DeskMate®

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Part One: REFERENCE

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How to Use This Manual

This manual offers you 2 approaches to learning to use DeskMate. The reference section provides detailed information about each component of the DeskMate package. The discussion of each application proceeds function by function so that you can systematically work through each chapter or answer specific questions quickly.

The sample session enables you to have a test run with the programs. You follow step by step directions that lead you through DeskMate, one application at a time: Text, Worksheet, Filer, Calendar, and Mail. Using a wide range of the DeskMate features as you go, you perform routine tasks with the applications.

Each chapter of the sample session contains a demonstration of a DeskMate Accessory—miniature applications that appear as windows on the current screen. You can use a Desk Accessory without exiting the application you are occupied with at the moment.

The chapters of the sample session are sufficiently independent of one another that you can complete them out of order if you choose. However, you will get best results if you complete the chapters in order.

In addition to reading the manual, you can answer questions about DeskMate by displaying the help screens while you are using the programs. They explain functions and commands so that you can learn new commands and jog your memory about others.

On occasion, this manual refers you to other documentation. In particular, you (or the system administrator) should have and be familiar with *Introducing Your Tandy 6000*. You should also have access to either *The User's Guide to XENIX* or *The System Administrator's Guide to XENIX*.

Chapter 1

DeskMate

DeskMate for the Tandy 6000 is a versatile, easy-to-use set of applications and functions combined to save you time, energy, and space. It can replace a roomful of manual production tools including typewriter, calculator, address book, calendar, notepad, and filing cabinet. The programs use similar functions and operations throughout the applications, making them easy to learn and use.

DeskMate operates rapidly and gives you quick, easy access for timely updates and corrections. Many of the applications provide "at-a-glance" information, a real asset for quick decision making and question answering. In addition to displaying DeskMate information on your screen, you can print the contents of any file.

The XENIX® version of DeskMate accommodates multiple users. As one of a group of users, you can send and receive messages from other users, execute files from a pool of common system files, or gain access to files belonging to other users. A system of permissions allows you to protect specific files from use by others.

Features

DeskMate features 5 major applications, each accessible from the Main Menu. An assortment of Main Menu functions permit you to manage your files and directories with ease. From the Main Menu you also have access to the DeskMate Utilities.

In each application, you can display and select from a menu of functions adapted to your needs in that particular application. In addition, you can use any of 6 Desk Accessories at any time without exiting the application you are using. Separate chapters of this reference manual explain in detail the Main Menu functions, the Desk Accessories, and each of the applications.

Help screens are available within DeskMate to provide online reference information that parallels the menu or application you are using.

A Print command lets you print the contents of any files you create using the DeskMate applications. The chapters devoted to each application include instructions for printing.

The Applications

- **Text** is a text editor. Use it to create, review, edit, and print documents.
- **Worksheet** is a spreadsheet application that computes numbers in columns and rows. Addition, subtraction, multiplication, division, and exponentiation, as well as other set, statistical, and trigonometric operations are available.
- **Filer** is a filing system, similar to a card file. You can create any number of information forms and then file and search for records using any of the information contained in them.
- **Calendar** is an event scheduling system. You can review recorded events at any time. A list of the events for the day appears on the Main Menu.
- **Mail** is a system for exchanging messages with other users. Create messages and distribute them among other users; receive messages and file them for later reference or reply.
- **Utilities** is a group of utility commands that facilitate routine operation of your system.

The Desk Accessories

- **Calculator** performs standard mathematical operations as well as 3 functions you define.
- **Events/Alarm** reminds you of important scheduled events.
- **Messages** lets you check quickly for new mail, read it, and send short messages to other users.

- **Phone Directory** is a revolving card file for holding phone numbers and general business data.
- **Scratchpad** lets you jot down quick notes and reminders.
- **XENIX Command** enables you to execute a XENIX system command.

Terminal Requirements

DeskMate for the Tandy 6000 operates with Tandy XENIX System III, version 03.01.00 or later. You can use DeskMate with any terminal or computer with terminal software that is supported by an entry in the termcap file. The program does not support use of a DT-1.

A printer connected to your terminal enables you to perform printing tasks "locally," that is, at your own terminal. While your local printer in engaged in a task, your terminal is inactive for other purposes. You can also share use of a printer at the console with other persons in a multiple-user system.

DeskMate Conventions

Operations and key usage are very similar throughout the DeskMate applications. A quick review of the following conventions is helpful in learning how to use the program.

Control Key

DeskMate uses [CTRL] as a control key. This key works in combination with other keys to produce a key sequence. A control key works in much the same way as the [SHIFT] keys of a typewriter: hold it down while pressing the appropriate combination key.

Escape Key

Press and release [ESC] to signal DeskMate that the next key is a command. You do not hold down [ESC] while you press the second key, as you do with the [CTRL] key.

In each of the major applications, pressing [ESC] displays a menu of available command keys on the bottom lines of the screen. Press a command key or one of the arrow keys to execute a command. If you press the second key before the command lines appear on the bottom of the screen, DeskMate proceeds directly to the command you selected.

If you press [ESC] but decide not to execute a function, press [ESC] a second time to cancel the first. In an application, the command lines disappear after you press [ESC] the second time.

Marker Movement

Use the arrow keys, [→], [←], [↑], and [↓], throughout DeskMate for normal marker movement and for displaying specific application information. Other keys control the rapid movement of the cursor.

Marker movement varies slightly in each application. Refer to the marker movement table provided in the corresponding application chapter of this manual for specific information. Figure 1.1, which follows, describes general marker movement.

Marker Movement

Standard Key	Optional Key	Moves the Marker
[→]		to the right 1 position
[←]		to the left 1 position
[↑]		to the previous line
[↓]		to the next line
[ESC] [→]	[PG RT]	to the right margin of the screen
[ESC] [←]	[PG LT]	to the left margin of the screen
[ESC] [↑]	[PG UP]	to the top line of the screen
[ESC] [↓]	[PG DN]	to the bottom line of the screen
[CTRL] [T]	[HOME]	to display the first item in the file

Figure 1.1

Figure 1.1 lists standard marker movement keys in the lefthand column. The center column lists optional keys for some of the marker movements. If your terminal provides the optional keys and your termcap file supports them, you can use these keys in place of the standard key sequences.

Command Keys

DeskMate command keys are of 2 types. Some command keys, the function keys, are specific to the application you are using. Others, such as [ENTER], produce the same result throughout the program.

When you press [ESC] at the Main Menu or in one of the DeskMate applications, the bottom lines on your screen change to display a menu of commands. For example, the following lines, Figure 1.2, show the command menu for the Text application.

Figure 1.2

The first command line assigns a number to each function you can use in that application. As a rule, the second line lists general commands, commands that do not vary from application to application.

Function Keys. After you press [ESC], press the number key that is paired with the function you want to use. The command lines in Figure 1.2 show that pressing [ESC] and then [1] in Text selects the Find function.

If your keyboard has function keys ([F1], [F2], and so forth), you can use them to select functions if your terminal supports them. For example, you can select the Find function in Text by pressing [F1], [ESC] followed by [F1], or [ESC] followed by [1].

General Command Keys. Some of the general command keys are listed on the second command line when you press [ESC]. (See Figure 1.2.) After you press [ESC], these keys produce the following results:

[?] displays the Help screen that applies to your situation in an application or menu.

[P] enables you to adjust printer settings and then print the contents of a file.

[X] exits the current file, cancelling all changes you made since you opened the file.

[Q] lets you quit using the current file, saving all changes that you introduced since you opened it.

[=] enables you to select one of the Desk Accessories.

Other command keys have general system uses. The most common of these appear in Figure 1.3, along with optional keys that appear on some keyboards. If your keyboard has the optional key mentioned, you can press it instead of the key sequence.

Standard Key	Optional Key	Result
CTRL C	BREAK	cancels the current request, prompt, or command.
CTRL W	INSERT	inserts character at cursor.
CTRL X	DELETE	deletes character at cursor.
BACKSPACE		moves the cursor back over the previous character, erasing it.
ENTER or RETURN		operates the carriage return, sends a command. This manual refers exclusively to ENTER.

Figure 1.3

Filenames

A valid DeskMate filename uses no more than 10 alphanumeric characters. The 10 characters do not include the filename extension assigned by DeskMate.

You can use upper- and lowercase letters in creating filenames for DeskMate applications. Do not include any spaces within a filename. Filenames that differ in the use of upper- and lowercase do not match. For example, *FILE* does not match *file*.

Files in the same directory must have unique names. In different directories, however, you can assign exactly the same name to 2 files. When you identify an existing file, typing the filename is sufficient if the file occupies the current directory. Otherwise, you must type the *pathname* to specify the file.

A pathname locates a file (or directory) within the branching hierarchy of directories that originate in the root directory (/). As a consequence, no 2 files can have the same pathname.

For example, you can have 2 files named letter.doc. The pathname for one, however, might be /usr/edwin/letter.doc, while the pathname for the other is /usr/edwin/office/letter.doc.

Whenever you create a file using one of the standard DeskMate applications, DeskMate assigns an extension to the new filename. The filename extensions DeskMate routinely assigns are the following:

Application	Extension
Text	.doc
Worksheet	.wks
Filer	.fil
Calendar	.cal
Mail	.msg

Directory names follow the format of filenames but can contain as many as 14 characters. They are displayed with / after the final character to distinguish them from filenames.

Wildcards

DeskMate lets you use wildcards that result in matches of non-identical items. This feature is useful when you are searching for a group of related filenames. By including a wildcard in the filename you are specifying, you can find a range of files. DeskMate recognizes * and ? as special matching characters in wildcards.

* matches any number of characters

For example, ***pin** matches **pin** or **spin** or **hairpin**, but not **pine**.

? matches any single character

For example, **sec1.?** matches **sec1.3** or **sec1.0**, but not **sec2.0** or **sec1.31**.

Filenames that begin with a period (.) are exceptional. The program does not match the period with either of the special characters.

For example, ***chap*** matches **chap_1** or **xchap_2.2**, but not **.chap_1**.

Installing, Opening, and Exiting DeskMate

To begin using DeskMate, perform the one-time installation procedure described in Appendix A. After the initial installation, you can open DeskMate a couple different ways.

To make full use of DeskMate, we suggest that you equip your system with 1-megabyte RAM (memory) and 2-megabytes swap space. On a system configured with less swap space or RAM, you can encounter system halts in a multi-user environment. Similar problems can occur if, as a single user, you add large applications to the original DeskMate applications.

DeskMate provides a valuable Main Menu to help you locate, open, and otherwise manage your DeskMate files and applications. The next chapter contains detailed instructions for using the Main Menu and its functions. By using the menu, you also have the advantage of selecting from displayed lists of directories, applications, and files, thereby avoiding errors in identifying them.

At times, however, you may prefer to open a file without displaying the Main Menu. To open an application from your system command (in your home directory), type **desk**, followed by a space, and then the program name for the application. The program names for the various applications are the following:

To Open:	You Type:
Text	**dmtext**
Worksheet	**dmwsheet**
Filer	**dmfiler**
Calendar	**dmcal**
Mail	**dmail**

After your press [ENTER] the initial screen for the application appears. (If the application has a default file, that file opens; otherwise, it prompts for a filename.)

You can open a specific file directly from the system prompt by typing **desk** and then a series of names: the program name followed by the filename (including any subdirectories). For example, to open a document file named lhead.doc in a subdirectory of your home directory named correspondence/, you can type the following command from your system prompt:

desk dmtext correspondence/lhead.doc [ENTER]

Exit the file by pressing [ESC] and then either [Q] to Quit or [X] to Cancel. Quitting preserves any changes you made to the file while Canceling ignores them. When you exit a file that you opened from the system prompt as described above, you return to the system prompt.

While you are using a DeskMate file, it is locked to other users. Another person trying to open the file receives a message that the file is in use.

It is important that you make frequent backup copies of your files. Duplicating your files onto floppy diskettes protects you against the appreciable losses of data (and work) that could result from equipment or power failures or through operator error. See the chapter titled "Utilities" for a discussion of the Backup utility.

Printing

When you press [ESC] and then [P] to print the contents of a file, the printer settings appear on the screen so that you can make selections. Preset values appear for your system. Figure 1.4 shows these settings along with their initial values.

```
                Printer Settings

Total lines per page .................66
Printed lines per page ...............60
Left margin ..........................0
Printed line width ...................80
Double spacing (Y/N):.................N
Print: Console, Local, Screen, File ...C
```

Figure 1.4

To change any of the settings, move the cursor to the value you want to change; then, type over the existing characters and press [ENTER]. Answering the last prompt begins the print operation. If all the settings are correct as displayed, press [ESC], then [Q] to start printing. To cancel the Print command and return to the current file, press [CTRL] [C].

The first setting indicates the total number of horizontal lines on a page. Standard 11-inch sheets have 66 lines. The second setting specifies the maximum number of lines to print on a single page. This value depends upon the amount of top and bottom margin you want to have.

The next 2 settings determine the horizontal arrangement of the text on the page. The standard number of spaces across the entire page is 80 for letter-size sheets and 132 for wide pages (printing at 10 pitch, or 10 characters per inch). The value for the left margin, the third setting, is the number of blank spaces on the left side of the text. The next setting specifies the maximum number of characters to print per line, the actual line width.

The final settings determine the form of output for the printed document. Indicate your choice by entering the first character of the output form you choose.

You can specify that the printed copy be produced at either the console printer (C) or at a local printer (L). Using your local printer precludes other use of your terminal while the printing occurs.

The other 2 possibilities display the printed form on the screen (S) or save the document in its printed format in a file (F). If you print to the screen, the process pauses at the end of each page, enabling you to quit or continue to the next page. If you choose to create a file to store your document (complete with its printing parameters), an additional prompt appears, `Output filename:`. Enter a filename for the output file.

After you respond to the final prompt, the print operation begins. You can also begin printing without moving to the final prompt. Whenever the settings meet your requirements, press [ESC] followed by [Q] to begin printing.

Generally, the Print command prints the entire file unless you first define a block of data using the Select function. Any minor variations in the printing procedure appear in the "Printing" section of the chapters that follow.

Note for background printing: If you set your lpr file to do background printing in DeskMate, precede the ampersand (&) with a backslash (\).

Chapter 2

The Main Menu

Using the Main Menu

Log on to your system using your user name and password. (You or the system administrator select these when you become a user.) As a general practice, do not run DeskMate while logged in as root. To display the DeskMate Main Menu, type:

desk ENTER

Figure 2.1 illustrates the appearance of the Main Menu with hypothetical data to show the arrangement of information on the screen.

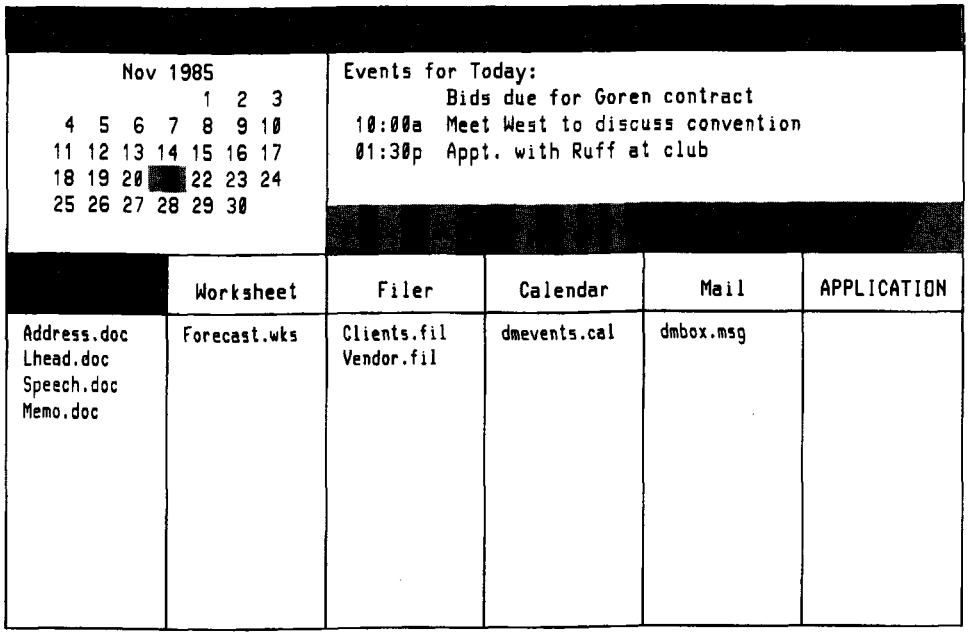


Figure 2.1

The top line of the Menu, as it does in each application, identifies the application (or menu). The date and time appear at the right end of this *status line*. The line also carries a reminder that you press [ESC] to execute commands. If you do not press a command key immediately after releasing [ESC], the menu or application displays a list of the available commands (at the bottom of the screen).

DeskMate reserves the left end of the status line for system messages. If an alarm has occurred, the word ALARM appears in the space, as illustrated in Figure 2.1. The word MAIL announces the arrival of a message.

At the top left of the Main Menu is a calendar for the current month. Today's date (the current system date) is highlighted. (The figure shows the data used in the Sample Session.)

To the right of the calendar, 3 hypothetical events appear under Events for Today. These are upcoming events that have been entered using the Calendar application.

The lower portion of the screen displays your applications and the files in the current directory. The applications appear horizontally at the head of the columns on the menu. The figure shows the 5 applications supplied with DeskMate, arranged as they initially appear on your Main Menu.

The sixth column lists applications other than the 5 that head the preceding columns on the menu. When you first install Deskmate, this column is empty. As you use the program, however, you may find it convenient to add other applications to the menu and execute them without exiting to the system. Merely move the marker to the desired application, and press [ENTER]. You can even substitute one of these "sideline" applications for any of those that appear at the heads of columns on the Main Menu.

Listed in the columns below the 5 applications are the files in the current directory that you can use with each one. If you change directories, the columns change to display a different group of files.

To open a file, position the marker at the head of the column that contains it using the left and right arrow keys. Then, specify the filename in either of 2 ways:

Press [ENTER] with the marker at the head of the column. Then enter the name of the file you want to open at the prompt at the bottom of the screen.

Or

Highlight the filename you want to choose, using the up and down arrow keys to position the marker. Press [ENTER] to execute the file.

Of course, some files do not appear on the Main Menu. To execute files of this sort, a file in a different directory, for example, use the functions on the Main Menu to rearrange or expand the list of files on the menu.

The majority of this chapter is devoted to these Main Menu functions. They enable you not only to expand and rearrange the information on the menu, but also to add and delete items, find a file or group of files, or execute DeskMate utilities. Other functions let you copy or rename your files and alter their accessibility to other users.

When you are ready to exit DeskMate, return to the Main Menu, and press [ESC] and then [Q] to return to your system prompt. At the system level, type **logout** [ENTER] to log out.

The Main Menu Functions

When you press [ESC] at the Main Menu, the bottom lines of the screen show a series of numbered commands—the Main Menu functions. Below these, on the last line, is a series of general DeskMate functions, described in the previous chapter.

The Main Menu functions help you manage the directories and files in DeskMate. This chapter explains them in detail.

To select a Main Menu function, press [ESC] (to display the command lines at the bottom of the screen), and then press the number key corresponding to the function you want to use. The command lines, including both general and Main Menu functions, appear as follows:

If your keyboard is so equipped, you can use the function keys (F1, F2, F3, etc.) instead of the number keys after pressing [ESC], or you can simply press the appropriate function key in place of both keys. Your termcap file must support the function keys. To select the Find function, for example, press [ESC] followed by [1] or press [ESC] and then [F1] or merely press [F1].

Find

Use the Find function to save time in locating the file or group of files you want to use. When you select this function, the following prompts appear at the bottom of the screen:

```
Search directory:
Filename or wildcard:
```

The current directory name appears after the first prompt. Press [ENTER] to search for a file or files in that directory, or type the name of a different directory.

At the second prompt, type a complete filename or include special wildcard characters to match a range of filenames. Press [ENTER] when you finish typing the filename or wildcard.

After you answer the second prompt, a window appears on the screen that displays the names of all files matching the search string. Use the arrow keys to read any listings that run off the display area. The Find window scrolls to display the remainder of the list.

To return to the previous screen, press [CTRL] [C] to cancel or press [ESC] followed by [1].

Directory

When you select the Directory function (Dir), the screen shows the arrangement of directories and files. By using the marker movement keys along with the functions on this screen, you can quickly locate and execute files that are not currently listed on the Main Menu. Other functions enable you to add and delete directories.

After you press [ESC], then [2], a prompt appears at the bottom of your screen:

```
<ENTER> to Expand or
New Current Directory:
```

Press [ENTER] to clear the screen and display an expanded version of the current directory. To change the current directory without leaving the Main Menu, type the pathname for the replacement directory and press [ENTER]. The files in the specified directory appear in place of those currently on the screen.

If you press [ENTER] to expand the directory, the screen presents a list of directories and files. At the top of the list is the current directory—your home directory unless you have previously changed directories. Indented in a column below the directory name are the files and directories it contains.

Use the arrow keys to move the marker up or down the column. As you do, the screen displays other directories and files, indented to indicate their positions in the root file system. The expanded list scrolls to show the contents of each directory that is in the pathname of the current directory. Executing the Dir function in /usr/john/, for example, results in a listing of the contents of / (root), usr/, and john/.

Directories are always identified by a diagonal mark (/), the final character in each directory name. An asterisk (*) after a filename indicates a file that you have permission to execute. The * is not a character in the actual filename.

Expanding Other Directories. To expand other directories, position the marker on the directory name and press [ENTER]. The files and directories within the marked directory appear on the screen. If, for example, you execute the Directory function with /usr/sample as your current directory, your screen would be similar to that shown in Figure 2.2. The bottom lines in the figure illustrate the command lines that appear when you press [ESC]. (Press [ESC] again to eliminate them.)

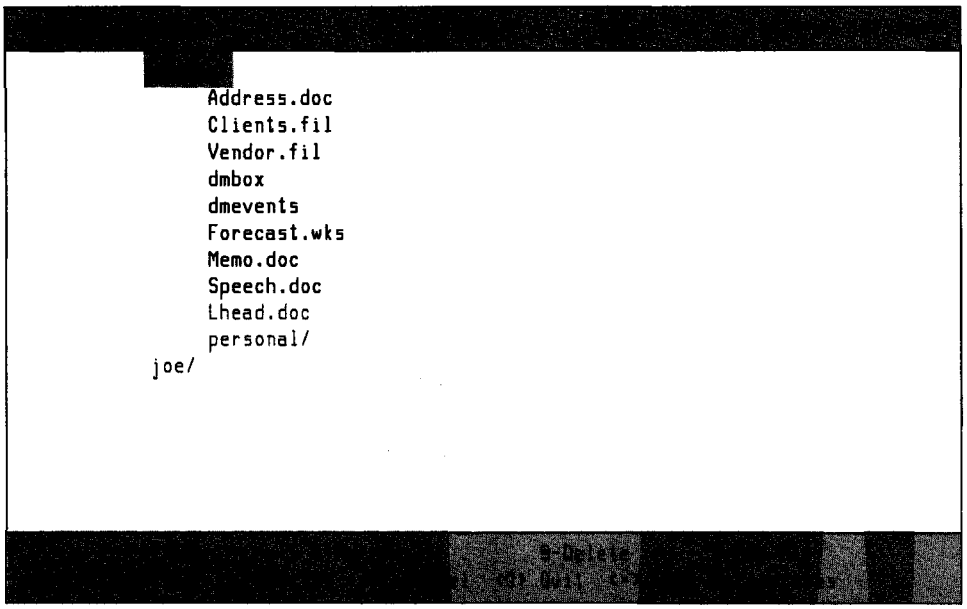


Figure 2.2

Pressing [ENTER] with the marker on an expanded directory reverses the process, compressing the list to the marked directory level.

When you expand a directory, only the next level of files and directories appears; however, when you compress the list, all sublevels retract at once. For example, in Figure 2.2, you can press [ENTER] with the marker on personal/ to see the contents of that directory. The next level of files and directories within personal/ appears. But if you move the marker to sample/, and then press [ENTER], all entries between sample/ and joe/ disappear from the display.

Opening a File. The expanded directory offers a convenient way to open files. Press [ENTER] with the marker positioned on a filename (rather than a directory), to execute the file. Opening a file in this way is especially attractive if the file occupies a directory other than your home directory or belongs to an application in Column 6.

When you exit a file that you opened from the expanded menu, DeskMate returns you to the expanded menu.

Using Functions in the Expanded Directory. A number of Main Menu functions are available to you while you are using the expanded directory. Press [ESC] and then the appropriate number key to select a function.

Three functions—Name, Permission, and Delete—are identical to those on the Main Menu, described elsewhere in this chapter. The Add Directory function (Add Dir) is unique to the expanded menu.

The Add Directory function enables you to create a new directory. Move the marker to the existing directory in which you want to locate the new directory (or to any file in the existing directory). Press [ESC] and then [0]. The following prompt appears:

```
New directory:
```

Type a name for the new directory, and press [ENTER]. The program creates the directory and redisplays the expanded menu, complete with the new item.

Returning to the Main Menu. To return to the Main Menu from the expanded menu, use either the Cancel function or the Quit function. Press [ESC] and then [X] to use the Cancel function; it returns you to Main Menu in the same directory you occupied when you executed the Dir function.

Pressing [ESC] and then [Q] to use the Quit function also returns you to the Main Menu, but it changes the current directory if the marker is resting on a different directory. If the marker is on a file rather than a directory, the current directory does not change when the Main Menu reappears (regardless of the location of the file).

Name

Use the Name function to change the name of a file, directory, or application. Using the arrow keys, move the marker to the item whose name you want to change. You can highlight file or application names on the Main Menu. To highlight a directory (or file) name, first display the expanded menu using the Directory function.

Press [ESC] and then [3] to choose the Name function. If you are renaming a file or directory, the following prompts appear at the bottom of the screen:

```
Rename from:
To:
```

When the prompts appear, the first one identifies the file under the marker (its complete pathname) as the one to rename. On the second line, type the new name for the specified file. Press [ENTER] to execute the name change or [CTRL] [C] to cancel the change.

If you highlight an application for renaming, the following window appears in the lower portion of the screen:

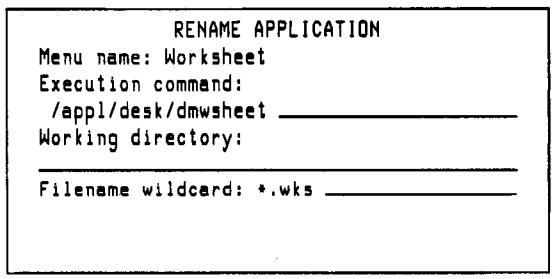


Figure 2.3

Figure 2.3 contains sample data for the Worksheet application. To change the name or any other information in the window, position the marker using the arrow keys and type over the existing characters.

For example, you could type change the Menu name of Worksheet to Ledger by moving the cursor to the `W` in `Worksheet` and typing **Ledger**. Then, press [ENTER]. Press [ENTER] at each of the remaining

items to execute the change, or press [CTRL] [C] to cancel the change. (See the instructions for the Add function in this chapter for an explanation of the other items.)

Replace

As Figure 2.4 shows, you can set up DeskMate to provide access to a range of applications. The applications on the Menu itself are the original 5 applications, but those in the sixth column have been added to the DeskMate Menu. Using the Replace function, you can replace any of the original 5 applications with one of those in the last column.

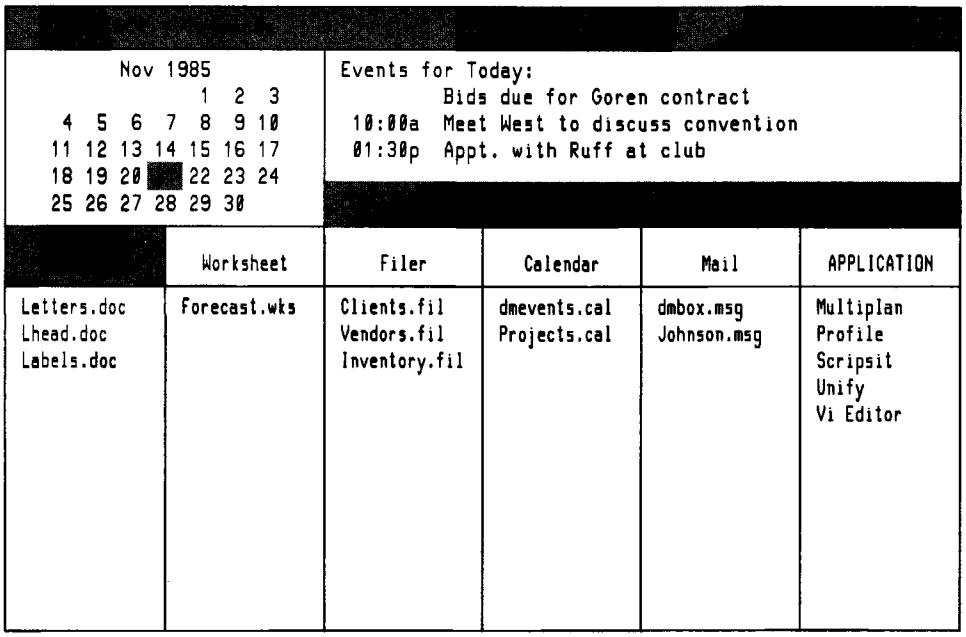


Figure 2.4

Position the marker on one of the application names, either one in the row of active applications on the Main Menu or one of the "sideline" applications in Column 6. Then, press [ESC], followed by [4]. The screen displays brackets, < and >, on either side of the chosen application. The marker shifts to the first application available for exchange.

Next, position the marker on the application you want to replace with the one in brackets. Then, press [ENTER] to execute the replacement. The menu redraws the screen to accommodate the exchange, swapping the

applications on the screen and listing files (in the working directory) for the newly deployed application. To cancel the function, press [CTRL] [C] before executing the replacement.

Utilities

Use the Utilities function (Util) to display a list of system utilities. They appear on the Main Menu in the sixth column, replacing the list of applications in that column.

Press [ESC] and then [5] to execute a utility. Choose a utility in the same way that you execute a file—by positioning the marker and pressing [ENTER].

The 5 utilities listed on the menu are the following:

Utility	Purpose
Backup	Saves files to floppy diskette
Restore	Restores backup data to the disk
Free	Displays available disk space
Who	Lists users currently logged on system
Activity	Lists processes currently running

Chapter 9, "Utilities," provides a detailed explanation of each utility.

Most utilities return you to the Main Menu after you execute them. A few, however, display information on the screen until you quit ([ESC] and then [Q]) to return to the menu. When the Main Menu reappears, move the marker out of Column 6 to redisplay the APPLICATION column.

Permission

The Permission function lets you change the permission settings of files or directories that you own. In addition, you can change the permission settings assigned to all new files and directories you create. These settings determine the degree of access to a file or directory that the system extends to various users.

On the Main Menu, you change permission settings for the current file or for a block of files (defined using the Select function). To change the settings for a directory, you must first display the arrangement of directories using the Directory function. Then, position the marker on the directory you want the changes to affect.

Press [ESC] and then [6] to choose the Permission function. The screen displays a window with the table shown in Figure 2.5.

The Permission function recognizes 3 categories of users: You, Your Group, and Everybody. Your Group refers to a pre-identified group of users that includes you; Everybody refers to anyone with access to the system. You can assign different levels of permission to each type of user.

```
        CHANGE PERMISSION
On File/Directory:
 filename
                  Read Write Run
You (Owner)        y     y    y
Your Group         y     n    y
Everybody          y     n    y
Press <ENTER> to change each name
<A> to change All marked names
<S> to skip a name
```

Figure 2.5

In the figure, notice the 3 types of users in the lefthand column. Arranged horizontally are the 3 types of access—Read, Write, and Run—which are defined as follows:

Read — permits the designated user to read the file or directory contents

Write — permits the designated user to make insertions in and deletions from the file or directory

Run — permits the designated user to execute programs stored in the specified file or directory

The first blank contains the file or directory you highlighted or the first of the group of files you selected. Using the arrow keys, move the

first of the group of files you selected. Using the arrow keys, move the marker to any of the 9 settings that you want to change. Press [Y] or [N]. A y indicates that permission is given; an n indicates no permission.

When you finish changing settings, press [ENTER] to execute the changes for the file or directory shown.

The last 2 lines appear only if you selected a number of files on the Main Menu. The file names appear successively (beginning with the last item you selected) each time you press [ENTER]. Press [A] to change all selected filenames at once to the permissions you have set. To skip a file, press [S].

There are routine permission settings that apply whenever you create a new file or directory. You can change these standard, or *default*, settings by selecting the Permission function on the Main Menu with no file marked. After you press [ESC] and then [6], the following prompts, rather than those shown in Figure 2.5, appear at the bottom of the screen:

```
CHANGE DEFAULT PERMISSION

                 Read  Write  Run
You (Owner)       y      y     n
Your Group        y      n     n
Everybody         y      n     n

   Press <ENTER> to change
```

As before, press [Y] or [N] at any position in the table to give a permission or deny it. After you execute (or cancel) the function, the Main Menu returns. If you cancel the function, you cancel any changes you have made to the previously established values.

Select

The Select function lets you specify more than a single file with which to perform a second function—Copy, Delete, or Permission.

To make a selection, move the marker using the arrow keys or the Find function to the desired file. Then, press [ESC], followed by [7].

Make additional selections by pressing [↑] or [↓]. The screen highlights all selected files. Press [CTRL] [C] to cancel all selections.

Note: When selecting a block of files, the Find function can be extremely useful. Because you are defining a block of consecutive files, it is helpful to execute the Find function using a wildcard to compile a list of files that interest you. Then, select a block of files from those displayed in the Find window.

Files remain selected until you perform a function with the selected group, unselect it by pressing [ESC] and then [7] again, or exit DeskMate.

Copy

Use the Copy function to duplicate files in another directory. You can also copy a single file to another file.

Begin by moving the marker to the file you want to copy or by selecting a set of files (using the Select function). Next, press [ESC], then [8] to use the Copy function. The following prompts appear at the bottom of the screen:

```
Copy to (Directory):
```

At the prompt, type the pathname of the directory in which you want to duplicate the file. You can choose to specify a filename (rather than the name of a directory) **only if** you are copying a single file in the current directory. Press [ENTER] to execute the function and return to the Main Menu. Press [CTRL] [C] to cancel and return to the Main Menu.

Delete

Use the Delete function to eliminate files, directories, or applications. On your Main Menu, indicate a file or application for deletion by positioning the marker on the file or application name. Define a block of files for deletion using the Select function.

With the item to be deleted under the marker, press [ESC] and then [9] to choose the Delete function. The prompts shown below appear at the bottom of the screen so that you can confirm each deletion. (Both lines appear only if you select a block of files to delete.)

```
Press <ENTER> - Delete, <A> - Delete All, <S> - Skip, <CTRL><C> - Cancel
Delete: pathname (Y/N)?
```

Press [ENTER] or [Y] to delete the item currently shown. If you selected a number of files, each is displayed in turn so that you can either confirm the deletion or press [S] to skip the individual item currently displayed. You can preempt this item-by-item confirmation of each deletion by pressing [A] to delete all selected items at once.

Pressing [CTRL] [C] cancels the Delete function without making further deletions.

To mark a directory for deletion, begin by executing the Directory function to display the expanded menu. Be certain that the directory you want to delete is empty. (Try to expand it by pressing [ENTER].) Delete any files or directories it contains before attempting to delete it.

When you delete an application, it must be in the sixth column — not deployed at the head of one of the first 5 columns. If necessary, use the Replace function to move an application name from a column head to Column 6.

Add

The Add function creates a new file in the current directory or adds an application to your menu. To make a new directory, expand the menu by pressing [ESC] and then [2] and use the Add Directory function available there. (See details in the preceding section about the Directory function.)

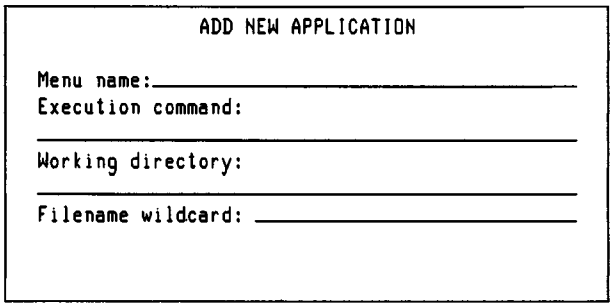
To add a file, press [ESC] and then [0] with the marker positioned anywhere on the menu except Column 6. The following prompt appears:

```
New file:
```

Enter the name of the new file at the prompt. Include the appropriate filename extension if you want to create the file under a particular application. For example, type **Memo.doc** [ENTER] to create an empty Text file in the current directory.

Do not create empty files in this manner for the Filer application. Create Filer files by pressing [ENTER] with the marker on the application name.

To add an application, use the Add function and respond to the prompts. Press [ESC] and then [0] with the marker in Column 6, the APPLICATION column. The following window appears:



In the first blank, enter the name of the application as you want it to appear in your Main Menu. To add Multiplan, for example, you could enter **Multiplan** or **Spreadsheet** or some other easily recognizable name.

At the next prompt, respond with the execution command for the program you are adding. The execution command is the entry word or series of characters that loads and executes the program. In the case of Multiplan, the execution command is **mp**. Include on this line any parameters necessary for passing a file to the application.

The next prompt, Working Directory, enables you to specify a particular directory that contains all your files for the new application. After you substitute the new application for one of the existing column heads, the menu displays its files in the column below it. If you specified a working directory for the application, the files on your Main Menu are the files from that working directory, regardless of the current directory. If you do not specify a working directory, the menu shows the application files in the current directory.

If, for example, your Multiplan files are all in a directory named /usr/kilroy/spreadsheet, you can enter this pathname as the working directory when you add Multiplan. When you deploy the application on the menu, your Multiplan files appear below the application name. If you position the marker on a Multiplan filename and press [ENTER], DeskMate opens the file as though it occupied the current directory.

In the fourth blank, enter the filename extension. This, too, depends on the specific application. The application assigns the extension to the filename for each file it creates. Type ***.mp** in the blank and press [ENTER], for example, to add Multiplan. (The filename extension is not necessarily identical to the execution command.)

When you finish responding to the prompts, press [ESC] and then [Q] to add the new application. Once added, it appears in the APPLICATION column under the name you assign at the first prompt. It is available from within DeskMate and can, if you wish, replace any of the applications on the Main Menu itself.

XENIX Accounting System users: You can add Accounting applications to the DeskMate menu. With some versions of the Accounting System, you see an error message when you return from the application to the Main Menu: `Error executing application.` Disregard this message.

Printing Files

The Print function enables you to print the contents of a file from the Main Menu. Avoid printing Worksheet and Calendar files in this way, however. (Because these files contain non-ASCII characters, the printed copies contain unintelligible data in addition to the information you entered in the files.)

To print the contents of a file, position the marker on the filename, and press [ESC], then [P]. A window containing printer settings appears on the screen. Enter any changes you want to make. With your printer online and properly connected, press [ENTER] at all prompts, or press [ESC] followed by [Q] to begin printing.

Chapter 3

Desk Accessories

The DeskMate accessories are "mini-applications" that are available to you while you are using the major applications of DeskMate. An accessory occupies only a portion of the screen. Behind this region, or *window*, the current application or menu screen is displayed in the background. When you finish using the accessory, DeskMate returns you to the background activity and redisplays the full screen.

Selecting an Accessory

Press [ESC] to display the command lines from any of the major applications or from the Main Menu. The bottom line shows the general DeskMate functions, among them [=] to execute the Desk Accessories. Press [=] to display the menu of Desk Accessories. Figure 3.1 shows the 6 accessories you can choose from the menu.

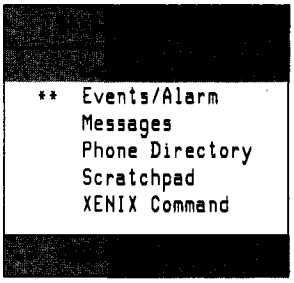


Figure 3.1

Select an application from the menu in either of 2 ways:

- Use the arrow keys to highlight the accessory you need, and then press [ENTER].
- Press the first letter key in the name of the accessory you want to use. Press [C], for example, to use the Calculator.

You can select an accessory without waiting for the menu to appear. Press the letter key that executes the accessory immediately after you

choose Desk Accessories from the command line (by pressing [ESC] and then [=]).

In the sample above, the 2 stars (**) to the left of `Events/Alarm` indicate that the alarm has gone off. Similarly, 2 stars appear to the left of Messages if any new messages have not been retrieved from the system mailbox. The menu stops displaying the signal once you select the starred application.

To exit the menu of Desk Accessories, press [ESC] and then [Q]. The program redisplays the screen you left when you chose to use an accessory.

Calculator

The Calculator accessory enables you to execute those mathematical operations that you typically perform on a calculator. In fact, the Calculator window simulates a handheld calculator on your screen. To select the Calculator from the menu of Desk Accessories, press [C] or press [ENTER] with the marker on `Calculator`. The window depicted in Figure 3.2 appears.

The calculator operates in much the same way that a standard calculator does. It uses a 10-digit display (no commas) and a floating decimal point format. It has 5 functions and 3 user-defined formulas. Its internal memory retains a value that you can reuse in the course of your calculations or recall after you exit and return to the accessory.

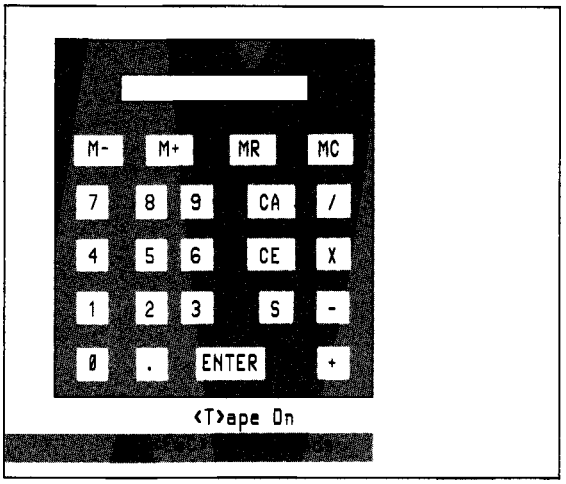


Figure 3.2

As with a standard calculator, entries and computed results appear on the *entry line*, the "display window" at the top of the calculator. The window displays numbers of 10 or more digits in scientific notation.

If the number you type exceeds 15 digits, the digits scroll off the entry line (so that the cursor is always visible). When you press [ENTER] or an operator, the number appears in scientific notation. The entry line displays as many significant digits as the display area permits.

On the right side of the screen, your calculations scroll upward much like a tape readout. This permits you to look at previous calculations until they scroll out of the display window. Press [T] to turn the tape display on and off.

A message below the calculator, `<T>ape On` or `<T>ape Off` tells you whether or not the tape is recording your calculations. Also, a line separates the tape from the calculator when the tape is off.

Math Functions

To use one of the standard operators, clear all current values by typing **CA**. Type the first number, or *operand*, so that it appears on the entry line. Each numeral pushes the number you are typing 1 character to the left.

If you type more digits than the entry line can hold, the excess characters scroll off the left edge of the line. The calculator retains the digits even though they are not visible. This enables you to perform calculations with numbers of more than 10 digits. However, the calculator displays the result on the entry line in scientific notation if it exceeds the display space.

To reverse the sign of the number on the entry line, press [S]. A minus sign **directly** in front of a number indicates a negative number. Pressing [S] reverses the sign of an existing number, **not** the number you are about to type.

If you make an error and want to clear the current entry, type **CE**. The entry line clears (without affecting the operator).

After you type the first operand, indicate an operator; the characters **+**, **-**, **x**, **/**, or **!** signify addition, subtraction, multiplication, division, or exponentiation respectively. It appears on the entry line along with the first operand.

Type the second operand, and press [ENTER] to calculate the result of the indicated operation. To reuse the first operand, merely press [ENTER]. The result appears on the entry line and on the tape readout.

If your calculation requires more than 2 operands, you can continue to type operands separated by operators and press [ENTER] only when you are ready for a result. For example, to compute $11/2 \times (-18)$, type:

11/2×18S [ENTER]

The only result you see is the final result (-99). Note that you press [S] **after** typing the operand 18 to make it a negative number.

To perform another calculation, you can type **CA** to clear the current one. Or you can use the result of the previous calculation as the first operand for a new calculation.

User-Defined Formulas

The calculator provides 3 functions for which you can define a formula of your own. To execute one of these formulas, press [ESC] and then a number key—[1], [2], or [3]. (On a properly equipped terminal, you can substitute function keys to execute the corresponding formula.)

Each time you select a formula, the formula edit window appears so that you can define a formula or edit one that you have defined previously. In the center of the accessory window, a rectangular space clears.

The first line displays the formula currently assigned to that function. If you have not stored a formula for that function, the entry line is blank.

Below the entry line is a second rectangular region that displays the operators and edit characters you can use when you are defining a function. Figure 3.3 shows the formula edit window with a sample function.

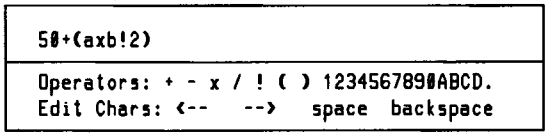


Figure 3.3

The calculator accepts only the characters shown to define formulas. You can use the 4 math operators plus ! to indicate an exponent. The parentheses indicate operations to be performed out of sequence; otherwise, the Calculator performs all operations in sequence from left to right.

A, B, C, and D (upper- or lowercase) are the only allowable variables. The left and right arrow keys move the cursor without erasing existing characters on the formula entry line; the space bar and [BACKSPACE] erase characters as they move the cursor.

The left and right arrow keys move the cursor across existing characters without altering them. The space bar leaves a blank space at the current cursor location; [BACKSPACE] erases the character to the left of the cursor.

The sample formula in Figure 3.3 finds the product of a and b, squares the result, and then adds 50. Were it not for the parentheses, the first calculation indicated by the formula would be the sum of 50 and a.

When you execute a formula containing variables, a prompt appears in the entry line requesting a value for any variables used in the computation. To perform the function in Figure 3.3, the entry line prompts A = ? for the value of the first variable. (After you use the function, the prompt displays the most recently entered value for A rather than ?) Type a value for A, and press [ENTER]. At the next prompt, enter a value for B.

When you supply a value for a variable, you can type **MR** to use the value in Memory. (See the following discussion of Memory.) You cannot perform a calculation at the prompt (to substitute the result for the variable).

When you execute a formula, the numbers you enter echo on the tape readout. The final result is displayed on the entry line as well as on the tape. The tape does not record the separate calculations in the formula.

When you exit the calculator using the Quit function, it stores your formulas and current values of variables so that you can reuse them or edit them when you return to the accessory.

Internal Memory

The Memory feature on your calculator stores a value that you can use as a separate accumulator while you perform other computations. The calculator on your screen shows 4 keys that control the value stored in Memory.

To store the value on the entry line in Memory, type **MC** to clear the current value and then **M+**. Clearing the current value sets the Memory equal to 0. Typing the second command then adds the value on the

entry line to the current value. The value you enter for Memory appears above the calculator depicted on the screen.

Once you have a value in Memory, you can add or subtract the number on the entry line by typing **M+** or **M-**. If you want to use the value in Memory as an operand, you can type **MR**. On the calculator, MR redisplays the value in Memory on the entry line.

The screen displays the current value in Memory until you clear it by typing **MC**. If you exit the Calculator using the Quit function, the current value remains stored in Memory. The Calculator redisplays it when you reopen the accessory.

Exiting the Calculator

When you want to exit the Calculator, press [ESC] and then [Q] to quit or [ESC] followed by [X] to use the Cancel command. The first method saves any formulas you defined as well as the current Memory value. Canceling, on the other hand, erases any changes you made in formulas or in the value of Memory since opening the accessory.

After you exit the Calculator, the screen redisplays the application or menu as it appeared when you chose the accessory.

Events/Alarm

The Events/Alarm accessory displays the events that you have stored in the primary Calendar file, dmevents.cal. The screen shows events for the current day.

Note: Because the Events/Alarm accessory displays the events list from dmevents.cal, you cannot use that accessory from dmevents.cal.

To select Events/Alarm from the menu of Desk Accessories, press [E] or move the marker to `Events/Alarm` and press [ENTER]. Figure 3.4 depicts the Events/Alarm window with sample data to show the arrangement of information on the screen:

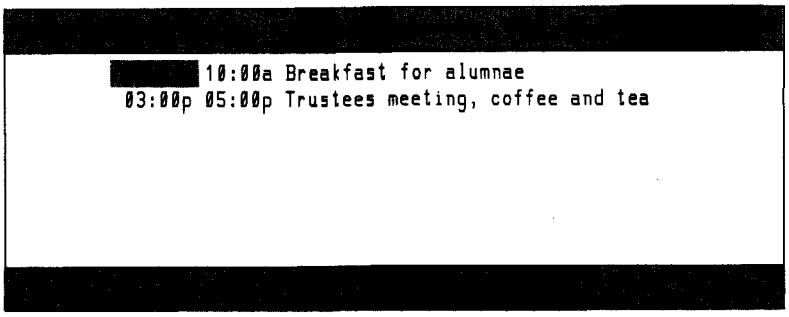


Figure 3.4

The top line of the screen identifies the day and date. At the far right, it displays the interval between the alarm and the scheduled time for the event.

The central display area lists in 3 columns the beginning and ending times and a brief description of each event. The display area has room for as many as 7 events at a time. Use the arrow keys to move the marker up and down the list.

When the marker reaches the bottom of the display area, additional events scroll upward into view until you reach the last event for the current date. Likewise, events scroll downward to let you return to the first event.

To move the marker laterally from column to column, press [ESC] and then [→] or [ESC] and then [←]

The bottom line is a command line. Press [ESC] to display the functions available to you in the Events/Alarm accessory.

To select a function after you press [ESC], press the key associated with the function on the command line.

Adding or Updating an Event

The Events/Alarm screen displays events entered through your primary Calendar file as well as those you enter directly through the accessory. (Of course, those events, in turn, become a part of the primary Calendar file, dmevents.cal.) If there are no events for the current date in the file, a blank event line appears so that you can enter an event. Once you have data in the file, press [ESC], then [0] when you want to add an event.

In the first 2 columns, enter beginning and ending times for each event. Type **p** to specify p.m. or **a** to specify a.m. New entries appear as morning (a.m.) events if you do not specify one or the other. If you press [ENTER] in each column without specifying times, the event appears at the top of the list as a *day event*.

In the last column, type a brief description of the event. Press [ENTER] to record the event and insert it in its proper (chronological) place in the list.

To update or revise an event, position the marker on the event you want to change. To change data in a column, type over the incorrect characters. Press [ENTER] to move to the next column. If you revise the beginning time for an event, it assumes its proper position in the list when you move the marker to another event line.

Setting the Alarm

If you want the DeskMate alarm system to alert you to the approach of a scheduled event, move the marker to the event line and press [ESC] and then [5]. The screen displays a star to the left of such events. Press [ESC] and then [5] a second time to cancel the alarm and remove the star.

The preset value for the alarm time is 10 minutes prior to the beginning time for an event. To change this interval between the alarm and the event, press [ESC], then [4] to use the Time function. The change applies to all events for which an alarm is set.

Type a number of minutes in the 2-digit space on the top line to specify the number of minutes you want the alarm to precede the event. Type **00** if you want the alarm to occur at exactly the beginning time for the event.

Changing the Date

Press [ESC] and then [2] to display the list of events scheduled for a date other than the current one. A monthly calendar appears in the center of the display area.

Move the marker from the current date on the calendar to the date you want to display. Up and down arrow keys move the marker a week at a time; left and right arrows move it day by day.

The monthly calendar for the next month or the previous month appears on the screen if you move the marker beyond the range of the current one. Press [ESC] followed by [←] or [→] to move the date indicator a month at a time.

Press [ENTER] to see the list of events for the date under the marker, or press [ESC], then [X] to cancel the date change and return to the previous list. If you press [ENTER], the new date and its list of events appear on the screen.

Deleting an Event

To delete an event from the screen, place the marker on the event that you want to delete, and press [ESC] and then [9]. The Delete function cancels the alarm for the event and removes it from the Events/Alarm screen.

Exiting Events/Alarm

When you finish using the Events/Alarm accessory, you can exit in either of 2 ways. Press [ESC], then [Q] to return to the screen you left to use the accessory. The Quit function records all changes you made to the file. The primary Calendar file, dmevents.cal, reflects these additions and revisions.

Press [ESC] and then [X] to cancel all the additions and revisions you made to the file since you entered it. The following prompt appears:

```
Cancel? (Y/N)
```

Press [Y] to affirm that you want to cancel all changes; the screen you left to use Events/Alarm reappears. Press [N] if you decide not to exit via the Cancel function.

Messages

The Messages accessory is similar to the Mail application, though it lacks many of the functions of the complete application. The chief advantage of using the accessory is its convenience. When the top line alerts you to the arrival of a message, you can read the message and send a response without exiting the file in which you are working.

To select Messages from the menu of Desk Accessories, press [M] or move the marker to `Messages` and press [ENTER]. A Message window appears that lists all *new mail*. New mail is mail that has not yet been delivered from the system mailbox to your home mailbox. Figure 3.5 illustrates this Message screen and provides sample data.

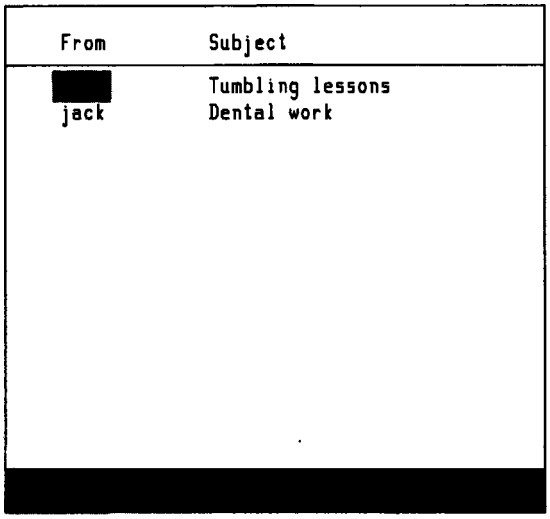


Figure 3.5

If you have no new mail, the screen displays the words `No Mail` in the message area.

Reading a Message

To read a message, position the marker on the line that identifies it on the screen. Use the arrow keys to move the marker up and down the list. If you have more messages than the window can display at one time, additional events scroll into view as you move the marker to them. Press [ESC] followed by [↑] or [↓] to move the marker a page at a time.

Press [ENTER] to display the message that is currently highlighted. Press [ENTER] again to read any continuation of the message. When there is no further text in the message, pressing [ENTER] returns you to the inventory of new mail.

Creating a Message

Press [ESC] and then [0] to use the Create function. The screen alters to enable you to compose your message. Begin by entering the user name for the intended recipient of the message. Either type the user name and press [ENTER] or press [ESC], then [1] to select the name from a list of all current users.

If you press [ESC] and then [1] to execute the Users function, the screen displays a list of users arranged in a column. A second column displays the data in the optional comment field that appears during the creation procedure for new users. On a multiple-user setup, this comment area often contains a full name for each of the (often abbreviated) user names.

Using the arrow keys, move the marker up or down the list until it rests on a name you want to select. Press [ENTER] to make your selection. When the marker reaches the last line displayed in the box, the list scrolls upward until it shows the last user name. Likewise, the list scrolls downward as you move the marker back to the first name in the list.

Each name you choose from the list of user names appears in the heading of your message. Within the space provided in the heading, you can select a number of users or any special user groups that the user list recognizes.

When you are finished with the Users function, press [ESC] and then [Q]. The cursor returns to the region of the Message screen that it occupied formerly. Press [ENTER] to move to the next item in the heading.

In response to the second item in the heading, describe the subject of your message. This brief description identifies the message on the recipient's Mail and Message screens. Press [ENTER] to move to the message area.

Type your message in the space below the heading. The message area consists of 15 lines, each containing 40 characters. Words that overrun the right margin wrap to the next line as you type.

End your message in either of 2 ways. To quit the message and send it, press [ESC], then [Q]. The list of new mail reappears. To cancel the message and return to the mail list, press [ESC] and then [X].

Exiting Messages

To quit the Messages accessory, press [ESC] and then [Q]. The accessory transfers its contents to your primary mailbox, dmbox.msg. The screen redisplays the screen you left to execute the accessory.

Phone Directory

Think of the Phone Directory as a replacement for that revolving set of filecards on your desktop. Use it to record or look up phone numbers quickly and easily. You can expand each listing to include 4 lines of additional information—addresses, account numbers, or general notes.

To select the Phone Directory from the menu of Desk Accessories, press [P] or move the marker to `Phone Directory` and press [ENTER].

The Phone Directory listings, simulated in Figure 3.6, appear on the screen. Use this screen for locating and entering information in the Phone Directory.

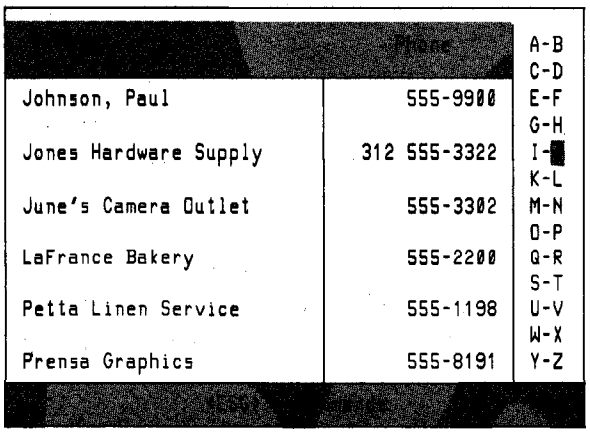


Figure 3.6

Figure 3.6 contains sample data to show the arrangement of information in the Phone Directory window.

Finding Information

Your Phone Directory sorts entries into alphabetical order. The arrow keys move the marker up and down the list. When the marker reaches the top or bottom of the display area, additional entries scroll onto the screen.

The list is continuous: the first name in the list reappears when you scroll beyond the last entry. Entries that begin with non-alphabetic characters (such as 1-2-3 Cleaners) come after the Z entries (and before the A entries).

To find an entry rapidly, press the first letter of the entry. The cursor tabs to the first entry that begins with that letter. The letters arranged in a column on the right margin of the window are like tabs among your file cards. A rectangular marker indicates the initial letter of the current entry.

To proceed to the next group of 6 entries (page by page), press [ESC] and then [↓]. Press [ESC] and then [↑] to display the preceding 6 entries.

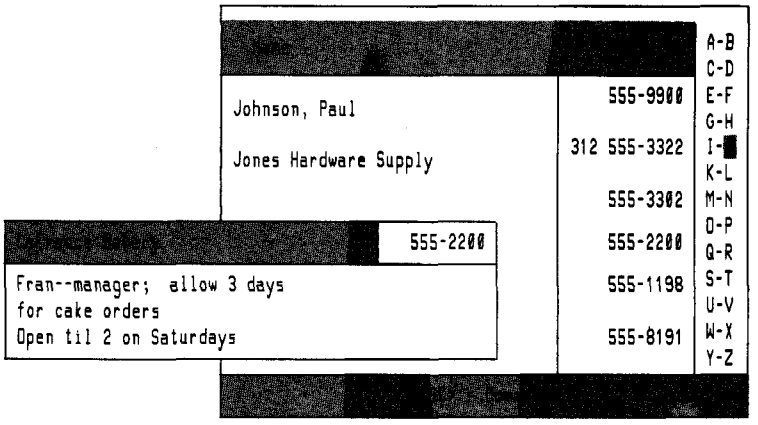


Figure 3.7

When you place the marker on an entry, it highlights the name and phone number. To see more information, press [ENTER]. The Phone Directory "pulls out" the card, revealing a 4-line comment area on each card. Press [ESC], then [Q] (or [CTRL] [C]) to "replace" the card.

Adding an Entry

To add an entry to your Phone Directory, press [ESC], then [0]. A blank file card appears on the screen with the marker on the first item. In this box, type a name with a maximum of 30 characters. Type the last name first so that the entry can be sorted properly.

Press [ENTER] to move the marker to the next field, the phone number. The field for the telephone number contains 12 spaces to allow room for the area code and the local number. See the examples in Figure 3.7.

Press [ENTER] again to move the marker to the comment field, below the name and number. Use the 4 lines in the comment field for general information such as that on the sample card in Figure 3.7.

When you finish typing the entry, press [ESC] and then [Q] to place the new card in your Phone Directory. The directory displays the new entry on the first line of the window in its proper alphabetical position.

Note: The first few entries you make in your Phone Directory may appear to be incorrectly sorted. Because the list is continuous, later entries seem to precede earlier ones. To reassure yourself that the order is correct, press [A] to tab to the beginning of the list and display it.

To make a series of new entries, press [ESC] followed by [0] when you finish typing a card. In this way, you can add the card you typed and display a blank one using a single command. Press [ESC] and then [Q] after you type the last new entry. (If you accidentally press [0] rather than [Q] after the last new card, press [CTRL] [C] to avoid entering a blank card in your file.)

Editing or Deleting an Entry

To change information in an entry, move the marker to the entry, and press [ENTER]. Position the cursor on the data you want to change. Pressing [ESC] followed by [→] or [←] moves the marker to the next data area or to the preceding one.

Enter the correct data, typing over any characters you need to replace. You can also use [CTRL] [W] to insert or [CTRL] [X] to delete a character.

Press [ESC] and then [Q] to store the edited form of the data card. Press [CTRL] [C] before storing the edited card to cancel the revision.

To delete an entry, move the marker to the entry you want to remove and press [ESC] and then [9]. The marked entry disappears from the screen.

Printing Information

To print the information in your Phone Directory, press [ESC], then [P]. Press [ENTER] at each of the printer settings or make changes as needed. When you are satisfied with the settings on the screen, press [ESC] and then [Q] to start printing.

If the cursor is in the directory when you choose to print, the printed copy consists of names and telephone numbers only. If, however, you press [ENTER] to display an entire card and then select the Print command, the printed copy includes the comment data for each card. In either case, the printed directory includes all entries, alphabetically arranged.

Exiting the Phone Directory

To exit the Phone Directory, press [ESC] and then [Q]. The accessory stores any changes or additions to the data and returns you to the background screen, the menu or application you left to use the Desk Accessories. To exit and cancel any changes you have made in the directory, press [ESC] and then [X].

Scratchpad

Accessible from any application, the Scratchpad accessory is a mini-text file, ideal for quick notes and reminders. Its pages are designed to be instantly readable, each one fully displayed on the screen without scrolling.

To choose Scratchpad from the menu of accessories, press [S] or move the marker to the word `Scratchpad` in the list, and press [ENTER]. The Scratchpad window, such as that shown in Figure 3.8, appears. The last line in the figure, the command line, appears on your screen when you press [ESC].

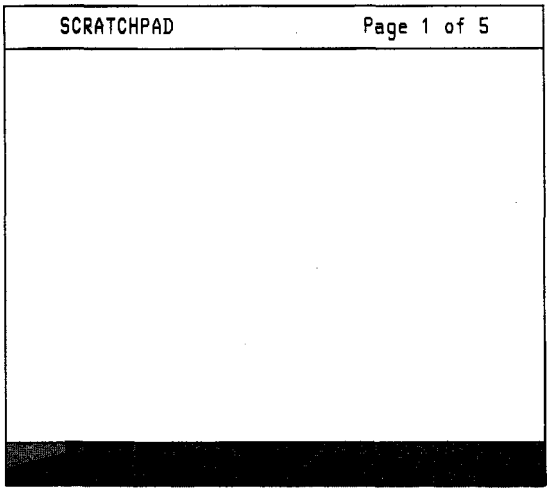


Figure 3.8

The top of the screen identifies the page number. You can enter text on as many as 5 pages. The text area on each page consists of 15 lines of 40 characters.

Type notes anywhere in the space provided. The text you enter overwrites any existing characters, and words wrap to the next line if they overrun the right margin. Likewise, when the text you are typing reaches the end of a page, Scratchpad proceeds directly to the next page.

Using the arrow keys, you can move the cursor to any position on the screen without erasing data. Pressing [ESC] followed by either [↑] or [↓] moves the cursor to the top or bottom of the page. If the cursor is on the top line, pressing [↑] moves the cursor to the bottom line of the preceding page. Similarly, pressing [↓] moves the cursor from the bottom line to the top of the next page.

To edit, you can press [CTRL] [W] to insert or [CTRL] [X] to delete a character. Also, the space bar and [BACKSPACE] key erase characters. Press [ESC], then [1] to clear, or erase, the current page of text.

Press [ESC] and then [P] to print the entire Scratchpad. A series of blank lines on a page collapses to 2 linefeeds in the printed copy. The accessory prints successive pages without a break. When the printing stops the cursor returns to the position at which you executed the Print command.

Press [ESC] and then [Q] from any page to return to the background screen, the application or menu you left to execute an accessory. Press [ESC] and then [X] to exit the Scratchpad and cancel changes made to the file.

XENIX Command

Use the XENIX Command accessory to execute a XENIX system command. The accessory enables you to use system commands without having to exit and then reopen DeskMate.

Select the accessory from the menu of Desk Accessories by pressing [X] or by positioning the marker on `XENIX Command` and pressing [ENTER].

The following prompt appears on the screen along with an identification of the current directory:

Type any valid XENIX command. Then, press [ENTER] to execute the command or [CTRL] [C] to cancel it and return to the previous screen. The system executes the command in the directory identified. This directory might not correspond to the directory you were using when you selected a Desk Accessory.

After the system acts on your command, the following prompt appears:

```
Press any key to continue
```

Press any key to redisplay the menu or application you left when you chose Desk Accessories.

Chapter 4

Text

The Text application is an easy to use, yet powerful text editor program. Use Text to prepare everything from quick memos to letters, articles, and reports.

Text functions allow you to rearrange, delete, and insert text, as well as change the format of your document. You can print documents, combine documents, and save all or a portion of a document to the disk.

Using Text

To create a document, open a new Text file from the Main Menu. Begin by positioning the marker on `Text` in the application line. Press [ENTER] to load the application without specifying a file. Text displays a prompt at the bottom of the screen:

```
Enter filename:
```

Type a new filename, and press [ENTER]. If you do not type the extension to the filename, **.doc**, Text assigns it automatically.

Note: You can open a document file without specifying a filename by merely pressing [ENTER] at the prompt. However, when you exit the file, Text does not save its contents. To avoid losing data in such a case, you can merge the unnamed file to another file (whose name—new or existing—you specify).

The names of existing document files appear on the Main Menu in the column below `Text`. To open an existing file, move the marker to the application name. Then, indicate the name of the file in either of the following ways:

- Press [ENTER] to load the application, and then enter the filename when the prompt, `Enter filename:`, appears at the bottom of your screen.

- Use the arrow keys to position the marker on the filename, and press [ENTER]. (If you have a long list of files, you may discover that the Find function saves you time. The Find function is described at a later point in this chapter.)

The first line of the Text screen identifies the current application and filename, the date, and the time. It also reminds you that pressing [ESC] displays the command lines at the bottom of the screen. Normally, however, the command lines are not displayed, so that the additional space can be devoted to your document. This chapter includes detailed instructions for using the Text functions.

Type the text of your document on the screen. The Add/Replace function lets you switch back and forth between insert and overstrike typing modes. Words wrap to the next line when you reach the righthand margin. (Use the Format function to reposition the right margin.)

After you fill the available text area on the screen, additional lines scroll upward to let you continue. To see a line after it has scrolled off the screen, use the marker movement keys as described in the marker movement section of this chapter.

The Text application stores a fixed number of lines per page, the same number of lines that the printer is set to print on a page. You can check this value by pressing [ESC] and then [P] to display the printer settings. Note the value opposite `Printed lines per page`. Press [CTRL] [C] to return to your document.

To end a page in your document before the fixed page break, type .N [ENTER] on a line by itself. Be sure to type a capital (uppercase) N. The characters signal the printer to start a new page, but they do not appear on the printed copy.

The Help Screens

The Text help screens contain brief summaries of the functions and the procedure for using them. Within the Text application, press [ESC] and then [?] to see the first help screen.

To see the next help screen, press [ENTER]. Press [CTRL] [C] to return to the Text screen.

Marker Movement

Use the arrow keys to move the marker a character or line at a time. Pressing other keys or key sequences moves the marker more rapidly. Refer to Figure 4.1 for exact marker movement.

Marker Movement

Key	Moves the Marker
[→]	1 character to the right
[←]	1 character to the left
[↑]	1 line up in the current column
[↓]	1 line down in the current column
[ESC] [→]	to the last character in the current line
[ESC] [←]	to the first character in the current line
[ESC] [↑]	to the top of the screen in the current column, or to the top of the previous screen if already at the top
[ESC] [↓]	to the bottom of the screen in the current column, or to the bottom of the next screen if already at the bottom
[CTRL] [T]	to the beginning of the document

Figure 4.1

The Text Functions

The Text functions let you manipulate the text within your document and from document to document. They appear on the command lines

when you press [ESC], as shown below, along with the general DeskMate commands. The general DeskMate commands, available in any DeskMate application, are described in Chapter 2, "The Main Menu." This section deals only with functions unique to Text.

To select a function, press [ESC] followed by the number key corresponding to the function you want to use. Do not hold down [ESC] while you press the command key. You can press a function key instead of a number key ([F1] for [1], [F2] for [2], etc.) or in place of the key sequence ([F1] for [ESC] and then [1], [F2] for [ESC] and then [2], etc.).

Find

Select the Find function to search for and find a string (sequence of characters) of as many as 30 characters. The following prompt appears at the bottom of the screen:

```
Search string:
```

Type the string you want the cursor to find, and press [ENTER]. The Find function ignores uppercase and lowercase. For example, `STRING` and `string` are recognized as equal. The function searches for the first occurrence of the string beginning at line 1 of the document.

If the string is found, the line containing the string appears at the top of the screen with the cursor on the first character of the string. To find the next occurrence of the string, press [ESC], then [1] again, and press [ENTER] to use the same search string.

If the search string does not occur, or if the function has located all occurrences already, the cursor returns to the beginning of the document.

Substitute

The Substitute function not only finds a string, but also replaces it with a character string that you specify. Press [ESC] and then [2] to select the function. The bottom line of the screen shows:

```
Search string:
```

Enter the string you wish to find and replace. Next, the screen shows:

```
Replacement string:
```

Enter the string you wish to substitute. The Substitute function finds the first occurrence of the string in the document. The bottom of the screen shows:

```
Replace? (Y/N)
```

Press [Y] to replace the marked occurrence of the string. Press [N] to skip an occurrence that you do not wish to replace. After you respond to the prompt, the function finds the next occurrence of the search string. Press [CTRL] [C] at any time to cancel any further substitutions.

Add/Replace

Press [ESC] and then [3] to switch the typing mode between Add and Replace. When you change the mode, the command line changes so that it always identifies the current mode. Whenever you open a file, the initial mode is Add mode.

The selection of mode determines the effect of typing a character when the cursor is already on a character. This occurs frequently when you edit your text.

In Add mode, each character you type is inserted (added) at the cursor, and existing text shifts to the right a space for every character inserted.

In Replace (overstrike) mode, each character you type overstrikes the character under the cursor. The text is not moved. Note that you cannot replace a carriage return. Use the arrow key to skip a carriage return, or use [CTRL] [X] to delete it.

The effect of pressing [BACKSPACE] is also different in the 2 modes. In Add mode, [BACKSPACE] deletes the character preceding the cursor and closes up the text. In Replace mode, [BACKSPACE] moves the cursor to the preceding position and replaces the existing character with a blank space.

Format

The Format function enables you to specify the number of characters to display on each line of your text. You can vary the screen width between 21 and 78 characters.

When you adjust the printer settings, you can choose a **printed** line width different from the screen width. However, if you match the screen format to the expected width of your printed document, you have the advantage of seeing your document on the screen as it will appear when printed.

Press [ESC], then [4] to select the Format function. The following prompt appears:

```
Line Width = 78
```

In place of the current value, enter the number of characters you want to appear across each line on the screen. The left margin does not change; the right margin adjusts to the new format. After you press [ENTER], the text in your document adjusts to the newly specified format. Each time you save and reload the document, it retains the latest format change.

Buffer

The Buffer function lets you duplicate a block of text in a separate region of memory called the *copy buffer*; you can then insert this copy somewhere else in your document. The Buffer function operates only after you select a text block using the Select function (described in an upcoming section of this chapter).

Press [ESC] and then [5] to duplicate all selected text into the copy buffer. The Buffer function does not erase the selected text block. Then, to insert the contents of the copy buffer at another location, move the marker to the appropriate position, and press [ESC], then [0] to use the Insert function. (See the explanation of the Insert function for details.)

The buffer retains its selected contents until you either exit your document or use the Buffer function with a new block of text. This means, of course, that you cannot use the Buffer function to insert selected text from one document into another. Instead, use the Copy and Merge functions: first, copy the selected block of text to a temporary file, and then use the Merge function to load it into the destination file.

Merge

Press [ESC] and then [6] to merge (combine) a copy of another document with the document on which you are currently working. The following prompt appears:

```
Enter merge filename:
```

Enter the name of the document file that you want to introduce into your document, and press [ENTER]. If the file is not in the current directory, enter the complete pathname. The function checks the length of the specified file, and, if there is enough room in the working document, inserts the specified file at the current marker position.

If there is not enough room in your document to merge the entire file you specified, the Merge command is canceled. The screen displays the following message:

```
Not enough memory [ENTER] to continue
```

Press [ENTER] to return to your document.

Select

Use Select to define a word or block of text in order to perform some other operation on it. You might, for example, want to insert a sentence or paragraph elsewhere in your document, delete a passage, or copy a portion of a document into a separate file.

Using the marker movement keys or the Find function, position the marker on the first character you want to select. Press [ESC], then [7]. Then, use the marker movement keys to expand the highlighted area.

All highlighted text between the first and current marker positions is selected. You can increase or decrease the amount of selected text, using the marker movement keys, until you are satisfied.

After you select your text, use another command with the block of text—Buffer, Delete, Print, or Copy. (To insert the block at another point in your document, first use the Buffer function to save it to your copy buffer.)

Press [ESC] and then [7] if you decide not to use the text you have selected. If you use any other Text operation except Find or exit the Text application, you cancel the text selection.

Copy

Press [ESC] and then [8] to create a copy of your document or a selected portion of it to a Text (ASCII) file. The following prompt appears:

```
Enter copy filename:
```

Enter the name of the file to which you wish to save this document, and press [ENTER]. If you press [ENTER] without entering a filename, the Copy function supplies the current document name as the copy filename and copies the file to the disk.

Delete

Press [ESC] and then [9] to delete the character under the cursor. The Delete function eliminates the character and closes the remaining text. If you first select a block of text, the Delete function deletes the entire block and closes the remaining text. You can also use the key sequence [CTRL] [X] in place of the Delete function to delete text.

Insert

The Insert function lets you insert a block of text into your document. First, select the block and use the Buffer function to duplicate the selected text in the copy buffer. Then, move the marker to the point in the document at which you want to insert the text block. Press [ESC] and then [0] to insert the contents of the copy buffer at the current marker position.

The buffer retains the text it contains even after you use the Insert function. Use the function again to insert the buffer contents at any point in the document.

You can also insert text by positioning the cursor and then typing in Add mode. Press [ESC], followed by [3] to switch between Add and Replace (Rpl) modes.

Printing Documents

The Print function lets you print all or part of a document. If you want to print only a part of your document, begin by selecting text using the Select function.

When you are ready to print (either the whole document or a selected part), press [ESC], then [P]. The screen displays a set of instructions to the printer that define the format for your printed document.

Change any settings as required for the current document. Chapter 1 includes an explanation of each item. Be sure that your printer is properly connected and online, and then press [ESC] and then [Q] to begin

printing. To cancel the print command before you actually start to print, press [CTRL] [C].

Exiting Text

There are 2 ways to exit your document. One way saves the current contents of the document (complete with newly entered changes); the other does not.

Press [ESC] and then [Q] to exit and save the document, complete with all changes you have made to an existing document. DeskMate returns you to the previous level of operation—the Main Menu or the system prompt.

Press [ESC], then [X] to exit the file and cancel any changes you have made. The following prompt appears:

```
Cancel Edit? (Y/N)
```

Press [Y] to disregard all changes you made to the document since opening it. The Cancel command saves the pre-edited form of the file. If you want to keep any of your revisions, press [N] to return to the document.

Chapter 5

Worksheet

With Worksheet, you can easily perform complex calculations for budgeting, forecasting, statistical analysis, engineering—whatever uses you can imagine for a spreadsheet. The program lets you customize your spreadsheet to meet your specific needs.

Worksheet functions enable you to find data quickly, copy and delete files, and print all or part of a spreadsheet. Using the Merge function, you can save selected data from your spreadsheet in either XENIX or MS-DOS format.

This chapter tells you how to create and open Worksheet files and how to use the functions to prepare and print a spreadsheet.

Using Worksheet

To create a spreadsheet, open a new file from the Main Menu. Begin by positioning the marker on `Worksheet` in the application line. Press [ENTER] to load the application without specifying a file. Worksheet displays a prompt at the bottom of the screen:

```
Enter filename:
```

Type a new filename, and press [ENTER]. If you do not type the extension to the filename, **.wks**, the application assigns it automatically.

Note: You can open a worksheet file without specifying a filename by merely pressing [ENTER] at the prompt. However, when you exit the file, the application does not save its contents. To avoid losing data in such a case, you can merge the unnamed file to another file (whose name—new or existing—you specify).

The names of existing worksheet files appear on the Main Menu in the column below `Worksheet`. To open an existing file, move the marker to the application name. Then, indicate the name of the file in either of the following ways:

- Press [ENTER] to load the application, and then enter the filename when the prompt, `Enter filename:`, appears at the bottom of your screen.

- Use the arrow keys to position the marker on the filename, and press [ENTER]. (If you have a long list of files, you may discover that the Find function saves you time. The Find function is described at a later point in this chapter.)

Figure 5.1 shows the basic worksheet screen. At any time, the screen displays only a portion of the entire worksheet. The visible portion is called a window. You might think of the window shown in Figure 5.1 as the upper lefthand portion of the worksheet. There are additional columns and rows to the right of and below the window in the figure.

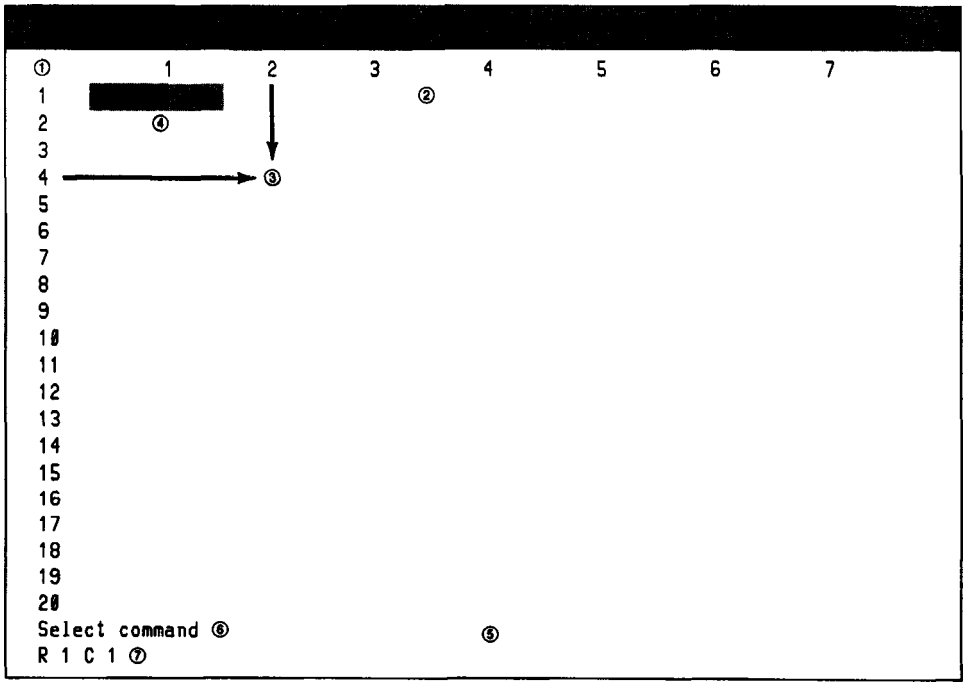


Figure 5.1

If you use the standard column width (10 characters), a window shows 7 columns and 20 rows. You can have as many as 99 rows and 99 columns in each worksheet, provided that your setup offers sufficient memory. In the following list, the circled numbers correspond to the positions shown in Figure 5.1.

① Row numbers appear down the left side of the screen in the row label area.

② Column numbers appear across the top of the screen in the column label area.

③ Each intersection of a row and a column is a *cell.*

④ The highlighted rectangle is the *entry marker.* Use the entry marker to select a cell for data entry.

⑤ The data entry line displays the data you enter in the marked cell.

⑥ The command line either prompts you to select an activity or displays the activity in which you are currently engaged. Error messages and warnings also appear on this line.

⑦ The cell status line indicates the cell currently highlighted by the entry marker (`R 1 C 1`). Text data contained in that cell appears to the right of the cell number. If the current cell contains numeric data, the cell status line specifies only the word `number`.

To enter data on the worksheet, position the entry marker on a cell, and type the data on the data entry line. The cell displays the data at the same time. If the first character is numeric (− or +, 0 through 9, or .), the command line changes to read, `Enter number`. Otherwise, the command line prompts, `Enter text`.

Press [ENTER] or one of the arrow keys to store the contents of the entry line in the cell. If, in a numeric entry, there are too many characters to the left of the decimal to display using the format for the cell, Worksheet retains the entire number, but displays a series of asterisks at the cell location. Undisplayable characters to the right of the decimal remain in memory, but the program rounds the number displayed in the cell to approximate the complete value.

The Help Screens

The Worksheet help screens contain brief summaries of the functions and ways to use them. When you need help, press [ESC] and then [?]. The screen most appropriate to your current situation on the Worksheet is displayed. Press [CTRL] [C] to return to the Worksheet.

Marker Movement

Use the marker movement keys to move the entry marker from cell to cell and to the row and column labels. The arrow keys move the marker a cell at a time, in the direction of the arrow. Press the other marker movement keys or key sequences to move the marker more rapidly. See Figure 5.2.

Marker Movement

Key	Moves the Marker
[→]	1 cell (or column label) to the right
[←]	1 cell (or column label) to the left
[↑]	1 cell (or row label) up
[↓]	1 cell (or row label) down
[ESC] [→]	To the last column on the screen, from the last column to the last column on the next screen
[ESC] [←]	To the first column on the screen, from the first column to the first column on the previous screen; to the row label if the entry marker is in Column 1
[ESC] [↑]	To the first row on the screen, from the first row to the first row on the previous screen; to the column label if the entry marker is in Row 1
[ESC] [↓]	To the last row on the screen, from the last row to the last row on the next screen
[CTRL] [T]	To Row 1 or to the column label if the marker is in Row 1

Figure 5.2

The Worksheet Functions

The Worksheet functions appear at the bottom of the screen when you press [ESC]. The numbered functions on the first line are specific to Worksheet. The second command line displays general DeskMate commands, with the addition of Calc, which is unique to Worksheet.

To select a Worksheet function, press the appropriate number key (after pressing [ESC] to display the command lines). You can use function keys ([F1], [F2], [F3], etc.) to select the functions if your terminal provides them and your termcap file supports them. For example, you can select the Find function by pressing [ESC] and then [1], [ESC] and then [F1], or [F1] by itself.

Find

Press [ESC], then [1] to search for an alphanumeric string or a specific cell. The following prompt appears on the command line:

```
Specify string or cell
```

When searching for a character string, the function searches any cell that contains text. The search begins at the current marker position and covers all cells that come after it (from left to right to R99 C99). It ignores numeric entries and blocks of text entered using the Text function.

A cell containing characters other than the search string is nevertheless a match. The search string **day**, for instance, matches any cell after the current marker position that contains the name of a day of the week: Sunday, Monday, etc.

Enter the cell contents that you want to find. The function finds the first occurrence of the string and displays the cell containing it. The window shifts so that the cell you specified appears highlighted in the upper left corner of the screen.

If you type no characters between uses of the function, it does not prompt you each time for a new search string. Instead, the function executes the search immediately after you press [ESC] and then [1]. The screen displays the next occurrence of the search string you entered already.

When searching for a specific cell, you must enter a valid cell number. Type **R**, followed by the row number, then **C**, and the column number.

For example, type **R2C3** [ENTER] to find the cell located on Row 2 of Column 3. The entry marker moves to and highlights the cell you specified.

If you specify only a row number, the marker moves to the specified row in the current column. In a like manner, the marker moves to a specified column number in the current row.

Text

If you require more space for text than a single cell, or if you want the worksheet to appear formal, you can select a block of cells in which to enter text. The perimeter of the selected block defines the text boundaries, rather than each individual cell in the block. In effect, this function creates a window for writing, editing, and manipulating text.

To create a text area in your worksheet, select a block of cells using the Select function (described later in this chapter), and press [ESC], then [2]. To edit an existing text block, position the marker anywhere in the block and press [ESC] followed by [2].

As you type, words wrap to the next line. If you type a character over existing text, the text shifts to the right (insert mode). [BACKSPACE] deletes the character preceding the cursor and [CTRL] [X] deletes the character at the cursor.

To exit the Text function and save the Text block as it currently appears, press [ESC] and then [Q]. To restore text to pre-edited condition, or to cancel a new block selection for text, press [CTRL] [C] (or [BREAK]).

Within limits, you can reformat existing text blocks into larger or differently shaped blocks in your worksheet. To do so, select a block of cells (using the Select function) including at least 1 cell of the existing text block that you wish to reformat. Press [ESC] and then [2]. The text block is reformatted into the newly selected block. Edit the block or press [ESC], then [Q] to exit the Text function.

When you delete rows or columns or insert them in your worksheet, the text block shifts position along with its surroundings.

Formula

To enter a formula into a cell, position the entry marker on that cell. Press [ESC] followed by [3] to mark the cell for formula entry. Then, enter the formula on the data entry line.

To enter a formula into several cells, select the cells using the Select function. Next, mark them for formula entry using [ESC] and then [3], and enter the formula.

As the examples on the following pages show, formulas in Worksheet can refer to cell locations as *operands* (numbers on which an operation is performed). But while you enter a formula by referring to specific cells, the references are variable; they change when the formula changes location. This feature enables you to insert or delete rows and columns without having to adjust the formulas yourself; the formulas still compute the values you intended them to compute.

Consider a formula that finds the sum of Rows 3, 4, and 5 (in any column). The formula, located in Row 6, is `SUM(R3)`. Delete Row 1, and the formula adjusts to add the values in Rows 2, 3, and 4. The formula, now in Row 5, reads `SUM(R2)` after the deletion.

Now add 3 rows between Row 1 and Row 2, and the formula adjusts again to find the sum of the values in Rows 5, 6, and 7. The formula, now located in Row 8, has become `SUM(R5)`.

Finally, add a row between Rows 5 and 6, within the series of values totaled by the formula. The formula adjusts this time to include the new row, finding the sum of the values in Rows 5, 6, 7, and 8. In each instance, the formula accommodates the changes so that it still applies to the cells for which you intend it.

Rather than typing each cell location in a formula, you can display a cell location on your entry line by positioning the marker in that cell. After you choose the Formula function, begin typing the formula itself. At any point that you need to type a cell location, you can move the cursor to the cell and displays that cell location on the entry line. Then, continue to type your formula.

Repeat the process to specify other cell locations elsewhere in the formula. Press [ENTER] when you finish typing the formula, or press [CTRL] [C] to cancel the formula entry.

You might, at some point, want to refer to a fixed cell location in a formula. To prevent the reference from being adjusted, precede it with # in the formula. The # indicates a constant, rather than variable, cell location. For example, #R2C11 specifies a fixed cell location, no matter where you relocate the formula.

Another special character lets you enter a value in a cell at the time of calculation (using the Calc function). Enter ? as the first character in a formula cell to prompt for a constant used in a calculation.

Within a formula, parenthetical operations are performed first, multiplication and division second, and addition and subtraction last. When parentheses are nested, the innermost operations are performed first. If parentheses or the type of operation do not determine the order of computation, the operations occur from left to right. Figure 5.3 shows the operators available for use in formulas.

To erase values in formula cells while leaving the formulas intact, press [CTRL] [F].

To edit an existing formula, position the marker on the formula cell, and press [ESC] followed by [3]. Left and right arrows enable you to position the cursor within the formula. Delete characters using [CTRL] [X] or [BACKSPACE]. Any characters you type are inserted at the cursor. When you finish revising a formula, press [ENTER] to save the revisions or [CTRL] [X] to cancel them.

Formula Operations between 2 cells:

+	Addition	*	Multiplication
−	Subtraction	/	Division
		!	Power

for a row, column, or selected block:

AVG	Average (mean) of the values	MIN	Minimum value
		RMT	Cumulative sum of the row
CMT	Cumulative sum of the column	SUM	Sum of the values
MAX	Maximum value		

for a cell:

ABS	Absolute Value	LOG	Logarithm
ATN	Arctangent	SGN	Sign
COS	Cosine	SIN	Sine
EXP	Exponential	SQR	Square root
INT	Integer truncation	TAN	Tangent

Figure 5.3

The following are examples of formulas using some of these operations. The examples demonstrate accepted syntax with the various operators. The program recognizes both lower- and uppercase characters.

? CONST A Sets up a cell to receive a constant (labeled CONST A) to be entered at the time of calculation.

(R1 + R2) Adds 2 cells in the same column.

(C3)-(R1C4) Subtracts the value of the cell in Row 1, Column 4 from the value of the cell in Column 3 of the current row.

C1*C2 Multiplies two cells in the same row.

(R1C2)/100 Divides the value of the cell in Row 1, Column 2 by 100.

C6R3!3 Calculates the cube of the value of the cell in Row 3, Column 6.

ABS(R2C3) Multiplies the value of the cell in Row 2, Column 3 by −1 if (and only if) it is a negative number (absolute value).

ATN(R3C5) Displays the arctangent of the value in Cell R3C5—the angle (measured in radians) that has a tangent equal to the value in Cell R3C5. (Use ATN(R3C5)*57.27273 to display the arctangent in degrees.)

AVG(C1) Adds all the values in the current row, beginning with Column 1, over to the current cell, skipping any non-numeric data, and then divides by the number of numeric cells added.

CMT(#R4C3) Gives a cumulative total for Column 3, beginning with Row 4. For example:

```
          [  3  ] [  4  ]
[  4  ]    5.00
[  5  ]   10.00
[  6  ]   20.00
```

If you select Cells 4, 5, and 6 of Column 4 and enter the above formula, calculation produces the following results:

```
          [  3  ] [  4  ]
[  4  ]    5.00    5.00
[  5  ]   10.00   15.00
[  6  ]   20.00   35.00
```

COS(R3C5) Displays the cosine of the value in Cell R3C5. (Use COS((R3C5)*.01745329) if the value in Cell R3C5 is in degrees instead of radians.)

EXP(R4C3) Displays *e* raised to the power of the value in Cell R4C3 (Napierian, or natural exponential e^x).

INT(R4C2) Displays the truncated value of Cell R4C2.

LOG(R2C4) Displays the logarithm to the base 10 of the value in Cell R2C4.

MAX(C4) Displays the maximum value in the current row, beginning with Column 4, over to the current cell, skipping any non-numeric data.

MIN(R1) Displays the minimum value in the current column, beginning with Row 1, down to the current cell, skipping any non-numeric data.

RMT(#R4C3) Gives a cumulative total for Row 4, beginning with Column 3. For example:

```
          [  3  ] [  4  ] [  5  ]
[  4  ]     5.00    10.00    20.00
[  5  ]
```

If you select Cells 3, 4, and 5 of Row 5 and enter the above formula, calculation produces the following results:

```
          [  3  ] [  4  ] [  5  ]
[  4  ]     5.00    10.00    20.00
[  5  ]     5.00    15.00    35.00
```

SGN(R3C4) Displays the sign of the value in Cell R3C4 (displays 1.00 if the argument is positive or zero, and −1.00 if it is negative).

SIN(R2C1) Displays the sine of the value in Cell R2C3. Use SIN((R2C1)*.01745329) if the value in Cell R2C3 is in degrees instead of radians.

SQR(R5C1) Displays the square root of the value in Cell R5C1.

SUM(R5) Displays the sum of the values in the current column, beginning with Row 5, down to the current cell, skipping any non-numeric data.

TAN(R2C3) Displays the tangent of the value in Cell R2C3. Use TAN((R2C3)*.01745329) if the value in Cell R2C3 is in degrees instead of radians.

Format

Use the Format function to change column widths or data format. You can change individual column widths or change all column widths at once. Similarly, you can change the format for data in a single cell or for a selected block of cells.

Initially, a spreadsheet displays 10 characters per column. To change column width, press [ESC], then [↑] while the entry marker is in Row 1. The marker moves up into the column label area. Then, if you want to change the width of a particular column, move the marker to the column you want to change.

Next, press [ESC] and then [4]. The following message appears on the command line:

```
Specify All,width or width
```

If you want to change the width of all columns, type **All,** followed by the new width, and then press [ENTER]. For example, change the width of all columns to 15 by typing:

All,15 [ENTER]

Change only the width of the current column by entering the width you prefer and omitting **All**. To change the current column to 15 characters, for example, type the following:

15 [ENTER]

To use the Format function to specify a certain format for existing cell data, place the entry marker on the cell you want to change or select a group of cells (using the Select function). Press [ESC] and then [4]. The screen shows:

```
Specify format types (L, R, D, I, $)
```

At the data entry line, enter the letter or letters for the format you wish to use, as follows:

L = left-justified
R = right-justified

D = decimal (up to 7 decimal places)
I = integer (whole number)
$ = dollar format (2 digits after the decimal)

Notice that you can specify more than one format modifier. You can combine a justification format (L or R) with an indication of precision (D, I, or $). For example, **LI** [ENTER] indicates a left-justified, integer format.

If you do not customize cell formats, text is routinely left-justified, while numeric data is right-justified in dollar format.

When you specify decimal (D) format, a second prompt enables you to specify the number of decimal places to display. For practical purposes, do not specify more that 7 decimal places. You can store numbers on your worksheet with more than 7 digits after the decimal, but precision is lost after 7.

Buffer

The Buffer function lets you duplicate a portion of your worksheet in the copy buffer. Then, you can insert the contents of the copy buffer in another area of the worksheet.

Begin by selecting a block using the Select function. (An upcoming section explains the use of the Select function.) Press [ESC] and then [5] to place the selected block of your worksheet in the copy buffer. If the selected area includes a partial text block, a message appears:

```
Partial text areas in source, continue? (Y/N)
```

Press [Y] to copy the selected cells even though they do not include the complete text block. Press [N] to cancel the attempt.

Use the Insert function to place the contents of the copy buffer in another area on the worksheet.

Merge

Press [ESC], then [6] to merge data from one file into another. If you begin by selecting a block of data, the function lets you save the block to a file that you specify. You can indicate either XENIX or MS-DOS® format for the file. If you do not select a block of data before invoking the Merge function, the screen prompts you for the worksheet file that you want to insert at the current marker position.

If you begin by selecting a block of cells, the screen prompts:

```
XENIX or MS-DOS format? (X/M): X
```

Press [ENTER] or [X] to save the selected cells in a XENIX file. Or type [M] to indicate that the file is to have MS-DOS format. A user with an MS-DOS version of DeskMate can load a file of that type from Worksheet.

After you determine the format of the destination file, a second prompt appears:

```
SAVE Enter filename:
```

At the data entry line, enter the name of the file in which you wish to save the selected block. If you select a block that includes part of a text block, a prompt appears on the command line to tell you that you are merging a partial block of text. Press [Y] to execute the command and merge the partial text block, or press any other key to cancel.

If you do not select a block of cells, this alternate prompt is displayed:

```
LOAD Enter filename:
```

Type the name of the worksheet file that you want to load and insert at the current marker position. Press [ENTER] to execute the Merge command. The Merge command inserts the file you specify, overwriting any cells in the current worksheet that overlap the inserted file.

If the file you want to load would write data in cells occupied by a text block or exceed the capacity of the current file, Worksheet cancels the Merge command and identifies the problem on the command line. Press any key to continue using your file.

Select

The Select function lets you define a block of cells on the worksheet. After you select a block of cells, you can use other commands (Formula, Text, Format, Buffer, Merge, Copy, Delete, Print) in such a way that the command applies to the entire block of cells.

Position the entry marker on the first cell you want to include in the block, and press [ESC] and then [7]. Using the arrow keys to increase or decrease the selected area, move the marker until it covers the entire area that you wish to include. All selected cells are highlighted.

After you select the block, execute another Worksheet function or print the selected block, as your require. If you choose not to use the selected block, pressing [ESC] and then [7] again cancels the selection mode.

Copy

The Copy function enables you to duplicate the contents of your worksheet in a Text (ASCII) file. You can copy the entire file or a selected block of cells. Use the Select function if you prefer to define a portion of the worksheet to copy.

Press [ESC] and then [8] to copy the file or selected block. The following prompt appears:

```
Enter copy filename:
```

Enter a new or existing document filename, including the extension, .doc. For any file not in the current directory, type the pathname. If you specify an existing file, remember that the Copy function overwrites its contents.

Delete

The Delete function enables you to erase the contents of a cell or block of cells or to eliminate an entire row or column. To erase data, position the marker on a single cell or define a block of cells using the Select function. Then, press [ESC], followed by [9] to delete the data in the highlighted area.

To delete an entire row or column, position the marker at the top of a column or at the left end of a row you want to delete. Use [ESC] and then [←] or [↑] to move the marker to the row or column label. Then, press [ESC], followed by [9] to delete the entire row or column.

Data entries from succeeding rows or columns shift to fill the void caused by deletion of an entire row or column. All formulas adjust to reflect the deletion.

Text blocks remain intact, shifting upward and to the left, if necessary, to accommodate deletion of a row or column. If a text block shifts in such a way that it "overlaps" existing data, you lose the data in the overwritten cells. Before Worksheet allows that to happen, it alerts you to the conflict and asks you to confirm the deletion by pressing [Y]. Press any other key to cancel the deletion.

Insert

Use the Insert function to insert the contents of the copy buffer at the current location of the entry marker or to insert a blank row or column into your worksheet.

On the worksheet, press [ESC] and then [0] to insert the contents of the copy buffer at the current entry marker position. You can insert a row of data only into another row; a column of data, only into another column.

If the destination area overlaps a text block or if the contents of the copy buffer will not fit, Worksheet cancels the command. Press any key to continue using the file.

To insert a blank row or column, position the marker on the row or column at which the insertion is to occur. With the marker at left end of the row or the top of the column, press the [ESC], then [←] or [↑] to move the marker to the row or column label. Then, press [ESC] and then [0] to insert a blank row or column.

If the insertion causes existing cells to fall beyond Row or Column 99, Worksheet deletes those cells. Before it does so, however, a message alerts you to the deletion of data that would result. Press [Y] to confirm the insertion; press any other key to cancel it.

All formulas and text blocks adjust to reflect the row or column insertion. Text blocks shift downward and to the right, if necessary, to accommodate insertions.

Calc

The Calculate function performs the calculations you indicate in the formula cells of your worksheet.

Press [ESC] and then [!] to calculate the worksheet you set up or to recalculate whenever you make changes. The Calculate function computes data according to cell contents, from left to right and top to bottom. Any non-numeric data is skipped.

If a calculation requires values for constants, a prompt appears on the command line each time the formula requires a value. Enter the requested value to proceed with the computation.

Printing Data

Press [ESC], then [P] to print the entire worksheet or a limited area of the worksheet defined using the Select function. A series of printer settings appears before the system begins to print. Check the default settings on the screen; make changes or simply press [ENTER] to accept each value.

When all settings are satisfactory, press [ESC] and then [Q] to begin printing.

Exiting Worksheet

To exit Worksheet, press [ESC] and then [Q], which returns you to the previous level of operation and saves any changes you made to the current file. Press [ESC] and then [X] to cancel newly entered changes. A prompt appears on the command line:

```
Cancel? (Y/N)
```

Press [Y] to confirm the command, or press [N] to keep the file open.

Chapter 6

Filer

The Filer application provides information storage and retrieval. Filer is easy to set up and maintain. Its flexibility permits you to set up a custom data entry form for each file. The form you devise determines the specific information you want for each record and the format for the information. You can use any of the information on the form for sorting or locating your records.

This chapter describes the procedures for using Filer and its functions to manage your records and make printed copies of them. You need to be familiar with certain terms that appear frequently in the chapter.

A *form* is a series of questions or labels that indicates what information you want to store and a corresponding series of blanks in which you can enter the requested information.

Each blank to be filled on the form is a *field*, and when you enter data in the fields on a form, you create a *record*. Each file that you construct using Filer consists of a series of records created in this manner.

Using Filer

To create a data file, open a new file from the Main Menu. Begin by positioning the marker on `Filer` in the application line. Press ENTER to load the application without specifying a file. Filer displays a prompt at the bottom of the screen:

```
Enter filename:
```

Type a new filename, and press ENTER. If you do not type the extension to the filename, **.fil**, the application assigns it automatically.

Note: You can open a file in Filer without specifying a filename by merely pressing [ENTER] at the prompt. However, when you exit the file, the application does not save its contents. To avoid losing data in such a case, you can merge the unnamed file to another file (whose name you specify).

After you enter a new filename, the following prompt appears:

```
File doesn't exist, Create ? Y or N?
```

Press [Y] to create the new file, or press [N] to enter a different filename. Press [CTRL] [C] to cancel and return to the Main Menu.

The names of existing Filer files appear on the Main Menu in the column below `Filer`. To open an existing file, move the marker to the application name. Then, indicate the name of the file in either of the following ways:

- Press [ENTER] to load the application, and then enter the filename when the prompt, `Enter filename:`, appears at the bottom of your screen.

- Use the arrow keys to position the marker on the filename, and press [ENTER]. (If you have a long list of files, you may discover that the Find function saves you time. The Find function is described at a later point in this chapter.)

The first record of the file appears.

There are 5 different screens in the Filer application: the Form screen, the Add screen, the main Filer screen, the Find screen, and the Display screen.

When you create a file, you move immediately to a blank Form screen. Use it to arrange the labels and fields that define the contents of the file. It is this form that you use for collecting and presenting data for each record. The section devoted to the Form function, later in this chapter, includes directions for using the Form screen.

To begin entering records, proceed to the Add screen. The Add screen displays your form so that you can type data in response to the labels.

It redisplays the blank form repeatedly to enable you to add a series of records.

When you are ready to review and manipulate your records, move to the main Filer screen. It is this main Filer screen that appears when you open an existing file (one for which you have already defined a form). It displays the records you created so that you can read and revise them. It also gives you access to the all the other screens so that you can revise the form, add records, or devise reports.

The Find screen enables you to locate a certain record or group of records. It presents the form you devised and lets you enter search criteria in any of the fields you choose. It also offers a means of setting up reports to print or display.

Finally, the Display screen lets you see selected data in a horizontal, report format. The choices you make on the Find screen determine the composition of the displayed report. Instructions for using these 2 screens appear in the sections devoted to the Find function and the Display function.

The Help Screens

The Filer help screens contain brief summaries of the functions and ways to use them. When you press [ESC] and then [?] to select the Help command, a help screen appears. The particular screen that you see depends upon the type of activity in which you are engaged.

If multiple help screens are available in a certain situation, pressing [ENTER] displays the next screen. Press [CTRL] [C] to return to the screen from which you sought help.

Marker Movement

Use the arrow keys to move the marker a character or line at a time. Press the other designated marker movement keys or key sequences to move the marker more rapidly. See Figure 6.1.

Marker Movement

Key	Moves the Marker
[→]	1 character to the right
[←]	1 character to the left
[↑]	To the first character in the label or data area directly above
[↓]	To the first character in the label or data area directly below
[ESC] [→]	To the beginning of the next record on main Filer screen
[ESC] [←]	To the beginning of the previous record on main Filer screen
[ESC] [↑]	To the first Find match or to the first record on file
[ESC] [↓]	To the last Find match or the last record on file
[TAB]	Back and forth between the label and data areas on the Form screen
[CTRL] [T]	To the first Find match or to the first record on file

Figure 6.1

The Filer Functions

The Filer functions help you maintain your records. To display the functions available on the main Filer screen, press [ESC]. The command lines shown below appear at the bottom of the screen. To select a Filer function or a general DeskMate command, press the corresponding key.

Some of the functions (Find, Form, Add, and Display) offer their own command menus, different from those shown above. This section explains the use of each Filer function and of the commands each, in turn, offers.

Find

Press [ESC] and then [1] to search for and find a record or group of records. The Find screen displays a blank form. Press [ESC] to display the special Find functions—Equal, Greater, Less, Reset, Mark—at the bottom of the screen.

For each field, type the *search data*, consisting of a series of characters that the Find function uses to select records. To skip a field, press [ENTER] or [↓].

You can include wildcard characters in your search data if you use Equal (=) as the Find operator. Use * and ? in wildcards as matching characters, described in "Wildcards" in Chapter 1.

The different Find operators enable you to specify the relationship to exist between the search data in a field and the data that the Find function selects. The possible relationships are Equal to, Greater than or equal to, and Less than or equal to. In alphanumeric fields, the operators pertain to alphabetical order.

To set the Find operator, press [ESC], and then press the number key that corresponds to the operator you want. If you do not specify an operator, Filer assumes that the operator is Equal. Choose the function any time the marker is over the appropriate field—before, while, or after you enter the search data.

Press [ESC] and then [Q] to begin the search. If search criteria exist for more than 1 field, Find searches for records that match all the criteria. The function finds all records that match the criteria, and displays the first one. Use [ESC] with [→] or [←] to scroll forward or backward through the records.

Reset

Press [ESC], then [5] to eliminate the Find criteria. The function erases any search data, so that all your records are available to you again. Enter new search data, or press [ESC] and then [Q] to return to the first record on the main Filer screen.

Mark

Press [ESC] and then [7] to "mark" or "unmark" fields for use with the Display and Print functions. Marked fields are visible—displayable or printable. An asterisk appears in the label area of all visible fields. Invisible fields do not appear on the Display screen or printed reports. When you first create a form, all fields are marked.

Display

Press [ESC], then [3] from the main Filer screen to display a report listing all records that match the Find criteria.

The report consists of a label area across the top of the screen and a record area occupying the rest of the screen. The label line identifies each of the fields marked for display on the Find screen. The labels are arranged horizontally and spaced to correspond to the columns of data in the record area.

The record area displays the data in vertical columns under the appropriate field label. The length of each field is determined by the longest item of data entered for that field. Two spaces are inserted between each field.

If the records take up more than 80 characters across the screen, the records (label line and data lines) wrap to the next line, indented 5 spaces. If more records meet the selection criteria than the screen can contain, use the marker movement keys to scroll through the records. (See "Marker Movement.")

If you do not wish to display certain fields, unmark those fields on the Find screen.

If you press [ESC] while displaying a set of records in the horizontal format, the bottom of the screen displays special functions that you can use from the Display screen.

Print

Press [ESC] and then [4] to print the entire report currently displayed on the screen. The report is printed in the same format (horizontal) that the screen shows. Examine the default values on the printer setting screen, make changes as needed, and press [ESC] and then [Q] to begin printing.

Use this special Print function in Display only when you want to print the entire report. Use [ESC] and then [P] when you want to print selected text.

Select

Press [ESC] and then [7] to use the Select function to define a rectangular block of text. Use the marker movement keys to increase or decrease the highlighted area. When the dimensions are satisfactory, press [ESC], then [8] to copy the selected data to a Text (ASCII) file, or press [ESC] and then [P] to print.

Copy

Press [ESC], then [8] to copy a block of data (defined using the Select function) to a Text (ASCII) file. The Copy function prompts you for a filename at the bottom of the screen. Type a suitable filename, and press [ENTER].

Press [ESC] and then [Q] to return to the main Filer screen when you are finished with the Display function.

Print

Press [ESC] and then [4] at the main Filer screen to print all records that match the Find criteria. When you select this function, the printer settings appear. Check the default settings on the screen; make changes, or simply press [ENTER] to accept the displayed values. When the displayed values meet your needs, press [ESC] and then [Q] to begin printing.

The report is printed in a horizontal format similar to that displayed using the Display function. A label line across the top of the page displays headings for each column of data. The data for your chosen records extends in columns below each heading. Each field appears under its corresponding label. The longest item of data entered for that field determines the length of each field. Two spaces separate each column.

To print blank forms, individual records, or a selected block of the Display screen, see "Printing Records" in this chapter.

If the printed record requires more space than is available on 1 line, the records (label line and data lines) wrap to the next line, indented 5 spaces. If you do not wish to print certain fields, unmark those fields in Find.

Form

The Form screen appears whenever you create a new Filer file. Initially, the screen displays no labels or fields. Follow the directions in this section to define them for your recordkeeping form. Once you create the form, you can begin to add records.

The Filer program lets you make changes to your form after you have begun to add records. Using the Form function, you can return to the Form screen by pressing [ESC] and then [5] from the main Filer screen.

Using various functions on the Form screen, you can change labels or fields or revise the sort order for records. For each item you want to include in your records, you must set up a label and a field area on the Form screen. You can define a form with a maximum of 21 fields.

Defining a Label. The left side of the screen contains *field labels*, tags that identify the data in the field or remind you what data to enter. A label always begins at the left margin.

When creating a new form, you can begin immediately to type your first label. On an existing form, you can add label on a blank line or insert a line for a new label using the Insert function, [ESC] and then [0].

Type 1 or more characters (a maximum of 15) on a line in this area to create a new label on that line. Press [ENTER] after you complete the label. The unused label area fills with a line of dots and a colon. The marker shifts to the field area on the same line.

Note: To leave blank lines between field labels, press [ENTER] or [↓] before you enter any characters in the label area. On an existing form, use the Insert function to insert blank lines between labels.

Defining a Field Area. Press [ENTER] in the first position of the field area to display a line 59 spaces long. This represents the maximum number of alphanumeric characters that you can enter in a 1-line field. (See "Number" if you want to set up a numeric field.) Press [ENTER] again to move to the label area of the next line.

You can define a field to be shorter than 59 characters if you wish. Instead of pressing [ENTER] immediately when the marker shifts to the field area (the right side of the screen), define the field area one space at a time. Press [ESC] and then [0] once for each space you want to devote to the data field.

You can extend a field beyond 59 characters to include multiple lines—a maximum of 255 characters. Press [ENTER] at the beginning of a line to fill the line with blanks. Press [↓] and then [ENTER] again to fill the next line with blanks. Continue in this way until you define the maximum field space (4 complete lines and part of a fifth). The label area for a multi-line field is blank on each line below the first one.

Besides modifying the length of each field, you can add *edit characters* to the field. Edit characters indicate a certain type of required entry—in either alphanumeric or numeric data fields. A common use of edit characters is the formatting of telephone numbers, for example:

```
(...) ...-....
```

The parentheses, the space, and the dash are edit characters that indicate the placement of the area code and local dialing sequence; the cursor skips over them during data entry.

Special Form functions appear at the bottom of the screen when you press [ESC]:

Order

In data entry, Filer sorts and displays your records in the order you set here. The ordered, or key, fields are sorted first, in ascending order. Then, Filer sorts the rest of the fields in their order of appearance on the screen.

If you do not establish priority numbers, Filer sorts fields consecutively from the top down. Once you do assign numbers, the priority number of key fields appears in the label area on the screen. You can assign priority numbers from 1 through 9.

Press [ESC] and then [1] to make the field under the marker a key field. The screen shows:

```
>Priority Number:
```

Enter the priority for this key field. If you press [ENTER] without entering a priority number, Filer assigns it the next available number (1 if no fields are ordered yet).

If you choose a field that is already a key field, press [ENTER] to leave the priority unchanged, or enter a new priority. If you use an existing priority, the priority numbers shift to allow for the substitution.

A priority number of 0 removes the key status of a field and reorders the key fields.

Number

Press [ESC], then [3] to specify the field under the marker as a numeric field. A number sign (#) appears after the label (in place of the colon) to denote a numeric field. (Press [ESC] and then [3] again to change the field back to alphanumeric.)

If the field is not yet set up when you use the Number function, Filer sets it up for 12 digits, 10 to the left of the decimal point and 2 to the right. You can edit the number of digits on either side of the decimal with Add or Delete. Data entered in the field aligns around the decimal.

If you define a field before you designate it as a numeric field, the Number function right-justifies any data you enter in the field.

Delete

In the field area, press [ESC] and then [9] to delete the character at the cursor.

In the label area, press [ESC], then [9] to delete the entire field, including the label.

In either area, pressing [CTRL] [X] deletes the character at the cursor.

Add

In the field area, pressing [ESC] and then [0] adds a character at the cursor.

In the label area, press [ESC] and then [0] (or press [CTRL] [W]) to add a new field at the current marker position. The current line and all that follow it move down to accommodate the new line.

To save a new form, press [ESC], then [Q]. The Add screen appears so that you can begin to enter data. If you have edited an existing form, pressing [ESC], then [Q] returns you to the first record.

Merge

Press [ESC] and then [6] to merge another Filer file into the current file. The 2 files must have identical formats.

At the bottom of the screen, a prompt appears:

```
Merge from:
```

Enter the name of the file you want to merge into the current file. If the file formats are exactly the same, copies of all the records in the (Form) file are merged into this file. If duplicate records exist in the 2 files, Filer does not merge a second copy of the identical records into the file.

Copying a Form to Use in Another File. Using the same form in 2 Filer files enables you to merge records from one to the other. Because a single character difference in format prevents merger of 2 files, make a copy of your file if you intend to reuse the form. After you set up your format (before you enter any records), use the Copy function on the Main Menu to carry out this procedure. (See "The Main Menu.")

Delete

The Delete function lets you delete the record currently displayed. Using the marker movement keys or the Find function, display the record you want to delete. Press [ESC] and then [9] to delete the record currently displayed.

Add

The Add function displays a blank form so that you can add a new record. Enter information on the blank form, and press [ESC], then [0] to add the new record and display another blank form. Follow this procedure to add each new record. Press [ESC] and then [Q] to add the last new record and return to the main Filer screen.

On an entry screen, you always work in the overstrike mode, whether you are adding a new record or editing an existing one. In overstrike mode, each character you type replaces the character at the current marker position.

Type the appropriate data for each field, and press [ENTER] to move to the next field. The marker moves from field to field, starting at the top of the form. Use the marker movement keys to move through the data fields as desired.

Alphanumeric fields are left-justified. Although you can extend a field over a number of lines, words do not wrap automatically to the next

line. Numeric fields, identified by #, align around the decimal or are right-justified if there is no decimal.

As you add records, they automatically sort according to the primary key field. If you used the Order function in Form, records sort by the key fields first, then by the rest of the fields in order of appearance on the form. Records sort correctly, regardless of the order in which you add them.

Printing Records

In the Filer application, there are 2 ways of printing data in your files.

When you use the Display function to produce a list in the horizontal format, you can print the *entire* list using [ESC] and then [4], the special Print function for the Display screen.

The same function is available on the main Filer screen. Here too, it produces a printed copy of the entire file, but as a series of records rather than as a horizontally arranged report.

Use the general Print command, [ESC], then [P], to print records more selectively. The same command, used at the Form screen, produces a blank data entry form.

When a record is displayed on the main Filer screen, pressing [ESC] and then [P] gives you a printed copy of that record.

When you generate a list of records using the Find and Display functions, you can select a block of text to print **part** of the list. Press [ESC], then [P] after you define a block of data using the Select function.

After you press [ESC] and then [P], the screen lists the printer settings so that you can check the displayed values before printing. Be sure that the printer is properly connected and online. Enter any changes you want to make, or press [ENTER] to accept a displayed setting. After you respond to the final prompt or press [ESC] and then [Q], the printer begins to operate.

Exiting Filer

Exit your file by pressing [ESC] and then [Q] to quit the file and record all changes and additions that you made. Filer does not permit you to exit and cancel your work using [ESC] followed by [X]. The screen displays the message, `Closing` while Filer updates its memory, after which you return to the previous level of operation.

Chapter 7

Calendar

The Calendar application is an event scheduler. You can use it as a general purpose calendar and planner to replace your desk calendar and date book. It records important events, their dates, and their times so that you can refer to them at any time. Beginning with the current day, Calendar provides you with a week-at-a-glance schedule.

Using the Calendar functions, you can search for an entry, print a list of events, and set the alarm for selected events. Other functions make it easy to add or delete events from your file, combine 2 Calendar files, or copy events to another file.

Using Calendar

The Calendar application relates its activity to a primary file, the default file for your home system. The application creates this file, dmevents.cal, in your home directory. It opens this file whenever you execute the Calendar application without specifying a filename.

To open dmevents.cal, your home directory need not be the current directory. Regardless of the current directory, Calendar opens the default file in your home directory. Choose the application `Calendar` on the application line, using the arrow keys to position the marker and [ENTER] to indicate your choice. The screen displays the Calendar and loads any data you have entered in dmevents.cal.

To create a new Calendar file on the Main Menu, use the Add function. Press [ESC] and then [0], and type a name for the file, including the extension, **.cal**, at the `New file:` prompt. When the filename appears in the column under `Calendar`, the menu has created an empty file in the current directory.

The names of existing Calendar files in the current directory appear on the Main Menu in the column below `Calendar`. To open an existing file, move the marker to the application name. Then, position the marker on the filename using the arrow keys, and press [ENTER].

In the upper left corner of the screen is the Weekly Time Chart. It allows you to see at a glance which blocks of time are free or committed (or overcommitted). The days of the week (Sun, Mon, Tue, and so forth) are displayed down the left side of this chart. The times of day, beginning with 12:00 a.m. (midnight), appear across the top.

Asterisks (*) mark the day and time slots for which you have scheduled an event. When event times conflict with each other, the Weekly Time Chart indicates the conflict with an exclamation point (!).

In the upper right corner of the screen is the Monthly Calendar, similar to a standard desk calendar. When you open a Calendar file, the marker rests on the current date.

In the bottom section of the screen is the Daily Events Calendar, on which you enter events. Calendar sorts and displays events in date/time order regardless of the order in which you add them to the file. If you enter more events than the Events area can display, you can scroll them onto the screen using the marker movement keys. (See "Marker Movement.")

The remainder of this chapter explains the way to manage the data that you store in Calendar files.

The Help Screens

The Calendar help screens contain brief summaries of the functions and ways to use them. Within the Calendar application, press [ESC] and then [?] to view the help screens. After the first help screen appears, press [ENTER] to see the second screen. Press [CTRL] [C] to return to the main Calendar screen.

Marker Movement

The marker movement keys control the date indicator in the calendar and the marker in the list of events. Pressing [ESC] and then [3] switches control from one area to the other, between Calendar and Events.

The arrow keys move the date indicator a day or a week at a time. To move the indicator a month at a time, press [ESC], followed by [→] or [←].

The event list can display 14 or 15 event lines on the screen, depending on your terminal screen size. After you enter an event on the last line, the events scroll to let you continue. To see a line after it has scrolled off the screen, press [↑] until the line appears again.

Use the arrow keys to move the marker a character or line at a time. Press other designated keys or key sequences to move the marker more rapidly. See Figure 7.1.

Marker Movement in Events List

Key	Moves the Marker
[→]	1 character to the right
[←]	1 character to the left
[↑]	1 line up in the current column
[↓]	1 line down in the current column
[ESC] [→]	to the beginning of the next column
[ESC] [←]	to the beginning of the previous column
[ESC] [↑]	to the first entry on the current screen or previous page
[ESC] [↓]	to the last entry on the current screen or next page
[CTRL] [T]	to the first entry in the file or to the first Find match

Figure 7.1

The Calendar Functions

The functions that are available in Calendar appear at the bottom of the screen when you press [ESC]. To use a function (after you press [ESC]), press the key that corresponds to it.

Each Calendar function corresponds to a number key, shown on the first command line above. The second line reminds you of the general

DeskMate functions, described earlier in this manual. This section explains the Calendar functions listed on the first line.

Find

Press [ESC] and then [1] to search for an event. An event line filled with asterisks (*) appears. If you have already used Find during the current session, the previously entered search data is displayed.

You can use the displayed settings or change any of the search data you choose. If you use the existing settings, you need only press [ESC] and then [Q] to begin the search.

To enter new search data, type the data for each field (including * and ? if you wish), and press [ENTER]. The wildcard character * matches any number of characters. The character ? matches any single character.

Press [ESC] to display the functions that are available while you are setting the search criteria. They appear along the bottom of the screen, as shown below.

The Find function lets you define the relationship between the search data that you type for a field and the events you want to find. If you do not specify a relationship, the function sets Equal (=) as the Find criterion. Your options are the following:

Equal — matches only identical data.

Greater — matches any data greater than or equal to the search data.

Less than — matches any data less than or equal to the search data.

After you press [ESC], press the appropriate number key to execute one of the functions listed on the bottom lines of the screen. You can choose the function anytime the marker is over the appropriate field, before, during, or after you type the data.

Press [ESC] and then [Q] to begin the search. The function finds all events that match the criteria. If more events match the criteria than the Events List can display, use the marker movement keys to scroll up or down the list of events.

To eliminate the Find criteria, press [ESC] and then [1] to redisplay the Find screen. Then, execute the Reset function by pressing [ESC] and then [4]. Each field fills with asterisks once again. Having reset the Find criteria, you can enter new criteria or press [ESC] and then [Q] to exit the Find screen with the criteria reset. Calendar then redisplays the complete Events List. Exiting the file also eliminates the current find criteria.

Date

Press [ESC] and then [2] to search for and display events that fall on a certain date. At the bottom of the screen, the following prompt appears with the current date displayed after the colon.

```
Enter date :
```

Type a new date over the displayed date, and press [ENTER]. All events for the date specified are found, and as many as possible appear in the Events List. If more events match the date than can be displayed at one time, use the marker movement keys to scroll forward or backward through the events.

Calendar/Events

The Calendar/Events function switches the marker between the calendar (in the upper right corner of the screen) and the list of events (in the lower half of the screen). Press [ESC], then [3] to transfer the marker back and forth.

When the command line displays `Calendar`, the marker moves to the current date on the calendar when you execute the function. With the marker in the calendar, the marker movement keys control the position of the date indicator. Moving the date indicator changes the current date.

The "current" date is not necessarily the same as "today's" date. When you open a Calendar file, the current date is the system date; by moving the date marker, you can make any date you choose the current date. In turn, the current date determines the data shown on the accompanying Weekly Events Chart.

When the function line displays `Events`, use the function to move the marker from the calendar to the list of events. The marker shifts to the first item in the current list of events. To execute many Calendar functions (Alarm, Select, Copy, Delete), you must first move the marker to the Events List.

Movement of the marker in the Events List is described in detail in a previous section of this chapter, "Marker Movement."

Alarm

The Alarm function enables you to set the beeper to alert you to a scheduled event. Begin by positioning the marker on an event. (If the marker is not in the list of events, press [ESC] and then [3] to switch it there using the Events function.) To define a block of events, use the Select function (described later in this chapter).

Press [ESC] and then [5] to turn on the alarm for the event or block of events that is highlighted. A message appears briefly at the bottom of the screen:

```
Merging events into Alarm file
```

If you selected a block of events, the Alarm function sets the alarm for each selected event and then turns off the Select mode.

You can set an alarm for an entry in any Calendar file. If you are working in a file other than dmevents.cal, however, the Alarm function merges the entry into the dmevents.cal file. In this way, Calendar keeps track of all alarm events in a single file.

The alarm sounds prior to the scheduled starting time for the event. You determine the amount of time between the alarm and the starting time for the event in the Events/Alarm accessory. See the discussion of Events/Alarm in "Desk Accessories" for more information.

Merge

Press [ESC] and then [6] to merge a block of events you select into another Calendar file or to merge another Calendar file into this event file.

Merging Another File into the Current File. If you do not define a block of events before selecting the Merge function, the bottom line of the screen shows:

```
Merge from :
```

Enter the name of the event file you want to merge into the current file. The merger does not alter the file you specify. The Merge function merely copies the contents of the specified file into the current file, sorting them with the events in the current file.

Merging Selected Events into Another File. If you begin by selecting events (using the Select function), the Merge function copies the selected events to another file. After you press [ESC], then [6], the screen shows:

```
Merge to :
```

Enter the name of the event file (new or existing) into which you wish to merge the selected events. A copy of all selected events in the current file merges into the file you specified.

Select

Use Select to define an event or a block of events. Position the marker on the first event you want to select, using the marker movement keys or the Find function. (If the marker is not visible in the list of events, press [ESC] and then [3] to switch to Events mode.) Press [ESC] and then [7].

Use the arrow keys to place the marker over the last event you want to include in the block. As you move the marker, it highlights all selected events.

After you select the events, use one of the other commands (Merge, Copy, Delete, Alarm, or Print). If you use any other function or exit the events file before you perform one of the above operations, you cancel the selection.

Copy

The Copy function copies a previously selected block of events into a Text (ASCII) file. Begin by using the Select function to define a block of one or more events. Then, press [ESC], followed by [8] to choose Copy. The screen shows:

```
To:
```

Enter the name of the Text (ASCII) file to which you wish to copy the events. Be sure to type the complete pathname to identify a file in another directory. The function then copies the events into the document file. If you specify an existing file, the Copy function overwrites its contents.

Delete

The Delete function enables you to eliminate an event or a block of events. Move the marker to the first event you want to delete. (If the marker is not visible in the list of events, press [ESC] and then [3] to transfer the marker from the calendar to the Events List.) If you want to define a block of events to delete, use the Select function.

Press [ESC] and then [9] to delete the marked event or the block you selected. The events are immediately deleted.

Add

Using the Add function, you can add an event to your list. Press [ESC], then [0] to create a blank event line at the current marker position.

Press [ENTER] to accept the displayed date, or type over it (using the same format) and press [ENTER].

Type the time at which the event begins, and press [ENTER]. For example, type **0745p** [ENTER] for 7:45 p.m. Because the function supplies zeroes for unspecified time characters and a.m. times if you do not specify otherwise, you can simply type **11** [ENTER] for 11:00 a.m.

Next, enter the time at which the event ends, and press [ENTER].

Finally, enter a description of the event, using no more than 44 characters. After you press [ENTER], the Add function inserts the new event in its proper place in the list and returns you to the current event list. Press [ESC] and then [0] to Add another event.

If you do not enter times for an event, Calendar regards it as a *day event*. Day events appear ahead of timed events in the Event List, but day events do not affect the Weekly Time Chart.

Printing Events

Press [ESC] and then [P] to print a list of the events in a file that meet the current Find criteria. If you define a block of events (using the Select function) prior to printing, [ESC] and then [P] prints only the block you selected. By using the Find (or Date) function with the Select function, you can define very specific lists of events.

Check the default settings on the printer screen before proceeding, and be sure the printer is properly connected and online. When you are ready to start printing, press [ESC] and then [Q].

Exiting Calendar

To exit your Calendar file, press [ESC], then [Q] or [ESC] and then [X]. Pressing [ESC] and then [Q] lets you quit work in the file and saves all changes you have made to it. DeskMate returns you to the previous level of operation—the Main Menu or your system prompt.

When you press [ESC], then [X], you exit the file, but you also cancel all additions and revisions you have made since you opened the file. The following prompt appears at the bottom of the screen:

```
Cancel? (Y/N)
```

Press [Y] to confirm that you want to cancel all changes. If you want to save the changes, press [N] to nullify the Cancel command.

Chapter 8

Mail

The Mail application handles mail that you send to and receive from other system users. After you read mail, you can delete it, file it, or forward it to another user. Or reply to the message right away—including with your reply (if you so direct) a copy of the original message.

You can write brief messages or use your text editor to compose a lengthy letter. Then, send mail to an individual or to the members of a group. Other features of the application let you distribute carbon copies of a message to selected users and verify that the message has been seen at each of its destinations.

Naturally, you can save a copy of your mail, both incoming and outgoing, in Mail files or in Text (ASCII) files.

Using Mail

The Mail distribution system is similar in its components to the system for posted mail. Mail from an individual goes to a central point—a system file that corresponds to the central post office. At that point, mail is sorted for delivery to individual users.

If there is mail waiting for you in the system file, a message appears on the left end of the status line, at the top of the screen. The word MAIL tells you that there is "new mail," mail that you have not yet retrieved. The message appears whenever you are in DeskMate, regardless of the application you are using.

In your home directory, Mail creates a mailbox (a file) to which it routinely delivers new mail. This mailbox, your default mailbox, is comparable to your house mailbox—the one out on the street visited by your mail carrier. When you open the default mailbox, which is named dmbox.msg, Mail delivers any new mail to it.

You can create other mailboxes to organize the mail that you receive and copies of messages you send. These are comparable to the file folders you might set up to keep track of your correspondence, one for bills, another for insurance policies, etc.

Although dmbox.msg, your default mailbox, occupies your home directory, you can open it from another directory. Highlight `Mail` on the Main Menu, using the arrow keys to position the marker. Press [ENTER] to mark your choice. The screen displays the contents of your default mailbox, including any new mail in the system mailbox that is addressed to you.

To create a new file from the Main Menu, use the Add function. Press [ESC] and then [0], At the `New file:` prompt, type a name for the file, including the extension, **.msg**. When the filename appears in the column under `Mail`, the menu has created an empty file in the current directory.

The names of existing Mail files in the current directory appear on the Main Menu in the column below `Mail`. To open an existing file, move the marker to the application name. Then, highlight the filename using the arrow keys, and press [ENTER].

The initial screen in a Mail file lists the letters that the file already contains. Each message line in the listing includes the author's name, the date and time the message was sent, and a brief description of its contents. Use the marker movement keys to scroll through the listing if there are more messages than the screen can display (20 or 21, depending on your terminal).

To read a message, place the marker on the identification line for that message. Press [ENTER] to see the text of the message. Press the space bar to advance to the next screen in the message, or press [Q] to exit the message.

When you exit the letter, the initial screen returns, listing the contents of the mailbox.

This chapter describes the functions in the Mail accessory that let you create, distribute, and store mail. One of the functions (Option) displays a screen on which you can customize the features on your Create

Mail screen. Another function displays the Create Mail screen itself. Both screens, the Option screen and the Create Mail screen, have functions of their own, described in the course of this chapter.

To return to the Main Menu, be sure the screen is displaying the list of messages, and press [ESC], then [Q].

The Help Screens

The Mail help screens contains brief summaries of the functions and ways to use them. Within the Mail application, press [ESC] and then [?]. To see subsequent help screens, press [ENTER]. Press [CTRL] [C] to return to the Mail screen.

Marker Movement

Use the arrow keys to move the marker a character or line at a time. Pressing the other designated marker movement keys moves the marker more rapidly. See Figure 8.1.

When you create a message using the Edit function, marker movement follows the conventions of the text editor that you specify (on the Mail Options screen). DeskMate uses the editor in the Text application if you do not specify an alternate. See Figure 4.2 for marker movement in Text.

Marker Movement

Key	Moves the Marker
[→]	not used
[←]	not used
[↑]	1 line up in the current column
[↓]	1 line down in the current column
[ESC] [→]	not used
[ESC] [←]	not used
[ESC] [↑]	to the top of the screen
[ESC] [↓]	to the bottom of the screen
[CTRL] [T]	to the beginning of the file

Figure 8.1

The Mail Functions

To display the Mail functions along the bottom of the screen, press [ESC]. The following label line appears; it matches each of the Mail functions to a number key. Press the number key to select the corresponding function.

To create a message, for example, choose the Create function by pressing [ESC] and then [0]. You need not wait for the label line to appear before pressing the command key to execute a function.

Find

The Find function is useful when your mailbox contains a lot of messages. Press [ESC], then [1] to search for a particular message. The screen provides an entry line at the bottom of the screen on which you can enter search data.

Type the character string you want to find, and press [ENTER]. The Find function searches all messages in the file, including both the information in the headers and the content of each message. The screen displays the identification lines for any messages that contain the search data.

You can then read the messages or use other functions (Merge, Copy, Print, etc.) to manipulate the messages in the list. To return to the complete mail list for the file, press [ESC] and then [Q].

Reply

Press [ESC] and then [2] to create a reply to the message under the marker. The Reply function displays the Create Mail screen and responds automatically in 3 of the fields.

At `To:` the Reply function enters the sender of the current message (the one to which you are replying).

At `Subject:` the function repeats the description entered for the current message.

At `Carbon Copy:` the function duplicates the list of recipients on the current message.

When you send a message created through the Reply function, Mail includes the header of the original message—the one to which you are responding.

Forward

Press [ESC], then [3] to forward a message or group of messages to another user. To define a group of messages you want to forward, use the Select function.

When you execute the function, the following prompt appears at the bottom of the screen:

```
Forward to:
```

Type the login name of the user to whom you want to forward the message, and press [ENTER]. At its destination, the forwarded mail appears with a note to the recipient labelling it as a forwarded message. The word `Forwarded` appears in the heading of the message.

Forwarding a message does not eliminate it from your mailbox. The new recipient receives a copy of the message without affecting the original.

Get Mail

The top line on your screen alerts you to the arrival of a message for you in the system mailbox; it displays the word `MAIL` at the top left corner of your screen.

From a Mail file, press [ESC] and then [4] to retrieve your mail from the system mailbox. The Get Mail function moves the message from the system mailbox to the mailbox you are using.

When you open dmbox.msg, your default mailbox, DeskMate automatically retrieves any mail addressed to you from the system mailbox. Use the Get Mail function only if mail arrives while you are using dmbox.msg or if you want to receive mail in a file other than dmbox.msg.

Option

Press [ESC] and then [5] to set or revise the values on the Mail Options screen, shown in Figure 8.2. The values on your Mail Options screen pertain to any mail that you create using the Mail application. Other Mail users can have different values within their directories.

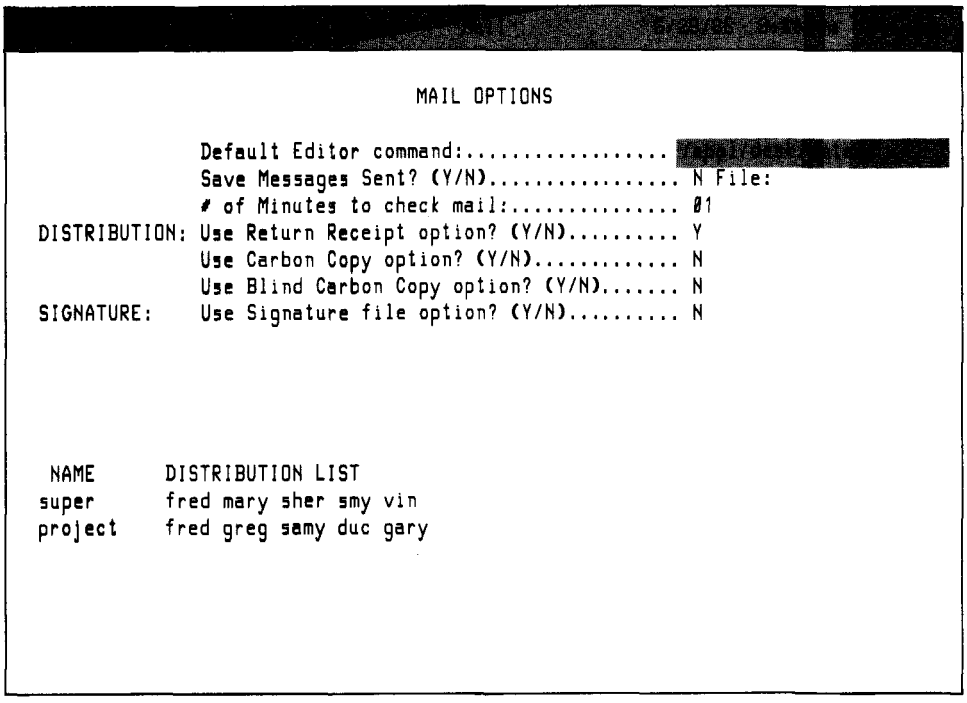


Figure 8.2

You can change the settings on your Mail Options screen by entering different values for any of options (above the Distribution List). Press [ESC], then [1] to use the Reset function, which restores any settings you have changed to the original values.

The first line indicates the text editor you want to use when you compose a message (using the Edit function). The system uses the editor provided with the Text application unless you specify an alternative.

To change editors, type the execution command for the text editor you prefer to use. Of course, the editor that you substitute must be installed on your system to be accessible to the Mail application. Include in this command any parameters required to pass a data filename to the alternate text editor.

On the second line, `Save Messages Sent? (Y/N)`, type **Y** [ENTER] if you want to save a copy of each message that you send. If you elect to save the messages, the screen prompts you for a filename to collect them. Mail adds the extension .doc to the filename (if you do not) so that it will appear as a Text file on your Main Menu. Type **N** [ENTER] to indicate that you do not want to save copies of your messages.

Note: If you open your Mail storage file through Text, you can see each message that you sent. After you exit the Text file, Mail continues to save messages to the file, but you will be unable to display subsequent messages through Text. Use Xenix commands (**more** or **cat**) to display the complete file.

The next setting determines the interval, in minutes, between routine checks of the system mailbox. If there is mail for you in the system mailbox when Mail checks it, the word `MAIL` appears in the top left corner of your screen to alert you to the fact. The message appears on the top line of any DeskMate application. Type a number from 1 through 60 to set the frequency of these mail checks.

Distribution

The next set of values pertains to the distribution of mail that you send. On the Mail Option screen, you indicate only that you do or do not want a given feature to appear in the header portion of the Create Mail screen. Specify the users you want to receive the receipts or copies on the Create Mail screen. See the instructions for the Create function for more details.

Using the arrow keys, move the cursor to a setting you want to change. Type **Y** [ENTER] to include the option on the Create Mail screen or **N** [ENTER] to withhold it.

The Return Receipt option generates a message that acknowledges delivery of your message at its destination. Mail sends the receipt to the user you specify (on the Create Mail screen), typically yourself. The receipt distinguishes between delivery of the message to the recipient and actual display of the content of the message by the recipient. Return receipt messages appear in your mailbox as separate pieces of mail.

The Carbon Copy option lets you indicate which users are to receive a copy of a given message. The third option, dealing with blind carbon copies, lets you designate a second group of users who receive carbon copies; users in this group, however, are not mentioned as recipients on the message as sent.

Signature

The next setting on the Mail Option screen allows you to conclude each message that you compose with a standard signature block. Type **Y** [ENTER] to use the signature block, and then use the 4-line area immediately below the option line to indicate the signature you desire. The block can contain blank lines as well as text.

To omit the signature, type **N** [ENTER]. Omitting the signature does not erase the signature block you enter on this screen; it merely prevents its being routinely attached to mail you create.

Distribution List

Press [ESC] and then [↓] to move the cursor to the lower portion of the screen, the Distribution List. Pressing [ESC] and then [↑] returns you to the upper portion.

On the Distribution List, you can specify an alternate name, or alias, for a user or group of users. An alias consists of, at most, 10 characters, all of which must be lowercase alphabetic characters. It is often useful to assign an alias to an individual user because user names are frequently cryptic and hard to remember. For example, you can supply the alias **cindy** for her user name, cls, to assist your memory.

Assigning a single name to a group of users is helpful if you frequently send mail (or carbon copies) to a large, fixed group of users. For example, Figure 8.2 shows a sample group named `super` that includes all of the supervisory people among the Mail users. You can distribute a memo to all of the supervisors by addressing it to super, rather than naming every member of this group.

Use the arrow keys to move the cursor within the Distribution List. Additional rows scroll onto the screen as you need them. To add a new

alias, press [ESC] and then [0]. The list provides a blank line on which to enter the alias and then the user or users.

Type the alias in the first column, press [ENTER]. Do not type any blank spaces in the first column. Then, type user names in the second column, leaving a space between each one. The width of the column is the only limit on the number of users included in an alias. Press [ENTER] to move to the next line.

Add a user to an existing alias by positioning the marker in the right-hand column and then typing the user's name. Arrow keys enable you to move the cursor without erasing or overstriking existing characters. To verify a user name, press [ESC], then [↑] to return to the upper portion of the screen. Then, press [ESC] followed by [3] to use the Users function.

To remove an alias from your Distribution List, position the marker on the item and press [ESC] and then [9] to use the Delete function. Use [CTRL] [X] to make deletions from the list of user names in the right-hand column or edit the lefthand column.

Press [ESC], then [3] when you want to execute the Users function. The Users function displays a complete list of every user and alias recognized by the Mail system. Use the arrow keys to scroll the list until it displays the name you want to see.

Press [CTRL] [C] or your [BREAK] key when you are finished using the function. For a more detailed description, see the discussion of the Create function and the Create Mail screen.

Press [ESC] and then [Q] to quit the Mail Options screen and return to the mail list on the initial Mail screen.

Merge

The Merge function enables you to move mail from one mailbox, or file, to another. You can save a single message or a block of messages in another file (new or existing).

Using the arrow keys, highlight the first message that you want to

merge. If you want to define a block of messages that includes this one, press [ESC] and then [7] to use the Select function (described in the next section).

Then, press [ESC], followed by [6] to use the Merge function. At the bottom of the screen, the prompt appears:

```
Merge to :
```

Specify a destination for the message or messages by entering a filename at the prompt. The Merge function compares the filename with existing files in the current directory and creates the file if it does not already exist. To specify a mailbox (new or existing) in another directory, enter the pathname as the destination.

When the merger is complete, the bottom lines of the Mail screen reappear, and the Select function is cancelled.

Select

Use the Select function to define a block of messages that you can then manipulate with other functions. After you define a block of messages, you can forward, merge, copy, or delete the messages as a unit.

Move the marker in the mail list to a message that you want to select. Press [ESC] and then [7] to select the message under the marker. Using the arrow keys, you can adjust the size of the marked area to include messages above or below the initial selection.

When the highlighted area includes all the messages you want to consider in the block, choose another function to use with the selected messages. Execution of a subsequent command cancels the Select function. You can cancel the Select function at a prior point by pressing [ESC], followed by [7].

Copy

The Copy function lets you store a copy of a message or block of messages in a Text (ASCII) file. The file can occupy the current directory or, if you specify the complete pathname, a different directory.

To copy a single message, position the marker on the message in the mail list, and press [ESC], then [8]. Copy a group of messages by first defining a block of messages with the Select function and then pressing [ESC], followed by [8] to use the Copy function.

When you select the Copy function, the following prompt appears at the bottom of the screen:

```
Copy to :
```

Enter the filename or pathname for the destination file. Remember that the Copy function overwrites the contents of an existing file when it copies the new message to it. Use the Merge function to append (without overwriting) the message or block of messages to a Text (ASCII) file.

Delete

The Delete function deletes a single message or a group of messages. Position the marker on the first listing that you want to delete from the mail list.

To delete only the message under the marker, press [ESC] and then [9] to execute the Delete function. The item immediately disappears from the list.

To delete a series of messages, use the Select function to define a block of messages, and then press [ESC], then [9] to delete them all.

Create

Press [ESC] and then [0] to create a message—either a brief message or a letter many pages in length. The Create Mail screen appears. (The Create Mail screen also appears when you press [ESC] and then [2] to use the Reply function.) It contains a heading in the upper part of the screen and an area for composing your brief message in the lower part.

Completing the Heading

The heading contains useful information for the identification and distribution of the message. The exact contents of the heading depend on the options you select on the Mail Options screen. If you enter the Create Mail screen using the Reply function, a number of the fields in the heading already contain data.

To cancel the contents of the Create Mail screen and start over, press [ESC], then [9] to execute the Clear function.

The first line identifies the destination of the message. Type the login name or an alias for the destined recipient. For convenience, you can use the Users function to display a list of all mail users (including special distribution names defined through the Mail Options screen).

Press [ESC] and then [3] to display the list of mail users. A box is displayed in the lower portion of the screen that contains the existing user names you can enter in the current field.

Use the arrow keys to scroll through the list of users until you find a user name that you want to duplicate. Then, press [ENTER] to select the name under the marker. The name appears immediately on the current line of the heading (except the Subject line).

Continue to select names in this manner for the current field. Press [ESC] and then [Q] to eliminate the User List and resume direct entry on the current screen.

On the second line, identify the subject of the message with a brief description. This description appears both in the heading and in the mail list to identify the message.

As many as 3 additional items follow, depending upon the options you elect to use in the Mail Options screen. For each of these items, you can enter names of users you want to involve in the distribution of the message. Either type the appropriate user names or execute the Users function to identify these recipients. Press [ENTER] to move to the next item.

The first of these optional prompts lets you specify users to whom you want a return receipt delivered. Typically, you specify yourself in this blank. The return messages alert you to the status of the message. They tell you when the message has, in fact, been examined by the recipient.

In response to the second prompt, `Carbon Copy`, enter the names of those users to whom you want to send carbon copies of the message. This information is provided to the receiver of the message itself.

If you are using the Reply function to create a response to a message, the Mail system assumes that you want to send carbon copies of your response to the same users who received carbon copies of the original message. You can, of course, alter this information if you choose.

The final option, labeled `Blind Carbon Copy`, enables you to send carbon copies to users who are not identified to the receiver of the message. This is comparable to photocopying a message and placing it on someone's desk.

Typing the Message

After the information in the heading is complete, the cursor moves to the message portion of the screen. Type a brief message or press [ESC] and then [2] to use the Edit function. The Edit function lets you type a message using all the features of your text editor.

If you use the message area below the header, type a message on the lines provided. Use [BACKSPACE] to make corrections as you type. When you reach the right margin of the message area, words wrap to the next line.

If you select the Edit function to compose your message, the screen displays a page using your text editor. This editor is the editor for the DeskMate Text application unless you substituted another text editor using the Mail Options screen.

Included on the text page is the heading information for your message. Compose your letter using the functions and editing conventions of your text editor. Do not edit or reposition the header of your message

while you are using the text editor. Instructions for using the Text application appear in Chapter 4, "Text."

When you finish your letter, press [ESC], then [Q] to return to the Create Mail screen. If you are using an editor other than Text, type its exit command.

The Create Mail screen, when it returns, does not display the message portion of your newly created mail. To review or revise the message, use the Edit function.

Other Special Functions

Before you send your message, consider 2 other special functions on the Create Mail screen. Both appear in the menu of functions when you press [ESC].

Attach Press [ESC] and then [5] to attach an existing document to the current message. A prompt appears at the bottom of the screen requesting the name of the text file to append to your message. You can attach only one file to a message. Type the filename and press [ENTER].

Copy Press [ESC] and then [8] to save a copy of the entire message, including the information in the heading, as a Text (ASCII) file. At the bottom of the screen, a prompt appears requesting the name of the file into which you want to save the message. Type a filename and press [ENTER] to create the copy.

Sending A Message

When you finish the body of your message, press either [ESC], then [Q] or [ESC] and then [1] to send it. Pressing [ESC] and then [Q] sends the message and returns you to the initial Mail screen. Pressing [ESC], then [1] executes the Send function to send the message and redisplays the Create Mail screen so that you can compose another message.

Press [ESC], then [X] to return to the initial Mail screen **without** sending the message. If you return to the Create Mail screen before you exit Mail, the unsent message is redisplayed.

Printing Mail

On the initial Mail screen, position the marker on a message or on the first of a series of messages that you want to print. To select a block of messages, press [ESC] and then [7]. Use the arrow keys to expand the marker until it includes all the messages you want printed.

Print the message or selected block of messages by pressing [ESC] and then [P]. The next screen displays the current printer settings. Alter any of these settings. Press [ENTER] at the final prompt, or press [ESC], followed by [Q] to begin printing. When the printer stops, the Mail screen returns.

Exiting Mail

Press [ESC], then [Q] to exit the Mail application and return to the previous level of activity—the Main Menu or your system prompt.

Chapter 9

Utilities

The Utilities function expands the Main Menu to provide you access to 5 useful commands. These utilities let you make backups on floppy diskettes and restore the contents of backup files to your system. Other commands enable you to monitor current activity and to determine the free space available on various disks.

Selecting and Exiting Utilities

Select the Utilities function on the Main Menu by pressing [ESC] and then [5]. The list of applications in the last column changes to display the available utilities, as shown in the following sample screen, Figure 9.1.

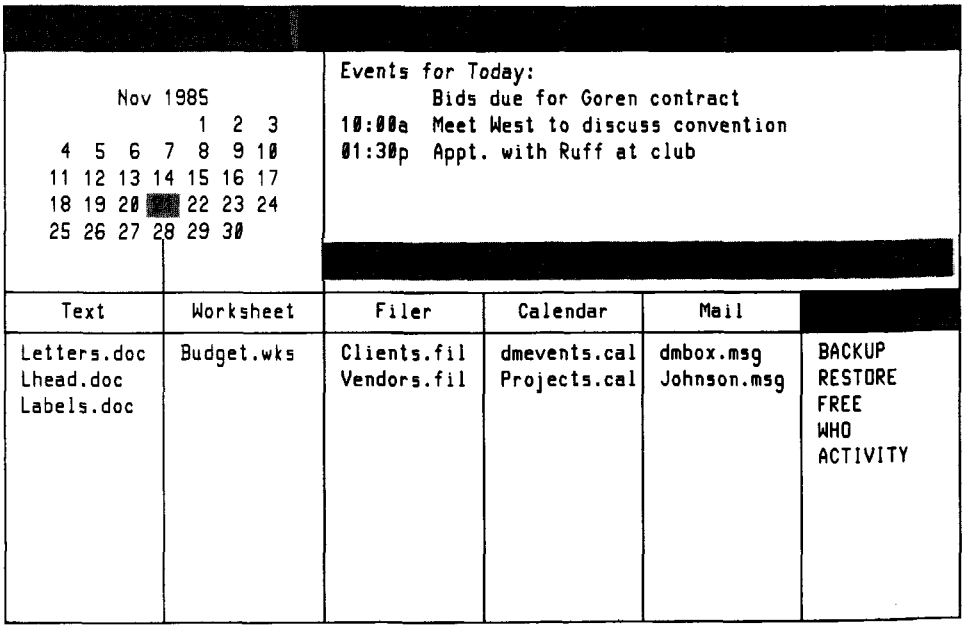


Figure 9.1

To choose a utility, use the arrow keys to position the marker on the utility you want to use. Then, press [ENTER]. A window appears within the menu screen displaying the information and, in many cases, requesting further data.

Most of the utilities return you to the Main Menu after you execute them. Under other circumstances—if the utility does not return you to the Main Menu or if you want to return without executing the utility—press [ESC] and then [Q] or [CTRL] [C].

Backup

The Backup utility enables you to save data from your files onto floppy diskettes. Backing up the contents of your files is good protection in the event that you accidentally delete files or lose data because of an equipment failure or power outage. Use the Restore utility, described in the next section, to copy the contents of your backup diskettes onto your operating disk once again.

When you select the Backup utility, the following prompts appear on the screen to let you specify the files or directories you want to save:

```
                Backup

File or Directory:
Floppy Drive:.....0
```

The first prompt requests the name of the file or directory you want to back up. Press [ENTER] to back up the entire directory or enter the name of a file or directory in the current directory.

To back up a file or directory not in the current directory, type its complete pathname. You can specify a number of files or directories or a combination of the two. Be certain, if you do, to leave a space between items.

At the second prompt, identify the floppy disk drive at which you intend to make the copy. The prompt has a preselected reply, identifying floppy drive 0 as the destination of the copy on a single-sided diskette. Use numbers 1-3 to specify single-sided diskettes in other floppy

drives. To copy onto double-sided diskettes, identify the drive using numbers 4-7. (Typing **4** identifies the same physical drive as **0**, but using a double — rather than a single-sided diskette.)

Place a formatted diskette in the destination drive, and press ENTER to begin making your copy. If the diskette contains data, the Backup utility overwrites the contents of the disk. If you need more than a single diskette to back up all the files and directories you requested, a prompt appears instructing you to insert another diskette. Remove the first diskette, and replace it with another formatted diskette. Press ENTER to continue the backup procedure.

The message remains on the screen after you insert another diskette and continue. If you need to insert yet another diskette, the cursor moves to the end of the message again.

When the Backup utility finishes backing up the items you requested, the Main Menu reappears.

Restore

The Restore utility enables you to copy information from a backup diskette onto your disk. To use the utility, you need a diskette created using the Backup utility and a floppy disk drive.

Change the working directory to the one into which you want to restore the data from the backup diskette. Then, choose the Restore utility; the following screen appears:

```
                    Restore

Floppy Drive:.....0
```

Insert the backup diskette in a floppy disk drive. At the prompt, press ENTER if you are restoring data from single-sided diskettes in floppy drive 0. To identify a different drive, type over the displayed value, specifying a number from 1-7. Numbers 1-3 refer to other floppy drives containing single-sided diskettes. Numbers 4-7 identify the same drives, but containing double-sided diskettes (4 corresponding to 0).

For example, restore files from a double-sided diskette in floppy drive 2 by typing **5** [ENTER].

When the Restore utility completes its task, the Main Menu reappears.

Free

Select Free to display the amount of free space on a given disk. The following screen appears:

```
                    Free

Device:.............hd0
K bytes free =

Press <ESC><Q> to Quit
```

Use the first prompt to identify the disk drive you want to check. The displayed value specifies hard disk drive **0**. To display the number of bytes free on this drive, press [ENTER].

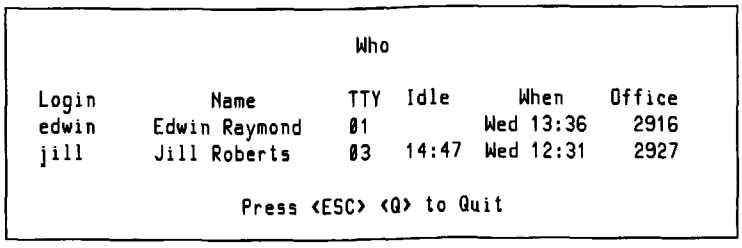
Using the indicated format, you can specify a different drive, either a hard drive or a mounted diskette on a floppy drive. Use the abbreviation fd for a floppy disk drive. For example, type **fd0** [ENTER] to check the bytes free on floppy disk drive 0.

The free space is displayed in kilobytes (K). Each kilobyte equals **1024** bytes.

After the utility displays the free space on the specified drive, check another drive, or press [ESC], then [Q] to return to the Main Menu.

Who

The Who utility enables you to determine which other users are logged onto the system. The utility displays a number of other items of information, arranged in successive columns. The following figure, containing sample data, illustrates the arrangement of information on the screen.



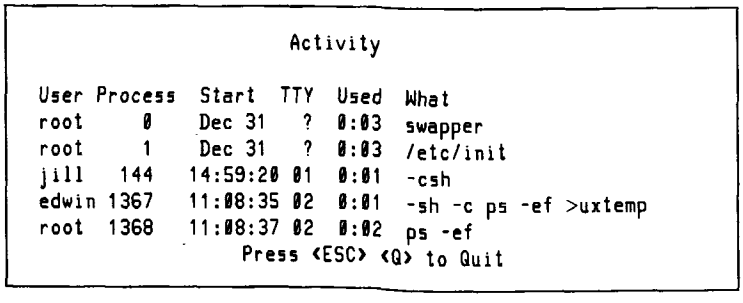
The first 2 columns reveal the user name and full name of each person using the system at that moment. The third column displays the terminal line number the person is using.

The next 2 columns, headed `Idle` and `When`, list the time at which the most recent activity occurred and the most recent login time for each user. Both columns give times in a 24 hour (military) format. The last column displays the office number or extension for each user.

Press [ESC] and then [Q] to exit the Who utility and return to the Main Menu.

Activity

Activity is a utility that displays a list of the processes that are running. When you select it, a screen appears such as the one in the following figure. The information Activity provides can help you if you are waiting to use a file that someone else is executing.



The screen shows a series of data about each process. The first 2 columns identify the user who controls the process and the process itself. The screen specifies each process by a unique process identification number.

In the preceding figure, notice that a user called edwin controls the process with the identification number, 1367. The next column, headed `Start`, tells you the time of the day that the process began. The times appear in a 24-hour format that gives hours, minutes, and seconds. The fourth column indicates that Edwin began the process from teletype Ø2, the terminal connected to port Ø2.

Under the column headed `Used`, the utility displays the amount of processor time a given process has used in minutes and seconds. Edwin's process used 1 second or less.

The last column identifies the command that initiates a given process. Edwin's process follows the command sequence `-sh -c ps -ef >uxtemp`. A command sequence that goes beyond the right margin continues on the next line.

If Activity cannot display all the current processes on a single screen, it prompts you to press the space bar to display the rest of them. When you are finished examining the list, press [ESC], then [Q] to return to the Main Menu.

Contents

Chapter 10

Beginning the Sample Session

During most of the sample session, you will be working with sample data involving Mr. Edwin Raymond's catering firm, Bon Appetit. You will be using DeskMate on Edwin's behalf.

Before you can begin running DeskMate, you must, of course, be operating under XENIX and you must install the program on your disk. Installing DeskMate is a simple procedure, described in Appendix A of the Reference section.

The sample session is divided into mini-sessions, each covering a different application. Although some benefit does derive from completing the chapters consecutively, they are largely independent of one another.

The sample session starts with an examination of the Main Menu in this chapter. Each subsequent chapter demonstrates a major application and one of the Desk Accessories. In this chapter, you will use the Messages accessory.

When you are finished with a particular part of the sample session and want to exit DeskMate, press [ESC] and then [Q] at the Main Menu.

Moving the Marker

On the screen, a *cursor* or a *selection marker* indicates your current position. The cursor is a single flashing character, while the selection marker highlights a block of characters.

In the sample session, you will use the arrow keys to move the cursor or position the marker on a particular item on the screen. To move the cursor or marker farther and faster, use [ESC] in combination with the arrow keys. See your reference manual for details on using the marker movement keys.

Executing Commands

The applications in DeskMate frequently use [CTRL] or [ESC] in combination with another key to execute a command. These *key sequences* are slightly different.

Use [CTRL] in much the same way you use the [SHIFT] key of a typewriter. When the manual shows [CTRL] preceding another key, press [CTRL] and hold it down while you press the second key.

To produce a key sequence using [ESC], do not hold down [ESC] while you press the second key. After you press [ESC], the command lines soon appear, listing general commands and functions specific to the current application or menu. Press a second key to execute the associated function.

Note that you do not have to wait for the command lines to appear if you are certain which combination key executes the command you want to use.

Differences in Terminals

Some terminals support keys that you can press instead of key sequences. Page keys can replace the use of [ESC] with the arrow keys, as shown in the following chart:

Standard keys	Optional key
[ESC] then [→]	[PG RT]
[ESC] then [←]	[PG LT]
[ESC] then [↑]	[PG UP]
[ESC] then [↓]	[PG DN]

You can also use function keys, such as [F1] or [F2], to select functions. If you know which number corresponds to the function you want to execute, you can simply press the corresponding function key in place of [ESC] and the number. For example, press [F1] in place of [ESC] followed by [1]. (Press [F10] for [ESC] and then [0].)

You can also press the function key instead of the number after [ESC]. Accordingly, [ESC] and then [F1] is equivalent to [ESC], then [1] or [F1].

The following figure shows other possible key substitutions. In each case, press the key in the right column in place of the key sequence in the left if your keyboard supports the alternate.

Standard key	Optional key
[CTRL] [C]	[BREAK]
[CTRL] [W]	[INSERT]
[CTRL] [X]	[DELETE]
[CTRL] [T]	[HOME]

Copying the Sample Files to Your Directory

To work through the sample session and have access to Edwin Raymond's files, execute a file that copies the sample data to your home directory. Actually, DeskMate places the files in a subdirectory of your home directory named edwin/.

Note: In the unlikely event that you have already created a subdirectory within your home directory named edwin, change its name or delete it before you use the sample session.

Complete the following series of steps to load and display the sample files:

1. Begin by logging on to the system. The first prompt reads:

```
login:
```

   Type your user name and press [ENTER]. The next prompt appears:

```
Password:
```

   Enter your password. The characters you type do not appear on the screen. After you press [ENTER], the system verifies the login information and displays your system prompt.

2. At the system prompt, type:

   dmsample [ENTER]

   This command executes a file that copies a sample directory within your home directory. You can delete it later.

Displaying the Main Menu

To display the files you copied, open DeskMate and then change the current directory. Follow the steps below:

1. Next, display the Main Menu for DeskMate. At the system prompt, type:

   desk [ENTER]

   DeskMate displays its Main Menu with your home directory as the current directory. Figure 10.1 illustrates the screen that appears:

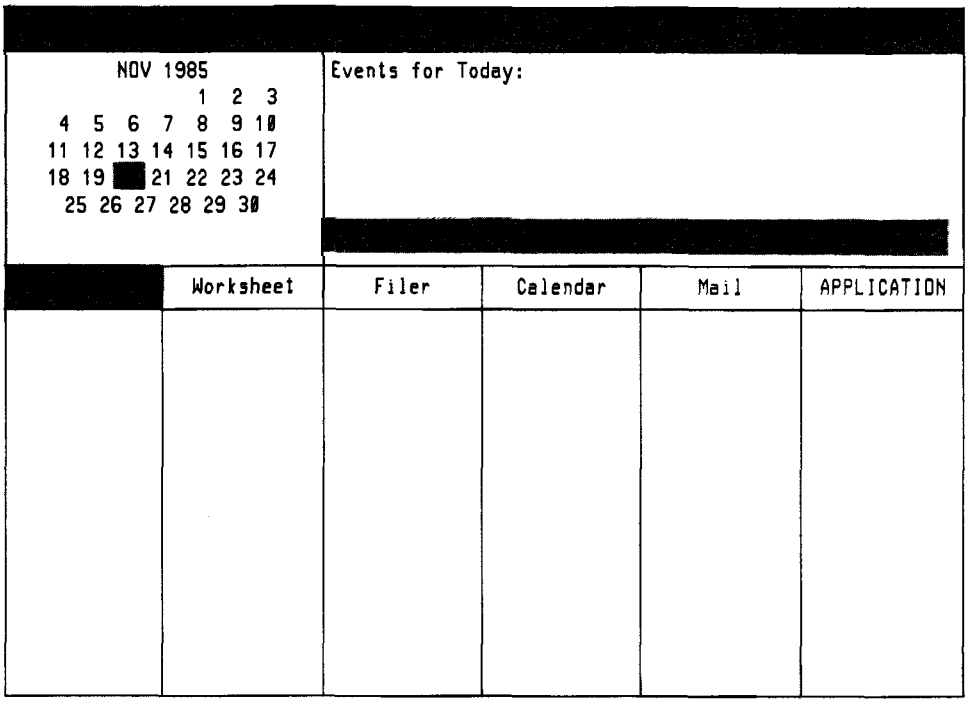


Figure 10.1

The Main Menu displays a monthly calendar and a list of events scheduled (through the Calendar application) for today. Below the area for today's events is a line on which the menu highlights the current directory. On your screen, the current directory is your home directory. In Figure 10.1, *your home* represents the actual name of your home directory.

Across the middle of the screen, the Main Menu lists the DeskMate applications. If you have not yet used DeskMate, the lower part of the screen lists no files under the application names.

2. Change the current directory using the Directory function. Press [ESC] and then [2]. The following prompts appear at the bottom of the screen:

```
<ENTER> to Expand or
New Current Directory:
```

Type the name of the directory that contains the files for the sample session:

edwin ENTER

DeskMate redraws the Main Menu as shown in Figure 10.2.

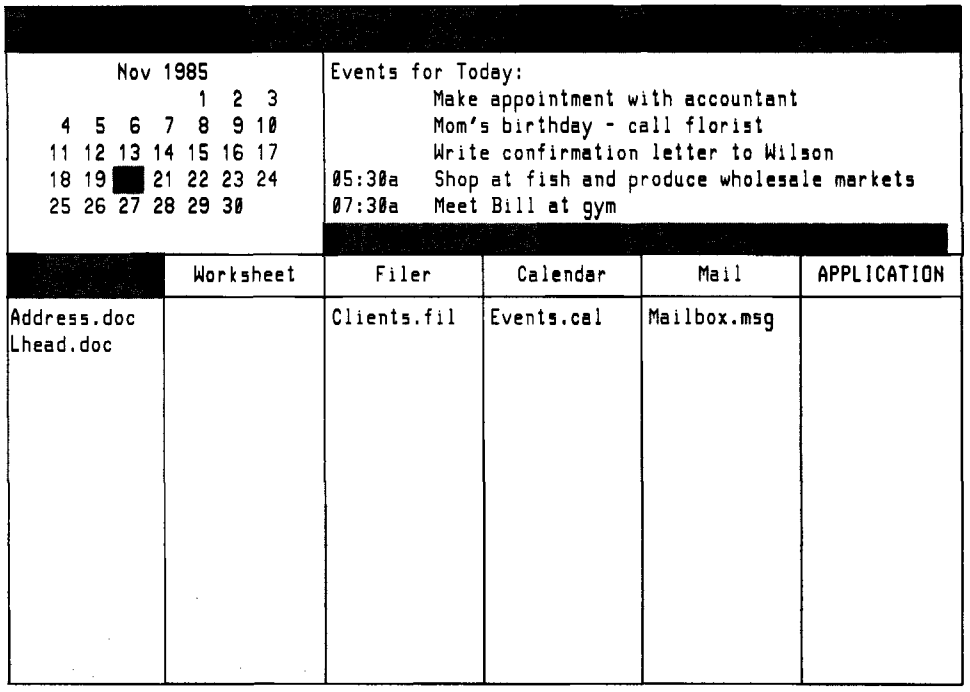


Figure 10.2

Figure 10.2 shows data in the upper right region of the menu, the area headed `Events for Today`. These events appear on your screen only if the current date corresponds to the date used in the sample session, November 20.

Notice the highlighted area below the list of today's events. In that space, the menu now identifies /usr/*your home*/edwin/ as the current directory. During the sample session, consider this directory to be Edwins's home directory. It contains the files that you will use as you proceed through the sample session.

The 6 columns that make up the lower part of the screen help you keep track of the files you use with your DeskMate applications.

The first 5 columns list files in the current directory grouped by application. The file `Address.doc`, for example, appears below `Text` because it is a document file that you read and edit through the Text application.

The sixth column, headed `APPLICATION`, lists applications (in addition to those in columns 1-5) that you can execute directly from your DeskMate menu. When you first install the DeskMate programs, this column is empty.

In the sample session, you open a number of files and then add to and manipulate the data in them. You will create and open files from the Main Menu as you complete the tasks in each chapter.

Using Messages Within the Main Menu

On the top line of your Main Menu, notice the word `MAIL`. The presence of this word on the top line indicates that the system is storing new mail for you. Check the mail from the Main Menu or from any application by executing Messages—one of the Desk Accessories.

1. Press [ESC] to display the label lines along the bottom of the screen. The label lines list command keys and the commands that they execute. Notice that `Desk Accessories` is paired with `<=>`.

2. Press [=] to display the menu of Desk Accessories. It appears as a window in the center of the screen, as shown in Figure 10.3.

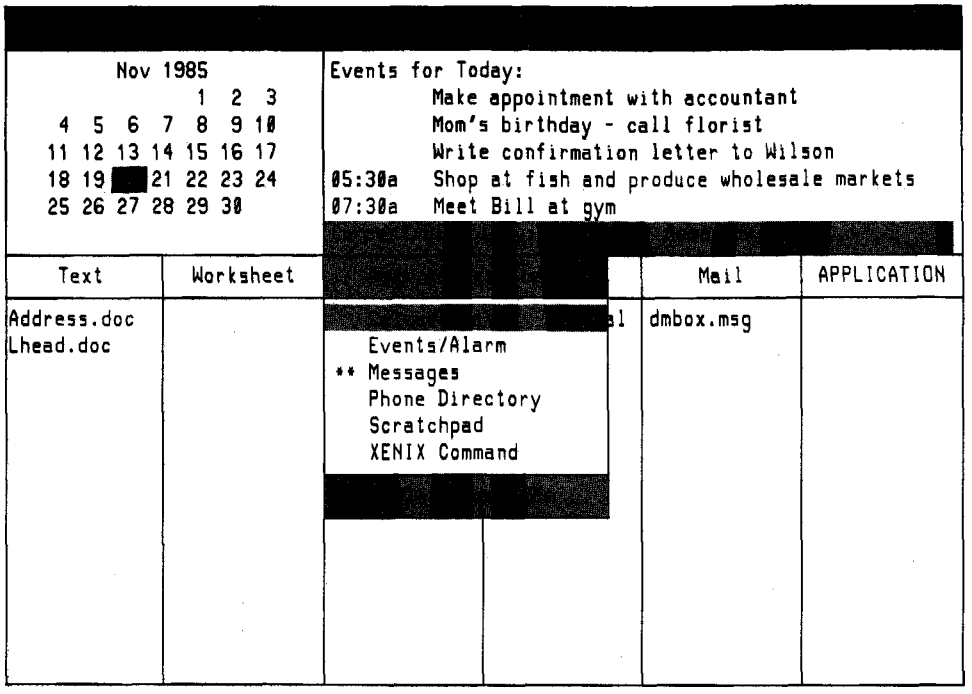


Figure 10.3

The stars to the left of `Messages` on the screen confirm the fact that there is new mail for Edwin.

3. To examine the new mail, press [M] to use the Messages accessory. The Messages window replaces the menu of Desk Accessories. It identifies the new mail so that you can read the messages if you choose.

   Figure 10.4 shows the Messages window. There are 3 new messages, the first from you (your login name), the second from Dan, and the third from Jody. Edwin decides to look immediately at the message from dan.

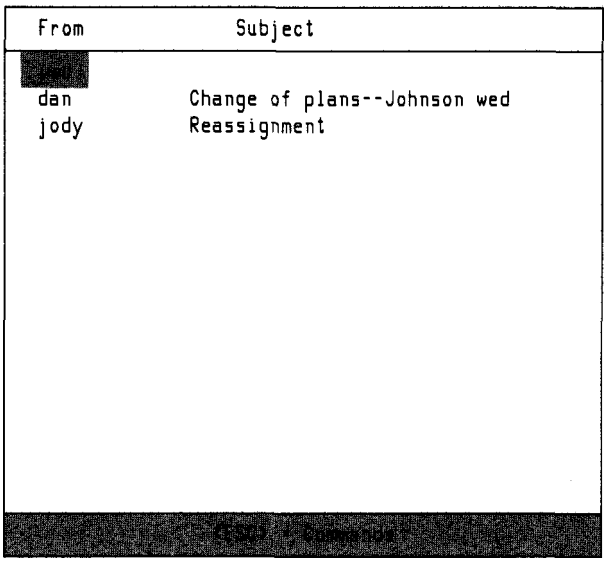


Figure 10.4

4. With the marker highlighting the message from Dan, press ENTER to display the contents of the letter. Dan's message soon appears.

Note: If you are a newly created XENIX user, you may have an additional message on your screen that welcomes you to XENIX (depending on your shell). Its header on the message screen identifies it by sender only (no Subject).

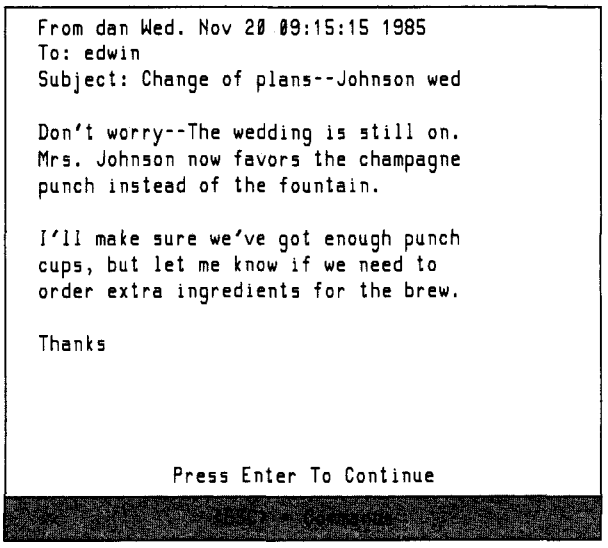


Figure 10.5

5. After you read the message, press [ENTER] to return to the list of new messages.

6. Press [↓] to move the marker to the second item, and press [ENTER] to read the message from jody.

7. After you read the second message, press [ENTER] to return to the list of new messages.

Edwin decides to reply to his messages later in the day. In reading them, however, he is reminded that he needs to cancel the rental arrangements for the champagne fountain. He decides to send himself a note so that he will not forget this detail.

1. Press [ESC], then [0] to create a message. The window changes to display a blank message area, headed by a series of prompts.

2. At the first prompt, `To:`, type your own user name, and then press [ENTER].

3. At the second prompt, `Subject:`, type:

   Johnson wedding reminder [ENTER].

   The cursor moves to the message area.

4. Type the following message. Words that overrun the end of the line wrap to the next line.

   Don't forget to cancel the champagne fountain now that the Johnsons have opted for punch.

   To correct errors, position the marker using [BACKSPACE] or the arrow keys. [BACKSPACE] erases characters, while the arrow keys do not affect them. Then, type over the incorrect portion of the message.

5. Press [ESC] and then [Q] to send the message. The list of messages returns after the message is sent.

6. To exit the Messages accessory, press [ESC] and then [Q]. Exiting an accessory returns you to the screen you left when you executed it. In this case, you chose the accessory from the Main Menu (which has remained in the background while you read and created messages).

When the screen displays the Main Menu once again, Edwin proceeds with the tasks outlined in the following chapters. Each chapter focuses on a different application. Edwin uses the accessories in the course of executing an application, just as you might in actual use of the DeskMate programs.

Chapter 11

Using Text

In this chapter you will create a new text file and type a letter to one of Edwin's customers. As you do so, you merge data from other documents and use the editing features of the Text application. Finally, you print the letter.

To open a new Text file, follow the steps listed below. Use the arrow keys to position the marker.

1. Position the marker at the head of the first column (if it is not already there). It highlights the name of the application, `Text`.

2. Press [ENTER] to execute the application. The application prompts you for a filename at the bottom of the screen.

   ```
   Enter filename:
   ```

3. At this prompt you can type the name of an existing file or invent a name for a new file. Type **Letter** [ENTER] for the name of the Text file you are creating.

   Text opens a new Text file named Letter.doc. The application assigns the extension, .doc, if you do not include it. A blank typing page appears, the first page of your new document.

4. Press [ESC] to see the functions available to you in the Text application. They appear on the 2 bottom lines of the screen as shown in the figure that follows.

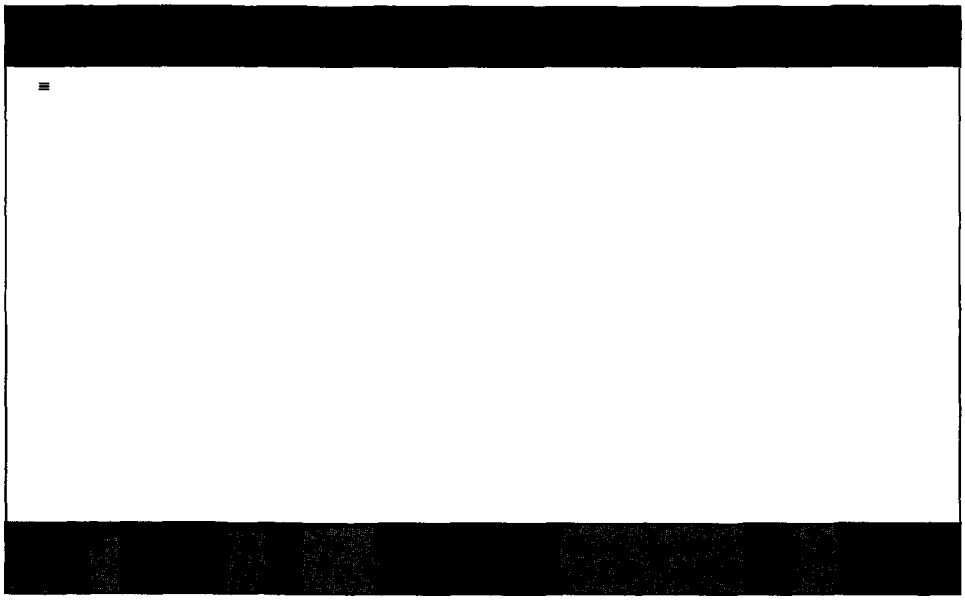


Figure 11.1

5. Press [ESC] to erase the function lines and display the full Text screen once again.

Entering Text

Edwin wants to send a letter to a client to confirm the dates of upcoming events. Begin by typing the following letter, pressing [ENTER] where indicated. Do not worry about typing mistakes; later you'll learn how to correct errors by inserting, deleting, and overstriking text.

Dear Mrs. Williams: [ENTER]
[ENTER]
I am writing to confirm your agenda for the upcoming month. I have you scheduled for the following days: [ENTER]
[ENTER]
12/3/85 Luncheon for 8 at noon [ENTER]
12/12/85 Afternoon tea for 6 at 3:00 [ENTER]
12/25/85 Dinner for 10 at 8:00 [ENTER]
12/31/85 Wedding reception for 60 at 7:30 [ENTER]
[ENTER]
If any of the above information is incorrect, please inform me as quickly as possible, as December appears to be a very busy month. Also, we need to get together soon and arrange the menus. [ENTER]
[ENTER]
Sincerely, [ENTER]
[ENTER]
Edwin Raymond [ENTER]

Raymond needs to add an event for December 1st to the list in his letter.

1. Move the cursor over the `1` of `12/3/85` by repeating [↑] until the cursor rests on the line containing the December 3rd event.

2. You are currently in Add mode (the default typing mode) as shown in the label line at the bottom of the screen. Type **12/1/85**, press the space bar 3 times, and type **Bridal shower for 15 at 1:00** [ENTER].

   Note that in Add mode, the original text moved to the right as you inserted the new text and then moved down to the next line when you pressed [ENTER] after typing.

Next, change the information for the event scheduled on December 25th. The event now falls on December 26th for 12 people.

1. Move the cursor over the `5` of `25`.

2. To change the typing mode to Replace, press [ESC], then [3]. (Note that `Rpl` now appears in the label line when you press [ESC].)

3. Type **6** over the `5`, move the cursor to the `0` of `10`, and then type **2** over the `0`. Replace (overstrike) mode lets you type over text.

You need to make one more correction—change the word `and` in the last sentence to `to`.

1. Move the cursor to the `a` in `and` and type **to**.

2. Press [ESC] and then [9] (or your deletion key) to erase the `d` and shift the rest of the sentence to the left one character.

3. Press [ESC], then [3] to switch from Replace back to Add mode.

   Note: If you made any mistakes while typing the letter, correct those errors now by using the Add/Replace typing modes and the Delete function, and then continue with the rest of the Text sample session.

Duplicating Text from One File to Another

Next, you want to insert address information from another Text file above the salutation.

1. Press [ESC], then [Q] to save the letter and return to the Main Menu. When the Main Menu is redisplayed, notice that your new file, Letter.doc, appears in the column of Text files.

2. Move the marker to Address.doc, and press [ENTER]. The name and address information for Edwin's customers appears on the screen.

3. To look up Mrs. Williams's address, press [ESC] and then [1] to use the Find function.

4. Type **Wil** [ENTER] for the search string (using only part of the name, Williams). The cursor moves to the `W` of `Williams`.

Anytime you want to do something with a block of information (Buffer, Copy, Delete, Insert, Print), you must first define the text block using the Select function.

1. Move the cursor to the M of Mrs., and press [ESC], then [7] to select the beginning of the address block.

2. Press [↓] to select the 3 lines of Mrs. Williams's address block.

3. Press [ESC], then [8] to save a copy of the address block as a new file. At the bottom of the screen, you see:

   ```
   Enter copy filename:
   ```

   Type **Williams** [ENTER] as the name for the new file.

4. Since you are finished using the Address file, press [ESC] and then [Q] to return to the Main Menu.

5. Next, return to the file containing the letter to Mrs. Williams. In the list of files, position the marker over `Letter.doc` and press [ENTER].

   The letter reappears with the cursor at the beginning of the letter (on the D in Dear).

6. To insert the address block above the salutation, press [ESC], then [6] to use the Merge function.

7. At the prompt, type **Williams** [ENTER] to merge the contents of that file at the cursor.

You need to add a blank line between the customer's address and the salutation.

1. Press [ESC] to check the label line at the bottom of the screen. If Rpl is displayed instead of Add, press [3] to change typing modes. If Add appears, press [ESC] again.

2. Move the cursor to the D of Dear, and press [ENTER] to create a blank line.

Next, place Edwin Raymond's return address above Mrs. Williams's address. A Text file called Lhead.doc contains the standard heading Edwin uses at the top of all his correspondence.

1. Press [CTRL] [T] to move the cursor to the beginning of the text.

2. To insert the Text file, Lhead.doc, at the top of the letter, press [ESC] and then [6] for the Merge function; then, type **Lhead.doc** [ENTER] for the filename.

3. To add a blank line between the addresses, move the cursor to the `M` in `Mrs.` and press [ENTER].

   The address information appears at the beginning of the document, and now the letter looks like this:

```
Edwin Raymond
4000 Seville Avenue
Fort Worth, Texas 76126
Date

Mrs. Eliot Williams
1900 Florida Avenue
Denton, Texas 78912

Dear Mrs. Williams:

I am writing to confirm your agenda for the upcoming month. I have you
scheduled for the following days:

12/1/85    Bridal Shower for 15 at 1:00
12/3/85    Luncheon for 8 at noon
12/12/85   Afternoon tea for 6 at 3:00
12/26/85   Dinner for 12 at 8:00
12/31/85   Wedding Reception for 60 at 7:30

If any of the above information is incorrect, please inform me as quickly as
possible, as December appears to be a very busy month. Also, we need to get
together soon to arrange the menus.

Sincerely,

Edwin Raymond
```

4. Move the cursor to the `D` of `Date` in the letterhead block.

5. Press [ESC], then [3] to switch to Replace mode; then type:

   November 20, 1985

Note: With the addition of 2 address blocks, the letter now exceeds the maximum number of text lines that the screen can display. Press [ESC], then [↓] to move the cursor to the bottom of the page. Repeat the key sequence to display the end of the letter to see the lines that do not fit on the screen.

Printing Text

Before printing text, it is a good idea to make the line width displayed on the screen coincide with the line width that you intend to print on a page. By using the function, Format, you can get a rough idea of what the text will look like when you print it.

1. To change the displayed line width, press [ESC] and then [4] for Format.

2. The preset value for the line width is 78. Since you plan to print the letter with a line width of 50, type **50** [ENTER] to change the display.

The letter now looks like this:

```
Edwin Raymond
4000 Seville Avenue
Fort Worth, Texas 76126
November 20, 1985

Mrs. Eliot Williams
1900 Florida Avenue
Denton, Texas 70912

Dear Mrs. Williams:

I am writing to confirm your agenda for the
upcoming month. I have you scheduled for the
following days:

12/1/85    Bridal shower for 15 at 1:00
12/3/85    Luncheon for 8 at noon
12/12/85   Afternoon tea for 6 at 3:00
12/26/85   Dinner for 12 at 8:00
12/31/85   Wedding reception for 60 at 7:30

If any of the above information is incorrect,
please inform me as quickly as possible, as
December appears to be a very busy month. Also, we
need to get together soon to arrange the menus.

Sincerely,

Edwin Raymond
```

Note: Use the arrow keys to see the entire letter.

3. Be sure your printer is properly connected and on-line. Use standard 8 1/2 by 11 inch paper (80-column computer paper), and align the paper in the printer.

4. Press [ESC], then [P] to display the printer settings. The screen shows the following settings.

```
                Printer Settings

Lines per page:.....................66
Printed lines per page:.............60
Left margin:........................0
Printed line width:.................80
Double spacing (Y/N):...............N
Print: Console, Local, Screen, File...C
```

5. The `Lines per page` refers to your paper size, the number of lines on the entire page. The displayed value, `66`, applies to both regular-sized paper (8 1/2 by 11 inches) and wide, 132-column computer paper (14 by 11 inches). Press [ENTER] to use the displayed value of `66`.

6. `Printed lines per page` refers to the number of lines you want printed on the page. This value equals the number entered for `Lines per page` minus the number of blank lines you want at the top and bottom of a page.

   To compute the number of printed lines per page, first calculate the total for the top and bottom margins. When you align the paper to start printing, count the number of lines from the top edge of the paper down to the printer head position at which you want to begin printing. For equal top and bottom margins, double this number, and subtract the product from the total lines per page.

   To have the top and bottom margins each contain 6 blank lines, subtract 12 from 66 and the result, 54, is the value for `Printed lines per page`. Type **54** [ENTER] to change this setting.

7. The displayed setting for the `Left margin` is `0`. Type **15** [ENTER] to make the left margin approximately 1 1/2 inches from the edge of the paper.

8. The next setting, `Printed line width`, is the number of characters you want a printed line to contain. To change the preset line width of `80` to `50`, type **50** [ENTER].

9. To single space your printed document, press [ENTER] at the next prompt, `Double spacing`. This retains the displayed value, `N`.

10. At the last prompt, press **L**[ENTER] if you are connected to a printer at your terminal and your terminal supports local printing. If not, press [ENTER] to use the printer at the console. The printer begins to operate after you respond to the last prompt.

Substituting Text

1. After the printer stops, press [ESC], then [Q] to save the document file and return to the Main Menu.

2. At the Main Menu, press [↓] to move the cursor over `Address.doc` in the `Text` column, and press [ENTER]. The name/address information of Mr. Raymond's customers reappears on the screen.

3. Press [ESC] and then [?] to display the Text help screen. The screen shows:

```
------------------------- Text Help -------------------------

To use a command, press <ESC>, then the number or letter:

<ESC> <1>   FIND--Move cursor to first occurrence of search data.

<ESC> <2>   SUBSTITUTE--Substitute replacement string for search
                  string. Press <Y> or <N> at each match, or
                  <CTRL C> to cancel search/replace process.

<ESC> <3>   ADD/REPLACE--Change typing mode from Add (insert) to
                  Replace (overstrike). Repeat to switch back.

<ESC> <4>   FORMAT--Change line width for document.
                  Minimum width is 21; maximum is 78.
   <P>Go to previous page   <ENTER>Go to next page   <CTRL><C>Quit
```

4. To see the next help screen, press [ENTER].

```
--------------------------- Text Help ------------------------

To use a command, press <ESC>, then the number or letter:

<ESC> <5>   BUFFER--Copy selected block of text to copy buffer.

<ESC> <6>   MERGE--Insert contents of another document at cursor.

<ESC> <7>   SELECT--Define a block of characters to Save, Delete,
                or place in Buffer.

<ESC> <8>   COPY--Copy document or selected block in ASCII file.

<ESC> <9>   DELETE--Delete character at cursor or selected block.

   <P>Go to previous page   <ENTER>Go to next page   <CTRL><C>Quit
```

5. Press [ENTER] to see more help screens. On the last help screen, [ENTER] returns you to your file and positions the cursor where you left it.

The only Text function you have not yet used is the Substitute function. This function lets you find a specific string of characters throughout a text file and replace the string with different text. When searching, the function ignores the distinction between upper and lower case. For example, *STRING* and *string* are recognized as equal.

1. Suppose you want to change almost every occurrence of `Fort Worth` to `Dallas`. Press [ESC] and then [2] for Substitute; then type **Fort Worth** [ENTER] at the prompt, `Search string`.

2. In response to the next prompt, `Replacement string`, type **Dallas** [ENTER].

3. The cursor moves to the first occurrence of `Fort Worth`, which happens to be in Cindy Beauchamp's address, and you are asked `Replace? (Y/N)`.

4. Press [Y]. The Substitute function replaces the search string, `Fort Worth`, with `Dallas`, the replacement string. Then, the cursor moves to the next occurrence of the search string, in Ellen McKinney's address.

5. Press [N] to keep this occurrence of `Fort Worth`. The cursor moves to the last address, and a prompt appears, `Replace? (Y/N).`

6. Press [Y]. The screen displays the beginning of the document, indicating that there are no other occurrences of the search string.

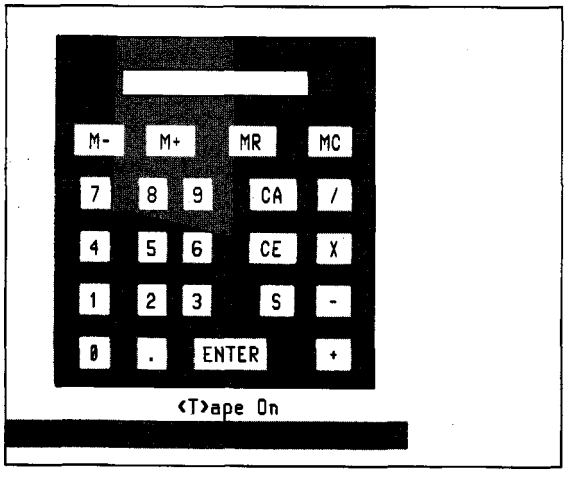
7. To change the addresses back to their original states, press [CTRL] [T] to return to the top of the first page in the file. Press [ESC], then [2] to select the Substitute function again.

8. This time, type **Dallas** [ENTER] for the search string and **Fort Worth** [ENTER] for the replacement string.

9. Press [Y] at the first occurrence, [N] at the second occurrence, and [Y] at the last occurrence. Now the Address file is the same as when you opened it.

Using Calculator Within Text

You can select the accessory, Calculator, while using any application. Before exiting Text and returning to the Main Menu, experiment with Calculator. To use the Calculator, first press [ESC], then [=] to display the menu of Desk Accessories. When the menu appears, press [C] to select the Calculator accessory. The following screen is displayed, representing a common, hand-held calculator.



To perform an operation on the Calculator, press the keys on your keyboard that correspond to the Calculator keys. Where the Calculator key shows 2 characters, type both to produce an equivalent result. For example, type **CA** to produce the effect of pressing the Clear All key, `CA`, on the Calculator—to clear the current operation so that you can start over.

To use any of the commands from the command line, the highlighted strip below the calculator itself, press [ESC] followed by the key that executes the command. For example, press [ESC] and then [3] to create or edit Formula 3.

To practice using the Calculator, complete the steps that follow:

1. To add 5 and 1, type **5+1** [ENTER]. The answer, 6, appears in the display window of the simulated calculator. Notice that this space shows, in turn, each operand, the operator (at the left), and then the result of the operation.

   The operation also appears along the righthand margin of the screen. The column of figures represents the numbers that appear on a paper tape readout. The readout is a handy way to verify the numbers that you typed or results of previous operations.

2. To subtract 4 from 6 (the current entry), press [-] for subtraction; then, type **4** [ENTER]. The entry line changes to 2.

3. To multiply the existing entry by 10.3, type the new operator, **x**, and then **10.3** [ENTER]. The accumulator is now `20.6`.

4. To divide 8.6 by .4, type **8.6/.4** [ENTER]. The answer, `21.5`, is shown on the entry line.

5. If you make a mistake in typing an operand, type **CE** before you press [ENTER] to perform the operation. When you use the CE (Clear Entry) feature, you erase only the current number. Previously entered operands and operators are unchanged.

For example, suppose you want to take 30% of the current value, and you leave out a decimal point. Press **x** for multiplication; then, type **30**. Type **CE** to erase the 30, and then type **.30** [ENTER]. The new result is `6.45`.

6. Typing **S** changes the sign of the operand from positive to negative and vice versa. For example, to divide 6.45 (the current entry) by a negative 4, press / for division. Then, type **4**, the divisor, followed by **S**, to change the sign of the operand to negative. Finally, press [ENTER]. The answer, shown in the display window (and on the tape readout), is `-1.6125`.

7. To exit Calculator and return to Text, press [ESC], then [Q]. The Text screen you were using reappears.

To exit Text, press [ESC], then [Q] to use the Quit function. The function saves the newly created document (or any editing changes made to an existing document) and returns you to the Main Menu.

Chapter 12

Using Worksheet

Edwin Raymond maintains a spreadsheet containing his home budget in a directory separate from his business files. Use the Directory function on the Main Menu to expand the directory, personal/, and then open the file from the expanded file list.

1. When the Main Menu appears, the current directory is the home directory, `/usr/your home/edwin/` (for the sample session). Begin by executing the Directory function. Press [ESC] and then [2]. A prompt appears:

   ```
   <ENTER> to Expand or
   New Current Directory:
   ```

2. Press [ENTER] to expand the current directory. The screen displays a complete list of the files and directories within the current directory, `edwin/`.

3. Press [↓] until the marker highlights the directory you want to expand, `Personal/`, and press [ENTER]. The screen displays the files and directories within `Personal/`. Figure 12.1 shows the sample files as they appear on your menu screen.

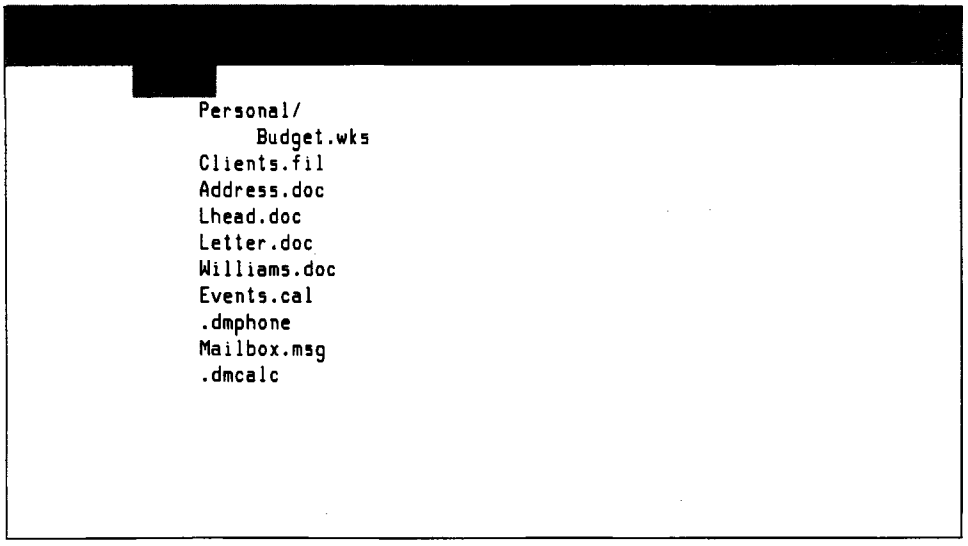


Figure 12.1

4. Position the marker on `Budget.wks` in the newly displayed column of files. Then, press [ENTER] to open the file. The screen illustrated in Figure 12.2 appears.

```
       1          2          3          4          5          6          7
 1           BUDGET FOR JAN 1985
 2
 3 EXPENSE    BUDGET     ACTUAL        NET
 4 CATEGORIES AMOUNT     AMOUNT     AMOUNT
 5
 6 Car Paymnt 250.00     250.00        .00
 7 Car Gas     80.00      60.00      20.00
 8 Home Gas    50.00      87.13     -37.13
 9 Electric    75.00      39.89      35.11
10 Water       25.00      17.25       7.75
11 Phone       50.00      61.10     -11.10
12 Rent       400.00     400.00        .00
13 Insurance   65.00      65.00        .00
14 Grocery    150.00     113.57      36.43
15 Fun        100.00     165.00     -65.00
16
17 TOTALS    1245.00    1258.94     -13.94
18
19
20
Select Command:
R 1 C 1
```

Figure 12.2

The top line of the screen identifies the file and displays the date and time. The remainder of the screen displays just a small portion of a worksheet on which you can enter and manipulate data.

A worksheet can fill as many as 99 columns and 99 rows, while a single screen of a worksheet (called a *window*) consists of 20 rows and 7 columns. The highlighted rectangular box that currently occupies Row 1, Column 1 (Cell 1,1) is called the *entry marker*.

The line near the bottom of the screen that now reads `Select Command` is the *command line*. It displays prompts and instructions to help you use the worksheet.

The blank space opposite `Select Command` is the *data entry area*. As you type data, it appears both on the data entry line and in the cell

that the entry marker occupies. When you press [ENTER], the data is *entered* into the cell, and the data entry line displays the contents (if any) of the new cell. Pressing one of the arrow keys also enters data into a cell.

Below the command line is the *cell status line*. It identifies the cell currently occupied by the entry marker, the contents of the cell. In Figure 12.2, the cell status line shows `R 1 C 1` (Row 1, Column 1) as the current cell. The cell is empty.

Creating a Simple Budget Worksheet

Edwin's budget compares budgeted amounts for expense categories with the actual amounts he spent during the month of January. In this chapter, you are going to re-create Edwin's worksheet, step by step, to learn how to use the Worksheet's basic functions.

1. Press [ESC], then [Q] to return to the Main Menu. When the Menu reappears, set as it was when you left it, you see the expanded file system you displayed before opening the file, budget.wks.

2. Press [ESC] and then [X] to redisplay the entire Menu screen.

3. Position the marker on `Worksheet`, and press [ENTER]. Enter a filename for the spreadsheet you are about to create. Type **Example** [ENTER] for the filename. DeskMate creates and then opens a new file in the Worksheet application.

Entering Labels and Text Data

You begin by entering the column and row headings.

1. Press [CAPS] once to enter these labels in capital letters.

2. In Cell 1,1, the cell that the marker occupies initially, type the heading, **EXPENSE**. Note that `Enter text` replaces `Select Command` to show the type of data the cell contains (text as opposed to numerical data).

3. Press [↓] to move the marker to Cell 2,1 (Row 2, Column 1), and type **CATEGORIES**.

   Note: Remember that if you make mistakes in typing, pressing [BACKSPACE] deletes the previous character. Notice that pressing [ENTER] is unnecessary; moving the marker to a new location using an arrow key is sufficient to enter the data you typed.

4. Press [→] and [↑] to move the marker to Cell 1,2. Type **BUDGET**.

5. Press [↓] once to enter the data and change cells. Type **AMOUNT** to complete the Column 2 heading. (Don't be concerned at this point about the position of the column labels.)

6. Move the marker to Cell 1,3, and type **ACTUAL**.

7. Press [↓]. In Cell 2,3, type **AMOUNT** to finish the Column 3 heading.

8. In Cell 2,4, type **AMOUNT**.

9. Move the marker to Cell 1,4, and type **NET**.

To adjust the position of the labels, select a block of text and reformat its contents.

1. Move the marker to Cell 1,1. Press [ESC] and then [7] to use the Select function.

2. Select a block of cells by moving the marker to Cell 2,4.

3. To reformat the contents of all the highlighted cells, press [ESC] and then [4].

4. A prompt appears on the command line that offers a series of formats:

```
Specify format types (L, R, D, I, $)
```

   At the cursor, type **R** [ENTER] to right justify the data in each of the selected cells. Cell contents shift to the locations shown in Figure 12.2.

Now enter the various expense categories in Column 1.

1. Press [CAPS] so that you can once again type both upper- and lowercase letters.

2. Move the marker to Cell 4,1 to enter the first expense category. Type **Car Paymnt**.

3. Press [↓] to move the marker to Cell 5,1; then type **Car Gas**.

4. Type the rest of the expense categories in Column 1.

Cell	Type
R6C1	**Home Gas**
R7C1	**Electric**
R8C1	**Water**
R9C1	**Phone**
R10C1	**Rent**
R11C1	**Insurance**
R12C1	**Grocery**
R13C1	**Fun**

5. Move the marker to Cell 15,1 to enter a label for Row 15. Press [CAPS]; then type **TOTALS**.

Figure 12.3 depicts the budget headings as they appear on your screen.

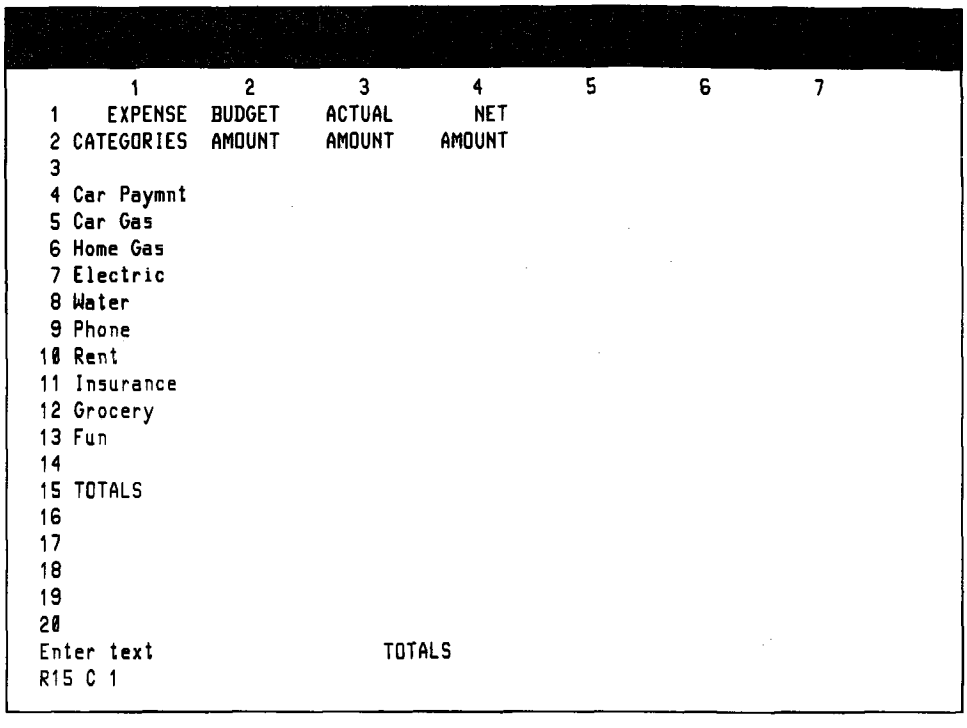


Figure 12.3

Entering Numbers and Formulas

With the headings in place, you can enter the budget figures:

1. To enter the budget amount for the first expense category, Car Payment, move the marker to Cell 4,2 and type **250** [ENTER] for the **$250.00** car payment. Note that `Select command` was replaced by `Enter number` when you typed the data, reflecting a numeric entry in the cell.

   Since the built-in display format for numbers is for financial data (the dollar format) with 2 decimal places, **.00** was automatically added to the **250** you entered. Also, note that a number is right-justified within a cell, whereas text is left-justified.

2. Press [↓] to move the marker to Cell 5,2; then type **80** to enter the budget amount of $80.00 for gasoline.

3. Press [↓] and type **50** for the budget amount for Home Gas.

4. Type the budget amounts for the rest of the expense categories in Column 2.

Cell	Type
R7C2	**75**
R8C2	**25**
R9C2	**50**
R10C2	**400**
R11C2	**65**
R12C2	**150**
R13C2	**100**

Next, enter a formula to add these numbers and come up with a figure for the total budget.

1. Move the marker to Cell 15,2, and press [ESC] and then [3] to use the Formula function.

2. Type **SUM(R4)** [ENTER]. This formula tells Worksheet to add the numbers starting from Row 4 to Row 14, the row above the current location of the entry marker. This is a simple way of entering the formula:

   R4 + R5 + R6 + R7 + R8 + R9 + R10 + R11 + R12 + R13 + R14

   Note: Press [CTRL] [F] to erase values stored in formula cells.

3. Press [ESC], then [!] to calculate the formula. The total budgeted amount, $1,245.00, soon appears in Cell 15,2.

4. To enter the actual amount spent for the first expense category, Car Payment, move the marker to Cell 4,3, and type **250**.

5. Press [↓] to move the marker to Cell 5,3; then type **60** to enter $60.00 for the amount actually spent for gasoline.

6. Type the actual amounts for the rest of the expense categories in Column 3.

Cell	Type
R 6 C 3	**87.13**
R 7 C 3	**39.89**
R 8 C 3	**17.25**
R 9 C 3	**61.10**
R10 C 3	**400**
R11 C 3	**65**
R12 C 3	**113.57**
R13 C 3	**165**

Now, enter a formula for calculating the total amount actually spent.

1. Move the marker to Cell 15,3 and press [ESC], then [3].

2. Type **SUM(R4)** [ENTER]. The formula computes the sum of the entries from Row 4 to the row containing the formula.

3. Press [ESC] and then [!] to calculate the formula. The total amount actually spent, $1,258.94, soon appears in Cell 15,3.

You need to enter another formula to calculate the net amounts in Column 4.

1. Move the entry marker to Cell 4,4, and press [ESC], then [7] for Select.

2. Press [↓] 11 times to indicate that Rows 4 through 15 are a single block because you want to calculate all values in Column 4 using the same formula.

3. Press [ESC], then [3] and type **C2-C3** [ENTER]. This formula takes each budget amount in Column 2 and subtracts the corresponding actual amount in Column 3. It displays the net amount for each particular expense category in Column 4.

4. Now, press [ESC] and then [!] to calculate the net amounts. The computed results are displayed row by row, expense category after expense category.

Enter a title for the worksheet as a finishing touch.

1. Press [CTRL] [T] to move the cursor to Cell 1,1.

2. To insert 2 blank rows to make room for the title at the top of the worksheet, press [ESC], then [←] to move the marker to the column containing the row number labels, and then press [ESC], then [0] twice to insert 2 rows.

3. Press [→] twice to move the marker to Cell 1,2.

4. Type **BUDGET FOR**.

5. Press [→]; then press the space bar once, and type **JAN 1985** [ENTER].

Printing a Worksheet

Now that you have finished creating the budget worksheet, you are ready to print it. Before using the print function, be sure that your printer is on line and that the paper is advanced so that printing will begin about an inch from the top of the paper (about 6 lines from the top).

1. Press [ESC] and then [P] to print; the screen displays the printer settings.

2. Press [ENTER] or [↓] to accept each of the settings. At the last setting, type **L** [ENTER] at a terminal to use your printer if your terminal supports local printing. Otherwise, press [ENTER] to use the console printer instead.

3. The printer begins to operate after you respond to the last prompt. The printed copy looks like the report in Figure 12.4.

BUDGET FOR JAN 1985

EXPENSE CATEGORIES	BUDGET AMOUNT	ACTUAL AMOUNT	NET AMOUNT
Car Paymnt	25Ø.ØØ	25Ø.ØØ	Ø.ØØ
Car Gas	8Ø.ØØ	6Ø.ØØ	2Ø.ØØ
Home Gas	5Ø.ØØ	87.13	-37.13
Electric	75.ØØ	39.89	35.11
Water	25.ØØ	17.25	7.75
Phone	5Ø.ØØ	61.1Ø	-11.1Ø
Rent	4ØØ.ØØ	4ØØ.ØØ	Ø.ØØ
Insurance	65.ØØ	65.ØØ	Ø.ØØ
Grocery	15Ø.ØØ	113.57	36.43
Fun	1ØØ.ØØ	165.ØØ	-65.ØØ
TOTALS	1245.ØØ	1258.94	-13.94

Figure 12.4

5. After the printer stops, press [ESC], then [Q] to save the worksheet and return to the Main Menu.

Setting Up an Amortization Table

Next, you may want to experiment with some of the Worksheet's more complicated and sophisticated features. In the following example, you create a spreadsheet for an amortization schedule.

For each period, the table calculates the fixed monthly payment and breaks it down into its 2 components: the interest and principal payments. There are 3 variables in this example: the original amount of the loan, the interest rate, and the number of periods over which you want to amortize the loan. The spreadsheet has 2 parts; set up the top

part for entering values for the variables and the bottom part for the actual amortization table.

1. On the Main Menu, position the marker on the Worksheet application. Press [ENTER] to execute the application. Because you did not indicate a particular filename, the bottom line prompts:

```
Enter filename:
```

2. Type **Table** for the filename of the worksheet you are creating, and then press [ENTER].

3. As you begin, the marker is at the top of the first column. At Cell 1,1, type **LOAN AMT**.

4. Press [↓] to move the entry marker to Cell 2,1 (Row 2, Column 1); then type **INT RATE**.

5. Next, move the entry marker to Cell 3,1, and type **PERIODS**.

When you use the Calculate function, you want the function to ask for these 3 values. To prompt these requests, enter the following formulas in the cells to the right of the labels:

1. Move the entry marker to Cell 1,2, next to LOAN AMT, press [ESC] and then [3] for Formula, and type **?LOAN** [ENTER]. The word following ? tells you which value the worksheet needs for its calculation.

2. Move the entry marker to Cell 2,2, press [ESC], then [3], and type **?INTEREST** [ENTER], so that later you will be prompted to enter a constant value for the interest rate.

3. Move the entry marker to Cell 3,2, press [ESC], then [3], and type **?PERIODS** [ENTER].

The next step is to enter headings for the 7 columns.

1. Move the entry marker to Cell 5,1, and type **Period**.

2. Press [→], and type **Balance**.

3. Press [→] to move the cursor to Cell 5,3, and type **Payment**.

4. In Cell 5,4, type **Interest**, and press [↓]; then right below *Interest* in Cell 6,4, type **Payment** to complete the heading for Column 4.

5. In Cell 5,5, type **Principal**, press [↓], and type **Payment**.

6. Move the entry marker to Cell 5,6, and type **Cumulative**; then in Cell 6,6, type **Interest** to complete the Column 6 heading.

7. For Column 7, the last heading, type **Cumulative** in Cell 5,7, and type **Principal** in Cell 6,7.

Before you enter formulas, format the spreadsheet so that Columns 6 and 7 don't run together. To create wider columns, change the present width of all columns from 10 to 11 spaces.

1. Press [ESC] and then [↑] to move the entry marker to the top row; then press [ESC], then [↑] a second time to move the entry marker to the line containing the column numbers.

2. Press [ESC], then [4] to use the Format function, and type **ALL,11** [ENTER] to change the width of all columns to 11 characters.

Entering the Amortization Formulas

The next step is to enter formulas for these 7 columns. Column 1 lists all periods the loan covers. For example, this is a 1-year loan, and thus has 12 periods.

1. Move the entry marker to Cell 8,1, and type **1** [ENTER].

2. Move the entry marker to Cell 9,1, and press [ESC] and then [7] for Select.

3. Press [↓] **10** times to indicate that Rows 9 through 19 are a single block and that all values in Column 1 are calculated using the same formula.

4. Press [ESC], then [3] for Formula, and type:

   R8+1 [ENTER]

   The formula tells Worksheet to take the value in the preceding row, add 1, and display that value in the current cell. The cell labels in the formula adjust for each successive cell it occupies.

   For example, move the entry marker to Cell 19,1. The value in the last row selected, Row 19, will equal the value in Row 18 (11) plus 1, or 12, the last period in the loan. The original formula, **R8+1**, has changed for each row so that when the value in Row 19 is calculated, the formula is **R18+1**.

5. Press [ESC], then [!] to calculate. The numbers that appear identify each of the 12 periods, but they appear in the standard number format, the dollar format. Worksheet displays each period number with 2 decimal places and justifies each one on the right side of the column.

Next, you are going to format Column 1 so that the period numbers are whole numbers and so that they don't run into the calculations that will appear in Column 2.

1. Move the entry marker to Cell 8,1, press [ESC] and then [7], and then select Rows 8-19.

2. Press [ESC], then [4] for Format, and type **LI** [ENTER].

   L stands for left-justified, which means that the contents of all the selected cells will be flush left within the cell instead of the (default) right-justified format for numbers and calculated values.

   You also specified an integer (I) format, since the period numbers do not need to be shown in dollar format (2 decimal places).

Column 2 shows the balance, the unpaid principal portion of the original loan amount. In the beginning, the balance is the full amount of the loan. The balance decreases steadily as each payment comes due.

1. Move the entry marker to Cell 8,2. The balance for Period 1 is the entire amount of the loan. When you calculate the values in the table, you enter a number to replace the variable in Cell 1,2.

2. Press [ESC], then [3] to enter a formula, and type **R1C2** [ENTER]. This formula simply makes the value in Cell 8,2 equal to that in Cell 1,2.

3. Move the entry marker to Cell 9,2, and press [ESC] and then [7] for Select; then use the arrow keys to highlight Rows 9-19.

4. Press [ESC], then [3] and type:

   R8C2-R8C5 [ENTER]

   This formula takes the value in the preceding row and the same column (the balance of the previous period), subtracts the value in the preceding row in Column 5 (the principal payment of the previous period) and displays the result.

   For example, the value in the last row selected (the balance of Period 12), Row 19, equals the Period 11 balance in Row 18 minus the principal payment paid in Period 11, shown in cell 18,5. When the value in Cell 19,2 is calculated, the original formula becomes to `R18C2 - R18C5`. (You can move the entry marker to Cell 19,2 to see that this is true.)

All values in Column 3 are the same to show the fixed payment that is paid every month on the loan.

1. Move the entry marker to Cell 8,3, and press [ESC], then [7]; then select Rows 8-19.

2. Press [ESC] and then [3], and type:

   #R1C2*#R2C2/(1-1/(1+#R2C2)!#R3C2) [ENTER].

   The number sign (#) preceding a cell number indicates that the cell location is absolute, not relative to the cell in which the formula is entered. In other words, the original formula entered does **not** change for each row.

Note: This formula written in normal fashion is:

Fixed payment = (Loan Amt. x Int. Rate)/(1 - 1/(1 + Int. Rate)^{n}) where Loan Amt. = original amount of entire loan, Int. Rate = interest rate per period, and n = number of periods.

This complicated-looking formula defines the numerator as the value in Cell 1,2 (**LOAN AMT**) multiplied (*) by the value in Cell 2,2 (**INT RATE**). The denominator is 1 minus 1 divided by (/) the quantity, 1 plus the value in Cell 2,2, raised to the value in Cell 3,2. The number of **PERIODS** becomes an exponent indicated by !

Column 4 shows the interest portion of each payment, which is the balance for a period multiplied by the interest rate.

1. Move the entry marker to Cell 8,4, press [ESC], then [7], and select Rows 8-19.

2. Press [ESC], then [3], and type:

   #R2C2*C2 [ENTER]

   For a particular period, this formula takes the value in the same row in Column 2 (the balance for that period) and multiplies it by the interest rate you enter in Cell 2,2.

The Principal payment of each period, the part of the total payment that actually goes to paying off the balance of the loan, is displayed in Column 5.

1. Move the entry marker to Cell 8,5, and press [ESC] and then [7]; then select Rows 8-19.

2. Press [ESC], then [3], and type:

   C3-C4 [ENTER]

   This formula takes the total payment (the value in Column 3) and subtracts the interest payment for that period (the value in Column 4) to come up with the principal payment for the period.

Column 6 shows the cumulative interest, the interest paid-to-date for each period.

1. Move the entry marker to Cell 8,6, and press [ESC], then [7]; then select Rows 8-19.

2. Press [ESC] and then [3], and type:

   CMT(#R8C4) [ENTER]

   This formula gives the accumulated totals for all 12 periods plus the final total of all the values in Column 4, starting with Row 8, and displays these values in Column 6.

   For example, the interest paid-to-date for Period 4 is displayed in Cell 11,6. It is the sum of the interest paid in each of the first 4 periods—the values of Cells 8,4, 9,4, 10,4, and 11,4. `CMT` stands for *column summation*, and `#R8C4` tells Worksheet to start the cumulative summing from Cell 8,4 (the interest paid in Period 1).

The last column displays the cumulative principal, the principal paid-to-date for each period. (After all 12 periods have been calculated, the last figure in this column, the cumulative principal for Period 12, equals the original amount of the loan.)

1. Move the entry marker to Cell 8,7, press [ESC], then [7], and select Rows 8-19.

2. Press [ESC], then [3]; then type:

   CMT(#R8C5) [ENTER]

   The increasing values in this column show how the loan is gradually being paid off and retired.

Calculating and Reformatting a Worksheet

The spreadsheet is now completely set up, and you are ready to perform calculations.

1. Press [CTRL] [T] to move the entry marker to Cell 1,1. This example involves an 18% 1-year loan for $1000.00.

2. Press [ESC] and then [!] to calculate. You are prompted to enter the LOAN AMT.

3. Type **1000** [ENTER].

4. Type **0.015** [ENTER] for the INT RATE. This value represents the annual interest rate (18% or .18) divided by 12 to yield the monthly interest rate (1.5% or .015).

   Note: The built-in display format for numbers is the $ format with 2 decimal places. Although you cannot see the 5 you entered for .015, it is in memory and figures in the calculations.

5. Type **12** [ENTER] for the number of PERIODS. After you enter a value for the last constant, the computed results appear row by row, period after period.

You need to make a few final touches to make the spreadsheet look more professional. Although you want to display the data in the amortization table in dollar and cents format (2 decimal places), you want the interest rate cell to include up to 4 decimal places to cover the most common interest rate possibilities.

Second, you want the number of periods to appear as a whole number (without decimal places). Last, you want to justify the column headings along the right side of the column.

1. Move the entry marker to Cell 2,2, and press [ESC], then [4] for Format.

2. Type **D** [ENTER] so that you can change the default number of decimal positions; then type **4** [ENTER]. Now you can see the entire entry, 0.0150, rather than the approximated entry, 0.02.

3. To specify an integer format for the number of periods entered, move the entry marker to Cell 3,2, press [ESC], then [4], and type **I** [ENTER].

4. Move the entry marker to Cell 5,2, and press [ESC] and then [7].

5. Press [ESC], then [→] to select all the columns in the current window through Column 7.

6. Press [↓] to select the label lines.

7. Press [ESC], then [4] for Format; then type **R** [ENTER] to right-justify the contents of all selected cells.

Entering Free-Form Text

There are 2 ways you can enter text: by cell or by block.

- For simple row and column labels that don't require more than 1 or 2 cells, position the entry marker on the cell in which you want the text to appear; then type the text and press [ENTER] (as you did when entering the column and constant labels).

- To type a paragraph or block of text, use the Select function to define the area in which you want to type; then use the Text function to type the desired text.

The Text function lets you type "free-form" text rather than cell by cell. For example, suppose that you want to add an explanatory note to the amortization table.

1. Move the entry marker to Cell 21,1, and press [ESC] and then [7].

2. Press [↓] once to include the next row; then press [→] 4 times.

3. Press [ESC], then [2] for Text.

4. Type the following:

   NOTE: Personal loan received 2/28/85 from Saginaw Credit Union.

   Notice that the Text function wraps words when you reach the right margin of your text block.

5. To exit the Text function, press [ESC], then [Q].

When you type in a text block, you have access to limited editing features, such as deleting, inserting, and formatting text. See the Reference Material on "Worksheet" for details on editing text within the Worksheet application.

Printing a Large Worksheet

Before using the print function, be sure that your printer is on line and that the paper is advanced so that printing will begin about an inch or so from the top of the paper (about 6 lines from the top).

Since the amortization table is larger than a single window, you need to select the area you want to print and then use the Print command.

1. To move the entry marker quickly to Cell 1,1, press [ESC] and then [1] for Find. You can use the Find function to search for a specific string of characters (or numbers) or a specific cell.

2. Type **R1C1** [ENTER] for Cell 1,1.

3. Press [ESC], then [7] for Select.

4. Press [ESC], then [→] to select Columns 1-7.

5. Press [ESC] and then [↓], then press [↓] twice to select Rows 1-22.

6. Be sure that your printer is ready; then press [ESC], then [P].

You need to make a few adjustments to the printer settings before you begin to print.

1. Type **0** [ENTER] for `Left margin` and **79** [ENTER] for `Printed line width`.

2. Type **L** if you are at a terminal that supports local printing. Otherwise, press [ENTER] to accept the displayed value and use the console printer.

Your printout should look like this. (Compare your figures to be sure you entered all formulas correctly.)

LOAN AMT	1000.00
INT RATE	0.0150
PERIODS	12

Period	Balance	Payment	Interest Payment	Principal Payment	Cumulative Interest	Cumulative Principal
1	1000.00	91.68	15.00	76.68	15.00	76.68
2	923.32	91.68	13.85	77.83	28.85	154.51
3	845.48	91.68	12.68	79.00	41.53	233.51
4	766.49	91.68	11.50	80.18	53.03	313.69
5	686.31	91.68	10.29	81.39	63.32	395.08
6	604.92	91.68	9.07	82.61	72.40	477.68
7	522.32	91.68	7.83	83.85	80.23	561.53
8	483.47	91.68	6.58	85.10	86.81	646.63
9	353.37	91.68	5.30	86.38	92.11	733.01
10	266.99	91.68	4.00	87.68	96.12	820.68
11	179.32	91.68	2.69	88.99	98.81	909.67
12	90.33	91.68	1.35	90.33	100.16	1000.00

Note: Personal loan received 2/28/85 from Saginaw Credit Union.

Recalculating a Worksheet

One of the most useful features of your worksheet is its capacity to recalculate the payment information rapidly, based upon changes in the loan data. Each time you execute the Calculate function, you can enter new values for the loan amount, rate of interest, and number of periods. The columns of payment data change accordingly.

1. To see the powerful recalculation ability of the spreadsheet application, press [ESC], then [!].

2. Suppose that you are calculating a 1-year loan for $1000 at 15%. Because the previous value was also 1000, press [ENTER] for the LOAN AMT in Cell 2,1.

3. For the new interest rate, type **0.0125** [ENTER] (15% annual interest divided by 12 months per year and expressed as a decimal).

4. For number of periods, press [ENTER]. The lengthy, detailed calculations are performed almost instantly, saving you a considerable amount of time of time and effort. Note that the lower interest rate means a decrease in the fixed payment, shown in Column 3, from $91.68 to $90.26.

5. When you are finished examining your worksheet, press [ESC] and then [Q] to save your file and return to the Main Menu.

   Note: As in the Text application, there is a second way of exiting Worksheet. Press [ESC], then [X] if you change the contents of a worksheet and then decide you prefer to keep the unedited version. [ESC], then [X] lets you retain the original worksheet and exit the application.

Chapter 13

Using Filer

In this chapter, Edwin needs to find, display, and print data from a Filer file. Then he creates a new file for vendors.

Edwin Raymond maintains a file of current customers, Clients.fil. Highlight the application, `Filer`, using the arrow keys to position the marker. Then, move the marker down to the filename, `Clients.fil`. Press [ENTER] to open the file.

The first record in the file, shown below, appears on your screen:

```
Last Name . . . . . .*: Beauchamp
First Name. . . . . .*: Cindy
Address . . . . . .*: 2209 Riverdale Road
Address . . . . . .*:
City. . . . . .*: Fort Worth
State . . . . . .*: Tx
Zip Code. . . . . .*: 76107

Phone . . . . . .*: 817-555-1267

Acct Bal ($). . . . .*#          0.00

Remarks . . . . . .*: Prefers French cuisine, very dry
                      wines. Allergic to almonds.
                      Member of Riverdale Country
                      Club.
```

Figure 13.1

Edwin has set up a form to use for his clients. A form has 2 distinct parts: the left column contains labels, and the right half of the screen is for entering the actual data for the client. Each time Edwin enters data in a blank form, he completes a new *record*.

Figure 13.1 shows the first record in the file. In the figure, `Last Name` is a label, and `Beauchamp` occupies the *data field* opposite the label.

When you create a form, the fields are left-justified unless you change their format. The colon (:) at the end of the label area indicates a left-justified field. A right-justified format is normally more useful for a numeric field. The number symbol (#), next to the `Account Bal ($)` label, indicates a right-justified field.

An asterisk (*) in the label area indicates that Filer will print or display that item (both the label and the data) if you choose one of those functions (Print or Display).

Press [ESC] and then [→] to see the next record. The screen shows a form that Edwin has completed for Frederick Davis.

```
Last Name.....*:
First Name.....*: Frederick
Address........*: 6601 Oak Boulevard
Address........*:
City...........*: Arlington
State..........*: Tx
Zip Code.......*: 77109

Phone..........*: 817-555-9011

Acct Bal ($)...*#       217.33

Remarks........*: Outstanding bill for 10/15/85 dinner.
                  Sent 10/31/85. Call if not paid by
                  12/28/85.
```

Figure 13.2

Filer arranges your records in alphabetical order or ascending numerical order, depending on the type of data that is entered for the first label of a form. For example, if clients are given account numbers and Account # is the first label of the form, the records in the Clients file are arranged according to ascending account number.

Note: Using the Order function, you can arrange records using any label you wish. This topic is explained later in this chapter in "Creating a New Form."

Finding and Printing Records

Edwin Raymond wants to review all records of his clients who live in Fort Worth. Using the Find function, he can specify search criteria on a blank filer form. Then, he can take further action with those files that meet the criteria.

1. Press [ESC] to display at the bottom of the screen the menu of functions for this Filer screen. Then press [1] to use the Find function. A blank form appears: it displays the labels Edwin uses in his record keeping, but contains no data in the fields after each label.

2. To skip the first 4 data fields, press [↓] (or [ENTER]) until the marker is on the data field for `City`, and type **Fort Worth** [ENTER].

3. Press [ESC] and then [Q] to return to the original Filer screen and display the first match found. Cindy Beauchamp's record reappears on the screen.

4. Press [ESC], then [→] to see the next match found. The screen shows the record of Laura Wordsworth.

Suppose Edwin wants to print a list of those customers who have an outstanding balance in their account (account balance greater than or equal to 1).

1. Press [ESC] and then [1] for Find and [ESC] and then [5] for Reset. The Reset function clears the search criteria you entered previously.

   Note: To examine the functions you can employ when you are setting up the Find criteria, press [ESC]. The bottom lines display the 5 functions available to you (plus the general DeskMate functions). Press [ESC] a second time to erase the function lines.

2. Press [↓] until the marker is positioned on the `Account Bal` line.

3. Press [ESC], then [2] to change the operator from Equal to (=) to Greater than or equal to (>). Then, type **001** [ENTER] for the amount.

   Note: The Find function searches for an entry that is Equal to (=) to search data. You can introduce a different operator by using one of the functions. Pressing [ESC] and then [2] changes the operator to Greater than or equal to; press [ESC] and then [3] to select all records with data Less than or equal to the search data.

4. At present, all labels and data fields are marked to be printed or displayed, as indicated by the asterisk on each label line. It is necessary to *unmark* any labels that you wish to exclude from the display and printout.

   Before exiting the Find screen, move the marker to the first `Address` line, and press [ESC], then [7]. The asterisk disappears so that now the first `Address` label and the associated data will not be displayed or printed. Pressing [ESC] and then [7] a second time reverses the command, marking an item that you unmarked. (Do not re-mark the first `Address` line.)

5. Move the marker to the second address line, and press [ESC] and then [7] to switch from Mark to unMark. Repeat this process for the labels, `City`, `State`, `Zip Code`, `Phone`, and `Remarks`.

6. When only the labels, `Last Name`, `First Name`, and `Account Bal`, have an asterisk next to them, press [ESC], then [Q] to return to the original Filer screen and display the first match. The first record with an outstanding balance, that of Frederick Davis, is displayed.

7. The Display function lists a group of records (rather than a single record at a time) in horizontal format. To display a list of those customers who meet the current Find criteria (account balance equal to or greater than $0.01), press [ESC] and then [3].

The screen soon displays the list of records with data arranged in columns. The labels appear on the top line with the data of the matching records below the appropriate label. See the arrangement of data in Figure 13.3.

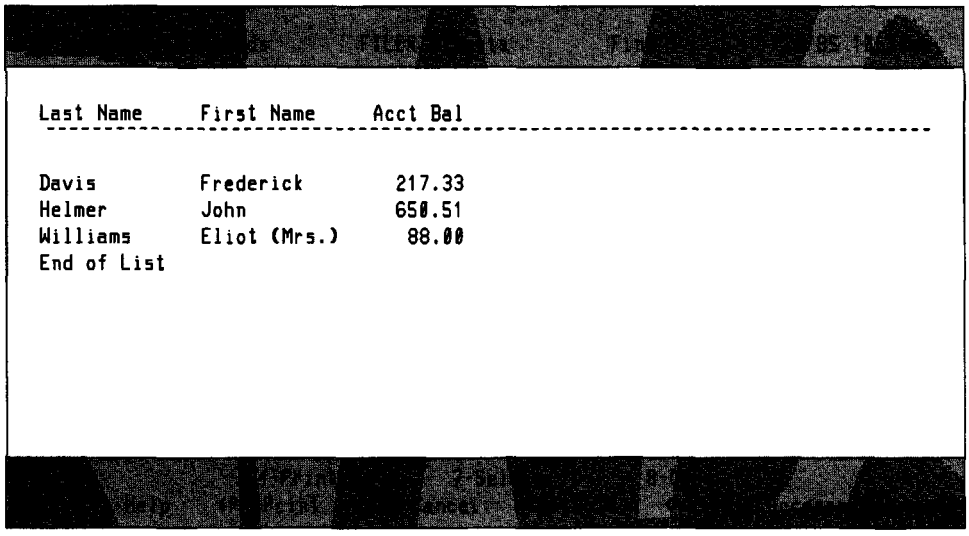


Figure 13.3

Notice that the contents of the Display screen are governed by the Find screen: the displayed report contains only the Marked items (those items that you did not unMark).

8. At the bottom of the screen in Figure 13.3, you see the menu of functions available from the Display screen. Press [ESC] to display these lines on your screen. Now press [4] to print the entire list using the horizontal format. Be sure that your printer is on-line.

9. Next, check the printer settings that appear on the screen.

10. To change the printer settings to the values for printing this list, make the following changes:

At	Type
Total lines per page	[ENTER]
Printed lines per page	[ENTER]
Left Margin	**0** [ENTER]
Printed line width	**79** [ENTER]
Double Space	[ENTER]

At the next prompt, select a destination for the printed copy. If your system supports local printing and your terminal is connected to a printer, press [L] for Local and then press [ENTER]. Otherwise, press [ENTER] to accept the displayed value, C, and print at the console.

11. After you respond to the last prompt, the printer begins to operate. Filer prints your records using the horizontal format that appears on the Display screen.

12. When the printed copy is complete, the Display screen returns. Press [ESC], then [Q] to return to the Main Filer screen.

Edwin has landed a new client and needs to add a new record to the file.

1. Press [ESC], then [0]. A blank screen appears so that you can fill in the information for the new client.

2. The form displays a label for each information field in the new record. Type the information after the appropriate label.

At	Type
Last Name	**McKinney** [ENTER]
First Name	**Ellen** [ENTER]
Address	**3398 Ridgeway** [ENTER]
Address	**Apartment 500** [ENTER]
City	**Fort Worth** [ENTER]
State	**Tx** [ENTER]
Zip Code	**76103** [ENTER]
Phone	**8175558166** [ENTER]
Account Balance	**0** [ENTER]
Remarks	**Prefers Szechwanese cuisine—very spicy.**

3. To exit the Add screen, press [ESC] and then [Q].

Using Scratchpad Within Filer

Edwin remembers that he promised a friend that he would send him a recipe for oyster stuffing. He uses one of the Desk Accessories, Scratchpad, to make a note to himself.

1. Press [ESC] and then [=] to execute an accessory. Press [S] to choose Scratchpad. (You can type your selection before the Desk Accessories menu appears.)

2. The Scratchpad window appears within the Filer screen. Type the following reminder at the cursor:

   Send oyster dressing recipe to Brandon
   before Thanksgiving!

   Notice that the word `before` wraps to the second line as you type.

3. To quit the Scratchpad and return to the Filer screen, press [ESC] and then [Q]. The accessory saves your note so that you can refer to it later.

Creating a New Form

Edwin needs to create a special form for the stores and companies he deals with. He creates the form in a new file in the current directory, his home directory.

1. Press [ESC] and then [Q] to return to the Main Menu.

2. Highlight the application name, `Filer`, using the arrow keys, and press [ENTER]. A prompt appears at the bottom of the screen:

```
Enter filename:
```

3. At the prompt, type **Supplier** [ENTER] as the name of the new file you are creating. Filer displays the following message:

```
File doesn't exist. Create? Y or N?
```

   Press [Y] to create the new file.

4. A blank Form screen appears. At the cursor, type **Company** [ENTER] for the first label in the form. The rest of the area allocated for the label fills with periods and acquires a colon (signifying a left-justified data field). The cursor reappears at the first position in the data area.

5. Press [ENTER] to fill the rest of the line with underline characters. When you actually enter data for this label, you will be able to type 59 characters for a firm's name.

6. Press [ENTER] to return to the label area.

7. For the second label, type **Contact** [ENTER].

8. Press [ENTER] again to indicate the data area.

9. Press [ENTER] to return to the label area, and type **Address** [ENTER] for the next label. Then press [ENTER] twice.

10. To create an additional address line, repeat the above instruction—type **Address**; then press [ENTER] 3 times.

11. Type **City**, and press [ENTER] 3 times for the fifth label.

12. Next, type **State** [ENTER]. This time, limit the number of characters to 2 for the standard 2-letter state abbreviation. Press [ESC] to display the available functions in the Form creation mode, shown below.

Press [0] to use the Add function. Then, press [ESC] and then [0] to use the Add function a second time. Each time you press [ESC] and then [0] on the data entry side of the form, you establish a character position in the data field. You now have 2 character positions in the field opposite `State`. When you enter data for `State`, you will be able to enter only 2 letters in the data field. Press [ENTER] to move to the next line.

13. Type **Zip Code** [ENTER] for the next label, press [ESC] and then [0] 5 times, and then press [ENTER] for the data field. Press [ENTER] to create a blank line below `Zip Code`.

14. Type **Phone** [ENTER]. To specify the phone number format, type the key sequence [ESC] and then [0] 3 times, press [-], and then repeat the series—[ESC] and then [0] 3 times followed by [-]. Type the sequence [ESC] and then [0] 4 more times and press [ENTER]. When you finish the screen displays a format for phone numbers (including area code): _____-_____-_____

    Press [ENTER] again to create a blank line below `Phone`.

15. For the next label, type **Amount Due** [ENTER]. To create a numeric field, press [ESC] and then [3]. The colon between the label and the data column becomes a number symbol (#). Press [ENTER] to display the numeric field format, and then press [ENTER] again to move to the next line.

16. Press [ENTER] to create a blank line; then for the last label, type **Remarks** [ENTER]. To create the maximum amount of space that a data field can contain (255 characters), press [ENTER]; then press [↓] and [ENTER] again. Press [↓] and [ENTER] in succession until you have 4 complete lines and 1 partial line.

Your form should look like this:

```
Company..... : _____________________________________
Contact..... : _____________________________________
Address..... : _____________________________________
Address..... : _____________________________________
City........ : _____________________________________
State....... : __
Zip Code.... : __________

Phone....... : _____-_____-_____

Amount Due.. # _____________._____

Remarks..... : _____________________________________
               _____________________________________
               _____________________________________
               _____________________________________
               ____________
```

17. You need to add another label. Press [ENTER] to move the marker to the label area.

18. To insert a label between `Phone` and `Amount Due`, move the marker to the beginning of the `Amount Due` line, and press [ESC], then [0] to Add a label.

19. Type **Due Date** [ENTER] as the label. To specify a __/__/__ format for the date, press [ESC] and then [0] twice, followed by [/], [ESC] and [0] twice again and then [/]. Type the sequence [ESC] and then [0] twice more, and press [ENTER].

Arranging Records Using the Order Function

Use the Order function to arrange the records according to 1 or more fields. For example, suppose Edwin wants to sort his records according to `Due Date` and `Company` name. You specify `Due Date` as the first label by which to sort and `Company` as the second label by which to sort.

The records are then arranged so that the first record displayed has the earliest `Due Date`. If 2 records have the same `Due Date`, the record with the `Company` that comes first alphabetically is displayed before the other.

Note: If you don't specify the order in which you want to sort records, Filer automatically arranges the records in ascending order using the first label on the form. In this case, if no order is specified, the records are arranged alphabetically according to `Company`.

1. To specify `Due Date/Company` order, move the marker to the `Due Date` label, and press [ESC], then [1].

2. Type **1** [ENTER] for the `Priority Number`. Note that the priority number appears at the end of the label.

3. Next, move the marker to the `Company` label, and press [ESC] and then [1].

4. Type **2** [ENTER] for the next priority number.

Adding New Records

1. Now that the form is complete, press [ESC], then [Q] to exit the Form screen. The blank form is displayed so that you can now start adding records.

2. Fill in the form with the following data, pressing [ENTER] after typing information for a data field.

```
Company-------*: ABC Exterminators
Contact-------*: Roy Johnson
Address-------*: 4000 Main Street
Address-------*: P.O. Box 112
City----------*: Fort Worth
State---------*: Tx
Zip Code------*: 76101

Phone---------*: 817-555-1212

Due Date------*: 12/05/85
Amount Due----*# 33.87

Remarks-------*:
```

3. At the data field for Remarks, press [ESC] and then [0] to store this record and add another.

4. After you save a record by using the Add function, a blank form reappears for adding a new record. Type the following data for the next 2 records, pressing [ENTER] after typing information for a data field.

5. Press [ENTER] to skip the second `Address` line, and press [ESC] and then [0] after you enter the `Amount Due`.

```
Company--------*: LaFrance Bakery
Contact--------*: Francine Dominique
Address--------*: 634 Trinity Avenue
Address--------*:
City-----------*: Fort Worth
State----------*: Tx
Zip Code-------*: 76018

Phone----------*: 817-555-2200

Due Date-------*: 12/02/85
Amount Due-----*# 45.14

Remarks--------*:
```

```
Company--------*: Petta Linen Service
Contact--------*: Giorgio or Giuseppi Petta
Address--------*: 6501 Blackwood
Address--------*:
City-----------*: Fort Worth
State----------*: Tx
Zip Code-------*: 73092

Phone----------*: 817-555-1198

Due Date-------*: 12/06/85
Amount Due-----*# 17.16

Remarks--------*:
```

6. Type the information shown below for the last record. When you get to the **Remarks** data field, type each line, and then type a series of spaces to move the cursor to the beginning of the next line. Word-wrapping is not automatic. Fill the rest of the line with spaces whenever you want to start a new line.

7. When you're finished typing the **Remarks** information, press [ESC], then [Q] to save the last record entered and exit Add mode.

```
Company--------*: Young's Fish Market
Contact--------*: Ann Young
Address--------*: 554 2nd Avenue
Address--------*:
City-----------*: Fort Worth
State----------*: Tx
Zip Code-------*: 77069

Phone----------*: 817-555-2199

Due Date-------*: 12/02/85
Amount Due-----*# 78.44

Remarks--------*: DAILY SPECIALS: Monday - Fresh lobster.
                  Tuesday - Shrimp. Wednesday - Red snapper.
                  Thursday - Crab. Friday - Lake trout.
                  Saturday - oysters and clams.
```

The record on your screen is the first one in your file. As you can see, Filer did sort your records according to the `Due Date/Company` order. The record with the earliest due date, December 2nd, is LaFrance Bakery, and that record appears on the screen, even though the first record entered was for ABC Exterminators.

1. Press [ESC] [→] to see the next record. The record for Young's Fish Market is displayed. It has the same due date as the first record. But the second ordering field dictates that records with the same due date be arranged alphabetically by company name. As a result, Young's comes after LaFrance Bakery.

2. To see the last record in the file, press [ESC] and then [↓]. The record for Petta Linen Service comes at the end because this record has the last due date, December 6th.

3. Press [ESC] and then [Q] to return to the Main Menu.

Chapter 14

Using Calendar

Edwin Raymond keeps track of his daily commitments in a Calendar file. In this chapter, you will use Edwin's Calendar file to find, add, and delete events.

To open Edwin's file from the Main Menu, move the marker to `Calendar` in the row of applications and press [↓] to highlight Events.cal. Then, press [ENTER].

The Calendar screen soon appears. The current date appears on the monthly calendar in the upper right part of the screen. Initially, the current date matches the system date. To use the sample data, change the date to November 20, 1985.

1. Press [ESC] to display the function labels for the Calendar screen. Then, press [2] to select the Date function.

2. A prompt appears, `Enter date`, followed by the current date. Type the date for the sample session data, **11/20/1985** [ENTER]. Edwin's agenda for November 20th appears on the screen, as shown in Figure 14.1.

The top line of your screen continues to display your system date, but the monthly calendar and the event information correspond to the new current date.

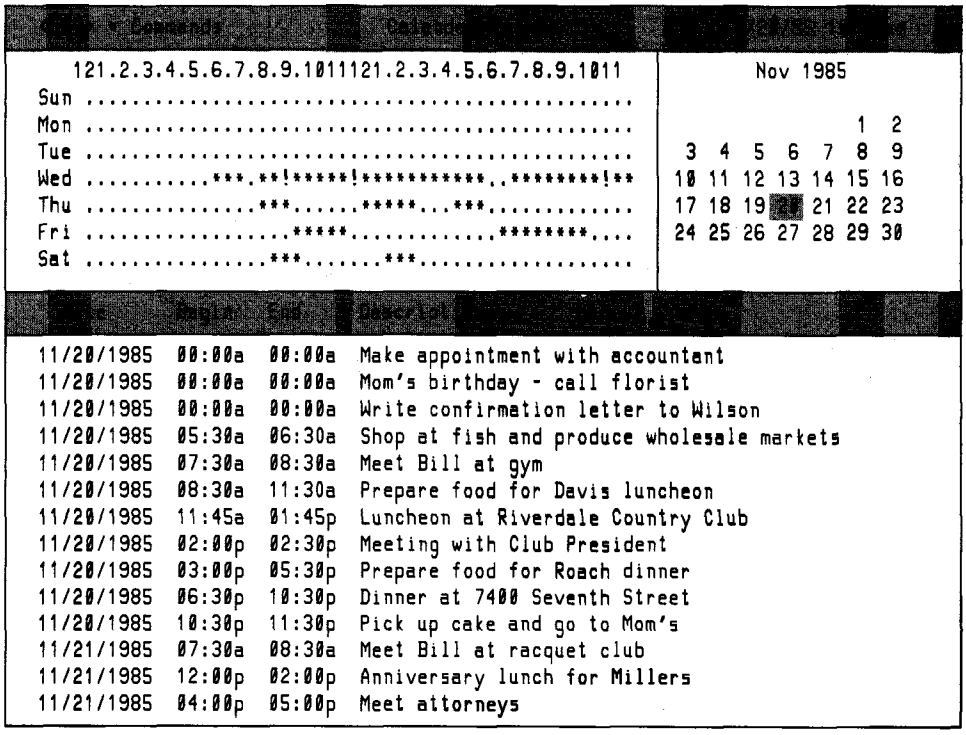


Figure 14.1

The top line identifies the particular Calendar file with which you are working (Events.cal), along with the system date and time. The current date (20) is also highlighted in the calendar block on the right.

The Weekly Time Chart occupies the upper left portion of the screen. It shows the schedule for the current week with the days of the week in the vertical column and the hours of the day arranged horizontally (starting with 12:00 a.m.).

The symbols in the grid give you a picture of your time commitments for each day of the week. A period indicates a free time slot, that is, a time slot that you have not committed for an event. For example, note that there is nothing scheduled for 7:00 a.m. or 6:00 p.m. on Wednesday.

A time slot you have allocated to an event is indicated by * in the Weekly Time Chart. For example, you can tell that Wednesday is the busiest day of the week because it is almost full of *s. A ! indicates a time conflict; for example, 2 events overlap at 8:30 a.m. on Wednesday.

The bottom half of the screen shows the itemized agenda of events for the current day. All events and appointments displayed are scheduled for today's `Date, 11/20/1985`. The next column, `Begin`, shows the time at which the event begins. The time at which the event ends is shown under the `End` column. And the last column contains a `Description` of the event.

You can change or delete events entered previously and add new ones. For example, you need to change the name in one of the day events to `Williams` instead of `Wilson`.

1. Press [ESC] and then [3] to transfer the marker from the current date (indicated on the monthly calendar in the upper right) to the events list.

2. Position the marker on the event, and page to the right ([ESC] and then [→]) 3 times to skip the first 3 columns.

3. Press [→] until the cursor is over the `s` in `Wilson`; then type **liams** [ENTER]. You are always typing in *overstrike* mode while using Calendar so that you can quickly correct mistakes by typing over them.

Finding Events

Using the Find function, you can display an event or a group of related events.

1. Press [ESC], then [1] to use the Find function. The screen in Figure 14.2 appears, except for the menu of functions shown across the bottom of the screen. (These appear only after your press [ESC].)

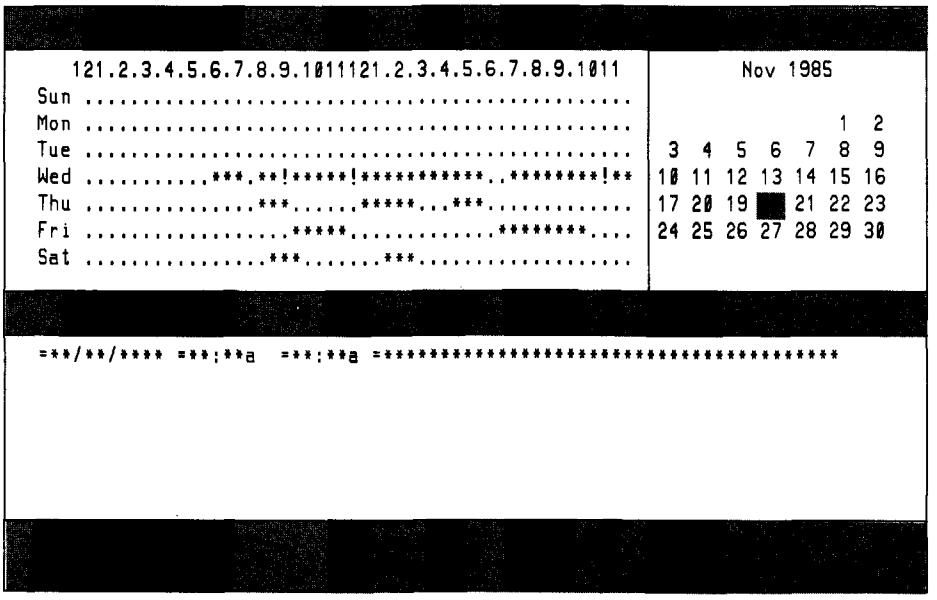


Figure 14.2

2. To find all events/appointments scheduled on or after November 20 associated with Mrs. Williams, press [ESC] to display the function labels along the bottom of the screen in Figure 14.2. Then, press [2] to specify Greater than or equal as the relationship to use in the search. Calendar finds all events scheduled on or after November 20. Press [ENTER] to proceed to the next field.

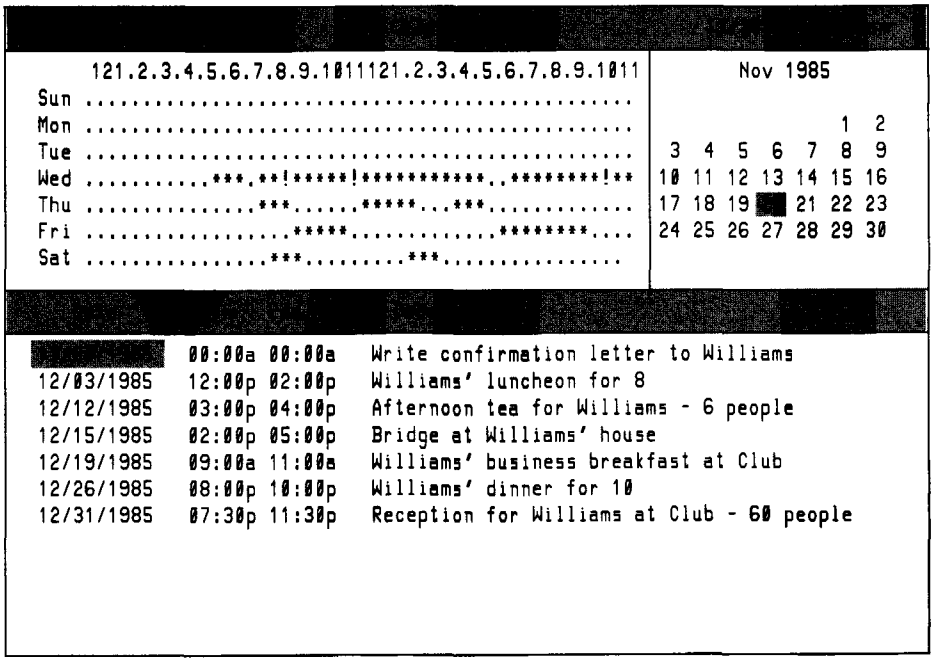
3. Press [ENTER] twice to skip the `Begin` and `End` fields.

4. For `Description`, press [→] once to skip over the first asterisk (*), and type **Williams.** * is a wildcard character. The * before `Williams` matches any number of characters that might precede the string, Williams. Likewise, the * after `Williams` matches all characters after Williams.

   When you type the search data as directed, the Find function lists all entries that match the search data. All must contain the word `Williams` somewhere in the `Description` field and be dated November 20th or later.

5. Press [ESC], then [Q] to return to the original Calendar screen and display the events that match the Find criteria.

The screen lists the following events:



Adding and Deleting Events

You need to add an event to the Calendar file—the same event you inserted in the letter while using Text.

1. Press [ESC] and then [0] to add an event.

2. For `Date`, type **12011985** [ENTER].

3. After the cursor moves to the `Begin` field, type **1p** [ENTER] for 1:00 p.m.

4. For the `End` time, type **4:30p** [ENTER].

5. For `Description`, type **Bridal Shower for Williams - 15 people** [ENTER].

Note: You can add an event anytime and anywhere on the screen. Calendar sorts the events chronologically and puts them in the appropriate date and time slot.

Edwin received a letter from Mrs. Williams cancelling the 2 events scheduled for December 15th and 19th. To delete these events, first use the Select function to define a block of events; then, use the Delete function.

1. Use [↓] to move the marker to the line on which the December 15th event appears.

2. Press [ESC], then [7] to use the Select function.

3. To include the next event, press [↓] so that both events are highlighted, and press [ESC], then [9] for Delete. The Delete function erases the selected events, and the events below move up to close up the vacant lines.

Before printing the events that match the current Find criteria, be sure that your printer is properly connected and on line.

1. Press [ESC] and then [P] to see the current printer settings.

2. Type **5** [ENTER] for `Left Margin` and **78** [ENTER] for `Printed line width`. If you have a printer connected to your terminal, indicate Local as the destination for the printed copy by pressing [L]. Press [C] instead if you are using the printer at the console.

3. Press [ESC], then [Q] to begin printing.

Using the Phone Directory Within Calendar

Edwin receives another telephone call from the manager of a produce market that opened recently. The manager offers to help Edwin personally with any special orders. After his conversation, Edwin decides to add the manager's phone number to his Phone Directory.

To add the number, open the Phone Directory accessory. You need not exit Calendar. When you finish adding an entry, you can exit the accessory and return directly to Calendar at the precise point at which you stopped work.

1. Press [ESC], then [=] to display the menu of Desk Accessories in the center of you Calendar screen.

2. Select the Phone Directory by pressing [P]. The screen displays the directory with a series of sample entries, as shown in Figure 14.3. Visualize this accessory as a revolving set of file cards.

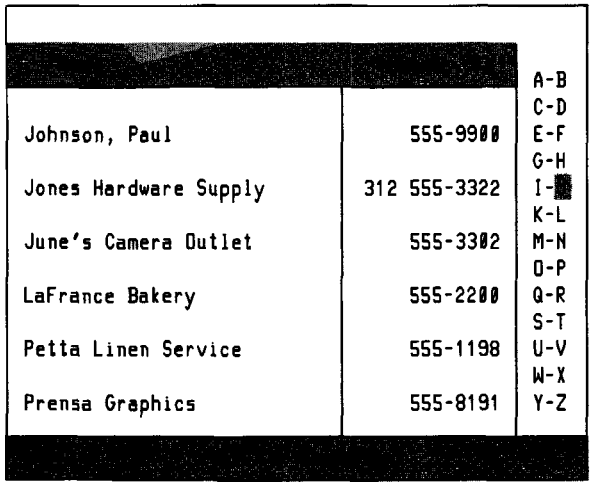


Figure 14.3

3. To add an entry, press [ESC], then [0]. A blank file card appears on the screen. It contains 3 information areas, one for the name, a second one for the telephone number, and a third, below the other two, for general comments.

4. Type the name in the first area:

   Worldwide Produce [ENTER]

5. Type the phone number, **555-1293** [ENTER], and then type the following comment:

   Ask for Louise. Special orders, tropical fruits and vegetables.

6. Press [ESC] and then [Q] to insert the new entry. The new entry appears on the first line. Later entries appear below it. After the last entry in the alphabetical list, the list starts over with the first entry.

Edwin needs to check the file card for Jones Hardware Supply. He wants to know how late the service is open.

1. Press [J] to move the cursor to entries beginning with that letter.

2. Press [↓] to move the cursor to `Jones Hardware Supply`. Then, press [ENTER] to read the comment area of the card.

3. After noting the closing time, press [ESC], then [Q] to replace the card.

4. Press [ESC], then [Q] again to return to Calendar. The screen shows the full Calendar screen again so that you can continue work.

Putting Events into the Alarm File

Edwin wants to set an alarm for the events of the next day. To do this, you must reset the Find criteria so that you can see the complete list again. Then, select the events for tomorrow and use the Alarm function.

1. Press [ESC] and then [1] to select the Find function. The screen displays the current Find criteria.

2. To use the Reset function, press [ESC], then [4]. The function erases the existing criteria.

3. With no specific Find criteria on the screen, you can execute the Find function and display a complete list of events, beginning with the current date. Press [ESC], then [Q] to display the events.

4. Transfer the marker control to the monthly calendar by pressing [ESC] and then [3].

5. Advance the current date 1 day by pressing [→]. The date indicator on the monthly calendar moves to the right 1 day to November 21st. At the same time, the list of events changes so that events for the 21st appear at the top of the list.

6. Press [ESC] and then [3] to return the marker to the events list.

7. To select the 3 events for the 21st, press [ESC] and then [7]. Then, press [↓] to enlarge the selection area so that it includes all 3 events.

8. Set the Alarm for the selected block of events by pressing [ESC], then [5].

The Alarm function sounds a beep to remind you of a scheduled event. You can then check the Events/Alarm accessory to see which appointment activated the alarm.

Note: You have access to the Events/Alarm file from any DeskMate file **except** dmevents.cal.

Press [ESC], then [Q] to return to the Main Menu.

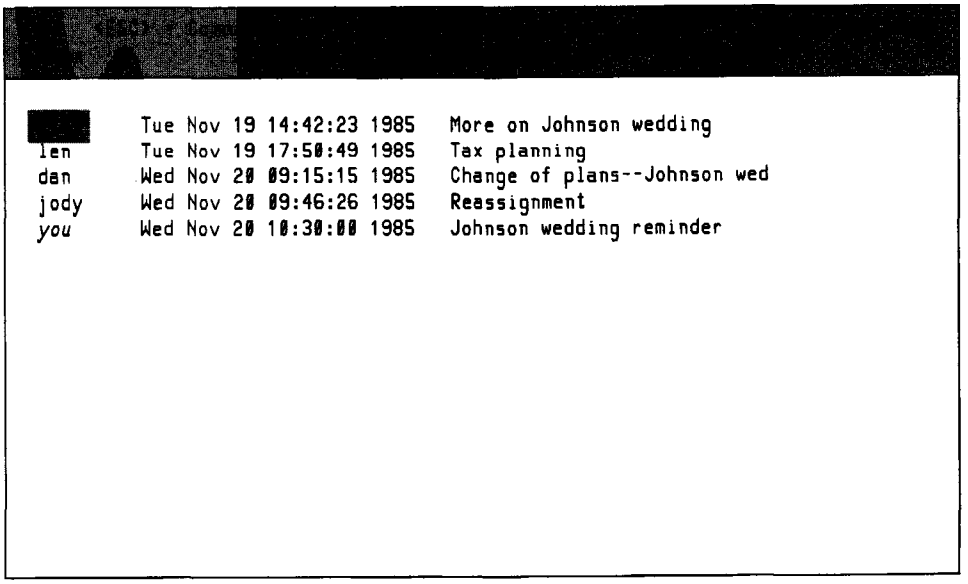
Chapter 15

Using Mail

In this section, Edwin needs to use the Mail application. You are going to read and file mail sent by other users and reply to the mail you receive.

To save your important mail in an orderly way, you can set up a number of message files, just as you have separate files for individual projects or accounts. In the sample session, Edwin reads a series of messages and creates 2 brief letters in response to his mail. When he finishes his letters, he saves 2 messages from his current mailbox to a separate Mail file.

Begin by entering Edwin's Mail file to read your new mail. Using the arrow keys, position the cursor on the application name, `Mail` and press [↓] to highlight `Mailbox.msg`. Press [ENTER] to open the file. The first screen to appear displays a summary of the messages Edwin has received. Press [ESC] and then [4] to retrieve new mail; then, press [ESC], then [↑] to see the complete list, as depicted below:



Each entry on the initial Mail screen identifies a letter by its sender, the date and time it was sent, and its subject. Mail arranges entries chronologically with the most recent letters at the bottom of the list. Use this screen to select a letter you want to read or a letter to which you want to reply.

Reading Messages

Edwin wants to review the 4 most recent letters. He can read them separately or select a block of letters and then read them as a group. Follow these steps:

1. Press [ESC], then [↓] to move the marker to the end of the list.

2. To read the message currently highlighted by the selection marker, you can press [ENTER]. However, by first selecting a block of letters, you can read a group of letters in sequence without returning to the selection screen between letters.

3. Press [ESC] and then [7] to use the Select function.

4. In Select mode, you can use the arrow keys to increase or decrease the highlighted area. Press [↑] 3 times to highlight the last 4 messages.

   Note: The last message is the one that you created in Chapter 10 using the Message accessory.

5. To begin reading letters in the selected block, press [ENTER]. The following messages appear on the screen:

```
From len Tue Nov 19 17:50:00 1985
To: edwin
Subject: Tax Planning

    I talked with the accountant about a firm date for the
tax planning session.  It's set for Monday at 3:00 (til 5?)
in my office.  B.Y.O.Balance sheet.

Lenore
```

```
From dan Wed Nov 20 09:15:00 1985
To: edwin
Subject: Change of plans--Johnson wed

Don't worry--the wedding is still on.
Mrs. Johnson now favors the champagne
punch instead of the fountain.

I'll make sure we've got enough punch
cups, but let me know if we need to
order extra ingredients for the brew.

Thanks

From jody Wed Nov 20 09:46:00 1985
To: edwin
Subject: Reassignment

Elizabeth did a great job on the Beauchamp gala.
Let's give her another challenging project.  I know
you've been up to your ears, so why don't you pass
on one of yours?

jody

From edwin Wed Nov 19 10:30:00 1985
To: edwin
Subject: Johnson wedding reminder

Don't forget to cancel the champagne
fountain now that the Johnsons have
opted for punch.
```

Because all the messages do not fit on a single screen, press the space bar to continue reading the messages until the inventory of mail reappears.

Using Events/Alarm Within Mail

Before you dispose of the message from Lenore, enter the meeting information in your Events/Alarm file.

1. Press [ESC], then [=] to use the Desk Accessories. Then, press [E] to use the Events/Alarm accessory. (You need not wait for the menu of Desk Accessories to appear before pressing [E].) The screen displays the list of events for the current date.

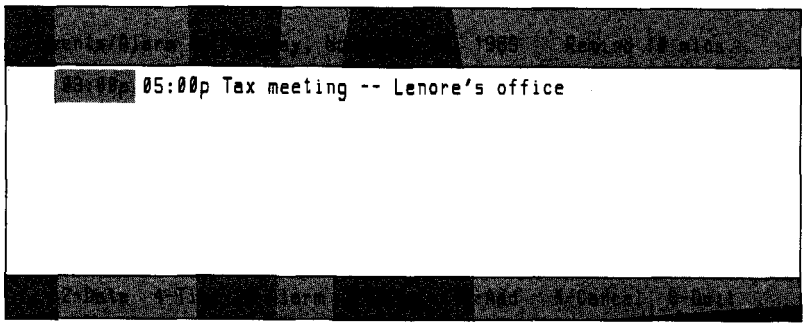
2. You want to add an event for Monday, November 25. Press [ESC], then [2] to change the date so that you can see the events list for a different date. A monthly calendar appears in the center of the list.

3. Press [ESC] followed by [←] or [→] to display the calendar for the previous month or for the next month. Continue in this manner until the calendar for November 1985 appears. Using the arrow keys, position the marker on 25. Then, press [ENTER] to display any events for that date.

4. Since there is no event listed for Monday the 25th, a blank entry line appears so that you can enter one immediately. Type **3p** [ENTER] and **5p** [ENTER] for the beginning and ending times. In the last column, type:

   Tax meeting -- Lenore's office [ENTER]

5. When the entry is complete, the Events/Alarm portion of the screen shows the information in the following figure. Press [ESC] and then [Q] to return to your Mail file. DeskMate stores the new event not only in your Events/Alarm file, but in your home Calendar file, as well.



Having recorded this appointment, Edwin can delete the message from Lenore. Use the Delete function in the following way:

1. By pressing [↓], move the marker to the message concerning tax planning.

2. Press [ESC], then [9] to delete the message under the marker. Mail removes the message immediately.

Creating Messages

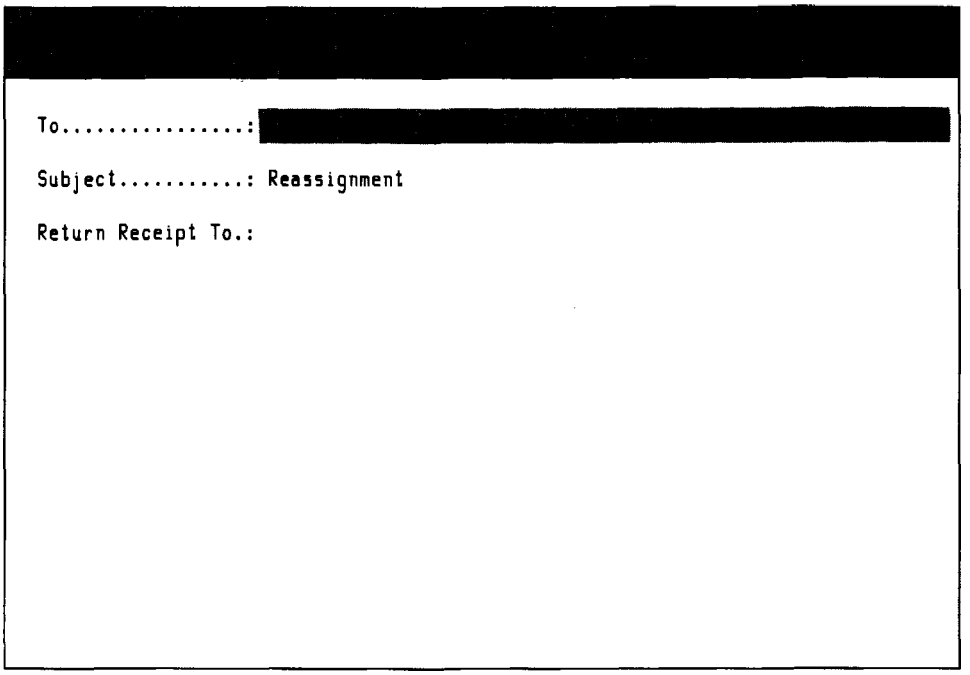
Now that you've reviewed all your recent mail, you need to create 2 messages—one for Jody and one for Elizabeth.

1. Use the Reply function to respond to the message from Jody. Begin by moving the marker to the entry for Jody's message. Press [ESC] and then [2] to reply to the highlighted letter.

   The Reply function displays the Create Mail screen. In the heading, it responds to those prompts for which the reply is predictable: it addresses the reply to the sender of the original letter and assigns to the reply the same subject specified in the original letter.

   In the present case, Edwin, and not you, was the recipient of the message. Because Mail recognizes you as the sender of the reply, it directs your reply to both Jody and Edwin. Mail assumes that you are responding to a blind carbon copy of a message from Jody to Edwin.

The following figure shows the Create Mail screen with information in the heading supplied by the Reply function.



3. Press [ENTER] at each prompt in the heading. Then, type the following letter in the message area of the Create Mail screen:

   I think you're right about giving Elizabeth another major project. I have the perfect job for her—the Johnson wedding reception. It's not a huge affair, but there is a multitude of detail. (I'm glad to marry it off to someone!) Thanks for the suggestion. [ENTER]
   [ENTER]
   ed

4. To send the letter, you would press [ESC], then [1] to use the Send function. Mail would then transfer the letter to the system mailbox, from which Jody could retrieve it. But unless someone on your system has jody for a user name, you would get an error message if you actually sent the mail.

Rather than send the letter, use the Clear function to erase the Create Mail screen: press [ESC] and then [9]. The Clear function erases the data so that you can enter a new heading and compose another letter.

Edwin wants to send the second letter to Elizabeth. This time, type the letter **as if** it were going to Elizabeth, but enter an actual user name for the destination, so that Mail can actually deliver the letter.

1. In the first blank, you would enter Elizabeth's user name. To send the mail successfully, send it to an actual user.

   Press [ESC], then [3] to display the User List. Below the current marker position, the screen displays a list of the user names recognized by the system, along with an (optional) comment.

   If you have been added to the system, your own user name appears in the window.

2. Position the marker on your user name. Press [ENTER] to duplicate your name opposite the current item in the heading. In response to the first prompt, `To:`, the screen now shows your user name.

3. Press [ESC] and then [Q] to exit the User List and display the complete heading once again. Press [ENTER] to move to the next prompt.

4. Identify the subject of the letter by typing the following:

   New Assignment [ENTER]

   Press [ENTER] at each subsequent prompt until you reach the message area.

5. Anticipating a need for more space than the message area provides, use the Edit function to type a full-page (or multi-page) letter. Press [ESC] and then [2]. The screen clears and then displays the header you entered on the Create Mail screen, as well as any part of the message you have already typed.

6. Type the following letter. Begin on the second line below the heading. Unless you specify a different editor (on the Mail Options screen), the functions and features available to you are those of the DeskMate Text application.

As I mentioned last week, I am pleased with the job you did for the Beauchamp party. We have already had a couple of inquiries from guests who were impressed with the food and the smooth operation. [ENTER]
[ENTER]
Mr. Beauchamp told me that he appreciated the way you accommodated the last minute additions to the guest list—and even managed to get matching place cards for them. I still don't know how you managed that! [ENTER]
[ENTER]
With Thanksgiving nearly here, I could use some help with a few major projects. For starters, I want you to take over the Johnson wedding reception for me.
It's about two weeks away, and I've made most of the arrangements. But the Johnsons change their minds daily and want us to do some elaborate decorating, so you'll have your hands full. [ENTER]
[ENTER]
I've saved my recent messages—the ones I haven't dealt with yet—in a mailbox named Johnson.msg. Read up on what needs doing and call me about a meeting so I can go over the menu with you. [ENTER]
[ENTER]
Good Luck, [ENTER]
edwin

7. Press [ESC], then [Q] to return to the Create Mail screen.

8. Press [ESC], then [Q] again to send your letter and return to the initial Mail screen.

From the list of messages, Edwin wants to select those that concern the Johnson wedding and save them to a mailbox named johnson. Use the Select function to define a block of listings, and transfer them to a different file using the Merge function.

1. With the marker on the first entry, press [ESC] and then [7] to use the Select function. Press [↓] to include the second entry in the block.

2. Press [ESC], then [6] to use the Merge function. At the bottom of the screen, a prompt appears:

```
Merge to:
```

   Type **Johnson** [ENTER] in response to the prompt.

Edwin wants to check the permissions assigned to the new mailbox to be certain that Elizabeth can read the new file. To do so, return to the Main Menu and use the Permissions function.

1. Press [ESC], then [Q] to exit Mail. The Main Menu reappears.

2. Position the cursor on the new filename, Johnson. (Do not press [ENTER].)

3. Press [ESC] and then [6] to select the Permissions function. The screen shows the prompts you need for changing the values for a file.

4. In response to the first prompt, the screen shows the filename you marked. The permission settings show that every user has read permission for the file. These are the values assigned to all new files.

   To change the settings for the current file, you could position the marker on a setting and press [Y] or [N] to change the displayed value. However, since the existing settings permit Elizabeth to read the file, you can exit without making any changes.

5. Press [CTRL] [C] (or [BREAK]) to return to the Main Menu.

Chapter 16

Ending The Sample Session

You are now finished with the sample session. You can continue using the sample data files to experiment and try new things not covered in the Sample Session. For example, you can use the Utilities to display current users or processes, you can print the information in the Phone Directory or Scratchpad, or you can copy data from an application such as Calendar to a Text file. Use the Reference section to find information on the application and function you want to use.

When you are ready to start using DeskMate for your own purposes, use the Delete function on the Main Menu to erase the sample data files. Although the sample files are within the subdirectory edwin/, you cannot simply delete that directory. Under XENIX, deleting a directory requires that you first delete all files in the directory. In addition, the current directory cannot be the directory you are deleting.

1. With edwin/ as the current directory, move the cursor to the first file under the Text application.

2. Press [ESC] and then [7] to use the Select function, and then press [↓] until you have highlighted all the files in the column.

3. Press [ESC] and then [9] to delete the block of files.

4. Proceed in this way to delete all files displayed on the menu. Use the Select function wherever there are multiple files in a column.

5. To delete the remaining files and subdirectories, press [ESC] and then [2] to change the current directory. A prompt appears:

```
<ENTER> to Expand or
New Current Directory:
```

Type the name of your home directory, and press [ENTER].

6. After DeskMate redraws the menu, press [ESC] and then [2] to execute the Directory function. Press [ENTER] to display the expanded menu.

7. Position the marker on `edwin/` and press [ENTER] to display any files remaining in that directory. The screen shows one directory remaining, `Personal/`.

8. Move the marker to `Personal/` and press [ENTER] to see its contents.

9. Highlight the remaining file, `Budget.wks`, and press [ESC] and then [9] to delete the file. Press [Y] at the prompt to confirm that you want to delete the file.

10. Finally, delete `Personal/` and `edwin/` in the same manner, using the Delete function, [ESC] and then [9].

Press [ESC] and then [Q] to return to the Mail Menu. The only remaining sample data are two messages in the default mailbox; dmbox.msg. Delete them in the following manner:

1. Move the marker to the Mail application, and press [ENTER]. The screen displays the contents of your default Mail file.

2. Using the arrow keys, move the marker to each sample message — one from Dan and one from Jill. Delete each one using the Delete function, [ESC] and then [9]. You can verify that the messages match the sample data by reading them (especially if you have actual users named dan or jill).

Press [ESC] and then [Q] to return to the Main Menu. You have now erased all sample data from your directory. Of course, you can reload the sample files by executing dmsample again, repeating the procedure by which you began the sample session.

Appendix A

Installing DeskMate

DeskMate for the Tandy 6000 can be used by a single user or by multiple users. Where there are multiple users, it is advisable that an individual be designated system administrator. That individual should be responsible for installing new applications and ensuring that other users know how to execute the applications and store data.

To make full use of DeskMate, we suggest that you equip your system with 1-megabyte RAM (memory) and 2-megabytes swap space. On a system configured with less swap space or RAM, you can encounter system halts.

Before you can install DeskMate, you must install XENIX System III, version 03.01.00 (or a later version) on your disk. Instructions for this procedure are included in *The System Administrator's Guide to XENIX*.

To install DeskMate, log in as root and complete the following steps:

1. At the root prompt, type:

   install [ENTER]

   The screen shows the following Installation Menu:

```
Installation Menu
-----------------
 1.  to install
 q.  to quit
```

   with a selection prompt at the bottom of your screen:

```
Please select :
```

2. Type **1** [ENTER] to install DeskMate. The following prompt appears:

```
Insert diskette in Drive 0 and press <ENTER>
```

3. Put the first diskette in Drive 0, close the drive door, and press [ENTER]. The screen then displays the following information:

```
                    DISK CONFIGURATION
                    ------------------

#   Name                          Free Space Available (blocks)
-   ----------------------------  ----------------------------
1.   /                            nnnnn
2.   Quit

> Enter selection (1-2):
```

Type 1 [ENTER] to install DeskMate on the root file system, assuming that there are 2300 or more blocks of free space on the disk. Type 2 [ENTER] to quit the installation at this point.

If you have other file systems mounted, they appear as additional options. You can install DeskMate on a secondary file system, provided, of course, that it offers sufficient disk space.

4. After you select a file system on which to install the program, the following message appears:

```
Installing in /appl/desk

        Insert DeskMate Install #2 diskette in drive 0.
              Press <ENTER> to continue.
```

Replace the diskette in Drive 0 with the next DeskMate diskette, close the drive door, and press [ENTER]. The screen lists each file as it is being installed.

5. When the screen instructs you to do so, remove the diskette in the drive and insert the next installation diskette. Press [ENTER] to resume the installation.

6. After the transfer of these files is complete, the following prompt appears:

```
Insert DeskMate Install #1 diskette in drive 0.
       Press <ENTER> to continue.
```

7. Remove the diskette currently in Drive 0, and replace it with the first installation diskette. Press [ENTER]. After a few moments, the screen informs you that the procedure is finished:

```
Installation complete - Remove the diskette, then press <ENTER>
```

8. After you press [ENTER], the Installation Menu returns. Type **q** [ENTER] to quit; XENIX returns you to the root prompt.

Once DeskMate is installed, you can display the Main Menu by typing **desk** [ENTER] at your XENIX system prompt.

Appendix B

Files Created by DeskMate

As you use the DeskMate applications and accessories, the programs create a number of files in your home directory. These files record the data you enter and adjustments you make as you use the programs. The Phone Directory, for example, creates a file, .dmphone, in which it saves the names, numbers, and other comments you enter in that accessory.

The following list matches these files with the programs that create them:

File	Created by
.desk	Main Menu
.dmcalc	Calculator accessory
.dmscratch	Scratchpad accessory
.dmphone	Phone Directory accessory
.dmail	Mail application
dmbox.msg	Mail application
dmevents.cal	Calendar application

The last 2 files in this list, dmbox.msg and dmevents.cal, provide DeskMate with a specific delivery point for messages and a clearing point for all alarms. The Mail and Calendar applications open these files by default—when you choose one of the 2 applications without specifying a particular file.

Refer to the preceding list if you want to back up or delete the contents of a file. If you delete or rename a file that a program has automatically generated, the program will recreate it. If, for example, you rename .dmphone, the Phone Directory creates an empty file named .dmphone the next time you use that accessory.

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