



Your complete guide to mobile computing

with the AT&T EO Personal

Communicator



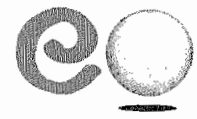
The AT&T EO Travel Guide

Foreword by Alain Rossmann,

President of EO Incorporated

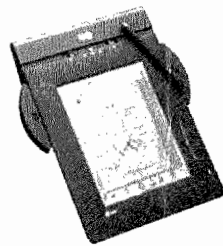
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The **FO** *Travel*
AT&T **FO** *Guide*

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RC
Mandy THOMAS
for your help.

The AT&T EO Travel Guide

Ken Maki

Even though this
book was a
journey, feel it's
now your part of it.
Ken
we go.



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Dedication

To my parents, with love and thanks.

Father—for the example of self-discipline you provided.

Mother—for the independence you fostered.

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Foreword

EO's founders built the EO Personal Communicator to be highly useful. But, as with any new product, we knew that some time would pass before the market recognized and took advantage of that usefulness. In writing this book, Ken Maki does a great service to the market (and EO) by describing some of EO's tremendous capabilities as a communications device.

Mr. Maki details the integration of the new technologies (such as the pen interface, the Hobbit RISC microprocessor, and advances in miniaturization and communications) that make the EO smaller, lighter, and faster—a device that lets people who are out of the office stay in touch and informed.

The EO Personal Communicator is the route to easier and better mobile communications, and I am most appreciative to Mr. Maki for helping illuminate the way.

A handwritten signature in black ink, appearing to read "Alain Rossmann". The signature is stylized with a large, sweeping initial "A" and "R" that extend across the line of the name.

Alain Rossmann,
CEO & President of EO, Inc.

Acknowledgments

No book can be brought from idea to finished product without the help of a lot of people. And this one is no different from any other. I have to thank Pam Miller at EO for listening to my ideas and providing the opportunity to write *The AT&T EO Travel Guide*. Ted Barnett, EO's Hardware Product Manager, proved to be a font of knowledge and information. Without his help as a resource and technical editor, this book would have been impossible to write. Other people at EO whose help was greatly appreciated are Johnny Hopper, Chuck Berman, Dick Roistacher, Kristina Douglass, Dawn Bunting, Rosemary Harbeson, Kathy Cox, and Thea Haacke. And many thanks to Alain Rossmann for taking the time to write the foreword.

To my editor Tim Ryan at John Wiley and Sons who had to put up with me while the book was being negotiated and written—many thanks. Also, Karl Barndt and his editing staff at Electric Ink, Ltd., did a great job of turning a pig's ear into a silk purse.

In addition to everyone else I want to thank John LaRoche for asking me to meet him at the Pen Expo where I saw the EO Personal Communicator for the first time. And R.C. Hughley, Ph.D., for his assistance with the editing of the manuscript.

And last but not least, my wife Chris deserves more than my thanks. Thanks does not even begin to repay her for putting up with my 20-hour days, neglect, and being a grouch. Nor do thanks express my gratitude for all of her work editing the manuscript. She looked at every page and corrected many of my bonehead errors. Thank you, Chris; I love you.

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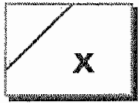
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Introduction

Earlier this year, a friend persuaded me to go to the Pen Expo, a conference about pen-based computing technology in San Francisco. That's when I first saw the EO Personal Communicator. I was blown away. Before I knew it, I had spent half an hour looking at the EO and another half hour looking at Perspective (the personal information manager that's bundled with the EO).

My first reaction was that the EO was a small computer on steroids. Small, powerful, and more useful than any of the portable computers I'd ever used, but I still had my doubts. What did they mean by Personal Communicator? Was it just a marketing tool to differentiate the EO from portable computers and other pen-based systems? Or was there really substance to their claim that this was something new?

After all, I could use my Macintosh PowerBook to send and receive faxes. I could log into my E-mail accounts and send messages and transfer files. It would go with me anywhere I went and was a great tool.

Then I brought the EO home and got to know it better.

I'm afraid my PowerBook has been retired—not six months old and I hardly take it anywhere. The EO Personal Communicator is everything EO Inc., claims. But, to see the EO as something more than a pen-based computer that has a modem, you need to see it in action.



This book is one way to see the EO in action.

In the book, you'll find descriptions of every aspect of the EO. But beyond the descriptions are instructions and ideas about how to use it. You'll see that the EO is not just an address book, a telephone, a fax machine, a computing device, or an entry point into the world of digital communications. It is all of these things and more.

It comes with enough software to make it complete without having to spend any more money. But if you want to expand on its native capabilities, you can add software packages that are already available. And, if you take some time to learn how to maximize the EO, you'll find that a desktop computer really becomes an accessory to the EO.

The vision of EO's founders is that the EO will become as indispensable as the telephone. Not quite a toaster, but then again who talks to their toaster? This is the first machine of a new family of machines that will change how business is done in the office or on the road. I hope that my book does justice to the vision.

What You'll Find in this Book

The EO Travel Guide is your road map to an amazing new technology.

Each chapter is designed to explain what the EO can do, then show you how to do it. This book exceeds the scope of the user's manual that comes with the EO, and gives you more information about how the EO works and how to maximize its power. You'll also find real-life examples of how to use the EO in your home, office, and on the road.

Chapters 1–2 are about the EO's hardware and getting started. It describes the EO's physical attributes, technical specifications, and how to set it up.

Chapters 3–7 are about using the EO's built-in software. You'll find discussions on the EO's operating system, its major software packages, and ideas on how you can use the EO.

Chapters 8–10 explain how the EO connects you to the rest of the world using its communications capabilities. You find out how to fax, send E-mail, use the cellular phone attachment, and hook the EO up to other computers. Also included in the third part will be a complete troubleshooting guide.

Chapters 11–12 discuss each of the software packages that are available for the EO from third-party sources.

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An Overview of the EO

Introduction

One of the things you'll notice about the EO is that it is not called a computer. It is a personal communicator. This does not mean that it does not perform computing functions, it means that it was designed first and foremost as a device to enhance and enable person to person communications. It is a cousin to the computer, but it is more than a computer.

Computers cannot be used as if they were a pad of paper or a Day Runner. Even the most portable notebook computer cannot easily be used to take notes at a meeting, conference, or in a class. Every time a notebook computer is used you have to have at least a seat so you can hold it in your lap or a surface of some type so you can open the notebook, start it, and use the keyboard.

The EO is held in one arm like a pad of paper while you write directly on the screen. The EO can be used in any position whether you are standing up, sitting down, or at a desk. Also, when you use the EO you are not placing a barrier between yourself and someone

else, which is what happens when a notebook computer's screen forces its way between the user and anyone in front of them. These are some of the differences between the EO and other computers that make it a personal communicator.

Another aspect of the EO that differentiates it from traditional computers is how all the EO's communications capabilities are combined in a single unit. With an EO you have built-in E-mail, fax, telephone, networking, and data communications capabilities all in a single unit.

Despite the differences, when talking about the EO, terms like hardware, software, RAM, ROM, and other computer terms are all going to be used. This is because the EO uses existing computer technology as its base and the features that make the EO a communicator are in addition to, not instead of, existing computer technology.

This chapter looks at the physical aspects of the EO. In doing so, the EO will be described using the same terms used to describe computers. The EO's physical components (disk drives, memory, etc.) make it easy to discuss it as if it were just a computer—part of what makes the EO more than a computer is the fundamental integration of all its hardware and software.

So as you read this chapter do not be fooled into thinking that the EO is just another computer trying to distinguish itself with a new name. It isn't.

To find out what the EO really is we'll start by looking at the communicator's hardware. The physical attributes of the EO 440 and 880 will be examined in detail. The EO's accessories will be discussed as well. You will also find in this chapter sections that describe how the EO works in technical terms.

The EO's Hardware

EO Inc., makes two personal communicators, the EO 440 and the EO 880. Both of these communicators are similar and share the same technology. The EO 440 is the less expensive of the two machines. It is a bit smaller and lacks some of the features found

in the 880. EO wanted to provide for everyone's communication needs, so a range of products is required. Some people are willing to make the sacrifice on size, weight, and battery life to get the EO 880's larger screen, backlighting, and more expansion. This is especially true of corporate customers.

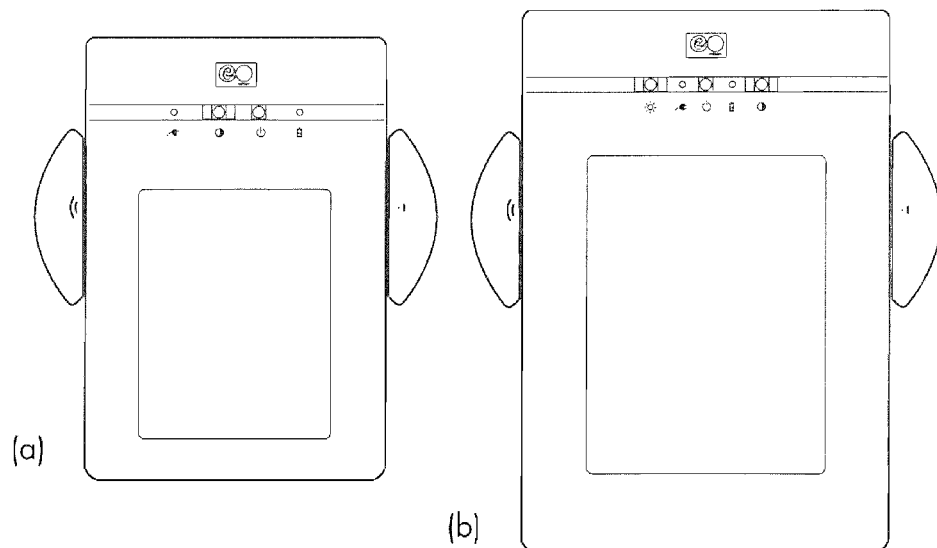
This section will look at both the EO 440 and 880. You will find descriptions and illustrations of the communicators. A comparison between the EO 440 and 880 will be covered so you can see exactly how they differ. And, you will also find a section that briefly describes the software that comes with both communicators.

A Closer Look at the EO

EO Inc., makes two personal communicators, the EO 440 and the EO 880. Both of the communicators are thin rectangular devices that have small bulges on either side called ears. Figure 1.1 shows the front view of both the EO 440 and the EO 880.

When using the communicator you write and view all of your information directly on the EO's screen. Any function you want the EO to perform is done by drawing "gestures" on the EO's screen. A gesture is a special mark that you draw which the EO interprets as a command to perform a specific task. All commands such as copying, moving items, opening, and closing documents are executed in this fashion. (Chapter 3 contains a list of all the gestures and their meanings.)

Figure 1.1
Front view of
(a) the EO
440 and
(b) EO 880



The pen is stored in a special holder built into the right-hand side of the EO. Figure 1.2 shows the pen being removed from the slot.

When you write on the screen it will feel like you're writing on a piece of paper that is being held in a clipboard. After you're through writing, the pen is replaced in its slot until it is needed again.

The EO's ears give it a very distinctive appearance, and they are extremely useful. The ears make it easier to hold the EO while working on it, and they also contain essential parts of the communicator. In the right ear there is a microphone and the modem connection. The left ear contains a speaker and has ports for connecting the EO to a printer, a keyboard, and to other computers. Whether you're left- or right-handed, you have probably had the experience of holding a clipboard and having your fingers get in the way while writing. Well, the ears prevent this from being a problem when you use an EO.

Both of the EOs run on batteries which are stored in a compartment at the top of the EO. Figure 1.3 shows the batteries and where they are stored.

Figure 1.2
The EO's pen

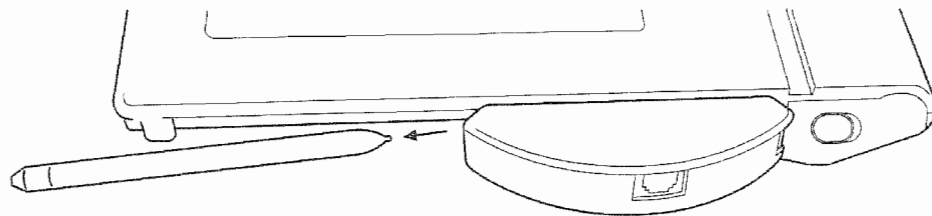
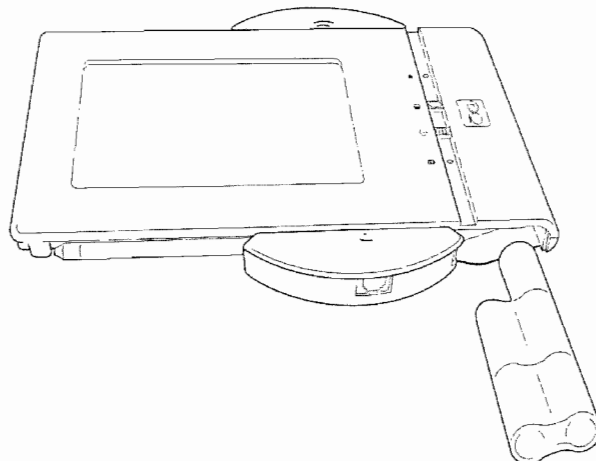


Figure 1.3
The EO's
battery
compartment



Pen Computing

The concept of using a computing device with a pen has been around for a while. But, it has only been recently that the technology has advanced to a point where pen-based devices are a reality. Using a pen instead of a keyboard and a mouse is both attractive and at the same time a bit daunting. We've become accustomed to using keyboards and mice to interact with our computers, and no one really likes to change.

Also, for some people the idea of using gestures is a bit intimidating. Using a computer with a keyboard and mouse can be hard enough to learn, but learning how to draw a bunch of gestures and having one's handwriting interpreted can seem overwhelming. I know I had some reservations at first.

I have always wanted a device like the EO where I could write on the screen and not have to worry about keyboards and mice. I wanted a computer to use like I use paper. But when I used the EO for the first time, I had my doubts about remembering and executing commands with the pen. I do not memorize commands well, which is why I've never liked working in the MS-DOS environment, and I was concerned about remembering a bunch of gestures. Also, as I'll say several times throughout this book, my handwriting is not neat.

Fortunately, I had nothing to fear. Using the EO was a unique experience—I was able to quickly learn the basic set of gestures, and by thinking about the EO as a notebook, I was able to quickly learn to use it. Actually, some of my computer experience was a disadvantage because I wanted to make comparisons between what I do on the computer and what I was doing on the EO. You can only make the most out of your EO if you approach it as something entirely new.

I've stopped carrying around my notebook computer, and I foresee the day when everyone will be using devices like the EO and we'll use desktop computers rarely and only for special tasks. The EO fulfills the promise of truly independent computing that was dreamed of when the first personal computers were introduced over ten years ago.

Having the batteries at the top of the EO rather than the bottom makes the EO feel like it is resting in your arm. If the weight of the batteries were at the bottom you would have to brace the EO against your hip or chest because it would always feel like it was

trying to slip out of your hand. The batteries would be pulling the EO down, rather than letting your arm support the communicator.

Across the top of the EO just above the screen you'll find a bar that contains status lights, a contrast bar for adjusting the screen, and the switch to turn the EO on and off. There are no switches hidden along the edges where you could accidentally bump them. The status bar for each communicator will be described in the section on each communicator.

Communications Capabilities

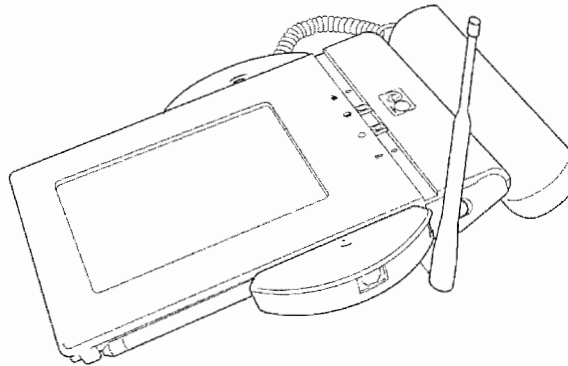
The EO comes with software for fax, electronic mail, cellular phone, and networking (connecting to an MS-DOS computer) which all integrates with the EO's other programs, giving you a system where all of these components operate together seamlessly. The EO is a complete communications center allowing you to take your office with you no matter where you go.

One of the most important hardware components of this mobile office is the EO's fax/data modem. Although it is possible to purchase an EO without its modem, doing so seems to me like purchasing a television without an antenna or cable TV connection. The EO's modem is the device that connects your EO to a phone line allowing you to send and receive faxes and to access the E-mail (electronic mail) service that comes with the EO. With the EO's modem and a telephone line you can send and receive faxes or electronic mail wherever you have access to a phone line.

If you purchase the cellular telephone option you will have a truly mobile office. The EO's Cellular option lets you initiate or receive phone calls, and it integrates with the modem so you can send or receive from anyplace you happen to be. The Cellular option attaches to the bottom of the EO and adds less than a pound in weight including the telephone handset. Figure 1.4 shows an EO 440 with the Cellular option installed.

Only the EO communicator provides you with the ability to add a cellular phone directly to a computing device as an integrated part of the communicator. Although it is possible to use a cellular phone with notebook computers, even pen-based computers, one would

Figure 1.4
An EO 440
with the
Cellular option



need a standard cellular phone with additional cables and connectors. Using a cellular phone with another computer presents so many problems that most people wouldn't even think about trying it. It's hard enough just carrying everything else you need.

Expansion Capabilities

In addition to the EO being a highly mobile and complete personal computing solution, it is also expandable. Both the EO 440 and 880 can use PCMCIA cards, and the EO 880 also has a SCSI port. (PCMCIA stands for Personal Computer Memory Card International Association.) The PCMCIA originally set out to develop standards for using small credit card-sized memory cards, but the interface that was designed is now being used for modems, hard drives, solid-state flash disks, and networking cards. PCMCIA cards are classified as Type I, II, or III (the classification pertains to the thickness of the card which often impacts the card's function). Currently most cards are Type II with hard drives being available as Type II and III cards.

Right now there are two types of PCMCIA cards that can be used with an EO. One type is a SRAM card which is a memory card that can be used as a disk drive. SRAM cards usually have a low capacity and are expensive. The other type of card is a silicon disk card that can also be used as an additional disk drive. The advantage of the silicon disk card is its data capacity. One company, SunDisk, makes cards that work with the EO in capacities of 2.5, 5, 10, and 20 megabytes.

The reason that more cards are not available is because software needs to be written that will let the EO recognize the cards and

utilize their functions. The software that lets the cards be accessed is usually called a driver. Many vendors are writing drivers right now so that their cards and other computing devices will work on the EO.

Other cards that are under development for the PCMCIA slot include a display pager and network cards. Hopefully, both of these will be available around the end of the year (1993). With the pager card you'll be able to carry it in your pocket like a regular pager, but when it goes off you'll insert it into the PCMCIA slot and the EO will access the pager and display any messages you have received. The network cards, when they are available, will let you connect an EO to an existing Ethernet or Token Ring network so you can share documents with other users and maybe even use the network's electronic mail system.

The EO 440 has one Type II PCMCIA slot, and the 880 has two. The EO 880's two PCMCIA slots will also function as a single Type III PCMCIA slot. The EO 880 also has a SCSI port. (SCSI stands for Small Computer System Interface.) SCSI (pronounced "scuzzy") is another industry standard for connecting peripheral devices to computers. Using the SCSI port, it will be possible to connect hard drives, scanners, printers, and maybe even other computers to the EO.

Right now, all that can be attached to the EO 880's SCSI port are additional hard drives. Once again, it is not a lack of available devices that limits what can be connected to the EO 880, but the availability of drivers. Once companies start writing drivers for the PenPoint operating system the EO 880 will be able to use these other devices.

The EO's Software

All of the EO's hardware is packed into a device that can weigh from 2.2 pounds (a standard EO 440) to 5.1 pounds (an EO 880 with the Cellular option) all as a single unit. This is amazing by itself. But when you consider the software that comes with the EO and how it all integrates, the EO Personal Communicator is even more impressive.

The EO has eight megabytes of ROM (Read Only Memory) containing the operating system and all of the applications that come on the EO. Eight megabytes is equivalent to five and a half 3.5-inch floppy disks. The top of the line Macintosh only has two megabytes of ROM, while most MS-DOS machines only have enough ROM to make the machine turn itself on—usually about a quarter of a megabyte. The advantage is speed—computers access data in ROM much faster than data on a disk. The EO has enough ROM to hold everything it needs to run, plus many of the programs you'll use.

The following is a list of what's installed in an EO's ROMs:

Clock* An accessory so you can quickly get the date and time.

EO Calc A program that lets you work with numbers using a "columnar pad."

EO Lock A utility that protects an EO from unauthorized access.

EO Phone A program that controls the Cellular Option which can also be used with a standard telephone.

EO Sound A program that you can use to record and playback voice notes.

GO Fax The program that sends and receives faxes.

GO Mail The program used to send and receive Electronic mail using AT&T EasyLink services.

MiniNote* A basic program used to draw simple graphics and for taking notes that are stored in electronic ink.

MiniText* A basic word processing program that has been optimized for pen input.

PenPoint The EO's operating system. The operating system is all of the software that makes the EO function as a computing device.

PenTOPS Networking software that lets you connect to an MS-DOS machine running PenCentral (also included with the EO).

Personal Perspective A very powerful and complete personal information manager. It includes a day planner with a calendar and appointment scheduler, an address book, and a notes register. Personal Perspective is used to keep track of all your contacts, manage your time, and keep track of your projects.

* Included with the PenPoint Operating System.

In addition to the built-in software, you also receive a free AT&T EasyLink account and the PenCentral networking software when you purchase an EO. All in all, the EO is a complete system that doesn't require any additional software to be useful as soon as you plug it in and turn it on. There are only a few computers you can buy that offer this type of immediate functionality and none that integrate everything as neatly as the EO.

New Technology

Part of what makes the EO unique is the new technology that it uses. Advances in miniaturization, processing chips, and operating systems are all combined in the EO. This is another reason the EO is not just another computer but a Personal Communicator. Two of the new technologies used in the EO are AT&T's Hobbit RISC processor and GO's PenPoint operating system.

Both the EO 440 and the EO 880 use the AT&T Hobbit central processing unit or CPU. The CPU is a chip that controls the EO or any computing device. The Hobbit is a RISC or Reduced Instruction Set Computer CPU. The RISC CPU is a new technology that runs faster than the CPU in other computers. As a matter of fact, the EO is probably the first computing device to use a RISC CPU. Other companies are now making RISC CPUs, and they will be used in other computers and computing devices. But the EO is one of the first to utilize this new technology and make it available on the general market.

AT&T developed the Hobbit chip specifically for use in communications devices. And the EO is one of the first devices to use it. This is the primary reason that all of the EO's communications capabilities fit together so nicely. Another reason the EO works so well is due to its operating system, PenPoint. An operating system is the software that makes a computing device work. Another example of an operating system is MS-DOS which stands for Microsoft Disk Operating System.

PenPoint was written by GO, Inc. as an operating system specifically for pen-based computing systems. There is advantage to hav-

ing an operating system written specifically for pen-based systems. PenPoint was designed completely with the idea of pen input. As such, there is much more thought put into how the users of the system will interact with the device and how the device will respond to the user. Every aspect of the operating system is designed with the user (you) in mind and the fact that the primary form of interaction with the device will be a pen. GO went to great lengths to make sure that a device running PenPoint would feel as if you were working on a real piece of paper.

The PenPoint operating system is discussed in Chapter 3. Discussion and instruction on using the EO's built in software, including MiniNote and MiniText, will be found in Chapters 4 and 5. In Chapter 2 you will find everything you need to start using an EO Personal Communicator. The rest of this chapter will look at the EO 440, 880, and the EO accessories.

The EO's Technical Specifications

The EO 440 is the smaller of the two machines. It is a very powerful and efficient communications device. If you want a small, easy to carry, and easy to use communicator with a long battery life, you couldn't do better. It is precisely what it claims to be: a personal communicator.

The EO 880 is larger and heavier than the 440, but it is also faster and has a larger, backlit screen. If you need an EO with more power, an external hard drive option, or to use your EO with an external monitor you will be interested in the 880. Besides being a good personal communicator you can also use it for business presentations by connecting it to a VGA monitor. Also (I write from experience), the weight of the EO 880 puts it right at the upper limit of what is comfortable to carry. Any heavier and it would probably be uncomfortable.

The following sections cover the really gritty details for both EOs. If you're shopping for an EO maybe the following will help you make up your mind. If you already own one, then you might want to know what types of nuts and bolts it contains.

The EO 440

This section contains a description of the 440's features. Most of this section uses computer jargon, so if you need help interpreting the terms look in the glossary. The EO 440's dimensions are:

Length 10.8 inches

Width* 7.1 inches

Height* .87 inches

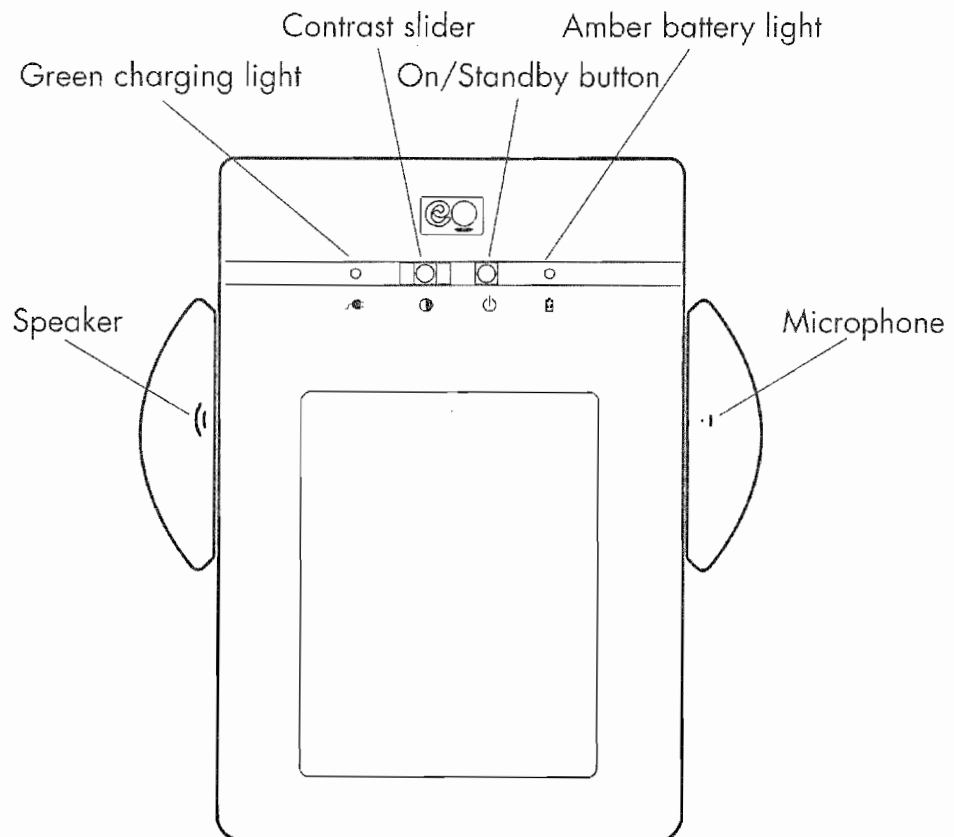
Weight 2.2 pounds with batteries and 2.3 pounds with a hard drive

* The EO's ears add 2.4 inches to its total width and the height at the top is 1.57 inches.

These dimensions register the EO as one of the smallest, for the power it packs, personal computing devices you can buy. The EO 440 is a 2.3 pound (including battery) personal communicator that looks like Figure 1.5.

Figure 1.5

The EO 440
front view



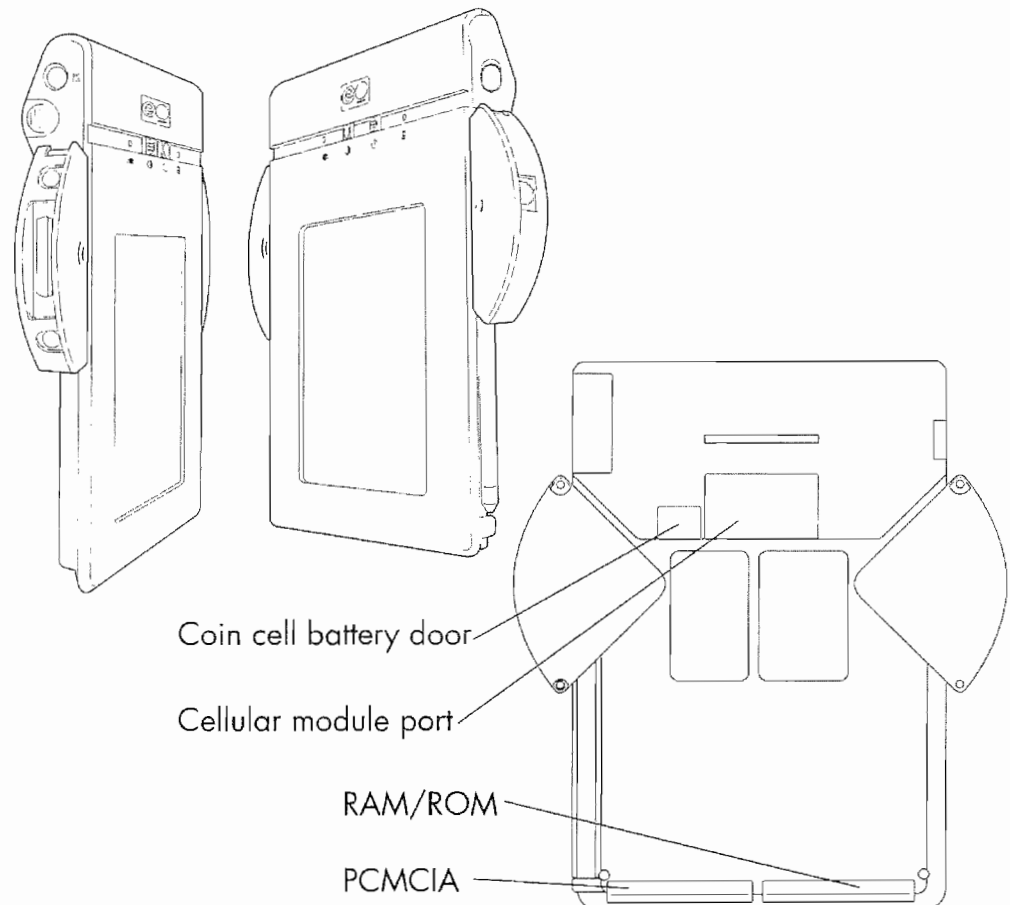
On the front of the EO you can easily see:

- On/Standby button
- Green charging light
- Speaker
- Contrast slider
- Amber battery light
- Microphone

On the EO all of the controls have icons like those in Figure 1.5 for easy identification. All of the EO's control features are discussed in Chapter 2.

So you can connect the EO 440 to other computers, phone lines, printers, and the cellular phone it has the ports and connectors shown in Figure 1.6.

Figure 1.6
The EO 440's
viewed from
the left, right,
and bottom.



On the left-hand side of the EO you will find the following ports and doors:

- Power adapter port
- Backup battery door
- Serial port (also called the PC port)
- Parallel port (also called the printer port)
- Keyboard port

On the right hand side of the EO you will find:

- Main battery door
- Phone port (if you have a modem)
- The pen in its slot

And on the bottom of the EO you will see the following:

- Coin cell battery door
- Wireless port used for the Cellular option (this port is covered)
- PCMCIA card door
- RAM and ROM card door

Table 1.1 lists the rest of the EO 440's technical specifications.

The EO 440 is available in the following configurations (please check with EO for up-to-date prices):

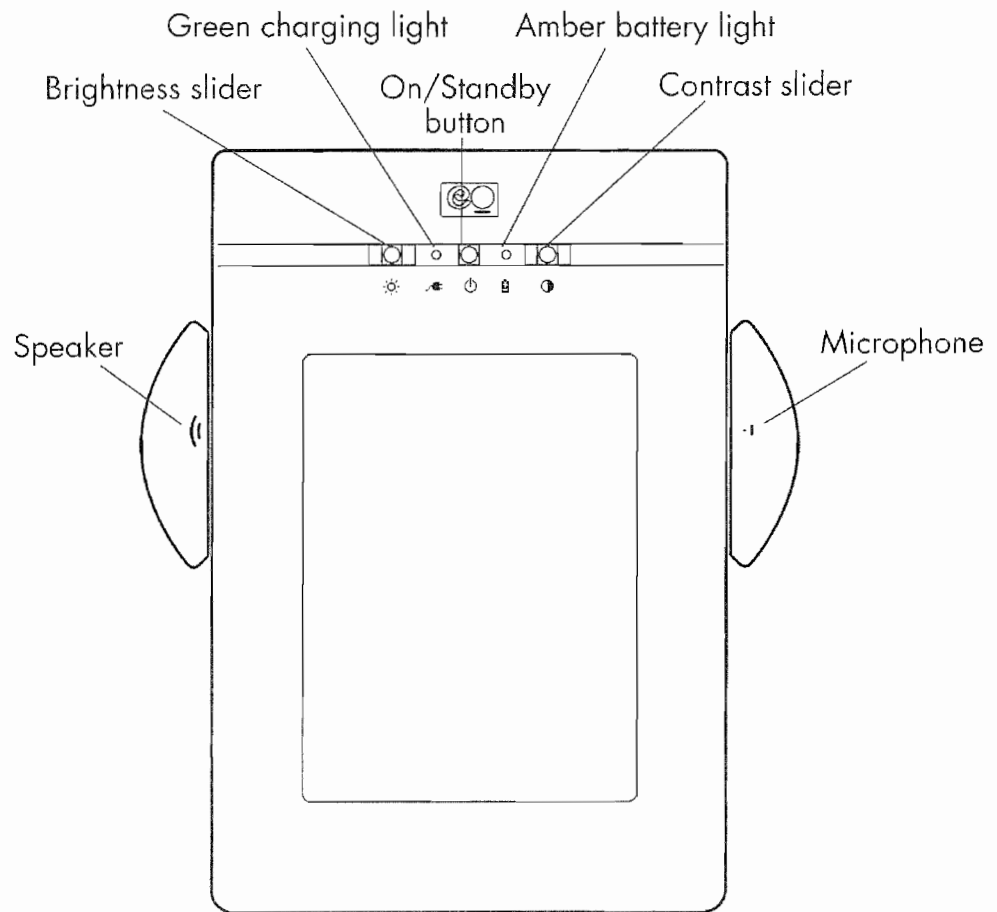
- 4 MB RAM, no modem, no hard drive
- 4 MB RAM, modem, no hard drive
- 8 MB RAM, modem
- 8 MB RAM, modem, and 20 MB hard drive
- 12 MB RAM, modem, and 20 MB hard drive

The EO 880

The EO 8800 is a 4 pound (including battery) personal communicator that looks like Figure 1.7. The EO 880's dimensions are:

Length 13.0 inches

Figure 1.7
The EO 880
front view



Width* 9.0 inches

Height* 1.06 inches

Weight 4.0 pounds with batteries and 4.2 pounds with a hard drive

* The EO's ears add 2.4 inches to its total width and the height at the top is 1.57 inches.

On the front of the EO you can easily see the following controls and displays:

- On/Standby button
- Green charging light
- Brightness Slider
- Speaker
- Contrast slider

Table 1.1 The EO 440's technical specifications

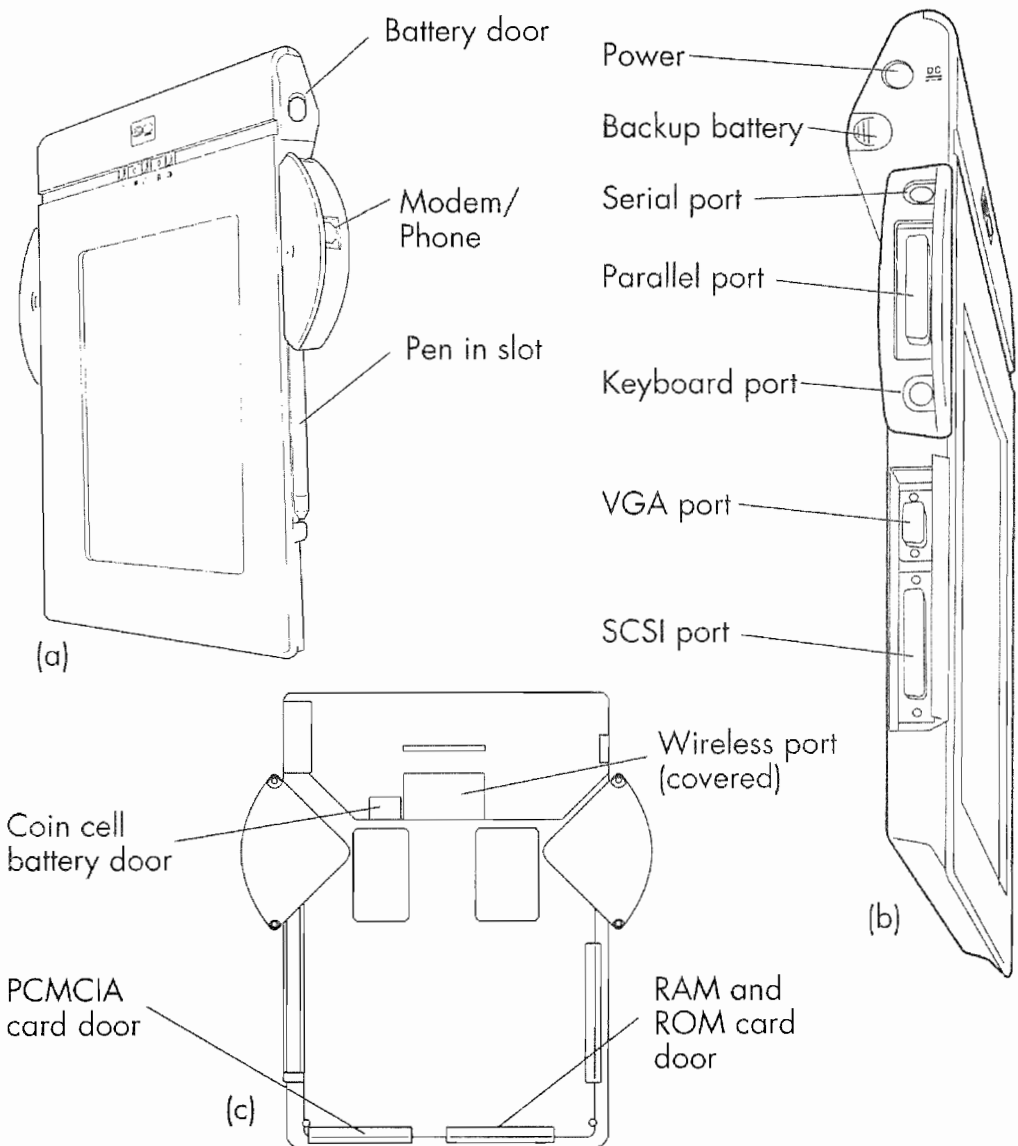
Microprocessor	AT&T 92010 Hobbit 20 MHz RISC based processor. This processor runs 2.5 times faster than a 20 MHz 386SL CPU and at .7 times the speed of a 33 MHz 486SX CPU.	
Memory	RAM	4 megabytes, expandable to 20. Currently the EO can only be upgraded to 12 megabytes because the memory cards to expand it to 20 are not available. RAM upgrades come on 88 pin JEDEC cards.
	ROM	8 megabytes. The ROM are upgradeable and will be made available as new versions are developed.
Modem	Data	High-speed 14,400 bps (38,400 bps with data compression) internal modem. Protocols supported are Bell 103, 212, v.22bis, v.32, v.32bis, v.42, v.42bis, MNP 2-5, MNP10, AXCELL external cell-phone support.
	Fax	9600 bps Group 3 send/receive fax modem. Supports v.27ter and v.29 protocols.
Display	7.5 inch diagonal, 640 X 480 pixels, 8 levels of gray, 110 dots per inch, 0.23 dot pitch, high-contrast reflective supertwist LCD. The screen response time is 250 ms and the refresh rate is 70 Hz.	
Internal Storage options	20 megabyte internal hard drive. 2.5, 5, 10, and 20 megabyte SunDisks.	
Power and Batteries	Operating power 3.3 volts. Custom battery pack using NiCad batteries. Standard (2-4 hrs.) and extended life (4-6 hrs.) batteries are available. The extended life batteries add about five ounces.	
Input/Output	Parallel AT	8 bit bi-directional port.
	Serial	Mini DIN 8 port requires special cable, maximum speed 230.4 Kbits/sec.
	Keyboard	Standard PS/2, PC AT keyboard will work with an adapter.
	PCMCIA	Two Type II slots that can also be used as one Type III.

- Amber battery light
- Microphone

On the EO all of the controls have icons like those in Figure 1.7 for easy identification. The EO's control features are discussed in Chapter 2.

So you can connect the EO 880 to other computers, phone lines, printers and the cellular phone it has the ports and connectors shown in Figure 1.8.

Figure 1.8
The EO 880's viewed from (a) the left, (b) right, and (c) bottom.



On the left-hand side of the EO you will find:

- Power adapter port
- Backup battery door
- Serial port (also called the PC port)
- Parallel port (also called the printer port)
- Keyboard port
- VGA port
- SCSI port

On the right-hand side of the EO you will find:

- Main battery door
- Phone port (if you have a modem)
- The pen in its slot

And on the bottom of the EO you will see:

- Coin cell battery door
- Wireless port used for the Cellular Option (this port is covered)
- PCMCIA card door
- RAM and ROM card door

Table 1.2 lists the rest of the EO 880's technical specifications.

The EO 880 is available in the following configurations:

- 4 MB RAM, no modem, no hard drive
- 4 MB RAM, modem, no hard drive
- 8 MB RAM, modem, and 64 MB hard drive

EO Peripherals and Accessories

There are several ways to accessorize an EO. You might want to connect a keyboard, use a solid-state flash disk, or even a floppy disk drive with your EO. This section will look at the peripherals and accessories you can use with your EO, and it also provides

Table 1.2 The EO 880's technical specifications

Microprocessor	AT&T 92010 Hobbit 30 MHz RISC-based processor. This processor runs at 3.5 times faster than a 20 MHz 386SL CPU and at the same speed as 33 MHz 486SX CPU.	
Memory	RAM	4 megabytes, expandable to 20. Currently the EO can only be upgraded to 12 megabytes because the memory cards to expand it to 20 are not available. RAM upgrades come on 88 pin JEDEC cards.
	ROM	8 megabytes. The ROM are upgradeable and will be made available as new versions are developed.
Modem	Data	High-speed 14,400 bps (38,400 bps with data compression) internal modem. Protocols supported are Bell 103, 212, v.22bis, v.32, v.32bis, v.42, v.42bis, MNP 2-5, MNP10, AXCELL external cellphone support.
	Fax	9600 bps Group 3 send/receive fax modem. Supports v.27ter and v.29 protocols.
Display	9.4 inch diagonal, 640 X 480 pixels, 8 levels of gray, 85 dots per inch, 0.30 dot pitch, transmissive backlit supertwist LCD. The screen response time is 150 ms and the refresh rate is 70 Hz.	
Internal Storage options	64 megabyte internal hard drive. 2.5, 5, 10, and 20 megabyte SunDisks.	
Power and Batteries	Operating power 5 volts. Custom battery pack using NiCad batteries with a two-hour battery life.	
Input/Output	Parallel AT	8 bit bi-directional port.
	Serial	Mini DIN 8 port requires special cable, maximum speed 230.4 Kbits/sec.
	Keyboard	Standard PS/2, PC AT keyboard will work with an adapter.
	SCSI	50 Pin standard, SCSI I or II port.
	VGA Monitor	Standard 66 Mhz VGA Port.
	PCMCIA	Two Type II slots that can also be used as one Type III.

some extra information about some of the accessories or peripherals that will not be found elsewhere in the book.

Peripherals and Accessories Available through EO

Several of the accessories and peripherals you can get for an EO can be obtained directly from EO Inc., Table 1.3 quickly looks at the accessories and peripherals that EO sells. The Cellular Module and SunDisks sold by EO will be discussed in the next section.

Whenever you attach or detach any peripheral or cable to your EO, you should put it into Standby mode. Although it is possible to connect devices while the EO is on, it is not recommended. If you make a mistake or the pins do not align properly you could short out the system and damage both the EO and the peripheral device.

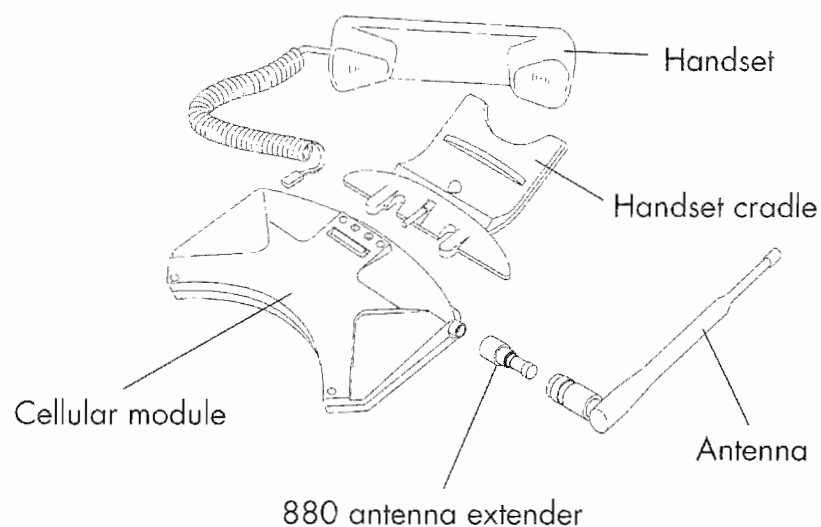
The Cellular Module

EO sells the Cellular Module that lets you use the EO as a cellular phone. The Cellular Module attaches to the bottom of the EO. The components of the Cellular Module are shown in Figure 1.9.

The same unit fits on both the EO 440 and the 880. If you're going to use the Cellular Module with the EO you must get an EO with the modem. Without the modem the Cellular Option will not work. The modem uses extensions to v.42 that provide the same

Figure 1.9

The Cellular Module



capabilities as MNP 10. MNP 10 is a special error correction protocol that is needed when using a modem with a cellular phone, but EO's implementation makes it possible to use the Cellular Option

Table 1.3 EO accessories and peripherals

Keyboard	This is a standard PS/2 keyboard that you might want to use to type documents rather than write them.
Floppy Disk Drive	This is a special 3.5 high-density floppy disk drive that connects to the EO through its parallel port. It can be used to back up your EO's data and to exchange documents between you EO and other computers.
AC Adapter	You may want to have an extra AC adapter in case something happens to the one that comes with the EO. It is also handy to have one at home and another in the office so you don't have to carry one back and forth.
EO 440 Standard Battery Pack	Extra battery for the EO 440. It never hurts to have an extra battery or two.
EO 440 Extended Battery Pack	This is the extended life battery. It weighs about twice as much as the regular battery and lasts almost twice as long.
EO 880 Standard Battery Pack	Extra battery for the EO 880. It never hurts to have an extra battery or two.
Pen	Replacement pen in case you want an extra (a very good idea) or if you lose or break the one that comes with the EO. You cannot use the EO without a pen, so you should seriously consider having an extra.
PC Connection Cable	This is the cable that is used to connect your EO to an MS-DOS machine. You might want an extra one for the office if you have an MS-DOS machine at home and the office.
Printer Cable	Parallel printer cable. Used to connect the EO to a parallel printer.
Rugged Case	This is a sturdy case to protect your EO from beating and banging while you travel.
Shoulder Strap	If you are using the EO in an environment where you sometimes need both hands, but you also need to have the EO handy, you might find the shoulder strap to be the answer.

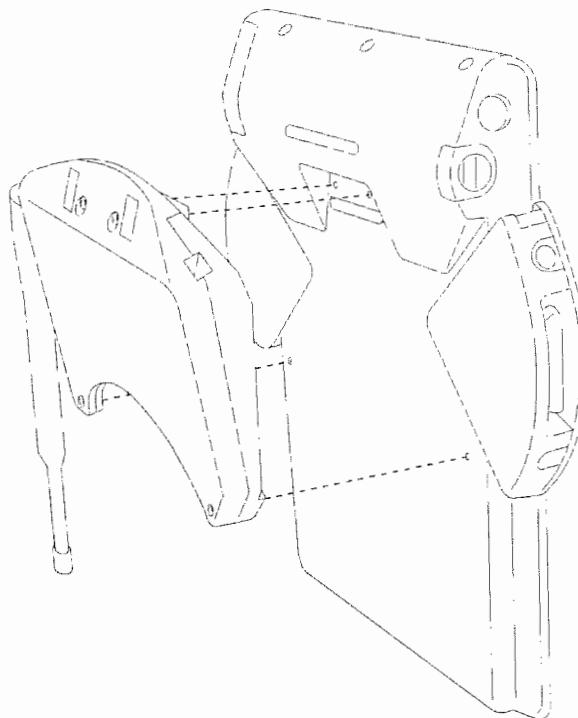
with a modem without requiring an MNP 10 Modem at the other end. This is a definite advantage.

When you purchase the Cellular Module you can either have EO activate the cellular phone service or take the phone to the cellular service provider of your choice.

To install the Cellular Module:

1. Put the EO into Standby.
2. Remove the cellular port cover from the back of the EO with a small screwdriver.
3. Attach the handset cradle to the cellular module if you're going to use it.
4. Fit the Cellular Module on the back of the EO as shown in Figure 1.10.
5. Tighten the two top screws with a Philips screwdriver.
6. Tighten the two lower screws.
7. Connect the handset.

Figure 1.10
Attaching the
Cellular
Module



One of the options you can get with the Cellular Module is a “Plantronic Headset.” The headset is a replacement for the Cellular Module’s handset. The headset allows you to use the phone and keep your hands free to use the EO while talking.

SunDisks

SunDisks are solid-state flash memory modules that work like large floppies when used with the EO. They install in the EO’s PCMCIA slot and are automatically recognized by the EO. SunDisks are made by the SunDisk Corporation in Santa Clara, California. They are available in 2.5, 5, 10, and 20 megabyte sizes and available from EO.

SunDisks are a very handy way to store lots of information and can greatly enhance your EO storage capacity. They are especially handy if you’re using an EO 440 since it is possible to fill up the 20 megabyte hard disk. SunDisks are also good for exchanging data with other EO users.

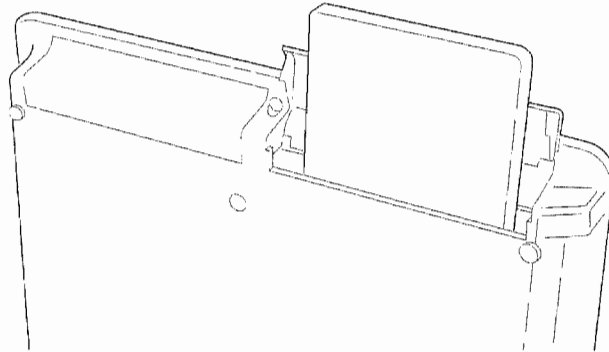
It is also possible to get a device called a Universal PC Card Drive that you can attach to a MS-DOS machine which will read a SunDisk. This makes it easy to exchange large amounts of information between the EO and the MS-DOS machine. The EO uses a disk format that is compatible with MS-DOS machines so the SunDisk with a card reader like the CardPro from DATA I/O will let you quickly exchange files between the EO and your desktop computer.

SunDisks are installed in the PCMCIA slot. When installing a SunDisk you should put the EO into Standby mode and open the door on the back of the EO that covers the PCMCIA slot, then slide the card into the EO. Figure 1.11 shows a card being put into the PCMCIA slot.

When you install a card, the top of the card and the top of the EO always have the same orientation. You cannot put a card in upside down, but you can get one stuck in the slot by trying. To remove a PCMCIA card be sure to put the EO into Standby mode. You will have to push the button to the left of the card. The button ejects the cards. Once the card is loose you will be able to slide it out by grasping the card at the edges and pulling.

Figure 1.11

The PCMCIA slot with a card



Peripherals Used with EO 880

The EO 880 has the ability to use a couple of peripherals that the 440 cannot. An external VGA monitor and hard drives can be connected to the EO 880. In this section, use of these peripherals will be discussed and will include some instructions that you will not find elsewhere in the book.

Disk Drives (EO 880 only)

External disk drives are connected to the EO 880 using its SCSI port. The ability to quickly and easily connect external disk drives can greatly enhance an EO's storage capacity. The SCSI port supports both SCSI I and II devices, so the 880 should be compatible with any SCSI drive. Most of the external SCSI hard drives you'll find in the marketplace are intended for Macintosh use, but any of these drives will work on the EO 880. The only difference between using a SCSI drive on an EO rather than a Macintosh is the disk's format. The EO uses MS-DOS formatted disks, so if you purchase a Mac drive that you will be using with the EO the drive will have to be reformatted. If you want to use a SCSI drive to exchange data with a Macintosh, you will have to use one of the removable media hard drives described in Chapter 7 and get special software for your Macintosh.

Note *Do not attach an external Macintosh drive to the EO 880 if it has data on it that you want to save. The EO will want to reformat the Mac drive and all of the data will be destroyed.*

When you attach a SCSI disk to your EO there are a few rules you need to keep in mind. If you have any questions about the process

of connecting a SCSI drive to your EO, contact the drive's manufacturer before you proceed. The rules pertaining to SCSI are the same for any computer system and standard. The EO 880 follows all of the basic rules regarding SCSI connections which are:

- The first and last SCSI device on a SCSI chain must be terminated. The EO as the first device is terminated.
- Each SCSI device must have a unique identification number between zero and seven. The EO will always be the first device and its internal hard drive is SCSI device zero, and the EO is SCSI device seven.
- If you are using a SCSI disk that has been connected to an MS-DOS, computer you will have to label the disk before it will appear as a bookshelf on the EO. (See Chapters 3 and 7 for more information.)
- Always put the EO into Standby mode when connecting and disconnecting external SCSI drives.

The EO 880 has a standard 50 pin SCSI connector on its left-hand side. The drive you use can have either a 25 or 50 SCSI connector. Usually, most external SCSI drives have two connectors of the same type, and it does not matter which connector you use. The second connector on a SCSI drive permits you to attach more SCSI devices. Whenever you attach SCSI devices you have what is called a daisy or SCSI chain.

If you are unsure about how to connect a SCSI drive, whether or not it is terminated, or the drive's SCSI ID number, you should contact the drive's manufacturer before connecting it to an EO 880. If you improperly connect a SCSI device to the EO it is possible to damage both the EO and the device. After attaching the drive and turning on the EO it will recognize any formatted MS-DOS disk or ask to format the attached drive. If you are using an MS-DOS formatted disk and it does not appear on the EO's Bookshelf, this is because it does not have a label. You can give the disk a label from the Connections accessory (see Chapter 7 or your EO manual).

Monitors (EO 880 only)

You may want to connect an EO 880 to an external VGA monitor for demonstrations, or you may find that while working at a desk

using an external monitor is more comfortable. Regardless of why you would use an external monitor it is a nice option to have.

Attaching an external monitor to the EO 880 is a fairly simple matter. But it is not quite a matter of connecting the EO and turning it on.

To connect a monitor to your EO:

1. Put the EO into Standby mode (see Chapter 2).
2. Connect the EO to the monitor. (The VGA port is in the left-hand side of the EO.)
3. Turn the EO back on.
4. Set the EO's screen orientation if the image is horizontal rather than vertical, or place the monitor on its side so you can view the screen properly. Change the orientation of the EO's screen with the Font & Layout page in the Settings Notebook (see Chapter 4). The EO has the same screen dimensions as a standard VGA monitor, except that the EO's screen is usually set to view the screen in a portrait view rather than a landscape view. All MS-DOS machines use their monitors with a landscape view.
5. Turn on the Pen Cursor in the Fonts & Layout page of the Settings Notebook. (This is especially important when you're giving a presentation. This way your audience can see where the pen is.)
6. Align the pen in the Pen page of the Settings Notebook. (The pen should always be realigned after changing orientation or turning the pen cursor on or off.)

The screen on the EO 880 remains active when it is connected to an external monitor. So you can still use the pen on the EO. You will see any action performed on the EO on the external monitor. Also, because the connectors for the VGA monitor are on the left-hand side of the EO, you may want to make the left-hand side of the EO the top of your screen so you can have the EO on your desk with all of the connection cables facing away from you. Also by doing this you will not have to set the monitor on its side. This should make the EO easier to use while it is connected to the external monitor.

The image you will see on the monitor will be in black and white with eight levels of gray. For now, PenPoint does not use color on the EO or when it is connected to a color monitor. So if you are going to purchase a monitor just to use with the EO, you might consider saving some money and getting a black and white VGA monitor rather than a color one. The only caveat is that PenPoint will probably support color in a future upgrade, at which time you may want to use the EO 880 with a color monitor.

Maintenance, Upgrades, and Caveats

All of the tools we use usually require some type of maintenance, even if it's just cleaning. The EO is no different. It needs to be cared for, or it will not work properly. This section will look at taking care of the EO's hardware, what conditions you might want to avoid, and some general suggestions that might make life with the EO easier.

Battery Maintenance

The EO's main power source is its batteries. If you do not properly recharge, remove, or install the batteries your EO will not work as expected. The following is a list of tips that will keep you out of trouble and help you get the most from the EO's batteries.

- Make sure the back-up batteries are installed.
- Always put the EO into Standby before removing the main battery.
- The EO will only charge the main battery while the EO is in Standby mode.
- If you see a warning saying that the back-up batteries are low, replace them as soon as possible.
- When the EO is not being used, let it automatically go into or put it into Standby to keep the batteries charged.
- Batteries will recharge in 90 minutes.

The main batteries will not last forever. After they have been discharged and recharged around 400 times the battery life will decrease gradually over time (starting at around 400 full charge

cycles). If you note the battery's life decreasing after a year or so of use, you may want to get a new battery. To make sure you get the longest possible life and operating time from the EO's battery you should completely discharge the battery at least once a month by using it until the EO goes into Standby mode.

Also, when recharging the battery try to completely charge it. If you consistently charge the battery so it only has a partial charge, you could shorten the battery life. Also, extreme temperatures can effect how long the battery will run the EO. In a cold environment battery life will be shorter.

The EO also uses two lithium batteries to keep the EO's RAM intact when the main battery runs out of power. The life expectancy of these batteries depends entirely on how you use your EO. If you put the EO into Standby and do not plug it in, the EO's RAM will remain intact for about two weeks, provided the main battery is fully charged. At the end of the two weeks (or thereabouts) both of the lithium batteries and the main battery will be dead and the contents of the EO's RAM will go to lost data heaven.

Note

In any case, it is not a good idea to leave the EO unplugged for days at a time (unless you've backed up your data and shut the machine down by removing the batteries). If you are leaving for several days, leave the EO plugged in to avoid losing data.

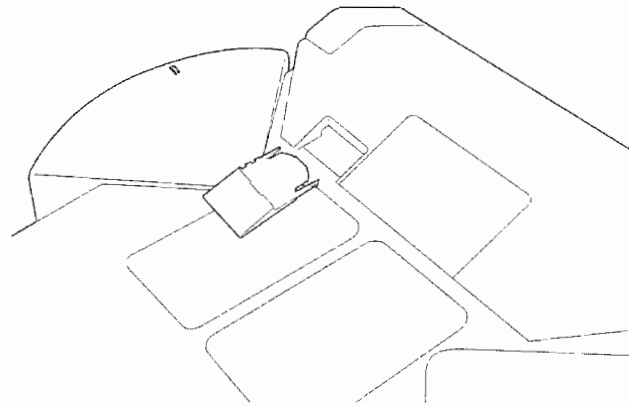
If your back-up batteries need to be changed the EO will tell you so. Do not ignore this message. When you see it replace the back-up batteries as soon as possible. You will need to get a battery with part number CR123A which you should be able to find at a photo or electronics shop.

The EO also has a small coin cell battery that maintains EO's clock and parameter RAM settings. It is accessed from the back of the EO as shown in Figure 1.12.

It should be good for two to three years, but eventually it will need to be replaced. To replace the coin cell battery you should only use a battery with part number CR2032. See your EO's manual for replacement instructions.

Figure 1.12

The coin cell battery



RAM and ROM Cards

The EO's RAM and ROMs are upgradeable. They are both on cards which are accessible through a door on the back of the EO. Figure 1.13 shows the door and slots for the RAM and ROM cards.

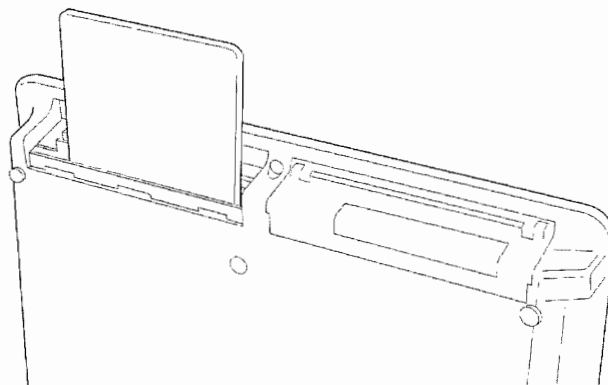
Before performing either a RAM or ROM upgrade you should always back up your information (see Chapter 7).

To upgrade your RAM:

1. Shut down the EO. The easiest way to perform a shutdown is to use the Shutdown button on the Power page in the Settings Notebook (see Chapter 4). If you are using a RAM-based system you will have to remove both the back-up and main batteries. Do not leave the AC adapter plugged in while upgrading the RAM.
2. Remove the old RAM card (if your EO has one). The RAM card is the card closest to the bottom of the EO.

Figure 1.13

Door and slots for the RAM and ROM cards



3. Insert the new card.
4. If you have a RAM only system reinstall the back-up batteries, plug in the EO's power adapter, and install the main battery.
5. Turn the EO back on.

When your EO reboots you'll have additional RAM for running your programs. A ROM upgrade can be more problematic. When you upgrade the ROM you will have to reformat the EO's internal hard drive. This means that all of your data and any applications you've installed will be lost. So do not try to do a ROM upgrade while on the run. It is a procedure that will take some time.

To upgrade a ROM:

1. Shut down the EO. The easiest way to perform a shutdown is to use the Shutdown button on the Power page in the Settings Notebook (see Chapter 4). If you are using a RAM-based system you will have to remove both the backup and main batteries. Do not leave the AC Adapter plugged in while upgrading the RAM.
2. Remove the old ROM card (if your EO has one). The ROM card is the card closest to the top of the EO.
3. Insert the new card.
4. If you have a RAM only system reinstall the back-up batteries, plug in the EO's power adapter, and install the main battery.
5. If you have a RAM only system start the EO as you normally would

Or

If you have a hard drive you will have to perform a ROM-only boot and format the EO's hard disk (see Chapter 10 for instructions for reformatting an internal hard disk).

6. Restart the EO.
7. Restore your information and reinstall your programs.

Once the ROMs have been upgraded you'll have access to the new features that a ROM upgrade makes available. EO built their personal communicators with the intent of providing ROM upgrades. You can figure that ROM upgrades will be available about once a year. There will be a charge for the new ROMs.

Caring For Your EO

This is the section with all of the dos and the don'ts. There is always a set of standard warnings that accompany any computing device. Most people, especially experienced computer users, have a tendency to ignore these warnings. What I'm trying to say here is that although the cautions listed may seem like they are either a pain in the neck or just plain common sense and too silly to be mentioned, they all have a purpose and if nothing else can serve as reminders. They are meant to protect your EO from damage.

- Always detach cables by pulling on the plug. Do not pull on the cord to disconnect a cable.
- Use a grounded power source. A grounded power source is usually a plug with three prongs. However, not all three prong plugs are grounded. If you have any doubts about the plug being grounded check with an electrician. A grounded plug will help protect your EO if there should be power surge. If you use a non-grounded plug and experience a power surge, the extra power, instead of going down the grounded wire, will make a home in the EO, possibly burning it out.
- Keep cables in a safe location where they will not be pulled or accidentally tripped over. If someone should catch one of the cords attached to your EO as they are walking by, the EO could end up on the floor. The person could, also.
- The EO generates some heat so you need enough space for air to circulate around the EO. Don't bury it in paper on your desk or stack books on top of it. Not only can you not use it while it is buried, but anything stacked on top of it prevents the air from circulating. If the EO is consistently too hot it will shorten the life of its internal components.
- Don't leave the EO in direct sunlight. This will cause it get too hot. Also try to avoid situations where it is left on the dash of a car, in an enclosed car, or in the trunk. Any of these places can get very hot if the car is left in direct sun light.
- Just as you don't want to leave the EO in the sun you also should be careful when taking the EO from places where there are temperature extremes. Taking the EO from a warm environment to a cool one can cause condensation inside the EO. If you turn the EO on with condensation inside it, it is possible for the

EO to short. In the same way that violinists let their instruments adjust to room temperature before tuning them, you should give the EO ten minutes or so to adjust and acclimate to its new environment before turning it on.

In the same vein, changes in humidity can also cause problems similar to those in the last warning. If you ever notice condensation on the outside of the EO you can bet there is some inside. Also, if you think there might be condensation inside the EO don't turn it on until the condensation has had an opportunity to evaporate.

- Do not open the EO. Yes, it possible to open the EO. If you do, though, you will void the warranty. There is nothing inside but a bunch of little black chips soldered to a printed circuit board. And although they may look nice, there is nothing you can do with them. If your EO is not working properly, call EO Technical Support.

Remember, opening your EO will void the warranty.

- Avoid dropping anything on the screen. The screen is made of tempered glass that is designed to survive mishaps. But it is not indestructible. If you should drop your coffee cup on the screen you will probably break the screen, not to mention giving your EO an unhealthy drink. If the screen should crack or break it will have to be replaced.
- Avoid dropping the pen. If the tip gets broken it will not work. It is the tip of the pen that works the magic on the EO's screen. Having a second pen as a backup is a very good idea.
- Don't drop or bang the EO around. The EO has been thoroughly tested and can stand some banging and bumping. But, it is not indestructible. If it should be dropped it can break. It is possible to break the screen, crack the case, or damage its internal components. You should treat it with care. If you are in a situation where you might drop it, get the shoulder strap from EO. This way if you should drop it, the strap can prevent it from hitting the ground.
- Keep your EO in as clean an environment as possible. Because the EO is an electronic device, dust has a nasty habit of sticking to it. Also, don't keep the EO where you might spill food or beverages on it.

Cleaning Your EO

The EO comes with a slip case that will protect it and keep it clean when it is not in use. And if you use the slip case you will not have to clean the EO very often. However, the slip case can also be a pain in the neck. I personally don't use the slip case. The result is that my EO often gets dirty and needs to be cleaned.

EO Inc., recommends that you use a cloth dampened with water to clean the EO. Always put the EO into Standby, unplug it, and remove the battery before cleaning. *Never* put water directly on the EO. Do not ever spray any cleaner, either aerosol or liquid, onto the EO. Also, cleaners can damage the paint on the EO's case.

Although the following cleaning technique is not recommended nor condoned by EO (in other words use it at your own risk) I have found that it works well on my EO. Use a lint free cloth and spray some Windex or other mild window cleaner onto the cloth. Then put the EO into Standby, unplug it, and remove the battery. Now wipe it down with the cloth. Remember, this is a technique you use at your own risk.

Traveling with Your EO

The EO Personal Communicator is meant to travel with you and no doubt it will. When traveling you should add the following list to the one above.

- Carry the AC adapter. You'll need to recharge the batteries. If you forget your AC adapter you'll find that your EO will quickly become extra baggage. Never mind not being able to access your information.
- Do not run the EO through the X-ray machine. Technically the X-rays cannot hurt the EO, but some of the newer airport scanning machines are magnetic scanners not X-rays. And magnetic scanners can cause problems. Because the EO is small and easy to start up carry it through and have it physically inspected.
- Do not check the EO as luggage. Luggage handlers are equal opportunity abusers, they don't care what the bag looks like or what it contains. If you check the EO as luggage you should

expect it to be returned in pieces. Also, how many times has your luggage been lost?

- Do not put the EO in overhead storage compartments when on airplanes. Store it under your seat in your briefcase or whatever bag you carry it in. Placing the EO in the storage compartment could result in it being damaged, especially if the plane should fly through heavy turbulence. Putting the EO in the storage compartment would be like sticking it in a box and shaking the box.
- Turn the Cellular Module off and do not open the EO Phone Notebook while in the airplane. It is against FAA regulations to use a cellular phone while on a commercial airline. It is really important that you check the EO before the plane takes off. It would be real easy to leave the Cellular Module on and the FAA does not take kindly to even accidental violations of their regulations. *Really, this is important, turn off the phone!*

Conclusion

This chapter was only an overview of the EO's physical attributes. There is very little information about how the EO works in this chapter. The next three chapters will cover the basics for using an EO. After you've looked over the next few chapters you might want to come back and review this chapter.

Even though this chapter is about the hardware, it does contain a lot of information that you will need to get the most from an EO. So at some point take the time to reread it. You just might find something that will make your EO more useful and increase your productivity.

Getting Ready to Travel

Introduction

My wife is not usually interested in the toys I bring home. I'll set up a new system and show it to her and she'll say "That's nice" or something equally enthusiastic. It's not that she doesn't care, rather she works with computers all day and for her work is work and computers belong at work. So when she is at home, unless she can play a game on the computer she doesn't want anything to do with it.

So when I brought home an EO I figured she would look at it and say "That's interesting," give it back to me, and continue doing whatever she was doing. I was wrong. When I came home with an EO 440 Personal Communicator all I had done with it was look at it for a few minutes. She took the Communicator, sat down, and would not give it back to me. In about five minutes she was using it to look at the tutorial and within an hour was able to use it. Now I have to hide the communicator. It has become indispensable for a lot of my work and I'm afraid she might run off with it. Then I'd really be in trouble.

Preparing an EO for use is a very straightforward process. All you have to do is install the batteries and plug it in. Then you should spend about fifteen minutes with the tutorial, after which you will know enough to begin entering data. After a couple of hours, you will have either imported all of your names and addresses from a desktop computer into your EO, or you will have begun the process of entering names and addresses, birthdays, and notes. Within a couple of days your EO will have integrated itself into your daily life, having become an indispensable tool.

This section will describe the process of taking the EO from its box, setting it up, and getting familiar with the EO's features. You will learn about the interface, how to customize the EO's settings, and how to use the pen and enter data. Everything you need to get started is in this chapter.

The Initial Setup

You should already be familiar with the basic EO Communicator from Chapter 1. If you have not read Chapter 1, go ahead and open the box and review Chapter 1 with the EO in front of you. After you're familiar with the Communicator and have found the stylus (pen) you will be ready to start. This section will take you through the process of opening the box, installing the batteries, and starting your EO.

When You Open the Box

Once you open the box you will see the EO Communicator in a form-fitted bed of foam rubber inside an anti-static bag (a plastic bag that protects electronic components and devices from static electricity). Under the EO is another box that contains all of the EO's accessories.

Getting the accessory box out of the main box can be tricky. At the top of the accessory box you will see two round holes. These are not breathing holes for some small animal, rather they are finger holes. To remove the accessory box, put your thumb and forefinger into the holes and lift up the top of the box. The rest will follow. Once you have the accessory box out you're on your own again.

Inside the accessory box you should find the following:

- A slip cover for the EO Communicator
- A large battery
- Two small batteries
- Three instruction manuals: "Getting Started," "Lookup Guide," and "The World of Messaging"
- The AC adapter and power cable
- A serial cable, also called the PC connection cable
- A telephone cable (if you got an EO with a built in modem)
- A telephone duplex jack
- A DB25 to DB9 serial connection converter
- An EO Utility Disk

If any of these items are missing, contact EO Inc., so you can complete your accessory kit. Just one more hint. After you have emptied the accessories box, to put it back into the main box you need to insert the accessories box into the main box at a 45-degree angle, putting in the bottom first and then the top.

Plugging in and Turning on Your EO

To plug in your AC adapter, you need to connect the power cable to the adapter. The power cable has a three-prong plug that requires a grounded AC power receptacle. The other end of the power cable plugs into the AC adapter. The AC adapter has a cable attached with a round plug that has three prongs inside the connector. The casing of the connector is round with a flat side. The power port on the EO is next to the lithium battery cover.

When you insert the AC adapter cable, the flat side of the connector casing faces the back of the EO. Having a flat side on the connector cable makes it easy to quickly plug the cable into the EO because you do not have to fumble with the cable, twisting it until it fits. As soon as you plug in your EO it will start. Install the batteries when the EO is in its Standby mode. (Standby mode is discussed later in this chapter.)

The startup process takes about three minutes. While the EO starts up, you will see the EO logo at the bottom of the screen and a pen across the middle. The pen shows the startup processes by appearing to fill up with ink as the EO starts. Once the pen fills, your EO will have started and you will see a notebook screen like the one in Figure 2.1.

To turn off your EO, depress the On/Standby button at the top of the screen. This will place your EO into its Standby mode (see Fig. 2.2). If the EO is on when you press the Standby button, it will go into its Standby mode. Conversely, if you press the button while the EO is in Standby, it will immediately come to life. Once you have started the EO and put it into Standby, you can install the batteries.

Figure 2.1
The notebook screen

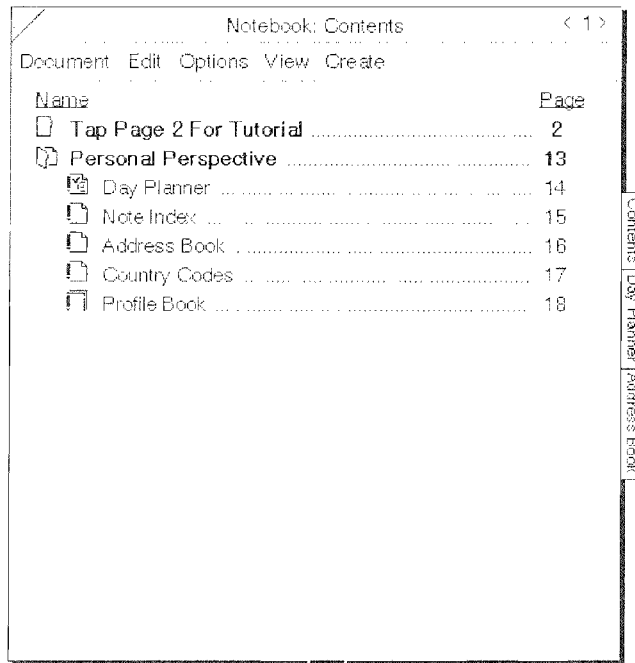
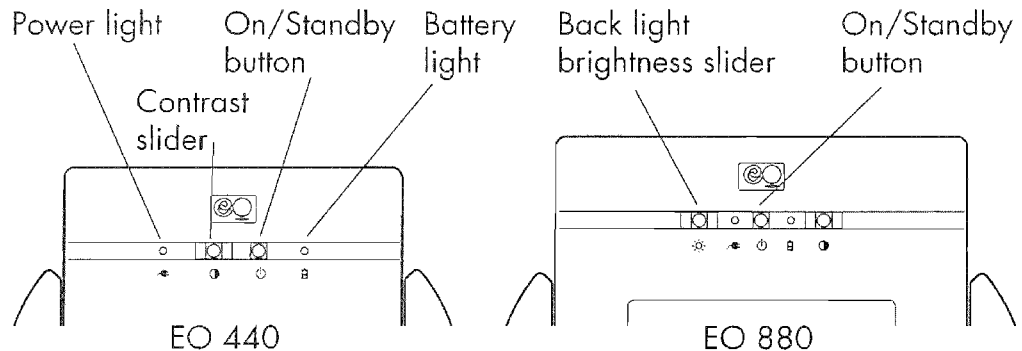


Figure 2.2
The On/Standby button



Installing the batteries

In the list on page 37 you will notice the EO has three batteries you need to install: two small lithium batteries and a larger rechargeable NiCad (Nickel Cadmium) battery. The two lithium batteries are backup batteries that provide just enough power to maintain your data when the rechargeable battery can no longer run your EO. Figure 2.3 shows these batteries. The odd-looking battery is the NiCad; the two smaller ones are the lithium batteries.

If you hold your EO so the end with the wedge is facing away from you and the screen is face up, you will find a small round cover about the size of a dime (see Fig. 2.4) on the left side of the EO at the bottom of the wedge. This cover slides off by placing your thumb on the cover and sliding it toward the back of the EO. Once the cover is off, place both of the lithium batteries into the opening with the positive ends facing the opening or up. Now replace the battery cover.

Note *Unless you know beyond a shadow of a doubt that the main NiCad battery is fully charged, do not install the batteries without plugging in your EO first. Also, do not pull the batteries out of the EO unless it is in Standby mode, otherwise you could lose all of your information.*

Figure 2.3

The EO's
batteries

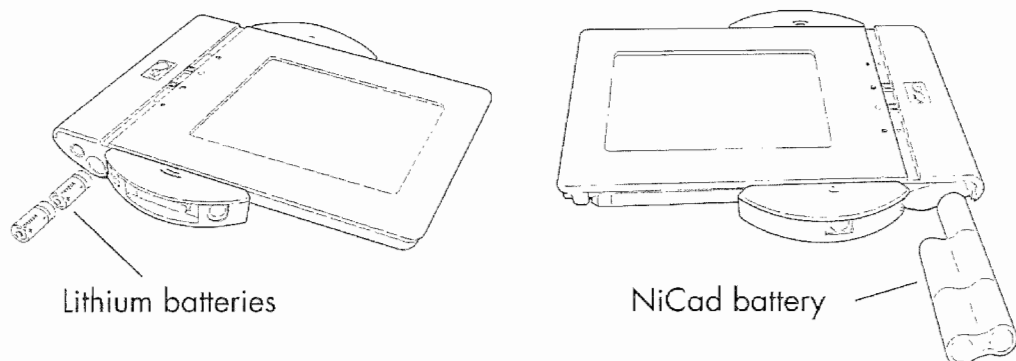
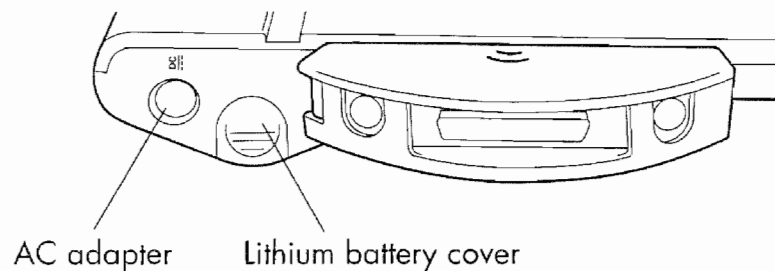


Figure 2.4

The battery
cover for the
lithium
batteries



On the opposite side of your EO, on the wedge, you will find the cover for the NiCad battery (see Fig. 2.5). This cover is the same shape and size as the wedge at the top of the EO. In the center of the battery cover is an oval sliding button. To release the clasp that holds the battery cover on you need to slide the button toward the top of the EO and hold it while sliding the cover toward the back of the machine (remember the back is the side opposite the screen).

Slide the cover firmly but do not force it. Once you get the cover off, you should put it back on and take it off a couple of times to get familiar with how it operates. It is a little more difficult to remove once you have installed the battery, but it loosens up after it has been removed and put back on a few times.

To install the battery just slide it into the opening. There is only one way it can fit, that is with the longest edge of the battery facing the top of the EO. Once the battery is in, you will have to hold it down and slide the cover back on. When you have put the battery cover back on, make sure the button lock is in the down position as shown in Figure 2.5.

The EO's Power Modes

Once you have installed the batteries your EO is never really turned off, it will either be on or in a Standby mode unless you deliberately shut it down. (Shutting down your EO will be discussed later in this chapter). When the AC adapter cable is plugged in, the battery light (the small round light on the upper left of the EO's face, with a plug icon below it) should blink on and off.

Charging the battery with the EO in Standby mode will take 90 minutes. To charge your battery your EO must be in Standby

Figure 2.5
The battery cover for the NiCad battery

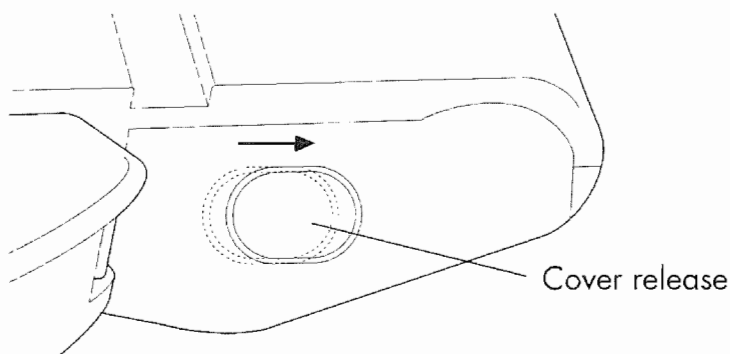


Table 2.1 What the EO's AC light means

The AC light is:	The EO is:
On	on and running off of the AC adapter
Blinking	off and the battery is charging
Off	off and the battery is charged or the EO is on and running off of the battery

mode or shutdown. The EO's battery does not trickle charge while the EO is in use. Therefore, make sure you turn it off for 90 minutes before you go on the road, otherwise you could find yourself out of juice before you make it to the freeway.

While the EO is plugged in and in Standby, the blinking light means that the battery is charging. When the light stops blinking your battery is fully charged and the light will go off. The AC light also remains off when your EO is turned on and you are running from the battery. Finally, the AC light is on when your EO is on and the AC adapter is plugged in. If you're a little confused, check out Table 2.1.

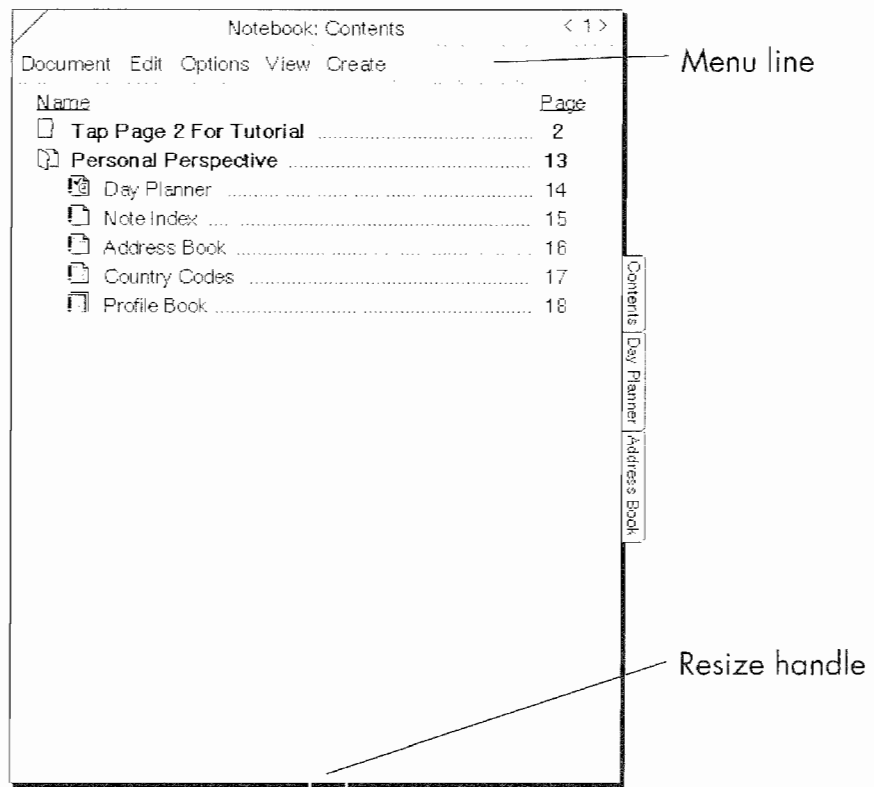
Up and Running

As mentioned above, when you first start your EO you will see a screen like the one in Figure 2.4. However, before we start using the EO you need to understand the EO's various screen elements. What you are looking at is called a *notebook*. A notebook can be equated to a directory (if you are familiar with DOS) or a folder (for those of you with Macintosh experience). But these associations are only approximations.

EO's Notebook is a metaphor, meant to represent a physical notebook. It is a container that holds documents you create, but it is a smart container. Figure 2.6 shows the default Notebook with each of its elements noted.

The Notebook is a smart container because it automatically organizes your documents and provides easy access to what you need. The Notebook would not be very useful unless you could quickly

Figure 2.6
The default
Notebook



and easily access its contents, so you should review the “Explanation of the Notebook’s Elements” on pages 44 and 45 and familiarize yourself with the Notebook’s elements. Otherwise you might find it difficult to understand what I’m talking about as this chapter proceeds.

Under the Notebook you will see a series of icons across the bottom of the screen (see Fig. 2.7). Each of these icons represents a special purpose PenPoint notebook. (PenPoint is the EO operating system.) Under each icon is the name of the notebook. The notebook named Notebook is the default Notebook shown in Figure 2.7. The area of the screen that displays these notebooks is called a *bookshelf*.

Note *The rest of this section is designed to get you up and running, that is using your EO, as fast as possible. The approach used is systematic and will build a foundation you can use to get the most from your EO. It is highly recommended that you fully understand this section before continuing. This is information you will need throughout the rest of the book. Also, this section will provide you with the basic terms and techniques used for all of the subsequent procedures discussed in the book.*

Figure 2.7
The main EO
bookshelf



Your First Taps

If you have not yet found the pen, it is located on the right-hand side of the EO, inserted with the point just under the ear and the top of the stylus at the bottom of the EO. When you are not using the pen, put it back in its holder. This is especially true if you have a habit of misplacing your pen or pencil. Without the pen you cannot use your EO.



I would strongly recommend you consider getting a second pen so you have an extra one in case you lose or break the one you normally use. Once you start using your EO you will quickly become dependent on it and being unable to use it could be more than an inconvenience, it could be a disaster.

If you have not already done so, remove the pen from its hiding place. You'll use the pen for everything—entering data and communicating with your EO. When you are giving your EO commands, you will do so by tapping or by drawing gestures on the screen in a specific manner, at specific locations. The primary means of giving a command is called a *tap*, which will be annotated with the following symbol †. A tap is a quick action where you touch the tip of the stylus to a specific spot in the screen. The motion is very much like dotting an i or placing a period at the end of sentence when writing on a piece of paper.

For the next few minutes the tap is the only gesture you are going to use. If you tap or gesture in such a manner that the EO does not recognize you will see a starburst like this ✱. This is how the EO talks back to you, it will either perform the requested action or you will see the starburst. To begin, be very deliberate and do not get frustrated and start tapping all over the screen. If you start tapping all over without knowing why you are tapping or where you are tapping you could quickly become lost and have several windows or notebooks open at the same time.

Explanation of the Notebook Elements



Some of these explanations include topics that have not been covered yet. Don't worry—I simply want to introduce the most important ideas and concepts that you will be using with your EO. Most of these concepts will be used in this chapter and throughout the remainder of the book.

Close corner The area you tap  to close a notebook. When you are working in a notebook, if you tap the close corner you will close the notebook. If you are working on a document and close the notebook, you will also be closing your document. If you accidentally close it, tap  on it and it will reopen.


Contents Page A contents page tells you what is in a notebook. Each notebook has a contents page. Also, each section page is a contents page that details what is contained within a particular section.

Cork Margin The Cork Margin is the area at the bottom of a page where you can embed documents and accessories so they are always available while you are using a specific page.

Documents These are the data files you create and use. A document is normally kept in a notebook. Within the Notebook you may want to keep your documents in sections so that your work and data can be grouped in an order that is logical for you.

Icon Each type of document has a unique icon. By viewing your documents with their icons you can tell whether a document is a MiniText or MiniNote file. Tapping  on the icon will turn to the document associated with the icon. Double tapping  on the icon will cause the document to open in its own floating page. Causing a document to float is like tearing a piece of paper from a notebook so you can work with it. Icons are also used to represent tools in documents.

Labels The label is the heading at the top of the contents page in the notebook, just beneath the menu line. The label details the visible elements

To get accustomed to tapping, tap  in the close corner of the Notebook window (see Fig. 2.8).

If you properly closed the notebook your screen will look something like Figure 2.9.

such as name, size, and page number for each section and document contained in a contents page.

Menu line The Menu line is where you will find groups of commands contained in a list that drops down when a menu name is tapped. The Menu line contains commands that apply to the document and/or the program you are currently viewing or using.


Page number Every document and section contained in a Notebook has a page number. The first page of any notebook is the main contents page and is page number 1. Page numbers can be reordered by moving documents from one section to another or moving them around within the same section. The page number is always visible in a contents page. By tapping on a page number you will go to the document associated with that page number. On either side of the page number in the Title line you will see an arrow, < or >. By tapping on an arrow, you will move one page in the direction the arrow is pointing.

Resize handles The resize handles are at the bottom center and bottom right-hand corner of a notebook or document window. By selecting a resize handle and moving the pen, you can change the height and width of a notebook or a document.

Sections A section is like a sub-directory on a computer, or a divider in a physical notebook: it is a container for holding documents within a notebook. Creating a section is like inserting a divider into a three-ring notebook.

Tabs A tab is used as a means for quickly switching from one document to another within a notebook. The tab is very much like a divider tab in a three ring or spiral notebook. Tabs can be set for any page.

Title line The Title line tells you the name of the document you are looking at or working on. You can also execute specific functions by drawing the appropriate gestures in the Title line.

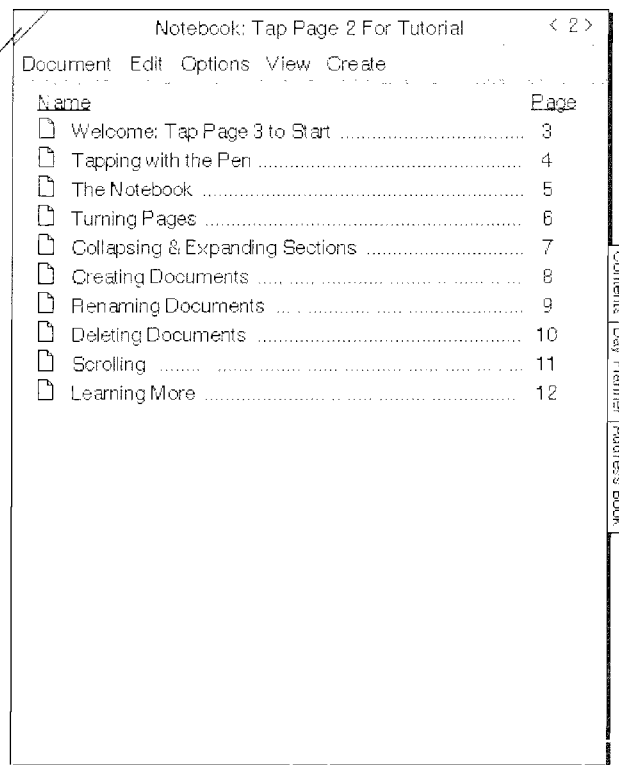
Now tap  the Notebook icon, and the default Notebook will open.

Note *The first tendency most people have is to double-tap an icon or other screen element. (This is especially true if you are used to using a Macintosh or MS-DOS computer with Windows.) Almost all com-*

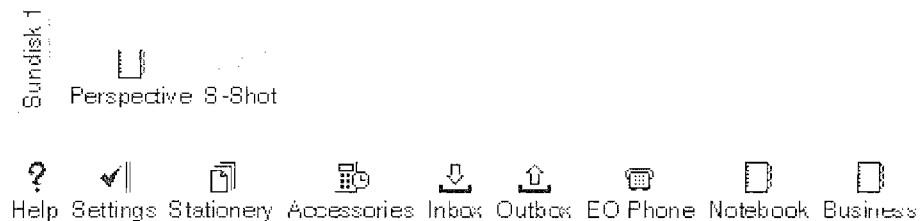
Figure 2.8

Closing a window

Tap here to close window

**Figure 2.9**

The EO screen with all notebooks closed



mands are delivered with a single tap or gesture. Double-tapping has a specific meaning and purpose which will be discussed later on.

Looking through the Tutorial

Now that you have the Notebook open again, tap on the number two (2) under the label Page. When you do this, you will go to page two of the notebook and see a window like the one in Figure 2.10.

The tutorial consists of ten pages, 3 through 12, and the tutorial is a quick overview of the EO's operating procedures. It is one place where you can get the basic operating concepts and procedures presented in an orderly fashion and practice using these procedures in a safe environment. The tutorial takes about 15 minutes to

Figure 2.10

The contents page for the tutorial

Name	Page
Welcome: Tap Page 3 to Start	3
Tapping with the Pen	4
The Notebook	5
Turning Pages	6
Collapsing & Expanding Sections	7
Creating Documents	8
Renaming Documents	9
Deleting Documents	10
Scrolling	11
Learning More	12

complete, after which you will have covered the basics for using your EO.

The tutorial will teach you:

- How to move through a notebook by using the page number
- Tapping with the pen and opening documents
- Using Notebook Tabs
- Expanding and collapsing sections
- Creating documents
- Renaming documents
- Deleting documents
- Scrolling
- Learning more

As you go through the tutorial, remember that many of the concepts associated with editing apply to working within documents, not just the contents page of a notebook or section. This is especially

true of the renaming, creating, and deleting sections. All of these functions are consistent within the PenPoint operating environment whether you are working with sections, documents, or words.

Instant Help

Your EO has a built-in help system that is very complete. The most important sections of the user's manual are included in the Help Notebook. The help system covers all of the information you might need for both the PenPoint operating system and your EO's hardware. If you are ever at a loss you can access context-sensitive help by gesturing with a question mark ? over the window element, title bar, button, or command that you are curious about.

The Help Notebook is the first bookshelf item—it's simply called Help (see Fig. 11).

When you tap on the Help Notebook you will get a small options sheet telling you to tap on the object you need help with (see Fig. 2.12). You will also have the option to open the Help Notebook.

If you tap on an object you will see a brief description and a list of options for the object you tapped on. Figure 2.13 shows what you see after tapping on the Create menu command.

Note *An options sheet is a small page that provides you with options. In this case if you drew the ? gesture or opened the Help Notebook*

Figure 2.11
The Help Notebook icon

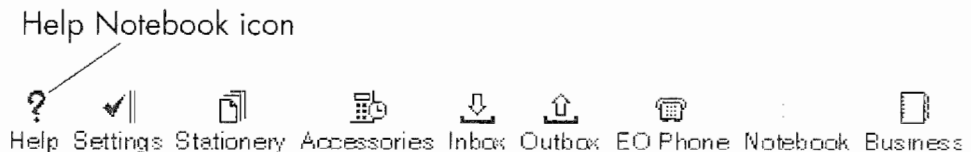


Figure 2.12
The initial Help options sheet

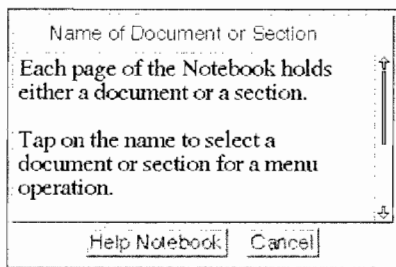
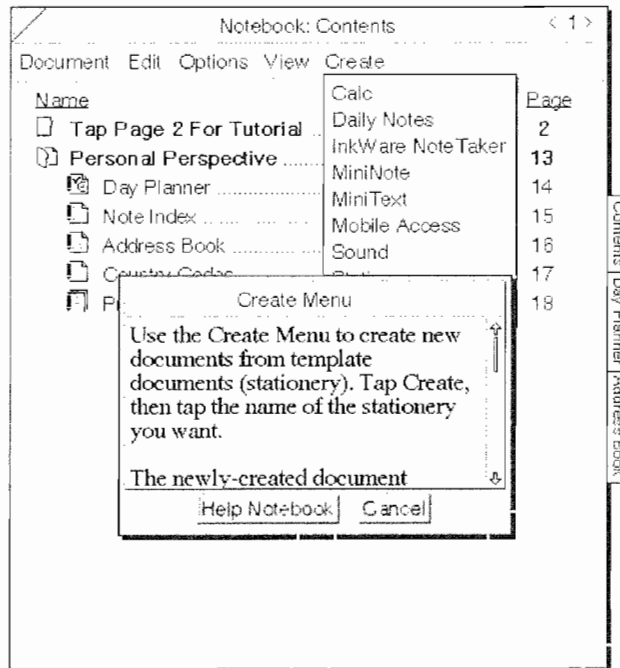


Figure 2.13

The Help options sheet after tapping on the Create menu command



you were presented with the Help options sheet. You will see other options sheets in subsequent sections and chapters.

Another way to bring up a help options sheet is to draw a “?” on top of the object you are curious about. This is the same as tapping on the Help Notebook and then tapping on the object of your distress. Using the ? gesture is a little shortcut that can save you some time.

If you want more information after you have looked at the information in the Help options sheet you can open the Help Notebook by tapping on the Help Notebook button. You can then find more detailed information on the subject you want. Figure 2.14 shows the contents page of the Help Notebook.

When you use the Help Notebook, check out the index. It may be faster than leafing through the different sections to find the topic you want. However, you should also spend a few minutes browsing through the different sections to become familiar with the rich selection of topics that are available. All of the EO’s applications, the EO’s hardware, and the PenPoint operating system are covered by the Help Notebook.

Figure 2.14
The Help
Notebook
contents page

Name	Page
Using Help	2
PenPoint Help	5
Drawing 11 Basic Gestures	6
Using Contents Pages	19
Using Notebooks	28
Using Menus & Icons	39
Using Option Sheets	47
Viewing Documents	52
Creating And Using Documents	58
Filing Documents On Disk	65
Embedding Documents	74
Writing In The Notebook	81
Editing And Formatting Text	89
Spelling, Finding, & Replacing	101
Installing Software	107
Printing	110
Gestures	117
Applications	118
EO Hardware Help	136
Index	166

Help Settings Stationery Accessories Inbox Outbox EO Phone Notebook Business

Learning to Tap, Draw, and Write

The concept or metaphor behind the EO are real notebooks, pages, paper, and pens. It is the pen and paper metaphor in conjunction with its portability and communications capabilities that make the EO a personal communicator. This metaphor brings with it a new way of interacting with digital devices like the EO. Drawing and tapping are both a result of applying the metaphor to the EO and actions performed with the pen on its screen.

A gesture is a mark you draw on your communicator's screen, causing it to perform a specific action like converting text from lower to upper-case characters. Tapping is the primary means for selecting different objects such as letters, words, buttons, and documents and is performed by lightly touching your pen to the communicator's screen (an action that is very much like dotting an i). In addition to tapping and drawing, you will also be writing (printing) on the screen of your EO.

What makes all of this work is the EO's built-in character recognition engine. The character recognition engine converts the letters you write into digital characters. If you do not want to have your writing translated, the EO will store your writing in a form called *digital ink*. Figure 2.15 shows a page with both digital text and digital ink.

Add a sophisticated library of gestures that perform different functions based on the context of the gesture and you have a very powerful system that does not require a keyboard. (If this seems a bit like Greek, just hang in there. It'll be made clearer.) All of this is controlled by a high-powered processor and an operating system that can interconnect your data in ways heretofore only dreamed of.

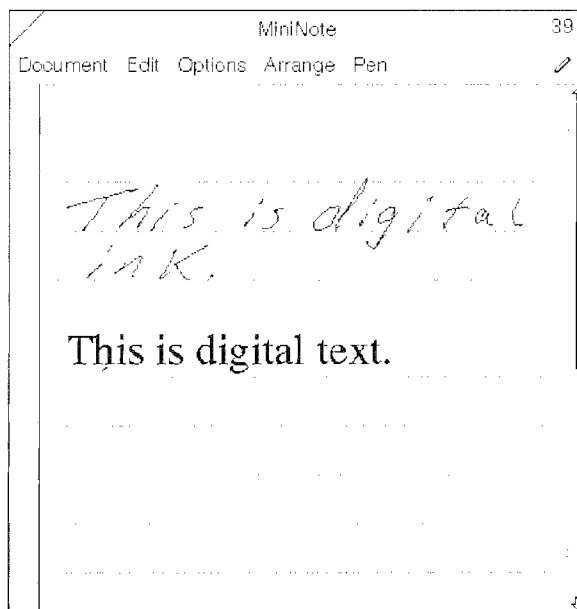
Note

The Webster's definition of writing is: 1. To form (symbols, letters, or words) on a surface, as with a pen or pencil. 2. To inscribe the symbol, letters, or words of (write one's signature). 3. To create and put down on paper.

All of these definitions apply when interacting with your EO. Although we often use the word writing to mean cursive or long-hand writing, throughout this book writing refers primarily to the first definition. Although you may truly write a gesture, the use of gestures is called drawing. Writing will mean using or "writing" letters that are going to be stored as text and/or digital ink.

Figure 2.15

A page with
both digital
text and
digital ink



The EO cannot automatically recognize all of the different styles of writing and interpret them. We (humans) can sometimes recognize what has been written because of the context in which the letters and words occur, but there are cases when someone's handwriting is so unclear that even context is useless. To solve this problem, you can train the EO to recognize your handwriting, even if you write in a non-standard manner.

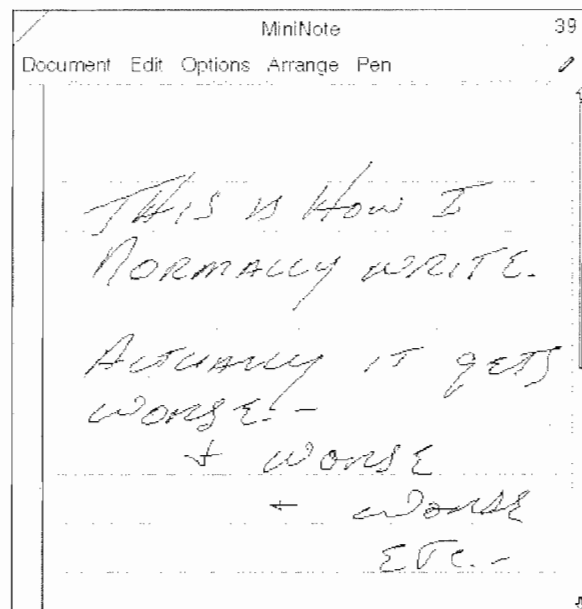
The longer you use an EO the easier it becomes for it to recognize your writing. (After working with EO for awhile, your writing will probably become neater. My handwriting is far from clear as you will see in some of the figures throughout this book. Figure 2.16 is an example of my chicken scratch. Some have said my writing looks nice, but it is also impossible to read. They are correct.

When I started using the EO I was concerned because I knew that my writing was not suited for character recognition. But while learning to use the EO I discovered that if I took just a little care, the EO would recognize my writing.

As a result my writing has become more legible overall, even when I'm not using an EO. Also, the creators of PenPoint and the EO knew that we (the users of the EO) would not always be able to take the time to make our writing legible and provided an alter-

Figure 2.16

My sloppy
handwriting



The TAO of Ink

I used to use small yellow pads for jotting down notes while in my office or at meetings. I had at least a half a dozen around because I'm not the most organized person in the world. So, when someone called and I needed to write something down, I could never find a note pad. My solution was to get a new pad, grab an envelope from yesterday's mail, or get a piece of scratch paper out of the trash to write down that important phone number, address, or message.

As you can imagine, I would often spend more time trying to find my notes than I would working. Now with the EO I can take my notes without needing to look for paper, and I can also doodle at the same time. Not only do I know where my notes are, they can't accidentally end up in the trash, lost under my keyboard, or stuck between magazines.

Most of my notes are kept in digital ink and are very secure, since no one can really read my writing but me. And if the note is really important I take the time to translate it into real text and link it to the appropriate person, company, or day (more about this capability in the chapter about Personal Perspective).

native called digital ink. Anywhere you can enter data on an EO you can also use digital ink.

The combination of character recognition and digital ink means you can always put your data into your EO. When you are in a hurry, and do not want to take the time to make your writing recognizable, you can use ink. Later, if you wish, you can convert your ink writing into characters. Of course, you may also just keep your data as ink.

Also, for you doodlers, digital ink makes working with a EO just like using a piece of paper. You can write your notes and doodle at the same time.

By now you have probably guessed that this section is about training your EO to recognize your writing, using some of PenPoint's gestures, and tapping around your screen. This section will provide you with the basic information you need to start using your EO.

The only problem with this whole section is where to begin. What should be learned first? Drawing? Tapping? Writing? Well, tapping should be first (in my opinion, for what it's worth). But the question of drawing and writing is really a toss up. So read the whole section before you start poking and tapping at your EO. This section, along with the last two, should put you on the right road and give you an understanding of the road signs.

Tapping About

Tapping is to the EO what the mouse and clicking or double-clicking is to a desktop computer. Tapping is how you open notebooks, select text or objects, and perform many routine tasks. The process of tapping, as mentioned above, is like dotting an i: tap once and lift the pen away from the screen. If you are performing a multiple tapping sequence, such as a double or triple tap, tap the required number of times in quick succession on the object of your desire, barely lifting the pen from the screen between each tap.

The first thing to remember about tapping is not to double tap. There is a tendency to tap twice when one tap will do. The reason that you should not double tap is because a double tap tells the EO to perform a specific action different from a single tap. There are also some tapping associated actions called presses and tap presses, and then there is the process of dragging. Although these are not taps in the strictest sense of the action, they are more closely related to taps than gestures.

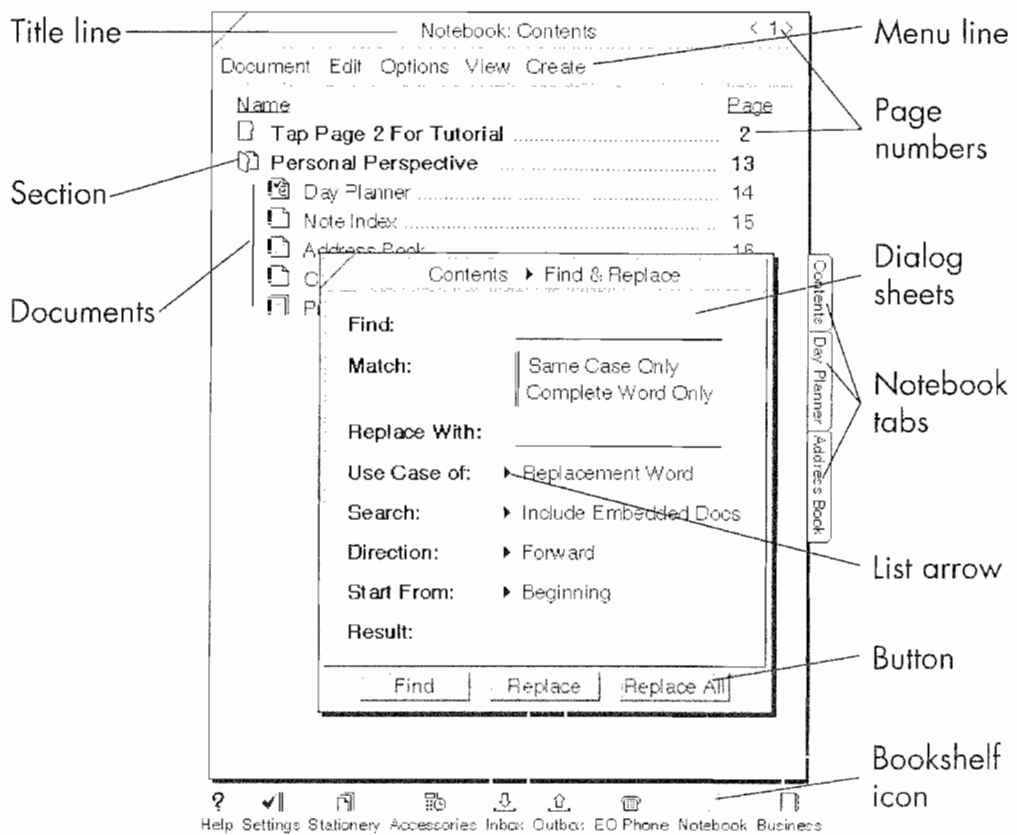
The location of a tap or taps sequence also has a bearing on the meaning of the tap. The following lists the different types of taps and their meaning, depending on where they occur. This is a beginning list, and because of the variety of ways to use a tap it is incomplete. But the list does contain most of the different meanings you will need to begin using your EO. The hieroglyph to the left of each explanation is the symbol that will be used throughout the book to designate that type of tap.

! Tap

Openings The tap ! is used to open notebooks and documents by tapping on their icons on either the bookshelf or in a notebook's table of contents. You can also tap on a page number or tab to open

Figure 2.17

An EO screen with an open notebook and dialog sheet



a document. When you tap **!** to open a document within a notebook, the notebook will open to that document's page.

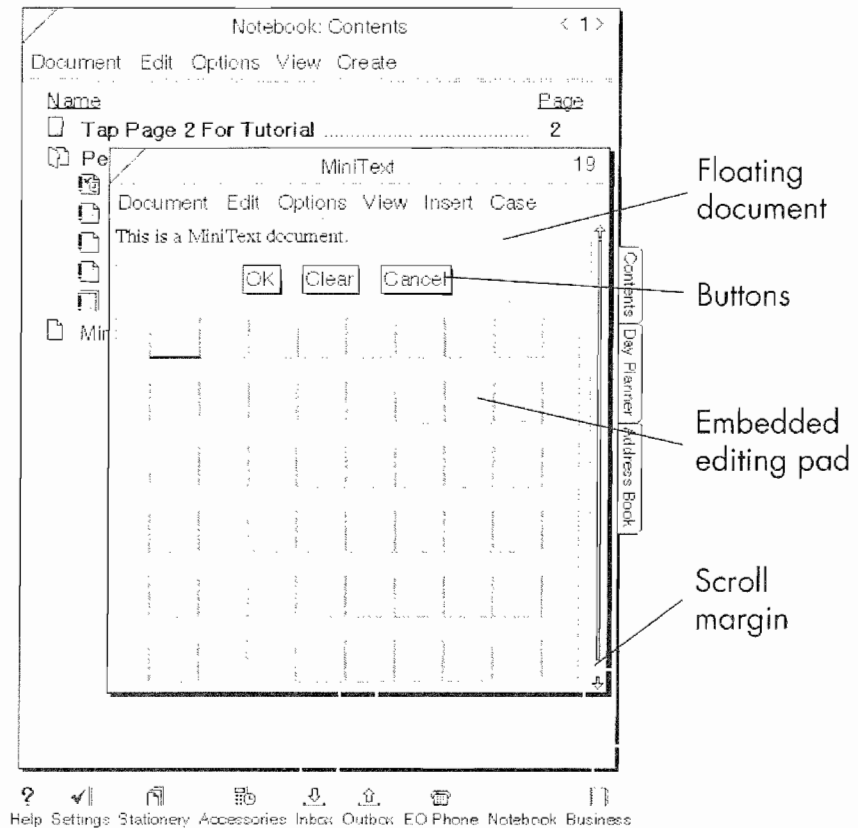
Selections Depending on the type of document on which you are working a tap can select a letter, word, a line of text, a name, or open an editing pad. If you are in a notebook's table of contents, tapping on the name of a section or a document will select the item's name.

Menu Selection Tapping on a menu name will cause the menu to pop up. A subsequent tap on your menu choice executes the menu command.

Button Selection Buttons appear in option and dialog sheets. A single tap on a button will cause the button to be pressed, executing the button's command. If you are viewing a notebook with buttons instead of icons, tapping on a content button will cause the notebook to turn to the page associated with the item next to the button.

List Selection In option sheets an arrow means you can select options represented by the label to the left of the arrow. Tapping on the arrow or the choice to the right of the arrow causes a pop-

Figure 2.18
An EO screen
with an open
notebook and
a floating Mini
Text document



up list to appear. A tap on an item from the pop-up list selects it and closes the pop-up list.

! Double Tap

Openings Double tapping on a document's icon (or button), its page number, or a notebook's tab will cause the document to open as a floating page like the MiniText document in Figure 2.18. Double tapping on a document's Title line will cause the document to open as a floating document. Double tapping on a section name (in a table of contents) will expand a closed section or close an open one. If you have trouble with double tapping—if it keeps happening when you don't want it to—try turning off Float and Zoom in the Settings Notebook. (This is explained in Chapter 4.)

Selection In most cases double tapping will select a word. The reason I say most cases is that in some documents or sections of a document, like the notes section in Personal Perspective, double tapping will deviate from the general rule. (Deviations, when they occur, will be discussed in other parts of the book).

Pages You can use a tap in the scroll margins to move the display on a page one screen width by tapping on either side of a Drag Box. To move a page in this manner your EO has to be set to use Arrows and Drag Box as described in the Fonts and Layouts preferences section in Chapter 4.

⌘ Triple Tap

Triple tapping will select a sentence within most applications that use a paragraph structure. MiniText, the word processing application that comes with your EO, uses a paragraph structure. Triple tapping on a word in a MiniText document selects the sentence that contains the word you triple tapped.

⌘ Quadruple Tap

Quadruple tapping will select a paragraph within documents that use a paragraph structure. Just like the triple tap, if you quadruple tap on a word, the paragraph that contains the word you quadruple tapped will be selected.

⌘ Press

A press is related to a tap, but rather than touching the object and lifting the pen, you touch the object with the pen and continue to hold the pen down. How long you hold the pen on the object depends on what you want to accomplish. With a press you can select a box in an editing pad, a previously selected object for moving, or set the insertion point in a line of text of a text document.

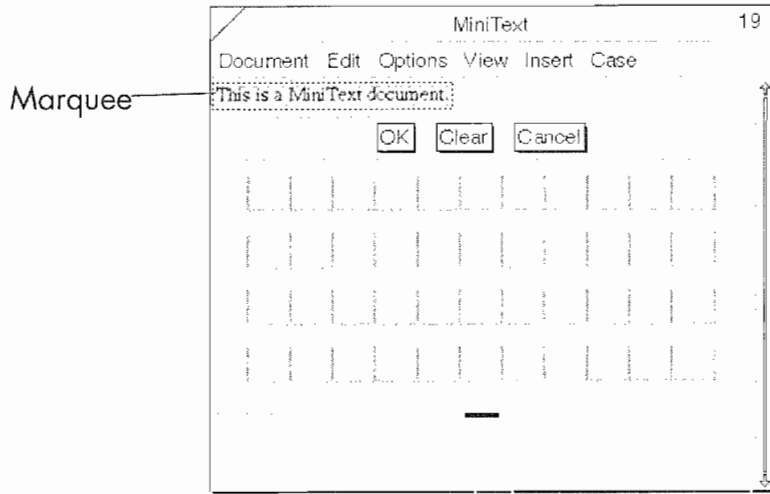
The most common use of the press is to select an object for moving. When you press an object (an object can be almost anything from a document in a table of contents, a word in a line of text, or a tool from within an application) a marquee will appear around the selected item (see Fig. 2.19). You move the selected item by dragging it to its new location. Because there are many different ways to move an object, this topic will be discussed in various places throughout the book.

⌘ Tap Press

The purpose of a tap press is to select an object for copying. The tap press is performed by tapping and immediately performing a press

Figure 2.19

A sentence that is ready to be moved



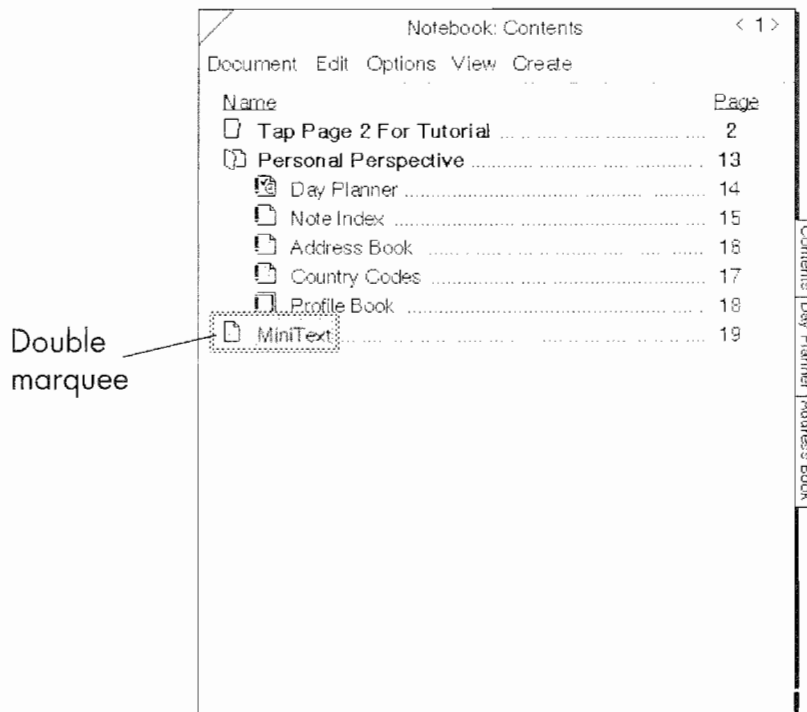
after the tap. You can tell that a tap press has been performed by the double marquee that surrounds the selected object. Once the double marquee appears (see Fig. 2.20), the object can be dragged to its destination. This action can be performed on any selectable object such as a paragraph, an application tool, or a document.

Note

*When you are tapping about on your screen you will see from time to time a starburst * or a starburst with a ? inside. When you see a starburst happen your EO is talking back to you and sometimes you*

Figure 2.20

A document that is ready to be copied



will think it is just downright uppity. Well, don't slap it, that will not make it understand you any better (there's just no way to knock the wax from its ears).

Instead you will have to rethink what you are doing. If you see a square with watch hands going round it means your EO is busy executing the last command you gave it. If the starburst keeps appearing the EO is pretending to be brain dead (remember the important word here is pretending) because you are tapping someplace where taps are inappropriate or it is not recognizing the gesture you are making.

Until you get the hang of tapping and drawing you will see a lot of starbursts. Hopefully they will not get to fireworks proportion because that would probably mean that you are frustrated and ready to use your communicator as an expensive Frisbee. So, if you are seeing fireworks (lots of starbursts), take a break, rethink your steps, and try again.

Dragging is always associated with tapping because you have to press or tap press an object before it can be moved or copied. After the object has been selected for moving or copying (having a marquee or a double marquee) place the pen inside the borders of the marquee and, without lifting the pen from the tablet surface, move the pen to the object's destination. The object will move with the pen. When the object is placed where it will be accepted (moving text from one field to another field) and you lift the pen, the object will reposition itself in the new location.

Drawing

As mentioned above, a gesture is the means of giving a command to your EO by drawing a symbol with the pen. Several gestures have multiple meanings depending on where (on what object) the gesture is drawn. Although the same gesture may cause different actions, the meaning of the gesture usually remains constant.

An example is the caret gesture \wedge . The caret gesture means insert. But the meaning of insert is different when executed in the table of contents of a notebook than when it is used in a MiniText document. In the table of contents you want to insert a new document

or section while in a MiniText document you would be inserting new text.

The following list of gestures are the ten basic gestures (in addition to the tapping gestures) you need to get started with your EO. When you draw gestures your strokes need to be concise and clean. You cannot curl the beginning or the end of the stroke and most strokes are one continuous pen stroke. Each gesture is illustrated with a symbol. For each stroke of the gesture the fat end of the stroke is the beginning and the thin part of the stroke is the end. Start your stroke at the fat end and end on the thin. For those gestures that require two or more strokes, barely lift your pen from the tablet when you make the second stroke.

If you have trouble drawing your gestures or find them awkward, you can use the built in gesture practice page that is described after this list of basic gestures.

^ **Caret**

The caret gesture as mentioned above is the insert gesture. When used on the Bookshelf it will pop up a menu of insertable documents, including a notebook. When performed in a notebook you will receive a pop-up menu of insertable items, including a section. Within text fields the caret will bring up an empty editing pad. Also, various programs will insert objects specific to the program by using the caret.

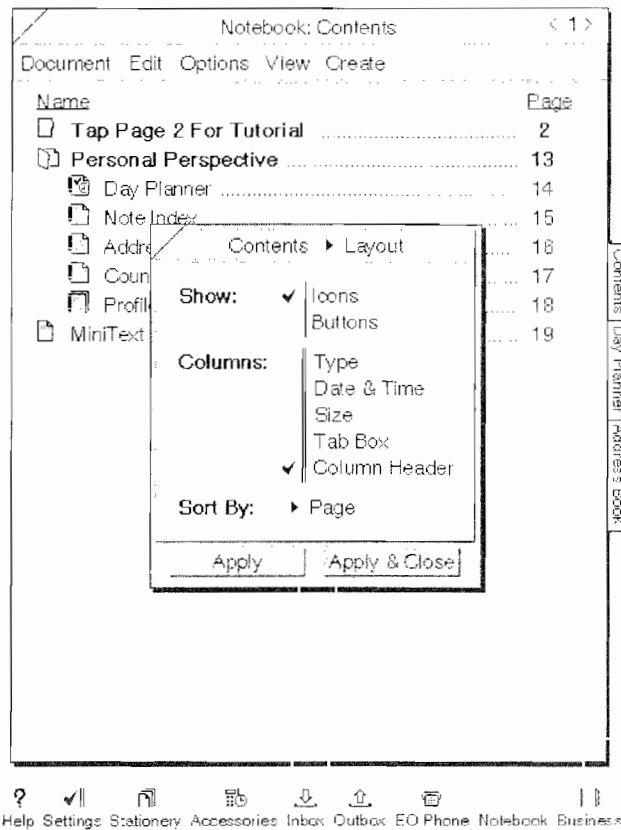
✓ **Check**

The check ✓ gesture is used to display the options available for a particular object. Many objects such as tools, menu lines, and other configurable items will pop up a dialog sheet so you can change the object's attributes. When a check is drawn in the table of contents of a notebook, you will get a dialog sheet like the one Figure 2.21. This is a gesture you should experiment with.

○ **Circle**

The circle ○ is the edit gesture. It is used in data and text fields to open an editing pad. In some applications, such as Personal Perspective, the circle gesture will open a profile sheet (record

Figure 2.21
A dialog sheet displaying the options for a notebook's contents page



form) for editing. If you want to change the name of a document, notebook, or section, draw a circle over the name and an editing pad will appear so you can change the name.

X Cross out

This is the delete gesture. A cross out X will delete just about anything. You can use this gesture on selected text and other objects. If you use the cross out gesture on a notebook displayed on the bookshelf, it will delete the entire notebook and the notebook's contents, so be careful.

| Flick up

The flick up | gesture is used to move (scroll) a page up to reveal what may not be visible on the page. This gesture can be used directly on some documents and/or in the scroll margin. A flick up in the Title line of a document will zoom the page to full size. And using a flick up on a letter in an editing pad will delete the letter.

| Flick Down

The flick down | gesture is used to move (scroll) a page down to reveal what may not be visible on the page. This gesture can be used directly on some documents and/or in the scroll margin. The flick down moves the document in the opposite direction of the flick up gesture.

— Flick Right

The flick right — gesture is used to move (scroll) a page to the right to reveal what may not be visible on the page. This gesture can be used directly on some documents and/or in the scroll margin. The flick right gesture can also be used on options dialog sheets wherever there is an arrow to select the next available option.

— Flick Left

The flick left —gesture is used to move (scroll) a page to the left to reveal what may not be visible on the page. This gesture can be used directly on some documents and/or in the scroll margin. This gesture will move a page in the opposite direction of a flick right. Also, the flick left gesture can be used on options dialog sheets wherever there is an arrow to select the previous option.

└ Insert Space

The insert space └ gesture is used with text to insert a space in-between characters. Use this gesture by starting the stroke between the two letters where you want the space inserted and complete the gesture.

⌘ Undo

The undo ⌘ gesture is used to cancel your last action. If you edit a word and change your mind you can perform the undo gesture and the word will be restored to its pre-edited condition. This command only works within documents where the action you want to undo is reversible (check the application's user's manual). If a document supports the undo gesture it will usually have an Edit menu with an undo option in the edit menu. The undo gesture will not restore a deleted notebook or file.

? Question Mark

The question mark gesture calls up instant help. When you gesture a question mark on an object, context-specific help appears for the object. If no help is available, the Help Notebook will still open instant help and tell you that no help is available.

Some gestures can be difficult to master. I have problems with the scratch out \equiv and the caret tap \wedge gestures. (These will be discussed in the chapter on PenPoint.) However, practice can make perfect, and the EO has a built-in program specifically for this purpose.

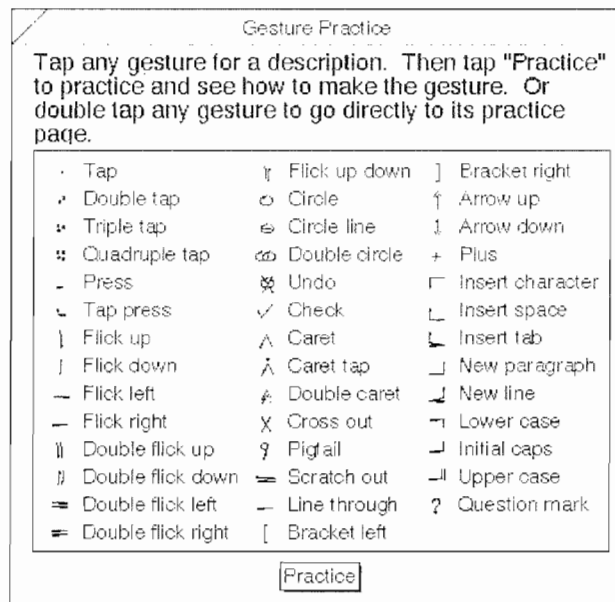
To access the drawing practice page:


1. Tap on the Settings Notebook.
2. Tap on the Contents tab if the contents page is not visible.
3. Under Installed Software tap on the Gestures button.
4. When the Gestures page appears, tap on the word *practice*.

At this point you will see a page that looks like Figure 2.22. This page lists all of the PenPoint gestures you can use.

By tapping $?$ on a gesture a description of the gesture will appear at the top of the page. If you want more information about the ges-

Figure 2.22
The Gestures
Description
page



ture double tap  on the gesture and you will see a practice page similar to the one in Figure 2.23.

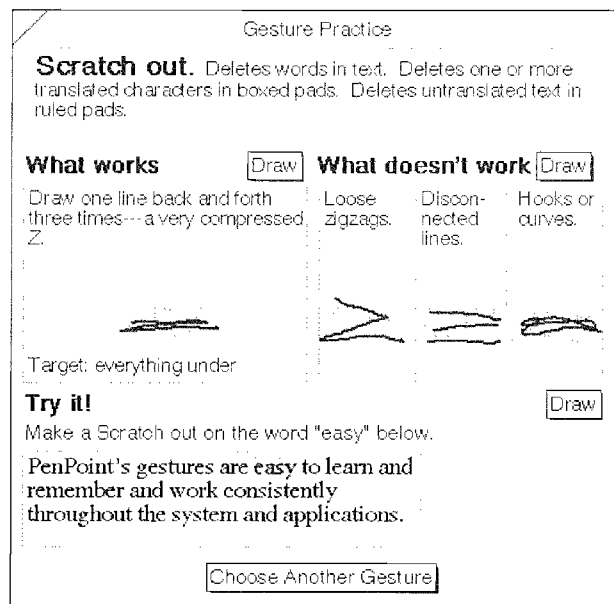
On the practice page you will see the description of the gesture, instructions on how to draw it, examples of what does and doesn't work, and a practice area. After reading the information about the gesture you should practice drawing the gesture. When you practice the gesture the EO will tell you if you drew it correctly. Practice all the gestures until you have them all down and you feel comfortable with them.

There will always be occasions where you did not draw a gesture properly. Usually it is just a little frustrating. However, if you consistently have problems, don't forget about the gesture practice area.

Writing Practice and Customization

Although taps and gestures are used to tell your EO what you want it to do, usually you will be telling it to do something with data you have written or that has somehow been input into your EO. When you write on your EO you will either be using digital ink or you will want the EO to recognize your writing and then translate your writing into text. If you want your EO to recognize your writing, you may have some work to do.

Figure 2.23
The Gestures
Practice page



Your handwriting clarity is going to determine whether or not the EO will easily translate what you write into digital text. I said in the introduction to this section, my writing is far from perfect. As a matter of fact, I have a hunch that my writing falls into a category that is close to atrocious. Yet, even I have been able to get the EO to recognize my writing.

If you have less than legible handwriting there are several ways to increase your EO's ability to recognize your writing. And even if your writing is good you will find that by following these suggestions your EO's ability to recognize your writing will improve.

Statistically, the character recognition capabilities of the EO have been rated at about a 90% accuracy rate. But statistics often have little bearing on reality. The reality of using the EO is that you will be entering data while on the go. Sometimes translating text will take too long so you will use ink, at other times you will want your writing translated.

Whatever you're doing, translating text takes time, and if you are going to take the time to have your writing translated statistical averages won't mean much. Regardless of the averages you will still want the maximum character recognition capability your EO has to offer just to save time and prevent frustration.

To achieve this goal you need to (a) align your pen, (b) practice your handwriting, and (c) customize the recognition of any characters that you write in a unique manner. Aligning your pen is covered in Chapter 4 and will not be discussed here. This section will, however, discuss practicing your writing and customizing the EO's recognition.

Note

The software your EO uses for character recognition is only one part of the PenPoint operating system, and at this time it is probably the best character recognition software available. But, that does not mean that better software will not be available in the future. Currently there are several companies writing software that will recognize cursive writing.

Because the PenPoint operating system is modular (object-oriented) you will be able to easily upgrade the character recognition engine as new and better handwriting recognition software becomes avail-

able. Also, it is possible that companies other than GO or EO will develop recognition software that you might want to use. In any case, when new software is available you will be able to easily upgrade and enhance the EO's character recognition, improving on what you already have.

Before you start customizing letters you need to practice. Once you have practiced writing all of the different characters you should use your EO for awhile without customizing any characters. After you have used it for a while you will know which of your characters the EO has problems with. After you know which letters are troublesome, you can train the EO to better recognize how you write the problem characters.

Just as the EO has built-in software for practicing gestures, it also has a page for practicing handwriting.

To practice handwriting with the EO:

1. Tap on the Settings Notebook.
2. Tap on the Contents tab if the contents page is not visible.
3. Under Installed Software tap on the Handwriting button.
4. When the Handwriting page appears tap on the word "Practice..."

At this point you will see a page that looks like Figure 2.24. This page lists all of the letters.

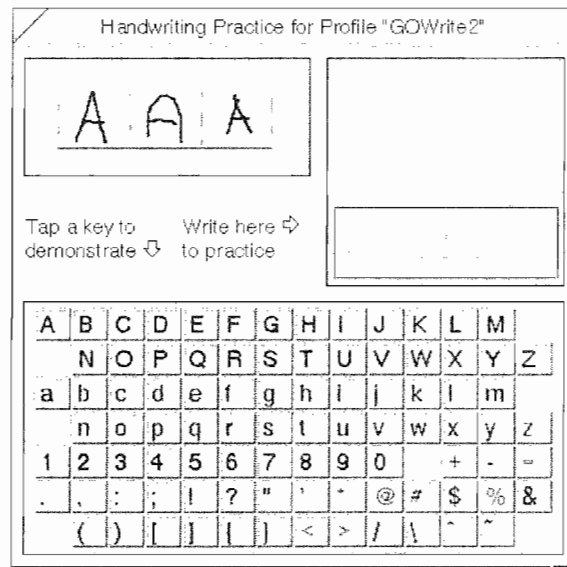
5. Tap on a letter. Your EO will show you three different ways to write a letter.
6. After you have seen how a letter is written, you can practice in the editing pad on the right. When you practice a letter, the EO will tell you if it has problems recognizing it.

Remember, you should not rush into customization immediately. This is because your writing will change as you learn to use your EO, and you also need time to get feedback from the EO to know which letters are giving you trouble.

To customize letters:

1. Tap on the Settings Notebook.

Figure 2.24
The
Handwriting
Practice page



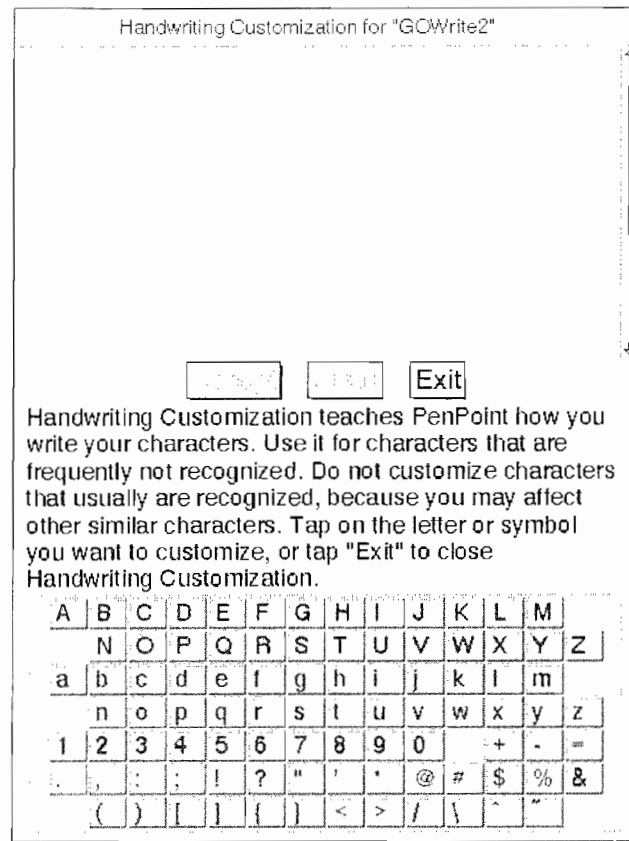
2. Tap on the Contents tab if the contents page is not visible.
3. Under Installed Software tap on the Handwriting button.
4. When the Handwriting page appears tap on the word "Customization..."

At this point you will see a page that looks like Figure 2.25. This page lists all of the letters.

5. Tap on the letter you want to customize. When you do, a series of editing pads will appear in which you write the letter you want to customize. Figure 2.26 shows the Customization editing pad in which you write the letters. Each letter you want to customize will be written eight times and then used in a couple of words. Be sure to scroll down to see all of the text entry fields before you tap the Accept button (to accept your customization).
6. After you have written each of the characters, tap the Accept button. The EO will process each of the letters, and any letter that the EO would not normally recognize is selected. Your EO will remember your unique writing style for each character.

It is really important to do this as little as possible. Each time you add a customized character your EO will have to work harder. This is because the EO will have to compare more patterns in addition to its normal method of stroke or line pattern recogni-

Figure 2.25
The
Handwriting
Customization
page



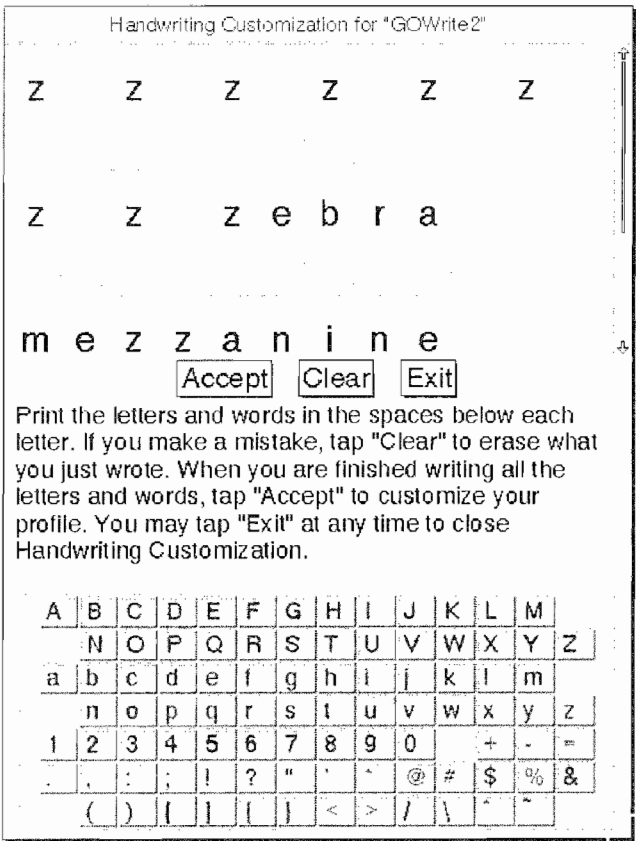
tion. And although your EO is optimized to perform quick and efficient letter recognition, customizing a lot of characters will slow it down.

Note *Once you have customized your characters the EO will store the customized letters and all of your preference settings (discussed below) in the users profile file. The users profile file is mentioned here so you will remember that you have one and that it needs to be backed up. If you have problems with your EO and need to reformat the hard drive or restore all its settings because the batteries go dead, you will not want to redo all of your training and preference settings. Backing up your preferences settings will be discussed in the chapter on PenPoint and file management.*

Conclusion

From this chapter and Chapter 1 you should know enough to start using your EO. In this chapter you have learned what to do to setup an EO, from unpacking the EO to installing its batteries. All

Figure 2.26
The
Customization
editing pad



of the steps you need to know for basic operations have been covered in this chapter.

You also now know where to find the on line help, how to use the tutorial, all of the basic gestures, and handwriting basics. Also, all major system preferences have been covered. So here you have it. Everything you need to start using your EO. The next major section will discuss the EO's software in-depth, providing you with instructions, tips, and tricks on PenPoint and all of the EO's built-in software.

The PenPoint Operating System

Introduction

Before you read this chapter you should read Chapter 2. It contains the essentials for using the EO and an introduction to PenPoint. As explained in Chapter 2, PenPoint is an operating system written by the GO Corporation specifically for pen-based computers. PenPoint was created for mobile computing devices and communications. GO's intent was to make PenPoint so it would work with telephones, pagers, faxes, and electronic mail in addition to traditional computing tasks, while using a pen as the primary means for interacting with the device. The EO Personal Communicator is the only device on the market that was built to use PenPoint and fully harness PenPoint's power.

All programs that use PenPoint have consistent features including gestures, selection methods, common menus, and dialog and options sheets, to name a few. This chapter will look at PenPoint's gestures and other PenPoint interface features. Because of the consistency that PenPoint provides for all applications the features discussed in this chapter will work with almost any program.

When a feature does not work, it will be because the application's developer did not implement the feature, not because it is unavailable through PenPoint.

There is a lot of information to present in this chapter. It will start with an overview of PenPoint's gestures, because gestures are essential to working with PenPoint and the EO. Then we'll look at PenPoint's interface, which is based on a notebook metaphor. Then, after browsing the Bookshelf and exploring the notebooks we'll look at other PenPoint features such as installing software. And then the chapter will be finished with a technical discussion about how PenPoint works.

Gestures

As explained in Chapter 2, gestures are how you give commands to the EO. Although you will use the basic gestures already discussed more than any others, the gestures discussed in this section will let you take full advantage of PenPoint's power. So, this section will look at the remaining PenPoint gestures, giving the gestures and their meanings when used in different contexts.

The contextual use of gestures means that you don't have to memorize gestures for every action you want to perform. Instead, all you have to do is remember the basic gestures and their meanings. Since the meanings change with context just like words, it is easier to remember which gestures to use.

An example of the contextual use of gestures is the cross out gesture χ . One way of remembering what it means is to think of the cross out χ as the delete gesture. Delete means the same thing even though you will be using it on different objects, but the effect is always the same. If you draw a cross out χ on a document on the Bookshelf it deletes the document. When it is used in a document on a selected text, the text is deleted. In order to remember what a gesture does, associate the gesture with the function.

Don't be overwhelmed by the gestures. If you use a gesture that will cause information to be lost, like the cross out χ gesture, you

will always be given a second chance to change your mind. The result of any other gesture will always be reversible. If you change the case of selected text with a gesture there is another gesture that will change it back (if the Undo gesture \otimes does not reverse the action).

The gestures listed in this section are those not listed in Chapter 2. Also, don't forget about the Gesture Practice page in the Settings Notebook discussed in Chapter 2. Finally, there is a listing of all of PenPoint's gestures in the Help Notebook. So without further ado, let's look at the rest of the PenPoint gestures.

Note *Remember that a document is an applications page and that some applications do not utilize all gestures. Also, in the description of gestures, writing refers to using digital ink or words written in ink.*

General Gestures

The following are called general gestures (by me, not GO) because they do not fall into any specific category. Like many gestures, some of these will have double duty depending on the gesture's context. When drawing a gesture you need to avoid hooks and circles at the beginning or end of the gesture. Remember that angle is important when drawing a gesture. If the gesture has too much slant it may not be recognized. When drawing gestures with multiple strokes, it is important to perform both strokes as separate strokes. If the delay between strokes is too long, the gesture will be misinterpreted. Table 3.1 shows the basic gestures.

Flicks

Flicks are a category of gestures normally used for navigation and selection, but they also perform additional functions, depending on the context (see Table 3.2). All flicks must be drawn as a single action. You cannot touch the pen to the screen and pause before drawing the flick or it will not be recognized. All flicks need to be straight, without hooks at the beginning or the end of the gesture. Finally, some slant of a flick is permissible, but too much slant will result in an unrecognized gesture.

Table 3.1 Basic gestures

Gesture	Name	Description
↑	Arrow Up	Used in documents on text depending on the application writing. Increases the point size of a font or the size of an individual word or the selected writing or text. Arrows must be drawn as two strokes and the arrow tip must be drawn from the left to the right.
↓	Arrow Down	Used in documents on text depending on the application writing. Decreases the point size of a font or the size of an individual word or the selected writing or text. Arrows must be drawn as two strokes and the arrow tip must be drawn from the left to the right.
[Bracket Left	Used in documents on text depending on the application writing. Selects text. If you have selected text and draw a left bracket [to the left or above the selected text, all of the text between the selected text and the left bracket [will be selected. This gesture will also work in documents that have line items like Personal Perspective lists. Brackets are drawn with a single stroke.
]	Bracket Right	Used in documents on text depending on the application writing. Selects text. If you have selected text and perform a right bracket] to the right or below the selected text, all of the text between the selected text and the left bracket] will be selected. This gesture will also work in documents that have line items like Personal Perspective lists. Brackets are drawn with a single stroke.
≡	Scratch Out	Used in editing pads, on text, writing, selected text, and words. When drawn over a word or letter, the scratch out ≡ gesture deletes the letter or word. This gesture is drawn like a very tight Z with all the lines being drawn very close to each other, with the same width and a single stroke.

Table 3.1 Basic gestures (continued)

Gesture	Name	Description
—	Line Through	Used in editing pads. Deletes two or more translated characters in an editing pad.
Ʒ	Pigtail	Used in editing pads, documents, or fill-in fields. Used to delete a single letter. The pigtail Ʒ is a single gesture and can be difficult to master. Instead of the pigtail, use the Flick up ↓ to delete characters in an editing pad.
+	Plus	Used in documents on writing or text. Used to select writing, text, and objects. The plus + gesture can also be used to perform a discontinuous selection. A plus is drawn with two strokes. If drawn as a single-stroked gesture it will not be recognized.

Table 3.2 Basic flicks

Flick	Name	Description
—	Flick Right	Used in a notebook's title line. Turns one page to the right or the next higher page number.
—	Flick Left	Used in a notebook's title line. Turns one page to the left or the next lower page number.
↓	Flick Up	Used in a notebook's contents or a document page. Scrolls or moves the page so you can see what is below the current viewing area. Used on a notebook's tabs. When drawn on the tabs of a notebook that are hidden or overlapped, the tabs below will be revealed. Used on a Title line of an options sheet or on an option with a selection arrow. Selects the next available selection or menu item. Used over translated text in a pop-up menu or field. Deletes the letter and space so the text to the right moves over and occupies the box where the flick up ↓ was performed. Used on a document's title line. Causes the document to zoom to fill the EO's screen.

(continued)

Table 3.2 Basic flicks (continued)

Flick	Name	Description
	Flick Down	<p>Used in a notebook's contents or a document page. Scrolls or moves the page so you can see what is above the current viewing area.</p> <p>Used on a notebook's tabs. When drawn on the tabs of a notebook that are hidden or overlapped, the tabs below will be revealed.</p> <p>Used on a Title line of an options sheet or on an option with a selection arrow. Selects the available option that is before the current selection or menu item.</p> <p>Used on a document's Title line. Causes the document to zoom back to its original size. This works only after a page has been zoomed.</p>
	Double Flick Up	<p>Used in a notebook's contents or a document page. Scrolls or moves the page so you can see what is at the bottom of the page.</p> <p>Used on a notebook's tabs. When drawn on the tabs of a notebook that are hidden or overlapped, the last (bottom) tab will be revealed.</p>
	Double Flick Down	<p>Used in a notebook's contents or a document page. Scrolls or moves the page so you can see what is at the top of the page.</p> <p>Used on a notebook's tabs. When drawn on the tabs of a notebook that are hidden or overlapped, the first (top) tab will be revealed.</p>
/	Flick Up Down	<p>Used primarily in embedded documents, but will work in some documents that are not embedded. Alternately hides or displays a document's controls like the Title line, Cork Margin, and borders. The flick up down / strokes must be drawn adjacent to each other, as two gestures in quick succession (not as a single gesture), and both lines should be the same size.</p>

Carets

Carets are always used for inserting text, documents, or embedded editing pads. The caret \wedge gesture is discussed in Chapter 2. All carets must be drawn as a single stroke starting on the left and ending on the right. See Table 3.3.

Circles

Circles are always editing gestures. When drawing, you must start the circle at the top and move the pen from the left to the right. If you do not close the circle or overlap at the top too much, the gesture will not be recognized. You do not have to draw a perfect circle, ovals will work. See Table 3.4.

Table 3.3 Carets

Caret	Name	Description
\wedge	Caret Tap	Used in documents. Opens an embedded editing pad. (When used in a Perspective field, the caret tap creates an extra "instance" of that field, allowing you to have multiple items for any field.)
\rhd	Double Caret	Used in documents. Displays the Create menu to embed a document within another document.

Table 3.4 Circles

Circle	Name	Description
\ominus	Circle Line	Used on text. Selects the word and opens a blank editing pad. Whatever you write in the editing pad will replace the word on which the gesture was drawn. The Circle line can also be used on selected text where more than a single word is selected.
\odot	Double Circle	Used in documents, Cork Margins, and on the Bookshelf. Creates a Reference button. Select the text you want to use for a Reference button, then draw the double circle \odot where you want the Reference button created.

Corner Gestures

Corner gestures are editing gestures used with text. However, some of the gestures will work in applications with writing in addition to text. The primary stroke of all corner gestures is performed as a single stroke. The gestures must be drawn at 90 degrees and must be started in the text line. Starting the gesture too far above or below the line of text will result in an unrecognized gesture. Also the gesture should be the same height as the line of text (see Table 3.5).

Letter Gestures

Letter gestures are usually drawn either in the Title or Menu lines of documents or in the text they are meant to affect. Also, any letter gesture that affects a page or text is a toggle switch, redrawing the figure reverses the effects. All letter gestures should be drawn as you would normally write the letter. If it is made either too far above, or below, or outside the selected text, the gesture will be misinterpreted (see Table 3.6).

Useful Application Gestures

The following gestures are used in some applications, but are not listed in the PenPoint manual. One application where these gestures work is MiniNote. It is possible that some of these gestures will work in other applications as well. The right, left, down, and up gestures are all similar to the corner gestures above (see Table 3.7). You will have to experiment to see if the gesture works.

Making a Good Gesture

Drawing gestures takes a little practice. If your EO does not understand what you want it to do, you will see a starburst with a ? in

Figure 3.1
A single letter
pop-up
editing pad

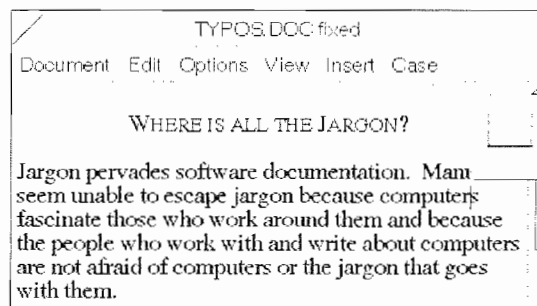


Table 3.5 Corner gestures













Corner Gesture	Name	Description
	Insert Character	Used on text in a document. Causes a single letter pop-up editing block to appear. Enter the character you want inserted into the pop-up editing pad. The letter drawn is immediately translated and inserted into the document. Figure 3.1 shows a single letter pop-up editing pad.
	Insert Space	Used on text in documents. Inserts one space when drawn on text. Used in editing pads (embedded or pop-up). Inserts one or more spaces. The number of spaces inserted will be determined by the length of the trailing stroke. The number of boxes it underlines will be the number of spaces inserted.
	Insert Tab	Used on text in documents. Inserts a tab character.
	New Paragraph	Used on text in documents. Inserts a paragraph break into the document where the gesture is drawn. This gesture creates a new paragraph.
	New Line	Used on text in documents. Inserts a line break into the text without creating a new paragraph.
	Lower Case	Used on text, either on a single word or on selected text. Formats the selected text as lower-case characters.
	Initial Caps	Used on text, either on a single word or on selected text. Formats the selected text so the initial character of each word is a capital letter.
	Upper Case	Used on text, either on a single word or on selected text. Formats the selected text as upper-case characters.

Table 3.6 Letter gestures

Letter Gesture	Name	Description
B	B	Used on text or selected text in a document. Changes the text's formatting to bold.
C	C	Used on document and notebook pages. Displays or hides the Cork Margin.
F	F	Used on almost any document. Causes the Find dialog sheet to be displayed. When drawn on the Menu or Title line the entire document will be searched.
I	I	Used on text or selected text in a document. Changes the text's formatting to italics.
M	M	Used on document and notebook pages. Displays or hides the Menu line.
N	N	Used on text or selected text in a document. Restores any formatted text to normal formatting, undoing any italics, bold, or underlining.
P	P	Used in almost any document over a text selection. Causes the Proof dialog sheet to be displayed.
S	S	Used in almost any document or over a text selection. Causes the Spelling dialog sheet to be displayed. When drawn on the Menu or Title line the entire document will be spell-checked.
T	T	Used on notebook contents pages. Creates or removes a notebook tab when drawn on a content's item.
U	U	Used on text or selected text in a document. Changes the text's formatting to underlined. If performed a second time, the text is underlined with a heavy underline. Used a third time, all underlining is removed.

the middle. Simply try the gesture again. On other occasions you will see just a starburst. The starburst means that the gesture was recognized, but the context was incorrect and the command could not be executed. Look in the beginning of this chapter to find the

Gesture	Name	Description
	Right Down	Used in documents, usually note taking or graphics applications. Inserts lines or spaces in the document starting where the stroke from the right is drawn and inserts lines or spaces for the length of the downward stroke. In MiniNote, starting this gesture in the gesture margin inserts new blank lines.
	Right Up	Used in documents, usually note-taking or graphics applications. Deletes lines or spaces in the document starting where the stroke from the right is drawn and deletes lines or spaces for the length of the upward stroke. In MiniNote, starting this gesture in the gesture margin deletes lines.
	Circle Tap	Used when writing in documents. Translates the writing to text and immediately inserts the text into the document.
	U	Used on writing or text in a document. This is a special use of the U gesture to group text or writing together. When used this way, items to be grouped together are connected by each side of the U, with the beginning of the gesture on the word or writing on the left, and ending on the word or writing on the right.

gesture you need to use. If your gestures are consistently being misinterpreted or unrecognized you should do two things.

First, you should practice the gestures using the Gesture Practice page in the Settings Notebook as described in Chapter 2. Next, after you've practiced the gestures and you know that you are drawing them correctly, you should adjust the Writing Timeout as described in Chapter 4.

PenPoint's Functions and Objects

PenPoint offers a highly integrated system of features where methods for performing actions such as storing, accessing, and working

The EO's Consistent Feel

A unique feature of PenPoint is that the differentiation between applications and documents has almost been abolished. This makes talking about PenPoint elements confusing when trying to describe them. Usually, PenPoint elements will be referred to by their names, such as Bookshelf, Notebook, and Icon, rather than a generic appellation like application.

To fully understand how PenPoint works, it helps to understand how the traditional computer distinction between applications and documents loses meaning in the EO environment. Although you install an application, you will never see an application unless you go looking for it. In a desktop computer environment, an application is specifically distinct from the documents that are created while using the program.

But when using an EO, the only access you have to the actual program is through the application's documents. Each document contains all of the elements and controls that are usually associated with a program (in the desktop world), so you never use an application separate from its document. In this sense, all PenPoint documents are applications. This means that a notebook is an application that contains all of the other documents or applications that are put into it. Each section in a notebook is also a program. Essentially every icon, notebook, or document is the application.

If you have a document that does not have a corresponding application installed, you cannot open the document. This means that documents and applications are separate in reality, but functionally they are not. The document is the application because the document is the only way that you have access to the application's features. For this reason, the words "document" and "applications" will be used interchangeably throughout this book. Once the application is installed, the only direct contact you have with the application is to deinstall it.

with your information are consistent to the appearance of the EO's screen elements. The information in this section is primarily operational, meaning you'll learn what the various PenPoint elements are and how they work.

This section will look at each of PenPoint's elements and discuss the various ways they can be used.

Icons

An icon is the most basic element of the PenPoint operating system. An icon is a graphic representation for a notebook, a document, or a tool. Figure 3.2 shows icons on the EO's Bookshelf (the Bookshelf is also a PenPoint element).

In Figure 3.2 all of the images across the bottom of the screen are icons. Even though the items depicted by icons are called by different names, an icon is usually a picture for an application. The only exception to this is an icon which represents a tool within an application (see Fig. 3.3).

The way an icon appears on a bookshelf and in some notebooks can be altered. Figure 3.4 shows ways an icon can be displayed.

Figure 3.2
The EO's Bookshelf

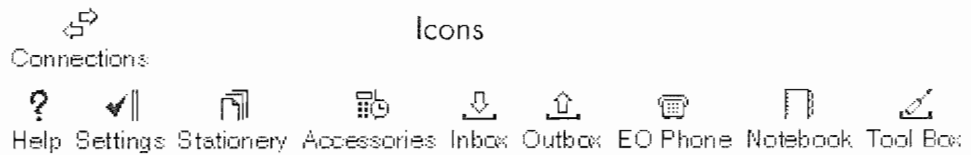


Figure 3.3
Application tools displayed as icons

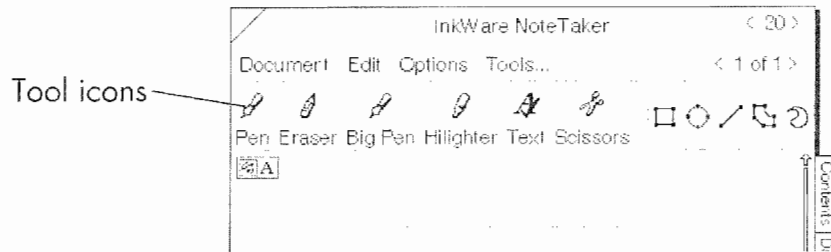
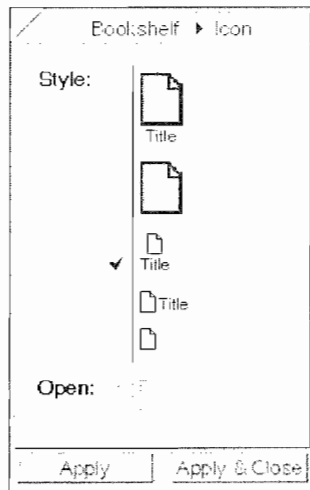


Figure 3.4
The Icon options sheet for the Bookshelf



Changing how icons are displayed is done through an options sheet like the one in Figure 3.4 above. The selected view is the one with the check mark next to it. Icons on the Bookshelf and in some notebooks, such as the Accessories Notebook, use alternative icon views. To change the appearance of icons on the bookshelf, draw a checkmark ✓ anywhere on the bookshelf to see an options sheet. Each bookshelf can have different views.

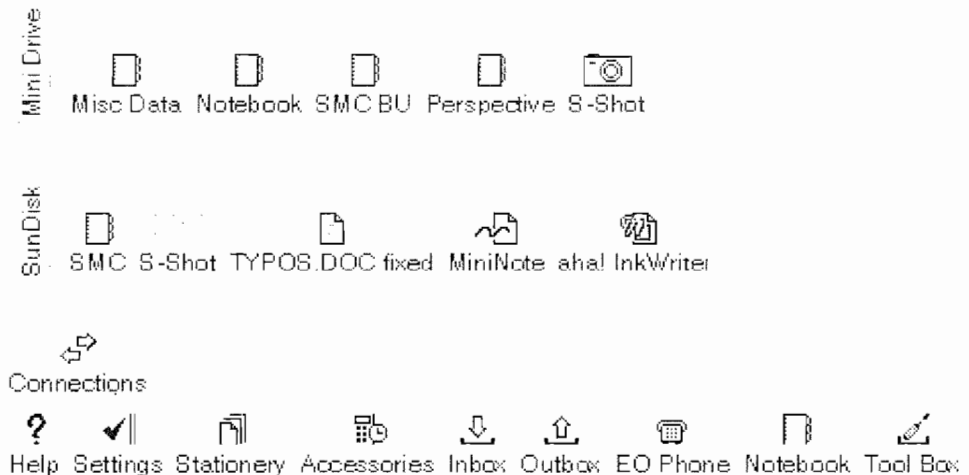
An icon is used to quickly identify the application it represents, so each application has a unique icon. Also, icons are meant to be opened, revealing the contents of the container or causing the program to open. To open an icon all you have to do is tap ! on it. When a document is in use, its icon will be grayed out like the S-Shot icon in Figure 3.5.

The Bookshelf

Each disk that is connected to an EO has at least one bookshelf. And the Bookshelf is how the contents of a disk are displayed and accessed. Each bookshelf is displayed as a row that runs across the screen. In this sense, the EO's screen is a bookcase even though the entire area of the screen is called the Bookshelf. Figure 3.5 shows an EO screen with three different bookshelves.

In Figure 3.5 there are three bookshelves. The bottom one is the main Bookshelf showing what is on the disk drive that is running the EO. The second and third bookshelves are the contents of connected disks. Also, a disk can have more than one shelf. In Figure 3.5, for example, the main Bookshelf occupies two rows, not one.

Figure 3.5
An EO with multiple bookshelves



When viewing a bookshelf you will see a row or rows of icons that are notebooks, documents, or buttons. Notebooks, documents, and buttons are the only items that can be put on a bookshelf. You can copy or move documents to a bookshelf or you can use the caret \wedge gesture to display the Create menu and select a new document which will be placed on a bookshelf.

The notebooks on the main Bookshelf, called Help, Settings, Stationery, Accessories, Inbox, Outbox, and EO Phone are called *auxiliary notebooks*. These are special notebooks that are part of the PenPoint operating system, and, as such, they will only be on the main Bookshelf. Each of the auxiliary notebooks have a special function that will be discussed in the Auxiliary Notebooks section.

Document Menus and Options

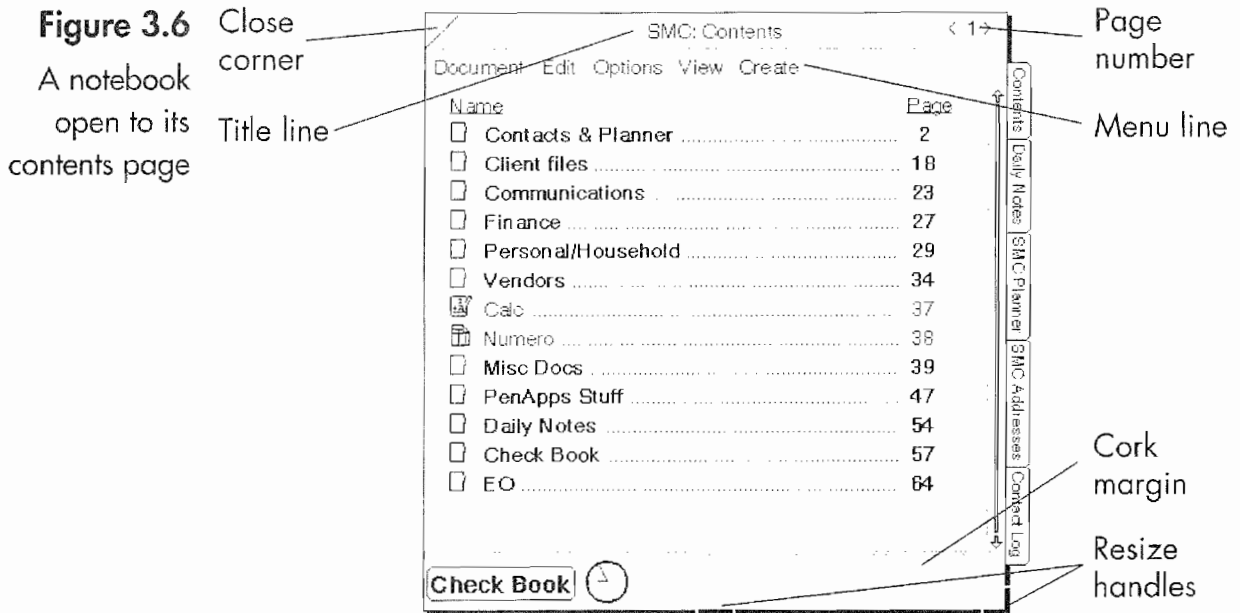
In this section we'll discuss features you'll find in almost all applications. All documents have the same basic structure, and once this structure is understood you'll be able to quickly learn how to use almost any program on your EO.

Remember, this section will look at the items that are usually shared by all documents. There will always be exceptions, and some documents may have some of the items discussed. All of the common elements that are discussed in this section are general rules. If I tried to list all of the exceptions, this chapter would never get written. It is quite possible you will run across a document that does not share all of these elements; consider it to be one of these exceptions.

Elements Shared by Most Documents

In this section we'll use a contents page to look at the elements of the page that are shared by all documents. The following items are elements common to all documents. Each of these page elements is identified in Figure 3.6.

Close corner Tapping ∇ in this area on any document will close the document. If you are working on a document page in a notebook and tap ∇ on the close corner you will close the notebook.



Cork Margin An area at the bottom of a page where you can embed documents, accessories, or place buttons so they are always available while you are using a specific page. The Cork Margin for any document can be displayed or hidden by drawing a *C* on the document's Title line. The Cork Margin can hold as many documents as you want to place in it. However, the items in the Cork Margin are only accessible while the page is visible. If you turn away from the page, any open documents in the Cork Margin will close until you turn back to the page.

Menu Line Contains the menu commands that are used to manipulate a document. The menu titles are general categories which when tapped ∇ display a list of specific commands that pertain to the general category and the document or parts of the document.

Resize Handles Specific spots at the bottom center or the lower right-hand corner of a document, which when selected by pressing \downarrow can be dragged to change a page's size and will also affect the page's viewing area.

Title Line The top of any document where the document's name is displayed along with its notebook page number if the document is contained in a notebook.

When a document is in a notebook, it will have a page number. If the document is embedded or on the Bookshelf it will not have a page number.

Page Number Every document and section in a Notebook has a page number which is displayed in its Title line.

Common Menus

Each document has menus and menu items that are the same. Because there are common menus for all documents, each application will have commands and features that are the same. By learning the features common for every application, when you use a new program you will only have to learn its specific features. This consistency among applications makes it much easier to use the EO.

Menus are a major part of any document. Although most menu commands can be executed using gestures, the menus offer a second way to perform commands. Every application also has commands that cannot be accessed using gestures, which means that you will have to use menus on some occasions. The menus that are common to all documents are:

The Document Menu Contains commands that apply to the document as a whole.

The Edit Menu Contains commands for altering items such as text or writing that you have selected.

The Options Menu Contains options sheets that control the appearance and attributes of a document and the items in a document.

Menu Selection

All menus are accessed in the same manner.

To select a menu command, use these steps:

1. Tap **!** on the menu name.
2. When the menu drops down, select the menu command you want.

Some menus list options. A menu that lists options will have the selected option checked. Otherwise, the command selected will be executed.

To select an option or command from a pop-up menu, you can use any of these selection methods:

1. Tap on the arrow or the displayed menu item. The text field to the right of the arrow will display the menu item.
2. Tap **!** on one of the pop-up menu's items to select your choice

Or

Draw a right flick — or flick down | on the text field to the right of the arrow to select the previous option in the pop-up menu

Or

Draw a left flick — or flick up | on the text field to the left of the arrow to select the next option in the pop-up menu.

The Document Menu

For each of these menus there are commands that are usually common to all documents. For the Document menu the common commands are:

Checkpoint This command only appears in documents where you can alter information. When information is altered, the changes you have made are not saved until you either turn to another page, close the document, or select this menu command.

Revert This command only appears in documents where you can alter information. If you have made changes to a document that you want to discard, you can use the Revert command to restore the document to the condition it was in when first opened or when you performed the last Checkpoint.

Print Prints a document.

Print Setup Determines the printing parameters such as margins, paper size, and other features that are specific to the type of document you are printing.

Send Allows you to send the document as an E-mail enclosure or a fax document.

About Provides a Document sheet that contains information about the document (see Fig. 3.7), including the created and last modified date and time, the document's file size (how much disk space it occupies), and the active size (the additional memory a document occupies when it is in use).

Accessible from each Document sheet is an Application sheet that contains information about the document's program (see Fig. 3.8) including the application's name, version, publisher, copyright, and the document's icon.

The Edit Menu

The Edit menu is used to manipulate selected writing, text, or objects within a document. In the Edit menu you will usually find these common elements:

Undo This will reverse the last action performed if it is undoable. Most documents that allow you to edit writing or text will also allow you to undo the last change you made to a document. This is

Figure 3.7

A Document sheet

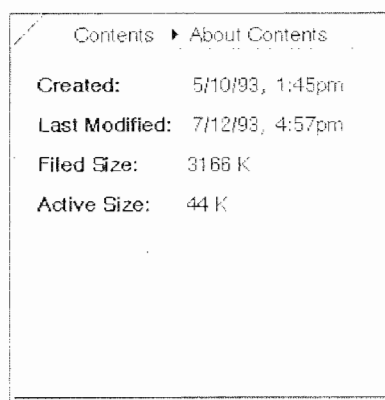
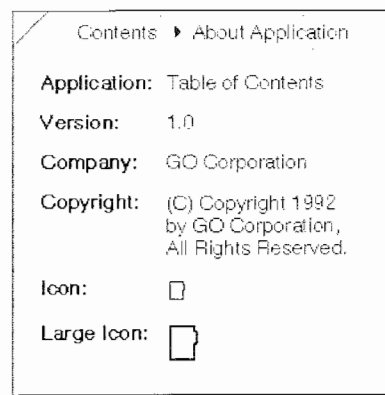


Figure 3.8

An Application sheet



especially handy if you delete a word or some writing. The gesture equivalent for the Undo menu is the undo ✕ gesture.

Select All This command will select all of the text, writing, and drawing in a document. It is usually used if you are going to change an attribute like the font type or the line weight. It is also used if you want to copy everything in a document. The gesture equivalent would be to select the very first item in a document, usually by tapping **Y** on it, scrolling to the bottom of the document, and drawing a right bracket **]**.

Move This command prepares a selected item for moving. When an item is selected and ready to move, a single marquee appears around or in the selected item. The gesture equivalent for this command is a press **↓**. You complete the command by dragging the selected item to its new location.

Copy This command prepares a selected item for copying. When an item is selected and ready to copy, a double marquee appears around or in the selected item. The gesture equivalent for this command is a tap press **↓**. You complete this command by dragging the selected item to its new location.

Delete This command will remove a selected item. The gesture equivalent is the cross out **X** gesture.

Clear This command is similar to delete. It removes the selected contents by clearing a line or a field.

Edit This command opens a pop-up editing pad that contains the text selected to be edited. The gesture equivalent is the circle **○**.

Translate This command will translate and insert the selected writing directly into a document. Its gesture equivalent is the circle tap **○**.

Translate & Edit This is a cousin to the Translate command. Rather than inserting the text directly into the document, you will be presented with the translated text in a pop-up editing pad before inserting the text into the document. The gesture equivalent for this command is the circle **○**.

Proof This command can only be used on selected text. It presents you with an options sheet that contains alternative spellings for the selected word. You can choose an alternative word or dismiss the options sheet. The gesture equivalent is a **P**.



Find This command presents you with an options sheet so you can search a document for specific text. You can usually select an Advanced Find options sheet from the Find options sheet. The gesture equivalent for this command is an F drawn on the Title line of the document.

Spell This command is used to check the spelling of a document or a word. It can only be used on text items. The gesture equivalent is an S. If the S is drawn on the Title line, the entire document will be spell-checked. Otherwise, draw the S over the word you wish to check.

The Options Menu

The Options menu contains a list of commands that present you with options sheets. The options sheets are used to set a document's attributes. Options are universal to all PenPoint items. Sometimes you will only have a single options sheet that you can access, but all items, including bookshelves, have some options. Since items like bookshelves do not have menus, you will have to use the check mark ✓ gesture to access some items.

To see the options available for any selected item:


1. Tap  on the object you want to see.
2. Draw a check mark  on the selected item

Or

Tap  on the Options menu.

All selected options are indicated either with a check mark to the left of a selected item, or with a text description to the right of the Option label and an arrow between the text and the label.

Any option that has an arrow to its left is a pop-up menu and can be selected using the steps described in the Pop-up Menu section. When you see a label which has text to the right without an arrow or a check mark, you are looking at an information label. The text to the right of the label is there to show you some type of information, identified by the label. This is not a selectable option.

To change a check-marked selection, tap  on your selection choice. When you have multiple options all indicated by check marks, the

check mark acts as a toggle switch. Tapping \checkmark on a selection will either select or deselect the option.

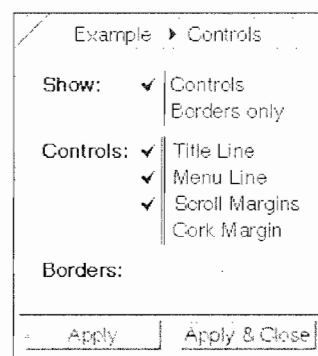
The options you will usually have for all documents are:

Controls All documents have controls. The Controls options sheet usually looks like Figure 3.9.

The choices you will have depend on the type of document, but you will usually have the following controls available for a document:

- **Show Controls** By selecting this option, the document will show the items checked in the Controls section below. When you are showing a document's controls, its borders are fixed and not selectable. Usually the controls will be turned off and Borders only selected when the document is embedded. The gesture equivalent to switch between Controls and Borders only is a flick up-flick down \Downarrow .
- **Borders Only** Selecting this option hides all of a document's controls and only shows its borders. When this option is selected you will have the choice of borders styles.
- **Controls** This section lets you determine which page controls will be visible in your document. You have the choice to show any or none of the following controls:
 - **Title Line**
 - **Menu Line** Drawing an M in the title line will either hide or show the Menu line.
 - **Scroll Margins**
 - **Cork Margin** Drawing a C in the Title line will either hide or show the Cork Margin.

Figure 3.9
A Control
options sheet



- **Borders** Borders are visible only if the controls are turned off. The types of borders you can choose are: Single, Double, Dashed, or None. As mentioned above, the borders are usually used for embedded documents.

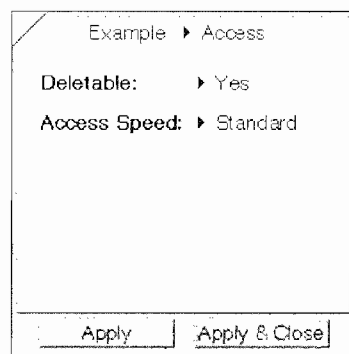
Access With the Access options sheet you determine whether or not a document can be deleted and what type of access speed it has. The Access options sheet usually looks like Figure 3.10.

There are two options that are usually available from the Access Options sheet:

- **Deletable** Setting this option determines whether or not the document can be deleted. The default setting is Yes, but if you change it to No, then drawing a cross out X on the document in a contents page will not work. This setting only works if you try to directly delete the document. If the document is in a section and you delete the section, the document will be deleted with the section. Your choices for this setting are Yes or No.
- **Access Speed** This setting determines how the EO will work with the document. Your choices are:
 - **Standard** This is the default setting. When you turn away from a document in a notebook, the document is closed and all changes are saved to the EO's disk. This is the safest mode to use.
 - **Accelerated** If you choose accelerated access, the document is kept open and changes are not written to the disk when you turn away from the document. Using accelerated speed will make accessing your documents quicker, but there is a danger in using accelerated speed. Accelerated

Figure 3.10

An Access options sheet



speed requires more RAM, and changes are not saved unless you close the notebook containing the document or use the Checkpoint menu command.

If you have too many documents using accelerated speed, you risk overloading the EO's memory and losing all of the information you have not saved. The EO could suffer from a malfunction because too much RAM is being used to maintain accelerated documents. (The malfunction is also called a crash.) Accelerated access speed should only be used if you have lots of RAM, and then only with a few documents.

Comments The Comments options sheet displays and allows you to edit a document's title and author. It also has a space where you can enter text comments about the document. The Comments options sheet looks like Figure 3.11.

The following are additional options you will often find:

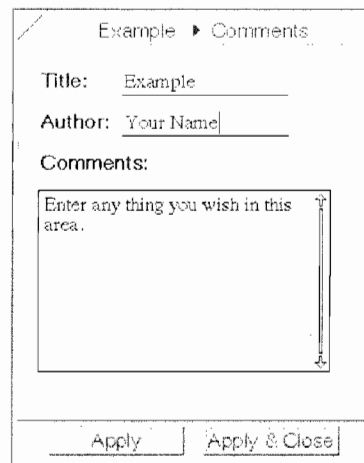
Layout When information is presented in a list format, you will usually have a Layout options sheet that lets you select what information you will view and how it will be displayed. Figure 3.12 is an example of a Layout options sheet.

Your layout options will vary depending on the type of list you are looking at. Each list will have its own characteristics.

Paper Paper options are only available for some documents. With the paper options you will select the style of paper and other attributes such as font, line spacing, and paper size. The actual choices

Figure 3.11

A Comments options sheet



Example Comments

Title: Example

Author: Your Name

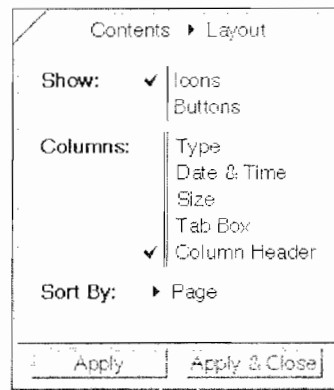
Comments:

Enter any thing you wish in this area.

Apply Apply & Close

Figure 3.12

A Layout options sheet



for the paper's options will be determined by the application you are using. Each application that has paper attributes also has its own settings. Figure 3.13 is an example of the Paper options sheet.

Pen The Pen options are used to control the density and width of a pen when using ink on a document. Some applications give you extensive options for a pen's attributes, while others give the basic choices shown in Figure 3.14.

Embedding Documents

I previously mentioned that every PenPoint document is also the application. Another feature of PenPoint that might clarify this strange concept of documents being applications is its ability to embed documents inside other documents. The technical name for this ability is *recursive embedding*. When a document is embedded in another document, what is embedded is not just the text or image from the embedded document, but the *entire* document. In other words, the embedded document is a fully functioning page that has all of the capabilities and attributes of a document created in a notebook's contents page.

Figure 3.13

A Paper options sheet

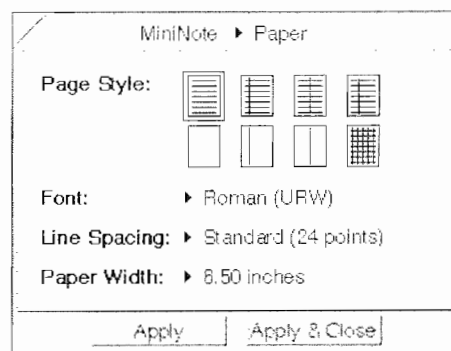
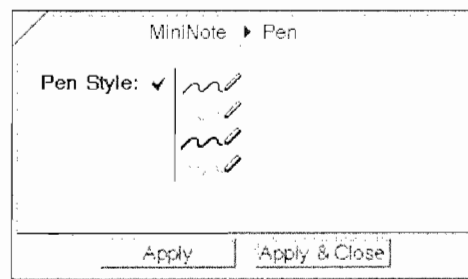


Figure 3.14
A Pen options
sheet



It is possible to embed as many documents as you want, so you could have a series of documents one inside of the other. This is just like those wooden dolls where you open one and another is inside; open that doll and there is another, and another, until you have over a half-dozen dolls. The number of documents you can embed is determined only by what is practical and the physical limitations of your EO, such as how much disk space and memory it has.

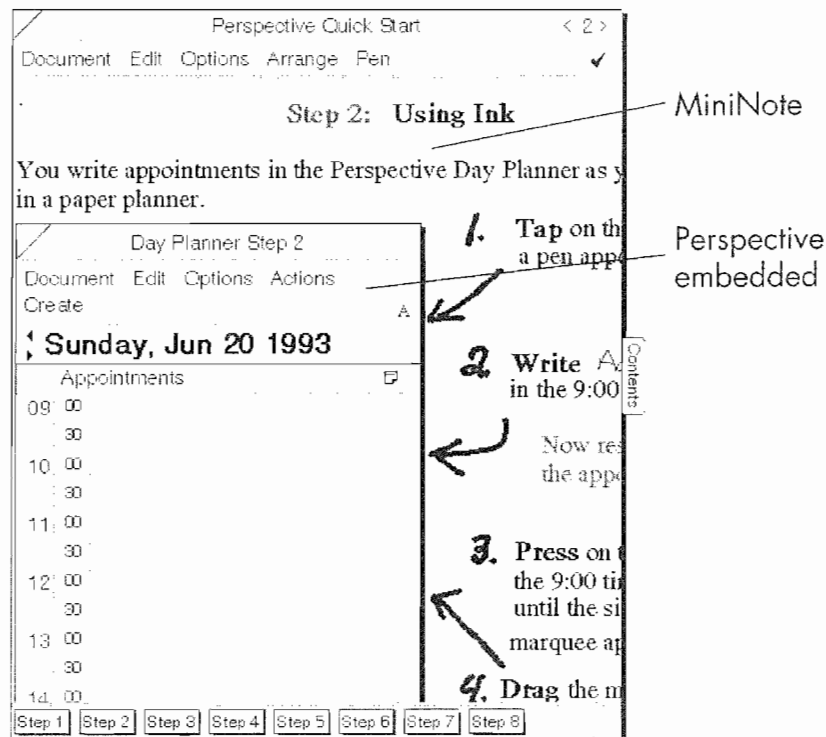
There are a couple reasons embedding is important. One reason is because notebooks and contents pages are applications that contain other applications or documents. A notebook's sole function is to hold all of your other documents, but a notebook is more than a folder or a directory you find on other computer systems. A Notebook has some of the attributes of a directory, but it is a PenPoint application or document.

The other reason embedding is so important is because it eliminates the need to have large applications that perform many functions. Instead, you can embed a MiniNote document inside a MiniText document to show the picture that goes along with the memo. So graphics capabilities are not needed in the MiniText document because you can always embed a MiniNote document. Another example would be embedding an EO Calc document into a MiniText document so you can show how you derived the numbers you're presenting to your boss. Likewise, you can embed an EO Sound document to add a voice note to the same document.

The possibilities are endless. Figure 3.15 shows a Perspective document embedded in a MiniNote document.

The document in Figure 3.15 is used as a tutorial, but you could just as easily do the same thing with your daily schedule and fax it to your secretary so he or she will know what you are doing.

Figure 3.15
An embedded
Perspective
document



Embedding opens all kinds of possibilities for creative uses of the EO. It is a capability that just screams to be taken advantage of.

To embed one document inside another document:

1. Open the primary document, the one that will have a document embedded in it.
2. Draw a double caret \wedge to get the Create menu

Or

Select for copying the document you want to embed using the tap press \downarrow gesture, and drag it to the primary document, placing it where you want it embedded. The spot where the document is embedded will be the upper left-hand corner of the document. If the document is in the wrong location, move it by pressing \downarrow on the document's icon and dragging it to the proper location.

3. Tap \uparrow on the embedded document to open it. When the document opens, all of the controls will be visible.
4. Use the embedded document's size handles to set the document's viewing area.

5. Scroll the document to make what you want seen visible.
6. Select the Controls Option by drawing a check mark ✓, and select the Borders only option to hide the document's controls and set your border options

Or

Use the flick up-flick down || gesture to hide the controls and display the document with a single black line as a border. Remember, even if you have hidden the document's controls you can still view its options by drawing a check mark ✓ on the document's page.

The document is now ready to be printed, faxed, or even sent to someone else. The embedded document will print on the page just as you see it.

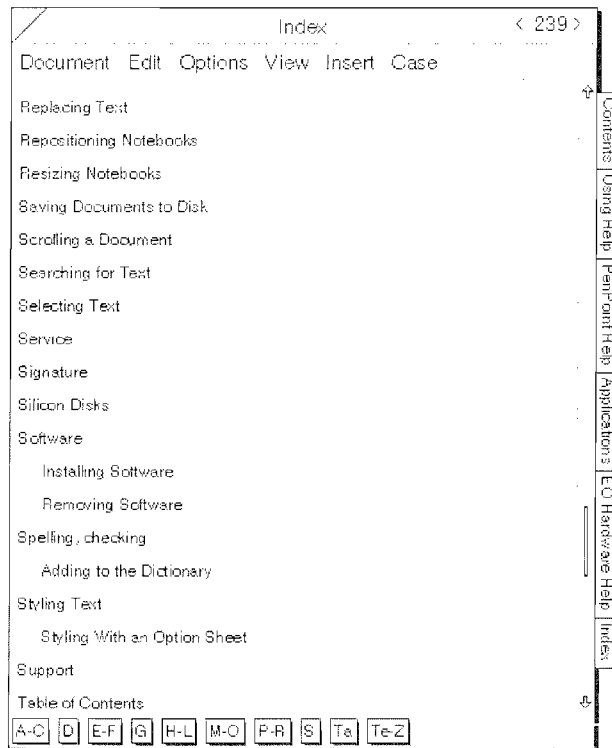
Reference Buttons

PenPoint has provided the EO with a very interesting feature called Reference buttons. Reference buttons are a hypertext function built into PenPoint. *Hypertext* is a means for linking information, so all you have to do is tap on a button to move from one document to another or to another place within the same document. With Reference buttons it is possible to access information in a non-linear manner, by going from one point in a document to another without moving through it page by page. In Figure 3.15, the buttons in the Cork Margin are all Reference buttons that move you through the tutorial.

One way to use Reference buttons would be to create a presentation where you have several documents in a notebook. You could then create a MiniText document that contains a series of Reference buttons that you could use to control which documents are displayed and their display order.

Another example of how Reference buttons can be used is included with the EO in the Help Notebook. The index for the Help Notebook is a MiniText document which contains nothing but Reference buttons which open the document. Figure 3.16 shows the index for the Help Notebook.

Figure 3.16
The Help
Notebook's
index



The number of ways to use buttons is limited only by your imagination. In Figure 3.17 you will see a document that contains buttons and an open notebook. The buttons can be used to control which document will be displayed in the notebook. In a sense, the Reference buttons are like notebook tabs, only they happen to be in a MiniText document.

Reference buttons can be created and placed almost anywhere. A favorite place to put them is in a Cork Margin. You can also use a Reference button in one document to open another that may contain related information. Basically, the following is a list of Reference button uses:

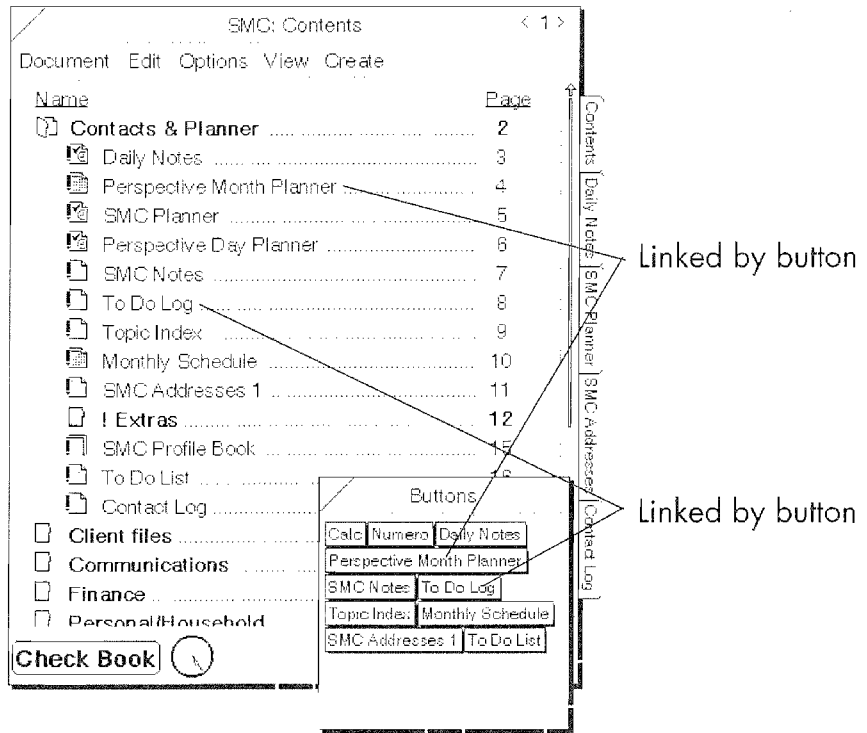
- To view a specific section of a document
- To open a document
- To move from one section of a document to another

To create a Reference button:

1. Determine where you are going to create the Reference button, whether it is a Cork Margin, the Bookshelf, or in a document.

Figure 3.17

A Reference button example



If you are placing the Reference button in a document, open the document.

2. Select the document you want the Reference button to open by selecting its title in the notebook's contents page

Or

Select a word, or even a space character in the area of the document you want viewed, when the Reference button is tapped.

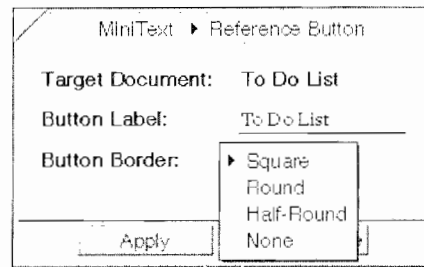
3. Draw a double circle \odot where you want the reference button created.
4. Repeat steps two and three for each button you want to create.

After you have created the Reference button, or buttons, you can alter the button's name and appearance by opening the button's options sheet. To open a Reference button's options sheet, draw a check mark \checkmark on the button. Figure 3.18 shows the options sheet for a Reference button.

Besides displaying the name of Reference button's target document you can also set the following options:

Figure 3.18

A Reference button's options sheet



Button Label This is the button's title. Once the button is made you can name it anything you want.

Button Border From the Button Border you can choose any of the border options displayed in Figure 3.18. If you chose the None option for the button it will appear as a line of text like the buttons in the Help index, shown in Figure 3.16.

Reference buttons are a fantastic device. Hopefully, the examples above will give you a few ideas about how to use them. You will need to experiment with them to discover their full potential.

Using Notebooks

All of your information will usually be stored in notebooks. Notebooks always reside on the Bookshelf and can be created by drawing the caret \wedge gesture on the Bookshelf. The last item in the Create menu will be a notebook. Every notebook has a single page when it is created. This page is the main Contents page.

The Contents page is used specifically for managing and accessing the documents you create. You determine which documents will be put in the notebook and how they will be presented on the Contents page. The tasks that you can perform from the Contents page are:

- Creating documents
- Creating sections
- Placing documents into sections
- Turning to specific documents
- Deleting documents
- Rearranging documents and sections

Besides a Contents page, every notebook can have tabs. In Figure 3.19, you will see tabs at the side on the side of the notebook. Tabs are used to turn to the page associated with it. So you know which page the tab will turn to, the tab always contains the document's name.

If you have a document that you want to access often and quickly you can create a tab for the page by drawing a T on the document's title. This will cause the document's title to be placed on a notebook tab. The T gesture is a toggle switch and will also remove a tab. Once the tab has been created, you can access the tabbed document while viewing any page in the notebook by tapping ! on the tab. Any tab can also be removed by drawing the cross out X over the tab.

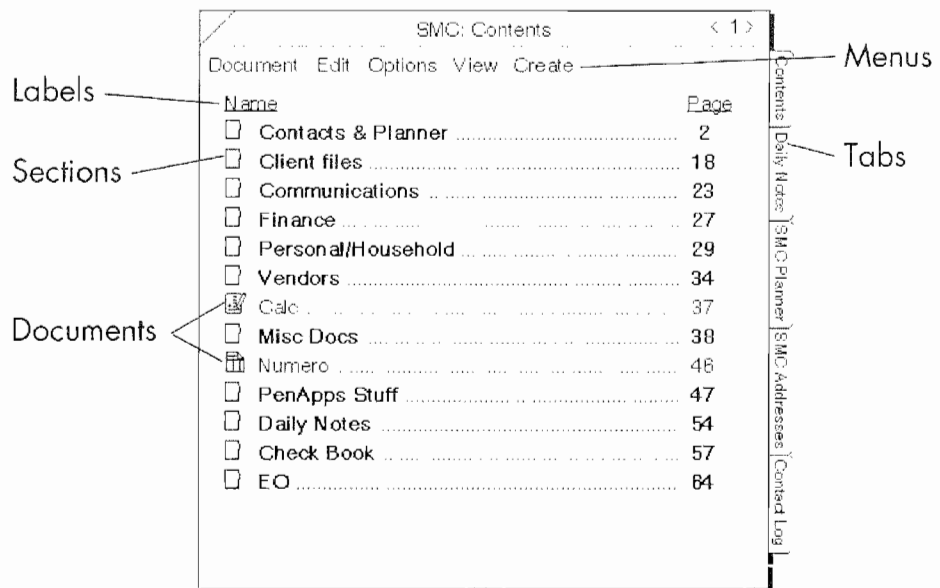
A Notebook's Contents Page

Every document has its own function, and the page elements that are not common to all applications usually reflect these functions. The Contents page of a notebook is specifically for storing and ordering documents, so the contents page shows the all of the documents contained in the notebook. Another page will show an area where text is entered or writing is done. The Contents page has the following items:

Documents These are the applications you create and use.

Figure 3.19

The Contents page for a notebook



Labels Provide identification headings for the contents page such as name, size, and page number for each section and document contained in a Contents page.

Sections A divider in notebook that holds documents.

Create Menu This is the menu that is used to create new documents or sections.

View Menu Contains commands to show or hide the contents of a section as well as commands to turn to a selected document.

The appearance of the Contents page is determined by its layout options. Figure 3.20 shows the Contents page's layout options.

Using the layout options you can set the following options:

Show You can show the document's icon or a Square button instead.

Columns These options determine what will be shown in the contents page.

Type Shows the document's type, that is, MiniText, MiniNote, Section, and so on.

Date & Time Shows the date and time the document was created.

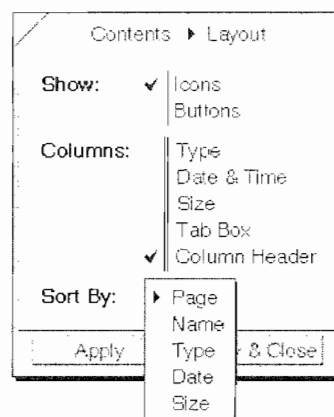
Size Shows the size of the document or section.

Tab Box Shows the tab box. The tab box is a check box. By tapping the tab box, a check mark appears and a tab for the document or section is created.

Column Header The column header labels each column with its type name.

Figure 3.20

The Options page layout options



Sort By Gives you the option to sort the contents page by any of the view types. If you wish, you can view your documents sorted by name instead of page number.


Figure 3.21 shows the Contents page sorted by name and displaying the name, page, type, size, and tab box in addition to the labels.

How you view the Contents page is completely up to you. Each person will have their own preferences. Personally, I prefer to have my information sorted by name rather than page number.


Creating Documents and Sections

Documents and sections are both created in the same way, using the Create menu.

To create a new document:

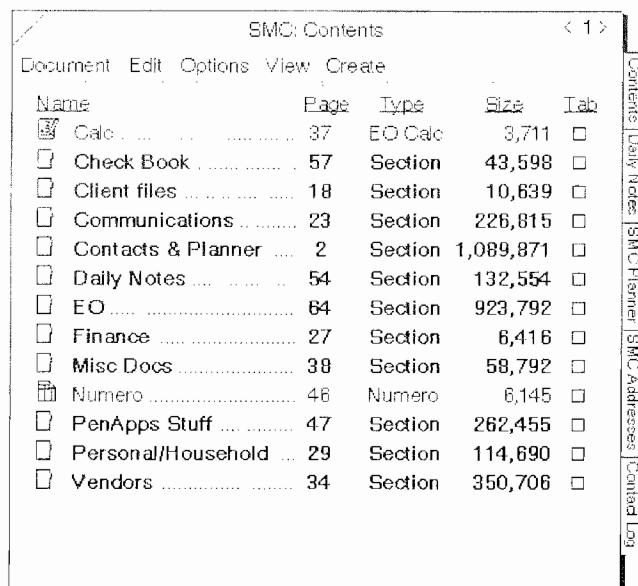
1. Tap  on the Create menu

Or

Draw a caret  on the Contents page.

2. Select the type of document you want to create from the Create menu.

Figure 3.21
An alternative view of a Contents page



Name	Page	Type	Size	Tab
<input checked="" type="checkbox"/> Calc	37	EO Calc	3,711	<input type="checkbox"/>
<input type="checkbox"/> Check Book	57	Section	43,598	<input type="checkbox"/>
<input type="checkbox"/> Client files	18	Section	10,639	<input type="checkbox"/>
<input type="checkbox"/> Communications	23	Section	226,815	<input type="checkbox"/>
<input type="checkbox"/> Contacts & Planner	2	Section	1,089,871	<input type="checkbox"/>
<input type="checkbox"/> Daily Notes	54	Section	132,554	<input type="checkbox"/>
<input type="checkbox"/> EO	64	Section	923,792	<input type="checkbox"/>
<input type="checkbox"/> Finance	27	Section	6,416	<input type="checkbox"/>
<input type="checkbox"/> Misc Docs	38	Section	58,792	<input type="checkbox"/>
<input type="checkbox"/> Numero	46	Numero	6,145	<input type="checkbox"/>
<input type="checkbox"/> PenApps Stuff	47	Section	262,455	<input type="checkbox"/>
<input type="checkbox"/> Personal/Household	29	Section	114,690	<input type="checkbox"/>
<input type="checkbox"/> Vendors	34	Section	350,706	<input type="checkbox"/>

Figure 3.22 Shows the Create menu as it can appear in a notebook's Contents page.

Usually your documents will be categorized and stored in sections. Each section is also another page in the notebook. Sections are dividers that act like tab dividers in a real notebook, except that you can put sections inside of sections and create a hierarchical filing system for your documents. Figure 3.23 shows a section's contents.



Displaying a section's contents is called expanding the section, and it is done by double tapping  on the section heading. When a section is expanded like the one in Figure 3.22, it can also be collapsed; then, the section's contents are no longer visible by double tapping  on an expanded sections heading. In Figure 3.23 you can see the expanded EO section which contains additional sections and one document. Figure 3.24 shows the section page for the expanded section in Figure 3.23.

Figure 3.22

A Contents Create menu



Figure 3.23

A section's contents

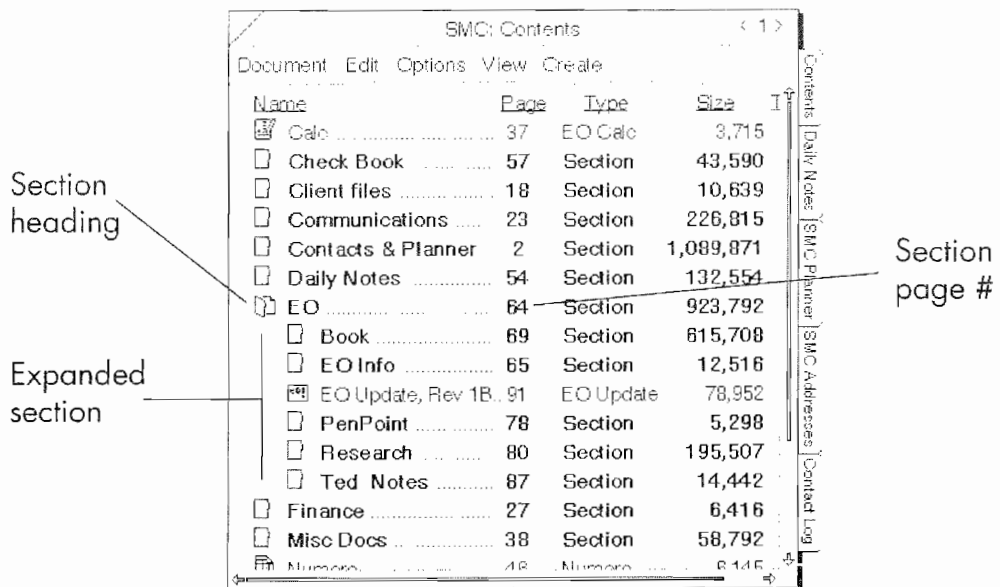


Figure 3.24

The section page for the expanded section

Name	Page
<input type="checkbox"/> EO Info	65
<input type="checkbox"/> Book	69
<input type="checkbox"/> PenPoint	78
<input type="checkbox"/> Research	80
<input type="checkbox"/> Ted Notes	87
<input checked="" type="checkbox"/> EO Update, Rev 1B	91

Notice that the page number for the section page corresponds to the page number in the table of contents shown in Figure 3.23. All documents in a notebook have their own page numbers and you can turn from page to page using either gestures (described in the preceding Gestures sections) or by tapping on the arrows (< or >) on either side of the page number.

Menus Specific to Notebooks

There are two menus specific to a notebook’s Contents page. One is the Create menu which is used to create a new document or section, placing it in the Contents page. And the other is the View menu which is used to expand and collapse sections. In this section we will take a quick look at the View menu.

The View menu works on the Contents page as a whole or on selected sections or documents. The View menu has just the four choices listed below:







Collapse Causes the selected expanded section to collapse so its documents can’t be seen. If no section is selected, all expanded sections will be collapsed.




Expand Causes the selected section to expand showing the documents in the section. If no section is selected all of the visible sections will be expanded. This command can be repeated until all nested sections are visible.

Turn To Turns to the selected section’s or document’s page.




Paging through a Notebook or Application Notebook

All notebooks have pages. Some of the pages are indicated by notebook tabs on the right-hand side of the notebook. Only some of a notebook's pages will be tabbed. All tabbed pages have the page's name on the tab. To select a page you can use any of the following options:

- Tap  on the tab with the name of the page you want to choose.
- Tap  on the page's name in the Contents page if its icon is a check box.
- Tap  on the page's icon or check box.
- Tap  on the page's page number.
- If the accessory or notebook has page numbers in the Title line, you can use either a left  or a right  flick on the Title line to turn one page to the left or right.

Performing a double tap  instead of a tap  will open the page as a floating page rather than turning to the page in the notebook. This convention also works on a notebook's tabs. Double tapping  will not work if the Floating Page option in the Float & Zoom page of the Settings Notebook is not turned on.

Bring To Opens the selected section or document as a floating window.

Double tapping  on a section's title is the same as selecting a section and choosing either the Collapse or Extend menu. The Turn To menu item's equivalent is tapping  on a document's page number or icon, and the Bring To menu item's equivalent is double tapping  on the page number.

Organizing Your Information

Since the purpose of the notebook and the Contents page is to organize your information, it might be nice if we looked at how you can organize or reorganize your information.

When you create documents and sections you can either create them, then move them to the section you want, or you can plan ahead and actually create the new documents and sections where you want them in the first place. First, we'll look a moving your data about.

To move a document from one section to another:

1. Open the section in which you want the document to reside.
2. Select the document you want to move by pressing \downarrow on the document's title. A single marquee will appear around the document.

Or

Select the document by tapping ∇ its title and select the Move command from the Edit menu. A single marquee will appear around the document indicating it is ready to be moved.

3. Drag the document to the section you opened in step one.
4. Repeat steps one through three for any other documents you want to move.

The same steps will also work for moving sections. When you move a section, all of the documents in a section are moved. When you move a document, its page number will change to correspond to its new location.

To create a document or section inside another section:

1. Open the section in which you want the new item to reside.
2. Select the section's title and use the Create menu to create the new document

Or

Draw a caret \wedge directly under the section's title where you want the new document created.

These techniques will place your new documents in their proper sections. You can also copy documents listed in a Contents page and move them to other notebooks or the Bookshelf, or embed them in other documents.

To copy a document:

1. Open the section, notebook, or document in which you want the copied document to reside. If you are moving the document to the Bookshelf, make sure you can see the Bookshelf.
2. Select the document you want to move by tap pressing \downarrow on its title. A double marquee will appear around the document

Or

Select the document by tapping ∇ its title, and select the Copy command from the Edit menu. A double marquee will appear around the document indicating it is ready to be moved.

3. Drag the document to its new home, the section, document, or notebook you opened in step one.
4. Repeat steps one through three for any other documents you want to copy.

Any time you either copy, create, move, or delete a document, the page numbers in your notebook will be renumbered.

To delete a document:

1. Select the document to delete.
2. Draw a cross out over the selected document or section

Or

Select the Delete command from the Edit menu.

When you delete a document it is gone forever. Unless you have copied it to another location (made a backup, see Chapter 10) the information contained in the document is lost and there is no way to retrieve it. Remember, if you delete a section, documents that have been set as undeletable will still be deleted. Always make sure you back up information you do not want to lose. Chapter 10 has instructions for backing up your data.

Auxiliary Notebooks

Auxiliary Notebooks are special PenPoint notebooks that appear on the main Bookshelf. Each of these notebooks has a special func-

tion and is used to store specific types of documents. The Auxiliary Notebooks are:

- Help
- Settings
- Stationery
- Accessories
- Inbox
- Outbox
- EO Phone

EO Phone is the only Auxiliary Notebook that is not a PenPoint notebook. This is a special notebook that will be found only on an EO.

When an application is installed, additional help files can be added to the Help Notebook. These enhance the EO's Help function. Several of the packages currently available for the EO do an excellent job of providing auxiliary help files.

The Settings Notebook

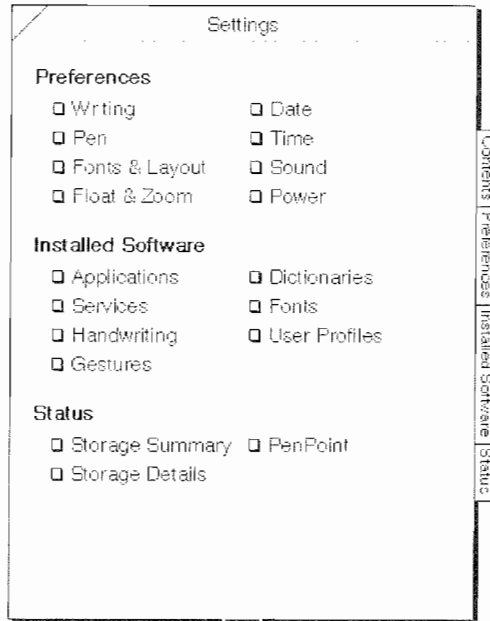
The Settings Notebook contains pages that are used to set your EO's system preferences. Figure 3.25 shows the Contents page for the Settings Notebook.

There are three sections in the Settings Notebook. The first section is the Preferences section and the subject of Chapter 4. The next section is the Installed Software section, and the final one is the Status section. The next two sections will look at the Installed Software and Status sections.

Installed Software

The primary use for the Installed software section is to look at what software is installed on the EO and to perform the installation and deinstallation of software. When software is installed on the EO it is always put on the disk drive that is running the EO, or the same disk that is represented by the main Bookshelf. No disk space is saved by installing software onto another disk drive.

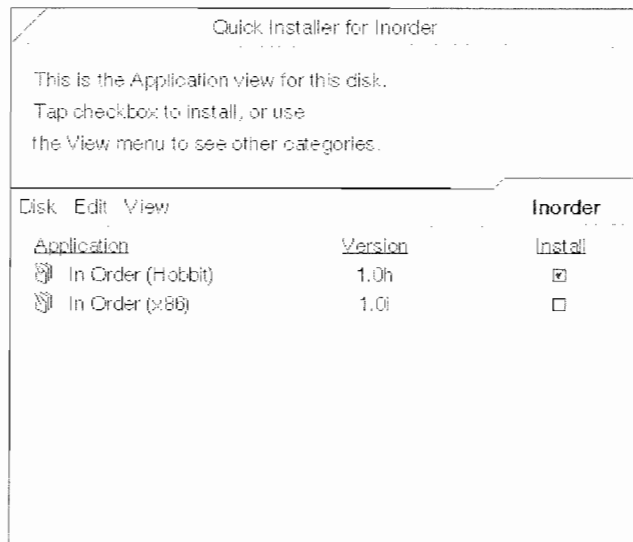
Figure 3.25
The Settings
Notebook's
Contents page



Normally, when software is installed you install it from a floppy disk or by using a PenCentral file server (see Chapter 7). Regardless of the source of the software being installed, you will usually use what is called a Quick Installer to install the software. A Quick Installer is an automatic installation program that PenPoint uses to make sure all software is properly installed. Figure 3.26 show what a Quick Installer looks like.

There may be times when the Quick Installer is not included with the software you want to install. When this happens you will have

Figure 3.26
A Quick
Installer



to install the software manually. Before we look at manually installing software, let's look at the software categories. To view the software that is installed for any category, tap **!** on the category's title in the Settings Notebook's Contents page. For each category you will see a page that looks like Figure 3.27.

The software categories are:

Applications These are the programs that are installed on the EO. Each of the applications usually has a corresponding section and document(s) that are placed in the Stationery Notebook.

Services Services represent a class of software that is used by the EO at a very low level. They are commonly called device drivers. They control hardware functions and provide capabilities like printing and modem access.

Handwriting This is the software that recognizes your handwriting and translates what you write to text.

Gestures This is the software that recognizes the gestures you draw and tells the EO what to do when you draw a gesture.

Dictionaries This is the dictionary that is accessed when you spell check or proof a document or a word.

Fonts The fonts are the various typefaces you can access from other applications.

Figure 3.27
The Installed Software page for Applications

Application	Size
aha! InkWriter (Hobbit)	140,355
Calculator (Hobbit)	33,130
Calendar (Hobbit)	34,747
Clock	114
CPU Meter (Hobbit)	88,910
EO Calc	114
EO Lock	227
EO Quick Start	114
EO Sound	114
EO Update	114
Find (Hobbit)	113,530
GO Fax Receive	58,372
GO Fax Send	18,328
GO Mail	42,289
In Order (Hobbit)	383,968
InkWare NoteTaker	328,608

User Profiles This software stores the preferences you set from the Preferences section of the Settings Notebook.

If you have to manually install any of these types of software, the procedures for doing so are the same, regardless of the category. The only caution about installing software is that you should always follow the software publisher's instructions. If the software publisher has instructions that are different than what you find here, follow their instructions rather than mine.

To install software:




1. Open the page for the type of software you want to install.
2. In the Installed page, tap  on the Install... menu. You will see a page similar to Figure 3.28.
3. The icons across the top of the page are disks that are connected to the EO. Tap  on the disk icon for the disk that contains the software you want to install.
4. The installable software on the disk will appear beneath the disk icons, and the disk that you opened will be grayed out. Figure 3.29 shows the Installable Software page with an open disk.
5. Tap  on the Install check box. You will receive a message saying that the software is being installed.

Figure 3.28

The Install
page

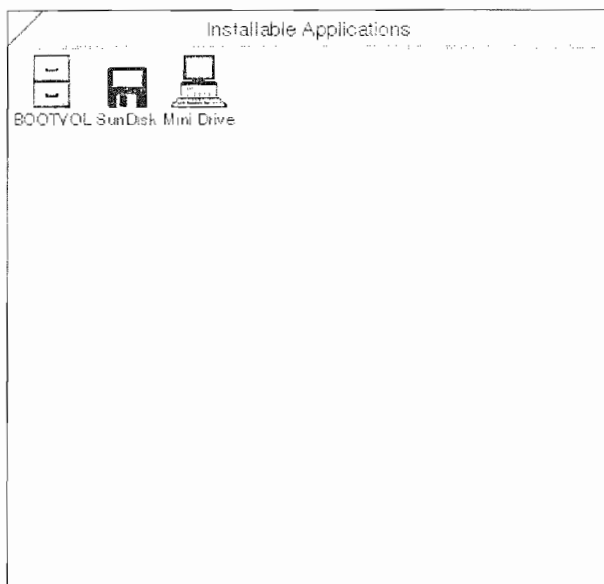
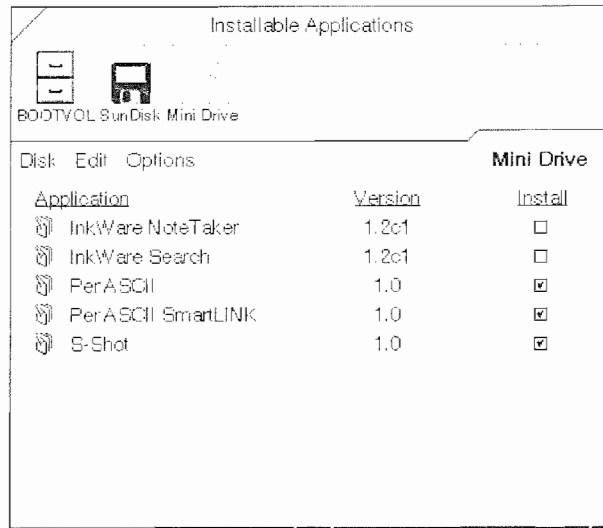


Figure 3.29

The Install page with the disk open



When the software is installed it will be copied to the disk drive that is running the EO, which is the same drive that creates the main Bookshelf. Once the software is installed, you will see its icon in the list of software from the Installed Software page.





There are two ways to deinstall software. Before you deinstall any software make sure you know why you are deinstalling it. If you deinstall an application, any documents that belong to the application will be inaccessible, so you will not be able to use the documents. If you deinstall Service, Gesture, or Handwriting software, the EO will not work properly, if at all. You could even cause enough software damage that you might have to reformat your hard drive. Or, if you are using a RAM-based EO, you could lose all of your information.

To deinstall software:

1. Open the page for the type of software you want to install.
2. Tap **!** on the name of the software you want to deinstall.
3. Select the Deinstall command from the Edit menu by tapping **!** on the Edit menu, and then tap **!** on the Deinstall command.
4. You will receive a dialog sheet asking if you really want to deinstall the software. Tap **!** on the Yes button.

These steps will cause the EO to remove the software and erase it from your disk.

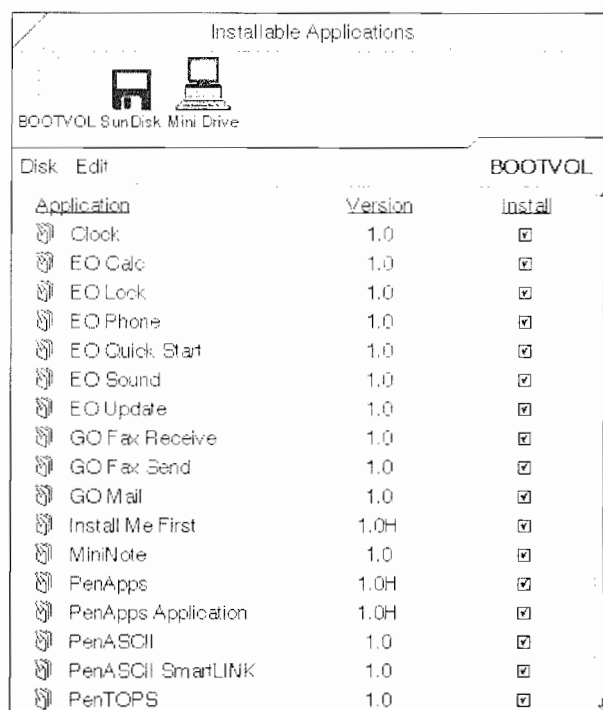
The alternative method for deinstalling software will not erase it from your disk, but it will work only on some items. The alternative method is:

1. Open the page for the type of software you want to deinstall.
2. In the Installed page, tap  on the Install... menu. You will see a page similar to Figure 3.28.
3. The icons across the top of the page are disks that are connected to the EO. Tap  on the disk icon for the disk BOOTVOL, which is the disk that runs your EO.
4. The software you can deinstall this way will appear beneath the disk icons. Figure 3.30 shows the deinstallable software on the disk BOOTVOL.
5. Tap  on the Install check box.
6. You will receive a dialog sheet asking if you really want to deinstall the software. Tap  on the Yes button.

Deinstalling software this way makes the software inactive, but it is left on the disk so you can reinstall it. Remember, be careful when deinstalling software. If you do not know why you are deinstalling software, don't do it.

Figure 3.30

Software that
can be
deinstalled



Application	Version	Install
Clock	1.0	<input checked="" type="checkbox"/>
EO Calc	1.0	<input checked="" type="checkbox"/>
EO Lock	1.0	<input checked="" type="checkbox"/>
EO Phone	1.0	<input checked="" type="checkbox"/>
EO Quick Start	1.0	<input checked="" type="checkbox"/>
EO Sound	1.0	<input checked="" type="checkbox"/>
EO Update	1.0	<input checked="" type="checkbox"/>
GO Fax Receive	1.0	<input checked="" type="checkbox"/>
GO Fax Send	1.0	<input checked="" type="checkbox"/>
GO Mail	1.0	<input checked="" type="checkbox"/>
Install Me First	1.0H	<input checked="" type="checkbox"/>
MiniNote	1.0	<input checked="" type="checkbox"/>
PenApps	1.0H	<input checked="" type="checkbox"/>
PenApps Application	1.0H	<input checked="" type="checkbox"/>
PenASCII	1.0	<input checked="" type="checkbox"/>
PenASCII SmartLINK	1.0	<input checked="" type="checkbox"/>
PenTOPS	1.0	<input checked="" type="checkbox"/>

Status

The Status section of the Settings Notebook provides you with information about your EO. The three pages you can access are:

- Storage Summary
- Storage Details
- PenPoint

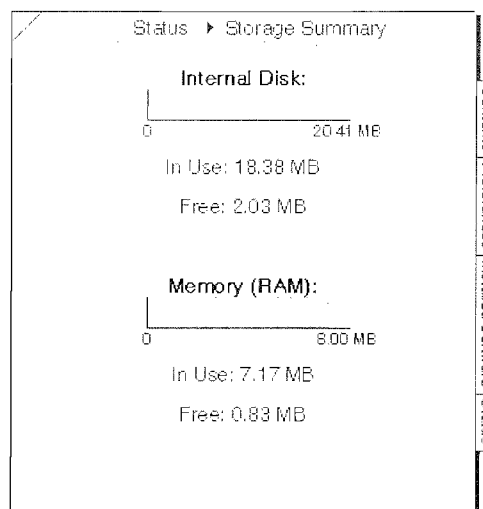
All of these pages are information pages only. They contain no settings or options. These pages can be useful for diagnostics if your EO is not acting properly. And the information can be useful for determining how much disk space and memory your system has available. Otherwise, you won't be looking here very often.

The Storage Summary will tell you how much disk space and memory is being used and how much is free. The Storage Summary page looks like Figure 3.31.

In Figure 3.31 you can see that almost all of the hard disk space and memory on this EO is being used. With so little memory available I would be wise to consider getting a memory upgrade. This is because the more RAM that the EO has to use, the happier it is. Insofar as the hard disk is concerned, I might consider removing some of the applications or documents from the disk. If you have less than 1 MB of free RAM, you should consider increasing your EO's RAM. You can also delete documents you are no longer using.

Figure 3.31

The Storage
Summary
page



To get a better idea of how the disk space is being used you can look at the Storage Details page. On this page you get a configuration summary and a breakdown of how the EO is using hard disk space. Figure 3.32 shows the Storage Details page.

This page breaks down how your RAM is being used if you are using a RAM-only system or how data is stored on your hard drive. What is interesting in Figure 3.30 is that there are very few documents that I have created on the hard drive. Although it says that 13.32 megabytes are used for documents, most of those documents are support documents for the applications that are installed and not documents like MiniText or MiniNote documents.

Also, since the PenPoint operating system is in ROM, it is not using any disk space, which means I have full use of the hard disk for applications and documents. This is just something that is nice to know. It does not affect how your EO works at all.

The final page in the Summary section is the PenPoint Page. On this page you see information about the version of PenPoint that your EO is using and the version number for your ROMs. Figure 3.33 shows the PenPoint page.

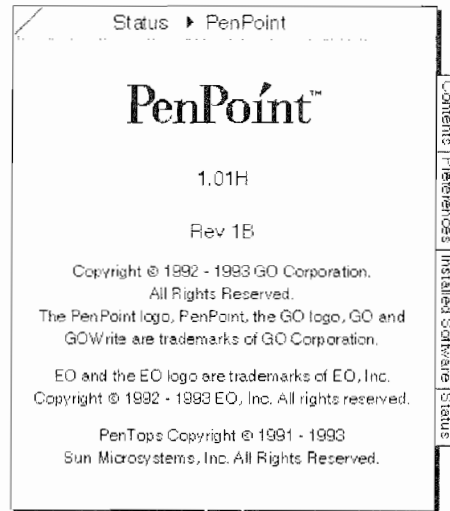
Your PenPoint page will not look like the one in Figure 3.33. It may be similar but it will not, nor should it, look like the figure. The PenPoint page is where you will look to make sure you have

Figure 3.32

The Storage
Details page

Status ▾ Storage Details	
Configuration:	
Memory (RAM):	8.00 MB
Internal Disk:	20.41 MB
File System Usage:	
PenPoint (System):	0.00 MB
PenPoint (Other):	0.00 MB
Working Reserve:	0.00 MB
Installed Software:	5.08 MB
Documents:	13.32 MB
Free:	2.03 MB

Figure 3.33
The PenPoint
page



properly installed any ROM updates that you might get from EO Inc. Because the ROM versions can quickly change, I'm not going to provide any numbers here about what you should have. If you have any questions about whether or not your system is up to date, you should contact EO.

The Stationery Notebook

The Stationery Notebook is another auxiliary notebook that is required by PenPoint. The Stationery Notebook contains all of the documents you can create when you access a Create menu. When you install software, the installation process always makes a section for the software and places at least one document into your Stationery notebook.

The document that is placed into the Stationery Notebook is a template. When you use a Create menu, the document you create is actually a copy of one that is in your Stationery Notebook. In Figure 3.34 you will see the contents of a Stationery Notebook.

Note *Many people make the mistake of editing documents in their Stationery. Doing this will perpetuate these changes throughout all subsequent documents created from the Stationery document. If you make this mistake, simply open the Stationery document and delete your changes.*

In the Stationery Notebook there is a column labeled Menu which has a check box. Any document that has its menu box checked will

Figure 3.34
The Stationery
Notebook

Name	Page	Menu
aha! InkWriter (Hobbit)	47	
EO Calc	7	
Calc	8	<input checked="" type="checkbox"/>
EO Sound	9	
Sound	10	<input checked="" type="checkbox"/>
GO Fax Send	11	
GO Fax Cover Sheet	12	<input checked="" type="checkbox"/>
GO Mail	13	
GO Mail Message	14	<input checked="" type="checkbox"/>
In Order (Hobbit)	58	
In Order	59	<input type="checkbox"/>
InkWare NoteTaker	45	
InkWare NoteTaker	46	<input type="checkbox"/>
LetterExpress (Hobbit)	41	
LetterExpress	42	<input type="checkbox"/>
MiniNote	5	
MiniNote	6	<input checked="" type="checkbox"/>
MiniText	2	

appear in your Create menu. By selecting the documents you want included in your Create menu, you can essentially customize it. And to take the customization one step further, you can also customize the documents in the Stationery Notebook.

You can add your return address and maybe embed your company's logo into a MiniText document. After you have created a document that you want to use as a template, you can copy it to the MiniText section of the Stationery Notebook, check its menu box, and it will be available as a menu item every time you invoke the Create menu.

Using this technique, you can make specialized stationery that meets your specific needs, including personal and business stationery, fax covers, weekly report templates, or any other special purpose document. You'll never have to write your return address again. The only drawback to adding lots of documents to your Create menu is that it could take longer for the Create menu to pop up.

The Accessories Notebook

The Accessories Notebook is a special purpose notebook that holds utilities. When you first get your EO, the Accessories Notebook has the following items in it.

Clock Displays a digital clock that shows the date and time.

Connections Used to access additional disks and set up your printers. This utility is covered in depth in Chapter 10.

Keyboard Displays a virtual keyboard so you can enter letters and numbers by tapping ! on the keyboard's keys, thereby entering the characters into a documents.

EO Lock Prevents unauthorized access to your EO.

PenTOPS Modem Connects to a PenCentral file server using the EO's modem. This utility is also discussed in Chapter 10.

Each of these are special-purpose applications or utilities. Utilities are small programs that do not create documents but instead are designed to fill a very specific need. All utility programs are stored in the Accessories Notebook. You can copy a utility and place it on the Bookshelf, in a Cork Margin, or a notebook, but you cannot put anything into the Accessories Notebook.

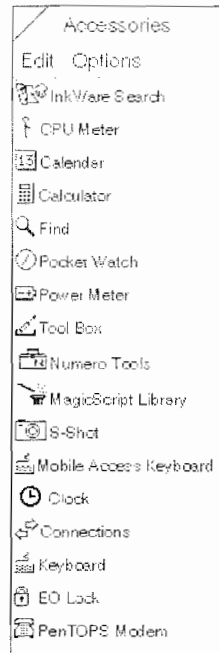
The only way additional accessories find their way to the Accessories Notebook is if that is where they end up when they are installed. Figure 3.35 shows an Accessories Notebook that has several additional utilities which you can read about in Chapter 12.

To open an accessory:

1. Tap ! on the Accessories Notebook which is on the Bookshelf.

Figure 3.35


The Accessories Notebook




2. Tap  on the accessory you want to use.

When the accessory you selected opens the Accessories Notebook will close unless you have turned off the Auto-Close feature in the Accessories option sheet.

To access an option for any application on the EO:

1. Tap  on the Options menu

Or

Draw a check mark  on the application's page or over the item whose options you want to view.


2. Tap  on the Options menu item you want to select

Or


To select an option using the pop-up menu in the Title bar see pop-up menus below.


After you have opened an accessory, the Accessories Notebook will automatically close. The Auto-Close is a feature of the Accessories layout options.

If you do not want the notebook to close automatically:

1. Open the Accessories Notebook.
2. Select the Layout option from the Options menu by tapping  on the Options menu and then the Layout option

Or

Draw a check mark  in the open Accessories Notebook.

3. Set the Auto-Close setting to No by tapping  on the word Yes and selecting No from the pop-up list.

The Inbox Notebook

The Inbox is the notebook where all incoming E-mail and faxes are placed. You cannot put anything into the Inbox unless it comes into your EO through the modem. All you can do is set its options. The Inbox is discussed in Chapters 8 and 9.

The Outbox Notebook

The Outbox is the notebook where all outgoing E-mail, faxes, and documents to be printed are placed. You cannot manually put anything into the Outbox. All you can do is set its options. The Outbox is discussed in Chapters 8 and 9.

Technical Overview

This section is a brief description of PenPoint from a more technical viewpoint. It is intended for those who want a more technical understanding about how the EO and PenPoint work together. Because the EO is so new, there is a lot to learn about it and PenPoint, and this brief section will not do justice to either. But it should be enough to get someone with a technical bent started.

PenPoint is a priority-based, pre-emptive multitasking operating system. The impact of this is two-fold. The multitasking environment allows all applications to perform background tasks. This can result in the automatic updating of documents which are linked, even though the documents are open or currently running. One application, Numero, takes full advantage of this feature. (Numero is discussed in Chapter 11.)

Another advantage of PenPoint's multitasking capability is that it allows the EO to perform several tasks simultaneously. If for some reason one of the tasks being performed should fail, the failure will not cause the other tasks taking place to stop. This ability alone is something that Macintosh and Windows users have been dreaming of and begging for, but at the moment it is only available on the little EO, or on large work stations running operating systems like UNIX.

For all this power, you do have to pay a small price. You will need more memory if you load the EO up with applications. If you have too many applications installed, it is possible you may see some erratic results because too much memory is being used to maintain applications that you are not currently using. Each application has a *shell* or *kernel* that is constantly kept in memory at all times. So it is possible to have an application installed that is not being uti-

lized, but it is still using both disk space and memory, when the memory could be better used by applications you are actively using at the moment.

PenPoint also uses an object-oriented architecture. This allows for a consistent implementation of the user interface. Being object-oriented allows the EO's applications to access, share, and reuse common or pre-existing programming code. Also, applications can share code with each other and with the system.

The benefit that this technology provides to the user is that programs can be written which are smaller, requiring less disk space, while at the same time having more features. When combined with PenPoint's ability to embed documents, programs can offer a greater versatility and power without the need for larger hard disks, more memory, and larger machines.

One of the EO's strongest features is its ability to run without a hard drive. This is because the entire operating system is ROM-based, and its memory management is so efficient that some people, even when they have hard drives, are running their EOs using their RAM only. Running an EO in this manner conserves battery life and increases the EO's speed because it does not have to use power or wait for the hard drive to spin up.

Another feature of PenPoint is how it protects itself from inadvertent problems caused by the user accessing system files. With PenPoint there is no way to look at the boot volume's directory structure, so there is also no way of accessing the operating system other than with the utilities provided in the Settings Notebook where preferences can be set. Although some of you, who really like to see the guts of the operating system and like playing with computers by dissecting the system, may be disappointed, this is really a life saver for the average user. They cannot accidentally cause an EO to malfunction because they deleted some essential system file.

Other features of PenPoint include power monitoring and the automatic shutdown of processes to conserve battery life and to safeguard information, transparent networking from a system level, and modular extendibility. If new features are developed for

PenPoint, you will not necessarily need to upgrade your ROMs. You will have an opportunity to take advantage of the new features through patches to the operating system that will be made available by EO Inc., on a quarterly basis. You do not have a machine that will be out-of-date because it can't be easily upgraded or because it does not have the power to take advantage of the upgrades.

Conclusion

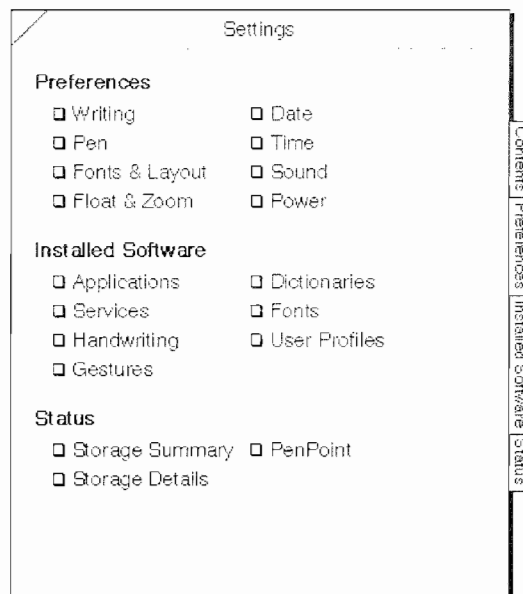
Some of you who read this chapter will be disappointed because it was not technical enough, while others will read it and say, "Oh, my Gosh! I can't remember all of this." Either way I lose. What I hope is that there was a little bit for everyone and that this chapter will give you the grounds for doing some very creative things with your EO.

The EO is not just some little, but expensive, electronic address book. In its little package you have an operating system and hardware that can shame a desktop computer. By now, if you are reading this in sequential order, you can see why the EO is a personal communicator and not just a computer that uses a pen. There is no operating system that integrates how everything operates as completely as PenPoint, and there is no a computer that takes advantage of PenPoint like the EO Personal Communicator. Combined, they are more than the sum of their parts.

Customizing Your EO

To get the most from your EO, you should customize some of your EO's settings. The Settings Notebook (see Fig. 4.1) is where you can set up all of your hardware and software preferences. Although the Settings Notebook does not have the same layout as the default Notebook or the Help Notebook, it is still considered a notebook. The preferences you set apply to all documents and

Figure 4.1
The Settings
Notebook
contents page



Distinguishing between the EO and PenPoint

All of the settings in the Settings Notebook are PenPoint system settings. PenPoint is the operating system that controls the EO Personal Communicator. The company that created PenPoint is the GO Corporation, and although they work with EO Inc., they are not owned by or part of EO. There is a version of the PenPoint operating system made for computers that use an Intel processor; these are machines that could run MS-DOS or the PenPoint operating system.

Just because a computer uses the PenPoint operating system does not necessarily mean it's a Personal Communicator. To get a Personal Communicator, you need a device that was designed for personal and business communications from the beginning, and not added to a computer as an afterthought. All of the Intel-based computers that can run PenPoint can also run MS-DOS; they are designed first as computers, with their communications capabilities being add-ons rather than the basis of their design or the inspiration for their creation.

What you have in the EO Personal Communicator is a device that is the result of two vendors who worked together to bring you a highly sophisticated product. The PenPoint operating system is very complex and powerful and requires a sophisticated device to take full advantage of its features. Likewise, the EO is also a complex and powerful device, designed specifically to use GO's PenPoint operating system. Because of the EO/GO relationship, the EO Communicator is more than just another computer that uses the PenPoint operating system.

In addition to the EO being designed to take full advantage of PenPoint, there are also features of the EO that were designed specifically for the EO Communicator that will not be found in any Intel-based computer even if it is running PenPoint. Some of these features are the EO applications like EO Phone, EO Sound, EO Lock, Personal Perspective, and EO Calc.

The PenPoint operating systems uses a set of standard conventions for selecting and indicating selected items. Because this chapter is about setting the EO's system preferences, these conventions will be listed here rather than repeated over and over again for each preference setting discussed.



First, we'll look at how PenPoint tells you what is currently selected. All selected options are indicated in one of two ways:


- A check mark to the left of a selected item,
Or
- A text description to the right of the Option label with an arrow between the text and the label.

Any time you see a label which has text to the right without an arrow or a check mark you are looking at an information label. The text to the right of the label is there to show you some type of information, identified by the label. This is not a selectable option.



Before you can change an option you have to open the Settings notebook and select the options page you want.


To open the Settings notebook and select an options page:



1. Tap  on the Settings Notebook which is on the Bookshelf.
2. Tap  on the label or the box to the left of the label of the options page you want to open.

To change a checked selection, tap on your selection choice. In Figure 4.2 you would change the Pen Cursor from Off to On by tapping  on the word On.

To change an option with a text description:

- Tap  on the arrow to the right of the option label,
Or
- Tap  on the text field to the right of the arrow.

Either of these actions will cause a menu to pop up. From the pop-up menu tap  on select your option choice. The text field to the right of the arrow will display your choice.

- Draw a right flick  on the text field to the right of the arrow to select the previous option in the pop-up menu
Or
- Draw a left flick  on the text field to the left of the arrow to select the next option in the pop-up menu.

(continued)

Distinguishing between the EO and PenPoint (continued)

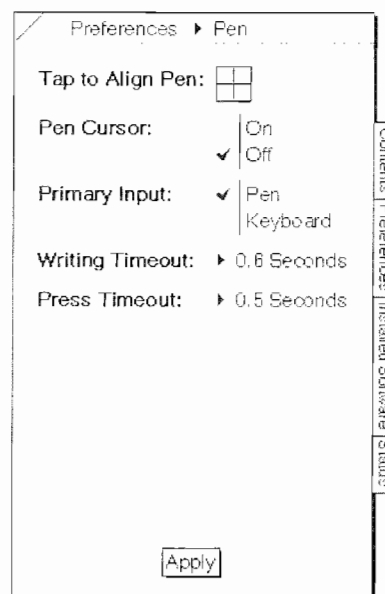
Either of these options will work on any option that uses a pop-up menu. All options that have a pop-up menu can be identified by the arrow to the right of the option's label and a text field to the left. The Writing and Pen Timeouts as well as the Title line in Figure 4.2 are examples of options that have pop-up menus. The two bulleted selection methods can be used to flip from one Settings option page to another when the action is performed on the arrow or text field in the Title line.

There is one other selection method you might see in a Settings Notebook's options page. This is a button. If an option has a button it means that the option is really a command, and tapping Ψ on the button will execute the command. A button can always be distinguished from an option variable because there will be no check mark or arrow between the label and the text to the right. Also, the button's text will have a border around it.

Finally, at the bottom of each settings page you will find an Apply button. Any changes you make will only take effect after you tap Ψ on the Apply button. If you make a change and then leave the page your setting changes will be canceled and won't take effect.

Figure 4.2

The Pen preferences setting



applications on your EO. To open the Settings Notebook, tap Ψ the Settings icon on the Bookshelf.

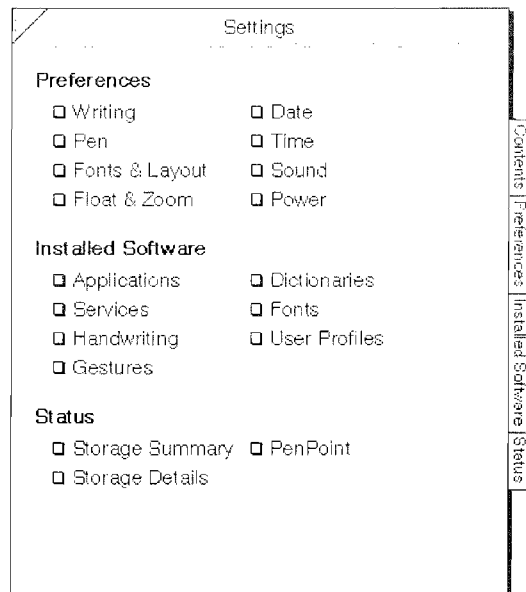
In this section, each of your EO's Preference settings will be looked at and explained. The Status Notebook is a system notebook that is used to set your EO's system defaults. The Status Notebook contains three sections: *Preferences*, *Installed Software*, and *Status*. The Installed Software and Status settings will be discussed in detail in Chapter 3. The remainder of this chapter will examine the Preferences Section.

The Preferences Section

In the preferences section of the Settings Notebook you will find all of the user-definable settings for your EO. These are system-level settings and apply to every document. There are some occasions when a document will allow you to override one of the system settings, but to do so is a deliberate act, a setting that you change as an option within the document itself. Figure 4.3 shows you the Settings Notebook contents page.

Under the Preferences section you will see that there are eight preferences settings. The first four on the left determine how your EO's screen will look and feel. With these four settings you will be personalizing your EO to meet your needs and desires. The four settings on the right are system settings for date, time, sound, and power conservation. These settings do not affect how you interact

Figure 4.3
The Settings
Notebook
contents page



with your EO, but they are important to set anyway. If any terms in the list below are unfamiliar, don't panic, they will be explained in this section. From within the Preferences section you can select any of the following system options:

Writing Selects the writing style, the type of writing pad, the writing pads box size and shape; sets the character for unrecognized characters.

Pen Aligns the pen, selects the pen cursor and the default primary input, writing, and press time-outs.

Fonts and Layout Selects the PenPoint font, the field font, font size, the EO's orientation, hand preference, and scroll margins.

Float and Zoom Allows or disallows floating and zooming documents.

Date Sets system date and format.

Time Sets system time and format.

Sound Turns the system warning beep on or off.

Power Puts the EO into Standby, shuts it down, sets the auto Standby, sets the auto shutdown from standby, turns on or off the wireless module, sets the device auto power off, checks the battery level.

All of these settings are important because they determine how your EO will behave and what it will do under specific circumstances. The system settings are also how you will set your personal preferences for your document's appearances. The following sections discuss each of the preference settings in detail.

The Pen Settings Preferences

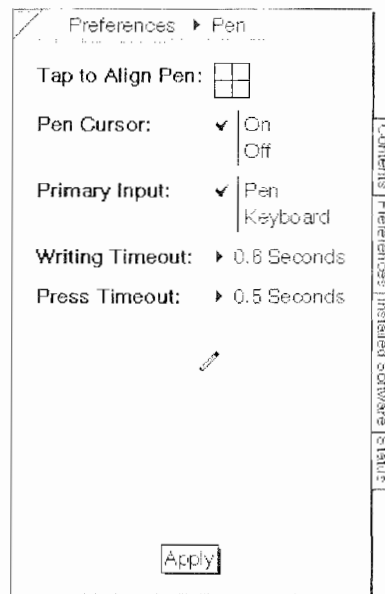
Because the first preference you should set on your EO is pen alignment, we'll look at the Pen preferences first. To set the pen's preferences, open the Settings Notebook and turn to the Pen preferences page. The Pen preferences page looks like Figure 4.4.

The Pen preferences you will be setting are:

- Pen Alignment
- Pen Cursor

Figure 4.4


The Pen
preferences
settings




- Primary Input
- Writing Timeout
- Press Timeout

Each of these preference settings will be discussed in this section.

Adjusting the Pen's Alignment

The pen's alignment is one of the most important settings you can make. The alignment will affect how the EO reacts to your commands, your writing, and the EO's character recognition capabilities. If you do not adjust the pen's alignment you will find strange things happening when you tap  and try to select various objects. You will end up being very frustrated because the pen will not be tapping where you place it, your writing will not translate correctly, and you will wonder why your EO is not working properly.

To align the pen:

1. Hold the pen and the EO as you will when you are using it.
2. Press  the pen to the center of the cross hairs where it says "Tap to Align Pen."
3. Continue to press until the entire box highlights.

This process aligns your pen for the angle at which you will be holding it. You should realign the pen when there are radical changes in how you are using the EO. If you are cradling it in your arm and writing while standing up, you should align the pen for that position. Likewise, if you're using the EO at a desk and you've aligned the pen while standing up, it should be realigned.

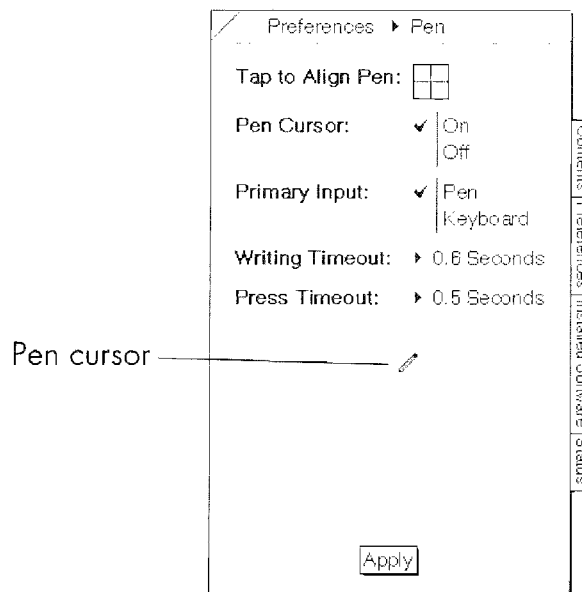
The Pen Cursor

The next setting is for the pen cursor. When the Pen Cursor is turned on your EO displays a small cursor like the one in Figure 4.5. I think this can be helpful, especially while you are learning to use the EO, for determining where your pen is while writing on the EO. However, EO does not recommend using the pen cursor. They say it seems to screw up pen alignment (causing the pen to drift out of alignment) and slow down performance. The pen cursor is really intended for use with the EO 880 while doing presentations on a VGA monitor. If you want to use the pen cursor, turn it on by tapping ! "On."

Setting the Primary Input

You can connect a keyboard to your EO at those times when you need to type a long document. If you do, you may want to change the primary input from the pen to a keyboard. The Primary Input setting makes it easier to find the insertion point (where the text

Figure 4.5
The pen cursor



will appear when you type) while using the keyboard. Experiment to see if you really want to change this setting when you connect a keyboard. (Attaching a keyboard to your EO is discussed in Chapter 1.) It is not necessary to change this setting if you do not want to.

The Writing and Press Timeouts

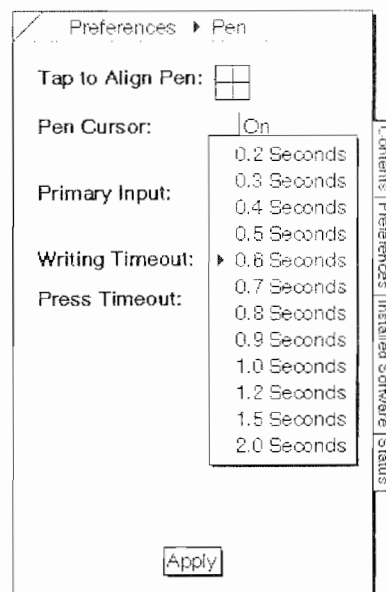
The last two settings in the Pen Preferences are the Writing and Press Timeouts. A *timeout* is how long the system will wait before performing a task. In the case of the Writing Timeout, the amount of time you select tells the system to wait six tenths of a second before interpreting the letter you wrote if your setting is the same as that in Figure 4.6.

If your EO is not recognizing your characters and you are sure that you are properly drawing them, then you might want to increase the Writing Timeout. On the other hand, if after you write a gesture or a letter the EO takes too long to recognize the command you may want to shorten the Writing Timeout. To begin with, use the system with its default setting of six tenths of a second then adjust the Writing Timeout to suit your needs.

The Press Timeout controls how long the EO waits before selecting an object after you have tapped, pressed, or tap pressed on an object. When an object is selected it is highlighted, and when you

Figure 4.6

The pop-up menu of selectable time-outs



want to copy or move an object it gets a double or single marquee, respectively. Figure 4.7 shows a document with a double marquee, meaning that it is now possible to copy the document.

Adjusting the Press Timeout will determine how long your EO waits before the marquee appears around the objects you select. The system default for this setting is a half second. If your taps are being interpreted as presses (a single marquee appears around the object) or tap presses (a double marquee appears) you should increase the Press Timeout. Likewise, if you are waiting too long before getting a response you may want to shorten the Press Timeout. This is another setting you should experiment with after you have some experience with your EO.

Adjusting the Writing Preferences

After you adjust the Pen Preferences, the next set of preferences you want to look at are the Writing Preferences. (But then again you already knew that by this section's title.) When you open the Writing Preferences page it will look like Figure 4.8.

Figure 4.7
A document
selected for
copying

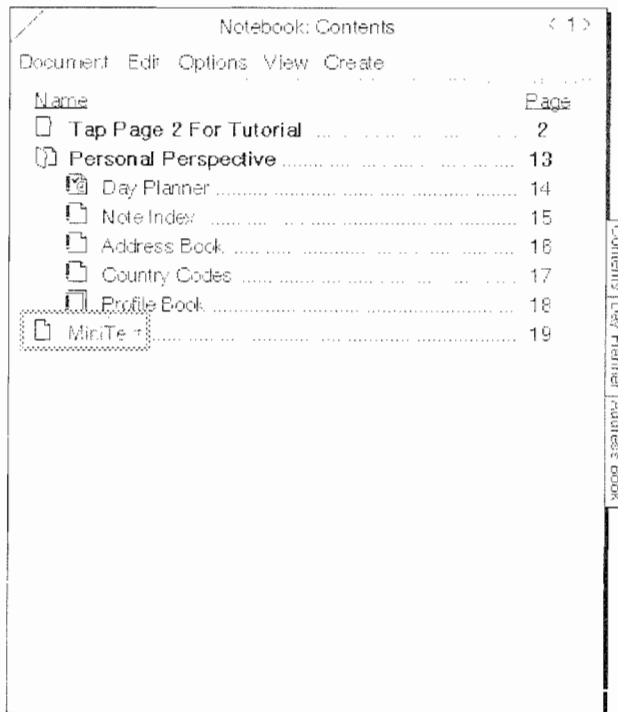
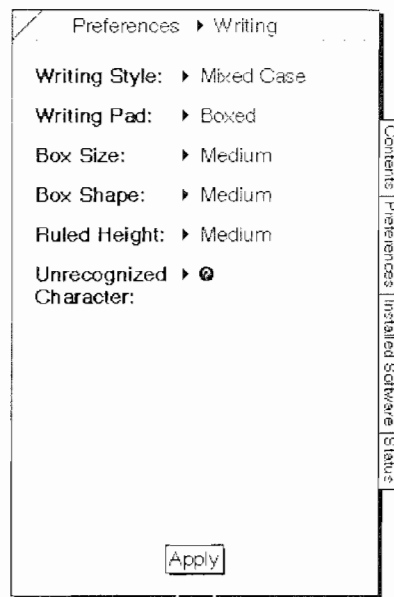


Figure 4.8
The Writing
Preferences
page



The Writing Preferences are used to set the following PenPoint attributes:

- Writing Style:
- Writing Pad:
- Box Size
- Box Shape
- Ruled Height
- Unrecognized Character

Each of these settings will be discussed in the order that they appear.

Writing Styles

The Writing Style is where you tell PenPoint how you normally write, whether you use all upper-case letters or mixed-case letters. If you normally use all upper-case letters when you write and choose to use this option, your EO will automatically mix cases by using basic capitalization rules, capitalizing the first letter of each sentence and proper nouns.

Also, if a word's case is incorrect it is very easy to fix with PenPoint gestures. (These gestures were covered in Chapter 3.) Should you tell the EO that you are going to use mixed-case writing (the default setting) it will represent your words as you write them or as it interprets what you write.

Note *As we look at these different settings I'm going to tell you to experiment with them. I'm not trying to be redundant. I really mean that you should experiment with different PenPoint settings. If you take my word for what is best without taking the time to see if something works for you, you will be cheating yourself in the long run.*

Something as simple as changing the Writing Style might make the difference in your EO experience being fun and productive rather than frustrating. But you won't know unless you try the different settings. You should use the alternate settings long enough to get a real feel for how they work, I would say at least a day. And, if you really don't like how the change functions, you can always change it back.

Writing Pads

A writing pad is a pop-up or embedded pad that you write on. There are three types of writing pads: boxed, ruled/boxed, and ruled. After you are finished writing or you fill up the pad, the EO translates what you have written, turning it into text. Each of these options operate differently and can dramatically alter how you work. Figure 4.9 and 4.10 show the types of writing pads.

When you use a writing pad with EO, the process of translating your writing occurs in either two or three steps. With a ruled writing pad, translation happens in two steps, you write the letters, and when you tap OK, what you have written is translated and immediately inserted into your document.

If you are using either boxed or ruled/boxed pads you will write your letters and press OK. After tapping OK the EO translates the letters and places the translated letters into a boxed writing pad for editing. After you edit the translated letters and tap OK, they will be inserted into your document. Figure 4.11 shows the steps that occur when using a boxed or ruled/boxed writing pad.

Figure 4.9
A Ruled
writing pad

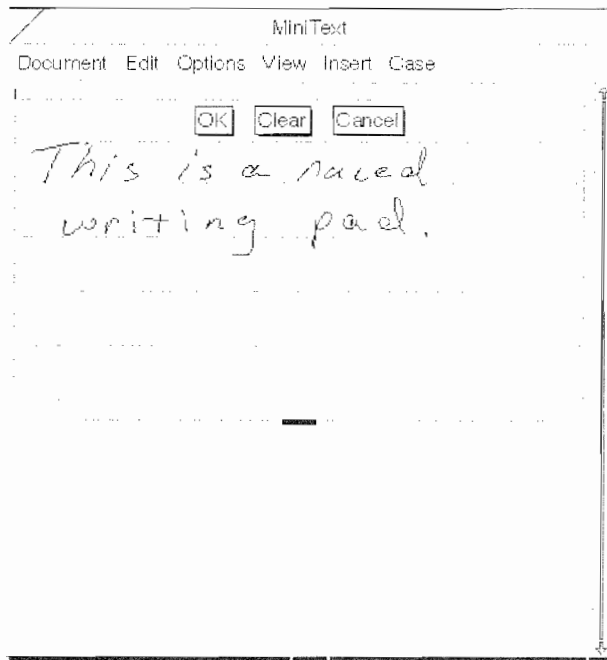
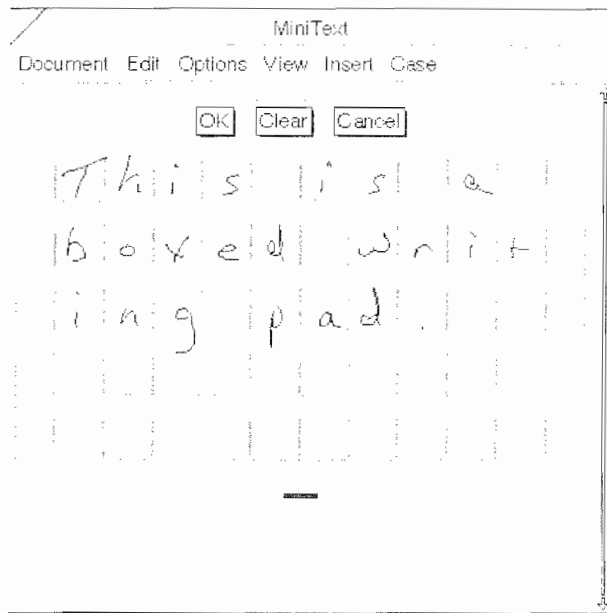


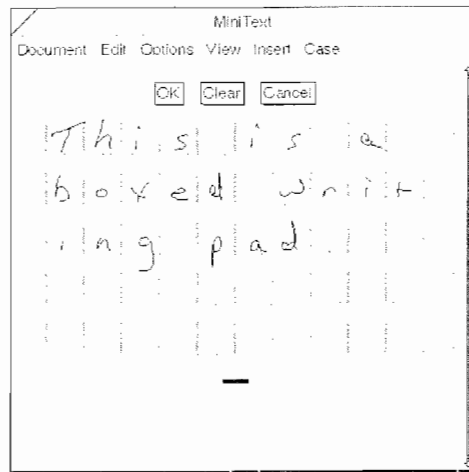
Figure 4.10
A Boxed
writing pad



The ruled writing pad should only be used by those who have very clear and precise writing because you do not get a second chance to edit what you have written.

If your writing is like mine you will probably want to use the boxed writing pad. My writing is getting better, but I have to edit at least 10% of what I write. If I were to use a ruled pad I would

Figure 4.11
Translation
steps for
writing pads



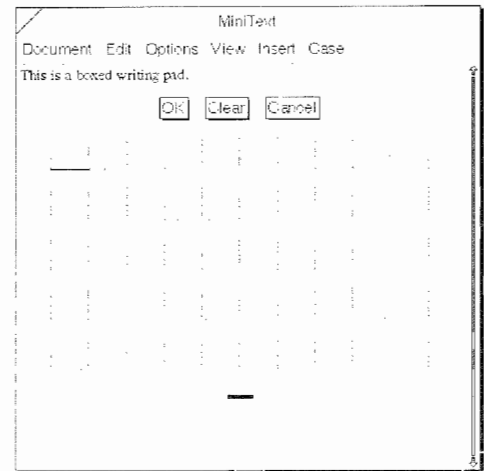
1. Writing



2. Ready for editing



3. Edited



4. Inserted

end up editing everything I wrote. By selecting the text after it is placed in the document and editing it, I would actually be adding an extra step to the editing process.

Of course you will have to decide which writing pad you want to use, and again you will have to experiment to see what works best for you. Before you settle on any specific writing pad, you should do some writing practice, as described in Chapter 2.

Box Size

The Box Size setting determines what size the boxes will be in your writing and/or editing pads. The default size is medium, but you have choices from very small to very large. Where this setting

will have the most impact is in applications like MiniText (one of the EO's built in applications). Figure 4.12 shows MiniText's writing pad with very large boxes, medium boxes, and very small boxes.

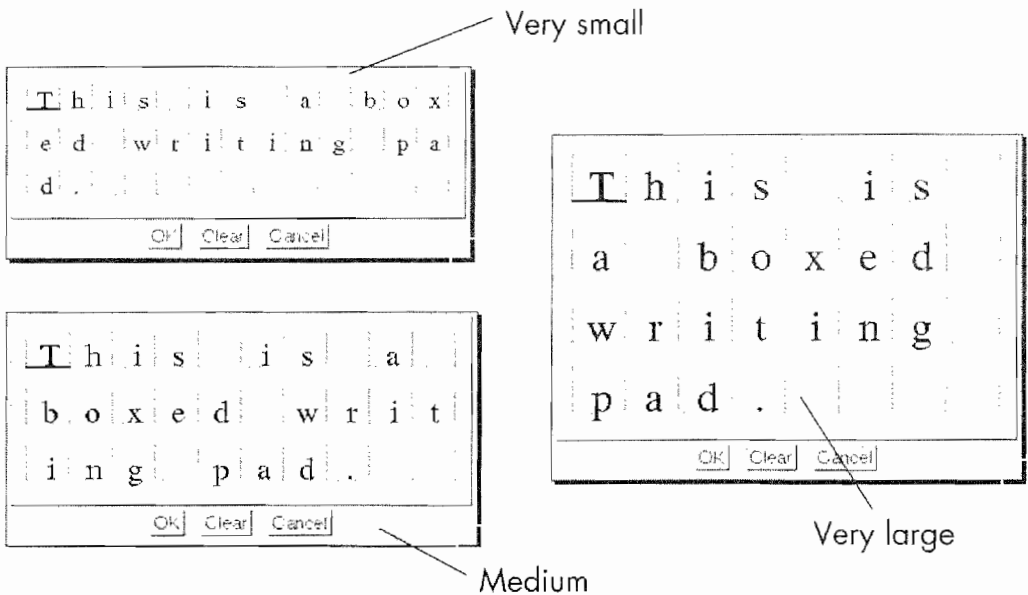
The size of box you choose will depend on how you write, provided you do not choose a ruled writing pad. Remember, when you write your letters they must fit within the boxes and should not touch the edges on either the right or left. Also, the only part of a letter that should go below the bottom line of a box are descenders like the tails on lower-case letters such as a p, y, g, and so on. If you find that you are having difficulty writing within a box and your letters are consistently being misinterpreted, you should try a larger box.

Box Shape

The Box Shape preference works in conjunction with the Box Size preference setting. Your choices are short, medium, and tall. These attributes apply to the height and width of the box edges. When writing, your letters should not be taller than the tops of the boxes. If they are, you should select the tall setting. Likewise, if your letters are wider than the boxes, choose a shorter setting. Once again, you should choose the setting that is most comfortable, which means you will have to experiment to find out which you like best.

Figure 4.12




Boxed writing pads with varying heights



Ruled Height


The Ruled Height preference is similar to the Box Size setting, and, as its title indicates, it applies to width between the lines in a ruled writing pad. The height has some bearing on the size of your letters. If the height between the lines of the writing pad is small, then your letters must be written small as well.

Unrecognized Character

Your final preference setting for the Writing preferences is the unrecognized character setting. For this setting you have your choice of a black circle with a question mark  or an underscore _ character. If you use the , a word with a character that your EO could not translate, it will look like ths. With the underscore character the word will look like th_s. Once again, the choice is yours.

Note

Whenever you change a preferences setting the change will go into effect as soon as you press the Apply button. However, if the preference you are changing is a writing pad or some other item that is currently in use, the changes will not affect the object you are using until you close and reopen the object. An example would be if you change your Writing Pad preferences from boxed to ruled while you have a boxed writing pad open. The change will not take effect until you close the writing pad and reopen it.

The preferences you set for the writing pads apply to PenPoint's pop-up writing pads. If you are editing text by gesturing with a circle  on characters that have already been translated, the characters will always appear in a ruled box writing pad.

Your Fonts and Layout Preferences

All the Fonts and Layout preferences determine how your screen will look or how you will interact with the EO. The Fonts and Layout preferences are for setting the following:

PenPoint Font This applies to any text that is required by the PenPoint operating system, such as page titles.

Field Font This is the font used wherever you place data within a document.

Default Font Size Sets the font size for all system and user field areas.

Tablet Orientation (Top Edge) Sets the screen orientation of your EO.

Hand Preference Where you tell your EO if you are right or left-handed.

Scroll Margins Determines what type of scroll margins you will use.

When you change these settings and press Apply, your EO's screen will blank out and you will get a message saying that PenPoint is updating your screen changes. It takes about 30 seconds for the changes to take effect.

As with all preference settings, these are supplied for your convenience. You should experiment with the different settings to find one that will work for you.

PenPoint Font

The PenPoint Font is the font used for all system displays. Your system displays are page elements like the Menu line and commands, the Title line, the text in option sheets, content pages, and other system screen displays. You can choose any installed font that pops up when you tap on the arrow next to the current system font.

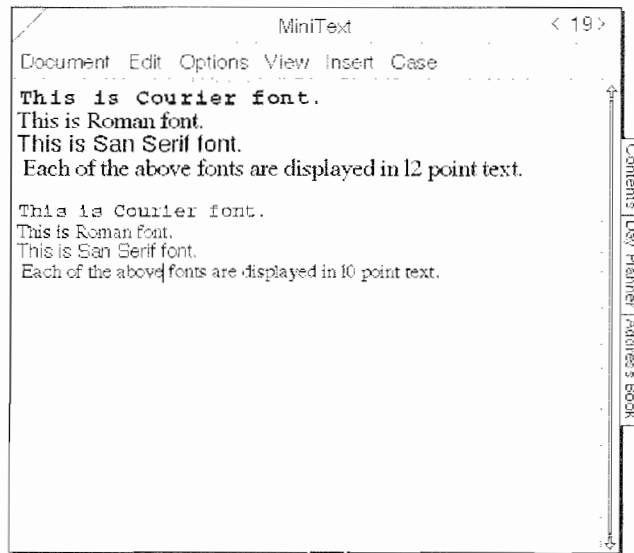
Figure 4.13 shows the available fonts installed on a demonstration system. These will be different from the default fonts on an EO out of the box.

When you get your EO, the San Serif font will be the system default for PenPoint. It is customary, but not necessary, to assign different fonts to the PenPoint and Field font settings. This is to avoid confusion, by using different fonts for different types of data.

Field Font

The Field font is the typeface that will be used in your documents and data fields like those in Personal Perspective. You will have the same choice of fonts as you do with the PenPoint Font choice.

Figure 4.13
Example of
fonts available
for the
PenPoint
system



Other than this, there isn't anything else to say that was not said in the PenPoint Font section above.

Font Size

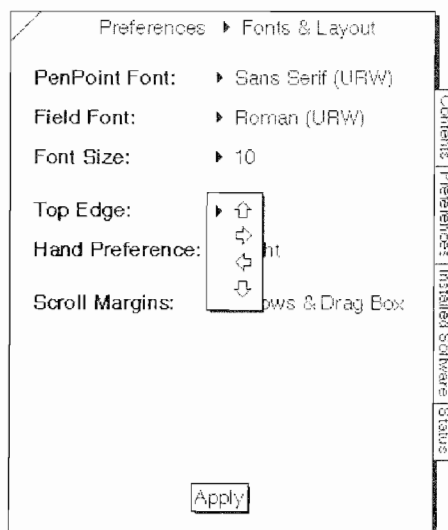
The Font Size is the display setting for both the PenPoint and Field font settings. The default size is 10 points, which can sometimes be a bit small and hard to read. EO Inc., recommends switching the font size to a 12 point font. It makes your communicator easier to read and also increases the size of some fields. The increased field size, Item lines in Personal Perspective for example, makes data entering easier. If you change the font size to 12 points you will find your display easier to use, although you will not be able to see as much of a page.

Top Edge

The Top Edge sets the orientation of your EO's screen. In Figure 4.14 you will notice that the top edge is defined by an arrow pointing up. This means the orientation for your EO's screen is set so the top of your pages are oriented in the same direction as the arrow. Also, your EO's bookshelf will be positioned on the screen corresponding to the bottom of the arrow.

Although there are two basic orientations, *portrait* and *landscape*, you can set the top edge of your EO screen in any one of the four directions of your EO's screen. This is useful because you might

Figure 4.14
Top Edge
options for the
EO screen



want to have weight of the battery compartment at the bottom while you hold your EO and write. Or, you may find a landscape orientation more comfortable with the battery compartment to the right or left, depending on the hand you use to hold the EO. Whenever you change the screen's orientation, realign the pen.

Note *If you discover you are often switching between Portrait and a Landscape modes, but find using Top Edge to change orientation a pain, there is another way to accomplish this. Another way to change the settings is by using multiple User Profiles. If the default profile is set to portrait, a second User Profile with the orientation set to landscape can be created. Then when you change profiles you will also be changing orientations. Also, you would not have to realign the pen since the pen settings are also stored in the User Profile. More about User Profiles can be found in Chapter 3.*

Hand Preference

The Hand Preference setting determines where the scroll margins appear on your pages. The *scroll margins* are an area at the edge of a page where you can move your documents about if the entire document cannot fit in the visible area of the page. Figure 4.15 shows the scroll margins in a Personal Perspective document.

In Figure 4.15 the scroll margins are on the right. The Hand Preference sets the scroll margins to either the right or the left side of a page. Supposedly, the setting is for right or left-handed people, but in reality you can use whichever orientation is comfortable for

you. It is quite conceivable that a right-handed person might want the scroll margins on the left-hand side. Whichever orientation you choose, the statement on experimentation at the beginning of this section applies.

Scroll Margins

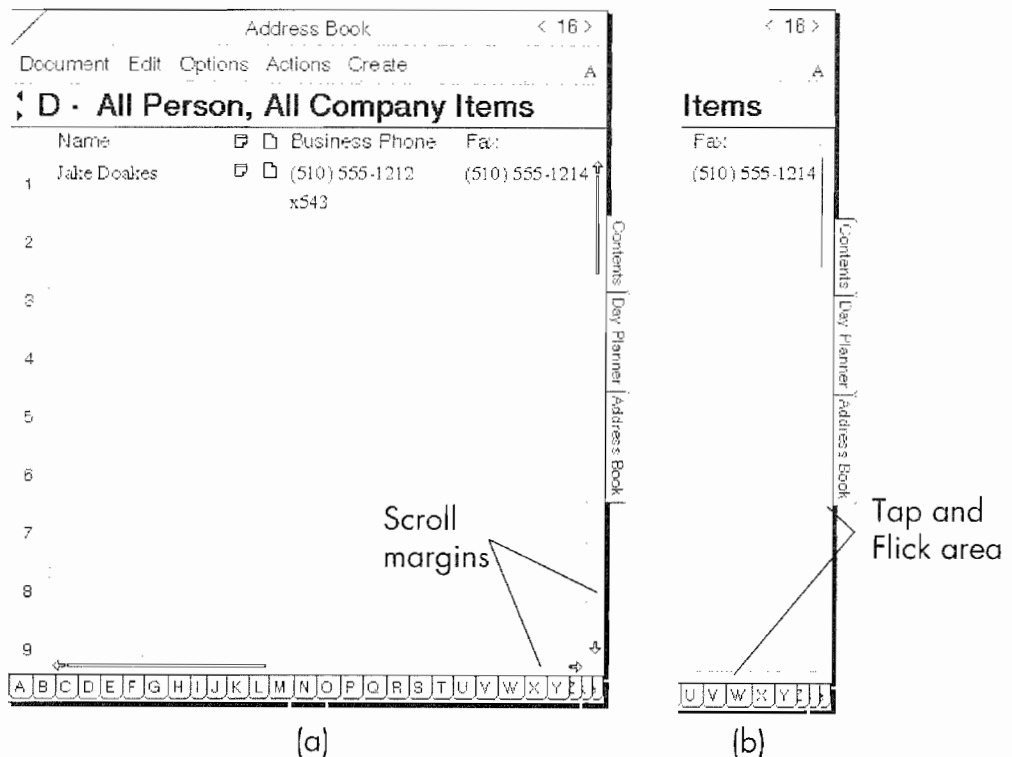
The Scroll Margins setting determines what type of scroll margins you use. There are two types of Scroll Margin settings. One is called Arrows and Drag Box. The Arrows and Drag Box setting sets the scroll margins so they appear like those in Figure 4.15 (a).

The other type of scroll margin is called a Tap and Flick Area. The Tap and Flick Area scroll margins look like the scroll margins in Figure 4.15 (b).

The Tap and Flick Area scroll margins represent areas where you can use taps and flicks to move your document about instead of dragging the small boxes or touching the arrows. Tapping and flicking, as described in the basic gestures section of Chapter 2, will work regardless of the type of scroll margins you select.

Figure 4.15

(a) Scroll margins in a Personal Perspective document
(b) Tap and Flick Area scroll margins in a Personal Perspective document



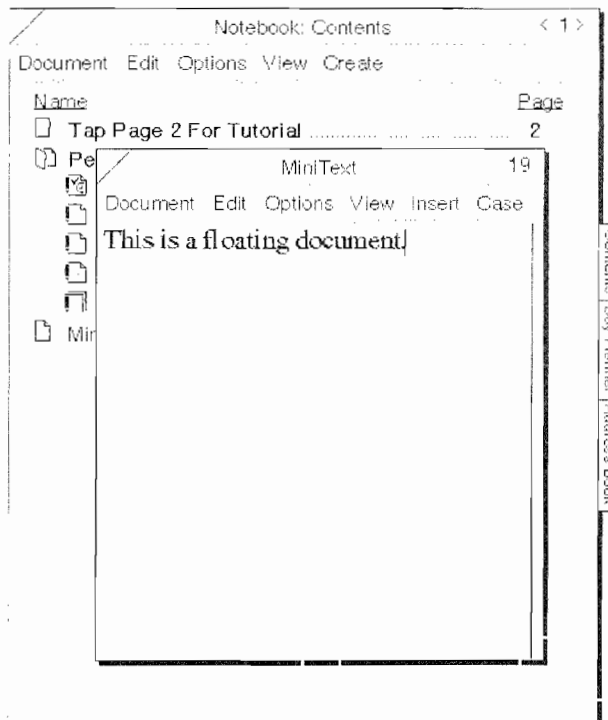
Float & Zoom

The Float & Zoom settings are attributes that control how your documents and notebooks behave when they open. Floating occurs when a document is opened with a double tap \mathcal{Y} . The double tap \mathcal{Y} can be performed on a document's tab, its page number, or icon. Figure 4.16 shows a document floating on top of a notebook.

In order for a document to float, the Floating attribute must be turned on from the Float & Zoom preferences. The default settings for the Float & Zoom options are on Allowed or Not Allowed.

Basically, you can either float documents or you can't. If you turn off the floating document (Not Allowed), double tapping \mathcal{Y} on the title line, page number, icon, or tab will not work. The purpose of allowing floating documents is so you can have two or more documents open at the same time and switch between them. When you have multiple floating documents such as those shown in Figure 4.17, you can switch between the open documents when you tap \mathcal{Y} on the title line or the border by the scroll margin of the document you want to bring to the front.

Figure 4.16
A floating document

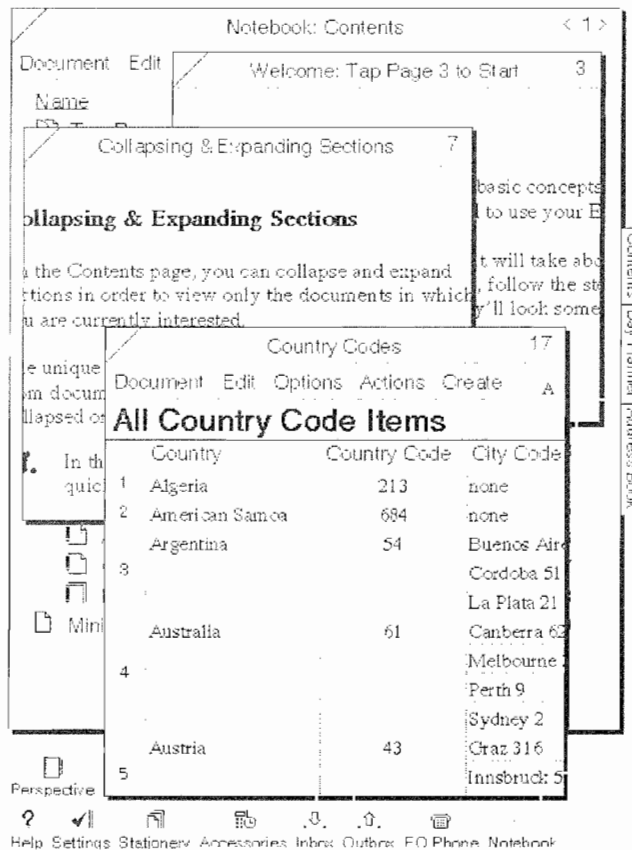


Once you have selected a document to work on, you might want to zoom it so it fills the screen. To zoom a document, you have to have the Zooming preference allowed in the Float & Zoom preferences. The gesture you use to zoom a document is a flick up \uparrow in the title line of the document. To return the document to its original size you need to perform a flick down gesture \downarrow in the Title line.

In order for either of these gestures (the flick up or flick down) to function, the beginning of each gesture must be in the title line. When you zoom a document, any floating documents will continue to float in front of the zoomed document, and the floating documents will have to be closed to work on the zoomed document.

Note *Although this may seem like a fine distinction, it is important to remember that an open floating document will float in front of a zoomed document. If the zoomed document from a notebook is floating, closing the notebook will cause the document to close also. To prevent this inconvenience from occurring, you will have to zoom*

Figure 4.17
An example of multiple floating documents



the notebook first and then zoom the document you want to work on. Zooming a document contained in a notebook will make the other contents of the notebook unavailable until you shrink the zoomed document. While you are starting out, you might want to turn these settings off.

If zooming is not allowed in the preference settings, then all pages will act as if they are floating. You will only be able to change their sizes by using the resize handles at the bottom or the lower right corner of the page. And if floating is not allowed, you will only have access to one notebook page or document at a time. The Float and Zoom options are a bit complex, so you should experiment with these options to get a full understanding of how they work, even if you plan on leaving both the Float and Zoom options on.

Date

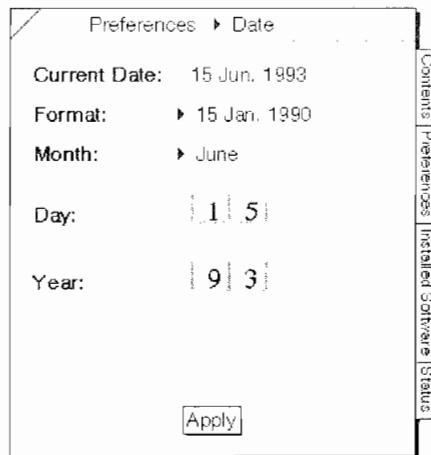
The Date preference page is where you set and format your EO's current date. Figure 4.18 shows the Date preference page.

To set the month, tap **!** on the month's name or the arrow next to the month's name. Setting the date and year is just a matter of writing the proper numbers on the pads provided. If you write an incorrect number, just write the new number over the old one.

Selecting the date format is done the same way as selecting the month. There are ten options. Select the date format you want to use. The date format you select is the one that your EO will use in

Figure 4.18

The Date preference page



every instance where the date is displayed, unless the program you're using allows you to override the system date format. Until you change the format by tapping the Apply button, the current date display shows you the system date and format currently in effect.

Time

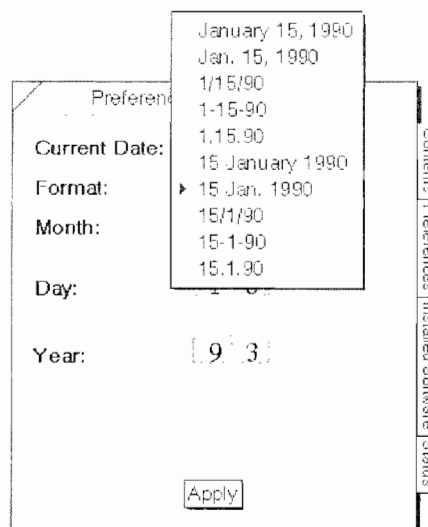
The Time preferences page is similar to the Date preferences page. The Current Time at the top of the page shows your systems time and the time format (see Fig. 4.19).

The Time Zone setting lets you tell your EO what time zone you are in. This way if you travel, you can quickly and easily change the system time to correspond to your current time zone without resetting the time. The Time Zone setting must be correct before you set the system time. If you set the time and realize that the time zone is incorrect, changing the time zone will also change the system time. So be sure to set the time zone first.

Setting the time zone is done by selecting a city in your time zone. Each of the cities in the pop-up menu has a positive or negative number preceding it. These numbers represent the number of hours difference between Greenwich Mean Time (GMT) and the time zone represented by the city. City names are used because it is easier to associate a city with a time zone than trying to figure out the difference in hours from Greenwich to wherever you hap-


Figure 4.19

The Time preferences page



pen to be. Unfortunately, PenPoint did not provide a daylight savings setting to go along with the time zones, so you will have to change the time whenever daylight savings time changes.

Your Time Format options are either a 24- or 12-hour clock. If you use a 12-hour clock, the format will display A.M. and P.M., while the 24-hour clock uses standard military time. The last format option is whether or not you want the seconds displayed. Whichever format you choose will be the default system time for all of your applications unless a program lets you set a different time format.

To set the time, write the time you want your EO set to in the Hour, Minute, and Second boxes, and tap  the Apply button. There is a one or two-second lag between tapping the Apply button and the time being set, so if you are trying to make your EO accurate to the second you will have to take this into account.

If it is important for your EO to be accurate to the second you will have to practice a little bit to get the time exact. I've found the best way is to sort of guess while you have the mechanical time person on the phone. (The phone number for time in most areas is POP-CORN.) Tap the Apply button as the mechanical voice finishes announcing the time and just before the ten second tone. Unfortunately this will have to do until someone writes a program that will call a national observatory and precisely set the EO's clock.

Sound

The Sound Preferences setting is simple: you can turn the EO's Warning Beep on or off. If you turn on the system sound, your EO will beep each time your EO displays an error or system message. If you are going to be using your EO to take notes at meetings, in class, or in places where beeps and noises will disturb other people or draw attention to you, you will probably want to turn off the system beep sound.

As far as I'm concerned the most useful service the system beep can provide is the warning it will give when the EO gets ready to go into Standby mode (discussed in the next section). Just before going into Standby, your EO gives you 15 seconds to cancel the

descent into Standby mode. Having the EO beep at the beginning of this 15 second window can be convenient.

Setting Your Power Preferences

The EO is a battery-powered device, and you need some way to tell it when to go into a state where it is using as little power as possible or even shut off. The Power Preferences page is where you set your EO's power options. You get to the Power preferences page just like you do the other preference pages. The options you can set or information you can get from the Power Preferences page are:

- Manual Standby
- Manual Shutdown
- Auto Standby
- Shutdown from Standby
- Wireless Module
- Auto Power Off Devices
- Battery
- Screen Back lighting (EO 880 only)

Not all of the options in the Power Preferences page are system settings. Some of them are system functions such as the Manual Standby and Shutdown. The Battery Gauge serves as an information-only function, providing a graph that tells you how much power your battery has left. The remainder of this section will discuss each of these settings in detail.


Manual Standby


The Manual Standby button is a feature of PenPoint and not really needed with the EO because of the On/Standby button. However, if you have the Auto Standby turned off (see below), you can use the Manual Standby button (from the Power Preferences) to put your EO into Standby instead of depressing the On/Standby switch.

There is another use for the Standby switch. This use of the Standby button is a convenience and not necessarily recommended by EO Technical Support. If you wish, you can copy the

Standby button and place it in the Cork Margin of any page or on the Bookshelf.

To copy the Standby button and place it in the Cork Margin:

1. Open the page onto which you wish to place the button.
2. Choose the Controls selection from the notebook or document's Options menu to show the Cork Margin if it is not visible.
3. Open the Settings Notebook to the Preferences Power page.
4. Resize the Preferences Power page so you can see the Cork Margin of the target page.
5. Tap press  on the Standby button and wait for the double marquee to appear.
6. Without lifting your pen drag the button with the double marquee to the Cork Margin of the target page and release the button by lifting your pen.
7. You will see the clock symbol that indicates the EO is processing data, and a copy of the Standby button will appear in the Cork Margin of your page.
8. To copy the Standby button to the Bookshelf, follow the same procedures as above, only copy to the Bookshelf instead of the Cork Margin.

Once you have copied the button you can put your EO into standby at any time by tapping  the Standby button. This will have the same effect as pressing the On/Standby button.

Manual Shutdown

Note

If your EO does not have a hard drive, you will not see the Shut Down button. This is because shutting down your EO would lose all of your data.

The Manual Shutdown button is the only way you have of shutting down your EO. The Shutdown button operates in the same way as the Standby button except that it completely turns off your EO. Usually you will not want to use this button because you will be using your EO or will want to have it handy and accessible.

Remember that it takes about three minutes for your EO to start-up when it has been turned off.

The only time you will need to shut down your EO is during the installation of RAM or ROM cards. If you are not going to be using your EO for an extended period of time (hopefully, you will go on vacation sometime), the EO's batteries will only keep the EO in Standby for a few days. So don't lose your data by letting the power run out while your EO is in Standby mode. Instead, back up your data, shut your EO down, and have a great vacation. (Unless of course you are taking your EO with you. If you do make sure your spouse won't divorce you.)

Auto Standby

The Auto Standby feature controls if or how long your EO waits before automatically going into Standby mode. If you set your EO not to go into Standby mode, it will stay on until you put it into Standby with either the On/Standby switch or the Manual Standby button. When you set the Auto Standby time your EO will go into Standby after there has been no activity for the number of minutes specified.

As you work with your EO you will probably adjust the Standby minutes a few times until you find a setting that works for you. This is a battery-saving feature. Even though the EO has a good battery life, you can improve that battery life by making sure your EO does not stay on when it is not in use. Remember, the battery will only recharge while the EO is on Standby.

One of the problems you may discover is that your EO may seem to be going off just before you are ready to use it again and you are always starting it up. If this seems to be what happens when you use your EO, try lengthening the Auto Standby time. Conversely, if your batteries do not last as long as you would like and you think that your EO is on but not being used, you should try shortening the Auto Standby time.

Shutdown from Standby

The Shutdown from Standby setting is used to turn your EO off if it is left in its Standby mode for a predetermined length of time.

Your EO's Battery Life

Your EO will be able to retain its data while in standby for two weeks. During those two weeks your main battery will run out after four days, provided you started with a full battery charge. During the remaining ten days your EO's data is being maintained by the backup lithium batteries. These times are estimates and will vary depending on how much RAM is installed in your EO.

Also, if you are using an EO 880 you will have a shorter battery life cycle than if you are using a 440. The 880 has a battery life of one to two hours. The EO 880 has a back-lit screen and a faster processor; both require more power to operate. Also, other options like PCMCIA cards, additional RAM, disk drives, key boards, and serial connections all use additional power. So the actual life of your batteries will depend on how you use your EO and what is attached to it.

One more very important consideration you must keep in mind is that your EO's battery will not recharge unless the EO is in shutdown or in Standby mode. Since the battery does not trickle charge, you must make sure that your EO goes into Standby to charge. It takes 90 minutes to charge your battery.

Because you have to have a charged battery to use your EO on the road, extra batteries are a must. Also, you may want to consider purchasing an external battery charger so you can charge your battery while you work.

The battery life for your EO is detailed below:

Operating Condition	EO 440	EO 880
Standard Battery	Hours	Hours
On w/no activity	3.75	1.5
100% CPU activity w/no hard drive	2.5	1.0
100% CPU and hard drive activity	2.0	20-30 min.
Cellular talk time	1.0	1.0
Extended Life Battery:		
On w/no activity	6.67	Not available
100% CPU activity w/no hard drive	4.42	Not available
100% CPU and hard drive activity	3.25	Not available
Cellular talk time	1.5	Not available

The default for this setting is off. This setting can be very useful if you know you are not going to be able to connect your EO to an AC power source. Rather than have your EO use battery power in Standby mode if it is not going to be used for long periods of time, you might as well let it shutdown automatically.

The default setting if you turn on the Auto Shutdown feature is five hours. I think five hours is probably too long to wait. If you are going to use this feature, I would recommend a shorter time interval of one to two hours.

Just as there is no manual shutdown button on EOs without hard drives, there is no shut down from Standby option. Again, this is a feature to save your information, since information on EOs without hard drives is stored in RAM.

Wireless Module

The Wireless Module is specifically for when you have the Cellular Module attached. If you do not have a Cellular Module attached you can turn this option off. Otherwise, you should use the "On if system On" option if you want to receive calls on your EO. Also, if you are not going to receive calls on your EO's cellular phone you can set this power option to off, turning it on when you use the phone. Off is the best option because it uses the least power. You can always open EO Phone to make a call, and if you use the EO's fax or E-mail, the Cellular Module will wake up for your call.

The Cellular option uses a lot of power. If you are not using the phone, you do not want waste battery power when it is not in use. To give you an example of how much power the phone uses, an EO 440 with standard batteries will run for two hours with a fully charged battery and constant use during the two hours. With the cellular phone, you will have one hour of talk time on a fully charged battery.

The Cellular option can cut your operating time in half. This really makes it important to set the Wireless Module properly. If you are on the road a lot you might want to pick up the cigarette lighter power option for your EO so you can use the power from you car to run the phone and/or recharge your battery while you are going from place to place.

Auto Power Off Devices

The Auto Power Off Devices option is to save power by turning off the power to any attached device when it is not in use. The only reason to turn this option off is if you are using a device (maybe a network PCMCIA card when they are available) that requires power at all times. Currently, there is no device that I know of that requires power all the time. If you have such a device, you will know because its manual will say so.

The Auto Power Off Devices selection also controls the automatic backlight dimming for the EO 880. When Auto Power Off is on, the backlighting will automatically dim after two minutes. It will turn on again when your pen approaches the screen. Turning off this feature will result in the backlighting remaining on and dramatically reducing your battery life.

Battery

The Battery display is very simple—it's a bar graph that shows how much power your battery has left. It is not 100% accurate, having an error factor of $\pm 10\%$, but it is close enough to give you an idea about how much time you have left on your current battery. Needless to say, if the battery is almost empty you need to charge it.

Conclusion

As I said at the beginning of this chapter, you will have to experiment with your EO's system settings. Customizing these settings is just one part of making your EO yours. Without customizing its system settings you will not be getting the most from your EO. So experiment and have fun.

Using Personal Perspective

Introduction

Of all the applications built into your EO, Personal Perspective is the most powerful and useful. Personal Perspective is a personal information manager that you will use to keep track of all your names, addresses, and phone numbers, plus a sophisticated planner and a note taker. All of these separate functions are integrated so you can schedule a meeting with someone from the address book and interconnect the meeting, the person, and any notes you have regarding either the person or the meeting. Not only are all of these functions interconnected, but by viewing any one of the three (appointment, person, or note) you can quickly view other individual entries.

It's amazing that all of the descriptions for products like Personal Perspective are so inept. Programs that function as organizers are all described by their capabilities and lumped into a generic category called personal information managers. These products are also called electronic phone books, organizers, datebooks, and so on. The problem is that none of these names really do these pro-

grams justice, nor does a brief description of their capabilities convey what you can accomplish with them.

I keep asking myself as I write this, "How can such a complex product be simply and clearly explained?" The conclusion I have drawn is that it cannot. Personal Perspective is easy to use, but what it does is complex. It is a tool that can simplify one's life by providing an organizational format for all of your people and company contacts, meetings, phone calls, and informational notes so you will always have the information you need.

I have either looked at or used a number of these programs on all kinds of computers: palmtops, notebooks, laptops, desktops, and electronic notebooks. There are only a couple that I have used that come close to having the power and flexibility and are as easy to use as Personal Perspective. And those packages that work the best require a desktop computer to use most efficiently, so they are only somewhat useful on the road.

Throughout this chapter I will refer to information transactions. Information transactions are any actions that you perform where you are exchanging or using information with or about another individual. Just as data transactions are what usually happen when using a desktop computer, with EO you will be performing informational transactions because of its orientation toward communications. Personal Perspective is the program that will be at the core of most of your information transactions when you use an EO Personal Communicator.

The example that is used in this chapter to illustrate how Personal Perspective works represents only an overview of what you can do with Personal Perspective. The example does not show everything you can do with Personal Perspective. However, I hope it is enough of a glimpse so you can begin to grasp the power behind this program. An entire book would be needed to do Personal Perspective real justice.

The EO manual provides you with some basic instructions for using Personal Perspective, however, this chapter will go beyond those basic instructions. By using the detailed example, which also can be used as a tutorial, most of Personal Perspectives features

will be illustrated. Also, you will find in this chapter additional information that can make other features, such as importing information, easier to use.

An Overview of Personal Perspective

An example involving a single contact might go something like this. You attend an out-of-town conference and meet Jake Doakes of ABC Widget Company. You realize that an information exchange with Mr. Doakes would be beneficial for both of you. You have obtained his business card and want a simple and efficient method of scheduling phone calls and appointments, exchanging information via fax and modem, and keeping track of everything regarding your informational transactions with Mr. Doakes and his company—with a minimum of time and effort expended.

Later in this chapter will be a step-by-step illustration of how Perspective and your EO can set this up with a total time expenditure of about 20 minutes. It will take you longer to read about how to do all of this than it will for you to accomplish it. All of your communications with and notes about Mr. Doakes will be linked, and you will be able to view any note, document, or scheduled event in seconds.

What Personal Perspective provides is a structured information manager that allows you to access all of your information in a nonstructured fashion. You have an instant record of every informational transaction you may make. The relationships between notes, names, events, and documents are not constrained by the structure of the program, rather you determine what information is to be interconnected and how, all according to your needs. You are not constrained by the structure of Personal Perspective in the viewing or accessing of your information.

So you can understand how Personal Perspective works, the rest of this chapter will first provide you with conceptual information about Perspective. Then I will use the example from above and go through it step by step. By the time you reach the end of the chapter each step that was described above will have been discussed. The example will be interspersed between discussions about Personal Perspective's functions, options, and general use.

It Can Get Even Better

There is no information manager available (that I am aware of) that is suitable for both office and on-the-road environments which can perform these functions as quickly and easily on any computing platform, while leaving you in total control of how you will access your information. The only improvement you can make to Personal Perspective is to upgrade to the full version of Perspective, of which Personal Perspective contains the most essential elements. And all EO owners can upgrade to the full Perspective package for less than a hundred dollars. (The full version of Perspective is discussed in Chapter 11.)

The major difference between Personal Perspective and full Perspective is that full Perspective gives you the capability to create new categories and their corresponding data forms (profiles). Personal Perspective is not as customizable, although you can create lists that present different views of your information. (This will be discussed in a later section).

Personal Perspective's Components and Information Linking

Personal Perspective is a single application composed of several pieces; it has a Day Planner, Address Book, and Note Index as its major elements. This section will look at each of Personal Perspective's components so that you have an overview of what they are and how they are all integrated. Figure 5.1 shows the default Notebook that opens automatically when you first start your EO.

In this notebook you have five Personal Perspective documents. They are:

- The Day Planner
- The Address Book
- Notes Index
- Country Codes
- The Profile Book

Each of the above documents represents a category used by Personal Perspective to group the information you enter, with the

Figure 5.1
The default
Notebook

Name	Page
Tap Page 2 For Tutorial	2
Personal Perspective	13
Day Planner	14
Address Book	15
Note Index	16
Country Codes	17
Profile Book	18

exception of the Profile Book. The Profile Book is the information file that Personal Perspective uses to store all of the information.

There are four main category groups: Calendar Items, Name Items, Note Items, and Misc. Items. Table 5.1 illustrates the basic structure of how information is grouped in Perspective.

The category groups are based on a specific type of data. The categories themselves are actually forms with specific data layouts with information pertinent to that category. These forms are referred to as profiles.

Each profile is made up of detail fields which contain information associated with each item in that category.

The headings in Table 5.1 are my own because I find Pensoft's (the creators of Personal Perspective) description of how Personal Perspective confusing. Pensoft calls everything I labeled a *category*, making all Appointments, Persons, and Notes categories. And each category contains several *details*, so any information such as appointment time, an address, or the note itself would be a detail.

Table 5.1 The category structure of Personal Perspective

Category Group	Category	Special Category	Explanation
Calendar Items	Appointment		The category for all date and time-sensitive information forms. Form for entering Appointments and meetings. Intended for all information that is date and time-specific.
	Event		Events are special days, conferences, or any information that is date-specific but not time-specific.
	To Do		The To Do form is for entering items and reminders that are usually date-specific, although they can have a duration as well.
		Phone Call	A Phone Call is a type of To Do item that has its own form.
Name Items			The category under which all name based information is stored.
	Airline		A form that is specifically set up for listing Airline companies.
	Company		This form tracks companies only. Employees of a company are linked to the company but stored as Person entries.
	Group		A group is for gathering any Name Item under a separate category such as clients, friends, distributors, etc.
Note Items	Person		A form for recording information on individuals.
	Note		The category for all note-based information. A generic note that can be attached to any other item.
Misc. Items			This is a miscellaneous category for information that does not easily fit in the other categories.
	Country Code		Listing of long distance access codes for 100 different countries.

Finally, every occurrence of a category, or each Appointment, Person, or Note you enter into Personal Perspective, is an *item*.

The reason I find Pensoft's description confusing is that they have tried to present standard database concepts in a new way. Standard database structure would make distinctions between different types of information according to its organization, using a structure like Database, File, Record, and Field. A database would contain *all* of the information with various files defining the major categories (Calendar, Name, and Note Items from the table), where each file would be composed of records (Appointment, Person, and Note), and a record would be a collection of *fields* (name, address, and phone numbers). When information is entered into a record, a *record form* is used that shows the fields.

What Pensoft has done is call the files *Groups of Categories* with names like *Name Items*. Then they call the different types of records categories (Person, Company, Appointment, etc.). Each occurrence of a category is an *item* and each item contains *details*. It all gets really confusing because "category" has two meanings and "item" is used when talking about major categories and records.

Because I find Pensoft's description confusing and cumbersome, I hope to keep things clear by using the following conventions.

Category A category will be used to distinguish collections of different types of information. Name, Calendar, Note, and Misc. Items will be *Categories*.

Profile A profile will mean a record. An Event Profile means an Event Record.

Profile sheet A profile sheet is the record form for the different categories. (Sometimes profile will be used to mean profile sheet. You shouldn't get confused if you keep the context in mind.)

Item An item will be an information field within a profile sheet.

Explaining collections of different types of information and how they are connected can be complex. I hope the above list will help you, so you will understand what I'm talking about as using Personal Perspective is described.

Perspective's Lists

Note *All of the EO's programs are also called documents, and all documents are viewed as—and called—pages. So, talking about a document is synonymous to talking about a computer program. The reason for the difference in terminology is due to the EO being a Personal Communicator and not a computer. The EO is a computing device, but the word computer is reserved to mean devices that use or can use the MS-DOS, Macintosh, or UNIX operating systems. There is also a distinction to be made between notebook and sub-notebook computers and Personal Communicators. You will find discussions about this distinction throughout the book.*

This is just a brief section to introduce you to Personal Perspective's lists. When you view your information in Personal Perspective, you will be looking at it in a list format. Figure 5.2 shows pages from an Address Book, a Day Planner, a Notes Index, and Country Codes. Notice how all of the pages contain a list called Item Rows.

Personal Perspective comes with five different documents. Four of these documents are for viewing information: the Day Planner, Address Book, Note Index, and Country Codes. The fifth document is the Profile Book which is where your information is stored. When you open a Perspective document, you see a page that contains a list of different detail fields.

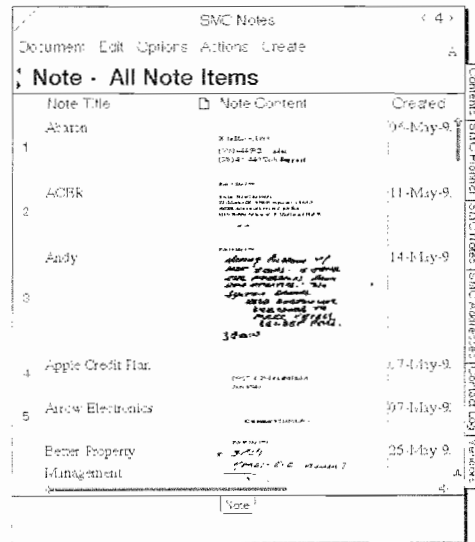
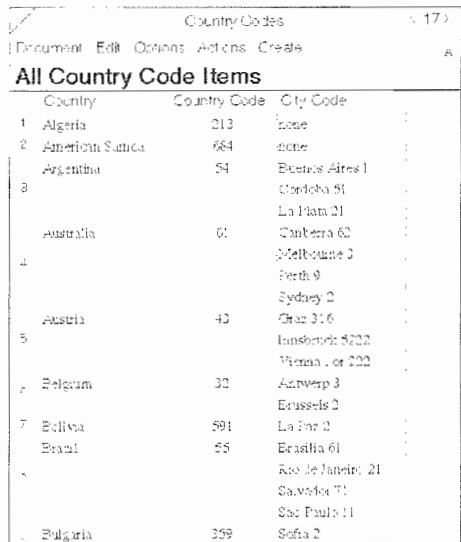
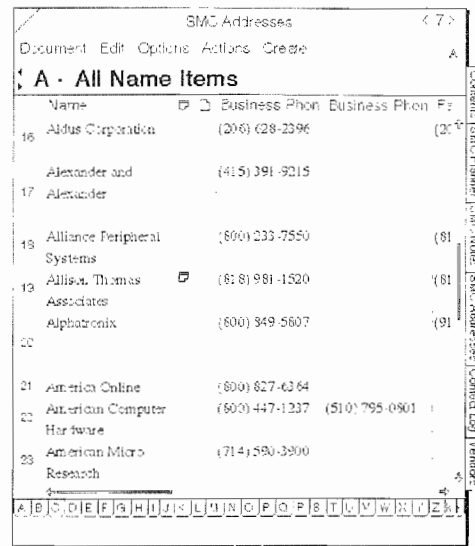
You can modify how the information is viewed on each page. Although you can enter new information into any of the different documents without turning to the document's page, to see your information you will have to turn to the page the contains it. The actual mechanics of manipulating the various pages will be covered later in this chapter.

Note *The Country Codes page will not be discussed in this chapter. Basically it is a list of long-distance codes for 100 countries and their major cities. This can be useful for those who do business internationally.*

Profile Sheets

There are two methods for entering information into Perspective. The first method is to open a blank profile sheet using the Create menu on any Perspective Page. To use the Create menu you must

Figure 5.2
A Perspective
Address Book,
Day Planner,
Notes Index,
and Country
Codes Page



be turned to a Perspective page. Figure 5.3 shows Perspective's Create menu.

In Figure 5.3 you can see the four main choices of Note, Person, Company, and Other. To create a new name item, for example, you would tap ! on the Create menu and then tap ! on the Person menu selection. Tapping the Person selection will open an empty Person profile, as seen in Figure 5.4.

When you view a profile, you will only see part of it. You will have to use the scroll margins or use the flick up | or flick down | gestures to see the entire profile.

Figure 5.3
Perspective's
Create menu

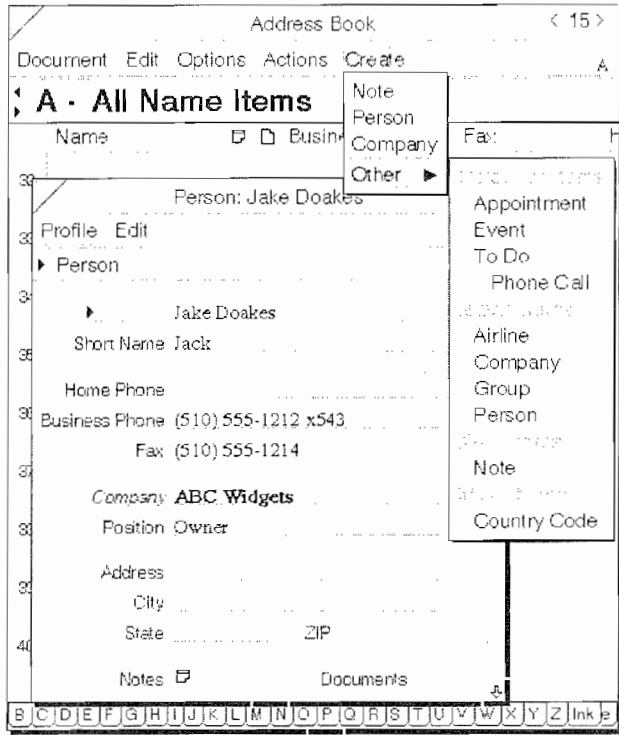
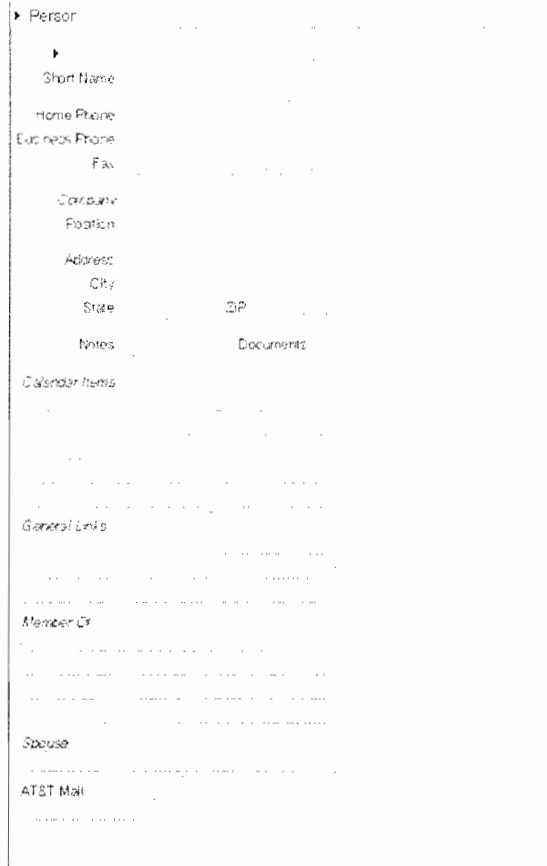


Figure 5.4
An empty
Person profile

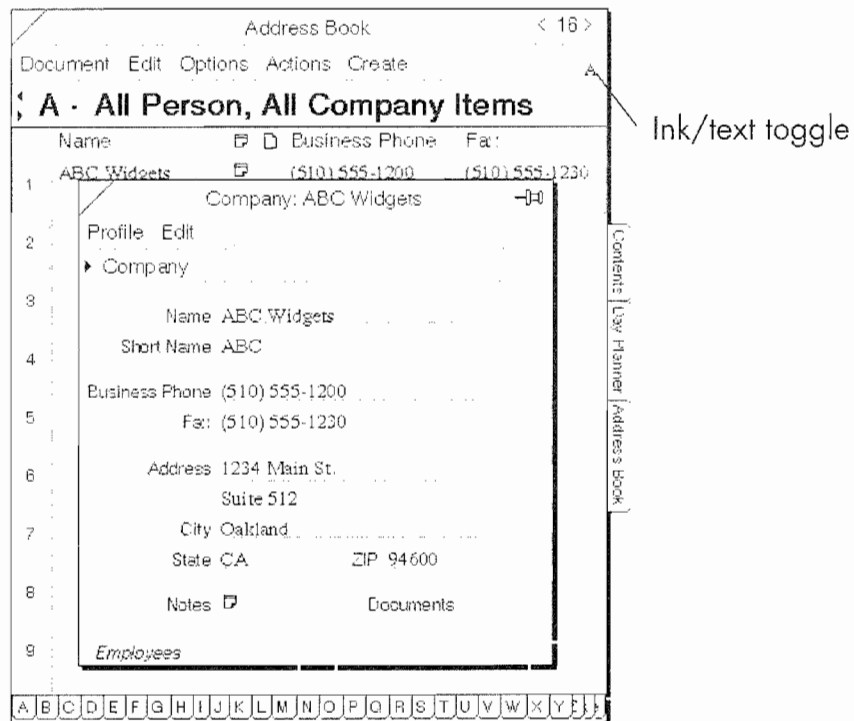


Each profile contains a set of default items into which you enter information. If a profile sheet does not contain an item you need, it is possible to add a detail item from those already defined in Personal Perspective or to create a new one. Adding and creating detail items will be discussed in the last major section of this chapter.

The second method for entering information is to turn to the page on which you want the information entered and write it directly onto an item line. If you want to enter an appointment you can turn to the Day Planner, for an address turn to the Address Book, and so on. Once you are on the correct page, you'll have to scroll to the first blank item line on the page or insert a blank line (using the Insert Row command from the Edit menu) and write your information directly on the line in the proper detail items.

When entering information, either in a profile or on a blank line, you can choose to use ink or text. If you want to use ink you do so by turning on the ink well. Each page and/or profile sheet has an Ink Well icon in the upper right-hand corner (see Fig. 5.5) that acts as a toggle switch between ink and text. Tap on the Ink Well icon to toggle to text or to ink.

Figure 5.5
The Address Book with an open profile



Some cautions about using ink. Personal Perspective cannot automatically link an Ink item, nor can it sort Ink items. When you create an Ink item you have to link the information manually. If the item you entered would normally be sorted if it was written with text, Perspective will not sort the item until it has been converted to text.

Ink items either stay where you put them or they are put onto a page containing ink-only entries if the primary item (a name in a Person profile, for example) is written in ink. Address Book entries are usually sorted alphabetically and ink entries are put on a separate Address ink-only page when the Name item is written in ink. However, if you schedule a meeting with someone in the Day Planner, and it is written in ink, the item will stay where you placed it, because the date and time which are automatically entered as text are the Day Planner's primary items.

The Profile Book

The Profile Book, as mentioned above, is the information file that contains all of the information entered in your various profile sheets. The Personal Perspective Profile Book cannot be accessed except as a page in your notebook. Although the page is less than exciting, without a Profile Book the Personal Perspective will not work. You will find a little more information about the Profile Book towards the end of the chapter.

Linking Your Information

When you enter information in Personal Perspective you will want to link it. You will want appointments linked with person and company profiles, persons linked to company profiles, and notes linked to all of your other profiles. In addition to linking profiles to each other you will also want to embed documents in your profiles. Without its linking capabilities Perspective would not be worth a whole lot.

Linking takes place automatically under certain conditions. Automatic linking is controlled by a Perspective function called "The Associate." You can also manually link data using a function called general linking. In addition to linking you can also attach (embed) documents into your Perspective profiles. This section will look at three of these functions.

The Associate

The Associate is Personal Perspective's behind-the-scenes information linker. Whenever information is entered into linked detail items, the Associate will attempt to link the information to a corresponding item. If the Associate cannot find a corresponding item, it will ask you if you want to create a new one.

The Associate links everything back to a Names Item profile. If you are scheduling a meeting with someone named Bob and enter "Bob" into an Appointment profile, the Associate will look at all of the people named Bob in your Address Book. Should you know several Bobs, the Associate will pop up a list of the different Bobs and ask which one you want linked to the Appointment item or to create a new Person profile. If the Associate can not find a profile to link, it will ask if you want to create a new one. Figure 5.6 shows the Associate asking which Bob to use while an appointment is being scheduled.

After you have chosen the correct Bob, he is entered into the Appointment profile and the name Bob is displayed in bold text. Bold text indicates that the name is linked to an item in the Address Book. By double tapping **!** on the name Bob, the Person profile for Bob will automatically open. Figure 5.7 shows the name Bob in the Appointment list with Bob's profile floating in front.

Also notice that Bob's profile is linked to a company. In Bob's profile his company, Sundisk Corp., is in bold text. Double tapping **!** on the name Sundisk will bring forward the Company profile for Sundisk (see Fig. 5.8).

Figure 5.6
Which Bob?

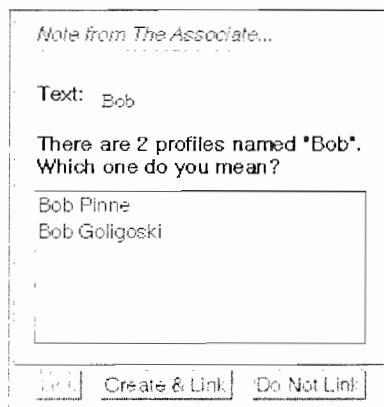


Figure 5.7
This Bob?

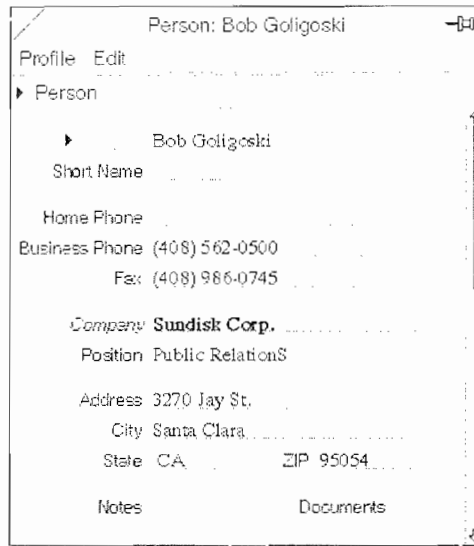
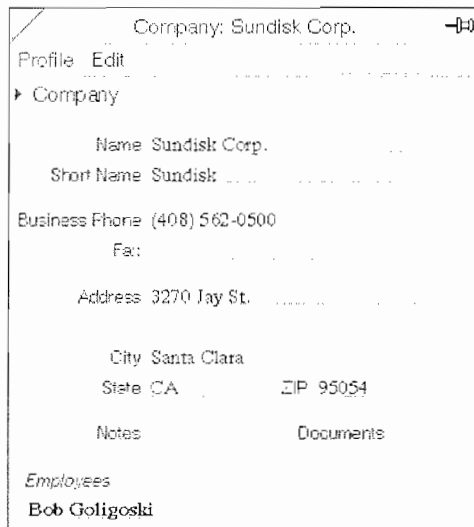


Figure 5.8
Bob's
Company



In the Person profile in Figure 5.4 you can see that the label for the company detail item is in italic. Whenever a label is in italic the detail item is automatically linked by the Associate unless the Associate has been turned off. Turning off the Associate will be discussed later in this chapter. If you will go back and look at Figure 5.4 (a complete but blank Person profile) you will also see that *Calendar Items*, *General Links*, *Members Of*, and *Spouse* are all in italic text. Each of these items is a linked detail item.

The *Calendar Items* shows any link with Day Planner profiles such as Appointments, To Do's, or Events. *General links* are links to

notes and other associations you intentionally create. With a *General link* you can link Bob to another person even though there is no obvious relationship between the two records. *Members Of* shows the links to any Group profiles you may have attached to Bob. And of course *Spouse* would be Bob's significant other, should his significant other be entered in the Address Book.

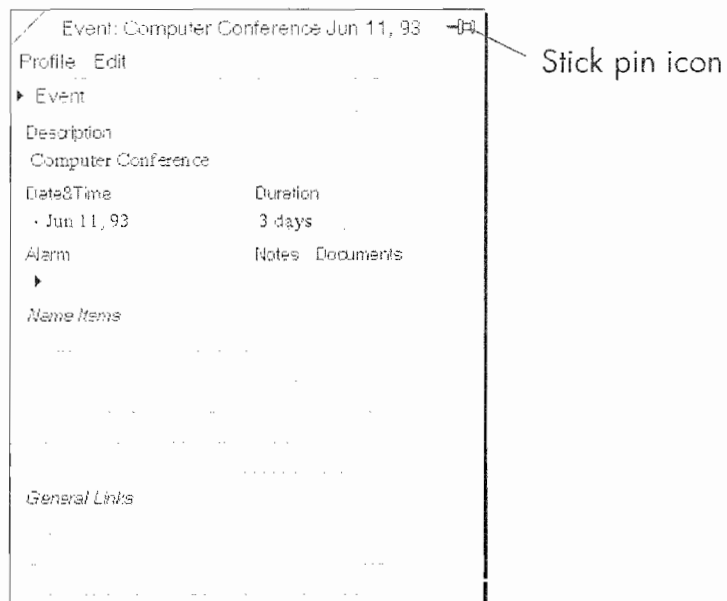
In any of these linked detail items you can enter information that is not linked. If you wanted to have a Person profile for Bob and list his company, but not link Bob to an existing company or create a new Company profile, you could enter the company name, and when the Associate asks you to link the information tell it *not* to link it instead. In this case you would have an item field with an entry that is displayed in plain text rather than bold text.

General Links

When you have items that the Associate will not automatically link, you can use Perspective's general linking feature. In the upper right-hand corner of each profile you will see a Stick Pin icon (see Fig. 5.9).

The Event profile above is not linked to anything. If you wanted to link an airline to this Event you would have to use a general link. In this instance, let's link the airline by turning to the Address

Figure 5.9
An Event profile



Book and selecting an airline (supposedly the one that you'll fly out on).

To create the link:

1. Turn to the Address page that contains the airline.
2. Open the profile for the airline by selecting the profile (tapping ∇ on the item's line) and drawing a circle \odot on the line number. (See Fig. 5.10.)
3. Once the profile is open, press \downarrow on the profile's Stick Pin and drag it to an area like the page banner as seen in Figure 5.11.

Note

When making a general link it is important to make sure you place the Stick Pin somewhere it will not accidentally create an unintentional link. By dragging the Stick Pin to a line item you will create a link between the item on the line and item that the Stick Pin belongs to. To prevent the Stick Pin from accidentally attaching itself to a profile other than your intended target, place it in an area where it will not come in contact with another item.

4. Now return to the Day Planner. If you did not close the Event profile sheet before going to the Address Book, the profile

Figure 5.10

Opening a profile

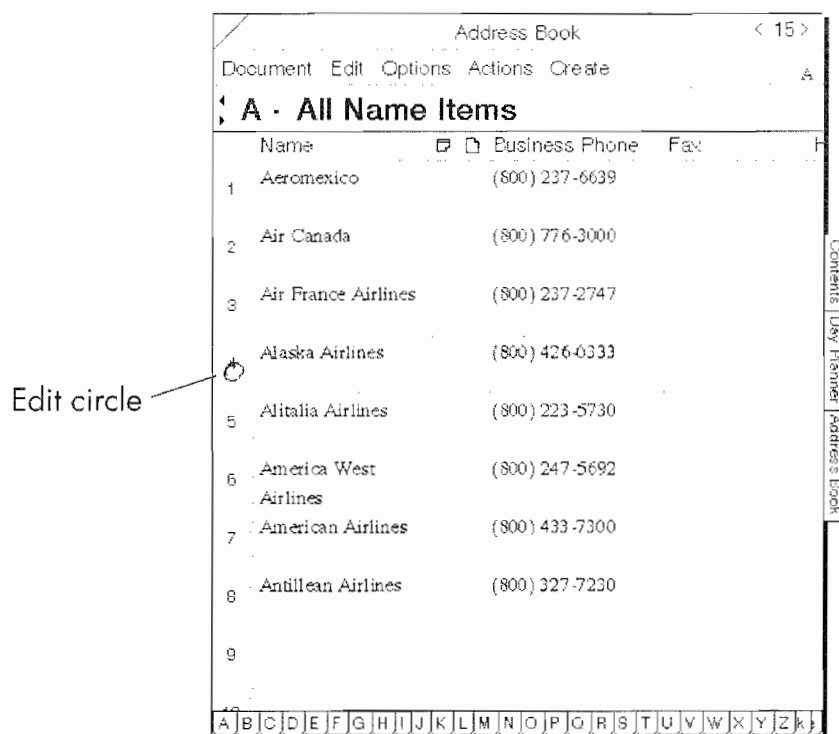
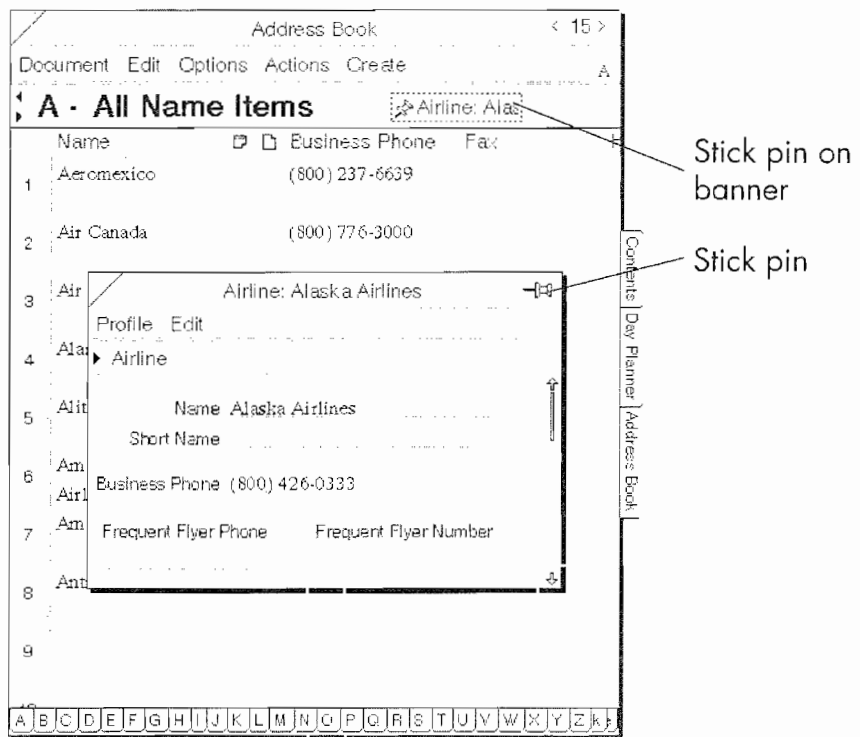



Figure 5.11
Placing the
Stick Pin



sheet will still be open. The Stick Pin will be in the same location it was placed while in the Address Book.

5. So you know what the Stick Pin belongs to, the profile's name will be connected to the Stick Pin while you are dragging it about. Now that you are back to the Event profile, drag the Stick Pin to the Event profile. When you do this the Associate will ask if you want to link the Name item to the Event item (see Fig. 5.12).
6. Tapping  the Link button will link the Airline profile to the Event profile. Although the link will not be visible in the Description detail item, it is visible as a Name Item field. By double tapping on the linked item you will open its profile in a floating window. Also, the Event will be visible in the Airline profile as a Calendar item (see Fig. 5.13).


Other than being manually created, a general link operates like an automatic link. The linked items are reflected in each profile, and double tapping  on either link will call up the profile of the linked item. When you link a Perspective Note item to a profile, an icon will appear in the Note's item box.

Figure 5.12
Confirming
the link

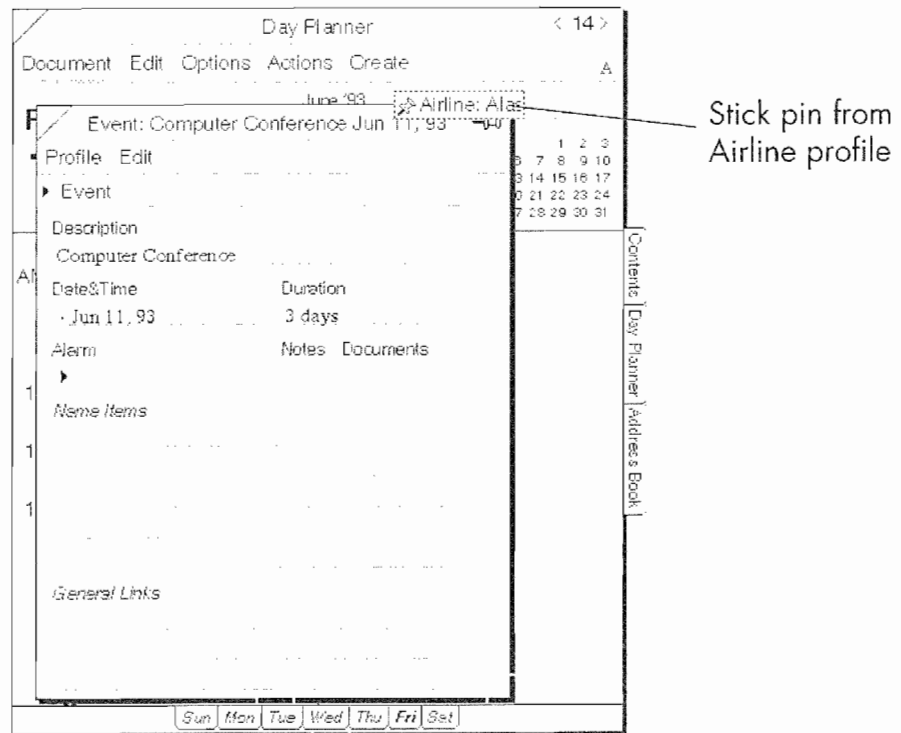
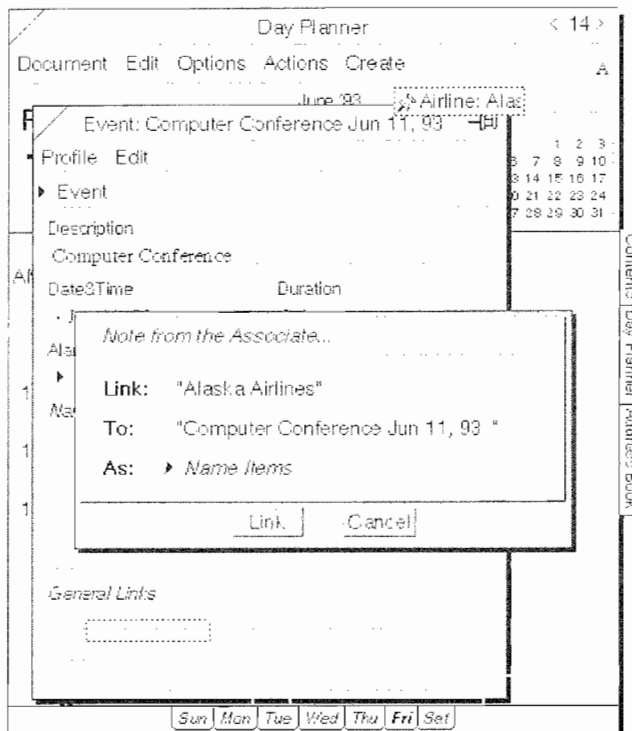


Figure 5.13
The Airline
profile linked
to the Event
profile





Although these steps were more complicated than they needed to be, they covered everything you need to know to manually link records. However, the whole process could have been completed

by using the stick pin from the Event profile and moving it to the Airlines item line. That would have been more economical but would not have resulted in a complete explanation.

Embedding Documents

A document from any program that is installed and included in the pop-up menu (see Chapter 3) on your EO can be embedded into any Perspective profile. Each profile has a Document item box which will display an icon whenever the profile contains an embedded document.

You can embed as many documents as you want into a profile. Once a document is embedded, the Document box will have an icon. When you tap  on the icon, a list of the embedded documents will pop up. Once the list of documents pops up, tap  on the document you want to open. The document will be opened in a floating page for you to work on or look at.

To embed a document:


1. Draw a caret \wedge in the Document item box,
Or
Draw a double caret $\r\n$ anywhere on a profile sheet or item line.
2. You will get a pop-up menu from which you can select the type of document you want to embed.
3. Tap  on the document you want to embed. A new document will open.

Figure 5.14 shows the documents that are currently available for embedding. (Remember, your EO will have different documents.)

If you want to embed an existing document into a Perspective profile, you can either copy or move the document.

To embed an existing document:



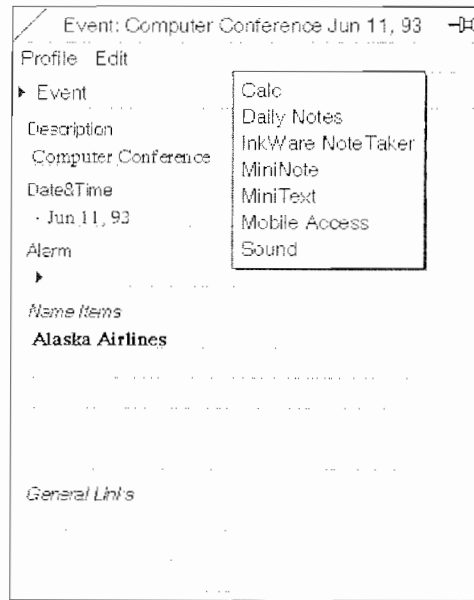
1. Press  on the document you want to move,
Or
Tap Press  on the document you want to copy.

Figure 5.14
Documents
available for
embedding



2. When the marquee (move) or the double marquee (copy) appears, move the document to the Menu or Title line of your notebook.
 3. Open the Perspective document that contains the profile in which you're going to embed the document.
 4. Drag the document from the Menu or Title line to the row containing the profile you want the document embedded in,
- Or
- Open the profile that will contain the document and drag the document onto the profile sheet.

Note *A warning: Documents stored in the Perspective Documents column (with a person, for example) are deleted when the profile in which they are embedded is deleted. There is no other way to access these documents. This will be corrected in future versions of Perspective.*

Using Perspective

Phew. It's about time. Rather than describing each component of Personal Perspective and hoping you will come away with an overall conceptual understanding, an example will be used to illustrate how Personal Perspective works as a whole. The example will include discussions about each of the profiles used, more on how information is linked, alternative information entry methods, plus how PenPoint, Perspective and the EO all function together.

The Initial Contact

You meet Jake Doakes of ABC Widgets company at a conference and exchange business cards. During the conference you realize that an information exchange with Mr. Doakes will be beneficial for both of you. That night in the hotel you enter his information into your EO. You also create a note that is attached to Mr. Doakes' address record. To make sure you will call Mr. Doakes, you also schedule a phone call for the following week. Now you can forget about him for awhile.

You need to remember that many of the individual operations performed in this section are universal to Perspective. In many instances, functions performed on a specific profile are actually functions that can be done with any profile. This is especially true of the linking and embedding functions. Also, this is just an example on one information transaction. If it seems limiting in any way it is because I've been inept. Personal Perspective is not limited. Your imagination is the only limitation when using Personal Perspective.

The Initial Contact

In this example, the first entry into Personal Perspective will be to enter Mr. Doakes into the Address Book. Then a note will be made regarding Mr. Doakes, and a phone call will be scheduled.

Entering the Name

To create a new Name profile you can either use the Create menu or enter the information directly onto a line in the Address Book. I prefer to use the Create menu because I find it easier. Also, I rarely (more like never) use ink in my Address Book. So for these reasons, the most important being personal preference, I use the Create Menu option. You will have to determine yourself what works best for you.

To create a new person entry:

1. Tap **!** on the Create menu and then tap **!** the Person selection.
2. When the empty profile appears, either write the name (in this case Jake Doakes) onto the first line of the profile sheet,

Or

Tap **!** on the first line and an empty editing pad will pop up.

3. Enter the name.
4. To fill in any of the other detail items repeat steps 2 and 3 for each detail item.

In the Short Name field enter Mr. Doakes' nickname if it is different from his first name.

Note *The Short Name detail item is used by the Associate to create links. If you use a name that is in the Short Name detail item when scheduling a Calendar item or in a note, the Associate will automatically link the person or company if the name you use is the only one in your Address Book. If there are duplicate names the Associate will offer you a list of names to link.*

The Associate will find the first name from any Person profile when you enter the name in a linked field. If you want to link a Company profile you either need to use a short name or the entire company name. The Associate will not link a partial company name. You may want to use abbreviations or some unique identifier for company names so they can be linked easily.

A useful shortcut when entering links is to use a "." as a wild card. For example, if your company name were Apple Computer, you could enter "Ap." on the Company field. If more than one name matches, you'd get a list to choose from. You can also do this when entering an Appointment or a To Do. (For example, enter "Meet Den." instead of "Meet Dennis.")

The purpose of the Person profile field is to store an individual's information. Although you can keep business information in a Person profile, if you have more than one person associated with a company you will probably want to create a Company profile and link all of the people to the Company profile so you do not have to repeatedly enter the company information. Also, the company profile provides two lines for an address while the Person profile only has one (another reason to use the Company profile for companies).

Note *It is possible to have multiple phone number entries in a single detail field—if, for example, a person has two business phone numbers or two home numbers. To enter the second number, enter the first number as described above. After the first number is entered, draw a caret tap on the phone number detail field. A pop-up edit-*

ing pad will appear; enter the second phone number and then tap **Y** on the OK button.

The Phone Number detail field will now have two phone numbers. To show that there is a second value in the field you will see an "... " appear in the detail field under the phone number. Double tap **Y** on the "... " to see the phone number. You can also draw a **D** on the person's name when looking at it in a list other than the Address Book (the name must be linked), and a dialog sheet will appear that will contain all of the person's phone numbers including any multiples.

When you enter the phone number, the default editing pad is in the North American format shown in Figure 5.15.

As the figure also shows, you have another choice for the Phone Number editing pad called *General*. If you need to enter a country code or an extension you can use the General pad shown in Figure 5.16.

To access the General phone pad, tap **Y** on the arrow next to North American and then tap **Y** on the General label.

When you write Mr. Doakes' company into the Company detail item, the Associate will ask if you want to create a Company pro-

Figure 5.15

The default Phone Number editing pad

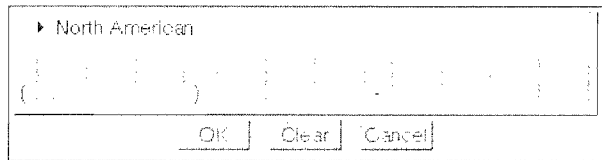
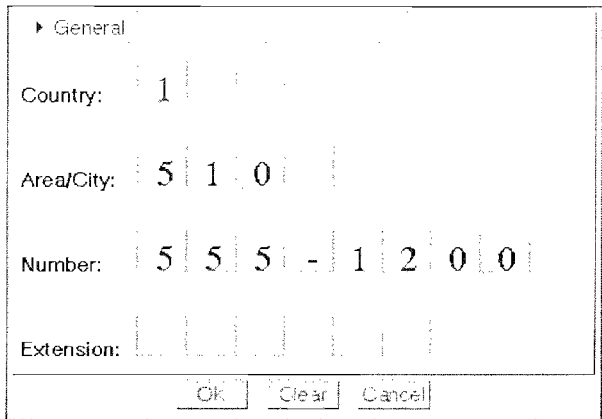


Figure 5.16

The General Phone Number editing pad



file for Mr. Doakes. Remember, you can enter a name and not associate it with a company. Entering a company name into a Personal Profile can be frustrating if you are not going to link the name. This is because the Associate prompts you as soon as you have written the first part of a company name. Figure 5.17 shows the Associate's prompt before a company's name has been completely entered. This feature of the Associate is another reason why you would want to use one-word abbreviations in the Company profile Short Name detail item.

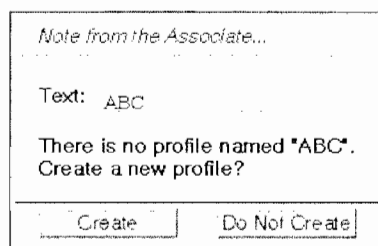
Note *How you use the various detail items is up to you. You should keep in mind that you can create new fields for your special needs. You are not confined to the list of predefined fields present in Personal Perspective. Be aware that if you start to use a predefined field for a type of information other than the type intended you will have to remember how you are using the field.*

If you use the Home Phone number for someone's car phone number in a specific record it is quite easy to forget what the Home Phone number is being used for, especially if you do not often access this particular item. You will probably be better off creating new fields for special purpose information. Creating new detail items will be covered later in this chapter.

Mr. Doakes works for a company called ABC Widgets. Since ABC Widgets has not been entered into Personal Perspective, we'll create a new Company profile for this company. As you can see from Figure 5.17, we only got ABC written into the Company detail item before the Associate asked to create the link. Because ABC is a new company we'll tell the Associate to create the profile. If you do not want the Associate to ask you if you want to create profiles you will have to turn off the Associate's "Let the Associate ask for Help" feature. This is accessed through the Options menu from the Associate selection.

Figure 5.17

The Associate
wanting to
create a
Company
profile



Perspective will create the Company profile putting "ABC" into the Name detail item. Once the Company profile sheet is opened you can enter in the company information and edit the company name. When you are finished you will have a profile that looks something like Figure 5.18. As you can see, the Company profile is linked to Mr. Doakes' profile. So now we have Mr. Doakes and his company entered in Perspective.

Creating and Attaching a Note

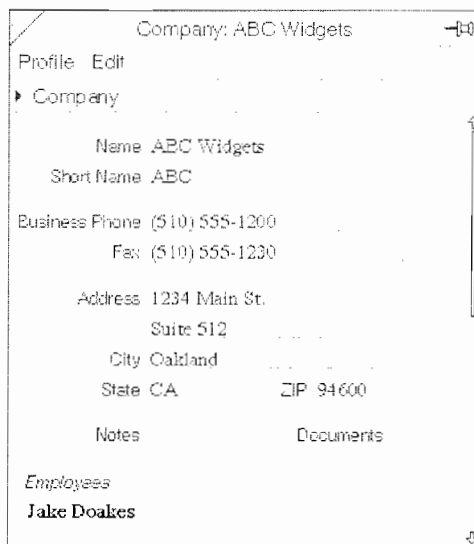
Our next task is to attach a note to Mr. Doakes' Name profile. To do this, draw a caret \wedge in the Notes box on Mr. Doakes' Name profile. A Perspective Notes profile will float in front of the Name profile and have the current date as its title. You can write in ink, have what you write translated, or use a combination of both ink and text. Figure 5.19 shows the note after some inane nonsense has been written. (Please remember I'm not an artist.)

When text is entered into a Perspective note you either have to write very clearly or use an editing pad. The note pad does not really handle text well, and it is difficult to use PenPoint editing gestures.

To edit the text:


1. Toggle to text by tapping \forall on the Pencil icon.
2. Tap \forall on the writing you want to edit or translate.
3. Draw a circle \circ over the selected writing. An editing pad will pop up and you can then edit the text (or translated writing).

Figure 5.18
The completed
ABC Widgets
profile



When the Associate is active in the notes page it will automatically link with any name that matches the first or last name in a Person profile, a company name in a Company profile, or the short name from any Name Items profile. If you enter text that does not automatically link, the Associate will ask if you want to create a link for the text you enter. Having the Associate constantly ask to link can be annoying, and you might want to turn off the Associate's "ask for Help" feature in the notes page.

Notice that ABC in the note is in bold text (see Fig. 5.19). This means that the note is now linked to both ABC company and Mr. Doakes. It is linked to Mr. Doakes' Person profile because the note was created from that profile, while the link to ABC was created automatically because ABC is the short name for ABC Widgets.

To see the note's associations you can look at its profile. To view a note's profile, tap  on the Show Profile menu in the note. You will then see something that looks like Figure 5.20.

From the profile view you can see all of the information associated with the note, including a reduced picture of the note itself. Notice in the note's profile that you can attach both notes and documents to notes.

Figure 5.19

The note attached to Mr. Doakes

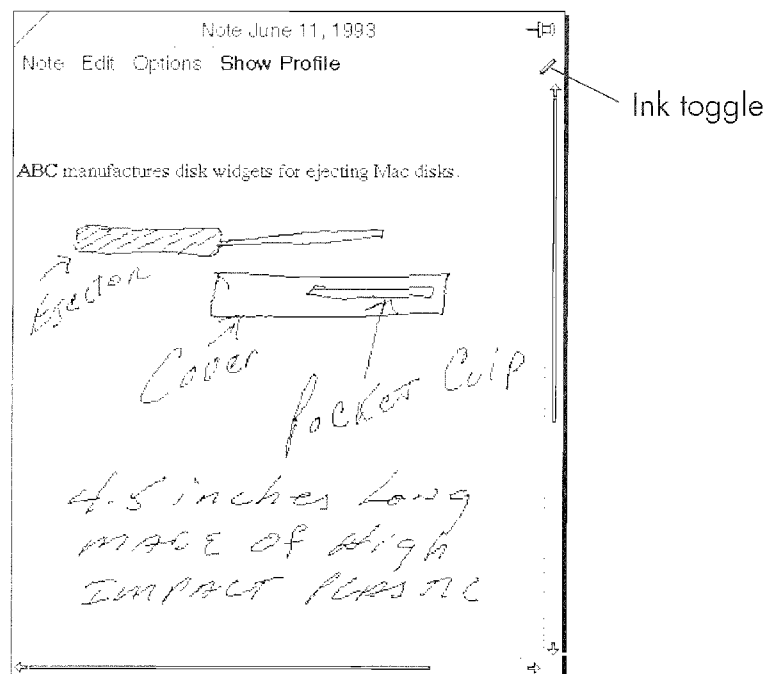
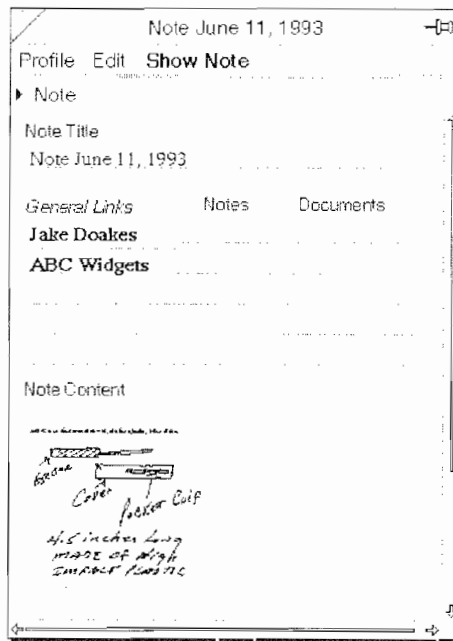


Figure 5.20

A note's profile



Note

When naming your notes, you may want to use a name that is more descriptive than the note's creation date. If you want to change the name of a note you do so from the profile view or by gesturing a circle \odot on the note's title.

In Figure 5.21, take note of the links in Mr. Doakes' profile. First, there is the link to ABC Widgets in the Company field, and in the General Links detail item you can see the link to the note as well. To view the note you can double tap \uparrow on the note's name, or tap \uparrow on the Note icon in the Notes box and then tap \uparrow on the note's name after it pops up.

Scheduling a Phone Call

Now that a profile for Mr. Doakes has been created, the next task is to schedule a phone call. To schedule a phone call it is usually easiest to use the Create menu, although you can write directly on an item line in any of the Day Planner's lists.

To create the Phone Call reminder:

1. Tap \uparrow on the Create menu.
2. Tap \uparrow on the Other menu selection. You will see a pop-up menu that looks like Figure 5.22.

Figure 5.21
Mr. Doakes'
profile again

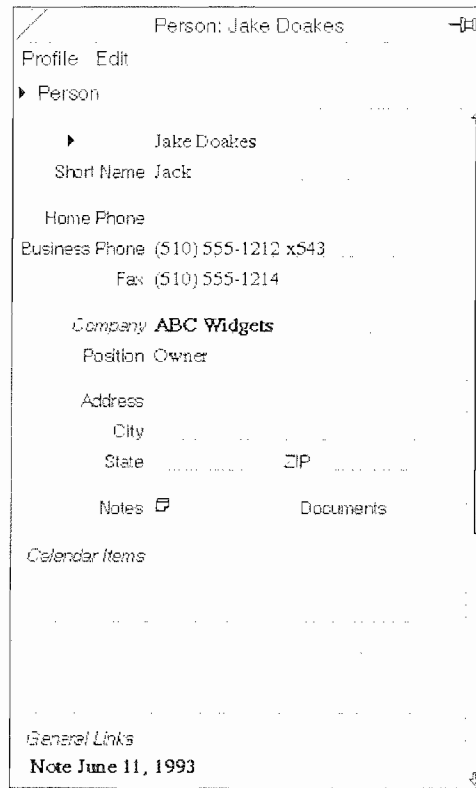
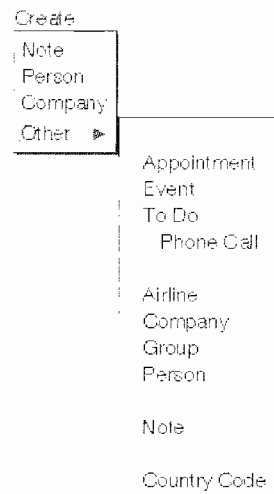


Figure 5.22
The Other
menu




3. Fill in the Phone profile's details.

When filling in a profile sheet for any Calendar Items category, you have several options for linking your information. First, you need to fill in the Description item. If you enter a name, the Associate will automatically link the Calendar item's profile to the proper Names profile. When filling in the description item, if the

“Let the Associate ask for help” option is on, the Associate will ask to link anything you write if you use any of the following descriptors before the text.

- About
- appointment
- appt
- at
- breakfast
- brkfst
- call
- dinner
- lunch
- meet meeting
- mtg
- phone
- re
- regarding
- with
- w/

If you do not use a descriptor and the name does not exist, a link will not be created.

Once you have the description entered you need to set the Start and Finish By dates. The profile’s creation date is automatically entered into these detail items, but they are easy to change or edit. If you tap  on the small dot to the left of the date you will see a pop-up menu like the one in Figure 5.23.



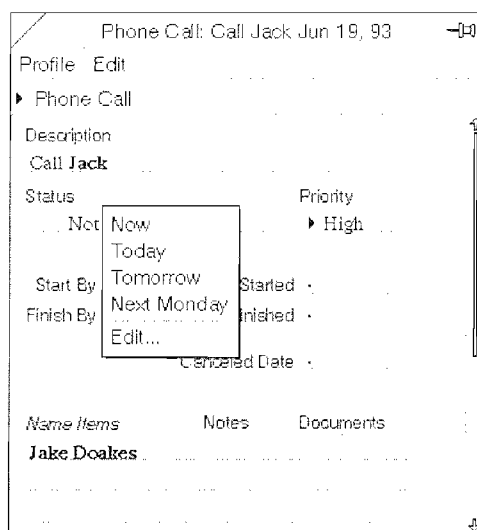
The pop-up menu lets you enter one of the options listed for your target date. You can edit the detail item by tapping  on the Edit choice or by tapping  on the Date detail item. Either action will cause an editing pad to appear.

Figure 5.23

The pop-up menu for Date detail items



After you have entered your Start and Finish By dates, you can assign a priority. The priority is assigned by tapping ∇ on the arrow in the Priority detail item and selecting the priority from the pop-up list. Your choices are ASAP, High, Med, and Low.

Note *The priority detail field contains a pop-up list.*

To add a new category to the list such as Personal or Business:

1. Draw a caret tap \wedge in the Priority detail field. A pop-up editing pad will appear.
2. Write in the new category and tap ∇ on the New Value button.

The new category will be inserted into the Priority detail field as the lowest priority. It will also appear in the pop-up list anywhere the Priority detail field is used. This technique will work for any field that uses a pop-up list.

Once the Phone Call profile is complete, your To Do list will display the phone call on the date scheduled. The other detail items—time started, finished, or canceled—will be automatically filled by actions you perform from the Day Planner page. Once the scheduled day arrives, the Day Planner will present you with the phone call reminder.


On the day that the reminder appears you must do something with it. It will not go away but appear on your To Do list every subsequent day until you delete, cancel, or finish the phone call.

The Saga Continues

It is now next week and you are out of the office making client calls (or you could be in the office, for that matter), looking through your To Do list as you start the day. You see the reminder to call Mr. Doakes. By double tapping on Mr. Doakes' name you recall his address record, and attached to his address record is the note about his company.

You decide that you want Mr. Doakes to have additional information before you talk to him, so you fax him a note directly from your EO. Then you convert the phone call reminder to an appointment reminder and set the alarm so your EO will notify you in a couple of hours. Two hours go by, the alarm on your EO goes off, and you call Mr. Doakes (from your EO if you have the cellular option). While you are talking to him you are creating a new note that details your conversation. This note is also attached to his address record, you get the information you need, and he promises to fax you a response.

To the right of the Phone Call item you will find a box that is labeled Status (see Fig. 5.23).

When you tap  the Status box next to a To Do item in a list you will get a pop-up list like the one in Figure 5.24. If you tap the In Progress option, the date on which you tapped the option will be entered into the Date Started detail item in the Phone Call profile. Likewise, the Completed and Canceled options also enter the appropriate date in their detail items. Your To Do items will automatically be forwarded to the next day until they are either completed or canceled.

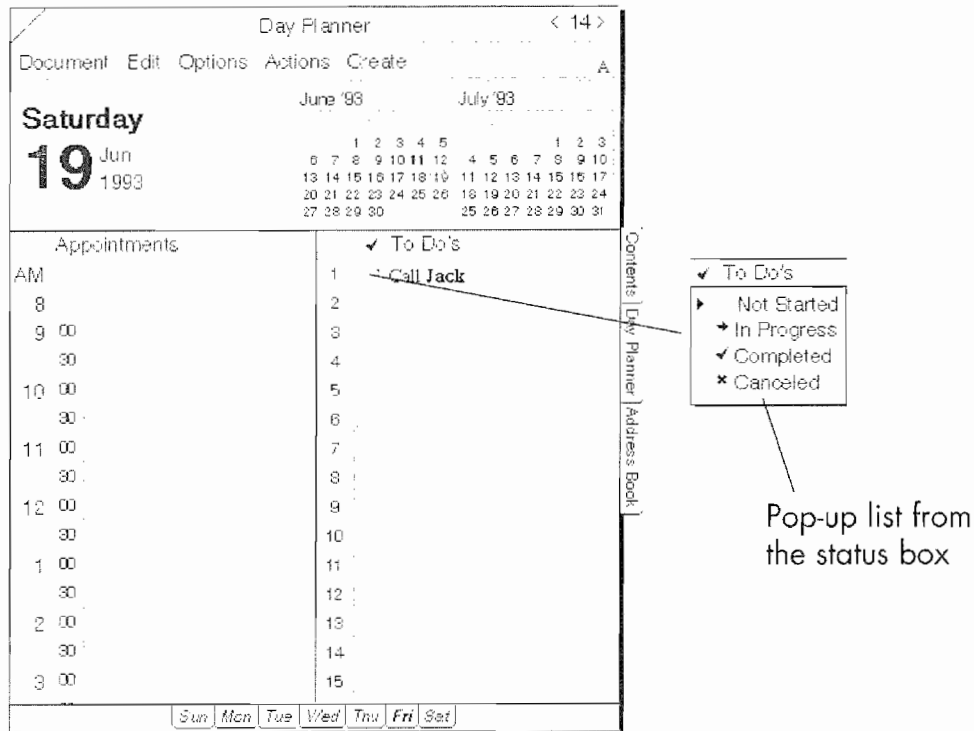
The Following Week


The purpose of this section is to show how you can embed a document and convert a Calendar items profile from a To Do to an Appointment. The actual mechanics for faxing a document are covered in Chapter 9.

Creating and Faxing the Note



A week or more has passed. You turn to your Day Planner and see that you need to call Mr. Doakes. But first you want to fax him some information about your requirements regarding his com-

Figure 5.24
The Day
Planner page



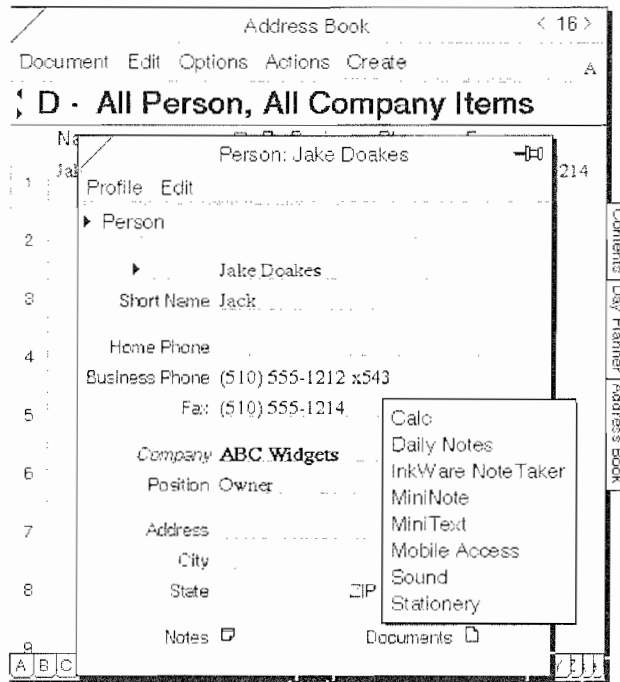
pany's product. So you double tap  on his name in your To Do list to call up his profile.

To create the document that you are going to fax:

1. Draw a caret  in the Document box or a double caret  anywhere in the profile. You will see a pop-up list of the documents you can create.
2. Select your company's stationery document, or whatever stationery file you wish to use, by tapping on the Stationery selection. Figure 5.25 shows a list of available stationery documents. (Instructions for creating stationery are in Chapters 3.)
3. Write your letter/note in the MiniText document.
4. From the Document menu in MiniText select the Send option and fax the letter to Mr. Doakes.

There are a couple of things to note here. One is that if you copy Mr. Doakes' record to the MiniText document you can copy all of his address information. This way you do not have to manually enter the information.

Figure 5.25
Documents
available for
embedding



To enter all of the address information:

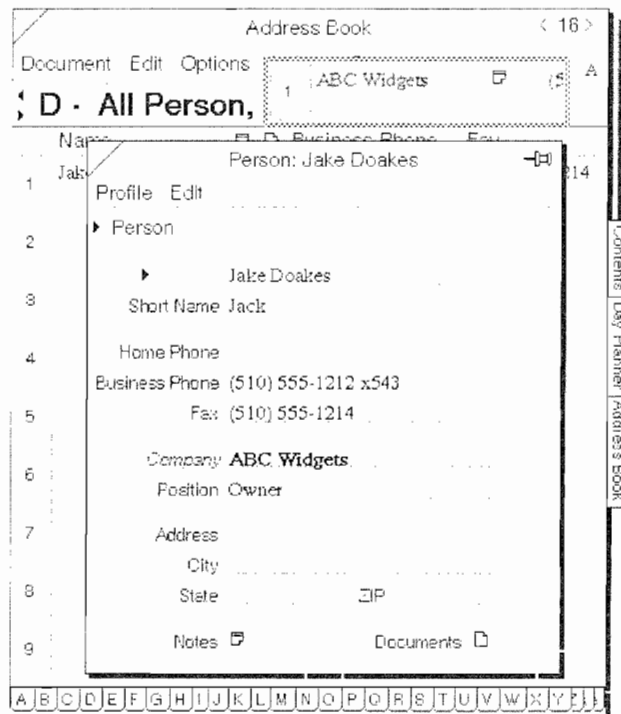
1. Go to the Address Book and tap press \downarrow on the Item line for ABC Widgets to copy it.
2. Move the copied record to the banner of the Address Book so you don't copy the item to another Item line.
3. Return to the Day Planner. Your MiniText document will have closed, but Mr. Doakes' profile will still be open, and the copied item will be in the Day Planner's banner. (See Fig. 5.26.)
4. Move the copied record to the MiniText document by dragging it to the place where you want the information to appear. All of the address and phone information will be copied. You will have to massage the information just a little bit by turning the tab characters into returns. In Figure 5.27 you can see the copied Address item just as it was copied.
5. Quickly edit the address and it will look like Figure 5.28.

Note

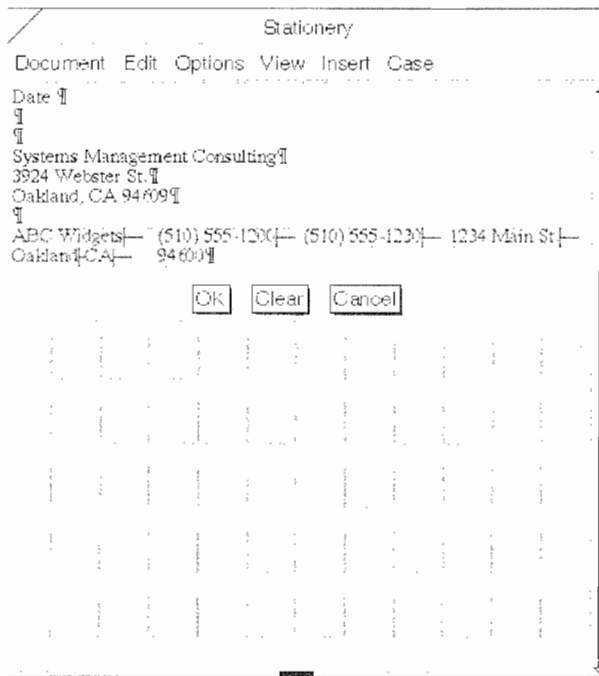
The other note of interest is that the Address Book from Personal Perspective can be used as a system-wide address book so all phone numbers, including fax numbers and AT&T Mail addresses are available to the built-in fax and E-mail software. This means that you

Figure 5.26

The copied
Address item
in the Day
Planner
margin

**Figure 5.27**

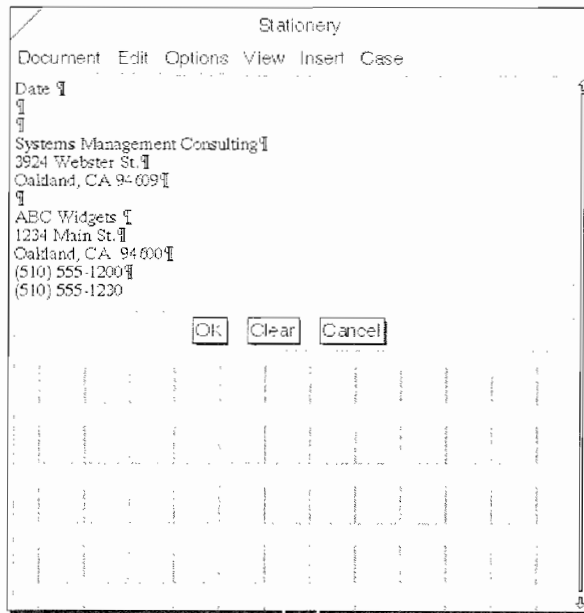
The MiniText
document after
the
information
has been
transferred



do not have to create duplicate phone books for each of the EO's built-in functions.

For more information on using MiniText, see Chapter 6.

Figure 5.28
The MiniText document after editing



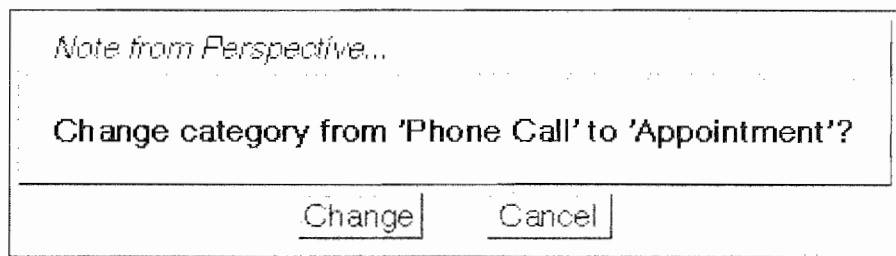
Changing the Phone Call to an Appointment

According to our scenario, after you have faxed the document you will want to change the Phone Call into an Appointment. You have the ability to change any category item, such as a Calendar Item or a Name Item into a different item type. This means that you can change a Person into a Company and vice versa. The principles are the same for any profile that can be changed. Now we will continue with our example.

To change the Phone Call into an Appointment:

1. Open the Phone Call profile.
2. Tap on the arrow to the left of the words "Phone Call."
3. You will see a pop-up list of the available profiles. Tap on the Appointment selection.
4. Perspective will ask if you really want to change the Phone Calls profile. (See Fig. 5.29.)

Figure 5.29
Perspective asking if you want to change the profile



5. Tap **!** on the Change button. The Phone Call will be changed to an Appointment.

Once the profile has been changed you will have to enter in the alarm information and set the appointment time. This is done by tapping **!** on each item and making the appropriate changes. Scheduling an alarm will cause the EO to beep at you when the predetermined time arrives.

When your EO beeps you can either use the EO Phone program and have the EO dial the number, or you can recall Mr. Doakes' profile and dial the number yourself. The EO Phone program is discussed in Chapter 9. If you are using an EO with the cellular phone attached you will have to use the EO Phone program because the EO controls the phone. Regardless of your dialing method, you contact Mr. Doakes and he promises to fax you a document.

Finishing the Transaction

The final part of this information transaction is receiving a fax on your EO and scheduling another call. You can receive the fax on the EO if it is attached to a fax line (and has a modem), via the cellular module, or you can have the fax sent to your AT&T EasyLink mail box. Using the EO's fax and E-mail capabilities are described in Chapters 8 and 9.

Once you have received the fax, it will be in the your EO's InBox. After viewing the fax you can print it. (Printing is discussed in the PenPoint chapter.) If you want to retain the fax, attach it to Mr. Doakes' profile. (This makes it easier to keep track of the fax.)

To attach the fax to Mr. Doakes' profile:

1. Open your Address Book and turn to the page with Mr. Doakes' Address item.
2. Open your InBox.
3. Select the fax from the InBox by pressing **!** on it in the InBox contents page.
4. Move the fax document to Mr. Doakes' Item line and place it in the document box. Figure 5.30 shows the fax after it has been moved to Mr. Doakes' profile.

...and you're done!

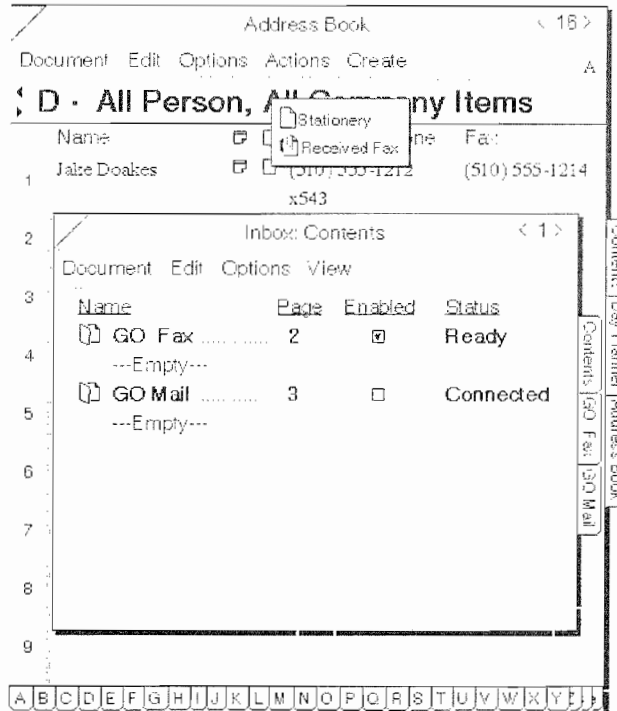
Fifteen minutes later you receive the fax, again on your EO. After reading the fax you attach it to Mr. Doakes' Address record and print the fax. If you're on the road, your EO will wait until you return to the office and print the fax when you connect your EO to the printer. Finally, you schedule another call and you're done.

The above steps can be used to attach any document to a profile. These steps do not pertain only to faxed documents. The document box of any Perspective profile can contain multiple documents. This feature makes it easy to keep track of and back up all documents pertinent to a specific person or company. Although you can keep your documents in a notebook and keep every one separate by sections, it is just as easy to attach the documents to a Personal Perspective profile. The choice is yours.

Special Functions

Personal Perspective has special functions that will make it easier to use. In addition to the special functions, there are also some


Figure 5.30
The fax after it has been moved



tricks you can employ to add to Personal Perspective's versatility. This section will quickly cover these functions and tricks.

Because there are quite a few items to be covered, their descriptions will be brief, but accurate. The functions that will be covered are not covered elsewhere in this chapter. They include shortcuts for sorting columns, creating special lists, printing tricks, finding information, and more.

Column Sorts

Although it is possible to specify sort criteria with the Sort selection from the Options menu, there is another way to perform a quick sort in a list. You can sort any list by double tapping  on the column title of the column that you want the list sorted by. This will cause the entire list to be sorted in ascending order, alphabetically or numerically, by the contents of the column.

Reclaiming Extra Space

The Profile Book uses disk space very efficiently. But after extended use it is possible for it to be using more disk space than it really needs. Also, if for some reason you have information that is not appearing in your Perspective lists properly, your Profile Book could be the cause. (In a sense, it could be confused.)

To reclaim lost disk space or to perform minor repairs on a Profile Book, draw a capital R on the Profile Book page. Although this is called a "Reclaim" function, it is also a "rebuild" function. The Profile Book is rebuilt so that all associations are double-checked, and any extra space, usually caused from deleting items, will be recovered. This feature should be used sparingly.

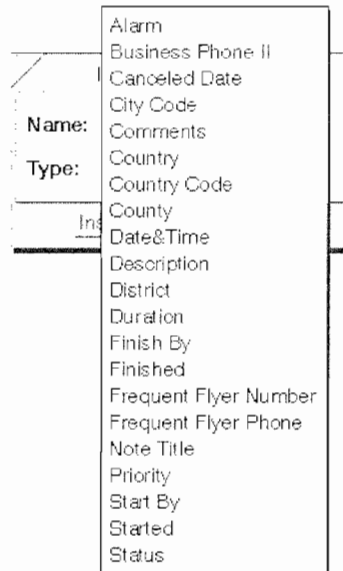
Inserting Instance Details

There will be times when a profile does not contain a field for the information you want to display or include in either a profile or a list. When this happens you can use the Edit menu in the profile sheet and select the Insert Instance Detail. Figure 5.31 shows the open dialog sheet with a list of detail categories that you can insert.

With the Insert Instance Detail options sheet you can also create new detail items.

Figure 5.31

The Insert Instance Detail dialog sheet

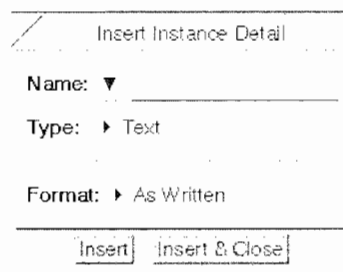


To create a new detail item:

1. Open the profile to which you want to add the Instance Detail field.
2. Tap on the profile's Edit menu.
3. Tap on the Insert Instance Detail item.
4. Tap on the arrow next to the label Type.
5. From the pop-up menu select Note Title item. (Tap on the Note Title item.)
6. Tap on the Insert button. *Do not* press the Insert and Close button. After you have inserted the Note Title detail item, the Insert Instance Detail dialog sheet will look like Figure 5.32.
7. Tap on the arrow next to the label Type. Tap on the type of field you want to create.

Figure 5.32

The Insert Instance Detail dialog sheet after inserting a Note Title



8. Tap **!** on the arrow next to the Format label to choose your formatting options for the new field.
9. Write the item's name on the line next to the Name label, or tap **!** on the Insert or Insert & Close button.

Once you have given the field a name and inserted it into your Profile Sheet, you will have access to the field from any Profile sheet (using the Insert Instance Detail), and you will also be able to insert the detail as a column in any list.

Something you should note: once you have created a new detail item in Personal Perspective there is no way to delete it. It will always appear in any list that contains your detail items even if you delete the detail item from every profile that contains it. So be careful and do not make a new detail item until you are sure you need it. Otherwise your list of available detail items will get very large and difficult to manage.

That Which Was Lost Will Be Found

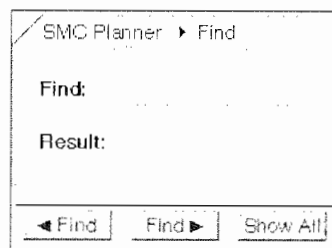
Sometimes it can be difficult to find the specific profile item you want. You may have used an incorrect name, switched the last and first names, sorted your list improperly, etc. Whatever the reason, Perspective has a built-in Find function so you can quickly retrieve any profile.

The Find function works from any Perspective list. To invoke it draw a capital F on the Title line or the list's banner or use the Find selection from the Edit menu. When you implement a find, a Find options sheet will appear like the one in Figure 5.33.

There is also an advanced find that you can use to find the occurrence of a word or specific condition such as all in-progress Calendar items. To do an advanced find, start a regular find, and then

Figure 5.33

The Find dialog sheet



tap the arrow next to the Find label in the Title line of the options sheet. This will let you switch to the Advanced Find options sheet.

In Advanced Find you will find your information first by the type of item. You can search an entire category such as all Calendar items, or search Phone Calls only. Then you select the detail item you want to search by selecting the detail item in the “where” line. You will have choices such as Contains, Is, or Is not, depending on the type of detail item chosen in the second line of the “where” section. Finally, you enter the name or condition you want the search to match in the third line of the “where” section. See Figure 5.34.

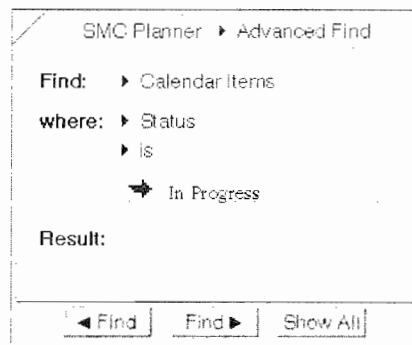
In either Find dialog sheet you can go from occurrence to occurrence by tapping on the directional find buttons, or you can have Perspective find all items that match your search criteria by tapping **!** on the Show All button. The Show All button lists all occurrences that match your search criteria in a selection sheet. Here you can see each profile that matched your search by double tapping on the found items.

Special List Paper Options

It is possible to create special lists that display information according to your special needs. To do this, copy an Address Book or Day Planner from your Stationery Notebook to another notebook. Only use a Day Planner if you are going to create a list with date-sensitive items that you want cleared as they are finished. Usually, either an Address Book or an imported Perspective List paper will work best.

When you turn to the new Address Book for the first time, Perspective will ask you which profile book you want to use. After you have selected the profile book, the Address Book will open, showing your information. Now you have to customize the list.

Figure 5.34
The Advanced Find dialog sheet



Customizing the list is done by deleting columns you do not want and inserting detail columns you want to see. To delete a detail column you draw an x for delete X on the column title, or use the Delete Column command from the Edit menu (after selecting the column). To insert a new column you can either draw a caret ^ on the Column Title line or use the Insert Column command from the Edit menu. Select the detail item you want to display from the pop-up list and a new column will be inserted showing the information in the detail item selected.

Do not delete all of the columns from a list. If you delete all columns you will not be able to insert a new column, and you'll have to start over. Always leave at least one column.

Once you have the detail columns you want to view, you can further specify how the information is displayed (depending on the type of list you are using) by setting the Paging and Sort commands from the Options menu. You will have to experiment with both of these commands to get the information you want displayed properly. However, it is usually worth the effort if you want to view specific details such as phone numbers only.

Another reason for going to this trouble is so you can print a list of specific information. The printing capabilities of Perspective do not include custom reports, so you will have to create a special list to print a custom report. For any special report, make a list that shows the information you want printed and print the list. The same applies to exporting information. This is covered next.

Importing, Exporting, and Backing Up Your Information

This section will cover importing, exporting, and backing up Personal Perspective information. Those features that are covered in Chapter 7 will not be repeated here. For instructions on actually transferring your information from one disk to another or from one machine to another, see these chapters.

Importing Information into Perspective

To import information into Perspective you use the same basic procedures described in Chapter 7 for importing information into

your EO. When importing Perspective information you need to choose the Perspective List Paper option when actually moving the information from one disk to another or transferring the information file from a desktop computer.

Before the information is transferred you will see an Import Information options sheet like the one in Figure 5.35.

Prior to transferring your information into Perspective you need to make sure it is in the proper format. Perspective accepts ASCII-delimited data. ASCII-delimited means that items or fields in the data you are importing are separated by a special character. Perspective accepts either tab- or comma-delimited fields. If you have data where the fields are separated (delimited) by any other characters, or if the data has extra tab or comma characters in the fields, your import will fail. Creating a delimited import file is most easily done with a spreadsheet on a desktop computer.

When importing information you have to select what category you're going to use. You can select from all the major category groups. Figure 5.36 shows the Import category options.

There is a bit of trick involved here. If you are importing both individual names and company names you can only choose one or the other. If you select Person as the category you will have to change all the companies you import into Companies after they're imported. If possible, you should divide your information and

Figure 5.35

The Import Information options sheet

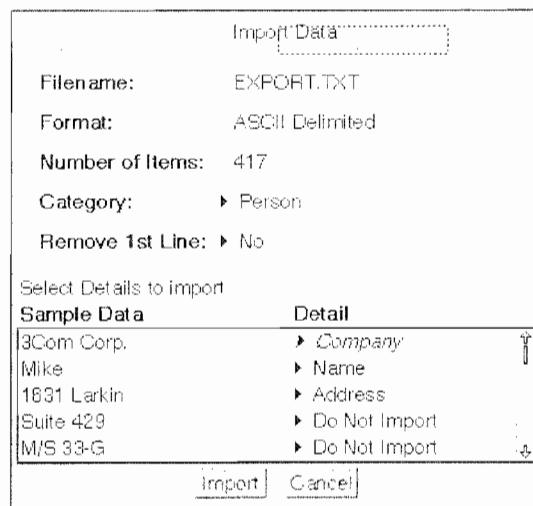
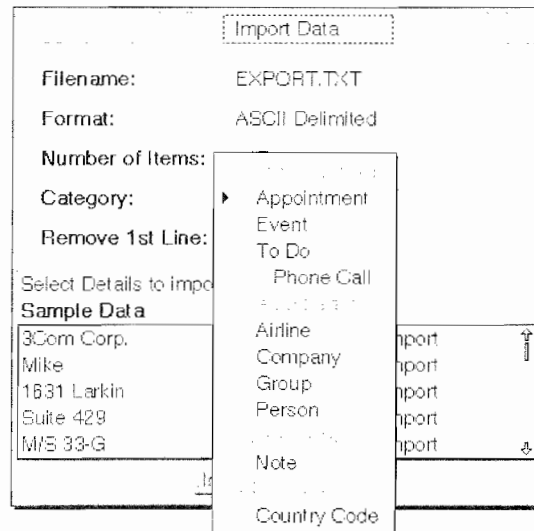


Figure 5.36

The Import category options



import the Persons and Companies separately. However, this is not the tricky part.

The tricky part is assigning the detail items. Do not, and I repeat *do not*, select any of the major category headings as an import field. If you do, no information will be imported. Remember, the major category groups are Calendar, Name, Note, and Misc. Items. Only use actual detail items for receiving information when importing. If necessary, create any fields you may need *first*.

To make the import easier, on the first line of your import data file label the fields with the same names as your Personal Perspective detail items. This way, when you import the information, Perspective will automatically assign the correct information fields to the fields you are importing. If you use this option, be sure to remove the first line of all your imported information. (See Fig. 5.36.) Otherwise, you will have to assign the correct Perspective detail items to the corresponding information fields of your import information. For any information field being imported you can specify whether or not a particular field should be imported.

Once you have assigned the proper Perspective fields to the information fields being imported, Perspective will ask you which Profile Book you want to import the information into and present all of the available Profile Books for selection. After you select the Profile Book your information will be imported. Once the informa-

tion has been imported you will be able to view the information in a Perspective list that shows the detail items and information you imported. This list will have the name you assigned to it when it was imported.

You should review the information to make sure it is correct by turning to the imported page and verifying that the detail items are correct. If everything is correct then you can delete the Perspective List Paper that contains the information you imported. Your information will then be permanently stored in your Profile Book. Remember, before you delete the import list make sure the imported information is correct.

If the import was incorrect for any reason, you can reverse the import, so long as you do not delete the Perspective List Paper that contains the imported information. If the import is incorrect select the first row of the imported information and then scroll to the last row and draw a plus + in the row number. This will select all of the information in the imported list. After all of the information is selected, draw a delete gesture X anywhere in the selected area, and delete all of the imported information. After the information has been deleted you can delete the import list and start over.

Note *You can use an import list to create special List Paper such as that described in the section on special List Paper options. Whenever you import Perspective List Paper, the blank lines in the list are recognized by Perspective as a Person category. However, the lines of imported information will have the profile you selected for the import and any extra detail items you selected. Although you cannot access the special profile from the Create menu, you can create a template by selecting one of the detail items with imported information and by copying this detail item. Then you can edit the line and have a relatively custom profile.*

Exporting Information

The process for Exporting information is just the reverse of the process for importing information. Perspective will export your information in ASCII tab- or comma-delimited format. When you export information you do not copy your Profile Book to another disk, but instead you copy the Perspective List containing the information you want to export.

This is where making a custom Perspective List can come in handy. If you create a list with just the information you want to export, you will not have to massage it once you get it wherever it is going, that is, your desktop computer. After you get it onto your desktop computer you should check the information with a spreadsheet to make sure it is correct.



Backing Up Your Information

To back up your Perspective information, all you need to do is make a copy of your Profile Book or Books. To do this, follow the procedures outlined in Chapter 7 for copying information files. All of your Perspective information is stored in Profile Books. If you keep your information in various Profile Books, be sure to copy all appropriate Profile Books to your back-up disks. If you have made any custom lists, be sure you back them up as well.

Table 5.2 Special gestures



Gesture Name	Gesture Function
Circle	Used to open a profile when the gesture is performed on a line number. Otherwise it will open a pop-up editing pad to change the contents of a detail item. Also used to translate ink entries.
Caret	In a Profile sheet it will bring up an Insert Instance Detail dialog sheet. In a List's column it will insert a new column. In a detail item it will pop-up an empty editing pad.
Triple Tap	Selects a detail value in a profile or list, and selects everything in a note.
D	Performed on the Title or Menu line to hide or show the tab margin in a Perspective Page.
R	Used on a Profile Book to reclaim space.
Plus	Used to extend or reduce a selection either across columns or additional rows.
T	To show or remove a notebook tab, this command works from the page you are currently on.
Double Caret	Embeds a document into a profile and works on detail rows or profile sheets.
Cross out	In a Column heading deletes the column, in a row number deletes the profile, in a linked detail item it deletes the link (does not delete the linked profile).

Table 5.3 Personal Perspective menus

Menu	Sub-Menu	Description
Document	Checkpoint	This option forces Perspective to save your information. You should use this option often if you are operating in the accelerated mode.
	Revert	Reverts your document to its condition prior to executing a checkpoint save.
	Print	Gives you with the PenPoint and Perspective Printing options.
	Print Setup	Sets your printing parameters.
	Send	Allows you to send a Perspective document via fax or E-mail.
Document	About	Gives you system information about the current document.
Edit	Undo	Allows you to undo any editing changes or reverse the last reversible action. All edit menus change depending on what is selected. If a row is selected the edit commands pertain to the row. Likewise, the edit commands apply to columns and individual fields.
	Editing	
	Move	
	Copy	
	Link	
	Insert	
	Delete	
	Translate	
	Edit	Edits the selected item. This command either opens a profile or a pop-up editing pad. Same as using the edit gesture (the circle)  .
Find...		Opens the Find options sheet. Same as gesturing with an F on the Title or Menu line.
Options	Selected Item	Shows and allows you to set the options for the selected item. Performs the same function as gesturing with a check mark  over the selected item. With this command you can set the attributes for rows and columns. To apply the attributes to an entire page select the first row and gesture with a plus on the last row, then apply the options you wish to set.
	Selected Page	The selected page could be appointments, To Dos, or your Address Book. This command displays the options available for what ever page type or item you are using.

(continued)

Table 5.3 Personal Perspective menus (continued)

Menu	Sub-Menu	Description
	Sort	Sets the sort options for the list you are using. This command is page-specific.
	Tile	Sets the tile options for the list you are using. This command is page-specific.
	Layout	Sets the layout options for whatever page you are using. The layout is how the page appears, including whether or not the banner will be shown.
Options	Inkwell	Sets the Ink attributes for Perspective.
	Associate	Sets the attributes for the Associate. You can set the Associate to be on or off, Associate in your notes, and whether or not the Associate will ask for help (this applies to using the key words in "Scheduling a Call" section) or automatically ask to link items with key words that are not found in linked detail items.
	Controls	This command is used to set PenPoint page controls like the Menu Line, Cork, Tab, and Scroll Margins.
	Access	These options determine whether the page is deleteable, its Access Speed (it is recommended that you use standard access speed unless you have lots, like 20 Megabytes, of memory), and which Profile Book the list is using.
Actions	Comments	Allows you to set the Page's title, assign an author, and enter comments for your own use to identify the page.
	Show Notes	Shows notes attached to a selected item. This is the same as tapping  in the Notes box.
	Show Documents	Shows documents attached to a selected item. This is the same as tapping  in the Documents box.

The following actions apply only to the Day Planner.

Add Tab	Adds a tab for the selected date to the bottom of the Day Planner.
Set Alarm...	Allows you to set an alarm for an appointment.
Repeat	Allows you to set a repeating Appointment.
Show Year	Pops up a Year at a Glance Calendar. When you tap on a date in the Year at a Glance Calendar, your Date Book will jump to that date.

Special Gestures

Table 5.2 is a partial list of the names and functions of gestures you can use in Personal Perspective. Some are listed because they differ a little bit from the standard way in which PenPoint uses these gestures, and others are here simply as reminders. All other PenPoint gestures can be used in Perspective as well.

The Personal Perspective Menus

Table 5.3 provides you with an overview of Personal Perspective's menus. Each Perspective menu option will be discussed.

Conclusion

There should be enough information in this chapter to keep you busy for a while, especially if you have an EO. If you are reading this book to get an overview of the EO, I hope that it was interesting enough to keep you engaged while at the same time giving you an idea of just how powerful the EO can be.

To each person the importance of this type of organization and control is different. But I'd be willing to wager that the time saved and increased productivity alone would let you pay for an EO in short order. Don't forget the extra time you should have as well.

Using the EO's Built-in Applications

Introduction

In the last chapter we looked at Personal Perspective, one of the EO's built-in applications. Of all the programs that the Communicator comes with, Perspective is the most complex. The EO also has four other applications all of which, when combined with the EO's accessories and Personal Perspective, make the EO Personal Communicator a tool that is complete and ready to be used out of the box. It is possible for you to use the EO without ever purchasing another software package.

The applications that come with the EO discussed in this chapter are MiniText, MiniNote, EO Calc, and EO Sound. GO Fax Send and GO Mail are also applications bundled with the EO, but these will be discussed in Chapters 7 and 8. In this chapter we'll look at the four EO applications and discuss their individual uses and how to use them together.

The other topic discussed in this chapter is *application embedding*. One of the advantages that the EO Personal Communicator has

over a standard computer is that you can embed documents inside of each other and still view the contents of the embedded program. What this means is that it is possible to draw a picture in MiniNote and then embed that picture in a MiniText document so that both what you have written and the picture are visible on the same page.

This chapter will start by discussing EO applications in general, then it will discuss the EO's built-in applications mentioned above. It will conclude with a discussion on embedding applications in each other.

Application Basics

PenPoint is the EO's operating system (discussed in Chapter 3). One of the nice features about PenPoint is that it was designed to provide the user with a consistent and economical interface. Because interfaces for PenPoint applications and the PenPoint operating system are consistent, you don't have to "relearn" how to work every new EO application. This consistency makes you feel very comfortable using the EO.

The basics that are consistent for all EO applications are: creating, opening, deleting, printing, and in most cases, editing documents or applications. I say documents *or* applications because when using the EO, each document functions just like an application—the two appear to be one and the same. This makes the old language of computerese a bit difficult because the distinctions no longer carry the same meanings.

A new word should probably be devised for this new category of software. But that might confuse things even more. The computing industry has enough problems with the names of things and it doesn't seem right to make up one. So, let's just agree to call all of the applications and documents "documents."

Note *For those of you who really want to know how your EO works, the distinction between applications and documents is real. However, this is not to say that the document is the application.*

When an application is installed on an EO there is some programming code that gets installed at a very low system level. In this

sense an application is installed. What makes the application and document the same is that the document is the only access you have to the application. There is no way to access or start an application other than through a document.

In a traditional computing environment you can run an application and access multiple documents by opening them from within the application. On the EO you can only open the documents. Anything that belongs to an application is used by all documents that the application controls. Thus, a document can be broken, or all of the documents for a particular program can be broken because some part of the code is not working properly. When this happens you will see a document with a slash through its icon like the PenCross document in Figure 6.1 on the following page.

While using the EO, what you will probably care about most is finding the page that has the information you need. Most people don't really care about where it comes from, just whether or not they can use it and how they can use it. Thus, we'll look at how to use different documents.

This section will cover creating, editing, and printing a new document, plus the PenPoint gestures you'll need to know. If you want to know more about the mechanics of how your EO handles applications and documents, you'll find the information in Chapter 3.

Creating a New Document

There are three basic ways for you to create a new document. One is to use the create gesture which is the caret \wedge gesture. Another is to use the Create menu in a notebook's table of contents. And the third is to copy a blank document from the Stationery Notebook, placing the copied document into the notebook where you want it.

The reason you have so many methods for creating new documents is to make it easier for you. When you create a document you put it where you want it and you do not have to worry about finding the application and then deciding where to put the document, or finding the application and then hunting all over for the document you want. All of your documents are immediately accessible and easy to find.

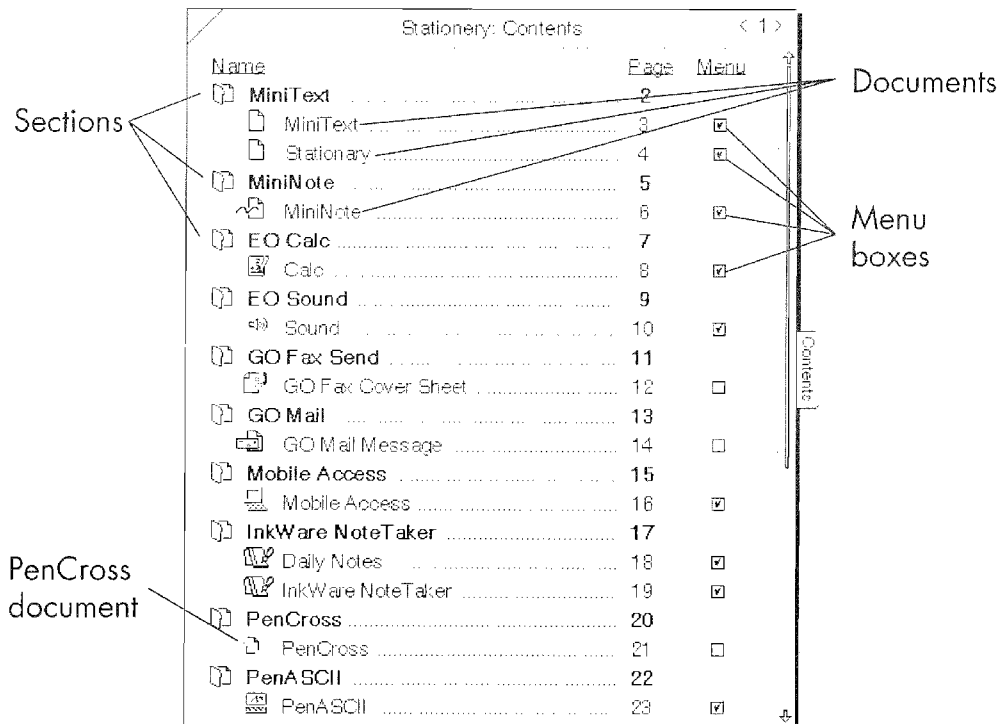
You have four methods for creating a new document—we'll talk about three of those right now. (The fourth is used only for embedding new documents, which we'll discuss a little later.) To understand how these two methods work and how they're all related, we're going to first look at the Stationery Notebook.

The Stationery Notebook

All of the documents available for use are stored in a special notebook called Stationery. Whenever an application is installed, the blank documents (called templates) are automatically stored in the Stationery Notebook. In Figure 6.1 you can see some of the documents that are available on this EO. Do not be distressed because the EO has so many documents (it has been on steroids for some time).

To see what documents are available on your EO, tap the Stationery Notebook on your bookshelf. After it opens you will see a standard table of contents. Each program that is installed on your EO has its own section, with the title being the same as the application. Inside each section there will be at least one document. You should not have empty sections in your Stationery Notebook unless you put them there.

Figure 6.1
The Stationery Notebook



Other things to note about the Stationery Notebook are the Menu check boxes and the PenCross document with a slash through its icon. The Menu check boxes are for telling the EO which documents to display in the Create or pop-up menu. When the Menu check box has a check mark the document will appear in a notebook's Create menu (see Fig. 6.2) or the pop-up menu you see when you use the caret ^ gesture.

The PenCross document with a slash through its icon is an example of a broken document. In this case the EO thinks that the programming code required by the document is not installed, and as a result all PenCross documents are unusable. This problem can occur with any document, and it is discussed further in the troubleshooting chapter.

If you use M gesture on the Stationery Notebook's Title line to display the Menu line, you will notice that it does not have a Create menu, nor will the caret ^ gesture work (see Fig. 6.3). This inability to create documents occurred because the Stationery Notebook (which controls the creation of new documents) is a special PenPoint notebook, and the EO currently thinks PenPoint is broken.

Figure 6.2
The Create menu

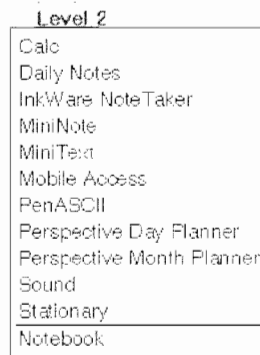
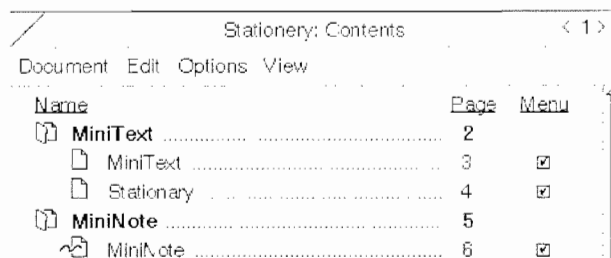



Figure 6.3
The Stationery Notebook's Menu line



To create a new document using the Stationery Notebook, you have to copy the document from the Stationery Notebook to the bookshelf or another notebook.

To copy a document from the Stationery Notebook:

1. Tap press  on the document you want to copy.
2. Drag the document to its new location (your bookshelf or another notebook).

Documents and Templates

Think of the documents in the Stationery Notebook as blank templates—they are custom-designed form letters that can be used over and over again. As with any blank form, you should make a copy of it and write your letter on the copy, saving your clean original for the next time you need it.

The purpose of the Stationery notebook is to store all of your blank templates. You can modify templates in the Stationery notebook and copy them to create new templates; you can also create new templates by copying documents from other notebooks into the Stationery Notebook.

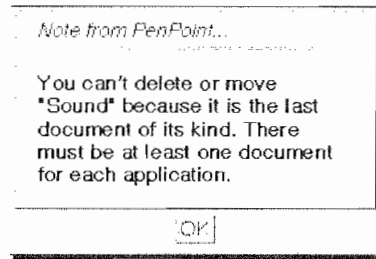
If you want to delete a document from the Stationery notebook you should be careful; you will no longer have access to it from the Create menu. The only time you cannot delete a document in the Stationery Notebook is when it is the only document of its type on the EO. If you try to delete a document in the Stationery Notebook and it is the only one on your EO, you will get a message like the one in Figure 6.4.

The message in Figure 6.4 above is not unique to the Stationery Notebook. You will get this message if you try to delete an only document regardless of where it resides.

The Caret Method

The caret method is the easiest way to create a new document. The EO's object-oriented system shows its value here—all you do is tell the EO that you want to create a document, and then it presents you with a list of all the types of documents you can create.

Figure 6.4
Can't delete
document
dialog sheet



To create a document:

1. Gesture a caret \wedge in your notebook or on the bookshelf of your EO. The EO will give you a pop-up list of available documents (see Fig. 6.5).
2. Now tap ∇ on the type of document you want to create (including a new section). The document will appear in your notebook in the general area of where you gestured with the caret. Figure 6.6 shows a notebook with three sections named Level 1, Level 2, and Level 3.

Each section resides on a different level. To create your document, insert a caret \wedge on the section where you want the document placed. Take care where you insert, however. If you draw your caret right beside the Level 2 box, for example, it may be interpreted as being under Level 1. If your document does not land where you want it, you can always move it. To move a document, press \downarrow on the document and drag it to the new location after the marquee appears.

Figure 6.5
The pop-up
Create menu

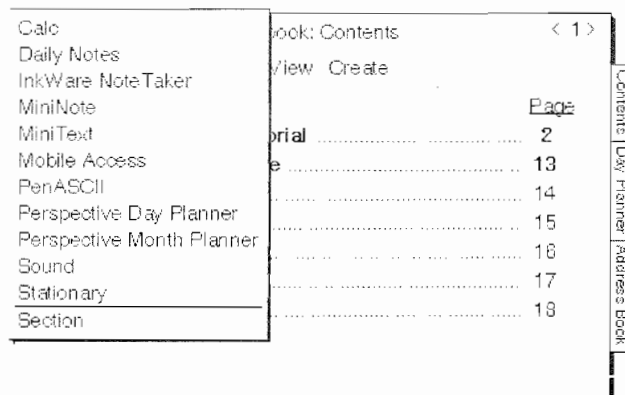


Figure 6.6
Level sections

Name	Page
Tap Page 2 For Tutorial	2
Personal Perspective	13
Day Planner	14
Address Book	15
Note Index	16
Country Codes	17
Profile Book	18
Level 1	19
Level 2	20
Level 3	21

Note Remember, the pop-up list may not contain all of the documents installed on your EO. Only those documents marked to appear in a menu with a Stationery Notebook will be displayed.

To create a new notebook you can either copy an existing one (this will also copy the contents of the notebook) or gesture with a caret \wedge on the bookshelf. When you do this you have the option of creating a notebook as well as any available document.

The Create Menu

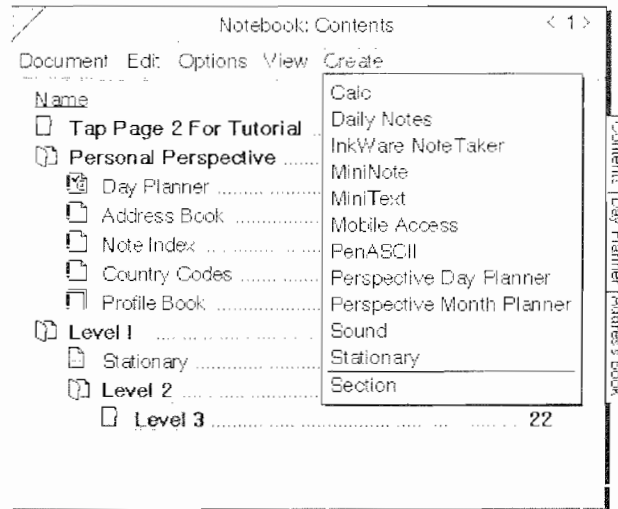
The Create menu is available while you are in either a notebook or section contents page. The selection of documents you can create is exactly the same as if you gestured a caret \wedge (see Fig. 6.7).

To control where a new document will be placed, you need to select the section or a document in the section where you want the document created. When you create the new document it will be placed on the same level as the selected item.

Editing the Document's Name

When you create your new document it will have the same name as the selection from the Create menu. To change the document's name to something that better reflects its content you need to edit the document's title. This is a simple procedure.

Figure 6.7
The Create
menu



To edit a document's name:

1. Draw a circle \circ over the document's title. This action can be performed on a document's title in a notebook, on the bookshelf, or in the Title line of an open document.
2. When the editing pad appears, simply write in the new name. Figure 6.8 shows the editing pad for a document named "Stationery." Since the name "Stationery" is not very descriptive, the title should be changed to something like "Letter to Jake." What it's named doesn't matter so long as it makes sense to you.

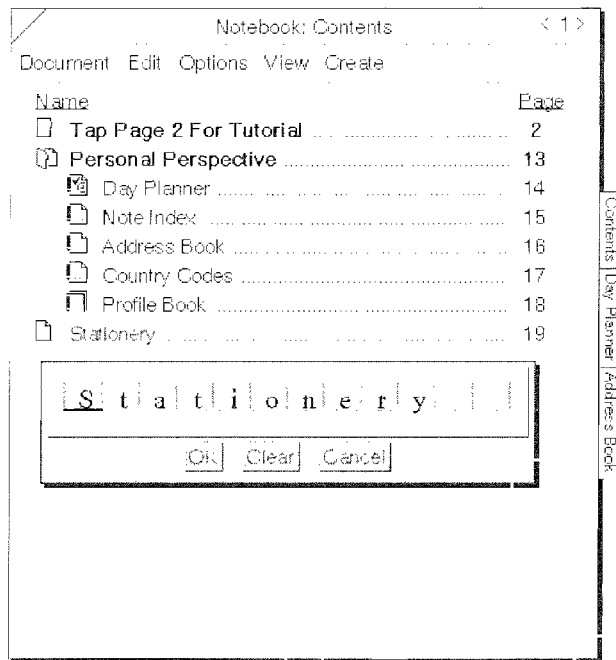
MiniText

MiniText is the EO's built-in word processor. A communicator without the ability to create text documents would be pretty lame. And if the EO is anything it isn't lame.

I wouldn't use MiniText to write a book, but it is great for personal or business correspondence. MiniText is more than a text processor because it does more than process text—MiniText is an intermediate-level word processor. The main MiniText features are:

- Display Control
- Find
- Find and Replace

Figure 6.8
An editing
pad to change
a document
name



- Keyboard Input
- Paragraph Control
- Selectable Fonts
- Spell Checker
- Tab Control

In addition to the above, any document you create with MiniText can be exported to your desktop computer with all formatting intact if you export your document as an RTF (Rich Text Format) file. Also, MiniText can also import a file from any word processor in the RTF format.

This means that you can write a letter, memo, book, or any wordy document and use it as a template, edit the document, and fax or E-mail the document. By attaching a keyboard to your EO you can easily type your documents if you prefer. Using a pen to create a document is fine if it is a short document or if you write very clearly and quickly. I can write quickly but not clearly, so for me writing long documents by hand is difficult. If I'm going to use the EO to write a long document I use a keyboard. However, if you want to edit a document while on the run, using MiniText is a great way to go.

Editing a Document (Setting the Scene)

To show you the features of MiniText, this section will go through the process of editing a document that came from a desktop computer.

The document that I'm going to use to demonstrate the editing features of MiniText comes from Microsoft Word for DOS. It is full of misspelled words, grammatical errors, and needs basic editing before it can be presented to anyone. (See "Where Is All the Jargon?" on page 219 for the complete text.) The following section contains the original document as it would appear when printed from a desktop computer, pimples and all.

Your first task on the your mad dash out the door is to get the document into your EO. This can be done by copying the document to your EO using a floppy drive or with the EO's built-in networking and file transfer software Pen Central. The actual instructions for importing documents can be found in Chapter 7. After the document has been copied you are ready to join the rat race. Your document will be in your notebook waiting for you to work on it.

Editing on the Road

Here's a common scenario—the dates and times have been changed to protect the innocent, but you will probably recognize the underlying mayhem:

It's 7:00 AM. You're just finishing breakfast at home when you remember that you have to present a paper to your colleagues at an 8:15 meeting this morning. You commute an hour to work, so you don't have time to edit the document on your PC at home or at work. You'll have to fix the document on your way to work to make the 8:15 meeting.

The EO's communications ability and built-in MiniText application give you the perfect solution. You can transfer the file from your PC to your EO before leaving, edit while you commute, and print when you get to the office. This chapter will show you how.

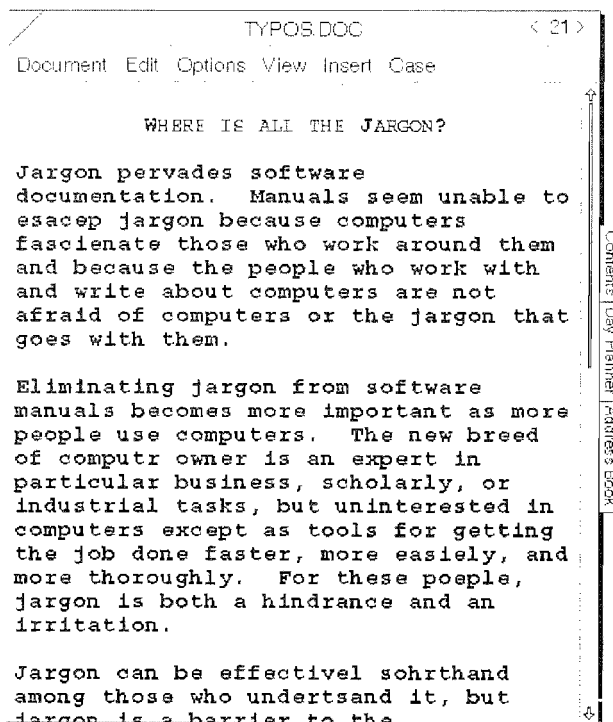
Changing the Font

Depending on how you work, you will open the document either in the notebook or as a floating document. If you want to use it as a floating document, remember to double tap \mathcal{Y} on the documents icon. For this demonstration we'll work on the problem document in a notebook; regardless of how you open the document, the editing procedures are the same.

Your first view of the document could be a bit ugly. How imported documents appear will depend on where they originated. DOS word processing documents will look worse than those coming from a Macintosh or Windows machine. This is because the default font for DOS word processors is usually Courier, while machines with graphic interfaces use a font like Times or Roman. When the EO imports a file without an assigned font it will automatically assign the default system field font to the document's text.

Once the file has been imported, tap \mathcal{Y} on the document's icon to open the file. If you want to open the document in a floating window, double tap \mathcal{Y} on the document. Your first view of this particular document will be like Figure 6.9.

Figure 6.9
Your first
view of the
Typos.doc file



Where Is All the Jargon?

Jargon pervades software documentation. Manuals seem unable to escape jargon because computers fascinate those who work around them and because the people who work with and write about computers are not afraid of computers or the jargon that goes with them.

Eliminating jargon from software manuals becomes more important as more people use computers. The new breed of computer owner is an expert in particular business, scholarly, or industrial tasks, but uninterested in computers except as tools for getting the job done faster, more easily, and more thoroughly. For these people, jargon is both a hindrance and an irritation.

Jargon can be effective shorthand among those who understand it, but jargon is a barrier to the uninitiated. I doubt that those who spray jargon around the landscape really intend to offend or cutoff others who don't know the lingo, but the effect is the same regardless of their motives.

To replace jargon, try substituting illustrations with call outs to the important features. Then, even if you cannot avoid the jargon, at least the user has some clear image of how some of the ideas fit together.

Until now, manuals have tried three solutions, with varying success:

Provide glosses of the technical term within parentheses within the text.

Provide a glossary of terms, usually as part of the back matter of the manual.

Express the ideas in other words.

Each of these solutions helps the new reader, but each also has drawbacks. The best solution will come from a new generation of software that is itself free of jargon because a new generation of computers provides significant built-in resources to support advanced, graphical software.

Notice that the first line of the document is centered. This is because of the RTF format. If the file had been a text document, the document would not have retained its formatting.

Basically, this is a pretty ugly document. So to make it appear a little more pleasing so it will be easier to work on, let's change the font and set the screen display.

To change the font, follow these steps:




1. Tap  on the Edit menu (Fig. 6.10).
2. Choose Select All by tapping on it . The entire document will be selected.
3. Tap  on the Options menu (see Fig. 6.11).
4. Choose Character from the Options menu.

Figure 6.10
The Edit menu

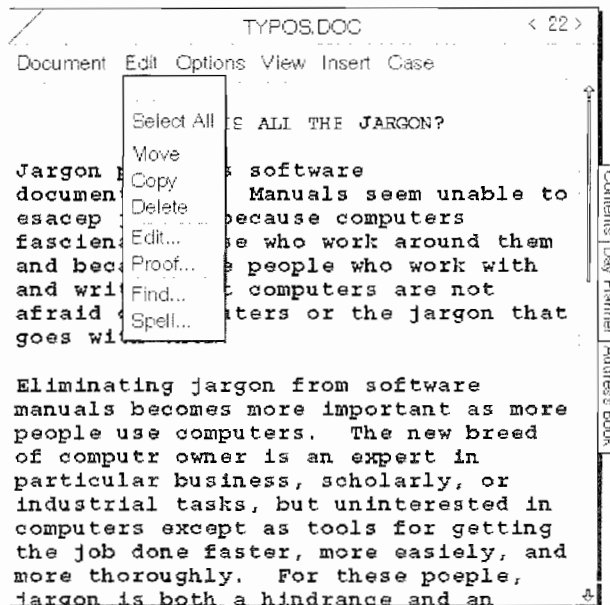
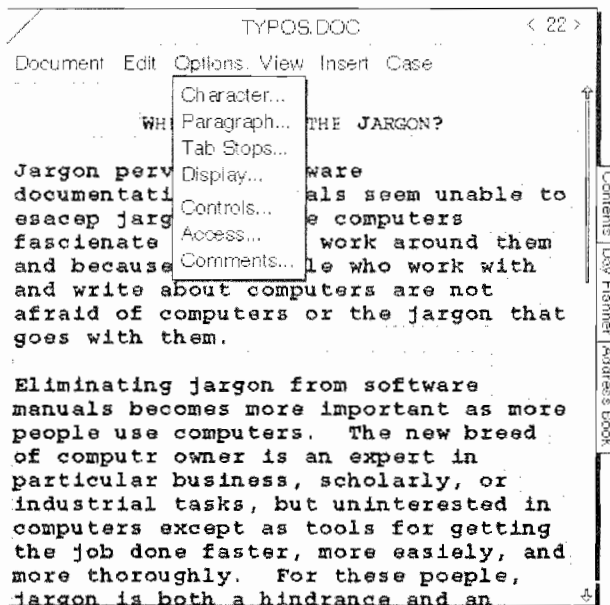



Figure 6.11
The Options
menu



5. In the Character Option sheet, tap  on the font title to see all of your installed fonts. Select the font you want to use. (We're going to use Roman.)
6. If you want to change the font size for the entire document you can also do so now. Tap on the arrow or the number designating the font size and change the size.

When you select the entire document and make a font change the change will apply to the entire document, but any font element that you leave unchanged will not be applied. In the example above you will notice that the first line of our document has Small Caps rather than standard text. *If you don't change the style no style changes will take effect.* The same applies to the Font or size selections as well. If the document or selection contains different fonts and you wanted to change the font size but not the font, so long as you do not change the Font selection, no fonts will be changed. These MiniText features apply to any selection upon which you might want to make style changes.

Changing the font or selecting a new one is always done in the same manner using the Character selection in the Options menu. However, other style changes including Font Size, Bold, Italics, Underline, and Heavy Underline can all be accomplished with gestures. Other than the font itself, the only text attributes you cannot change with gestures are Small Caps and Strike-Thru.

To use the gestures to change style all you have to do is select the text you want to change and perform the gesture in the selected area (indicated by the reverse video selection).

If you want to perform any of these gestures on a single word you do not need to select the word, just perform the gesture on top of the word. Otherwise, you can select a single letter, word, sentence, or paragraph just by tapping. Table 6.1 lists selection gestures that work in MiniText. See Table 6.2 for gestures used in changing fonts size and Table 6.3 for gestures for changing styles.


If you change a font's size and you do not like the results, you can always perform the undo  gesture. Undo will return your font size to the size you were using prior to the change.

Table 6.1 MiniText gestures for selecting text

Gesture	Description
⌘ Tap	Selects a single letter.
⌘ Double Tap	Selects an entire word.
⌘ Triple Tap	Selects an entire sentence.
⌘ Quadruple Tap	Selects a paragraph.
[Left Bracket	Selects the text between the Left Bracket [and the insertion point or selected text. This gesture must be performed to the left of or above the selected text or insertion point.
] Right Bracket	Selects the text between the Right Bracket] and the insertion point or selected text. This gesture must be performed to the right of or below the selected text or insertion point.

Table 6.2 MiniText gestures for changing font size

Gesture	Description
↑ Up Arrow	Gesturing with the Up Arrow will increase the font size by one size as it appears in the Character Options sheet. If you are using 12-point text and use the Up Arrow ↑ you will get 14-point text. This is a gesture that may give you difficulty. If you have problems with it be sure to practice it in the Gestures practice area described in Chapter 3.
↓ Down Arrow	Gesturing with the Down Arrow will decrease the font size by one size as it appears in the Character Options sheet. If you are using 12-point text and use the Down Arrow ↓ you will get 10-point text. This is a gesture that may give you difficulty. If you have problems with it be sure to practice it in the Gestures practice area described in Chapter 3.

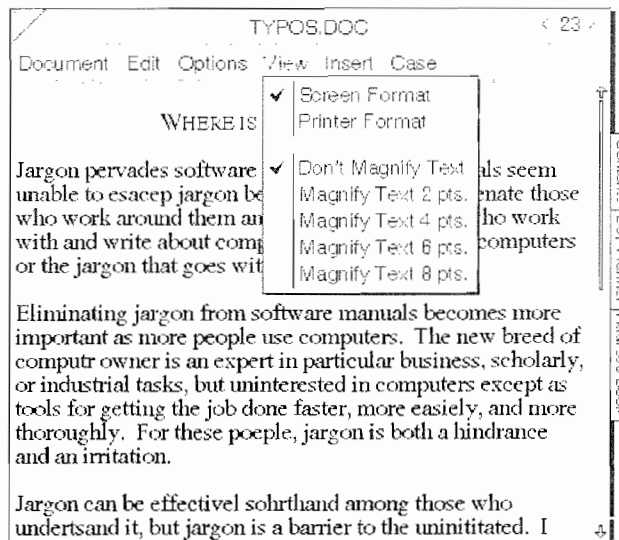
Note When altering the text's style, you can assign multiple attributes to the text. If you want, you can have Bold, Italics, Strike Thru, Underline, and Small Caps all apply to the same text selection.

Table 6.3 MiniText gestures for changing styles	
Gesture	Description
B	Drawing a capital B over a word or a selection will cause the text's style become Bold.
I	Drawing a capital I over a word or selection will cause the text's style to become Italics.
U	Drawing a capital U over a word or selection will cause the text to be Underlined. Performing the U gesture U a second time will cause the underlined text to be heavily underlined. This is the same as choosing Heavy Underline from the Character Options sheet.
N	Drawing a capital N over a word or a selection will cause the text to be returned to Normal, removing all style enhancements. The N will not return text in Small Caps to Normal, but it works on all other style changes.

Setting the Display

The next step is to set the Display settings so you can work on the document. When you first open an imported document the display setting is an unmagnified Screen Format. The display options shown in Figure 6.12 are from the View menu.

Figure 6.12
The View menu



The screen format wraps the words on the page. Regardless of how you resize the page you will always be able to see all of the words in your document. The Printer Format shows how the page will look when the document is printed, faxed, or E-mailed. Figure 6.13 shows you examples of both an unmagnified screen format and a document set to Printer Format. In the figure, "Typos.Doc" is in Screen Format while "Typos. DOC 1" is in Printer Format.

While in viewing format you can magnify the size of the text by up to 8 points. Figure 6.14 shows our document magnified by 8 points.

Magnifying the Screen Format will not affect your document's font size when the document is printed. The magnification is for your convenience. You will probably work with text that is magnified two times on a consistent basis. This is because gestures require a certain degree of accuracy and you will probably be more comfortable working with the larger display. For our example we will use text that is magnified four times.

Figure 6.13
The Different
View Formats

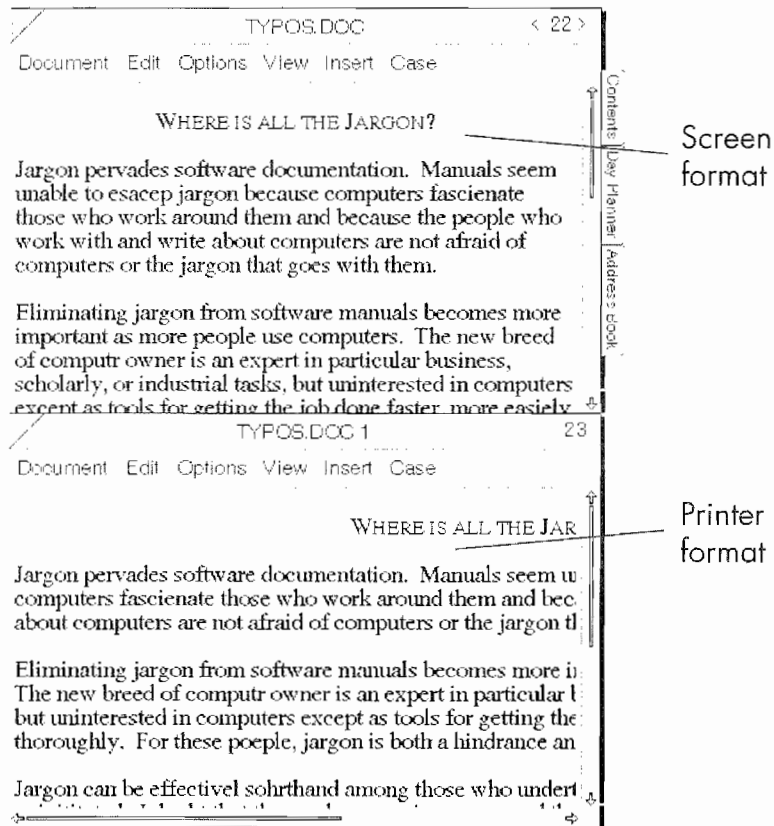
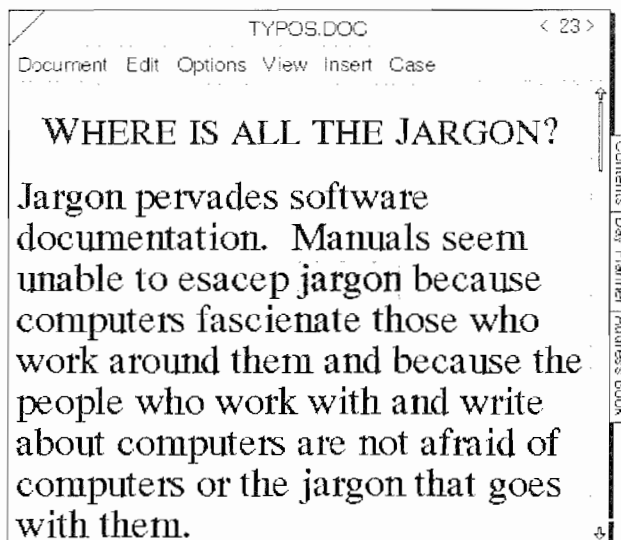


Figure 6.14
Magnified
Screen Format



Checking the Spelling

If you did not immediately notice, I'm sure that by now you have seen the inordinate number of misspelled words in our sample document. MiniText provides three different ways for checking words. You can spell-check the entire document or a single word, and you can also proof a word.

Spell checking is just a matter of comparing the words in the document against words contained in a dictionary. If the word in the document cannot be found in the dictionary, MiniText presents you with an Options sheet that contains a series of words closely resembling the word in question. The Spell Checker is actually smarter than I imply, because it will also guess that a word spelled "hte" is actually "the" and present "the" as an option when it runs across "hte."

To start the spell checker:

1. Draw a large S anywhere on the screen
Or
Draw an M in a notebook to get the menu.
2. Tap **!** on Edit.
3. Select Spell... from the Edit menu.

With MiniText you do not have to worry about the S being interpreted and inserted because all editing in MiniText is done in an editing pad. The spell checker will start checking from the insertion point and go to the right and down the document until it reaches the end of the document. If you want the entire document spell-checked, you have to place the insertion point at the beginning of the document, or select the first character and then invoke the Spell Checker. Figure 6.15 shows the Spell Checker finding the first suspect word in our document.

When the Spell Checker finds a word:

1. If the word is wrong, you can either write a new word into the editing pad, and then tap **Y**.

Or

Tap **Y** on one of the alternate words that the Spell Checker presents. The tapped word will replace the selected misspelled word and the Spell Checker will run off looking for its next victim.

Or

If the word is correct, you can either tell the Spell Checker to ignore the misspelled word by tapping **Y** on Ignore, or you can have the Spell Checker remember the word it found (adding it to the dictionary), by tapping **Y** on Remember.

Figure 6.15

The Spell Checker in action or the Spell Options sheet

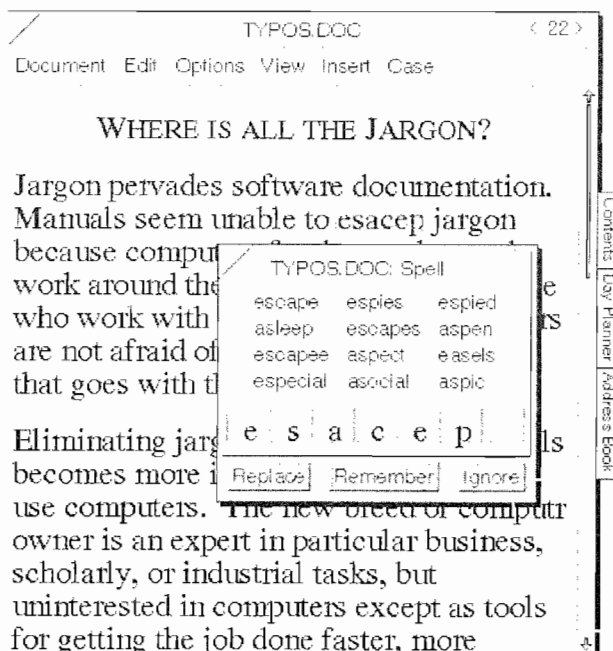
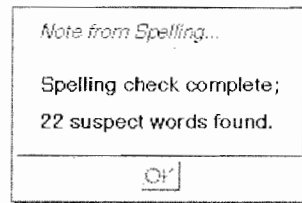


Figure 6.16

The Spell
Checker's
suspects



2. The Spell Checker will repeat this process until it has checked all of the words in your document, and then it will display a dialog sheet like the one in Figure 6.16.

There are two more things you should know about the Spell Checker. If you write a replacement word and tap **Y** on the Replace button, the Spell Checker will check your replacement word, and if the word you are checking is correctly spelled, the Spell Checker will happily run to the next suspect word. This is great if you're like me, and you kind of know how to spell a word but you're not quite sure. So you guess. Sometimes you guess correctly and other times you miss. It's nice to have a Spell Checker that will catch the misses.

Note *Here are some things to keep in mind when using Spell Checker.*

If you wish to spell-check the entire document, you can draw an S in the title bar.

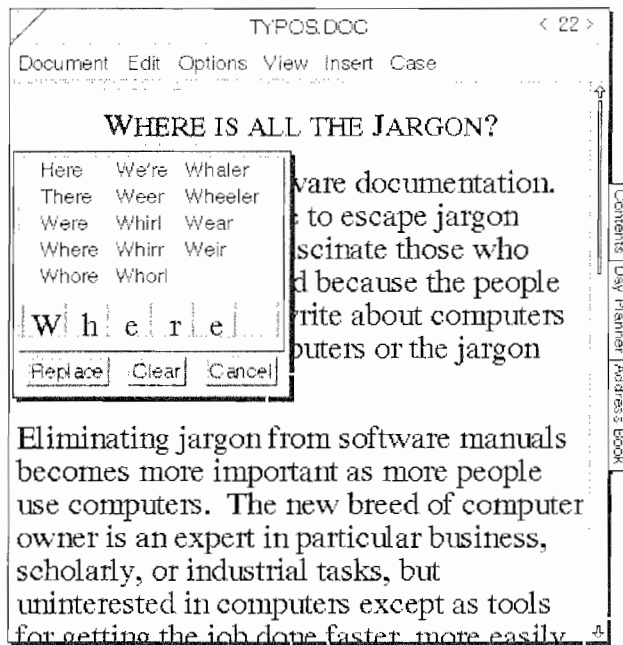
Before you start spell-checking, make sure that all embedded pads are canceled. (Tap the Cancel button in each one.) MiniText will cause spell checking to stop and find a misspelled word that is not really there whenever it encounters an embedded edit pad.

Adding words to the dictionary dramatically improves the EO's ability to correctly translate any uncommon words you may frequently use (acronyms, industry-specific or technical terms, etc.). A quick way to add to your dictionary is to write out these words in a blank MiniText document, then spell-check it and tap Remember for every word.

Proofing Your Document

Proofing is kind of like a nonjudgmental spell checker. With the Proofing tool in MiniText you can select a word, draw a **P** over the selected word, and MiniText will present you with a list of words that are similar in spelling (this is not a thesaurus or grammar checker), giving you an option of several words regardless of

Figure 6.17
The Proofer



whether or not the word is spelled correctly. Figure 6.17 shows you an example of the Proofer.

To start the Proofer:

1. Select the word you want to check by tapping **!** it.
2. Draw a **P** on top of the selected word, or choose Proof from the Edit menu.

Note *You can forget the selection process and just draw the **P** over the word that has captured your curiosity.*

In one way, the Proofer works just like the Checker. If you tap on one of the displayed words, it will replace your selected word and close (rather than moving on). However, should you write a new word and replace the selected word, the Proofer will obediently do so without questioning your choice of words. In other words, if you misspell the word the Proofer does not care and will happily replace a correctly spelled word with an incorrectly spelled word. And finally, if you press the Clear button, the Proofer does exactly that, it clears the selected text. You can then either write a new word or tap **!** the Replace button and replace the word with nothing. (This deletes the word.)

Navigating through the Document

The navigation gestures described in Chapters 2 and 3 all work in MiniText. If you want to get to the bottom of the document quickly you can use the Scroll Margin and drag the bar to the bottom, or you can gesture a double flick up \parallel and jump to the bottom of your document. Because MiniText uses an editing pad for changing text, you do not need to worry about inserting characters. If you make a mistake the worst that will happen is that MiniText will misinterpret your gesture and present you with an Option or Dialog sheet you did not mean to request, or the EO will present you with its "expletive deleted"—the starburst or the question mark starburst.

Line-by-Line Editing

Now that all of the words in our document are spelled correctly and you are using the font you want, it is time to look at all of the wonderful editing gestures you can use. First, we are going to be concerned with adding text to the document, and then we'll look at editing existing text. However, before actually editing the text MiniText provides a Display option that you might want to use called Show Special Characters.

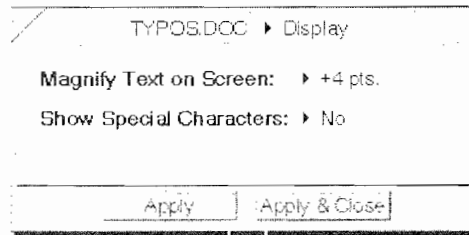
Note *You can always access the items in the Options menu (in any application) by drawing a check mark \checkmark on the page or item for which you want to see the available options. When the Options sheet opens you can select other Options menu items by tapping ! on the arrow next to the title of the document or the name of the item you gestured the check mark on, and you will see a pop-up list of the menu items. Another way to navigate through the available Options menu items is to draw a flick left — on the option name to select the menu item down or a flick right — for the next menu item above the one displayed. (You can always tell an experienced PenPoint user by whether or not they use this feature.)*

To display special characters in your text:

1. Tap ! on the Options menu.
2. Select the Display selection, and you will see a new menu (see Fig. 6.18).
3. Tap ! on the arrow next to Show Special Characters so that it reads "Yes," and then select Apply & Close.

Figure 6.18

The Display options



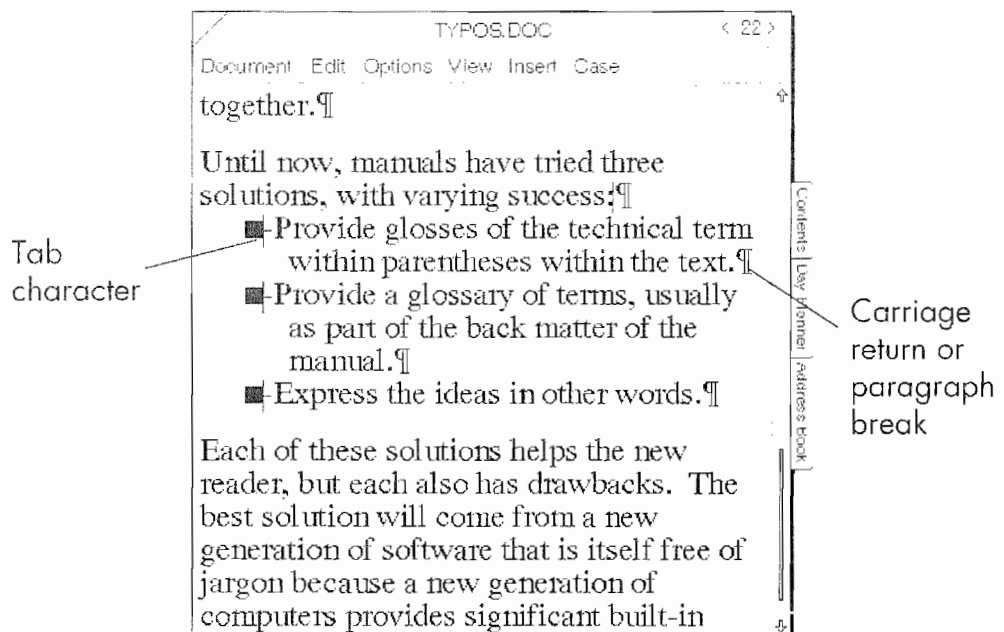
The Show Special Character option displays some characters that are normally invisible. The characters you will see most often are the Tab and the Return characters. I prefer to have these characters on all the time, even on computers, so I welcomed this option on the EO. Where I find it useful is when I perform functions like inserting a line, or setting up tabs. Maybe I'm weird. I just like to see everything. Figure 6.19 shows our document with invisible characters displayed.

With the EO, since you will often be using it without a keyboard, you might find seeing these characters useful. But, we digress. This section is about editing our document. So let's move on.

To insert text you have to select where you're going to place the new entry. Once you know where, you can either gesture your way to a pop-up editing pad or use the Insert menu and select a pop-up pad or an embedded pad. What you choose depends entirely on

Figure 6.19

Hidden characters in our documents



your preferences, though you will probably choose a pop-up editing pad unless you are going to write more than a sentence or two.

To get a pop-up pad:

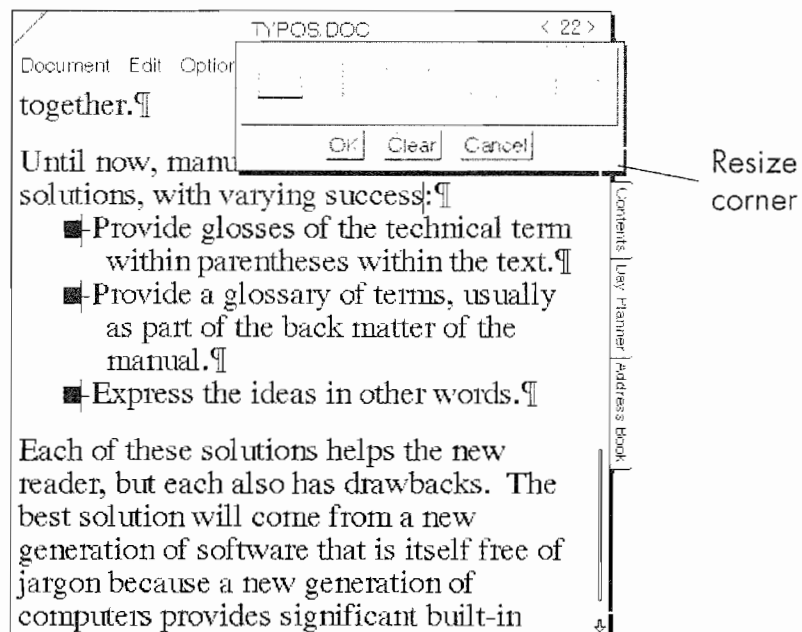
1. Select it from under the Insert menu or gesture a caret \wedge where you want the text to appear. A pop-up editing pad like the one in Figure 6.20 will appear.

In Figure 6.20, note the insertion point's position. Anything you write and insert will go before the ":" so you will either have to place a new colon and delete the old one or cancel the edit and start over. I would just insert a new colon and continue. I find it quicker to delete the unwanted colon than canceling, repositioning the cursor, and opening another editing pad.

The next step would be to reposition the editing pad and expand its size. To move the editing pad, use the pen and press \perp anywhere on the border except in the resize corner. The pad will look like it has been pressed: the border will become slightly darker (unfortunately, a picture would not really show this change), indicating that you can move the pad. Then drag the pen, and the pad will follow the pen.

Figure 6.20

The pop-up editing pad



After you have repositioned the pad, you will probably want to increase its size. Do this by pressing \downarrow on the resize corner and dragging the corner down and to the right to make it larger. If you are using a ruled or boxed pad with small boxes, you can make the editing pad large enough for a long sentence or a couple of short ones. Figure 6.21 shows an expanded editing pad.

The first box has a dark line in it. This indicates that the first box is the currently selected box. Now that you have a decent sized pad you can write your additional text and have it inserted. In Figure 6.22 below you will notice the text that was written and inserted is selected. You should notice the following things about this insertion:

1. It was all written in a single editing pad.
2. There is still an excess colon.
3. Both sentences need to be reformatted so they look like the ones with square bullets.
4. The two new sentences need square bullets to be placed in front of them.
5. The sentence preceding the list needs the three changed to five.

Figure 6.21
The editing
pad expanded

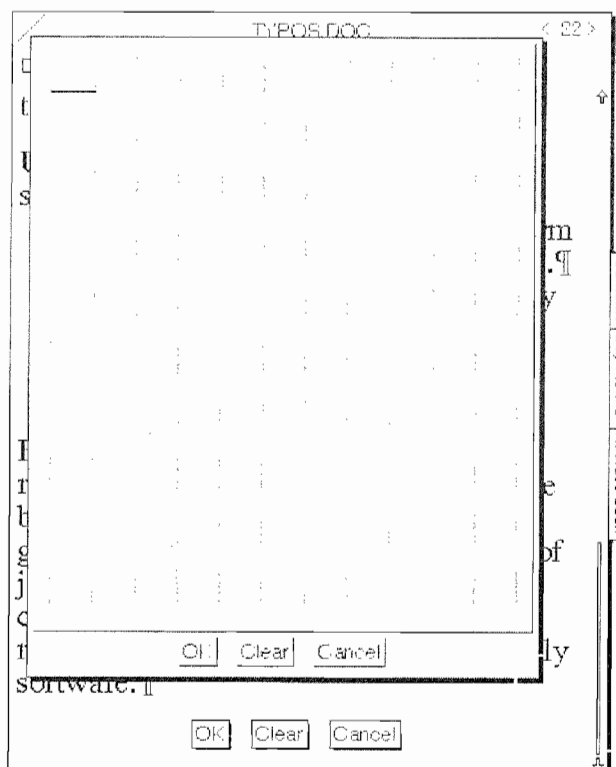
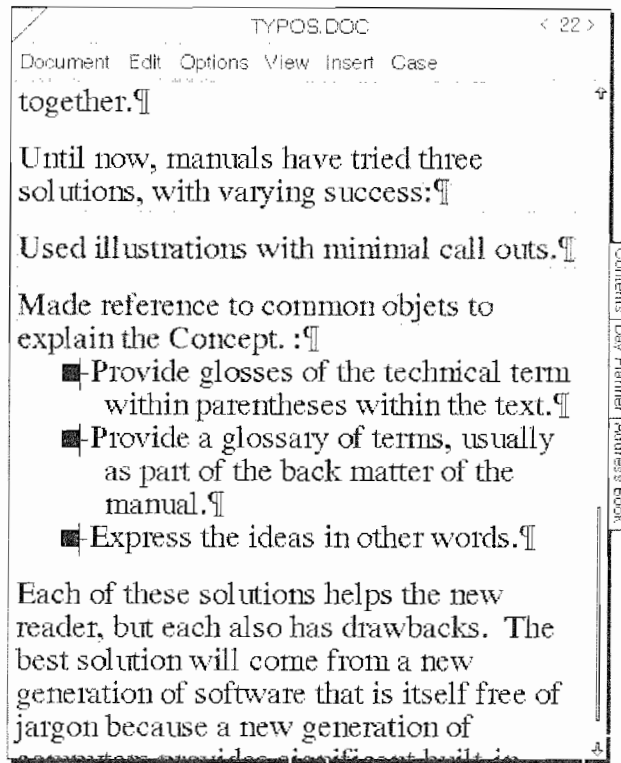


Figure 6.22
The document
with inserted
text



6. In the text of the sentence next to the first bullet “glosses” need to be changed to “glossaries.”

By taking care of these five points we will have covered almost all aspects of editing this document with MiniText. We will take each item step by step to finish our editing job.

There Is Still an Excess Colon:

Getting rid of the colon is easy. Tap \forall on the colon and gesture a delete \times over the selected colon. Also, if you’re good with the pig-tail gesture \wp you can gesture a pigtail over the colon without selecting it first and that will also remove the colon.

Both Sentences Need to Be Reformatted So They Look Like the Ones with Square Bullets:

This is the most complicated task. It requires using a Paragraph options sheet and actually has two steps.

First, you need to see what options have been set for the lines with the bullets, then apply those same options to the two new sentences. To do this:

1. Select one of the sentences with a bullet (remember the triple or quadruple tap).
2. Draw a check mark ✓ over the selected sentence.
3. Select the Paragraph options from the pop-up menu next to the arrow in the options sheet Title line.

Once you have done all of this, you should see an options sheet like the one in Figure 6.23.

This is an options sheet with lots of possibilities. Each of the settings in this option sheet applies to the selected paragraph. If you want to make an entire document consistent, you can select the entire document and then change the settings and apply the changes. Let's review all of the settings options by changing our two recalcitrant sentences (which also qualify as paragraphs because they have a carriage return at the end of each sentence).

To make the two unruly sentences conform, you first have to select them. Once they are selected, draw a check mark ✓ over the selected area. Once again you will see the Paragraph options sheet.

Figure 6.23
The Paragraph options sheet

Setting	Value	Unit
Alignment:	[Left, Center, Right, Justified icons]	
Line Height:	0 . 1 6	in.
Between Lines:	0 . 0 0	in.
1st Line Offset:	- 0 . 2 8	in.
Left Margin:	0 . 6 0	in.
Right Margin:	0 . 0 0	in.
Space Before:	0 . 0 0	in.
Space After:	0 . 0 0	in.

Buttons: Apply, Apply & Close

Table 6.4 lists the preference, its current setting, the setting we want it to have, and an explanation for the setting.

Table 6.4 Setting in the Paragraph options sheet			
Setting	Old value	New Value	Explanation
Alignment	Left	Left	Determines whether the paragraph will be aligned with the text flush on the right or left, or if the text will be centered on the page.
Line Height	0.16	0.16 in.	The amount of space from the bottom of the line to the top. This is based on the font size and is automatic unless you change it manually. If your lines look too close together, try changing this setting.
Between Lines	0.00	0.00 in.	Use this setting to set the amount of space between the lines of your paragraph. Because the setting is in 100ths of an inch, you will have to do some math. If you are using a 12-point font, your setting would be .17 in. to double space the lines. The formula to calculate this setting is: $((.0139 * [\text{the font size}]) * [\text{the number of additional lines}])$. The result of this calculation will give you a number like .1668 to double-space a 12-point font. Rounded up, you have .17. This calculation is based on a point being 1/72nd of an inch, or .0139 inches.
1st Line Offset	0.00	-0.29 in.	This is the amount of space for indenting a paragraph. If the number is negative, the first line will start before the rest of the lines in a paragraph, so long as there is enough margin to accommodate the setting. Usually these settings are in inches or fractions of an inch.
Left Margin	0.00	0.60 in.	This is the amount of free space to the left of the text. This setting is in addition to the margins set by the Page Layout menu item from the Document menu.
Right Margin	0.00	0.00 in.	This is the amount of free space to the right of the text. This setting is in addition to the margins set by the Page Layout menu item from the Document menu.



(continued)

Table 6.4 Setting in the Paragraph options sheet (continued)

Setting	Old value	New Value	Explanation
Space Before	0.16	0.00 in.	This is the amount of space between the current paragraph and the one above. This setting should be set using the formula from the Between Lines setting above. To have one line between paragraphs set this setting to .17 in. if you are using a 12-point font.
Space After	0.00	0.00 in.	This is the amount of space between the current paragraph and the one below. This setting should be set using the formula from the Between Lines setting above. To have one line between paragraphs, set this setting to .17 in. if you are using a 12-point font.

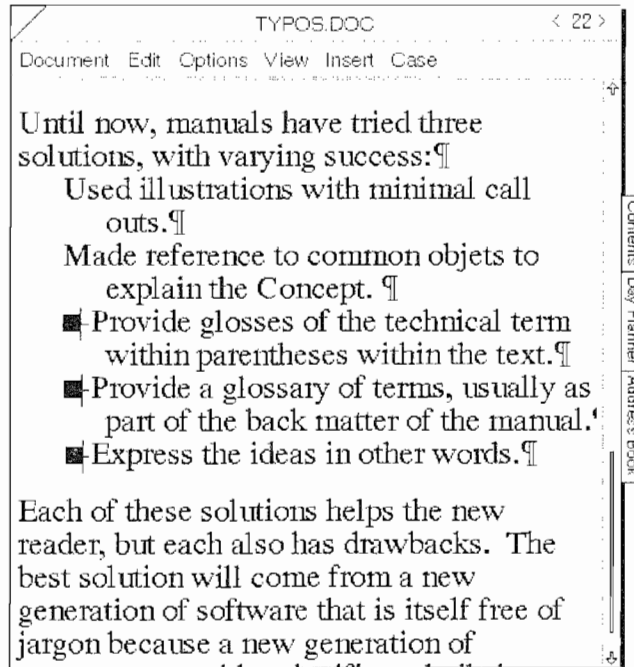
Now if I were you, I'd be wondering how on earth I am going to remember eight different settings so I can make the necessary adjustments. And if you are like me you know that you won't. Well, if you really wanted to you could memorize the settings you need and select the paragraph to change and then write them in and apply the changes. You don't have to though. There is a much easier way to change the settings for our two wayward sentences.

To change the Paragraph options:

1. Select a paragraph with the settings you want to use. (Remember a paragraph is determined by the carriage return at the end of a line.)
2. Quadruple tap  on the paragraph you want to change while the Paragraph Options sheet is still open. Quadruple tapping will select the paragraph you want to change.
3. Tap  on the Apply button. If you are finished, tap on the Apply & Close, otherwise repeat step 2 for each paragraph you want to change.

Once these changes are made, our document should look like Figure 6.24.

Figure 6.24
After fixing the sentences



The Two New Sentences Need Square Bullets to Be Placed in Front of Them:

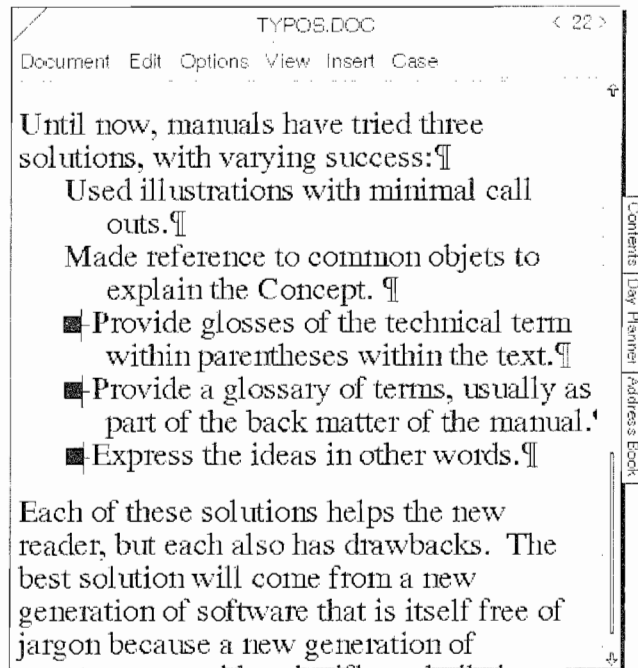
The sentences need tabs in addition to the square bullets, and the easiest way to make this change is to copy the square box and tab from the existing sentences and insert the copies in front of our increasingly obedient sentences. To copy the square box and tabs the normal tap dance will not work. You have to set the insertion point between the tab and the first letter of the paragraph by pressing **↓** between the two characters. Once the insertion point appears, drag the pen to the left until both the tab and the square box are selected.

Once they have been selected, you can tap press **↓** on the selected area to make a copy. Figure 6.25 shows the selected area with a double marquee indicating that the text has been copied.

Now all you have to do is drag the copied text and place it in front of one of the bulletless sentences. Now perform the copy and move again to take care of the other sentence. Now all of the sentences have bullets, but there is a problem with the tabs. One note of caution: when you copy the bullets and tabs MiniText automati-

Figure 6.25

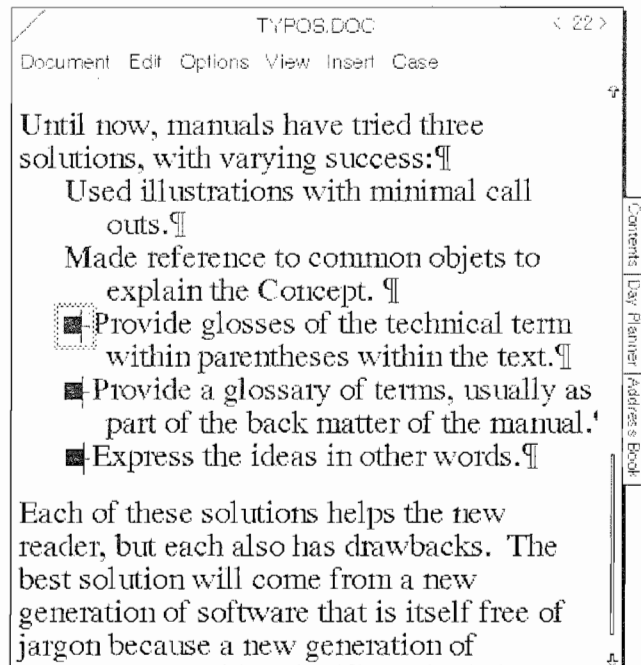
The copied
square bullet
and text



cally places a space between the tab and the first letter of the sentence. You have to delete this space. Repeat the procedures for deleting the colon above, only perform them on the space. Figure 6.26 shows the now obedient sentences and their brethren.

Figure 6.26

The now
obedient
sentences



The Sentence Preceding the List Needs the “Three” Changed to “Five.”

Now we have to change the “three” to “five.” The easiest way to do this is to select the word “three” by double tapping ! on it and drawing a circle line \ominus over the word. The circle line is similar to the circle \circ which will open an editing pad that contains the selected word or words. A circle line \ominus will open an empty editing pad. When you enter text into the empty editing pad and press the OK button, the selected text will be replaced by the text in the editing pad. So let’s just replace the word “three” with “five” using this method.

In the Text of the Sentence, Next to the First Bullet, “Glosses” Needs to Be Changed to “Glossaries.”

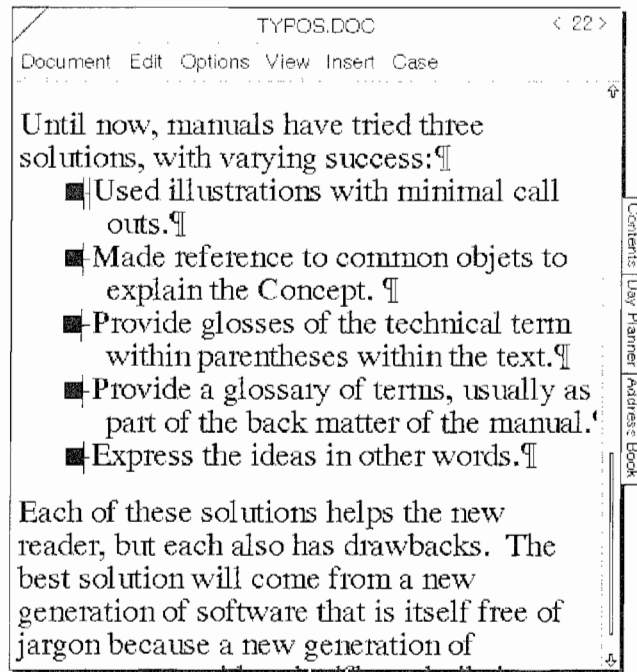
I was hoping that the Proofer would work on the word “glosses” and provide the word “glossaries” as an alternative. Unfortunately, that was not the case, so while in the Proofer I just changed the word in the Proofer’s editing pad and replaced the incorrect word. You can follow the steps where we changed “three” to “five” or you can try using the Proofer. Either method works, and if you find you are doing a lot of this type of work you’ll find even more tricks that work.

Using the Embedded Editing Pad

MiniText has an embedded editing pad. In function, it works just like a pop-up editing pad. The advantage of the embedded editing pad is that it provides a means for writing without having to repeatedly invoke a pop-up editing pad. At the end of our document is an embedded editing pad. This pad is always present on a new or newly opened (i.e., imported) document. It will remain at the bottom of the page until you dismiss it by tapping ! the Cancel button. Figure 6.27 shows the embedded editing pad.

If you remember, several lifetimes ago in this chapter we discussed the Embedded Pad as an option from the Insert menu. (You can also open the embedded pad using the caret-type gesture.) So, depending on the work you are doing, you could have more than one embedded editing pad in a document. This is nothing to be con-

Figure 6.27
The embedded
editing pad



cerned with, except that the pad will print as part of the document if you should print or fax the document without closing the pad.

Sending the Document Somewhere or Printing It

That was fun! In real time the editing job took less than ten minutes. Now you can relax. You're ready for the meeting; all you have to do is print the document. So rather than waiting until you arrive at the office, you decide to print it while you are on the train. At the same time, you decide that your boss' boss should see the document (just to make sure everyone is properly informed). So you're also going to fax it to the Big Chief before you get to the office.

First, let's talk about faxing the document (this assumes that your EO has a modem). If you have the Cellular Phone attachment you can fax the document at any time.

To fax a document:

1. Close the embedded pad.
2. From the Document menu select the Send item, and from the Send item select GO Fax (see Fig. 6.28).

Figure 6.28

The GO Fax cover page

3. A fax cover page will pop up so you can write a quick note in the memo section.
4. Tap the TO button and select the fax number for the Big Chief (from the Perspective Address Book).
5. Tap the Send button.

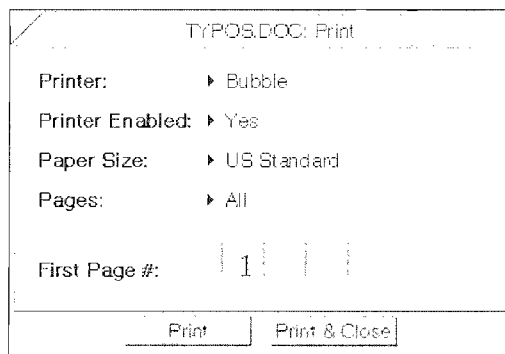
Once the Send button is tapped, the EO will either store your fax in the Outbox or send it immediately (if you have the Cellular option). If the fax is stored in your Outbox, you will have to wait until you get to the office and connect your EO to a phone line to send the document. (More complete instructions for faxing can be found in Chapter 9.)

To print your document before you get to work, select the Print item from the Document menu and select the printer in your office at work. The EO will print your document and store the printed document in your Outbox until you get to work and attach the printer. Figure 6.29 shows the Print options sheet that you use for controlling your printed output.

Note *The Print menu will be grayed out if you have not set up a printer for use. Refer to Chapter 7 for instructions on how to do this.*

Figure 6.29

The Print options sheet



In the Print options sheet you have several choices to make. The following list discusses each option. The options you have for printing can vary from program to program, so the choices you have in MiniText can be different from those in other applications.

Printer It is possible to use different printers and printer definition files. If you use more than one printer, you will have to select the correct printer by tapping \blacktriangleright on the arrow next to the printer name. (Remember, the flick left or right — or — gestures will also work.)

Printer Enabled The printer enabled switch (either Yes or No) determines whether or not the EO immediately starts printing when you press the Print button. If you are not connected to a printer at the moment you print, this switch does not have much effect. Either way the printed document will be stored in your Outbox. If, however, you are attached to a printer and you have several documents to print, you should try setting the enabled switch to “No” for everything you want to print except the last document. When you print the last document enable the printer. This will cause the printer to start printing when you press the Print button and the EO will then print everything waiting in the Outbox. Go to lunch.

If you do not disable the printer and you are not connected to a printer, your document will patiently wait in the Outbox until you attach a printer. If everything goes right, you can walk in the office, plug in the printer, and turn on your EO so that while you get the first cup, can, or glass of your morning office beverage your EO will merrily print your documents.

Paper Size The Paper size tells the EO the paper size you are going to print on. You can choose Standard (8.5 X 11), Legal (8.5 X

14), A4 (A European standard), or you can enter the dimensions for your special custom memo pads (or any other size your printer will use). Be sure you select the correct size, otherwise you will have to print the document again.

Pages With the Pages setting you tell the EO which pages of your document to print. You can print all of the pages, a specific page, or a page range. To print a single page enter the page number of the page you want to print in both the starting and ending page number boxes (see Fig. 6.30). To print a range of pages, enter the number of the first page and the last page.

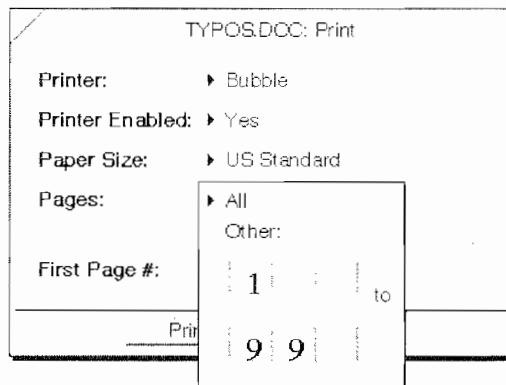
First Page # Use this option to set the first page's number. Usually it will be one. But on occasions you may want to use zero because you're printing a cover page and cover pages don't count as real pages. Another reason for using a different first page number might be if your document is actually part of two documents, and the first page of the second document needs to be page number 50 so everything can stay in order. Any other use for the first page number goes beyond the scope of this chapter, that is, it's too weird for me.

So much for printing. Once you have set you printing parameters you're off and running. If you need more information on printing, look in Chapter 3.

Find and Find-and-Replace

When working on a document it is often desirable to having the ability to find a word or words that are lost. On other occasions you will also want to find a word or phrase and automatically

Figure 6.30
The Printer options page range choices



change the occurrence of the word into something else. I use the Find command quite a bit because I'm easily lost. The Find and Replace is something I rarely use, but when I do need to use the Find and Replace, it is a feature I would not want to be without.

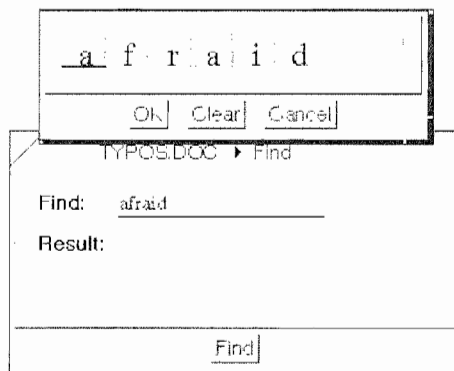
The Find feature in MiniText is very straightforward. Of course you must utter the magic words and then invoke the command from the Edit menu, or draw an F anywhere in the document. The Find command will start from the insertion point or the current selection and move to the end of the document. To search the entire document, you should select the first letter in your document and then start the Find, or draw an F in the Title line. Figure 6.31 shows the Find options sheet.


When the Find options sheet opens, the Find line is blank. You can write directly on the line or you can use the editing gestures used in with MiniText. You can also copy a word from the text (use the tap press ↓ gesture) and drag the word onto the Find line. When you tap ✓ on the Find button the word you are searching for will be selected and the Find options sheet will tell you the word was found in the Results line. The other message you will see in the Results line is "Reached end." The "Reached end" means that your entire document was searched and the word or character you were searching for was not found.

You should experiment with the Find feature because you can open other options sheets (such as the Character or Paragraph options sheet) and use the Find command to search for a word, and then when the word is found and selected, make changes using the options sheet. This can be a fast way to make formatting changes.

Figure 6.31

The Find options sheet with editing pad



The Find and Replace options sheet is selected after you have opened the Find options sheet by flicking left or right — or — on the word “Find” in the Options sheet’s Title line, or by tapping  on the arrow next to the word “Find” and selecting “Find & Replace” from the pop-up menu. The Find & Replace options sheet looks like Figure 6.32.

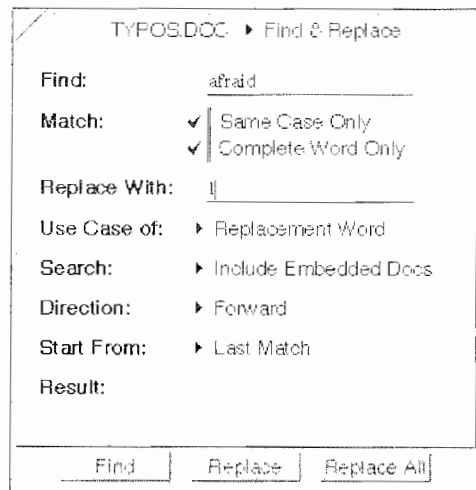
In the Find & Replace options sheet you have several choices. Everything above that applies to the Find options sheet applies to the Find & Replace options sheet. The additional choices you have are as follows:

Match Specifies whether the search should be case-specific and whether you are looking for a whole word or a partial word. An example of a partial word would be looking for the word “one.” If you select “Complete Word Only” your search will skip words like “someone,” and if you specify “Same Case Only” the word “One” will also be skipped during the search.

Replace With Here you specify what should be used to replace the found word. If you leave the line blank, the found word will be replaced with nothing; the word will be deleted. By copying a character like a Paragraph break (carriage return) or a tab you can also replace the found character with a tab or paragraph break. (These are also called *control characters*.)

Use Case Of When you perform a replace you can choose to use the case of the word you have found or the case of your replacement word.



Figure 6.32
The Find & Replace options sheet



Search Use the Search option to search only the current document, or to search the current document and all embedded documents.

Direction With this command you can search from the current word and go backwards or forwards in the document.

Start From This command lets you start from the beginning of the document, the last word found, or the end of the document. So if you started from the end of the document and performed a backward search, you would search the entire document. If you choose to search forward from the end of the document, you will find nothing.

Once you have found the text you are looking for, you can choose to replace it by tapping  on the Replace button, find the next occurrence of the word or text by tapping  the Find button, or choose Replace All. If you choose Replace All, all occurrences of the word specified on the Find line will be replaced with whatever is in the Replace With line and you will be asked no questions.

This means that you should be careful. Whenever you do a search and replace manually, replace the first few finds to make sure your options have all been set correctly and that the replacement is happening the way you want it. Otherwise, you could end up making a mess of your document and might not be able to fix the replacements.

The Missing MiniText Features

Unfortunately, it was not possible to cover all of MiniText's features with the example. Table 6.5 will quickly cover them by listing the Menu, menu item, and the missing feature.

For more information on the PenPoint editing gestures see Chapter 3. Also, all of the editing gestures in MiniText usually work in any application on your EO.

Table 6.5 MiniText's features

Menu	Menu Item	Description
Document	Checkpoint	This is a standard PenPoint menu item that causes changes to a document to be saved. You should use this option, especially if you use the Accelerated Access option. The EO will not automatically save any changes until you turn to a different page.
	Revert	When you choose Revert, your document will be reopened using the last checkpoint as the source document.
	About	Provides a Dialog sheet that gives you the created and last modified date and time, plus the file size while stored and its active size while the page is open.
Edit	Move	Prepares selected item for moving, same as the press \downarrow gesture.
	Copy	Prepares selected item for copying, same as the tap press \downarrow gesture.
	Delete	Deletes selected item; same as the delete gesture \times .
	Edit	Causes the selected text to appear in an editing pad; same as the circle \circ gesture.
Options	Tab Stops	This option sets your tab distances. The default setting for the Tab Stops Options sheet is for Tab Stop 1 to be .5 inches and Tab Stop 2 to be 1 inch.
	Controls	A PenPoint menu to set the page controls (see Chapter 3).
	Access	A PenPoint menu to set the access controls (see Chapter 3).
	Comments	Lets you attach a comment to your document, assign an author, and change the title.
Insert	Space	Inserts a space at the insertion point; same as the insert space $_$ gesture.
	Tab	Inserts a tab at the insertion point; same as the insert tab $_$ gesture.
	Line Break	Inserts a line break at the insertion point; same as the new line $_$ gesture. This command does not start a new paragraph, just a new line.
	Page Break	Inserts a page break at the insertion point. A page break causes any text after the break to be printed on a new page.
	Paragraph Break	Inserts a paragraph break at the insertion point; same as the new paragraph $_$ gesture. This command starts a new paragraph.

(continued)

Table 6.5 MiniText's features (continued)

Menu	Menu Item	Description
Insert	Signature Pad	Inserts a signature pad that you can use to draw on or use for a signature.
Case	Upper Case	Converts the selected text to upper-case characters, same as the upper-case \uparrow gesture.
	Lower Case	Converts the selected text to lower-case characters, same as the lower-case \downarrow gesture.
	Initial Capitals	Converts the selected text so the first letter of each word is upper-case; same as the initial caps \uparrow gesture.

MiniNote

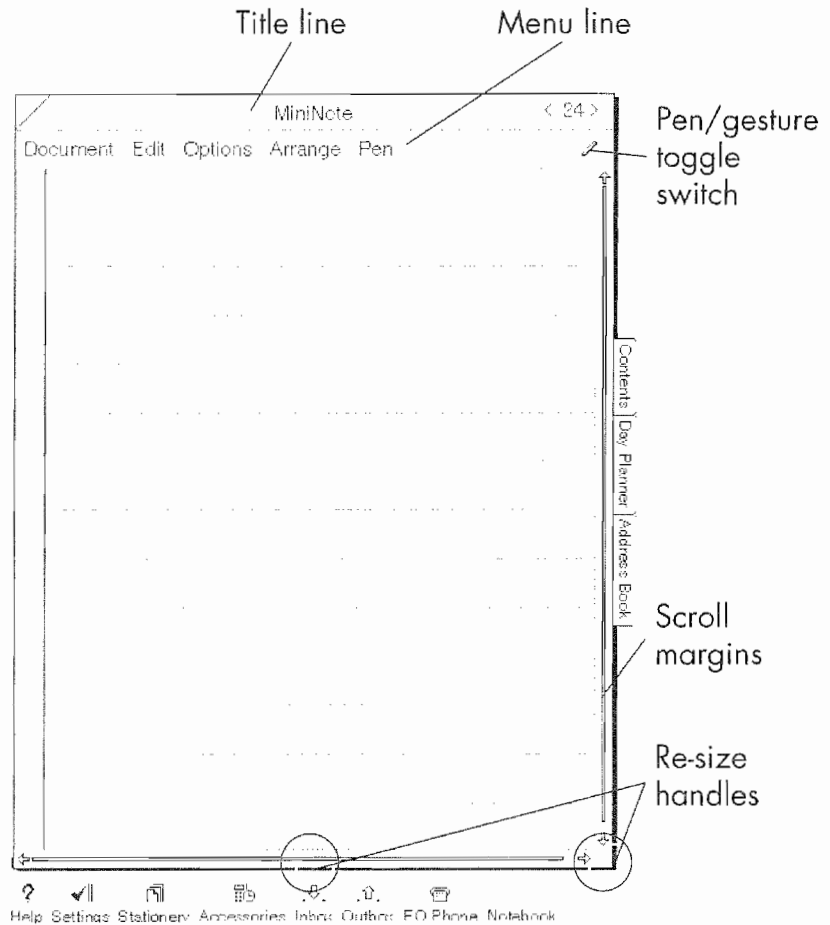
MiniNote is the EO's note-taking software. The uses for MiniNote are limited only by your imagination. You can use it to take notes while on the phone, in a meeting, at class, or in any situation where you might use a pad of paper and pen. You can convert what you write to text, and you can also doodle on your MiniNote pages.

Just as MiniText is designed using text priority, MiniNote is designed to use ink. This means that there is a big difference between the two programs. Everything you do with MiniNote starts as ink. Whether it remains ink is up to you. But, before we get into the particulars we should get familiar with a MiniNote page. Figure 6.33 shows a blank MiniNote page.

There are several important differences to note on a MiniNote page. First of all, if the page is in Pen mode, indicated by the Pen/Gesture toggle switch in the page's right-hand corner; you cannot use PenPoint gestures on the page. If you draw a flick up \uparrow or flick down \downarrow on a page in Ink mode you will only be drawing lines on the page. The same applies to any other gesture as well. For this reason, MiniNote has a Gestures margin on the left-hand side of the page. When using MiniNote you should really use the Gesture margin. It is much faster than switching to and from ink.

When you tap \checkmark on the pen it changes to a check mark, which means you can gesture directly on the page. You can use almost all

Figure 6.33
A MiniNote page



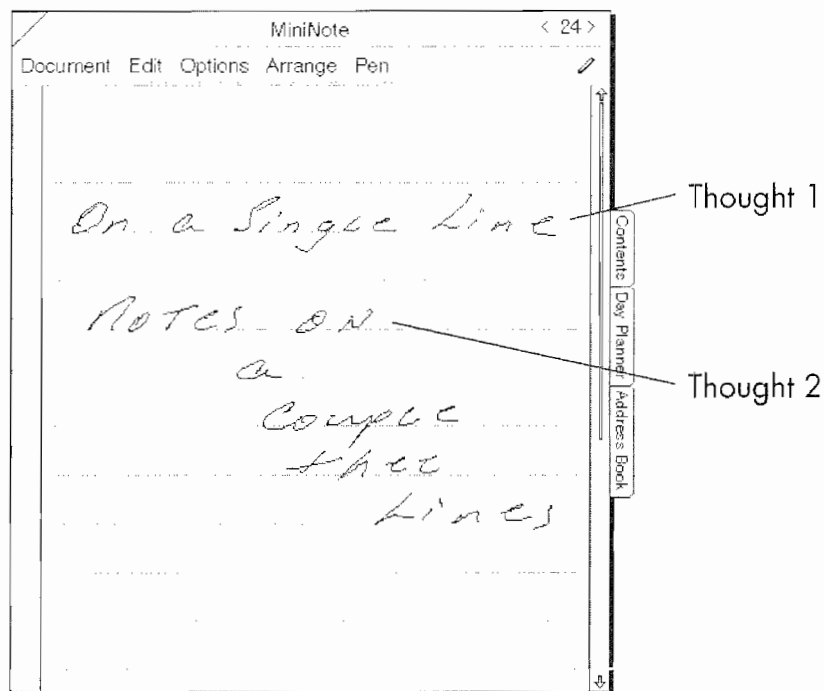
of the same gestures in MiniNote as in MiniText. There are a few exceptions which will be noted as we move along.

How MiniNote Functions

When you work on a MiniNote page it is important to remember that MiniNote uses lines. If you write a phone number and name that you will want to translate to text it will be much easier to translate your writing if you write your notes in lines across the page, keeping what you write in some type of order. Figure 6.34 shows a page with a thought on a single line and another spread over several lines. The lines in a MiniNote document share the same characteristics as a ruled editing pad. (See Chapter 4 for information on ruled editing pads.)

If you want to translate the thoughts to text, thought one will be much easier to translate than thought two. To translate thought

Figure 6.34
Inane thoughts
on a page



one, all you have to do is gesture a circle in the gesture margin next to the line containing the writing. Doing so will cause a pop-up editing pad to appear with my translated text in the pad (see Fig. 6.35).

You can see that the EO did not like a lot of what I wrote. But you can quickly edit the text and it will be placed in the document after you edit it. After the changes are made the document will look like Figure 6.36.

Figure 6.35
The editing
pad for
thought one

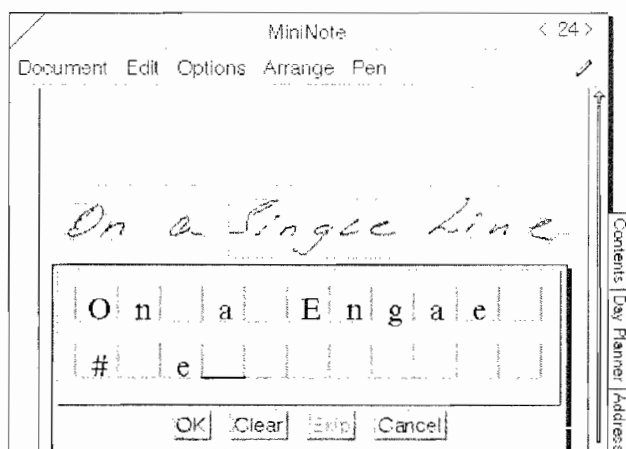
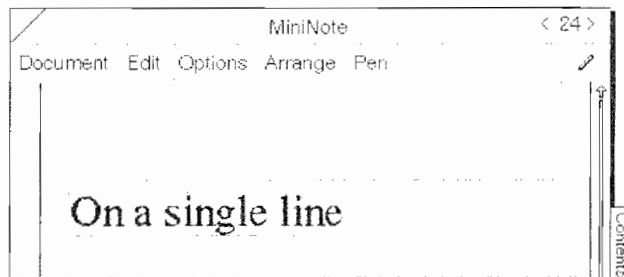






Figure 6.36



After the edit



This is a quick and easy process. Thought two, however, will not be so easy. To select all of the text for thought two you have to tap  next to the first line of text. If you draw a circle  instead of a tap  a pop-up editing pad appears. This would be okay, but if you want to edit all of the text and not just a single line you will need to select the other lines as well.

To include the other lines in the selection you can use a combination of two methods. However, before continuing with the selection process you need to know how MiniNote processes selected text for editing. As stated above, MiniNote operates on a line-by-line basis. When you select several lines for translation and editing, MiniNote combines all of the writing from a single line and presents it in an editing pad (see Fig. 6.36). After the current line is edited and you tap  on the OK button, another editing pad will appear with the next line of selected writing translated, ready for editing.

You can either skip the edit, which will cause the selected line to be ignored and the next selected line to appear in a pad, or you can edit the line and go on. Unless you cancel the translation operation, MiniText will process all of the selected writing line by line. Now, how do you select more than one line of writing?

Well, you can use the Edit menu and choose the Select All option. This will select everything in the MiniNote document—translated text, writing, doodles, and pictures (if you drew any)—or you can tap  next to the line with the text you want to translate and select the line. To select additional lines you can gesture a plus  next to the lines you want to select and add them to the selection. When using the plus you can select any line you wish, skipping any lines you do not want to translate. This is called a discontinuous selection.

The other selection method is to gesture a left bracket [or a right bracket] in the Gesture margin next to the first or last line you want included. The left bracket [should be used with text below the initial selection. Using this gesture will select everything between the initial selection and the line where the left bracket [is drawn. The right bracket] should be used to select lines above the initial selection. You can also use the plus + gesture with either bracket gesture.

After you have selected the writing you want to select, you can also use the plus + to deselect text as well. This is useful when you have doodled on a page and have writing you want to translate. You can use the brackets to select your text and then use the plus + directly on any selected writing (doodling) that you do not want to translate. This method of selection will result in translated or translated and edited text in place of your selected writing, while leaving your doodles and pictures in place.

To translate the selected text you can draw a circle ○ in the Gesture margin next to any of the selected writing to translate the writing with a pop-up editing pad. If your writing is very clear and you do not want to edit the translated text you can translate the writing without using an editing pad by gesturing a circle tap ◉ in the margin or on the selected writing.

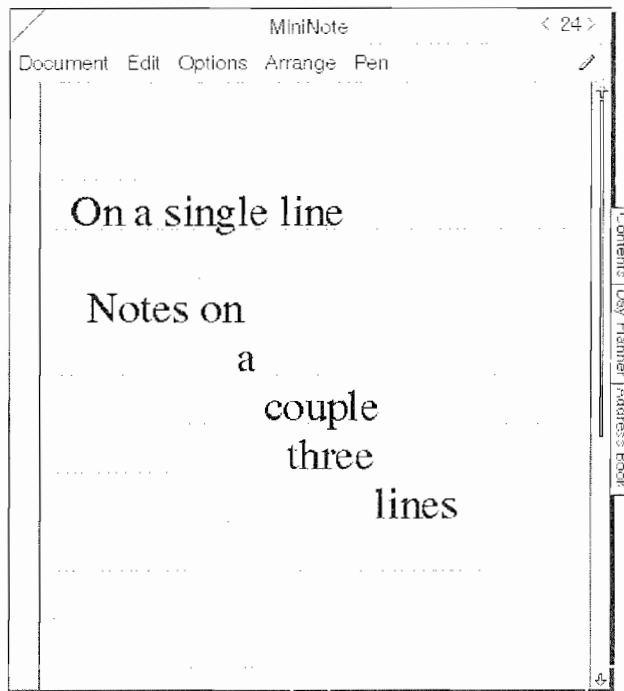
Note *When using MiniNote, remember that you can always perform a gesture on selected writing even if you are in the Pen mode. Any gestures performed directly on a page while in the Pen mode can only be performed on selected writing. Otherwise you have to use the Gesture margin or the Edit menu to execute your commands.*

Now that the tirade is over, let's see the results of the translate and edit for thought two. Figure 6.37 shows these results:

In the figure you will see that words are still on the lines where they started. If you wanted to combine them into a sentence (on the same line) you would have to select a word and move it by pressing ↓ on the word and moving it to the line you wanted it on. You'd then have to repeat the process for each word, and then re-edit the line removing any extra spaces between the words. To fix thought two in Figure 6.37 would require five actions.

Figure 6.37

After
translating
thought two



Each word on a separate line was selected and moved to the main line, then the entire line was re-edited to combine all of the words into a single sentence. It is a fairly quick but somewhat tedious process. You might want to keep these steps in mind just in case you have to combine different thoughts in the future.

Note *There is another way to select writing in a MiniNote document. This feature is especially useful for selecting and moving drawings that have several lines. Each line is a separate entity and can be selected and moved. There will be times when you want to select several lines all at once. Of course you can use the methods described, but you can also put MiniText into Gesture mode and press the Pen below the area you want to select. Then drag the Pen diagonally upward. As you drag the Pen, a marquee will appear and any writing or drawing that is touched or enclosed by the border of the marquee will be selected.*

Setting Your Preferences

Just like all EO pages, you can set preferences for MiniNote documents. After you have played with MiniNote a bit you will probably want to create a MiniNote document that has the preferences you want to use most of the time and place it in your Stationery

Notebook so you can access it whenever you create a document. The primary preferences are page and pen options.

The page options are called Paper options in MiniNote. To check or change these options you can either select the Paper item under the Options menu by tapping $\mathbf{!}$ on the Options menu and then the Paper item, or you can gesture a check mark \checkmark in the Menu and Title lines. The Paper options page looks like Figure 6.38.

The other options in the MiniNote's Option menu are PenPoint options, which are discussed in Chapter 3.

Within the Paper options sheet you have the following choices:

Page Style The page style determines how the page will look. You have eight choices.

Font With this option you select the font you want to use. You can use any font installed on your EO. The font selection affects all text in a MiniNote document.

Line Spacing Line spacing determines how tall your lines will be. It also sets the font size. Be sure to choose a line size that is comfortable for your writing style.

Paper Width The Paper Width is how you set the width of your paper. You can choose to use the default width, which is 3.75 inches, or enter a width more to your liking. Another alternative is to use the same width as you've selected in the Print Setup (a selection in Document menu). Or you can set the width to equal the page's display; this change will take effect at the moment you apply the option. Figure 6.39 shows the Paper Width options in MiniNote.

Figure 6.38

The Paper options sheet

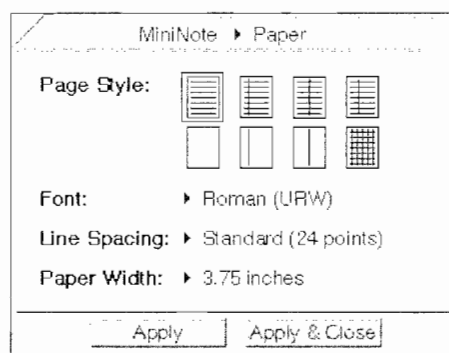
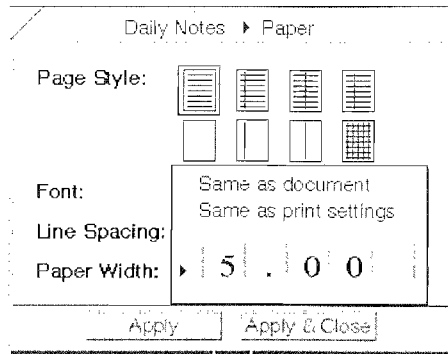


Figure 6.39
The Paper Width options



You might want to create MiniNote documents for different functions where each requires different Page options and place them in your Stationery Notebook. This way you can make them available at any time you create a document and you will not have to reset your Page options.

Another note about the paper options has to do with the paper width. You can change the paper width of any MiniText document at any time. However, if you make the width smaller and have writing outside the area you selected, you will not be able to access the writing until you restore the width to its original setting. If you do change the width, you will get a dialog sheet telling you about the problem.

Pen Options

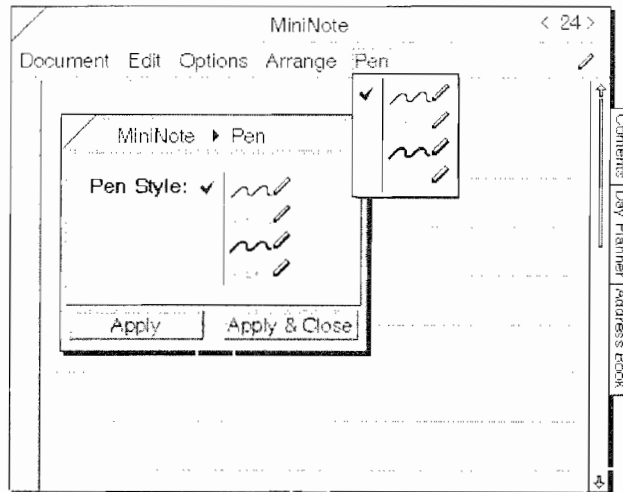
The next selection in the Options menu is for Pen options. The Pen options are for setting the type of ink and the width of ink flow. You have four settings to choose from and they are the same as those found under the Pen menu. Figure 6.40 shows both the Pen options sheet and the Pen menu.

You have the choice of two pen widths and two pen colors. The lighter pen colors can be used to highlight writing that was done in darker ink, or you can use the different pen settings for drawing images. You can also change the ink you use after something has been written.

To change the ink of existing writing select the writing you want to change, then while it is selected use the Pen menu and choose the type of ink you want. This will change the ink of the selected

Figure 6.40

The Pen options



writing to whatever you select from the Pen menu. You can also achieve the same results using the Pen options sheet.

Note Before faxing a MiniNote document to someone, it helps to make the pen ink fatter by choosing *Select All* and setting the Pen to the thick, black ink. (This will redraw quite slowly, so it's a good idea to do it last.) If you don't do this, the ink is often too skinny to fax well.

It's a MiniNote Day

Beginning the Day

You arrive at work ready to go. You've edited your document for the 8:15 meeting on the way to the office and you've just sat down at your desk. You connect your EO to the printer and the fax line and go off in search of some type of morning beverage. It's 8:00.

You come back to your desk, beverage in hand, and review your meeting document. It's okay. So you pick up your EO, create a MiniNote document, and start your daily log. It is 8:05.

The first thing you do after creating your Daily Notes MiniNote document is insert the date and time (see Fig. 6.41). While the caret ^ gesture will open an editing pad in most programs, in MiniNote it pops up a menu from which you can select the current date, time, or date and time. This is very convenient for date and time stamping your notes.

Using MiniNote to Keep Track of Your Schedule

One way you can employ MiniNote is to use it to keep a record of your day. It is a great way to keep track of incoming and outgoing phone calls, take notes at meetings, and down all of those things that you normally write in a spiral notebook or on legal pads. If you're like me, you could have legal pads all over your office or always be scrambling for a piece of paper to write that note. Well, the EO can definitely solve these minor problems of business life. MiniNote is one of its solutions.

Let's play pretend again. Let's pretend that it's the beginning of the day and work is beginning. (Oh yeah, just as an aside, my brother says, "They don't call 'Work,' 'Work' for nothing.") So let the day begin.

Figure 6.41

The Daily Notes

19 Jun. 1993
 08:36 Meeting notes:
 1. production
 Schedule
 2. Feb. Regilla Month
 3. Case Decision

08:41 Receipt
 - receive App. Test
 - Cover test
 - Katal to Martin

08:49 Final Meeting
 Minutes at it open

Line for chart for this

Cover in AD -
 Back by 2.

Final test 2 days
 Get from Mike
 Accelerate Mac
 Book

09:33 - Now the day

Pre-Meeting Notes

Now while you're sitting there, you write a couple of reminders for yourself about the imminent meeting. After you have these notes written you check your schedule for the rest of the day and get ready to go to the meeting. Just as you get ready to go, your phone rings. It's Ralph from production.

Logging a Phone Call

As you're talking to Ralph, you grab your EO and insert the time. You can never be too careful and you keep a record of all your phone calls. Ralph tells you that production needs the approved text and final artwork for the manual cover. You tell Ralph you'll bring it up at the editors' meeting and run off to the meeting, taking your EO with you of course.

The Meeting

You're the last one to the meeting because you had to make copies of your document. But you arrive and slip in. No one notices that you're late and you sit back to listen to Mary talk about problems she is having with an author who's behind schedule. You sympathize but really it's all rather boring.

Bored (Let's Doodle)

So you sit with your EO in your lap and doodle. . . doodle. . . doodle. . . doodle.

Key Points Discussed

The meeting progresses and Susan the Senior Editor finally asks you about your projects. You tell her all's well and present your document on manual documentation. You outline your production schedule (that's kept in Perspective), and you bring up Ralph's comments regarding the final text and cover art.

Susan says the final cover will be back from the Art Department by 2:00 and that the copy editor is finished with the manuscript. You say that you'll check it and send it to production in two days. Susan asks you to accelerate your schedule because one of your

books needs to be done before the end of the quarter, and the meeting is over. The day begins.

So. . .

Before the day begins you have used your EO to edit a document, keep notes on a meeting, and fax a document to the Big Chief. Now (if your writing is neater than mine) you can translate your notes, copy the main points (Susan's comments to you) into the mandatory memo no one will read (another MiniText template) and you're off to meet with the printer for a press check. Things could be worse, a lot worse. . .

Extra MiniNote Commands

There is one more group of commands in MiniNote in the Arrange menu that need to be discussed. These commands are for aligning and arranging your writing and working on selected items. As usual, the means for accessing the menu is to tap on the Arrange menu and select the item of choice. If nothing is selected, none of the Arrange menu items will be available. The following is a list of the Arrange menu items and a description of their function.

Tidy Rearranges selected items as neatly as possible.

Center Centers selected items on the page.

Align Left Aligns selected items so they are flush left.

Align Right Aligns selected items so they are flush right.

Group Groups all selected text so you can move all selected items at once.

Ungroup Ungroups selected items so items can be moved individually. Deselecting the selected items performs the same function.

You can also use the following gestures in MiniNote to add to its versatility:

Connect U When drawn so that one side of the U starts in one word and the other side ends on another word, this gesture will connect the two words on the same line.

Right Down | Used to insert blank lines between lines of writing. Draw the gesture in the margin to the left, starting on the line you want to move down. The line will move down for however far you draw the down stroke of the gesture.

Right Up | This gesture moves lines of writing up. It will delete the lines in between the start of the gesture and the end of the up stroke.

Last Thoughts

MiniNote is deceptive insofar as it appears to be a very simple program at first glance. As with all EO applications, there is more to it than meets the eye. To get the most from MiniNote you need to play with it. Only by trying the procedures suggested in this section will you master MiniNote. If you do not experiment, you are likely to think that there is not much to the program, and you'll under-utilize it. This is actually good advice for all of the EO applications, it's just that MiniNote is really easy to dismiss as a simple program with limited value. Think again.

EO Calc

EO Calc is a program written by EO Inc., to provide you, the busy person on the go, with a powerful calculating tool. EO Calc has all of the basic arithmetic operators as well as a set of scientific operators. EO Calc is set up using a series of columns. All calculations are performed in a vertical column.

With EO Calc you can quickly perform some fairly complicated calculations and even prepare simple reports. If you need more complex reports you can embed an EO Calc document in a Mini-Text or MiniNote document. Figure 6.42 is a quick report done in EO Calc to total some sales numbers.

The pop-up menu sheet in Figure 6.42 shows all of EO Calc's available functions. This menu is accessed by tapping in the small cell on the left of each field. You can see the word "sum" in some of these cells. These cells are called the Operator column. The column with the number is the number column.

Figure 6.42
A quick report

Sales Category	Jan.	Feb.
Shoes	50,131.00	45,152.00
Boots	25,096.00	20,863.00
Slippers	sum 10,122.00	sum 8,529.00
Total	85,349.00	74,544.00
		+ 85,349.00
Jan & Feb		159,893.00
	50,131.00	
	85,349.00	
	0.59	0.59
	25,096.00	* 100.00
	85,349.00	/ 58.74
	0.29	0.29
	10,122.00	* 100.00
	85,349.00	/ 29.40
	0.12	0.12
		* 100.00
		11.86

When there is an operator in the operator column, the operation is performed on the number column above and the number column next to the operator column. If you select the text operator, the row (one operator and number column) becomes a text field, otherwise you can only enter numbers into the columns. Figure 6.42 shows several text fields. You can also link one column to the next using the link operator. In Figure 6.42 you can identify a linked column because it is lightly shaded and has the same number as the column to the right.

Any number can be copied and pasted into another column. To copy a number, tap press \downarrow on the number you want to copy and drag it to its new location. Numbers can also be moved by using a press \downarrow gesture on the number you want to move.

If you want to change the format of the EO Calc page, you can either choose the Format item from the Options menu or gesture a check mark \checkmark on the Menu and Title lines of the EO Calc page. Your format options are as follows:

Decimals Lets you select how many decimal places to show.

Columns Sets the number of columns to display of the columns: Variable will fill the visible page, otherwise you can choose from one to nine columns.

Rows Sets the number of columns to display of the columns. Your choices are 25, 50, or 100.

Row Size Determines the height of the rows. Your choices are small, medium, or large.

Operators Sets the type of operators that will appear when you tap Ψ an operator column. The scientific setting displays the operators below the line in the selection box shown in Figure 6.42.

The operators and their definitions used by EO Calc can be found in Table C.1 of Appendix C.

EO Sound

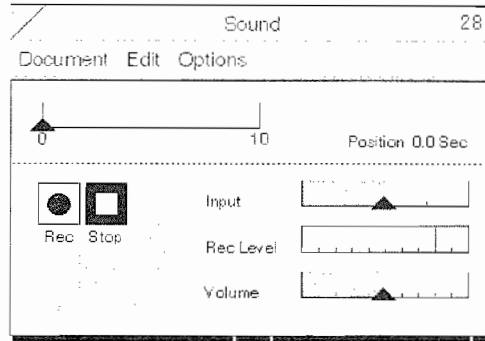
EO Sound is a built-in digital recorder. It can be used to embed voice notes into any document (so long as the document allows embedded documents). If you are sending the document to someone who has an EO Communicator the recipient of your document can listen to your voice note. This feature can add a personal touch to your communications.

Note *Your EO has a microphone built into its right ear and a speaker in the left. So when you record a message you will be speaking into the right ear of you Communicator.*

Figure 6.43 shows an EO Sound document. Since the document is an audio recording, all you will ever see with EO sound is a recorder type of device.

The EO Sound page shows the length of the recording, the input level, playback volume, the recording level, and the controls for operating the recorder. In the figure EO Sound is set to record a ten second sound note, however, the actual length of the recording can vary. The length of the recording is dependent on how much storage space your EO has and whether or not you tell EO Sound to compress the sound file.

Figure 6.43
An EO Sound page



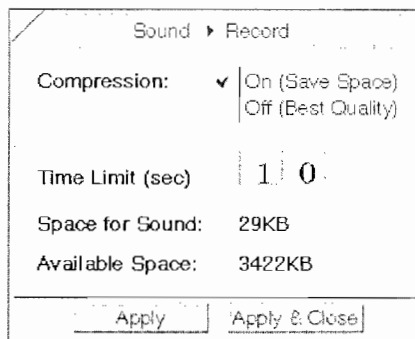
EO Sound's Options

EO Sound has recording and playing options that we'll look at before actually using EO Sound. EO Sound's options can be accessed from EO Sound's Control menu. To access either the Record or Play options sheets tap γ on the Control menu and select the Record or Play menu item. You can gesture a check mark \checkmark on the EO Sound page and tap on the arrow next to the option's name to access the pop-up menu, or you can flick left — or right — on the option's name to go from one option to the next.

First, we'll look at the recording options. Both the length of the recording and its compression are controlled from EO Sound's Record options sheet. Regardless of how you access the Record options you will receive an options sheet that looks like Figure 6.44.




You have two selectable options in the Record options sheet. The first is whether or not to use compression. If you turn compression off, your recording will use just a bit more than two and a half times the space required by a compressed document. An example would be a 34-second recording, which when compressed requires 99K (Kilobytes) of space. A recording of the same length that is uncompressed would require 265 kilobytes.

Figure 6.44
The EO Sound options sheet



An uncompressed recording results in a clearer, higher quality recording. But because it also uses more data space if you send a memo with an embedded Sound note to someone using AT&T Mail (discussed in Chapter 8), an uncompressed sound note could cost you two to three times as much to send as would a compressed sound note. So you will have to make a decision regarding the need for a very clear recording versus the cost of sending the document with the recording.

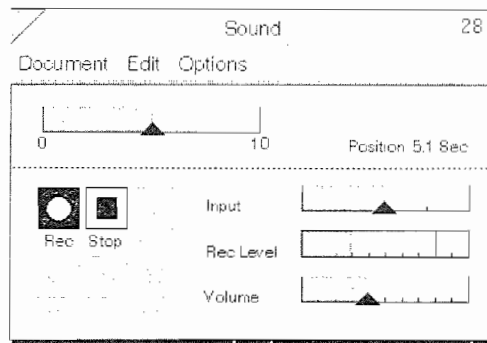
The other setting in the Record options sheet is the length of the recording. As mentioned above, the length of the recording is predicated by disk space. You will need 175K for each minute if the recording is compressed or 468K for an uncompressed recording. Usually you will use a recording that is from 10 to 30 seconds long. You'll be surprised at how much you can say in 30 seconds, and EO Sound is included so you can add emphasis or clarification to your written communications.

In the Play options sheet you have one of two choices. First, you can turn Quick Play on or off. Quick play controls how your recording will behave when it is played. Quick Play lets you play the recording by tapping  on the EO Sound icon. If you turn Quick Play Off (the default setting), when you tap  on the EO Sound icon the EO Sound page will appear rather than just playing the sound. To access the EO Sound page when Quick Play is turned on you will have to double tap  on the EO Sound icon. This setting applies only to recordings that are embedded in other types of documents.

Record and Play

To record a sound all you have to do is tap on the Record (Rec) button and speak into the right ear of your EO. While you are recording you should watch the Rec Level graph on the right. If you do not see any movement in the graph you are probably not speaking loud enough and your recording will be difficult to hear. Also if the recording level bar should jump beyond the mark that indicates the maximum level, your recording will sound like you are shouting at the recipient. Figure 6.45 shows the EO Sound page while it is recording.

Figure 6.45
EO Sound recording



As you record, the Position Gauge will move to indicate how much time or space you have left for your recording, and to the right of the position gauge you will see how long the recording is in seconds. Once you have made your recording you should play it back. If it is not loud or clear enough and you were speaking at a normal voice level you may want to increase the input level.

To play a recording you need to make sure the Position Gauge is at the beginning of the recording. If it is not, tap **⏮** the Rewind (Rew) button. You can also manually set the Position Gauge by pressing **⏴** on the gauge and dragging it to some point within the shaded area of the Position Graph. After you have either rewound or repositioned the Position Gauge tap **⏮** on the Play button. When you play a recording received from someone else you may have to adjust the volume level to hear the recording. However, if you are checking a recording you have made you should be able to hear it without resetting the volume level (unless you are in a noisy environment). You do not want the recipient of your recording to think you are shouting at them, unless that is your intent.

Another control in the EO Sound Page is Stop. This will stop a recording or a playback so you can resume your action by tapping **⏮** on either the Record or Play button. The FF button is for fast forward. This will move the position gauge forward so you can skip some portion of the recording. The fast forward can be useful if you are trying to catch a recorded phone number or other important message.

Both the fast forward and rewind will move the Position Gauge to either the beginning or the end of the recording unless you tap the **⏮** the Stop button. Finally, if you are unhappy with your recording

or you have listened to a recording and want to reclaim the space it uses, you can tap the Clear button and erase the recording. Tapping **!** on the clear button erases the recording and there is no way to recover it, so be sure you really want to erase the recording before clearing it.

Embedding Documents within Documents

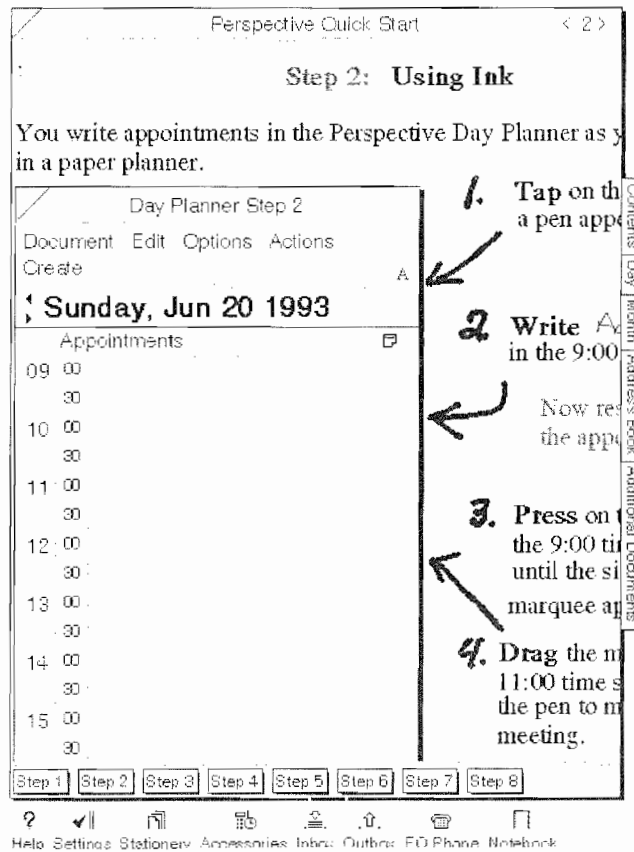
PenPoint has a feature that lets you place documents inside other documents. This function is called *embedding*. With embedding you can place an EO Calc document into a MiniText document and display calculations that are pertinent to whatever you might have written with MiniText. In the section on EO Sound, embedding a sound document in another document was mentioned as well.

Figure 6.46 shows a page from the tutorial that comes with the full version of Perspective.

The document in Figure 6.46 is a MiniNote document. However, inside this particular MiniNote document are several Perspective pages. In Figure 6.46 you can see a Perspective Day Planner page called "Day Planner Step 2." Because each document is the application, the Day Planner page is a fully operational Perspective document, just as if you had turned to a Perspective Day Planner page within a notebook. Notice that the Day Planner page in Figure 6.46 has all of the elements of a standard document.

It has a Title and Menu line, the Text/Ink toggle, and a tap and flick area for scrolling. On this document-within-a-document you can perform any of the functions that you would perform on a nonembedded Day Planner page. If you sent this page to someone who has an EO, they would be able to access this document and the embedded document with no problem as long as they had the corresponding Perspective Profile Book. (See Chapter 4 for details on Perspective.)

Figure 6.46
A page of
Perspective's
tutorial



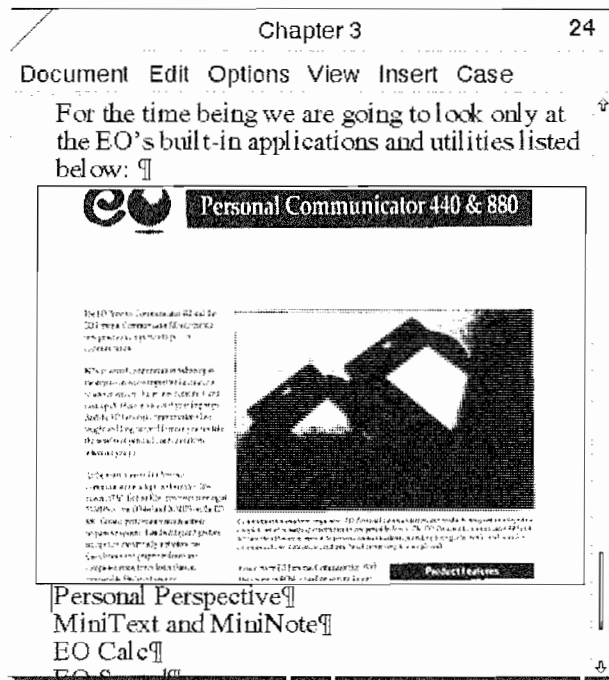
If you were to print or fax this page, all of the information on the page, including the Perspective page, would be printed. So if you wanted to send someone a fax of your schedule and you placed your Perspective Appointment schedule in a MiniNote document you could send this person all of the information plus notes on a single page. Likewise, if you had a drawing that you wanted to include in a MiniText document you could embed a MiniNote document into the MiniText document and send, print, or fax both documents as a single document.

The processes for embedding documents depends on the type of document you are working with and what you want to accomplish. Although the context is nonsensical, Figure 6.47 shows a GO Fax page embedded in a MiniText document.

In this case the GO Fax document looks like a picture. All of the controls for the GO Fax document have been hidden. Yet it is still a fully functioning GO Fax document. Hopefully, you are beginning to see the possibilities that embedding has to offer. Embedding

Figure 6.47

Go Fax
embedded in
a MiniText
document



gives you the ability to combine all of your different documents in ways that are limited only by your imagination. All of a sudden you can create custom documents that fully exploit the EO's capabilities. If you do not have a page layout program you can use a MiniNote document and insert several pages from GO Fax for pictures and MiniText for text and create a newsletter.

If you are working on a group project that requires comments from other people, calculations, drawings, and pictures you can send a document with several embedded documents to other EO users. They in turn can make changes to your document, embed MiniNote suggestions, add an EO Sound recording saying all's okay, and you could receive back a truly living document. The possibilities of this type of communication exchange give the concept of an information transaction even more meaning and open a whole world of possibilities for communicating ideas.

Brief instructions for embedding documents will be given here. For more complete information you need to read Chapter 3 on PenPoint. To embed a blank document inside another document all you have to do is gesture a double caret ⌘ on your document where you want the new document to appear. You will receive a pop-up menu of the available documents you can create and you

just select the type of document you want. It will be embedded where you gestured the double caret \wedge and you can then work on both documents.

To place an existing document into another document:

1. Go to the notebook contents page that contains the document you want to copy.
2. Tap press \downarrow on the document to be copied,
Or
Press \downarrow if you want to move the document rather than copy it.
3. Drag the copied document from the Menu or Title line.
4. Turn to the page on which you want to place the copy.
5. Drag the copied document from the Menu or Title line and place it in the document.

Controlling the appearance of the document is done by sizing the document from the embedded document's Options menu. The primary option you will use is the Controls options sheet. You can also access the Options menu items by drawing a check mark \checkmark on the embedded document. From the Controls options sheet you can set whether the Menu or Title line, the document's borders, or any other controls are shown.

Finally, you can also control appearance with gestures. All of the PenPoint gestures for controlling options will work on an embedded document. For more information on the Controls options sheet and control gestures, see Chapter 3.

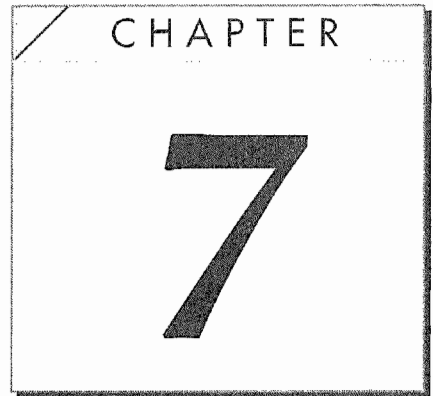
Conclusion

Like a bag of candy, this chapter is chock full of information about the EO's built-in applications. After reading this chapter you should have a fairly complete grasp on how to use MiniText, MiniNote, EO Calc, and EO sound. You have learned how to create documents and have had a brief introduction on embedding documents inside other documents.

Hopefully, you can see how an EO, with just the built in applications, offers you a tool of power that you can use to meet your communication needs and demands. If I have done a good job of communicating the use and capability of these tools you should be able to see that an information transaction can be as simple as writing and faxing a letter or as complex as creating a multi-level document for a presentation or group collaboration.

However, you will only be able to use an EO to its fullest potential if you step outside of the traditional computing metaphor that has been thrust at you for the last ten years. Even though EO allows you much flexibility in the area of personal and business communications, it can be difficult to shake the thought that it is just a computer that uses a pen. If you only think of it as a computer that uses a pen you will cheat yourself out of the advantages that the EO offers. As a computing device it can do more than portable or desktop computers with far less overhead in software.

To get or keep you thinking along these lines, just remember how difficult it would be to send your boss a copy of your daily or weekly schedule, with notes and comments, if it had to be done from a traditional computer. You might have to schedule the task itself before you could do it properly. If you did the same task from an EO it would take five to ten minutes and hardly interrupt your day. Go figure. . .



EO Connections

Introduction

In the world of computers or personal communicators there is one need that all types of devices share. They share the need to exchange data. These days, especially if you use computers for business, you have to be able to share your information (data) with other people, other types of computers, and other software packages. This need is even more essential for personal communicators.

A highly mobile device that can be used to make business presentations, keep expense accounts, and manipulate word processing documents would be crippled if it could not exchange data with its cousins. Not only does the personal communicator have to share data, it must do it easily and seamlessly. If there is a lot of fuss and frustration when transferring files, then the ability is almost useless.

The creators of the EO and PenPoint realized these facts of mobile computing life and provided the EO Personal Communicator with the ability to transfer files by directly connecting to a DOS or OS/2 computer. You can also attach an optional floppy drive to the EO, and if you have an EO 880 you can also attach an external hard drive.

Other ways you can transfer data files would be via E-mail, an external SunDisk drive, a terminal emulator and the modem, or a direct serial link. So as you can see, the EO has a wide variety of communications capabilities for transferring documents to and from other EO Personal Communicators or other computers.

When you purchase an EO you receive the means to connect your EO directly to an MS-DOS computer using a program called PenCentral and a PC connection cable. Because this is the EO's primary link to other computers, this chapter will look at using PenCentral in detail. We will discuss importing and exporting documents, backing up your data, and connecting to the MS-DOS machine via modem. Also, we'll look at some of the other topics mentioned, such as attaching disk drives to your EO and using a terminal emulator for data communications. Because the Macintosh is such a popular computer, there will be a section on sharing data with Macs as well. By the time you've finished with this chapter you will know almost everything there is to know about transferring files to and from an EO using other types of computers. (E-mail is covered in Chapter 8.)

The final topic that will be covered in this chapter is setting up your printers so you can print from the EO. Unless you tell the EO what printers you have access to, and set them up, you will not be able to print. Printing is controlled from the Connections accessory, so you'll find everything you need to set up printers in this chapter. These instructions will be in the sections on configuring PenCentral and using the Connections accessory.

Some of the information in this chapter is technical in nature. I'll try to make it clear and avoid computer jargon as much as possible. However, in writing a book about a computer it is nearly impossible to avoid jargon completely. More importantly, make sure you have a good understanding of the material in this chapter before attempting to do anything, especially if it has to do with your disk drives and the data files on the drives. It is possible to delete files your EO needs to run properly. Your EO is designed to be easy and fun to use. Deleting a critical file could change that experience to a painful and frustrating one. Although every measure has been taken to keep you from causing damage, it is not impossible. *So please, be careful.*

EO Connections Overview

As mentioned in the introduction, this chapter is about using an EO to connect to other computers, printers, and disk drives. This task can be accomplished in three different ways. One is to connect directly to another computer using PenCentral and PenTOPS; another is by using PenTOPS Modem. The third way is to use either a direct serial or modem connection using third-party terminal emulation software.

This section's purpose is to give you an overview of these EO capabilities. Because there are so many different computers in use today, this section will help you decide how you can get data from an EO Personal Communicator into your computer. This section is general in nature and will only tell you what is possible. The actual procedures will be discussed in the chapter's remaining sections.

Accessing Drives and Other Computers with an EO

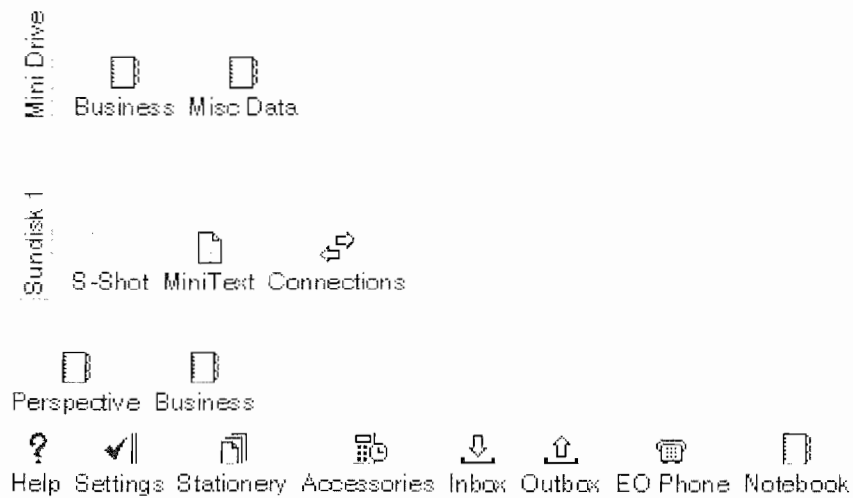
There are two ways for you to access any disk drive that has been attached to an EO. The disk is visible as a Bookshelf and you can also access it with the Connections program in the Accessories Notebook. The Connections accessory is used by the EO for accessing all disk drives, a PenCentral network server, and printers, both those that are directly attached and those networked through PenCentral.

Disks on the Bookshelf

Any drive you connect to your EO will appear with its own Bookshelf. In Figure 7.1 you will see three Bookshelves. The Bookshelf at the bottom of the screen is the Bookshelf for the EO's internal hard drive.

The middle Bookshelf is labeled "Sundisk 1" and represents a solid-state flash disk which is inserted into the EO's PCMCIA card slot. The third drive labeled "Mini Drive" is a PenCentral networked drive. The networked drive is an MS-DOS hard drive that

Figure 7.1
Three
Bookshelves



is connected to the EO, using PenTOPS on the EO and PenCentral on the MS-DOS computer. If a floppy drive was also connected to the EO it would appear as a Bookshelf just above the Bookshelf for the EO's built-in hard drive or the Sundisk drive.

If your EO does not have a hard drive, you are using a RAM-based EO. However, it will have a Bookshelf that shows all of the EO's notebooks. Everything you see on the Bookshelf is held on a RAM disk. A RAM disk works like a disk drive and is part of the EO's memory that has been devoted to the system for storing documents and programs you install. The problem with not having a hard disk is that you do not have as much storage space for your information. However, the advantage is that your EO will run a bit faster than one with a hard drive.

When you place items on the Bookshelf they will appear in a line that is parallel with the drive label (the drive's name) until the shelf is full. Then they will appear on a line above the drive label. In a sense, your Bookshelf becomes a bookcase. In Figure 7.1 you see that the first Bookshelf is full with the Perspective and Business Notebooks on the second level for the EO's hard drive. (This drive is also called the boot drive.)

The Connections Accessory

If you want to see what is on an EO's drive without looking at it from the Bookshelf, you will have to use the Connections acces-

sory. The Connections accessory is in the Accessories Notebook. Using the Connections accessory you can see and manipulate the files on an EO's drive.

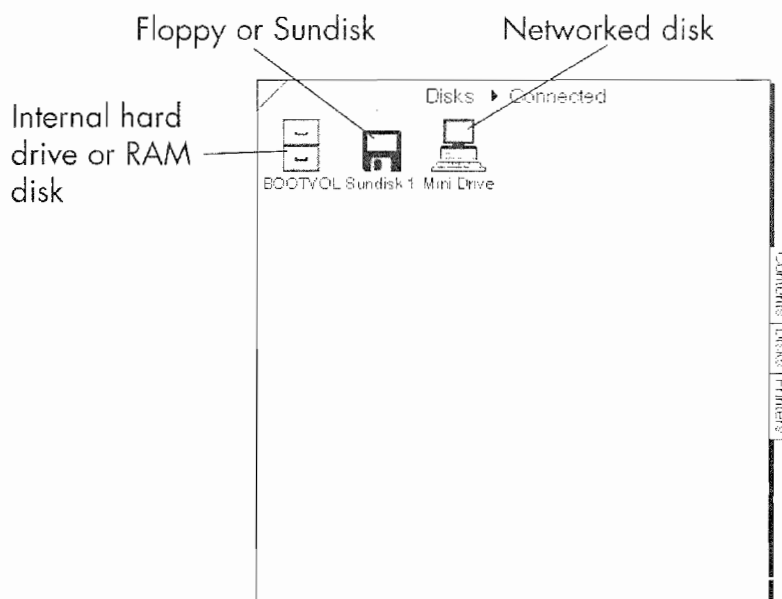
But before you go poking around on your EO's drives you need to know a few things. First of all, the EO uses an MS-DOS drive format. This means that any floppy disk you can use on your EO can also be used on a MS-DOS computer. It can also be used on a Macintosh that has what Apple calls a SuperDrive; this is a Macintosh disk drive that can read any 1.44 or high-density floppy disks. (There will be more about exchanging files with a Mac in the section called "Sharing Information with a Mac.")

Next, if you look at the drive that is running your EO, either the RAM disk or its internal hard drive, you will not be able to see any directories. (A directory is like a folder and holds data files.) You will only be able to see directories on drives other than the boot drive. This is done so you will not delete a file that might be needed to run your EO.

When you use the Connections accessory the view you will have of your drives will look like Figure 7.2.

In this view all of the drives are closed; the files they contain are not visible. Notice that all of the drives have the same names as

Figure 7.2
The EO's
drives as seen
from the
Connections
accessory



their Bookshelves. The drive Sundisk 1 is the same disk that contains the Bookshelf Sundisk 1 in Figure 7.1. The disk drive BOOTVOL is the EO's startup disk. If you are using an EO without a hard disk your boot disk will be named RamDisk.

When looking at a disk's contents on the EO you will see something that looks like Figure 7.3.

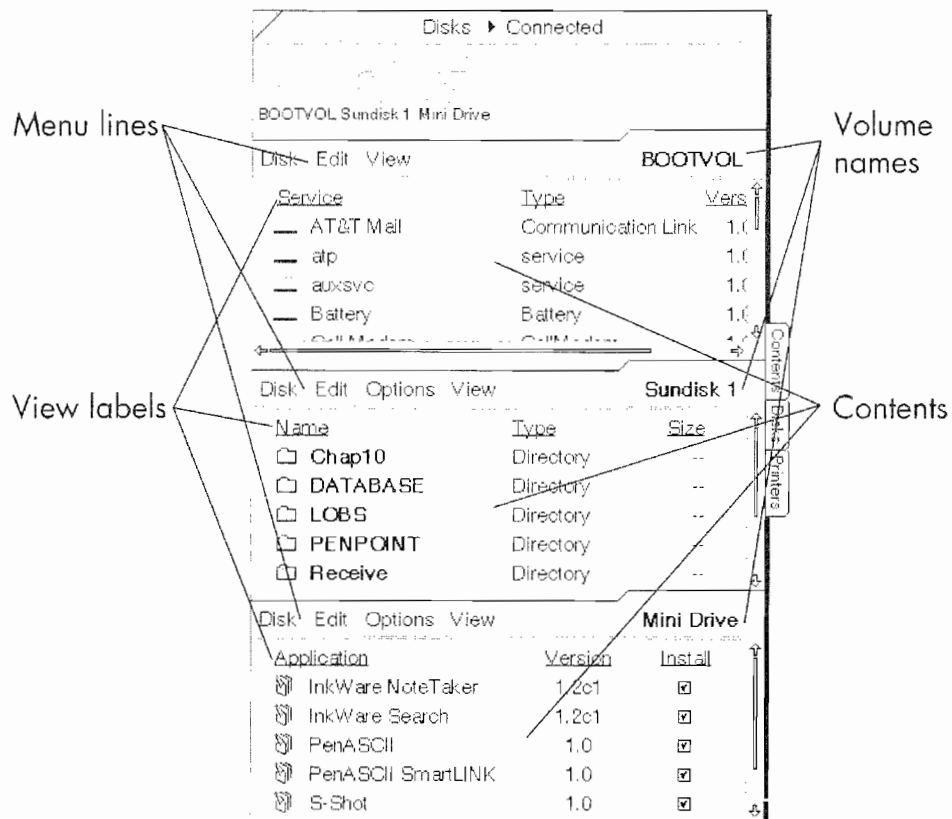
In Figure 7.3 you see different views of all three drives. When looking at a disk other than the boot drive you can set the disk's view to any of the following:

Directory You can see all of the files and directories on a disk. In Figure 7.3, Sundisk 1 is being viewed by directory. You can also create directories. If you are going to share files with another computer you will have to use this view on the disk that will go to the other computer.

Applications This view lets you see all of the PenPoint applications that are on a disk and usable by the EO. In Figure 7.3 the disk Mini Drive is set to view the applications.

Figure 7.3

Viewing the drives



Services Services are special PenPoint system utilities required by other programs. You will probably never have a need to do anything with the Services on your EO. In Figure 7.3 BOOTVOL is set to the Services view.

Handwriting Handwriting is the view you would use if you had different character recognition programs on your EO. When you first get your EO, this view will be empty because the only handwriting software on your EO is installed and in use.

Dictionaries This is the view you would use to see additional uninstalled dictionaries on your EO. Once again, this view will be empty when you first get your EO.

Fonts Here you would see any uninstalled fonts that are on your drive.

User Profiles In this view you would see any uninstalled User Profiles you may have created.

Bookshelf This view would show you the Bookshelf of the drive just as if you were looking at the Bookshelf on the EO's screen.

When you look at the boot disk, whether it is a RAM disk or a hard drive, you will not be able to access the Directory or the Bookshelf view. On any disk other than the boot disk you can use any of the views. But if you place files on the Bookshelf or use any view other than the Directory view, those files will not be accessible on any computer except one running the PenPoint operating system. So, unless you are going to be giving that floppy disk to another EO user, or if the disk is a back-up disk for your data, you shouldn't copy notebooks or place documents on the Bookshelf.

If you are going to use your documents on a desktop computer of some type you must copy them directly onto the disk using the Directory view. This places the document onto the disk or in a directory. Because the EO uses an MS-DOS format on all of its drives and PenTOPS accesses an MS-DOS hard drive, you can easily copy information from your EO to an MS-DOS computer. The different methods for accomplishing this feat will be discussed in the section on importing and exporting your documents.

If you do not have an MS-DOS machine so you can use PenCentral, you should purchase an EO floppy drive with your EO. With-

out an MS-DOS computer or an EO floppy drive you will have no way to back up your documents. To move large quantities of data from your EO to another computer and back you should think about using a SunDisk and a CardPro Universal PC Card Drive. (These are described later in this chapter.)

If you have an MS-DOS computer with a hard disk, 512K of memory, and a floppy drive you will be able to use PenCentral. If at all possible it is best if you have 3.5-inch high-density floppy drive in the MS-DOS machine so you can easily install software. The software you will purchase for an EO usually comes on a 3.5-inch disk. The hard disk is not a necessity, but it sure makes life easier. A cable is required to connect the EO to the PenCentral server, but that comes with your EO.

If you install PenCentral on a DOS machine that is on a Novell or a Microsoft LAN Manager network, you can access that network by connecting your EO to the DOS computer. You'll be able to access the network and share documents with others in your office. Also, you'll be able to print from your EO to any of the networked printers.

Your EO connects to a PenCentral network server using a program called PenTOPS. This program is built into the EO and integrates with the Connections accessory so you don't even know it's there. The only work you'll have to do is set up the PenCentral server.

PenTOPS Modem Accessory

Once you have PenCentral up and running, if you have a modem you'll also be able to access documents on the server using another EO accessory called PenTOPS Modem. PenTOPS Modem is an accessory that will call your PenCentral server and allow you to connect through the modem in your EO. While you are connected you'll even be able to print files.

One word of caution, using PenTOPS Modem will be slow. If you know that you'll want access to PenCentral while on the road you should consider investing in an a 14.4 modem for your MS-DOS machine. If you purchased your EO with a modem it already has a high-speed modem. Also, if you have the Cellular option you can

use PenTOPS Modem over a cellular connection. In essence, you can always send files to and from your PenCentral server.

Available Disk Drives

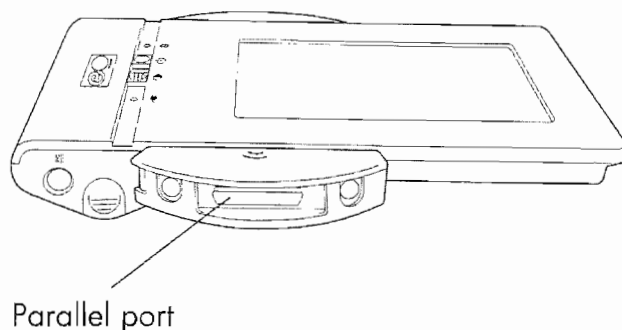
If you are not going to use PenCentral (for whatever reason) you will need an alternative means of storing your documents. The EO's floppy disk drive, SCSI hard drives, and the SunDisk, a solid-state flash storage device, have all been mentioned. All of these storage options can also be used to back up your documents and increase your EO's storage capacity, and all can be used to transfer data from your EO to other computers.

The least expensive and most versatile of these options is the EO's floppy drive. The EO's floppy drive connects to your EO through the parallel port located on the left ear (see Fig. 7.4).

Once you've connected the floppy drive (be sure you connect the floppy drive while the EO is in Standby mode) its operation is almost automatic. If the disk is not formatted, the EO will tell you so and give you the option of using a double (720K) or high density disk (1.44M). If you are using the floppy drive for backing up your data you will probably need several disks (up to 14 disks to back up a 20 megabyte hard drive), depending on how large your hard drive is or how much memory you have.

Also, with the floppy drive you can share your documents with anyone who has a DOS machine with a 3.5-inch drive or a Macintosh with a SuperDrive. If you have a Macintosh with a SuperDrive, the Mac already has everything you need to share files.

Figure 7.4
A view of the
EO's left-hand
side



Note Every Macintosh with a SuperDrive (about 80% of the Macs available) has a utility program called Apple File Exchange. Apple has been selling Macs with SuperDrives only for four to five years. They started including SuperDrives in all Macintoshes when the SE/30 and IIfx were released. This program can be found on the Utilities 2 or Tidbits disk of the Macintosh System Disks for System 6.0.X and 7.X, respectively. With this program you can read a floppy disk from an EO and transfer files from the floppy to the Mac and from the Mac to the floppy.

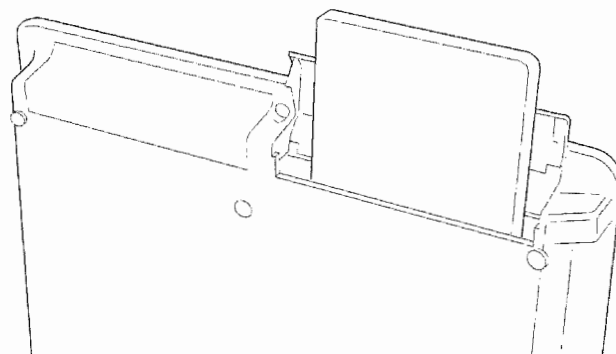
Another option you have for backing up your documents and even sharing files with an MS-DOS machine is the SunDisk. A SunDisk is a solid-state flash mass storage device. How's that for a mouthful? It is a thin card about the size of two credit cards pressed together, and it fits into the EO's PCMCIA slot. Figure 7.5 shows the EO with a PCMCIA card being installed. (The installation steps for a PCMCIA card can be found in Chapter 1.) The SunDisk comes in sizes ranging from 2.5 to 20 megabytes and can be used as additional storage space and as back-up disks for your data.

Note PCMCIA stands for Personal Computer Memory Card International Association, which is an organization that has established a set of industry standards for memory, flash disk, modem, and networking cards for portable computing devices. If you find abbreviations difficult to remember, you might try "People Can't Memorize Computer Industry Abbreviations" as a way for remembering PCMCIA.

There are three standards for the PCMCIA card. The standards are distinguished as Type 1, Type 2, and Type 3. The EO 440 uses one Type 2 PCMCIA card while the EO 880 can use either two Type 2 or one Type 3 PCMCIA cards. Right now there are two types of cards that the EO can use. One is the SunDisk which is also called a silicon disk card, and the other is a SRAM card. SRAM stands for

Figure 7.5

An EO with a PCMCIA card being installed



Static RAM. These cards are expensive and often small in capacity. (This means I'm not going to say anything about them.)

By the end of the year you should be able to get a networking PCMCIA card for an EO, which means you would be able to connect the EO directly to an Ethernet or Token Ring network. Another type of PCMCIA card that should be available by the end of the year is a pager card. The pager card would turn your EO into a beeper in addition to its other capabilities.

The SunDisk acts like a big floppy disk. It is removable so you can exchange it with other EO users. And if you get a device like the Universal PC Card Drive called the CardPro from Data I/O, you can read and write to a SunDisk with a DOS machine. The SunDisk is also very rugged; you would have to seriously abuse one to break it. The SunDisk is an ideal way to have unlimited storage capacity for your EO. If you fill one up but need the documents it contains all you have to do is get another. And if you're using an EO 880, you can have two installed at once.

Since we're talking about the EO 880 we might as well talk about the ability to add a SCSI hard drive. The EO 880 has a SCSI port on the left-hand side. SCSI pronounced "scuzzy," stands for Small Computer Standard Interface. It is a means of expanding a computer system's capabilities by attaching external devices to the EO. Right now you can connect a SCSI hard drive to the EO 880. In the future you should be able to attach other devices like scanners and maybe even other computers.

When you attach a SCSI hard drive to the 880 the drive will have to be formatted as an MS-DOS drive. You can use a drive that is already formatted, or the 880 will format it for you. This can be a problem if you have a Macintosh because it is difficult (although not impossible) to use a MS-DOS SCSI drive on a Mac. The easiest way to use an MS-DOS SCSI disk on a Mac is to use a removable media drive like a Syquest, Bernoulli, or optical drive. For these types of drives you can get Macintosh software that will read an MS-DOS disk.

Connecting a SCSI disk to an EO that will also be used on an MS-DOS computer is very easy, as long as your MS-DOS computer has a SCSI interface built in or as an add-on card. The use of SCSI hard

drives is becoming more common on MS-DOS machines, but it still not a very popular option. However, SCSI has been the favorite way to add peripherals to the Macintosh for several years. This is why you can use one of the drives mentioned above with the EO 880 and a Mac, if you have the correct software. The actual mechanics for connecting a SCSI disk to an EO 880 are covered in Chapter 1.

Note *There are two companies who make software that will let a Mac read removable disks that have been formatted for MS-DOS machines. One is Dayna Communications. They make a product called DOS Mounter Plus. DOS Mounter Plus will mount a Syquest disk (available in 44 and 88 megabytes) on a Macintosh as if it were a Mac disk. DOS Mounter will also let a Mac read MS-DOS floppies without using the Apple File Exchange utility. Another company that makes a product that lets Macs read MS-DOS formatted Syquest and floppy disks is AccessPC. AccessPC is made by Insignia Solutions.*

Terminal Emulators

The last method for transferring your documents to other computers involves using a modem or a special serial cable. If you have a terminal emulation program for your EO you can actually communicate with almost any computer on earth. Of course, the other computer also has to have a terminal program of some type. But that is really not a problem. Every computer that I'm aware of has at least one terminal emulator.

There are two companies who have terminal emulation programs for the EO. One is called Mobile Access, and is written by Notable Technologies, Inc. And the other is called PenASCII, written by COMPSOFT Services. With either of these programs you can access on-line services such as Compuserve, Genie, or any other service that allows a standard VT100 connection. This also means you will be able to access a lot of electronic bulletin board services, generically called BBSs. These are usually free (or very inexpensive) services run by special interest organizations and individuals for sharing information or just having fun. Also, many businesses and some government agencies maintain bulletin board services for either their employees or the general public.

Another use for a terminal emulator would be to access electronic mail (E-mail) services through E-mail packages such as QuickMail (Macintosh), cc:Mail, DaVinci Mail, and many others. Many companies have an in-house E-mail system so their employees can quickly and easily communicate with each other by sending memos, notes, and even files back and forth. Although most E-mail systems use special software for their desktop computers, almost all of them will allow you to connect, send and receive mail, and even transfer documents with a terminal emulation package.

And if you want, you can even access the Internet with an EO and a terminal emulation package. The Internet is a world-wide network that is used by universities, governmental agencies, and businesses. Although it is not an on-line service, the amount of information you can get through the Internet is amazing. The White House is even on the Internet, so you could send a message to the President or the Vice President if you have Internet access.

Note

*The Internet is an enormous, global network of computers. As you can imagine, finding your way around such a system can be a little confusing at first. You'll need to spend a bit of time learning what it is and how it works before it will be useful to you. But, depending on your needs, it could prove to be invaluable. There are now companies who are providing Internet services to individuals for a small monthly fee. For more information on the Internet, see *The Internet Navigator*, by Paul Gilster, published by John Wiley & Sons.*

Using a terminal emulator to connect your EO to another computer so you can transfer files requires a serial cable. A *serial cable* is a special cable used to connect computers, or in this case the EO Personal Communicator and a computer, so they can communicate. The cable is called serial because of how the data is exchanged between the two devices. All data is sent one piece (byte) at a time in either direction.

It is like using a straw to send BBs from one container to another, where each BB is one letter of your document. When all of the BBs from one container (your EO) have gone down the straw to the other container (the other computer) the document has been trans-

ferred. Of course, if you can send the document in one direction you can also send a document in the other direction.

The PC connection cable that comes with your EO will work on any DOS computer for this purpose, and it should also work with any computer that has a standard RS 232 port. However, the PC connection cable will not work with a Macintosh. To connect a Macintosh or any other computer that has a different type of serial port you will have to have a custom-made cable. One company you can get a custom cable from is System Connection, located in Orem, Utah.

System Connection is a company that specializes in computer cables. They make cables for almost any purpose and will be able to make you a cable that will connect your EO to any computer with a serial port. In most cases, all they need to know is the type of computer you plan to connect to. They will do the rest, and in a couple of days you'll have a cable.

COMPSOFT also makes terminal emulators specifically for connecting to IBM mini and mainframe computers. If they do not have a terminal emulator for your system, they will make one. So, if your company has a large computer system that you need to connect to, you can get the software you need for your EO and enjoy the same features you would if you were using a desktop computer.

All in all, you can connect the EO to any computer. If you want to know the basics for connecting an EO to another computer using a terminal emulator, the nuts and bolts are discussed later in this chapter.

Connecting Printers to an EO

As mentioned in the introduction, you can connect a printer to your EO. Although this may seem like an odd place to talk about a printer, it really isn't. All printers are actually dumb computers. They contain their own computer chips and have to be talked to by the EO in a specific way. In a sense, when you connect your EO to a printer you are connecting it to a very stupid computer that has just one function: printing.

There are all kinds of printers in the world, and your EO can print to almost any printer you come across. Like connecting to other computers, how easy or difficult making this connection will be depends on the printer, not the EO. The EO can print to two types of printers, a dot matrix printer or a PCL printer.

The most popular brands of dot matrix printers are probably Epson or Citizen, but there are more manufacturers than I can list here. Basically, every dot matrix printer should be able to emulate an Epson or an IBM Proprinter printer. If you have a dot matrix printer you should refer to your user's manual to see whether it will work with an EO.

You can connect your EO to any laser printer that uses the PCL page description language. In English, this means your laser printer has to emulate a Hewlett Packard LaserJet. Again almost all laser printers, even Apple LaserWriters, can emulate an HP LaserJet and in theory can be connected to an EO. Also, some ink jet and bubble jet printers also support PCL, primarily the HP DeskJet printer. Again, you will have to turn to your printer manual to find out if your laser printer will work with an EO.

I'm sure you noticed the hedges in the last few paragraphs. The reason for this is that there is no way to be sure unless you check your manual. The EO can print to any of the following printers or any printer that can emulate one of them.

These printers use the PCL page emulation language:

- HP Laserjet II
- HP Laserjet IIP
- HP Laserjet IID
- HP Laserjet III
- HP Deskjet

The following are dot matrix printers:

- Epson FX-80
- Epson FX-850
- Epson LQ-500

- Kodak Diconix 150
- Kodak Diconix 150+
- IBM Proprinter II
- IBM Proprinter 24
- NEC P5200

In order to connect your EO to a printer you will have to get a parallel printer cable. Once you have the cable you can connect to any parallel printer. I said that an Apple LaserWriter would also work, and it will. But the older LaserWriters are serial printers, not parallel, so you would have to go to a lot of trouble to use one since it would require that you get a device called a *parallel to serial converter*. Believe me, these can be a real pain to use, not to mention reconfiguring your printer to work with the EO.

Unless you have a newer Apple LaserWriter that will automatically switch emulation modes and accept data from a parallel port while simultaneously using a serial port, I would recommend you forget using the LaserWriter. The only other way to easily use an Apple LaserWriter would be to attach it to a MS-DOS machine via the serial port and make it available to the EO using PenCentral.

Note *The EO will not print to a printer using PostScript. This may be a disadvantage, but this is only a temporary situation. Even as I write this, there are software geniuses hard at work writing the software that will let the EO use PostScript printers. You can expect to see this capability appear within a year. It will be available to existing EO users either as a ROM update or when a new set of ROMs are issued. (See Chapter 1 for information on ROM updates and upgrades.)*

The family of ink and bubble jet printers available from Canon, Kodak, and Hewlett Packard make great EO printers. All of these printers will emulate a dot matrix printer, and their output is almost laser quality. Also, they are inexpensive. You should be able to get a printer like the Cannon BJ-200, a bubble jet printer, for less than \$400.00. The BJ-200 is not a portable printer, but each of these companies make portable printers that will run off of batteries so you can take a printer on the road with you. Some of these printers weigh around two pounds.

When you go shopping for a printer that is not in the list above, just remember that you need either Epson FX or LQ emulation or HP LaserJet capabilities. You will have no problem getting a printer to meet your needs.

Using the EO's Connections Accessory

The Connections accessory is a mini notebook that is used to control your EO's connections to other disk drives and printers, both local and networked. A local connection is one where the device (a printer, disk drive, etc.) is physically connected directly to your EO. A network connection is one where you use your EO to access devices that are connected to a DOS machine—this is done by connecting the EO to a DOS machine that is running PenCentral.

In networking terms, a DOS machine running PenCentral becomes a “server.” The server makes devices available to the “client,” which in this case is your EO. The EO uses a program called PenTOPS to connect with the DOS server. PenTOPS is already installed on your EO as a service and works transparently with the EO and the Connections accessory. This means that you don't have to do anything special to connect to a networked device (except maybe enter a password).

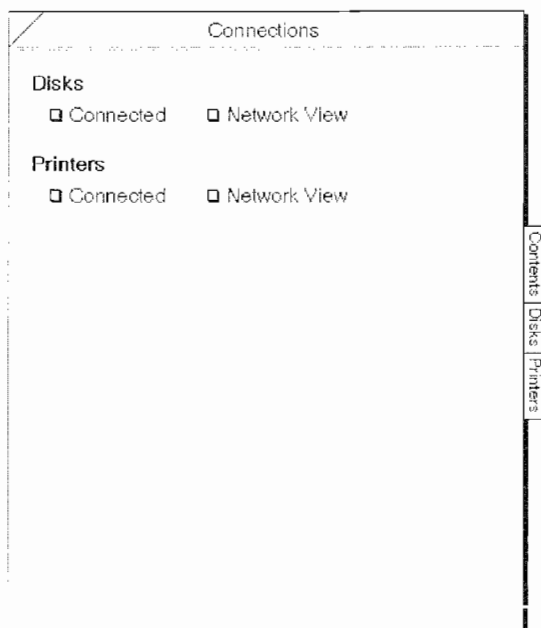
When you open the Connections accessory you will see the Connections contents page, which looks like Figure 7.6.

In the contents page you have two sections: Disks and Printers. Each section has a choice between Connected and Network View. Also, the Connections accessory has three tabs: Contents, Disks, and Printers. The following list describes each of these options:

Connected Disks Turns to the page that displays all connected disks, including networked disks.

Disk's Network View Turns to the page that shows your network server connections and all of the available network volumes. You can also set certain options from this page.

Figure 7.6
Connections
contents page



Connected Printers Shows all defined printers that are connected directly to the EO. This is also the page on which you create new printers.

Printer's Network View On this page you can see any networked printers. To see a networked printer it must be set up for the ports on a PenCentral server.

The Disk Tab This tab will take you to the Disk page. The page will be set to the view you were using when you last turned away from it.


The Printers Tab This tab will take you to the printer page. The page will be set to the view you were using when you last turned away from it.

The Contents Tab This tab returns you to the Contents page.

This next section will look at using the Connections accessory with connected and networked drives and printers. Connections is also the tool you use for advanced file management. In this section you will learn about importing and exporting data to and from the EO, and we'll discuss backing up your documents.

Connections' Menus and Options

The Connections accessory is used to manipulate and manage your EO's disk drives. When you turn to the connected disk page you will see something similar to Figure 7.7.

In Figure 7.7 the connected disks are displayed across the top of the page. To open a disk, tap  on its icon. When the disk opens, it gets its own portion or section of the page along with a menu. If it is the only open disk it will fill the page and the disk's icon will be gray. Each successive disk that is opened gets a section of the page and has its own menu. The menus allow you to perform different tasks on the disk. The following is a list of the menus and their commands:

Disk

This menu is used to perform commands that operate on the open disk.


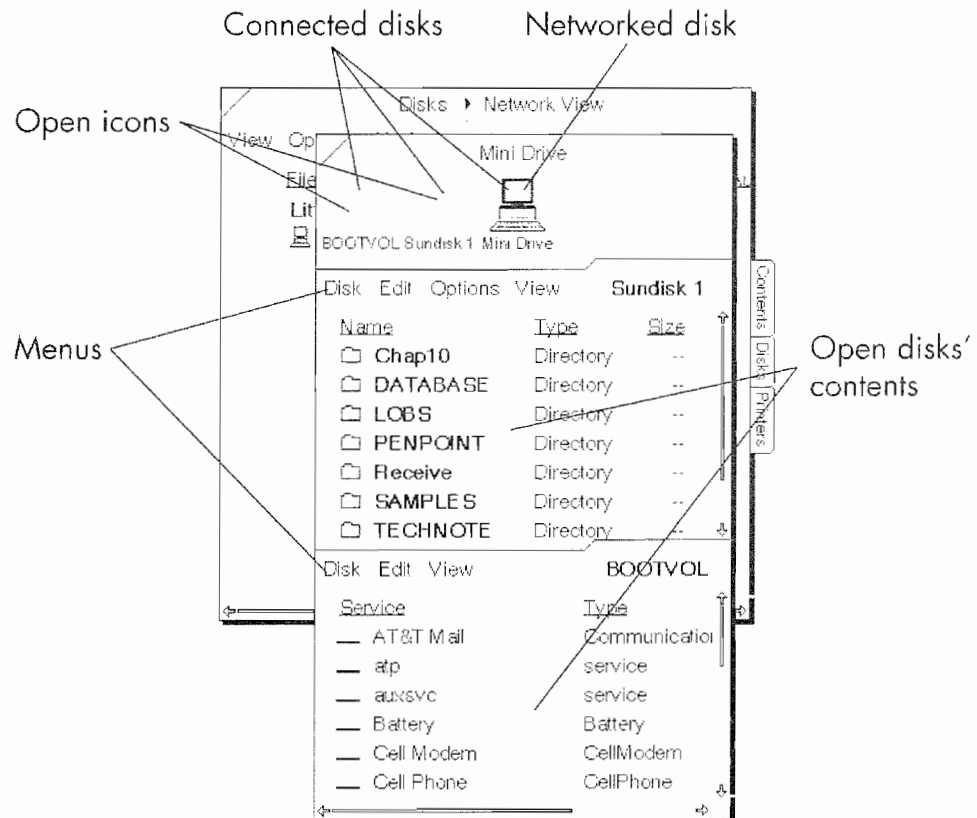
Close This command closes an open disk. You can also close an open disk by tapping  on its icon while it is open.

Figure 7.7
The Connected
Disks page



Duplicate Use this command to copy a disk. This command should only be used on floppy disks because you will have to swap disks to make a duplicate.

Update Display Use this command to check to see if new documents have been added to a disk.

Format This command is used to format a disk that is in use. Whenever you use a disk for the first time, if it is unreadable, it needs to be formatted. With all disks you are given a chance not to format a new disk.

Edit

This menu is used to manipulate files and directories. Almost all of these commands have gesture equivalents.

Move Use this command after selecting a document, directory, or Bookshelf item to move it to another directory or disk, or to place it in a notebook or on the Bookshelf. After the command is executed, the selected file or directory will have a single marquee around it, indicating that it is selected and ready to move. To move the document, drag it with the pen to its new location. Performing a press \downarrow on the file will have the same result as selecting Move.

Copy This command operates in the same manner as the Move command, only it prepares a file for copying and displays a double marquee. A tap press \downarrow will have the same effect.

Delete Selecting this command will delete the selected document, directory, or Bookshelf item. The gesture equivalent is the delete X gesture. Use this command with caution. Once you have deleted an item it is lost forever.

Rename This command causes a pop-up editing pad to appear so you can change the selected item's name. Drawing the circle \circ gesture over the item will have the same effect.

Create Directory With this command you can create a directory on the drive. This command is only available in the Directory view.

Options

These are the options you have for displaying your disks and getting information about your disks or directories. This menu does not appear for the disk that boots the EO.

Selected View Options The first available option will change, depending on the view and whether either a document or a directory is selected. If you are viewing the disk using the Directory view and select a file, the first option in the menu will be File. If you select a directory, the first option will be Directory. Likewise, if you are using the Application view and select an application, the first option will be Application.

Options for all files, documents, and directories contain information about the selected item. The only modification you can make is to add a comment that is associated with the item. Figure 7.8 shows the options sheet for a file and a directory.

Layout Controls what information will be displayed for a particular view. Figure 7.9 shows the Layout options sheet for the Services view of the disk BOOTVOL.

Figure 7.8

The options sheet for a file and a directory

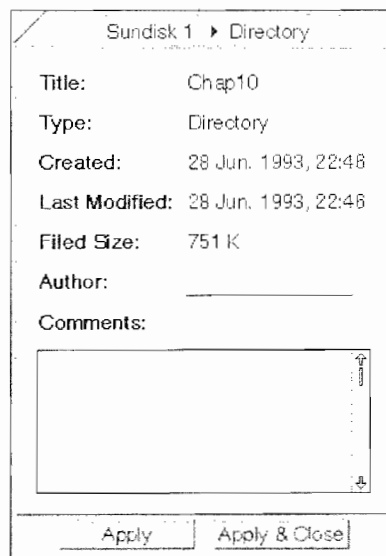
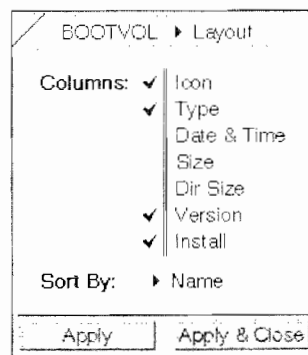


Figure 7.9

The options sheet for the Services view of the disk BOOTVOL



Disk Shows information about the selected disk, including size and free space. You can change a disk's name within this option and set the Quick Installer. The Quick Installer option is used when you have applications on a disk that are not on your boot drive. If the Quick Installer is set to Yes, the applications will automatically be installed when the disk is mounted by the EO. Figure 7.10 shows the Disk options sheet.

Disk Icons This option allows you to set how your disk's icons will appear. Figure 7.11 shows the Disk Icons options sheet.

If you want to see the options for your boot drive, draw a check mark ✓ on the section where the disk's information is displayed or on the disk's icon. Drawing the check mark ✓ on any selected item will display the item's options sheet.

View

The View mode is how you look at the documents or files on a hard disk using various views. Each of the views represents a different type of PenPoint file. These different types are discussed in Chapter 3 in the discussion about the Installed Software section of the Settings Notebook.

Figure 7.10

The options sheet for the disk BOOTVOL

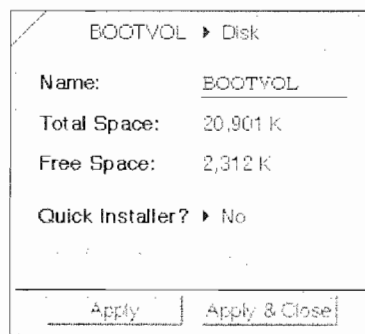
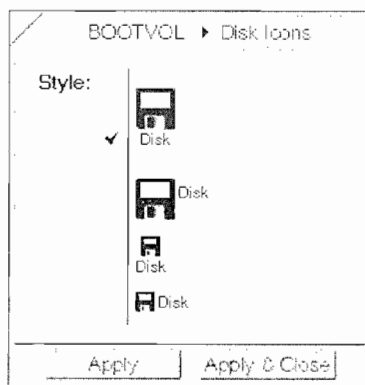


Figure 7.11

The Disk Icons options sheet



Directory You can see all of the files and directories on a disk. This view is not available for the drive that boots an EO.

Applications This view lets you see all of the PenPoint applications that are on a disk. Some installed programs are only visible from the applications page of the Settings Notebook (see Chapter 3).

Services This view shows the services that are on a disk.

Handwriting This view shows you the uninstalled character recognition programs on your drive.

Dictionaries This view shows any uninstalled dictionaries on your drive.

Fonts Here you are shown any uninstalled fonts that are on your drive.

User Profiles In this view you see any uninstalled User Profiles you may have created.

Bookshelf This view shows you the Bookshelf of the drive just as if you were looking at the Bookshelf on the EO's Screen. This view is not available for the drive that starts your EO.

There are really very few reasons to use the Connections accessory. Most of your file management will be performed using Bookshelves and notebooks. However, you will use the Connections accessory to transfer files for use on other computers, and to make backups of applications, user profiles, and other system files.

Accessing PenCentral Volumes

When your EO is connected to a PenCentral file server, Connections is used to control how the network files and devices are accessed by the EO. The Network View page is used to show the PenCentral file server. From the Network View page you control all aspects of the EO's network connection.

To get to the Network View:


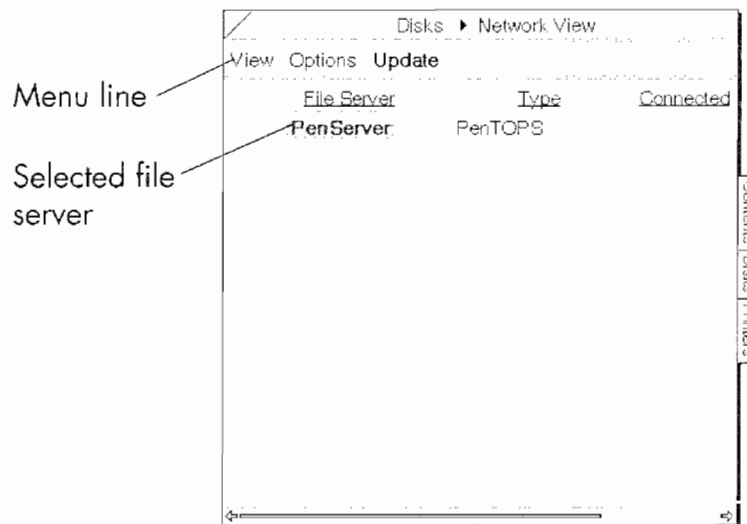
1. Open Connections.
2. Tap  on the Network View menu selection in the Disks section. This will open a page similar to Figure 7.12.

Figure 7.12
The initial
disk's Network
View page



In Figure 7.12 the selected item is a PenCentral file server called PenServer. Double tapping \mathcal{Y} on the server opens it, and you can see the available networked disks.

Figure 7.13 shows all of the networked disks available for PenServer. There are ten available network drives. This is because PenServer has been set up as an applications server to make installing software easier (see the section on configuring PenCentral). However, what is more important to note are the options for each disk. Each disk has a Connected and Auto-Connect check box. Tapping \mathcal{Y} the Connected check box will cause the EO to connect the checked disk. This action will make the disk available on the Connected page and give you access to the disk's Bookshelf.

Figure 7.13
The available
network drives

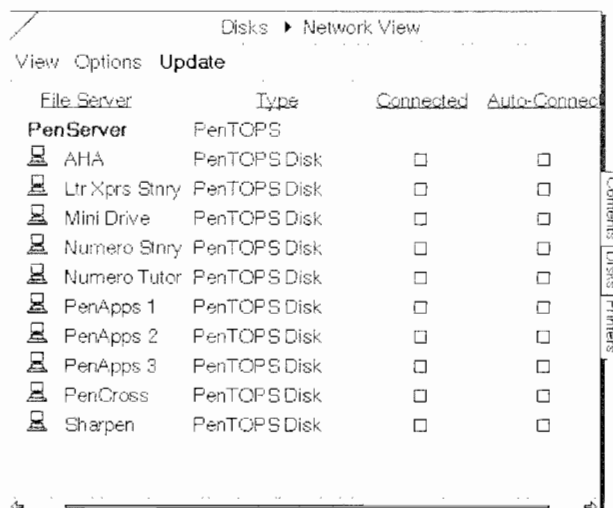


Figure 7.14 shows the disk named Mini Drive as connected and its Bookshelf. Notice that the Connected and Auto-Connect check boxes are both selected. If you check the Auto-Connect check box, the disk Mini Drive will be automatically connected each time you connect the EO to the PenCentral server. For every networked disk you want auto-connected, check the disk's Auto-Connect check box.

Once the disk is connected, you can close Connections and use it like any disk connected to the EO. What you need to remember about networked disks is that they are much slower than other types of disks. Even an EO floppy drive will probably be faster than a networked disk. The first time you connect a networked disk it takes longer than it will during subsequent connections.

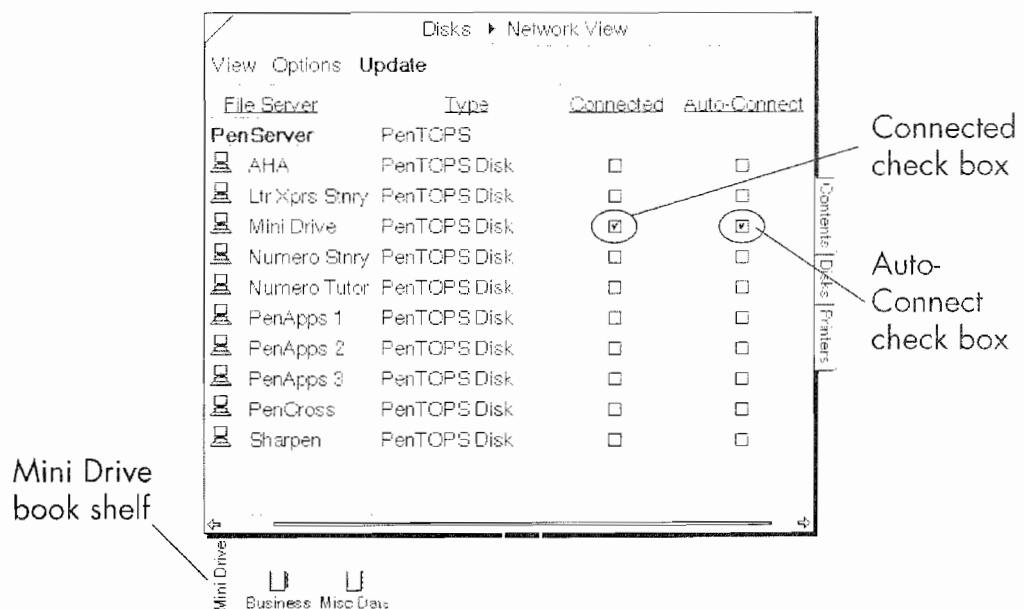
When working in the Network View page you have access to View, Options, and Update menus. The Update menu is actually a button which when tapped will cause the EO to scan the network and make any new disks or documents available.

The View menu has the following commands:

Disks This command changes the view to a disk view hiding the file server's name.

File Servers Here, the command sets the view to show the file server. This is the view for both figures 7.13 and 7.14.

Figure 7.14
Mini Drive
connected with
its Bookshelf



Expand This command is only available when view is set to File Servers. It expands the view so all of the file servers' disks can be viewed.

Collapse This command is only available when view is set to File Servers. It collapses the view so only the file servers are viewed.

The Options menu offers the following selections:

PenServer This selection shows you the type of server you are connected to and the server's location. These values are constant, unchangeable, and of little interest.

PenTOPS Status This is the main control option for PenTOPS. From this options sheet (see Fig. 7.15) you set the EO's defaults which control how the EO interacts with the PenCentral server. These options will be discussed below.

Layout With this options sheet (see Fig. 7.16) you tell the EO which page elements you want to view and how you want your disks sorted when they are displayed.

When you select a disk and draw a check mark ✓ on it, you will see an options sheet for the disk.

These are all of the options you have for the Networked View page. How you use them is up to you. You should experiment with the options to see what works best for you. However, you really need to be careful with the PenTOPS Status options sheet

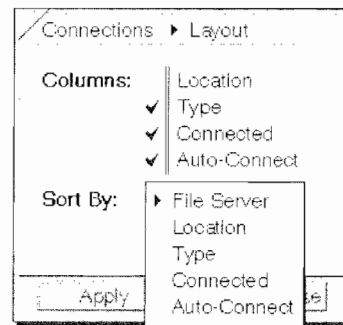
Figure 7.15

The PenTOPS
Status options
sheet

Connections > PenTOPS Status	
User Name:	PenTOPS02
Location:	Unnamed Zone
Connection Type:	Com3 Packet Port
Attached:	Yes
Automatically Connect:	▶ Selected
Remember Passwords:	▶ Never
Permissions:	▶ Read/Write
BookShelf View:	▶ Disable for Modem Link
Floppy Auto-Connect:	▶ Disable for Modem Link
Revision:	1.01.A.007b
<input type="button" value="Apply"/> <input type="button" value="Apply & Close"/>	

Figure 7.16

The Network
View Layout
options sheet



displayed in Figure 7.15. The following is a list of the PenTOPS Status options.

User Name This is where you can put your name to identify yourself as the network user.

Location This is the same as the location in the PenServer options sheet.

Connection Type The Connection Type line identifies how you are connected to the server.

Attached Here, the EO's status is displayed as either Yes or No.

Automatically Connect This setting determines how the server disks are auto-connected. Your choices are to auto-connect All, Selected (the default setting), or None of the networked disks when the EO is attached to the PenCentral server.

Remember Passwords With this setting you tell the EO how to remember your passwords if the PenCentral server uses them. Your choices are Never (the default setting), For Servers, For Disks, or For Everything.

Permissions This option sets the read/write permission for all network disks. You can make them all read-only (you will not be able to write to the disks) or all read/write. If you want to make a specific disk read-only, set the read/write permission for the disk in the PENINFO.DAT file. You will find these instructions later in this chapter.

Bookshelf View This setting tells the EO whether or not to show the Bookshelf for networked disks. Your choices are Always Enable, Always Disable, or Disable for Modem Link (the default setting). The Disable for Modem Link is used as the default because it takes the server longer to connect if the EO is going to display the disk's Bookshelf.

Floppy Auto-Connect This setting tells the EO when to auto-connect floppy disks. The choices are Always Enable, Always Disable, or Disable for Modem Link (the default setting). Because connecting a networked floppy disk is slow, it is best not to connect to floppies when using PenTOPS modem.

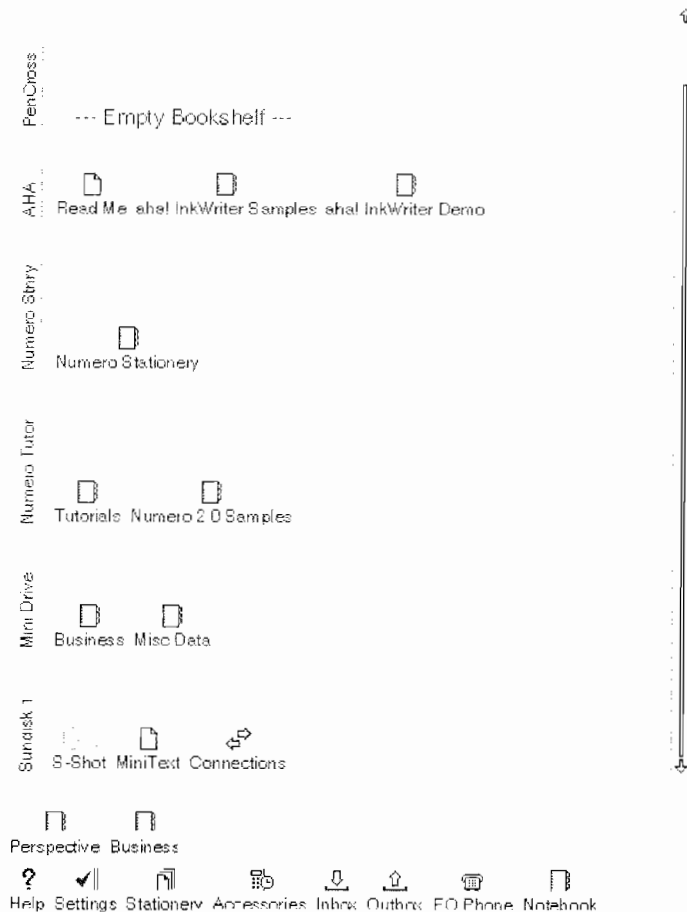
Revision This is an information line that tells you what version of PenTOPS your EO is running.

You will probably have to experiment with these settings to customize your EO's network settings. However, even if you never look at these settings, your EO will work just fine.

If you connect several disks, networked or otherwise, it is possible to connect more disks than you can see at a single time on the EO's screen. When this happens, the EO's screen will display a scroll bar (if you have the Arrows & Drag option in the Fonts & Layout page of the Settings Notebook selected) like the one in Figure 7.17.

Figure 7.17

The EO's screen with more drives than it can show at once



Working with networked disks is the same as working with any EO disk. Once you are connected to the server you can use the networked disks' Bookshelf or any of the other disk views. However, if you create or use documents that are stored on a network volume, your EO will run *very* slowly. If you need to use a document from a networked volume, you should copy it to your EO's drive and then use the document.

Importing and Exporting Your Data

To share documents from your EO with other computers you will have to get the document from your EO to the other machine. The first part of this process is to export the document so that it is in a format that the other computer can use. Any program that might be sending your documents to another computer, such as GO Mail or terminal emulators, will give you an opportunity to change your document into a format other computers can read. The process of preparing and sending documents to other computers is called *exporting*.

The same applies when you are receiving documents from other computers. You have to be able to use the document(s) on your EO. Converting documents from other computers is called *importing*.

Since data conversion is the most important aspect of importing and exporting documents, let's spend a few minutes looking at the EO's data conversion capabilities. Documents are converted only when they are copied to a disk's directory, or by an EO application sending the document to another computer.

To convert any document:

1. Open the Notebook that contains the document you are going to export.
2. Select the document.
3. Open the Connections accessory.
4. Select the Connected view for your disks and open the disk you are going to put the document on. Set the view to directories.
5. Move the Connections window so you can see the document you are going to export.

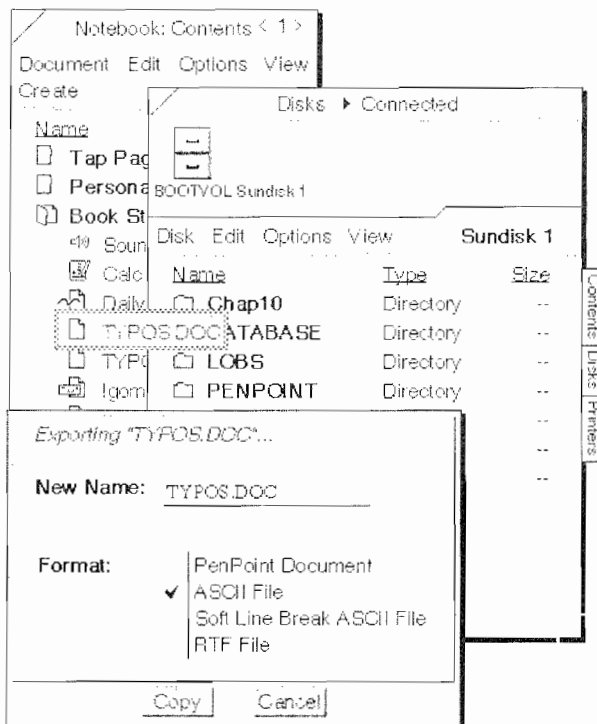
6. Either press \downarrow or tap press \downarrow to move or copy the document.
7. Drag the document to the disk or directory you're using.
8. You'll be presented with an Export options sheet similar to the one in Figure 7.18.

In the Export options sheet you can select the file format for the exported document and have the opportunity to change its name. To change the name, just tap \uparrow on the line with the document's name or draw a circle \circ over it. A pop-up editing pad will appear and you can write a new name. You will also have a list of the available file formats for the exported document. Figure 7.18 displays the following choices:

PenPoint Document This selection simply copies the file, it does not make any changes to it. If it is a MiniText document on the EO, it will be a MiniText document when you copy it to the other disk.

ASCII File An ASCII file is a file that contains text with no formatting. The lines in the file will end with a hard page break and all tabs will be converted to spaces.

Figure 7.18
Exporting a
MiniText
document



Soft Line Break ASCII File This file format puts a soft line break at the end of a line so the file will word-wrap when it is used on another computer.

RTF File RTF stands for Rich Text Format. This is a universal file format that keeps all of the document's original formatting. Most word processors on other computers can convert RTF files, so that the document will look the same on either computer.

Once you've selected the format you want and tapped **Y** on the Copy button, the file will be converted as it is copied. Then you can take the copied file from the disk. Usually this will be a Pen-Central disk that is actually a networked volume which can be accessed by other computers on the network, or a floppy disk so it can be used on another computer.

The type of file conversion options you will have depends on the type of document you are exporting. Most documents on the EO can be converted. However, some files that use ink, like MiniNote, will not export the ink, even though they will export the text. Other documents, like GO Fax documents, will export in a graphics format. GO Fax will export the first page of the fax as a TIFF file. A TIFF file is a graphics standard that can be used with most graphics applications, and most word processors can use TIFF files as embedded graphics.

Personal Perspective files can be exported as text, ASCII delimited, or Perspective Data (the same as a PenPoint Document) files. ASCII delimited files use a tab character or commas and quotes to separate the detail fields. Which file format you choose depends on how the data is going to be used. Most database and spreadsheet applications can read either type of delimited data.

Note

Whenever you export a document, you will have to give it a name that is compatible with an MS-DOS computer. Even though the EO uses disks formatted for MS-DOS machines, PenPoint allows you to use file names which contain up to 32 characters. An MS-DOS computer can only recognize file names that contain 8 or fewer characters. An MS-DOS file name looks like:

FILENAME.TXT

The first eight letters are the file's name. After the file's name you have to insert a period, and following the period is a three-letter extension.

The extension identifies the file's type, so a text file has the letters TXT, while a Rich Text Format file has the letters RTF. If the file name does not follow these conventions when it is exported, you may have problems accessing it from another computer.

Importing documents works just like exporting, only in reverse. When you import a document, you will be copying from the disk to a notebook. Before the file is copied, you will see an Import options sheet like the one in Figure 7.19.

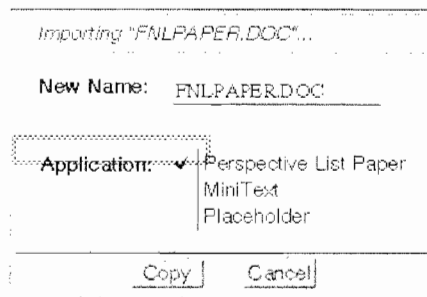
The options you'll be given depend on what applications you have installed on your EO. The import options you will have usually correspond to the export options. The EO looks at an import file, and if it recognizes the file's format, it will offer you the appropriate choices. Any file it cannot recognize will be imported as a Placeholder. A PenPoint Placeholder is called a binary file; the file's format is not modified in any way. The Placeholder is always an option when importing documents.

This means you can import a file, save it as a Placeholder, and later when you want to use it you can open the imported file. When you tap Ψ on the Placeholder document, you will either be presented with an Import options sheet, or be told that the document cannot be used on your EO.

To find out what import options you have for the software you've installed on your EO, check the software's manual. How software from other companies handle imports and exports is up to the software's manufacturer. If importing and exporting are important features to you, you should check with the software's manufacturer before you purchase the software.


Figure 7.19

An Import options sheet




Backing Up Your Documents

Backing up your documents is simply a matter of copying the documents from one disk to another. If you are backing up to a Pen-Central file server you might want to back up your data twice. Actually, you should always back up your data twice, once to a network drive and a second time to floppy disks, or make two backups on floppy disks.

Under most circumstances you will just copy your notebooks from the Bookshelf of one disk to the Bookshelf of another. To do this, just tap press  on the notebook you want to copy and drag it to the Bookshelf of the disk you're saving the data on.

One of the problems you'll have if you're backing up to floppies is that your notebooks might be too large to fit on a single floppy disk.

To back up to multiple floppies:

1. Open the notebook you want to back up and move all loose documents into sections.
2. Close the notebook.
3. Create a notebook on the Bookshelf of the floppy disk and open it.
4. Open the notebook you're backing up.
5. Tap press  on a section you're backing up and drag it to the notebook on the floppy disk. Repeat this step for each section until the floppy disk is full.
6. When the disk is full, remove it from the file server or your floppy drive and insert a new one.
7. Finish the backup by repeating steps 2 through 5 above. Perform step 6 each time the disk fills up.

Your EO has some files you might want to back up that are not contained in notebooks. These would be your User Profiles and Dictionaries. Applications, Services, Handwriting, Gestures, and Fonts will probably not need to be backed up. These files can usually be restored from their original floppy disks. Also, most applications cannot be copied after they have been installed.

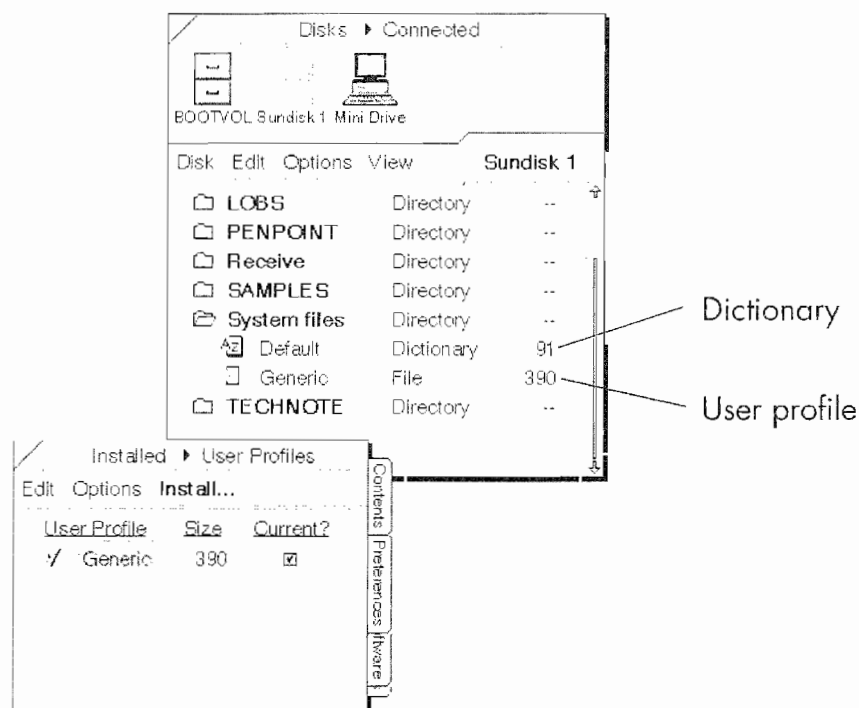
To back up files other than those contained in notebooks:

1. Open the Connections accessory and set the view for the back-up disk to the Directory view.
2. Create a directory by selecting the Create Directory option from the Edit menu. Name the directory something like BACKUP.
3. Open the Settings Notebook and turn to the page that contains the document you want to back up.
4. Resize the Settings Notebook and the Connections accessory so you can see easily. Copy from the Settings Notebook to the disk you're viewing in the Connections accessory.
5. Tap press \downarrow on the document you want to back up and drag it to the directory you've just created.
6. Repeat steps 3 through 5 for each file you want to back up.

Figure 7.20 shows a directory with a dictionary and a user profile.

You'll notice that the dictionary is listed as a dictionary in the type column. However, the user profile is listed as a file. This is no problem as long as you remember what the file is. If you're afraid

Figure 7.20
A directory with a dictionary and a user profile



you'll forget, use the file's options sheet and put a note to yourself in the comment box. If you ever have to reinstall these files, perform the steps above, only copy the file from your directory to the Settings Notebook's page. When you copy the file back you'll probably see a dialog sheet like the one in Figure 7.21, asking if you want to replace the existing file or give the one you're copying a new name. Go ahead and replace the file.

If you give the file a new name you'll have to install or make the document current. This is done by tapping **Y** in the install or current check box. Once you've installed or made the new file current you can delete the old file by drawing a cross out **X** over the file you're deleting. You'll be asked if you want to deinstall or delete the file. Tap **Y** on the OK button to complete the procedure.

Advanced Software Installation Techniques

The normal way to install software is to use PenPoint's Quick Installer. All applications you get should automatically create a Quick Installer like the one in Figure 7.22.

There will be times when you want your applications stored on a floppy or a SunDisk so you have a backup. Also, some applications may need to be installed using this alternative method. How-

Figure 7.21
The Replace or
New Name
dialog sheet

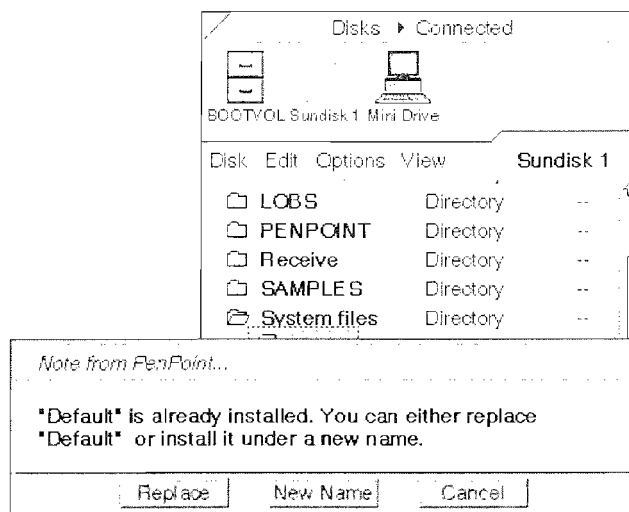
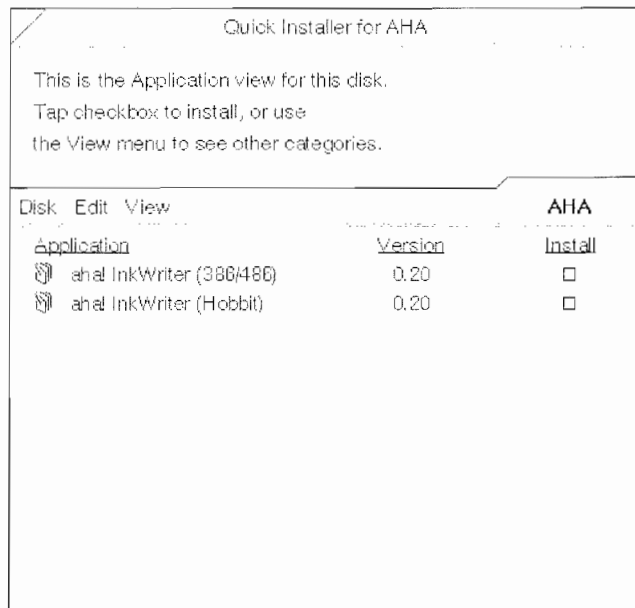





Figure 7.22
A Quick
Installer



ever, you will not save disk space by installing applications on other disks. Any application an EO uses must be installed on the EO's main disk drive.

To install software onto a drive other than your startup disk:

1. Close the Quick Installer by tapping  in its close corner.
2. Open the Connections accessory.
3. Open the disk with the software and the disk onto which you want to install the software.
4. Set the view for both disks to Application.
5. Copy the application by drawing a tap press  on the application and dragging it onto the drive where it is going to be installed.
6. Check all of the views on the software disk to make sure there are no services, dictionaries, or other files that need to be installed with the application. If you find another document that needs to be installed, switch both disks to the Documents view (i.e., the Services view) and perform step 5 on the document.

Once you're sure you have the application and any subsidiary files copied, you can install the application by tapping  in the Install check box next to the application on your secondary drive. If you

want the application to install itself automatically when the drive is connected, you will have to set the Quick Install option to Yes in the Disk options sheet described above.

Setting Up Your Printers

Before you can print from an EO you have to set up your printer connections. As mentioned above, this is something else you do with the Connections accessory. On the Connections contents page you have two choices for printers just like you do for the disks; you have a choice between connected and networked printers. And like the disks, a connected printer is one physically attached to the EO, and a networked printer is one attached via a PenCentral server.

First, let's look at the Connected Printer page. To get to the Connected Printer page, open the Connections accessory and tap **!** on the Connected label or check-box in the Printers section. If you have not set up a printer yet, this page will be blank. Figure 7.23 shows a page with a printer already set up.

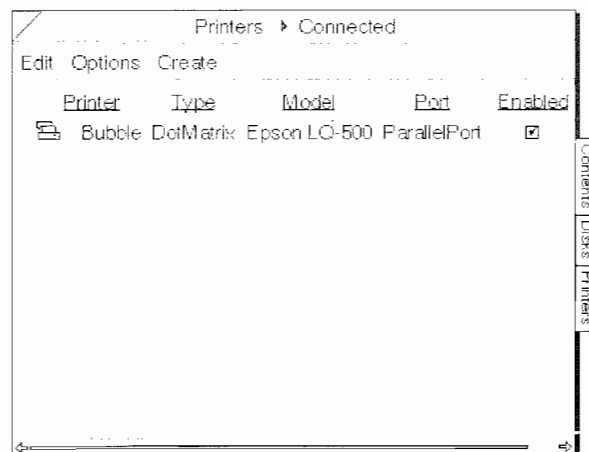
The menus in this page are Edit, Options, and Create. The following is a description of each menu option:

Edit

Delete This option deletes a selected printer. The equivalent gesture for this menu item is the cross out **X**, and it is drawn over the printer you want to delete.

Figure 7.23

The Printers Connected page with a configured printer



Rename Use this menu item to rename a selected printer. The equivalent gesture for this menu item is the circle \circ , and it is drawn over the printer name you want edited.

Options

- The first option will be the name of any selected printer. When you select this menu option, or draw a check mark \checkmark over the selected printer, you will see an options sheet like Figure 7.24. With this options sheet you can see the type of printer, the port it is connected to, and what type of paper feed it is using. The main reason for selecting this option will be to tell the EO that you are using single feed sheet paper instead of continuous feed paper.
- The second option is the Layout option for the Connected Printer page. With this option you tell the EO which columns to display and how to sort your list of printers. Your sorting choices are Printer, Type, Model, Port, and Enabled.

Create

Dot Matrix Use this menu selection if you are going to create a printer configuration for a dot matrix printer. The list of possible printers can be found in the printing section earlier in this chapter.

PCL Use this menu selection if you are going to create a printer configuration for a dot PCL compatible printer. The list of possible printers can be found in the printing section above.

Figure 7.25 shows the Printer Creation options sheet. When you create a printer you will have to give the printer a name and select the type of printer. When selecting a printer type, you may have to guess at what printer to select. If you are using the Dot Matrix option, the lowest common denominator will probably be an Epson FX-80. You can always try different printer selections to see what will work best. If you are connecting to a laser printer and you do not know which

Figure 7.24

A Printers options sheet

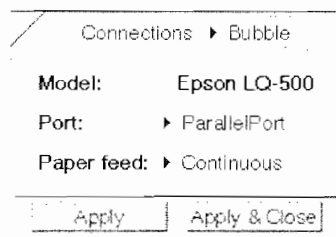
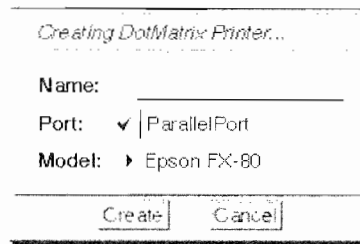


Figure 7.25

The Printer
Creation
options sheet



printer to select, start with the HP LaserJet II. If you have any doubts, experiment by trying the other printer options.

Figure 7.26 shows the Printers Network view. As you can see, this page is very much like the Printers Connected view.

Your menu choices are a View and an Options menu. The menus are described in the following list:

View

Printers This selection sets the view so only the available printers are shown.

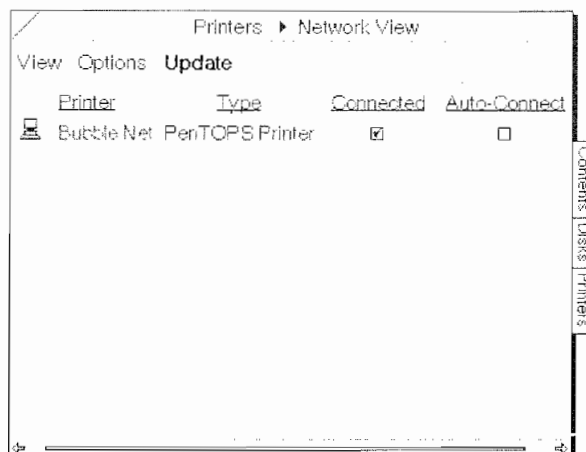
Printer Servers This selection shows the PenCentral printer server's name. When the view is expanded, all of the printers connected to the printer are shown. When it is collapsed, only the printer server name is visible.

Expand This selection shows all of the printers for a server when the page is viewed in the Printer Servers mode.

Collapse This selection hides all of the printers for a server when the page is viewed in the Printer Servers mode.

Figure 7.26

The Printers
Network View
page using the
printers view



Options

- The first menu item is the options sheet for the selected printer. The printer's name is displayed as the menu item. Figure 7.27 shows a networked Printer options sheet. In this options sheet you are shown the Type of printer, the Server's name, the Location of the printer, its Connected status, and whether it is set to Auto-Connect.

PenTOPS Status This is the same options sheet that was discussed in the networked disk section above.

Layout The Layout options sheet is the same for the networked printers as it is for the connected printers.

Update

The Update menu performs the same function as the Update command for the networked disks.

The networked printers displayed come from the configuration in PenCentral. But, the type of printer is not established by PenCentral. When you connect the printer by tapping Ψ on the Connected check box, you will be presented with an options sheet (see Fig. 7.28) that asks you to define the type of printer. The options sheet that appears is almost exactly like the Create options sheet.

Figure 7.27

A networked Printer options sheet

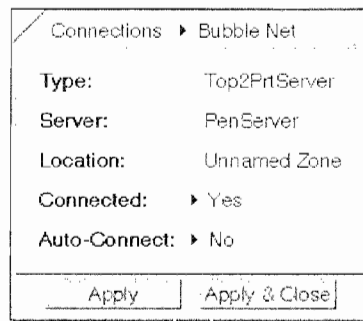
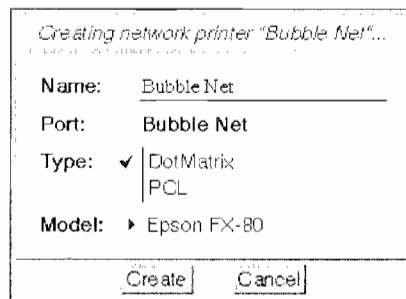


Figure 7.28

The Create Network Printer options sheet



With this options sheet you can name the networked printer and define the type of printer connected to the PenCentral server.

Using PenTOPS Modem

PenTOPS Modem is an accessory found in the Accessories Notebook. With PenTOPS Modem you can access any PenCentral server that has been set up for modem access. With PenTOPS Modem you can be on the road and call into your company using the PenCentral server to send and receive documents from your EO, no matter where you happen to be.

When first opened, the PenTOPS Modem accessory appears as a very boring page. You have an empty page with a Connect Menu button and an Options menu. The Options menu provides you with two choices: Modem Settings and Status. Figure 7.29 shows the Modem Settings option.

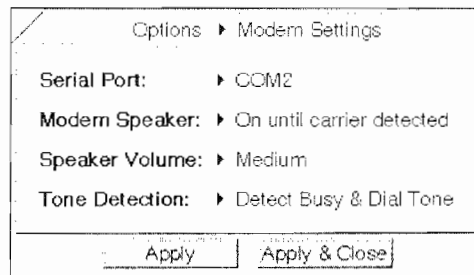
With this options sheet you can select the following:

Serial Port Use this option to select the serial port. If you're using the EO's built-in modem, it should be set to COM2.

Modem Speaker For this setting you have three choices: Always On, Always Off, and On Until Carrier Detect (the default). This setting lets you listen to what the modem is doing as it dials the server's phone number. It makes a lot of noise if you set it to Always On. You should use the default setting or Always Off, unless you are trying to troubleshoot your phone connection.

Speaker Volume This setting tells the modem how loudly to make noise. Your choices are: Whisper, Low, Medium, and High. How it is set depends on your circumstances and whether the noise will bother other people when you are connecting.

Figure 7.29
The Modem
Settings
options sheet



Tone Detection How this setting is used depends on the type of phone system you're using. Your choices are: Detect Busy & Dial Tone (the default), Detect Busy Tone Only, Detect Dial Tone Only, and Ignore Busy & Dial Tone. You should use the default setting in most circumstances. You will want to use the other settings if, during the dialing sequence, the phone system you're using generates a busy tone or does not generate a dial tone.

We'll talk about the Status option last because it has no configurable options and is for information only. Right now, let's look at connecting to a file server by setting up the PenTOPS Modem connection. Figure 7.30 shows the options sheet that appears when you tap on the Connection menu.

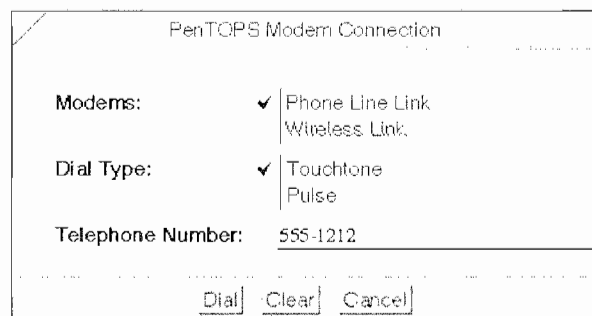
In the Connection options sheet you have three settings:


Modems This option tells the EO whether to use the Cellular Module or a connected phone line.

Dial Type This setting instructs the modem to dial the phone using dial tones or the pulse method. Use the pulse method if a phone connected to the line is a rotary type phone.

Telephone Number Here is where you enter the telephone number for the PenCentral server. You must enter the full number here because PenTOPS Modem does not access any of the EO's phone books or Dialing Location options sheets. If you need to enter access numbers to dial out on a phone system, enter them by placing them before the phone number, separating each of the access numbers with a comma. If you are charging the call to a calling card, enter the calling card number in the same location you would as if manually dialing the phone. If the dialing card number goes after the phone number, enter a couple of commas between the phone number and the dialing card number.

Figure 7.30
The Connection
options sheet



Once you have set your options, tap  on the Dial button, and the PenTOPS Modem will dial the server and log you in. When you're using PenCentral for modem access, the server should be password-protected so not just anyone can dial in. When you dial in, you will receive a message saying that a connection has been established. Once that happens, you need to open the Connections to connect to any drives or printers.

When you're using the PenTOPS Modem, your Bookshelves are not displayed for the networked drives. You will have to do all of your document transfers using the Connections accessory when accessing server disks. Even if you're using a fast modem, the server is slower than if you are physically connected. And if the server is using a slow modem (2400 baud is slow), you could get a little gray waiting to access the server and transfer documents.

While you're connected, you can look at the PenTOPS Modem Status options sheet to see exactly what the EO and the server are doing. All the Status options sheet does is show you communications information about your connection. Figure 7.31 shows the PenTOPS Modem Status options sheet.

Once you've finished your file transfers you'll need to disconnect from the file server by opening the Connection options sheet in

Figure 7.31
The PenTOPS
Modem Status
options sheet
during an
active
connection

PenTOPS Modem Status	
Connection status:	Connected on Phone Line Link
Connection type:	LAPM Connection
Connection speed:	38400
Connection time:	00:05:31.079
Frames received:	95
Bytes received:	18038
Frames transmitted:	166
Bytes transmitted:	5583
CRC errors(Rx):	0
Frame errors(Rx):	0
Timeout errors(Tx):	0
Hardware errors(Tx):	0
<input type="button" value="Reset Counters"/> <input type="button" value="Update Counters"/>	

PenTOPS Modem, if it has been closed, and tapping **Y** on the Hang Up button.

To improve connection speed when using PenTOPS Modem, you should remove all unnecessary files from the root directory of the PenCentral server. Also, keep any directories you're going to access as empty as possible. Other than these tips, you'll just have to suffer through the slow connection. There is not much that can be done about the speed other than using a 14.4 bps modem on the server.

Serial and Modem Connections to Other Machines

This section is going to tell you in general terms what you need to connect your EO to computers other than an MS-DOS machine. (This section does not discuss using disks of any type for connecting to other machines.) This is because what you need to make this happen is not included with your EO when you purchase it. To connect an EO to another computer requires special software and hardware which you'll have to purchase.

There are two items you need to connect an EO to other computers. You'll need to purchase one of the two available terminal programs and a special cable called a null modem cable. Terminal programs are also called communications programs. The two that are available are called PenASCII and Mobile Access. Each is discussed in Chapter 11. The computer you're connecting to will also need a communications package.

For the null modem cable you'll either have to have one made or make one yourself. This section does not tell you how to make the cable, but the EO's serial port configuration is in the Appendix if you want to make your own. You can also order a null modem cable from a company called System Connection (their address is in the Appendix). They know about the EO and can make a cable that will connect it to almost any computer made. The other computer has to have a serial port. If it is a very weird computer, and System Connection does not have the information they need to

make you a cable, you might have to look in the computer's hardware manual or contact the manufacturer, then fax System Connection the serial port configuration information. In most cases, you won't need to worry.

Another way to make connections to other computers, without a cable, is to use the communications packages and connect to the other computer using the EO's modem. This assumes that the other computer has a modem also. However you make the connection, the principles involved are the same. You have to make sure that the EO and the computer are talking the same language.

What determines the language is a collection of settings called communications parameters which are set using the communications software. The settings on both machines have to be the same, otherwise they will not be able to talk. The following is a list of the most basic communications parameters and their functions:

BPS, Baud, or Speed The speed of the connection is how fast data is sent from one machine to the other. If the speed setting is not the same between the EO and the computer, they will not communicate. Communications speeds are designated in terms of bps (bits per second). Baud is a term you might hear in relation to communications speed, but this is an old and obsolete term. Direct cable connections can be done at speeds up to 115,200 bps.

Data Bits This setting will determine how long each byte (one letter) will be, in bits. The normal setting is either 8 or 7 data bits.

Parity Parity is an error-checking convention, and you will have the choice of using None, Even, or Odd parity. Both machines must use the same parity setting.

Stop Bits Stop bits is another error-checking convention. Your choices will usually be 1, 1.5, or 2. Some communications packages will let you use an auto setting that will match whatever the other device is using.

Flow Control Flow control is how the EO and computer will tell each other that they are ready to receive or send data. Your choices could be Xon/Xoff, Hardware, or None. This setting will depend on the capabilities of the computer you're connected to and the software. The universal setting that every communications package can use is Xon/Xoff.

Your communications settings need to be the same on each machine whether you're using a modem or a direct serial connection. If you're using the modem, you'll have to use the data speed of the lowest common denominator, which will be one of the modems. The fastest modem speed you can use is 14400 bps, the speed of the EO's modem. When using a serial connection, start at the highest speed possible usually 115000 bps. If there are a lot of errors or problems decrease the speed until you have a reliable connection.

Once you have a reliable connection, transferring files will be done using what is called a *file transfer protocol*. There are several protocols you can use. The following are the most common:

Xmodem This is the most common protocol used for transferring files. Every communications package can support Xmodem file transfers.

Ymodem This is a variant of Zmodem. It can be used to send several files at once and offers a more automatic means for transferring files. This is often the protocol of choice when using modern modems and communications packages.

Zmodem This is the newest and most efficient transfer protocol available. If a file transfer is interrupted while using Zmodem, the transmission can be completed without resending the entire file. It is the protocol you should use if you are using a modem and especially if you are using EO's Cellular option.

Kermit This is the file transfer protocol used for most mini and mainframe computers. It is also very good when using the modem with poor line connections or EO's Cellular option. However, this protocol is not usually used with desktop computers.

Text This protocol is used to transfer text files only.

Any document other than a text file must use a protocol transfer to get from one machine to the other. If a document is not a text file, it is considered to be a binary file. The communications packages available for the EO offer you the opportunity to convert your files' format before they are sent to another computer. (See the section on exporting and importing.) Using a transfer protocol is required for either direct or modem connections.

Determining what will work best is usually a matter of practice. If you are going to use a serial cable to connect an EO to another computer, make sure you give yourself enough time to experiment before you need to transfer documents. If you wait until you *have to* get the document from your EO to another computer you will find yourself looking full-faced at Murphy's Law.

Likewise, if you're connecting to the company's mainframe while on the road, you should practice before you leave the office. Otherwise, you'll find yourself trying to get a critical file to your boss and unable to do so because you're unfamiliar with the process.

The process of data communications often seems inaccessible because it has its own language. But it really just another facet of computing technology. If you are patient and take the time you'll be able to send and receive documents from any type of computer wherever you happen to be.

Sharing Documents with a Macintosh

The Macintosh is an extremely popular computer, but the EO has no means of directly sharing documents with a Mac. This should not be considered as a shortcoming; it was a business decision. The Macintosh is a wonderful computer, but there are eight or nine MS-DOS computers for every two Macintoshes in use today. So, if you were designing a new computing device, and had to choose what types of computers you were going to directly connect to, (knowing that you could not do both and get your new device into the marketplace in a timely manner), which would you choose?

If you made a smart business decision, you would choose to connect to the MS-DOS machines. This does not mean that EO is ignoring the Mac. An easy means to connect to the Mac should be available in about a year. It was just a matter of being pragmatic. Apple recognized that being able to share data with MS-DOS machines was a necessity and equipped all Macintoshes with the ability to share data with MS-DOS computers a few years ago. This is another reason why the EO's ability to communicate with MS-DOS machines actually means they can communicate with

Macs. Apple and third-party Macintosh vendors have provided the solutions.

Other than transferring files using a network that is used by both MS-DOS and Macintosh computers, there are some products on the market that you can use to read MS-DOS or EO floppy disks on a Macintosh. These include:

- Apple File Exchange
- PC Exchange
- DOS Mounter
- AccessPC

Each of these utilities enables a Mac to read a MS-DOS disk. PC Exchange, DOS Mounter, and AccessPC are functionally the same. They all mount a MS-DOS disk on the Macintosh's desktop. The Apple File Exchange utility, on the other hand, is an application that lets your Mac read a MS-DOS diskette. Since the desktop MS-DOS disk mounters all operate on the same principles, we will discuss their shared attributes as well as take a look at each utility.

Apple File Exchange

Apple's File Exchange utility is distributed as part of Apple's System software. It was originally introduced when the SuperDrive was first introduced. It can be found in the Apple Utilities folder on the Tidbits disk of Apple's System 7.1 and 7.0 System Disks. If you are only going to be transferring a few files between your MS-DOS machine and a Mac, this is the only utility you really need.

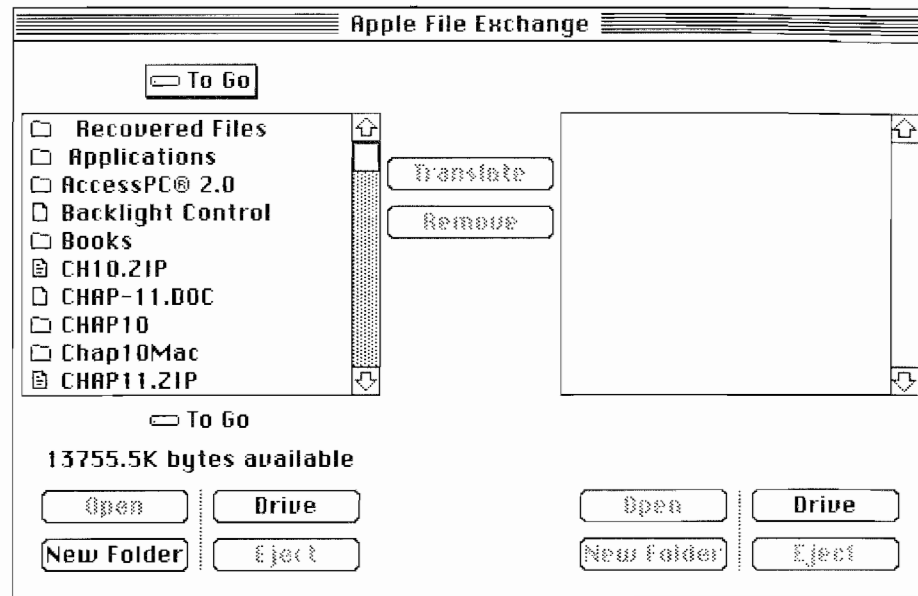
With the Apple File Exchange utility you can transfer files, read, and format MS-DOS disks on your Macintosh.

To use Apple's File Exchange to read and transfer files from a MS-DOS disk:

1. Open File Exchange by double-clicking on the Apple File Exchange icon.
2. After the application launches, you will see a screen like the one in Figure 7.32.

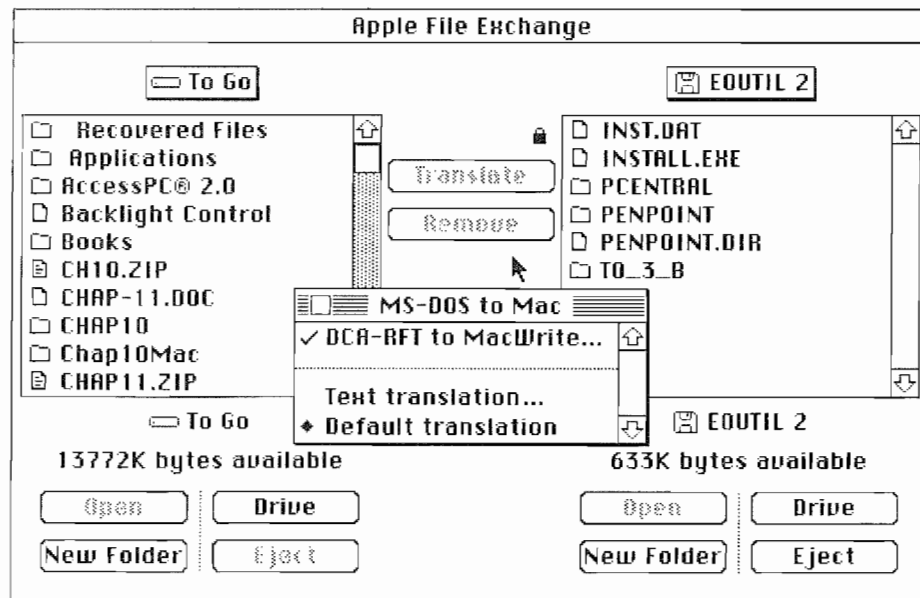
Figure 7.32

Apple File Exchange's main window before inserting a MS-DOS Disk



3. On the left-hand side you can see the directories (folders) on the Macintosh hard disk. The right side is blank until you select the drive button or insert a floppy disk. If you try to read an MS-DOS floppy disk before running the File Exchange utility, the Mac will ask you if you want to format the disk. If you format the disk, you will destroy any data on it and turn it into a Macintosh diskette.
4. Insert the MS-DOS floppy disk.
5. The files and directories on the MS-DOS floppy will appear in the right-hand file window.
6. Select the file you want to transfer by clicking on it with the mouse. When the file is selected, the Translate and Remove button between the two directory windows will become selectable.
7. Select the directory into which you want to place the file you are transferring by double-clicking on it. Remember that Macintoshes use a hierarchical directory system just like your MS-DOS machine's directory structure.
8. Set the translation options by selecting the MS-DOS to Mac menu that appears after step 7. You can see your choices in Figure 7.33.
9. Press the Translate button. The MS-DOS file will be translated if any options were selected, and copied to the selected directory on the Macintosh.

Figure 7.33
File translation
options for
MS-DOS to
Mac file
transfer



When copying Macintosh files for use on the EO you should save the files in a format that is compatible with the EO. This means that word processing files should be saved in RTF format. Files that are going to be used with other EO programs may require other formats. You'll have to check your software's manual. When transferring files from the Macintosh use the Default translation option. The only other detail you need to be concerned with is the name of the file.

Macintosh files can have up to 32 characters in their names, while DOS files can only have 8 characters plus their 3-character extension. So you will have to rename the Macintosh file and give it the proper extension. If you are transferring a Microsoft Excel file named *Sales Report* that you want to use on your EO, you will have to save it as a text file or in a format compatible with the EO application that will use the document. You will then have to rename it to something like *salesrpt.xls*. Otherwise, Apple File Exchange will automatically rename it for you with a name like *sales_re.por*.

DeskTop Mounting Utilities

There are three utilities available for the Mac that will "mount" an MS-DOS disk on the Macintosh desktop. This means that the Mac can display the MS-DOS disk, read its files, and copy files to it.

They are PC Exchange by Apple, DOS Mounter by Dayna Communications, Inc., and AccessPC by Insignia Solutions. All of these products work on the same principles.

These utilities are all Control Panel devices (Cdevs) and can be accessed from the Control Panels folder under the Apple menu in System 7.0 or better, or the Control Panel desk accessory if the Mac is using System 6.0.X. Each utility lets the Mac recognize your MS-DOS disks as if they were Macintosh disks, yet still acknowledges that the disks are MS-DOS disks.

All three utilities allow you to copy files from an MS-DOS (hence an EO) disk to the Mac, or from a Mac file to your MS-DOS disk. An MS-DOS disk that is mounted on the desktop with one of these utilities is treated by the Macintosh as if it were a native Macintosh disk. Each utility also gives your MS-DOS disk a desktop icon that is unique.

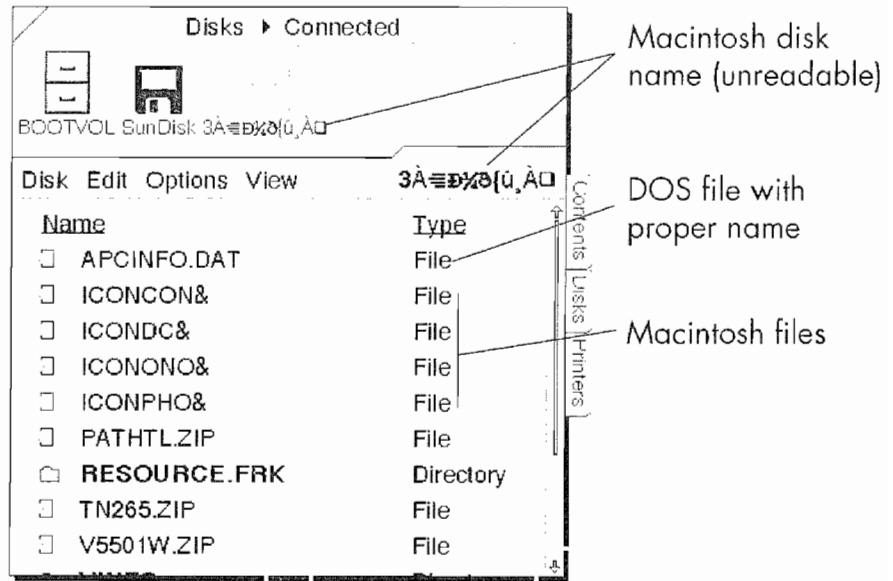
When you copy a file from or to the MS-DOS disk, the file is copied without any type of translation. This means that you have to save the files in a format that can be used on the EO and the Mac. Finally, each utility allows you to map or assign DOS extensions to specific Macintosh applications. The mapping capability lets you launch the application on the Mac by double-clicking on the icon of the MS-DOS file.

Because the files on the EO disk are treated like Macintosh files, you have to watch your file names (depending on the utility), otherwise you will have very strange names when you look at the disk from an MS-DOS machine or your EO (see Fig. 7.34).

You have to change the name of a file copied onto the MS-DOS disk into a name recognizable by a MS-DOS machine.

Each of these utilities works with all floppy disk sizes (provided, of course, that you have the appropriate hardware). A couple of them also work with removable media hard drives, and optical drives that have DOS partitions. These utilities can make it possible for you to share files between MS-DOS machines and Macs without a network. They are handy even if you do have a network, since putting a file on a floppy will work even if the network is down.

Figure 7.34
A MS-DOS disk mounted on a Mac with Macintosh and MS-DOS names

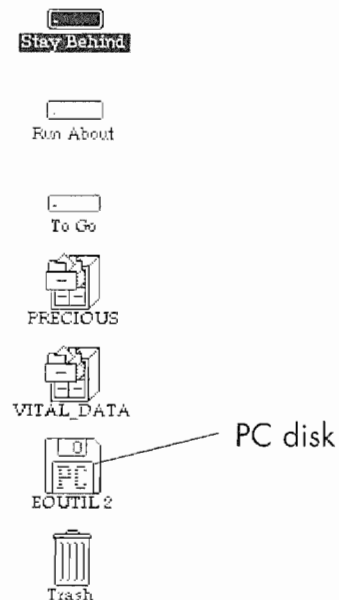


PC Exchange

PC Exchange is Apple's MS-DOS disk mounting utility. You can tell when the Macintosh is running PC Exchange because the desktop icon will look like the one in Figure 7.35.

With PC Exchange and the appropriate drive you can read and format 1.44M or 760K 3.5-inch and 1.2M and 360K 5.25-inch floppy disks. In other words, you can handle all of the possible floppy

Figure 7.35
The Apple's PC Exchange desktop icon



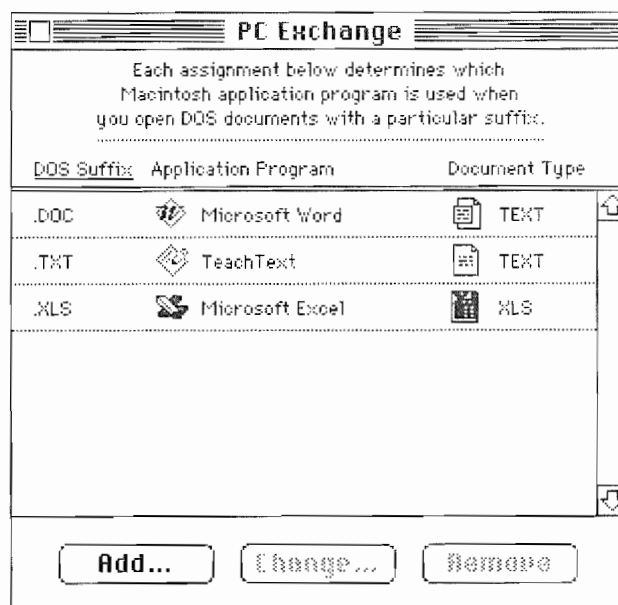
configurations for a standard MS-DOS machine. PC Exchange works with any Macintosh running System 7.0 or later that has an Apple SuperDrive or a Macintosh-compatible 3.5 or 5.25-inch floppy drive. Unfortunately, PC Exchange has the fewest capabilities of all the DOS mounting utilities and only works with floppy disks. So if you need support for Syquest, Bernoulli, or optical disks, especially if you're using one of these with an EO 880, you will need a different utility.

Figure 7.36 shows the Control Panel for PC Exchange. Here you can see that any DOS file with the .doc extension is automatically assigned to Microsoft Word, while an .xls extension is assigned to Microsoft Excel. Although Figure 7.36 shows the default assignments, you can assign an extension to any application and add it to the list in the control panel.

DOS Mounter Plus

Of all the Macintosh desktop mounting utilities, DOS Mounter Plus by Dayna Communications is the most unique. In addition to mounting MS-DOS floppy disks, DOS Mounter will also mount a Novell Netware server volume. DOS Mounter requires a Macintosh with a SuperDrive, and either a Dayna SCSI 5.25-inch floppy drive, or another third party SCSI floppy drive. DOS Mounter does not support Apple's 5.25-inch disk drive.

Figure 7.36
PC Exchange's
control panel



At one time (in the very recent past) the netware capability was part of Dayna's Net Mounter, while DOS Mounter was strictly for mounting removable media disks, including floppies. Now Dayna has combined both utilities into one product. Figure 7.37 shows the icon DOS Mounter creates on the Macintosh's desktop.

DOS Mounter does not allow Macintosh file names on MS-DOS disks. If you copy a Macintosh file to a EO disk-mounted with DOS Mounter, you will get a file name like the one in Figure 7.38. DOS Mounter treats file names in the same manner as the Apple File Exchange utility.

Like PC Exchange, DOS Mounter's control panel is used to link DOS extensions and Macintosh applications. This means you can

Figure 7.37

The Dayna's
DOS Mounter
desktop icon

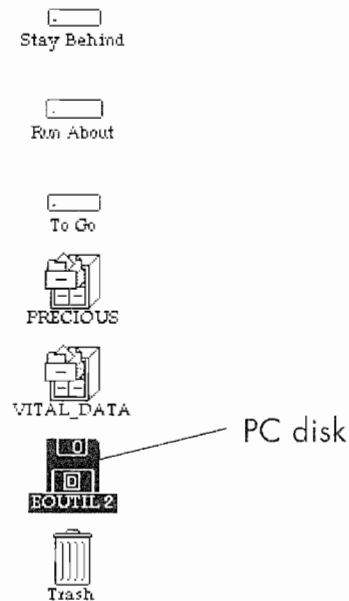
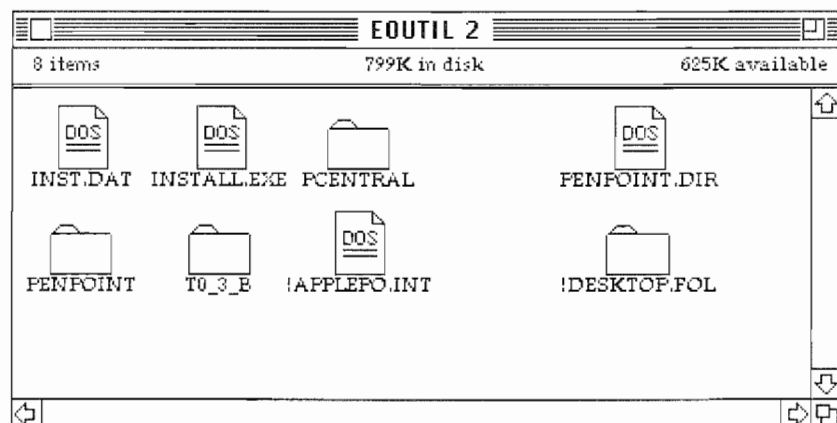


Figure 7.38

An MS-DOS
disk mounted
on a Mac with
DOS Mounter



save your MiniText document onto a disk and call it something like REPORT.RTF, and then tell DOS Mounter to open any .RTF file in Microsoft Word.

AccessPC

AccessPC is published by Insignia Solutions. AccessPC works like Apple's and Dayna Communications utilities and has the same basic features. AccessPC's desktop icon is shown in Figure 7.39.

AccessPC also comes with a removable hard disk driver called MULTI-DRIVER and a hard disk formatter called Media Formatter. MULTI-DRIVER is needed if you are going to use MS-DOS removable media disks on your Macintosh. If you have an EO 880 and a Macintosh with a removable media drive you can use the removable media drive on both machines.

Once again, a control panel is used to control this DOS disk desktop utility (see Fig. 7.40). The AccessPC control panel has the usual section for assigning extensions to Macintosh applications plus a couple of extra features.

Like DOS Mounter, AccessPC also converts Macintosh file names so that they are recognizable by a MS-DOS machine. In the AccessPC control panel are some additional options, the SPMount and

Figure 7.39

The AccessPC
desktop icon

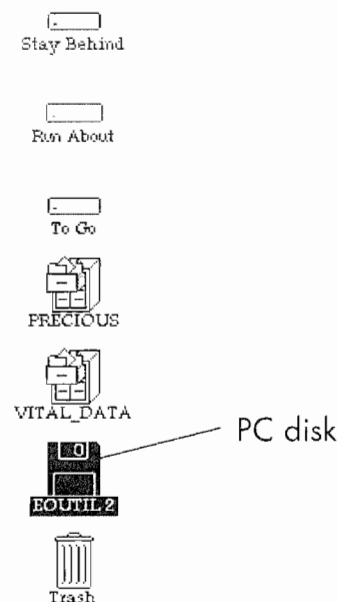
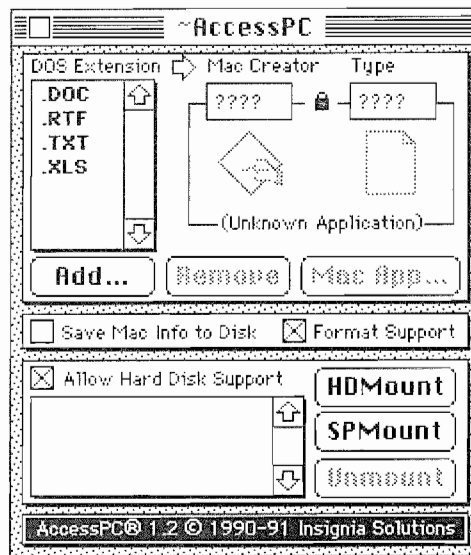


Figure 7.40
AccessPC's
Control Panel



HDMount buttons. The SPMount button in the AccessPC control panel is for mounting a SoftPC hard disk partition and the HDMount button is for mounting a MS-DOS partition on a removable media hard drive (this option requires MULTI-DRIVER).

Using any of these utilities will let your Macintosh read a disk from the EO's floppy drive, a removable media hard disk used with an EO 880, or a floppy disk from a PenCentral file server. So as you can see using EO documents on a Mac, or Mac documents on an EO, is not a problem.

Serial Connections

If you do not have an EO floppy disk drive and need to transfer documents from an EO to your Macintosh, or vice versa, you can always use a direct serial connection. To make this work, you will need a communications package for the Mac, a null modem cable that will work between the EO and the Mac, and a communications package on the EO. Truthfully, it will cost a lot less money to purchase an EO floppy drive than it will to buy a communications package for both the EO and the Mac plus a cable.

Even though the serial port on the EO looks like the serial port on a Macintosh, a cable that will work between two Macs will not work between an EO and a Mac. You must get a special cable. Otherwise, using a serial connection has already been briefly discussed. Once again, you should experiment before you need the connection.

PenCentral—Everything You Need to Know

PenCentral is a program written by SunSelect, a subsidiary of Sun Microsystems, Inc., for the PenPoint operating systems. Using PenTOPS from your EO requires no more than attaching the EO to the MS-DOS machine running PenCentral and opening the Connections accessory. However, PenCentral can be a bit more challenging. PenCentral is an MS-DOS program that needs to be installed and configured before you can connect your EO to the MS-DOS machine. This section will go through the installation steps, configuring, and troubleshooting of PenCentral.

Note *PenCentral can be used on a machine running OS/2 version 2. On an OS/2 machine it will have to run in a Virtual DOS Machine (VMD). If you want to run PenCentral on a machine running Microsoft Windows, you will have varying degrees of success. PenCentral is not really compatible with a Windows machine, but it has been known to work. Using PenCentral in a DOS Window on a Windows machine is not supported by EO or SunSelect.*

Installation

Included with your EO is a 3.5-inch floppy disk. This disk contains the PenCentral program and installation files. Before you install PenCentral, you need to be sure your MS-DOS machine has the following:

- A computer running MS-DOS that is compatible with an IBM PC, XT, AT, or PS/2
- At least 512K memory
- A serial port, either a RS 232 (a 25-pin serial port) or a RS 232C (a 9-pin serial port). The EO comes with a RS 232C to RS 232 converter so the cable will work with either type of port.
- A 3.5-inch high density drive (1.44 M)
- The floppy disk that came with your EO
- The PC connection cable (also included with your EO)
- A modem is optional, if you want to use PenTOPS Modem from your EO you will need a modem on the MS-DOS machine.

- A mouse is optional.

Before you start installing PenCentral you should make a back-up of the floppy disk that came with your EO. If you need help making a back-up disk, check your MS-DOS manual.

To install PenCentral:

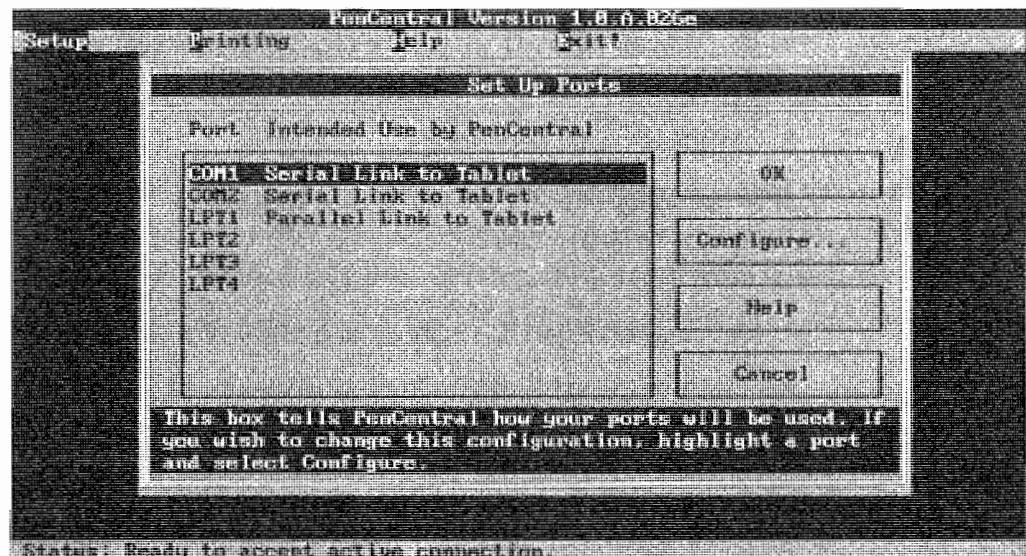
1. Insert the floppy into your computer.
2. At the system prompt (C:\>) switch to the drive containing the floppy by typing either A: or B: and then press Enter.
3. At the prompt (A:\> or B:\>) type Install and then press Enter.
4. Select the drive and directory to which you want the PenCentral files copied and select Begin.
5. These steps complete the initial installation. After the PenCentral files have been copied to your hard disk or another floppy you will see a screen like the one in Figure 7.41.

Note

If you are using a mouse, there is a possibility that your mouse is a serial mouse and connected to one of your serial ports. This means you will only have one other serial port to use for your EO in the default PenCentral Configuration window. However, it is possible to add additional serial ports if they do not exist on your computer. The EO cannot perform data transfers using the parallel port, so this option will not be discussed.

Figure 7.41

The PenCentral Server configuration screen



Configuration

The next step will be to configure PenCentral. PenCentral will list the serial and parallel ports it found on your computer next to the ports it can use. The next thing you have to do is tell PenCentral which ports you want to use and how you want to use them.

To configure PenCentral:

1. Select the first port by using your mouse or the cursor keys.
2. Select the Configure button. You will see a screen that looks like Figure 7.42.

Your choices will be:

Serial Link to Tablet Use this selection to configure PenCentral to use the selected port for a serial connection.

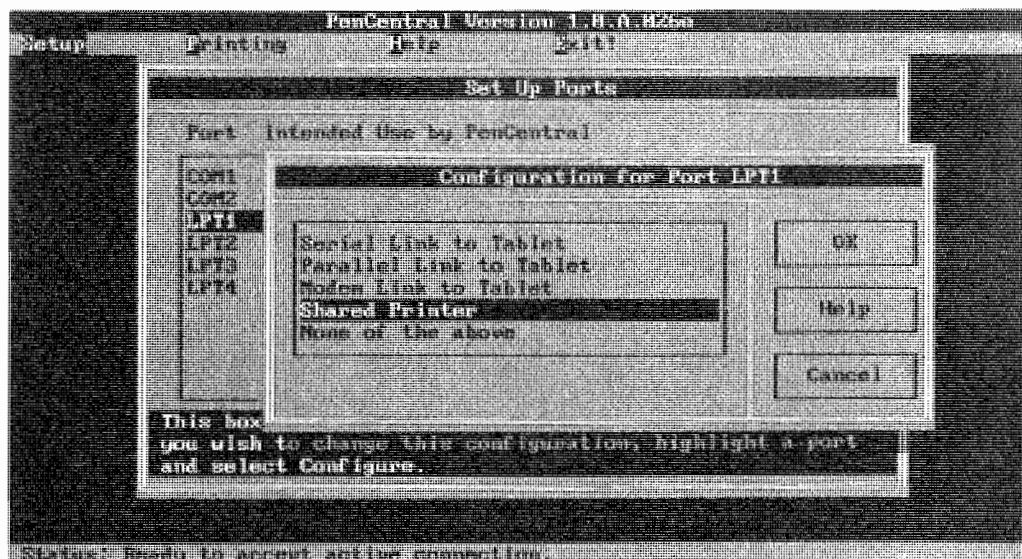
Parallel Link to Tablet This selection is not supported by the EO.

Modem Link to Tablet Use this selection to configure PenCentral to use the selected port for a modem connection if you are going to use PenTOPS Modem on your EO.

Shared Printer Use this option to share a printer connected to your computer with your EO. A printer can be on either a parallel or a serial port, although most printers for MS-DOS computers use the parallel port.

Figure 7.42

The Port Configuration window



- None of the Above** Select this option if you are not going to use the selected port with your EO.
3. Select the option you want to use for the port using the mouse or the cursor keys.
 4. Repeat steps two through three for each listed port.

When PenCentral installs itself, it looks at your MS-DOS computer's configuration and automatically sets up all of the floppy, hard, and network drives as being available for use with an EO. If you want to change the volume configuration, you will have to manually edit PenCentral's configuration file. (This is discussed in its own section later). You can also make directories on any MS-DOS volume available as individual volumes using some DOS tricks which are also discussed later.

Once you have configured PenCentral, you can connect your EO to the MS-DOS machine. If you are not going to print using PenCentral, and you are happy with all of your drives being available without modification, you can skip the rest of this section and look at Using PenCentral.

Changing Your Configuration

Sometime after you have installed PenCentral, you may need to reconfigure it for a printer or change how the ports are assigned. To do this you will need to access the Configuration window in Figure 7.43.

To reconfigure PenCentral after installation:

1. Start PenCentral.
2. Put any EOs connected to the server into Standby mode by pressing the On/Standby button.
3. Select the Setup menu and either click with your mouse or press the Enter key.
4. Select the Ports menu item from the menu.

You will receive the same window as you did when you first set up PenCentral. To reconfigure the ports, follow the steps at the beginning of this section on configuration.

Printer Configuration

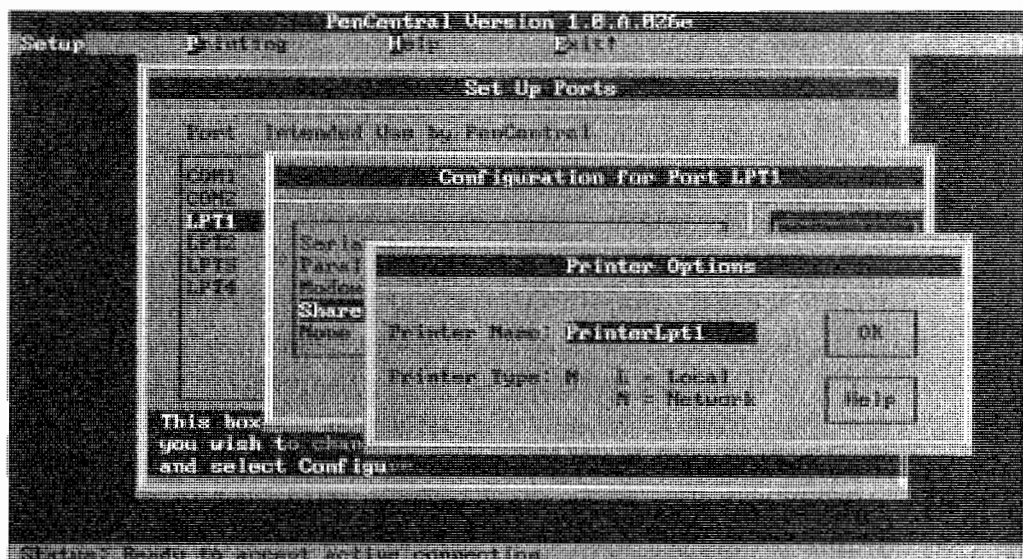
Before you make your printer available to the EO, you have to make sure it is compatible. The previous section on printers lists all of the compatible printers. Once you know that your MS-DOS machine's printer is compatible, you can make it available to your EO. Using PenCentral as a print server makes it possible for you to use a serial printer with your EO as long as it emulates one of the compatible printers.

To share a printer with your EO:

1. Follow steps one through four from the Changing Your Configuration section.
2. Select the port to which the printer is attached.
3. A window like the one in Figure 7.43 will appear.
4. In the Printer Name field, enter a name to identify your printer.
5. Select the Printer Type field and type an L for a printer attached to your MS-DOS machine or an N for a networked printer.
6. Select the OK button and press the Enter key.

This will make the printer available to your EO. Repeat these steps for however many printers you have connected and want to make available to your EO. You will have to finish setting up the printer

Figure 7.43
The Printer Configuration window



connection on your EO. To do this see the section on setting up your printers.

Modem Configurations

To enable modem access to PenCentral you need to have a modem attached to the PenCentral server. Once the modem is attached, you'll have to follow the steps in the Changing Your Configuration section and tell PenCentral that you have attached a modem to one of your serial ports. After you have configured a port for a modem you may have to perform some additional steps so PenCentral will properly use the modem. PenCentral assumes that you are using a standard Hayes compatible 2400 baud modem.

If you are using a different type of modem you will have to change PenCentral's configuration file so it will know how to talk to the modem. PenCentral will support a variety of modems and has included configuration settings for the following modems:

- Telebit T2500
- Hayes V-series SmartModem 9600
- Practical Peripheral PM14400FXSA V.32bis
- MultiTech MultiModem V32
- Hayes 1200 "dumb" modem
- Ventel 9600 Plus
- Viva 9642e 14.4/Fax and Viva 9642e

If you do not have one of the modems listed above, you will probably have to call your modem's manufacturer to set all of the configuration options correctly. Setting modem initialization strings, the commands that make the modem work properly, can drive the initiated crazy; novices may commit suicide. If you have to change the settings and you have one of the modems listed above, you should print out the file in your PCentral directory called MODEMS.DAT. (This is the default directory PenCentral makes when it is installed. If you renamed the directory the file will still be in it.) Use this file as a guide for changing the settings in PenCentral's configuration file. MODEMS.DAT is a text file that you can read or print with a text editor like Edit in MS-DOS 5.0.

The PenCentral Configuration File

Everything PenCentral does is controlled by a text file called PENINFO.DAT. This file can be found in the PCENTRAL directory or the alternate directory you created when installing PenCentral. To edit the PENINFO.DAT file you will have to use a text editor like the Edit program in DOS 5.0. However, before you edit the PENINFO.DAT file, make a backup. If you make a mistake, PenCentral will not work and you'll need the original file to restore PenCentral.

By editing the PENINFO.DAT file you can modify the following:

- Volume Names
- Modem Settings
- Assign Passwords to volumes
- Assign read and write restrictions to volumes
- Set PenCentral for access by multiple EOs

In order to help you change these settings, this section will look at the different sections of the PENINFO.DAT file and explain what the settings are and the changes you can make. This information is *vital* if you are going to customize PenCentral. If there are any errors in the PENINFO.DAT file, PenCentral will not work.

Server Configuration Information

The following section of the PENINFO.DAT file sets the default values for your PenCentral server. The format for the PENINFO.DAT file is as follows:

Parameter name or description (allowable settings): Current setting

To change a setting, enter a new value after the ":" on the settings line. In the section of the PENINFO.DAT file below, the numbers before the lines are added for easy reference. Your file should not have numbers in front of the configuration setting.

PenCentral Server Configuration Information

1. PenCentral server name (up to 31 chars): PenServer
2. Total number of configurable COM ports (1 - 16): 2

3. Total number of configurable LPT ports (1 - 8): 4
4. Last configurable drive (C - Z): P
5. PenCentral system directory: C:\PCENTRAL
6. Inactivity time-out value, in minutes (0 - 10): 5
7. Floppy polling frequency, in seconds (0 - 120): 0

Line 1 is the Server's volume name that you will see in the EO's Connections accessory. If you want a different name to appear on your EO, replace the name "PenServer" with the name you want to use. You can use any characters except spaces.

Line 2 tells PenCentral how many serial ports you have available. If you have more than two ports, enter the correct number here. Most MS-DOS machines have one to four serial ports. If you have more you will need special software to access them.

Line 3 tells PenCentral how many parallel ports you have available. If you have more than four ports, enter the correct number here. Most MS-DOS machines have one or two parallel ports. If you have more than three you will need special software to access them.

Line 4 is set by PenCentral from the LASTDRIVE command in your CONFIG.SYS file. This line is used to tell PenCentral how many hard drive volumes you have. If you plan on making directories into individual volumes, and you will be accessing more than three volumes, you should include the LASTDRIVE command in your CONFIG.SYS file. See your MS-DOS manual for more information.

Line 5 tells PenCentral how long to wait before it will try to access an EO connected to another serial port. To use more than one EO on a server you need to change this setting to zero. The "5" in this line means that PenCentral will wait for five minutes of inactivity (this is the default setting) from the port it is connected to before it will allow another port to have access to the server. Before changing this value, read the section on Configuring PenCentral for Several EOs.

Line 6 tells PenCentral how often it should update the floppy disk drive. When this setting is zero (the default), PenCentral will not

update a floppy drive until you tell it to, using the Floppy menu item from the Setup menu in PenCentral.

Volume Configuration Information

For each drive, including all floppy drives, hard drives, and network volumes, PenCentral has a section like the one below. This is the information that will be displayed in the configuration file and controls how the EO will use the volume. Although each line that follows is numbered, the lines in your PENINFO.DAT file should not be numbered. These numbers are for reference only.

1. DriveC:
2. Type of Drive (E = Excluded, N = Network, F = Floppy, H = Hard Disk): H
3. Network Name of Published Drive (up to 15 chars): MS-DOS_5
4. Password for Drive (up to 15 chars):
5. Directories in root to exclude:
6. Read/Write Access for Drive (R = Read Only, W = Read and Write): W

Line 1 is the actual DOS drive. DriveC means that the information that follows pertains to the main hard drive. DriveA would mean that the drive was your MS-DOS machine's A drive, which is usually a floppy.

Line 2 tells PenCentral the type of drive DriveC is. Your choices are to exclude the drive so it will not be available to the EO, a network drive, a floppy, or a hard disk. The letter after the ":" designates the type of drive. If you disable a drive, it will not be available to the EO next time PenCentral is started. Also, all information past the line 2 will be disregarded.

Line 3 assigns the name that will be displayed on the EO when it is connected to the server. Volume names must be unique. If you have duplicate volume names, PenCentral will issue an error message on startup and not run.

Line 4 is used to password-protect a volume. The password can be up to 15 characters and can't contain any spaces. If you assign a

password to a volume, you will have to enter the password on your EO every time you access it.

Line 5 is used to prevent specific directories from being displayed when the volume is mounted. If you do not want an EO user to access the DOS directory on the server's drive, you would put DOS onto line 5. To enter multiple directories to exclude separate the directory names with commas. To exclude the DOS and WINDOWS directory type DOS'WINDOWS into the line. There should only be a space after the ":" that defines the line.

Line 6 is used to set the type of access the EO will have when it mounts the volume. If you have information on a volume that you do not want others to modify, but they need to read or copy it you can set the access to Read Only. Otherwise, the EO user will have full access. The W that means the EO can read and write to the volume. You must use either R or W.

Serial Port Configuration Information

The serial port configuration section is used to customize the way in which PenCentral will use a serial port. You will probably only need to modify this information if you are connecting a printer or if you are having problems with PenCentral. Although each line below is numbered, the lines in your PENINFO.DAT file should not be numbered. Again, these numbers are for reference only.

Configuration for COM Ports

1. COM1:
2. Type of Port (D = Disabled, C = Cable Connect, P = Printer, M = Modem): C
3. Interrupt number: 4
4. I/O Base Address: 3f8
5. Printer Name (up to 15 chars):
6. Printer Type (N = Network, L = Local):
7. Printer Baud Rate:
8. Printer Parity (N = None, E = Even, O = Odd, M = Mark, S = Space):

9. Printer #data bits (5 - 8):

10. Printer #stop bits (1 - 2):

Line 1 is the number of the serial port being configured. Each serial port has a number like COM1, COM2, and so on.

Line 2 tells PenCentral how the Port is being used. Cable Connect is the setting if the serial port is going to be used to connect to an EO. You can also disable any port by using the D. If you disable a port, it will not appear as a configurable port from PenCentral's Setup menu. Also, all information past line 2 will be disregarded.

Line 3 is a hardware setting. This is one setting you may have to change if you have customized your MS-DOS machine's IRQ settings. The number here must be the same as your computer's hardware setting. If you do not know whether this number is correct, you should refer to your computer's hardware manual.

Line 4 is similar to line 2. The I/O Base Address must be the same as your hardware's I/O Base Address for the COM port being configured. If you do not know whether this number is correct, you should refer to your computer's hardware manual.

Lines 5 through 10 are only used if you are using the serial port for a printer.

Line 5 holds the name assigned to the printer that will be displayed on the EO. It can be up to 15 characters long and cannot contain spaces.

Line 6 tells PenCentral whether the printer is directly connected to the server (Local) or networked.

Lines 7 through 10 are used to set the communications settings for the serial port. If these settings are incorrect, the server will not communicate properly with the printer. If you do not know what settings to put in these lines you should refer to your printer's manual.

Parallel Port Configuration Information

The parallel port configuration is similar to the serial port's except you do not have any communications parameters to set. These

configurations will only be discussed as they pertain to printer settings, because the EO cannot communicate through a serial port. Although each line that follows is numbered, the lines in your PENINFO.DAT file should not be numbered; these numbers are for reference only.

Configuration for LPT Ports

1. LPT1:
2. Type of Port (D = Disabled, C = Cable Connect, P = Printer): D
3. Interrupt number: 7
4. I/O Base Address: 378
5. Printer Name (up to 15 chars):
6. Printer Type (N = Network, L = Local):

Line 1 is the number of the serial port being configured. Each serial port has a number like LPT1, LPT2, and so on.

Line 2 tells PenCentral how the port is being used. When being used with the EO, this should only have a P for printer or a D for disabled on this line. If you disable a port, it will not appear as a configurable port from PenCentral's Setup menu. Also, all information past the line 2 will be disregarded.

Line 3 is a hardware setting. This is one setting you may have to change if you have customized your MS-DOS machines IRQ settings. The number here must be the same as your computer's hardware setting. If you do not know whether this number is correct you should refer to your computer's hardware manual.

Line 4 is similar to line 2. The I/O Base Address must be the same as your hardware's I/O Base Address for the COM port being configured. If you do not know whether this number is correct, you should refer to your computer's hardware manual.

Line 5 holds the name assigned to the printer that will be displayed on the EO. It can be up to 15 characters long and cannot contain spaces.

Line 6 tells PenCentral whether the printer is directly connected to the server (Local) or networked.

Parallel printers do not need to be configured. So there are no additional settings to worry about.

Modem Configuration Information

The Modem Configuration section contains all of the information to control a modem attached to your PenCentral server. As mentioned previously, there are alternate configuration settings for the modems listed in the MODEMS.DAT file. If you have one of the alternate modems listed, you can copy the configuration from the MODEMS.DAT file and paste it into your PENINFO.DAT file. Be sure to remove the old configuration section.

If you do not have one of those modems, you can always edit the modem configuration section. However, if you have a modem that is not listed, you should try the default settings first. In most cases you will not need to alter it. If you do need to alter the file, you should concentrate on the line listed below; it is the one that will probably cause the most problems if a modem is not working properly.

Modem Initialization String: ATE0Q0V1X4&C1&D2S0=0

The preceding line is used to set the modem. The commands are all modem commands and different modems use different commands. Even though there is a basic industry standard for modem commands, many companies add their own commands to the standard set or use standard commands in a nonstandard manner. These commands can affect how well data is transferred.

If you have a modem that is not listed, you will have to sit down with the modem's manual and work your way through the commands. It will probably be easier to call the modem manufacturer and get their technical support department to help you.

If the default settings do not work for you, try using the settings from the other modem configurations. If you are using a 14.4 modem, try the settings from the 14.4 modems in the MODEMS.DAT

file. You just might luck out and find that the commands for one of these modems will work with yours.

The following is what the default modem configuration section looks like.

Modem Configuration Information for 2400 baud Hayes-compatible modem (PCENTRAL default strings)

- Modem String Terminating Char (hex): d
- Modem Command Postfix String:
- Modem Attention String: AT
- Modem Reset String: ATZ
- Modem Initialization String: ATE0Q0V1X4&C1&D2S0=0
- Modem Answer String: ATA
- Modem Hangup String: ATH
- Modem Command Mode String: +++
- Modem OK String: OK
- Modem Connect String: CONNECT
- Modem Reliable String:
- Modem No Carrier String: NO CARRIER
- Modem Phone Ring String: RING
- Modem Error String: ERROR
- Modem Force Baud Rate: 0
- Modem Match Baud when Connected Reliably (Y/N): Y
- Modem Match Baud when Connected Non-Reliably (Y/N): Y

Customizing PenCentral

This section will briefly tell you how to customize PenCentral and take advantage of its features. To take advantage of some of these features you will have to edit the PENINFO.DAT file, and you will also have to use some special DOS commands. The information you need for the PENINFO.DAT file has already been presented. If you are unfamiliar with the DOS commands or concepts used here you should refer to your MS-DOS manual.

Remember, before you modify any files make a back-up of the file. The following sections are going to be very brief, giving you only the information you need to accomplish the task at hand.

Setting Up MS-DOS Directories as PenCentral Volumes

To set up a DOS directory as a volume (virtual drive) you have to use the DOS SUBST command. This command tells DOS to make a directory available as a directory at a system level. When you run PenCentral it will see the volume created by the SUBST command and treat it like another hard drive. Each directory you turn into a volume will have its own drive letter. The following is an example:

1. Your MS-DOS machine has hard drives C: and D:.
2. Using SUBST you make the directories BUSINESS and PERSONAL available as volumes by adding the following lines to your AUTOEXEC.BAT file:

```
SUBST E: C:\BUSINESS  
SUBST F: C:\PERSONAL
```

The letter directly after SUBST is the assigned drive's letter.

3. Edit the volume information for Drive E and Drive F in your PENINFO.DAT file. Be sure to enter values for all of the variables. If you do not have DriveE or DriveF sections in the PENINFO.DAT file, copy one of your existing volume information sections and modify it by changing the lines for the new volumes.
4. Edit the Last Configurable Drive line in the Server Configuration Information section of the PENINFO.DAT file. The drive letter should be the same as the drive letter in the LASTDRIVE line of your CONFIG.SYS file.
5. Make sure the LASTDRIVE command in your CONFIG.SYS file is set to include the new drives. If you do not have a LASTDRIVE command, you will have to add it. If you do not add the LASTDRIVE line, DOS will not create drive F.

When you start PenCentral you will have two additional drives available to your EO. You will not have any more disk space because the virtual drives are actually part of drive C.

Note *If you are using the SUBST command when you install PenCentral, PenCentral will give the virtual drives the same name as your C*

drive. When this happens, PenCentral will not start and you will have to edit the PENINFO.DAT file to fix the problem. See the troubleshooting section for more information.

Configuring PenCentral for Several EOs

To use PenCentral for several EOs you will have to have additional serial ports. Most MS-DOS machines only have two COM1 and COM2. You can purchase a card to add serial ports for less than \$50.00. When you add serial ports for the purpose of using several EOs on your server, you will have to modify the PENINFO.DAT file.

To make a PenCentral server capable of supporting several EO's:

1. Edit the Server Configuration Information section, setting the Inactivity time-out value, in minutes (0-10): 0.
2. If you have created virtual drives from directories, edit the volume configuration information to exclude the directories that have been converted to virtual drives on the hard drive containing the directories. Directories in root to exclude: BUSINESS:PERSONAL

Step 1 turns off the inactivity time-out. This makes it possible for more than one EO to access the server at the same time. There is a disadvantage to using more than one EO on a PenCentral Server. The server will have to switch between the various machines, which means the server will slow down and your data transfers will take longer.

Step 2 is required to prevent data loss. If you do not exclude the directories being used as virtual drives, a second EO can access one of the directories while it is being accessed by someone as a virtual drive. The result will be data loss and/or scrambled files. This is because the virtual drives will have bookshelves of their own and a special PenPoint directory that contains all of the PenPoint data on the disk. Documents placed in the virtual drive may not be available from the C drive and vice versa.

Note *Do not create a virtual drive out of sub-directories (a directory within a directory). There are limitations in DOS that could make accessing sub-directories problematic. Also, if you store notebooks, applications, or other documents that require a view other than the Directory view to be accessed, these documents will not be avail-*

able if you try to access them from the drive that contains the directory being used as a virtual drive.

Making a PenCentral Server Secure

To make a volume available to the privileged few who have the password, you will have to add the password to the Volume Information section for the drives that will have limited access. The best strategy would be to make virtual drives out of directories and then password protect the virtual drives. This way you can have private volumes for multiple users where their data would be secure and only available to them and whomever takes care of the server.

Making a PenCentral Application Server

If you have several EO users, and want to distribute software to all of them, you can make PenCentral work as an application server.

To create an application server:

1. Create a directory for each diskette that comes with the new application.
2. Copy the contents of each application diskette to its directory using the DOS XCOPY command.
3. Make each directory a virtual drive.
4. Exclude the virtual drives from their parent drives.
5. If the floppy disk was set to create a PenPoint quick installer when it is mounted, the application will be installed when the volume is accessed from an EO.

Note *Remember that it is illegal to purchase one copy of a piece of software and install it on multiple machines. You must purchase a copy of the software for every EO it will be installed on or have a site license from the software manufacturer. Otherwise you will be subjecting yourself and your company to legal and criminal liability. Read the License Agreement that comes with your software to make sure you're using it legally.*

Troubleshooting

Things do not always go right. If you never have problems with PenCentral, count yourself among the blessed. It is quite possible that you will have problems. The problems listed here and their

solutions are not exhaustive. They are only the most common problems you might (but hopefully will not) run across.

There are two major causes for problems. The first has to do with installation of PenCentral. The other occurs either when you disconnect an EO while it is accessing the server, or the server has a problem and PenCentral is not properly shutdown (i.e., you reboot the server without first exiting PenCentral). *Always put the EO into Standby when connecting to or disconnecting from a PenCentral server or before you shut down a PenCentral server.*

Regardless of what causes the problem you will know when you have one because PenCentral will not be working properly. The most likely symptom of problems, other than an error code, will be the absence of your files. This is the scariest thing that can happen with a PenCentral server. All of the documents, Bookshelf items, directories, and anything normally seen in the other disk views disappears. If this should happen, do not panic. The files are not lost.

When PenCentral and the EO are not communicating, the problem is not always caused by PenCentral. The problem can be on the EO. This is because PenPoint keeps a file that is used to speed access to the PenCentral server called a *swap file*. You will never see the swap file, but it does exist. This file contains settings used by PenPoint which can affect how it interacts with a PenCentral server. If the EO's swap file or other PenPoint files are not working properly, you will have to perform a Recover Reboot of the EO. This procedure is covered in chapter 10 and should only be used as a last resort.

If you have problems with PenCentral and your EO, one of the following events has probably occurred.

- A file called PL.DID is corrupted.
- A file called PENPOINT.IDX has become corrupted.
- A file called a Swap file on the EO is corrupted.
- A file called PENPOINT.DIR has been deleted (or very badly damaged).

If any of the above occur you will probably be unable to see the files stored on the PenCentral Server. The first three problems can

all be fixed. If you have the fourth problem you are truly out of luck; however, the chances of this occurring are very slim. To get your files back, perform the following steps in order. By the time you are done, your data should be visible on the EO. It is possible that your files will reappear after a couple of the steps have been performed, or you may have to complete all of them.

Part A

1. Put any EOs connected to the server into Standby mode. While you troubleshoot the server, connect only one EO to the server.
2. Shut down PenCentral.
3. Look for the PL.DID file on the root level of the MS-DOS drive. Any virtual disks will also have a PL.DID file. Delete the PL.DID file for the drives that are not appearing.
4. Restart PenCentral.
5. Reconnect the EO and turn it on.

If your files return, the problem is solved. Otherwise perform all of the steps in Part B.

Part B

1. Perform steps 1 through 3 in Part A.
2. Open the PenPoint directory that is on the root level of your MS-DOS drive and delete the PENPOINT.IDX file. Perform this step for all drives that have lost their files. Remember that all virtual disks will have a PenPoint directory in the directory that has been assigned as a virtual drive. Delete the PENPOINT.IDX files inside the directories that are being used as virtual drives.
3. Restart PenCentral.
4. Reconnect the EO and turn it on.

If you have performed all of the steps in Parts A and B and your information is still missing, you should repeat steps 1 and 2 in Part B and then perform the steps in Part C1, if you have a hard disk. If you do not have a hard disk, perform the steps in C2.

Part C1

Perform these steps only if you have a hard drive. Also, make sure you have your AC adapter is plugged into the EO.

1. Perform steps 1 and 2 from Part B.
2. Without connecting the EO to the server, turn it on.
3. Open the Settings Notebook.
4. Turn to the Power page.
5. Tap on the Shutdown button.
6. Turn on your EO by pressing the On/Standby button.
7. After the EO has started (this will take about three minutes) put it into Standby mode.
8. Restart PenCentral and connect the EO to the server.
9. Turn the EO on and use the Connections accessory to access the server.

If your files are still not visible, repeat the steps above replacing step five with the following:

5. Perform a Recover Restart by holding down the On/Standby button until the EO beeps five times. After performing a Recover Restart, the EO will automatically start, so step 6 is not necessary.

Part C2

Perform these steps only if you do not have a hard drive. Make sure you have your AC adapter plugged into the EO.

1. Back up all of your documents. This can be done by putting your data onto floppy disks using either the server's floppy drive or a floppy drive attached to your EO.
2. After your data is backed up, perform steps 1 and 2 from Part B.
3. Without connecting the EO to the server, turn it on.
4. Perform a Recover Restart by holding down the On/Standby button until the EO beeps five times. After performing a Recover Restart, the EO will automatically start, but all of your documents will be gone.

5. After the EO has started (this will take about three minutes), put it into Standby mode.
6. Restart PenCentral and connect the EO to the server.
7. Turn the EO on and use the Connections accessory to access the server.
8. Restore your data from the floppy disks.

Note *If you use the floppy drive on the server to back up your documents, be sure you do not put any documents on any of the bookshelves (which should be empty) of your server volumes. If you put data onto a bookshelf that should have documents, but is empty, you will corrupt the PenPoint directory on the server and all of your data will be lost.*

If the EO cannot see the files at this stage, it is probably safe to assume that the PenPoint directory on the server has become corrupted. If the PenPoint directory is corrupted, you will not be able to recover your files. Now you can weep and wail.

Note *You should run a program that comes with DOS called CHKDSK on a regular basis. This program checks your server's hard drive and can warn you if it has problems. It can also fix some hard disk problems. Also, do not let anyone use the server unless you know that they will not delete vital files like the PENPOINT.DIR.*

The following are problems you might have or error codes you might see. Each item has a brief explanation.

Insufficient Memory Memory errors occur when you have so many memory-resident programs running that there is not enough DOS memory for PenCentral to run. You will have to unload or load high your TSRs and device drivers. To fix memory problems you will have to use your DOS manual.

Error Message "Ports with duplicate IO Base address found in PENINFO.DAT": This error message occurs when your PENINFO.DAT has serial or parallel ports with the same I/O Base Address. To fix the problem you will have to edit the PENINFO.DAT file and either disable or reassign the port with the duplicate address.

Error Message "File Server: Could not publish non-existent Volume 'VOLNAME'. Error (-309)": This error message occurs when

a defined drive cannot be found. This error is an alert or an annoyance, depending on what you're doing. It will not effect PenCentral's operation, it just means that some drive is not available for use, most likely a networked volume or a virtual drive.

File Server "Could not publish duplicate Volume 'VOLNAME'. Error (-308)": This error occurs when two or more defined drives have the same name in the "Network Name of Published Drive (up to 15 characters): VOLNAME" line of the Volume Information section of the PENINFO.DAT file. To fix this problem you must edit the PENINFO.DAT file.

Using PenCentral

Once PenCentral is configured there is very little you have to do. You just start PenCentral and connect your EO. However, depending on how you have configured PenCentral, you may end up using some of its menu options. The following is a list of the menus and their functions:

Setup

This is the main menu from which you access the following items.

Ports Ports is used to tell PenCentral how you are using a port as described in the Configuration section above.

Volumes Volumes lets you see which volumes are defined in the PENINFO.DAT file. You can also change a volume name in this window.

Floppies This menu option lets you update a floppy disk. If you do not have a floppy disk in the server when you start PenCentral and then insert one after the server has started, you may not be able to access the floppy until you use the floppy update command.

Printing

This menu displays the Printer Activity window which shows what printers are defined in the PENINFO.DAT file, their status, and print queue. When you print to a networked printer from your EO, the printed document is spooled to the server's hard drive before it is sent to the printer. All spooled documents are stored in the volumes PENPOINT directory. From this window you can also pause and restart a printer.

Help

This menu lists a series of topics about PenCentral for which on-line help is available.

Exit

This menu command causes PenCentral to quit. You should disconnect any EOs using the server before executing this command.

Conclusion

Phew! What an intense chapter! Somewhere within this chapter is everything you need to know to connect an EO to another computer. Most of the chapter covers using the EO in conjunction with an MS-DOS machine or a Macintosh. But the principles for connecting to anything are also here.

Because the topic of cross-platform connections really requires its own book, there are holes in the information in this chapter. For example, you will not find step-by-step instructions for connecting an EO to another computer using a serial or modem connection. However, the basic information you need is there. It was not possible to get everything into this chapter.

As it sits, this chapter is very much like taking a drink from a fire hose. If you are connecting to other computers, and did not see what you wanted, reread the chapter. What you need to get started is here. It's just that there is so much information that you might have missed what you are looking for.

Your Personal Mail Box

Introduction

When you get an EO it comes ready to communicate with anyone anywhere in the world. And you don't need the cellular phone to do it. All you need is the modem option, the software already built into the EO, and the E-mail service called AT&T Easy Link that is included with any EO.

Included in the EO is a software program called GO Mail. GO Mail is more than just a program that lets you use an EO for electronic mail. GO Mail is a system-level software utility that integrates all of the EO's features to enhance its personal communications capabilities. You may know of people who used or are currently using electronic mail. But you have probably never seen it implemented the way it is on an EO.

So you can keep in touch with other people in your profession, your company, or just about anyone else through electronic mail—EO Inc., has made electronic communications a *fait accompli*. Every EO Personal Communicator also includes an account with AT&T

Easy Link electronic mail and fax services. Add to the service an EO Personal Communicator in which every design aspect is geared toward making your communications easier and faster and you'll never be out of touch again.

GO Mail is the EO's electronic mail heart and soul. GO Mail lets you send and receive messages from almost every major electronic mail and online service currently in use. Just as you can pick up a telephone and call almost anywhere in the world, you can use your EO to send and receive messages anywhere in the world. What makes GO Mail so unique, however, is that it is completely integrated with the EO.

To send electronic mail using traditional computing environments (i.e., desktop and notebook computers) you have to have software for each service you want to use. In addition to having to use different software for each service you also have to maintain a separate address book for each one as well. In a traditional environment it is possible to send E-mail and documents around the office, sometimes while in the application you are using. But if you are on the road, you have to resort to the traditional method of starting the communications software you need, attaching your document to an E-mail note, and then sending the document.

With GO Mail and an EO, the task of sending a message or a document is hassle free. GO Mail's features include a system-wide address directory that you can access from any PenPoint document. (Your E-mail addresses are kept in Personal Perspective on an EO.) A dialing location sheet with which you can quickly and easily configure your EO to dial from wherever you happen to be. If you are at a client's office and need to dial using their phone system, you can change your EO dialing setup quickly and easily. And you have only one place to look for incoming messages and another for outgoing messages: the EO's Inbox and Outbox.

If you are communicating with another EO user, messaging and transferring documents is the easiest thing in the world to do. If you are dealing with people who are using traditional computing platforms, it is still easy and quick to send messages and documents to them, but you will have to do a little more work. Regard-

less, there is no easier and quicker E-mail system available for any computing platform.

The basic philosophy behind these features is that you are busy and you do not want to know, nor do you care, how your messages get sent, just so long as they get there. You don't care if the message or document has to go from your EO to the moon and then back to your customer's mail box. All you want to know is that when a message gets sent, it gets where it is supposed to go. And this is how your EO works in conjunction with GO Mail and AT&T EasyLink.

Rather than go through a tedious feature-by-feature analysis of GO Mail we'll use a real-life situation and step through the process of sending and receiving messages using an EO, GO Mail, and AT&T EasyLink services. After actually sending and receiving some messages, a more technical discussion about E-mail will commence that could make your life easier.

AT&T Easy Link

As mentioned above, with an EO Personal Communicator you get an AT&T EasyLink account. The AT&T EasyLink account is a perfect complement to the EO Personal Communicator. With AT&T's EasyLink you will never have an excuse for not getting a message either by E-mail or fax, ever again. Now that can also be scary.

If you want to always get your messages, and if you want to always be able to get your messages delivered, read on. But if you do not want to be in touch or accessible maybe you should skip the rest of this chapter, because this is where you will learn how to connect to the entire world. With your EO you will be able to send faxes and/or messages anywhere at any time.

The Service

With AT&T EasyLink you get two primary services. One is an E-mail account and the other is an Enhanced Fax service. With the E-mail account you get an AT&T EasyLink mail box address from which you send and receive all of your messages. The Enhanced Fax service uses your mail box, and you can send and receive

faxes to or from any fax machine via your AT&T mail box. In other words, you can always get your message through.

With the AT&T EasyLink mail services you can send E-mail to colleagues, clients, and friends even if they use other services like CompuServe or the Internet for their E-mail. Many corporations also have an electronic presence that is accessible from AT&T EasyLink. This means that you can send messages to Corporate E-mail systems if you know their address. All in all, with AT&T EasyLink you will be able to send E-mail to just about anyone who uses a computer and some on-line or E-mail service.

The EasyLink fax service is great—when you're on the road, you are no longer tied to the stand-alone fax machine in the office. Your EO does not need to be plugged in and ready to receive a fax. You can be driving, flying, walking, or at the theatre and always get your fax. (If you're picking up your faxes at the theatre, though, you might want to take a few stress management courses). And it is secure. You don't have to have a fax sent somewhere where it can read by someone else. All of your faxes can go from the sender to your AT&T mail box and then to your EO Personal Communicator and you.

While the advantages for receiving faxes with the AT&T Enhanced Fax service are great, sending them the same way also has advantages. The last minute revisions to a proposal, the details needed to close a sale, or the report you finished for your box while flying to a conference can be delivered from wherever you happen to be, all through an easy-to-use 800 phone number. If the recipient's fax is busy you do not have to sit around and wait, and wait, and wait . . . while the EO redials trying to make a connection. AT&T waits for you. You send your fax once and it gets delivered. Of course, your EO has a built-in fax modem which will let you directly dial the recipient's fax machine, but you may find that using AT&T is easier and even cheaper and more efficient than directly sending your faxes.

Note *When you send a fax using AT&T EasyLink, you can only send text E-mail documents that AT&T converts to a fax. Unfortunately, you cannot fax documents like MiniNote.*

Cost

When you buy an EO you get a free, yes I said free, AT&T EasyLink account. Now you're probably thinking that there is no such thing as a free lunch, and you're right. There isn't. But if you were to call AT&T to get an EasyLink account and get the same features you get when you buy an EO, you would have to pay the following charges:

- EasyLink mail services—\$3.00 per month
- EasyLink Enhanced Fax services—\$10.00 per month

Software (and it is highly recommended that you use the AT&T software even though you could use a standard terminal emulator) would cost:

- EasyLink IBM MS-DOS software—\$150.00
- EasyLink Microsoft Windows software—\$210.00
- EasyLink Macintosh software—\$100.00

Although there is no setup charge to get an AT&T EasyLink account, the service would cost you \$156.00 for a year not including the usage charges. Add to that the minimum cost of the software (\$100.00 for the Macintosh version) and one year of EasyLink would cost you \$256.00. This is what's free with the EO, and you never have to pay the monthly service charges.

What you do have to pay for is the E-mail you send and any faxes you send or receive using EasyLink. You can receive all of your E-mail at no charge to you. However, you gain additional savings with EasyLink and an EO because you get a 20% discount on all fax and E-mail service charges with your special EO account.

AT&T charges you by the character for all E-mail messages or documents you send. This means that you get charged according to the message and/or document's length, so you are billed for only what you use. The standard rates for sending messages are outlined in Table 8.1.

To calculate how much a message would cost, you can figure that a one-page document has approximately 2000 characters. However, if it is a dense document using a small font and single spac-

Table 8.1 EasyLink E-mail charges

Length	US Charges	UK & Western Europe Charges
0-500 characters	\$.50	\$.50
501 to 1000 characters	\$.50	\$.75
1001 to 2000 characters	\$.80	\$1.00
2001 to 3000 characters	\$.95	
Each additional 1000 characters (over 2000)		\$.25
Each additional 1000 characters (over 3000)	\$.05	

ing you could have somewhere around 3500 characters per page. So your average message will probably cost about 64 cents. But before you get excited, you have to figure that all on-line services such as AppleLink, Compuserve, and Internet charge monthly fees that can go as high as \$20 per month, so you can send 25 average messages using AT&T, and your cost would be about \$15. So, although you do not get a completely free lunch, it is like you're only paying for dessert.

Note *The rest of this chapter assumes that you have or are going to have an AT&T EasyLink account. The E-mail features and procedures discussed here pertain only to using AT&T EasyLink. Although there is some information that is general to all types of E-mail, it will probably be of little use if you want to use a different E-mail or online service.*

The Prerequisites

Really, I didn't lie about how easy it is to send an E-mail message, I just forgot to mention that you have to set up your EO to send and receive messages. The setup is basically a one-time affair. After you have called AT&T and received your EasyLink account information (this takes about one week) you can enter your user information into GO Mail and start communicating.

Getting the Account





The information you need to set up GO Mail is your user name and your password. You will receive from AT&T a subscriber ID number, a *numeric password*, a *user name*, and an *alpha password*. Your user name is how messages will be addressed to you it is your AT&T Mail address. The numeric and alpha passwords are what you need to gain access to the EasyLink services.

You are given a numeric password because you will need it to access your account from a touch-tone phone so others can send faxes to your AT&T mail box. The alpha password is what you will use with your EO so you can send and receive mail. The Subscriber ID is a number that AT&T will use to keep track of you. After you have this information you can start to use your EO and AT&T EasyLink.

Setting up GO Mail

To set up GO Mail so you can send and receive messages, you will need to set up both the Outbox and Inbox. These are special system notebooks used specifically for receiving and sending documents (documents mean mail, fax, and printed documents), so you cannot create any documents inside these notebooks.

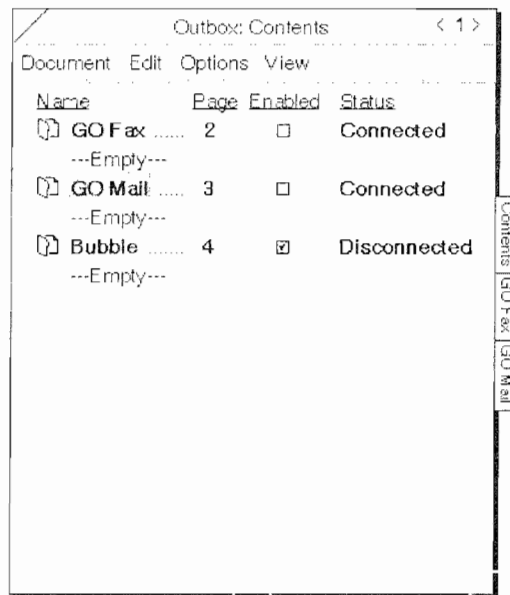
To set up your Outbox to send messages:

1. Tap  on the Outbox icon at the bottom of the EO screen to open the Outbox Notebook. Figure 8.1 shows the EO's Outbox.
2. Select the GO Mail section by tapping  on it.
3. Tap  on the Options menu or gesture a check mark  on the section title. These are "GO Mail...," "Dialing Location," and "AT&T Mail...."

Note

If you wish you can basically ignore this section for setting up GO Mail. GO Mail will automatically ask you for your user account name and password when you connect. The only change you need to be concerned with is whether or not you are using the EO's Cellular option. If you're using the cellular phone you will have to change the Modem setting from Phone Line to Wireless. The information in this section is for the technically inclined.

Figure 8.1
The EO's
Outbox



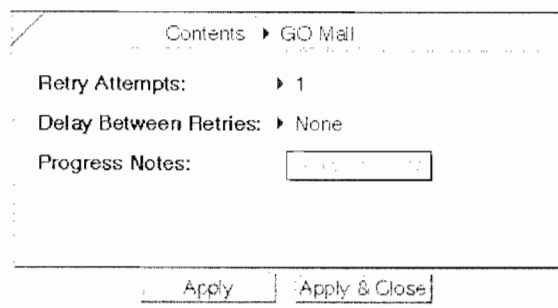
The GO Mail options sheet is how you customize your AT&T EasyLink access. With this options sheet you configure the number of retry attempts the EO makes to send your E-mail to AT&T, and on to its recipient. Figure 8.2 shows the GO Mail options sheet. The settings for the GO Mail options follow:

Retry Attempts This setting is used to specify how many times your EO should try to send your messages. The number of retry attempts range from 1 to 16.

Delay Between Retries This option determines how long your EO will wait before attempting to resend your messages. You can set this option from 15 seconds to 15 minutes.

Progress Notes This is not an option, but a button called Show Progress. This is the button you use to see what's going on if you close the dialog sheet that shows the progress of your AT&T mail connection.

Figure 8.2
The GO Mail
options sheet



The next options sheet is the Dialing Location. You use the Dialing Location options sheet (Fig. 8.3) to tell the EO where you are at the time you make the call. You will see this sheet every time you send an E-mail or fax message. There is only one Dialing Location sheet. Changes made for GO Mail are made for GO Fax and EO Phone. The Dialing Location sheet is the EO's way of making sure it dials the phone correctly. The options you set in the Dialing Location options sheet are:

Where Are You Now? This is a pop-up menu selection where you tell the EO that you are either in the US or Canada or in some foreign land.

Area Code In this field you tell the EO the area code for your present location.

Need an Outside Line? This is a yes or no question, and if you tell the EO yes you will be presented with a field called "Outside line:" where you enter the number(s) you would need to dial to get an outside line.

Using a Calling Card? This option is like the "Need an outside line?" option. If you say yes you will be presented with a field where you enter your calling card service, card number, and access Number. Of course if you're not using a calling card you should select the "No" option.

Figure 8.3
The Dialing
Location
options sheet

Contents > Dialing Location

Fill in the information below. This tells PenPoint how to dial phone numbers from your current location.

Where are you now? ▶ USA or Canada

Area Code: 510

Need an outside line? ▶ Yes

Outside line: 9

Using a Calling Card? ▶ Yes

Service: ▶ AT&T

Card Number: ▶ None

Access Number: 10288,0

What type of phone line are you using?


Dial Type: ▶ Tone

Apply Apply & Close

What Access Numbers Do You Need to Dial? This option is available if you are not using a calling card. Here you fill in the “Long Distance:” and “International:” access numbers you need from your location.

What Type of Phone Line Are You Using? With this option you specify whether you are using a touch tone or pulse phone line.

Setting Up AT&T Access

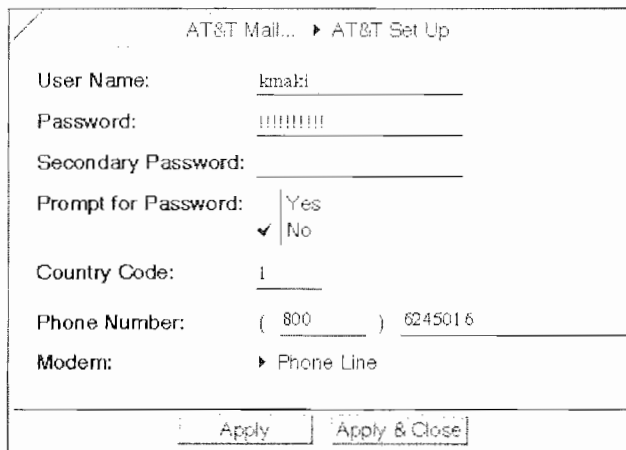
The AT&T Set Up is the third option under the Options menu in the Outbox contents when you have selected the GO Mail section. This Options sheet differs from other options sheets because it has three parts that are only available after you have selected the “AT&T Set Up” option. You have the AT&T setup option itself, your Modem Settings, and Link Settings. The other options sheets are only accessible by tapping  on the arrow next to the AT&T Mail heading in the Title line of the AT&T Mail options sheet, shown in Figure 8.4.

In the AT&T Mail Set Up you will use the information you received from AT&T so you can access your EasyLink account. Here you will fill in the following:



User Name This is your *unique* AT&T Mail address. No two people using AT&T mail have the same User Name. You get to choose your user name when you set up your account.

Password Your password is assigned by AT&T and it is the number that you (or anyone else for that matter, see the note that fol-

Figure 8.4
The AT&T Mail
Set Up options
sheet



AT&T Mail... ▶ AT&T Set Up	
User Name:	<input type="text" value="kmaki"/>
Password:	<input type="password" value="!!!!!!!!"/>
Secondary Password:	<input type="text"/>
Prompt for Password:	<input type="radio"/> Yes <input checked="" type="radio"/> No
Country Code:	<input type="text" value="1"/>
Phone Number:	<input type="text" value="(800) 6245016"/>
Modem:	▶ <input type="text" value="Phone Line"/>
<input type="button" value="Apply"/> <input type="button" value="Apply & Close"/>	

lows this list) needs to gain access to your account. When you first enter your password it will appear in plain text until you tap  the Apply button. After you tap  the Apply button the password will turn into a series of exclamation points as shown in Figure 8.4 above. This is a security feature. Even if someone should get hold of your EO they cannot read your password.

Secondary Password Your Secondary Password does not need to be entered here, nor should it be. Your secondary password is a code you use with AT&T to authenticate that you are you whenever you have to talk to AT&T about your account. The note below applies doubly to this password.

Prompt for Password This is a security option. If you have the EO prompt you for your password you will have to enter your password every time you send or receive mail. This is not a bad thing. If you tell it not to prompt for your password the EO will automatically enter your password for you. The danger here is that anyone who happens upon your unattended EO can gain access to your AT&T Mail if you set it not to prompt for the password. It is strongly recommended that you set this option to "Yes." If you select the "Prompt for Password" option after entering your password, it will be erased when you tap on the Apply button.

Country Code In this field enter the country code for where you happen to be. If you do not know, you can look in Personal Perspective in the Country Code list that Pensoft provides.

Phone Number The Phone number you enter here is the AT&T EasyLink access number. If you are in the United States or Canada you can use an 800 number. AT&T will provide you with access numbers for other countries.

Modem Here you select how your modem is connected. Your choices are either a phone line or wireless. Wireless will only work with the EO's Cellular Phone option.

Note *Do not let anyone have access to your password. If the form you receive from AT&T with your Password gets lost or if you suspect that someone else has been using your account you should contact AT&T immediately to get a new password. Besides having access to any of your messages someone with your password can run up a enormous bill for you. In a matter of hours a dishonest person with your user name and password could rack up a bill for hundreds of*

dollars. I cannot emphasize this enough. KEEP YOUR PASSWORD LOCKED UP AND GIVE IT TO NO ONE!

If someone gets your secondary password they can change your user name and your password, which means you might end up paying for an account you cannot access. If it should happen that someone gets your secondary password it could take you some time to straighten out the mess.

If you think this warning is too strong just think about this: there are people out there who make a hobby of breaking into other people's E-mail and online accounts. The easiest way for these people to practice their hobby is to get the necessary access numbers from people who are careless (in this case careless only means not careful enough). I strongly suggest that you memorize these numbers and codes and then, if you keep the paper that they are written on, lock the paper with the numbers in your safety deposit box. If you dispose of the paper they are written on, burn or shred it. These hobbyists will dig through your trash. And if you don't have a safety deposit box, GET ONE!

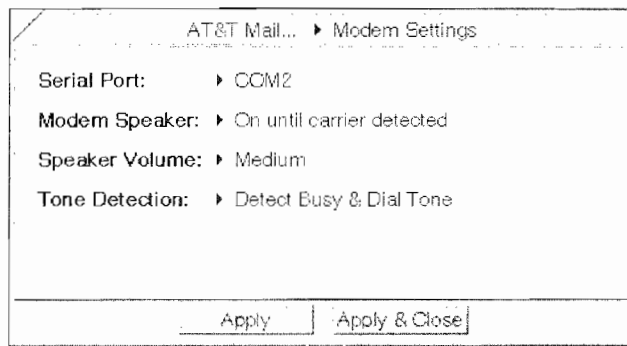
If you ever have trouble connecting to AT&T Mail you should check these settings first. Usually a problem connecting will occur because a setting somewhere is incorrect, and this is where they are most likely to be incorrect. Chances are that you've made a mistake in your User Name or Password, or have an incorrect phone number. Double-check all of these settings.

Modem Settings

Once you have the AT&T Set Up completed you can go on to the two other settings. The next setting is the Modem Settings shown in Figure 8.5. In the AT&T Mail Modem Settings options sheet you tell your EO how the modem should behave. The settings for the modem follow:

Serial Port This setting tells your EO to what serial port the Modem is attached. For EO's with an internal modem, this setting is always COM2 and cannot be changed. If you are using an external modem (you do not have an internal modem) and it is attached to the EO's serial port, the setting will be COM3. And should you be using a modem attached via the Cellular option it will be on COM 1.

Figure 8.5
The AT&T Mail
Modem Settings
options sheet



Note *Currently the EO does not support external modems. This is not because it can't, it is due to a lack of software. Once someone writes a software package that will allow the EO to access an external modem you can use any modem you wish. Unfortunately, at the moment none exists.*

Modem Speaker With this setting you tell your EO how much noise it should make. Your choices are "On until carrier detected," "Always Off," or "Always On." I like to use the "On until carrier detected" option because I can hear if the modem is dialing and connecting properly. However, the noise made by the modem can be very annoying. So you might want to turn it off and only turn it on if you need to troubleshoot your connection.

Speaker Volume This tells your modem how loudly it should shout at you. If you turn off the speaker you will not be able to set this setting. Otherwise you have a choice of "Whisper," "Low," "Medium," or "High." This setting is purely personal preference. Just be warned, the noise can be awful.

Tone Detection The Tone detection is a setting that for the most part should be left at "Detect Busy & Dial Tone." Your other choices are "Detect Busy Tone Only," "Detect Dial Tone Only," or "Ignore Busy & Dial Tone." These optional settings should be used only if they are needed. One example of where you might want to use the "Ignore Busy & Dial Tone" is if your office's PBX does not generate a dial tone until a specific number has been dialed, or if you must dial a specific number to get a dial tone but before you get a dial tone you also hear a busy tone. How you set this option will depend on the circumstances you find yourself in. They can vary from office to office and country to country. However, for the most part you can keep the default setting of "Detect Busy & Dial Tone."






If you are having trouble connecting, the Modem Settings options page should be your second stop in trying to solve the problem. Specifically, you will probably want to experiment with the Tone Detection settings. However, in most cases you will not have to worry about these settings unless your EO is making too much noise when you get your mail or send a fax.

The Link Scheduling

The final option for AT&T Mail are the AT&T Mail Link Scheduling. Link scheduling is a way for you to automatically get your mail and faxes without having to tell your EO to do so. When you turn on and set up your Link Scheduling, your EO will automatically call AT&T EasyLink, send or retrieve your E-mail and faxes, and then log you off. All of this can happen while you go to lunch. As an alternative you can set it up to dial every night at 3 AM while you're asleep. In the morning, your messages will be in the Inbox.

Figure 8.6 shows the AT&T Mail Link Scheduling options sheet. Once it is turned on you can tell your EO on what days and at what time to get your mail and faxes.

To set the linking:

1. Tap  on "On" to turn on Link Scheduling.
2. Tap  next to the day or days that you want to receive your mail.
3. Set the time by tapping  on the time. If you tap  once, an "A" will appear next to the time. This means that your EO will always connect to AT&T EasyLink at the time indicated. And if you should tap  a second time, an "O" will appear next to the time. The "O" means that your EO will only connect if there is an outgoing mail or fax message to be sent.

Of course, you must have a phone line attached to your EO for this option to work. Your EO can detect whether or not it is connected to a phone line (this does not apply if you are using the Cellular Phone option), so it will not ever try to get your mail if you are not connected to a phone line. Try this: Set your EO up to dial every week night at 3 AM. When you come home at night, plug your EO into the AC adapter and to a phone line and go to bed. In the

Figure 8.6
The AT&T Mail
Link
Scheduling
options sheet

	A.M.		P.M.	
Sun	12	6	12	6
Mon	1	7	1	7
Tue	2	8	2	8
Wed	3	9	3	9
Thu	4	10	4	10
Fri	5	11	5	11
Sat				

A = Always start link at this time
O = Only if there are messages to send

morning, your Inbox will be full of new messages to read. If you have a cellular phone attached, you can have it dial in every few hours, so you can always have messages waiting.

Note

To use this option you must tell your EO to remember your Password, or you have to be around to enter your password at the scheduled link time. If you have set the EO to prompt you for the password it will not automatically get your mail or faxes until you enter the password.

You are now ready to send and receive messages and faxes using AT&T EasyLink.

Sending E-Mail Messages and Files

When you want to send a message or a file there is only one thing you really need to know: the E-mail address of the recipient. Everything else is taken care of by the EO. To send a message you have to create a GO Mail Message, write your message, address it, and send it. To send a document you access the Send item from the Document menu and select GO Mail. Fill out the message, address it, and send it.

Once you send the message, depending on how you have configured GO Mail, your message will be sent immediately or at a specific predetermined time. It is this simple. To show you how easy it is to send a message, we're going to create and send a message to EO Inc.'s Technical Support Department.

Creating the Message

To create the GO Mail Message document:

1. Open a notebook.
2. Draw a caret \wedge
Or
Use the notebook's create.
3. From the pop-up menu select the GO Mail Message selection.

This is the basic procedure for creating any documents. For another alternative you can copy a GO Mail Message from the Stationery Notebook. (For help on using gestures, see Chapter 3 on PenPoint.)

Remember that you can embed a GO Mail Message inside another document. So if you want to keep all of your communications attached to your Personal Perspective profiles then you can create a GO Mail Message and embed it in the recipient's profile. This would be a good way to track what messages you have sent to someone without having to keep a section in a notebook specifically for your mail messages.

Also, all of the fields in your GO Mail Message must be translated from handwriting to text—you cannot send an “ink” E-mail message on any system. This is because E-mail systems use computers of all types, and any message that is going to go from one type of computer to another must be done in text. If you want to send un-translated writing with your E-mail you will have to send the writing in an attached document, not in the body of the mail message itself.

So the first step is to create the GO Mail Message. Figure 8.7 shows the completed message that we are going to send to EO Inc. Once you have the document created you can begin to fill it out. There is no reason to follow the order I'm going to use in filling out your message. All that is important is that all of the fields are filled in.

To create a GO Mail Message:

1. Open a notebook and tap \forall the Create menu, or you can use the caret \wedge to create the GO Mail Message in a contents page. If

you want to embed a mail message in a document, you will have to use the double caret ^ gesture.

2. To fill in the Subject line, just tap **!** on the line and a pop-up editing pad will appear. In the pad write something that will identify the purpose of your message.

Although you can put anything you want in this line, it is usually a courtesy to somehow identify the message's content. This will give the recipient some means for determining which messages to read first. Using our message to EO Inc., as an example, if you really need help you might make the subject line read, "Urgent request for assistance."

Addressing Your Mail

In order for an E-mail message to get to the correct person, it must have an address. The address works just like a postal address, only there is no human interaction with the message until it is received (unless something goes very wrong). Usually if a mail message is incorrectly sent, it will be returned to you stating that it could not be delivered. So you have to make sure you have the recipient's correct E-mail address.

Figure 8.7

The message to EO Inc.,
Technical
Support



Address Concepts

Because there are so many different E-mail systems, each having different requirements for addressing, addressing will seem to be designed just to drive you nuts. Well, no matter how nuts you go, don't take it personally. There are two ways to beat E-mail's addressing madness.

One is to know the E-mail address of the recipient. In other words, the recipient spells out their address for you. The other is to understand the address so well that you can figure out the recipient's address from the information they give you, even though they cannot tell you how to address their message. You might as well concede the fact that you will not be able to figure out some people's E-mail address now, that way you won't drive yourself nuts later. For those people, send them a fax. But I'll try to help you figure out addressing so you will not go too crazy.

If the person you're communicating with can give you an AT&T EasyLink address, you've got it made. Every AT&T EasyLink address looks like this:

!username

The above E-mail address contains two parts the first is the "!" (called a "bang") which precedes every AT&T EasyLink address. So if someone tells you that their address is "Bang kmaki" the address would look like "!kmaki" (the quotes are not part of the address). The other part is the "username." This is the recipient's user name, just like the user's name you entered in the AT&T Mail Set Up options sheet.

In our sample message to EO Inc., you will remember that their address is EOHELP!HELP. The reason that this address is different is because it is not an AT&T EasyLink mail box. It is what is called a gateway to EO Inc. A gateway is a link between two different E-mail systems that is kind of like an intersection between a federal highway and a state freeway. In this case, if the AT&T system is the federal highway, then the EO Inc., system would be the county highway. All mail addressed to EOHELP!HELP is automat-

ically sent to the EOHELP gateway and from there it is sent onto the HELP equivalent of Help Street at EO.

The technical jargon that would describe EO's address goes like this: The EO system is a private Local Area Network (LAN) with E-mail services that is registered with AT&T Mail. When a company registers their network with AT&T Mail they are given what is called an "off-network" mailbox which means that EO has a mail box that is not part of the AT&T Mail network, hence it is a gateway. As a rule any company that registers their LAN with AT&T Mail is accessible if you know the system account name and the name of the recipient's user name on their LAN's E-mail system. All LAN addresses have a syntax that looks like the following:

system!userid

If someone were to tell you what EO's help address is, they would say the address is EOHELP bang HELP. EOHELP is the system part of the address while HELP is the user id. At the end of this chapter you will find a guide for addressing messages to most of the popular online services and other addressing tips. For the time being let's assume that you are sending a message to someone who has an AT&T EasyLink account, with the exception of our EO Inc., example.

Addressing Your Message

Now that you know more about E-mail addresses than you ever wanted to know, let's address our message to EO. There are two way to address an E-mail message. One is to manually enter the E-mail address and the other is to retrieve the AT&T mail address from Personal Perspective.

In Figure 8.8 you will see an incomplete message form with a Recipient dialog sheet. You need to fill out the Recipient dialog sheet to manually address your E-mail.

To manually address the Message:

1. Tap **!** on the To button.
2. Make sure the To: box is checked.

Figure 8.8
The GO Mail
Message with
a Recipient
dialog sheet

3. Fill out the addressee's first and last names by tapping on the respective lines to get a pop-up editing pad.
4. Tap on the AT&T address line and use the pop-up editing pad to complete the address. Don't forget to include the "Bang" (!).
5. Tap on the Add Recipient button.
6. To address the message to multiple recipients, tap on the Clear button and repeat steps 2 through 4. If you want the additional recipient to be a primary recipient use the To: check box, otherwise use the cc: for a carbon copy and bcc: for a blind carbon copy.

If the person you manually entered is not included in your Personal Perspective address book you can automatically enter them by tapping on the Add to Address Book button. This will automatically create a new person profile for the recipient in your main Perspective Profile Book.

To use the AT&T Mail address that is in your Personal Perspective Address Book:

1. Tap on the To button.
2. Make sure the To: box is checked.
3. Tap on the Pencil icon.
4. Write the first few letters of the name you want in the Find comb. When you stop writing your EO will scroll to the first match it finds for what you wrote. If the found name is correct, tap on the Add Recipient button.
5. To address the message to multiple recipients, tap on the Clear button and repeat steps 2 and 3. If you want the addi-

tional recipient to be a primary recipient, use the To: check box. Otherwise, use the cc: for a carbon copy and bcc: for a blind carbon copy.

Figure 8.9 shows the Address Book being used to add the E-mail recipient. In order to use the Address Book option you have to have selected a system-wide address book.

Setting, Selecting, and Using the System-Wide Address Book


The system-wide address book is used not only for E-mail addressing but document faxing as well. A system-wide notebook uses one of your Personal or full Perspective address books. In order for an address book to be used as a system-wide address book you have to turn on the Use as Address Book: option from the Access item in the Address Book's options menu. Figure 8.10 shows the Access options page from a Perspective address book.

If you have several address books with this option set, you will be able to choose which address book you want to use when you address your E-mail messages.

To change which address book you are using:

1. From the Address Book sheet, select the Options menu by drawing a check mark ✓ on the Address options sheet

Or

Tap  on the Options menu.

2. The Address Book sheet's options sheet will open

Or

You can select "Address Books" from the menu.

Figure 8.9
Addressing an
E-mail message
from your
Perspective
Address Book

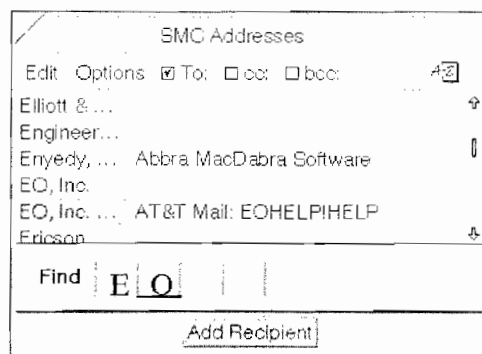


Figure 8.10

The Access options page from a Perspective address book

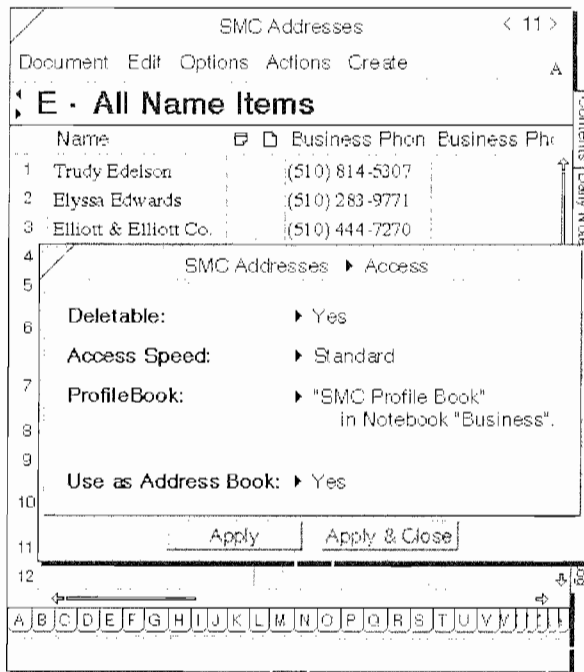


Figure 8.11 shows the available address books for an EO. Notice that you can also select a group as an address book.

After you have selected the address book you want to use, you can also set up what information will be displayed in the list of entries. This is done with the Layout option which is also from the Address Book's Option menu. Figure 8.12 shows the items you can display.

When setting what you want to view in the Addressing options sheet, be careful. If you select too much information you will not be able to see much of anything. There is only so much space available for viewing information on a person or a company. The down side of this is that you can only edit those items that are

Figure 8.11

A list of available address books

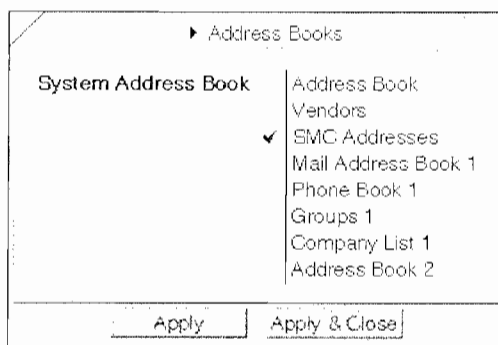
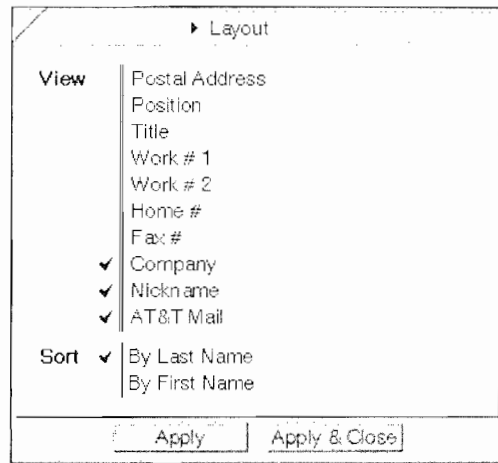


Figure 8.12

The available items you can view from the Layout option



checked. So what you will want to display is the information that you might want to edit and the information you want to see.

Also, notice that you have one other option in the Layout options sheet. This is the Sort selection. You can choose to sort by a person's first or last name. This sort will not affect how company names are displayed. However, if you are using Perspective as your address book you will not be able to sort by first name. Perspective does not support this feature.

The Edit Menu Options

The address selection options sheet also has an Edit menu. Using the Edit menu you can edit or delete the selected person or company information. Although this is a feature of PenPoint and GO Mail you need to be careful. Personal Perspective does not support these editing features.

You cannot delete a Personal Perspective entry from the Edit menu. And if you use the Edit menu to edit a Personal or full Perspective entry, the first and last names will be combined so that they are one name instead of two.

Although there are some problems with Personal Perspective and the GO Mail and GO Fax address options sheets, these problems are minor. You should not let this minor flaw detract from the overall capabilities of the EO. I'm sure that these problems will quickly be fixed.

Filling Out the Message Form

To fill out the message form you can use the embedded editing pad and fill out the GO Mail Message form as it appears, or you can tap **!** on the Memo button and see the form in a larger floating window. The expanded Memo section of the GO Mail Message works just like MiniText. You even have the same Find and Find & Replace capabilities. If you need more information on using the features of the Memo section see the section on using MiniText in Chapter 6. After you have filled in your message you are ready to send it.

Sending and Receiving the Mail

Sending the message is quite simple. All you have to do is tap **!** the Send button and the message will be sent at the next scheduled link time. Or you can select the When to Send option (from the Options menu) and choose one of the following options:

Once at... This option lets you schedule the time and sends your message at that time.

Daily at... With this option you can send the same message or document daily at a predetermined time. This could be used as a means for making sure a sales report or some other daily tracking document gets sent to the right people.

Weekly at... With this option you can send a message or document weekly at a predetermined time. This could be used for making sure your expense report gets sent to accounting. (You'll never be late with that expense report again!)

Monthly at... With this option you can send a message or document monthly at a predetermined time. This could be used for making sure your monthly time and contact reports get to the boss. She will be impressed by how your EO Communicator keeps you on top of all your customers and has made you the lead sales person. (You get the idea.)

When you tap **!** the Send button the message is placed in the EO's Outbox and waits for the appointed time to be sent. When your Outbox has documents that are going to be faxed, mailed, or printed it will look like the Outbox in Figure 8.13.

Figure 8.13

The Outbox
with a
document

Name	Page	Enabled	Status
GO Fax	2	<input type="checkbox"/>	Conne
---Empty---			
GO Mail	3	<input checked="" type="checkbox"/>	Conne
ECHELPIHEL:Thanks for your ass..	4		
Bubble	5	<input checked="" type="checkbox"/>	Conne
---Empty---			

If you decide that you want to send the message immediately you can open the Outbox Notebook and force the EO to send the message immediately.

To force the EO to send your Mail messages regardless of when they are scheduled:

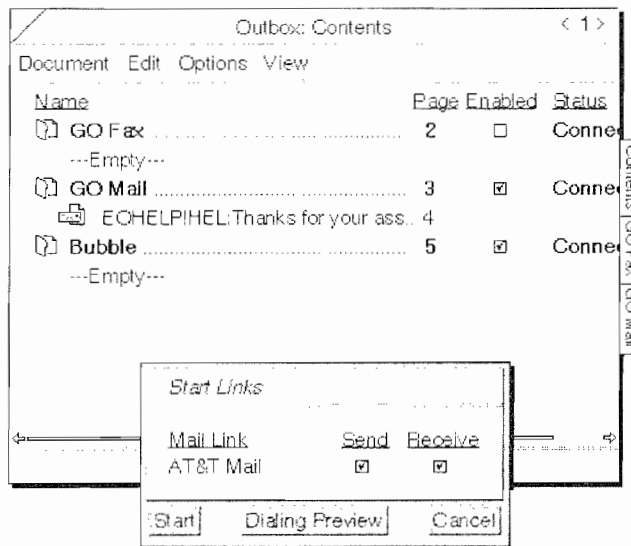
1. Open the Outbox.
2. If the Enabled box next to GO mail is checked, uncheck it by tapping in the box.
3. Check the Enabled box by tapping in the box.
4. You will receive a Start Links option sheet like the one in Figure 8.14.
5. Make sure the Send box in the Start Links option sheet is checked.
6. Tap on the Start button. So long as you are connected to a phone line GO Mail will dial AT&T, send your message, and retrieve any mail you have waiting.

To receive your mail, you can either wait until your automatic link time arrives, or you can force the EO to receive your Mail in the same way you forced it to send your mail. Any mail you receive will automatically be placed in your Inbox. When you have mail your Inbox will look like the one in Figure 8.13. The forced connection can be performed from either the Inbox or the Outbox and it can be used to send mail, receive mail, or both.

E-mail messages can be difficult to read when you first turn to the message page. To make this task easier, especially if you don't print the message, you should try tapping the Memo button.

Figure 8.14

The Outbox with the Start Links options sheet



This will cause the message to expand and fill the EO's screen, which makes the message easier to read online. Then change the View setting to get the best magnification of the message.

As GO Mail makes its connection with AT&T Mail, it sends you messages, retrieves any messages, and disconnects, you will see a dialog sheet that tells you what is happening. If you wish, you can close the dialog sheet and continue to work on other things. If at any time you want to check the progress of your AT&T connection you can select the GO Mail item from the Options menu and tap **Y** on the Show Progress button if it is selectable. If the button is not selectable then there is no GO Mail activity. Remember, in order to select the GO Mail item, the GO Mail section must be selected.

Sending Documents

There will be times when you want to send documents to other people from your EO. The PenPoint operating system with GO Mail makes this very easy to do. The only thing you have to be concerned with is the document's format. To send a document, all you have to do is turn to the documents you want to send and select the Send item from the Document menu.

When you've elected to send a file, a GO Mail Message form will open and you will be given a choice of file formats supported by

the particular document you've chosen to send. Figure 8.15 shows the file format choices for a MiniText document that is being prepared for sending.

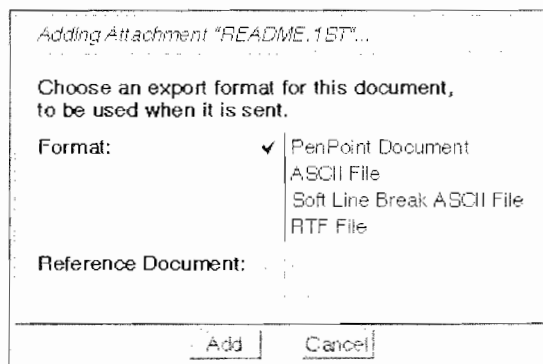
When you send a document, your EO will give you a choice of file formats. Which file format you choose will depend on where the document is going and who will be using it. Also, your choice of format will depend on what type of document you are sending. The formats you will have to choose from could be any one of the following:

PenPoint Document	Any PenPoint document	Binary Transfer
ASCII Delimited	For Perspective documents	Text Transfer
ASCII File	For MiniText documents	Text Transfer
Soft Line Break ASCII File	For MiniText documents	Text Transfer
RTF File	For MiniText documents	Text Transfer
Text File	For MiniNote documents	Text Transfer
TIFF	For GO Fax documents	Binary Transfer
Perspective Data	For Perspective documents	Binary Transfer

These file formats apply only to the documents you can create with your EO as your EO comes from the factory, that is, its built-in applications. When the EO changes a document's file format it is translating or exporting the file. File formats will depend on the application.

Figure 8.15

The file format options for sending a MiniText document



File formats become important when you are sending a document to someone who is not using an EO. Other computers will not be able to use PenPoint documents so you must provide them with the file in a format that can be used on the receiving computer. Usually you can send the file an ASCII, TIFF, RTE, or ASCII Delimited format. Any of these formats can be read by most computers, although ASCII is probably the safest choice.

The other factor you have to consider when sending documents to someone is whether or not they are on AT&T Mail. There are some network connections (gateways) over which you cannot send binary files. One such network is the Internet. If you have any questions about whether or not you can send a binary file through a network gateway you will have to talk to the document's recipient or send a text file to be on the safe side. AT&T EasyLink does not check if the file you're sending over a gateway can travel in its current format.

After you select the document's format, your next task will be to fill out the GO Mail Message form. Use the same instructions described above and send the E-mail message with the attached file. So long as the document's format is okay, your message and document will arrive at their intended destination.

Using AT&T Mail as a Fax Service

With your AT&T EasyLink account you can set up your mail box so others can send you faxes which you can retrieve when you wish. This feature of AT&T EasyLink makes it possible for you to always get your faxes. It also provides you with security for your faxed communications that you do not have when faxes are being sent to a fax machine, especially if the fax machine is at a client's office or in a hotel. When you get your EO and AT&T EasyLink account you will find the instructions for setting up this feature in an EO manual called *The World of Messaging*.

The other thing you can do is have an E-mail message converted by AT&T into a fax and sent to a fax machine. You can send the converted E-mail message to a group 3 fax machine anywhere in the world. Of course, the cost will vary from country to country. In

the United States the cost is 54 cents per page, less your twenty percent (20%) discount. This is also how much you are charged for faxes sent to your AT&T mail box.

To send an E-mail message as a fax you will have to know the fax number of the recipient, and then alter the recipient's existing AT&T Mail address or manually address your message. The format for sending an E-mail message as a fax is:

fax! number (/recipient's name)

The "fax!" is always used to indicate that your message is to be sent as a fax. For a fax machine in the US you can enter the number as you would if you were dialing the number from a phone. The standard format is the area code plus the phone number to which the fax machine is attached. AT&T will include a cover page when your message is faxed.

If you are sending the fax to another country you will have to prefix the number with 011 and the country code plus the phone number, or you can use a "+" before the country code and phone number. If you use the "+" (do not include the quotes), it must be followed by the country code. Do not use a "+011" or your fax will not be sent.

When AT&T delivers a fax it will do so within twenty-five minutes. If the message cannot be delivered within one hour you will receive a message telling you who did not receive the fax. This is done so you have an opportunity to fix the address or try an alternate delivery method. However, AT&T will continue to attempt delivery for up to six hours.

If during the fax transmission an error occurs and the transaction is incomplete, AT&T will resend the fax at no additional charge. You are only charged for one delivery. The cover sheet for any retransmission will state that the fax is a possible duplicate. There is no charge for the faxed cover sheet.

Other options you have when sending a fax are:

- A request for confirmation of delivery.

- Having the fax sent in a landscape instead of the regular portrait format.
- Omitting the coversheet.
- A non-urgent option that will save you an additional ten percent.
- A request to suppress all non-delivery messages for AT&T Mail.
- Adding a logo to your fax (not the cover page but the fax itself).

Some of these options cost extra. However, they give you more flexibility for controlling how your faxed documents will look and can insure that you know your message goes through, if you need to know.

Getting Help

When you are on the road or just away from your manuals you may need to get additional information about your AT&T EasyLink options. You can get help from AT&T in two different ways. One is to send a message to !ATTHELP requesting information for a particular problem, and the other is to query the online help feature set up specifically for GO Mail.

To get help from an AT&T technical support person, all you have to do is create a message and address it to !ATTHELP, stating whatever your problem might be. You will get an E-mail response directly from an AT&T representative. If you are in a situation where you need immediate help, you can always call AT&T EasyLink customer service. You could end up waiting for 15 minutes on hold, but you will get to talk to a real person.

The other way to get help is from the !GOMAILHELP system on AT&T Mail. This is a general help reference that will provide you with general answers on a wide range of AT&T EasyLink topics. The way the system works is you send an E-mail message that contains only an address and a subject. The address is always !GOMAILHELP. In the subject line you type:

REQUEST: [The Topic]

The word "Request" is always followed by a colon (:) and a space after which you write the name of the topic. The topic names are:

Topics This is a list of GOMAILHELP topics and instructions on using GOMAILHELP.

Phones AT&T Mail phone numbers.

Fax Sending and receiving faxes.

Your Address How to tell someone who is not on AT&T Mail what your address is.

Internet How to address messages to someone on the Internet.

X400 How to use the X.400 format for addressing messages.

USA How to address messages to US public e-mail services.

INTL Addressing messages to companies outside the US who have X.400 interconnections with AT&T.

IBM A list of networks connected to IBM's Information Network and instructions for sending E-mail.

LAN Instructions for addressing E-mail to companies with private LANs connected to AT&T.

Lists How to address a message so is distributed by a list maintained by AT&T.

Delivery Help for setting up specific delivery and handling options.

Telex How to send a telex.

At the moment, this is the complete list of GOMAILHELP topics available from AT&T Mail. But this does not mean that it will not change. If you are ever on the road and need a refresher course in any of these topics, just send a message to !GOMAILHELP and request the topic you want. Immediately after you have requested the help you can reconnect to AT&T EasyLink and you will have a message that contains the topic of your inquiry.

Sending Mail to Other E-Mail Systems

Although it is possible to send E-mail to other services, it is not always intuitive as to how to address your messages. This section

will briefly look at sending and receiving mail from other commercial services and the Internet. This section is only a quick guide and not an exhaustive discussion about these networks and services.

If you are really stumped regarding someone else's address, you should have them send you a message to your AT&T EasyLink address. You will then be able to see the sender's address and use that to send them mail. If the person you're trying to communicate with works for a company with an MIS (Manager of Information Services) or IS (Information Services) department, have the recipient ask one of their support people for help. Many companies may not have an MIS or IS department but they probably have an on-site network administrator who should also be able to help. Somewhere, someone in their organization will know. Also, don't forget that there may be someone in your organization who can help as well.

The Internet

The Internet is a world-wide computer network. It has millions of users and is made up of thousands of computers. It is the closest thing to computer anarchy we'll ever have. But you will undoubtedly have someone ask you to send them mail on the Internet or ask how they can send you mail from the Internet. Either way, the solution is short and simple.

All Internet addresses are composed in a certain fashion and look something like this:

username@system.domain

The first part of the address is the user's address, the second part after the @ is the system name and the part after the period in the system name is a domain. Some internet addresses have multiple domains so an address could look like:

gsmith@stan.sci.edu

To send a message to someone on the Internet you need to use the following syntax when addressing your messages:

internet!system.domain!username

So to use the last Internet address example from above you would address your message to gsmith as follows:

internet!stan.sci.edu!gsmith

In this address you are identifying the network you are sending the message over with the "internet!" The next component is the last part of a regular Internet address or everything after the @ sign. The system and domain must be followed by a bang, which is then followed by the recipient's username.

To receive E-mail from the Internet, you should instruct the Internet user to address messages to you with the following syntax:

username@attmail.com

The username is your user name, exactly as you would have someone send you mail on AT&T EasyLink without the bang (!). Your user name would then be followed by an @ sign and "attmail.com" which denotes the system (attmail) and the domain (.com). So my internet address for AT&T Mail would be:

kmaki@attmail.com

This is not much different from my internet address which is:

kmaki@netcom.com

If I were going to send myself a message at my Internet address from AT&T mail I would address it:

internet!netcom.com!kmaki

Although this is not necessarily simple, it isn't too hard either. If you don't succeed at first, give it another go. Just remember that it is backward going from AT&T to the Internet.

Commercial Networks

To send mail to other online services and E-mail systems, it is helpful to know how these systems are accessed. There is a for-

mula that can be used to decipher most addresses. Almost all interconnecting networks and E-mail systems use a standard called X.400. X.400 is an international standard and is the common dominator for interconnecting all of these systems.

There are two ways to send mail to an X.400-compliant system. One is called a full format address, and it is composed of a series of elements. The other way is by using a Gateway format. The Gateway format is an abbreviation of the full format address. First, we'll look at the components of a full format X.400 address (see Table 8.2).

Table 8.2 does not list all of the elements you could use in a full format X.400 address, but the ones listed are the most essential. The construction of a full format address is:

```
mhs/c=us/ad=AdminDom/pd=PrivDom/g=first/s=last/  
dd.ID=flast
```

The above is a sample, and depending on where the message is going, the address can differ, requiring other elements than are listed above. With a full format address, the address always starts with "mhs". Then each of the other elements follow preceded by a forward slash (/) character. After the forward slash comes the element's abbreviation which is followed by an equal sign, so the construction for the element is "/c=". After the equal sign the value for the element is written. Getting these values is where you will have trouble.

Now don't let this scare you. It can all seem intimidating when you first look at it. But there is a method to the madness and as you look at the addresses for the following commercial online and E-mail services it should all begin to make some sense. I know that your first impression will be to look at this and throw your hands up in despair. But give yourself a chance to put it all together. You'll surprise yourself.

My full format address for AT&T EasyLink is:

```
mhs/c=us/ad=western_union/g=ken/s=maki/dd.eln=96433464
```

In this example there is an element called "dd.eln" which is the same as "dd.id", but in this case AT&T requires a "dd.eln". You will

Table 8.2 The components of a full format X.400 address

Address Attribute	Abbreviation	Comments
Country code	C	Must be an approved two-letter code.
Administrative management domain	AD	This is the primary messaging service management domain.
Private management domain	PD	This is the private or secondary messaging service domain.
Company or organizational name	O	Usually the abbreviated name of the company or organization.
Organizational unit	OU	This could be a department name or some other subclassification within a company.
First or given name	G	The recipient's first name up to 16 letters.
Last or surname	S	The recipient's last name up to 40 letters.
Domain-defined attribute	DD	
Domain-defined attribute of a specific type	DD.type	
Domain-defined ID attribute	DD.ID	Often used as a user's account name.
Personal name	PN	The combined name keyword. If using a PN, spaces between names must use an _ character while spaces within a name use the # symbol.

have to find out from the recipient what elements are required for an E-mail message to reach them.

The Gateway format is easier to use, but not all services have a Gateway address. When you can use a gateway address you should. All Gateway format addresses are started with:

mhs!gatewayname

The elements that follow the initial part of a Gateway address are usually the "pn" and the "dd.id". Thus a full Gateway address should look as follows:

mhs!gatewayname/pn=first_lastname/dd.id=username

Given this format, my address using the AT&T EasyLink Gateway address would be:

```
mhs!wu/pn=ken_maki/dd.eln=96433464
```

This format is much easier. Try using the formulas here and make a full format address from your AT&T EasyLink account information. You'll find that once you have done it with your own information it will be easier to do it with other people's.

The rest of this section will provide you with the information you need to send mail to other services using the X.400 addressing protocols.

MCI Mail

To send a message to someone with MCI Mail all you need is their name and MCI Mail ID. The other information you need is listed in Table 8.3.

To send an MCI message to myself from AT&T Mail (if I had an MCI Mail account) the address would be:

Table 8.3 The components of an MCI Mail address

Address Attribute	Abbreviation	Abbreviation Value
Administrative management domain	AD	mci
Country	C	us
Gatename		mhs!mci
PN or G and S, also I if using an initial	Recipient's name as registered	From recipient
DD.ID	Recipient's seven digit MCI Mail ID number	From recipient

The address should look like:

Full format: mhs/c=us/ad=mci/g=firstname/s=lastname/dd.id=1234567

Gateway format: mhs!mci/pn=firstname_lastname/dd.id=1234567

mhs/c=us/ad=mci/g=ken/s=maki/dd.id=1234567

Or

mhs!mci/pn=ken_maki/dd.id=1234567

Compuserve

To send a message to someone on Compuserve, all you need is their Compuserve ID number and the information listed in Table 8.4.

To send a Compuserve message to myself from AT&T Mail the address would be:

mhs/c=us/ad=compuserve/pd=csmail/dd.id=76120,2755

Or

mhs!csmail/dd.id=76120,2755

AppleLink

AppleLink uses Internet for its access, so you would have to send mail messages to an AppleLink user with the Internet format. The domain name for AppleLink is:

applelink.apple.com

Table 8.4 The components of a CompuServe message address

Address Attribute	Abbreviation	Abbreviation Value
Administrative management domain	AD	Compuserve
Country	C	us
Gatename		mhs!csmail
PD	Private Domain	csmail
DD.ID	Recipient's Compuserve ID number	From recipient
The address should look like:		
Full format: mhs/c=us/ad=compuserve/pd=csmail/dd.id=123456,789		
Gateway format: mhs!csmail/dd.id=123456,789		

So your mail addressed to an AppleLink user would look as follows:

internet!applelink.apple.com!username

The address on an AppleLink message to myself would be:

internet!applelink.apple.com!kmaki

America On-line

America On-line (AOL) uses Internet for its access so you would have to send mail messages to an AOL user with the Internet format. The domain name for AOL is:

aol.com

So your mail addressed to an America On-line user would look as follows:

internet!aol.com!username

If I still had an AOL account, the address on an America On-line message to myself would be:

internet!aol.com!kmaki

This should be enough to give you an idea about how X.400 addressing and accessing other services works. Although this is not a complete tutorial, combine this information with the information in EO's *The World of Messaging* manual that comes with your EO Personal Communicator and you should be an E-mail pro in no time. Like I mentioned earlier, don't let this scare you. It only looks intimidating because we are not familiar with thinking in abbreviated symbols that have no visible representation in the real world. And E-mail often does not seem like the real world.

Conclusion

This is an intense chapter. You will have found what you need to make GO Mail work and maybe even a little extra. Now you should be ready to start sending and receiving E-mail messages

and faxes. Remember that with GO Mail and AT&T EasyLink you can really span the globe.

It will be possible for you to be talking to someone on the phone and at the same time E-mail them a document. And while you're still talking they will probably receive the document. To send mail from one e-network to another going clear across the US can take only minutes. Sure, making a phone call is easier and more personal, but we can't talk and share documents at the same time unless we use something like AT&T EasyLink.

To give you an idea about how productive this technology can be: I'll finish this chapter in a few minutes. When I'm done I'll send it to New York via E-mail along with the figures. Ten minutes after I'm done with it, this chapter will be in my editor's hands and tomorrow it will be in the copyeditor's. Federal Express wishes they could deliver as quickly.

Using the EO as a Fax and EO Phone

Introduction

There are two tools every modern business needs. One is a fax machine and the other is a telephone. Without these tools, chances are you cannot do business. The need to be accessible or in touch is becoming so strong that cellular phones are increasingly common, and within a few years they will be ordinary.

So it is no surprise that the first Personal Communicator can come equipped with both a fax and a cellular phone. With a fully equipped EO you can have the ability to be in touch and up-to-date regardless of where you may be. Everyone's communications needs are different. Some will need an EO without the bells and whistles to keep track of their schedule plus the convenience of an electronic notebook. Others will need the electronic notebook and the fax and E-mail capabilities. And then there will be those who require everything: the electronic notebook, the fax and data modem, and the cellular phone. All the tools needed for personal communications.

As the title suggests, this chapter is about using the EO's capabilities as a fax machine, the cellular phone, and as a telephone accessory. These built-in capabilities, in addition to the EO's other features, are what make the EO a Personal Communicator and not just another computer with a few added communications capabilities. There is no other device available that possesses this level of integration between software and hardware, all designed to keep you in touch, on time, and organized.

As I've already said, this chapter will look at using an EO with the GO Fax and EO Phone software. First, we'll explore how to use the EO's fax capabilities for receiving, manipulating, and sending faxes. Next, we'll look at EO Phone, where you'll see how to use an EO as an accessory with a regular phone and as a cellular phone. Also, I hope that after looking at these features you will have a better understanding of why the EO is a Personal Communicator and not just a new kind of computer.

Using GO Fax on Your EO

Before you can use an EO to send or receive a fax, you need to have an EO with a modem. If your EO has a modem, it is a Fax/Data modem, so you can use it to send both faxes and E-mail. If your EO has a modem. It has a phone jack in the right ear. So let's assume that you have the modem and you're ready to go.

Note *Some of the information presented in this chapter is very similar to what you read in Chapter 8. This is because GO Fax and EO Phone use the same system-wide Address Book and the Dialing Location sheet as GO Mail. But the differences are just enough to make another discussion necessary.*

Included with your EO is a program called GO Fax. GO Fax is very similar to GO Mail. GO Fax provides you with the ability to fax any document you create on the EO. If your EO is not attached to a phone line, or if you want to hold a fax and send it over a phone line rather than use the cellular phone, GO Fax will hold your faxes until you want them sent.

Because GO Fax is part of PenPoint (the EO's operating system), it is completely integrated with the EO. Any document that you can

print you can also fax. Any fax you receive you can review directly on the EO, mark up, and resend. If you're working with someone who is also using an EO you can send them a fax, they can look at it, mark it up, and return it to you. The two of you can perform this process as many times as necessary until you've said everything that needs to be said.

Gone are the days of receiving a fax, copying it, marking it up, and refaxing it. Do this enough times with the same fax and you will have problems reading what was originally written. With the EO the quality of your faxes will be better even if the person receiving them is using a standard fax machine. This is because the fax you receive is stored as a computer file and not as a paper document that is copied one or two times before being resent. With the EO, any fax you receive and then resend will print at the receiving end looking as good for the recipient as it does for you.

Any fax you send from an EO using an original document will look as if you had printed it and handed them a copy. Of course, the quality of a sent fax will depend on the receiving fax machine's printing capabilities. If the receiving fax machine always prints crummy copies there is nothing you can do to improve their quality. However, no one's faxes will look better than yours. A fax sent from the EO will produce the best looking fax the receiving fax machine can produce.

The EO not only increases the quality of your faxes, it provides security you do not have with a standard fax machine. If someone wants to send a sensitive document to you over a standard stand-alone fax machine, you have to stand at the fax machine where it is received to make sure no one else sees it. When you use your EO to receive faxes no one will see them unless you show them the fax while it is on your EO or you print it.

Another advantage to using your EO as a fax machine rather than a standalone fax is that you'll never have to get up go to the fax machine, dial the recipient's number, and send the fax. Not only that, but if you have to fax a document to multiple recipients, with an EO you can enter all of the people you want the fax to go to and send the fax once. The EO will take care of the rest, sending it automatically to each person you've designated.

If you're used to using a computer equipped with a fax modem, you know that you have to maintain a separate address book for all the faxes you send, in addition to whatever address book you keep for your daily contacts. You also know how many times you've wished that you could just use one address book for all of your computing correspondence.

With an EO your dream of a single, integrated address book can come true. The Personal Perspective program is the only place you will ever need to put a phone or fax number. When you fax anything from your EO you can access the fax numbers for anyone you've entered into Personal Perspective. You'll never have to maintain duplicate address books so long as you're using an EO. Quite simply, the EO provides you with the most complete faxing capabilities you can find on any digital platform.

Now that you know what the EO's faxing capabilities are in a general sense, let's look at the actual process. In the following sections we'll look at setting up GO Fax. This is where you customize your EO's fax settings. Then we'll look at the process of receiving, annotating, and resending a fax. The discussion on faxing will wrap up with a discussion on faxing EO documents.

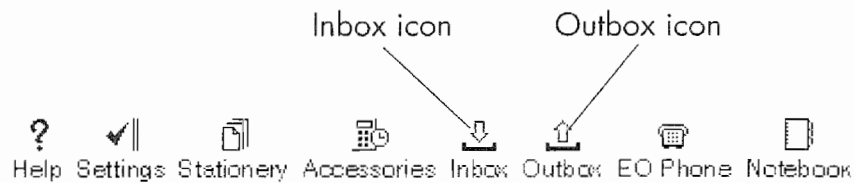
Setting up GO Fax

Note *This section is fairly complicated and intended for the experienced EO user. If you are using GO Fax for the first time, all you really need to be concerned with is whether or not you're using a regular phone line or the EO's Cellular option. If you're using the Cellular option, you'll have to set the Modem to Wireless in the GO Fax options sheet.*

Before you start sending or receiving faxes you have to configure GO Fax. A couple of GO Fax's setup parameters can be set from either the Inbox or the Outbox Notebooks. But there are parameters for receiving and sending faxes that have to be set from the Inbox and the Outbox, respectively. The Inbox and Outbox are PenPoint Notebooks that reside on the Bookshelf of your EO's primary disk drive. Figure 9.1 shows both of these notebooks.

Notice in Figure 9.1 that both of the notebooks are empty. They contain no mail, faxes, or in the case of the Outbox, any printed

Figure 9.1
The Inbox and
Outbox, both
empty



documents. First, we'll look at the general GO Fax setup parameters, and then at those specific to receiving and sending.

General Settings

The general fax settings that you need to be concerned with are the Fax Service and the Modem Settings. Remember, the following steps can be done from either the Inbox or the Outbox. The first setting we are going to set is the Fax Service setting.

The Fax Service setting is used to tell the EO whether or not you want to use the a regular phone line or the EO's wireless option.

To set the phone/wireless option:

1. Open the Outbox Notebook by tapping on it.
2. Either turn to the GO Fax section by tapping on the GO Fax tab, or while you are in the Notebook's Contents page select the GO Fax section.
3. Select the Options menu by tapping on it

Or

As a short cut you can draw a check mark on the name "GO Fax" when you first turn to the Inbox or the Outbox. Figure 9.2 shows the Options menu for GO Fax's Inbox displayed from the Contents page.

4. Select the Fax Service... menu item. This will cause the Fax Service options sheet to appear (see Fig. 9.3).
5. When you tap on the arrow next to Phone Line you will see a pop-up menu from which you can choose either the Phone Line or Wireless options by tapping on either option.

The next options we have to set are the Modem Settings. The Modem Settings are used to tell your modem how much noise to make and how to behave. Figure 9.4 shows the Modem Settings

Figure 9.2
The GO Fax's
Inbox options
menu

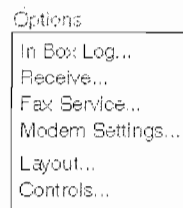







Figure 9.3
The Fax
Service
options sheet



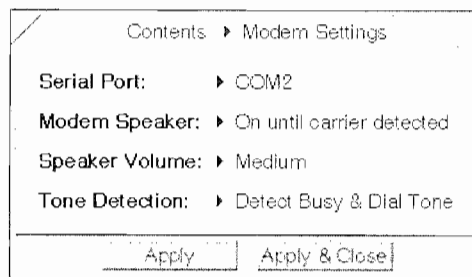
options sheet. The following steps outline how to set the Modem Settings.

To set the GO Fax modem options:

1. Open the Inbox or Outbox and tap on the Go Fax section to select it.
2. Select the Modem Settings item from the Options menu. Tap  on the Options menu and then tap  on the Modem Settings menu item.
3. For each of the options (see “The Modem Settings Options” on pages 398 and 399), select the option by tapping  on the arrow next to the option or by tapping  on the option selection. This will cause a pop-up menu of your choices to appear. Select the setting you are going to use by tapping  on one of the available selections.

You can also cycle through each of the options by drawing a left — or right — flick over the option setting to the right of the arrow.

Figure 9.4
The Modem
Settings
options sheet



Once you have set the options you want for your modem, you will be ready to work. Now all we have to do is set the options for receiving and sending faxes.

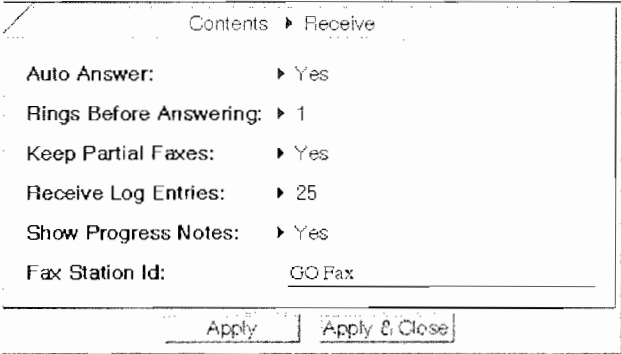
Receive Settings

GO Fax has several settings that control what your EO will do when you have an incoming fax. All of these settings are found in the Receive Options sheet. Figure 9.5 shows the Receive options sheet and the following is a list of these settings, your options, and suggestions on which settings you should use.

Auto Answer You use this setting to tell your EO whether or not to answer the phone when it rings. If you tell it not to answer the phone, it won't. This means you will have to initiate a manual receive when you answer the phone and hear a fax machine at the other end. Of course you also have to have your EO attached to the same phone line as your phone. If you have a dedicated fax line you should tell your EO to automatically answer the phone. With a dedicated line, so long as it is not attached to a standalone fax or a hand set, you will not even hear it ring. Depending on the modem options you've chosen, you could hear some phone noise while your EO answers and establishes a connection with the sending fax machine.

Rings Before Answering This setting is only available if your EO is set to auto answer the phone. You can choose 1, 2, 4, 6, or 8 rings for your setting. If you want an opportunity to answer a phone attached to the same line as your EO or the EO's cellular phone before your EO answers for you, you should set the Ring Before Answering to 6 or 8. Once your EO answers the phone you will have to cancel its attempts to receive a fax before you can use a handset.

Figure 9.5
The Receive options sheet



The screenshot shows a window titled "Contents ▶ Receive" with the following settings:

Auto Answer:	▶ Yes
Rings Before Answering:	▶ 1
Keep Partial Faxes:	▶ Yes
Receive Log Entries:	▶ 25
Show Progress Notes:	▶ Yes
Fax Station Id:	GO Fax

At the bottom of the window are two buttons: "Apply" and "Apply & Close".

The Modem Settings Options

Because the Modem Settings control how your modem will behave and how much noise it makes, you need to understand what each option is for before you set the particular option. You will probably have to experiment on which settings you want to use. If you are in a situation where noises coming from your EO will disturb other people, you will want it to operate silently. However, you may be in a situation where you need to hear what the modem is doing, and you will want different settings. The following list explains your Modem Settings options.

Serial Port This option controls which serial port your EO will use for fax transmissions. If you have a built-in modem, this option is always COM2 and cannot be set. Should you be using an external modem you will have options to select COM1, COM2, or COM3. COM3 is the EO's built in serial port that is located on the right ear of the EO. COM1 is the port used by the Cellular option.

Modem Speaker This setting controls whether or not you hear the noises your modem makes. Your choices are Always On, Always Off, or On Until Carrier Detected. **Always On** means that the modem speaker will make noise during the entire fax transmission. This is really quite noisy and usually unnecessary. The only reason you would want the modem on during an entire fax transmission is if you are having trouble sending a fax and you need to know when the transmission is failing.

Always Off Means that your modem speaker will not make noise. This is the setting you should use if noises from your EO will disturb other people.

On Until Carrier Detected This means that your modem will make noise during the dialing and what is called the negotiation process. You will be able to hear the phone being dialed and the chirps and beeps your modem and the recipient's fax machine make at each other until they agree that they can communicate. As soon as your modem and the receiving fax machine come to some type of agreement, your speaker will turn off and the rest of the fax transmission will take place in silence.

This setting is very useful to make sure you have not dialed a wrong number. If you dial a wrong number you might hear someone pick up the phone and say "Hello?" Then you will hear them hang up. Even though there is no way for you to pick up the phone and apologize you can at least cancel the transmission and not call the poor person again. Also, you might hear a busy tone, the recorded operator saying that the number you

dialed is disconnected, or some other message telling you why the number you dialed is not working or unavailable. For this reason, I almost always use this option, which is the default setting as well.

Speaker Volume If you are using the modem speaker you need to be able to hear it. With this setting you can set the volume of the speaker to one of four settings. Your choices are Whisper, Low, Medium, or High. You will have to experiment with these options until you find one that is comfortable. The default setting for this option is Medium.

Tone Detection Tone detection can be a tricky setting. This setting controls what your modem looks for (in a metaphorical sense), and how it behaves when it starts to make the call to the other fax machine. Which setting you choose depends on your circumstances. The circumstances you will have to be concerned with are how your phone system or the phone system where you happen to be operates. There are four settings for this option listed below:

Detect Busy & Dial Tone This means that your modem will not dial unless it detects a dial tone, and if after dialing or at any time during the process of dialing it detects a busy tone, it will disconnect and cancel the fax transmission. This is the default setting and the one you will use most often.

Detect Busy Tone Only This setting causes the modem to only detect a busy tone. Your EO will dial regardless of whether the modem hears a dial tone. This setting is useful if you are using a phone system that does not immediately generate a dial tone. If your phone system does not generate a dial tone, using any setting that detects a dial tone means that the EO will not dial the phone.

Detect Dial Tone Only This setting detects dial tones and ignores busy signals. You should use this setting if your phone system generates a dial tone, but before you get an outside line your phone system generates a busy signal. The down side to this setting occurs if the number you dialed is actually busy. Your modem will attempt to connect for a longer time under these circumstances than it would otherwise.

Ignore Busy & Dial Tone This setting does exactly what it says. It does not check for a dial tone, nor will it detect a busy signal. This should be used if your phone system does not generate a dial tone and if it does use a busy signal at some point before you get an outside line.

Keep Partial Faxes Sometimes a fax transmission can go wrong and you will not receive the entire fax. This can happen if you are using a phone line with Call Holding, or if someone should pick up an extension attached to the same phone line. If you want to see whatever your EO received before the call was interrupted, leave this setting turned on. Since most faxes are sent with a cover page first, you might get enough of the fax to know who called and be able to call them back and ask that they resend the fax.

Receive Log Entries The receive log is an automatic list of all incoming completed and failed fax transmissions. Figure 9.6 shows the contents of the Inbox Log.

The Inbox Log tells you the station name of the sending fax machine (so long as the sending station has had a name assigned), the date and time of the fax transmission, how long it took to receive the fax (transmission duration), the size of the document in pages, whether or not the document was received, and if not, why not. This log is kept automatically unless you turn it off. The options you have for this setting are None, 25, 50, 75, 100, or Unlimited. The default setting is 25. The Inbox Log is discussed in the section on your Fax logs.


Figure 9.6
The Inbox Log

Contents ▶ In Box Log	
Not Saved	Date: Jun 22, 1993 3:52 AM Duration: 00:00:41 Problem: The sender's fax machine disconnected the line.
Not Saved	Date: Jun 21, 1993 8:41 PM Duration: 00:00:39 Problem: The sender's fax machine disconnected the line.
Partial	Date: Jun 19, 1993 5:06 AM From: MACINTOSH POWERBOOK Duration: 00:01:31 Document: 2 Pages Problem: The received call is not from a fax machine.
Received	Date: Jun 19, 1993 4:28 AM From: MACINTOSH POWERBOOK Duration: 00:01:11 Document: 2 Pages
Received	Date: Jun 12, 1993 10:57 AM From: MACINTOSH POWERBOOK Duration: 00:08:34 Document: 6 Pages

Show Progress Notes Progress notes are dialog sheets that inform you of the EO's progress when it is receiving a fax. Your options for the Show Progress Notes are "Yes" and "No." How you set this setting is entirely up to you. If you want to know when a fax is being received, you should use the "Yes" option. If you do not want to have your work interrupted by the Progress Notes, then you should turn this option off.


Fax Station ID The Fax Station ID is how your EO identifies itself to other fax machines. When someone calls your EO with a fax your EO will send your station ID back to the sender's fax machine. If the sending fax machine has the capability, it will display your station ID while it is sending the fax. If you wish, you can just enter your name as the Fax Station ID. Should someone with an EO send a fax to your EO, the sending EO would display your station ID in the sending progress notes. Also, if the sending fax keeps a log of sent faxes, your station ID would be entered in the sending machine's log.

To set your settings in all instances except the Fax Station ID:


1. Open the Inbox Notebook.
2. Select GO Fax in the Contents by tapping  on the GO Fax section title


Or

Turn to the GO Fax page by tapping  on the tab titled GO Fax.




3. Tap  on the Options menu


Or

Draw a check mark  on the page.


4. From the Options menu select the Receive menu item by tapping  on it

Or



If you used the check mark gesture, tap  on the arrow in the Title Line of the options sheet that appeared and select Receive from the pop-up menu. (You can also use the flick left  or flick right  gestures to move from option to option.) The Receive options sheet will appear.

5. Select the item you wish to set by tapping  on the option to the right of the option's title and select your choice from the menu that pops up


Or

Tap  on the arrow to the left of the option and choose the setting you want from the pop-up menu


Or


You can draw on the selected setting with a left  or right  flick to select the next available setting.

To change the Fax Station ID:

1. Open the Inbox Notebook.
2. Select GO Fax in the Contents by tapping  on the GO Fax section title



Or

Turn to the GO Fax page by tapping  on the tab titled GO Fax.

3. Tap  on the Options menu

Or

Draw a check mark  on the page.

4. From the Options menu select the Receive menu item by tapping  on it.
5. Tap on the line with the Station ID in it. The default for this setting is "GO Fax."
6. A pop-up editing pad will appear.
7. Write a name, number, or message you want for your Station ID.
8. Tap  on the OK button. Your new Station ID will appear on the line.

These are all of the settings you need to be concerned with to receive faxes. Next we'll look at sending a fax.

Send Settings

Before sending faxes there are two option sheets you should look at. One is the Sending options sheet and the other is the Dialing

Location. First we'll look at the Dialing Location options sheet. This is the same sheet filled out in the last chapter. If you do not want to read about the Dialing Location options sheet again, skip the following section.

The Dialing Location Options Sheet

Figure 9.7 shows the Dialing Location Options sheet. The purpose of the Dialing Location Options sheet (say that three times fast) is to tell GO Fax where you are, what access numbers you need to use, and other dialing configurations that can change from location to location when you send a fax. These settings alter the numbers your modem will dial when you send a fax. Let's look at each of the Dialing Location options.

Note *Using the cellphone causes the EO to completely ignore the Dialing Location—it just dials the area codes all the time because the cellular system can handle that. Cellphones are always “located” in the area code in which they were activated.*

Where Are You Now? Tells the EO whether you are in the US or Canada or in some foreign land. If you tell the EO that you're outside the United States or Canada, you will have to tell the EO the country and area code for wherever you happen to be.

Area Code In this field you tell the EO the area code for your present location. When the GO Fax gets ready to send a fax it will compare the area code for the number you're calling and the area code in the Dialing Location sheet. If the numbers are different, than the Long Distance access number (described below) will be used with your Calling Card number (also described below) at the time your EO places the call. This will prevent the people you're visiting from being billed for your fax call, unless, of course, you're using the cellular option. Everything that was just said about the area code applies to the country code if you are in a foreign land. Personal Perspective has a list of country codes if you need help figuring out the country code for your present location.

Need an Outside Line? This is a yes or no question. If you tell the EO “yes” you will be presented with a field called “Outside line:” where you enter the number(s) you would need to dial to get an outside line.

Using a Calling Card? This option is like the “Need an outside line?” option. If you say “yes” you will be presented with a field

where you enter your Calling Card service, card number, and access number. Of course, if you're not using a calling card you should select the "No" option.

When you tell the EO that you're using a credit card number you will be able to choose from AT&T, AT&T (from AT&T phones), MCI, Sprint, or Other. Each of these options will display fields appropriate for the company you've selected. If you have a credit card issued by a company other than the ones listed choose Other. When you do you will have to fill in your Card, the access, and international access numbers, plus you need to tell the EO if the calling card number is to be dialed after or before the phone number is dialed.

What Access Numbers Do You Need to Dial? This option is available if you are not using a calling card. Here you fill in the "Long Distance:" and "International:" access numbers you need from your location. These settings are automatically set for the United States and Canada. If you are traveling outside the US, you will have to change them to meet the requirements for your location.

What Type of Phone Line Are You Using? With this option you specify whether you are using a touch tone or pulse phone line. There are still some parts of the US and other countries where you will have to use the pulse selection to dial the phone because touch tones will not work.

When setting the Dialing Location options sheet configurations, you will be writing in some fields and selecting other variables

Figure 9.7
The Dialing
Location
options sheet

Contents > Dialing Location

Fill in the information below. This tells PenPoint how to dial phone numbers from your current location.

Where are you now? ▶ USA or Canada

Area Code: 510

Need an outside line? ▶ No

Using a Calling Card? ▶ No

What access numbers do you need to dial?

Long Distance: 1

International: 011










What type of phone line are you using?

Dial Type: ▶ Tone

Apply Apply & Close





from pop-up menus. All options that use pop-up menus have an arrow next to the setting, while all fields that require written data have lines.

To change a setting that uses a pop-up menu:

1. Open the Outbox Notebook by tapping  on it.
2. Select GO Fax in the Contents by tapping  on the GO Fax section title
 Or
 Turn to the GO Fax page by tapping  on the tab titled GO Fax.
3. Tap  on the Options menu
 Or
 Draw a check mark  on the page.
4. From the Options menu select the Dialing Location menu item by tapping  on it
 Or
 If you used the check mark gesture, tap  on the arrow in the Title Line of the Options sheet that appeared and select Dialing Location from the pop-up menu. (You can also use the flick left — or flick right — gestures to move from option to option.) The Dialing Location options sheet will appear.
5. Select the item you wish to set by tapping  on the option to the right of the option's title, and select your choice from the menu that pops up
 Or
 Tap  on the arrow to the left of the option and choose the setting you want from the pop up menu
 Or
 You can draw on the selected setting with a left — or right — flick to select the next available setting.

To change any option that requires a written number (after setting the options that use pop-up menus):

1. Open the Outbox Notebook by tapping  on it.

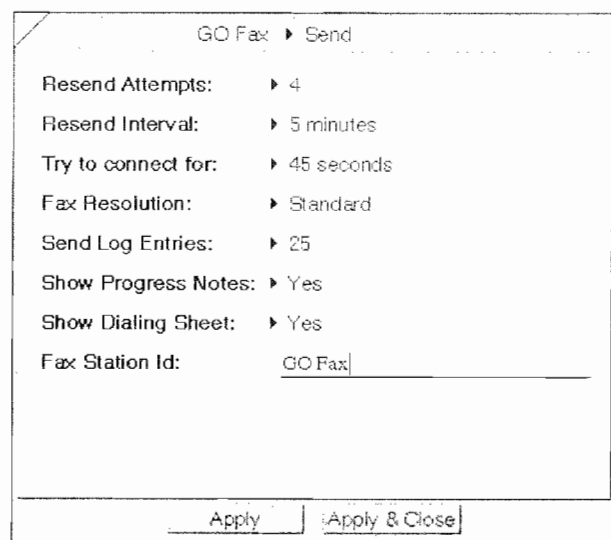
2. Select GO Fax in the Contents by tapping  on the GO Fax section title.
3. Tap  on the Options menu.
4. From the Options menu select the Dialing Location menu item by tapping  on it.
5. Tap on the line for the field you want to edit.
6. A pop-up editing pad will appear.
7. Write the number appropriate for the field.
8. Tap  on the OK button. Your new settings will appear on the line.

The Dialing location should not be overlooked. If you have an area code set other than the one in which you are physically located, you will not be able to send a fax unless you change your location settings. If you have trouble sending a fax, your location setting is the first thing you should check.

The Send Options Sheet

The Send options sheet is used to configure how GO Fax will behave when you are sending faxes. Most of these settings are preference settings, meaning that there are no rules for these settings. Figure 9.8 shows the Send options sheet. Why don't we take a look at these settings so you know what you're setting and why.

Figure 9.8
The Send
options sheet



The settings you can set in the Send options sheet are listed below:

Resend Attempts This number tells GO Fax how many times to try to send a fax if a fax transmission fails for any reason. You can set this setting to 1, 2, 4, 6, 8, or 16. Because fax transmissions can fail for any number of reasons, the number you choose for this setting will depend on your particular needs. If you are trying to fax from a location where there is a lot of interference on the phone line, you may want to set the retry number fairly high. Otherwise, you will probably want to set the retry to a couple of times, because your biggest concern will usually be getting a busy signal.

Resend Interval The resend interval determines how long GO Fax will wait before it tries to resend a fax. The values for this setting are 1, 5, 10, 15, 20, 30, 45, and 60 minutes. How long you set between retransmission attempts is purely personal. If you have an urgent fax that has to get through, you will want to set a short retry interval. Otherwise, there is probably no rule of thumb.

Try to Connect for Some fax machines take longer to figure out what's going on than others. So the confused fax machines will take longer to connect. To help those confused fax machines, you can set how long GO Fax will try to connect after the receiving fax machine answers the phone. You can select 30, 45, 60, 90, 120, or 180 seconds for the try to connect time. The default value for this setting is 45 seconds. Another reason to set a long connect time is when you are sending a fax to someone who has an answering machine connected to a fax, and you may have to wait until the recorded message is over before you can begin the fax transmission. If you are sending a fax to a reasonable fax machine you should be fine with the default setting.

Fax Resolution Almost all fax machines have two printing resolutions: fine and standard. A fax sent using fine resolution requires twice as much memory and time to transmit as a fax sent using standard resolution. To compensate for the extra time, your faxed document looks almost twice as good. However, most faxes are sent using standard resolution to save money on toll charges. If you want to pay the extra money for a longer transmission time, then use fine resolution. The only other time you might want to be mindful of the fax's resolution is if you know that the machine you are sending the fax to is very busy. Sometimes a recipient will get upset because it is taking too long to receive your fax. The default for this setting is Standard.

Send Log Entries This setting is similar to the Receive Log Entries, discussed in the last section, only the Send Log Entries controls how many entries are going to be kept in the Outbox Log. This log shows the date and time of a transmission, the phone number dialed, duration of the call, the documents faxed and their number of pages, and whether or not you sent a cover sheet. Your settings choices are None, 25, 50, 75, 100, and Unlimited. The default setting is 25. The Outbox Log is discussed in the next section about the Fax Logs.


Show Progress Notes This setting is the same as the Show Progress Notes option in the Receive options sheet. However, you can choose to show the Progress Notes for the Receive options and not show them for the Send options, or vice versa. If the progress notes are set to show, you will be notified every time your EO attempts to send a fax by a dialog sheet. You will be told that a number is being dialed, when connection is established, what page is being faxed, and when the fax transmission is completed. The default setting for this option is Yes.









Show Dialing Sheet This option tells GO Fax to display the Dialing Location sheet every time a fax is sent. If you travel quite a bit you will probably want to leave this setting on Yes (its default). However, if you rarely travel outside of a specific area code you will rapidly get annoyed with the repeated appearances of the Dialing Location sheet. If you find yourself closing the Dialing Location sheet more often than you change it, you will probably want to turn this option off.

Fax Station ID This is the same exact as in the Receive options sheet. If you change the name of your fax station in either options sheet the change will be reflected in the other. See the Receive options sheet discussion for more information.





This concludes the discussion of the Send options sheet. The following are brief instructions on how to access the Send options sheet and how to change the settings. Since these are really generic instructions, you can skip them if you are tired of the redundancy.

To change your Receive options sheet settings:

1. Open the Outbox Notebook by tapping  on it.

2. Select GO Fax in the Contents by tapping  on the GO Fax section title
 Or
 Turn to the GO Fax page by tapping  on the tab titled GO Fax.
3. Tap  on the Options menu
 Or
 Draw a check mark  on the page.
4. From the Options menu select the Send... menu item by tapping  on it
 Or
 If you used the check mark gesture tap  on the arrow in the Title Line of the Options sheet that appeared and select Receive from the pop-up menu. (You can also use the flick left — or flick right — gestures to move from option to option.) The Send options sheet will appear.
5. Select the item you wish to set by tapping  on the option to the right of the option's title and select your choice from the menu that pops up
 Or
 Tap  on the arrow to the left of the option and choose the setting you want from the pop-up menu
 Or
 Draw on the selected setting with a left — or right — flick to select the next available setting.

To change Fax Station ID:

1. Open the Outbox Notebook by tapping  on it.
2. Select GO Fax in the Contents by tapping  on the GO Fax section title
3. Tap  on the Options menu.
4. From the Options menu select the Send... menu item by tapping  on it.
5. Tap on the line for the field you want to edit.
6. A pop-up editing pad will appear.

7. Write your Station ID.
8. Tap **Y** on the OK button. Your new Station ID will appear on the line.

In the beginning, keep the default GO Fax settings. After you have sent a few faxes you will have a better idea about their functions and how they affect your fax transmissions. Once you understand what these settings do you can change them to meet your desires and/or needs.

The Fax Logs

Both the Inbox and the Outbox have logs that record your incoming and outgoing fax transmissions. How you use these logs will depend on how thoroughly you want to track your information transactions. If you have to account for all of your fax transmissions for billing purposes, you will want to keep track of all incoming and outgoing faxes. You could have legal reasons for wanting this information, or you might want to reconcile the sent faxes with your phone bill. There are all kinds of reasons for wanting to keep your fax logs.


As stated above, if you have a need to keep these records, you should set the Receive and Send Log settings high enough to make sure all of your fax transactions are recorded. This will depend solely on the amount of fax traffic you deal with. However, I don't recommend that you use the Unlimited option in either the Send or Receive options sheets. Instead, you should copy the information from your logs to a MiniText document on a regular basis.

There are a few reasons for recommending this action. One is that you can store the MiniText documents on other disks and not waste precious disk space on your EO. Another is, if for some reason you have a problem with your EO and you have to reformat your hard disk or you lose the contents of memory, you will also lose your fax logs. The only way to guarantee that they are safe is to copy them to a MiniText document. Finally, the only way to print your fax logs is to copy them into a MiniText document.


Regardless of why you are doing it, you should probably set your Send and Receive Log settings to 50, or leave them at 25 if you are


not going to be doing a lot of faxing. Then, on a regular basis—schedule it as an event in Personal Perspective—copy the contents of your logs into a MiniText document.

To copy the Inbox or Outbox Receive Logs:


1. Create and open a MiniText document.
2. Open the Inbox or Outbox.
3. Turn to the GO Fax page by tapping  on the notebook tab or the page number in the contents


Or

Select the GO Fax section by tapping  on the GO Fax title in the Notebook's contents.




4. Tap  on the Options menu

Or

Draw a check mark  on the page.

5. From the Options menu select the Inbox or Outbox Log (depending on which notebook you are using) menu item by tapping  on it

Or

If you used the check mark gesture, tap  on the arrow in the Title Line of the Options sheet that appeared and select Inbox or Outbox Log from the pop-up menu. (You can also use the flick left  or flick right  gestures to move from option to option.) The Log will appear. Figure 9.9 shows an Outbox Log.






6. Position the MiniText document so you can see it behind the Fax Log you are working with. Double tap  on the first word in the upper left-hand corner of the Fax Log. In Figure 9.10 you would double tap  on the word Sent.
7. Scroll to the bottom of the fax log using the scroll margins. After the last word in the log draw a left bracket . This will select all of the text in the log. If you want only part of the text, draw the left bracket  to include the text you want.
8. After selecting the text, tap press  on the selected text. You will see a small rectangle with a double marquee appear (see Fig. 9.11). This prepares all of the selected text for copying.

Figure 9.9
An Outbox Log

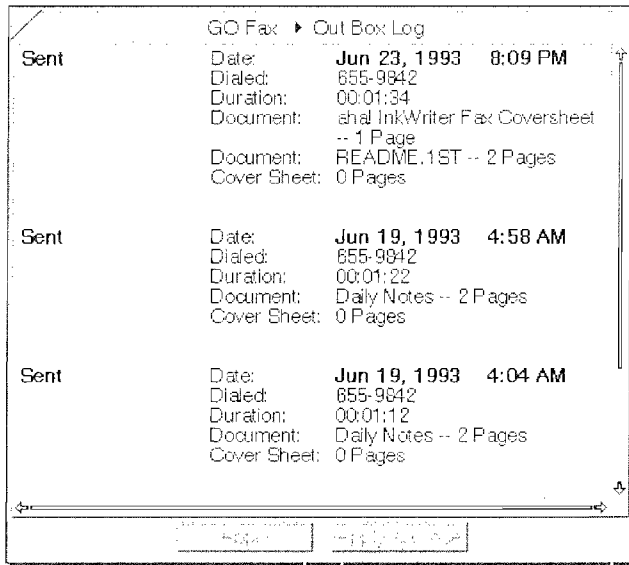
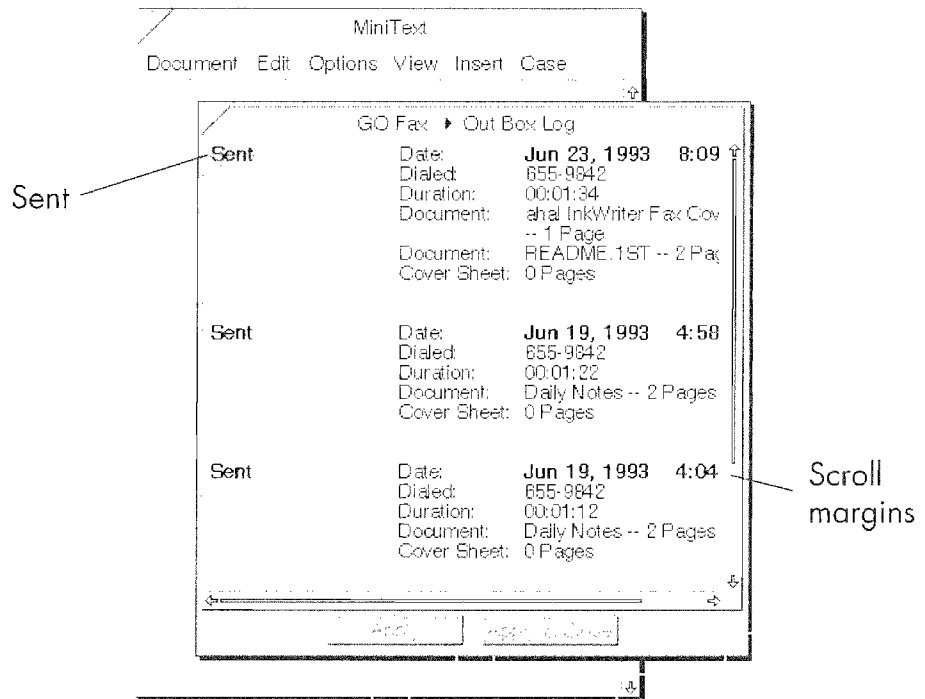


Figure 9.10
The Outbox Log with a MiniText document behind it



9. Drag the rectangle with the double marquee onto the MiniText document. All of the selected text will be copied to the MiniText document as shown in Figure 9.12.

Once you have placed the fax log into your MiniText document you can print, E-mail, fax, and store it. This will prevent you from inadvertently losing the log and give you a way to present it to others.

Figure 9.11
The selected text and a small rectangle with double marquee

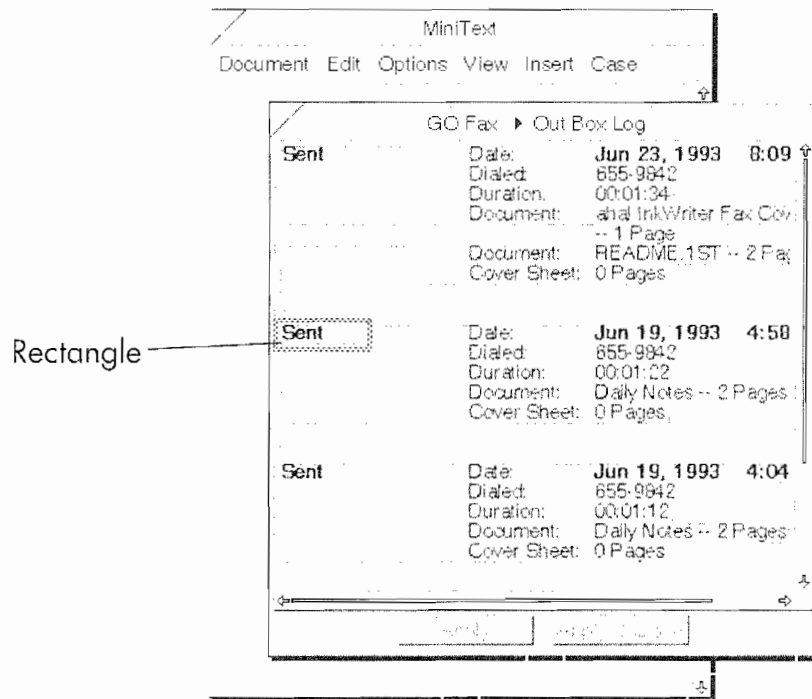
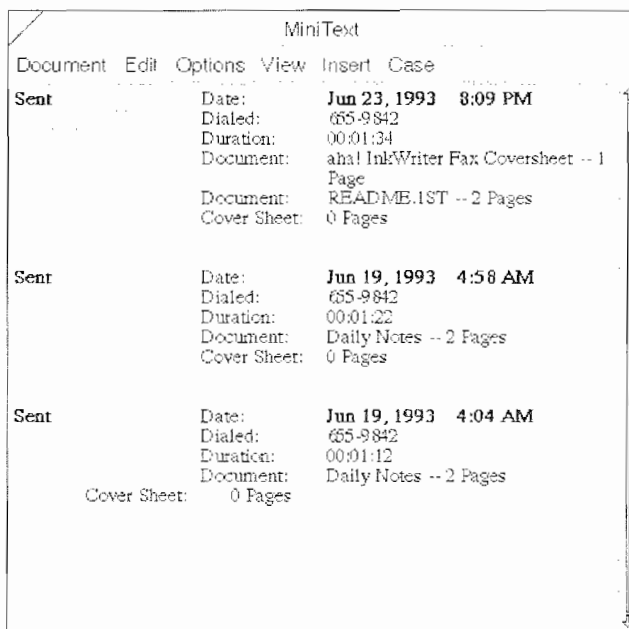


Figure 9.12
The Fax Log in a MiniText document



Receiving Faxes

Now that you have the GO Fax configured, you are almost ready to start receiving faxes. Since you can set your EO to either automatically or manually receive a fax, both methods for receiving

will be discussed below. Also, you can receive faxes while the EO is in Standby Mode as well, and that option will also be discussed in this section.

Automatically Receiving a Fax

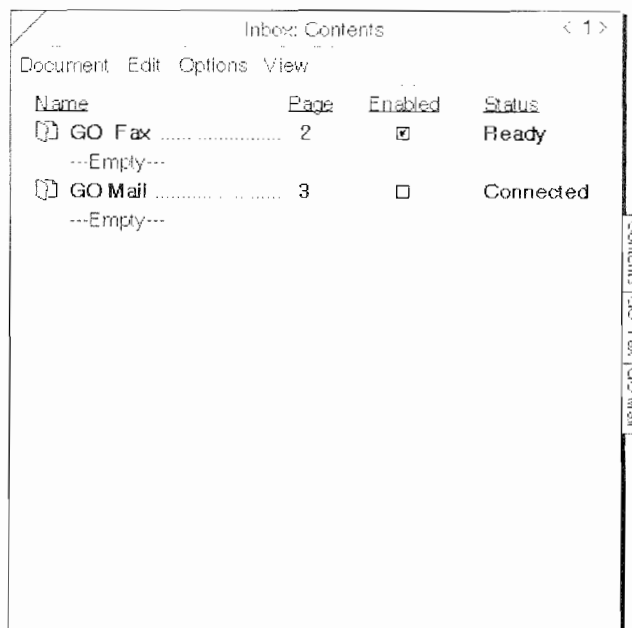
To receive a fax you have to make sure your EO is connected to a phone line or tell it to receive using the Cellular Phone. Then:

1. Open the Inbox.
2. Tap  in the Enabled check box shown in Figure 9.13.

Once you have enabled GO Fax to receive, the status of GO Fax will say Ready (also shown in Fig. 9.13). This means that your EO is ready to receive faxes. You must repeat this procedure anytime you reconnect your EO to a phone line if you are using your EO to receive faxes. If you look in the Inbox and see that the Enabled box is not checked or GO Fax status is Connected instead of Ready, your EO will not answer the phone or receive any faxes.

Note *If you're using the Cellular option for your faxing, do not forget to change the Fax Service option from Phone Line to Wireless. Also, if you wish you can connect an EO with a Cellular phone to a standard phone line and send faxes via the phone line while talking on*

Figure 9.13
The Inbox with
GO Fax
enabled



the EO's Cellular Phone. You do not have to use the Cellular Phone for faxes unless you want to.

When you receive a fax, your EO will automatically answer the phone and place the received fax in the Inbox inside the GO Fax section. Depending on how you've configured GO Fax, you may or may not see the Progress Dialog sheet telling what is happening while you are receiving a fax. If GO Fax is configured to show progress notes, you will see a Progress dialog sheet like Figure 9.14 when receiving a fax.

Should you want to cancel an incoming fax transmission you can do so by tapping **Y** on the Cancel button in the Progress Notes dialog sheet at any time while you are receiving a fax.

You can always tell if you have a fax (or E-mail) because your Inbox will have an icon that looks like Figure 9.15. The special icon is to notify you that you have received a fax while you were away.

The Inbox icon will revert back to normal only after you have opened a received fax. The Inbox icon will continue to look like Figure 9.15 until you read all mail and faxes contained in the Inbox.

Manually Receiving a Fax

You can set your EO so you can manually receive a fax. This feature is useful if you have to call a number and request a fax by

Figure 9.14
The Progress Notes while receiving a fax

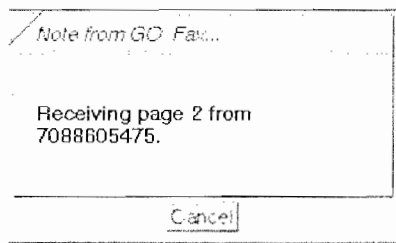
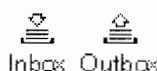



Figure 9.15
The Inbox and Outbox icons when there are documents in each



using the keypad on a touch tone phone. If you need to manually receive a fax you can do so by turning off the Auto Answer option in the Receive Options sheet. Turning off the Auto Answer option means that your EO will not answer the phone if it rings.

To manually receive a fax:

1. Answer the phone or use a phone to dial the number from which you will receive the fax.
2. Open the Inbox.
3. When you hear the sending fax machine trying to connect tap  on the Enable check box.
4. You will see a dialog sheet like the one in Figure 9.16.
5. Tap on the Connect button to receive the fax. You should hear the sending machine beeping at you. The beeping is the sending fax polling the line trying to notify a fax machine that it has a message to send.

After you tell your EO to connect, it will go through the normal process of receiving a fax and place it in the Inbox Notebook. If the phone should ring while you've got the EO set to manually answer, you will receive a dialog sheet telling you that the phone is ringing. Figure 9.17 shows the dialog sheet you receive under these circumstances.

Figure 9.16

The Manual
Receive dialog
sheet

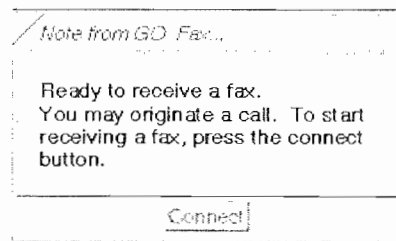
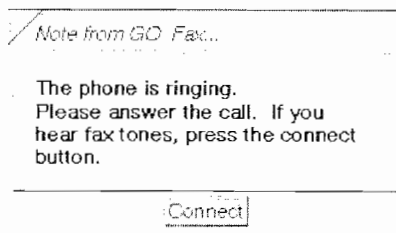


Figure 9.17

The Manual
Receive Dialog
sheet with an
incoming call



Also, you can always tell if the EO is set to auto answer or manually receive by looking in the Inbox. If it is set to manually receive, the GO Fax status line will say Manual instead of Ready.

When the EO Is in Standby Mode

If you are going to be leaving your EO unattended but still want it to receive faxes, you do not have to worry. The EO is designed to turn on and answer the phone whenever it is in Standby mode. All you have to do is make sure GO Fax is enabled in the Inbox and that the Auto Answer option is turned on. When the modem detects an incoming call it will wake the EO up, answer the call, receive the fax, and then go back into Standby mode after the interval specified in your Power options for the Settings Notebook.

The EO will also wake up as soon as the Cellular Phone rings. So you can also use the Cellular option to receive faxes while you are away from your EO. In order for the EO to use the Cellular for fax reception you have to set the Fax Service option to Wireless. The only caution here is that the EO has no way of knowing if an incoming call is a voice call or a fax transmission. It will answer all phone calls received by the Cellular Phone, regardless of their nature. If you want to receive faxes with the Cellular phone you should set the Rings Before Answering to a fairly high number. This way you can pick up an expected voice call before the modem answers.

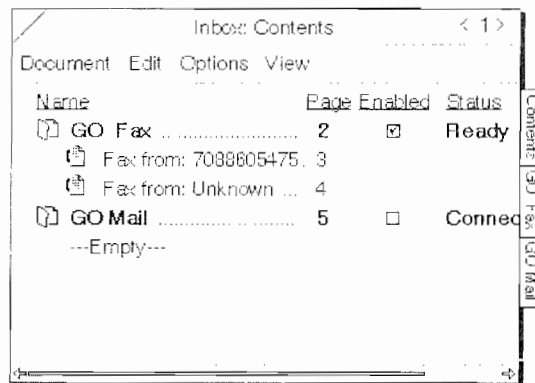
After the Fax Is Received

All received faxes are placed by GO Fax in the Go Fax section of the Inbox Notebook. Figure 9.18 shows two faxes in the Inbox.

The Inbox is just like any other PenPoint Notebook except that you cannot place or create documents in it. Only received faxes and E-mail documents are stored in the Inbox. Also, it is a good idea to move any documents you receive from the Inbox to another notebook. This is for safety's sake, because you are much more likely to back up your other notebooks while the Inbox is ignored. Not only is it very difficult to keep track of a bunch of faxes hanging loose in the Inbox, but your faxes will be much easier to find if you attach them to an appropriate profile in Personal Perspective or in a specific section in a working notebook. If you need help in plac-

Figure 9.18

Two faxes in
the Inbox
Notebook



ing your documents in other notebooks, see Chapter 3. For help using Personal Perspective, see Chapter 5.

Viewing the Fax

Viewing a fax is just like working with any document on your EO.

To open a received fax, follow these steps:

1. Tap the Inbox icon on the Bookshelf to open the Inbox.
2. Tap on the document's icon or page number

Or

Double tap on the fax to open it as a floating document.

(For more information on manipulating documents see Chapters 3 and 5.)

When you open a GO Fax document for the first time you will see the full page view of the received fax. Although your document will be different, the form should look like Figure 9.19.

Once the fax is open you can do several things with it. You can modify the view by enlarging it. You also change the document's orientation. This is useful for faxes that have been received upside-down, or documents that need to be viewed sideways. And you can also make annotations directly on a fax document for your reference or for someone else. After marking up a fax you can fax it to someone else with all of your comments intact.

Working with a received fax on the EO is just like working with a fax that was received on a standalone fax machine. The only differ-

ence is that you do not have to print the fax to mark it up or read it. Many of the faxes you receive will never be printed.

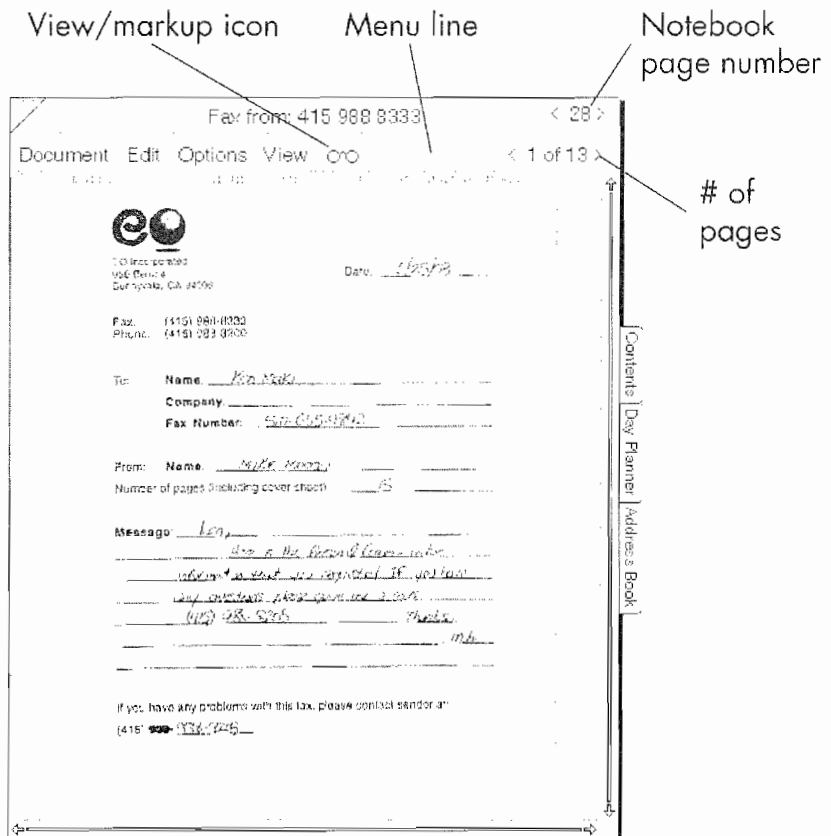
The rest of this section will look at other options you have when working with a received fax.

The GO Fax Page




Before jumping into the intricacies of playing with your fax it would be helpful to become familiar with a GO Fax Receive page. Figure 9.19 shows a received fax as it is viewed on the EO when it is first opened.

The two items of the GO Fax Receive document that are different from other applications are the number of pages and the View/Mark Up icon. Do not confuse the fax page number with the notebook page number. Because a fax can be a multi-page document and the fax itself is considered by the EO to be a single document, if you turn the notebook page you will turn away from your fax to some other document. To turn pages on your fax you have


Figure 9.19
A first view of your fax



to use the fax document's page number. This page number is noted in Figure 9.19. The following list outlines how to change pages in a GO Fax Receive document.

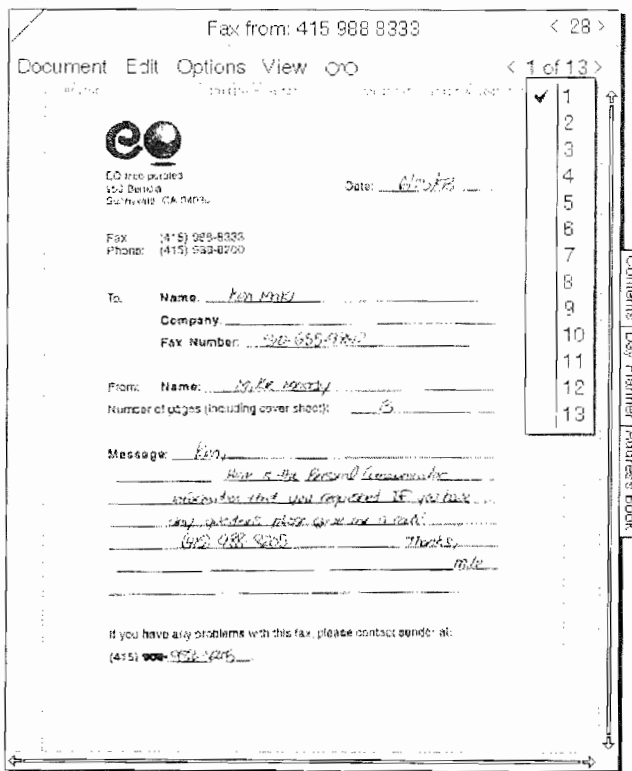
- Tap  on the arrow to either side of the fax page number. This will turn one page in either direction.
- Tap  directly on the page number between the arrows; a drop-down menu will appear like the one in Figure 9.20. From the menu, select the page number you want by tapping  on the number.

Note Using flicks in the menu bar will not change a GO Fax Receive page like they will in the Menu line of a notebook.

Another item that is specific to GO Fax Receive: in the menu line you will see an icon that looks like a pair of glasses. By tapping  on the icon it will switch to a pen you can use to mark up the fax.

There is one more option in GO Fax Receive different from other PenPoint applications. GO Fax Receive has a Start Up option that controls all fax documents, not just the one you are viewing. With

Figure 9.20
The alternate means for selecting a fax's page number



the Start Up options you set the startup orientation and viewing mode for all fax documents. Figure 9.21 shows the Start Up options sheet.

Since the Start Up options sheet is a combination of both the Orientation options page and the View menu setting, the Start Up options will be discussed latter in the chapter. Other than these differences the GO Fax Receive page works just like any other Pen-Point document.

Orientation

Many faxes are received upside down and sideways which makes them difficult to view on the screen when they are first opened. When you receive faxes in a disorientated condition on your EO you will want to correct the errant document for easy viewing.

To reorient a fax document, follow these steps:

1. Tap **!** on the Options menu and select Orientation menu item
Or
Draw a check mark ✓ on the document itself. If you use the check mark gesture make sure the document is set to the View mode and not the Mark Up mode.
2. From the Orientation options sheet (Fig. 9.22), select the direction you want the top of the fax to face. If the fax is upside down tap on the arrow with the word "TOP" at the bottom.
3. Select whether you want the orientation change to apply to the page you're viewing or all of the pages in the fax.

Figure 9.21
The Start Up options sheet.

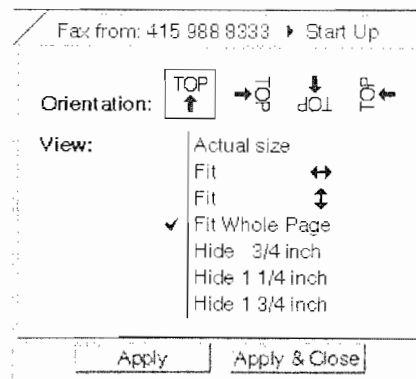
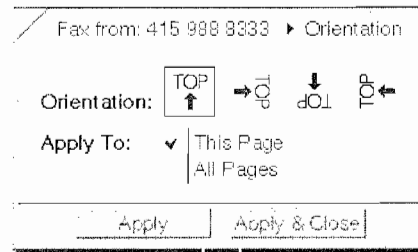


Figure 9.22

The
Orientation
options sheet



4. Tap on the Apply or the Apply & Close button

This process will change the page's orientation and you will be able to view the fax without turning the EO around backwards. However, if you have marked up a page and then change the page's orientation, any marks you have made will not be changed with the document. This means that you should change the document's orientation before marking up a fax.

The View Menu and Zooming

The View menu controls how much or little of a fax document you can see. Using the View menu, shown in Figure 9.23, you can see the entire fax within the borders of the page, or you can increase the view size of the fax to its actual size (as if you printed it), or even increase the size to about four times the fax's actual size.

All of the faxes displayed in this chapter up to this point have used the Fit Whole Page setting. This setting makes the entire fax page fit within the page regardless of how it is sized. And it is also the default view size for any page unless you change it with in the Start Up options mentioned above. Each time you turn to a different page, the view is automatically set to the View Whole Page setting. The following list explains each of the settings for a GO Fax page.

Figure 9.23

The GO Fax
Receive View
menu



Zoom In This option allows you to increase the viewing size of a fax. It can be used incrementally until the fax is about four times its normal size.

Zoom Out Reduces the size of a fax. It can be used to incrementally decrease a fax's viewing size, just as Zoom In can be used to increase a fax's viewing size.

Actual Size This selection displays a fax at its actual size. The actual size is the size of the fax if it was printed on paper. See Figure 9.24.

Fit Side to Side This option displays the fax so its horizontal borders define the page's edge. Using this option, you will have to scroll up or down to see the entire fax.

Fit Top to Bottom This option is used to fit the fax within a page using the top and bottom of the fax as the page's borders. You'll probably want to use this option if you are viewing a fax in a landscape position. (Landscape would be where the page is 11 inches wide instead of 8.5.) When viewing a fax in a landscape orientation you will have to scroll to the left or right in order to see the whole fax. Otherwise, its results are the same as the Fit Whole Page selection.

Fit Whole Page As mentioned, this is the default view. This view places the entire fax in a window so the entire page can be viewed.

Hide 3/4 Inch This menu option trims 3/4 of inch from the horizontal edges of the fax and displays the remaining fax using the Side to Side view.

Hide 1 1/4 Inch This menu option trims 1 1/4 inches from the horizontal edges of the fax and displays the remaining fax using the Side to Side view.

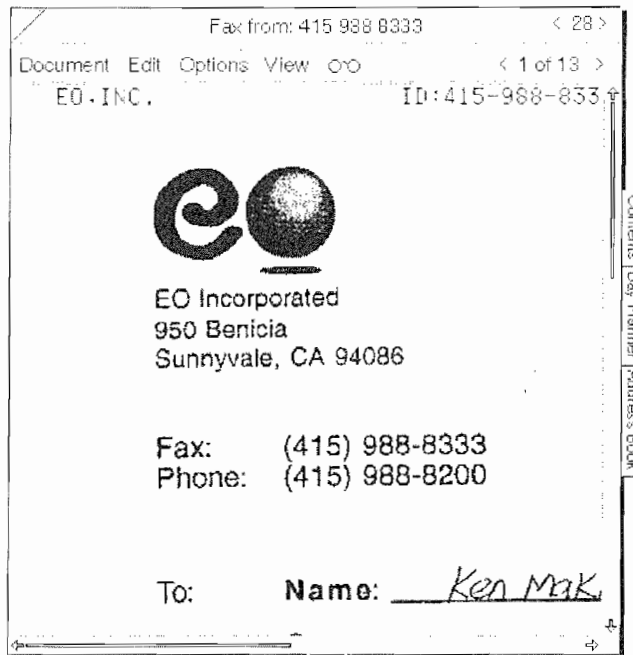
Hide 1 3/4 Inch This menu option trims 1 3/4 inches from the horizontal edges of the fax and displays the remaining fax using the Side to Side view.

To select any of the preceding from the menu:

1. Tap **!** on the View menu.
2. Tap **!** on the menu item you want. A check mark will appear next to your selected view.

Figure 9.24

The fax at
actual size



However, each of the following View menu items also has a gesture that is the equivalent to selecting the menu item. All gestures must be performed while the fax is in the View mode except for the gesture to switch from view to mark up mode.

View to Mark Up or Mark Up to View Use the left right \rightleftharpoons gesture.

Actual Size Draw an A on the fax page.

Fit Side to Side Draw an arrow right \rightarrow or arrow left \leftarrow on the fax page.

Fit Top to Bottom Draw an up arrow \uparrow or a down arrow \downarrow on the fax page.

Fit Whole Page Draw an F on the fax page.

Using these gestures makes moving around inside a fax document a lot easier and faster. Any marks you make will be scaled with the picture. So if you mark up a fax when it is enlarged, the marks you made will be where you made them when you view the fax at its actual size or fit the fax to the page.

Zooming is the method you use to enlarge the view of a fax. You can either use Zoom In from the View menu or a gesture. First we'll look at using the Zoom In menu.

To Zoom In on a fax document:

1. Tap **!** on the View menu.
2. Tap **!** on Zoom In. You will see a box appear in the fax page and a Zoom/Cancel button will appear in the Menu line like the one in Figure 9.25.
3. Resize the box and select the area you want to view by pressing **!** on the corners of the Zoom box and dragging the corners to include the area you want to view. Figure 9.26 shows the Zoom box repositioned.
4. Tap **!** on the Zoom In button in the menu bar.

The area selected within the Zoom box will then become the new view area for the page, as shown in Figure 9.27.

Another method for zooming a fax:

1. Press **!** in a location that could be any one of the corners of your Zoom box.
2. Without lifting the pen, drag it diagonally up and away or down and away from your starting point. A rectangle will form as you drag the pen.
3. Tap **!** on the Zoom In button that appears in the menu bar.

Figure 9.25

The fax just after Zoom In has been selected

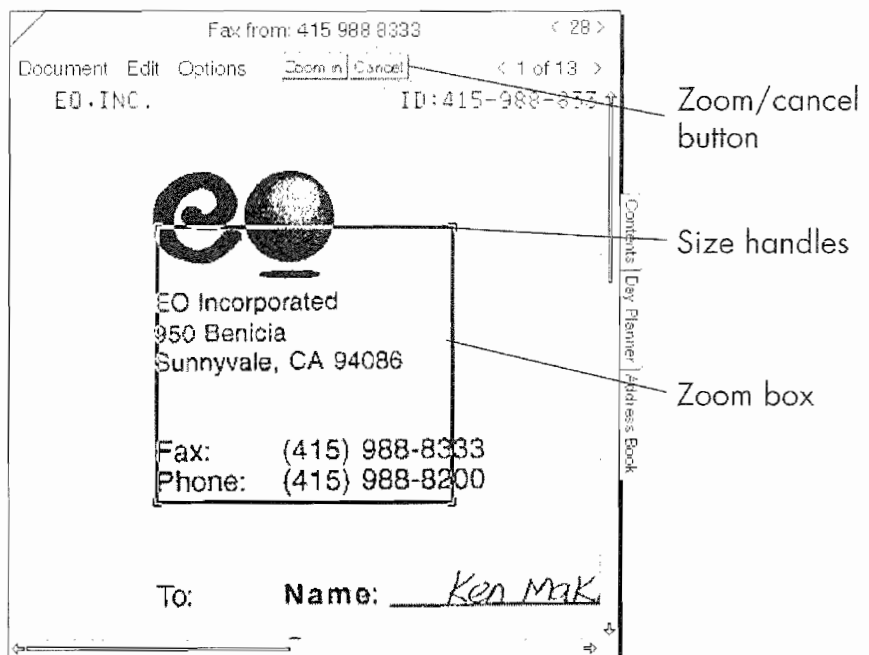


Figure 9.26
The Zoom box
repositioned

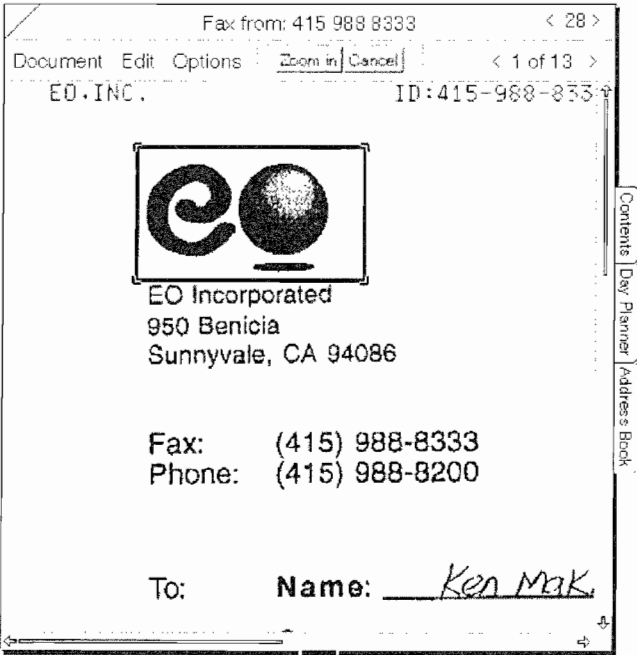
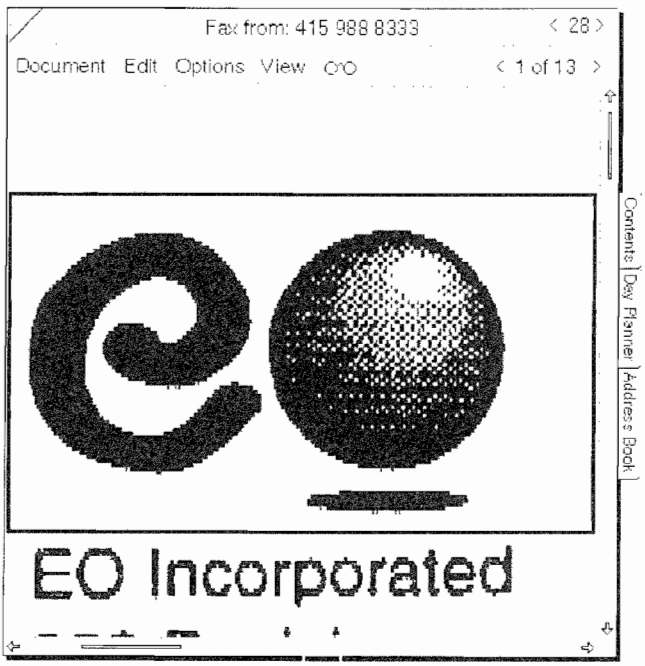


Figure 9.27
The Zoomed
fax



During a zoom operation, you can tap **!** anywhere on the fax and cancel the operation. Of course, you can also cancel by tapping on the Cancel button.

Either operation can be repeated until you have reached GO Fax's maximum magnification, which is about four times the actual size

of the fax. The Zoom In feature is very good for enlarging a portion of the fax so you can write comments and see details.

The Start Up Options

The Start Up options, which were mentioned above, are used to set the default orientation and view for all your faxes. If you routinely receive faxes that are upside down and do not want to fix the orientation every time you open a fax, you should use the Start Up option. Also, if you do not want every fax opened in the Fit to Page view but would prefer a Side to Side view or one of the others, you can also set the default view using the Start Up options.

Setting the Start Up options is a matter of selecting the Start Up menu item from the Options menu and setting the options you wish. Use the instructions from above to set the Start Up options.

Annotating Faxes

Besides printing or resending a fax, you can also mark it up. This is a unique feature. If you currently use a computer as a fax machine, you'll know how awkward faxing can be. If you receive a document that requires a signature, you usually have to convert the fax image to a graphic document, scan your signature into the computer, paste it into the convert fax document, and then fax it out again. Sometimes using the US Postal Service can be faster.








With an EO, however, you can draw, insert text, and sign any fax you receive. After it is marked up you can refax the document complete with all of your changes. Let's quickly look at the Mark Up options from the Options menu. Figure 9.28 shows the Mark Up options for GO Fax Receive documents.

Figure 9.28
The Mark Up options



The Mark Up options control the thickness and density of the ink, the font type, and the font size when writing on a fax. Since these settings are fairly self-explanatory we'll skip any detailed description. The default settings are the thin black pen, the field font selected in your Writing System settings, and a 24-point font.

To change any Mark Up options follow these steps:

1. Tap  on the Options menu
Or
Draw a check mark  on the fax page.
2. Tap  on the Mark Up menu item
Or
Tap  the arrow next to the option title and select Mark Up from the pop-up menu
Or
Draw with a flick left  or a flick right  until the Mark Up options sheet appears.
3. Select the Pen Style by tapping  next to the one you want.
4. Select the font by tapping on the arrow or font name to the right of the arrow and selecting the font from the pop-up selection.
5. Tap on the Text Size to select the font size you want or to write in a custom size.

Once you have selected your Mark Up options, you're ready to work on a fax. To mark up a fax, just tap on the view icon to put the document into Mark Up mode. Now all you have to do is zoom in on the sections you want to fill in and write. Once you have written something, you can have the EO translate your writing or leave the writing as ink. Figure 9.29 shows an order form with some items filled in.

There are two ways to edit your writing. One is to use the Edit menu and select all of the text, and then use the Translate and Edit menu option to convert your writing to text. Figure 9.30 shows all of the writing selected and the Edit menu options.

Figure 9.29
A faxed order form with some writing

Fax from: 415 988 8333 < 28 >

Document Edit Options View < 4 of 13 >

EO 440 Systems w/ Hard Drive Option	
4 MB, no modem, no HD	50000 \$1,999.00
4 MB, modem, no HD	50010 \$2,499.00
4 MB, modem, 10 MB HD	50020 \$2,799.00
8 MB RAM & modem	50030 \$3,299.00
8 MB RAM, modem & 20MB HD	50050 \$3,599.00
12 MB RAM, modem & 20MB HD	50060 \$3,674.00
EO 440 Systems w/SunDisks	
4 MB, modem, 5 MB SunDisk, no HD	30000 \$2,799.00
4 MB, modem, 10 MB SunDisk, no HD	30010 \$2,999.00
4 MB, modem, 20 MB SunDisk, no HD	30020 \$3,274.00
8 MB RAM, modem, 5 MB SunDisk, no HD	30030 \$3,099.00
8 MB RAM, modem, 10 MB SunDisk, no HD	30040 \$3,299.00
8 MB RAM, modem, 20 MB SunDisk, no HD	30050 \$3,674.00
EO 880 Systems	
4MB, modem, no HD	60000 \$2,999.00
8MB, modem, no HD	60010 \$3,299.00
8MB, modem, 64 MB HD	60020 \$3,999.00
Memory and Storage	
4 MB Memory Card (upgrades 4mb sys to 8mb)	91000 \$299.00
8 MB Memory Card (upgrades 4mb sys to 12mb)	91010 \$499.00
5 MB SunDisk	91040 \$395.00
10 MB SunDisk	91050 \$595.00
20 MB SunDisk	91060 \$995.00
Shipping & Handling	\$25 minimum + \$25 for each additional EO 440 unit

Handwritten notes: "3599" next to 50050, "995" next to 91060, "594" next to Shipping & Handling.

Figure 9.30
Selected writing and Edit menu options

Fax from: 415 988 8333 < 28 >

Document Edit Options View < 4 of 13 >

EO 440 Systems	
4 MB, no modem	50000 \$1,999.00
4 MB, modem, no HD	50010 \$2,499.00
4 MB, modem, 10 MB HD	50020 \$2,799.00
8 MB RAM & modem	50030 \$3,299.00
8 MB RAM, modem	50050 \$3,599.00
12 MB RAM, no HD	50060 \$3,674.00
EO 440 Systems	
4 MB, modem	30000 \$2,799.00
4 MB, modem, 10 MB HD	30010 \$2,999.00
4 MB, modem, 20 MB HD	30020 \$3,274.00
8 MB RAM, modem, 5 MB SunDisk, no HD	30030 \$3,099.00
8 MB RAM, modem, 10 MB SunDisk, no HD	30040 \$3,299.00
8 MB RAM, modem, 20 MB SunDisk, no HD	30050 \$3,674.00
EO 880 Systems	
4MB, modem, no HD	60000 \$2,999.00
8MB, modem, no HD	60010 \$3,299.00
8MB, modem, 64 MB HD	60020 \$3,999.00
Memory and Storage	
4 MB Memory Card (upgrades 4mb sys to 8mb)	91000 \$299.00
8 MB Memory Card (upgrades 4mb sys to 12mb)	91010 \$499.00
5 MB SunDisk	91040 \$395.00
10 MB SunDisk	91050 \$595.00
20 MB SunDisk	91060 \$995.00
Shipping & Handling	\$25 minimum + \$25 for each additional EO 440 unit

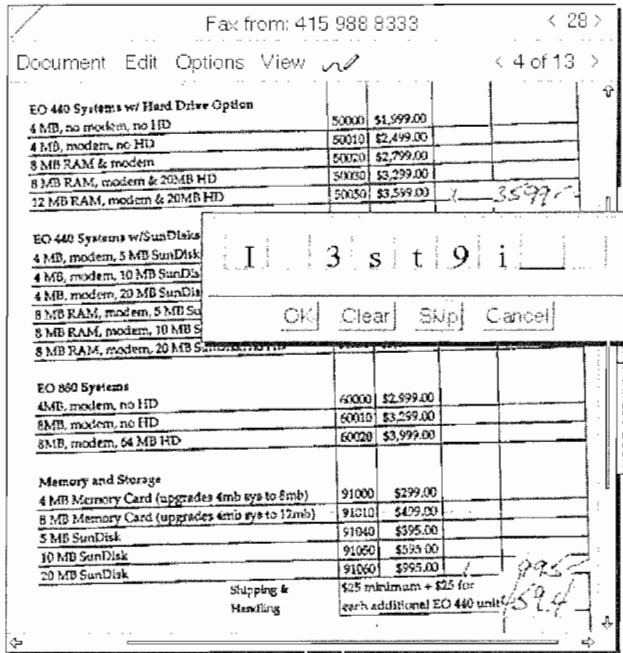
Handwritten notes: "995" next to 91060, "594" next to Shipping & Handling.

Pop-up menu options: Undo, Select All Mark Up, Clear Mark Up, Move Mark Up, Copy Mark Up, Delete Mark Up, Translate, Translate & Edit...

The Translate and Edit method works best when you are writing complete lines and not when filling in a form. This is because GO Fax selects all of the text in a line and translates it in a single editing pad. The results are fine except the spacing is off. Figure 9.31 shows the first line from our order form in a pop-up editing pad.

Figure 9.31

A line of selected text in an editing pad



Note

As you can see from Figure 9.31, I do a lot of editing on the EO since it can have difficulty with my writing. However, this is usually a minor inconvenience. I've learned to quickly and accurately write in pop-up editing pads. Also, the Translate command works just like the Translate and Edit command, only it does not offer an opportunity to edit the text before it is placed.

In Figure 9.31, notice the association between what was written in the form and how the text is spaced in the editing box. When the text is edited using the spacing in the editing pad, the text will be incorrectly placed in the fax, as shown in Figure 9.32.

To solve this problem, you can select individual groups of writing to be translated using gestures. You can select your writing with a double tap and draw a circle over the selected text, which will cause the text to be selected, translated, and presented in a pop-up editing pad. This means you can translate each section individually, placing it where it belongs. Using this method you will be able to position the text exactly where you want it. Also, if you zoom in even closer it will be easier to place the text. In Figure 9.33 you can see the translated text placed exactly where it should be.

When working in the Mark Up mode you should use PenPoint's editing gestures on selected text. If you need help with the editing

Figure 9.32
Translated text
incorrectly
placed

Fax from: 415 988 8333 < 28 >

Document Edit Options View < 4 of 13 >

EO 440 Systems w/ Hard Drive Option			
4 MB, no modem, no HD	50000	\$1,999.00	
4 MB, modem, no HD	50010	\$2,499.00	
8 MB RAM & modem	50020	\$2,799.00	
8 MB RAM, modem & 20MB HD	50030	\$3,299.00	
12 MB RAM, modem & 20MB HD	50050	\$3,599.00	1 3599.00
EO 440 Systems w/SunDisks			
4 MB, modem, 5 MB SunDisk, no HD	30000	\$2,799.00	
4 MB, modem, 10 MB SunDisk, no HD	30010	\$2,999.00	
4 MB, modem, 20 MB SunDisk, no HD	30020	\$3,374.00	
8 MB RAM, modem, 5 MB SunDisk, no HD	30030	\$3,099.00	
8 MB RAM, modem, 10 MB SunDisk, no HD	30040	\$3,299.00	
8 MB RAM, modem, 20 MB SunDisk, no HD	30050	\$3,674.00	
EO 860 Systems			
4MB, modem, no HD	60000	\$2,999.00	
8MB, modem, no HD	60010	\$3,299.00	
8MB, modem, 64 MB HD	60020	\$3,999.00	
Memory and Storage			
4 MB Memory Card (upgrades 4mb eys to 8mb)	91000	\$299.00	
8 MB Memory Card (upgrades 4mb eys to 12mb)	91010	\$479.00	
5 MB SunDisk	91040	\$395.00	
10 MB SunDisk	91050	\$545.00	
20 MB SunDisk	91060	\$985.00	
Shipping & Handling		\$25 minimum + \$25 for each additional EO 440 unit	994 594

Contents | Dev Planner | Address Book

Incorrectly placed text

Figure 9.33
The translated
text placed
correctly

Fax from: 415 988 8333 < 28 >

Document Edit Options View < 4 of 13 >

50000	\$1,999.00		
50010	\$2,499.00		
50020	\$2,799.00		
50030	\$3,299.00		
50050	\$3,599.00	1	3599.00
30000	\$2,799.00		
30010	\$2,999.00		
30020	\$3,374.00		
30030	\$3,099.00		

Contents | Dev Planner | Address Book

gestures, see Chapter 3. If you use the Edit menu, you will be forced to work with all of the mark-ups on a page as a whole group rather than individual components. Figure 9.34 shows the completed order form with the text translated.

Figure 9.34
The order form filled out

Fax from: 415 988 8333 < 28 >

Document Edit Options View < 4 of 13 >

EO 440 Systems w/ Hard Drive Option			
4 MB, no modem, no HD	50000	\$1,999.00	
4 MB, modem, no HD	50010	\$2,499.00	
8 MB RAM & modem	50020	\$2,799.00	
8 MB RAM, modem & 20MB HD	50030	\$3,299.00	
12 MB RAM, modem & 20MB HD	50050	\$3,599.00	1 3599.00
EO 440 Systems w/SunDisk			
4 MB, modem, 5 MB SunDisk, no HD	30000	\$2,799.00	
4 MB, modem, 10 MB SunDisk, no HD	30010	\$2,999.00	
4 MB, modem, 20 MB SunDisk, no HD	30020	\$3,574.00	
8 MB RAM, modem, 5 MB SunDisk, no HD	30030	\$3,099.00	
8 MB RAM, modem, 10 MB SunDisk, no HD	30040	\$3,299.00	
8 MB RAM, modem, 20 MB SunDisk, no HD	30050	\$3,574.00	
EO 680 Systems			
4MB, modem, no HD	60000	\$2,999.00	
8MB, modem, no HD	60010	\$3,299.00	
8MB, modem, 64 MB HD	60020	\$3,999.00	
Memory and Storage			
4 MB Memory Card (upgrades 4mb sys to 8mb)	91000	\$299.00	
8 MB Memory Card (upgrades 4mb sys to 12mb)	91010	\$499.00	
5 MB SunDisk	91040	\$395.00	
10 MB SunDisk	91050	\$595.00	
20 MB SunDisk	91060	\$995.00	1 995.00
Shipping & Handling		\$25 minimum + \$25 for each additional EO 440 unit	4594.00

To place the order there is one more page to fill out. Figure 9.35 shows the page that contains all of the customer information needed to process the order.

On this page the Translate and Edit features will work because you are filling out lines rather than filling in spaces on a form. Now that

Figure 9.35
The customer information page

Fax from: 415 988 8333 < 28 >

Document Edit Options View < 6 of 13 >

Date: 6/26/93

Ship To: Jake Doakes
ABC Company
1234 M in St.
Your Town, CA 95000

Bill To: _____

Telephone: 510-555-1222 Telephone: _____

Purchase Order Attached (businesses only): _____ P.O.#: _____

Check Enclosed: Make check payable to EO, Inc.
Check #: 1565

Check or money order
Checks must have yr.
Return checks are

the fax is marked up, it is ready to send back. But this is a 13-page fax and there is no need to send back all 13 pages. So the last step would be to delete the unnecessary pages using the Delete Page item from the Edit menu for each page you want to delete.

Sending Faxes

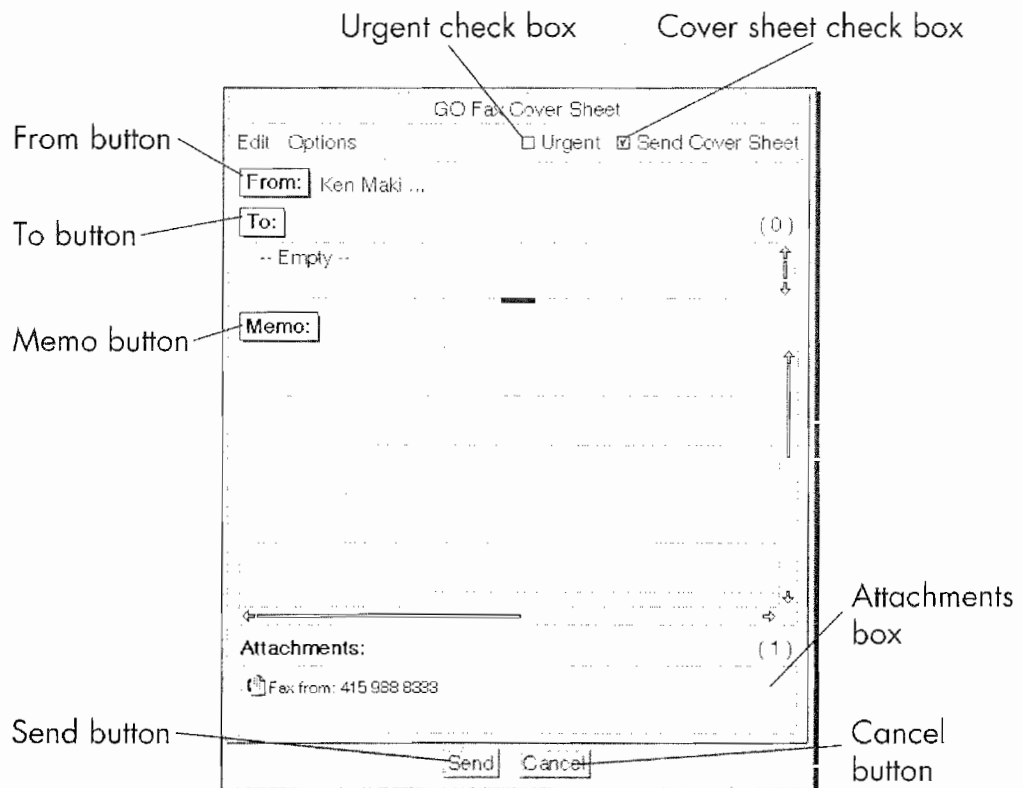
In Chapter 6 we faxed a document that we had created to our boss. Now it is time to find out how that was done in a little more detail. Whenever you fax a document from the EO you will be using a GO Fax cover sheet like the one in Figure 9.36.

There are several elements to a GO Fax cover sheet. The following is a list of the cover sheet's elements and menu options:

Urgent Check box When checked the urgent fax will be placed before all other outgoing faxes in the Outbox.

Send Cover Sheet Check box Sends the Cover Sheet with the memo contents. The information sent in a cover sheet is the To and From information, Date, Time, the number of pages, and the contents of the Memo field. If the Send Cover Sheet check box is

Figure 9.36
The GO Fax cover sheet



unchecked, the contents of the documents faxed will be sent without an identifying cover sheet.

From Button This button brings up an options sheet for entering your identifying information. Once you fill out the From options sheet, GO Fax will remember your information and place it in all subsequent cover sheets. Changing the information will affect every new cover sheet until you change it again. Figure 9.37 shows a blank From options sheet.

To Button This button opens a blank To options sheet shown in Figure 9.38(a). You can either enter the recipient's information in the blank sheet or access your system Address Book by tapping on the Pencil icon. Figure 9.38(b) shows the To options sheet while accessing the Address Book. This part of the options sheet lets you search for a name by writing the first few letters into the Find comb.

Figure 9.37
A blank From options sheet

Figure 9.38
The To options sheet:
(a) blank,
(b) accessing the Address Book

Name	Phone Number
Edelson, Trudy	510-814-5020
Edwards, Elyssa	510-288-6507
Elliott & Elliott Co.	510-569-5282
Engineers Club	--
Enyedy, Carlene	408-737-9456
E.O. Inc.	415-903-8190
E.O. Inc. TS	415-988-8333
Ericson, Eric	--
Evans, Kathleen	--
Ewing, Dave	317-573-25
Fahr, Liela	--

The Address Book section contains an Edit and Options menu. The Edit menu is used to edit or delete an address entry. The Options menu controls what information is displayed and allows you to select different Address Books.

Note *You should not edit or delete an address if you are using Personal Perspective. If you need to edit a Personal Perspective address, open your Address Book and do your editing from within Personal Perspective.*

Memo Button The Memo button is used to enlarge the Memo section so you can write a message to be included with the Cover Page. Memos are handwritten notes only.



Attachments Area The Attachments box contains the document(s) you are faxing. In Figure 9.36 you will see the "Fax from: 415-988-8333" as an attached document. If you have additional documents you want to fax, you can copy them to the Attachments area. The number to the right of the Attachments label shows how many documents are in the Attachments area.

Edit Menu With the Edit menu you can edit or delete a recipient and clear the recipient list or the memo field.

Options Menu The Options menu lets you select settings for the Paper, Pen, Dialing location, and Recipient List Layout, plus you can view the Outbox Log. The Paper options let you select the Paper Style, Font, and Font Size for the cover sheet. With the Pen options you select the pen's ink style, while the Dialing location brings up the Dialing Locations sheet discussed at the beginning of the chapter. The Recipient List Layout lets you show some or all of the information about the recipient in the To list.

Whenever you use the Send GO Fax option from the Document menu the GO Fax cover sheet is created and placed in the Outbox. When the cover sheet is created and placed into the Outbox it is deleted as soon as the fax is sent. So if you need to keep a copy of the cover sheet you should create the cover sheet in a notebook.

You can create a GO Fax Cover Sheet by copying one from the Stationery Notebook, with the Create menu in a Contents page, or with PenPoint gestures. When you create a cover sheet in a notebook and send the fax, the cover sheet and all attached documents will be copied to the Outbox, sent, and deleted, but the original will remain wherever it was created.

After you have completed the cover sheet and attached all of the documents to be faxed, the fax is sent by tapping  on the Send button. If the Cover Sheet was created using the Send menu item you can tap  the Cancel button, and the cover sheet will disappear as if you had never started to send a fax.

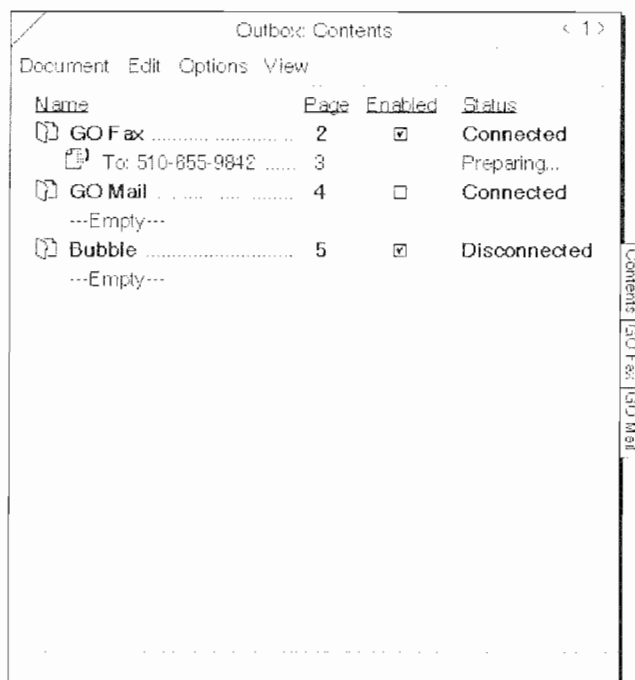
Sending the fax places it in the Outbox. However, faxes placed in the Outbox will not be transmitted until you open the Outbox and enabled GO Fax. Tapping the Enabled check box in the GO Fax section begins the fax transmission (see Fig. 9.39). What happens next depends on the options you set for the Outbox (which were discussed at the beginning of this chapter). Assuming that you kept the default options settings for GO Fax, the following steps will occur before your fax is sent.

- The Dialing Location options sheet will appear.
- GO Fax will reconfirm the recipient's phone number.
- GO Fax will prepare the fax for transmission.
- The fax will be transmitted.

If you closed the Outbox after enabling GO Fax, you will see a Progress dialog sheet telling you what GO Fax is doing. Other-

Figure 9.39

The Outbox
with Go Fax
enabled



wise, GO Fax displays its messages under the Connected label in the GO Fax section of the Outbox.

Sometimes fax transmissions fail. When this happens, it is noted in the Outbox Log, the fax is not deleted from the Outbox, and you will see a dialog sheet like the one in Figure 9.40.

The failed fax is left in the Outbox so you can retransmit it. If you decide not to resend it, you can always delete the fax. Otherwise, open the fax and check your recipient. Usually the problem is the result of a wrong phone number.

Using EO Phone

EO Phone is an application that allows you to use your EO as a telephone accessory. It is also how you control the EO's Cellular option. With EO Phone you can dial your phone by using the numbers from your Address Book, EO Phone's touch pad, or with the speed dialer.

The EO Phone Application


EO Phone is opened by tapping  on its Bookshelf icon (see Fig. 9.41). When it opens you will see a page that looks like Figure 9.42.

Figure 9.40
The Failed Fax
dialog sheet

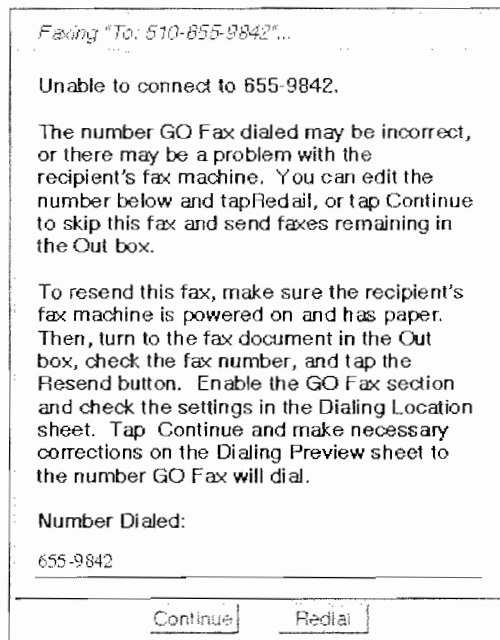
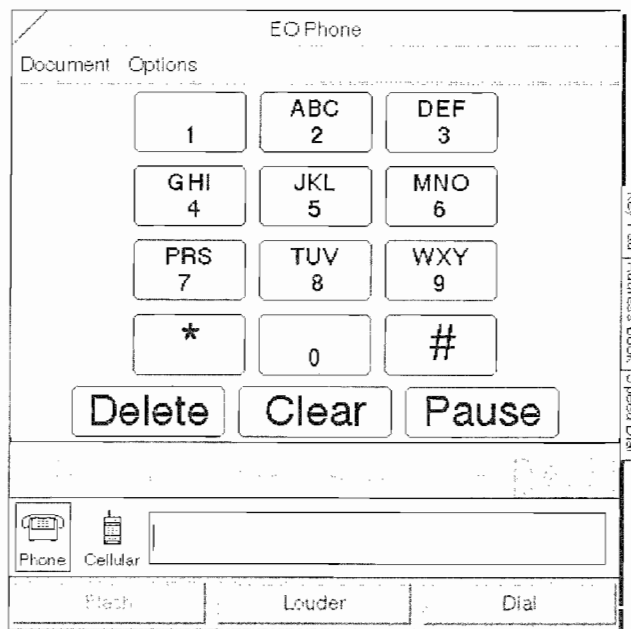


Figure 9.41

The EO Phone icon on the bookshelf

**Figure 9.42**

The EO Phone application, Key Pad view.



EO Phone Notebook has three tabs labeled Key Pad, Address Book, and Speed Dial. These pages are similar insofar as they are used to dial the phone; however each page operates in a different manner. The functions for each page are listed below.

Key Pad The Key Pad is shown in Figure 9.42 above. This is used to manually dial a phone number by tapping ∇ on the numbers, just like you would a touch tone phone.

Address Book The Address Book Page looks like Figure 9.43. With the Address Book page you look up the name you want to dial using the Find function.

Speed Dial Figure 9.44 shows the Speed Dial Page. Speed Dial contains buttons which, when tapped, automatically dial a preprogrammed number.

Figure 9.43
EO Phone's
Address Book
page

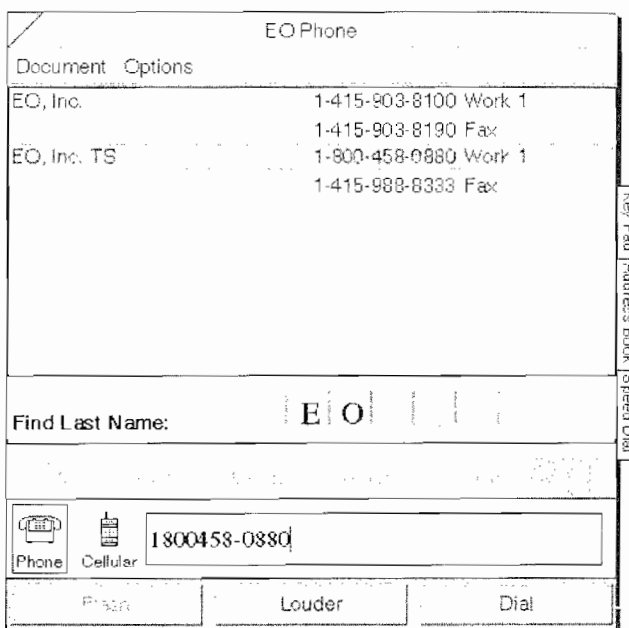
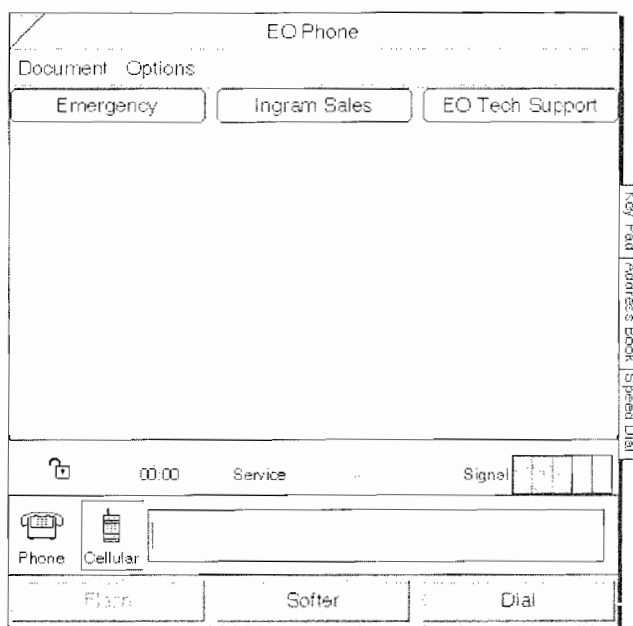


Figure 9.44
EO Phone's
Speed Dial
page



In EO Phone there are two options which are used regardless of how you are using EO Phone. These options are the Address Book and Dialing Location. These options are the same as those used by GO Fax so they will not be rehashed here. Suffice it to say that you can change your System Address Book with the Address Book option. While Dialing Location is used to tell EO Phone where you

are at the time you're placing your call, all of the other options apply only to using EO Phone with the EO's Cellular option.

The bottom portion of the EO Phone application is the same on any page (see Fig. 9.45).

In this part of the page you select the type of phone you want to use, either the cellular or a standard phone. When a phone number is entered and appears in the Number box, pressing the Dial button dials the number. The Flash and Louder buttons are used only with the Cellular phone. Using EO Phone with both types of phones will be discussed in the next two sections.

Connecting Your EO to a Standard Telephone

You'll have to connect the EO to a standard phone and a phone line to use EO Phone as a telephone accessory.

To connect your EO to a phone and phone line:

1. Plug the telephone duplex plug into your EO's right ear. (You received a duplex plug with your EO.) See Fig. 9.46.
2. Plug a line from your phone into the duplex plug.
3. Connect the other opening of the duplex to line going to the phone jack.

Figure 9.45

The bottom section of EO Phone

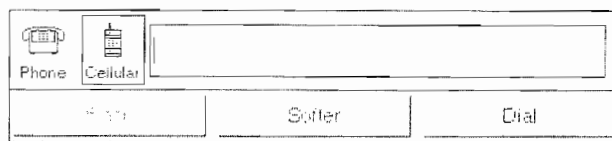
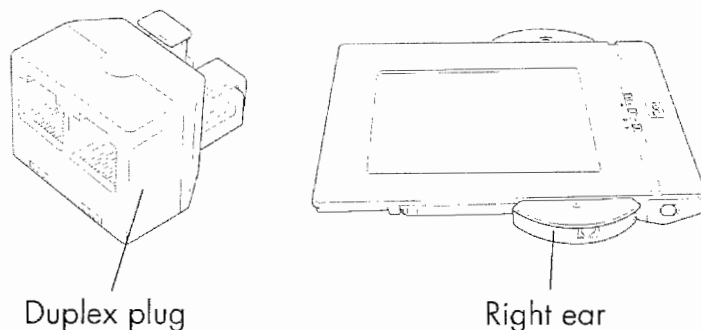



Figure 9.46

The duplex plug and the EO's right ear







Once the EO is attached to your phone you can start using it to dial your phone. If you have entered your names into your Address Book you'll never have manually dial a number again.

Dialing with EO Phone

Dialing with EO Phone is the same regardless of whether your EO is attached to a cellular or standard phone. Each page of EO phone offers a different way to dial your phone. To select a page, tap  on the notebook tab for the page you want.

The only difference between dialing with a standard telephone and the cellular phone is that you have to lift the standard phone from the cradle, so you hear a dial tone, before dialing. Otherwise, select the type of phone you are using by tapping on either the Telephone or Cellular icon.

To use the Key Pad page, tap  on the numbers you want to dial. The phone number will appear in the number box. Then tap  on the Dial button. If you want to dial another number tap on the Clear button and start again. To remove the last number in the number box, tap on the Delete button.

The Address Book page is used by finding the name of the person or company you want to call. To find a name in your Address Book, write first few letters of the name in the Find comb. A list of names that match what you wrote will appear in the list box. Tap  on the name you want and the number will appear in the dial box. Tap  on the Dial button to dial the number. To dial the number, repeat the process. Every time you write in the Find comb, a new search will be performed.

The Speed Dial page is a little different from the other two pages. In order to use the Speed Dial page, you have to create buttons for the number you want to dial.

To create Speed Dial buttons:


1. Draw a caret  on the Speed Dial page.
2. In the Options sheet that appears (see Fig. 9.47), enter the data for the Speed Dial button. The Name will be the name of the

Figure 9.47

The Speed
Button options
sheet

Speed Dial	
Name:	new
Country Code:	
Area Code:	
Telephone Number:	
Extension:	
Comment:	
<input type="button" value="Apply"/> <input type="button" value="Apply & Close"/>	

speed dial button. If you do not need the country or area codes you can skip these fields.

Once you have programmed a button, all you have to do is tap on the button and the phone will dial the programmed number.

Note

One great thing to do with Speed Dial buttons is put in your voice mail system number and put your login (ID/whatever) in the "extensions" field. The EO will pause a few seconds before dialing the ID, so your EO can log you into your voice mail system with one tap. Then you can create buttons for "Save," "Forward," "Delete," and all the other hard-to-remember commands in your voice mail system.

When using any of the EO Phone pages after you dial a number, the Dial button turns into a Hang Up button. You must tap **!** on the Hang Up button to terminate the call. If you are using a regular phone and hang up without tapping **!** the Hang Up button, you will have to hang up before you can use the EO to make another call.

Using EO Phone with the EO's Cellular Module

The Cellular Module for the EO is one of the neatest options you can add. With the Cellular Module your EO is truly a mobile Personal Communicator. You can be anywhere doing almost anything and have your office with you.

One of the first times I saw an EO, someone else was using it. He was taking notes and talking on the Cellular Module while standing in a hallway with people walking all around him. He had a virtual office where he stood. So, whenever I ask myself, "What is

a Personal Communicator?" I see the image of this man standing in the hallway with his EO. This is what the Cellular Module does for an EO.

Using the Cellular Module on the EO is very straightforward, you just have to make sure you have a few System settings and the Cellular Service configured properly. Also, when using the Cellular Module on your EO, you have some additional options for EO Phone that can be set. The following is a list of these options:

Roaming This controls whether or not the cellular phone will work when it is outside of its service area. If you have Roaming turned on and leave your service area you will still be able to place and receive calls. Whether or not you can use this capability is determined by your cellular service agreement.


Authorized Dealer This option is for programming your cellular phone. It will be set up when you install the phone and should not be changed unless you are instructed to do so by your cellular service provider.

Lock This is used to lock the cellular phone. If you are concerned about unauthorized use of your phone, you should lock it so that only you can use it.

Audible Alerts Use Audible Alerts if you want a warning tone when your Cellular phone is roaming (using a service provider outside your service area). When the cellular phone roams it costs you more to make calls. The other alert is a one-minute warning tone. This is to let you know how long you've been talking. Cellular phones are expensive to operate and you'll probably want to keep close tabs on how long you talk.

All of these options are accessed by using the Options menu and selecting the desired menu item. You can also draw a check mark ✓ on an EO Phone page to bring up the options sheet and use the pop-up menu from the title line.

Other operational features you have while using EO Phone with the Cellular Module are:

- Increasing the sound level of the call by tapping  the louder button. When the Louder button has been tapped it will turn

into a button labeled Softer. Tapping **!** on the Softer button lowers the volume.

- The Flash button is used for features like call waiting or other special phone services.
- The line above the Dial box (see Fig. 9.48) displays whether or not the cellular phone is locked, the duration of your call, whether or not the service is active, whether or not your phone is roaming, and the cellular signal strength.

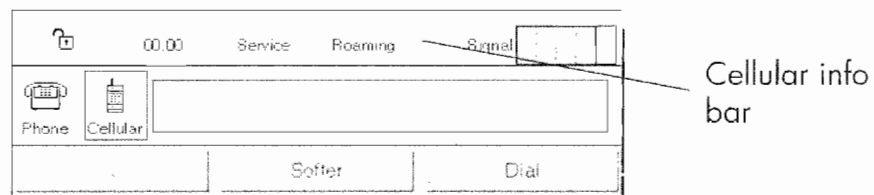
When you receive a call on the EO's Cellular Module several things can happen, depending on how you've set your EO's System options. The two settings that directly affect the phone are the Wireless Module settings in the Power Page and the Warning Beep in the Sound page of the Settings Notebook. These settings are accessed through the Settings Notebook. More information on setting the System options can be found in Chapter 4.

The Wireless Module has three possible settings:

On The Cellular Module will receive calls even when the EO is in Standby mode. An incoming call automatically turns the EO on. If you use this setting you should make sure your EO will automatically return to a Standby mode after a specific amount of time. Otherwise, your EO could turn on and run the batteries down

Figure 9.48

The Cellular information bar



while you are away. Also, remember that the EO only recharges its batteries while it is in Standby mode.

Note *The EO will not receive calls while charging (green light flashing). Remember that when the EO is plugged in, when it drops into Standby automatically (after five minutes), charging will begin and the cellphone will be shut off until you turn the EO on again.*

On If System On With this setting the EO will only receive a call if your EO is on and not in Standby mode.

Off When the Wireless Module is set to off, the Cellular Module will only receive a call if EO Phone is open.

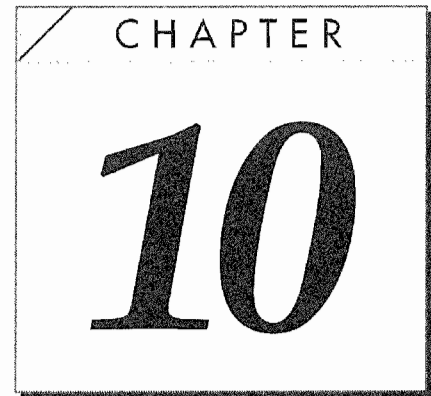
The Warning Beep setting is either On or Off. If the Warning Beep is turned off, the EO will not ring when you have a call. Otherwise it makes a beeping sound that sounds like a phone ringing.

When the Cellular Module receives a call, the EO Phone Notebook will automatically open. It takes about two rings. Once EO Phone is open, all you have to do is tap on the Answer button, which is the Dial button when you are making an outgoing call. If you have set the Fax Service to Wireless mode you need never miss another fax. Also, you'll be able to send a fax from wherever you happen to be. It is all automatic.

Conclusion

Faxes and phones and communications abilities in general are the elements of a Personal Communicator. This chapter looked in detail at GO Fax, the EO's built-in fax software, and EO Phone, the software that lets you use your EO with the Cellular Module or as a telephone accessory.

Hopefully this chapter helped you gain a deeper understanding of the EO's communications capabilities. Combine the fax, E-mail (discussed in Chapter 8), and telephone and Cellular features all in a single device called an EO and you have a Personal Communications tool like no other available today. Is there any other way to conclude this chapter?



Troubleshooting

Introduction

This is the “Oh no!” or “Now what?!” chapter. No matter what you say when things go wrong, this is the chapter you will turn to. Now, don’t get excited—the EO is a great machine and it is not predisposed to problems. When there are problems, over half of the time the problem is a configuration or setup problem where some setting was simply overlooked. The other problems that occur are usually easy to fix. If you are having some difficulty, receiving error messages, or you believe your EO is otherwise misbehaving, you should find what you need to fix the problem in this chapter.

What you’ll find here are solutions to the most common problems and ways to fix many of the not so common ones people have encountered. If you are having a problem that can’t be fixed by what you find in this chapter, at least you’ll be well prepared when you call and talk to EO Technical Support.

Why Things Go Wrong

Why do things go wrong? I don’t know. There are two reasons why I don’t know. One is that the person I’m talking to might not know what they were doing or how they did what they did when

the problem occurred. The other is that the problem may have occurred due to some system idiosyncrasy that is impossible to track without having the computer in a laboratory with a half a ton of test equipment and the knowledge of 100 people (everyone who made the hardware and software). Usually, I just fix the problem and that's that.

The biggest problem most people will have is due to the EO's uniqueness. This is a problem that happens whenever someone is used to one type of computer and switches to another. I've seen people switch from MS-DOS machines to Macintosh and hate the Mac because it they think it doesn't work properly. I've also seen people go from the Mac to a Windows-based machine and heard the same complaint. There is always a problem when someone switches from one type of computer to another.

If you are familiar with a particular computer, you are comfortable with how it works and that system's particular quirks. You may be so comfortable with it that you don't even read the manuals for the computer or new software. If you're used to using a computer and don't normally read manuals, I would recommend highly that you read the EO's manual and spend the time to learn the system. Work your way through the tutorial.

I don't want anyone to think that I'm putting them down because I say to read the manuals. I just know from experience that most people would rather learn by doing and don't want to read manuals. The down side to learning from experience is that people will pick up an EO and the pen and try to use it without even asking what to do. I've had friends pick up my EO and start tapping, drawing, and trying to make the EO work. Unless I've prepared the EO by opening a MiniNote document for them to write on, they don't make much progress. Then they get frustrated and hand it back saying, "What's so great about this?"

In another chapter I said that no computing device is intuitive. Over time we become comfortable with something like a computer. If the computer is as well designed as the EO, we begin to make good guesses about how new things should work—that's when the computer really becomes "intuitive." It will take a little time and practice to learn the EO. This has nothing to do with the EO, it is

just the way the world works. People who know how to drive rarely think about how hard it was when they were learning to drive, especially if they were learning to drive a car with a clutch.

But, if you're having trouble with an EO and you haven't gone through the tutorial or manual, you might consider starting over. Take the time to learn the EO. Once you know it, you'll have very few problems, if any. However, if you're reading this chapter because you're having a problem this advice is probably too late. You should go the next section so you can fix the problem.

Other reasons why things go wrong have to do with systems in general. Either something is not configured properly, the operating system may have gotten confused, or you're simply unlucky and have discovered a situation where the EO does not work the way it should. If you hit upon the latter, you will have discovered a bug, which is a problem that has not been resolved. This situation will occur infrequently. You will have discovered a bug only if you can make the same problem happen every time you try doing whatever it was that you were doing when you first discovered the problem. Chances are very, very slim that you will ever see a bug.

Improper configuration is one of the primary reasons for problems with any system, and that will be discussed shortly. Otherwise, PenPoint going out of whack, a hardware failure, or some other problem fall into the category of "Things happen" or something like that. The EO is a very robust device, and the PenPoint operating system actually eliminated a major cause of computer problems by preventing access to the operating system. As a result, when dealing with the EO it may not be possible to say why things may go wrong. Fixing them, however, is usually a pretty straightforward process. The rest of this chapter will deal with fixing the EO if you should have problems.

When Things Go Wrong

If you're using an EO and are frustrated because it is not doing what you think it should do, you probably have been tapping all over the screen and the EO could be doing any number of strange

things. But, whatever it is doing, it's not doing what you want it to. So sit back, relax, and we'll set it straight.

We're going to use a task-oriented approach to fix any problem you may have. One of the nice things about the EO is that most problems are very easy to fix. The next section has a series of steps that will work for almost every problem. Following these step may not enable you to figure out what went wrong, but you will be back to work with a minimum of down time.

Fixing the Problem

Before you start to fix anything, you need to think about what you were doing or what happened just before the problem started. If you dropped the EO and now it doesn't work, you might want to consider the possibility that it is broken. If you are trying to send a fax and it won't work, then one of the fax settings is probably incorrect. The process of troubleshooting is always two-fold: what are you trying to do combined with what the EO is really doing.

The first thing you should do when fixing a problem is back up all of your information. If your EO has a hard disk or a SunDisk, the chances of losing your information are very slim. If you are using a RAM-based system, you'll have to be more careful. You should always be very conscious about backing up your information because it is possible to lose all of your information.

I realize that if you're on the road a lot it may be difficult to back up your information. For this reason alone, I recommend that you use a SunDisk or pack a floppy drive. With these you can always back up and restore your information. It could be a disaster if you lost all of your information while thousands of miles away from your backups. If you cannot back up your documents, you will only be able to go so far in the troubleshooting process. This means you could have an EO you can't use until you get back to the office or home.

In the following pages you will find several short lists that contain possible problems. These lists represent the starting point for fixing the problem, and what you do to fix the problem will depend on the EO's symptoms. The lists are grouped by symptom because there is a different technique for fixing the problems in each list.

The items in this list represent the most serious problems you might encounter because your EO will be completely inoperative. See the section called *Restarting Your EO* if one of these symptoms corresponds to your situation, either when the EO is connected to the AC adapter or when it is under battery power.

- Your EO will not start.
- The EO will not respond to the pen.
- The screen is blank or has vertical lines.
- The screen all of a sudden goes blank.
- The EO will not go into Standby.

If one of the following symptoms corresponds to your situation when the EO is connected to a phone line and running from the AC adapter or it is under battery power, see the section called *Reconfiguring GO Fax or Mail*. Usually, when you cannot send or receive faxes or E-mail, there is a configuration setting that is incorrect. Although the situation is annoying, it is seldom an emergency.

- You cannot send a fax.
- You cannot receive a fax.
- You cannot receive E-mail.
- You cannot send E-mail.

See the section called *Fixing Pen Problems* if one of the following symptoms corresponds to your situation when the EO is running from the AC adapter or under battery power. Each of these problems can be caused by a broken or inoperative pen, or it may be that the EO needs a writing tune-up. These problems are irritating and you will want to make them go away as soon as possible.

- Poor translation results.
- Ink does not appear when writing on screen.
- Gestures are not being recognized.

If one of the following symptoms corresponds to your situation when the EO is running from the AC adapter or under battery power, see the section called *Fixing Software Problems*. These problems are very annoying and often serious because they impact the EO's functional-

ity. If the document that is causing problems is one you immediately need, the seriousness of the problem definitely escalates.

- A notebook loses its contents page.
- Documents will not open.
- A document has a slash through its icon.
- A document will not close.
- A document will not close because the close corner and Menu line cannot be accessed.
- Perspective will not work after upgrading to the full version of Perspective.
- You have a dialog sheet that will not go away.

If one of the following symptoms corresponds to your situation when the EO is connected to a PenCentral Server and running from the AC adapter or under battery power, see the section called Network Problems. PenCentral and PenTOPS problems are annoying but seldom serious. Although they do not represent an emergency, you do have to be careful when fixing the problem.

- Cannot see the bookshelf or directories on a server volume.
- The Server will not start.
- You see two bookshelves for a server volume.
- It takes too long to mount a server volume.
- The server status is active after the EO has been put into Standby mode.
- Server disk full error.
- Copying errors.
- PenTOPS Modem connection is not working.

If one of the following symptoms corresponds to your situation when the EO is connected to a printer and either running from the AC adapter or under battery power, see the section called Printing Problems. Usually a printing problem is annoying but not a matter of life and death. Also, printing problems are easy to fix. They are usually the result of an improper configuration setting.

- Faxes are printing as small images of the faxed document.
- The EO will not print.
- Part of an embedded document printed.
- Only printed an embedded document's icon.
- Printer is not listed.
- Laser printer is not printing a document.
- Cannot fax from Cellular Module.

The following is a list of things that can happen under varying circumstances and do not neatly fall into the categories above. For solutions, see the section called Miscellaneous Happenings. Most of these problems are easily fixed.

- The EO is running very slowly.
- Low memory messages appear.
- Random characters on screen when attaching a keyboard.
- The EO will not play or record sounds.
- Cannot access an Address Book through GO Mail, GO, Fax, or EO Phone.
- The battery will not charge.

The final troubleshooting category applies only to EOs with the Cellular Module. For solutions to any of these problems see the section called Cellular Difficulties. These are problems that can prevent you from communicating with others, and are therefore fairly serious. Although they are not critical, you will probably want to fix them as soon as possible.

- The phone will not roam.
- Service level is too low.
- Programming problems.

There is no reason for you to expect to have trouble with your EO, but because life is full of unexpected occurrences, it is better to be prepared rather than caught short an hour before the business presentation of your career. Many of the items listed above are simply and easily fixed, and although it is always annoying to have some-

thing bad happen, remember that nothing has happened to date has resulted in the end of the world.

Backing Up Your Information

Before you begin fixing any problem on your EO, *back up your information*. If you go on the road with your EO, take backups of your data and applications with you. I know this sounds like a tremendous hassle, but I make this recommendation for any portable computing device. I can't say it enough. Back up your documents!

With an EO you have a very efficient means for carrying backups of your data and applications. This is a SunDisk. If you dedicate a SunDisk to the task of being a backup for applications and data, you will never have to worry about losing data or being incapacitated while on the road. If your EO is vital to your work, then a SunDisk is also a critical component of your business solution. Your data should be backed up prior to any going on the road.

To use a SunDisk as a backup:

1. Format the SunDisk using the Connections accessory.
2. View the SunDisk using the Applications view.
3. Using a floppy drive or a PenCentral Server, view the application's floppy disk using the Applications view.
4. Copy each application from the floppy to the SunDisk.
5. Repeat steps 2 and 3 for each application you use on your EO. Also, check all of your application disks using the Services view. If you have services to copy onto the SunDisk, repeat steps 2 through 4 using the Services view for both the SunDisk and the Applications disk.
6. Close the Connections accessory.
7. Copy the notebooks you want backed up to the SunDisk's Bookshelf from your primary Bookshelf. Do not copy any of the EO's tutorial files. Those are ROM-based and cannot be lost.
8. Copy any documents in the Inbox, Outbox, and any customized documents from your Stationery Notebook.

9. Put the EO into Standby and remove the SunDisk. Put it in your briefcase or some secure spot where it will not be lost or accidentally left behind.

(If you need more information about the connections accessory, see Chapter 7.)

If you follow this procedure, all of your documents and applications will be backed up, and you will not have to worry about being stranded without your data while on the road. It will be on a credit card-sized disk and very secure. Your only other choice while on the road will be to back everything up to floppy disks and take a floppy drive with you. If you're traveling, that could be a real pain the neck. Once your information is secure, you will be able to easily fix any problem you might encounter with your EO.

Another bit of advice is buy and keep an extra pen. The pen can break, or you may lose it. Without a pen your EO is only good as a doorstop or paperweight. It would be a shame to lose the use of your EO because you don't have a pen. Buy an extra.

Now we're ready to look at fixing the problems.

Note *Fixing some of these problems will require some complicated steps. So do not try to fix your EO if you are tired, frustrated, or in a time crunch. This is good advice but possibly impractical. If you're on the road there is probably no way that you'll be completely comfortable and not under pressure. So do the best you can.*

Restarting the EO

The list of problems requiring a restart, one of which brought you to this section, are often hard to pinpoint. Usually, the best thing to do is restart the EO and see what happens. We'll look at each of the situations listed and discuss possible causes. Where it is appropriate, solutions other than restarting the EO will be discussed. Then, we'll go through the steps for restarting the EO.

Here is just one more bit of advice. Whenever you're trying to fix a problem you should use the AC adapter. Do not try to troubleshoot your EO while it is on battery power. If you work off a

battery you'll have no way of knowing whether your problem is battery related.

Your EO Will Not Start

The EO not starting can have a couple of causes. The most common is the battery does not have enough power to start or run the EO. This can happen because the battery ran down, or it was not fully recharged.

To determine if the problem is anything other than a dead battery:

1. Plug in the AC Adapter. If the EO starts immediately, your problem is solved.
2. Remove the main battery and reinstall it.
3. Watch the status lights. If the battery needs to be charged, the AC light will blink on and off
4. Press the On/Standby button. If the EO starts, your problem is solved.
5. If the AC status light turns on and is a steady green, it means that your EO thinks it is on and you will have to do a recovery or pin restart.
6. Check the contrast slider and the brightness slider if you have an EO 880.
7. If at this point the EO still does not start, go to the restart instructions at the end of this section.

The above instructions should take care of any battery related problem so long as the EO is not frozen (not cold frozen, but software frozen). If the EO is software frozen you may have to use the pin restart instructions that follow the recover restart instructions.

The EO Will Not Respond to the Pen

If your EO is on but not responding to the pen, the EO either could be busy performing some task, have frozen software, or your pen could be broken. If you are connected to PenCentral server, server activity can make the EO appear as if it is frozen.

If your pen is not responding and you're sure it is working, the most likely cause for the problem is that the EO is busy performing some task. If you start tapping all over the screen, the EO will remember some or all of the taps and try to execute the instructions as soon as it can. The result can easily become mass confusion as it tries to open, copy, select, or move several items. Avoid this confusion.


To figure out what is wrong (assuming that the EO is on and a screen image is visible):

1. Wait about 30 seconds to a minute without attempting any action.
2. Press the On/Standby button.

If you see the "Preparing to Standby..." note, then the EO is alive. It may take a few minutes for the EO to finish whatever task it is performing before going into Standby mode

Or

If EO does not go into Standby, it is frozen and you will have to go to the restart instructions below.

3. Press the On/Standby button to turn on the EO.
4. When the EO comes on, it is possible that it might have to finish the task it was performing when you put it on Standby. Wait a minute or so and make sure there is no spinning clock icon.
5. With the pen, tap  on the Help Notebook.

If a line appears under the Notebook and the spinning clock icon appears, your pen and the EO are working

Or

If you get no response try your other pen. Otherwise go to the restart instructions.

6. Reset your pen settings in the Pen & Layouts page of the Settings Notebook.

Hopefully, this will solve your problem. If you continue to have problems with pen response, you might want to go ahead and restart the EO anyway. Doing a recover restart will kind of flush the pipes and fix almost any potential problem. After restarting the EO, be sure to reset your pen settings.

Screen Is Blank or Has Vertical Lines

There are times when the EO has been known to hang when starting and just display vertical lines, with no EO logo and no filling pen. If this should happen to you, you should try the recover reboot, but you will probably have to do a pin reset. Why this might happen I have no idea. I know it is a rare occurrence and not likely to happen to you. If it should, you'll know what to do.

The Screen Suddenly Goes Blank

Sometimes for no apparent reason the EO's screen will go blank. I don't have a clue as to why, but, in testing my EO, I've done some very strange things. I have run software that is down right unhealthy. Consequently, having a blank screen may never happen to you. But, if it should go blank, perform a recover restart as described below. If that does not work, then you will have to do the pin reset.

Before performing a recover restart, make sure there is a problem:

1. Press the On/Standby button. The EO may have automatically gone into Standby Mode.
2. Check the contrast slider; it may have been accidentally bumped. On an EO 880, make sure the backlighting is turned on.
3. Now press the On/Standby button. The contrast may have been turned down and you could have put the EO into Standby mode before checking.
4. Check the contrast one more time.

If this series of steps does not work, then off you go to recover restart land. See the instructions in the following section.

The EO Will Not Go into Standby

Once in a while it is possible that your EO will not go into Standby. Once again, this could be because the EO is performing some task. Beginning a copy, sending a fax, or getting E-mail are some of the reasons that the EO may not go into Standby. Also, if the EO is connected to a PenCentral server, there could be network activity that delays Standby as well.

Before you perform a recover restart, make sure the EO is not busy:

1. Look at the screen to see if the EO's watch icon is spinning. If it is, wait for the spinning clock icon to go away. When connected to a PenCentral server this could take several minutes.
2. Press the On/Standby button. If you see the "Preparing to Standby..." note, wait. The EO will probably go into Standby.

If the EO does not go into Standby, you'll have to perform the recover restart described in the section below.

Performing a Recover Restart

Performing a recover restart is not really as drastic as it sounds. This function is built into the EO so you can recover from system errors, a locked or frozen machine, or any other malfunction that keeps the EO from working properly. Performing a recover reboot will not cause any harm to your system, you won't lose any data, and your settings will all remain intact.

If you are having a problem with the EO, a recover reboot will fix the problem 98% of the time. There are a couple of problems that a recover reboot will not fix. One is a problem with a document that is not working properly. If you have either a broken document, a misbehaving notebook, or a document that has developed an icon with a slash through it, the recover restart may not fix the problem. Try the recover reboot, but if that does not work you'll have to move to the next step, a pin restart.

The other time when a recover reboot will not work is if PenPoint gets confused. When PenPoint gets confused a recover reboot will restart the EO, but during the startup process (as the pen that appears in the center of the screen will begin to fill with ink) the EO will stop and you will see a broken pen icon across the bottom of the screen. There will also be a number associated with the broken pen, usually number 1021.

This is a scary sight, but don't panic. Just move to the next step, the pin restart.

To perform a recover restart:

1. Hold the On/Standby button down until you hear five beeps. It will take almost ten seconds for the first beep to sound. Then you will hear one beep per second for the first four beeps; the fifth beep is a long tone.
2. Release the On/Standby button after you hear the long beep.

The EO logo should appear at the bottom of the screen with the PenPoint logo and a pen across the middle. The pen will appear to fill with ink and the EO will start. This process takes about three minutes. When the EO finally starts you will see a note that fills the entire screen with a message saying that the EO was improperly shut down and data may have been lost. When this screen appears, tap the OK button, then check your system setting in the Settings Notebook.

If the EO should not finish this startup process, or if it restarts and the problems you were having still persist, you'll have to perform a pin restart. Instructions for performing a pin restart are in the next section.

Doing a Pin Restart

A pin restart is called a *cold boot*. When you restart the EO in this manner, all of your configuration settings are lost. This is the next to last resort and you should only use this method for restarting your EO after trying everything above. I mean everything! A recovery reboot will work 98% of the time.

Also, if you're using a RAM-based EO and you have to use a pin restart you will lose all of your information and all programs you have installed. Unfortunately, if you are forced to use this method you may not have much choice. If you're using an EO with a hard drive you shouldn't lose any information, but there are no guarantees. All I know is that I have done many pin restarts while experimenting (do not perform a pin restart unless you have to), and never lost any of my documents.

Just so you won't be surprised, if after doing a recovery restart you receive a broken pen icon, chances are good that you will receive

one when you do a pin restart. However, the occurrence of the broken pen is very rare. I would be surprised if you ever saw it.

To perform a pin restart:

1. Make sure you're using the AC adapter.
2. Turn the EO over. Between the door for the PCMCIA slot and the door for the RAM and ROM cards there is a small hole (see Fig. 10.1). Gently insert a straightened paper clip into the hole. There is a small switch behind the hole. Press the switch. You will know when the switch has been pressed because the EO's screen will go blank.
3. Remove the paper clip.

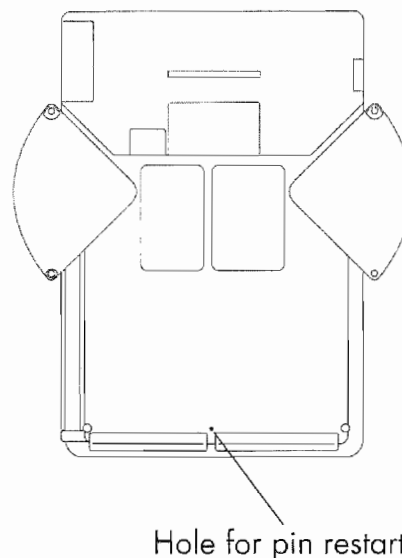
The EO will restart like it did when you were doing a recovery restart. You will see the EO and PenPoint logos with the pen filling with ink. The pin restart should fix most problems.

This will fix any possible software problem you might be having with a EO that is RAM-based. However, if your EO has a hard drive you may have to perform one more step to fix the problem. Once again we're back to the "If." If the pin restart failed, you will probably have the broken pen icon described above.

There is always a possibility that the problem still persists. But it is not likely. Of the problems listed in this section, those that could

Figure 10.1

The back of
the EO



Why a ROM-Only Boot?

I think an explanation is in order. I can hear some of you saying, "The need to perform a ROM-only boot doesn't make sense, because PenPoint is in ROM and the EO is always running off of its ROMs. So what's the big deal about a ROM-only boot?"

The short answer is, yes, you're right. The EO is always using its ROMs to run. But when an EO is started for the first time, whether it is running off RAM (a RAM-based EO always uses part of its RAM as a disk drive, this type of drive is called a RAM disk), or off a hard disk, certain files are written to the disk by PenPoint that tell the EO how to start and where to find the rest of the operating system since it is not on the disk. These files are critical to the EO's operation.

When the EO suffers from serious confusion, one or more of the files on the disk drive may be damaged. The damaged file(s) may instruct the EO to look in the wrong spot for the rest of PenPoint, resulting in confusion. Once the EO gets confused, if it is a minor confusion (where one or two minor files are damaged), a recover restart fixes the problem by rewriting the damaged files during the startup process. If the recover restart fixes the problem, then the damaged files are fixed. Your EO should run properly.

When the recover reboot fails, the files that the recover reboot rewrites to the disk were not the cause of the problem, or at least not the entire cause of the problem, and the EO is still in trouble. A pin restart is then required. The pin restart rewrites more files than the recover reboot, plus it purges

still be happening are that the pen will not work, or the EO will not go into Standby. The other problems of the EO not starting, the blanking screen or a screen with vertical lines, will either have disappeared or you will be receiving the broken pen icon as the EO starts up.

If your EO is still haywire there is one more option to try. It is called a ROM-only boot.

Doing a ROM-Only Boot

A ROM-only boot forces an EO with a hard drive to act as it were a RAM-based EO, while preserving the contents of the EO's hard disk. If you have a RAM-based EO performing a pin reset, it is the

the EO's memory in case a memory setting was causing problems. Because memory is reset or purged by a pin reset, a RAM-based EO restarts without pre-existing files and creates new ones as it starts up.

When the EO starts for the first time with fresh files, it is in a virgin condition, and any problems that might have been caused by damaged files on the disk are eradicated. It is impossible for them to exist. So if a problem persists while the EO is in this condition, then the cause of the problem is something other than the EO's software. The only exception to this rule is when a ROM patch has been issued by EO to correct a particular problem. Then it would be necessary to install the patch and restart the EO using a recover restart.

Forcing an EO with a hard drive to perform a ROM-only boot forces the EO to ignore its hard disk and start as if it were a RAM-based EO. This way any files on the hard drive that might be damaged are not used. All of the PenPoint files that the EO requires are written to a RAM disk, and the EO is actually running in a virgin condition.

This way, it becomes possible to test the EO to see if the problem you're experiencing is due to problems with the PenPoint files on the hard disk or if the problem has some other cause. If the problem is corrected with a ROM-only boot and the EO has a hard drive, then the problem is a damaged start up file. The solution for the problem will require reformatting the hard disk.

same as doing a ROM-only boot. The ROM-only boot forces an EO with a hard drive to ignore the hard drive. This allows an EO with a hard disk to be started, tested, and its information recovered. (See "Why a ROM-Only Boot?") If you need to recover any information from your hard disk, see the next section, Recovering Your Information.

A ROM-only boot requires both hands and a place where you can easily hold the EO, balancing it on an end using either your lap or a table top to keep it steady. Before doing a ROM restart, read through the following steps. If you get the sequence of events incorrect, the result will be the same as if you did a pin restart.

To perform a ROM-only boot:

1. Make sure the EO is connected to an AC adapter.
2. Hold down the On/Standby button.
3. Perform the steps outlined in the last section for a pin restart while continuing to hold down the On/Standby button.
4. After the pin is removed, continue holding the On/Standby button until you see the EO logo at the bottom of the EO's screen. When you see the logo, release the On/Standby button.
5. The EO will go through its normal startup process.

If the EO starts and you do not receive the note from PenPoint that tells you the EO was improperly shut down, the ROM boot was successful. If you see the note from PenPoint or if you received the broken pen icon, you probably released the On/Standby button before removing the pin during the pin reset portion of the reboot. You will have to repeat the steps above.

If you still have a problem with the pen or the EO will not start you should call EO Technical Support. If you have reached this point and the EO is not working, you are experiencing a very unusual problem. There is nothing else you can do by yourself.

However, if you get to this point and the EO works properly and you have not yet backed up your information, do the backup now, because the next step to restoring your EO to its proper operating condition will require reformatting your hard disk, and all of your information will be destroyed during a reformat. Instructions for formatting the hard drive are in the section called Formatting Your Hard Drive later in this chapter.

Recovering Your Information

When you have performed a ROM boot on a EO with a hard drive, the drive's Bookshelf will not be visible on the main screen of the EO. Don't worry, the drive is still there and its information is intact. But the procedures for getting the information are different from performing a regular backup.

You will need to connect to a PenCentral server, a SunDisk, or a floppy drive to get your information. (If you're using an EO 880,

you can also use an external SCSI drive.) If you are unfamiliar with the Connections accessory, you should read Chapter 7 before proceeding with the backup. This section will only contain the essential steps for doing the backup.

To back up your information after a ROM boot:

1. Open the Connections accessory. (The Connections accessory will be found in the Accessories Notebook.)
2. Connect to the PenCentral Server
Or
Turn to the Connected Disk page.

You should see a page that looks something like Figure 10.2.

3. Open the disk BOOTVOL by tapping Ψ on it.
4. Set the view, from the View menu, to Bookshelf.
5. Open the backup disk.
6. Set the backup disk's view to Bookshelf.

Your page should look something like Figure 10.3. Notice that both drives are open and their Bookshelves are visible.

7. Perform the backup using the instructions at the beginning of the section, Fixing the Problem, only do the backup from the bookshelves in the Connections accessory rather than from the main screen.

Figure 10.2

The Connections
Accessory
during a
ROM boot

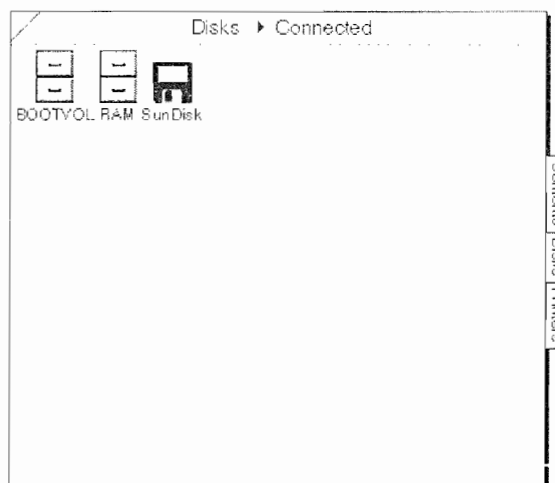
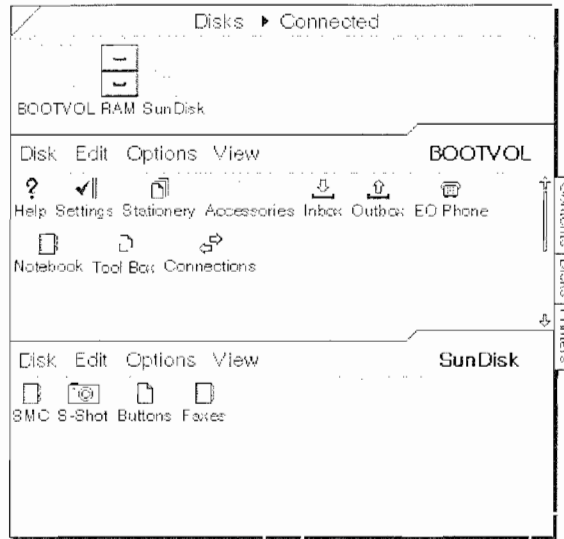


Figure 10.3
Viewing the
Bookshelves
for both disks



Once you have backed up your information you can safely format the hard drive. The instructions for formatting the EO's hard disk are in the section, *Formatting Your Hard Drive*, which you'll find later in this chapter.

Note

If you need information from your hard drive, you can use any of the notebooks on the Bookshelf from the Connections view. However, if you have embedded buttons, accessories, or documents in the Cork Margin of a notebook's page that are not built-in EO applications, you will not be able to access the page—for example, if you were using Numero (see Chapter 11) and embedded a button for Magic Script in the Cork Margin of the Contents page, you would not be able to access the contents page.

The same applies to any page that contains a document from an application that is not installed. Your documents are safe and nothing is lost. They are just unavailable until the application is reinstalled. So do not be alarmed if you try to access a document and receive an error note stating that the document cannot be used or opened.

Formatting Your Hard Drive

If things are really messed up, the final stage in restoring your EO to working order will be to format its hard drive. This is a drastic step, but sometimes it may be necessary. If you have not backed up your data, do the backup before you format the hard drive. Formatting the hard drive will destroy all information on it.

To format the hard drive:

1. Perform a ROM-only boot.
2. Open the Connections accessory.
3. Open the disk BOOTVOL.
4. From the Disk menu, select the Format command.
5. Tap **Y** on the button with the hard disk's size from the dialog sheet.
6. Tap **Y** on the Format button.

After the hard drive is formatted you must perform a pin restart to use it. If you do not do a pin restart, the EO will continue to operate as a RAM-based machine.

Reconfiguring GO Fax or Mail

If you're having problems sending or receiving faxes or E-mail, there is a very good chance that the problem is a configuration setting and not something wrong with the EO. This section contains a quick step by step configuration check for both GO Fax and GO Mail. However, complete instructions are contained in Chapters 8 and 9.

You Cannot Send a Fax

If you are having trouble sending a fax, there are several things that could be causing you problems. Before restarting the EO because it is misbehaving, you should check the GO Fax's configuration settings. Also, you should be able to answer each of the questions in the list in the next section.

Determining the Fax Environment

The settings recommended in this section are based on the assumption that you are having trouble sending a fax. If you can, you should try sending a fax with these settings to a fax machine close to you so you can verify the results. One good way to test a fax is to send it from your desk phone to the office fax. This way

you can check the fax yourself. The answers to these questions will determine what settings you use for GO Fax.

- Are you using an EO with the Cellular option?
- Can you place a call from the cellular phone that is clear and interference free?

If the cellular connection has interference, or if the phone is roaming, you could have difficulty sending faxes due to the quality of the connection, not due to any software or configuration problem.

- What is the area code for the phone you are using?
- Are you using a telephone company credit card?
- If so, what is the number?

If you are using an EO with the Cellular option and plan on using it to send the fax, you can skip the rest of the questions.

- Is the EO connected to a working telephone line?
- How do you know the telephone line works? If you have any doubts, check the line with a telephone.
- Are you are using the duplex connector?
- Is it plugged into the EO? The duplex connector needs to be plugged into the EO and not into the wall jack.
- Are you using a telephone line that is part of a phone system?
- Do you have to dial special numbers to get an outside line?
- Does the phone system generate a standard dial tone when you pick up the receiver?
- At any point during the process of getting an outside line, does the system generate a dial tone?

Setting the Fax Options

All of the above questions are important. If you do not know the answer to any of them you will have to find out. Once you have the answers, use the following steps to double-check your GO Fax configurations. After changing any option setting, tap the Apply & Close or the Apply button at the bottom of each options sheet. Otherwise, your changes will not go into effect.



To change the GO Fax configuration:

1. Open the Outbox.
2. Turn to the GO Fax page.
3. Select the Fax Service menu item from the Options menu. Is the Modem Service set to the proper type of connection? You can choose either Phone Line or Wireless for the Modem Service. If you do not have or do not want to use the EO's Cellular option to send the fax, you must select the Phone Line setting.
4. Select the Modem Settings menu item from the Options menu.
 - The Serial Port should be set to COM2.
 - The Modem Speaker should be "On Until Carrier Detected." If you normally use another setting, change the Modem Speaker setting.
 - Speaker Volume should be Medium or High. You will want to hear the modem dial and the connection being made; otherwise, you will not know what is happening when the EO tries to call.
 - The Tone Detection setting will depend on the answers to the questions asked above. If you are connected to a standard, direct dial phone line, select "Detect Busy & Dial Tone." If you are connected to a phone system and it does not generate a dial tone when the receiver is picked up, you do not want the EO to detect a dial tone. Likewise, if the phone system generates a busy signal while connecting you to an outside line, you do not want the EO to detect a busy tone. Select the option that corresponds to your situation.
5. Select the Send menu item from the Options menu.
 - Make sure the "Try to connect for" option is set to 60 seconds.
 - Set the "Show Progress Notes" to Yes.
 - Set the "Show Dialing Sheet" to Yes.
6. Select the Dialing Location menu item from the Options menu.
 - Check each setting in the dialing location sheet. The information you gathered from the questions above needs to be entered here. Check each item and correct any errors. If you

can avoid using a credit card while testing the fax, do so. Otherwise, make sure each entry is correct.

- In the “Need an outside line?” option if you need to dial a number other than a 9 to get an outside line, enter a comma after each number or set of numbers you have to dial. If there is an exceptionally long wait between dialing one set of numbers and another, enter an extra comma or two. Each comma will make the EO wait about two seconds, so if you have a ten-second wait between one set of numbers and the next, you will have to use five commas between the numbers.
- If you are using a calling card, make sure the “Using a Calling Card?” options are correct.
- Double-check the long distance access numbers. If you are using a dialing card, you must change the “Long Distance” number from one to zero.

Once you are certain that your fax settings are correct, it will be time to try sending a fax:

1. Open the document you want to fax.
 - Select Send from the Document menu.
 - From the Send sub-menu, select GO Fax.
2. Fill in the appropriate Memo and tap the From button to make sure this information is correct.
3. Tap  on the To button.
 - In the To options sheet, either manually enter the appropriate information
 - Or
 - Tap  on the pencil icon in the upper right-hand corner and select a name from your Address Book.
 - Double check the recipient’s fax number to make sure it is correct.
 - Add the recipient.
 - If at all possible, send this fax to a fax machine close to you.
4. Tap the Send button.

You will see a message saying the fax is being placed in the Outbox.

5. Open the Outbox and turn to the Contents page.
6. Tap on the Enabled box next to GO fax.
7. Double check your Dialing Location settings when the Dialing Location options sheet appears, and tap **!** the Continue button.
8. Double check the phone number in the Dialing Preview that appears. The number to which the fax is going to be sent will appear as it was entered and as it will be dialed. Make sure the dialing numbers are correct. Then tap **!** Continue.

The Progress Notes will appear and tell you what the EO is doing as it sends the fax. Any errors it encounters will also be displayed. You should listen to the EO as it dials and connects to the receiving fax. If there is a problem at the receiving end you might hear something that will help you identify the problem. Some of the things that can go wrong are:

- A wrong phone number.
Usually, if the phone number is wrong you will hear things like a person picking up the line, a recording saying the number is not in use, the incomplete call announcement, or some other message indicating that the number is wrong.
- The other fax machine answers the phone, but the EO and the Fax don't want to communicate.

You will hear a high-pitched squeal coming from the speaker as the EO tries to negotiate with the receiving fax machine. Using the setting above, the EO will try to make a connection for 45 to 60 seconds. If you hear the two machines trying to talk you should increase the "Try to connect for" setting in the Send options, it can be set to try for up to 180 seconds.

- If you get this far and cannot connect, try another fax machine. If you still cannot connect, you should try a different phone line, if you're using a phone line.
- If you're using the Cellular option, you should open EO Phone and check the signal strength. A weak signal can adversely affect faxes.

Usually, if you make it all the way to the other fax you will not have a problem. Most faxing problems occur before you ever get through to the other fax machine. You should be able to figure out where the problem occurred if you watch the progress notes, listen, and then check the Outbox Log in the Outbox Options menu .

If after you have done all of the above, including trying different fax machines, you cannot successfully send a fax, you should follow the Restart steps above, starting with the recover restart. After each of the different restarts, try to fax to a fax machine you know is working.

The EO has a very dependable fax system. If you carefully follow these steps you should be successful with your fax communications.

You Cannot Receive a Fax

If you are having difficulty receiving faxes, the steps for correcting the problem are very similar to those for sending faxes. Once again the reasons for poor fax reception are an improper setup, a faulty telephone line, or a low-level software problem. By following the steps set out in this section, you should be able to fix your fax reception problems.

Determining the Fax Environment

Before you try to receive a fax, you have to be connected to a working phone line. Answer the following questions.

- Is the EO connected to a working telephone line?
- How do you know the telephone line works?

If you have any doubts, check the line with a telephone: place a call to the line.

- Are you are using the duplex connector?

Is it plugged into the EO? The duplex connector needs to be plugged into the EO and not into the wall jack.

- Are you using a telephone line that is part of a phone system?
- Are you using an EO with the Cellular option?

- If so, are you using a telephone line or the cellular connection?
- Is your call reception clear?
- If either the cellular connection has interference or the phone is roaming, you could have difficulty receiving faxes due to the quality of the connection, not due to any software or configuration problem.

Setting the Fax Options

All of the above questions are important. If you do not know the answer to any of them you will have to find out. Once you have the answers, use the following steps to double-check your GO Fax configurations. After changing any option setting, tap either the Apply & Close, or the Apply button at the bottom of each options sheet. Otherwise, your changes will not go into effect.

To change the GO Fax options:

1. Open the Inbox.
2. Turn to the GO Fax page.
3. Select the Fax Service menu item from the Options menu.
 - Is the Modem Service set to the proper type of connection?
 - You can choose either Phone Line or Wireless for the Modem Service. If you do not have or do not want to use the EO's Cellular option to send the fax, you must select the Phone Line setting.
4. Select the Modem Settings menu item from the Options menu.
 - The Serial Port should be set to COM2.
 - The Modem Speaker should be "On Until Carrier Detected." If you normally use another setting change the Modem Speaker setting.
 - Speaker Volume should be Medium or High. You will want to hear the connection being made; otherwise, you will not know what is happening when the EO receives a call.
 - The Tone Detection setting does not affect fax reception.
5. Select the Receive menu from the Options menu.

- Set Auto Answer to Yes.
 - Set Rings Before Answering to 1 or 2.
 - Set Keep Partial Faxes to Yes.
 - Set Show Progress Notes to Yes.
6. Turn to the Contents page.
 7. Tap on the Enabled box across from GO Fax.
 - If the box is already checked, uncheck the box, and then check it again.
 - The GO Fax Status should read “ready.” If it says “connected,” GO Fax will not receive.

Once you have completed these steps, have someone fax you a document. If you still have problems, try another phone jack on the same line and/or a different number. After double-checking these items, start the series of restarts described earlier in this chapter, starting with the recover reboot. Between steps, try receiving the fax again.

You Cannot Send or Receive E-mail

Almost all problems with GO Mail will be caused by incorrectly entering your AT&T user name and password, or by telephone connection problems. If you are trying to connect to your AT&T EasyLink account from within the United States, you will be using a toll free 800 number, so the only problem you would have with the dialing location would be if you are telling the EO that you are overseas when you're in the US.

To troubleshoot any E-mail problems:

1. Answer the questions in the Determining the Fax Environment in the You Cannot Send a Fax section.
2. Open the Inbox or Outbox and turn to the GO Mail page.
3. Select the AT&T Mail menu item from the Options menu.
 - Check your User ID. Make sure there are no spaces in the ID and that there is not a space before your user name.
 - Re-enter your password using your text password, not the numeric.

4. Set the Prompt for Password to No. This way, a mistake in entering your password will not be the cause of the problem.
 - Make sure the phone number and country code are correct. If you have been overseas or if you are overseas you might have to change these numbers.
 - Make sure you have the proper type of connection, either Phone Line or Wireless. If you are using the EO's Cellular option, check the phone's reception.
5. Select the Dialing Location menu item from the Options menu.
 - Check each setting in the Dialing Location sheet. The information you gathered from the questions above needs to be entered in this page. Check each item and correct any errors. If you can avoid using a credit card while testing the fax, do so. Otherwise, make sure each entry is correct.
 - In the "Need an outside line?" option, if you need to dial a number other than a 9 to get an outside line, enter a comma after each number or set of numbers you will have to dial. If there is an exceptionally long wait between dialing one set of numbers and another, enter an extra comma or two. Each comma will make the EO wait about two seconds, so if you have a ten-second wait between one set of numbers and the next, you will have to use five commas between the numbers.
 - If you are using a calling card, make sure the "Using a Calling Card?" options are correct. When in the US, you do not need to use a calling card!
 - Double-check the Long Distance access numbers. If you are using a dialing card, you must change the Long Distance number from one to zero.
6. Turn to the Inbox or Outbox Contents page.
7. Check the Enabled check box next to GO Mail.

As soon as you check the Enabled button, GO Mail will go into action. You should have no problems. If the inability to connect persists, you might want to try a different phone line. If that fails and you've double-checked all of your settings, you should start the restart process, beginning with the Performing a Recovery Restart section presented earlier in this chapter.

Fixing Pen Problems

Of all the problems that could drive you nuts, pen problems will. If you cannot accurately draw gestures, you cannot use the EO. Fixing pen problems will undoubtedly be a priority.

I don't want to sound like a broken record, but the quickest way to determine if your pen problem is the result of a broken or defective pen or related to the EO is to have a second pen. With a second pen you can use it to see if the problem goes away or persists. If after checking with a second pen the problem persists, then you'll need to look at the EO.


Before anything can be done, you need to define the problem. What is the pen doing or not doing? The following is a list of some common problems.

- Poor translation results.
- Gestures are not being recognized.
- Ink does not appear when writing on screen.





Poor translation results and gesture recognition problems are often the result of a misaligned pen and improper settings for the Writing and Press Timeout. All of these settings are found in the Settings Notebook on the Pen page. Problems with gesture recognition can also occur when the EO is busy processing data or attached to a PenCentral server. Both of these conditions can dramatically reduce the EO's response time.

If you think you are having pen problems:

1. Put the EO into Standby by pressing the On/Standby button.
2. Disconnect any peripheral device, especially a PenCentral Server.
3. Turn the EO on. If the EO was performing some task as it went into Standby, it will attempt to complete the task when it is turned back on. Wait for any notes or the spinning clock to disappear and dismiss any dialog sheets.
4. Tap **!** on the Settings Notebook.

- If the Settings Notebook will not open and the EO is not working on something else, then you could have a real problem.
 - Go to the Performing a Recover Restart section.
5. Select the Pen page from the Settings Notebook.
 6. Align the pen by pressing the pen to the center of the cross hairs in the Tap to Align Pen box. After the box highlights, tap  on the Apply button at the bottom of the page.

If you made it this far, the pen is working, but you will probably have to customize the pen setting. Chapter 4 discusses customizing the EO's settings, and you should review that chapter before continuing. Also, before you customize the pen and writing setting you should use the Gesture and Handwriting practice pages. While practicing, pay particular attention to how long it takes the EO to react when you draw a letter or gesture. Once you have an idea about how the EO is interpreting what you draw, you can use the following as guidelines for adjusting the settings in the Writing and Pen pages of the Settings Notebook.

- If you are tapping  and the EO interprets the tap as a press , then you'll have to shorten the Press Timeout setting in the Pen page.
- If you are pressing  and the EO interprets the press as a tap , then you'll have to increase the Press Timeout setting.
- If your gestures are being drawn correctly, but the EO doesn't recognize them, then you should increase the Writing Timeout setting.
- If the EO is taking too long to execute a gesture or translate a letter, you should increase the Writing Timeout setting.

These settings can be tricky, and you may have to experiment. Adjust the settings, then try out the gestures or writing in the practice pages. They provide a safe environment for becoming familiar with the pen.

The size settings for pop-up editing pads can be critical. If you write using large letters and are trying to squeeze them into small boxes, you'll have problems. So experiment with the Box Size and

Shape settings in the Writing page. Also, if the EO is having difficulty recognizing your letters, try using the Upper Case setting for Writing Style as well. The following are a few more tips that might help.

- Write neatly at a normal speed.
- Do not press too hard, use the pen like you would a felt-tipped pen.
- Your letters' sizes should be consistent.
- Write your descenders below the line.
- In a ruled writing pad, leave consistent spaces between words.

Writing on the EO will take practice. If you get frustrated, do not start tapping all over the screen. This will only cause problems.

Fixing Software Problems

Software controls all of the EO's hardware. When the EO is suffering from a software problem, you might be inclined to think the cause is hardware. Software mishaps can be minor with a specific application, such as EO Sound not recording, or major, like the EO will not start. Your first assumption should always be that you are experiencing a software problem.

Software problems usually fall into three categories:

- A problem with an individual document.
- A problem with all of the documents for a specific application.
- Problems with PenPoint objects like notebooks and dialogue sheets that won't go away.

Note

Often a software problem will be accompanied by an error note. An error note is a notification from PenPoint that there is a problem. Error notes only tell you what is wrong part of the time. Usually the error note has a generic message telling you that an error has occurred and a number. So you will have to interpret the cause of the error from context. What were you doing when the error note occurred and what happened after you dismissed it?

Usually, when you receive an error note, the document you were working on will close. Every once in a while an error note will refuse to go away. If you have this situation occur, you will have to perform a recover reboot, which is described earlier in this chapter.

Individual Document Problems

Examples of problem documents are documents that will not open or ones that unexpectedly close. If the problem occurs with a specific document and other documents of the same type work properly, then there is a good chance that the document is damaged.

To repair a damaged document:

1. Perform a recover reboot.
2. After the EO restarts, try to use the damaged document.
3. If the problem persists and you can close the document, then make a copy of it.

If you cannot close the document, perform a recover reboot and copy the document after the EO restarts.

4. Try to open the copy of the document.
5. If the copy of the document will not work, the document is damaged beyond repair.
6. Delete the document.
7. Restore the document from a backup.

Documents very rarely get damaged, but it can happen. This is one of the reasons why you should always have a backup. Another example of a document with a problem is one that will not close, because the close corner and Menu line cannot be accessed. In this case, also follow the steps listed above.

Note *If any Perspective document (except the Profile Book) gets damaged (but the Profile Book can still be opened), then try copying a fresh version out of the Stationery Notebook. I've seen damaged Address Books replaced this way. Since your data resides in the Profile Book, copying a fresh Address Book out of the stationery is like getting a new view of your data.*

Application Problems

Software problems may arise which involve all of the documents belonging to an application. When this happens, none of an application's documents will work. Often the documents will all have a slash through their icons indicating that the application is not installed or not functioning.

If the documents affected belong to an application you've installed:

1. Perform a recovery restart.
2. Check to see if the documents are available. If they are available, the problem is fixed.
3. If the documents are not available, reinstall the application.
4. If the documents are not available after reinstallation, perform a recovery restart.
5. If they are still not available after the recovery restart, perform a pin restart.
6. If the documents are not available after a pin restart, you will have to do a ROM-only boot.
7. Back up all of your data and reformat the hard drive.
8. Install all of your applications and reset your EO's settings.
9. Restore your data.

Although the above sounds drastic, chances are that you will only have to reinstall the application to get access to your documents. If the documents that are unavailable belong to one of the EO's built-in applications, the situation is a little more serious. Since you can't reinstall any of these programs, you will have to perform steps 1 and 2, 5 through 7, and 9.

Only do the ROM-only boot and disk formatting if all else fails. You may be tempted to skip the tedium of the earlier steps, but the instances where you'll have to perform a ROM-only boot are really very rare and you will more than likely be creating work for yourself. If you make it to the pin restart stage, remember to reset all of your PenPoint settings after you do a pin reset.

Problems with PenPoint Objects

The most serious software problem you could have is if your PenPoint objects start to misbehave. Examples of PenPoint difficulties include slashes through any of your notebook icons, an error note that will not go away, or a Contents page that is not accessible.

To fix problems like the perpetual error note and slashes through notebook icons:

1. Perform a recovery restart.
2. If the problem persists, do a pin restart.
3. If the problem persists, you will have to do a ROM-only boot.
4. Back up and reformat the hard drive.
5. Reinstall your applications.
6. Restore your information.

Between steps 1 through 3, check to make sure that the problem is still occurring before going on. Once again, this type of problem is rare.

Whenever software problems occur, there is a chance that you may end up reformatting your hard drive. Usually you will not need to go beyond the pin restart stage. But there are no guarantees, so always back up your data. Remember, the problems in this section are listed so you will know how to solve them. It's not meant to scare you. The chances that you will have any of these problems are slim to nil.

Network Problems

The problems you are most likely to see will involve PenCentral. PenCentral works and is generally reliable, but it is also easy for you to create problems for yourself. Before you start fixing network problems, read Chapter 7, where PenCentral is covered in depth. Trust me! If you do any of the following, you're going to have a problem with PenCentral:

- Go into standby mode while copying data.
- Use a document that is on the server and go into Standby.
- Disconnect the cable between the EO and PenCentral without going into Standby mode.
- Shut down or restart PenCentral while connected to the EO. PenCentral's status line will say it's actively connected.

When you have problems with the EO and PenCentral, the problem will always manifest itself on the EO, but the problem could be with PenCentral running on an MS-DOS machine. When there is a problem with the EO, you will see one of the following symptoms:

- You see two Bookshelves for a server volume.
- The server volume will not automatically connect.
- You won't be able to disconnect a server volume.

All of the above problems are EO problems. The most annoying one is when you cannot disconnect a server volume. However, the fix is easy. All of the above problems can be fixed by doing a recovery restart. After you perform the recovery restart, you'll have to reset your connection settings.

There are several things that can go wrong with a PenCentral server. The problems can be categorized by cause. The following list contains MSDOS problems:

- Server disk full error.
- Copying errors.
- It takes too long to mount a server volume.

If you encounter any of the above problems when using a PenCentral server, you will have to fix the problem using DOS. If the server is taking too long to mount, you should delete any extra files at the root level of the MS-DOS hard drive's directory. Do not delete the PENPOINT.DIR file.

For "server disk full" errors you will have to delete files and/or directories from the MS-DOS hard drive. Copying errors will require that you run the MS-DOS CHKDSK.EXE program. CHKDSK checks an MS-DOS drive for disk problems and allows

you to fix them. If you need instructions for running CHKDSK, you should check your MS-DOS manual.

The following problems can develop while PenCentral is running and connected to the EO:

- The server status is active after the EO has been put into Standby mode.
- You cannot see the Bookshelf or directories on a server volume.

When the server remains active after the EO is put into Standby mode, you'll need to shut it down even though the server still thinks it is connected. In either case, you will have to shut down the server and delete the PL.DID file at the root level of the MS-DOS drive, and then open the PENPOINT directory on the MS-DOS drive and delete the PENPOINT.IDX file. Both of these files will be recreated the next time you start PenCentral.

The final two problems involve PenCentral's configuration file.

- The Server will not start.
- PenTOPS Modem connection is not working.

To fix these, you will have to edit the PENINFO.DAT file which is located in the PenCentral folder. You will find instructions for editing PenCentral's configuration file in Chapter 7.

Printing Problems

When printing, it is possible that you will not get the output you want. The following are some common problems you might encounter. All of these problems can be fixed by changing some configuration setting. And none of these are problems require a restart. The solution is listed with the printing problem.

- Faxes are printing as small images of the faxed document.
Enlarge the fax image view to actual size and then print it.
- The EO will not print.

Make sure you have a defined printer that you have selected and check the Outbox to make sure the printer is enabled.

- Only part of an embedded document is printed.
When printing a document that contains embedded documents, only the visible part of the embedded document is printed.
- Only the embedded document's icon is printed.
Open the document, and from the Document menu select Print Setup. Turn to the Embedded Printing sheet and select Yes for the Print option, and set Apply To for embedded documents.
- The printer is not listed.
You will have to redefine the printer using the Connections accessory. See Chapter 7.
- The laser printer is not printing documents.
To print EO documents, a laser printer needs at least 1 MB of memory. Check the printer's memory.

Cellular Problems

Cellular problems can be irritating if you're on the road and have to make the phone call that will close the deal and your phone is not working. So the following suggestions might help if you're having problems. Each of the problems is listed along with its solution.

- The phone will not roam.
If the cellular phone will not roam, you won't be able to make phone calls from areas outside of your regular calling area. If this happens, either your phone is set so it will not roam or the roaming options are incorrect. You'll have to open the Roaming options sheet in EO Phone and correct the problem. You may also have to contact your cellular service carrier and have changes made, or get instructions from them regarding the Roaming option you should use.
- Service level is too low.
This problem usually has to do with location. If you are moving while calling, or if you are in a location where the service signal is blocked, you may have to change locations. If you're moving and trying to use the phone, you might want to stop until the call is completed. Likewise, you may have to change locations

to get better reception. Remember, EO Phone has a graph that shows the signal strength even when the phone is not being used.

- **Programming Problems.**

Every cellular phone has to be programmed. Incorrect programming can cause all types of problems. Once your phone is programmed, do not change it unless you are instructed to do so by your cellular service provider. Also, you should keep a written copy of the program codes used in case you have to reset them while on the road.

However, you shouldn't have to worry about programming your phone. When you receive your Cellular option, you will get instructions on programming the phone.

General Tips

This section is a list of miscellaneous things that can help you avoid problems and improve your EO's performance. Nothing listed here is a serious problem. Because this section is a hodge-podge, the suggestions are not listed in any specific order.

Upgrading to Full Perspective

When upgrading to the full version of Perspective there are specific steps you have to follow.

1. When Perspective's Quick Installer appears after the Perspective floppy is mounted you must tap **Y** in the Install box.
2. You will be asked if you want to deinstall the copy of Perspective already on the EO. Tap **Y** on the Deinstall button.
3. The old copy of Perspective will be deinstalled and the new one installed.
4. Then you have to tap **Y** on the Install box again.
5. You will be asked if you want to deinstall Perspective.
6. Tap **Y** on the Deinstall button.
7. After the deinstall is finished, tap **Y** on the Install box again. This will install Perspective.

If the above steps are not followed when upgrading, Perspective will not work properly and you will have problems. So you might as well do it right the first time and save yourself some grief.

- The EO is running too slowly.

When the EO is connected to a PenCentral server it will run much more slowly than normal. You should only stay connected to PenCentral long enough to back up and copy your data. After you're done, disconnect from the server.

The EO can also run more slowly if you load it up with too many applications. Each application uses some of the EO's memory. As the memory fills up, the EO will run more slowly because there is less memory left for operations. So if you are using a lot of applications and notice a speed decrease, you might want to deinstall a couple programs you're not using. Your other alternative would be to get a memory upgrade.

- Low memory messages appear.

If you start seeing low memory messages, you should perform a recover restart. One of the things the recover restart does is to reclaim memory that is being used by documents when it is no longer needed.

Each EO application has an Accelerated mode that can be set from the Access options sheet. Using Accelerated mode leaves more of a document in active memory, and the document will not be saved when its page is closed. This will increase the speed of the particular document. The down side to using Accelerated mode is that the EO's memory can quickly be overloaded. You can have problems with the documents and even freeze the EO. Also, if you have a problem with the EO and it crashes, any document running in Accelerated mode on which you have not performed a checkpoint save will lose any changes that have been made.

- Random characters appear on the screen when attaching a keyboard.

If you happen to attach a keyboard to the EO without putting it into Standby mode, you might see random characters appear on your screen. To fix this problem, put the EO into Standby, then turn it back on.

- The EO will not play or record sounds.

If the EO will not play or record sounds, you need to check the Services page in the Settings Notebook to make sure a service named "msndsvc" is installed. If this service is not installed, install it. If you are getting files with sound recording from someone else who uses an EO and the sounds won't play, you will need to see if both of you are using the same version of PenPoint. If you are not, one of you will need either a ROM Patch or a current set of ROMs.

- You cannot access an Address Book through GO Mail, GO Fax, or EO Phone

If you cannot access an Address Book from any of the above applications, none of your Address Books have been set to be used as the system-wide Address Book. To set the Address Book for system-wide access, you need to open the Address Book from the Access item in the Options menu and select Yes for the Address Book setting.

- The battery will not charge.

If your battery is not charging, it is probably because you are leaving the EO on all the time when it is connected to the AC adapter. The EO's battery only charges when it is in Standby mode.

The EO's battery should be good for one to two years with heavy use. If all of a sudden it stops holding a charge and you've had your EO for a while, you should get a new battery.

- Using an EO with a hard drive as if it was a RAM-based system.

If you want to use an EO with a hard drive as a RAM-based system, you can. To make the conversion you have to format the hard drive and name it anything except BOOTVOL. When you perform the pin restart after formatting the drive, the EO will automatically start using its RAM as the boot drive. This is a permanent change. It can only be undone by formatting the hard drive and renaming it BOOTVOL.

The advantage of using an EO with a hard disk as a RAM-based system is that the EO will run faster and its batteries will last longer. The disadvantages are that you cannot install as many applications, and if something should happen you will lose the RAM drive and have to reinstall your applications. Be sure to use the hard drive to back up all of your data.

- Do not record while attached to a network, faxing, or E-mailing.

Using EO Sound while performing any of the above tasks will result in poor recordings and funny-sounding playbacks. Even though the EO can perform more than one task at a time, networking, faxing, and E-mailing will slow down other functions.

- ROM patches

When you get your EO, it may come with a ROM patch on the EO's utilities disk. Also, EO Inc., will release ROM upgrades on a quarterly basis using AT&T Mail to distribute them. When you install a ROM patch, all you have to do is copy the patch to your EO's drive and open it. Opening the patch installs it on the drive. After you have installed the patch, you must perform a recover restart for it to take effect.

Also, whenever you reformat your drive you should also install the latest ROM patch you have.

- Filenames

When exporting data, you must use filenames that conform to the MS-DOS name conventions. A filename on an MS-DOS disk can contain up to eight letters, a period, and a three-letter extension. An MS-DOS file name looks like PENINFO.DAT. PenPoint lets you name files with up to 32 characters, so if you put a file on a disk that is going to be used on other machines, you must use the MS-DOS naming conventions or you will not be able to transfer the data.

Conclusion

The information in this chapter should give you a fairly good basis for taking care of most of the problems you'll encounter with an EO. It is not 100% complete, but all of the major problems are covered. If after reading this chapter you are still having difficulty, call EO's Technical Support department.

The purpose of this chapter is to help you understand and fix any problems you might have with an EO Personal Communicator. Besides, it might be nice to have a resource guide for those weekends and evenings when you need help and there is no one to call.

Document Processing and Organizers

Introduction

An EO out of the box is equipped with all the software you need to be immediately productive. However, you might find that you want the EO to do more. Maybe you would like to be able to quickly print form letters. Maybe you want a program more powerful than MiniNote that you can use for taking notes. Also, a program for keeping track of all your financial transactions like projections, invoices, and expense accounts would probably be handy.

Well, when you buy an EO, you are not just getting some new device that no one has ever heard of or for which there is no additional software. Although there are not hundreds of programs available, there are quite a few. This section of the EO Travel Guide is your map to the software currently available for the EO. EO and third-party vendors are creating even more software right now.

Although using a pen is more natural, and while on the move more comfortable and efficient than a keyboard, few people can write fast enough or clearly enough to make traditional word processing a task they'll want to do on a personal communicator. Instead

of a word processor, you'll need a program that lets you quickly edit an existing document, modifying it for an immediate situation, using a pen.

With personal communicators, documents won't be created from scratch. Instead, we'll be processing documents, using documents already created and changing the elements they contain to meet very specific and usually predefined needs.

Even though this process of reusing existing documents happens in traditional desktop computing environments, few general software packages exist that are designed specifically for processing pre-created documents.

So even though some of the software described in this chapter bear similarities to software found on desktop computers, most of it is really quite different. The software is not classified by the terms you're familiar with, nor does it have features normally found on the communicator's desktop cousins. The first difference you'll notice is that some of these packages are categorized as "document processors." And within this category you'll find programs called writing assistants, financial processors, and note takers or note processors.

There are six document processing packages available for the EO: In Order (Sharpened Software), InkWare NoteTaker (Ink Development), InkWriter (aha! software corp.), Letter Express and Numero (PenMagic), and Perspective (Pensoft).

In Order, by Sharpened Software

In Order is what Sharpened Software, its publisher, calls a "Personal Information Organizer." Don't let Sharpened's categorization fool you—In Order is not an organizer like Personal Perspective. In Order is a free-form organizer that is based on an index card metaphor.

Each In Order document is like a stack of cards all contained within a single. You can think of the document as an indexed card box that contains information about anything from meeting notes to a catalog of your video tapes. The flexibility of In Order makes it a per-

fect tool for keeping track of information that is not easily categorized, or if you do not like the rigidity of field-based organizers.

The In Order Page

All of the information you enter into In Order is placed on cards. Figure 11.1 shows an In Order page and card.

The main elements of an In Order page that are common to each card are the toolbar, the card's title bar, and the card's category section. Each has certain features.

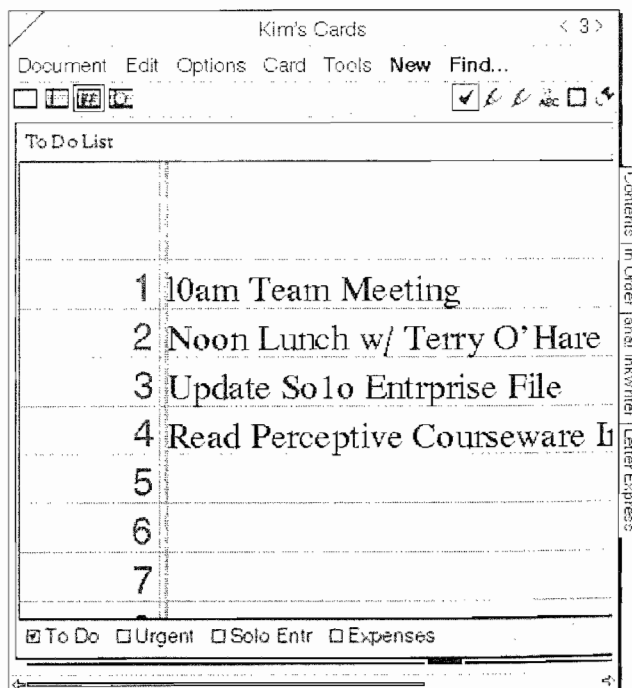
The Toolbar The toolbar is where you place paper styles and the pen tools you'll use most often. Some of the paper styles and all of the pens are customizable. The toolbar is also where you perform gestures that pertain to the entire collection of cards.

The Card Title The card title contains the card's title (which is editable), the date that the card was modified, and a user date that you can edit.

Category Section In the category section you create the categories you want to use with the cards in the document. You can choose to display all of the categories or just the categories associated with whichever card you're viewing.

Figure 11.1

A blank In Order page



Any feature can be customized as you use In Order. If you find that you want immediate access to a new pen tool or paper style, you can add them to the toolbar at any time. The same applies to categories. If, as you're working, you need a new category, you can create it on the fly.

In Order Cards

At the heart of an In Order document are its cards. Using cards of different styles you can store any type of information: names, meeting notes, sketches, or anything else you can think of. In Order provides 12 different types of paper for cards, from a blank scratch pad to a ruled accounting pad.

For each type of card you may need in a document, you can create a template and add it to what is called a pad, which lets you quickly create a new card. Pads can be based on one of the 12 card styles and can be further customized as a template. Card pads are like having several special purpose pads on your desk that you use as the need arises.

When you use In Order, your cards are associated using categories. You can set up as many categories as you wish. You can add or remove a card from a category just by tapping \checkmark on the category's check box. When cards are categorized, you can search for all of the cards in a category, or for cards with multiple categories.

In addition to assigning categories to cards, they can also be clipped together using paper clips. Paper clips work by grouping related sets of card together. If you are at a meeting and take several pages of notes, you can paper-clip all of the note cards together.

Finally, each card has two dates. One date is the date that the card was last modified. The other is a date that you can assign to a card.

In Order's Find Function

In Order has a very powerful search function that will find a card or a group of cards using any or all of a card's categories: name, modified date and/or time, the user date and/or time, and any text con-

tained in the cards. You can also keep a list of predefined search criteria so you can reuse search criteria. This way you can have a predefined search that will find all of the cards that have today's date and require some action. Figure 11.2 shows In Order's Find options sheet.

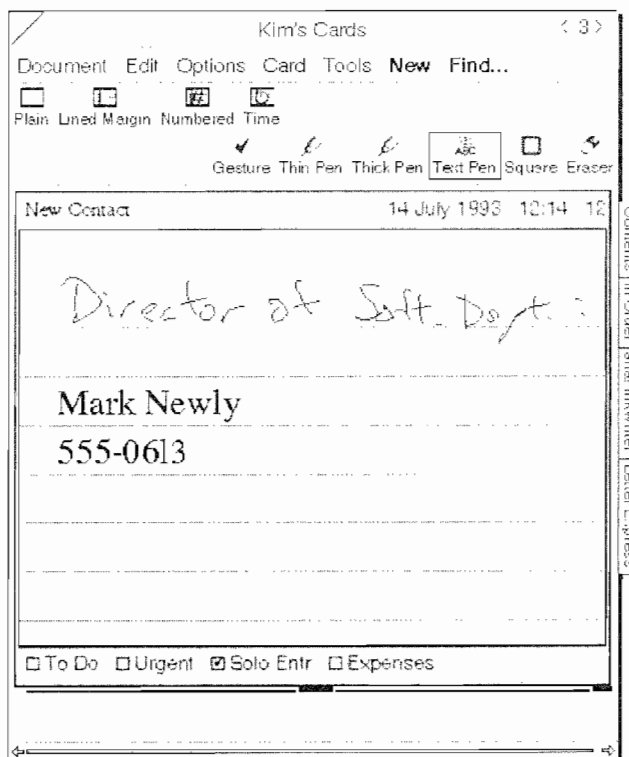
Toolbar

In Order uses a toolbar to control a card's attributes, like the style of the paper and what types of pens you use. Figure 11.2 shows another In Order card with the toolbar set to display the names of each pen and paper style.

Here, the view for the toolbar has been altered to show the tool names. A reason for showing the names of the tools would be if you were using two text tools, one that used 18-point text and another with 12-point, but both use the same text tool icon. The same reasoning could also apply to customized paper styles.

In Order has six basic pens, five of which can be customized. The pens that can be customized can be used to create different widths, ink densities, shapes, fill patterns, and borders. A fill pattern is a

Figure 11.2
Another view
of an In Order
page



pattern that is put into an enclosed object like a circle. By creating customized pens, In Order can also be used as a drawing program.

Other Features

The above features constitute In Order's basic functions. Besides using PenPoint's basic set of gestures for editing and navigation, In Order also has the following capabilities.

Drag and Drop This lets you reuse a card by copying it from one In Order document and placing it in another.

TIFF Images An In Order card, a group of cards, or the entire document can be exported as a TIFF file. The file can then be used in another EO application or on a desktop computer.

In Order is a basic, easy-to-use organizer. It is especially useful for keeping free-form information that is not easily categorized in other types of organizers. Since you control how your information is kept and presented, you always have full control of how your information is stored, organized, and retrieved.

InkWare NoteTaker, by Ink Development

InkWare NoteTaker is published by Ink Development and is just what it's called, a NoteTaker. It is designed to let you take notes in any situation and provides a variety of tools to make the task easier. You can mix text and ink on the same page and you can also create multiple pages.

By creating multiple pages, each NoteTaker document becomes a notebook, except that you can tab the pages of the Notebook by key words, page number, or the page's title. Also, InkWare NoteTaker can be used for presentations by turning the pages of a NoteTaker document into a sideshow.

NoteTaker takes up where MiniNote leaves off. With the drawing tools you can use NoteTaker to draw your ideas in addition to taking notes or making presentations. It has the tools to make it a complete graphics drawing package as well as a NoteTaker. After

you're finished expressing the frustrated artist inside, you can export the pictures you've made to an MS-DOS or Macintosh file for use on your desktop computer.

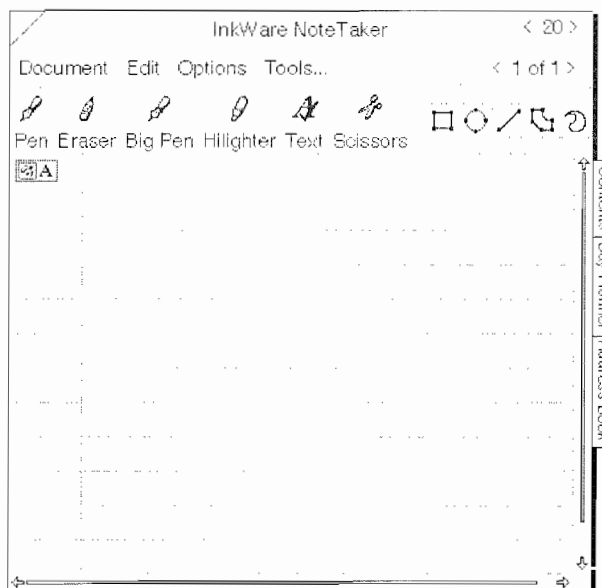
InkWare's NoteTaker is really a very complex program with lots of features. This section is intended to give you a quick overview of NoteTaker and cannot be a tutorial. The rest of this section will look at NoteTaker's features so you can have a better idea about how it works.

The Document

Like all of the applications on the EO, NoteTaker creates a document that can be used as a note pad. Within the document you have the actual pages of your note pad. When you first create a NoteTaker document, it will only have one page, but as you need them, pages can be added. The page size you select will apply to all of the pages in the document and can be any size you define. (NoteTaker supports Letter, Legal, A4, and B4 paper sizes.)

Figure 11.3 shows a NoteTaker page with blank note. The page elements that are unique to NoteTaker have been called out in the figure. Like most PenPoint applications, these elements are customizable in both function and view. So you can create any number of pen and drawing tools and have customized tools for different tasks.

Figure 11.3
A NoteTaker
page



Text and Drawing Tools

Because NoteTaker can also be used as a graphics package, the pen customization capabilities are better than you'll find in other packages. In addition, you are able to set the ink's density, pen width, and pattern. To augment the types of pens you can create, NoteTaker has what is called the Shape Expert. The Shape Expert is a tool that will smooth and correct the shapes you draw.

With the Shape Expert you can quickly create circles, squares, rectangles, straight lines, and free-form shapes that have smoothed outlines. This lets you add precision shapes to your drawings even if you couldn't draw a straight line to save your life. The Shape Expert will work with any of the pen tools you create.

In addition to the Shape Expert, NoteTaker has customizable ink patterns. You can create, mix, and blend ink patterns and assign them to pens, or use the ink pattern to fill any of the enclosed shapes you make. Also, you control how shapes are layered. You can easily create a bull's-eye by drawing a series of circles one on top of the other and filling them with alternate shades of ink. And if you have an artistic bent, you can draw complex pictures which can be used in other documents or exported to a desktop computer using the TIFF format.

Paper Styles

NoteTaker offers a basic set of five page backgrounds. After you select one of the backgrounds, you can further customize it by selecting different line looks, shades, spacings, and margin widths. The page styles are blank, ruled, graph, stenographer, and columnar. The possibilities actually become endless because of the ability to customize each page. Also, associated with the page is a margin where you can put text labels which are used by NoteTaker's search engine.

Search Engine

NoteTaker also has a special search engine that you can use to find any information from any NoteTaker document, once you've entered a special "Keyword" in the margin of a NoteTaker note.

When you perform a search, the InkWare search engine searches all of your NoteTaker documents, not just the one you are using.

Exporting

With Notetaker's export capabilities you can export your documents and use them on another computing platform. You can export documents as TIFF, BMP, WMF, and PICT. With this wide range of formats, you can even use your NoteTaker documents in graphics and page layout programs on your desktop computer.

TIFF is a standard format that can be used on all computer platforms. PICT is usually used for Macintosh computers, while BMP and WMF are MS-DOS formats that can also be used by Microsoft Windows. BMP is a format that the Windows Paintbrush program can use. TIFF, BMP, and WMF can all be imported into most word processing packages as well.

InkWriter, by aha! software corporation

InkWriter is a package produced by aha! software. aha! calls InkWriter a notes processor. This is one killer program. It treats your ink writing like MiniText treats text. In fact, it is smarter than MiniText; it is like a combination of MiniNote and MiniText in a single package.

This package lets you use a combination of text and ink and will word-wrap your ink writing to meet the page's format. So you can write your notes, resize the page, and all of your writing will be visible because it has shifted to accommodate the change in page size. The way that InkWriter handles your writing is by using a technology called SmartInk.

SmartInk was developed with the idea that you are more interested in writing down your ideas and concentrating on the topic at hand than in trying to make your notes neat and presentable. So if you decide that you want to delete a word from a sentence, even it is an ink word, you won't end up with a hole in the mid-

dle of your notes. Instead, all of your writing will reposition itself to fill the hole left by the deleted word, keeping your format intact.

Also, SmartInk can tell when you're writing and when you're drawing, so you can write and draw without switching pens. After you've created your document you can go back and edit it, clean it up, and fax or send it to someone using E-mail. If you want to translate your writing into text, InkWriter will act more quickly than many other programs.

Figure 11.4 shows an InkWriter page that has been scaled down.

You'll notice that the note's words are one after another, each on separate lines. Now compare Figure 11.4 to 11.5.

Notice how the writing has repositioned itself to accommodate the new page size. This is an example of SmartInk. To extend the example, Figure 11.6 shows the same page after the document has been set to Page view.

Another aspect of SmartInk is that you can apply attributes to your writing the way you would to text. If you want to use a strike-through on your writing, all you have to do is select the word and change the writing attributes. In Figure 11.7, you'll see a Writing Dialog sheet with the attributes Bold, Italic, Strike-thru, and Underline selected.

Figure 11.4

An small
InkWriter
page

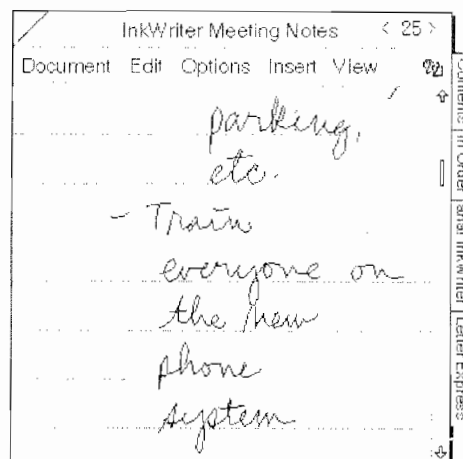
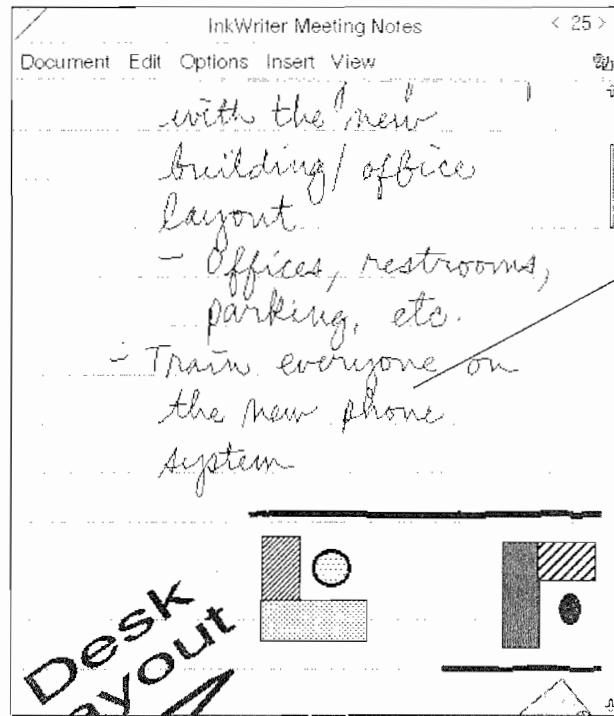


Figure 11.5

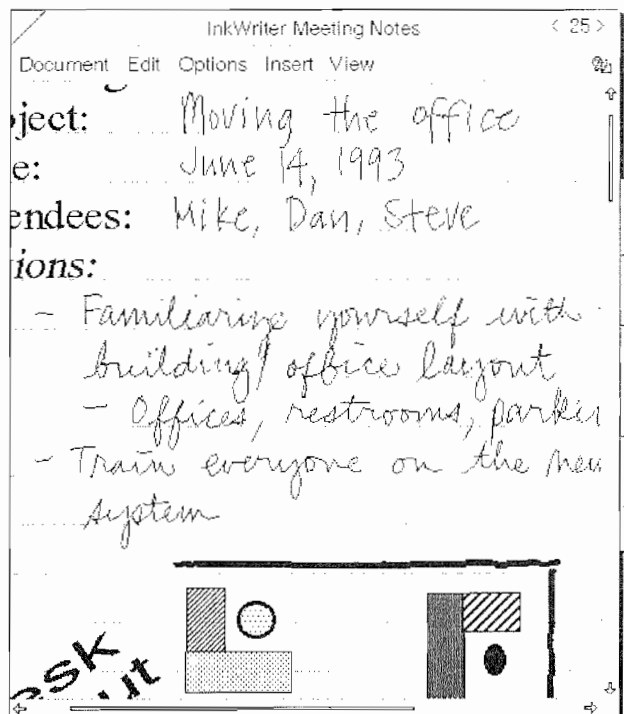
The InkWriter
page resized



Compare line
length to
Figure 11.4

Figure 11.6

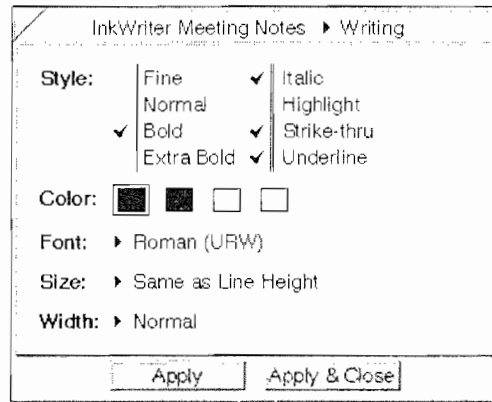
The InkWriter
page set to
Page view



As I'm sure you noticed in the above figures, there is also some drawing on the InkWriter page. Although the graphics capabilities are better than those in MiniNote, they are not quite as strong as

Figure 11.7

The Writing
Dialog sheet
and effected
writing



NoteTaker's. However, any shape you create can easily be manipulated, expanded, rotated, or filled with shaded ink.

Other capabilities include having access to a variety of ink styles, fill options, and paper styles. You can also draw some fairly sophisticated images using the layering capabilities which let you draw an image and place another on top, where the result, depending on your talent, can be fairly complex. Also, you don't have to change modes from ink to text to use gestures with InkWriter. You'll notice that there was no Gesture margin on any of the InkWriter pages.

InkWriter's export capabilities do not extend to any pictures you draw. You'll only be able to export the text you've written as an ASCII or Soft Line Break ASCII file. So if you need to export your images, you may need a different package. Hopefully, new versions of InkWriter will support the exporting of graphic images.

Even with its limited exporting capabilities, InkWriter is an excellent package and one you should consider if you find that MiniNote does not quite meet your needs.

Letter Express, by PenMagic!

Letter Express is a package written by PenMagic! in North Vancouver, British Columbia. PenMagic calls Letter Express a writing assistant. This because it is intended to let you create documents on the fly, quickly and easily responding to your business needs. You start with a series of prewritten documents containing fields where you

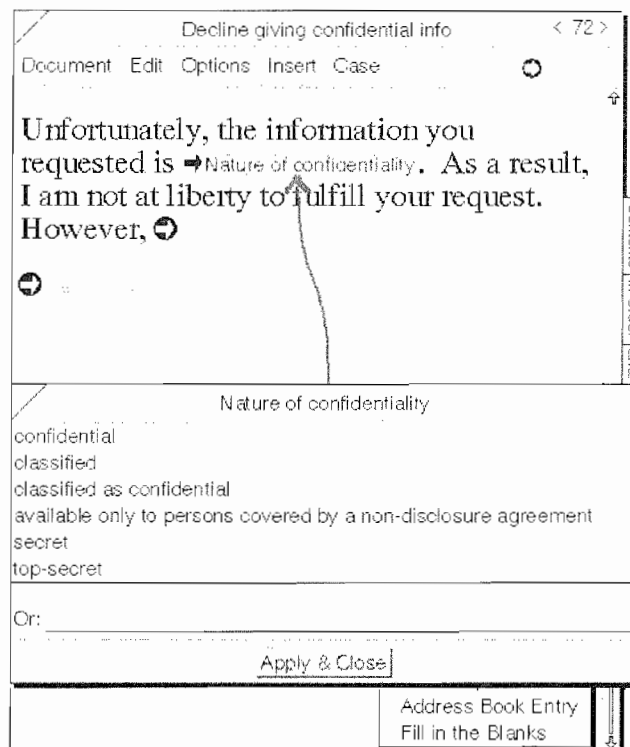
enter information that is customized according to the situation you are responding to. Letter Express is truly a document processor.

When you use Letter Express you have a word processor that has many of the same functions as MiniText, like the embedded editing pad, text alignments, and word wrapping to meet the viewing page. So if you are familiar with MiniText you're already familiar with Letter Express. Despite these similarities, MiniText and Letter Express are really two very different programs.

Letter Express is a document processor, not a word processor. The concept behind Letter Express is for you to design a series of letters which are representative of your basic communications. All of the variable parts of a letter, memo, or report are replaced by blank fields where the appropriate phrase(s) are selectable options scripted into the document. So when you're working on a document, you tap an arrow (see Fig. 11.8) which causes a choice of prewritten phrases to pop up in a dialog sheet, and you select the appropriate phrase or word.

The types of fill-in fields you can attach to a blank within a document range from a pop-up editing pad, where you have to write in

Figure 11.8
A blank field
with variables
in a dialog
sheet



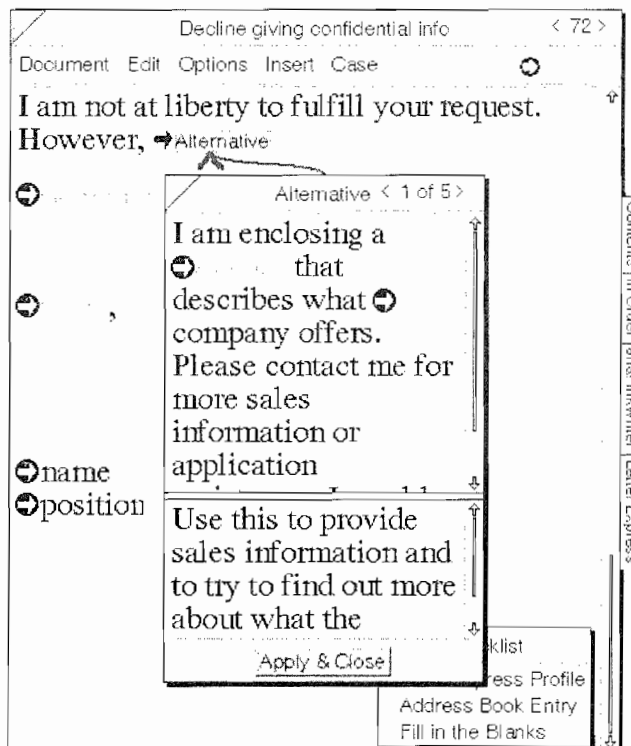
the correct response, to a list of possible options like those shown in Figure 11.8, or you can create a more complex script where there are blank fields within another field's possible responses. In Figure 11.9 there are five possible responses for the chosen blank. Within the visible response there two more blank fields.

So if some thought and planning are put into the types of correspondence you'll be needing while on the road, or from the office for that matter, you'll be able to create a series of documents to meet almost every need. This will give you more time to pay attention to the details of your job, the ability to respond to more people, and in general make your working life a little more efficient.

The other aspect of Letter Express that I find appealing is that it will let someone respond to a situation with a letter or note, when in the past they might not have because it would take too much time to write the note or letter. But if the letter already exists and all you need is two minutes to fill in the blanks and fax or print it, you'll leave an impression that gets the account, job, or raise you're after. How many times do you not write the thank-you letter to someone because you're off to stop the next brush fire?

Figure 11.9

A blank field with variables in a dialog sheet



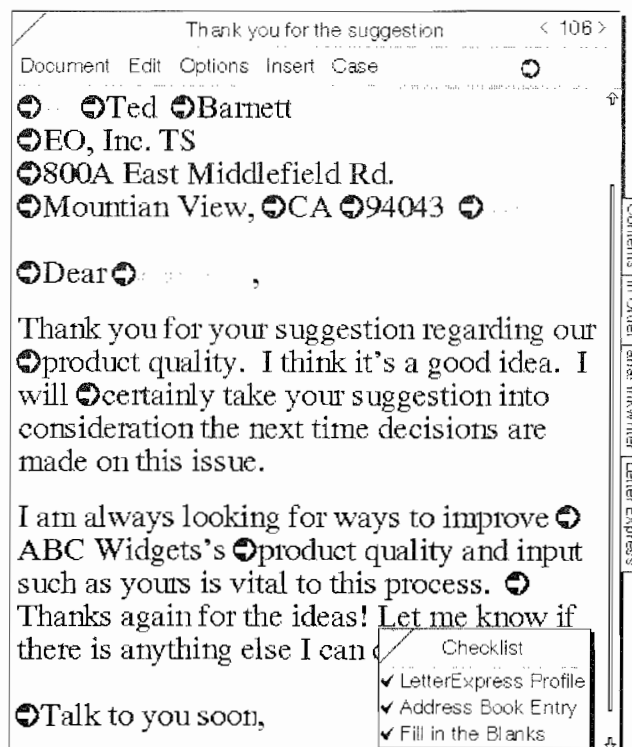
Not only does Letter Express give you an opportunity to respond to situations you might have neglected in the past, it also provides you with a tool so you can define business procedures and responses for your subordinates. If you have a team working for you and you want them to have access to a specific set of documents for reporting, corresponding, and/or client responses, you can make sure that everyone is using the same core of documents for almost all of their correspondence. By providing everyone with Letter Express, you'll know what is being said to a client every time someone writes to them.

Letter Express also integrates with the EO's system-wide Address Book so names and addresses can automatically be inserted into documents. If you set up Personal Perspective with people's names and associated them with companies, but did not put the company's address in the person's profile, Letter Express will insert the person's name and then go the linked company and insert the relevant company information. This saves you from having to duplicate addresses for all of your Address Book entries.

Figure 11.10 shows a completed letter. Filling out this letter took less than two minutes.

Figure 11.10

A completed
letter



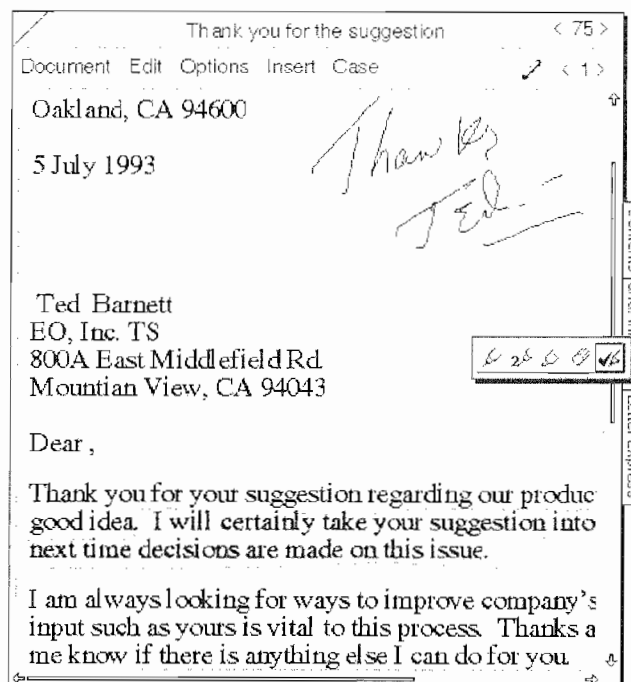
Another feature you'll find in Letter Express that is missing in MiniText is the ability to mark up a letter and to use ink directly on your documents. You can add signatures, notes, highlight text for emphasis, and otherwise mark up any document you write. Figure 11.11 shows a Letter Express document that has been marked up.

Finally, if you wish, you can also link Letter Express documents with its sister package, Numero, a financial work processor (described next). If you have documents that require calculations, you can link Numero fields and grids with Letter Express documents. You could use calculations from Numero in your Letter Express documents, automatically transferring the results of a quote or an expense report's totals by filling out the number and completing the Letter Express document.

Since more and more of our work today requires correspondence and communications with others, any tool we can employ that will make our jobs easier quickly becomes a necessity. Letter Express is one of those tools. If used properly, it will help keep you in touch and on top of all of those situations and opportunities which in the past you might have let pass because you just didn't have the time to deal with another letter, bid, or report. Who knows, you could become so productive that you might get a big raise.

Figure 11.11

A marked up
letter



Numero, by PenMagic!

Numero is another product published by PenMagic! While PenMagic! calls Numero a financial work processor, you should not be fooled by this simple description. It hardly does Numero justice.

Numero is a complex product that is composed of the main Numero application and augmented by a powerful and convenient scripting tool, and half a dozen supplementary programs. At its simplest, Numero is reminiscent of a spreadsheet program on a desktop computer. What makes it different is its optimization for the PenPoint environment and life on the go. At its most complex, Numero offers developers the opportunity to create custom applications that will integrate with other PenPoint applications to create wonderful number-crunching solutions.

Numero's uses are so numerous (no pun intended) that I could spend the rest of the chapter listing them. Since there's no sense in boring you with a list, let's look at each of Numero's components instead.

The only question is where to start. One of the components of Numero is its scripting accessory called MagicScript. MagicScript is a visual scripting system that will let you create an application that walks you (or someone who works for you) through a series of steps while making sure all of the necessary information gets entered and is correct.

Stationery and Formulas

Numero has almost all of the elements you'll find in a spreadsheet made for desktop computers, with enhancements for working on a pen-based system. Numero comes with 80 ready-to-use documents that include accountant's type columnar paper, financial calculations and statements, sales processing worksheets, and more.

With over 70 financial, statistical, and mathematical functions, there isn't much that you can't do with Numero. And if this is not enough, you can prepare all of your Numero Documents for immediate presentation or printing. You can import TIFF images of your company logo for creating documents that you can use for

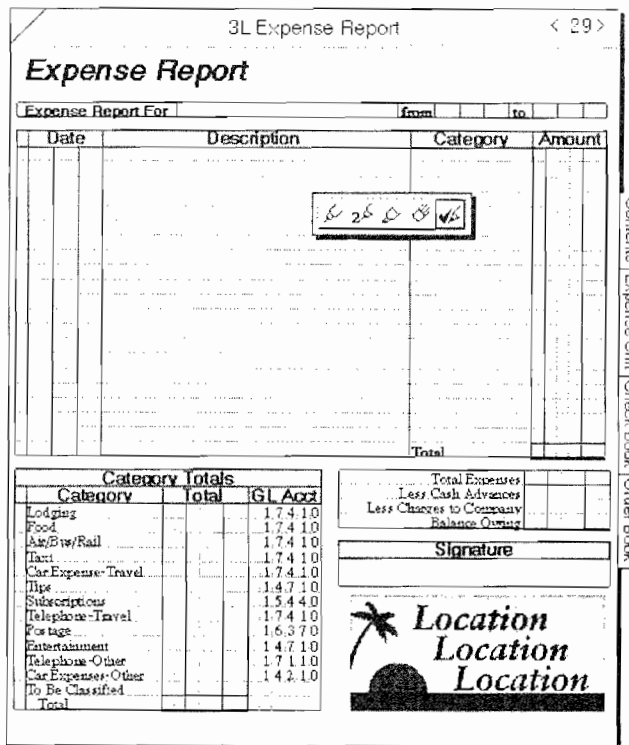
invoices, purchase orders, sales reports, or anything else you can think of. Figure 11.12 shows an expense report with a TIFF image as part of the document.

When you're working on a Numero document, you are not constrained to using only text. You always have the option of using ink input as well. The only place where ink will not work is in cells that are used as part of a calculation. Then you'll have to translate your writing. Otherwise, you're free to work however you choose.

Numero also has a small graphics program called Numero Sketch, so you can draw or keep free-hand notes. Also, you can embed Numero Sketch documents into other PenPoint programs, or better yet, into your Numero documents. You can also import TIFF graphic files directly into Numero or Numero Sketch documents.

Basically, Numero is one package every EO user will probably need. And if you're worried about sharing data with your desktop computer, you can rest easy. All Numero documents can be exported as Lotus 1-2-3, Microsoft Excel (Mac or Windows), and as comma- or tab-delimited ASCII files. And it can import all of these

Figure 11.12
An expense report



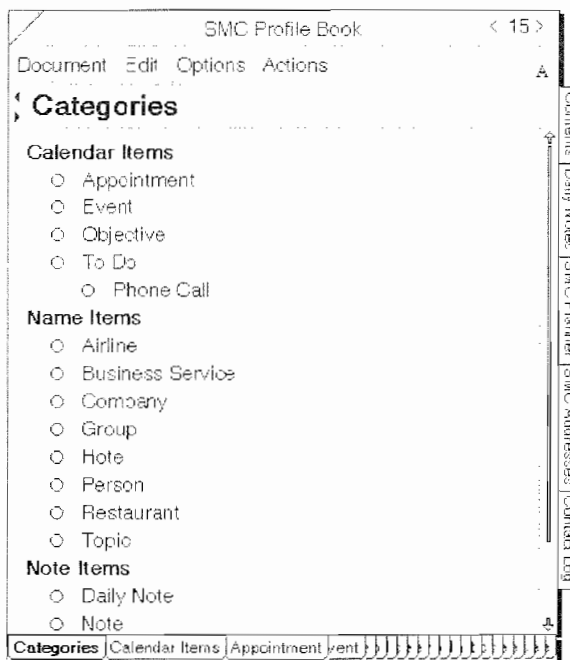
along with Microsoft Works spreadsheets as well. So you'll never have problems sharing your data.

Perspective, by Pensoft

In Chapter 5 a lot of time was spent talking about Personal Perspective, and mention was made of the full version of Perspective. Full Perspective is available to all EO users for \$99 as an upgrade. If you've been using Personal Perspective, you know it is not perfect. You've thought of other uses for it, additional lists you'd like to create, and I'll bet you would really like a calendar where you can see your appointments and events for an entire month. Well, that's why there is a full version of Perspective.

Full Perspective is the version that you can customize. You have full access to the Profile Book so you can create new categories and profiles to meet your unique needs. If you want to create a category for your vendors and add them as a Name item with a special profile, you have that capability. If you want to change how your Appointment profile looks, you can customize it or any other profile. Figure 11.13 shows Perspective's Profile Book.

Figure 11.13
Perspective's
Profile Book



Perspective gives you direct access to all of the power contained in Personal Perspective. It also comes with a notebook full of alternative Address Books, Day Planners, Calendars, and more. In all you get almost three dozen Perspective documents that you can use or customize.

Just being able to customize profiles and add or delete categories that are no longer needed makes Perspective worth the price. Every feature described in Chapter 5 is part of Perspective. Some of the additional features I really like are the Monthly Schedule (see Fig. 11.14) as well as the Daily Notes (see Fig. 11.15).

Conclusion

Although the marketplace for additional EO applications is still small, those that are available are innovative and provide a glimpse of what is to come. If history is going to repeat itself, which it has a nasty habit of doing, then the software programs listed here are just the beginning. I would expect the future (plus some programmers with vision) to produce very great software.

With aha!'s NoteWriter you can take notes anytime and anywhere. Letter Express will let you communicate more efficiently and with

Figure 11.14

The Monthly
Schedule

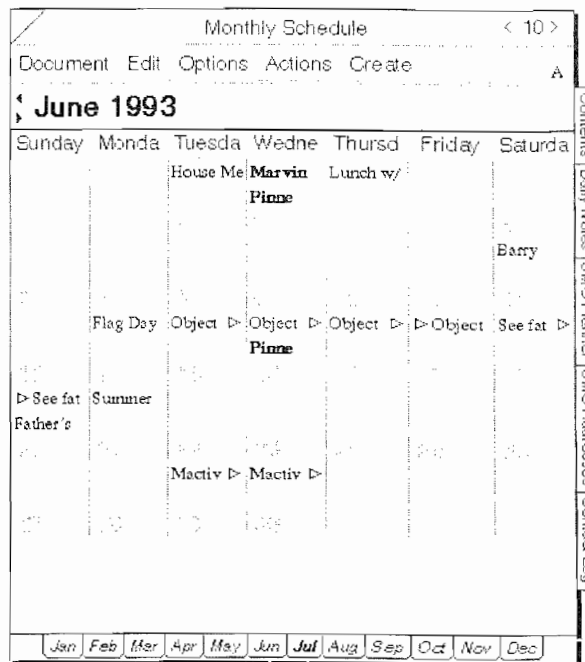
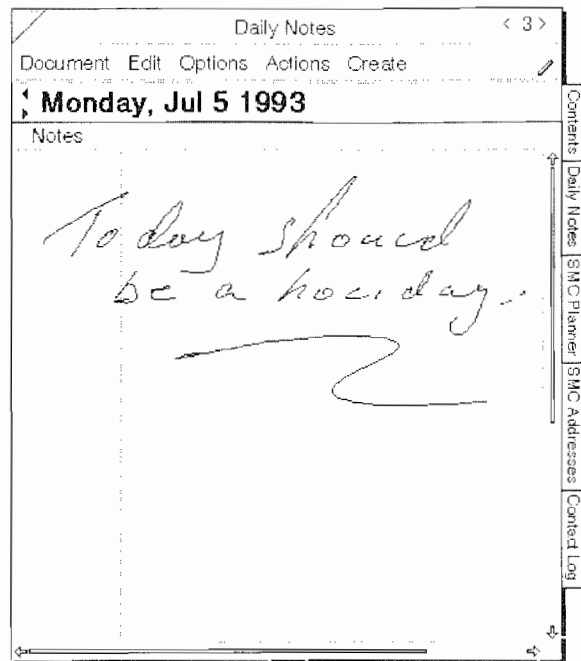


Figure 11.15
Daily Notes



more people while on the road. You'll never have to spend half the night sitting in your hotel room typing out letters on that old slow notebook ever again. And because of Numero, as soon as you get back to the office your expense report will be done, you'll be able to print and turn in that damned sales report, and when you go home, your work will truly be done. Even though you bring the EO home, it won't be to do work.

Instead, you'll be using it to catalogue all of your video tapes and printing labels for them using In Order. And while relaxing, maybe you'll want to do a bit of drawing and sketch out an new floor plan for the living room using InkWare's NoteTaker. And of course you're going to create a Family category in Perspective so you can keep track of everyone's birthdays and anniversaries in addition to entering their addresses and phone numbers. No more belated birthday cards from you.

Did you just throw away your Rolodex and your Day Runner?

Programming, Utilities, and Games

Introduction

Now we'll look at applications that are utilities, programming applications, and games. Also, we'll look at the two terminal emulators available for the EO.

The programs we're going to look at are:

PenCross A crossword puzzle program.

PenApps Application Builder A programming environment for the EO where you can use a BASIC-like language to create your own applications.

PenASCII A terminal emulator.

Mobile Access A terminal emulator.

Sharpened Tools for PenPoint A set of useful utilities for the EO.

Numero SDK A software programming tool for Numero.

PenPoint Hobbit SDK The PenPoint programming environment.

These programs are special purpose applications and may not be of interest to everyone. But you'll want to quickly read the chapter even if it is just to see what is available. This chapter will provide further illustrations of what can be done with an EO, as well as an idea of what the future will hold.

PenCross, by Notable Technologies

When you register your EO with EO Inc., you'll receive a free copy of PenCross. PenCross is a crossword puzzle program written by Notable Technologies. Besides being free and a great set of crossword puzzles, it is also a great way to learn how to write on the EO.

PenCross comes with twenty crossword puzzles of varying levels, ranging from easy to very difficult. However, since the difficulty of a crossword puzzle is relative, I'm not sure this is a good way to describe them. If you do the crossword puzzle from the New York Times every day you may find all of these easy. I'm definitely not the person who should judge; I'm apt to cheat on the easiest of crossword puzzles. But this digresses from the matter at hand, which is PenCross.

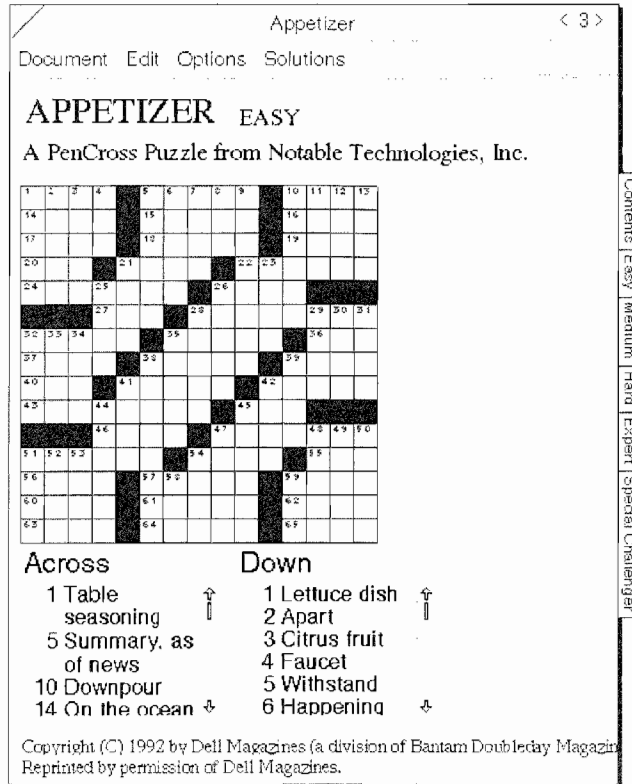
Figure 12.1 shows the first crossword puzzle in the PenCross collection.

Besides being a good application for learning how to write on the EO, PenCross is also good for learning how to adjust options, select fonts, and use EO applications in general. PenCross employs most of the standard gestures and selections used with EO applications.

PenCross also has its own integrated dictionary (that's what I use to cheat with), which provides automatic links between the puzzle's squares and their corresponding clues. Also, the dictionary is used to solve the puzzles. If you get tired and don't want to finish the puzzle, the EO will do it for you.

All in all, PenCross is a good way to get used to using an EO and to have some fun while doing it. It will also give you something to do besides work while you are flying cross-country. Besides, who

Figure 12.1
The PenCross
Appetizer
Puzzle



will be able to tell, since you can hold the EO in you lap and look like you're working, if anyone notices the EO at all.

PenApps Application Builder, by Slate

PenApps is a development or programming application for the PenPoint operating system. It is written by Slate Development and intended as an alternative to using GO's PenPoint SDK (Software Developers Kit). It is an object-oriented programming platform with a database back-end and uses a BASIC-like programming language. If you're familiar with Microsoft's Visual Basic or Visual Basic for Windows, you should be comfortable with PenApps.

Now if that last paragraph sounded like total gibberish I apologize. In a little plainer English, PenApps is a program that will let you make programs for the EO. It takes advantage of the PenPoint operating system by letting you create buttons, menus, and pages, which are all elements of any program. The elements are all generically called objects. And you use a programming language that tells the objects how to behave.

The programming language is based on a language called BASIC, which is probably one of the easiest programming languages to learn. Yet it has enough power to make the EO do anything you want it to, provided you have the patience and inclination. What makes this different from the programming platform provided for PenPoint by GO is that GO's SDK requires an intimate knowledge of a language called C.

As a matter of fact, even programmers who have experience sometimes find using PenApps a friendlier place to practice their craft than with the PenPoint's SDK. "An Encouraging Word" on the facing page is a letter Slate received from a programmer who switched to PenApps after working with the PenPoint SDK.

I'm not going to tell you that programming is easy. But if you have an immediate need that the EO could fulfill if the software existed, then you might want to write it using PenApps. This is especially true for companies that have a special need that is not likely to be addressed by commercial software companies. Quite often companies will write their own software for that competitive advantage that can't be gained any other way.

What is important about PenApps is it can give you control of the EO. With PenApps and some time, you can make the EO do what you want it to do. So if you are feeling constrained by the limited availability of software, you can still take advantage of the EO by writing your own. Who knows, you might write a program that has some market value.

The Slate Corporation says that PenApps is intended for "corporate developers, vertical application resellers, system integrators, and others who need to deliver database applications for pen computers." Many of you will fall into the other category, and the price of PenApps is a bit high. But it is less expensive and easier to use than GO's software development kit (SDK), and you'll be able to write programs faster.

The down side to a PenApps program is its speed. A PenApps program will not run as fast as a program developed using GO's SDK. But if you're looking for a prototype tool, PenApps will more than meet your needs.

An Encouraging Word

This is an E-mail message received by Slate, Inc.

Section: S3/Slate Corp.
Topic: 988943 - Slate corp
Date: 06/03/93 05:12 am
Msg ID: 11086

To Jerome Carter:

I've been developing in Slate's PenApps Application Builder for PenPoint since Oct '92. I can program in C, but I'm not a C programmer; especially not a GUI programmer. I tried programming directly in PenPoint's API with C, and after a year of "making progress" I decided I'd be "making progress" for another 5-10 years before I got a product out.

PenApps has empowered me. I'm really cookin' now. The GUI I've designed for my product was easy to put together with PenApps graphical object tools.

The programming is in an extended Basic; with a full table-oriented data base. And the PenApps structure encourages, but does not strictly enforce, object-oriented programming—so you can decide. PenApps also allows me the flexibility of making calls to the PenPoint API if I chose (and I have); both calling functions and sending messages. In fact, although I haven't used it yet, there is something called an LOB (Library Object?) interface that allows you to build components in PenPoint and use them from PenApps as though they were built into PenApps. The third-party data base "xBase" is an example of an LOB (xBase is available in addition to the built-in data base).

PenApps is available for Windows For Pen, as well as PenPoint, on Intel instruction set pen computers. And the PenPoint version is being expanded right now to include support for the new EO Personal Communicator pen computer (AT&T Hobbit RISC microprocessor-based). So you have the flexibility of easily porting your application to three platforms by recompiling (assuming you follow some simple rules published by Slate).

As the guy says in the car commercial, "... just go buy it!"

—Steve

There is another advantage you have when writing programs for the EO using PenApps. Any PenApps program can be used on a PenPoint system running on one of EO's cousins (MS-DOS machines). (Although the same would be true of GO's SDK.) However, PenApps programs can also be used on MS-DOS Machines using Microsoft Pen for Windows. If you are writing commercial software, this could be an advantage for you.

Terminal Emulators

As mentioned in Chapter 7, a terminal emulator is one of the ways one computer is connected to another. This section will look at two terminal emulators for the EO. With either of these tools you'll be able to connect the EO to almost any other type of computer. The only requirements will be an appropriate cable called a null modem cable, or a modem and a terminal emulator on the other computer.

Besides connecting to another computer and transferring files, with a terminal emulator and modem you can also access company E-mail systems, online services, or public and private BBSs (bulletin board services). If you do a lot of telecommunications work with your desktop computer, you will definitely want one of the software packages described here.

The two packages that are currently available are PenASCII by COMSOFT and Mobile Access written by Noteable. Each of the packages accomplishes the same end; however, their setups and how you interact with the software packages are different. In this section we'll look at both packages so you should have an idea about how they differ and know which you would prefer to use.

Note

In this section terminology will be used that is specific to telecommunications and communications software. Because this is not a tutorial, these terms will not be explained. If you do not know what is being talked about, you may have to pick up a book about telecommunications. If you work in a large corporate environment, check with your Information Services Department before buying an terminal emulation package. The system you want to access may have special requirements.

PenHost and PenASCII

PenASCII and PenHost are both terminal emulation programs made specifically for connecting to mainframe and mini computers. Most of this section will look at PenASCII. Basically, PenHost is the same as PenASCII, except that PenHost is used to connect to IBM mainframes, while PenASCII is a more generic emulator for connecting to computer systems other than IBM. PenASCII can be used with any system that uses an ASCII terminal emulator.

PenHost

PenHost is a special emulator for connecting to IBM System/370' and System/390' mainframe hosts using IBM 3270-based terminal emulation. The host environments supported by PenHost are VM/CMS, MVS/TSO, CICS, and VSE/IWS. The IBM protocol converters supported by PenHost are:

- IBM 3174 Establishment Controller with the Asynchronous Emulation Adapter (AEA)
- IBM 3708 Network Conversion Unit
- IBM 7171 ASCII Device Attachment Control Unit
- IBM 9370 ASCII Subsystem

PenHost also provides support for EHLLAPI with extensions for:

- Telephone Dialing and Hang-up
- Automated Host Log-on
- Query Emulator Host Connection
- Key Intercept

To maintain full compatibility with IBM host systems, PenHost also supports the IND\$FILE transfer protocol. Both 32-bit CRC verbs and verbs required by older versions of the IBM 3708 that use checksums are supported. During a file transfer, the interface displays the transfer's progress. Also, the Send and Receive File commands through EHLLAPI can be used from an EO running PenHost.

PenASCII

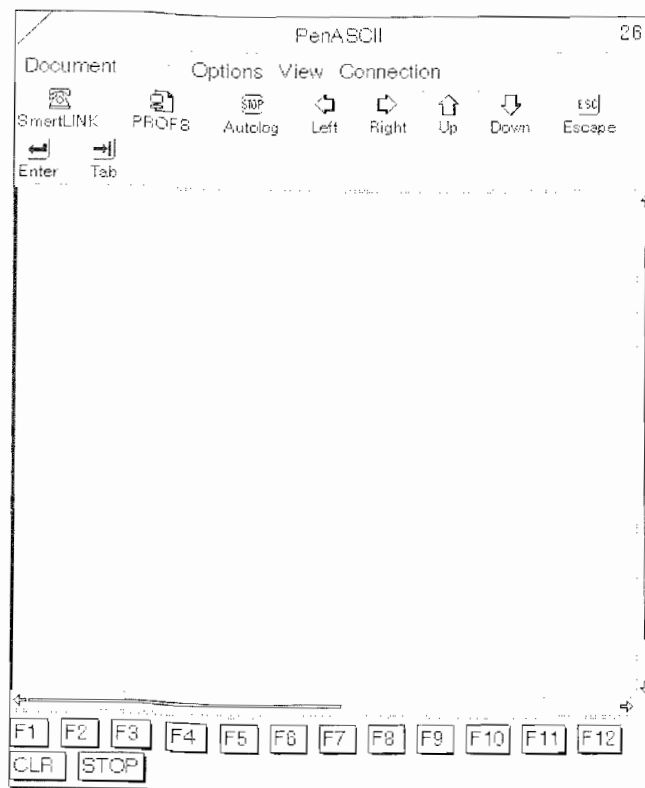
First, let's get the nasty details out of the way. PenASCII is a terminal emulator that supports ASCII emulation systems. PenASCII includes IBM 3101, DEC VT100, and DEC VT220 terminal emulators. If you are using PenASCII as a general purpose terminal emulator, you will use it with VT100 terminal emulation.

The file transfer protocols supported by PenASCII are:

- XMODEM
- YMODEM
- ZMODEM
- Kermit

PenASCII also has a simple scripting capability for automating the dialing and log-on process. Figure 12.2 shows a PenASCII page on an EO.

Figure 12.2
A PenASCII
page



The other features found in PenASCII are its Icon Library at the top of the page and the Fkeys at the bottom. The Icon Library will be expanded to include the following functions:

- *AutoLog: Login scripts
- *Smart Link
- *Send note on PROFS (IBM Officevision)
- Get mail on PROFS
- Reply to mail on PROFS
- Clear functions from VM host
- CompuServe Access
- A series of icons that represent keyboard commands. There are 7 that are currently supported, and with the next release of Pen ASCII there will be about 50 available icons.

At the time this was written only the functions with an * were supported by PenASCII, but by the time this book is on the shelf the full list of functions should be available. PenASCII is a real product, available now.

The SmartLINK button is an automatic log-on button for CompuServe, and the PROFS button will allow you to send short E-mail messages on VM systems. The Autolog button executes an automated dial up and log-on script. You can create several scripts and store them so they are available as you need them.

In its current incarnation, you will need a second disk drive to transfer files using PenASCII. This is supposed to be changed in the next version of PenASCII; however, for now, if you do not have a SunDisk, a second hard drive (EO 880s only), or a floppy disk, you won't be able to use PenASCII and transfer files. Since this is an important function when connecting to other computers, you should make sure this problem has been fixed if you do not have another disk drive.

PenASCII is very straightforward and an easy-to-use terminal emulator. If you need special functions or want special purpose icons not provided with the basic package you can contact COM-

SOFT and they will happily customize PenASCII for you, although there will be a charge for this service.

Mobile Access

As mentioned above, Mobile Access is a terminal emulator that does the same thing as PenASCII, only the way it does it is quite different. The differences will become apparent in a few paragraphs. But first, let's look at Mobile Access' basic features.

Mobile Access supports VT102, VT3270, and TTY terminal emulations. The VT3270 is for 3270 Asynchronous terminal emulation and requires a protocol converter at the host end. This is what you would use to connect to an IBM system. For most other connections, all you need will be the VT102. The VT102 is very similar to a VT100, and usually compatible with host systems that require VT100 emulation. Otherwise, the TTY emulator will work in almost all situations. TTY is a standard ASCII terminal emulator and will work on all online services that do not require special software, dial-in E-mail systems, and most BBS connections.

For file transfer protocols Mobile Access supports:

- XMODEM
- YMODEM
- ZMODEM
- Kermit
- Text

Be sure you check with your Information Services department before you connect to your company's host system. If you know what type of emulator and file transfer protocol to use before you go on the road, you'll save yourself a lot of grief.


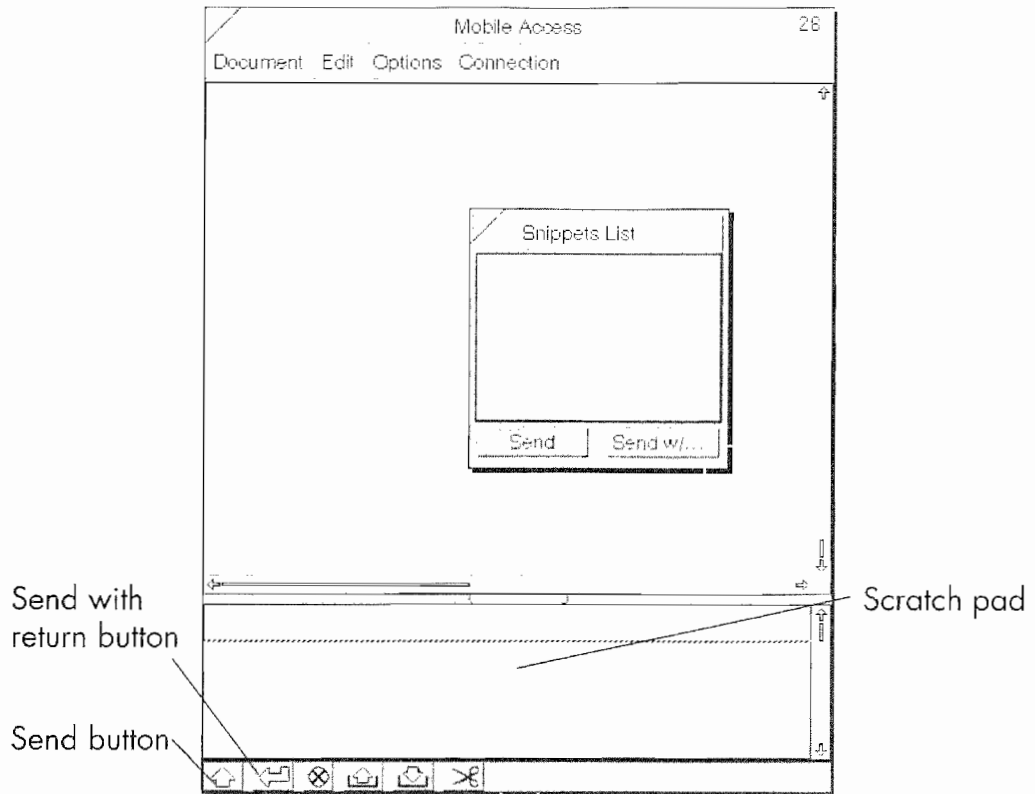
The Mobile Access page shown in Figure 12.3 has two sections. The top section is the area where your terminal connection is displayed, while the bottom part is called a scratch pad. When you are connected to another computer, you can issue commands by writing in the scratch pad and then tapping  the Send or Send With Return button. If there is a series of commands that you regu-

Figure 12.3

A Mobile
Access page



larly use, you can also place them in the snippets list. By selecting the command in the snippets list and tapping \checkmark on the Send or Send w/..., button, the effect will be the same as writing the command in the scratch pad.

To send files using Mobile Access, all you have to do is copy or move the file to Mobile Access' Outbox. When you place a document into the Outbox, you will be asked if you want to export the file so you can convert the file into a format that can be used by another computer. When you receive a file, it will be placed in Mobile Access' Inbox. When you move a file from the Inbox, you will be able to import the file just as if it was being copied from a disk's directory. (For more information on importing and exporting, see Chapter 10.)

Also, Mobile Access has implemented a couple of other features that make it nice. One is, that if you have a list of options to choose from displayed in the terminal screen, you can select the number of a line using PenPoint gestures. After you have selected the

appropriate option, you can copy and drag it to the cursor in the Terminal window and tap **!** on the Send button. This process makes interacting with online services, where you always have to enter options, very nice.

Mobile Access also comes with a Keyboard accessory that will provide you with the following on-screen keyboards:

- Standard
- 101 Key
- Alpha (3 line)
- Alpha (2 line)
- Numeric
- VT102 Main
- VT102 Keypad
- VT102 Full

By having a virtual keyboard you can enter special commands that require Fkeys using the 101 keyboard, and if you are connected to a system like a VAX, the VT102 Keypad will be necessary to send keypad commands. Because this addition is an accessory, you can copy the keyboard to the Cork Margin of a Mobile Access page. And as a bonus, you can also use the keypad with other applications. This is nice because it has more options than the Keyboard accessory that comes with the EO.

Also included with Mobile Access is a set of stationery documents that have help documents, pre-configured snippet lists, terminal settings, and communications settings for a variety of online and E-mail services. The help files are in the Cork Margin of the Mobile Access page as MiniText documents. With the stationery files all you might have to change is the phone number, but if an 800 number is available it has been used. The following is a list of the services for which Mobile Access has stationery:

- Official Airlines Guide (OAG)
- MCI Mail
- CompuServe

- Dow Jones News Retrieval
- AT&T Mail/EasyLink
- GEnie

Mobile Access is an easy-to-use efficient terminal emulator. Even though it does not have a scripting capability, you can use the Snippets List to achieve the same result. It is well thought-out and has features that take advantage of the PenPoint operating system.

Miscellaneous Thoughts about the EO and Terminal Emulators

I consider a terminal emulator to be an essential component of mobile computing. But before you run out and buy a terminal emulator, you should make sure you need one. The AT&T EasyLink account that comes with your EO will let you send and receive E-mail from anywhere in the world and has access to the major online systems. But if you want to directly access CompuServe, the Internet, other commercial services, or connect your EO to other computers, you will need a terminal emulator.

Sharpened Tools, by Sharpened

Sharpened Tools is a collection of utilities created by Sharpened Software. All of these utilities can be very useful for an EO user because they add features to your EO that will make life easier. The following is a list of the utilities:

- The Toolbox
- The Power Meter
- The CPU Meter
- The Pocket Watch
- The Calendar
- The Calculator
- The Find Accessory

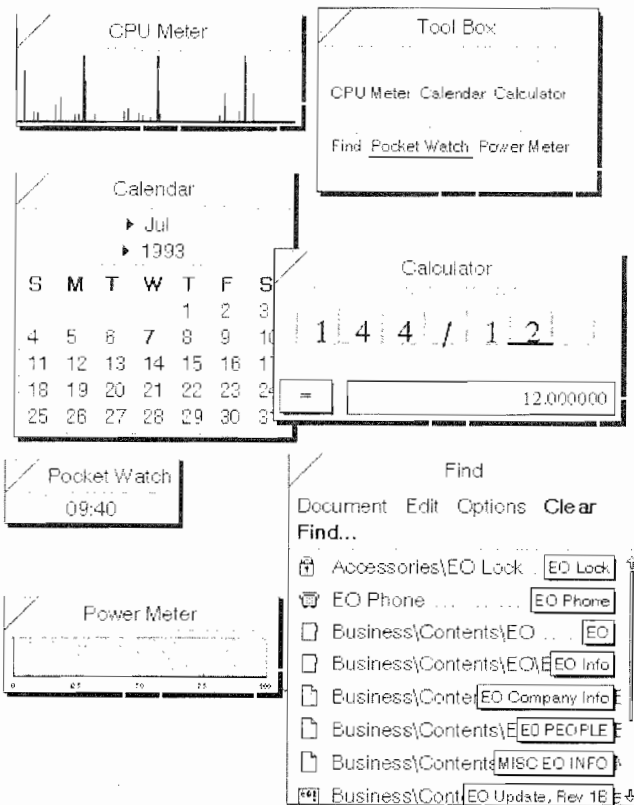
Figure 12.4 shows all of the accessories open at once on the EO's screen.

This useful set of tools offers you the ability to further customize you EO, and will make using it even easier.

The Toolbox is a container that acts like the Accessories Notebook. The difference between the Accessories Notebook and the Toolbox is that you can add documents or accessories to the Toolbox, while you cannot add anything to the Accessories Notebook. The Toolbox acts like any document on your EO so you can embed a toolbox into any document or place it on the Bookshelf. So, if you have a set of utilities that you always want access to while in a specific notebook or document, you can create a Toolbox document and place whatever you want inside.

Power Meter monitors how much power is left in your EO's battery. As you run out of power, the graph moves from the right to the left. In Figure 12.4, the EO has fully charged batteries. As it is used, the meter graph will move down and you will know before

Figure 12.4
Sharpened
Tools



you get the warning notice from the EO that you are almost out of power. Power Meter will also issue an alert, but you can tell it when to alert you. By setting Power Meter's options, you can have it tell you when your battery has only 25% of its charge left. It does not turn off the EO's built-in warning, but functions as an additional warning tool.

The CPU Meter is a display utility that shows how much processing power your EO is using. In other words, when the meter spikes, your EO is really working. If there is a wide bar rather than a spike, it is working really hard for an extended period of time. What makes CPU Meter useful is that you can figure that the more processing power you use, the more battery power you're using. Because the EO is a multi-tasking device you could have an application running and not know it, the consequence being that it is using battery power. By using CPU Meter you could be alerted, find the program, and shut it off.

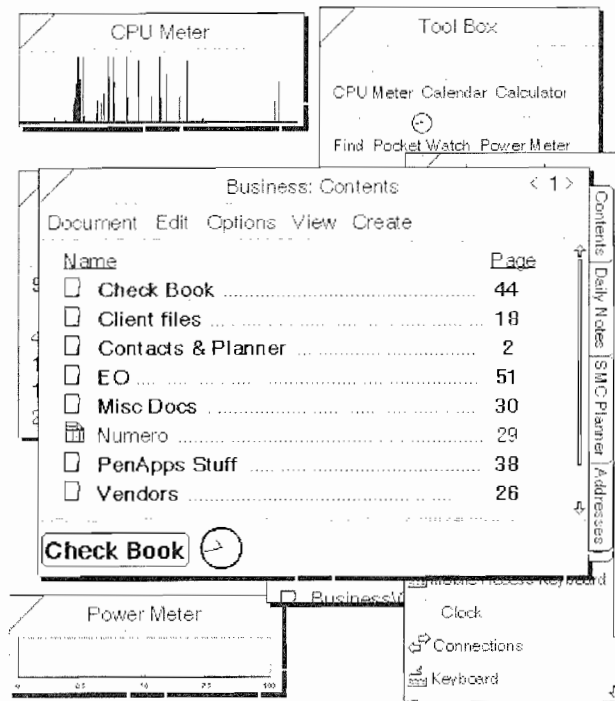
Pocket Watch is an alternative on-screen clock. It can be used as a replacement to the Clock accessory. The most unique feature of Pocket Watch is that its icon is an analog clock. So if you want a clock with hands instead of numbers, all you have to do is copy it to the Cork Margin and view it in the Large Icon mode. Figure 12.5 shows the Pocket Watch as an icon on a notebook's Cork Margin.

The Calendar is just that, a calendar. It is a reference utility so you can quickly look up a day to see what day of the week it is on. You cannot store any data in Calendar, but it is easier and quicker to access than your Perspective Day Planner if all you need to know is the date or what day of the week a specific date falls on.

The Calculator is a quick and easy-to-use tool for performing addition, subtraction, multiplication, and division. If you need to quickly figure the sales tax for a purchase, using the Calculator will probably be quicker than using an EO Calc document.

The Find accessory is a search utility that will find a document anywhere on your EO by name, a partial name, document type, or by date created. Find will search all of your documents for embedded documents as well. Not only does it find the documents, it also displays them in a list that tells you where they are, and in

Figure 12.5
Pocket Watch
in a Cork
Margin



which notebook and section they can be found. Also, a button is provided for each of the found documents that will open the document desired. In Figure 12.4, the Find document shows all of the documents that contain "EO" in the title on the EO I'm using.

The Find accessory is a wonderful utility and is worth the price of the set of utilities by itself. When all of these utilities are considered as a set they make a great addition to an EO.

Numero SDK, by PenMagic!

PenMagic! publishes a software developer's kit for programmers who want to write PenPoint applications that communicate with Numero documents. The Numero SDK allows specialized applications to transfer data to and from Numero's underlying database for seamless integration with other data sources, such as data being retrieved from an online source using the modem or a direct connection to another computer. The Numero SDK can also be used to create integrated add-in functions to Numero, such as specialized calculations. The Numero SDK provides you with all of the documentation you'll need; however, you will have to purchase a copy of Numero as well.

PenPoint Hobbit SDK, by GO, Inc.

The PenPoint Hobbit SDK is GO's software developer's kit for the EO. If you are a professional programmer and want to use a development platform more powerful than PenApps by Slate, you'll have to use the PenPoint SDK. All PenPoint applications are written in ANSI C and you will perform most of your development work on a MS-DOS computer. The Hobbit SDK includes the libraries and compiler you need to create code that will run under the PenPoint operating system on a machine that uses the AT&T Hobbit processor.

The SDK provides you with the documentation and tools you'll need. This includes a symbolic debugger, an outline font editor, and the PenPoint operating system for an MS-DOS computer. The SDK is a complete development system which includes everything you need to develop software for the EO.

Conclusion

Well, there may not be as many miscellaneous programs and utilities as there are for other computers, but few, if any, *new* computing devices have had as many available packages as soon as the product was released. That there are so many packages available is a credit to EO and GO for doing a good job of getting people to write software for the EO Personal Communicator.

You can rest assured that there will be more packages on the way, promising even more diversity and choice to help you with the task of communicating and staying in touch. Have fun, be productive, and happy communicating.

A

Gestures Summary

Tables A.1 through A.4 offer a quick reference guide for PenPoint's gestures. These gestures will not work in all documents, so you will have to experiment to see if some of the special purpose gestures work in the application you are using.

Table A.1 Basic gestures

Name	Gesture	Description
Caret	^	When drawn on a Bookshelf or in a table of contents, the caret creates a document, section, or notebook, depending on where the gesture is drawn. When drawn on a page, it opens a pop-up editing pad to insert text.
Check Mark	✓	This gesture opens an options sheet for the object it is drawn on.
Circle	○	Circle is used to open selected text and display in a pop-up editing pad. It can also be used to translate writing and place it in a pop-up editing pad.
Cross Out	X	This gesture is used to delete the item it is drawn on or a selected item.
Double Flick Down	//	When drawn on a page, this gesture scrolls the page to display the area at the top of the page.

(continued)

Table A.1 Basic gestures (continued)

Name	Gesture	Description
Double Flick Left	=	When drawn on a page, this gesture scrolls the page to display the area at the far left of the page.
Double Flick Right	=	When drawn on a page, this gesture scrolls the page to display the area at the far right of the page.
Double Flick Up		When drawn on a page, this gesture scrolls the page to display the area at the bottom of the page.
Flick Down		When drawn on a page, this gesture scrolls the page to display the area above what is currently being displayed. When drawn on a pop-up editing pad, this gesture removes the character it is drawn on. When drawn on an options sheet's Title line, it displays the previous option or menu selection.
Flick Left	—	When drawn on a page this gesture scrolls the page to display the area to the left of what is currently being displayed. When drawn on an options sheet's Title line, it displays the previous option or menu selection.
Flick Right	—	When drawn on a page, this gesture scrolls the page to display the area to the right of what is currently being displayed. When drawn on an options sheet's Title line, it displays the next option or menu selection.
Flick Up		Flick up is used to scroll the page to display the area below what is currently being displayed. When used in a pop-up editing pad, it removes the character on which it is drawn. When used in an options sheet, it displays the next option or menu selection.
Insert Space	L	Insert space is used to insert a space in text or in a pop-up editing pad.
Line Through	—	This gesture deletes two or more translated characters in a pop-up editing pad.
Pigtail	9	This gesture is drawn over a single character to delete the character. It will work on text, on a page, or in a pop-up editing pad.

Table A.1 Basic gestures (continued)		
Name	Gesture	Description
Press	↓	This gesture is used to select an object for moving. It will also set the insertion in a line of text.
Question Mark	?	This gesture calls up Quick Help.
Scratch Out	≡	Draw this gesture over letters in a document, or one or over more letters in an editing pad, or over a word in a ruled editing pad to delete the item scratched out.
Tap	! (with dot)	This gesture is used to open notebooks and documents. It also selects menus and menu commands. In option and dialog sheets it is used to select options and to activate button commands.
Tap Press	↓ (with dot)	This gesture prepares an object or selected writing for copying.
Undo	⌘	This gesture reverses the last action performed if the application supports the Undo command.

Table A.2 Text gestures		
Name	Gesture	Description
Arrow Down	↓	This gesture is used to decrease the font size of the the word or selected text by one font size.
Arrow Up	↑	Arrow Up is used to increase the font size of the the word or selected text by one font size.
Bracket Left	[Use this gesture to add to a text selection. Use this bracket to the left or above the selected text.
Bracket Right]	Use this gesture to add to a text selection. Use this bracket to the right or below the selected text.
Circle Tap	⊙	This gesture is drawn over writing to translate and insert text into a document.
Circle Line	⊖	This gesture will open an empty pop-up editing pad to replace the word or selected text on which it is drawn.
Double Tap	! (with dot)	This gesture selects a single word.
Initial Caps	┘	Initial Caps converts the text or selected text so the first letter of each word is capitalized.

(continued)

Table A.2 Text gestures (continued)










Name	Gesture	Description
Insert Character		This gesture opens a single character box to add a character at the insertion point.
Insert Space		When used on text, this gesture adds one space. In a pop-up editing pad, use this gesture to add one or more spaces. The number of spaces added depends on the length of the stroke to the right.
Insert Tab		When drawn on text, this gesture inserts a tab character.
Lower Case		This gesture converts the text or selected text to lower-case.
New Line		When drawn on text, this gesture creates a new line without creating a new paragraph.
New Paragraph		When drawn on text, this gesture creates a new paragraph.
Quadruple Tap		This gesture selects an entire paragraph.
Triple Tap		This gesture selects an entire sentence.
Upper Case		Upper Case converts the text or selected text to upper-case.

Table A.3 Special-purpose gestures






Name	Gesture	Description
Caret Tap		Caret tap opens an embedded writing pad when used in a document that uses text.
Double Caret		This gesture is used to create an embedded document. It will present the Create menu.
Double Circle		This gesture is used to create a Reference button. It is used to select the object to which the Reference button will apply. The gesture is drawn in a Cork Margin, or Document, or on the Bookshelf.
Flick Up-Flick Down		This gesture is used to display or show a document's controls. It is particularly useful in an embedded document.
Left Down		Left Down is used in some documents to create open space. The gesture is started at the point where you want to start adding space and drawn down to where you want the insertion to end.

Table A.3 Special-purpose gestures (continued)

Name	Gesture	Description
Left Up	⌞	Left Up is used in some documents to remove open space. The gesture is started at the point where you want to remove space and drawn up to where you want the removal to end.
Plus	+	This gesture selects the item it is drawn on. It is used to make discontinuous selections.
Right Down	⌞	This gesture is used in some documents to create open space. The gesture is started at the point where you want to start adding space and drawn down to where you want the insertion to end.
Right Up	⌞	Right up is used in some documents to remove open space. The gesture is started at the point where you want to remove space and drawn up to the point where you want the removal to end.

Table A.4 Letter gestures

Name	Gesture	Description
B (Bold)	B	This gesture toggles selected text between normal and bold type styles.
C (Cork Margin)	C	This gesture is drawn on a document or its Title line to show its Cork Margin.
F (Find)	F	The gesture F is drawn on a document or on the document's Title line to open the Find options sheet.
I (Italic)	I	This gesture toggles selected text between normal and italic type styles.
M (Menu Line)	M	When drawn on a document's Title line, this gesture hides or shows the Menu line.
N (Normal)	N	This gesture returns any type with style changes back to normal styles.
P (Proof)	P	Proof opens an options sheet with alternative spellings for a word.
S (Spell)	S	Spell checks either a word's, a selected text's, or an entire document's spelling. To check the spelling for an entire document, draw the gesture on the document's Title line.

(continued)

Table A.4 Letter gestures (continued)

Name	Gesture	Description
T (Tab)	T	This gesture is used in a notebook and drawn on a document's Title line to create or remove a notebook tab.
U (Underline)	U	This gesture toggles selected text to underline, heavy underline, and normal type styles.
(Group)	U	This gesture is used to group text with drawings by beginning the gesture on the first part of the items to be grouped and ending the gesture on the second item.

Resource Guide

This resource guide contains the company names, addresses, and phone numbers for companies and products mentioned in this book.

Software

Insignia Solutions

526 Clyde Ave.
Mountain View, CA 94043
(800) 848-5434
(415) 964-5434

Product AccessPC.

Description Utility for accessing MS-DOS floppy and removable media hard disks from a Macintosh Computer.

Apple Computer

20525 Mariani Avenue
Cupertino, CA 95014
(800)-776-2333
(408)-996-1010
(408)-996-0275

Product PC Exchange and Apple File Exchange.

Description Utilities for accessing MS-DOS floppy disks from a Macintosh Computer.

Pensoft Corporation

275 Shoreline Drive
Suite 535
Redwood City, CA 94605
(415) 802-6925
(415) 802-6942 fax

Product Perspective.

Description Perspective is an information organizer that is built into the EO. You can upgrade to the full version for \$99.

Sharpened Software Inc.

One West Highland Drive
Ballroom Suite
Seattle, WA 98119
(206) 283-0628
(206) 284-7360 fax

Product In Order and Sharpened Utilities.

Description In Order is a free-form organizer for the EO, and Sharpened Utilities is a set of utilities for the EO.

Slate Corporation

15035 N. 73rd St.
Scottsdale, AZ 85260
(602) 443-7022
(602) 443-7325 fax

Product PenApps.

Description PenApps is an application builder for the EO.

notable

Marketing & Sales
1054 East Hillsdale Boulevard
Suite 111
Foster City, CA 94404
(415) 312-0800
(415) 312-9253 fax

Product Mobile Access, Notation, PenCross, and PenCrush.

Description Mobile Access is a terminal emulator for the EO, Notation is an outliner, PenCross is a crossword puzzle game, and PenCrush is a document-compression and archive utility.

COMP SOFT Services, Inc.

202 River Run
Greenwich, CT 06831
(203) 531-8162
(203) 531-1476 fax

Product PenASCII and PenHost.

Description Terminal emulation packages for connecting an EO to other computers.

Ink Development Corporation

1300 South El Camino Real
Suite 201
San Mateo, CA 94402
(415) 573-6565
(415) 573-5167 fax

Product InkWare NoteTaker and SimCity.

Description InkWare NoteTaker is a notetaking and drawing package for the EO, and SimCity is a simulation game in which you create and control a city.

PenMagic Software, Inc.

310-260 West Esplanade
North Vancouver, BC
Canada V7M 3G7
(604) 988-9982
(604) 988-0035 fax

Product Numero, Numero SDK, and Letter Express.

Description Numero is a financial work processor, the Numero SDK is a toolkit for creating Magic Script buttons and extensions to Numero, and Letter Express is a writing assistant.

GO Corporation

919 East Hillsdale Blvd.
Suite 400
Foster City, CA 94404
(415) 345-7400
(415) 345-9833

Product PenPoint, GO Fax, GO Mail, PenTOPS, and PenCentral. GO also publishes the PenPoint Hobitt SDK.

Description The operating system and system utilities for the EO.

aha! software corporation

1685 Plymouth Street
Mountain View, CA 94043
(415) 988-2080
(415) 988-2081 fax

Product aha! InkWriter.

Description Notetaking software for the EO that treats handwriting like text.

Dayna Communications Inc.

Sorenson Research Park
849 West Levory Drive
Salt Lake City, UT 84123
(801) 269-7200

Product DOS Mounter Plus.

Description Used on a Macintosh computer so it can read MS-DOS formatted floppy and removable media hard disks.

Hardware

EO Incorporated

800A East Middlefield Rd.
Mountain View, CA 94043
(415) 903-8100
(415) 903-8190 fax
(800)458-0880 Sales/Customer Service

Product EO 440 Personal Communicator, EO 880 Personal Communicator, accessories and peripherals for the EO Personal Communicator.

Description The EO Personal Communicator is a computing device which emphasizes and enables personal and business communications.

Data I/O Corporation

10525 Willows Road N.E.
Redmond, WA 98073-9746
(800) 332-8246
(206) 869-7423 fax

Product CardPro Univeral PC Card Drive.

Description Attaches to an MS-DOS machine and will read and write to a SunDisk.

System Connection

441 East Bay Blvd.
Provo, UT 84606
(800) 877-1985

Product Null modem cables.

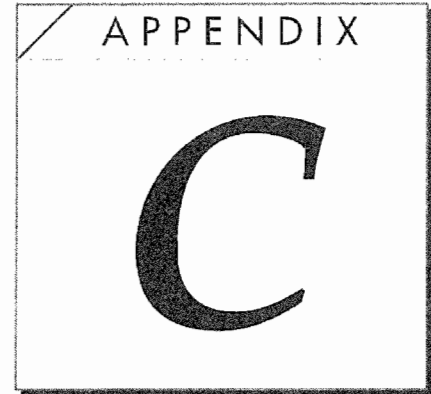
Description Used for connecting the EO to other computers.

SunDisk

3270 Jay Street
Santa Clara, CA 95054
(408) 562-0500
(408) 986-0745 fax

Product SunDisk solid-state flash disks.

Description PCMCIA cards that can be used as extra disk drives. Sizes are 2.5, 5, 10, and 20 megabytes.

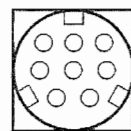


Technical Specifications

The EO's Port Configurations

Serial Ports (Fig. C.1)

Figure C.1
Serial Port



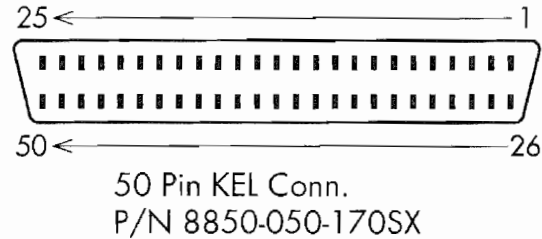
Mini-Din 8 pin

8 7 6
5 4 3
2 1

Pin#	1	DTR	=	Data Terminal Ready
	2	CTS	=	Clear to Send
	3	TXD	=	Transmit Data
	4	GND	=	Ground
	5	RXD	=	Receive Data
	6	RTS	=	Request to Send
	7	DCD	=	Data Carrier Detect
	8	NC	=	No Connect

Cellular Ports (Fig. C.2)

Figure C.2
Cellular Port



Pin#	1	ANGL IN P	18	35	NC
	2	GND 1	19	36	DCD
	3	ANG OUT P	20	37	Cell CLK
	4	GND 3	21	38	GND 6
	5	HNDST_TXN	22	39	NC
	6	HNDST_RXN	23	40	
	7	DTR	24	41	
	8	RTS	25	42	
	9	TX DATA	26	43	NC
	10	GND 5	27	44	GND 8
	11	RI	28	45	NC
	12	DSR	29	46	
	13	NL	30	47	
	14	Cell TXD	31	48	
	15	Cell RXD	32	49	NC
	16	GND 7	33	50	POIC
	17	NC	34		

EO Calc Functions

Each of the EO Calc functions uses the number in the same row as the operator to act on the number in the cell above. In cases where the number above is not needed for the function, the operation is performed on the number in the same row as the operator. All results are placed in the number cell beneath the operator.

EO Calc functions are outlined in Table C.1.

Table C.1 EO Calc functions

Function	Description
+ (plus)	Adds the number to the one above.
- (minus)	Subtracts the number from the one above.
* (multiply)	Multiplies the number above by it.
/ (divide)	Divides the number above by it.
Sum	Adds all of the numbers in a column. If there is a blank cell in a column, the numbers included in the sum are those after the blank cell.
text	Lets you put text into the cell instead of numbers. A text cell cannot be used in a calculation.
1/x	Divides the number into one.
x^y	Calculates the number to the power of the one above.
sqrt	Calculates the square of the number.
Link	Copies and links the number from the cell directly to the left. Any changes that occur to the number on the left change the linked number.
Ln	Calculates the natural logarithm of the number.
exp	Calculates e to the power of the number (e^{number}).
sin	Calculates the sine of the number and displays the result in radians.
cos	Calculates the cosine of the number and displays the result in radians.
tan	Calculates the tangent of the number and displays the result in radians.
asin	Calculates the arcsine of the number and displays the result as an angle in radians. The range is $-p/2$ to $p/2$.
acos	Calculates the arccosine of the number and displays the result as an angle in radians. The range is $-p/2$ to $p/2$.
atan	Calculates the arctangent of the number and displays the result as an angle in radians. The range is $-p/2$ to $p/2$.
log	Calculates the common (base 10) logarithm of the number.
10^x	Calculates 10 to the power of the number (10^{number}).

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About the author

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