiving entire messages consumes storage memory. The size column in the message list displays the local size and server size of a message. Even when a message has downloaded fully, these numbers may differ because the size of a message can vary between the server and the CN3 Computer.

1 Tap **Menu** > **Switch Accounts** and ensure that the account you want to use is selected (marked by a bullet.)

2 The messages on your CN3 Computer and e-mail server are synchronized: new messages are downloaded to the CN3 Inbox folder, messages in the CN3 Outbox folder are sent, and messages that were deleted from the server are removed from the CN3 Inbox. Tap a message in the message list to open it.

3 If you read a message and decide that you need the full copy, tap **Menu** > **Download Message** while in the message window. If you are in the message list, tap and hold the message, and then tap **Download Message**. This also downloads message attachments if you selected those options when you set up the e-mail account. You can also choose to download full copies of messages by default.

4 When finished, close Messaging.

Composing and Sending Messages

To compose a message, do the following.

If you are sending an SMS message and want to know if it was received, before sending the message, tap **Menu** > **Message Options** > **Request SMS text message delivery notification**.

Depending on the e-mail address options that you select, you can use a directory service in addition to your contact list to verify names.

1 In the message list, tap **New**.

2 To select an account, tap the **From** list and select "ActiveSync," "SMS," or the desired e-mail account.

3 Enter the e-mail address or SMS address of one or more recipients, separating them with semicolons. To access addresses and phone numbers from Contacts, tap **To**.

4 Enter your message. To quickly add common messages, tap **Menu** > **My Text**, select a desired message.

5 To check spelling, tap **Edit** > **Spell Check**.

6 Tap **Send**. If you are working offline, the message is moved to the Outbox folder and is sent the next time you connect.
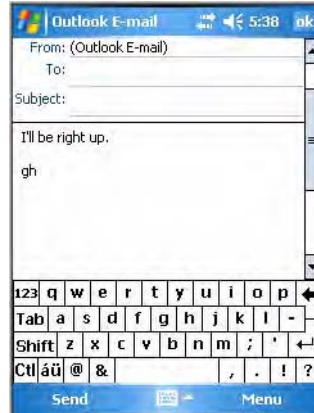
Companion Programs

The companion programs consist of Word Mobile, Excel Mobile, and PowerPoint Mobile, and Windows Media Player. To switch to a companion program on your CN3 Computer, tap **Start** > **Programs**, then tap the program name.

Word Mobile

Word Mobile works with Microsoft Word on your desktop to give you access to copies of your documents. You can create new documents on your CN3 Computer, or you can copy documents from your desktop to your CN3 Computer. Synchronize documents between your desktop and your CN3 Computer to have up-to-date content in both locations.

Creating a Document

Use Word Mobile to create documents, such as letters or meeting minutes. To create a new file, tap **Start** > **Programs** > the **Word Mobile** icon > **New**. You get either a blank document or a template, depending on what you have selected under **Menu** > **Tools** > **Options**.

For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **Word Mobile**.

You can open only one document at a time; when you open a second document, you have to save the first. You can save a document you create or edit in formats such as Word (.DOC), Pocket Word (.PSW), Rich Text Format (.RTF), and Plain Text (.TXT).

Word Mobile contains a list of files stored on your CN3 Computer. Tap a file in the list to open it. To delete, make copies of, and send files, tap and hold a file in the list, then, select the action on the pop-up menu.

Tap to change the sort order of the list

Tap to open a document

Tap and hold an item to see a pop-up menu

Tap to create a new document
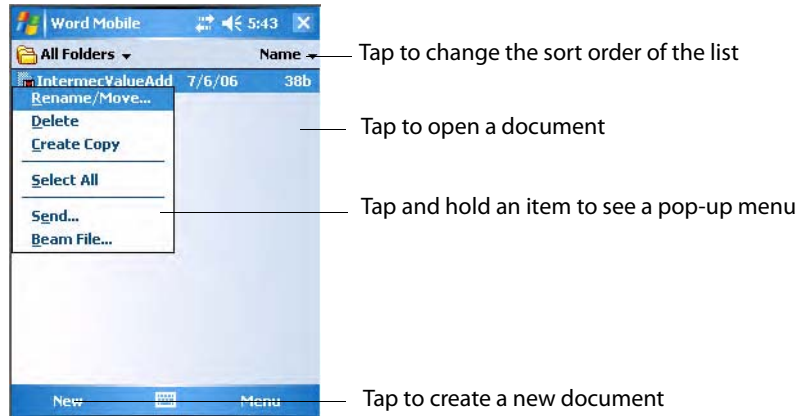
You can enter information in Word Mobile in by typing or writing. Each mode has its own toolbar, which you can show and hide by tapping the **Input Panel** icon in the center of the command bar.

You can change the zoom magnification by tapping **View** > **Zoom**, then select the percentage you want. Select a higher percentage to enter text and a lower one to see more of your document.

If you are opening a Word document created on a desktop, you may select **View** > **Wrap to Window** so that you can see the entire document.

To check spelling, select text, then tap **Menu** > **Tools** > **Spelling**. To use new documents as templates, move the documents to the Templates folder.

You can insert the data in a document. Tap and hold anywhere on the document, then tap **Insert Date** from the pop-up menu.

Typing Mode

Using the input panel, enter typed text into the document. For more information on entering typed text, see **"Basic Usage" on page 22**.

To format existing text and to edit text, first select the text. You can select text as you do in a Word document, using your stylus instead of the mouse to drag through the text you want to select. You can search a document to find text by tapping **Menu** > **Edit** > **Find/Replace**.

Tap to return to the document list
Tap and hold to see a pop-up menu

Tap to format text
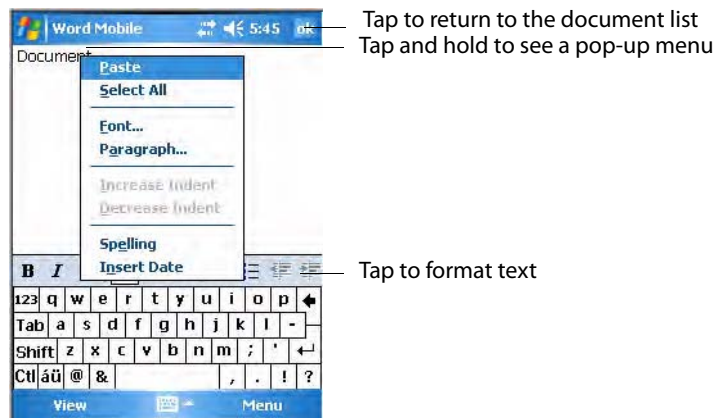
Writing Mode

In writing mode, use your stylus to write directly on the screen. Ruled lines are displayed as a guide, and the zoom magnification is greater than in typing mode to allow you to write more easily. For more information on writing and selecting writing, see **"Basic Usage" on page 22**.

Written words are converted to graphics (metafiles) when a Pocket Word document is converted to a Word document on your desktop.

Synchronizing Word Mobile Documents

Word Mobile documents can be synchronized with Word documents on your desktop. To synchronize files, first select the Files information type for synchronization in ActiveSync. When you select Files, the My Documents folder for the CN3 Computer is created on your desktop. Place all files you want to synchronize with the CN3 Computer in this folder. Password-protected files cannot be synchronized.

All Word Mobile files stored in My Documents and its subfolders are synchronized with the desktop. ActiveSync converts documents during synchronization.

For more information on synchronization or file conversion, see *ActiveSync Help* on the desktop. When you delete a file on either your desktop or your CN3 Computer, the file is deleted in the other location the next time you synchronize.

Excel Mobile

You can create and edit workbooks and templates in Excel Mobile as you do in Microsoft Excel on your desktop. Excel Mobile workbooks are usually saved as .PXL files, but you can also save them in .XLS format.

When you close a workbook, it is automatically named and placed in the Excel Mobile workbook list.

Creating a Workbook

Use Excel Mobile to create workbooks, such as expense reports and mileage logs. To create a new file, tap **Start** > **Programs** > the **Excel Mobile** icon > **New** to access a blank workbook. Or, if you have selected a template for new workbooks under the **Menu** > **Tools** > **Options**, that template appears with appropriate text and formatting already provided.

For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **Excel Mobile**.

You can open only one workbook at a time; when you open a second workbook, save the first. You can save a workbook you create or edit in a variety of formats, including Pocket Excel (.PXL) and Excel (.XLS). You can also save a workbook as a template by moving the workbook to the Templates folder.

Excel Mobile contains a list of the files stored on your CN3 Computer. Tap a file in the list to open it. To delete, make copies of, send files, tap and hold a file in the list, then select the appropriate action from the menu.

Excel Mobile provides fundamental spreadsheet tools, such as formulas, functions, sorting, and filtering. Tap **View** > **Toolbar** to see the toolbar.
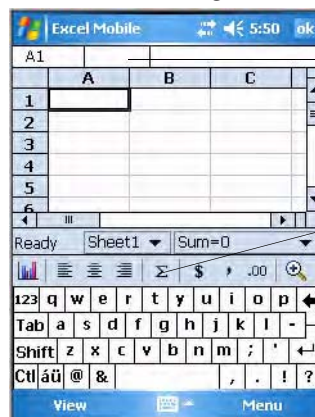
Cell contents appear here as you enter them

Autosum icon

Tips for Working in Excel Mobile

Note the following when working in large worksheets in Excel Mobile:

- View in full-screen mode to see as much of your worksheet as possible. Tap **View** > **Full Screen**. To exit full-screen mode, tap **View** > **Full Screen**.

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

- Show and hide window elements. Tap **View** > **Show**, then tap the elements you want to show or hide.

- Freeze panes on a worksheet. First select the cell where to freeze panes. Tap **View** > **Freeze Panes**. You might want to freeze the top and leftmost panes in a worksheet to keep row and column labels visible as you scroll through a sheet. Tap **View** > **Unfreeze Panes** to undo this process.

• Split panes to view different areas of a large worksheet. Tap **View** > **Split**. Then drag the split bar to where you want it. To remove the split, tap **View** > **Remove Split**.

For more information on using Excel Mobile, tap **Start** > **Help**, then select a topic.

PowerPoint Mobile

With PowerPoint Mobile on your CN3 Computer, you can open and view slide show presentations created on your PC. Whether the presentation is opened from an e-mail message, downloaded from a file share or the Internet, copied to the CN3 Computer via a storage card, or obtained by synchronizing with your PC, slide shows created in *.PPT and *.PPS format with PowerPoint 97 and later can be viewed on your CN3 Computer.

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.

For more information on PowerPoint Mobile while you are in this application, tap **Start** > **Help**, then select a topic.

To Start a Slide Show Presentation

For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **PowerPoint Mobile**.

1 To start a slide show presentation, tap **Start** > **Programs** > the **PowerPoint Mobile** icon.

2 In the presentation list, tap the slide show you want to view.
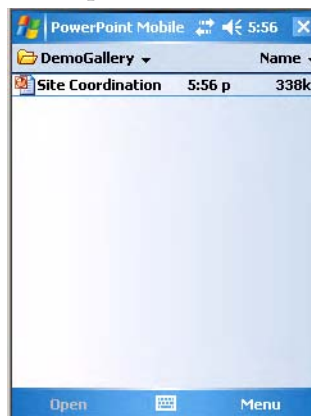
3 Tap the current slide to advance to the next slide. If the presentation is set up as a timed slide show, slides will advance automatically.

4 To view a PowerPoint Mobile presentation in portrait, or right-handed or left-handed landscape orientations, tap the slide icon *(in the bottom, left corner of the following illustration)* for a pop-up menu.

5 Tap **Show Options** > the **Orientation** tab, then select an orientation.

6 Tap **Default** to view the presentation in the orientation that best fits the size and shape of the screen.
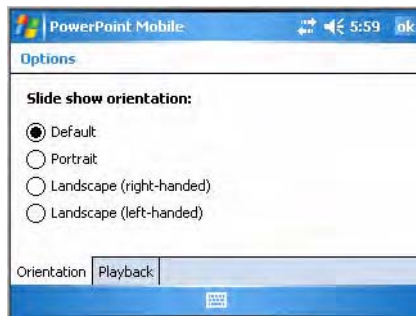
Windows Media Player for Windows Mobile

Tap **Start** > **Windows Media**. For more information about using Windows Media, tap **Start** > **Help**, then select a topic.

Use Microsoft Windows Media Player on your desktop to copy digital audio and video files to your CN3 Computer. You can play Windows Media and MP3 files on your Windows Mobile.

Tap to download from the internet

Indicates the current track progress

Tap to adjust the volume

Tap to skip to the next song

Tap to play the previous song

Tap to play or pause
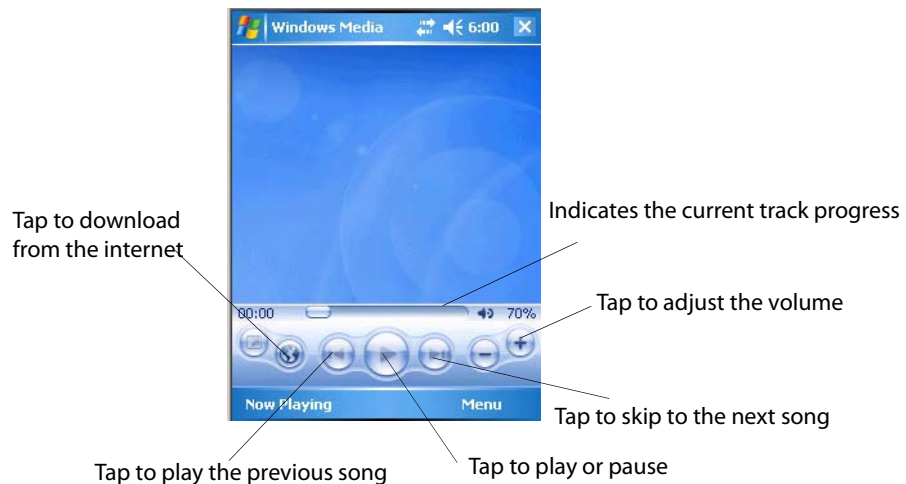
Internet Explorer Mobile

Use Internet Explorer Mobile to view Web or WAP pages in these ways:

- During synchronization with your desktop, download your favorite links and mobile favorites that are stored in the Mobile Favorites subfolder in Internet Explorer on the desktop.

- Connect to an ISP or network and browse the Web. To do this, create the connection first, as described in **"Remote Access (Modems)" on page 118**.

When connected to an ISP or network, you can also download files and programs from the Internet or intranet.

To switch to Internet Explorer Mobile on your CN3 Computer, tap **Start** > **Internet Explorer**.

Mobile Favorites

Only items stored in the Mobile Favorites subfolder in the Favorites folder in Internet Explorer on your desktop are synchronized with your CN3 Computer. This folder was created automatically when you installed ActiveSync.

Favorite Links

During synchronization, the list of favorite links in the Mobile Favorites folder on your desktop is synchronized with Internet Explorer Mobile on your CN3 Computer. Both computers are updated with changes made to either list each time you synchronize. Unless you mark the favorite link as a mobile favorite, only the link is downloaded to your CN3 Computer. Connect to your ISP or network to view the content.

1 In ActiveSync on your desktop, click **Tools** > **Options**, and select "Favorites" from the Windows PC list. For more information on using ActiveSync, see *ActiveSync Help* on the desktop.

2 In Internet Explorer on your desktop, save or move favorite links to the Mobile Favorites subfolder in the Favorites list via **Favorites** > **Organize Favorites**. For more information on using Internet Explorer, see *Internet Explorer Help* on the desktop.

3 Connect your CN3 Computer to your desktop. If synchronization does not start automatically, in ActiveSync on your desktop, click **Sync**.

Mobile Favorites

If you are using Microsoft Internet Explorer 5.0 or later on your desktop, you can download mobile favorites to your CN3 Computer. Synchronizing mobile favorites downloads Web content to your CN3 Computer so that you can view pages while you are disconnected from your ISP and desktop.

Use the Internet Explorer plug-in installed with ActiveSync to create mobile favorites quickly. To create a mobile favorite:

1 In ActiveSync on your desktop, click **Tools** > **Options**, and select "Favorites" from the Windows PC list. For more information on using ActiveSync, see *ActiveSync Help* on the desktop.

2 In Internet Explorer 5.0 or greater on your desktop, browse to the page you want to view offline, then click **Tools** > **Create Mobile Favorite**.

3 To change the link name, enter a new name in the **Name** box.

4 In the **Update** box, select a desired update schedule to keep the page in the Mobile Favorites folder up to date. You can also update content by clicking **Tools** > **Synchronize** in Internet Explorer.

5 To save the link in a subfolder of Mobile Favorites, click **Create In** and select the desired subfolder.

6 Click **OK**. Internet Explorer downloads the latest version of the page to your desktop.

7 To download the pages that are linked to the mobile favorite you just created, in Internet Explorer on the desktop, right-click the mobile favorite, then click **Properties**. On the **Download** tab, specify the number of links deep you want to download. *To conserve CN3 Computer memory, go only one level deep.*

8 Connect your CN3 Computer to your desktop. If synchronization between your CN3 Computer and desktop does not start, in ActiveSync on your desktop, click **Sync**.

Mobile favorites take up storage memory on your CN3 Computer. To minimize the amount of memory used:

• In the settings for the Favorites information, type in ActiveSync options, turn off pictures and sounds, or stop downloading some mobile favorites to the CN3 Computer. For more information, see *ActiveSync Help*.

• Limit the number of downloaded linked pages. In Internet Explorer on the desktop, right-click the mobile favorite you want to change and then **Properties**. In the **Download** tab, specify "0" or "1" for the number of linked pages you want to download.

Using Internet Explorer Mobile

You can use Internet Explorer Mobile to browse mobile favorites and channels that were downloaded to your CN3 Computer without connecting to the Internet. You can also connect to the Internet through an ISP or a network connection and browse the Web.

Viewing Mobile Favorites and Channels

1 Tap **Favorites**, or **Menu** > **Favorites** to display your list of favorites.

2 Tap the page you want to view.

Tap the favorite you want to view

Tap to add or remove a folder or link
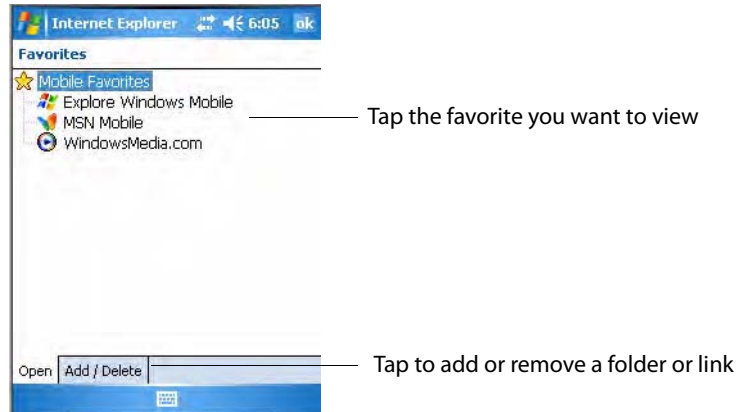
3 The page that was downloaded the last time you synchronized with your desktop opens. If the page is not on your CN3 Computer, the favorite is dimmed. Synchronize with your desktop again to download the page to your CN3 Computer, or connect to the Internet to view the page.

Browsing the Internet

Set up a connection to your ISP or corporate network using Connections, as described in "Remote Access (Modems)" on page 118. Tap **Favorites**, or **Menu** > **Favorites**, and then tap the favorite to view, in the address bar that appears at the top of the screen; enter the Web address you want to visit, then tap **Enter**, and tap the arrow to choose from previously entered addresses; or while using the CN3 Computer, go to the page you want to add, tap and hold on the page, and tap **Add to Favorites** to add favorites.

3 Configuring the Computer

There are multiple ways to get an application to your CN3 Mobile Computer; like there are multiple ways to package the application for delivery.

Note: Desktop icons and settings applet icons are shown to the left. Any place that **Start** is mentioned, tap the following Windows icon in the top, left corner of your CN3 desktop.

Developing Applications for the Computer

CN3Computers run applications programmed in Microsoft Visual Studios 2005. Use this chapter to understand what you need to develop a new application for the CN3 Computer.

Note: Microsoft eMbedded Visual C++ 4.0 may be used, but some features are not available.

To develop applications for your CN3 Computer, use the Resource Kits in the Intermec Developer Library (IDL). Download the IDL from the Intermec web site at **www.intermec.com/idl**. Contact your Intermec representative for more information.

You need the following hardware and software components to use the resource kits:

- Pentium desktop, 400 MHz or higher
- Windows 2000 (Service Pack 2 or later) or Windows XP (Home, Professional, or Server)
- For native and managed development, Microsoft Visual Studio 2005
- 128 MB RAM (196 MB recommended)
- 360 MB hard drive space for minimum installation (720 MB for complete)
- CD-ROM drive compatible with multimedia desktop specification
- VGA or higher-resolution monitor (Super VGA recommended)
- Microsoft Mouse or compatible pointing device

Packaging Applications for the CN3 Computer

Use any of these methods to package applications for installation:

- You could package an application as a cabinet (CAB) file. *Recommended*
- For simple applications, the application itself may be the file to deliver.
- It could be a directory structure that contains the application, supporting files like ActiveX controls, DLLs, images, sound files, and data files.

Consider any of these when choosing a storage location for applications:

- In the basic CN3 Computer, there are two built-in storage options: the Object Store and the Flash File Store. The Object Store is a Disk on Chip (DOC) Flash that looks like a disk. The Flash File Store is an area of storage which is embedded in a section of the system's FLASH memory. This storage area is *not* erased during a clean-boot.
- If the optional Secure Digital storage card is in the system, then consider this card the primary location for placing an applications install files. This storage card creates the "\Storage Card" folder.

- Use the small nonvolatile Flash File Store region to hold CAB files that rebuild the system at clean-boot or install applications from a CAB file *into* the Flash File Store so they are "ready-to-run" when a clean-boot is performed. Since the FLASH in the system has a limited number of write cycles, do not use the Flash File Store for excessive writing purposes; however, reading is okay.

Installing Applications on the Computer

Any of these options can move items to locations on your CN3 Computer: Microsoft ActiveSync (**page 71**), Secure Digital storage cards *(***page 72***)*, Wavelink Avalanche (**page 72**), or SmartSystems™ Console (**page 73**).

Using Microsoft ActiveSync

You can use Microsoft ActiveSync to establish a connection between your desktop and the CN3 Computer. Microsoft ActiveSync transfers files, synchronizes files, remote debugging, and other device management activities.

See **Chapter 2, "Windows Mobile"** for information about the Microsoft ActiveSync application as provided by Microsoft Corporation.

This can be a USB Microsoft ActiveSync connection. Files can be copied using Windows Explorer on a desktop or a laptop computer. This is usually good when updating few CN3 Computers.

These instructions assume that Microsoft ActiveSync was installed onto your desktop and is up and running. If not, go to **Chapter 2, "Windows Mobile"** for an URL from which to download the latest application.

1 Connect your CN3 Computer to your desktop using a USB cable. You may have to detach, then reattach the cable to "wake" the connection.

2 Wait for a "Connected" message to appear in the Microsoft ActiveSync application to signal a connection to the CN3 Computer. If necessary, select **File** > **Get Connected** to initiate a connection or detach, then reattach the USB cable.
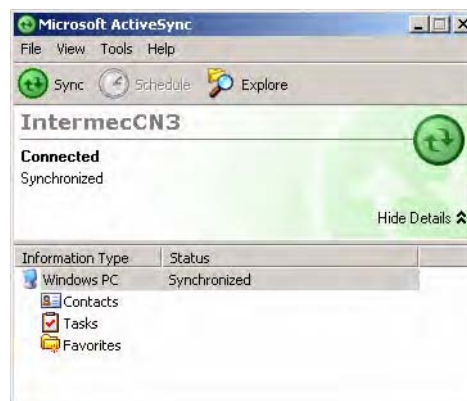
3 Click **Explore** to access the "\Mobile Device" folder on your unit.

4   From your desktop, select **Start** > **Windows Explorer**, then browse the "C:\Intermec\CN3 Mgmt Tools\CabFiles" path for any CAB files needed for your CN3 Computer. Select the appropriate file, right-click the file for a pop-up menu, then select **Copy**.

5   Within the "\My Windows Mobile-Based Device" directory, go to the directory where you want the files located on the CN3 Computer, do a right-click for a pop-up menu, then select **Paste**.

6   When all of the files are pasted, perform a clean-boot on the CN3 Computer. When the computer reboots, wait for the LED on the top left of your keypad to stop blinking. Tap **Start** > **Programs** > **Windows Explorer** to locate the newly copied executable files, then tap these files to activate their utilities.

Using a Storage Card

If you have a mini-Secure Digital (SD) storage card for your CN3 Computer, this is the best place for you to installation applications.

1   If you are using a Secure Digital card reader, suspend the CN3 Computer, remove its mini-SD storage card, insert it in a mini-SD adapter card, then place it in the reader. For help, see **"Using the Storage Card" on page 16**.

2   Copy your application file to the mini-SD card. If you are using Microsoft ActiveSync to copy the files to the mini-SD card, place the application in the "\Storage Card" folder on the CN3 Computer.

3   If using a Secure Digital card reader, insert the mini-SD card back into the CN3 Computer.

4   Navigate to the "\Storage Card" folder and run your application. After your application is installed, you can run it from the Programs menu.

Using Wavelink Avalanche

You can use the Wavelink Avalanche device management system to install applications on all of your wireless CN3 Computers.

The wireless CN3 Computer ships with the Avalanche Enabler already loaded on it. The Avalanche Enabler is configured to activate automatically (typically on a clean boot).

Note: If you manually activate the Avalanche Enabler on the CN3 Computer, you may be prompted for a password when you exit the Avalanche Enabler. The default password is `leave`.

When the Avalanche Enabler is activated, the CN3 Computer attempts to connect to the Avalanche Agent. When the CN3 Computer connects to the Agent, the Agent determines whether an update is available and immediately starts the software upgrade, file transfer, or configuration update.

To use Avalanche to remotely manage the CN3 Computer

1 Use the Avalanche Management Console to install software packages and updates for the CN3 Computer. For help using the console, see the online help.

2 Schedule the CN3 Computer updates or manually initiate an update using the Avalanche Management Console.

For information on using Wavelink Avalanche, contact your local Intermec representative or visit the Wavelink web site at **www.wavelink.com**.

Using the SmartSystems Console

You can use the SmartSystems Console to drag-and-drop Intermec applications onto your CN3 Computers. The CN3 Computer ships with the SmartSystems client loaded on it. The console is part of SmartSystems Foundation and is available from the Intermec web site.

To use SmartSystems Console to install an application file

1 Download the file from the Intermec web site, unzip it on your desktop.

2 From the SmartSystems Console, drag-and-drop the application onto each CN3 Computer discovered in your network.

To download SmartSystems Foundation, go to **www.intermec.com/idl** and open the Device Management page. For information on using the SmartSystems Console, see its online help.

Updating the System Software

When you upgrade your CN3 Computer, you are updating the operating system (OS) and the SmartSystems Platform Bundle (SSPB) files.

The SSPB files are stored on the DiskOnChip, and deliver Intermec Value-Added (IVA) functionality such as data collection, unit configuration and diagnostics, and Intermec's wireless security suite. As new features are added to these components, you can upgrade your SSPB files without needing to upgrade the operating system image. Similarly, features added to the operating system images do not affect the functionality of the SSPB, and you can choose to upgrade only the operating system image.

There are two ways to upgrade the CN3 Computer:

• You can use a mini-SD card to upgrade the CN3 Computer. For help, see below.

• You can use the SmartSystems Console to upgrade the CN3 Computer. For help, see **"Using the SmartSystems Console to Upgrade the CN3 Computer" on page 76**.

You need to download the latest upgrade files from the Intermec web site to your desktop or laptop computer, then determine if you will upgrade both the operating system and SSPB files, just the operating system files, or just the SSPB files.

1 Start your web browser and go to the Intermec web site at **www.inter-mec.com**.

2 Go to **Service & Support > Downloads**.

3 Select **Computers: CN3 Mobile Computer** from the drop-down list.

4 Select which download you need. Make sure the download you select is for the CN3 Computer.

5 Look at the description (or the ReadMe file) to determine if this download will upgrade both the operating system and SSPB files, just the operating system, or just the SSPB. You will need this information later.

6 Close the link and download the .zip file to your desktop or laptop computer.

7 If you are using a mini-SD card to upgrade the CN3 Computer, see the next page.

If you are using the SmartSystems Console to upgrade the CN3 Computer, see **"Using the SmartSystems Console to Upgrade the CN3 Computer" on page 76**.

Using a Storage Card to Upgrade the Computer

To use a mini-SD storage card to upgrade the CN3 Computer, you need a Secure Digital card reader and a mini-SD storage card formatted as FAT16.

Note: The CN3 Computer currently supports Delkin Devices Secure Digital cards only. Intermec cannot guarantee that other mini-SD cards will work with CN3 Computers.

- For both the operating system and SSPB files, see **"Upgrading Both Operating System and SSPB Files" on page 74**.

- For just the operating system, see **"Upgrading the Operating System" on page 75**.

- For just the SSPB files, see **"Upgrading the SSPB Files" on page 75**.

Upgrading Both Operating System and SSPB Files

You may download files that upgrade both the operating system and SSPB files simultaneously. Note that this is a two-step process.

1 Extract the upgrade files to a folder on your desktop or laptop computer. Make sure to select the option to use folder names when extracting files.

2 Place all individual root files onto your mini-SD card, this will update your operating system only. Ignore the SSPB files at that point.

3 Insert the mini-SD card in the CN3 Computer. For help, see **"Using the Storage Card" on page 16**.

4 Remove the battery pack from the CN3 Computer and place the CN3 Computer in a dock connected to external power. For help, see **"Using the Batteries" on page 7**.

5 When the Installation Complete menu appears, remove the mini-SD card. Remove the existing files from the mini-SD card and place all of the files from the SSPB/IVA folder into your mini-SD card. The number of files will vary from version to version.

6 Insert the mini-SD card in the CN3 Computer.

7 The operating system will boot and load files from the mini-SD card. The process is complete once the pen calibration screen is visible. After this, remove the files from the mini-SD card.

When the CN3 Computer finishes booting, you may use it. You have reset the CN3 Computer to its default configuration. You need to set the date and time and to set its network communications parameters to reestablish communications with the other devices in the wireless network.

Upgrading the Operating System

You may download files that upgrade only the operating system. *Note this upgrade only works when the CN3 Computer is connected to external power.*

1 Extract the upgrade files to a mini-SD card.

2 Remove the battery pack from the CN3 Computer and place the CN3 Computer in a dock connected to external power. For help, see **"Using the Batteries" on page 7**.

3 Insert the mini-SD card in the CN3 Computer. For help, see **"Using the Storage Card" on page 16**.

4 When the Installation Complete menu appears, remove the mini-SD card, then press the **Reset** button again.

When the CN3 Computer finishes booting, you may use it. You have reset the CN3 Computer to its default configuration. You need to set the date and time and to set its network communications parameters to reestablish communications with the other devices in the wireless network.

Upgrading the SSPB Files

You may download files that upgrade only the SSPB files.

1 Extract the upgrade files to a mini-SD card.

2 The operating system will boot and load files from the mini-SD card. The process is complete once the pen calibration screen is visible. After this, remove the files from the mini-SD card.

When the CN3 Computer finishes booting, you may use it. You have reset the CN3 Computer to its default configuration. You need to set the date and time and to set its network communications parameters to reestablish communications with the other devices in the wireless network.

Using the SmartSystems Console to Upgrade the CN3 Computer

Use the SmartSystems Console to upgrade the CN3 operating system. The console is part of SmartSystems Foundation and is available from the Intermec web site via the IDL.

Before upgrading the CN3 Computer, you need the following:

- the SmartSystems Foundation. To download SmartSystems Foundation, go to www.intermec.com/idl and open the Device Management page.

- the device upgrade .exe file, which is available from the Intermec web site at www.intermec.com. Go to **Service & Support** > **Downloads**.

1 Install SmartSystems Foundation on your desktop or laptop computer, then open the SmartSystems Console.

2 Make sure the SmartSystems Console and the CN3 Computers are on the same subnet. For help, contact your Intermec representative.

3 Make sure your CN3 Computers are either in a communications dock or charging dock, or that power management is disabled.

4 Download the device upgrade .exe file to your desktop or laptop computer, then double-click the file to start the InstallShield application.

Note: Do not change the default location where InstallShield extracts the files. The SmartSystems Console requires files to be in this location.

5 From the SmartSystems Console, locate the device upgrade to install.

6 Drag-and-drop the device upgrade onto each CN3 Computer icon.

Once the upgrade is done downloading to your CN3 Computer, your CN3 Computer replaces the operating system, then automatically performs a clean boot.

The SmartSystems Console shows your CN3 Computer as offline *(via a red stop sign)* until the device reboots and reconnects to the system.

Launching Your Application Automatically

Note: This describes the system component startup for Intermec provided components only. It does not describe the bootstrap loader process. It only describes the component installation process provided by Windows Mobile. It is assumed that you understand the Microsoft Mobile startup procedures and are familiar with how Microsoft components start up.

You can configure the various media used in the Windows Mobile system with a folder name and can change the media in the registry of the system. Many of the startup components rely on folder names to locate information files, applications, or other related data.

The registry keys used by FolderCopy and other startup components to retrieve the folder names are as follows:

> *Flash File Store*
> [HKLM\Drivers\BuiltIn\FlshDrv]
> "FolderName"="Flash File Store"
>
> *SD Card (Storage Card)*
> [HKLM\System\StorageManager\Profiles\SDMemory]
> "Folder"="Storage Card"
>
> *Disk On Chip*
> [HKLM\System\StorageManager\Profiles\TRUEFFS_DOC]
> "Folder"="DiskOnChip"

During normal Windows Mobile system startup, there are Intermec-specific and non-Intermec components that require an orderly start to properly function. These non-Intermec components may also need to start themselves so the Windows Mobile device can function properly. Since there are possible configurations that come from using one or more optional built-in peripheral devices, the platform components starting on the next page are required to manage startup.

RunAutoRun

System components are installed and configured during the power up process from a single starting point. RunAutoRun (RUNAUTORUN.EXE), built into the operating system image and located in the "\Windows\Startup" folder, checks for AutoExec (AUTOEXEC.EXE) in a "\SYSTEM" folder on a mounted volume in this order:

- mini-SD

- Object Store - may be non-volatile storage or RAM

- Disk on Chip - may map as Object Store

- Flash File Store - may map as Object Store. This is the default location for the AutoExec program in Intermec systems. Intermec system applications are started from this folder. The ordering of mounted volumes overrides this feature.

Folder names used for the mounted volumes above are retrieved from the registry to maintain coherence with the naming of the mounted volumes on the platform. These folder names are not hard-coded. If AutoExec is present in the "\SYSTEM" folder on any of these media, it executes the program only on the first media it is found on and no other.

AutoExec is reserved for Intermec use to configure Intermec-specific applications. It launches the CAB installer, AutoCab (AUTOCAB.EXE), to install platform cab files to the system, such as Intermec Data Collection.

When the AutoExec is complete, RunAutorun then checks for the existence of AutoRun (AUTORUN.EXE) and executes this program from the first media it is found on. This order is the same as what is used by AutoExec.

AutoRun is reserved for customer use to configure application launch sequences. It launches the AutoCab installer and any customer programs added to the AUTOUSER.DAT file.

The hierarchy of these files is shown below.
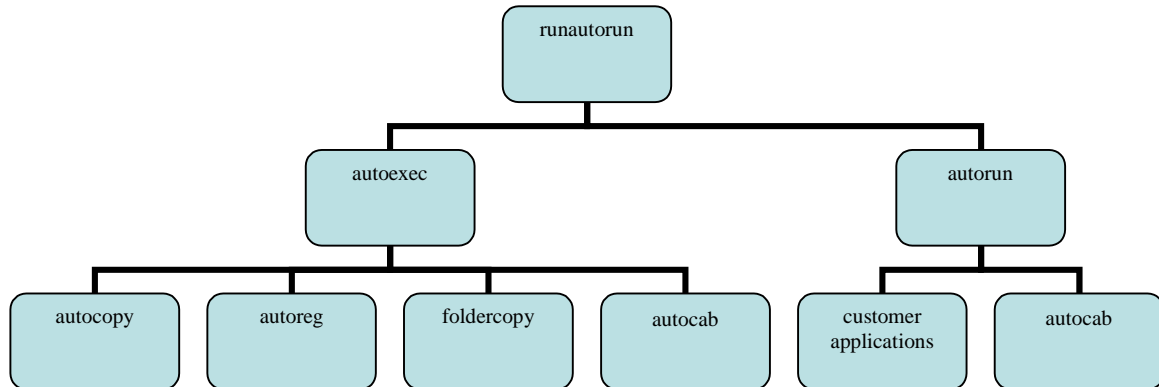
AutoExec

AutoExec (AUTOEXEC.EXE) automates operations such as pausing, launching processes, or signaling, and is configured through the AutoExec data file (AUTOEXEC.DAT). This script file must be in the same directory as the program itself.

Note: Intermec considers the usage of the AutoExec data file as "Intermec Private." AutoExec installs Intermec applications such as Data Collection, Security Supplicants, Intermec Management, applets, and shortcuts from components found in the Flash File System. Do not modify the AutoExec data file. Instead, use the AutoRun program to add software components.

Usage:

```
AutoExec [-%[W]] [-E=["X"]] [-F=["Y"]] [-LOG=] [-W=[Z]]
```

-%	Passes an ID to use in a call to SignalStarted. This argument is useful only during system startup that relies on a SignalStarted to call. W is an integer value.
-E	Passes a signal event name to use when autoexec completes. X is a string value.
-F	Overrides the data file to use. This must be a fully qualified name. Default is "autoexec.dat" in the same location as the AUTOEXEC.EXE program. Y is a string value.
-LOG	Set to any value logs activity to AUTOEXEC.TXT (in the same location as the AUTOEXEC.EXE program). Default is disabled.
-W	Pauses the autoexec process by calling sleep for the number of seconds specified by Z. Z is an integer value.

Process return code uses standard error codes defined in WINERROR.H.

Keywords that AutoExec supports are:

QUIET	Enables user notification when an error occurs.
LOGGING	Enables logging to a trace file.
SIGNAL	Enables the specified named event and is immediately signaled. Useful for notifying other components of the current status.
CALL	Opens another .DAT file to process. After the called file is completed, this file is resumed.
RUN	Runs a program with a *SW_SHOWNORMAL* attribute. Autoexec does not wait for the child process to exit.
LOAD	Runs a program with a *SW_HIDE* attribute. Autoexec waits for 60 seconds for the child process to exit or *EXECWAIT* seconds if set.
EXEC	Runs the specified program. AutoExec waits 60 seconds for the child process to exit or *EXECWAIT* seconds if set.
EXECWAIT	Changes the default EXEC wait time from 60 seconds to the number of seconds specified. There is a maximum 10-minute limit imposed.
WAIT	Forces a sleep for the specified number of seconds to occur.
WAITFOR	Forces a sleep until the named event is signaled.

Examples of keyword usage are as follows:

```
; Allow message pop up if an error occurs.
QUIET 0

; Log any debug output to a trace file.
LOGGING 1

; Perform a SetEvent on the event name "autoexec_started".
SIGNAL "autoexec_started"

; Include this child data file, childexec.dat.
CALL "\childexec.dat"

; Use autocopy to copy the audio control panel from flash file store to the
windows directory. Wait for up to 60 seconds for it to exit.
EXEC "\Flash File Store\SYSTEM\autocopy.exe" -S"\Flash File Store\Sys-
tem\CPLAudio.cpl" -D"\Windows\CPLAudio.cpl"

; Change the default EXEC wait time to 90 seconds.
EXECWAIT 90

; Suspend processing any commands for 10 seconds.
WAIT 10

; Suspend processing any commands until event called MyEventName is signaled.
WAITFOR "MyEventName"
```

AutoRun

AutoRun (AUTORUN.EXE) automates operations such as launching other processes and is configured through the AutoRun data file (AUTORUN.DAT). This file must be in the same directory as the program itself.

AutoRun supports the following script commands in AUTOUSER.DAT and AUTORUN.DAT.

Note: If you need to add steps at boot time, add them to AUTOUSER.DAT, not to AUTORUN.DAT. AUTORUN.DAT is provided by Intermec and is subject to change. AUTOUSER.DAT is the designated place for the end user to add steps to the boot time process.

EXEC	Launches a specified program, waits for it to complete (up to 10 minutes).
CALL	Processes a specified file of commands and returns.
CHAIN	Processes a specified file of commands and does not return.
RUN	Loads a specified program and executes it.
LOAD	Loads a specified program and executes it.

AutoRun handles quoted file names for the first parameter to allow specifying path names or file names that contain white space. Note only one set of quotes per command is supported. AUTORUN.DAT entry examples:

RUN	"Flash File Store\Apps\some.exe" arg1, arg2, arg3
CALL	"Flash File Store\2577\usercmds.dat"

AutoCopy

AutoCopy (AUTOCOPY.EXE) copies/moves files between locations. It has no user interface and is configured through command line arguments. It has support for the following parameters, in no particular order:

Usage:

```
AutoCopy [-D["W"]] [-L["X"]] [-M[D]] [-Q[Y]] [-S["Z"]]
```

-D	Indicates the destination file name and must be fully qualified. W is a string value.
-L	Indicates a fully qualified file name for logging to enable. Default is disabled. X is a string value.
-M	Moves file to a destination rather than copies the file. Default value is disabled. D is an integer value. D=1 indicates enabled, 0 is disabled.
-Q	Indicates if a message box should appear when an error occurs. Default is disabled. Y is an integer value.
-S	Indicates a source file name and must be fully qualified. Z is a string value.

Process return code uses standard error codes defined in WINERROR.H.

Example:

```
; use AutoCopy to copy the control panel from flash file store to windows.
autocopy.exe -S"\Flash File Store\System\Audio.cpl" -D"\Windows\Audio.cpl"

; use AutoCopy to move the control panel from flash file store to windows.
autocopy.exe -M1 -S"\Flash File Store\System\Audio.cpl" -D"\Windows\Audio.cpl"
```

AutoReg

The AutoReg (AUTOREG.EXE) component adds registry information to the Windows Mobile registry. It has no user interface and is configured through command line arguments.

Usage:

```
AutoReg [-D] [-HKey] [-Q] "filename"
```

-D	Deletes the registry file after successfully loading it. This allows for systems that have hives implemented.
-H	Saves the registry path, and all child entries, to the specific .REG registry file.
-Q	Indicates whether a message box should appear when a fatal error occurs.
filename	Fully qualified file name to read from or write to, encased in double quotes to support spaces in paths or file names. See examples below.

Process return code uses standard error codes defined in WINERROR.H.

Example:

```
; use AutoReg to install this registry information.
autoreg.exe "\Flash File Store\install.reg"

; use AutoReg to install this registry information. Delete the file afterwards.
autoreg.exe -D "\Flash File Store\install.reg"

; use AutoReg to extract registry information to a file.
autoreg.exe -HHKEY_LOCAL_MACHINE\Software\Intermec\Version "\version.reg"
```

The format of the input file, in this example, is the standard registry format which should ease the creation of the input file since there are many publicly available utilities to generate a registry file besides Notepad. One example of a tool is the Microsoft Remote Registry Editor.

AutoCab

AutoCab (AUTOCAB.EXE) extracts files, registry settings, and shortcuts from Windows Mobile cabinet (.CAB) files. The Windows Mobile startup sequence invokes AutoCab as a part of AutoExec and AutoRun. During the Windows Mobile startup sequence, AutoCab processes all CAB files in the "\CabFiles" directory relative to the current location of Autocab, unless the location is overridden by command line arguments. AutoCab can run as a stand-alone program to install a CAB file or a directory of CAB files.

AutoCab only installs the CAB file if it was not installed before by Auto-Cab. To track the installation of a CAB file, AutoCab marks the CAB file with the System attribute. This attribute is ignored if the device is performing a clean-boot on a non-persistent file system.

AutoCab preserves the CAB file after installation if the ReadOnly attribute is set. If not set, the CAB file is deleted automatically after installation. Command line switches are described as follows.

Usage:

```
AutoCab [-ChkRst=][-File=][-Force][-Log=][-Move=][-Quiet=][-Show=][-Signal=]
```

-ChkRst=	Set to 1 to configure AutoCab to check for the Reset flag after all CAB files are installed. This file is created by CAB files that want a clean reset after installation. Default is 0 (do not check for flag).
-File=	Specifies the CAB files to extract. Note that the specified files need not end with the .CAB extension.
-Force	Forces the specified CAB files to extract regardless of whether it was previously extracted.
-Log=	Set to 1 to create a log file in the same folder that AutoCab is running. Useful for debugging CAB installation. Default is 0 (disabled).
-Move=	Set to 1 to force source CAB file deletion, even when read-only bit set on file. Default is 0 (disabled).
-Quiet=	Set to 0 to allow AutoCab to display user message box on errors. Useful for debugging CAB installation. Default is 1 (keep quiet).
-Show=	Set to 0 to prevent showing any installation progress interfaces. Also prevents user from canceling installation. Set to 1 to show normal installation. Set to 2 to show Intermec installation progress interface (user can see what is installing but cannot cancel it). Default is 1 (show normal).
-Signal=	Set to string name of signal to use at the completion of CAB installation before a reboot occurs (if enabled). AutoCab uses WaitForSingleObject on this name. Default is disabled.

If <PathName> references a single CAB file, that file is processed. If <PathName> references a directory, all the .CAB files in that directory is processed. If <PathName> is a wild card pattern, all files matching that pattern is processed, If <PathName> is omitted, InstallCab processes all the .CAB files in directory "\CabFiles."

Example:

```
; Install all cab files in the \Flash File Store\XYZ directory, regardless.
AutoCab -FILE="\Flash File Store\XYZ\*.cab" -FORCE

; Install only one cab file, use Intermec cab installation display
AutoCab -FILE="\myCab\app.cab" =show=2
```

Customizing How Applications Load on the Computer

If you have several processes that you need running in a specific order as the CN3 Computer turns on, you can use the AutoRun system to customize the way applications load. For compatibility with other Intermec computers, you can place a copy of AUTORUN.EXE in the same folder as your AUTORUN.DAT file but it is not required.

To create and install the AUTORUN.DAT file on your CN3 Computer

1 On the CN3 Computer, create a folder called "SYSTEM."

2 On your desktop, open the Notepad application.

3 Write commands for AUTORUN.DAT using these supported script commands:

Script Command	Description
EXEC	Launches a specified program and waits up to 10 minutes for it to complete.
CALL	Processes a specified file of commands, returns. When you use the CALL command, the execution of the current file pauses while a new file that follows the same set of commands executes. Once the new file completes executing, AutoRun.exe processes the current file.
CHAIN	Processes a specified file of commands and does not return. This command calls another file that follows the same set of commands and stops processing the current file.
RUN	Loads a specified program and executes it. Specifies the show window attribute so that the user interface is visible when the application launches.
LOAD	Loads a specified program and executes it. Specifies the hide window attribute so the user interface is hidden initially.

4 Save this Notepad file as AUTORUN.DAT.

5 Copy the AUTORUN.DAT file to the "\SYSTEM" folder on your CN3 Computer.

During every boot, the system scans for AUTORUN.DAT in the "\SYSTEM" folder.

Here is a sample AUTORUN.DAT file that runs a dialer application and connects to a VPN:

```
EXEC "\Program Files\My Dialer\Dialer.exe" 348-2600
EXEC "\Program Files\My VPN\Connect.exe" MyDomain
```

Configuring CN3 Parameters

You can configure many parameters on the CN3 Computer, such as the bar code symbologies it decodes or the network settings. These characteristics are controlled by configuration parameters. The values you set for these configuration parameters determine how the computer operates. Use configuration commands to configure the CN3 Computer.

Configuring the CN3 Computer With Intermec Settings

Use the Intermec Settings applet to configure the CN3 Computer and view system information. You can access the Intermec Settings applet while running any application.

From the CN3 desktop, select **Start** > **Settings** > the **System** tab > the **Intermec Settings** icon.

For detailed information on most of the commands available in the Intermec Settings applet, see the *Intermec Computer Command Reference Manual* (P/N: 073529) via the Intermec web site. Go to **"Before You Begin"** for access information.

Synchronizing the CN3 Computer System Time with a Time Server

It is important that the time on all of your CN3 Computers be synchronized with a network time server to ensure real-time communications and updates. Network time servers acquire Coordinated Universal Time (UTC) from an outside source such as the U.S. Naval Observatory (USNO). The CN3 Computer uses Simple Network Time Protocol (SNTP) to synchronize with a network time server.

The default reference time server is the USNO (tock.usno.navy.mil). To synchronize the time on your CN3 with this time server, you must have a valid connection to the Internet. You can also synchronize the CN3 Computer system time with a corporate network server within your firewall that is SNTP-capable. To use an internal corporate network server, you need to set the command name in the registry.

Configuring the CN3 Computer through the Network

You can change the configuration parameters of the CN3 Computer by sending commands through a host computer or through the network. If you are using a network, you can configure one or more CN3 Computers at a time. You can remotely configure the wireless CN3 Computer by sending a command from an application on the host computer. *Note that you cannot set all parameters through the network. You can only set those commands that have a syntax in the Command Reference Manual.*

Note: You can continue running an application on the CN3 Computer while configuring it from the host computer.

Configuring the CN3 Computer in a TCP/IP Direct Connect Network

Use the host computer to configure a wireless CN3 Computer in a TCP/IP network. To send and receive configuration data, write a host application that can communicate with the CN3 Computer directly through an access point or through the network. Use the TMF protocol to send and receive transactions between the host application and the CN3 Computer.

To set up the host computer, verify communication with the CN3 Computer. To set up the application, prepare and write a host application that can communicate with the IAS and send transactions to and receive transactions from the CN3 Computer in this format:

TMF field	commands

where:

TMF field	A 2-byte field containing one of these values:
	CG Configuration Get request sent from the host application.
	Cg Configuration Get response sent from the CN3 Computer to the host computer.
	CS Configuration Set request sent from the host application.
	Cs Configuration Set response sent from the CN3 Computer to the host computer.
commands	The reader and configuration commands to set on the CN3 Computer or the current value to retrieve from the CN3 Computer. To save configuration changes in flash memory, send the `.+1` reader command as the last command. See the *Command Reference Manual* for a list of commands.

Example

In the host application, you want to get the current values of two configuration commands from the CN3 Computer. Send the `CG$+NABV` transaction from the host application

Note: The transaction header is not shown in this example. You do not need a transaction header for a host application in a TCP/IP network, but you do for a UDP Plus network.

where:

CG	is a TMF Configuration Get request.
$+	is the Change Configuration reader command.
BV	is the Beeper Volume configuration command.

The computer returns the `CgS+BV4` transaction to the host application:

Cg	is a TMF Configuration Get response.
$+	is the Change Configuration reader command.
BV4	means the Beeper Volume configuration command is currently set to a value of 4, which is a very high beeper volume.

Configuring the CN3 Computer in a UDP Plus Network

Use the host computer to configure a CN3 Computer in your wireless network. To send and receive configuration data or files, write a host application that can communicate with an Intermec Application Server (IAS) *formerly Gateway or DCS 30X*.

For help, see the appropriate Gateway or DCS 30X User's Manual. Use the Terminal Message Format (TMF) protocol to send and receive transactions between the host application and the CN3 Computer.

To set up the IAS, configure a peer-to-peer destination name for the host application. Create a $NGCFGRSP transaction ID that routes to this destination name. The IAS uses the transaction ID to route responses from the CN3 back to the host application. $NGCFGRSP is a special transaction ID that the server uses to forward configuration response data from a CN3.

All configuration responses are routed with the $NGCFGRSP transaction ID. The IAS cannot track multiple applications sending reader or configuration commands. If you have two host applications sending reader or configuration commands, they must both be configured to receive the $NGCFGRSP transactions, and receive all CN3 Computer responses.

To set up the host computer, verify host computer-to-IAS communication.

To set up the application, prepare and write a host application that can communicate with the IAS and send transactions to and receive transactions from the CN3 Computer in this format.

transaction header	TMF field	commands

where:

transaction header	A 96-byte field with message number, date, time, source application ID, destinations application ID, transaction ID, and other. Set the system message (SYS$MSG) flag to E in the transaction header.
TMF field	A 2-byte field containing one of these values:
	CG — Configuration Get request sent from the host application.
	Cg — Configuration Get response sent from the CN3 Computer to the host computer.
	CS — Configuration Set request sent from the host application.
	Cs — Configuration Set response sent from the CN3 Computer to host computer
commands	The reader and configuration commands to set on the CN3 Computer or the current value to retrieve from the CN3 Computer. To save configuration changes in flash memory, send the `.+1` reader command as the last command. See the *Command Reference Manual* for a list of supported commands.

Configuring the Color Camera

The 1.3 megapixel color camera (with "flash" light source) is an optional feature that is factory-installed into the upper back of the CN3 Computer, as shown in the following illustration. You can take photos in either high-resolution or a compressed formats, with resolutions up to 800x600 pixels.

Color Camera
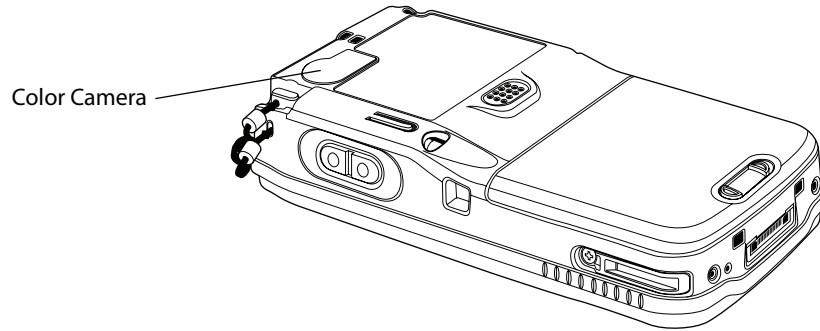
Using the Pictures & Videos applet, you can take, view, edit pictures, and record and launch video clips stored on your CN3 Computer or on a storage card. You can also send pictures and video clips to others, or save an image as the background on the Today screen. Pictures can be viewed individually, as thumbnails, or as part of a slide show. You can edit your pictures by cropping, rotating, and adjusting the brightness and contrast.

Images are saved as .JPG files and stored in the "/My Documents/My Pictures" default storage location off the root.

Select **Start** > **Programs** > the **Pictures & Videos** icon, then tap the **Camera** option in the grid or tap **Camera** in the taskbar.

For future use, this is added to your Start menu in the Recent Programs area, via **Start** > **Pictures & Videos**.

Watching the image onscreen, move the camera until you get the image you want, then press **Enter** or tap the screen to save the image.

Tap **Menu** > **Options** > the **Camera** tab to configure camera options. While you are in the Pictures & Videos applet, you can select **Start** > **Help** for complete information on using the camera.
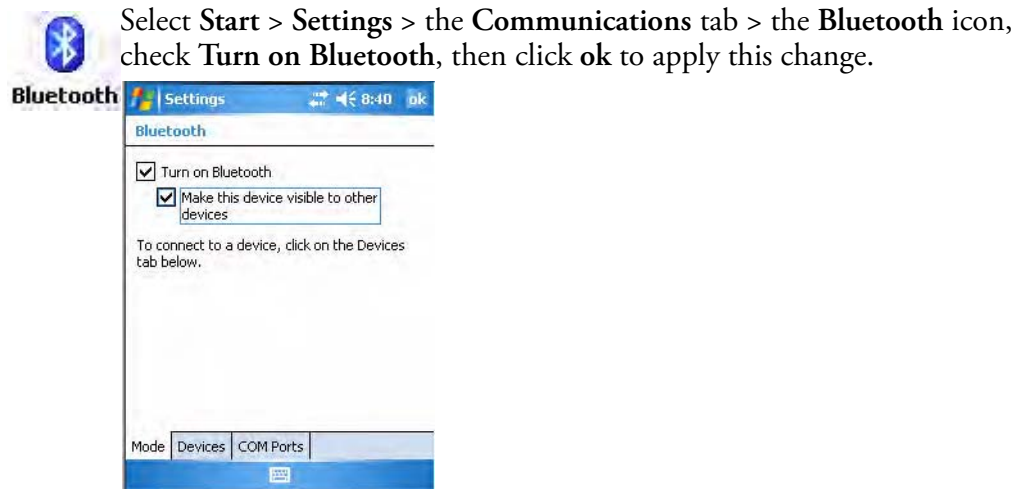
Configuring the SF51 Scanner

The following information pertains to configuring the SF51 Scanner to work with your CN3 Computer. These instructions assume you have the EasySet application installed on your desktop or laptop. The EasySet application is available from the Intermec Data Capture web site, contact your Intermec representative for information about this application.

Imager Settings

Depending on what is selected as the scanner model, image settings, decode security, scanner settings, and virtual wedge are configured from the Intermec Settings applet. See the *Intermec Computer Command Reference Manual*, available from the Intermec web site at **www.intermec.com**, for more information about each enabled option.

Bluetooth is required for the SF51 Scanner. On the CN3 Computer, use the Bluetooth applet to enable Bluetooth communications before you configure the SF51 Scanner.

Select **Start** > **Settings** > the **Communications** tab > the **Bluetooth** icon, check **Turn on Bluetooth**, then click **ok** to apply this change.

Creating an SF51 Connection Label

To initiate a connection from the SF51 Scanner, use your EasySet application to create an SF51 connection label with the CN3 Bluetooth address. The device address is listed in the Bluetooth applet via the **Devices** tab on your CN3 Computer.

1 On your desktop or laptop, double-click the **EasySet** icon to activate the EasySet application if you have not already done so.

2 In the left side of the EasySet application, double-click **Data transmission settings** > **Bluetooth parameters** > **connect/disconnect** > **compose BT address**.
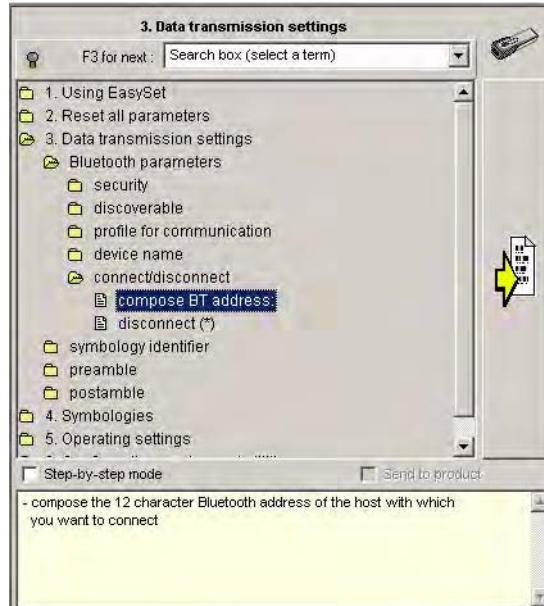
3 Enter the Bluetooth address assigned to your CN3 Computer (shown in your Bluetooth applet), then click **OK** to close this dialog.
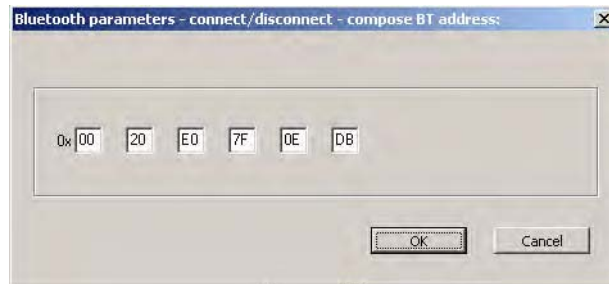

4 The connection label for the SF51 Scanner appears to the right in the EasySet application, similar to the following. Scan the label once, then confirm the Intermec Ready-To-Work™ indicator (blue light) on the end of the SF51 Scanner starts blinking, which means it is trying to connect. When connected, the indicator assumes a steady blue, then SF51 data gets wedged through the keyboard interface.

Viewing SF51 Scanner Information from Your CN3 Computer

Note that in the CN3 Computer, the Intermec Settings applet can display up to seven separate SF51 connections. The following illustration shows such connections under the **Data Collection** option.
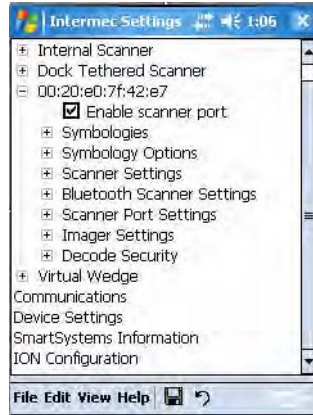
In this applet, tap **Data Collection**, then tap (+) to expand the **SF51 Scanner** connections to view MAC addresses, firmware version numbers, and whether each scanner is connected to the CN3 Computer. When you clear (uncheck) **Enable scanner port**, the SF51 Scanner is disconnected from the CN3 Computer. Check **Enable scanner port** again to reconnect.

If you want to rename these connections to descriptions more suitable for your situation, press the stylus on each **SF51 Scanner** connection for a pop-up menu, then select **Rename**. Enter the description, tap **ok** to save.

When the SF51 Scanner is connected, configuration changes take effect immediately. When the SF51 Scanner is not connected, configuration changes take effect once the SF51 Scanner is reconnected.

Using Configuration Parameters

A configuration parameter changes the way the CN3 Computer operates. Use either of these methods to execute configuration parameters:

Scan EasySet bar code labels:
Use the EasySet application from Intermec Technologies Corporation to print configuration labels. Scan labels to change imager configuration and data transfer settings. See the EasySet online help for information.

Send Reader Commands through the Network or from an Application
See the *Intermec Computer Command Reference Manual* (P/N: 073529) for more information.