How to Do *Everything* with

Windows Mobile®

Maximize the latest Windows Mobile software

Manage contacts, appointments, and tasks

Read email, surf the Web, play music— and much more!

COVERS Pocket PCs, Pocket PC Phones, and Smartphones

Frank McPherson

McGraw Hill **Osborne**

How to Do Everything with Windows Mobile®

What You'll Do in This Book

How to Do *Everything* with

Windows Mobile®

Frank McPherson

How to Do Everything with Windows Mobile®

Bill Weber was the best boss that anyone could wish for. He treated with me with respect, allowed me to take risks, kept my ego in check when things went well, and supported me without hesitation when things went bad. It is no surprise that Bill became a good friend and mentor. In some of the most important moments of my life—when I got married and when I first started writing these books—Bill provided encouragement that carried me through anxiety and doubt.

All of us who called Bill a friend feel he passed away too soon. Few days go by when I don't remember something that he said. Nothing pleases me more than to share my memories of Bill with you, and this book that you are about to read and which Bill helped me write.

About the Author

Frank McPherson is an avid user of handheld computers, starting with the Newton MessagePad in 1993 and all versions of Microsoft Pocket PCs, Pocket PC Phones, and Smartphones. He developed and maintains the Pocket PC Hints and Tips web site (www.pocketpchow2.com), which is visited by Pocket PC users around the world seeking help using their Pocket PCs.

Frank has been a sports columnist and reporter for the *Norway Current*, a weekly newspaper in Norway, Michigan, and has also covered high school sports for the *Iron Mountain Daily News* in Iron Mountain, Michigan. Articles written by Frank about Pocket PCs have appeared in *Pocket PC Magazine*, *Brighthand.com*, and *PocketPC.com*.

He is a 1989 graduate of Michigan Technological University with a B.S. degree in computer science. Frank is a senior information specialist at EDS, where he has been employed for over fifteen years. Originally from Norway, Michigan, located in Michigan's beautiful Upper Peninsula, this Yooper now lives in West Bloomfield, Michigan with his wife, Ruth.

About the Technical Editor **Todd Ogasawara** is currently the eGovernment Team Leader for the State of Hawaii Information & Communication Services Division. Previous to that, he was at GTE/Verizon as an advanced technology engineer. During that same period, he simultaneously worked as a contractor for the Microsoft Network (MSN), and later ZDNet (when MSN Technology Forums moved to ZDNet) as the online forum manager for both the Telephony and the Windows CE Forums. At ZDNet, these forums were renamed the Communications & Messaging Forum and the Handhelds Forum.

Todd was privileged to have been the co-manager of the Communications & Messaging Forum with the legendary Don Watkins while at ZDNet. He served as an editor for the Microsoft Uplink web site that focused on the Palm-size PC, and authored dozens of articles for the Microsoft PocketPC.com web site. He has been awarded the Microsoft Most Valuable Professional in the Mobile Devices category for the past several years. You can find his mobile device commentary, reviews, and how-to articles at www.MobileViews.com.

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Acknowledgments

Although the title does not indicate it, this is now the fourth edition of my book on handheld computers that run Microsoft software. Over the years since the first edition of this book became available, I have received many kind e-mails from readers complimenting my work. This book that you are holding would not exist if not for those who bought the previous editions. So first, and foremost, I want to thank all of you for buying this book.

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Introduction

What's in a name? Over the years since it first released software for handheld devices, Microsoft has changed the software name three times. First it was Windows CE, then Windows Powered, and now Windows Mobile Software.

Regardless of the names, the software remains true to its Windows heritage, enabling us to use handheld computers in much the same way that we use desktop computers. Critics claim that the Windows user interface was never designed for, and therefore not appropriate for, handheld computers. What the critics overlook is the power of familiarity that enables one to pick up a Pocket PC and Smartphone and use it right away.

Windows Mobile devices help you interact in different ways with a variety of information. Think about all of the information that is important to you. It might be appointments, addresses, bank account balances, or documents. It might even be voice recordings, web pages, video clips, or music.

Many people have turned to personal computers to help them keep track of all this different information. But, there is a problem with personal computers. Most sit on tables and desks at home, yet we might need the information they contain when we are sitting in a meeting or out shopping. With a Windows Mobile device, that information can be taken out of the computer so it's with you at any time and anywhere. And when you return home, that information can be easily updated to your personal computer.

Pocket PCs, Pocket PC Phones, and Smartphones are part of a series of hardware devices that run the Microsoft Windows CE .NET operating system and application software. Also in the series are the Handheld PC, Auto PC, and embedded devices. Microsoft calls the series Windows Mobile devices. The combination of Windows CE .NET and application software is known as Windows Mobile Software for Pocket PCs, Pocket PC Phones, and Smartphones.

These are incredibly powerful little devices that you can use for work and play. In *How to Do Everything with Windows Mobile*, I show you how to use the latest Windows Mobile Software to create documents and spreadsheets, check off those items on your task list, and then relax to the sounds of your favorite music. If there is something that you want to do with a Pocket PC or Smartphone, this book will show you how to do it.

Part I provides the information that you need to get started with Windows Mobile. Chapter 1 provides an overview of the devices that make up the Windows Mobile platform to help you decide which is right for you. Then starting in Chapter 2, I walk you through setting up your Pocket PC, personalizing your Pocket PC, changing Pocket PC settings, and setting up Smartphones.

Part II, "Connect with PCs," provides instructions for moving information from your personal computer into the device. Chapter 6 shows you how to connect Windows Mobile devices with personal computers, and in Chapter 7 you learn how to use the ActiveSync software to synchronize data so that what is stored in Microsoft Outlook on your PC also appears in Outlook Mobile on your device. As that information changes, synchronization ensures that it is the same on both the PC and Pocket PC or Smartphone.

The Internet has become a very important tool for retrieving and exchanging information, and Part III, "Get Connected with Windows Mobile," provides all the instructions you need to connect to and use the Internet. Windows Mobile devices can connect to the Internet using landline and wireless modems, mobile phones, and wired or wireless local area networks. Once the connection is made, you can send and receive e-mail, chat with friends using instant messaging, and browse any web site.

Part IV, "Make the Most Out of Windows Mobile," focuses on how you will use your Windows Mobile device every day. You will use Outlook Mobile to manage your appointments, addresses, and tasks, and Office Mobile to create documents and spreadsheets. I also provide tips for using your device at the office and when you are traveling. And when you are ready for a break, you can install and play one of the many games available for Windows Mobile. In Chapter 19, you learn how to expand the functionality of your Pocket PC or Smartphone with software and hardware.

A number of special elements have been added to help you get the most out of this book:

■ **How to...**   These special boxes explain, in a nutshell, how to accomplish certain tasks that use the skills that you learn in this book.

■ **Did You Know...**   These boxes provide additional information about topics relating to Windows Mobile.

■ **Notes**   These provide extra information or important things that you need to watch out for in certain situations.

■ **Tips**   These tell you how to do something better, faster, or in a smarter way.

Within the text you will find words in special formatting. New or defined terms are in *italic*. If there is a hyphen between two different keys, such as CTRL-B, that's a keyboard combination, and you should press each key while holding down the others, then release them simultaneously. Some instructions involve tapping or pressing different buttons or menu items in sequence. Each step in the sequence is separated by an I-beam, for example File | Open means tap or press the File and then Open menu options.

Technology changes at a breakneck pace, and undoubtedly you will have a question or encounter a problem not covered in this book. One good source for information is the microsoft .public.pocketpc Internet newsgroup, which is monitored by Microsoft Mobile Device MVPs. You can also reach me through my web site, Pocket PC Hints and Tips, at www.pocketpchow2 .com, or via the e-mail address, feedback@fmcpherson.com.

Part I

Get Started with Windows Mobile
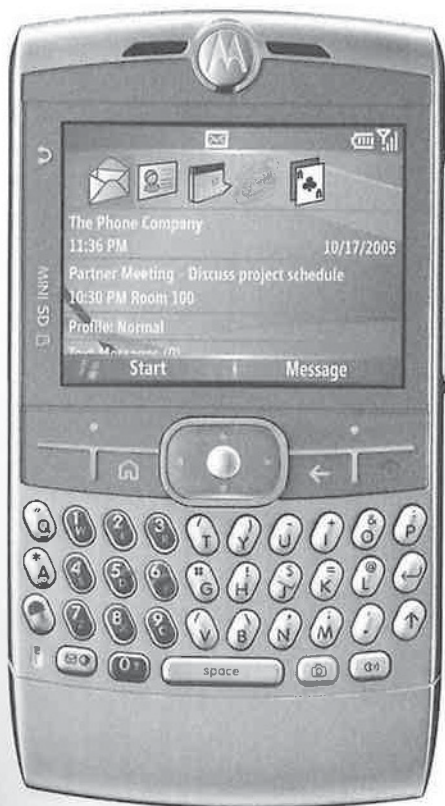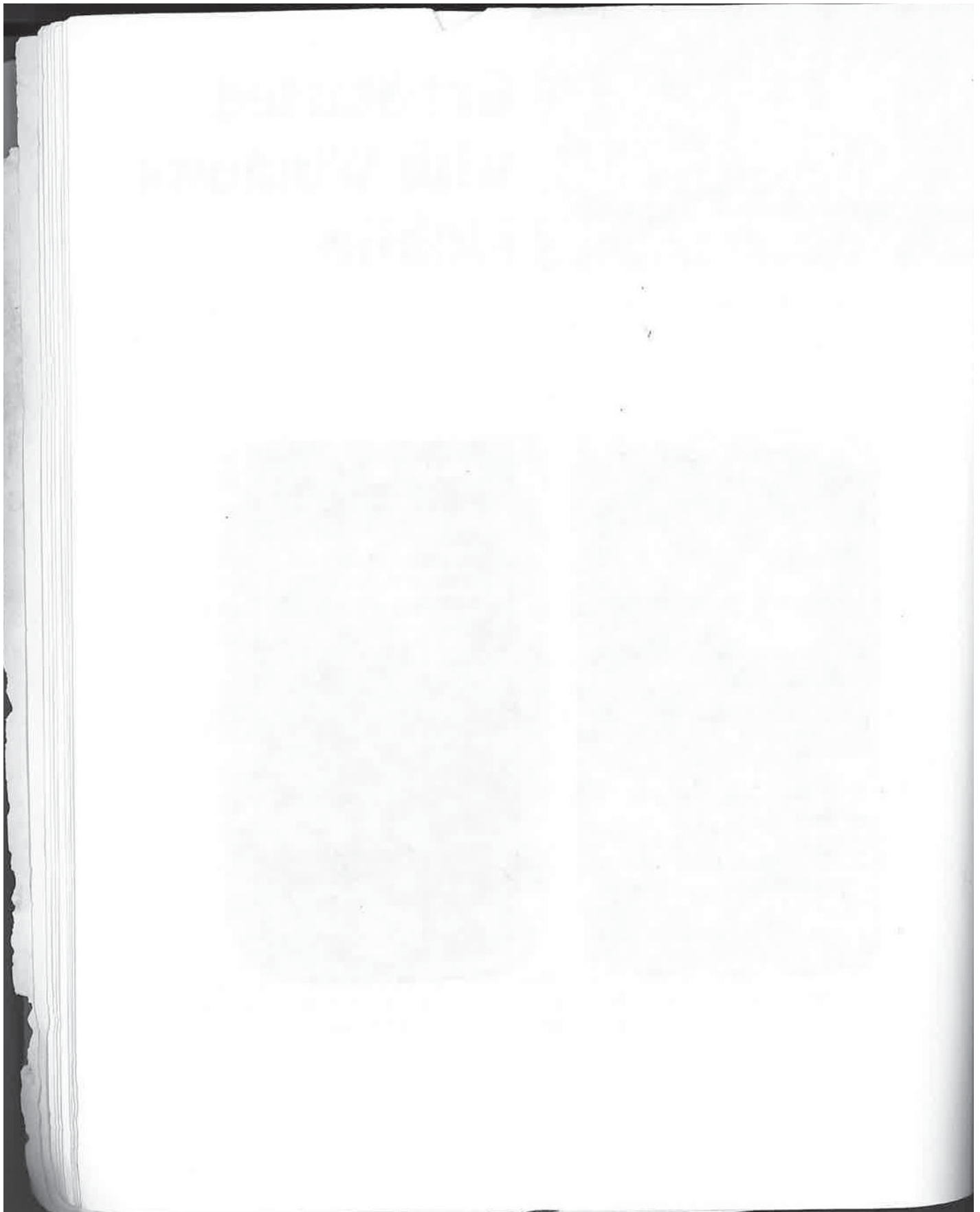
Chapter 1

Welcome to Windows Mobile
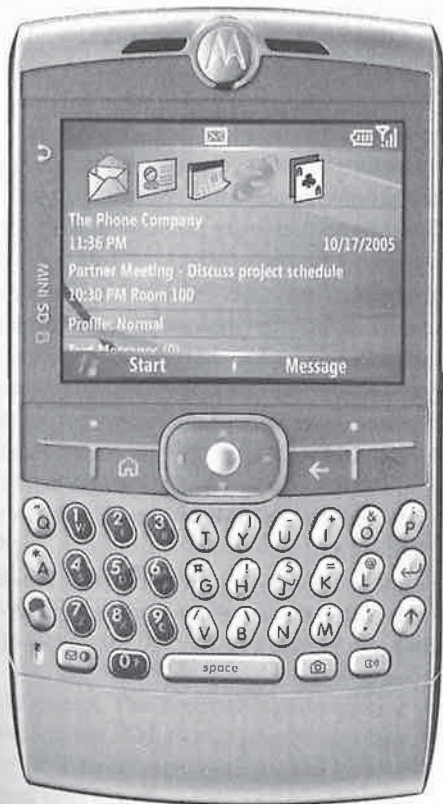
How to...

- ■ Recognize the different Windows Mobile platforms
- ■ Know what Windows Mobile devices include
- ■ Know the different parts of the Windows Mobile software

In 1996, several companies, including Hewlett-Packard, Casio, Sharp, and Compaq, began selling new devices that complied with the Handheld PC platform created by Microsoft. Handheld PCs run Microsoft software, including the Windows CE operating system and other programs for managing personal information and creating documents and spreadsheets.

The Handheld PC was only the first of a variety of types of what Microsoft now calls Windows Mobile devices. The devices continue to evolve and include the Pocket PC, Pocket PC Phone Edition, and Smartphone, which are the subjects of this book. Each device is designed so that you can work with the information that's important to you, wherever it is needed and in the manner you find most comfortable.

Windows Mobile devices do more than just manage appointments, addresses, and task lists, although they do those tasks very well. With a Windows Mobile device, you can read your e-mail and surf the Web. You can write a letter, balance your checkbook, make voice recordings, read books, and listen to music. In the case of the Pocket PC, all these things are possible in a device that can rest in your hand and fit in your pocket.

Everyone's information needs are different, and the software for Pocket PCs and Smartphones provides unique tools to meet your needs. Smartphones, while not the greatest devices for data entry, are designed for easy operation with one hand. Pocket PCs, which usually require two hands to operate, provide more functionality and several ways to enter data. This book is about how to use the Windows Mobile software to get the most out of your Pocket PC or Smartphone.

Each component of Windows Mobile is covered in depth in the chapters of this book, which focuses on the current versions of the software that run on Pocket PCs and Smartphones. While older versions continue to exist, and much of what is contained in this book applies to those versions, the focus is on the newest software for these platforms.

I'll begin by providing a history of the information appliances that inspire Windows Mobile. Next, I describe all the hardware platforms that, when combined, comprise the Windows Mobile devices. And I'll conclude with an introduction to the Windows Mobile software, all the details of which are explained in more depth in the remaining chapters of this book.

Information Appliances

In the 70 years since it was introduced, the television set has undergone a number of changes. From black-and-white to color images, and from simple 19-inch round displays to 35-inch flat panels, the television set has been improved and reinvented. Through it all, one thing has remained constant: Each television set has a power button, and when you press that button the screen springs to life to display what we commonly call TV.

It is true of all consumer electronic devices that we expect them to work the instant we turn them on. Radios and CD/DVD players immediately start playing music, and Game Boys start games. What about your personal computer? What happened the last time you turned it on? Did it spring to life and start computing?

In offices all around the world, the following ritual is played out every morning (you might even find yourself doing it): After fighting through traffic and dragging yourself and the work you brought home into your cube or office, you hang up your coat, turn on your computer, grab your coffee mug, and head for the coffee machine. Sound familiar? This ritual has come about because of what is known as the *booting process* of personal computers. The booting process includes all steps that a computer takes from when it is first turned on until it is ready for you to use, and this typically takes more time than turning on consumer electronic devices.

Wouldn't it be great if your computer were as easy to use as a television set and functioned from the moment you turned it on? That is the promise of information appliances. In his book *The Invisible Computer* (MIT Press, 1998), Donald A. Norman defines the information appliance as "an appliance specializing in information: knowledge, facts, graphics, images, video, or sound. An information appliance is designed to perform a specific activity, such as music, photography, or writing. A distinguishing feature of information appliances is the ability to share information among themselves."

Apple Newton MessagePad

A form of an information appliance is the *personal digital assistant (PDA)*. During a speech at the 1992 Consumer Electronics Show in Las Vegas, former Apple Computer CEO John Sculley defined the PDA and announced Apple's intention to develop such a device. PDAs are information appliances that use computer technology to help manage personal information and assist with mundane tasks. Later that same year, Sculley introduced Apple's PDA, the Newton MessagePad, at the Spring Consumer Electronics Show (CES) in Chicago.

From the time of its introduction in 1992 to its launch at the 1993 MacWorld Expo in Boston, a tremendous amount of hype was generated about the Newton MessagePad. Unfortunately, the hype was short-lived; and during the lifespan of the Newton MessagePad from 1993 to 1998, sales never reached Apple's projected levels. Sadly, despite the technology of the Newton MessagePad, it may be best known in computing history for a series of *Doonesbury* comic strips that made fun of the results of Newton's handwriting recognition.

With the benefit of hindsight, one can look back at the Newton MessagePad and see its shortcomings. The handwriting recognition was not complete when it was first released, which resulted in the PDA being branded a failure. During its five years, Newton MessagePad grew larger in size and increased in price, conflicting with a market that wanted smaller devices at a lower cost. Finally, exchanging information between a MessagePad and a desktop computer was too difficult.

Despite these shortcomings, the Newton MessagePad leaves a legacy of creating the PDA market and furthering the cause of information appliances. Lessons learned from the Newton MessagePad were applied to both Palm Computing devices and Microsoft PC Companions.

Microsoft PC Companions

During the summer of 1992, Microsoft began its version of the Newton MessagePad, which it called WinPad. At the same time another Microsoft project, Pulsar, was underway to develop a pager-like device. In 1994, senior management at Microsoft reviewed both projects and decided to combine the two into a new project that was given the code name Pegasus, which became Windows CE.

WinPad was designed to be a companion for Windows desktop computers and was based on Windows 3.1. Pulsar was to include an entirely new object-oriented operating system, completely unlike any other Microsoft product. In the end, Pegasus did not include the technology from either of these projects, but it did inherit the WinPad vision of being a companion for Windows desktop computers. That vision was initially known as the *PC Companion,* and lives on in *Windows Mobile* devices.

Windows Mobile Devices and Platforms

A Windows Mobile device is small enough to fit in the palm of your hand and is designed to exchange information with programs running on personal computers. The device enables you to carry all of the information you create on a personal computer, wherever it may be needed. And, equally important as its size and ability to communicate with personal computers, a Windows Mobile device uses an operating system stored on a computer chip that runs continuously, eliminating the booting process. The device functions immediately when it is turned on, just like a television set.

Here is how you use a Windows Mobile device. Enter information on a notebook computer using a program like Microsoft Outlook, and then download the information to a device. If all you need is the information contained in Outlook, you can leave the notebook computer behind and pack only the device when you're traveling.

Now, when your boss calls to ask if you can attend a meeting, all you need to do is take out your device, turn it on, and look up the information—in no more time than it takes to retrieve and look up the same information in a planner. After you determine that you are available on the date and time of the meeting, you create the appointment on the device. When you return to the office, you connect the Windows Mobile device to the notebook computer; the new appointment uploads to Outlook, eliminating the need to re-enter information, as might be the case if you were using a planner and Outlook together.

The process of exchanging information between a Windows Mobile device and a desktop computer is called *synchronization.* Synchronization is actually a bit more sophisticated than simply uploading and downloading information, because it has the ability to determine what has been added to both devices and to ensure that the information is the same on both, all in one step.

One can debate whether or not a Windows Mobile device is an information appliance. It specializes in information, yet it can perform multiple activities. Because information can be expressed and used in many different ways, a Windows Mobile device manages not only personal information, such as your appointments and addresses, but also documents, spreadsheets, web pages, voice recordings, and music.

Nor is information the only variable; how each person wishes to interact with that information is also variable. Some people prefer using small devices with small keyboards, while others are comfortable with a stylus and handwriting recognition. Others prefer a larger device, closer in size to a notebook computer, and some prefer to have that information available in their cars, which they can retrieve by using voice commands.

Over the years since 1996, when the first PC Companion was introduced, Microsoft has continually made changes to the Windows CE operating system and the software that it includes to support a wide range of information types. At the same time, new hardware has been introduced by a variety of third-party companies, targeted at the variety of different ways users want to interact with the device. Today three different types of Windows Mobile devices are available: Pocket PCs, Pocket PC Phone Editions, and Smartphones.

Since Microsoft launched the first device, several original equipment manufacturers (OEMs), such as Asus, Hewlett-Packard, and Dell, have made the hardware while Microsoft has created the software. The software includes an operating system and mobile versions of some Microsoft desktop software, such as Outlook Mobile (Calendar, Contacts, Tasks, and Messaging) and Mobile Office (Word Mobile, Excel Mobile, and PowerPoint Mobile).

Unlike the software of a personal computer, the software of Windows Mobile devices is stored on a computer chip. Windows Mobile software for Pocket PCs, Pocket PC Phone Editions, and Smartphones is available only on a read-only memory (ROM) chip. Using a ROM chip enables Microsoft to store all of the software in a very small amount of space and to eliminate the booting process. In the beginning, the combination of the operating system, the user interface, Pocket Outlook, and Pocket Office became known as Windows CE, even though Windows CE is really just the operating system. Today, Microsoft calls this combination of software on a ROM chip Windows Mobile Software for Pocket PCs or Smartphones.

NOTE   *Microsoft has released several versions of Windows Mobile software over the years. The initial releases were Pocket PC 2000 and 2002, after which came Windows Mobile 2003 and 2003 Second Edition. The current software is Windows Mobile Version 5.*

The Handheld PC was the first Windows Mobile hardware platform, and since 1996 Microsoft has introduced six additional platforms: Palm-size PC, Auto PC, Handheld PC Professional, Pocket PC, Smartphone, and Portable Media Center.

NOTE   *Portable Media Center provides only music and video playback, and is an extension to Windows XP Media Center Edition. Portable Media Center is not covered in this book.*

Handheld PC

Handheld PC was the result of the Pegasus project, which began in 1994. The platform included the first versions of the Windows CE operating system, Pocket Outlook, and Pocket Office. The first version of Pocket Office included only Word and Excel. Microsoft also included a copy of its first Personal Information Manager (PIM), Schedule +, and Handheld PC Explorer, which provided synchronization between Schedule + and the Handheld PC.

Along with the software, the following hardware specifications were typical for Handheld PCs:

- *Clamshell* design, approximately 3.5×7 inches and weighing 13 ounces
- Powered by alkaline batteries
- 480×240-resolution monochrome display
- Keyboard for data input and a stylus instead of a mouse
- One serial port and cable to connect the Handheld PC to desktop computers
- An IrDA (Infrared Data Association)-compliant infrared port to exchange information with other Handheld PCs

Devices based on the Handheld PC platform are no longer made, and Microsoft no longer supports this platform.

Palm-Size PC

In 1998, Microsoft introduced two more Windows Powered platforms: Palm-size PC and Auto PC. A Palm-size PC device, which is the predecessor to Pocket PC, is approximately 3×5 inches and weighs around 6 ounces. The Palm-size PC screen uses a portrait layout, and the device does not include a keyboard. Instead, to input data you use a stylus either to write on the screen using a character recognizer or to tap on an onscreen keyboard.

> **NOTE** *Originally Microsoft wanted to call these devices Palm PCs, but Palm Computing filed a lawsuit against Microsoft. In an agreement with Palm Computing, Microsoft changed the name to Palm-size PC, which is a mouthful and is often abbreviated as P/PC.*

Significant changes were made to the software that Microsoft included with the P/PC. Pocket Outlook remained, as did Inbox and Solitaire, but Pocket Office, Windows Explorer, and Pocket Internet Explorer were not included.

> **NOTE** *Examples of the first P/PCs include the Casio E-11, the Philips Nino 320, and the Everex Freestyle Associate.*

In February 1999, Microsoft released the specification for a color version of the P/PC. Other than support for color screens, little else of Windows CE was changed, except a version number change to 2.11. The hardware for these devices retained basically the same physical size, but some included faster processors and more RAM.

Microsoft no longer supports the Palm-size PC platform.

Auto PC

At the same time that Microsoft announced the P/PC, it also announced the Auto PC. An Auto PC replaces your car radio with a Windows Powered information appliance. The device is voice-activated, enabling you to retrieve information, such as driving directions, using spoken commands.

Addresses that you have in the Contacts program on other Windows Powered devices can be transferred to the Auto PC by using infrared.

An optional component of the Auto PC is a wireless receiver with which you can receive traffic conditions, weather, news, stock quotes, and e-mail. The Auto PC voice synthesizer reads all of that information to you.

At the heart of the Auto PC is the Windows CE operating system—the same operating system that runs all other Windows Mobile devices. The Auto PC demonstrates the modular design of Windows CE, which allows Microsoft to remove components, such as the Pocket PC user interface, and replace it with other interfaces, such as the Auto PC voice recognizer.

The Auto PC has evolved to what is now known as Windows Automotive, which is not covered in this book. If you wish to read more information about Windows Automotive you can find information on the Internet at http://www.microsoft.com/windows/embedded/windowsautomotive/default.mspx.

Handheld PC Professional

In the fall of 1998, Microsoft released the Handheld PC Professional. This platform retains the screen and keyboard combination introduced with the Handheld PC but in a larger size. In the fall of 2000, Microsoft updated the platform, and called the new version Handheld PC 2000. The largest Handheld PC Pro device is 10×8 inches, and the smallest is about 4×7 inches.

> NOTE   *Shortly after Handheld PC Professional devices became available, Microsoft realized the name confused the market and reverted to calling the platform Handheld PC.*

Handheld PCs were first sold to consumers, but they never sold as successfully as originally anticipated. Today Microsoft and the manufacturers of Handheld PCs target the devices at the corporate market, where they have had great success. Companies use Handheld PCs for specific functions, such as inventory control or customer relationship management. Such functions require the larger screens and keyboards that are part of Handheld PCs. Consumers can still buy Handheld PCs from online sources such as MobilePlanet at http://mobileplanet.com, though there is minimal availability and the devices may be discontinued.

Pocket PC

In April 2000, Microsoft released the first version of the Pocket PC platform, which is now called Pocket PC 2000. Since then, Microsoft has released four additional versions: Pocket PC 2002, Windows Mobile 2003, Windows Mobile 2003SE, and the current Windows Mobile Version 5. Windows Mobile Version 5 includes the CE .NET operating system, Outlook Mobile, and Mobile Office.

Some of the companies that sell Pocket PCs include: Hewlett-Packard, Dell, Asus, and i-Mate. The following hardware features are common to Pocket PCs:

- Intel StrongARM or X-Scale processors
- A Flash ROM chip for storing the Windows Mobile software

Did you know?

What's New in Windows Mobile Version 5

All the improvements available in Windows Mobile Version 5 are covered in detail throughout this book. Here is a summary of the major enhancements:

- User interface improvements that make it easier to use Pocket PCs and Smartphones with one hand
- Persistent data storage
- New PowerPoint Mobile
- New Pocket MSN Client
- Improvements with Internet Explorer Mobile, Word Mobile, and Excel Mobile

- A minimum of 32MB of RAM
- A color touchscreen display
- An infrared port for transferring information between devices
- At least one, and in some cases multiple, storage card slot

Pocket PC Phone Edition

During the summer of 2002, Microsoft released Pocket PC Phone Edition, which is Windows Mobile for Pocket PCs plus additional software to support wireless voice and data communications. The first release of Pocket PC Phone Edition supported only the Global System for Mobile (GSM) telecommunications standard for voice communication and the General Packet Radio Service (GPRS) for data communication used by T-Mobile and Cingular Wireless in the United States.

The Phone Edition version of Windows Mobile 2003 added support for Code Division Multiple Access (CDMA) and its data counterpart CDMA2000 or 1xRTT used by Verizon Wireless and Sprint PCS in the United States. In addition to these two widely used U.S. standards, the 2003 version of the Phone Edition software includes several enhancements, such as the ability to mute and unmute a call, a new speakerphone menu, and a separate volume control for the ringer.

With the release of Windows Mobile Version 5, Microsoft no longer makes a distinction between Phone Editions and Pocket PCs. Regardless of whether or not a Pocket PC includes a phone, the software is simply Windows Mobile Version 5.

Smartphone

The Microsoft vision for mobile computing is that no one device will be the best fit for every person. As you have seen in this chapter, Handheld PCs meet the needs for vertical applications

requiring larger screens and keyboards, while Pocket PCs meet the needs for people who want a portable information appliance.

The goal of the Smartphone platform is to provide some of the functionality of the Pocket PC platform in a device that can be easily operated with one hand. While Smartphones have an e-mail client and a version of Internet Explorer, along with Outlook Mobile, they do not have Mobile Office and they do not support stylus input as do Pocket PCs.

Windows Mobile

Windows Mobile includes the Windows CE .NET operating system and application software (such as Outlook Mobile and Mobile Office) that run on Pocket PCs and Smartphones. All Windows Mobile devices include the Windows CE .NET operating system, but some may have different combinations of the application software. For example, some devices may include all the software, while others may include only Outlook Mobile.

This section provides an introduction to the components that make up Windows Mobile.

NOTE   *Pocket PC 2002 runs on the Windows CE 3.0 operating system.*

Did you know?

Differences Between Pocket PCs and Smartphones

While Pocket PCs and Smartphones are similar, there are currently two significant differences that you should be aware of. Pocket PCs have touch screens that support stylus input and the Mobile Office applications, while Smartphones do not have touch screens or Mobile Office.

The primary method of operating a Pocket PC is to hold the device in one hand and tap the stylus on the screen using your other hand. You operate Smartphones by holding a device in a hand and pressing buttons with your fingers.

In this book you will find instructions for operating both devices. Operations that you perform only on a Pocket PC will be prefixed with the word "tap"; for example, "tap Start | Settings | System | Screen." Operations that you perform on a Smartphone only will be prefixed with the word "press"; for example, "press Start | Settings | Phone." Operations that have the same steps on Pocket PCs and Smartphones will be prefixed with the word "select," such as "select Menu | Delete."

Did you know?

Windows CE Stands for Nothing

Since Windows CE's introduction, debate has ensued about what *CE* stands for. Two of the most popular theories are that it stands for Compact Edition or Consumer Edition. However, Microsoft says that CE stands for neither of these, nor anything else.

Windows CE .NET

In the simplest of terms, an *operating system* manages the interaction between application software and the hardware on which it runs. As a user, you should not be concerned with how the operating system works, only that it can run software at acceptable performance levels and remain stable.

One may be tempted to look at Windows CE .NET and decide that Microsoft simply transferred Windows 95 to handheld devices. The truth is that Windows CE .NET is a completely new 32-bit operating system, built from the ground up to run on embedded devices.

The following aspects of Windows CE .NET can affect you as a user:

- It implements a subset of the Win32 API, which was completely rewritten for embedded devices. This makes it easier for software developers to write programs using familiar tools, which speeds up the software development process.

- It is portable and can run on a variety of different processor types. That means that OEMs can choose from among a variety of processor manufacturers, enabling them to implement the latest processor technology at a lower price.

- It is a real-time operating system, which means that certain actions performed by the operating system occur within bounded times. To you, this means that the operating system should run faster.

- It is modular, so a system can be built using only the components needed for a particular platform. This means that a variety of different devices, such as the Pocket PC and the Smartphone, can be built from the same core operating system, decreasing product development life cycles.

The Windows CE .NET user interface, called the *shell,* is also a separate component. As such, Microsoft can create a separate shell for each hardware platform that runs the operating system. Separate shells have been created for the Pocket PC and Smartphone platforms, resulting in a slightly different look between the two devices.

The Windows CE .NET modular design means that it can be used in a wide range of devices. In fact, you might be surprised to know that Windows CE .NET is also used in devices such as gas pumps and point-of-sale terminals.

Did you know?

.NET Compact Framework

Included in ROM on all Windows Mobile devices is the .NET Compact Framework. Programmers can leverage their existing skills in C# and Visual Basic .NET to create applications for Windows Mobile. Programs can be quickly developed by providing native web services support and by allowing developers to focus on application development rather than on low-level infrastructure items such as memory management.

ActiveSync

It is important that information appliances easily exchange information with other devices; otherwise, the information is on a virtual island and not accessible everywhere it is needed. All Windows Mobile devices come with infrared ports that can be used to exchange information with other devices, but they also communicate with PCs running ActiveSync.

ActiveSync runs on PCs that use the Windows 2000, Windows Server 2003, or Windows XP operating systems. It synchronizes information between Windows Mobile devices and Outlook 2000 or newer. During synchronization, the software compares information on the device and on the PC, determining what has been added to both. Then, it updates the two so that the information is consistent on both devices.

The primary purpose for ActiveSync is to synchronize appointments, contacts, and tasks, but it also synchronizes Outlook Notes, Mobile Favorites, and Media content. Synchronization can be done using infrared, serial, USB, and Bluetooth. You also use ActiveSync to install programs on the device. Chapters 6, 7, and 8 provide all the details for using this important program.

Outlook Mobile

You can make a Windows Mobile device your personal information appliance in many ways, but chances are you will start by using the Outlook Mobile programs to manage your personal information. You'll use the Calendar program to schedule appointments and all-day events; you'll use Contacts to store addresses; you'll use Tasks to manage your projects; and you'll use Messaging to send and receive e-mail.

ActiveSync synchronizes the information in each of these programs with their counterpart folders in Outlook. When you read Chapter 13, you will learn how to use Calendar, Contacts, and Tasks. Chapter 11 shows you how to use Messaging.

Mobile Office

When you are traveling about with your Pocket PC, you may need to write a letter, read a report, determine how much it will cost to remodel your kitchen, or give a presentation. Chapter 14 shows

you how to create documents using Word Mobile. In Chapter 15, you learn how to use Excel Mobile to crunch numbers and how to use the Calculator program to make quick calculations. Finally, in Chapter 16 you learn how to use PowerPoint Mobile to view presentations.

NOTE   *Mobile Office is not available on Smartphone.*

Windows Media Player and Solitaire

The Internet is becoming a popular way for distributing music in the MP3 (MPEG Audio Layer 3) or WMA (Windows Media Audio) file format. You can download these files to a Windows Mobile device and play them using the Windows Media Player introduced in Chapter 18.

A beautiful color display and stereo sound make Windows Mobile devices great for playing games. Included with all Windows Mobile devices is that hallmark of Microsoft game software, Solitaire. Information about games for Windows Powered devices is also provided in Chapter 18.

Internet Explorer and MSN Messenger

Pocket PCs and Smartphones include the software needed to connect to the Internet. Once online, you can use Internet Explorer Mobile to view your favorite web site, use Messaging to send and receive e-mail, and use MSN Messenger to send and receive instant messages. You will find information about MSN Messenger in Chapter 11, and Internet Explorer is covered in Chapter 12.

Wrapping Up

Windows Mobile devices provide a fast and simple way to manage all types of information. Over the course of nine years, Microsoft has improved its software for Windows Mobile devices, resulting in products with many features and integration with Windows desktop software. Today the Microsoft mobile device strategy recognizes that no one device will meet all the needs for handheld computing: Companies need devices with larger screens and keyboards, which Handheld PCs provide. Consumers want devices for storing personal information, for entertainment, and for connecting to the Internet, which Pocket PCs provide. Yet others want some of their personal information in a mobile phone, which Smartphones provide. The remaining chapters of this book provide all that you need to make the most of your Pocket PC or Smartphone. In the next chapter, you'll learn more about Pocket PCs.

Chapter 2

Get Acquainted with Your Pocket PC
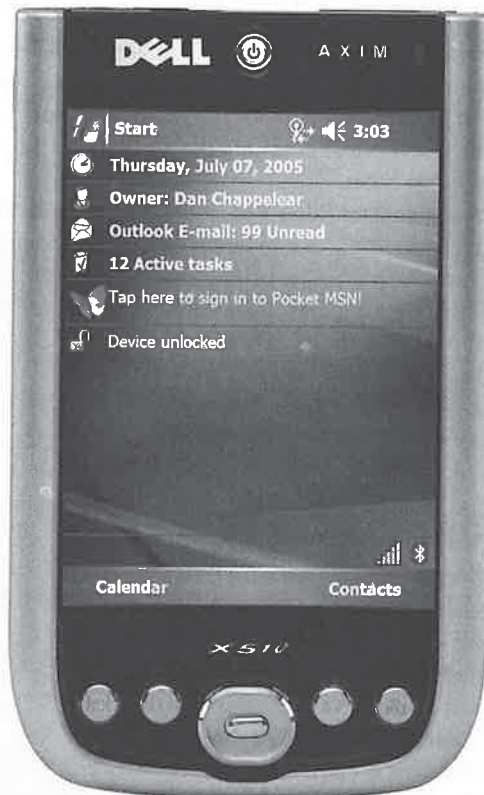
How to...

- Identify hardware components
- Set up your Pocket PC
- Find information
- Use the Start menu
- Use common program elements
- Use Online Help
- Configure storage and program memory
- Organize files and folders

All great athletes master the fundamentals of their sport. Their tremendous physical and mental gifts set them apart, but if you analyze their performances, you often find that the fundamentals are performed flawlessly. This mastery does not come by chance; it is the result of years of practice and coaching. By the time an athlete becomes a professional, the fundamentals have become habit.

To master your Pocket PC, you need to learn the fundamentals of how it works. This chapter provides coaching that can help you understand these fundamentals and polish your skills to become a master.

Following a review of the hardware components that come with the Pocket PC, I'll review the setup procedure. After you set up the device, you'll see the Today screen, which I cover before moving on to the Start menu, common application components, organization of files, and Online Help. This chapter finishes with an overview of an important part of your device—the memory used for storing files and running programs.

Meet Your Pocket PC

Your Pocket PC is a powerful little device that is capable of meeting your needs for an information appliance in a number of different ways. Throughout this book, you'll learn how to make a Pocket PC your own appointment book or checkbook, but to use the device in the best way possible, you need first to understand its fundamental parts.

Each Pocket PC looks slightly different, but several options are found on every device. The Today screen is the closest thing to a PC desktop on the Pocket PC; it provides a summary for appointments, e-mail, and tasks. You enter information using either the onscreen keyboard, character recognizer, or handwriting recognition, which lets you write anywhere on the screen. Like your desktop computer, information is stored in files, which you manage using File Explorer.

NOTE   *If you have difficulty using any of these items, Online Help is available by tapping Start | Help.*

Review the Pocket PC

Let's take a tour of a typical Pocket PC, starting with the front of the device. You'll learn the function of parts commonly found on the Pocket PC, but keep in mind that slight variations may exist among various Pocket PC brands. You'll use some parts more often than others, but knowing *how* to use all of them is important.

Review the Front

The largest part of the Pocket PC is its screen. The LCD (liquid crystal display) touch screen has a portrait layout and is used for viewing and entering information.

TIP *To help you understand the difference between portrait and landscape layouts, think of a standard 8.5×11-inch sheet of paper. The portrait layout of that sheet is oriented vertically, with the 8.5-inch sides at the top and bottom, and a landscape layout is oriented horizontally, with the 11-inch sides at the top and bottom.*

As you can see in Figure 2-1, the buttons below the screen are assigned to various programs or functions. If the Pocket PC is turned off, you can press one of these buttons to turn it on and start the assigned program in one step, unless this feature is disabled.
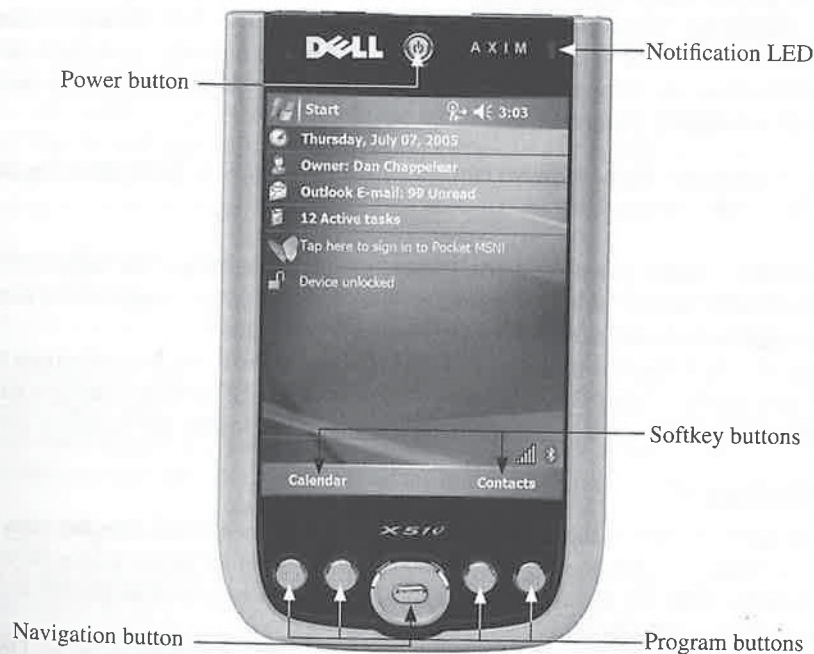
FIGURE 2-1 The Dell Axim Pocket PC (other Pocket PCs look different but have many of the same parts)

How to ... Clean Your Pocket PC Screen

The Pocket PC LCD screen can get dirty quickly through daily use, and some dirt particles can even scratch the screen when they come in contact with the stylus. In my experience, products designed to clean the lenses of glasses work well.

Fellowes sells a PDA Screen Clean kit that includes a soft leather cloth for cleaning the screen throughout the day and packets of wet-dry cleaning cloths for more intensive cleaning. It also sells the WriteRight screen protector, which is a clear plastic overlay that covers the Pocket PC screen. You can find more information about both products at www.fellowes.com.

New with Windows Mobile 5 on the Pocket PC are the left and right softkeys. These hardware buttons are associated to menus or commonly used functions, and make it easier to operate a Pocket PC with one hand. In most Windows Mobile 5 programs the right softkey opens a menu, while the left softkey is assigned to a specific function. For example, in Internet Explorer, pressing the left softkey causes the program to go back one page.

Usually, two of the buttons are assigned to Calendar and Contacts, with third and fourth buttons assigned to Tasks, Inbox, or other programs provided by the hardware manufacturer. The button assignments of each of these programs can be changed using the Buttons icon in the Pocket PC settings; Chapter 3 provides instructions.

> **NOTE** *Unlike many of the other hardware buttons on Pocket PCs, you cannot reassign the softkeys to different functions.*

Casio was the first company to place a Navigation button on the front of its Pocket PC, and since then, all Pocket PC brands include this feature. The Navigation button provides a way for you to scroll through screens and menu options without using a stylus.

Some Pocket PCs have the Power button and microphone on the front. It is important that you know the location of the microphone on your Pocket PC to make the best voice recordings. When you make a recording, the microphone should be placed as close to the source as possible.

Review the Bottom

At the bottom of the Pocket PC is the accessory port. This port does not look like the ports that you find on desktop computers, and, unfortunately, each Pocket PC brand uses a different port style. Because the ports are variable, you cannot share peripherals, such as cradles and keyboards, among Pocket PC brands.

The accessory port is designed to plug the Pocket PC into a cable that connects to the Universal Serial Bus (USB) port of a desktop computer. The port may also be used to provide power to the Pocket PC and recharge the battery. Some Pocket PCs come with cradles with cables for power and connecting to PCs.

How to ...   Connect Your Pocket PC to Devices Using a Serial Cable

The serial cable that works with your Pocket PC is a special version of what's sometimes called a *null modem cable*. These cables are designed to communicate with other personal computers rather than peripherals, such as modems. To use the serial cable to connect to a serial peripheral device such as a modem, you need a *null modem adapter*. The adapter converts the cable into a standard RS-232 cable that provides communication with serial devices.

You can find null modem adapters at your local RadioShack (you will need a female-to-male DB9 adapter, part number 26-264). Most peripherals have female ports, so if the peripheral to which you are connecting has a 9-pin female port, you will also need a male-to-male DB9 serial gender changer (RadioShack part number 26-231).

Review the Left Side

After the front, the left side of the Pocket PC may be the most important location on your device. Here, you may find Scroll Wheel and Voice Recorder buttons, designed for using the Pocket PC with one hand.

The Scroll Wheel button is used in two ways: Rotating the wheel up or down performs operations similar to pressing the up and down arrows on a computer keyboard. Pressing the button performs an operation similar to pressing ENTER on a computer keyboard. You can scroll through the Start menu items by rotating the wheel up or down, and then press the wheel button to start the program that you select.

NOTE   *Newer Pocket PCs only have a Navigation button, while some older Pocket PCs have a Scroll Wheel on the left side and a Navigation button on the front. You can use both to scroll up and down on these devices.*

To make voice recordings on your Pocket PC, press-and-hold Voice Recorder and begin speaking after the device beeps. Use the Notes program, explained in Chapter 14, to play back and manage voice recordings. You can configure Voice Recorder in Notes either to switch to the Notes program and start recording or to stay in the current program and start recording.

Review the Top

At the top of the Pocket PC you will find the alarm notification LED, headphone jack, and either a CompactFlash (CF) or Secure Digital (SD) card slot. If you have a Pocket PC Phone Edition or a Pocket PC with built-in wireless, your device may have an antenna. The LED will flash whenever an alarm occurs, unless you turn off the LED notification in the Pocket PC settings. This same LED may be used to indicate that the device is charging. (The user manual includes more information about how the LED is used.)

All Pocket PCs have a headphone jack, though the jack may be located somewhere other than at the top. You can plug in a 3.5-millimeter headphone into the jack to listen to voice recordings, music, or videos. Most Pocket PC Phone Editions have a 2.5-millimeter jack, which is the common size found on mobile phones.

Some Pocket PCs have slots that support Type II CompactFlash cards. Type II cards are made a little thicker than Type I cards so that they can support additional functions. The newest Pocket PCs have Secure Digital card slots. Secure Digital cards are significantly smaller and thinner than CompactFlash cards and have built-in support for encryption.

The final item that you will find at the top of some Pocket PCs is an infrared port compliant with the Infrared Data Association (IrDA) standard. Infrared is a form of light, or radiation, beyond red light that cannot be seen by human eyes. An infrared transmitter sends data to a receiver using pulses of infrared light. Every Pocket PC has software that is capable of using the infrared port as either a transmitter or a receiver; and for communication to work, the sending and receiving ports must be lined up with each other. As Chapter 6 shows, the infrared port can also be used with a desktop computer for synchronization.

> **NOTE** *Some Pocket PCs may have mini-Secure Digital card slots rather than Secure Digital or CompactFlash slots.*

Review the Right Side

On the right side of a Pocket PC is the stylus, which you use to interact with the Pocket PC. Some Pocket PCs also place a speaker along this side of the device.

Review the Back

The most important item on the back of the device is the Soft Reset button, which is recessed so that it is not accidentally pressed. A soft reset is similar to rebooting a desktop computer, because it restarts the operating system, and data in the program memory is lost. However, any data in storage memory and all settings are retained. An explanation of program and storage memory is provided in the "File Storage and Program Memory" section later in this chapter.

> **NOTE** *Be sure to check the user manual for your Pocket PC to verify the location of the Soft Reset button. The location on your Pocket PC may be somewhere other than the back of the device.*

The back of some Pocket PCs may include covers for the main and backup batteries and possibly for a memory expansion slot. Because the options on the back of each device vary according to manufacturer, consult your user manual for details about your Pocket PC.

Set Up Your Pocket PC

When you turn on your Pocket PC for the first time, a series of steps are initiated to set up your device, which Microsoft calls the Welcome wizard.

2

Did you know?

Resetting Pocket PCs

You can reset a Pocket PC two different ways. A soft reset shuts down running programs, clears data from program memory, and restarts the Pocket PC. A hard reset disconnects power from the Pocket PC, which deletes all programs and data that you add to the Pocket PC. The soft and hard reset processes are different for each device and are provided in the Pocket PC user manual.

Windows Mobile 5 treats hard resets differently than previous versions of Windows Mobile. Because Windows Mobile 5 stores all data in ROM, the data remains even when power is unavailable. Most Pocket PC manufacturers include a utility to delete all data and programs from the device to restore the device to the state it was in when it shipped from the factory.

After a hard reset, Windows Mobile 2003SE and older Pocket PCs work as they do when taken out of the box and turned on for the first time. The software that came preloaded remains, but any software that you installed is removed. You will need to either reinstall the software or restore a backup that you have previously created using a backup program on the device. Chapter 8 provides instructions for backing up and restoring Pocket PCs.

CAUTION
Before turning on your Pocket PC, it is important that you charge its main battery so that settings and data are not lost. When you charge the batteries on most Pocket PCs, an LED either blinks or illuminates a certain color. The Pocket PC is fully charged when the light stops blinking or stops changing colors. The first charge of the Pocket PC battery may take several hours. Consult the user manual for specific instructions on charging the battery.

The first screen that you see is the Welcome screen. Tap anywhere on the screen to continue. Next, you align the touch screen so that it properly recognizes any text or taps that you enter. Use the stylus to tap the center of the cross as it moves around the screen.

TIP
You can align the screen at any time by tapping Start | Settings. Tap the System tab and then tap the Screen icon. Some Pocket PCs also provide a series of hardware buttons that you can press to start the Align Screen program; consult the user manual for instructions.

Tap Next to move on to the Location screen (shown on the following page). Here, you specify your local time zone by selecting a time zone or location in the drop-down list. If you are in the United States, select a time zone; otherwise, select a city. If the city that you live in is not in the list, select the name of a city in the same time zone.
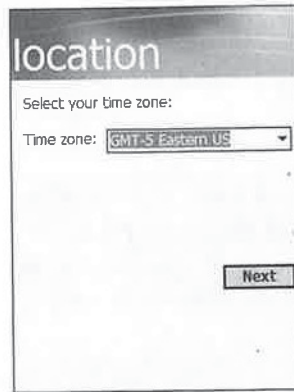
The next two screens that appear introduce you to the *tap-and-hold* process. Tap-and-hold is used throughout the Pocket PC user interface and is similar to right-clicking a Windows desktop, in that it causes a pop-up list of commands to open, which can be executed on the object you select with tap-and-hold.

On the first screen, you are instructed on how to use tap-and-hold. Tap Next to move on. The second screen, shown here, provides an opportunity for you to try out the tap-and-hold procedure—tap Cut, then tap-and-hold the 11 A.M. time slot, and then tap Paste on the pop-up list.
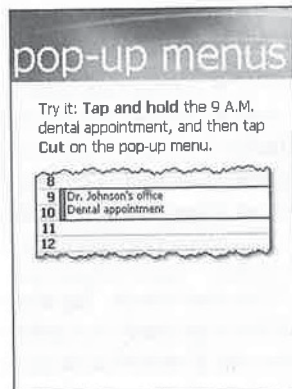
After you've successfully completed the tap-and-hold procedure, a Congratulations screen appears. When you tap Next, you see a screen instructing you to set up a password for your device; tap Next to open the Password settings screen or tap Skip to complete the Welcome wizard.

NOTE   *The instructions for creating passwords on a Pocket PC are provided in Chapter 3.*

More Settings

The Welcome wizard sets the basic information for your Pocket PC, but you should perform some additional steps to complete the setup of your device. To set the date and time, tap Start |

Settings, tap the System tab, and then tap the Clock & Alarms icon. Follow the instructions provided in Chapter 4 for changing the date and time using the Clock & Alarms settings.

If you synchronize multiple Windows Mobile 2003SE or older devices with the same desktop computer, each device must have a unique name. To change the name of your Pocket PC, tap Start | Settings, tap the System tab, and then tap the About icon to display the About Settings dialog box. Tap the Device ID tab, enter a name and description for the device, and tap OK.
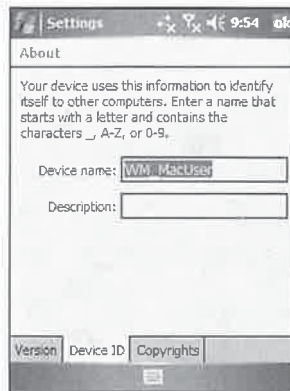
ActiveSync 4 and Windows Mobile 5 automatically create unique device names for every Pocket PC when it creates a synchronization relationship with a PC.

Each Pocket PC can store information about you, such as your name and address, which you enter on the Owner Information screen. To open the Owner Information screen, tap Start | Personal | Owner Information. If you want the information to be displayed every time the Pocket PC turns on, tap Identification Information on the Options tab. You can store additional information on the Notes tab.

One of the first things you'll want to do after becoming familiar with your Pocket PC is synchronize it with your desktop computer. During the first synchronization, you establish a synchronization relationship between the device and the desktop computer and you download data in Outlook to the Pocket PC. The entire synchronization process is explained in Chapter 7.

Meet the Today Screen

When the Welcome wizard completes, you end up at the Today screen:
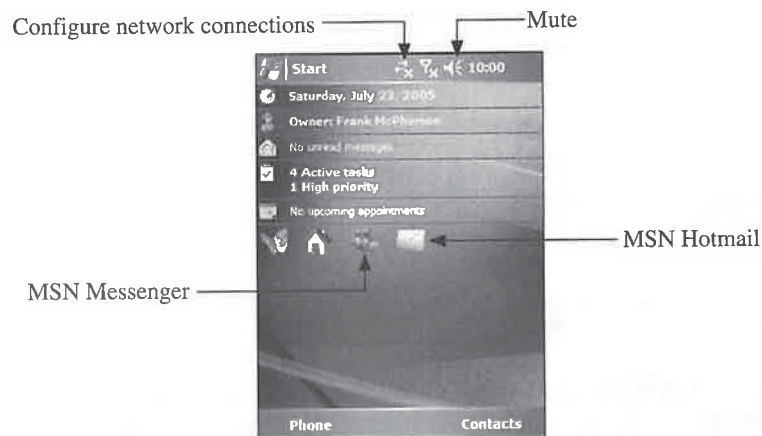
The Today screen serves a purpose similar to the Outlook Today page on the PC. It provides the date, a summary overview of personal information, including the owner's name and telephone number, upcoming appointments, the number of unread and unsent e-mail messages, and the number of active tasks.

New to Windows Mobile 5 is the Pocket MSN launch bar on the Today screen, which provides quick access to MSN Hotmail, MSN Messenger, and the MSN Mobile home page. You will need to configure each of these by using the MSN Options setting as instructed in Chapter 3.

When you tap a section of the Today screen, the associated program starts. For example, tap the appointments section to start the Calendar program. The Owner Information settings display when you tap the owner name. You can also start Inbox and Tasks from the Today screen by tapping the appropriate spots.

TIP *To change the date and time from the Today screen, tap the date to open the Clock Settings dialog box.*

The bottom of the Today screen may display program icons; the Today screen is the only part of the Pocket PC that displays these icons. Tap an icon to execute a particular function or start a program.

You can select themes that change the appearance of the Today screen, as well as select which items should display on the screen, by changing the Today screen settings. Chapter 3 provides the instructions for changing these settings.

2

Use the Pocket PC Start Menu

One difference between the Pocket PC user interface and Windows is the location of the Start button. The Start button is located on the upper-left corner of the screen, and the title changes on the Navigation bar to display the name of the current program visible on the screen. When you tap the Start button, the menu expands from the top down, as shown here.

Recently used programs —
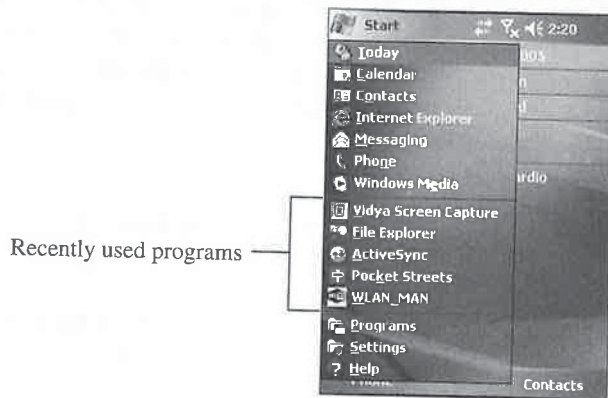
Another item on the Pocket PC Start menu is the recently used programs section of the menu. Each time you run a program on the Pocket PC, it's added to the recently used section, which displays the last five programs you started. Programs on the Start menu are not added to the recently used section.

TIP *When you change the screen orientation to landscape, the recently used programs section is replaced by a shortcut bar of icons at the top of the Start menu.*

Another change made to the Start menu is that the Programs and Settings menus do not cascade as they do in Windows XP. Instead, when you tap either item, a separate program window displays—such as the Programs window, shown here. If a program shortcut does not appear on the Start menu, it will be found in the Programs window. Start a program by tapping its icon.
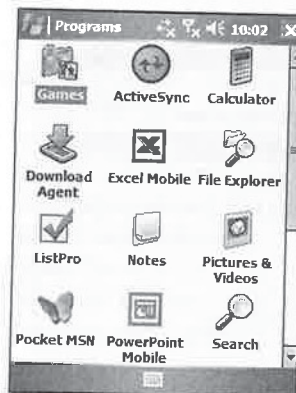
NOTE *You can have only seven program shortcuts in the Start menu.*

To indicate whether a shortcut will appear on the Start menu or in the Programs window, tap Start | Settings | Menus to display the Menus Settings dialog box. Tap the check box next to the items that you want to appear on the Start menu. The items not selected will appear in the Programs window.
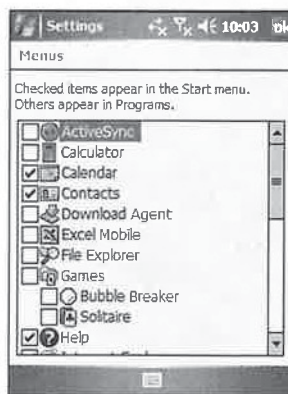
TIP *To add a program shortcut to the Start menu or Programs window, tap-and-hold a filename in File Explorer and tap Copy. Next, open the Start menu or the Programs subfolder in File Explorer and tap Edit | Paste Shortcut.*

Launching a program from the Start menu on a Pocket PC involves the same process as on all other versions of Windows. Tap Start and then tap the shortcut of the program that you want to run.

Search for Information

On a Pocket PC, you can perform a search on a word or phrase that is stored in any of the Pocket Outlook and Pocket Office data files, as well as in Notes. To search for information, tap Start | Programs | Search to open the Search dialog box.
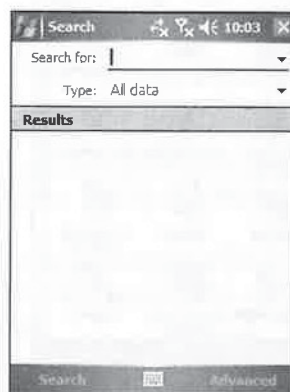
Tap here to select from a list of previous search words.

2

How to ... Search for Files

The Pocket PC search functionality is designed to search for information stored in Pocket Outlook, Online Help, Notes, Word Mobile, and Excel Mobile. It does not search for other file types or for files on storage cards. If you want to expand searches to include files on storage cards, you need to download and install a third-party program. One program that provides this functionality is Kilmist FileQuest, at www.kilmist.com.

NOTE *Windows Mobile 2003 and older devices have a Find option at the bottom of the Start menu.*

Enter the word or phrase in the Search For field, and select the type of search from the Type drop-down list. Previous search words or phrases are saved and available in the Search For drop-down list.

You can narrow the search to a specific program by selecting the program name from the Type drop-down list. The default is All Data, which will search through all Pocket Outlook, Pocket Office, and Notes files on the device.

After you enter the search item and select the Type, tap Search or press the left softkey to begin the search. The search results display on the middle of the screen. You can tap any entry in the Results list to open it. When you tap OK to close the item, you return to the results listed in Search For.

Work with Applications

The Pocket PC user interface has a flat design that is simple and easy to navigate. At the top of the screen is the Navigation bar, which displays the title of the active program and the current time. Tap the Start icon, which is immediately to the left of the program title on the bar, to expand the Start menu.

Pocket PC programs display on the entire screen, and they do not appear in separate windows as on desktop computers. At the top-right corner, you'll see a square button labeled with OK (as shown here) or an *X*. OK appears within dialog boxes or screens of a program. For example, when you start Contacts and display a contact, you see an OK button. When you tap OK, the Contacts screen closes, but you remain within the Contacts program at the Contacts List view.

From the Contacts List view, you see an *X* instead of an OK. When you tap *X*, the Contacts program disappears, and you see the
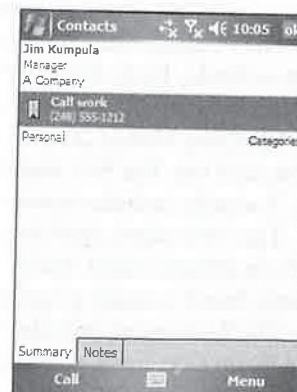
program started prior to running Contacts. Tapping the *X* button allows you to close the current program screen, but the program is still running in memory, which makes it faster to switch among programs as you work.

> **NOTE** *The operating system manages the memory on Pocket PCs and automatically shuts down programs if it starts to run out of program memory. You may prefer to shut down programs manually as you do on a personal computer. To do this, you use the Memory setting on your Pocket PC or use a program task manager. Chapter 3 has instructions for using program task managers to shut down programs.*

At the bottom of the screen is the Command bar, which has menus and buttons that provide commands for programs. The Command bar is where you also see what is assigned to the left and right softkeys in Windows Mobile 5. The Command bar in this image shows that the left softkey is assigned to New and the right softkey is assigned to Menu. In this example, you press the left softkey or tap New to create a new document. Press the right softkey or tap Menu to open the menu for Word Mobile.
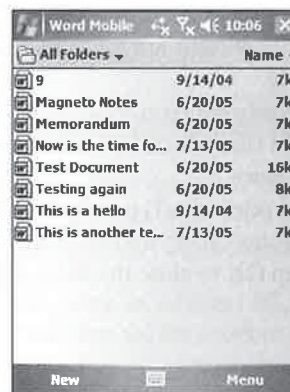
When you are in the List view for most Windows Mobile 5 programs, the left softkey will be assigned to New. To create a new item, tap New or press the left softkey.

The Program menu of most Windows Mobile 5 programs contains commonly used functions, such as Undo, Redo, Cut, Copy, Paste, Clear, and Select All, plus submenus. The submenus cascade in a similar manner as they do in Windows.

Windows Mobile 2003SE and older programs contain multiple menus that appear along the Command bar. The Edit menu provides commands used to edit data that you enter on the Pocket PC. It usually includes commands such as Undo, Redo, Cut, Copy, Paste, Clear, and Select All.

The View menu provides commands that change the appearance of the screen. This may include different input modes, such as the Writing and Drawing modes found in Notes, as well as Zoom, found in many programs and used for magnifying the display.

The Tools menu provides additional commands available in the program, such as Insert Date and Beam Document, which you find in Word Mobile. If a program includes an Options dialog box, which is used to configure the program settings, open it by tapping Tools | Options.

View List Views

Programs that create files, such as Notes and Word Mobile, use a List view to display all the files you created using the program. When you start the program, the first screen displayed is the List view, such as that shown in this image for Notes.
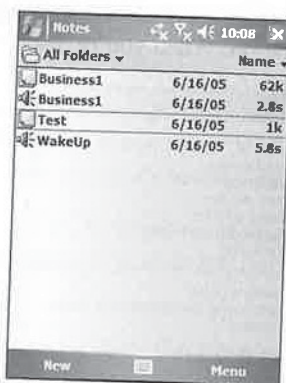
From the List view, you can tap All Folders to navigate through various folders and tap Name to sort the items in the list. Tap an item name in the list to open that item in the program, or tap New to create a new file.

NOTE *The List view displays only when a file associated with the starting program is found on the device. If no file is found, the Program window opens, rather than the List view.*

View Pop-Up Menus

The Pocket PC has a feature that provides the same function as right-clicking an object in Windows on desktop computers. When you tap-and-hold the stylus on an item on the screen, a pop-up menu appears with commands appropriate to the active program.

After the menu appears on the screen, lift the stylus and tap the command that you want to perform. For example, to create a copy of a note, tap-and-hold the stylus on the item to be copied in the Notes List view to open the pop-up list. Then tap Create Copy to create a new copy of the note you selected.
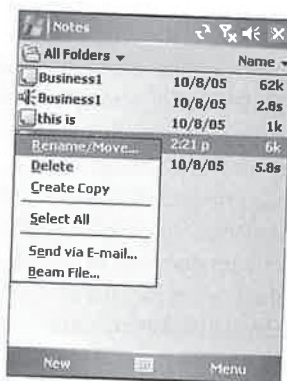
Get Help

Online Help is available directly on your Pocket PC; to open Online Help, tap Start | Help. The information that appears on the screen, an example of which is shown here, will relate to the program window currently open. Tap Contents to open the Online Help contents, and then use the arrows to move backward or forward one page. Some help pages include hyperlinks that you can tap to open another page of information. When you're done, tap the X to close Online Help.
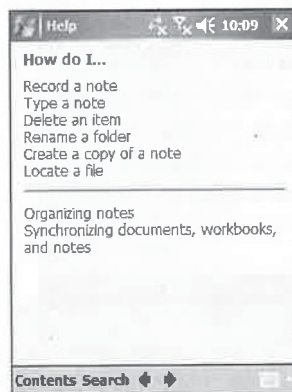
Receive Help on the Internet

Online Help is a great source of information on your device, but it may not provide an answer to your particular question. While this book provides enough information to answer most questions, technology changes at a blinding rate and only the Internet seems able to keep up.

On the Internet you can find pages of frequently asked questions (FAQs) that provide answers for a variety of topics. During the last four years, I have created and maintained the PocketPCHow2 web site at www.pocketpchow2.com, which provides hundreds of links to information that answers many questions about Windows CE and Pocket PCs.

My web site is only one of several web sites on the Internet that are dedicated to Pocket PCs. Included on my web site are several pages of links to other web sites that provide FAQs, news, forums, reviews, and software.

Print Documents

Windows Mobile does not let you print documents. Field Software Products' PrintPocketCE works with all Pocket PC 2002 and 2003 devices. It prints Word Mobile, Excel Mobile, and e-mail documents, and it supports Hewlett-Packard, Canon, Epson, Pentax, Brother, and several other printers. You will find this program at www.fieldsoftware.com.

Pocket Watch Software's ActivePrint provides the ability to print from Windows Mobile 5 devices. To print a document with ActivePrint, you need to connect the Pocket PC to a desktop computer running ActiveSync. You queue up documents to be printed while away from your desk and then, when you synchronize the Pocket PC, the queued documents print. You will find this program at http://activeprint.pocketwatchsoftware.com/.

File Storage and Program Memory

Unlike desktop computers, Pocket PCs do not have built-in hard drives. Instead, they use memory chips for built-in file storage. One of the significant changes between Windows Mobile 5 and previous versions is how it uses Random Access Memory (RAM) and Flash Read Only Memory (ROM). Windows Mobile 5 uses RAM only for program memory, and uses Flash ROM for storing all files and data.

Windows Mobile 2003SE and earlier devices use RAM for both program memory and built-in storage, and use Flash ROM only to provide extra file storage. Pocket Outlook data and all of the Pocket PC settings are stored in RAM. When these devices lose power, all Pocket Outlook data, Pocket PC settings, and any other programs or files stored in RAM are lost.

NOTE *The operating system and all of the Windows Mobile software that comes on Pocket PCs are also stored in a section of Flash ROM, but they are secured so that you cannot accidentally erase the files.*

Flash ROM retains files and data even when there is no power supplied to the chips, which means that data on Windows Mobile 5 devices will not be erased when the batteries drain completely, or during a hard reset. By changing the way it uses Flash ROM, Windows Mobile 5 has significantly improved the way it protects your data.

TIP *Several Windows Mobile 2003 and older devices have Flash ROM chips with extra storage space that you can use to safely store files. Unfortunately, Pocket PC manufacturers do not agree on what to call this special storage. For example, HP refers to it as a File Store, while Dell refers to it as Built-in Storage. Regardless, this storage is ideal for storing your most important files.*

Increase Storage Space

The amount of storage available with Windows Mobile 5 devices is limited by its size of flash memory. Using storage cards can increase the total storage space of a device. Storage cards are available in the CompactFlash, Multimedia Card, Secure Digital, mini-Secure Digital, and PC Card formats, and they come in a variety of sizes.

How to ... Add More Program Memory

Storage cards cannot increase program memory; until recently, program memory could not be increased at all. However, Pocket PC Techs at www.pocketpctechs.com now sells internal memory upgrades for several brands of Pocket PCs. Pocket PC Techs can install 64MB and 128MB upgrades. Be aware that this upgrade voids your Pocket PC's warranty, however.

2

How to ....   Conserve Storage Space

Internal storage in Pocket PCs is finite, and therefore it can be important to use a strategy that conserves internal storage space while installing programs. It helps, therefore, to know what must be stored internally and what can be placed on storage cards.

All data in Calendar, Contacts, Tasks, and Messaging is in databases in internal storage. Over time, you'll want to remove items in these programs, and the best way is to configure Outlook on your PC to archive data automatically. The auto-archive process removes items from the main Outlook folders, and during the next synchronization those items will be removed from the Pocket PC.

Data files, such as Word Mobile documents and Excel Mobile spreadsheets, can be easily stored on storage cards or internally. Both programs automatically check the storage cards for files to display in the File List view. However, files on storage cards are not backed up by ActiveSync or by any of the backup programs provided with Pocket PCs. You may want to store only noncritical files on storage cards, or use Windows Explorer to copy files manually from storage cards to the hard drive on a PC.

You can install most Pocket PC programs on storage cards. The instructions for installing software to storage cards are discussed in Chapter 8. Some programs execute immediately when the Pocket PC turns on, and you may have problems running those programs from storage cards. This is because cards are not available during a slight period of time when the Pocket PC first turns on. Most programs include README files that specify whether the program must be installed to internal storage.

I recommend installing system files to internal storage. If your Pocket PC has only one slot, you need to install programs internally that you would use while peripherals, such as modems, are in the slot.

The left side of the slider represents internal storage memory, and the right side represents program memory. To adjust the amount of memory allocated to either, move the slider left or right.

At the middle of the screen you can see the amount of memory Allocated, In Use, and Free for storage and program memory. Tap the Storage Card tab of the Memory Settings dialog box to see the size of the storage card and the amount of space in use and free.

Manage Files with File Explorer

With File Explorer, you can browse the contents of folders on the Pocket PC to locate, open, copy, move, and delete files. You also use this program to create new folders and to transfer files to other devices using infrared.

The My Documents folder is particularly important on Pocket PCs because it is the storage location for data files. If you synchronize files between a Pocket PC and a desktop computer, the entire contents of the My Documents folder will appear on the desktop computer. Most Pocket PC

programs, such as Word Mobile and Excel Mobile, work only with the My Documents folder or its subfolders, while files stored in any other folder on the device will not appear in the program List view.

If you create a My Documents folder on a storage card, the contents of that folder are combined with the contents of the My Documents folder on the device by programs that have a List view. This feature is particularly important for Windows Media Player, which plays music stored in large files that you will want to keep on storage cards. Chapter 18 provides instructions for playing music using Windows Media Player.

Locate Files

To start File Explorer, tap Start | Programs | File Explorer, and the program will open. When File Explorer starts, it opens the My Documents folder and lists the files and subfolders stored therein. The contents of a Folder view can be sorted by Name, Date, Size, or Type by tapping an option in the drop-down list located at the upper-right of the Folder view. Expand the drop-down list at the upper-left of the Folder view to open a parent folder. The Pocket PC root folder is called My Device and contains the My Documents, Program Files, Temp, Storage Card, and Windows folders, among others. If a storage card is in the device, it appears in the My Device Folder view, as shown here.
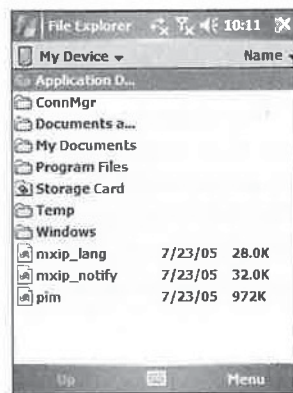
TIP *To quickly open a storage card, tap the drop-down list at the upper-left of the Folder view and then tap Storage Card.*

Network shares are storage locations on file servers or workstations that share files among users on a network. To open a network share in File Explorer, tap Menu | Open Path | New Path, and the Open dialog box appears.

Enter the full path to the network share using the Universal Naming Convention (UNC), which has the form *[server name]* *[share name]*. For example, to open a share with the name *Music* on a computer named *Fred,* you would enter \\Fred\Music.

2
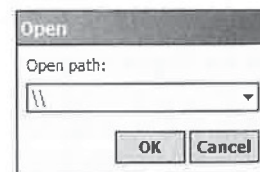
You cannot directly open a file on a network share. Instead, you must first copy the file to the Pocket PC and then open it. However, you can create a shortcut to a file on a network share and paste it on a Pocket PC. This does not actually copy the entire file to the Pocket PC. Because shortcuts only point to files, when you open the shortcut you actually open the file across the network. To create a shortcut, tap-and-hold on a filename and then tap Copy. Switch to the destination location on the Pocket PC and tap Menu | Edit | Paste Shortcut. The only way to open a shortcut is by using File Explorer. You will not see shortcuts in the various program List views.

The process is the same for opening a file or folder in the Folder view; you tap the item, and it opens in its associated program on the Pocket PC. File Explorer does not display file extensions, but an icon appears with each filename to indicate the file type.

Organize Files with Folders

Typically, you will not use File Explorer to open a file; instead, you will start a program, such as Word Mobile, and then open a file from its List view. You will, however, use File Explorer to move files among folders and to create new folders.

A folder can be created in two ways: you can tap-and-hold the stylus on an open space in the Folder view and tap New Folder on the pop-up list, or you can tap Menu | New Folder. A new folder appears with its name selected so that you can enter a new name, as shown here.
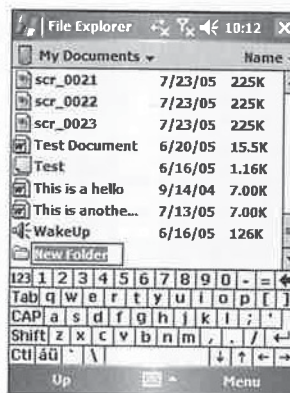
To move or copy a file into a folder, you use tap-and-hold to choose Cut, Copy, and Paste. File Explorer does not support drag-and-drop, but tap-and-hold makes the process easy. To move a file to another folder, tap-and-hold the stylus on the filename, tap Cut on the pop-up list, open the destination folder, tap-and-hold the stylus on the folder, and then tap Paste on the pop-up list.

Copy a file by using the same process, except tap Copy on the pop-up list instead of Cut. If you paste a copy of a file into the same folder, File Explorer will automatically change the filename by adding *Copy of* to the beginning of the name.

To delete a file, tap-and-hold the filename and then tap Delete on the pop-up list. To change the name of a file, tap Rename on the pop-up list, and then enter the new filename.

Send Files with E-mail

You can send any file as an e-mail attachment from File Explorer. Tap-and-hold a filename and then tap Send Via E-mail on the pop-up list. Inbox starts and creates a new e-mail message with the file attached, as shown in this image. Complete and send the e-mail message as instructed in Chapter 11.
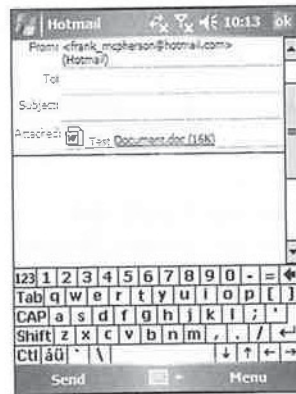
If you have Messaging configured for multiple e-mail accounts, you will be prompted to select one when sending an attachment from File Explorer.

Beam Files with Infrared

Files can be transferred to another Pocket PC from File Explorer by using *infrared*. Line up the infrared ports of the two devices and set up the receiving device. To send a file from File Explorer on a Pocket PC, tap-and-hold on a filename and then tap Beam File on the pop-up list. A message box appears on the screen of both devices to indicate that the file was transmitted.

Wrapping Up

Pocket PCs have features that are similar to Windows running on desktop computers. You use the Start menu to start programs and to switch between running programs. Files are stored in folders in a hierarchical manner, and you use File Explorer to browse and manage files and folders. The Today screen on Pocket PCs is the closest thing to the Windows desktop, but the purpose of the Today screen is to provide an overview for your information rather than to display program shortcuts. The Today screen also provides a way for you to personalize your Pocket PC by selecting different themes, which display pictures on the screen and change the colors of the Navigation and Command bars. In the next chapter, you'll learn how to personalize your Pocket PC for your preferences and tastes.

Chapter 3

Personalize Your Pocket PC

How to...

- ■ Change the Pocket PC personal settings
- ■ Use the Pocket PC input methods to enter information
- ■ Manage running programs using a program task manager
- ■ Change the Pocket PC appearance

It is easy to overlook the second *P* in Pocket PC, which stands for *personal*. Yet of all the computers made, Pocket PCs may be the most personal of all. The information they store—appointments, addresses, and tasks—is personal for most people, as rarely will more than one person share a Pocket PC. So it makes sense for you to want to configure your Pocket PC to conform to your personal needs and tastes.

The Pocket PC software provides several ways to personalize your device, including settings for entering owner information, setting passwords, programming hardware buttons, and configuring input methods. In fact, you can choose among four input methods to use the one that works best for you. If the input methods included with your Pocket PC do not work well for you, others are provided by third-party companies.

Many people find it cumbersome to use the Start menu and the methods for starting and closing programs. Several programs are available to help you manage the programs running on your Pocket PC. If you prefer to use a simple menu of icons to launch programs, you can use one of the many Today screen plug-ins that provide such a menu. In fact, the Today screen is one of the most customizable parts of the Pocket PC, and a variety of plug-ins exist that change the appearance of the screen as well as add functionality.

You can personalize your Pocket PC to make it reflect you, its owner. In this chapter I'll go over the personal settings in detail and show you how to enter data into your Pocket PC. I also take a look at the program task managers and Today screen plug-ins available for the Pocket PC.

Change the Personal Settings

The Personal tab is where you personalize the Pocket PC by changing settings to accommodate the way you work. To access the Personal tab, tap Start | Settings. Table 3-1 contains a summary of what you can do with each icon.

Program Hardware Buttons

In Chapter 2 you learned that hardware buttons may be located in different areas on the Pocket PC. These buttons make it easier for you to navigate within the device and start applications; you can program most buttons to start any application and perform certain functions. The following lists some specifics of hardware buttons.

Icon	Name	Description
	Buttons	Specify which application a button will start.
	Input	Configure options for character recognition and the onscreen keyboard. Also configure word completion and voice record formats.
	Menus	Specify the program shortcuts that appear in the Start menu.
	MSN Options	Configure options for Microsoft Hotmail, MSN Messenger, and SMS.
	Owner Information	Enter personal information, such as address and phone number. A Notes field enables you to enter additional information not included with the owner information. Both sets of information can be configured to display when you turn on your device.
	Password	Create or change the password on your device and specify whether you want to enable password protection for the device.
	Phone	Change Phone settings on Pocket PC Phone Editions.
	Sounds & Notifications	Change the volume of your device as well as the type of sound that is made for particular events.
	Today	Change the appearance of the Today screen with themes and plug-ins.

TABLE 3-1   Icons of the Personal Tab in Pocket PC Settings

■ To open the Buttons properties dialog box, shown here, tap the Buttons icon on the Personal tab.

■ To change the program associated with a button, first select a button in the list. Then tap the triangle to the right of the Assign A Program field and select the program or function you want from the drop-down menu. Functions are bracketed by greater than and less than signs (< >). You will see the assigned program change in Assignment column of the Button list. When you're finished, tap OK.

■ The Up/Down Control tab is used to configure the Action button. The Action button is either a wheel, a rocker, or a navigation pad (a flat button on the front of the device) that is used to move the cursor up or down. This button is particularly useful to use when you're reading documents, because you can scroll through a document while holding the device in one hand.
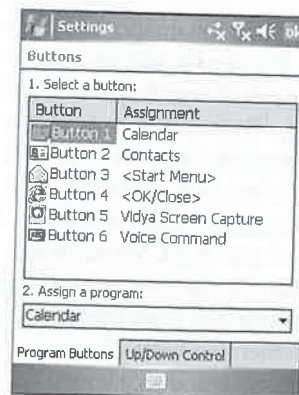
■ Within the Up/Down Control tab, you change how quickly the cursor starts scrolling and how fast it scrolls.

■ Move the Delay Before First Repeat slider left or right to control how soon scrolling starts. To control the scrolling speed, move the Repeat Rate slider left or right.

TIP

Three button assignments are designed to make it easier to operate a Pocket PC with one hand. You can program hardware buttons to open and close the Start menu and the pop-up menu, which normally appears when you tap-and-hold. You can also program a button that you can push rather than having to tap OK or Close.
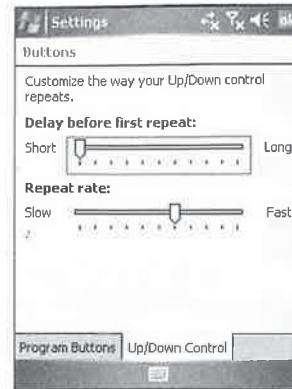
Configure the Input Methods

Windows Mobile has four methods of input. The Block and Letter Recognizers recognize characters that you write with the stylus in the Input Panel on the screen. (The Input Panel is discussed in the section "Use the Software Input Panel" later in this chapter.) Microsoft Transcriber is a natural handwriting recognizer that translates to text what you write with the stylus on the Pocket PC screen. Finally, you can use the onscreen keyboard to tap characters. Settings for each method are configured in the Input Settings dialog box, which you open by tapping Start | Settings | Input.

The Input Settings dialog box has three tabs: Input Method, Word Completion, and Options. Use the Input Method tab to configure settings for each method. To make a change to an input method, select it from the drop-down list and then tap Options. (Note that there are no Block Recognizer options.) When you select the Keyboard input method, the Input Settings dialog box looks like the image shown here.

Change the size of the keys on the keyboard by selecting either the Large Keys or Small Keys radio button. When you select Large Keys, you then have the option to use gestures for Space, Backspace, Shift + key, and Enter, which are made on the keyboard.

When you select the Letter Recognizer input method and tap Options, the screen shown on the following page displays. If you select the Quick Stroke option, you must write all letters in one stroke for the Pocket PC to translate. A single stroke enables you to write faster, but it requires that you first learn new ways to write certain letters. The Right To Left Crossbar option specifies whether you write crossbars for *t, f,* and the plus symbol (+) from right to left. If you need to write accented characters, be sure to check the Allow Accented Characters option.

```
Settings              ok
Letter Recognizer: Options

   ☐ Quick stroke
   ☐ Right to left crossbar
   ☐ Allow accented characters
```
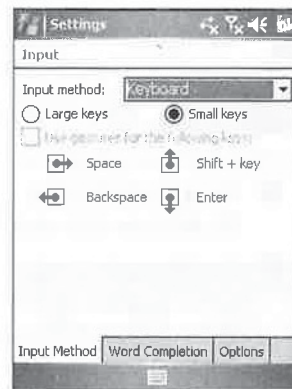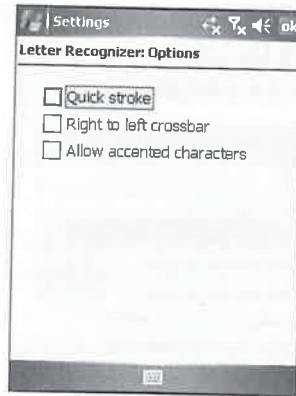
Pocket PC Online Help contains demonstrations of how to write characters. To see the demonstration while the Letter Recognizer Options dialog box is displayed, tap Start | Help, and then tap Demo. You can also display help by tapping the Information button on the Input Panel any time that the panel is open.

As you enter characters in the Input Panel, the Pocket PC will suggest words that you may be writing. If you tap the word that is displayed, that word will be placed wherever the cursor is located. By using this word completion feature, you can speed up data entry on your device. Use the Word Completion tab, shown here, to turn on or off word completion and to specify how many words display. This feature can display one to four words at a time. You can specify how many characters you must enter before a word is suggested in this tab, as well as specify whether you want a space automatically inserted after the word.

```
Settings              ok
Input

☑ Suggest words when entering text
   Suggest after entering  2 ▼ letter(s)
   Suggest  1 ▼ word(s)
   ☑ Add a space after suggested word
☑ Replace text as you type


Input Method | Word Completion | Options
```
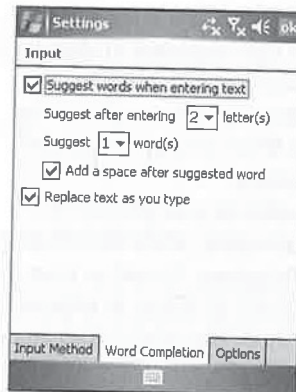
Use the Options tab to configure options wherever writing or recording is supported. Specify the default Voice Recording Format by selecting an option from the drop-down list. Selecting percentages from the Default Zoom drop-down lists specifies the default zoom levels for writing

and typing. The Pocket PC automatically capitalizes the first letter of sentences if you select that option in this dialog box. Choose Scroll Upon Reaching The Last Line and the Pocket PC will automatically scroll the window when you reach the last line.
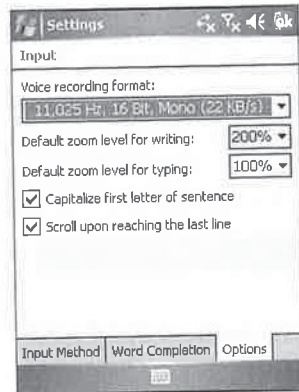
Each of the voice recording options affects the quality and the size of the audio file. Mobile Voice (GSM) is the recommended format because it provides good recording quality and takes far less storage than Pulse Code Modulation (PCM). PCM provides slightly better sound quality, but it can take up to 50 times more storage.

Change the Start Menu

One of the first things you need to do with a new Pocket PC is edit the Start menu so that shortcuts to the programs you use most frequently are listed there. By placing application shortcuts in the Start menu, you decrease the number of taps necessary to start these programs. Change the contents of the Start menu by tapping the Menus icon in the Personal tab of the Settings screen. (To access the Settings screen, tap Start | Settings.) When you tap the Menus icon, the Menus Settings dialog box displays.

This box lists all the programs installed on your Pocket PC. Items that are checked appear in the Start menu, while the remaining items are available by selecting Start | Programs. To add an item to the Start menu, simply check the box next to its name; to remove an item from the Start menu, deselect the check box next to the name of the program.
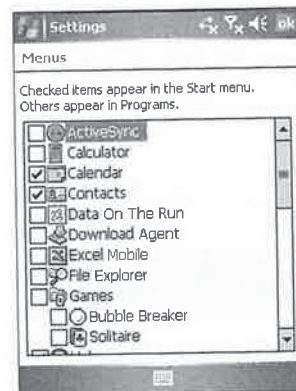
Windows Mobile 2003SE and older has a New Button menu, which is a pop-up menu that appears on the Command bar. You turn this menu on or off on the New Menu tab of the Menus setting on these devices.

3

Configure MSN Options

Windows Mobile 5 is the first version to include Pocket MSN, a subscription-based service that provides access to MSN Hotmail, Messenger, and MSN Mobile web content. If you own a Windows Mobile 2003 or 2003 Second Edition device, you can install the Pocket MSN software for your Pocket PC from http://mobile.msn.com. When you install Pocket MSN, the MSN Options icon is added to the Personal Settings tab.

NOTE

You may be able to access Pocket MSN services even if you have not subscribed, but Microsoft may eventually restrict Pocket MSN to only those who have subscribed.

The MSN Options setting has five tabs: General, Hotmail, Messenger, SMS, and Switch User. If you have saved your Pocket MSN password on your Pocket PC, you can remove it by tapping Clear Saved Password on the General tab.

The Hotmail tab, shown here, has options for controlling what e-mail is sent to your device. You can turn off e-mail delivery, use filters, or have all new e-mail sent to your device by selecting an option from the E-mail Delivery Options drop-down list. Configure junk mail filtering by selecting an option from the Junk Mail Filter drop-down list.

The Messenger tab configures whether the information for all contacts is updated automatically. If your wireless provider supports it, you can have e-mail and messages sent to you via Simple Message Service (SMS) when your device is not connected to a wireless data network. Open http://mobile.msn.com/getsms on your device to determine whether the service is available, which you can turn on from the SMS tab.

To configure Pocket MSN for a different user ID and password, tap the Switch User button on the Switch User tab of the MSN Options dialog box.
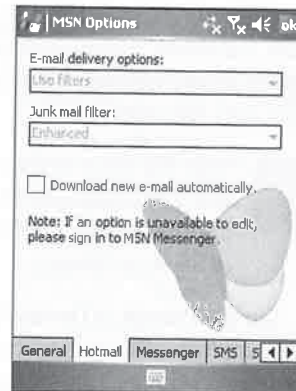
Edit Owner Information

With the Owner Information icon, you can enter your name and address and have this information display whenever you turn on your Pocket PC. Enter this information by following these steps:

1. Tap the Owner Information icon in the Personal tab of the Settings dialog box. The resulting dialog box, shown here, has three tabs: Identification, Notes, and Options.

2. Enter your name, company, address, telephone number, and e-mail address in the Identification tab.

3. Use the Notes tab to add information that is not on the Identification tab. One way to use this tab is to provide a message in case your device is lost. When the device
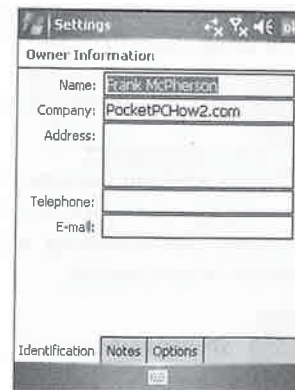
is turned on, you can have the message display along with the owner information by checking the box next to Notes on the Options tab.

4. To have identification information or notes display every time the device is turned on, check the appropriate boxes on the Options tab. With these options checked, the information will display every time the device is turned on, and it continues to display until you tap the screen.

Turn On Password Protection

You can protect the data in your device by requiring a password every time the device turns on. Tap the Password icon on the Personal tab to open the dialog box shown here.

Windows Mobile supports a four-digit password or a strong alphanumeric password. Strong alphanumeric passwords combine letters, numbers, and mixed case characters and are considered to be more secure because they make it more difficult for someone to guess your password.

TIP *Sign-On, from Communication Intelligence Corporation, is a password security utility that uses your signature for authentication. Find more information about this program at www.cic.com.*
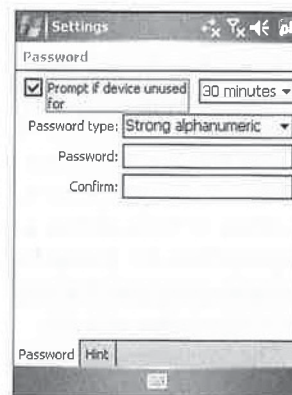
Tap the Prompt If Device Unused For check box to turn on password protection, and configure how often you enter the device password by selecting a time from the drop-down list. Selecting 0 Minutes forces you to enter the password every time you turn on your Pocket PC. Selecting 30 Minutes forces you to enter the password only after the device has not been used for 30 minutes. Thus, if the device is turned off and turned right back on again, you won't have to enter the password.

After you select either Simple 4 Digit or Strong Alphanumeric options, enter the password in the Password field. If you enter a four-digit password, a numeric keypad displays for you to enter the password when you turn on the Pocket PC. Enter the password by tapping the buttons on the screen using either the stylus or your finger.

TIP *Use the onscreen keyboard to enter passwords to ensure that no translation errors occur.*

Strong alphanumeric passwords provide greater security. When you select the Strong Alphanumeric password, two fields display for you to enter a password. The password must be at least seven characters long, and it must contain a combination of uppercase and lowercase letters, numbers, or punctuation.

NOTE *Strong alphanumeric passwords are case sensitive.*

It is crucial that you remember your password, because without it you will not be able to retrieve your data. If you forget your password, the only way to access your device is to perform a hard reset, which deletes all data. (The process varies for a hard reset with each manufacturer's device; consult your user manual for details. The process usually involves removing your backup and main batteries so that your device has no power; when you do this, all of your data will be lost.)

To help remember your password, tap the Hint tab and enter a word or phrase that will remind you of the password. The Pocket PC will display the hint after the wrong password is entered five times. Remember that the hint may be visible to others, so make it something that reminds you, yet remains difficult for others to guess.

Change Sounds & Notifications

Using a Pocket PC is both a visual and audible experience. Sound plays an important role in providing feedback. For example, when you tap a button using a stylus, you not only see the button being tapped, but you also hear a sound. In most cases, this sound lets you know that the Pocket PC has recognized your request.

Sounds and their volumes are controlled by using the Sounds & Notifications Settings dialog box. To open this dialog box, shown here, tap the Sounds & Notifications icon on the Personal tab.

You will notice two tabs in the Sounds & Notifications Settings dialog box. The Sounds tab allows you to enable sounds for events or applications. (An *event* is something generated by the operating system, such as opening or closing a program or emptying the recycle bin.) The Notifications tab allows you to specify what you hear when you want to be reminded of appointments and tasks.

Sounds can be enabled for the following by checking their boxes on the Sounds tab:

- **Events**   Such as warnings and system events.
- **Programs and notifications**   Such as alarms and reminders.
- **Screen taps**   Specify Soft or Loud by selecting the appropriate radio button.
- **Hardware buttons**   Specify Soft or Loud by selecting the appropriate radio button.

On the Notifications tab, you specify what sound plays when an event occurs. First, select an event from the drop-down list, and then tap the Play Sound check box and select a sound. To preview the sound, tap the Play button.

Certain events have additional options that appear on the Notifications tab. For example, when you select Beam: Autoreceive from the drop-down list, Display Message On Screen and Flash Light For options appear. When you select the Flash Light For option, you can specify how long the light flashes by selecting a number of minutes from the drop-down list.
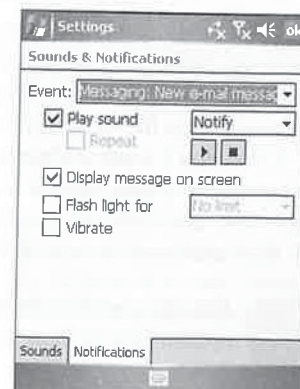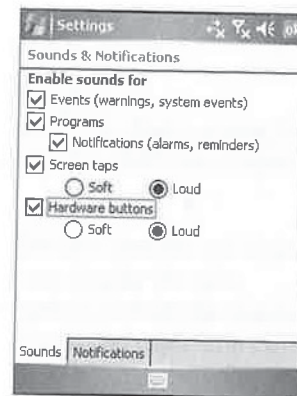
Change the Today Screen

The Pocket PC Today screen is similar to the Windows desktop. The Today screen can contain owner information, appointments, e-mail messages, and tasks. Tap the Today icon on the Personal tab to open the Today Settings dialog box and configure the appearance of this screen.

> **TIP** *You can tap each item of the Today screen to start the associated application. Tap the Date icon to open the Pocket PC clock settings; tap the Owner icon to open the Owner Information settings; tap the Appointments, Unread Messages, or Tasks icon to open the Calendar, Inbox, or Tasks.*

Themes change the look of the Today screen, Start menu, and Navigation bar. Select which theme to use on the Appearance tab of the Today Settings dialog box, shown here. To change the current theme, tap the new theme you want to use from the list box and then tap OK.

> **NOTE** *Several programs have been developed for Pocket PCs that change the appearance of the Today screen. An overview of several of these programs is provided later in this chapter in the section "Enhance the Today Screen."*

To add a theme to your Pocket PC, copy the theme file, which has a .tsk extension, to either the Windows or My Documents folder on the Pocket PC. Themes can also be stored in a My Documents folder on storage cards, but they should not be in subfolders of My Documents. Chapter 4 shows you how to use ActiveSync to copy files to the Pocket PC, or you can use File Explorer to copy themes from a network share. If you want to share a theme with another Pocket PC, tap the theme, tap Beam, and align the infrared ports. To delete a theme, first tap the theme name, and then tap Delete.

If you don't want to change the appearance of the Start menu or Navigation bar, but you want to change the Today screen background image, tap the Use This Picture As The Background check box, and then tap Browse to select an image. Background images can be either JPEG or GIF files and must be stored in the My Documents folder or a subfolder of My Documents.

> **TIP** *You can combine themes and background images to further customize the Today screen appearance to your personal preferences.*

The items that can appear on the Today screen are listed on the Items tab of the Today Settings dialog box. To add or remove items from the screen, tap the check box next to the item name. Owner Info, Messaging, Tasks, Calendar, and Pocket MSN can be moved up or down in the list by selecting the item and then tapping the Move Up or Move Down button.
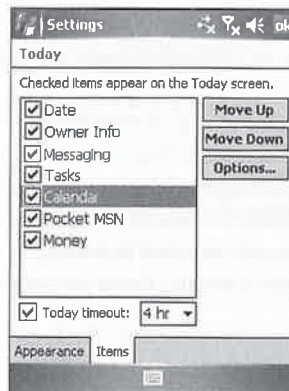
Pocket MSN is new with Windows Mobile 5. It adds four buttons to the Today screen for configuring MSN options, opening the MSN Mobile web site, starting MSN Messenger, and viewing Hotmail.

Options that control what displays on the Today screen can be set for the Calendar and Tasks items. Select either and then tap the Options button. The Today screen can display the next appointment, upcoming appointments, as well as all-day events. Task options include the number of high-priority tasks, the number of tasks due today, and the number of overdue tasks. You can also restrict the task information to a specific category.

After the last appointment time for the current day, Windows Mobile will display the first appointment of the next day. If the Show All option is selected, then you will see all of the next day's appointments after the last appointment for the current day.

The best time for the Today screen to be displayed is when you turn on the device for the first time each day. You might also want to have the screen display after a specified period of time has elapsed, which will happen if you tap the Today Timeout: [ ] check box on the Today Settings dialog box. Specify the number of hours that must elapse before the screen displays from the drop-down list on the dialog box.

Enter Information on Pocket PCs

Handwriting recognition is one of the most intimate ways you can interact with computers. Writing on a computer screen with your own hand, and seeing the writing translated to text, makes the computer more personal than just a machine. It is no wonder that handwriting recognition has captured the imagination of computer users.

Your Pocket PC provides several ways of translating what you write to text. The Block and Letter Recognizers instantly translate a letter that you write on the Pocket PC Software Input Panel to a character inserted at the cursor location. You can also write on the screen as you write on paper and see the results displayed on the screen in digital ink. After you finish writing, either store what was written in the digital ink form or have the Pocket PC translate the digital ink into a text font. Finally, you can write anywhere on the Pocket PC screen in your own handwriting, and after you finish writing, the Pocket PC translates each written word and inserts it at the cursor location.

If you prefer not to use any of the handwriting recognition methods, you can use the stylus to tap letters from an onscreen keyboard. Each letter that you tap appears on the screen at the cursor location. In this section, you'll find instructions for using the onscreen keyboard, the Pocket PC Block and Letter Recognizers, and Transcriber handwriting recognition. The process of translating digital ink is called *deferred recognition,* and because it works in many of the Pocket PC programs, instructions for using it are in the chapters covering those programs.

> **NOTE** *The fastest way to enter information into your Pocket PC is by using ActiveSync to synchronize data between the device and Microsoft Outlook. Chapter 7 provides instructions for using ActiveSync.*

Use the Software Input Panel

The Software Input Panel (SIP) is a window on the Pocket PC screen that provides a location for writing characters or displays the onscreen keyboard. To open the window, tap the SIP button located at the bottom of the application screen:
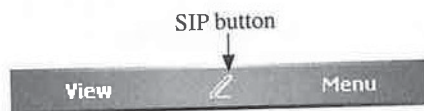
SIP button

> **NOTE** *If you run a program on a Windows Mobile 5 Pocket PC that was designed to run on earlier versions of Windows Mobile, the SIP button will appear at the bottom-right of the application screen.*

The button image changes to indicate which of the three modes are in use. A keyboard indicates the onscreen keyboard, a pencil indicates the Block or Letter Recognizers, and a hand and pencil indicates the Transcriber.

Once the SIP is open, an arrow appears next to the icon. Tap the arrow to open the pop-up menu shown here.
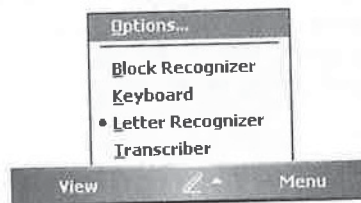
Tap the name of the input method that you want to use; if you select Keyboard, Block Recognizer, or Letter Recognizer, the menu closes and the panel switches to the mode that you select. If you select Transcriber, the panel closes and the icon switches to the hand and pencil.

Included at the top of the pop-up menu is Options, which you can tap to open the Input Settings dialog box, shown here.
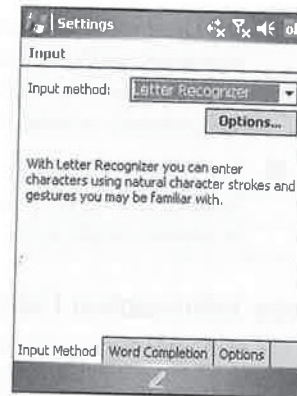
> **TIP** *You can also open the Input Settings dialog box by tapping Start | Settings | Input.*

Enter Information Using the Onscreen Keyboard

The standard onscreen keyboard displays in the Software Input Panel:

Tap here to switch to the numeric keypad.

Tap here to switch to the special character keyboard.

To use the onscreen keyboard to enter information, do the following:

- To enter text, tap the letters on the keyboard using the stylus. The keyboard has three different modes: Standard, Numeric, and Special Character.
- To switch to the numeric or special character keyboard, both shown in Figure 3-1, tap the 123 and áü button, respectively, on the standard keyboard.

FIGURE 3-1 On the left is the numeric keyboard; on the right is the special character keyboard.

- Tap SHIFT to switch the keyboard buttons to their uppercase equivalents, and the number row displays the symbols that normally display above the number row on a standard keyboard. After you enter an uppercase letter by tapping SHIFT and then tapping a letter, the keyboard switches back to lowercase, but tapping CAP locks the keyboard in CAPS LOCK.

- The standard onscreen keyboard displays small keys, but you can switch to large keys by opening the Input Settings dialog box and selecting the Keyboard Input Method option, as shown earlier in the chapter.

Enter Information Using the Letter Recognizer

To use the Letter Recognizer to enter text, tap Letter Recognizer on the Software Input Panel pop-up menu, which changes the panel, as shown here.
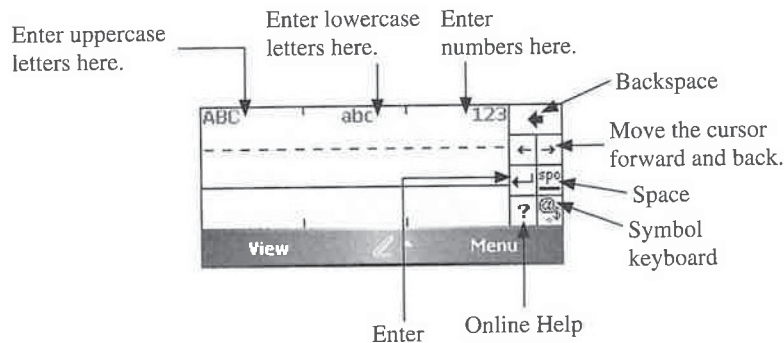
The Letter Recognizer has four areas for entering uppercase letters, lowercase letters, numbers, and keyboard commands, such as BACKSPACE and ENTER.

> **TIP** *Drag the stylus across the panel horizontally from left to right to insert a space, and drag from right to left to delete a character or space.*

The Letter Recognizer translates letters written in lowercase, but you have the option of using a single stroke to enter certain letters of the alphabet. To enter characters in a single stroke, select the Quick Stroke option on the Letter Recognizer Options screen, which you open by tapping the Options button in the Input Settings dialog box. To see demos for writing all characters, open the Letter Recognizer Online Help, and tap Demo.

The dotted middle line and the solid bottom line on the panel help the Letter Recognizer translate shorter letters and letters with descenders or ascenders. Write letters such as *o* and *c* between the midline (dotted) and baseline (solid). Write letters with descenders, such as *p*, with the top of the letter between the midline and baseline and the descender below the baseline. Letters with ascenders, such as *b*, should be written with the ascender above the midline and the bottom portion between the midline and baseline.

The Letter Recognizer also translates accented and special characters. Open Online Help to see demonstrations of how to enter these characters on the Input Panel.

Enter Information Using the Block Recognizer

If you switch to a Pocket PC from a Palm OS Version 5 or older device, you may prefer using the Block Recognizer because it translates the Palm Graffiti-like character strokes to text. To use the Block Recognizer to enter text, tap Block Recognizer on the Software Input Panel pop-up menu, which changes the panel, as shown here.

Indicates lowercase, Shift, and Caps Lock modes.   Enter letters here.   Enter numbers here.
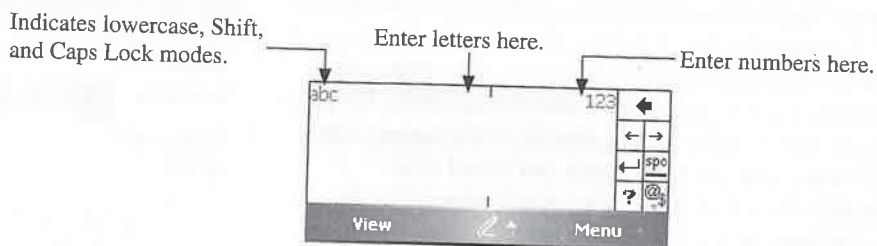
The Block Recognizer has three areas for entering letters, numbers, and keyboard commands such as BACKSPACE and ENTER.

The first word of each sentence is automatically capitalized; otherwise, all other letters translate in lowercase. To capitalize other words, switch to Shift mode by drawing a straight line from the bottom up for at least half the length of the Input Panel. The *abc* label at the upper-left corner of the Input Panel changes to *Abc*, indicating Shift mode. To activate CAPS LOCK, draw two lines from the bottom up. You will know that CAPS LOCK is active by the *ABC* label on the Input Panel.

To see a demonstration of how to enter characters using Graffiti, tap Online Help on the Input Panel, and then tap Demo.

You enter punctuation and symbols anywhere on the Input Panel. To enter punctuation, tap once on the panel, and then write the punctuation mark. A circle appears in the upper-left corner of the Input Panel, indicating punctuation mode. Enter extended characters by first drawing a slash in the Input Panel and then writing the character. A slash appears in the upper-left corner of the Input Panel, indicating Extended Character mode.

Punctuation and symbols can also be entered by tapping the Symbol Keyboard button on the Input Panel, and then by tapping an item on the keyboard.
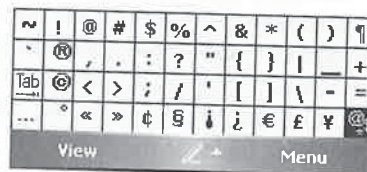
The Block Recognizer also translates accented characters, special characters, and mathematical symbols. See Online Help for demonstrations on how to enter these characters on the Input Panel.

Word Completion

As you enter letters using the onscreen keyboard or Recognizers, the Pocket PC suggests words in a pop-up window that appears above the Input Panel. Tap the word to enter it at the insertion point.

On the Input Settings dialog box, tap the Word Completion tab to configure options for word completion. When the Pocket PC suggests more words, a greater amount of space is taken up above the Input Panel, which covers up other information in the dialog box where you enter text.

Enter Information Using Transcriber

Transcriber is a natural-handwriting recognition translator for the Pocket PC. It recognizes words written in cursive, print, or mixed handwriting by using an integrated dictionary. When you select Transcriber from the Software Input Panel pop-up menu, the panel closes and you enter text by writing directly on the screen. The Input Panel button changes to the Hand and Pencil icon.

An introductory screen will display if it is selected in the Transcriber Options dialog box, shown here. To open this dialog box, tap the Options button under the Transcriber input method on the Input Settings dialog box. The Quick Settings tab includes options for specifying what language Transcriber uses and the writing direction. Tap the picture that represents the angle at which you write on the screen.
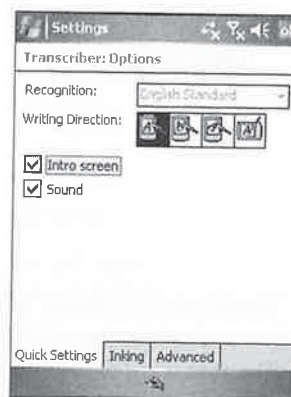
Move the Recognition Delay slider on the Inking tab of the Transcriber Options dialog box to control how quickly writing is translated to text, and tap the Add Space After check box to have a space automatically added after every translated word. You also specify the width and color of the digital ink that Transcriber uses on this tab. Tap Match Letter Shapes To Your Writing to configure Transcriber for your handwriting.

Tap each shape shown on the screen and then tap the Often, Rarely, or Never radio button to specify whether you write the letter in that shape. It's worth taking some time to go through each letter and symbol to increase translation accuracy.

The Advanced tab of the Transcriber Options dialog box configures shorthand, which you can use to create quick shortcuts for words or to launch programs, and dictionaries. Use the Dictionaries option to select what dictionaries Transcriber uses for recognition. Dictionaries have the *.dct extension and are in the Dictionaries folder on the Pocket PC.

Tap the Shorthand Settings button to open the following dialog box, where you can create shortcuts. To create a shortcut, tap Add, select Text Expansion, Function, or Run Program, then tap Next. Use text expansion to define abbreviations that Transcriber expands to full words. Select Functions to create shortcuts that insert the current date or your e-mail address. With Run Program, you can create shortcuts for launching programs on your Pocket PC.

3

```
Settings                ok
Transcriber: Shorthand

Shorthand    | Expansion


◄       III        ►

        Add          Delete
```
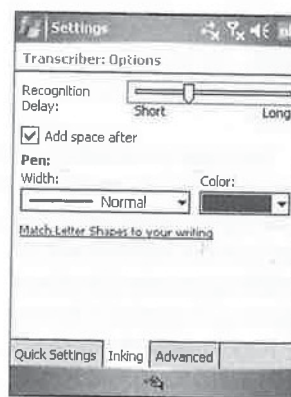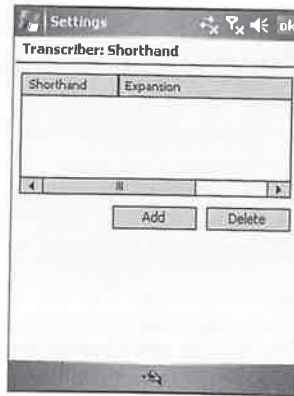
The Transcriber icon bar, shown here, appears at the bottom of the screen when Transcriber is active:

Open the Letter
Shape selector. ———————— Open the Transcriber keyboard.

```
⠿ ⍯ ⊞ a | spc ↵ ← → ← ⑦ ◄——— Open Transcriber Help.
        View        ⌨▲        Menu
```

————Switch recognition modes.

Open Transcriber settings.
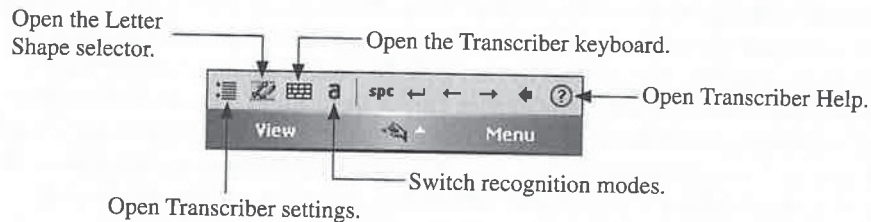
Transcriber has three recognition modes: Unrestricted, Uppercase, and Numeric. Unrestricted mode allows all symbols and words and is indicated by an *a* on the icon bar. Uppercase mode converts everything to uppercase and is indicated by an *A* on the icon bar. Numeric mode converts numbers and some letters and is indicated by a *123* on the icon bar.

The Transcriber keyboard provides an easy way to enter punctuation or symbols. It remains visible until you tap the keyboard button a second time.

TIP *You can use several gestures to direct Transcriber to perform certain actions, such as enter a Return or Backspace character. You will find these gestures in Online Help, which you can open by tapping Help (the question mark) on the toolbar or by tapping Start | Help.*

To make corrections, first double-tap to select a word and then either rewrite a word or make a short up/down motion to open the Alternates menu. From the Alternates menu, you can select an alternative word from those provided.

Try Alternative Recognizers

Each Recognizer that comes with the Pocket PC might require that you make slight changes to how you write. If the Recognizers have difficulty translating your handwriting, you may want to try one of several alternative Recognizers available for the Pocket PC, such as PenReader or CalliGrapher. Many of these Recognizers come in trial versions so that you can try the software before purchasing it.

How to ... **Use the Transcriber Calculator**

Transcriber has a built-in calculator that can complete simple mathematical equations. Write the equation as you would text, such as $2 + 2 =$. Transcriber recognizes this equation, performs the calculation, and translates what you wrote to $2 + 2 = 4$.

Transcriber supports only the English, French, and German languages. If you write in a language other than these, you may want to consider PenReader from Paragon Software, because it supports 28 languages. It recognizes all national alphabets based on the standard Latin ABC, and additional recognition engines are adjusted for Cyrillic and Greek alphabets. You will find more information about PenReader at www.penreader.com.

CalliGrapher is the big brother of Transcriber. It was developed by ParaGraph, from whom Microsoft licenses code used in Transcriber. ParaGraph is also the company that developed the handwriting recognition software used by the Apple Newton operating system. PhatWare Corporation distributes and supports CalliGrapher. One of the features that sets CalliGrapher apart is PenCommander, which launches user-defined commands that you create using a scripting language. It also includes an integrated spell checker. English and International versions of this program are available, and you will find more information about it at www.phatware.com.

Following are other applications that perform similar functions:

- **MyScript from Vision Objects** Adds a new Software Input Panel to Pocket PCs that enables you to write across the entire width of the panel. English and French versions are available. Find more information about MyScript at www.visionobjects.com.

- **Fitaly from Textware Solution** An alternative to the onscreen keyboard. The keys are arranged for optimal input using a stylus, with 84 percent of the keystrokes clustered in a central area. People who are proficient with Fitaly have been able to enter text as fast as 50 words per minute. You will find this program at www.fitaly.com.

- **Spb Full Screen Keyboard** Provides a full-screen keyboard displayed in landscape, making the keys large enough to enable you to use your fingers to type. You will find this program at www.spbsoftwarehouse.com.

- **Resco Keyboard Pro** Enhances the onscreen keyboard by adding three numeric layouts, including a calculator for typing numbers or numerical expressions. Another keyboard from Resco stores phrases, which you can insert by simply tapping a button. This program can be found at www.resco-net.com/resco/en/default.asp.

- **AccessPanel from DeveloperOne** An additional Software Input Panel that speeds data entry by storing phrases that you can insert into documents or e-mail. It also automatically inserts information from the Pocket PC Contacts program into documents. More information about this program can be found at www.developerone.com.

Use External Keyboards

Even though the Pocket PC's handwriting recognizers do a good job, typing remains the fastest way to enter information. Some Pocket PCs have built-in keyboards, while external keyboards are available that connect to most Pocket PCs using either infrared, Bluetooth, or a cable.

One of the popular third-party keyboards is the Stowaway from Think Outside. (www .thinkoutside.com/). When open, the Stowaway keyboard is nearly as large as a full-size keyboard, but it folds up to about the same size as a Pocket PC. The keyboards sold by Pocket PC manufacturers also fold up, making them easy to carry.

Enhancements in Windows Mobile make it easier to navigate in programs using keyboards. These enhancements include four new navigation and application keys, menu keyboard accelerators, auto-correct, and auto-suggest.

Manage Running Programs

One of the most hotly debated topics between Microsoft and Pocket PC users is about exiting programs. Microsoft believes it is better to have all programs open and to jump between them, because it is much faster to switch between running programs than it is to start a program. Because of this, Microsoft does not provide a way to exit programs. Pocket PC users prefer to start, exit, and switch between programs on their devices just as they do on their personal computers.

Most Pocket PC users prefer to have more control over what programs run on their Pocket PC. Furthermore, Windows CE does not do a good enough job of managing memory, so when too many programs are running, the Pocket PC slows down. Consequently, software developers have written programs that provide users with the ability to shut down running programs.

While several program task managers exist for Pocket PCs, they all work in a similar way. Additional buttons are added to the Pocket PC Navigation bar at the top of the screen, and the default OK button is replaced with a button that automatically switches between Exit and OK. Tapping Exit shuts down the program.

Did you know?

X Marks the Spot

Windows Mobile has an X button that appears to exit programs but does not. When you tap the X, the window closes and the previously opened program appears on the screen. However, tapping the X really just closes the window and does not exit the program. If you tap Start | Settings | System | Memory, and then tap the Running Programs tab, you will see the program still listed as running. Consequently, it is best to think of the X as a minimize button, and use a program task manager to shut down programs.

The choice of which program task manager to install is based on how many features you want. For example, SPB Pocket Plus changes the X button so that it exits programs. If you tap-and-hold the X button, a pop-up menu displays all the currently running programs. SPB Pocket Plus also includes features that enhance the Today screen, File Manager, and Internet Explorer Mobile. You will find SPB Pocket Plus at www.spbsoftwarehouse.com.

You will find additional task manager programs for Windows Mobile 5 and older in the Encyclopedia of Software and Accessories at www.pocketpcmag.com.

Enhance the Today Screen

The Pocket PC Today screen supports plug-ins, which provide software developers the ability to enhance the Today screen by adding more functions or changing its appearance. You can select from several programs to tailor the Today screen to your personal needs.

Perhaps the most widely used Today screen enhancement is DashBoard from SnoopSoft. DashBoard replaces all the default parts of the Today screen with its own agenda, mail, and task viewers, and it adds a program launcher. You will find more information about this program at www.snoopsoft.com/.

ScaryBear Software provides a number of Today screen plug-ins. QuickCalendar displays the current week, and if you tap the QuickCalendar window, it expands to display two months. QuickAgenda provides an overview for several days of appointments. QuickQuotes displays quotes on the Today screen, and PowerLevel displays meters for power level and memory. You will find these plug-ins at www.scarybearsoftware.com/.

How to ...   Change the Overall Appearance of the Pocket PC

The skinning capabilities of DashBoard significantly changes the appearance of a Pocket PC. However, DashBoard cannot change some parts of the Pocket PC software, but you can use other software to make these changes.

Stardock has brought the features of its popular WindowBlinds program to the Pocket PC. PocketBlinds changes the appearance of the Navigation bar and allows you to add and place as many buttons on the Navigation bar as you want. You will find this program at www.stardock.com/products/pocketblinds/.

You can use CETuner from Paragon Software to change the color schemes and system fonts on Pocket PCs running Windows Mobile 2003. By decreasing the font size, more information will display on the screen, or you can make the fonts bolder so that they are easier to see. This program is available from www.penreader.com/PocketPC/CETuner.html.

PocketBreeze by SBSH Mobile Software (www.sbsh.net/products/pocketbreeze/) supports skins and can display up to 30 days of appointments and tasks on the Today screen. It also provides viewing of e-mail messages. The same company also provides ContactBreeze, which enables you to work with contacts from within PocketBreeze.

The BirthdayBoy plug-in from Gigabyte Solutions Ltd. displays birthdays and anniversaries up to 31 days in advance. One version of the plug-in works with the Today screen, and another version is available for DashBoard. You can download this plug-in from www.gigabytesol.com.

If you like to quickly see local weather information on your Pocket PC, there are several plug-ins that display weather information on the Today screen. One such program is Spb Weather, which has four different views and several weather sources. It can be found at www.spbsoftwarehouse.com.

Another use for Today screen plug-ins is to provide a quick way for launching programs. Battery Pack Pro adds multiple bars to the Today screen to directly access Pocket PC settings, launch programs, see how much life remains in the Pocket PC's batteries, or see how much memory is being used. You will find Battery Pack Pro at www.omegaone.com.

Wrapping Up

As you have seen, you can emphasize the personal part of the Pocket PC in several ways. Each setting and program discussed in this chapter has the purpose of tailoring the Pocket PC to your tastes and preferences. You now know well that the second *P* stands for personal; in the next chapter you'll understand the importance of the second *C* in Pocket PC, which stands for *computer*. A number of system settings control how the Pocket PC operates, and we'll take a closer look at these settings next.

Chapter 4

Change Your Pocket PC System Settings

How to...

- Conserve battery power by adjusting the screen brightness
- Change the date and time on your Pocket PC
- Monitor and manage the amount of storage space available in Pocket PCs and storage cards
- Change regional settings

It may not look it, but your Pocket PC is a powerful computer. The Electronic Numerical Integrator And Computer (ENIAC) was the world's first electronic computer, built by the Army during World War II to compute ballistic firing tables. ENIAC weighed more than 30 tons, calculated 5000 additions per second, and stored 200 digits. A Pocket PC weighing 6.1 ounces calculates more than 300 million additions per second and can store more than 16 million digits.

One of the most powerful features of Pocket PCs is that they are designed so that you shouldn't have to change how they operate. However, on occasion you will need to make changes, and for that you use the System tab of the Settings screen.

Some examples of the type of system changes you may need to make include adjusting the date and time on your Pocket PC; managing battery power by adjusting the Backlight and Power settings; and using the Screen setting to fix screen problems (e.g., if taps on the screen do not properly register). In this chapter, you'll learn how to change these and other system settings on your Pocket PC.

Change the System Settings

You use the System tab to change hardware settings. To access the System tab, tap Start | Settings, and then tap the System tab to open it.

Table 4-1 contains a summary of the icons in the System tab. In this chapter, you'll learn how to use each of these.

Change the Device Name Using About

The Windows CE operating system runs on several different types of processors, though Windows Mobile 2003 and Windows Mobile 5 run only on Intel StrongARM and X-Scale processors. Pocket PC 2000 runs on SH3, MIPS, and StrongARM processors, which means that you may need to determine what processor is in these Pocket PCs to install the correct version of a program. The About icon in the System tab displays this information and more. When you tap the About icon, the About Settings dialog box displays.

Icon	Name	Description
	About	Provides information about the Pocket PC version, the processor, and the amount of memory. Specifies the name of the device that is used with ActiveSync.
	Backlight	Configures the screen backlighting to conserve battery power.
	Certificates	Manages personal and root certificates.
	Clock & Alarms	Sets the current date and time on the Pocket PC. Enables the Pocket PC to act like an alarm clock, and provides an option to turn the clock display on or off.
	Error Reporting	Turns error reporting on or off. Error reporting sends information to Microsoft's technical support groups to diagnose program errors.
	GPS	Configures how programs communicate with Global Positioning Satellite (GPS) receivers that may be in the Pocket PC.
	Memory	Displays the amount of internal memory allocated for storage and program memory. Displays the amount of space available on storage cards. Shows the programs that are running and enables you to stop them.
	Power	Shows the amount of main and backup battery power available and configures power saving features. Configures wireless modes to conserve power.
	Regional Settings	Enables your Pocket PC to support international settings that can be used by some programs. Also changes the way numbers, currency, time, and dates display.
	Remove Programs	Uninstalls any applications that you have installed on your device.
	Screen	Changes the way the stylus works with the touch screen. Use this icon if you have problems getting the touch screen to recognize the exact location of the stylus. You also use this icon to change the screen orientation and text size, and to turn ClearType on or off.

TABLE 4-1   The Pocket PC System Settings

As you can see, the dialog box has three tabs: Version, Device ID, and Copyrights. The Version tab, shown here, displays the current version of the Pocket PC, the processor type, the amount of internal memory, and whether the expansion slot is in use. The Copyrights tab displays all the copyright information for the software that is installed on the Pocket PC.
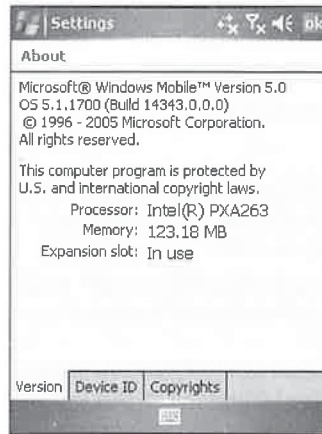
Use the Device ID tab, shown next, to specify a name for the Pocket PC. This name is used to identify the device to other computers on a network. It is also used by ActiveSync to store partnership information. (See Chapter 7 for information about ActiveSync and partnerships.) Enter a name in the Device Name field. If you wish, enter information in the Description field. The Description field can contain up to 50 characters and can be used to display any information.
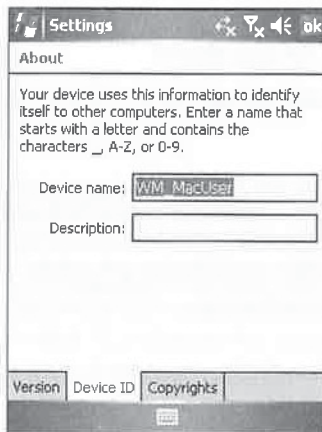
NOTE *ActiveSync 4 and newer automatically creates unique device names for Windows Mobile 5 or newer devices. The name is based on the user ID logged in to the Windows desktop computer at the time the synchronization relationship is created.*

Align the Screen

When you turned on your Pocket PC for the first time, you aligned the touch screen. The process involves tapping the center of a target as it moves across the screen. You will need to realign the screen if you start to have difficulty getting the Pocket PC to respond exactly as you expect when you tap the screen.

To realign the touch screen, tap the Screen icon on the System tab to open the Screen Settings dialog box. Begin the process by tapping Align Screen. Tap the target as it moves around the screen, and the Pocket PC stores the information and returns to this dialog box. Close the dialog box by tapping OK.

4
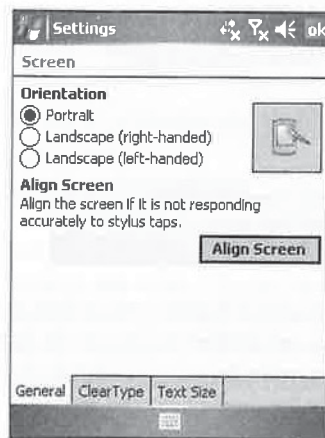
Many Pocket PCs have button sequences you can use to align the screen. For example, on an HP iPAQ, pressing the Navigation and Calendar buttons at the same time opens the Align Screen dialog box. Check the user manual of your Pocket PC to determine whether it has a similar button sequence.

Windows Mobile 2003SE and Windows Mobile 5 can switch the screen orientation from portrait, which is the default orientation, to landscape. Tap one of the orientation radio buttons and then tap OK to change how the screen displays.

You can program a hardware button to switch the screen between portrait and landscape by using the Buttons setting on the Personal tab of your Pocket PC's settings. Assign <Rotate Screen> to a hardware button.

ClearType is a font-smoothing technology originally available only with Microsoft Reader. ClearType is now available for all programs when you select the Enable ClearType check box on the ClearType tab of the Screen Settings dialog box.

To see more text on your Pocket PC's screen, you can adjust the text size on the Text Size tab of the Screen Settings dialog box. As you adjust the slider between Smallest and Largest, the size of the example text will change. This setting does not change the size of text used for menu items.

Adjust the Backlight or Brightness

With this setting, you specify that backlighting be turned off when the device is on battery power and idle for a specified period of time, or when it's on external power and idle for a specified period of time. To configure these settings, tap the Backlight icon in the System tab to open the Backlight Settings dialog box.
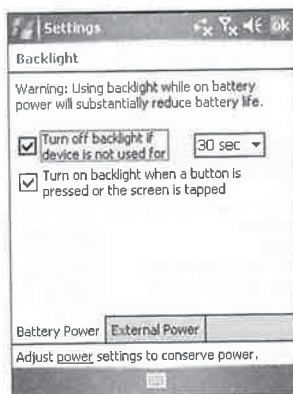
Both Power tabs have the same two check boxes—one to turn off the backlight if the device is not used for a specified amount of time and another to turn on the backlight when a button is pressed or the screen is tapped. Check the appropriate boxes to configure the backlight settings. If you select Turn Off Backlight, you can then select the amount of time to wait from the drop-down list.

Some Pocket PCs also have a Brightness tab on the Backlight Settings dialog box that you use to adjust the brightness level of the display when on battery and external power. Remember that a brighter display will drain the batteries faster than a dimmer display.

Set the Clock and Alarms

When you tap the Clock icon in the System tab, the Clock & Alarms Settings dialog box opens. The Time tab is used to set the date and time of the Pocket PC, and the Alarms tab is used to create alarms.
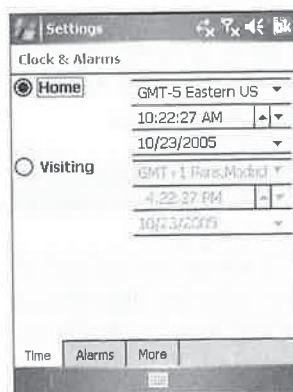
The top half of the dialog box contains the settings for the Home location, and the bottom half contains the settings for a Visiting location. Use either the Home or Visiting settings to change the date and time. Tapping the radio button next to Home or Visiting makes it available for changes.

TIP *The Home and Visiting settings are handy for travelers, allowing you to change the date and time between two locations. However, be aware that when you switch between the two, appointment times in Calendar will change to correspond with the new time zone.*

To change the date, tap the down arrow to the right of the date to open the date picker, and then follow these steps:

1. To change the month, tap the month that is currently displayed, and then select the desired month from the list. Or, tap the left or right arrow to move forward or back one month at a time.

2. To change the year, tap the year that is currently displayed. Use the spinner buttons to increase or decrease the year setting.

3. To change the date, tap the date on the calendar.

To change the time, tap any part of the digital clock to select it, and then tap the up or down arrow to the right of the clock to change the value. Change the time zone for the Home or Visiting location by tapping the current time zone and selecting one from the drop-down list.

When you tap OK after making any change to the clock settings, a dialog box will display asking if you want to save the changes. Tap Yes, and the dialog box will close with the changes in effect. Tap No, and the dialog box will close without saving the changes. Tap Cancel, and you return to the Clock & Alarm Settings dialog box without saving any changes.

TIP *To turn off the time display at the top of Pocket PCs running Windows Mobile 5, clear the check box on the More tab of the Clock & Alarms Settings dialog box.*

Set Alarms

You can also use the clock to set alarms. Three alarms are available to go off at specified times throughout the day. Tap the Alarms tab to open the dialog box shown here.
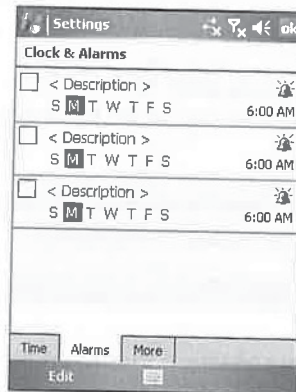
To set alarms, follow these steps:

1. Tap the field that contains <Description> and enter a description of the alarm.

2. Select the day of the week for the alarm from the date abbreviations located below the description. More than one day can be selected by tapping each day of the week.

3. Tap the time to open a window that displays an analog and digital clock. Use either clock to set the alarm time and then tap OK.

Once you have set the alarms, activate them by selecting the check boxes to the left of the alarm descriptions. The alarms you create stay in the Alarms tab, and they stay active even after they go off for the first time. Unless you clear the check boxes, the alarms that you create will go off when the designated times occur every day you selected.

The dialog box shown here appears when you tap the Bell icon (located above the time setting) and enables you to control what happens when an alarm goes off. In this dialog box, you specify whether a sound should be made, whether that sound will repeat, and whether the alarm light should flash when the alarm goes off.
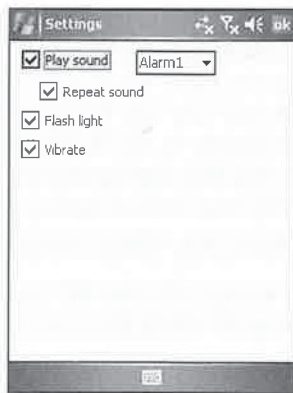
While Windows Mobile 5 provides repeating alarms and the ability to snooze alarms, Pocket PC 2002, Windows Mobile 2003, and Windows Mobile 2003 Second Edition do not. Spb Software House's Pocket Plus provides repeating alarms for 2002 and 2003 devices. You can download it from www.spbsoftwarehouse.com/.

You can change the sound that the alarm plays by using the drop-down list next to the Play Sound option. Tap the down arrow button to expand the list and select the sound that you want. The sound plays after it is selected.

An alarm can be any WAV file stored in the Windows folder. You can also make your own alarms using the Notes voice recording function.

Stop Running Programs

In Chapter 2, you learned how Windows Mobile 5 uses RAM for program execution and Flash ROM for storage. Windows Mobile 2003SE and older devices divide memory between storage

space and program execution. Use the Memory Settings dialog box on these devices to change how much memory is allocated for each.
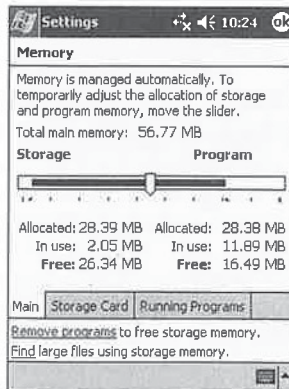
To open the Memory Settings dialog box, tap the Memory icon in the System tab. To adjust the allocation of internal memory between storage and program memory, tap-and-hold the stylus on the slider, and then drag it left or right. After the slider moves, the numbers next to Allocated, In Use, and Free change to reflect the new settings.

NOTE *The Main tab of the Memory Settings dialog box of Windows Mobile 5 displays the total amount of storage space and program memory in the device, how much is in use, and how much is free.*

The Storage Card tab tells you the total amount of storage card memory, how much is in use, and how much is free.

The Running Programs tab, shown here, displays the programs that are currently running. You can switch from one program to another, stop a particular program, or stop all the programs from this tab.
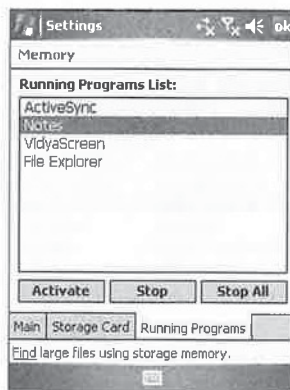
How to ... Manage Storage Space

Several programs and Today screen plug-ins are available that show you how much storage space is available without having to use Pocket PC memory settings. Other programs are available for compressing files and searching for large files so that you can free-up storage space. You might consider installing one of the following programs to monitor and manage the amount of space available in your Pocket PC and on your storage cards:

- PowerLevel from ScaryBear Software is a Today screen plug-in that displays battery power and memory information. You will find this program at www .scarybearsoftware.com.

- SpaceLeft, free from Tillanosoft, shows you the amount of storage space remaining in the Pocket PC and on storage cards. You can download this program from http:// tillanosoft.com/ce/sleft.html.

- Compress files using the PC-compatible Zip/Unzip functionality in Resco Explorer, available at www.resco-net.com. Another compression program is HandyZip from CNetX. You will find this program at www.cnetx.com/HandyZIP.

- Repair and format storage cards using Flash Format from CNetX, which is available at www.cnetx.com/format.

- Find out which files take up the most storage space by using Where Is My RAM? (WIMR?) from Rolf Olsen. You will find this free program at http://mypaq.net/ mobilesoft/wimr/.

- Remove temporary files written by Internet Explorer and other programs by using MemMaid by DinarSoft. You will find this program at www.pocketgear.com.

To switch to a program, select it from the Running Programs List and then tap Activate. To stop a program, select it from the Running Programs List and then tap Stop. To stop all the programs that are running, tap Stop All.

> **TIP** *Chapter 3 provides information about third-party programs that help you manage running programs.*

Manage Power

Most of the time, your Pocket PC will run on battery power. Managing that power so that it lasts as long as possible is important. Tap the Power icon in the System tab to open the Power Settings dialog box. This dialog box provides information about the status of your main and backup batteries.

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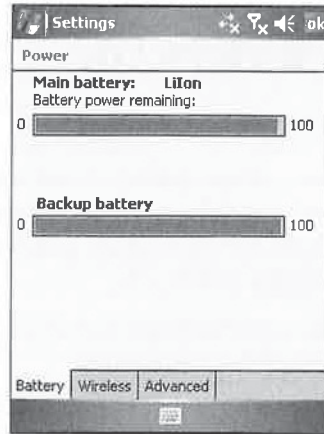
The Power Settings screen is often unique among Pocket PC brands. Your screens may look different from the one shown here.

Tap the Wireless tab to conserve battery power by turning off wireless signals. Tap the Advanced tab to configure the amount of time your Pocket PC is inactive before being turned off. Tap the check boxes to have the Pocket PC turn off after a specified amount of time lapses, and select the amount of time from the drop-down lists.

Change the Regional Settings

Although English may be spoken around the world, how it is spoken differs, and writing numbers, currency, time, and dates can vary from country to country. You can customize your Pocket PC so that these items display in a manner consistent with various locations. The Regional Settings dialog box, shown here, is used to make these changes. To open the Regional Settings dialog box, tap the Regional Settings icon in the System tab.
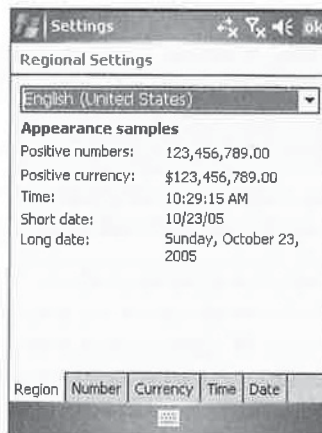
How to ... Manage Battery Life

All Pocket PCs use batteries for power. After a period of time, the batteries need to be replaced or recharged. The trick is to extend the life of the batteries, because Murphy's Law dictates that the time to change the batteries is when you need your device the most. Following is some advice to help prolong battery life:

- Use the Backlight settings to adjust the brightness of the display on your device. The brighter the display, the more power is consumed.

- Configure the battery power portion of the Backlight settings so that the backlight automatically turns off after a short period of time.

- Configure the Power settings so that the Pocket PC automatically turns off if it is not in use after a short period of time.

- Turn off sounds.

- Use peripherals that have low power ratings. Most cards that have the *Made for Windows Mobile* logo are designed for low power consumption.

- Remove microdrives and wireless cards that are not being used. If a card is inserted in your device, it may draw power.

- Program a button in Windows Media Player to toggle the screen on and off, and program other buttons to control playback. Turn the screen off when playing music.

- Play music from CompactFlash cards rather than from microdrives. Microdrives have moving parts and thus consume more power than CompactFlash storage cards.

- Keep your Pocket PC in its cradle and charging whenever possible. The lithium ion battery technology used in Pocket PCs does not have the same memory problems that exist with other battery technologies.

- Use a power level monitor plug-in for the Today screen that easily shows you how much battery power is left. (An example is PowerLevel from ScaryBear Software at www.scarybearsoftware.com.) If you use a program task manager such as WIS Bar or GigaBar, you can configure it to display the power level at the top of the screen.

- If you have a Pocket PC that uses an X-Scale processor and includes software to adjust the processor speed, switch the processor to the PowerSave setting.

Some Pocket PC brands drain batteries faster than others. If battery life is a concern, you may want to check message boards or newsgroups on the Internet to find out which device has the longest battery life. Most Pocket PC devices have removable batteries, which you can replace with a spare battery when necessary.

As you can see, five tabs are available in this dialog box: Region, Number, Currency, Time, and Date. The Region tab displays a drop-down list that contains preconfigured settings for different parts of the world. Selecting one of these configurations will automatically configure the appropriate settings in the other four tabs. If you wish to further customize any of these settings, tap a tab and select an item from any of the drop-down lists.

Remove Programs

Chapter 8 shows you how to manage programs using ActiveSync, which is used to install and remove programs on your device. However, you might need to remove a program while you are away from your desktop. Tap the Remove Programs icon in the System tab to open the Remove Programs dialog box, which displays all the programs that have been installed.

To remove a program, simply tap it and then tap the Remove button. A warning message dialog box will display asking if you are sure that you want to remove the program. If you tap Yes, the program is deleted and irretrievable, so be judicious in your use of this feature!

> **TIP** *Sometimes, when uninstalling an application, you will see a message saying that a file is in use and the application cannot be uninstalled. If that happens, soft reset the Pocket PC and then uninstall the application.*

Manage Certificates

Security certificates are files that help identify computers or users and allow computers to send and receive encrypted data. To use some secure web sites, a computer's browser must be able to accept certificates. Windows Mobile supports security certificates, which you manage by tapping the Certificates icon on the System tab.

You can store two types of certificates on your Pocket PC. Personal certificates, which you manage on the Personal tab, establish your identity. Root certificates, which you manage on the Root tab, establish the identity of the servers with which you connect. To view more information about a certificate, type its name in the Root tab. To delete a certificate, tap-and-hold the certificate name and then tap Delete.

Turn Off Error Reporting

Error reporting sends information to Microsoft that helps them diagnose errors with programs running under Windows Mobile. When an error occurs, a text file is created that contains data about the state of the program and your Pocket PC when the error occurred. The data is transmitted using a secure connection and is kept anonymous in a secured database.

If you prefer to not have your Pocket PC send error reports to Microsoft, tap Start | Settings | System | Error Reporting, tap the Disable Error Reporting radio button, and then tap OK.

Configure GPS

One of the most popular ways for using Pocket PCs is to display maps and location information from Global Positioning Satellite receivers connected to the Pocket PC. Some Pocket PCs have

a built-in receiver; if yours does not, you can connect a receiver by using a cable or Bluetooth. The GPS Settings dialog box in Windows Mobile 5 is used to configure how programs communicate with GPS receivers.

You need to specify what communications port programs use to receive GPS data. Tap Start | Settings | System | GPS to open the dialog box shown here. Select a COM port from the GPS Program Port drop-down list. You should find information about the COM port you need to use in the GPS receiver user manual.
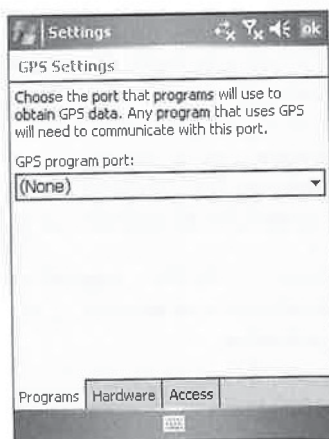
Windows Mobile may automatically detect your GPS receiver and configure the hardware settings, but if it doesn't, tap the Hardware tab and select a COM port from the GPS Hardware Port drop-down list. This COM port must be different from the one you select on the Programs tab.

Windows Mobile 5's GPS support enables multiple programs to communicate with a GPS receiver at the same time. By default Windows Mobile is configured to manage access with GPS receivers, but if your GPS software does not work, you may need to turn this feature off. Clear the Manage GPS Automatically check box on the Access tab of the GPS Settings dialog box.

Wrapping Up

The system settings shown in this chapter are available on all Pocket PCs, but each brand of Pocket PC may include additional settings that are unique to that device. You will find more information about these settings in the user manual that comes with your Pocket PC.

Now that you know the basic functions of your Pocket PC and how to change its settings, you will learn the basic functions of Smartphones.

Chapter 5

Get Acquainted with Your Smartphone
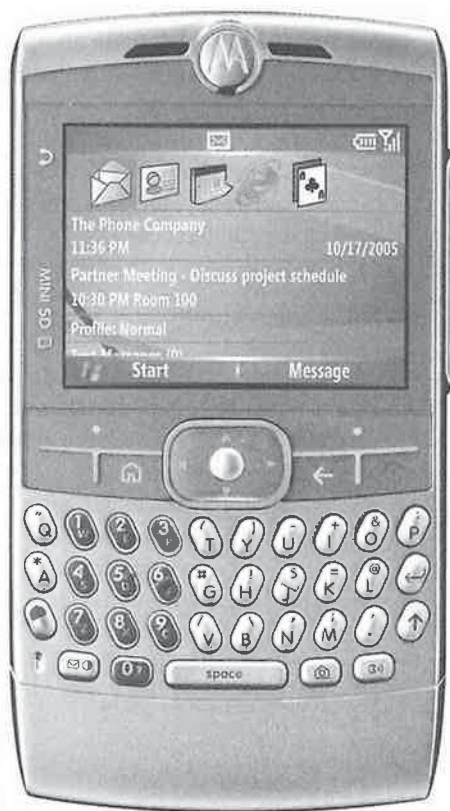
How to...

- ☐ Identify hardware components
- ☐ Input information
- ■ Set up your Smartphone
- ☐ Make phone calls
- ☐ Use the Start menu
- ▥ Personalize your Smartphone

B efore you can begin to take full advantage of all the features that your Smartphone has to offer, you need a good understanding of the basic components that make up the phone. If all you do is use your Smartphone to send and receive calls, you will be missing out on all that it has to offer. In this chapter you will learn the basics for using your phone, while the remaining chapters in this book show how to use all the software that it includes.

Following a review of the hardware components of the Smartphone, I'll show how to use the Navigation button to interact with the software on the phone. I will discuss the Home Screen, which is the "command center" for all Smartphone operations, and then review the Smartphone settings, which you can change to configure the Smartphone to meet your preferences.

Meet Your Smartphone

Microsoft worked with several hardware companies for many years to develop Windows Mobile for Smartphones. Smartphones are intended to be first and foremost a great mobile phone, with additional functionality for managing personal information. Therefore, Smartphones have all the features, like speed dialing and speakerphone, that you expect to find on mobile phones.

Unlike Pocket PCs, which in many cases require two hands to operate, Smartphones are designed for one-hand operation. A key difference between Pocket PCs and Smartphones is that Smartphones do not have touch screens, and therefore you do not use a stylus to input information. Instead, you use one of the several buttons on the front of the device to navigate through its many options and to input information.

NOTE   *Another significant difference from Pocket PCs is that Smartphones do not include the Office Mobile applications.*

Review the Smartphone

Let's take a tour of a typical Smartphone, starting with the front of the device. You'll learn the function of parts commonly found on the Smartphone, but keep in mind that slight variations exist among various Smartphone brands. You'll use some parts more often than others, but knowing *how* to use all of them is important.

Review the Front

The largest part of the Smartphone is its screen. The LCD (liquid crystal display) screen is used for viewing and entering information, and it may vary in size depending on the overall size of the Smartphone. Newer Smartphones have Quarter VGA (QVGA) displays with higher resolution for vivid pictures and crisp text.

As you can see in Figure 5-1, the buttons below the screen are assigned to various programs or functions. Push the Navigation button up, down, left, or right to move the cursor, and press the Navigation button to select items on the screen.

FIGURE 5-1 The front of a Smartphone (other Smartphones look different but have many of the same parts)

The notification LED provides a variety of information to indicate the phone's status, and may be different between Smartphone brands. Typically the LED will be flashing green, indicating that it is attached to a network. If you are charging the phone, then the LED indicates the charging status; for example, solid amber may indicate that the phone is charging, while solid green indicates the phone is fully charged. A flashing blue LED may indicate that the Bluetooth radio is on, while flashing red may indicate that the battery is very low. Check the user manual that came with your Smartphone for the exact functions of the LED.

The functions of the left and right softkeys change to correspond to commands or menus of the program currently displaying on the screen. Immediately above the softkeys, at the bottom of the screen, you see the name of the function each key executes. For example, on the Home Screen, pressing the left softkey opens the Start menu, and pressing the right softkey opens Contacts.

The Home button always returns to the Home Screen, and the Back button returns you to the previous screen, or backspaces one character in a text field. Talk and End are buttons commonly found on mobile phones. Press Talk to start a call or receive an incoming call; press End to end a call. The Talk and End buttons have these additional functions:

- Press and hold Talk to turn the speakerphone on or off during a phone conversation.
- If you have a call on hold, press and hold Talk to switch between the active call and the call on hold.
- Press Talk on the Home Screen to view the Call History.
- Press and hold End to lock the keypad.
- Pressing End often returns you to the Home Screen.

Most Smartphones have the same numeric keypad layout that you find on telephones and other mobile phones. To make a call, press the numbers on the keypad and then press Talk. As you enter numbers, they display on the screen. The "Use Your Smartphone" section later in this chapter shows you how to use the keypad to enter text.

Some Smartphones may include a QWERTY keyboard, but rather than having a separate number row, numbers are also assigned to the same keys as some letters. Windows Mobile will automatically switch those keys between numbers and letters, depending on what you are doing with your Smartphone.

Review the Sides

The top, bottom, left, and right sides of Smartphones will vary between brands. The items you typically find on the sides of Smartphones are as follows:

- **Power button** Press this button to turn on the Smartphone. When the Smartphone is on, press this button to display the Quick List to turn Flight mode on or off, lock the Smartphone, or select a profile.

■ **Infrared port**   Enables the Smartphone to send and receive data with other devices by using infrared beaming.

■ **Volume button**   Press this button to increase or decrease the earpiece volume.

■ **Camera button**   If the Smartphone has a built-in camera, it usually has a button that opens the Pictures & Videos program, and is used for taking pictures.

■ **Earphone jack**   Enables you to plug in a phone headset for hands-free operation of the Smartphone, and to listen to audio.

■ **Mini-USB port**   Most Smartphones have a mini-USB port to plug in a cable that can plug into a computer or an AC adapter. The cable is used to charge the phone and to synchronize data between a computer and the phone. Check the user manual for your Smartphone to see how you use the cable. If your Smartphone does not have a mini-USB port, it will have a different port for a power adapter.

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Review the Back

If your Smartphone has a built-in camera, you will normally find the camera lens on the back of the phone. Some phones may also have a tiny mirror on the back to help with taking self-portraits. You will also find a latch for opening the phone's battery compartment.

Depending on the type of phone, the battery compartment may have two important components in addition to the battery. If you have a phone that uses the Global System for Mobile Communications (GSM) protocol, you may have a slot for a Subscriber Identity Module (SIM) card.

How to ...   Use SIM Cards with GSM Phones

Before you can operate a GSM phone, you must insert the SIM card into the phone. SIM cards store information about your mobile service, and may include an address book for storing phone numbers. To switch GSM phones, all you need to do is transfer the SIM card from one phone to another phone. The mobile service provider provides the SIM cards that work with its service, and in some cases GSM phones are locked to only work with a specific provider. You can buy GSM phones that are "SIM-lock free," which means that you can use any provider's SIM card with the phone. Most GSM phones have a code that unlocks the phone, and there are companies on the Internet that provide a service to enter the code and unlock phones.

The SIM card must be inserted in this slot in order to operate the phone. You may also find a mini–Secure Digital (miniSD) card slot, which you can use to increase storage in your Smartphone by inserting miniSD cards.

Meet the Home Screen

When you turn on a Smartphone, two screens display while the Smartphone is starting up; one displays the Windows Mobile logo, the second displays the mobile service provider's logo. During that time, all of the phone's settings are being loaded and the phone is connecting to a mobile network. Finally, you see the Home Screen, which looks like Figure 5-2.

The layout that you see in Figure 5-2 is one of five layouts that come preinstalled. The section "Personalize Your Smartphone" later in the chapter shows you how to change the Home Screen. At the top of the screen you see a number of different status indicators, as shown in Table 5-1. The status indicator bar at the top of the screen remains no matter what Home Screen layout you use.

As Figure 5-2 shows, the Home Screen may have several parts that display different information. In most cases you can move the cursor to a part and launch a different program. For example, if you select an appointment, the Calendar program runs and displays the appointment. Push the Navigation button up or down to move the cursor through the parts, and press the Navigation button to start the program associated with the part.

The Shortcut bar shows icons for the last ten programs that ran on the device. Push the Navigation button right to scroll through the additional icons that are not displaying on the screen. To open a program, press the Navigation button left or right to move the cursor over the icon of the program and then press the Navigation button to select the program.
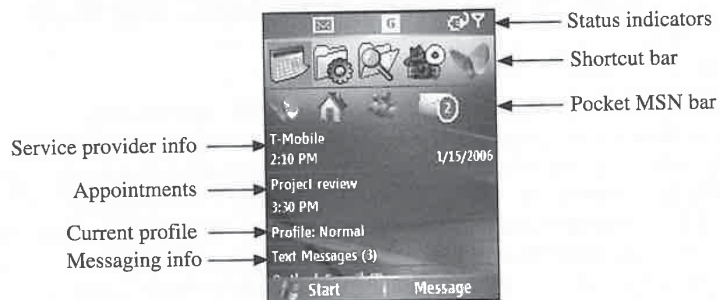
FIGURE 5-2 The Smartphone Home Screen

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Indicator	Description
	New e-mail or text message
	New voice mail
	New instant message
	Voice call active
	Data connection active
	GPRS available
	GPRS in use
	Bluetooth is turned on
	Call forwarding
	Call on hold
	Missed call
	Speakerphone is on
	Battery full
	Phone is plugged in
	Signal strength
	Radio off (Flight mode is on)
	Ringer off
	Vibrate mode is on

TABLE 5-1   Windows Mobile Smartphone Status Indicators

The Pocket MSN bar is part of the MSN Default Home Screen layout, which is the initial layout that displays on Windows Mobile 5 Smartphones. The Pocket MSN bar works like the Shortcut bar; use the Navigation button to move the cursor over the icon of the program you want to run, and press the Navigation button to select the program.
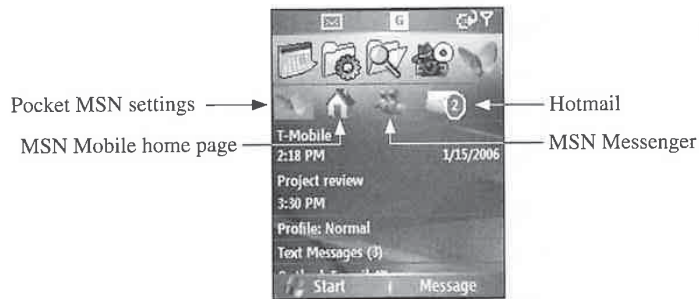
Most layouts include the service provider information, which you cannot select or remove from the screen. The Appointments section shows the current or upcoming appointments in the Smartphone Calendar. Chapter 13 shows you how to add appointments to the Calendar.

Profiles specify how Smartphones notify you of different events such as incoming calls, text messages, or e-mail. The Home Screen may show you which profile is currently in use, and if you press the Navigation button on the profile, the Profiles list, shown here, displays. Push the Navigation button up or down to move the cursor and press the Navigation button to select a profile. See the "Personalize Your Smartphone" section later in this chapter for information about each profile.

The Messaging section of the Home Screen shows the number of unread messages for each Messaging account. Messaging is the program you use to send and receive text messages and e-mail; Chapter 11 shows you how to use this program. Select one of the Messaging accounts on the Home Screen to open the Messaging program and read the messages.
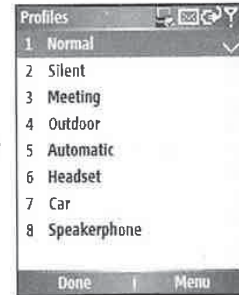
Use Your Smartphone

As stated at the beginning of this chapter, Windows Mobile Smartphones are designed to be operated with one hand, and you use buttons to operate and input information into the Smartphone. In the previous section you saw how to use the Navigation button to move the cursor and select items on the screen.

Throughout this book you will see instructions for operating your Smartphone, written as follows, "from the Home Screen press Start | More | Games | Solitaire," which instructs you to start the Solitaire program. To execute the instructions, you press a combination of the left or right softkeys and Navigation buttons. A breakdown of the previous instructions, starting from the Home Screen, is as follows:

1. Press the Left softkey, currently assigned to Start.
2. Press the Left softkey, currently assigned to More.
3. Push the Navigation button to select the Games folder, and press the Navigation button.
4. Push the Navigation button to select the Solitaire icon, and press the Navigation button.

5

As you can tell, it could take a significant amount of writing to explicitly tell you which buttons to press, so I will use the shortcut notation previously described.

NOTE   *You use different methods for performing operations on Pocket PCs and Smartphones. You tap the stylus on the Pocket PC touch screen to execute commands, while you press buttons on Smartphones. For instances in this book where you need to perform the same operation on both devices, I'll prefix the operation string with the word "select." If an operation is just for Pocket PCs, the string will be prefixed with the word "tap," while Smartphone operations will be prefixed with the word "press."*

If at any point you want to back up to the previous screen press the Back button. To return to the Home Screen, press the Home button.

Input Text

Some Smartphones may have a QWERTY keyboard, and for these models entering text is a straightforward process of typing on the keyboard. However, usually Smartphones have a numeric keypad, which you use to dial phone numbers and to enter text. Each button on the numeric keypad has multiple functions, with some buttons capable of entering as many as four different letters in either upper- or lowercase, in addition to numbers.

Smartphones with numeric keypads have two text input modes: Multipress and T9. Whenever the cursor is in a text field, you will see one of the indicators in Table 5-2 at the top of the screen, indicating which text mode is currently in effect. To switch modes when the cursor is in a text field, hold down the asterisk (*) button and select the mode you want from the pop-up menu.

In Multipress mode you enter characters by pressing the button of the letter that you want to type. Since buttons have more than one letter, you may need to press the button multiple times to enter the correct character. For example, to enter the word "dog," you would press 3, 66, 4.

If a button contains two letters that you need to enter in succession you must pause after entering the first letter and wait until the underline disappears before entering the next letter. For example, to enter the word "cat," you would press 222, pause, press 2, and then press 8. If you need to backspace, press Back, and to enter a space, press #. To enter punctuation, press 1 until the correct punctuation mark displays.

Input Mode	Description
abc	Multipress, lowercase
ABC	Multipress, uppercase
t9	T9, lowercase
T9	T9, uppercase
123	Numeric

TABLE 5-2   Smartphone Input Modes
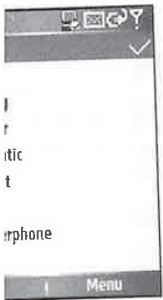
How to ... Change the Multipress Time Out

To change the length of time that you have to wait before entering two letters on the same button in Multipress mode, press Start | Settings | More | Accessibility. Move the cursor to the Multipress Timeout field and press the Navigation button, select an option from the list, and press Done. Press Done to return to the Settings menu, or press Home to return to the Home Screen.

TIP *Press and hold # to display a table of symbols, then use the Navigation button to select the symbol that you want to insert.*

T9 mode provides predictive text entry. You only need to press the button containing the letter of a word once, and as you press the button, the software determines what word you want to enter. If there are multiple possible words, a pop-up menu appears showing each of the words. Push the Navigation button up or down to move through the list, and press the Navigation button to select the correct word. If the word is at the beginning of a sentence, it will be automatically capitalized, and a space is entered after each word.
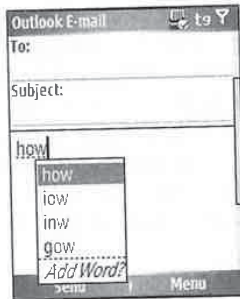
If T9 mode accurately determines each word that you are entering, typing becomes a process of pressing a series of buttons and then pressing the Navigation button. T9 mode also attempts to determine the next word you are going to enter, and automatically displays that word. If the word is correct, press the Navigation button to move on to the next word, or begin pressing buttons to enter a different word.

In some cases T9 mode will not have the word you are entering in its dictionary. To enter the word, you need to switch to Multipress mode. After you enter the word in Multipress mode, the word will be added to the T9 mode dictionary.

To enter punctuation in T9 mode, press 1, and a pop-up menu displays with punctuation marks that you can select. To enter symbols in either Multipress or T9 mode, press and hold the

button, and the Symbols screen shown here will display. Use the Navigation button to select the symbol that you want to insert, or press Cancel to exit the screen without inserting a symbol.

Some additional input actions are

■ **Start a new line**   Press the Navigation button.

■ **Switch between lowercase, uppercase, and CAPS LOCK**   Press the * button.

■ **Enter a number, asterisk (*), or pound sign (#)**   Press and hold the * button, then select "123" for Numeric mode in the pop-up list.

■ **Enter a plus (+) sign**   Press and hold 0.

Make Phone Calls

You can dial phone numbers on a Smartphone just as you do with a mobile telephone, by pressing the number buttons and then pressing Talk. However, Windows Mobile Smartphones provide a number of different ways to quickly place calls, depending on what program is running.

If you want to dial a number, the Home Screen must be displaying. If you are in the Start menu, or running a program, first press Home to return to the Home Screen. As you press the buttons of the numbers on the keypad, the screen changes as shown here. At the top you see the numbers that you have entered, and at the bottom you see a list containing items from either the Call History or Contacts that contain the same number.

If the list contains the number or contact name that you are calling, you can use the Navigation button to select the item in the list. Either the Call History record displays, showing the date, time, and duration of the call, or the Contacts record displays. To dial the number in the Call History, press the Navigation button. Because a contact may have multiple phone numbers, use the Navigation button to select the number you want to call, and press the button to dial the number.

Make Phone Calls from Call History

To quickly display the Call History, press Talk while at the Home Screen, to display the screen shown here. This is the same screen that displays when you dial numbers from the Home Screen, except that you don't see a number populated at the top of the screen. Push the Navigation button up or down to scroll through the list, press the Navigation button to display a Call History record, and press the Navigation button a second time to dial the phone number.

You can also open the Call History from the Start menu. Press Start | Call History, to display the following screen. Use the Navigation button to scroll through the list and display a record. The Call History Menu button has several options, as shown in Table 5-3.
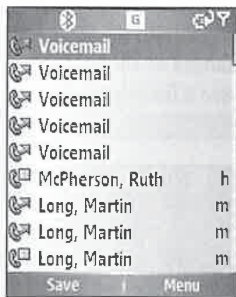
Make Phone Calls from Contacts

Most mobile phones have a built-in address book for storing phone numbers, but the process of entering numbers may be tedious, because you manually enter the name and phone number

Command	Function
Find Contact	Searches Contacts for the phone number of the Call History record, and displays the contact information.
E-mail	Searches Contacts for the phone number of the Call History record and, if an e-mail address is found, creates a new e-mail message.
View Timers	Displays the call duration and the durations for all calls, all incoming calls, outgoing calls, roaming calls, and data calls. To reset the call timers, press Menu	Reset Timers.
Delete	Deletes the selected Call History record.
Delete List	Deletes all the entries in the Call History.
Save To Contacts	Saves the phone number in the Call History to a contact that you select. The left softkey is also assigned to this function.
Filter	Provides options for filtering entries in the Call History so that you only see missed, incoming, or outgoing calls.

TABLE 5-3   The Call History Menu Options

for each contact using the phone's keypad. However, with Windows Mobile, it is simple to add phone numbers by using ActiveSync to synchronize your Outlook contacts with your Smartphone.

> **NOTE** *Chapter 7 provides instructions for synchronizing Outlook contacts with Windows Mobile devices. See Chapter 13 to learn more about using Outlook Mobile.*

The right softkey is assigned to Contacts at the Home Screen. You can also press Start | Contacts to open the Contacts application, shown here:

To call a person in Contacts, open the contact record, as shown here, use the Navigation button to select the phone number, and then press the Navigation button to dial the number:
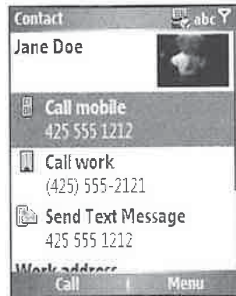
Push the Navigation button up or down to scroll through the Contacts list. To quickly navigate to a contact, start pressing the buttons associated to that contact's name, and the contacts containing the letters you press will be filtered on the screen. For example, to display John Doe, press 36, which displays as shown here:
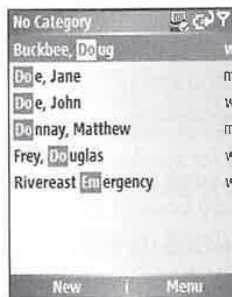
Use Speed Dial to Make Phone Calls

The fastest way to dial frequently used phone numbers is to assign them to a button to speed dial. To speed dial a number assigned to a button, press and hold the button, and you will hear a short beep indicating that the number is dialing. For example, most Smartphones assign 1 to voice mail, so to check voice mail press and hold 1.

It is possible to create 99 different speed dials. To use a speed dial assigned to a two-digit number, press and hold the second digit. For example, to call a number assigned to 14, press 1 and then press and hold 4.

You can only assign phone numbers that are in Contacts to speed dial. To create a speed dial, open a contact, use the Navigation button to select a phone number, and then press Menu | Add To Speed Dial, which opens the screen shown on the following page. Press the Navigation button on the Key Assignment field to display a list of available speed dials, and use the Navigation button to select the speed dial that you want to use.

ation
nber:

dy navigate
ts containing
ess 36, which

Add Speed Dial

Name:

Doe, Jane

Value:

425 555 1212 (m)

Keypad assignment:

3   ◂ ▸

Done   i   Menu
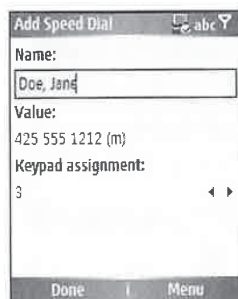
> *I sometimes forget what numbers I use for my speed dials, so I try to assign phone numbers to buttons containing the letters of the contact. For example, I assign my home phone number to 4, which is also the H button.*

To see a list of your speed dials, press Start | More | Speed Dial, which displays a list of the speed dials and the associated contact numbers. To place a call from the list, use the Navigation button to highlight an entry and then press Go. To edit a speed dial, use the Navigation button to select the speed dial and then press Edit; to delete a highlighted speed dial, press Menu | Delete.

> *To view the entire contact record assigned to a speed dial, press Menu | Find Contact.*

Make Phone Calls from Text Messages and E-mail

As you will see in Chapter 11, you can send text messages and e-mail using the Windows Mobile messaging application. Windows Mobile automatically turns phone numbers in text messages and e-mail into links, as shown on the next page. Press the Navigation button up or down to move the cursor over the phone number, and then press the Navigation button to dial the number.

on to speed dial.
ill hear a short
n 1 to voice

o a two-digit
to 14, press 1

ate a speed dial,
ss Menu | Add
Navigation button
e Navigation

How to ...

Make Phone Calls Using Voice Commands

Microsoft's Voice Command software provides a way to make phone calls by speaking a command, but it only runs on Pocket PCs. Some Smartphone manufacturers include voice tags, which you can use to record a command to dial select phone numbers. Check the user manual that came with your Smartphone to configure this software if it is included.

You can use VITO VoiceDialer to create voice commands to dial numbers, and it works with Bluetooth headsets. You will find VITO VoiceDialer at http://vitotechnology.com/en/index.php. Another program that enables you to make phone calls using voice commands is Fonix VoiceDial, available at www.fonixspeech.com.
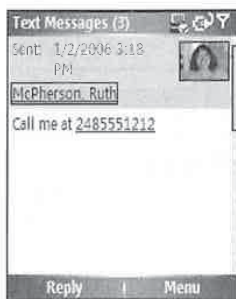
If you receive an e-mail or text message from someone that is in the Contacts list, the message header will display the contact's name, as shown here. Press the Navigation button to open the contact information, and then to place a call select one of the contact's phone numbers. If you receive a text message from someone that is not in Contacts, you can press the Navigation button to create a new contact for the phone number.
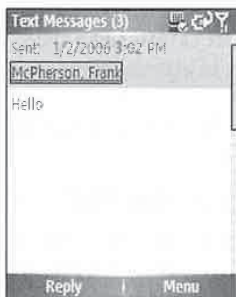
Use the Start Menu

Like Windows, you launch programs on Windows Mobile Smartphones by selecting them in the Start menu. To accommodate the small screen, nine application icons appear on the screen.

Press Start from the Home Screen to display the Start menu. You can push the Navigation button up, down, left, or right to scroll through the icons on the screen. The icons also correspond to buttons on the numeric keypad. For example, with the Start menu open, press 1 to start Internet Explorer, or press 9 to open Settings. Buttons are associated with an icon's position on the screen, so pressing 1 on the screen shown here opens the Games folder. Button assignments are in numerical order, starting with 1 being assigned to the top-left icon on the screen.

; message
en the
f you
n button

Press More to move through each screen, and press Back to return to the previous screen. You can assign speed dials to quickly launch programs without having to open the Start menu. Use the Navigation button to highlight an icon, then press Menu | Add Speed Dial, and assign a speed dial in the same way as you assign speed dials to phone numbers.

Personalize Your Smartphone

Smartphones have several settings for you to configure how you want your Smartphone to work. To open Settings from the Home Screen, press Start | Settings, which displays the first Settings screen.

them in the
creen.
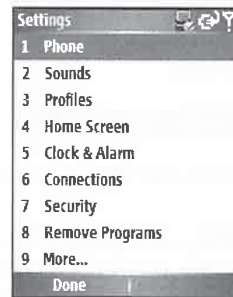
Press More to display the second Settings screen, as shown on the following page.
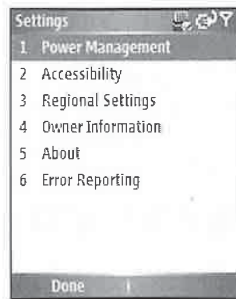
In this section we'll cover the options available for each of these Settings screens.

TIP   *Each setting is preceded by a number that you can press to open that setting's screen.*

Change Phone Network Settings

Smartphones are available for all of the different mobile phone networks around the world, and there are a number of settings for configuring how your phone works with the network. You do not want to change these settings unless you know what you are doing, because otherwise the phone may not work with your mobile service. When you select the Phone option on the first Settings screen, you see a screen that looks like the one shown here.
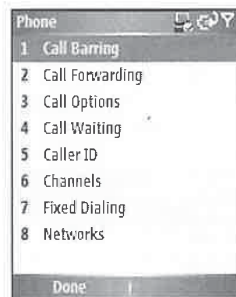
Table 5-4 provides a summary for the settings that you see in the illustration.

Change Ring Tones

One popular way that people personalize their phone is with ring tones. Smartphones can play ring tones in WAV, WMA, and MIDI audio files. To change the ring tone on your Smartphone, select the Sounds option in Settings, to display the screen shown on the following page. Press the Navigation button on the Ring Tone field to display a list of the available audio files on the

Setting	Function
Call Barring	Provides options for blocking incoming and outgoing calls.
Call Forwarding	Provides options for forwarding calls for the following conditions: No Reply, Busy, Unavailable, and Unconditional. By default, No Reply, Busy, and Unavailable are configured to forward calls to voice mail. If you want to forward all incoming calls to another number, enter that number for the Unconditional option.
Call Options	In this screen you configure the phone numbers for voice mail and text messaging, which are provided by your mobile service. You can also specify whether a call can be answered by pressing any key and whether SIM contacts display.
Call Waiting	Provides an option for notifying you while you are on a call that there is another incoming call.
Caller ID	Provides an option to control whether your phone number displays on caller ID. You can specify that everyone sees your number, no one sees your number, or only those people in Contacts can see your number.
Channels	Configures cell broadcast channels.
Fixed Dialing	Limits your calling area to one or more specific phone numbers and/or area codes.
Networks	Displays the current mobile service network that you are connected to, and provides options for automatically connecting to any network, or manually specifying the network the phone connects to.

TABLE 5-4   Windows Mobile Smartphone Phone Settings

phone that you can use as a ring tone. After you select a file, the ring tone will play and return to the Sounds screen. To play a tone again, press Menu | Play.

You can specify what sounds play for several other events such as reminders and new e-mail. Push the Navigation button up or down to scroll through the fields on the screen and press the Navigation button to change an option.

To delete sound files on your Smartphone, press Menu | Delete Sounds. You cannot delete the sound files that come with the Smartphone. If you want to cancel the changes that you made on the Sounds screen, press Menu | Cancel, and press Done to save changes.

How to ... Download Ring Tones to Your Smartphone

ActiveSync does not synchronize files with Smartphones as it does with Pocket PCs. Therefore, to download ring tones to your Smartphone, you need to manually copy them from a PC to the phone using Windows Explorer. Connect the Smartphone to a PC running ActiveSync and then start Windows Explorer. Copy the ring tone files from the PC to the Mobile Device icon that you will find under My Computer. After the files copy to the device, you can select the new ring tone using the Sounds setting on the Smartphone.

Edit Profiles

Profiles specify how Smartphones respond to events such as incoming calls. To change profiles, you can either select the Profile item on the Home Screen or press the power button to display the Quick List. There are eight different profiles on Smartphones, which you can edit by selecting the Profiles setting to display the screen shown here. To edit a profile, use the Navigation button to highlight the profile and then press Menu | Edit. Use the Navigation button to change the settings and then press Done to save your settings, or press Cancel to return to the previous screen.

Profiles	
1 Normal	✓
2 Silent	
3 Meeting	
4 Outdoor	
5 Automatic	
6 Headset	
7 Car	
8 Speakerphone	
Done	Menu
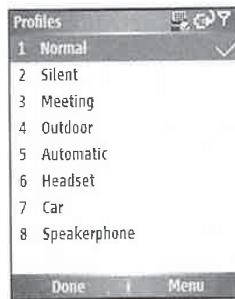
Table 5-5 provides a summary of the default settings for the Smartphone profiles. The volume range is from Off (0) to Loud (5). Each profile also specifies settings for Alarms, Notifications, and System sounds. The Headset and Car profiles include a setting to automatically answer the phone within a specified amount of time. To reset the profiles to their factory default settings, press Menu | Reset To Default on the Profiles screen.

The Automatic profile switches the profile that is in use between Normal and Meeting depending on whether there is an appointment on the Calendar. For example, if the Automatic profile is in effect and you receive a call during the time of an appointment on the Calendar, the phone will vibrate. When you receive a call after the meeting is over, the phone will ring.

Profile	Ring Type	Volume
Normal	Ring	Medium (3)
Silent	Silent	Off
Meeting	Vibrate	Off
Outdoor	Ring	Loud
Headset	Ring	Medium (3)
Car	Ring	Medium+ (4)
Speakerphone	Ring	Loud

TABLE 5-5   Smartphone Profiles

Change the Home Screen

The Home Screen is the most visible component on the Smartphone, and you can change the Home Screen layout to one of five that ship with the Smartphone. To change the Home Screen layout, select the Home Screen setting, select the Home Screen Layout field, and select one of the options on the screen.

Another way to change the Home Screen is to change the graphic that displays in the background. Use the Navigation button to select the Background Image field and select one of the images in the list. If your Smartphone has a camera, pictures that you take and store on the phone will appear in the list, as do pictures that synchronize with Outlook contacts.

The Smartphone display times out after a period of time to conserve battery life. To change the length of time before the display times out, select the Time Out field on the Home Screen settings screen.

Change the Date and Time

To change the date and time that displays on the Smartphone, select the Clock & Alarm setting, and then select Date And Time to open the screen shown here. Use the Navigation button to change the Time Zone, Date, and Time fields and press Done to save the changes.

Date and Time   abc

Time zone:

GMT-5 Eastern US   ◀ ▶

Date:

1/15/2006

Time:

2:38:22 PM

Done | Cancel
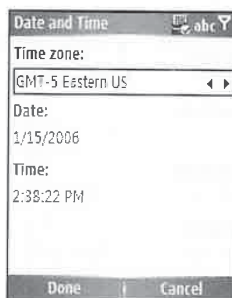
You can use a Smartphone as an alarm clock by turning the alarm on or off when you press the Alarm option on the Clock & Alarm settings screen. Use the Navigation button to change the alarm time and to turn the alarm off. The alarm will continue to go off at the time specified until you turn it off using the Clock & Alarm setting.

The Sounds setting specifies what sound plays when the alarm goes off, and the current profile controls the alarm volume.

Change the Data Connections Settings

Smartphones are capable of infrared and Bluetooth connections with other devices, as well as Internet connections using the wireless data service of your mobile service provider. To configure these connections, select the Connections setting to display this screen.

Connections
1 Beam
2 Bluetooth
3 Dial-up
4 GPRS
5 Proxy
6 VPN
Done   Menu
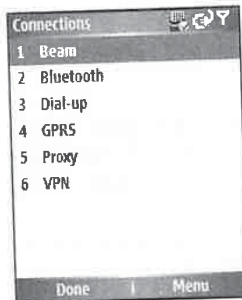
The GPRS option specifies the data communications settings for mobile providers that use GSM. Your phone may have an option other than GPRS that corresponds to other data communications technologies. In most cases the data communications settings are entered by your mobile service provider, but if you bought your phone from a store not associated with a provider, you may need to enter the settings.

For example, if you have a GSM phone, select the GPRS option on the Connections settings screen, which may open a blank screen with Done and Menu assigned to the left and right softkeys. To add data settings, press Menu | Add to open the screen shown here. Enter a description for the data connection in the Description field.

Add GPRS
Description:
Connects to:
Access point:
User name:
Done   Cancel

Select the Connects To field to specify the type of network connection; in most cases you will select the Internet. Enter the access point name (APN), which you can get from your mobile provider, in the Access Point field. Enter a username, password, domain name server (DNS), and IP address information in the appropriate fields if required by your mobile service provider. Press Done to save the settings and return to the GPRS screen, and press Done again to return to the Connections settings screen.

Smartphones can connect to dial-up modems if your mobile service provider supports this capability, which is called Circuit-Switched Cellular. To configure the Smartphone to use a dial-up connection, select the Dial-Up option on the Connections settings screen, then press Menu | Add to enter the dial-up information. Enter the information on the Add Dialup screen and press Done to save the settings.

The Proxy and VPN options on the Connections settings screen are used to enter information about proxy servers and virtual private network gateways, which are used on corporate networks. Chapter 10 provides instructions for using these options to connect to corporate networks.

Most Smartphones have an infrared port that can be used to exchange information with other devices. If you don't use infrared to send and receive data, you can turn off the infrared port to conserve battery life. Select the Beam option on the Connections settings screen, and then clear the Receive Incoming Beam check box to turn off the port. To turn the infrared port back on, press the Receive Incoming Beam check box.

Pair Your Smartphone with Bluetooth Headsets

Bluetooth is wireless communications technology that you can use to connect devices like headsets, keyboards, and GPS receivers to Smartphones. If you use Bluetooth at all, it's most likely because you want to use a headset with your Smartphone. To use a Bluetooth headset with a Smartphone, you need to turn Bluetooth on and then configure the headset to work with the phone. The configuration process is called *pairing* or *bonding*.

You turn Bluetooth on or off using the Bluetooth option of the Connections settings screen. When you press Bluetooth on the Connections settings screen, you open a screen with one field that displays the current Bluetooth status. Press the field to open a screen of options, which include Off, On, and Discoverable. If you select Discoverable, other devices that use Bluetooth will be able to find your phone and try to establish communications with it; therefore, it is best to not turn on Discoverable mode unless you know exactly what devices are in range.

To turn on Bluetooth, you must select On from the Select An Item screen and then press Done twice to return to the Connections screen. After you turn on Bluetooth, the next step is to pair your headset with the phone.

TIP   *Most Smartphones display a blinking blue LED to indicate that Bluetooth is on.*

To pair the two, you need to perform steps on the headset and on your phone. First, you need to make the headset discoverable. Follow the instructions that came with your headset to put it in Discoverable mode. In most cases you press the On/Off button until a LED displays a solid blue. Also make note of the headset's passkey or PIN, which you will have to enter on the phone.

On the phone, open the Bluetooth settings screen, then press Menu | Devices, which will display all of the devices that are paired with your phone, but if you have not yet paired devices,

this screen will be blank. Press Menu | New to scan for Bluetooth devices; once all the devices are found, they appear in a list as shown here:

Use the Navigation button to select the headset, and then enter the headset's Passkey and press Next. When the Smartphone has successfully paired with the headset, you will see the following screen.

Press Next, which provides an opportunity for you to enter a name for the headset, and then press Next a second time to display the Services screen. For headsets, you will only see one service listed, Headset, but other devices may have multiple services that you can select on this screen. Press Done to return to the Bluetooth Devices screen, where you will see the headset listed along with other devices that the phone is paired with, such as shown here:
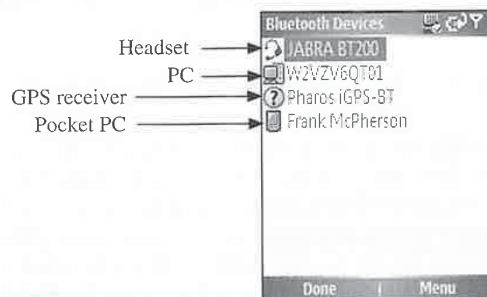
TIP   *The icon next to the device name indicates the device type.*

Once you pair a headset with a Smartphone, the audio for all calls automatically routes to the headset if Bluetooth is turned on and the headset is in range. Most headsets must be within 30 feet of the phone to work. Read the headset user manual for instructions on how to use the buttons on the headset to receive and end calls and to turn the volume up or down. In some cases you will be able to perform voice dialing if the software on the Smartphone is compatible with the headset.

Secure Your Phone

Most mobile phones have the capability to require a password before someone can use the phone to make phone calls, and most people do not use this feature. However, you may want to consider using the password feature, known as Phone Lock, on your Smartphone because it can store a larger amount of sensitive information than a regular mobile phone.

5

NOTE   *You do not need to enter the password to receive calls or to place emergency calls.*

Select the Security setting to display the different Smartphone security options. Select Enable Phone Lock to specify the time within which the phone is locked and requires a password, and then specify the password and press Done.

```
Security              ⊡ ◑ ▼
1   Enable Phone Lock
2   Enable SIM PIN
3   Change PIN2
4   Certificates




       Done      |
```
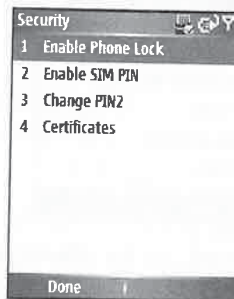
The SIM cards that come with Smartphones enable the phone to connect to the mobile network using your account. If your phone were stolen, the thief could put the SIM card in another phone and use your account. To prevent the SIM card from being used in other phones, press Enable SIM PIN and enter a PIN to secure the card. After you enable this feature, you will not be able to use the SIM card in another phone without entering the correct PIN.

SIM PIN2 secures some specific information, such as call barring and call forwarding, on the SIM card, but does not prevent you from using the SIM card in another phone. Press Change PIN2 to enable this security feature.

Digital certificates are sometimes used by web sites to prove the identity of devices. The device can also use a digital certificate to prove the identity of a server. Personal certificates provide identity information for Smartphones, while root certificates are used to confirm the identity of servers. If you need to add a personal or root certificate to the Smartphone, select Certificates on the Security settings screen.

Remove Programs

You can add functionality to your Smartphone by installing software. A number of different programs are available that you can install by following the instructions in Chapter 8. Be aware that while they may look similar, programs designed for Pocket PC Phone Editions will not run on Smartphones. To uninstall software from a Smartphone, select the Remove Programs setting, use the Navigation button to highlight the program you want to uninstall, then press Menu | Remove.

TIP Some web sites provide the ability to install software directly on your Smartphone. Use Internet Explorer to open the web site, then select the link to the program's setup file. The file will download to the Smartphone and then automatically open, installing the program on the device.

Conserve Battery Power

Because the Smartphone's display consumes a significant amount of power when it is at full brightness, Windows Mobile provides settings to turn off the display to conserve power and increase battery life. To change the display timeout settings, select the Power Management setting, which opens the screen shown here.
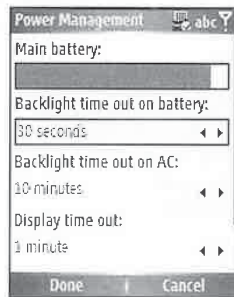
The Smartphone backlight is either on or off, and the value of the Backlight Time Out On Battery field specifies how long the backlight stays on with no activity before it is turned off. Press the Navigation button on the field to select a different value, then press Done. The Backlight Time Out On AC field specifies how long the backlight stays on when the phone is plugged in.

When the backlight turns off, the display is still on, and you can still see information on the screen. The Display Time Out field specifies the length of time before the display is turned entirely off. Press the Navigation button on the field to select a different value, then press Done.

TIP Some Smartphones have a light sensor that Windows Mobile uses to adjust the brightness of the display. If a sensor exists, you will find the Light Sensor Enable field on the Power Management settings screen; set this field to On to allow Windows Mobile to automatically adjust the display brightness.

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8. Be aware
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power and
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Change the Font Size

There are a number of settings that control what you see on the screen or how you interact with the Smartphone. For example, to display larger characters on the Settings screen, select the Accessibility setting, select the System Font Size field, and select Large.

The Accessibility settings screen is as follows: Multipress Time Out specifies how long you must wait to enter a different letter on the same button on the keypad; Confirmation Time Out specifies how long the Smartphone waits for you to provide input to certain dialog boxes before it automatically closes the dialog box; and In-Call Alert Volume specifies how loud alerts, such as meeting reminders, sound when you are in a call.

Accessibility	abc
System font size:	
Normal	◀ ▶
Multipress time out:	
1 second	◀ ▶
Confirmation time out:	
5 seconds	◀ ▶
In-call alert volume:	
2	◀ ▶
Done	Cancel

ne Out On Battery
:d off. Press the
Backlight Time
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isplay is turned
then press Done.

ljust the brightness
'd on the Power
le to automatically
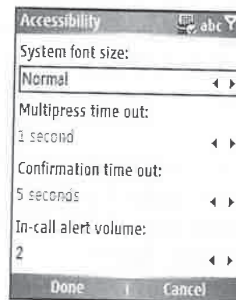
Change the Date and Time Format

The Regional Settings screen provides a Language field to specify what language is used for system dialog boxes, and a Locale field to specify the language of the location where you are using the phone. You also find on the Regional Settings screen fields for changing the format of dates, time, positive and negative numbers, and positive and negative currency.

Regional Settings	abc
Language:	
US English	◀ ▶
Locale:	
English (United States)	◀ ▶
Short date style:	
1/15/2006	◀ ▶
Long date style:	
Sunday, January 15, 2006	◀ ▶
Done	Cancel
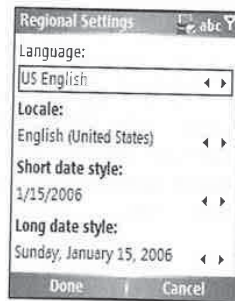
Enter Owner Information

If you want to store information about yourself as the owner of your Smartphone, select the Owner Information settings screen, enter values for the Name, Telephone Number, E-mail Address, and Notes fields, and then press Done.

Find Out How Much Storage Is Available

The About settings screen displays a significant amount of information about the Smartphone, including what version and build of Windows Mobile is installed, the available storage, total storage, available memory, and total memory. To access this information, select the About setting.

Submit Error Reports to Microsoft

Unfortunately, there are times when Windows Mobile does not work as it should, and errors occur. It helps Microsoft to improve Windows Mobile if it receives information about the errors, so it has added a voluntary service called Error Reporting that sends information about the errors to Microsoft. The service is disabled by default, and it does not send personal information to Microsoft.

If you are willing to help Microsoft by transmitting error reports to it, select the Error Reporting setting and change the Error Reporting field from Disable to Enable.

Work with Applications

Hundreds of applications are available for Windows Mobile that you can download from the Internet and install on your Smartphone. In Chapter 8 you learn how to use ActiveSync to install applications on your Smartphone. The application icons install in the Start menu, which you access by pressing the Start button at the Home Screen.

As you would expect, Smartphone applications work in the same manner as all the other software on the phone. Most applications assign a menu to the right softkey, so you press Menu to execute the commands for most applications. The left softkey is usually assigned to the most frequently used commands.

If you have an application open and you want to return to the previous open application, press Back. Press the Home button to return to the Home Screen. Once an application starts, it continues to run, even when you switch to another application or the Home Screen. Windows Mobile for Smartphones does not include a built-in way for you to shut down running programs, though many Smartphone manufacturers include their own task manager program that you can use to shut down programs.

One popular third-party task manager for Smartphone is Resco System Toys, available at www.resco.net. System Toys has two tools. One tool displays the remaining battery life, available internal storage, and available space on storage cards. The second tool is Task Manager, which you use to shut down or switch between programs running on the Smartphone.

SP Task Manager, available at www.binarys.com, has the same functions as Resco System Toys, plus it has the ability to format storage cards.

Manage Files

Windows Mobile Smartphones name files and store them in folders like Windows desktops. However, they do not include a file manager program for you to move, copy, or delete files on the device. Programs such as Windows Media Player and Pictures & Videos include Copy and Delete commands for you to work with the files associated to those programs.

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There are two ways that you can manage files on a Smartphone. One is to use ActiveSync and Windows Explorer to work with the files on the device. The second way is to install a third-party file manager on your Smartphone.

To use ActiveSync to manage files on your Smartphone, connect the Smartphone to a computer and then click Explore in ActiveSync on the desktop PC to open the program window shown here. You use your mouse and keyboard on the PC to browse and delete files on the Smartphone.
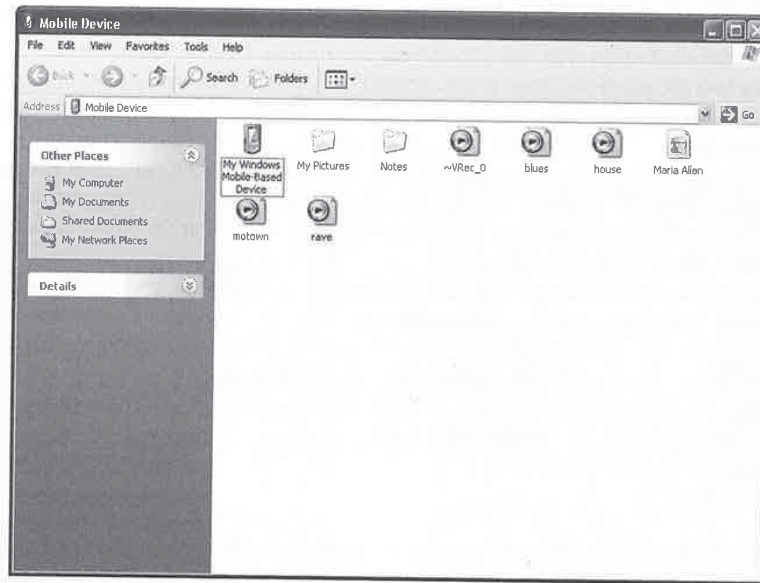
When a Smartphone is connected to a PC, you can also access the files on the device using Windows Explorer. Click the Mobile Device icon in the left window in Explorer to list the Smartphone files in the main window. With Windows Explorer, you can drag and drop files between folders on the PC and the Smartphone.

If you want to manage files on your Smartphone without connecting to a PC, you need one of the third-party file manager programs available for the device. Resco Explorer is one of the most popular Smartphone file manager programs. In addition to enabling you to manage files, it also provides the ability to compress or encrypt files. Resco Explorer also includes built-in file viewers and a Registry Editor. You will find this program at www.resco.net.

Increase Storage Space

Most Smartphones have a slot for miniSD storage cards, though you may have to remove the battery to insert a card into the slot. MiniSD, which is about three-quarters the size of Secure Digital cards, is one of the newest storage card sizes. You can purchase adapters to use a miniSD card in a Secure Digital card slot.

How to ... Synchronize Files with Smartphones

As you will see in Chapter 7, ActiveSync has the ability to synchronize files between Windows desktop computers and Pocket PCs, but unfortunately, this file synchronization capability does not work with Smartphones. However, Chapter 7 does show how you can synchronize audio and video files using the Media information type in ActiveSync.

You have two options if you want to synchronize files between a Smartphone and desktop PC. One is Rubber Stamped Data Sync, found at www.rubberstampeddata.com, which is a program that runs on PCs and synchronizes files when you connect the Smartphone to the PC running ActiveSync. You can configure the program to automatically start and sync each time you connect the device and continuously sync changes while the Smartphone is connected. Despite the lack of information on the web site, I found that the program runs with ActiveSync 4.1 and Windows Mobile 5.

Another option is to use Pocket Controller Professional, available at www.soti.net. While this program is more expensive than Rubber Stamped Data Sync, it provides many more functions. With Pocket Controller you can remotely control a Windows Mobile Smartphone or Pocket PC from a desktop PC, where the device's display appears in a window on the screen. Pocket Controller also synchronizes files between Smartphones or Pocket PCs and PCs, and you can also use it to capture screen shots.

If you install a program on a Smartphone when a storage card is in the device, you will be prompted whether you want to install the program on the device or the storage card. Most Smartphone programs will run from storage cards, and therefore it is safe to install the programs on the cards. However, keep in mind that if you remove the card you will no longer be able to run the programs, and some system utilities should be installed on the device.

Wrapping Up

Windows Mobile Smartphone is easy to operate with one hand, and has many features that make it a powerful personal information appliance. You will learn in the remainder of this book how to take full advantage of the software that is available on the phone. One of the features that sets Windows Mobile Smartphone apart from regular mobile phones is the ability to synchronize data with Microsoft Outlook running on desktop PCs, or Microsoft Exchange running on a server. In the next chapter you will learn how to connect Smartphones and Pocket PCs to Windows PCs.

Connect with PCs

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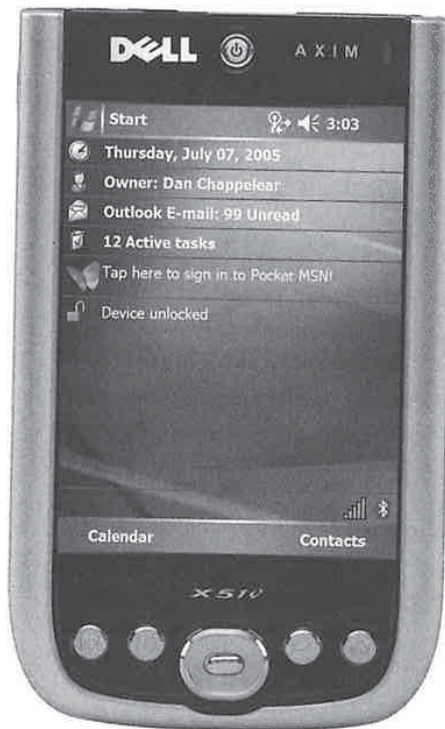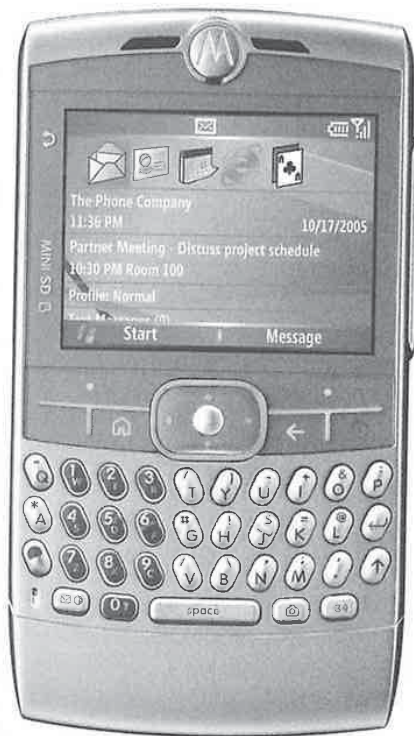
Chapter 6

Connect to Desktop Computers

How to...

- Prepare to install Microsoft ActiveSync on a PC
- Install Microsoft ActiveSync
- Change ActiveSync connection settings
- Connect Windows Mobile devices to desktop computers by using infrared
- Connect Windows Mobile devices to desktop computers by using Bluetooth

Why did you buy your Windows Mobile device? One reason may be to carry information normally stored on desktop computers wherever you may go. You probably want to use your Windows Mobile device to update and add information, and then automatically copy those changes to your desktop computer at the next opportunity. Similarly, while you are away, changes may be made to the information on the desktop that you will want to copy to the Pocket PC or Smartphone automatically. This synchronization ensures that information is current on both your Windows Mobile device and desktop computer.

Your Windows Mobile device is designed to be a companion to your desktop computer—your PC away from your PC. Vital to this design is the desktop software called *ActiveSync,* which enables the communication between the device and personal computer. In this chapter, you'll learn how to install ActiveSync and how to connect your Windows Mobile device with desktop computers. Chapter 7 shows you how to configure ActiveSync to synchronize information between Microsoft Outlook and Outlook Mobile. In Chapter 8 you learn how to use ActiveSync to manage files and folders on your Pocket PC or Smartphone, and install or remove programs.

Introducing ActiveSync

ActiveSync has undergone several significant upgrades over the years. When Windows CE was first sold, the software was called H/PC Explorer (Handheld PC Explorer), then Windows CE Services, and finally ActiveSync.

The changes between the versions have been significant. At first, H/PC Explorer synchronized only with Microsoft Schedule+ and did not run on Windows NT. These issues were quickly resolved with Version 1.1 of the program, which supported Microsoft Outlook and Windows NT Version 4.0.

The next major release of the program came with the introduction of the Palm-size PC (P/PC). Because the name "H/PC Explorer" did not appropriately identify the software that now also worked with P/PCs, the name was changed to Windows CE Services. This version of the program included many significant features, such as the ability to synchronize with more than one desktop computer, continuous synchronization, file synchronization, e-mail synchronization, and an application manager. A later release, timed with the release of H/PC Professional, added support for synchronization of Pocket Access databases and made installation and performance improvements.

ActiveSync Version 4.1 is the most recent release of the desktop software, and it will be an important part of how you use your Pocket PC or Smartphone. The first steps to use ActiveSync are to install the software on a desktop computer and establish a connection between the device and the desktop. These two steps are the focus for this chapter.

ActiveSync Installation

Included with your Pocket PC or Smartphone is a copy of the ActiveSync software on a companion CD-ROM. Normally, you use that disc to install the software on your PC. However, before you install the software, check the Microsoft web site at www.microsoft.com/windowsmobile to verify that it is the current version. Your Pocket PC may not have the current version of ActiveSync, because a newer version may have been released after your version shipped from the factory.

Even if the version of ActiveSync on the CD-ROM is the same, you may still want to download the version from the Microsoft web site, because it may be a newer build of the same version. Microsoft often releases newer copies of ActiveSync as different builds that have the same version number. Save the program that you download to a directory on your PC, and remember its location because you will run that program to install ActiveSync.

Before you begin installing ActiveSync on your PC, verify that it meets the following minimum requirements:

- Microsoft Windows 2000 with Service Pack 4, Windows XP Professional or Home with Service Pack 1 or 2, Windows XP Tablet PC Edition 2005, Windows XP Media Center Edition 2005, or Windows Server 2003 with Service Pack 1

- Microsoft Outlook 98 or later

- Microsoft Internet Explorer 4.01 SP1 or later

- Hard disk with 12 to 65MB of available space, depending on the features that you select during installation

- Available 9- or 25-pin serial port, infrared port, or USB port

- One CD-ROM drive, if installing from CD-ROM

- VGA graphics card or a compatible graphics adapter at 256 colors or higher

You must install Microsoft Outlook on your PC before you install ActiveSync. You will find a copy of Outlook 2000 or 2002 on the companion CD-ROM that is packaged with Pocket PC devices. If you install ActiveSync before installing Outlook, you must reinstall ActiveSync after installing Outlook. Follow the instructions that come with Outlook to install it on your PC.

Pocket PCs and Smartphones connect to PCs by using a cable bundled with the device. Some manufacturers include a cradle in which you place the device to establish communication. Plug one end of the cable into the cradle and the other end into a USB or serial port on the PC, as described in the user manual that came with the device. If the device does not have a cradle, plug one end of the cable into the device.

NOTE *If you connect a Pocket PC or Smartphone to a desktop computer with USB, do not connect the Pocket PC with the desktop until instructed to do so by the ActiveSync installation program.*

Install ActiveSync on Desktop PCs

Even though you may download a newer version of ActiveSync from the Internet, you should first install the version on the CD that came with your device so that the drivers for the device install on your PC. After you install the CD version, you can install the new version that you downloaded.

NOTE *This is particularly important if you are installing ActiveSync to work with older devices, because new versions of ActiveSync may not have the drivers needed to support communications with the device.*

Insert the CD into the CD-ROM drive of your PC, and an opening screen loads with a picture of the device and four buttons on the right. Click Start Here to open the next screen, which provides the three first steps for setting up your Pocket PC.

NOTE *As mentioned previously, before you install ActiveSync you must first install Outlook; if Outlook is not on your PC, click Install Outlook.*

Click Install ActiveSync 4.1, and then click Install on the next screen to start the ActiveSync setup program. If Autorun is disabled on your PC, you can start the setup program by using Windows Explorer to open \MS\ACTSYNC\Main on the CD-ROM and run setup.exe. The setup program starts by opening the ActiveSync program window dialog box, as shown here.

Microsoft ActiveSync 4.0

Microsoft ActiveSync 4.0

Welcome to Microsoft ActiveSync 4.0 Setup

The Setup Wizard will allow you to repair or remove Microsoft ActiveSync 4.0. To continue, click Next.

InstallShield

< Back   Next >   Cancel
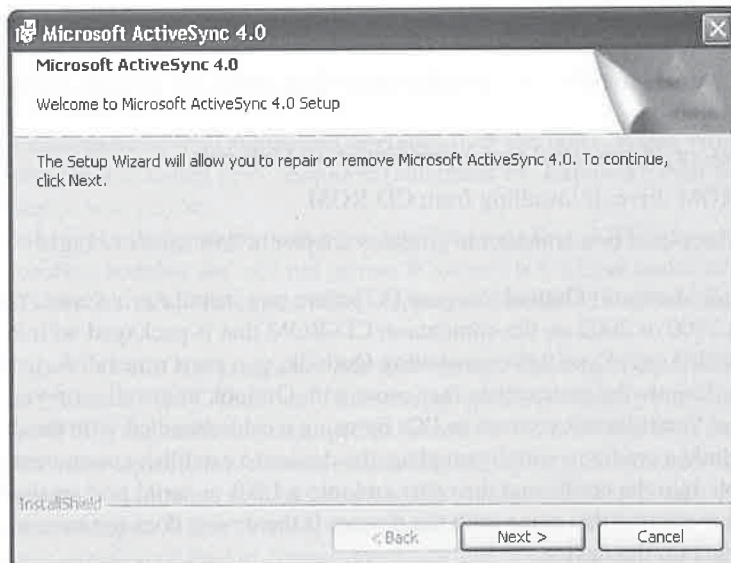
During setup, the ActiveSync program files copy to the PC and the software configures to connect with your device. At each step of the process, click Next to continue to the next step of the installation, click Back to go back one screen, or click Cancel to stop the installation. To display Online Help, click Help.

To begin the software installation, click Next in the program window. You will be prompted to accept the licensing agreement and enter some personal information. In the next program window, select the location where you want ActiveSync to be installed. Click Change to open a window in which you browse the folders on the PC hard drive to select the installation location. Once you select the location, click Next to begin installation.

After the program files copy to your PC, the Get Connected Wizard will start. Make sure that your device is connected to the USB or serial port of the PC so that the wizard will find it.

NOTE *Third-party firewall programs may interfere with communications and prevent ActiveSync from working. Check www.windowsmobile.com to see whether there are known issues with the firewall software that you are using.*

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When you click Next, the wizard begins checking each serial and USB port on the PC to find the device. If the PC has an infrared port, it will be included among the ports the wizard checks. If you currently use the infrared port, you must start ActiveSync on the device before the Get Connected Wizard starts searching ports. The process for using ActiveSync via the infrared port is described in more detail later in this chapter, in the section "Connect with Desktop PCs by Using Infrared." When the device is found on a port, ActiveSync is configured to use that port for future communications.

The next step is to create a sync relationship between the PC and the device. A sync relationship defines how information synchronizes. Every Pocket PC or Smartphone can have relationships with only two different PCs, but a PC can have relationships with more than two devices.

TIP *ActiveSync Version 4 has problems if Outlook is not configured with an e-mail account. Even if you do not use Outlook as your e-mail client, you should configure Outlook with an e-mail account to keep from having problems with ActiveSync.*

For example, you can create a relationship between your Pocket PC and a PC at home and another at the office. Once the two relationships exist, the device cannot create a relationship with a third computer unless one of the previously created relationships is deleted. However, if everyone in a family of four has a Pocket PC, each one can create a relationship with the same PC at home.

NOTE *You can synchronize all information types with two PCs except Messaging. Messaging will synchronize with only one PC.*

Once ActiveSync configures the port, it will start the Synchronization Setup Wizard, shown on the following right page, which establishes a synchronization relationship between the PC and Windows Mobile device. (The title of the screen will change depending on whether you are

How to ...   Troubleshoot ActiveSync Connections

One of the first things you should do when having problems with ActiveSync is to soft reset the device by pressing the reset button. If that does not fix the problem, try ActiveSync Online Help's troubleshooting wizard. You will also find an online ActiveSync troubleshooter at www.microsoft.com/windowsmobile/help/, and Chris De Herrera has a great *ActiveSync Troubleshooting Guide* at www.pocketpcfaq.com/faqs/t-shootactivesync.htm. The following are some troubleshooting tips:

- You may have problems connecting your Pocket PC with your desktop computer using a USB cable or cradle. This problem can be avoided by installing the latest version of ActiveSync, because it fixes bugs that existed in prior versions. Some USB hubs cause problems for ActiveSync, so it is best to plug the Pocket PC USB cable directly into the desktop computer.

- If the desktop computer does not detect that the Pocket PC is connected, click File | Connection Settings on the desktop and verify that the USB or serial connection options are selected.

- If you connect a Pocket PC with a desktop computer before installing ActiveSync, the PC may end up using the wrong USB drivers and ActiveSync will not be able to detect the Pocket PC. Start Device Manager on the desktop computer and remove the Windows CE USB devices. Then reinstall ActiveSync and connect the Pocket PC when instructed by the installation program.

- In some instances, the Get Connected Wizard may not find a device that is attached to a COM port. Typically, this happens because another program, such as a digital camera communications program, has the port locked for its use. Check to make sure that none of these programs is running.

- Another potential cause of the preceding problem is an interrupt conflict, which can happen if you are connecting the device to COM3 or COM4, and COM1 or COM2 is in use. COM1 shares an interrupt with COM3, while COM2 shares an interrupt with COM4. If this is a problem, try changing the interrupt of the port you are trying to use.

using a Pocket PC or a Smartphone.) If you click Cancel, the Windows Mobile device will connect to the PC as a guest. When you connect a Windows Mobile device to a PC as a guest, you cannot synchronize information between the two, but you can browse files and folders and install programs to the device. You can also use Desktop Pass Through to access the Internet or a LAN.
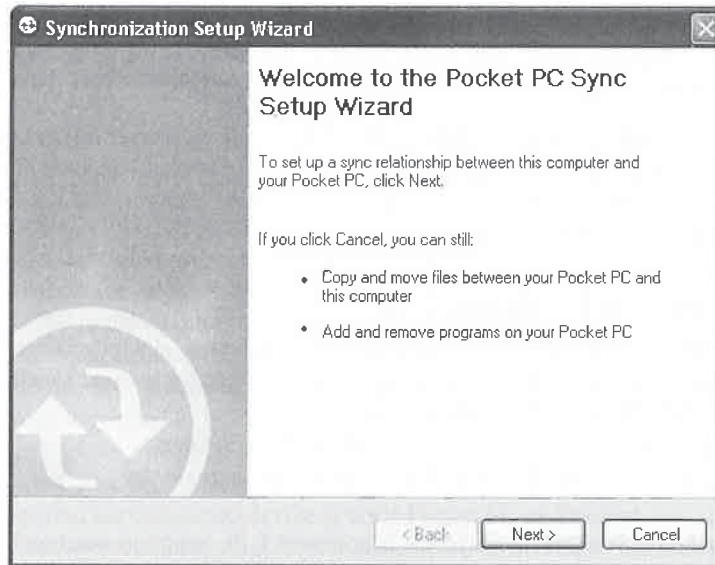
A Pocket PC or Smartphone can connect to any PC as a guest, regardless of how many partnerships the device has.

If you click Next to create a relationship, the next step is to configure all of the possible synchronization settings between the device and the PC. These settings are described in more detail in Chapter 7. When you click Next, you see the Setup Complete program window. When you click Finish, ActiveSync will begin synchronization. Here, the horizontal bar indicates the synchronization progress; the window also displays how many items will synchronize and estimates the amount of time synchronization will take. When synchronization is complete, the bar will disappear and be replaced with the word *Connected.*
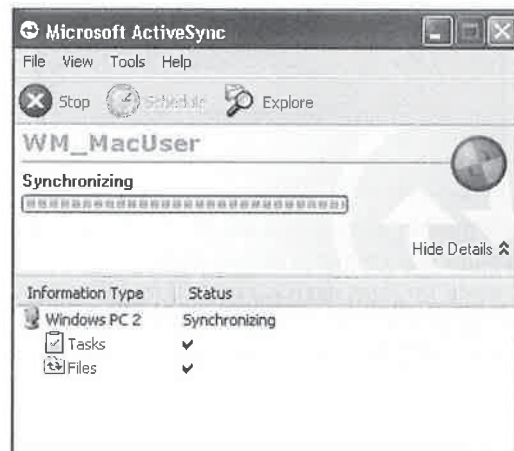
The ActiveSync installation program adds an icon to the System Tray. When a device connects, the System Tray icon turns green; otherwise, it is grayed out. Double-click the icon to start ActiveSync manually.

By default, ActiveSync is configured to start automatically whenever a Windows Mobile 5 device connects. If you have a device running older versions of Windows Mobile, you can configure ActiveSync from starting automatically by changing the synchronization mode, which is described in Chapter 7.

Start ActiveSync on Desktop PCs

Unless you have configured ActiveSync for manual synchronization, synchronization starts when you place the Pocket PC in its cradle. If you configure ActiveSync for manual synchronization, you will need to click the Sync toolbar button to start it.

To start ActiveSync without a connection, double-click the System Tray icon. The setup program also places a shortcut, as shown here, in the Start menu.
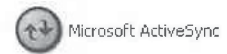
When you start ActiveSync while no device is connected, the program window looks like the image shown here. The name of the last device that synchronized with the PC is shown in the program window, along with the date and time of the synchronization.
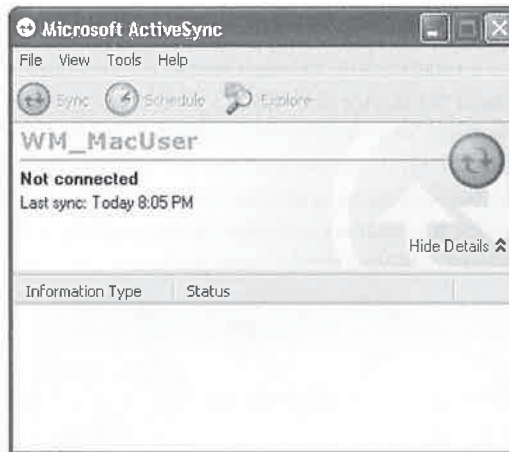
The partnership information is stored on the PC by the name of the device. ActiveSync 4.1 automatically creates a unique name for your device. If you want to create a specific name for your device, create it by following the instructions in Chapter 3. If you are using an older version of ActiveSync and synchronizing more than one device with the PC, be sure to give each device a unique name.

Most of what you can do with ActiveSync is not available unless you have a device connected, but you can delete relationships and configure connection settings without having a device connected. Instructions for configuring the synchronization options are provided later in this chapter.

Change Desktop ActiveSync Connection Settings

ActiveSync automatically loads when you connect a device to the PC. It first determines whether a relationship exists; if one does, synchronization begins. If no relationship is found, ActiveSync starts the Synchronization Setup Wizard, which is explained in "Install ActiveSync on Desktop PCs" section, earlier in the chapter.

Normally, the connection settings configure when you connect your device to the PC for the first time, and they don't need to be changed after that. However, on some occasions the connection settings may need to be changed or reset.

One such occasion is when you use the PC serial communications port to communicate with another device, such as a digital camera. If you connect a digital camera to the port, ActiveSync starts, determines that the connected device is not a Pocket PC or Smartphone, and then displays the Device Not Recognized dialog box. If you click Disconnect COM Port, ActiveSync disables communication to the port, and the next time you attempt to connect a device, ActiveSync will not start.

To restart communication via the COM port, first connect the Pocket PC or Smartphone, start ActiveSync, and choose File | Connection Settings to display the Connections Settings dialog box.

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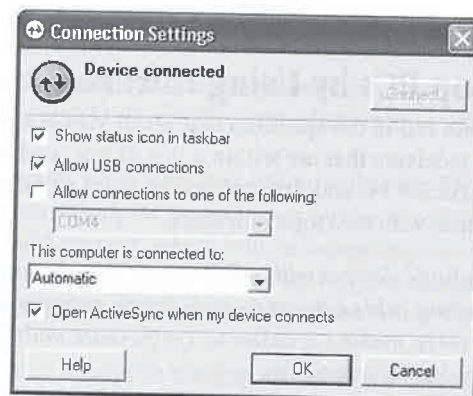
Serial communications is turned on or off by clicking the Allow Connections To One Of The Following check box. Specify which port to use by selecting one from the drop-down list. The dialog box displays the current status of the COM port. If you do not want the ActiveSync icon to display in the System Tray, clear the Show Status Icon In Taskbar check box.

NOTE

If you are familiar with prior versions of ActiveSync, you may have noticed that ActiveSync Version 4.1's Connection Settings dialog box does not have an option for allowing Ethernet or Remote Access Service connections. Microsoft removed this functionality due to security concerns.

Connect with Desktop PCs by Using a Serial Connection

Smartphones do not support serial connections with desktop computers. By default, Pocket PCs are set up to use USB cables or cradles for synchronization, but they can be configured to use serial connections.

To switch to a serial connection on a Pocket PC 2002 device, start ActiveSync on the Pocket PC and tap Tools | Options. Select the serial port speed from the Enable Synchronization When Cradled Using drop-down list. The options are 115200 Default, 19200 Default, 38400 Default, and 57600 Default.

TIP

The fastest setting is Serial Port @ 115K. If you have difficulty establishing a connection using the 115K setting, try the Serial Port @ 57600 setting. Pocket PC 2002 defaults to USB connections.

To change the speed on Windows Mobile 2003, start ActiveSync and tap Tools | Options, and then tap the Options button on the PC tab. Select the serial port speed from the Enable PC Sync Using This Connection drop-down list. On Windows Mobile Version 5, start ActiveSync and tap Menu | Connections and select the serial port speed from the drop-down list.

Finally, make sure that ActiveSync 4.1 is set up for a serial connection on the correct COM port.

Connect with Desktop PCs by Using Infrared

Infrared is light beyond the color red in the spectrum that is not visible to the human eye. Data is sent between transmitters and receivers that are within a line of site, such as with television and stereo remote controls. Every Pocket PC and Smartphone includes an infrared port that can be used for wireless synchronization with desktop computers.

TIP

If you synchronize multiple devices with a PC, you will find yourself constantly unplugging and switching cables, because each device manufacturer uses a different cable. Infrared is wireless, making it easier to synchronize multiple devices with a PC by eliminating the need to switch cables.

To synchronize using infrared, you need software and an infrared port for your PC, but you do not need to install software on your device because each device is already configured for infrared communication. Windows 2000 and Windows XP have built-in infrared support.

Many notebook computers have built-in infrared ports, but most desktop computers do not. To add an infrared port to desktop computers, you must install an infrared serial or USB adapter, which you can find on the Internet by searching on "infrared adapters."

After you install an adapter on a PC, the next step is to configure ActiveSync to use the infrared port. Start ActiveSync and choose File | Connection Settings. Make sure the Allow Connections To One Of The Following check box is checked, select Infrared Port from the drop-down list, and then click OK.

To start synchronization, first line up the infrared port of the Pocket PC or Smartphone with the PC adapter, and then start ActiveSync on the device. Tap or click Menu | Connect Via IR, and line up the infrared port of the device with the PC port. The ActiveSync icon in the System Tray will turn green, indicating that the connection is established. To close the connection, tap or click Stop on the device.

Connect with Desktop PCs by Using Bluetooth

Bluetooth is a short-range, low-power wireless communications technology that replaces cables to connect mobile devices. There has been a significant amount of hype about Bluetooth for many years, but only recently have Bluetooth-capable devices become major players.

Pocket PCs and Smartphones are among the list of devices that now support Bluetooth, as several brands now come with built-in Bluetooth radios. You can add Bluetooth to other Pocket PCs by using a Bluetooth CompactFlash or Secure Digital card.

Windows Mobile 5.0 has built-in Bluetooth software that supports many profiles. Bluetooth profiles define the functions that utilize the wireless connection. For example, one of the profiles that Windows Mobile 5.0 supports is dial-up networking, so you can wirelessly connect a Pocket PC with a mobile phone and use the phone as a modem to connect to the Internet.

NOTE *You will find more information about using Bluetooth to connect to the Internet in Chapter 10.*

To use Bluetooth to synchronize with a desktop computer, you need to add a Bluetooth radio to the PC. Several Bluetooth USB and PC Card adapters are available, such as D-Link's Bluetooth USB Adapter.

The key to making Bluetooth work with ActiveSync is that the Bluetooth software on the PC provides virtual serial ports, which ActiveSync can use for synchronization. You need to determine the Bluetooth serial host port, which will be something like COM4 or COM5, and configure ActiveSync to use that port. To configure ActiveSync, choose File | Connection Settings, and then select the serial host port number from the Allow Connections To One Of The Following drop-down list.

You will want to establish a Bluetooth binding, or pairing, between the device and desktop computer so that you don't have to enter security information on every connection. To bind a Pocket PC to another PC with Bluetooth, tap Start | Settings | Connections | Bluetooth | Devices, and then tap New Partnership. The Pocket PC will search for Bluetooth devices and list them. Select a device, tap Next, and then enter a PIN. You must enter the same PIN on the Pocket PC and desktop computer. Tap Next, enter the same PIN on the PC, and then tap Next. The Partnership Settings dialog box displays, listing the services available on the PC. Select Serial Port and then tap Finish.

The process of binding a Smartphone is slightly different from the process of binding a Pocket PC. On a Smartphone, press Start | Settings | Connections | Bluetooth | Menu | Devices, and then press Menu | New. The Smartphone will search for Bluetooth devices and list them. You then enter a PIN on the phone and PC as described previously for Pocket PCs.

You must start synchronization on the device. Start ActiveSync and tap or click Menu | Connect Via Bluetooth. If everything is configured correctly, a connection will be established and the device and PC will start synchronization.

Bluetooth provides wireless synchronization within 30 feet of your desktop PC and, unlike infrared, doesn't require line of sight. In the future, Bluetooth synchronization will be automatic, but for now you can enjoy the convenience Bluetooth provides even if it requires you to start the process manually.

> **NOTE**   *One significant change with Windows Mobile 5 is that it no longer supports synchronization via wireless and Ethernet network connections. However, you can continue synchronizing older devices with ActiveSync 4.1 using these types of connections.*

Wrapping Up

Microsoft ActiveSync supports three ways to connect Pocket PCs to desktop computers: serial/USB cable or cradle, infrared, and Bluetooth. The majority of the time, you will use a serial or USB connection, because the hardware needed for that connection is provided with the device. Infrared and Bluetooth provide flexibility either by supporting multiple brands of devices or by enabling you to synchronize while not being physically near the desktop computer.

The purpose for all of these connection types is to synchronize data between Windows Mobile devices and desktop computers. As you might guess, a variety of different settings in ActiveSync control what information is synchronized. In the next chapter, you'll learn how to change these synchronization settings.

Chapter 7

Synchronize Data with Desktop Computers
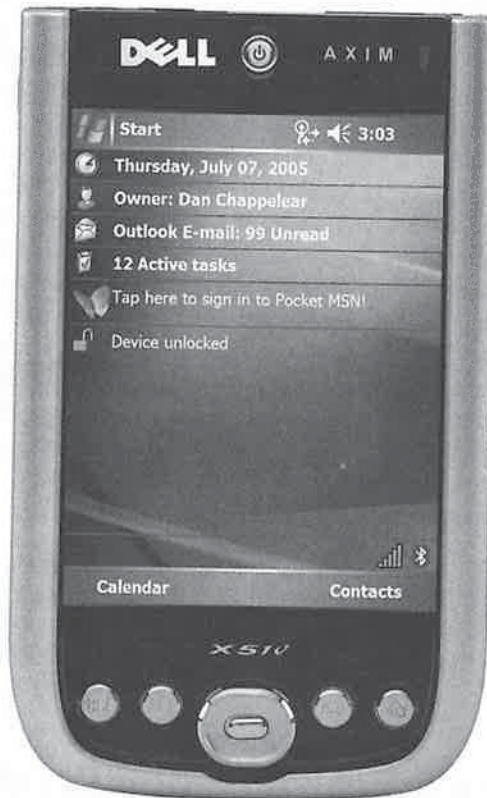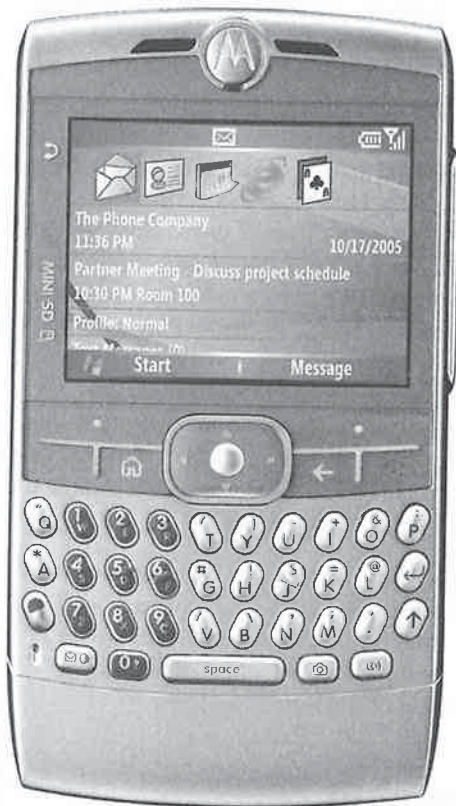
How to...

- Use the Synchronization Setup Wizard to create synchronization relationships between Windows Mobile devices and desktop computers
- Configure synchronization settings
- Resolve synchronization conflicts

Synchronization is the process of keeping information consistent on a Windows Mobile device and a desktop computer. What and how information is synchronized is stored in a *synchronization relationship* that is created between Windows Mobile devices and desktop computers by using the Sync Setup Wizard.

Whenever information changes on one side of the relationship, synchronization changes the information on the other side, too, so that it matches. For example, if you create a new task on your PC, that task is copied to your Pocket PC at the next synchronization. If you then mark the task complete on the Pocket PC, it will be marked complete on the PC after the next synchronization.

If the same piece of information is changed on both the PC and the device, ActiveSync identifies the conflict and determines which information it should keep. How ActiveSync resolves conflicts depends on how you configure conflict resolution.

ActiveSync matches each of the main sections in Outlook with corresponding programs on the Pocket PC and Smartphone: Calendar, Contacts, Messaging, Notes, and Tasks. Favorites corresponds with Internet Explorer, and Media corresponds to Windows Media Player. ActiveSync also synchronizes Contacts and Calendar with Microsoft Works.

In this chapter you'll learn how to use the Sync Setup Wizard to create and delete synchronization relationships between Windows Mobile devices and desktop computers. You'll also learn how to configure synchronization settings for all the information types that ActiveSync supports, change how synchronization starts, resolve synchronization conflicts, and change file conversion settings.

> **TIP**   *ActiveSync supports the synchronization of the Outlook primary Calendar, Contacts, and Tasks folders only. You cannot synchronize with any Calendar, Contacts, or Tasks subfolders unless you use a third-party synchronization program, such as Nokia's Intellisync. However, ActiveSync 4.1 does support synchronization of Messaging subfolders with Windows Mobile 2003 and Windows Mobile 5 devices.*

Create a Synchronization Relationship

Synchronization relationships exist between Windows Mobile devices and desktop computers and contain all of the information that ActiveSync uses to synchronize data between the two. Normally, you create a synchronization relationship by using the Sync Setup Wizard the first time you connect the device to the PC.

When you connect a Pocket PC or Smartphone to a desktop computer for the first time, ActiveSync determines whether a synchronization relationship exists. If the relationship does

How to ... Synchronize with Programs Other than Microsoft Outlook

ActiveSync synchronizes only with Microsoft Works, Outlook, and Microsoft Exchange. If you want to synchronize your device with other desktop personal information manager programs, you must use a third-party synchronization program. Third-party synchronization programs include the following:

- Intellisync Handheld Edition from Nokia, www.intellisync.com
- XTNDConnect PC from Sybase's iAnywhere Solutions, www.ianywhere.com/esi/
- PDAsync from Laplink, www.laplink.com
- CompanionLink from CompanionLink Software, www.companionlink.com
- mNotes from CommonTime, www.commontime.com

not exist, the Sync Setup Wizard starts. If you do not want to create a relationship between the device and desktop computer, click Cancel. The device will then connect to the PC as a guest. Guest connections cannot synchronize data but can perform all the other functions provided by ActiveSync.
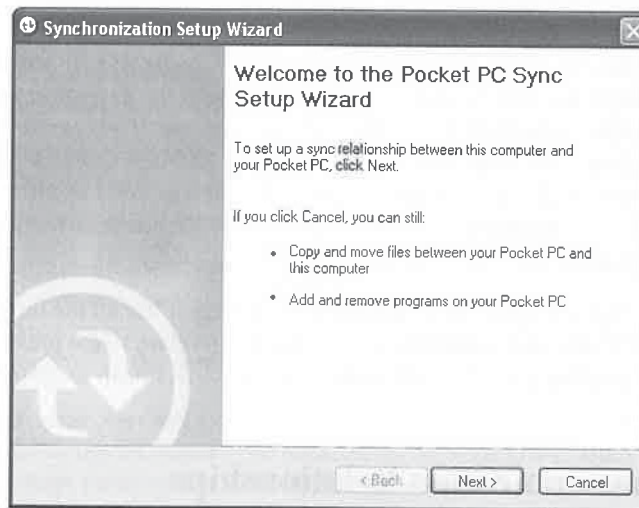
NOTE *If you connect a device running Windows Mobile 2003SE or older to a PC running ActiveSync 4.1, you will first see a dialog box asking whether you want to create a Standard Partnership or Guest Partnership.*

Click Next to select the synchronization options, as shown here. Select which information you want to synchronize between the device and desktop computer by checking the boxes next to each information type. Select a type and click Settings to configure synchronization of each information type (listed in the Information Type column in this dialog box). The details for changing synchronization settings are provided later in this chapter in the sections "Configure Outlook Synchronization Settings" and "Configure Exchange Synchronization Settings." For now, select the information types and then click Next.
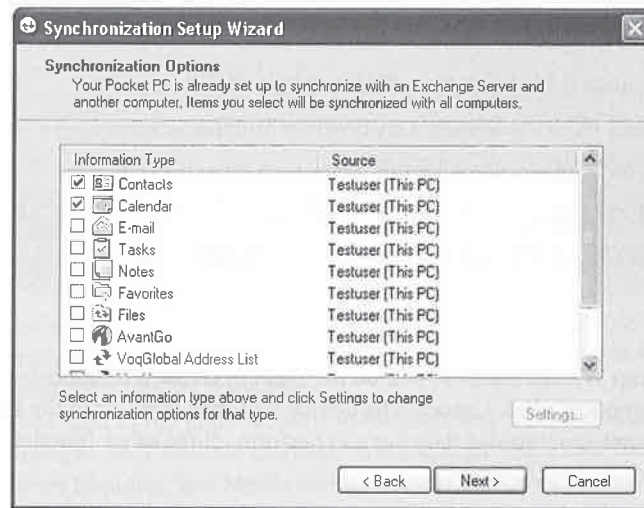
NOTE   *If you are connecting a device running Windows Mobile 2003SE or older, you will see a dialog box asking whether you want to synchronize with the desktop computer, or with a Microsoft Exchange server and/or the desktop computer. If you are setting up your Pocket PC at home, select the Synchronize With This Desktop Computer radio button. If you are at work and your company is running Exchange 2003 or Microsoft Mobile Information Server and you want to synchronize with Exchange, select the Synchronize With Microsoft Exchange Server radio button.*

The final dialog box of the Sync Setup Wizard tells you that it has all the information it needs to create the synchronization relationship. Click Back to return to the previous screens and make changes. Click Cancel to stop and not synchronize. Or click Finish to close the wizard and start synchronization.

Create Two Synchronization Relationships

A Pocket PC or Smartphone can be in a synchronization relationship with two PCs that have different names. This kind of relationship is commonly done to synchronize a device with a PC at home and another at work.

How to ... Synchronize with Macintoshes

Microsoft ActiveSync runs only on Windows desktop computers; there is no version for Macintoshes. You can synchronize a Pocket PC with a Macintosh running Virtual PC, but that does not provide synchronization with native Macintosh applications. Information Appliance Associates sells a native Macintosh synchronization program called PocketMac, and Mark/Space sells a program called The Missing Sync for Windows Mobile.

PocketMac comes in several versions that synchronize Pocket PCs and Smartphones with Microsoft Entourage, iCal, or Address Book on OS X. You can find more information about this program at www.pocketmac.net.

The Missing Sync for Windows Mobile also synchronizes Pocket PCs and Smartphones with Microsoft Entourage, iCal, or Address Book. It also transfers music from iTunes and photos in iPhoto to Windows Mobile devices. You can find more information about this program at www.markspace.com.

Before you decide to create a second relationship, you need to consider a number of issues:

- You will not be able to synchronize e-mail information with two desktop computers. Messaging synchronization works only for the first partnership created between a device and a desktop computer.

- If possible, both computers should use the same version of Microsoft Outlook. You can synchronize a device between two different versions of Outlook, but doing so may introduce synchronization problems.

- Both computers should synchronize the same information and have the same synchronization settings.

- All of the information in the device will synchronize to both PCs.

- Synchronizing a device with two PCs can be complicated because it adds another place where information can change. Keep in mind that changes that you make at work and then synchronize to your Pocket PC or Smartphone will then appear on your home PC when you synchronize the device with it.

The process of creating a second synchronization relationship is much the same as creating the first one. You need a copy of ActiveSync installed on the second PC, along with Microsoft Outlook. Follow the steps for installing ActiveSync and using the Get Connected wizard described in Chapter 6.

When you connect the device to the second PC for the first time, the Sync Setup Wizard starts. After you click Next, the screen shown on the following page is displayed. This screen appears only if the device is already part of another relationship. ActiveSync stores the relationship information

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using the names of the computers that a device synchronizes with, so to create the relationship, either use the name provided or enter a name, and then click Next.
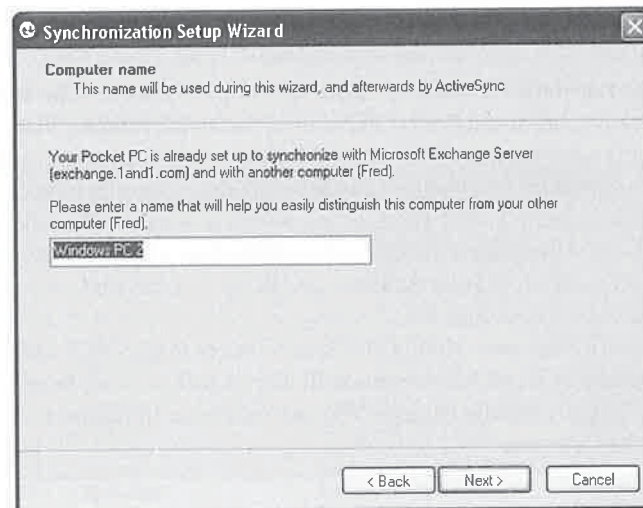
How to ... Synchronize and Keep Data Separate on Two Devices

Several Windows Mobile devices can synchronize with the same desktop computer. For example, I can synchronize my wife's Pocket PC and my Smartphone with our one desktop computer. However, unless we take steps to prevent it, our data will be combined in Outlook and end up on both of our devices. My wife's tasks will get mixed with my tasks on my Smartphone.

You can synchronize two devices with one desktop computer and still keep the data separate for both devices. To do so, you need to create separate Outlook profiles for each person or device.

The simplest way to create separate profiles is to use a different Windows logon ID for each person. Windows and Outlook automatically create separate profiles for each user. Each person then needs to log into Windows with his or her user ID prior to synchronizing the device.

Another way to create separate profiles in Outlook 2002 or 2003 is to open the Mail applet in Control Panel. Click Show Profiles, and then click Add to create a second profile. Finally, click the Prompt For A Profile To Be Used radio button so that you can select the profile that you want to use each time Outlook starts. In this case you need to shut down and restart Outlook prior to synchronization to keep data separate.

If you click Cancel in this screen, the device will connect to the PC in a Guest relationship, in which you can browse files and folders or install applications on the device.

If your device is already synchronizing with two computers and you attempt to create another relationship, the wizard displays the following screen. To create the new relationship, you must delete one of the two existing relationships listed here, or click Cancel to stop the wizard and connect to the computer as Guest.
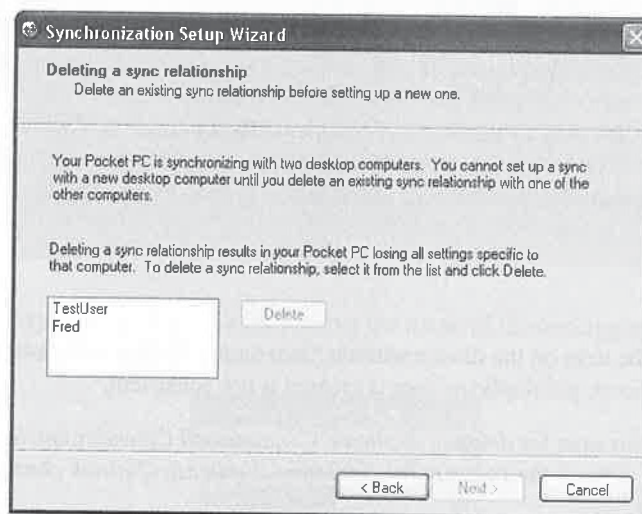
TIP
Sync Manager from KelBran Software provides a way to create partnerships with more than two desktop computers running ActiveSync 3.7 or older. You will find Sync Manager at www.pocketgear.com.

After you delete a relationship, click Next to continue through the same steps used when the first partnership was created and then start synchronization.

Managing Data with Two Synchronization Relationships

When you create a second synchronization relationship between a device and a desktop computer, there is a possibility that both will have data, and in some cases it may be the same data. During the initial synchronization, ActiveSync attempts to determine whether there is duplicate data, and if it finds the same data, it synchronizes one copy between the device and desktop computer.

However, if ActiveSync determines that the data is not the same, it may create a duplicate item in Outlook and on the device. For example, if you have contacts on a Pocket PC and desktop computer with the name of John Doe, but only one has a business phone number, after synchronization there will be two John Doe items in Contacts.

If ActiveSync finds items on the device and PC that have the same fields populated, but the data in one of the fields is different, it may treat the two items as a conflict and keep one copy using the conflict resolution setting for the relationship. By default, if ActiveSync finds

How to ... Handle Duplicate Data in Prior Versions of ActiveSync

Prior versions of ActiveSync and Windows Mobile handle the combination and duplication of data differently. If ActiveSync 3.7 or earlier finds information on both the PC and the device during synchronization, the Combine or Replace dialog box displays. Within this dialog box, indicate whether you want to combine the information found on both the PC and device, replace the information on the device with what is on the PC, or not synchronize any of the information. Select the option that you want and then click OK.

Earlier versions also display the Remove Duplicate Items dialog box when ActiveSync detects duplicate data. Select the duplicate items that you want to delete and click Remove Selected, or click Remove All to delete all of the items. If you want to keep the duplicates, click Keep All.

a conflict, it replaces the item on the device with the item on the desktop computer. Unfortunately, the behavior for whether or not duplicate data is created is not consistent.

TIP *Several add-ons exist for deleting duplicate Contacts and Calendar entries in Outlook. To find them, search the Internet for "deleting duplicate Outlook contacts or appointments."*

Delete Synchronization Relationships

Normally you will delete a synchronization relationship when the Sync Setup Wizard detects that a device has more than two relationships. However, you can also delete a relationship manually within ActiveSync on the PC or the device.

On a PC, open ActiveSync and, if the name of the device for which you want to remove a relationship with displays, click File | Delete Mobile Device. You can delete only the open partnership in ActiveSync, indicated by the name of the device in the program window. If the PC has partnerships with more than one device and the one you want to delete is not displayed, open the partnership to be deleted by choosing File | Mobile Device and then choose the name of the device.

If file synchronization is included in the synchronization relationship, you will be asked whether you want to delete the Synchronized Files folder. Check the contents of the folder on the PC to determine whether you want to delete the files. Click Yes to delete the files from the PC, or click No if you do not want to delete the files.

With Windows Mobile 5 you can now delete synchronization relationships on the device as well as on a desktop computer. On a Pocket PC or Smartphone, select Start | Programs | ActiveSync, and then select Menu | Options. The following screen displays on a Pocket PC.

How to ...   **Prevent Accidental Deletion of All Information**

Once you create a partnership between a device and a desktop computer, all changes, including deletions, will be synchronized. For example, if you delete a contact on a Pocket PC, it will be deleted from the PC during the next synchronization. If you delete all of the information from the PC, during the next synchronization, all of the information will be deleted from the Pocket PC.

It is always a good idea, despite the fact that a copy of the data exists on both the device and desktop, to back up your device. You can prevent ActiveSync from deleting all information by manually deleting the synchronization relationship. The PC will restore the information when you re-create the relationship and synchronize the device.

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(A similar screen displays on Smartphones.) Select the name of the desktop computer with which you do not want the device to sync, and then click Delete.
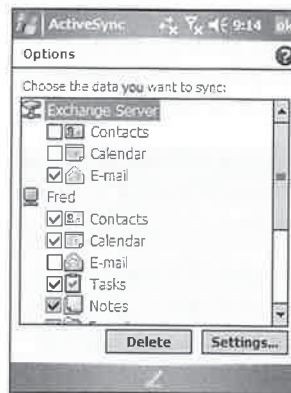

TIP *You can configure synchronization settings on the device from this ActiveSync Options screen. Instructions for changing these settings are provided in the upcoming section.*

Configure Outlook Synchronization Settings

Not only can you specify which information types to synchronize, but you can also control how much of the information to synchronize by changing the settings for each information type. To conserve storage space, some of the default settings limit the amount of information that synchronizes.

To change these settings in ActiveSync for a Windows Mobile 5 device, first connect the device to the computer and then either double-click the name of the information type while displaying details or choose Tools | Options to open the Options dialog box, shown here.
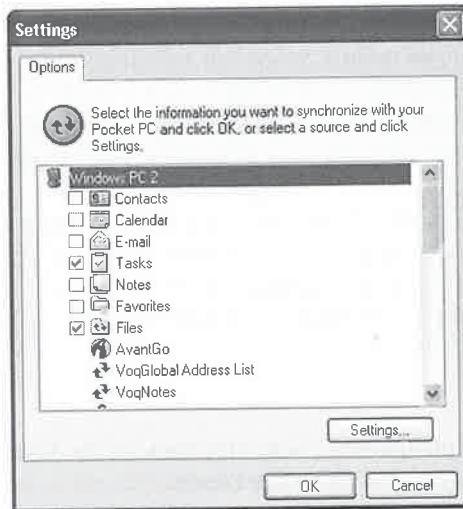
The dialog box lists the information types on the device that synchronize with Outlook running on a desktop computer. To change a setting for an information type, click the information type and then click Settings.

NOTE *You do not need to connect a device running Windows Mobile 2003SE or older to change its synchronization settings. Just click Tools | Options, or click the Options button on the toolbar in ActiveSync.*

If you are using a device running Windows Mobile 2003SE or older, the only way to change synchronization settings is with ActiveSync on a desktop computer. With Windows Mobile 5 or newer, you can also change synchronization settings on the device. On the device, start ActiveSync and then select Menu | Options, which opens the screen shown here. Each synchronization relationship is listed, along with all the possible information types that ActiveSync supports. Information types with a check next to them are those which synchronize in the relationship. Some check boxes are grayed out, indicating that you cannot make changes to the synchronization setting unless the device is connected to a PC.


To make changes to synchronization settings on the device, select the information type and then select Settings. For some information types, the Settings button is grayed out, indicating that there are no options for that setting.

The following sections provide instructions for changing settings for the basic information types.
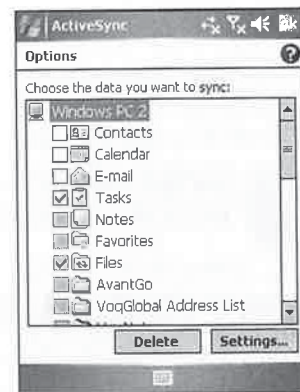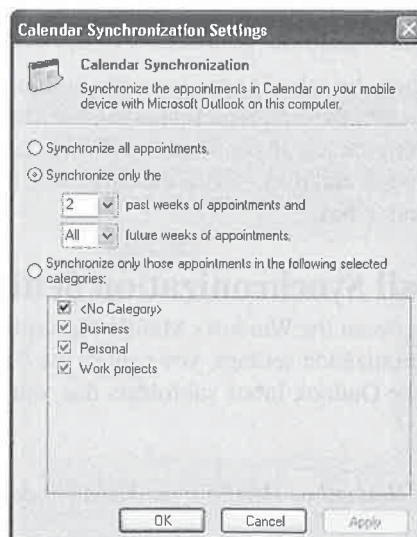
Change Outlook Calendar Synchronization Settings

From the Calendar Synchronization Settings dialog box, shown here, you can specify the number of past appointments to synchronize by selecting an option from the drop-down list. This Calendar Synchronization Settings dialog box looks the same on the desktop computer and Windows Mobile device.

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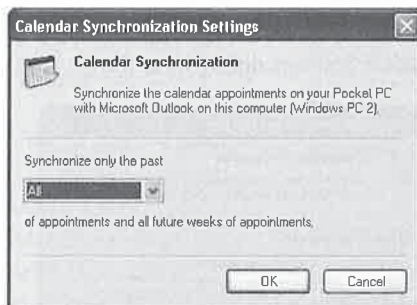
If you are synchronizing a device running Windows Mobile 2003SE or older, you will see different options, as shown next. To synchronize all Outlook appointments, select the Synchronize All Appointments radio button. If you want to synchronize only a select number of past and future appointments, select the Synchronize Only The radio button and then choose the number of past and future appointments from the drop-down lists. To synchronize appointments in specific categories, select Synchronize Only Those Appointments In The Following Selected Categories and then select the categories from the list. Then click OK to save the changes and close the dialog box.

NOTE   *You cannot filter appointments by category from synchronizing to a Windows Mobile 5 device. Categories will not be listed unless the Windows Mobile 2003SE or older device is connected with the PC.*

Change Outlook Contact Synchronization Settings

Windows Mobile 5 devices have no settings for synchronizing contacts. However, you can configure contact synchronization with Windows Mobile 2003SE or older devices from the ActiveSync Contact Synchronization Settings dialog box, shown here.
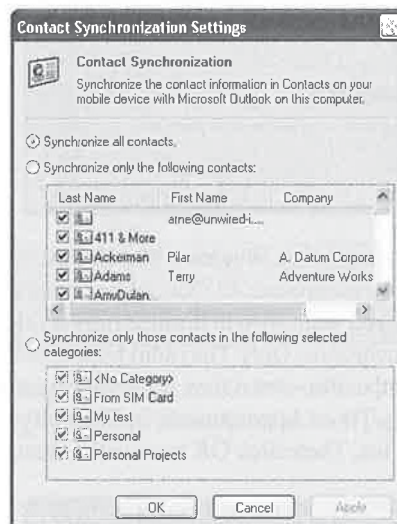
You can synchronize all contacts by selecting the top radio button. To synchronize only specific contacts, choose the Synchronize Only The Following Contacts radio button and then select the appropriate contacts from the list. If you want to synchronize contacts in specific categories, select the last radio button and then choose the categories from the list. Click OK to save the changes and close the dialog box.

Change Outlook E-mail Synchronization Settings

E-mail synchronization occurs between the Windows Mobile Messaging application and the Outlook Inbox. With these synchronization settings, you control the size and number of messages that synchronize and you select the Outlook Inbox subfolders that you want to synchronize with your Windows Mobile device.

NOTE   *You cannot synchronize Hotmail or IMAP4 e-mail to a Windows Mobile device.*

ActiveSync does not synchronize the contents of Inbox subfolders, Deleted Items, Drafts, Outbox, or Sent Items folders. When you delete an e-mail, it is moved to Deleted Items, but

ActiveSync removes that e-mail from the Deleted Items folder and deletes the e-mail from the Outlook Inbox. ActiveSync moves new e-mail from the Outbox folder on the device to the Outlook Outbox folder. New e-mail messages that are written on your device and synchronized to Outlook are sent using the default e-mail service in Outlook.

To configure the e-mail synchronization settings for a Windows Mobile 5 device, click Tools | Options in ActiveSync on the PC, click the check box next to E-mail, then click Settings to open the dialog box shown here.

To specify the maximum size of Inbox messages, select a value from the Limit E-mail Size To drop-down list. Select a value from the Include The Previous drop-down list to specify how many days' worth of messages to synchronize. To include attachments, check the Include File Attachments box, and if you want to limit the attachment file size, check Only If Smaller Than and then enter a number in the KB field.
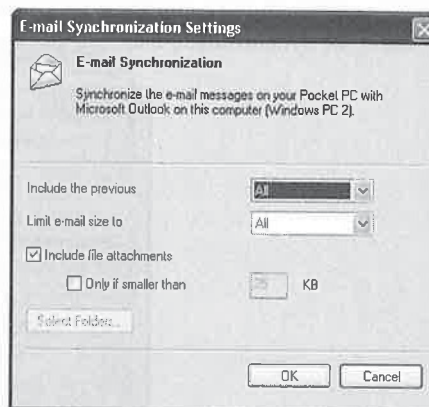
To specify what Inbox folders you want to synchronize to the device, click Select Folders and then click the folders that synchronize. While you can configure all other e-mail synchronization settings in ActiveSync on the Windows Mobile device, you can only select folders in ActiveSync on a PC.

When you open the ActiveSync Inbox information type for Windows Mobile 2003SE or older devices, the Mail Synchronization Settings dialog box displays. The Outlook Inbox mail folders display in the middle of the window, with subfolders indented beneath Inbox. Select the check box next to the subfolders that you want to synchronize with the Pocket PC.
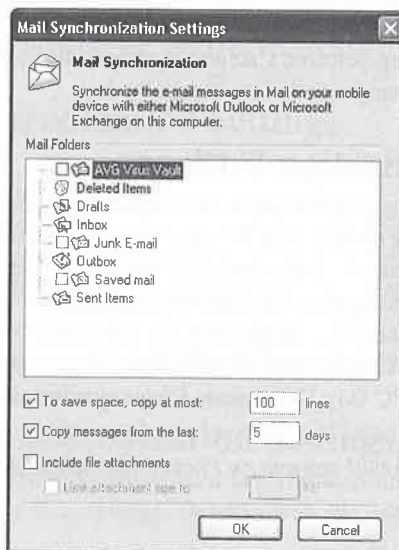
Change Task Synchronization Settings

Windows Mobile 5 does not have any synchronization settings for tasks. For Windows Mobile 2003SE or older devices, the Task Synchronization Settings dialog box, shown here, controls how tasks are synchronized between Outlook and Pocket Outlook.
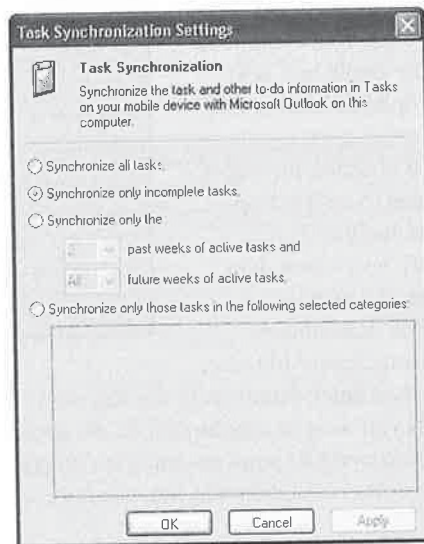
To synchronize complete and incomplete tasks, select Synchronize All Tasks. If you want to synchronize only incomplete tasks, select Synchronize Only Incomplete Tasks. You can control how active tasks synchronize by selecting the Synchronize Only The [ ] Past Weeks Of Active Tasks And [ ] Future Weeks Of Active Tasks radio button. Select the number of past and future weeks from the drop-down lists. To synchronize tasks in specific categories, select Synchronize Only Those Tasks In The Following Selected Categories radio button and then select the categories in the list. Click OK to save the changes and close the dialog box.
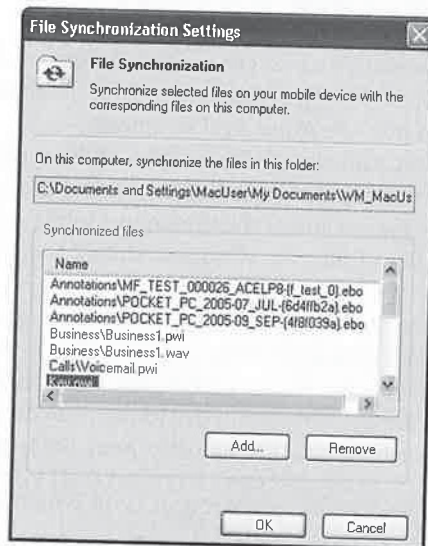
Change File Synchronization Settings

Smartphones do not support file synchronization, but Pocket PCs synchronize files between specific folders on the PC and the device. The PC files that synchronize with the device are stored in subfolders of My Documents. For example, a Pocket PC named *Sammy* synchronizes files stored in the \My Documents\Sammy My Documents folder.

To synchronize files to a Pocket PC, simply copy the file to the Synchronized Files folder on the PC. Using the preceding example, that folder is \My Documents\Sammy My Documents. Everything stored in the Pocket PC \My Documents folder synchronizes with desktop computers.

NOTE   *Only files located in internal storage on Pocket PCs synchronize with a PC.*

The File Synchronization Settings dialog box, shown here, displays the PC location of synchronized files for the Pocket PC. You cannot change this location from this dialog box, but you can add or remove files that are in the list of synchronized files.

You can change file synchronization settings for Windows Mobile 5 devices only by using ActiveSync on a desktop computer.

Click Add to browse a file and copy it to the Synchronized Files folder, or select a file in the list and then click Remove to delete the file from the Synchronized Files folder. If the device is connected, and continuous ActiveSync is enabled, the changes that you make will update immediately on the device. Otherwise, the changes will occur at the next synchronization.

Change Notes Synchronization Settings

Although you cannot make any settings changes for Notes synchronization, you can synchronize Notes with desktop computers in two ways. If you select the Notes information type in ActiveSync, the notes on your Windows Mobile device will synchronize with the main Notes folder in Outlook. If you do not select the Notes information type but select File Synchronization, notes on your Pocket PC will synchronize with the Synchronized Files folder on the PC.

Notes synchronization does not support Outlook Notes subfolders or categories.

Change Favorites Synchronization Settings

The Favorites information type synchronizes your favorite web site addresses, known as Mobile Favorites, to your Pocket PC or Smartphone. To add a web site address to your Mobile Favorites,