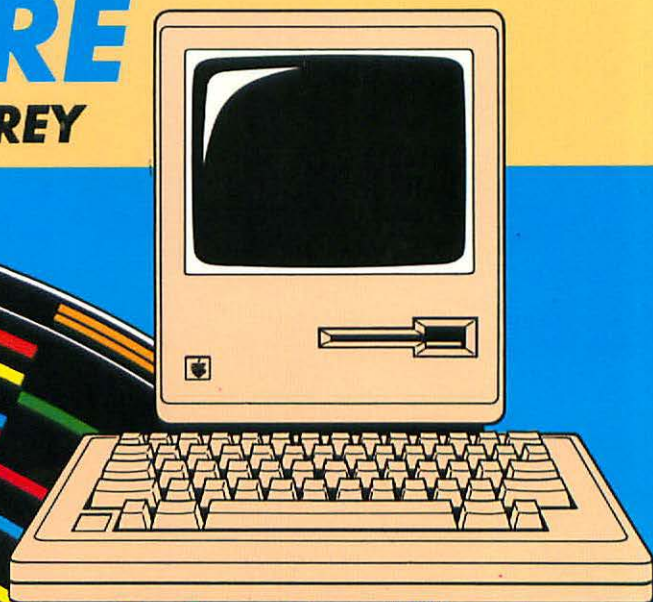


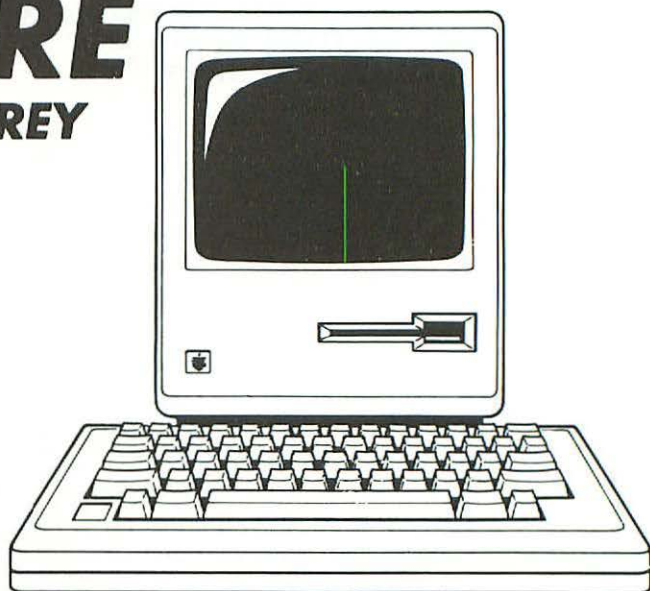
MASTER YOUR MACINTOSH SOFTWARE

ALISON McCALLUM-VAREY



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PREFACE

The Macintosh is a new kind of machine that has moved away from dependence on a keyboard, and has replaced many of the keyboard's functions with a small device called a mouse. You use the mouse to point at *icons* on the screen, to tell the machine what you want to do. This basic principle is carried through all aspects of the machine's functioning from the operating system itself through MacWrite, MacPaint and all the other applications software which the Macintosh supports.

Although the Macintosh is simple to use, this does not mean that it is limited only to coping with simple tasks. Its range of facilities is extensive and its unique way of working, in fact, gives it great potential. This is to be seen particularly in the software package MacPaint. All in all, Macintosh is a powerful machine and you will be seeing in the course of this book how that power can be harnessed.

Who this book is for

This book is for beginners and more experienced people alike. What you should have in common is having bought your Macintosh for use in a business environment. If you have been using MacWrite for letters, then you can find out how to extend your knowledge of the package to using it for reports, advertisements, invitations, notices and many other practical applications. For the word processing beginner, I shall be starting with how to use each of MacWrite's facilities to design a useful piece of work.

You may have found that you have had a lot of fun doodling with MacPaint while the boss is out of the office, but I aim to show you how to produce diagrams and pictures to impress them when they get back. So whether or not you have started to use MacPaint, you will be seeing how to get the most benefit from this extra-ordinary package.

What this book is about

This book aims to explore what the Macintosh has to offer the business user. I shall begin by looking at the basics of how the machine, its operating system and its software

work in practice. Through a series of practical examples for you to practise with, I shall describe how to use all the important facilities of the machine. I shall then go on to show the kinds of business applications that MacWrite and MacPaint can be used for. The book divides into groups of chapters on each subject.

Finder

The Macintosh's operating system is called Finder. It is designed to make all the basic file-handling processes of the machine as straightforward as possible. In Chapter 1 I shall show you how to use its facilities to move, copy and delete your files, all by using the mouse.

MacWrite

Sophisticated word processing powers that are easy to use — that sums up MacWrite. Chapters 2, 3 and 4 are devoted to looking at all its facilities and showing you how to make the best of them in writing letters, producing advertisements, reports, invoices and for many other business uses.

MacPaint

A package that can draw pictures sounds rather like a gimmick, but MacPaint is a remarkable tool for designing anything from a new company logo to overhead slides. Its facilities are consistent with those of Finder and MacWrite in that they are easy to use and yet powerful. They take you into a whole new area of expertise. In chapters 5, 6 and 7 I shall be introducing you to all its facilities and showing you how to design your own advertisements, illustrated instruction manuals and visual aids — all with the aid of a mouse.

CHAPTER 1

Introduction to the Macintosh

In this first chapter I shall introduce the basic features of the Macintosh. This is not intended to be a technical introduction. I shall concentrate on how the machine works and how you can use it.

Before you start to use the MacWrite and MacPaint packages which come with the Macintosh, it is worth spending a little time finding out about basic operations like moving around the screen, opening and closing files, making copies and deleting files. It is these aspects of the Macintosh that I shall look at in this first chapter, beginning with a brief look at the machine itself.

The Machine

Throughout this book the Macintosh I shall be referring to is a standard Macintosh with one integral microdisk drive, 128k memory, keyboard, mouse and Imagewriter printer. The only software I will have on the machine is MacWrite and MacPaint. I shall be using the standard 400k microdisks.

As a machine, Macintosh has quite a number of novel features. As a preliminary to talking about the operating system and how it works, I am going to spend a couple of pages on the particular features of the Macintosh machine and how these features affect the working of the machine in general.

To begin with, the screen and the central processor come in one unit. This does not affect the working of the computer particularly but it does make it easier to move the machine around and it also means that the machine takes up less desk space.

Instead of using the standard 5.25" floppy disks, Macintosh uses 3.75" disks which have a hard plastic coating. A metal spring-loaded shutter fits over the exposed area of

the magnetic disk (see **Figure 1.1**). This type of disk is a distinct improvement over normal floppy disks in that its hard covering makes it less prone to damage than a floppy, which bends very easily. The metal shutter over the exposed area of the disk makes it harder to get damaging fingerprints on the delicate surface.

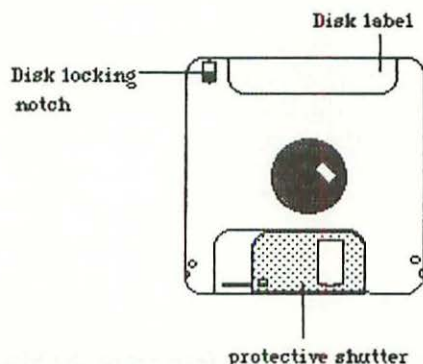


Figure 1.1: Macintosh Disk

The machine is portable although I find that it is perhaps a bit heavy for carrying any great distance. A carrying case makes it easier to carry.

On machines sold outside the USA, words have been replaced by 'icons' on both the machine and keyboard. This confused me at first because the Macintosh manual refers to the keys by their names, which on the British version are not marked. To clarify this for later reference I have reproduced the keyboard and annotated it with the meaning of the symbols. (See **Figure 1.2**.)

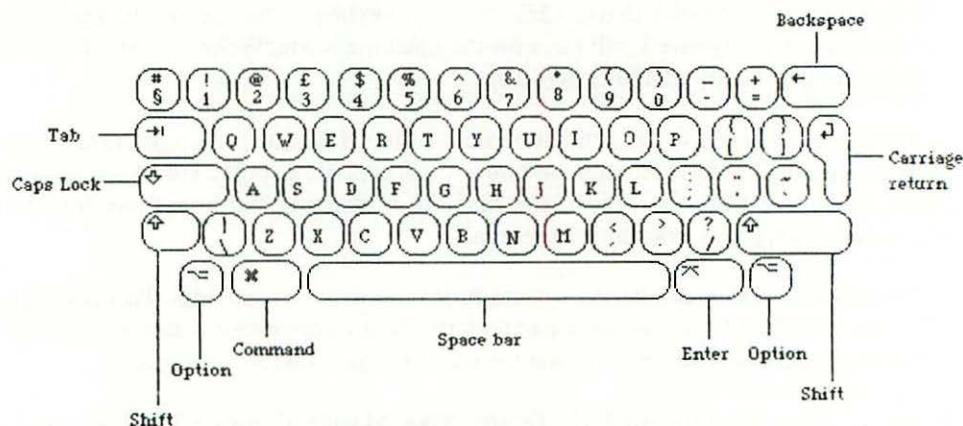


Figure 1.2: Macintosh keyboard

In addition to the keyboard there is a mouse attached to the Macintosh. This small device is designed to let you move around the screen without having to use the keyboard. It also controls a number of other functions which I shall discuss in greater detail further on.

The Macintosh screen is laid out in quite a different way from most other machines. Instead of starting with an A> prompt as many machines do, it has a series of 'icons', or pictures to represent the choices which are available. The icons themselves play a significant role in the operation of the machine and so I have given them a section of their own. The screen is referred to as the Desktop and I have illustrated it in **Figure 1.3**.

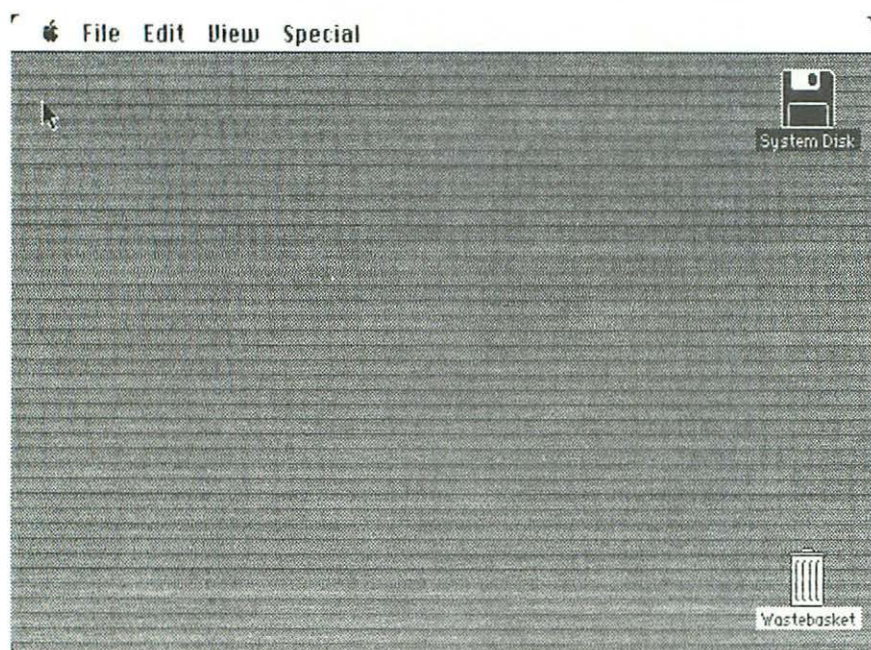


Figure 1.3: Desktop

The information on the Desktop comes in a series of windows which look like that in **Figure 1.4**. When you load the System disk, a System disk window opens automatically to reveal the contents of the disk. If you want to examine the contents of one of the files or folders on the disk, you open its window. When you do that, the new window will appear on the Desktop over the top of the System disk window. You can open as many windows as you like and they will overlap one another. As you close them, so the previously opened windows will reappear on the screen.

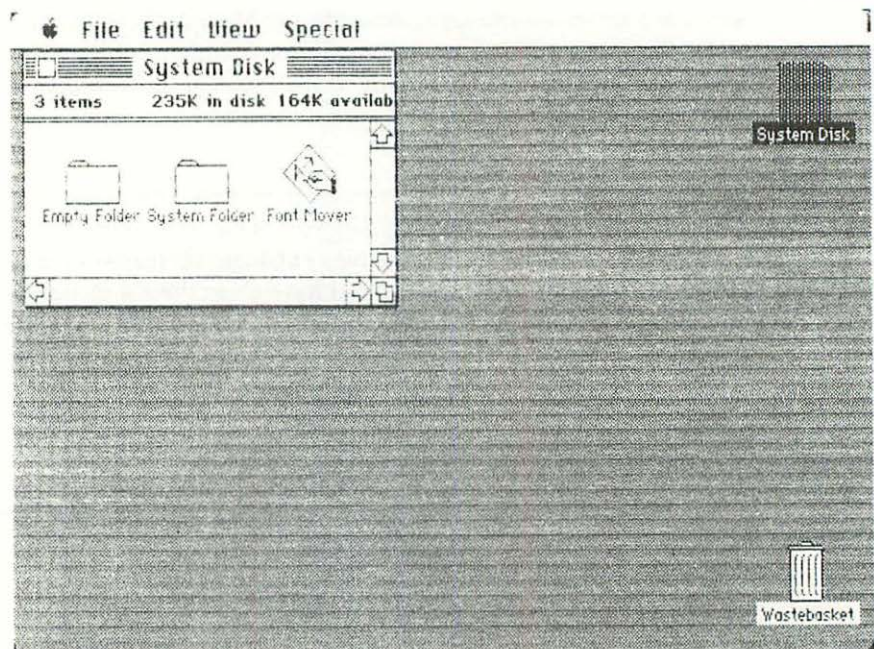


Figure 1.4: Macintosh Window

The Icons

On many makes of microcomputer, files and commands are issued to the operating system by means of the keyboard — you type in the command and the name of the file next to an **A>** prompt. This means that before you can do anything you have to know the name of the file and the correct command. Providing you know both you can issue a command such as the following

A> pip b: = a:letter ★ .doc

(copy all the files with the suffix .doc and the word 'letter' at the beginning from drive a to drive b). Or

A> ren david.dbf = graham.dbf

(change the name of the graham.dbf file to david.dbf).

Macintosh replaces this method of operation by using icons to represent the files, disks and other available tools. It allows you to move from one to another, to open, close and delete files by using the mouse. In this way you can actually see what you are

doing; you are physically reproducing the action and so it is much easier to remember how to manipulate your files than with the commands, filenames and syntax of the more traditional machine.

The Mouse

The mouse is the most important device in the use of your Macintosh. It lets you move around the screen and manipulate files, disks, words and pictures.

The movements of the mouse are reproduced on the screen by an arrow. Unlike the conventional cursor on other machines, its movements are not restricted to up, down, right and left. It can move in any direction.

The raised pad on the top of the mouse is used for manipulating the files, disks and other features on the Desktop. The pad can be used in a variety of ways which I shall be describing in the next section.

Using the mouse

Using the mouse is a question of getting familiar with it. In this section, I shall look at the different ways to move the mouse around. It is a good opportunity to get used to how each of these movements works.

As I said above, the mouse takes over a lot of the functions usually provided by special additional keys on other computer keyboards. I have already mentioned four of those — the direction arrow keys. Let's take a look at some of the other things the mouse will do. In describing what the mouse will do, I have adopted the terminology used in the Macintosh manuals which should be familiar to you.

Selecting options — 'clicking'

When you start to use your machine, the screen shows two icons — System Disk (or Write/Paint) and Wastebasket. The disk icon will already be highlighted. This indicates that any further operation you select will be carried out on that particular disk. You can change this by moving the arrow to another of the icons and pressing once on the pad (this is called 'clicking'). The new icon will now be highlighted and the others will revert to their normal colour. The same applies not only to the disk icon but also to the files and folders it contains.

Opening files — ‘double-clicking’

With the arrow on the highlighted icon, give the mouse pad two quick presses. This is called double-clicking and is the quickest method of opening a file or folder. When you have done that, a window will open on the screen and its contents will be displayed. If you open a folder which contains files, repeating the double-click while the arrow is on one of them will open it in turn. The only constraint to this is that you will find you cannot open specific system files — those represented by the Macintosh icon.

Moving the icons — ‘dragging’

If you want to rearrange any of the icons on the screen or in the windows, you can do so by using the mouse to pull them around. You do this by positioning the mouse on the icon you want to move and, pressing down on the mouse pad, pull the icon towards the point you want to put it. When you are ‘dragging’ an icon, initially only a dotted outline of the icon will move. The icon itself moves to its new position once you release the mouse pad.

The windows can also be repositioned using the same method, starting with the arrow on the top line of the window.

You will find that dragging icons around the screen is the most commonly used action on the Macintosh so you can be sure you will be getting plenty of practice in doing it.

Enlarging the windows

In a window where there are a large number of files, not all of them will be displayed in the normal-sized window. If you want to see them all, you can make the window larger by placing the arrow on the bottom righthand square (see **Figure 1.5**) and dragging the corner outwards. This stretches the size of the window. You can reverse this process by dragging the corner inwards.

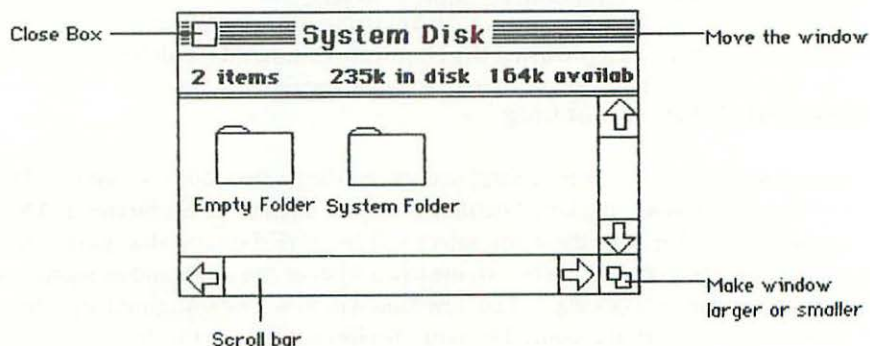


Figure 1.5: Parts of the Window

Scrolling

An alternative to enlarging the window is to scroll it to see all its contents. At the righthand side and the bottom of the window are two boxes with an arrow at each end. By putting the arrow in these boxes and dragging it up and down or left and right, you can scroll the window.

Moving files

If you want to move files from one folder to another this can also be done by dragging them. You open the folder containing the file, and the folder you want to move it to. Select and then drag the file icon from one folder to the other and then release it.

Deleting files

In order to delete a file you must put it in the Wastebasket. To do this you must move to the file you want to delete, select it and drag it over to the Wastebasket. To ensure that it actually goes into the Wastebasket you must position the file over the Wastebasket icon so that it is highlighted. If it is not correctly placed, then the file will still be visible, superimposed on the Wastebasket.

Putting files in the Wastebasket does not automatically delete them, they are simply removed from their original position. To delete them altogether, you need to use the Empty Wastebasket facility on the Special menu (see the section on this below). This means that if you change your mind about getting rid of a file you have the opportunity to retrieve it.

Renaming files and folders

There are several reasons why you might want to change the name of a file or folder. If you have made a copy of a file using the Duplicate command it will be called 'Copy of File' and you will probably want to give it a new name. Sometimes you find that the original name you gave to a file does not adequately reflect its contents. Presumably you wouldn't want to change the contents to fit the name so the simplest route is to give it a new name.

To alter the name you must first select the file, folder or disk whose name you want to change. Put the arrow on the actual name and it will change shape when correctly positioned. Don't do anything else with the mouse — switch to using the keyboard. As soon as you press a key the original name will disappear and you can type whatever name you choose into the blank space. That name will become the new name attached

to the icon. You change the name of any of the icons in this way and it in no way affects the way they work. Macintosh immediately identifies them by their new name.

Before getting my Macintosh I had always used keyboard operated computers. It took me a little while to get used to the mouse and especially to the idea that once you picked it up it no longer functioned. This got easier after a short time and I found that I only needed a small space on which to move it.

The main advantage I find with using the mouse and icons is that you can always see exactly what you are doing. You are less likely to make mistakes than with conventional command-driven machines, where an incorrect command can result in an obscure message such as 'Attempted write-protect violation'. In contrast, on the Macintosh you can see what you have done wrong — the file that you thought you had deleted is still there; you have selected the wrong disk to work with. This can save you time that is often wasted trying to figure out what the computer is trying to tell you.

Disks

When I received my Macintosh it came with two copies of the system disk and the Write/Paint disk, a guided tour of each and a spare disk. I put one copy of the System Disk and Write/Paint away safely so that if I should have any problems I would have a spare uncorrupted copy to work with.

The system disk contains all the files you need to run the operating system, which is described in the next section. If you insert this disk and open the system folder, you will see a number of files represented by Macintosh icons. This tells you that they are system files. They control the machine's operation. If you try to open one of these files you will be told 'An application can't be found to open this file' — in other words you can't look at the contents of the file.

The Write/Paint disk contains the two programs MacWrite and MacPaint and the contents of the system disk — the system folder and the font mover. The two programs cannot run without the system files which control the various loading, opening and closing operations.

Both the system disk and Write/Paint are what are described as startup disks and as such cannot be erased — a message will appear to this effect if you try to do so. This is to protect them against accidental erasure. You can do this to any of your disks by 'locking' them; that is pushing the small red notch on the disk towards the edge of the disk. Locking the disk will allow you to use what it has on it but will not let you make any changes to it or add more files.

Finder — Macintosh's operating system

The operating system of any computer is the set of programs which controls the file-handling operations. It will also provide what are described as system utilities.

In the case of the Macintosh the operating system is called Finder. You have already seen how to open, close, move and delete files using the mouse. All the activities of the mouse are controlled by Finder. The mouse is your way of communicating with Finder.

As well as using the mouse itself to carry out certain tasks, Finder also operates via a series of menus, which are stored under the names and icon which appear at the very top of the screen.

The menus

In this section I shall look at the menus and discuss the various facilities which Finder offers. The menus are stored under the headings at the top left of the screen. To see what the menus contain you must position the mouse on the title of the menu you want to see and drag it downwards to reveal the menu contents. As you move the mouse down, each currently available option will be highlighted.

Some of the options will appear in slightly fainter print. This means that those options are not available at that particular time. (See **Figure 1.6**).

I am going to look at each of the menus in turn to see what options each offers. For the moment I shall leave the Apple icon out since it contains the system utilities I mentioned earlier. I shall deal with this last and begin by looking at the File menu.

Handling files — the File menu

Using Finder is a combination of mouse and menus. In some cases, the same operations can be performed either by using the menu or, as a shortcut, by the mouse on its own. On the File menu you will see options for opening and closing files, which can also be carried out by using the mouse in the way described in the preceding section.

Other options may only be accessed via the menus. In any case I shall be taking each option in turn and seeing how it works. As you get familiar with the machine you will probably develop your own preferences for using the menu facilities and the shortcuts.

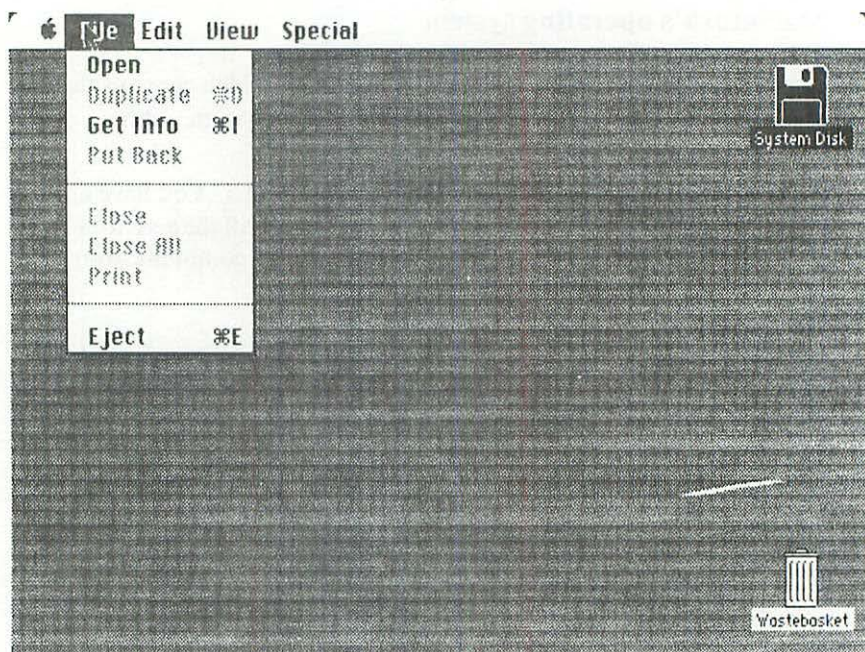


Figure 1.6: Menu Options

Open

In the section on the mouse, I talked about using double-clicking as a means of opening files. An alternative is to select the file to be opened by clicking on the icon, then moving to the File menu and highlighting the option Open. There is no difference between these two actions except that double-clicking is marginally quicker than using the menu. However, once you get used to using the mouse you will find that you can move around very quickly and the time it takes is minimal.

Duplicate

When you first look at the File menu 'Duplicate' will not be highlighted. Before you can duplicate a file, Finder needs to know which one you want to duplicate. You must first select it, then make a copy by choosing the duplicate option. The duplicate will be labelled 'Copy of File'. The same method can be applied to creating new folders so you can keep different types of files in different folders. In **Figure 1.7** I have illustrated the duplicate command by making two copies of the empty folder. As I mentioned earlier, it is a good idea to rename the folders once you have copied them so that it reflects what they are to contain.

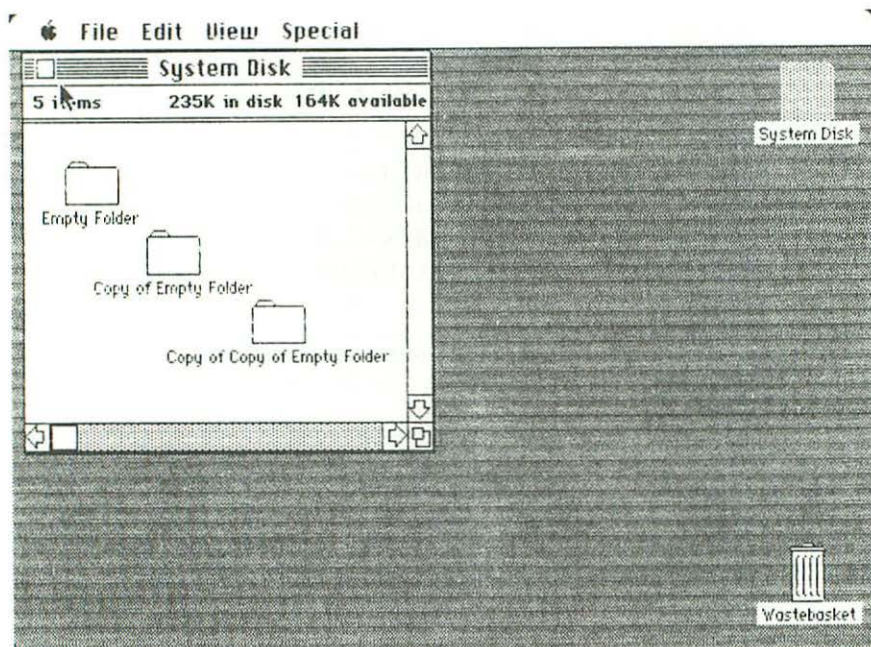


Figure 1.7: Copying Folders

Get Info

This option from the File menu gives you information about the disk, folder or file that you have selected — its size, when it was created, the date of the last modification and a summary of what it contains. For files you create, Get Info will allow you to put in your own summary of the file's contents. It can be quite useful as a way of checking what a file contains and saves opening it unnecessarily. **Figure 1.8** shows you what information is kept on the system folder.

Put Back

Put Back will replace files in their original positions. Imagine that you had decided to delete a file. You put it in the Wastebasket. Then you change your mind. To replace the file in its original folder, you would choose the option Put Back.

Close and Close All

If you are looking at one particular file you can close just that one, or an entire folder or even the disk window. This reproduces the action of the clicking the mouse on the

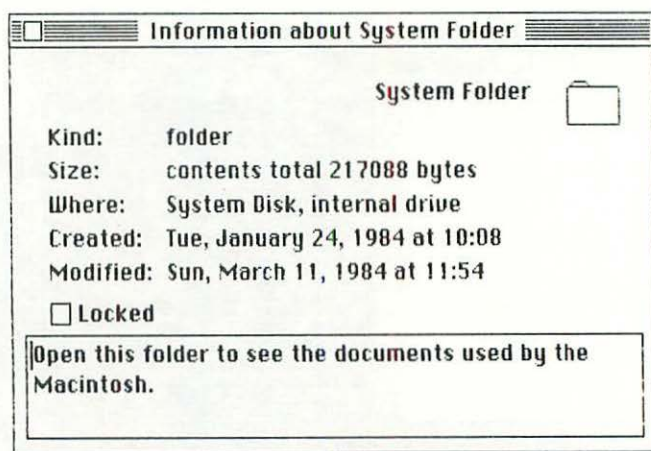


Figure 1.8: Get Info

square at the top of the window. I find that I tend to use the square at the top of the window as a quicker method of closing files than moving back to the menu.

Eject

When you choose this option, the disk will be ejected from the drive. If you have only one disk drive you will find that you may need to use eject quite often to copy files to or retrieve them from different disks.

When you have ejected a disk, its icon will still appear on the Desktop but the icon will assume a lighter pattern to indicate that it is not currently accessible. You can even try to open the disk, but if you try to use any of the files Macintosh will automatically eject the current disk and ask you to insert the original.

Edit Menu

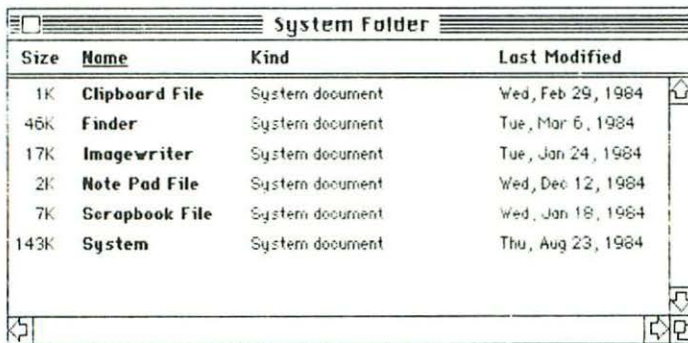
The chief functions of the Edit menu are to allow you to copy, delete or move parts of files which you have opened. It is not possible to do this with system files, because they are 'locked' so that you cannot interfere with them. However Cut, Paste and Copy features can be very useful when you are creating your own MacPaint and MacWrite files. I shall be showing you in some detail how they work in Chapter 2.

View menu

The View menu offers you several options — by icon, name, date, size or kind. View can only be used if you already have a window containing files and folders open. The

normal method of looking at the files is by icon. However, if you choose one of the other options, the name and details of the files will be displayed as text.

Viewing by name, date, size or kind gives you full details about the files and in the order which you specify — for example if you choose by name, the files will be displayed in ascending alphabetical order according to the name of the file. To show that you have chosen to see the files in name order, the heading of the name column will be underlined as you will see in **Figure 1.9**.



System Folder			
Size	<u>Name</u>	Kind	Last Modified
1K	Clipboard File	System document	Wed, Feb 29, 1984
46K	Finder	System document	Tue, Mar 6, 1984
17K	Imagewriter	System document	Tue, Jan 24, 1984
2K	Note Pad File	System document	Wed, Dec 12, 1984
7K	Scrapbook File	System document	Wed, Jan 18, 1984
143K	System	System document	Thu, Aug 23, 1984

Figure 1.9: Files displayed by Name

The size of the window in which the details are displayed is designed to show the icons but this is not large enough to display all the details. In order to see the full details you must enlarge the window by placing the arrow on the bottom righthand corner of the window and, with your finger on the mouse pad, pull the window right and down. First of all, a dotted outline of the window will move to the position you stop at. Then when you release the pad, the enlarged window will appear and all the details will be visible.

Special menu

The three options listed here are Clean Up, Empty Wastebasket and Erase Disk. Clean Up is used when you are viewing the files by icon. It will rearrange the icons neatly in rows if you have moved any of them or made copies.

Empty Wastebasket will delete the contents of the Wastebasket. this option is only available if there is actually anything in the Wastebasket. When you are going to empty it, it is probably safest to have a look at what is in the Wastebasket beforehand — just in case you have put something in there by mistake. To see what is in the Wastebasket you need to open it by double-clicking on the icon.

Erase Disk will delete the entire contents of a disk, so you have to be sure you want to get rid of everything before you use it. If you try to erase a system or program disk you

will be told 'This is a startup disk; it cannot be erased'. My Macintosh manual made no mention of this facility but it can be very useful for clearing out old files and reusing the disks for other purposes.

System utilities — the Apple menu

The Apple menu contains what I have described above as system utilities. These utilities are additional features which are not necessarily vital to the operation of the machine but are enhancements to its functioning.

The Apple menu stores these utilities and contains this list of options:

- About the Finder . . .
- Scrapbook
- Alarm Clock
- Note Pad
- Calculator
- Key Caps
- Control Panel
- Puzzle

Each of these options works independently, that is to say, it is not directly connected to any one file or disk-handling procedure, unlike the other menus. Most of the options on the menu can be used in MacWrite and MacPaint and their facilities can be incorporated into particular files. I shall be showing you how you can use them in this way in chapter 4. In this section, however, I am going to limit the description of each to its basic function. You can see most of the Apple menu facilities in **Figure 1.10**.

About the Finder . . .

Selecting this option will tell you what version of the Macintosh Finder you are using and the date it was introduced. Both MacWrite and MacPaint contain a similar option which gives details of those two programs, their authors and date of creation, etc. Unlike the other options, About the Finder . . . will close automatically when you go on to another option.

Scrapbook

Scrapbook is used with the two packages Macpaint and Macwrite, for storing pictures or text that you want to use more than once, or to move from one document to another. You cannot look at what it contains unless you are using one of the two packages.

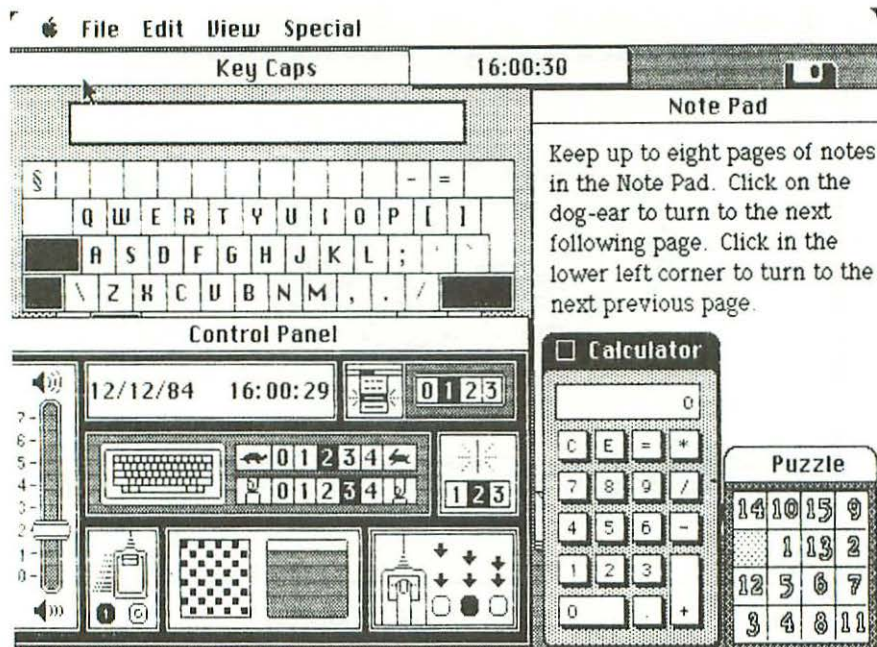


Figure 1.10: Apple Functions

Once you enter either MacPaint or Macwrite you will discover that Scrapbook already has some sample information in it — a picture of a fish (see Figure 1.11) and a robot as well as some items of text.

Adding pictures and text to it involves using the Cut and Paste options on the Edit menu and I shall be looking at how to do this in Chapter 4.

Alarm Clock

The Macintosh has a battery-operated clock and date function. Normally, only the current time will be displayed when you activate the Alarm Clock option. However, by positioning the mouse over the small key in the righthand corner of the clock box and pressing the pad, you can see the date and three further boxes. The first two are for displaying either the time or the date, which you can then modify. The third box contains a picture of an alarm clock. If you choose this option, another time will appear in the middle box and this is the time at which the alarm is set to go off. To the right of the middle box is a smaller box with a T shape in it. If the T is upside down, the alarm is off, otherwise the bell will sound at the time indicated. As with the date and time, you can alter the alarm time.

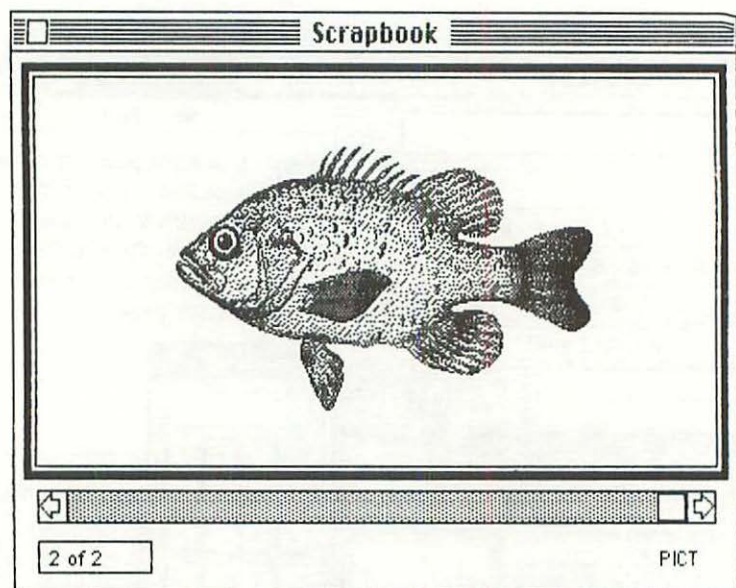


Figure 1.11: Scrapbook Picture

I have mentioned the alarm clock feature in detail since it is not included in the manual I received with my machine.

Note Pad

As it explains on the first page of the Note Pad, you can store up to eight pages of notes on the pad and you can turn the pages by clicking on the dog-eared edge of the paper. I have not personally found any use for this utility yet but I imagine it could be handy if you wanted to use it as a place to store messages to yourself.

Calculator

A basic calculator designed to look exactly like a real one with the ability to add, multiply, subtract and divide. The results of calculations can be extracted and put into other documents. I show how to use the calculator in this way in Chapter 4 to design an invoice.

Key Caps

This utility reproduces the Macintosh keyboard and shows you what pressing the various keys on it will do. For example if you press the Shift key on the ordinary

keyboard, all the letters on the Key Caps keyboard will change to capitals and the key you are pressing will be highlighted on the Key Caps keyboard. It will also reveal the special characters which Macintosh provides for writing foreign languages and using mathematical symbols. These are accessible by pressing the Option key. See Chapter 4 for an example of how to use them.

Control Panel

This panel controls a number of the features of the machine

- The loudness of the bell tone
- The pressure required to get a double click from the mouse
- The speed at which the mouse moves
- The speed at which the insertion point line blinks
- The pressure required to get a response from the keyboard
- The background pattern for the Desktop
- The date and time can be adjusted

None of these features is particularly vital, but having the ability to adjust them shows a lot of consideration for the user's comfort and gives you added control of the operation of the machine.

Puzzle

This is one of those number puzzles where you have to move the squares around until you get them in the right order. As the Macintosh manual points out, the main frustration with this is that you can't cheat by pulling out the squares and rearranging them yourself.

If you went through the guided tour of the system disk you probably discovered the mazes which come on the disk. I found these were fun to play with and got me used to moving the mouse around the screen with accuracy.

Shortcuts

As an alternative to using the mouse and the menus, Macintosh also offers you a number of shortcuts which are to be found on the keyboard itself. You will probably have noticed on the menus that beside some of the options is the Command key symbol and a letter. If you press this combination of keys on the Macintosh keyboard, Finder will duplicate the action on the corresponding menu option. For example, on the File menu beside the option Duplicate is the Command symbol and the letter D. Instead of

duplicating via the menu, use the Command D key combination. You will find the result will be the same.

Conclusion

I have used this chapter to outline all the basics of Macintosh and its operating system. Finder is vital to the functioning of the other software you use on the machine. It acts as the machine controller (on larger machines, the word 'housekeeping' is often applied to the jobs it does). Finder enables you to carry out all the basic operations of opening and closing files, or copying and deleting them. It will produce messages to tell when you have done something wrong or if you have no space left on your disk. You cannot do much with Finder itself but without it you cannot use the other software.

By using the mouse and icons, Macintosh gets over the problem that you often encounter with machines where you issue commands to the operating system by means of the keyboard — having to remember the exact spelling and wording of the command before you can get a response. All you need to remember with the Macintosh is how to move the mouse and how to use its pad.

Now you have seen all the basics of how Macintosh works you are ready to find out about MacWrite and MacPaint.

CHAPTER 2

Introduction to MacWrite

MacWrite is a word processing package which, in common with many such packages, gives you the ability to produce a variety of documents — letters, reports, memos and so forth. It has a range of editing facilities which enable you to move text, make copies of it, delete it, scan through it to find words and phrases and change them. In fact, most of the facilities you might expect from any good word processing package. I am going to devote this chapter to telling you how to use these standard features in MacWrite.

You may have guessed, however, that this is not the whole story. In addition the standard facilities, MacWrite has some rather extra-ordinary ones. These include

- Five different sizes of lettering

- Nine different fonts each one available in the five sizes

- Six style features

- You can introduce pictures into the text from MacPaint

- Foreign characters and other symbols are readily available

- Calculations can be inserted in the text

I shall be covering these later. I am going to start with a description of the screen layout.

The MacWrite screen

Opening the MacWrite file is rather similar to opening the other windows as we did in the Chapter 1. The main difference is that, once opened, the window fills the whole screen. Across the top is the familiar window heading with the name of the file — in this case it is untitled — you won't have given your file a name yet. (See **Figure 2.1** for the MacWrite screen layout.)

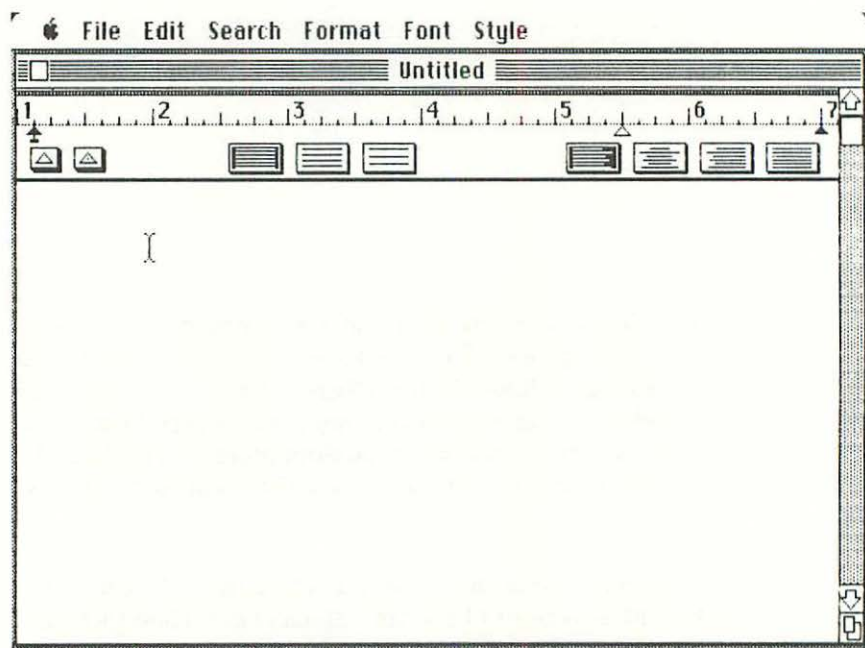


Figure 2.1: The MacWrite Screen

You can treat the MacWrite window as you would the Finder windows. If you put the cursor on the top line and drag the mouse in any direction the window will move, revealing the Desktop background behind it. If you move the window to the left, you will reveal the two small squares at the bottom right of the screen which allow you to make the window larger. By dragging them outwards you can see the right edge of the MacWrite Ruler which, in fact, stretches to the 8" mark which is normally hidden.

As with Finder, there are a number of menu options at the top of the screen. In addition to the Apple icon, there are menus entitled File, Edit, Search, Format, Font and Style. In this chapter, I am going to concentrate on the File and Edit menus. I shall also be talking about the features provided on the Ruler which appears just beneath the window heading. I am going to show you how to create documents which will use all the features available on the two menus and the Ruler.

The Ruler itself contains a number of icons all of which represent different functions. The top line, which is divided into inches and fractions of an inch, allows you to set up the tab and margin positions. Beneath it are the various symbols which, working from left to right, represent the tab and decimal tab markers, three types of line spacing and four types of text justification — right, centre, left and both right and left (See **Figure 2.3** further on in this chapter). I'll be looking at each of these in detail later.

Underneath the ruler is the main area where you will type in text. There is a cursor to mark your position on the screen. It takes the form of a straight vertical line. This is not to be confused with the mouse arrow which moves independently of the editing cursor. You'll see that when the arrow is on the MacWrite screen, it takes the shape of what Apple call an I-beam. As you will see, the I-beam lets you reposition the entry point for text.

On the righthand edge of the window is the strip with arrows at both ends which enables you to scroll through documents which extend over more than one screen just as you did with the Finder windows. The documents themselves are actually divided into pages of 44 lines each.

That is the basic layout of the screen. It is consistent with the form already seen with the System disk. Most of the features are displayed on the screen and are immediately accessible. Others are stored in pull-down menus. Once you are familiar with using the mouse, accessing the various options is easy. I am not going to spend much time discussing that in this chapter. I am going to concentrate instead on how to use the available options to good effect.

Typing in text

Example — An announcement to customers

Up to now all the manipulation has been done by the mouse and you have hardly touched the keyboard. Now is the time to practise your typing skills. I have typed in a short letter (**Figure 2.2**) to act as an illustration to the basic features I shall be discussing in this section.

The Macintosh keyboard has the layout of a standard typewriter. I have assumed that you are familiar with this type of keyboard and with keys like Tab and Shift. If you have never used one before, the best thing for you to do is to take a look at the Key Caps option on the Apple menu, which will show you what effect pressing the different keys will have. Alternatively, you can simply experiment for yourself — figure 1.2 in chapter 1 shows to the positioning of keys and what each one does.

Announcement to Customers

Dear Customer,

Brooks Disks have long been a major distributor of all the best makes of floppy disks for all types of microcomputers. We are now pleased to announce Brooks have now developed their own remarkable new floppy disks with 1000k of storage space on each side. Until the end of the month these amazing new disks will be on offer to our existing customers at the special price of £30 per box of ten*. Don't miss this fantastic offer!

Best regards,

Brooks Sales Manager.

* On orders of 5 boxes or more.

Figure 2.2: Announcement to Customers

When you are typing, you don't need to worry about pressing the carriage return at the end of the line, because the cursor will automatically move to the beginning of the next line. The only time you need the carriage return is if you haven't typed a full line and you want to start a new paragraph.

The speed at which a key repeats (that is, if you hold your finger down on it) and the pressure needed on the keys are adjustable on the Macintosh, so if you find that you tend to be rather heavy-handed or alternatively not heavy-handed enough, you can alter the pressure. This feature appears on the Control Panel option of the Apple menu and you can experiment with it until you find the pressure which suits you best.

If you want to practise the use of MacWrite's various features, you should type in the text as it appears in Figure 2.2 before going on to the next section. Don't worry too much about any mistakes at this stage, because I shall be talking about how to make corrections and alterations later on.

Moving the cursor

With conventional keyboard-operated computers, when you want to move to different points in a word processing document, you use four arrow keys which move the cursor up, down, right and left along the lines on the screen. The four arrows will also

combine with other keys so that you can move word by word, line by line, paragraph by paragraph, and so on. Each of these combinations has to be memorised. On one word processor I have used, there were no fewer than eleven keys involved in moving the cursor around (though not all at once, thank goodness).

In MacWrite, you can move and reposition the cursor anywhere you want within an already created document by means of the mouse. When the arrow is in the main MacWrite window it changes to a shape called an I-beam which will move around as you move the mouse. If you click the mouse the cursor will be repositioned where the I-beam is. You will find, however, that if you have just started with a blank screen, any effort to reposition the cursor by using the mouse will not work. This is because the screen is not accessible unless it has been typed on (even if this is only by pressing the carriage return a few times).

Selecting text

Once you have typed in several lines or paragraphs of text, it often happens that you change your mind over wording, or the order of paragraphs, and you decide that you want to alter something. The Edit menu provides a number of options which you can use to manipulate your text. However, before you can use any of the editing features you must have selected the section of text you want to alter. Here are the various ways of selecting text

- Word:** Move the mouse to the beginning of the word and double-click. As well as selecting the word, this will also allow you to replace it. Having double-clicked on the word, if you now try to type at the same position, you will find that the selected word will disappear allowing you to type in something new. Should you change your mind about the alteration, the Edit menu will allow you to 'Undo Typing' and this will restore the original word. This feature applies to any length of highlighted text.
- Line:** To select a line or several lines, put the mouse at the beginning of the line and drag it up or down. This method will highlight as many lines as you choose but you need to be fairly accurate about how you position the mouse as, if you are not careful, it will sometimes highlight lines you don't want to select. Dragging the mouse is also effective for selecting a few words on a line.
- Specific length:** If you want to highlight a specific area of text — a sentence or paragraph or number of lines, then you can do so by positioning the mouse at the beginning of the text and clicking. Move the mouse to the end of the text and press the Shift key on the keyboard whilst clicking on the mouse. This will highlight all the text between the two points.

After you have selected your text, if you click the mouse in any other position on the screen you will have cancelled your previous selection. Once you have selected your piece of text, you can then make use of the Edit menu to carry out the changes you want.

Edit menu

When you pull down the Edit menu you will see five different options — Can't Undo, Cut, Copy, Paste and Show Clipboard. Remember, these actions will only apply to the piece of text you have already selected. If there is no text selected, the options appear in fainter print to indicate that you cannot use them. Here is what the options can do. If you want to try them, select the last sentence of the letter which starts 'And there are. . .'.

Cut and Undo Cut

Move the mouse to the Cut option and release the pad. The marked text will disappear. Now go back to the Edit menu. Where before the top option said 'Can't Undo', it now says 'Undo Cut'. It is giving you the opportunity to change your mind. Choose that option and the highlighted text will reappear. If you go back to the menu again, you'll find that the top line now say 'Redo Cut'. I find this really does duplicate my thought processes quite often. I have decided to delete something, I delete it, then I think 'Was that the bit I wanted to delete?', I can call it back — 'Ah yes, that's it' and then I can delete it again. Even then, it is not actually deleted but stored in the Clipboard. We'll have a look at that in a moment.

Copy and Paste

Having cut and uncut a section of text, you will see that it is still highlighted. Instead of deleting the text this time, make a copy of it. Choose the Copy option from the menu. Once you have made a copy of the selected text, switch off the highlighting by clicking the mouse with the I-beam elsewhere on the screen. Now return to the Edit menu. The only options now in dark print will be Show Clipboard and Paste. If you choose Paste, a copy of the text will appear wherever the cursor is currently positioned. If the original text is still highlighted, the copy will be superimposed on it.

As with Cut and Copy, pasting will offer you the further option of undoing or redoing the paste action. Pasting can be useful particularly if you have a word or phrase that you want to repeat again and again. Such a feature would have been invaluable to me at university where I was writing papers on such people as Preobrazhensky and Nadezhda Krupskaya.

Show Clipboard

The Clipboard is the area in memory that the Macintosh uses to store the results of Cut and Copy commands. If you want to see what you last cut or copied you can look at it by using Show Clipboard. Although the Clipboard which you see on the screen is quite small, you are not restricted only to using it for small pieces of text. Just as with the other windows, it can be expanded and its contents can be considerably larger than those which are actually visible.

To remove the clipboard from the screen you can use the option Hide Clipboard. Each time that you cut or copy a new piece of text, the contents of the Clipboard are overwritten. This means you can only ever store one piece of text in it at a time. A more permanent way of storing information is in the Scrapbook which we will be looking at further on.

Shortcuts

Just as with the Finder menus, those in MacWrite also have alternative shortcuts for various facilities. On the Edit menu they are the same as in Finder — a combination of the Command key and a letter key to cut, copy, paste or undo an action. You will see which options have shortcuts — it is those which have the Command symbol with a letter beside it.

The Edit menu has quite a small range of options — in fact, it only has three real actions — Cut, Copy and Paste — each of which can also be undone. However, you can select any section of text you choose (from a single character to an entire document) which you can then manipulate as you like. This means that although the selection of editing options is quite small, you have a great deal of flexibility as to the range of text you can use them on. You will also find that Cut, Copy and Paste are used extensively not just in MacWrite, but also in MacPaint, and that they are invaluable for making use of the Scrapbook feature.

File menu

New, Open, Close, Save, Save As . . . , Page Setup, Print . . . and Quit are the options available on the File menu. Most of these are the basic file-handling operations which I discussed in Chapter 1. They are controlled by Finder, but when you are using MacWrite, it is much more convenient to have them readily available in MacWrite itself rather than have to exit before opening or closing files. You will find, however, that the same file operations can be carried out without having first to open MacWrite. If you try the same options on the Finder menu, Macwrite (or MacPaint) will automatically be loaded for you and a particular file, opened or printed or whatever. In this section I

am going to look at the options on the MacWrite File menu. I shall continue to use the example in Figure 2.2.

Print...

When you want to print something from MacWrite you have a number of choices to make — what quality print you want, whether to print part of the document or all of it, how many copies you want to make and whether or not you are using single sheet or continuous stationery. (See Figure 2.3) Here is a summary of what each of the options does

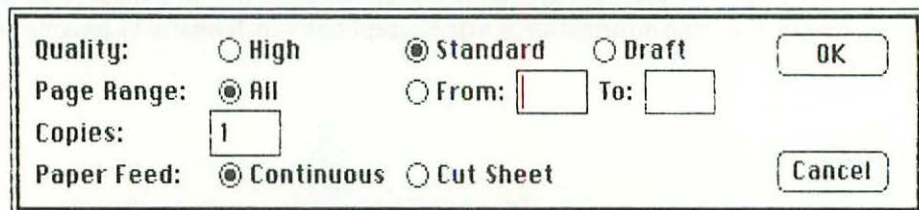


Figure 2.3: Print Options

- | | |
|-------------------|--|
| Quality | <i>High:</i> This is the slowest of the three quality options but in return offers the best appearance to the printed text because the print head makes a double pass over each row thus producing a darker print.
<i>Standard:</i> One pass is made of the line and, providing that your ribbon is in reasonable condition, it will give a presentable printout of your document.
<i>Draft:</i> This is for doing a quick printout of your document which is in a standard font and size. It does not take account of any changes you may have made to style or font. (Figure 2.4 gives an example of each of the different qualities.) |
| Page Range | You can either print an entire document or you can specify a range of pages that you want to print. |
| Paper Feed | The two options available here take account of whether you are using single sheets of paper or continuous computer printout paper. |

For the moment, just accept the default settings, Quality — standard, Page Range — all, Copies — 1, Paper Feed — continuous (unless, of course, you are using single sheets of paper).

When you are ready, you can go ahead and print. MacWrite will tell you that it is saving a copy of the printed document to disk. This can take several seconds, so don't

This is a sample of high-quality printing

This is a sample of standard-quality printing

This is a sample of draft-quality printing

Figure 2.4: Print Qualities

worry if the printing doesn't start immediately. Once the printing starts, MacWrite will tell you that if you want to stop you must press the Command key in conjunction with a full stop.

If the printer is not switched on when you go to print, MacWrite will act as though it was and give the same message and then revert back to normal working. If the printer is on but will not print, MacWrite will give the message 'The Printer is not responding. Check the cable, printer switches (*sic*) etc.' It then gives you the chance to check the printer and continue or to cancel the printing. In the second case it tells you 'This document can't be printed'.

Page Setup

To print out the small document which I have used as an example, I needed only the normal print settings. For larger documents there is an additional set of options to be found under the Page Setup feature. These consist of the paper options which allow you to change the width and length of the paper you are using and the orientation options which give you three ways to print your document — Tall (normal printing), Tall Adjusted (normal printing but with pictures correctly proportioned) and Wide (printing sideways on the paper for extra wide documents).

Close and Save

The letter you typed does not have a name at the moment. In order to close the file and save it on disk you must give it a name. (The close and save process can be done together). Choose the Close option from the File menu. Unless you have already saved

the file and have not made any changes to it since, Macintosh will respond by giving two short beeps and a window will appear asking you 'Save changes before closing?' and giving you three options — 'Yes', 'No' or 'Cancel'. Say 'Yes' and another window will appear.

Within this window are several options. You will also see a cursor in a box marked 'Save current document as'. MacWrite is asking you to give your untitled document a name. Type in any name you like.

I have found that much time and effort can be saved by making the name reflect the contents of the files as closely as possible. I called my file 'letters'. Now click on the Save box and after a few seconds you will be returned to an empty screen with the menu names at the top. (Remember that you have already opted to close the file).

If you want to store information about what your files or folders contain you can use the Finder option Get Info to write a brief file description so that you can identify what is in them. This can also be helpful if someone else is going to be using the files who is not familiar with what is in them. It can really save time particularly if you have been keeping your MacWrite document files on another disk.

I have found the Macintosh to be a very reliable machine, but it is not a good idea to rely on it totally — a power cut can wreak havoc with your data. It is therefore advisable to save your files quite often — once every half hour is probably safest. It is a good habit to get into, and saving the file doesn't necessitate actually closing it. MacWrite will save the file and then let you resume your editing. If you save quite frequently, a power cut or any other disaster will mean that you only lose a small amount of work which can quickly be redone.

Save to another disk

As the number of files you create increases, you will find that there is not enough space on one disk to accommodate them and all the system files you need to run MacPaint and MacWrite. Something like 350k of the space of the Write/Paint disk is taken up with system files and fairly soon after you start saving files on that disk you will start getting the message 'Disk is full'. This means you will have to start saving your files to a separate disk.

When you opt to save your file, you will see on the left of the Save box is an option which says Eject. This is to allow you to change disks before saving the file. Don't worry about how you are going to return to the original disk, MacWrite deals with all the disk swapping by a series of dialogue boxes telling you which disk it wants you to insert at any moment.

Saving to a new disk

If you are going to save a file to a new disk, that disk will have to be initialised before anything can be saved to it. Choose the Save option as normal and eject the Write-/Paint disk. When you put in the new disk, MacWrite will tell you that the disk is not initialised. It will ask you to confirm that you want to initialise it, and will ask you to give the new disk a name. A message will appear telling you that the disk is being initialised. When the process has finished, the file will be saved to the new disk.

Save As. . .

It is often the case when you are setting up files that you will want to save more than one version of a file. In this case you need to use Save As. . . which gives you the option of saving an already existing file under a different name.

If you try to save a file using a name which has already been attributed to another file, MacWrite will ask you if you want to replace the existing file, and will allow you to go back and alter the name.

Quit

When you have finished working with MacWrite, selecting Quit will return you to the Desktop display. You don't have to close your files when you opt to quit, because the Macintosh will give you the same options as it gives with Close. It will ask you if you want to save the changes you have made.

New and Open. . .

When you have closed your file, access the File menu once again and you will see that the first two choices are highlighted — New and Open. This is MacWrite offering you the option to open an existing file or create a new one. Choosing Open will give you a list of the existing files and you can then select the one you want to work on. In our case though, we are going to start with a clean slate, so select the New option. I shall move on to the Ruler and its associated icons.

The ruler

Earlier in this chapter I briefly described the ruler functions. In this section I am going to talk about these and provide practical examples of ways using each of them. **Figure 2.5** shows the Ruler and the different features it contains and you should refer to it as you work through the examples.

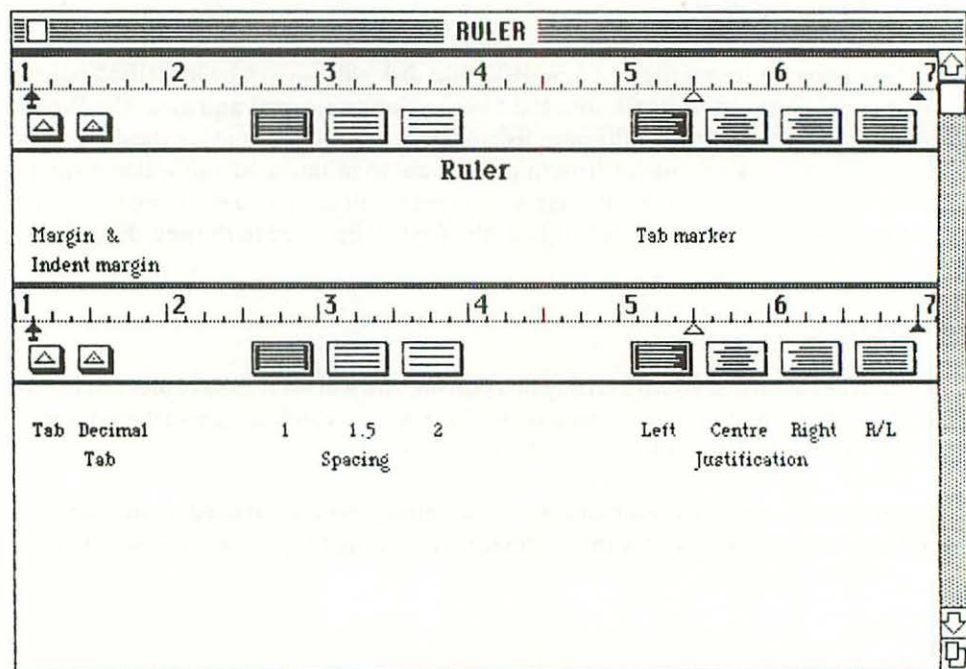


Figure 2.5: The Ruler facilities

Margins

Brooks' promotion of their new disks has been quite a success, but Mr Robinson of Robinson Computer Services is none too pleased with their product and has registered his complaints in a letter. In the cause of good relations, Brooks has sent him a courteous letter in reply. I have used their reply to talk about some of the features of the ruler. **Figure 2.6** shows Brooks' reply.

Just beneath the actual ruler markings themselves you will see three small symbols. The leftmost one resembles a black paper aeroplane, the middle one is a white triangle and the third is a black triangle. I shall talk about the middle one later but for now I shall concentrate on the other two, since they are the margin markers. If you want to see how to change the margins, begin by typing in the letter shown in Figure 2.6 with the normal settings in place. You can change them afterwards.

Indent

The margins are set by manipulating the markers on the ruler. The lefthand symbol is in fact two markers, one overlaying the other. One is the lefthand margin and the other

C.T. Robinson,
Robinson Computer Services
Hartley Road
Cranley Green

24/9/84

Dear Mr Robinson,

I was very sorry to hear that the disks you received appeared to be faulty. We have had a terrific response to our new disks and yours is the only problem we have encountered with them. We would like you to return the disks to us and we will either replace them or refund your money, whichever you would prefer.

Thank you for your letter, we always like to receive comments from our customers.

Your sincerely

Brooks Sales Manager.

Figure 2.6: Company's Reply

is an indent margin. Position the arrow on the symbol and drag it to the 1.5" mark. When you release the mouse pad you will find that only one of the icons has moved and the triangle has remained at the original point. You will also see that part of the text has moved as well. What has happened is that the Indent Margin has been moved. This margin is only activated when you press the carriage return key. MacWrite takes that to mean that you want to start a new paragraph and so allows you to indent the text.

Left

The lefthand margin position is marked by the black triangle. If you drag it right along the ruler, the left edge of the text will be repositioned at the new point.

Right

You can reset the righthand margin by dragging the triangle on the right either to the left or right along the ruler. The right hand edge of the text will be readjusted according to the positioning of the margin markers. To reproduce the style of the Brooks letter, I

positioned the markers at 2.5" (left margin), 2.75" (indent margin) and 6" (right margin).

Tabs

In order to illustrate how the Tabs work on the Macintosh, I am going to use the example of a list of the names and phone numbers of Brooks' distribution centres. The list is shown in **Figure 2.7**.

Distribution centre	Manager	Phone No.
Alderham	David Marshall	0982 7780
Bishopston	Barbara Howard	0342 9523
Cranley	Brian Jenkins	06792 4371
Fernton Green	Fred Briggs	0345 31920
Hartley	Graeme Patterson	0495 7395
Langton Biswell	Mohammed Sharef	0345 8932

Figure 2.7: Distribution Centre Phone Numbers

If you are not familiar with Tabs or tabulation, it is a method of setting markers in a document so that the text can be arranged in columns down the page. It is mostly used for lists. In MacWrite you can have as many tab markers as you like within the limit of the space available on the ruler.

At the 5.5" mark on the ruler is a small white triangle. This is a tab setting. As with the margin settings, it can be repositioned by dragging it along the ruler. Although only one tab setting is given when you start using MacWrite you can add others by using the tab icon which lies at the lefthand end of the ruler. It is the box with the white triangle in it.

In order to set up the list I needed two tabs so that I could put the information into columns. The list contains three columns — one for the name of the distribution centre, one for the manager and one for the phone number.

There was no need to put a tab for the first column since the margin setting marked the edge of the page. You do not need to adjust the indent margin since you want the text to be at the edge of the page. I left the original tab setting at the 5" mark and put a new one at the 3" mark. To do this you need to put the arrow on the tab icon and drag it to the point on the ruler where you want it positioned. Then release the mouse pad. If you go back to the keyboard and press the tab key (the key marked with the arrow pointing at a short vertical line) you will find that the cursor will jump to the position marked by the tab triangle.

If you want to remove a tab, place the arrow on it and drag it downwards away from the ruler. As soon as you release the mouse, the tab will disappear.

Decimal Tabs

Brooks has decided to put its price list onto the computer so that making changes to it will not involve typing the whole thing out each time any of the prices change. **Figure 2.8** is a copy of the list.

DISK	PRICE PER BOX		
	1-4	5-9	10+
Brooks S/S	14.00	13.75	13.25
Brooks D/S	24.00	23.50	23.00
Brooks Superdisk	35.00	33.50	30.00
Microtex S/S	16.75	16.00	15.25
Microtex D/S	24.75	24.00	23.25
Compudisk S/S	14.50	14.00	13.50
Compudisk D/S	19.50	18.50	17.50
Maxisector S/S	17.50	16.75	16.00
Maxisector D/S	26.00	25.00	23.00

Figure 2.8: Brooks' Price List

With the normal tab setting, the text in the column is left-aligned with the tab point. In the instance of the decimal tab the information is aligned around the decimal point so that a column of figures will be properly lined up. To put in a decimal tab you need to place the arrow over the second icon on the ruler (the triangle with the dot in the middle) and drag it to the point on the ruler where you want it. To create the price list, I put one at the 4.5" mark and one at the 5.75" mark. I also had to in normal tabs marks for the headings otherwise the text will be left-aligned at the position of the decimal tabs and look uneven.

Line spacing

In the middle of the ruler are three icons which represent different line spacing — single spaced, 1.5 and double spacing. To opt for a different spacing you just click on the appropriate icon and the current text is automatically changed. I normally stick to single spacing when I am typing in any document because to have wider spacing between the lines simply cuts down the amount of text you can have on the screen at any

one time. You can change the spacing when you print. For example, the new product letter above is quite short and may benefit from double spacing.

Justification

The four icons on the righthand side of the ruler represent four kinds of justification — left, centre, right and both sides. As with the other icons, you select the one you want by clicking on it with the mouse. Left or both sides justification is usually a matter of personal taste — whether you prefer a straight right edge or a ragged one. Right justification is not frequently used. Centre justifying, however, can be very useful especially for setting up headings for documents. To show how centring can be used I have taken the example of the invitation to visit Brooks' stand at the computer show which you can see in **Figure 2.9**.

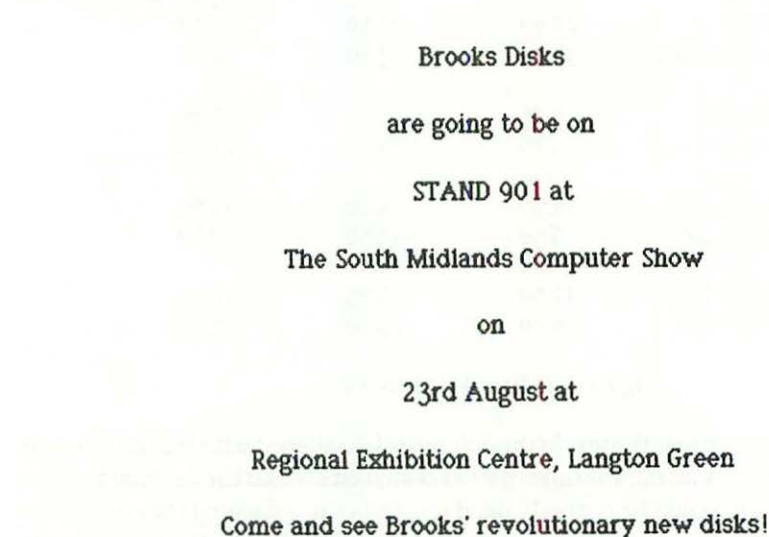


Figure 2.9: Exhibition Invitation

When you have chosen a particular type of justification it will also apply to tab settings as well so that the contents of columns will also have the selected justification. This can be useful if you want to centre your column headings or to align numbers at the righthand edge of the column.

Conclusion

This chapter has been primarily concerned with looking at the standard word processing features which MacWrite has. Some of the features are similar to those you would

find on a typewriter — for example, tab and margin settings and line spacing are standard typewriter facilities — but many others demonstrate the advantage of using a computer for word processing.

One of the most powerful features of using a package like MacWrite is that you are not typing onto paper but onto a screen. This means that nothing you do is committed to paper until you have decided that it is exactly as you want it. MacWrite gives you many ways of making changes and correcting your mistakes. Selecting and overtyping will cope with small spelling errors. Cutting and pasting will completely transform what you have written by reordering lines, sentences or paragraphs.

When your document is ready, you can then print it, but not before choosing how you want it to appear, what size paper you want to use, how many copies you want, what quality of printing you need. All you have to do is choose your option on the screen, and MacWrite will do the setting up for you.

After you have finished editing and have printed out your document, the computer then takes on the role of a filing system for you. It lets you save a copy of what you have produced in a file and stores it away on a disk for you until you need it again. A cumbersome filing cabinet is reduced to a series of 3.75" square disks.

Although these features are common to most word processors, MacWrite does have a distinct advantage in that it makes using them very simple. The choices are mostly visible on the screen as and when you need them. They are either icons or straightforward comments and questions. All you have to do is make your choice by pointing with the mouse.

So far I have concentrated on the facilities which will allow you to set up straightforward documents. You should by now be quite familiar with these and feel at home using the mouse and icons. I mentioned at the beginning of the chapter that Macwrite had a number of more sophisticated facilities and in chapter 3 I shall be exploring how these work and what they do.

CHAPTER 3

More on MacWrite

This chapter is mainly about making changes to the standard style, format and contents of MacWrite documents. You have already learned how to write a letter in MacWrite. Now you are going to see how to create more complex documents with more interesting designs, concentrating on the Search, Format, Font and Style menus.

Although word processing often involves a lot of keyboarding, writing long reports or mundane letters, there is also scope for imagination and inventiveness in designing the layout and presentation of various types of documents. MacWrite caters for this by having a wide selection of font styles and sizes for you to choose from. I am going to spend some time in this chapter looking at these features and ways which you can use them.

As well as using different types of lettering to make a document more interesting, changes of format are often needed to indicate different sections or points within a document, and generally to divide it up into more digestible chunks. Few things are more difficult to tackle than a long rambling reports, with long paragraphs and few headings. To overcome these problems, the text needs to be broken down. This may entail changing indentation, margins and justification so that different parts of the document are easily distinguishable from one another. These commands all have to be added to the document. In the section on document format I shall be talking in detail about how to add new formatting commands and alter existing ones.

In the last chapter, I talked about how to make changes to the contents of a document by cutting and pasting or by overtyping. MacWrite offers an alternative method of making changes to a document — by means of the Search menu. This menu enables you to go right through a long report or whatever and pick out all the instances of a word or phrase. It is for those times when you discover that Mr Lee's name is actually

spelt 'Leigh' and that his name occurs at least twenty times in your report. I am going to take the Search menu as my starting point for this chapter and spend some time talking about how to use it to make alterations to the text.

Finding and changing text — the Search menu

The Hadley Engineering plant is looking for a warehouse manager and the current manager has written an advertisement to appear in the local newspaper. **Figure 3.1** is what he produced. When he showed the advert to the firm's personnel director, it was pointed out to him that what he had produced was breaking the Sex Discrimination Act and he must change all references to 'he' and 'him' to 'he/she' and 'him/her'.

Hadley Engineering are looking for a warehouse manager. The applicant must be aged between 25 and 35. He must have at least and HNC in engineering and two years' experience. He will be required to handle all aspects of the running of the warehouse and will have 20 people working under him. The job offers tremendous prospects for career development for the right man.

Please write with cv to - Mr McAuley, Hadley Engineering, Swindon Road, Cranley or for further information ring Cranley 23560.

Figure 3.1: Job Advertisement

To do this on the Macintosh you need to use the Search Menu. It gives you two options — Find . . . and Change . . . Let's look at them in turn.

Find . . .

Find gives you the choice of finding a group of letters either as part of any word (Partial word) or as a complete word (Whole word). Let's take the example of the advertisement. One of the words which must be changed is 'man' which should read 'person'. Select Find from the Search menu, type in 'man' and choose Partial word. MacWrite now looks for the first occurrence of the three letters 'man' regardless of where they are positioned. In the case of the advert, the search will stop at the word 'Manager' on the first line. To find the word 'man' on its own by this method, you then have to continue to search through the rest of the document and every other word which may contain the 'man' letter combination.

It is particularly important to remember how Partial Word works, especially if you are doing a global replacement. If you had done that with the letter combination 'man', replacing it with 'person', you would have ended up with 'personager' in place of 'manager' on the first line.

Change...

In the advertisement, all references to 'he' must be changed to 'he/she' and 'him' to 'him/her'. Change will allow you to make these alterations. Take a look at **Figure 3.2** and you will see that the Change option offers you the following five options

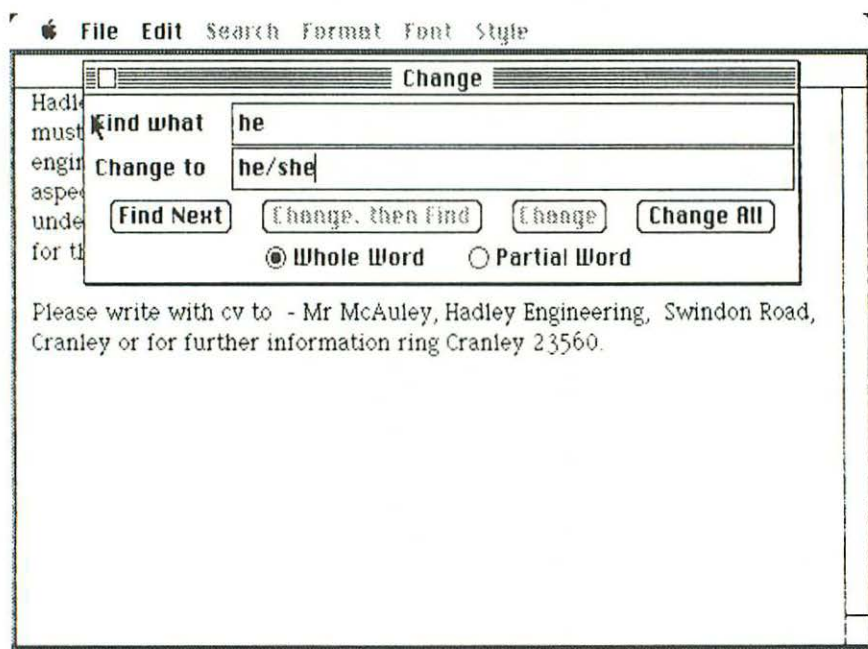


Figure 3.2: Change/Find Options

- 1) Find the next occurrence of the text. (*Find Next*)
- 2) Change the first one found, then go on to the next. (*Change, then Find*)
- 3) Change the currently selected incidence of a word. (*Change*)
- 4) Change all occurrences of the selected text. (*Change All*)
- 5) Use any of the four options above to find and change a whole or partial word.

In the case of the advert, I shall use option 4 to change all references to the whole words 'he' and 'him' to read 'he/she' and 'him/her' instead.

If you want to see how this works on the example I have given, I would advise you to move the Change window to the bottom of the screen, since I found that when it was at the top, it covered most of the text so I couldn't see what was going on.

Having chosen the option Change All, Macintosh will warn you that this is an irreversible change and lets you cancel your choice if you want to. If you are making changes

in a long document it is often worth going through changing each instance one by one. This is a bit more time-consuming in the first place than making a global change, but if you are not certain if you want to alter every single one of the words, then it will save time later on trying to find the occurrences which were altered by mistake.

As you become familiar with using MacWrite, you will discover that Find and Change are very useful commands and provide a quick way of altering words or phrases in your document. To take writing this book as an example, I found that I had been typing 'Macwrite' rather than 'MacWrite' so I specified that I wanted to make that a global change. Change can also be used as a way of making shortcuts in typing. To take another example, if you were writing about a subject with a particularly long name, you could put initials in the text and the full name could be inserted when the document was finished.

Another use for the Search options is if you want to reuse a document written for one particular subject or person which is equally applicable to another. One example which springs to my mind is that of Estate Agents' house descriptions where one week's 'Delightful Victorian cottage in the heart of rural Kent' becomes next week's 'Delightful Victorian cottage in the heart of rural Surrey' — all that changes is the photograph and, of course, the price.

Altering the document format

People ringing up to enquire about the job advertisement placed by Mr McAuley will be sent a copy of the job description part of which is set out in **Figure 3.3**.

When you are typing a long document which may run to several pages, you will often find that you will want to alter the format of the page. This could be to make the margins narrower to separate a particular point from the rest of the text, for example. You may want to make the page shorter, so that a heading is not separated from the body of the text to which it applies. As the document gets longer you will want to put in page numbers and maybe a page heading. MacWrite has the facilities to make these changes and to introduce additional features into documents. They are stored in the Format menu under the options Insert Rulers, Hide/Show Rulers, Show Header, Show Footer, Set Page #, Insert Page Break and Title Page. I am going to spend this section discussing how to put these features into a MacWrite document using the example of the job description which I mentioned above.

In the example of the job description, you will see in **Figure 3.3** that the format of the text changes several times throughout the page. At the top, the heading is centred and then the paragraph directly beneath is typed right across the page. The numbered points are indented slightly and most of them contain a subsection within narrower margins. Each of these different formats requires changes to be made to the ruler.

Hadley Engineering Company

September 7, 1984

Warehouse Manager
Job Description

This document constitutes the duties, obligations and responsibilities of the person employed by Hadley Engineering in the capacity of Warehouse Manager.

1. The Warehouse manager is responsible for the day-to-day running of the spare parts warehouse at the Barton Grange factory. This includes:

Maintaining tight control of the stock levels of the warehouse. Reordering parts as and when necessary.

Ensuring the prompt despatch of parts to any factory which requires them.

Disposing of outdated stock in the most appropriate way.

- 2) The warehouse manager must be responsible for all staff working in the warehouse. This includes:

Recruitment and training of personnel.

Settling any disputes which occur between people working in the warehouse.

Keeping a check on absenteeism and sick leave.

Dismissal of staff after written warnings.

Paying weekly and monthly wages.

- 3) It is the duty of the Warehouse manager to ensure the servicing, repair of all vehicles used by the warehouse. He/she is also responsible for the hiring or purchasing of new vehicles and the disposal of old ones.
- 4) The upkeep and security of the warehouse buildings and fittings are also the manager's responsibility. He/she must have regular maintenance checks made on the following:

Hadley Engineering Company

September 7, 1984

The roof and exterior walls of the warehouse.
The internal and external doors and the security locks.
The washrooms and staff changing rooms.
The state of repair of the warehouse shelf network.
The floor of the building.
All fire fighting equipment and alarms.
All light and heating fixtures.

The manager should be familiar with the relevant sections of the Health and Safety Act and should enforce those regulations at all times. Failure to do so could result in disciplinary action against the manager.

Figure 3.3: Job Description

Insert Ruler

In order to make changes at varying points in the text, it is necessary to add more rulers to the document. If you were to make the changes to the ruler which appear at the top of the document, each time you altered the settings, the entire document would change. It does not offer you the chance to make selective alterations at different points in your document. This is remedied by the Insert Ruler command, which allows you to put new rulers at any point in your document.

To add a new ruler, you put the cursor at the point where you want to alter your format and then select Insert Ruler from the Format menu. The new ruler is simply a copy of the ruler which appears at the top of the page or the last one you inserted. If you have made any changes to the standard set-up on it, these will appear on the new ruler and so you will have to alter them.

Here are the changes that I made to the job description format by inserting rulers at various points in the text.

- 1) At the very beginning of the document I selected the centre justified icon, because I wanted to have the headings appear in the middle of the top two lines.
- 2) However, I did not want the text itself to be centred, so I added a new ruler just below the heading. Issuing the Insert Ruler command brought me up a copy of the original ruler. The ruler still displayed centre justification and so I had to change this to left justification. I then typed in the first paragraph.
- 3) I then decided that I would like the numbered points to be indented a little way.

This meant inserting another ruler and moving the lefthand margin in to position 1.5 on the ruler.

- 4) When it came to listing the specific duties of the manager under this point I thought they might look better if the margins were narrower. I inserted yet another ruler which set the lefthand margin at the 2" mark and the righthand margin at the 6" mark.

If you are following what I did on your own Macintosh you will see that by now the screen has more rulers on it than text. Let's remedy that situation.

Hide/Show rulers

Unless I actually want to change any of the rulers, there is no point in having them displayed all the time — they just take up space unnecessarily. The Format menu contains the option Hide/Show Rulers. If the rulers are displayed, selecting the option will hide them and vice versa. At this point, you will probably want to tidy up your screen a bit and so hide the rulers.

Even though you have hidden the rulers, you will find that when you go to insert a new one, they will all reappear.

More about rulers

The job description example has quite a number of changes of format in it which need rulers inserted. However, many of the changes are really just swapping backwards and forwards between the same formats. Since each time you insert a ruler it has the same set-up as the previous one, to use the usual method would mean having to keep making the same changes. An alternative method and the one which I used, is to make a copy of the particular ruler you want to insert and instead of using the Format menu, using the Paste command of the Edit menu.

As far as MacWrite is concerned, the rulers can be treated in the same way as any ordinary text. That is to say, they can be selected (by clicking above the actual ruler markings), cut, copied and pasted. Just as with normal text, any edit command carried out on a ruler can be undone. Similarly inserting and changing a ruler can also be reversed by the same Undo/Redo option of the Edit menu.

Adding a header — Show/Hide header

The top lines of Figure 3.3 were not set up as an ordinary line of text but were created as a Header. I did this to ensure that the same line appears at the top of each page, but you

don't have to type it in each time. You will also see that there is a date displayed as well. This has been drawn from the system clock as you will see further on.

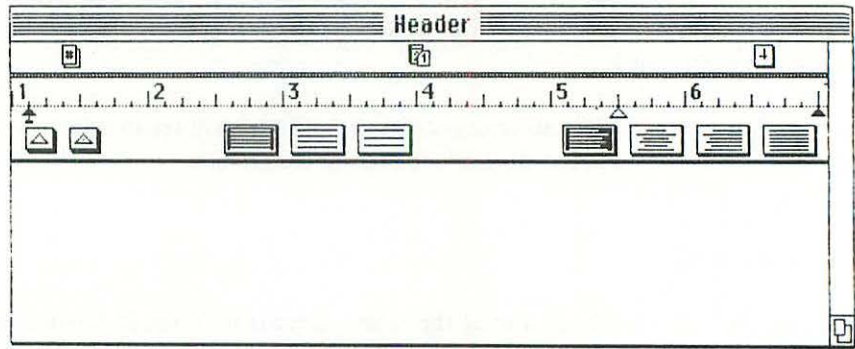


Figure 3.4: Show Header

If you select the option Show Header, you will be presented with a blank window divided into three (see **Figure 3.4**). The top part contains icons for the page number, the date and the time. You can incorporate any of these into your heading by dragging them onto main part of the window and positioning them on the top line of the main heading box. Beneath this first box will be a ruler (provided the Show Rulers option is in force) and you can format your header. In the main part of the window is the blinking cursor line which will allow you to type in text.

For my example, I chose the centre justification and typed in the words 'Hadley Engineering Company'. By setting this up as a header, I can ensure that it will appear at the top of every page. It is also a good idea to put one or two carriage returns after your header otherwise it will appear on the line immediately above the main body of text which looks too compressed.

I also added the date to my header. As I said above, the date is drawn from Macintosh's battery-operated clock. This is an ideal way of adding the date, since it will change automatically if you produce later versions of the same document.

If you don't want to have the Header displayed all the time you can use the Hide Header option to get rid of it. However, it must be displayed when you want to print otherwise it will not be included in the printing.

Adding a page number — Show Footer

Under the Show Header option I could have positioned the page number at the top of the page. I chose instead to put it at the bottom of the page. I did this by using the Show Footer option.

Show Footer gives you the same options as Show Header but will put its contents at the bottom of the page as opposed to the top. To put the page number in the footer, I used the mouse to drag the Page number icon into position in the centre of the page. When you drag the icon, MacWrite will only allow to put it on the top line of the footer. The same applies to the date and the time icons.

Set Page #

If you are typing a particularly long document, it is often more convenient to divide it up into a series of smaller documents. This makes it quicker to move through a document or search for something. However, when it comes to printing the document you may want it to look like one continuous piece of work. At the beginning of each document the page number is automatically set to 1. To alter this, you can use the Set Page # option which will simply allow you to put in a new number for consecutive documents.

Insert page break

I found when I was typing in the job description that the end of the first page came right in the middle of a list. As this looked rather messy, I put in a page break at the beginning of the list so that it all appeared on the next page.

Title Page

If you do not want the header and footer to appear on the first page you can simply select the Title Page option. When you do this, a tick appears beside the option to tell you it is in force. Selecting the option again will turn it off.

All the Format options give you a great deal of control over how your documents will look. You can change the margins, tabs, and justification as often as you like, and then change your changes if you want to. Once again, you are not committing yourself to paper and so you can make as many alterations as you like.

Changing the page format is the most significant option on the Format menu, but it also gives you the chance to make some useful minor additions and changes to your documents. Adding Headers and Footers to the pages of a document is a way of supplying extra information for whoever has to read it. Being able to insert page breaks and change the page numbers are also useful features, which can improve the presentation of documents. I am going in the next section to talk about other means of changing the appearance of a document, through using the Font and Style menus.

Different Fonts and Styles

Joanna Davies has seen Hadley's advert and has decided to apply. She has written a short curriculum vitae to send. I am going to use it as an illustration of different fonts and styles in MacWrite. The curriculum vitae appears in **Figure 3.6**. However let's begin by looking at the fonts and styles themselves.



Figure 3.5: Fonts, Styles and Sizes

Selecting the Font menu will present you with a list of names of cities — New York, Geneva, Toronto, Monaco, Chicago, Venice, London, Athens and San Francisco. Each one uses a different font. Take a look at **Figure 3.5** to see what each one looks like. As you can see they vary from the very plain to the extremely ornate.

In the same figure you will see that, as well as illustrating the fonts, I have also given examples of the Style features which are available. These include Plain Text, Bold, Italic, Underline, Outline and Shadow. You can combine any number of these including all five of them. Selecting Plain text will always switch off any of the other options.

The Style menu also gives you the option of changing the size of the lettering. It gives a range from 9 point up to 24 point. The standard size is 12 point but you can change it at any time and certain of the fonts and styles look better in the larger sizes.

The example I have used is that of a c.v. where I have combined different sizes of characters. I changed the size by selecting a different point option from the Style

menu. You can alter any of the features at any point in the document and there is no limit to the number of combinations you can have. Depending on the combination of style and font you choose, MacWrite will suggest the best point size for that combination. Its suggestion will be the point sizes which are outlined on the Style menu rather than in black type.

Curriculum Vitae

Personal Details

Name: Joanna Davies *Age:* 31 *Date of birth:* 22.3.53

Address: 52, Manor Road, Cranley, CR3 7AT.

Phone No. Cranley 9271.

Education

1964-71	Cranley School for Girls	'O' levels in French, Music, Maths, Physics, Biology, History, English. 'A' levels in Maths, Physics and English.
1971-75	Cranley Institute of Technology	BSC Engineering.

Employment

1975-83	Bridgley Road Haulage	Warehouse supervisor - This job entailed being in charge of all aspects of the stock control of the warehouse. I was made redundant when the company went bankrupt.
1983-84	Grant's Furniture Co.	Stores supervisor - I have been working on a temporary basis whilst looking for a permanent job. I have to give one month's notice.

Figure 3.6: cv for Warehouse Manager Job

For setting up the c.v. I used the following features

- The heading was done in Geneva font, 14 point, emboldened and underlined.
- The sub-headings were Geneva font, 14 point, emboldened.
- I italicised the prompts in the personal details section and used 12 point. I used ordinary style, Geneva font, 14 point for the details themselves.
- For the majority of the other details I used the standard point size 12 and normal

style text, emboldening only the exam and job titles.

Once you have selected your styles, you are not permanently committed to them. It is possible to change them later on. You can do this by selecting the piece of text whose style you want to change and, while it is highlighted, making different selections from both the Font and Style menus. You can experiment with the different fonts and styles until you have found one which suits the purpose best. Here are two examples of documents I talked about previously and which have had changes made to them subsequently.

- (i) Earlier I talked about the Warehouse Manager's advertisement. The current manager decided to put the advertisement on the staff notice board in case anyone wanted to apply internally. So that it would stand out a bit more he changed the font sizes and did some alteration to the text. The result is in **Figure 3.7**.

Hadley Engineering
are looking for a
Warehouse Manager.

The applicant must be aged between 25 and 35. He/she must have at least and HNC in engineering and two years' experience. He/she will be required to handle all aspects of the running of the warehouse and will have 20 people working under him/her. The job offers tremendous prospects for career development for the right person.

Please write with cv to - Mr McAuley, Hadley Engineering, Swindon Road, Cranley or for further information ring Cranley 23560.

Figure 3.7: Job Advertisement

- (ii) As well as being very useful, the ability to change character styling and sizes can be good fun. It's also a great way to save money on all kinds of fancy printed cards — you can create your own. If you remember, in Chapter 2, Brooks' was sending out invitations to their exhibition stand. To show how you could use style changes to good effect, I have taken the original invitation changed the font to San Francisco and increased the size of the lettering to 18 point. It is illustrated in **Figure 3.8**.

Brooks Disks
are going to be on
STAND 901 at
The South Midlands Computer Show
on
23rd August at
Regional Exhibition Centre, Langton Green
Come and see Brooks' revolutionary new disks!

Figure 3.8: Exhibition Invitation

Conclusion

I have covered virtually all the facilities available in MacWrite now. I was concerned in this chapter with showing you how MacWrite supplements basic word processing features with a large range of additional features which make it a unique package.

I talked first of all about making minor changes to words or phrases in the text by using the Search menu — this will help you to correct your more consistent mistakes — one of mine is a chronic inability to type the word ‘which’ correctly. I usually end up with ‘whcih’. As I can more or less be sure of missing some instances of this on the way, it is really helpful just to be able to make a global change.

Being able to alter the page format is another very important feature and one which is certainly not unique to MacWrite. What is different about MacWrite in this respect is that it makes making changes very simple. So often altering tabs and margins is a complicated business in word processing packages. Going back to alter them can take a considerable time as you search for hidden control characters in the text which then have to be painstakingly moved or removed.

I have found that MacWrite's greatest potential lies in the ability it has to change fonts and letter sizes. The constraint in many packages lies in the fact that the variety of text available is so limited. Bold and underline are often as far as they stretch and characters per inch is their only way of altering the size of the lettering. Different fonts are often only available with much alteration of printer switches, sending of Escape codes and even purchasing special cartridges. MacWrite gives you a whole range of fonts and sizes with one or two clicks on the mouse.

In this chapter I have shown only the basics of how these facilities work, with some small examples of how you can introduce them into simple documents such as an invitation or an advertisement. They can however, be very powerful and you can enjoy experimenting as much as you like. I am going on in Chapter 4 to look at applications where you can make full use of them for a range of business purposes.

CHAPTER 4

Applications using MacWrite

As well as giving you a chance to practise using the features described in chapters 2 and 3, I shall also be introducing some of the ways in which you can use Finder features in MacWrite. The main theme of this chapter, however, is how to use MacWrite to set up a series of what I call standard documents. I have used the next section to describe what I mean by this and to illustrate with several examples of the types of documents you can produce.

Standard documents

In business, a large proportion of correspondence seems to revolve around sending out letters whose theme runs thus:

Dear Sirs,

We thank you for your enquiry but we regret we are unable to help . . .

Yours faithfully . . .

No one needs advice on how to write such letters, but they do constitute a particular kind of document for which MacWrite can be extremely useful — the standard letter. A company may have many enquiries which it is not able to answer positively. A few lines stores in a file on a disk can have a name and address added to them to make a perfectly adequate, if negative, reply to an enquiry.

Standard letters and other documents need not be restricted to short letters as illustrated above but can be detailed and fulfill a wide variety of different purposes. In essence, what standard documents do is help you to save time in typing while retaining the illusion of individually produced, personalised pieces of work.

In this chapter, I shall be exploring a number of the possibilities which setting up standard documents can provide for business purposes. As well as looking at writing letters, I shall also be taking some examples of setting up standard skeletons and forms.

One of the most useful facilities of Finder in setting up standard documents is the Scrapbook. So, before I start giving examples of ways to create the documents, I am going to make a slight detour to talk about the Scrapbook, what it does and how it works.

Scrapbook

Whenever you want to cut or copy anything in MacWrite, the text is stored in the Clipboard. The contents of the Clipboard will always be overwritten by the next piece of text you cut or copy. Scrapbook is similar to Clipboard in that you can store information to it, but it has the advantage that what you store is kept permanently. It can keep information from both MacWrite and MacPaint and, as you will see later, this information can be transferred from one to the other.

Each item is kept individually. You can browse through the contents of the Scrapbook by using the scroll bar at the bottom of the window. Any text which you store in the Scrapbook will not have any style or font changes displayed. Don't worry about this, they will be restored once the item is pasted back into a MacWrite or MacPaint document.

Since Scrapbook stores the information permanently, this means that you can keep pieces of text which you can use again and again in different documents. This can be very useful in building up what appear to be personalised letters from a series of standard pieces of text. In the next section I shall be showing you how this can be done to good effect.

Standard paragraphs

G&G Investments is a small company which invests people's money for them in a variety of Bonds, Units, Shares etc. To keep in personal contact with investors, they like to tell them how their investments are doing each month. They have about ten different funds in which they invest, so each month they write a short paragraph about each. Not every customer invests in exactly the same funds, so G&G keeps the paragraphs as separate items and then brings the relevant ones into each letter.

Look at the letter in **Figure 4.1**. It has been constructed from several of these standard paragraphs. Mrs Murray invests in three funds — Far Eastern Oil Bonds, Eurogold

Units and Korean Precious Metals and so those are the only paragraphs which will be included in her letter.

Monthly Report

Dear Mrs Murray,

I am writing to give you a report on the progress on your investments with our company.

Far Eastern Oil Bonds have had a very good month with substantial gains on the Hong Kong Stock Exchange despite strong pressures from other companies. We feel that this upward trend is likely to continue for the next few months.

Trading in Eurogold Units has been quite slow for the past few months but with the rise in interest rates they will certainly rise sharply in the coming weeks and you will begin to see marked improvements in their returns.

Korean Precious Metals are continuing their steady rise and have been providing most satisfying results for their investors. We look forward to a continuation of this boom.

Please find enclosed a copy of our Investors News bulletin which will keep you up to date with new developments and investment possibilities.

Yours sincerely,

G&G Investments Ltd.

Figure 4.1: Standard Letter to Investors

To construct these paragraphs on the Macintosh, each one can be typed on the MacWrite screen and then cut and pasted into the Scrapbook. When you do this, Scrapbook is treated exactly like a file and the text is transferred to and from it via the Clipboard using the Edit options.

When you want to set up a letter with the standard paragraphs you should copy them from the Scrapbook, then close it and paste them into the document you are currently working on. Since the letters are really just for the sake of good customer relations and the information they contain is not particularly vital, there would be no need to save the individual letters. After you had printed one letter, you could use the same file to recreate the next just by substituting the new customer name and the required paragraphs.

Standard clauses

Just as G&G were able to take advantage of the Scrapbook facility for their standard paragraphs, so the same facility can also be of great use for preparing contracts. Although a contract may have some points which are unique to it, other standard clauses are usually added. Such clauses will cover things like indemnity or bankruptcy — instances where the procedures would generally be the same.

3. Indemnity

Each party shall indemnify and keep indemnified the other against injury (including death) to any persons or loss of or damage to any property which may arise out of the acts, default or negligence of any such party's employees or agents in performance of such party's obligations under this agreement and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, provided that AMV shall not be liable for nor be required to indemnify you against any compensation or damages with respect to loss of profits or consequential loss howsoever caused or arising.

4. Termination

Without prejudice to any other rights AMV may have in the event of either party becoming bankrupt or making an arrangement with its creditors or going into liquidation, or upon any breach of you by your obligations which is incapable of remedy or if capable of remedy is not rectified within 14 days of being brought to your attention by AMV your licence shall thereupon terminate.

Figure 4.2: Standard Contract Clauses.

In **Figure 4.2** I have shown examples of two such standard clauses. Although I have actually numbered the clauses and they refer to a specific person (AMV), both the numbers and the name can easily be changed (a straightforward global change will replace all instances of the original name in one go) so that the same clauses can be incorporated into any document.

Although I would normally rely on lawyers to draw up original documents for me, I have also found that I have taken what was prepared by them and adapted it for other purposes using the parts I needed and cutting out the ones I didn't. Having the Macintosh makes this very easy as I can keep various useful clauses to add to other documents I have devised myself.

Standard forms

Designing forms in MacWrite can be a big advantage in two ways. Firstly, it means that, unlike preprinted forms, you are not in danger of accidentally running out of them through forgetting to order more. Secondly, with the form actually stored on the computer you can type the details straight into it, you don't have to worry about getting the page positioning right. If you make any mistakes they can be altered on the screen before the document is printed and you won't have ruined a printed form and the four carbon copies that usually come with it.

I have used MacWrite to set up the skeleton for an invoice, with the correctly positioned tabs and headings and then I used a couple of the Finder facilities to help with adding the details. **Figure 4.3** shows the skeleton invoice.

Invoice No.				
Item	Description	Price	Qty	Total
Subtotal				
VAT				
Total				

Figure 4.3: Skeleton Invoice

The basis of setting up the invoice skeleton was to insert several Rulers to centre the line which reads 'Invoice No.' and to insert the tabs for the columns where the invoice details will be entered. I marked the righthand column with a decimal tab so that all the figures would be aligned correctly.

I used Finder's Alarm Clock facility to put the date at the top of the page. As with most of Finder's facilities, it is possible to copy and paste information from the Alarm clock into a MacWrite document.

Another feature of Finder which can be useful for setting up an invoice is the calculator. Thanks once again to the fact that you can copy and paste from it, I was able to use it to do the calculations required — I multiplied the price by the quantity to get the total which I then copied to the Total column and the Subtotal space. With the result of the multiplication still stored in the Calculator I calculated the VAT by multiplying it by .15 (unfortunately, the Calculator has not got a percentage function). Once I had inserted this figure in the invoice, I added the original total to it and the invoice details were complete.

I could probably have done the calculations on my ordinary pocket calculator just as quickly, but the advantage of having the built-in facility on the Macintosh is, from my point of view, that it reduces the possibility of errors creeping in through figures being wrongly copied from the calculator to the machine. The less room for error the better as far as I'm concerned and if this cuts down on invoices being queried and payments delayed then it can be quite an advantage. **Figure 4.4** shows the finished invoice.

Marchant Co. Ltd.,
Green Lanes
Cranley.

30/07/1984

Invoice No. 2750

Item	Description	Price	Qty	Total
1	Bifurcated Rivets	.50	500	250.00
Subtotal				250.00
VAT				37.50
Total				287.50

Payment terms: 28 days.

Figure 4.4: Invoice

Of course, you are not restricted to using this type of set-up just for invoices. Purchase Orders, quotations, credit notes and so on all need calculations in them and once you have set up the basic format for one, it is not very difficult to make the minor alterations necessary to transform an invoice into a purchase order.

Using the Special character set

Choose the Apple menu and select the Key Caps option. Now press the Option key on the actual keyboard. You will see that the character set on the Key Caps keyboard changes to reveal a different set of characters. The characters are a mixture of Greek letters, mathematical and other symbols and accents used in foreign languages — for example a cedilla on the c, a grave accent, umlaut and circumflex. These are not the kind of symbols that you would use everyday but they can come in handy if you have to write letters to foreign companies.

In **Figure 4.5** there is an example of a letter written in French which illustrates the use of some of the special characters.

Paris, le 4 août.

Messieurs,

Nous vous remercions bien de votre lettre du 12 juillet. Nous avons bien considéré votre proposition concernant l'Exposition International de Commerce. Cependant, nous avons décidé que nous ne sommes pas un assez grand commerçant d'y mériter notre assistance.

Veuillez agréer, Messieurs, l'expression de nos sentiments les plus distinguées.

Paul Mercier et Frères, Paris.

Figure 4.5: Letter in French

The characters used in the example are an acute accent, a grave accent, a cedilla, and a circumflex. These characters are stored in a number of different places on the keyboard and you need the following sequences of key presses to access each one:

- Grave accent:** this is stored on the key directly above the righthand shift key. Press it and then press the letter over which you want it to appear. It will only appear in the correct position over a vowel and after you have pressed the letter, so don't worry if it doesn't appear immediately.
- Acute accent:** to get an acute accent over a vowel, press the option key and the letter 'e' at the same time. Then press the 'e' key again to put an accent over the e.
- Cedilla:** the cedilla only appears on the letter 'c' so that the combined character will be typed when you press the option key in conjunction with the 'c' key.
- Circumflex:** the circumflex is stored as Shift 6 and will appear over the next vowel key you press after the shift 6 combination.

If there are any occasions where you want to use a character which is not on marked the Macintosh keyboard, then using Key Caps will reveal to you whether or not that character is available. Not every font style will allow you to use all the special characters and if a character is not accessible it will be replaced by a blank square.

Further ideas

In this section I am not going to go into any detail on how to set up the examples since I have covered all the features of MacWrite. The examples are there to provide more

ideas of ways in which you can use MacWrite for all kinds of documents which you probably use everyday.

BROOKS DISKS LTD.

ORDER FORM

Company Phone No.

Address

Item 1 Size.....
 2
 3
 4

Delivery Date:.....

Authorised signature.....

Position..... Date.....

Figure 4.6: Order form.

Order Form

Figure 4.6 illustrates how to set up a customer order form and it could be used as an addition to the price list. To add it to the bottom of the price list you would have to first of all put a copy of the order form into the Clipboard (or the Scrap book if you wanted to use it again) and then open the price list file and paste it onto the bottom.

Newsletter

To produce the company newsletter shown in **Figure 4.7** I made use of different font sizes to set up the headings. If you have a document which is broken down into various sections and subsections, it can be helpful to use different font sizes to indicate the levels of each section — starting off with a large font for the major heading and decreasing the heading size with each level down.

B&G Investments News Bulletin

Apply now for Gold Shares

The major news for investors this month is the British National Gold Corporation is offering its shares to the public for the first time. This news comes after weeks of speculation about the corporation's future after the government announced it would be sold off 'in the very near future'.

The shares are to be sold at £1.50 each and BNCG should raise something like £75 million from the flotation. With the current situation on the gold market, we feel that an application for some of these shares could prove to be a good investment.

Gilt Investments

Although Gilt are not the most exciting of markets they do provide a safe haven from the more precarious equity market. They are also expected to provide useful profits over the next twelve months including a dividend on the funds.

With tax changes affecting the short dated stocks, the better investment at the moment would appear to be the medium to long term stocks.

If you are interested in either of the above two areas, please let us know and we shall be happy to purchase units for you or send you details of investing through bonds.

Figure 4.7: Investors News Bulletin

Memo

Memos are easy to produce using MacWrite. In my example (Figure 4.8), I have used the Show Header facility to set up an extra heading and to give the date. This means that on a memo which ran to more than one page, it would appear at the top of each page. To illustrate the often hurried nature of the production of memos I have used the draft quality print option which produces a smaller sized type and plain font. It also cuts out the process of saving a printed copy before printing and it prints much more quickly.

Private and Confidential - for authorised personnel only December 12, 1984

Memo

To : board of directors.
From : A.J. Burlington, Chairman.
re : proposed takeover bid by Blandford Trust.

Last Friday, I received notice of an attempted takeover bid by the giant Blandford Trust for the Hadley Engineering Company and its subsidiaries.

At the present moment I do not feel that such a bid would be in the best interests of the company and I would advise the board strongly to reject any advances made to them from Blandford.

In light of this offer from Blandford I wish to call an extraordinary board meeting for Friday 31st August at 2.00 p.m. when we can discuss this matter further.

In the meantime, I would request that the board members not discuss this matter with anyone to avoid any adverse effect on our already delicate position.

A.J. Burlington.

Figure 4.8: Confidential Memo.

Conclusion

As you will have seen by now, MacWrite has great versatility. In chapter 2 I started by talking about a short letter. As I went on to explore the different functions in MacWrite, so I introduced more complex types of document to illustrate them. Each example was designed not only to show how to use a particular feature but also to give you ideas on ways in which you could apply MacWrite's facilities to your own needs. With that in mind, I looked not only at letters, but lists, invitations, adverts and other equally practical documents.

In this final chapter on MacWrite on its own (I shall be looking at combining MacPaint and MacWrite in Chapter 8), I have concentrated largely on the types of documents you can produce. I put the main emphasis on giving examples of what word processors are best at — producing standard documents. No matter what type of business you run, there is always a need for some kind of standard document — the stock reply to

failed job applicants, the personalised information sent to customers, skeleton forms for invoices and so forth.

Some types of standard document can simply be printed out once and then photocopied as often as needed. However, others remain more or less the same each time you use them but need minor adjustments — like changing names or dates or figures. In these cases you are not cutting out the need to do some editing, but you are making it quicker to produce the individualised documents because you already have the bulk of the document prepared.

Another kind of document I looked at in this chapter was one which was made up of a selection of standard elements. Such a document or letter may be made up entirely of prewritten paragraphs, as with the example of the investors letter, or of some specially written parts combined with some standard elements, for example a legal document. Once again, the main aim is to cut down the amount of time you have to spend preparing documents. Of course, you still need time to collate a letter made up of prewritten standard paragraphs, but you don't need to type in all the details again and again. This not only reduces the time spent typing but also the scope for making errors.

Some other features of MacWrite are perhaps not so immediately apparent as those which appear in the menus and on the Ruler. These are features that are kept on the Finder menu. You may have thought of them as being part of Finder but not necessarily being directly applicable to MacWrite. Scrapbook is probably the one feature which is most obviously useful. However, as I illustrated in this chapter, facilities such as Calculator, Alarm Clock and Key caps can be used to good effect in setting up documents like invoices and foreign letters.

In these three chapters, I have really only begun to look at the ways in which you can use MacWrite. What you will have discovered is how simple it is to use and how versatile its facilities are. I hope also that I have provided you with some ideas of when and where you can use MacWrite and that you will build on those ideas yourself and apply MacWrite's features to all the documents you want to produce.

CHAPTER 5

Introduction to MacPaint

MacPaint is an ingenious program which allows you to draw all manner of pictures, diagrams, shapes and designs. When I first used it, MacPaint reminded me rather of one of those drawing toys that are made for children, but to describe it as such is to underestimate its facilities. Certainly, it can be great fun to play with, but MacPaint also has a huge number of very practical uses as you will be finding out. In the next three chapters, I am going to be exploring not only how the individual features of MacPaint work, but how you can use them for a wide range of business purposes. I shall be showing you how to use it to draw flowcharts, company logos, and scale diagrams as well as giving you ideas on how to develop your own designs.

This introductory chapter is going to concentrate on how MacPaint works and how to use some of its basic features. Although most of the features of MacPaint are fairly self-explanatory, learning how to use them effectively takes time. You need some practice to be able to manoeuvre the mouse with sufficient accuracy to achieve good results, so look on this chapter as being a practice session to get you familiar with the MacPaint facilities.

The MacPaint screen

When you enter MacPaint, the screen appears as in **Figure 5.1**. At the top is a list of the available menus — these should be familiar from using MacWrite with the exception of the Goodies menu. I shall be talking about what each contains as I go along. Down the side you will see the most important aspect of MacPaint — the tools, each of which allows you to draw some kind of line or shape. In the bottom lefthand corner is a selection of lines of different thicknesses — these are the different borders you can put around your shapes. Along the bottom of the screen is a whole series of patterns —

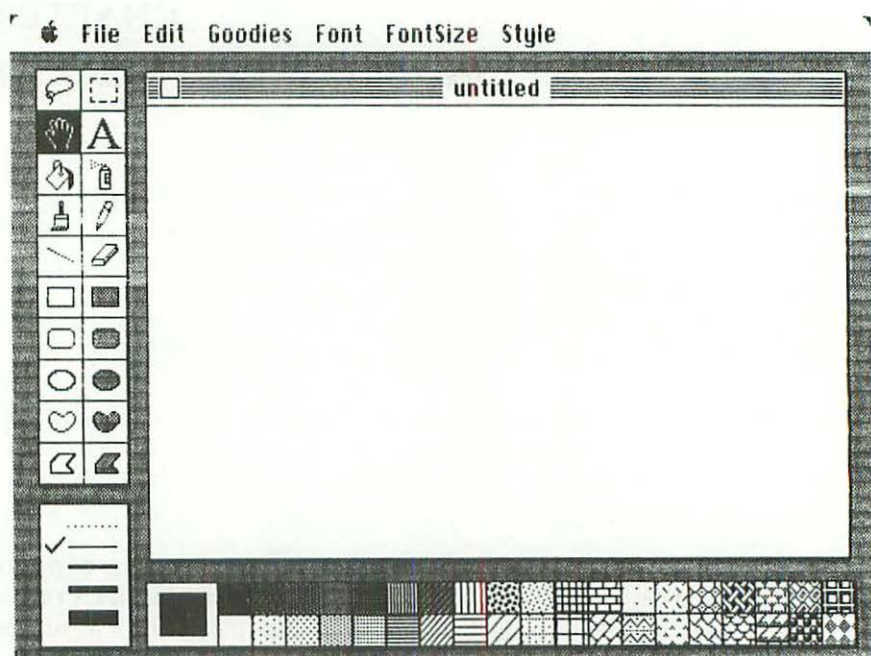


Figure 5.1: MacPaint Screen

they are used in conjunction with several of the main tools. Finally, the main area of the screen is the drawing window.

The drawing window

Although the MacPaint window looks quite similar to the other Macintosh windows it functions slightly differently. You will notice that the scroll bar and the box to enlarge the window are missing. Similarly if you try to move the window by dragging it, nothing will happen. The position and size of the window are fixed. This is because of the constraints imposed by the tools, and other boxes, which surround it. They are permanently displayed. Of course, this does not mean that the size of your drawing is limited to the current area displayed by the window. In fact, the window exposes just one part of a much larger page which is at your disposal for drawing. When you come to draw something a little further on you will see how to use the Hand tool to move the window to different areas of the page and also how to look at the whole page.

The tools

MacPaint gives you twenty tools to work with and they are mainly for drawing different lines, shapes, text and shading. They also include options to erase the screen, to

move the window to select individual items on the screen, and to make changes to them. I shall be describing each of these in some detail. For the moment, however, I just want to look at how to access each of the tools and how one is distinguished from another.

When you first enter MacPaint, the Paintbrush tool is always highlighted. If you move the mouse arrow onto the main window, it changes to a small black dot. Just moving the mouse around the screen won't actually draw anything. Nothing will happen until you press on the mouse keypad. Once you start dragging the mouse, it will begin drawing shapes and lines following the directions in which you move the mouse. In the case of the Paintbrush, it will draw a thick black line on the screen.

In order to change tools, you put the mouse arrow on the one you want to use and click. That tool will immediately be highlighted and the pointer used on the window will change. Try clicking on the pencil icon and then move on to the window. You will see that the pointer has now taken the form of a pencil.

Borders

MacPaint gives you a choice of five thicknesses of line that can be used for the borders of shapes. If you select the top option of the five, the dotted line, any filled shape you draw will not have any border.

Patterns

There are 38 patterns to choose from in MacPaint. They are displayed at the bottom of the screen, with the current pattern displayed in the larger box at the beginning of the row of patterns. When you start using MacPaint this pattern will be plain black, but it can be changed at any time simply by clicking on the appropriate pattern box. Whichever pattern you choose will be the one which fills shapes or colours any lines drawn with the Paintbrush.

You can also edit the existing patterns to create your own, although for the most part, I have found that the range already available is quite extensive enough.

The menus

Six out of the seven menus will probably be familiar to you from Finder and MacWrite. They give most of the same options with certain additions. For example, MacPaint has some larger font sizes than MacWrite and the Edit menu has options which allow you to turn your drawing sideways or upside down. The only menu unique to

MacPaint is the Goodies menu which gives you a range of options to let you edit patterns and drawings.

The menus, tools, patterns and borders are the components which make up MacPaint. You will find that from the basic components it is possible to create a huge number of different combinations. In some instances, different combinations of tools and patterns in fact produce the same results and, as you become experienced in using MacPaint, you will find yourself using some combinations more than others. I do not intend to cover every one of them. My aim is more to show you how to use the main one and to give you ideas on what to use them for. From that point, you will be able to go on to develop your own ideas on using the other features. For the moment, however, let's go back to the basics and first, a little drawing practice. Get your pencil ready.

MacPaint gives you several ways to draw lines — Pencil will draw thin, free-form lines, Paintbrush draws free-form lines of varying thicknesses, shapes and patterns according to the brush shape and pattern you select. Lines will draw straight lines of any length. I am going to look at how to use each of these in turn.

Pencil

When you are using Pencil, every minute movement, every slight wobble of the hand, is faithfully recorded on the screen. The very thin line shows up changes of direction, however small. Because it is so sensitive, it is a good way to get used to moving the mouse around accurately.

First try writing your name on the screen. If it looks anything like my first effort it will probably look like a seven-year old's first attempt at joined-up writing.

If you did attempt some doodling on the screen you can quickly get rid of the evidence by using the Eraser. The Eraser will allow you to rub out sections of a drawing by using it rather like a blackboard rubber, or double-clicking on the Eraser icon which will clear the whole window.

For some real practice at drawing accurate lines. I chose the example of tracing a map of Great Britain. As well as being a way of illustrating the use of Pencil, it will show how to use certain other tools to build up a map. I am going to take a skeleton map and gradually build on it, so that, by the end of the chapter, it will be divided up into the different sales areas throughout the country and will show who manages each area in the Hadley Engineering Company sales department. I started to build the picture up by drawing the basic outline of the map which is shown in **Figure 5.2**.

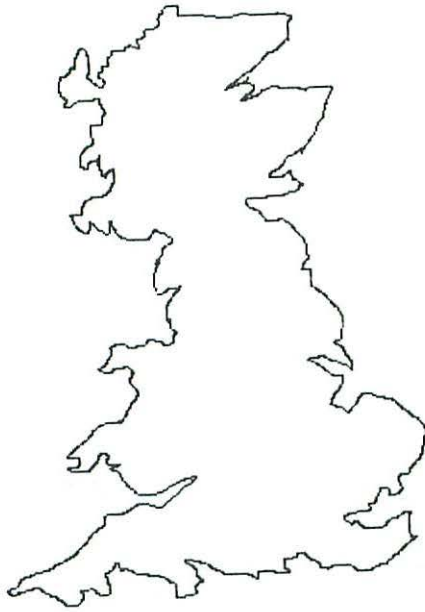


Figure 5.2: Map outline

Solving problems

It took me three or four attempts to get the map to resemble the shape of Great Britain. I found that I had several problems to overcome, and corrections to make to my picture. Since the ways of correcting pictures are applicable to all the methods of drawing, I am going to take a look at them now.

The basic problem I had was getting the shape right — I had to keep making adjustments to the lines. I have already mentioned Eraser as one method of correcting mistakes but, as you may have discovered, it rubs out a large area at a time and it is not always possible to erase as accurately as you might like. To get greater accuracy you need to enlarge the picture and see exactly what you are doing.

Fatbits

You may have seen this option on the Goodies menu. As a shortcut to using the menu, you can access FatBits by double-clicking on the Pencil icon (this is just one of a whole range of shortcuts illustrated in **Table 5.1**). FatBits can be very useful if you want to make minor changes to your map since it enlarges the area of the map you are working on, which then appears as a greatly enlarged series of dots. In the top left corner of the

window there is an inset square which shows a section of the map in its actual size so that you can get a clear idea of how the changes you make will effect the picture (See Figure 5.3).

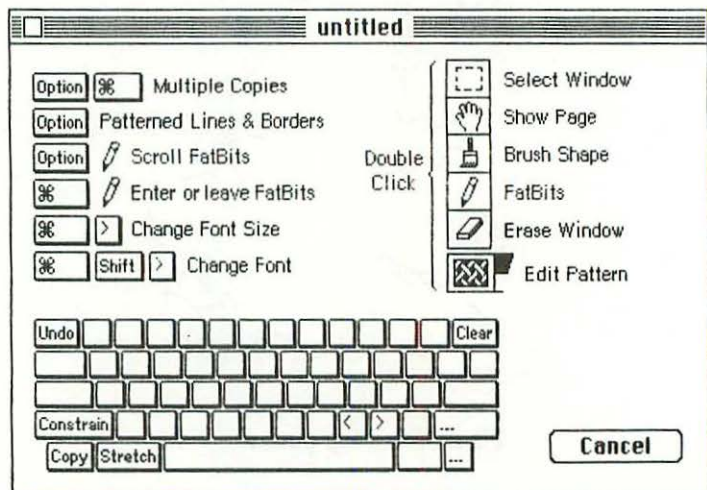


Table 5.1: Short Cuts

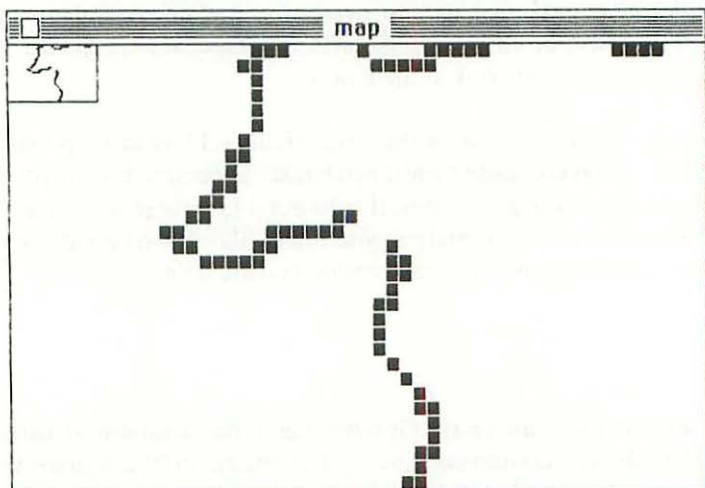


Figure 5.3: FatBits

When you have enlarged the picture you can add or delete dots until you are satisfied that the picture looks exactly as you want it to. You can then return to the normal-sized picture by double-clicking again on the Pencil icon.

Undo

Sometimes when I used the Eraser, I found that I had moved a bit too quickly and rubbed out more than I had intended to. This is easily done but it is also easily rectified. On the Edit menu, the first option is Undo. It will change the picture back to how it looked before the last move you made with the mouse. You can flick back and forth with Undo, undoing and redoing your last action. However, it will only be effective on the very last thing you did. If you click the mouse again after you've erased something then trying to undo it will have no effect.

Moving the window

While I was drawing the map I was so intent upon getting the shape right that I didn't pay any attention to the size and I found myself at the top of the window while only having reached as far north as Carlisle. Rather than retrace the whole thing again, it is better to move the window.

If you remember, I said earlier on that the window was in fact only part of a larger page. To move to another part of the page, you use the Hand tool which pushes or pulls the window in the direction you move the mouse. I wanted to get some more space above the current window position, so I used the Hand to pull the picture down.

Of course, this meant that I couldn't see the whole of the picture on the screen at one time. However, the Hand icon has another function which acts as a shortcut to a feature which appears on the Goodies menu as Show Page. Double-clicking on the Hand icon reveals a smaller picture of the whole page. The position of the window on the page is indicated by a rectangle. (See **Figure 5.4**). You can move the window position by putting the arrow inside the rectangle and dragging it. It is also possible to move the picture itself to a different place on the page. You do this by putting the arrow outside the window rectangle and dragging.

Drawing the outline of the map was the most difficult thing to do. Once I had finished I found there were some parts that didn't look right. To change them, I used a combination of FatBits to make the corrections and the Hand tools to move round the outline. You can use the Hand whilst you are using FatBits. All you need to do is press the Option key on the keyboard and the Hand will appear. You can then scroll the enlarged drawing. FatBits is deactivated by double-clicking on the Pencil icon.

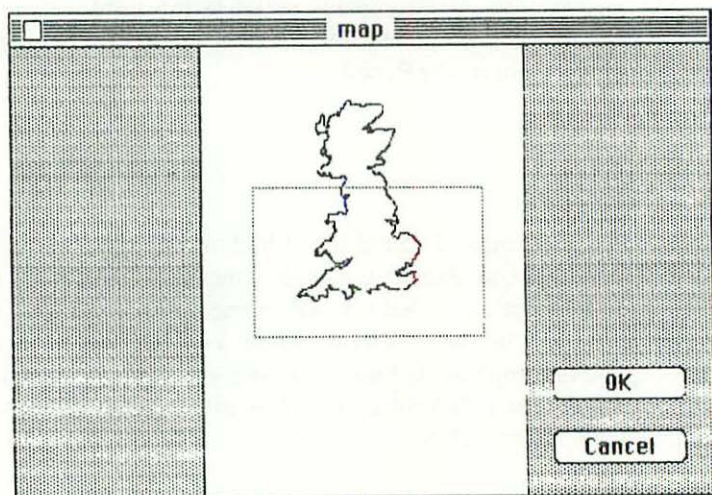


Figure 5.4: Show Page

Once you have finished drawing the map, save it to disk so that you will have a copy if you should accidentally erase the picture while working on it. The Save option is kept on the File menu as with Finder and MacWrite and will give you the same procedure to follow. Having saved the file, you are ready to go on to the next section.

Paintbrush

Take a look at **Figure 5.5**. In it, you will see the original outline of the map surrounded by two bands of a dotted pattern. These are intended to indicate different sea levels around the coast. I added these bands using Paintbrush. As I mentioned earlier Paintbrush will draw a line in the pattern, thickness and shape of line you select. For the first line, I used the standard Paintbrush line and a widely spaced dot pattern. For the second, the same line but a denser dot pattern.

The main problem I had when tracing the edge of the map with the Paintbrush was drawing over the pencil lines I had drawn previously. As I said before, Undo will repair damage done to a limited degree. There are occasions however when the only answer is to start again. Provided that you have saved a copy of the drawing to a file on disk, it is possible to use the command Revert to start again without harming the picture. Revert is, in fact, a method of reloading a file from disk. If you are using a separate disk for storing your files then you will find that Macintosh will eject the disk you are currently using and ask you to insert your document disk so that it can access the saved file.

Paintbrush offers an incredible range of brush shapes. They are illustrated in **Figure 5.6**. Brush Shapes is an option on the Goodies menu, and it can also be accessed by

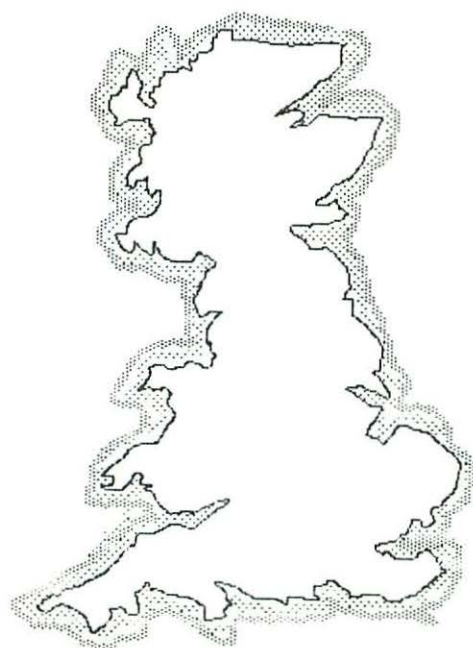


Figure 5.5: Map outlined with Paintbrush

double-clicking on the Paintbrush icon. The current choice of shape is marked by a square. Changing shape is a matter of clicking on the one you want to use. In addition any of the patterns can be combined with the brush shapes. The Goodies menu has another option, called Brush Mirrors, which will draw mirrored pictures using Paintbrush so that you can create symmetrical patterns.

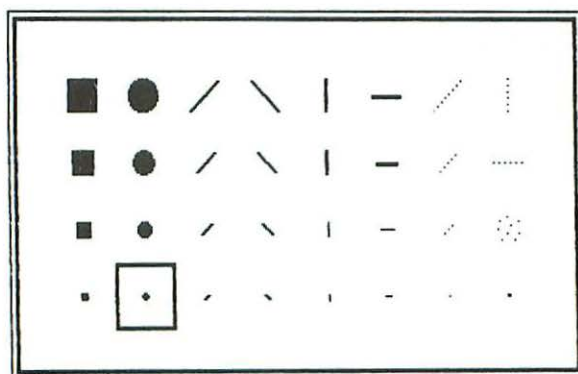


Figure 5.6: Brush Shapes

In this section I have only shown one way of using the Paintbrush, but as I introduce more ways of using MacPaint I shall be giving further examples of how to use the Paintbrush.

Area Fill

The Area Fill tool is represented on the MacPaint screen by an icon of a paint tin being tipped up. To illustrate how the Area Fill works, I have divided up the map of Great Britain into several parts representing the sales areas of the Hadley Engineering Company. Having done that, I am going to fill each area with a different pattern.

To do this, I first have to draw lines across the map to divide it into seven areas. Then I select the Area Fill tool and a pattern. I move the mouse on to the area I want to fill and click. That area is immediately filled with the pattern I have chosen. I repeat this action for each of the areas, changing the pattern each time.

Problems

One of the most likely problems you will encounter when you are filling in areas is that there will be very small gaps in the lines you have drawn and the colour will 'leak' through the gaps and cover a larger area than you had anticipated. It only takes a gap of one dot and the pattern will spill onto the whole screen. If you find this has happened, Undo the Area Fill at once, or if you have already clicked on the mouse since then, you will have to use Revert to reload the last version. You cannot refill an area with another colour because once a pattern is in place, MacPaint treats every line and dot of the pattern as a limit on the area to be filled and will not paint over it.

If you have managed to Undo the Area Fill, using FatBits and the hand tool to go along the outline of the drawing to see where the gaps have been left and then fill them in using the pencil. It is worth going right the way round the drawing using FatBits since tiny gaps are very hard to see on the ordinary size drawing and even more difficult to correct.

Area Fill will only be effective on the part of the drawing which is visible in the window. The part which is hidden must be pulled into the window and the Area Fill tool used again to fill in the other parts.

In **Figure 5.7** you can see the end result of my area filling exercise — Great Britain is divided into seven differently patterned areas. To finish off the map I am going to put a key to the different colours with the names of the sales managers responsible for each area.



Figure 5.7: Map divided into Sales Areas

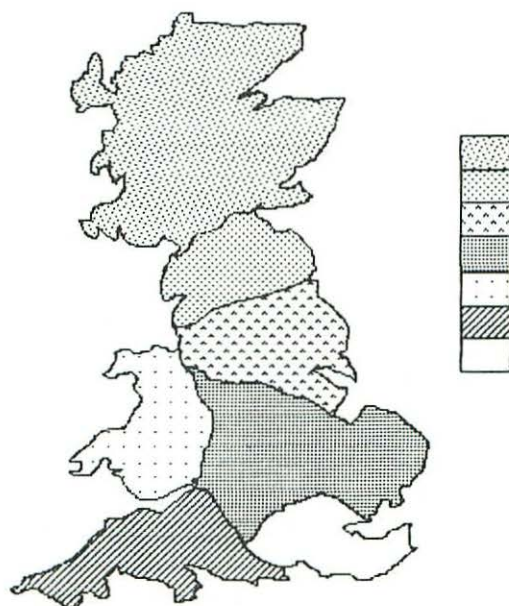


Figure 5.8: Map with Key

Straight lines

Figure 5.8 is a picture of the map with the key in place. I drew the key by using the straight line tool. When you use the straight line tool as long as you keep your finger on the mouse key pad, the line will continue to be stretched and shortened as you move the mouse. This means that you can manoeuvre the line until you have it at the correct angle and length. Only when you release the mouse pad can you draw another line, or continue the same one in a different direction.

There is an additional feature to the straight line tool which also applies to the pencil and paintbrush. If you press down the Shift key on the keyboard while dragging the mouse, only vertical or horizontal lines can be drawn. I used the Shift key feature to draw the outline and division of the key. Once you have drawn the outline of the key, you can use the Area Fill tool to put in different patterns.

The Alphabet tool

Once I had drawn the key, all that remained was to add the names of the area sales managers and an overall title for the map. MacPaint gives you the ability to add text to your drawings by means of the Alphabet tool.

On the face of it MacPaint would appear to offer as many if not more facilities for using text than MacWrite provides. MacPaint has an equal number of fonts and style options, and it will allow you to use a 72 point font size which is much larger than MacWrite from your work disk, it must be said that MacPaint's text editing facilities are much more limited than MacWrite's — once you have typed something in and moved off the alphabet icon, you can't go back and alter the previous piece of text. Neither does MacPaint have word wrap, and there are no tabs or margin settings.

The real purpose of having text in MacPaint is not so you can use it to replace MacWrite, but so that you can add labels, headings and short descriptions to your diagrams. You don't have to worry about large chunks of text since you can transfer MacPaint files into MacWrite and vice versa.

For my sales map, I decided to use the 9 point font size and the plain New York font. You position the text cursor in MacPaint in the same way as you do in MacWrite — moving the mouse to the appropriate position and clicking.

When you type text in MacPaint, if you press the carriage return, the beginning of the next line will be treated as the point from which you started typing so you don't have to worry about your diagrams getting overwritten.

Deleting text

As I said earlier, you can only alter text while you are using the Alphabet tool — as soon as you move to another tool the text is treated exactly the same as the drawings. So if you try to go back and delete some letters by using back space it won't work. The simplest way to get rid of text is to use the Eraser and rub it out. Undo will do equally well for deleting the last piece of text you typed in.

The final touch on the map is to add a title. I have called it 'Hadley Engineering Sales Areas'. As you can see in **Figure 5.9**, I chose 14 point for the lettering and I also underlined the heading. Once you have added the title to your map it will be complete and you can print it. As you print your picture, MacPaint will use Show Page to let you see the progress of the printer as it reproduces your drawing on paper.

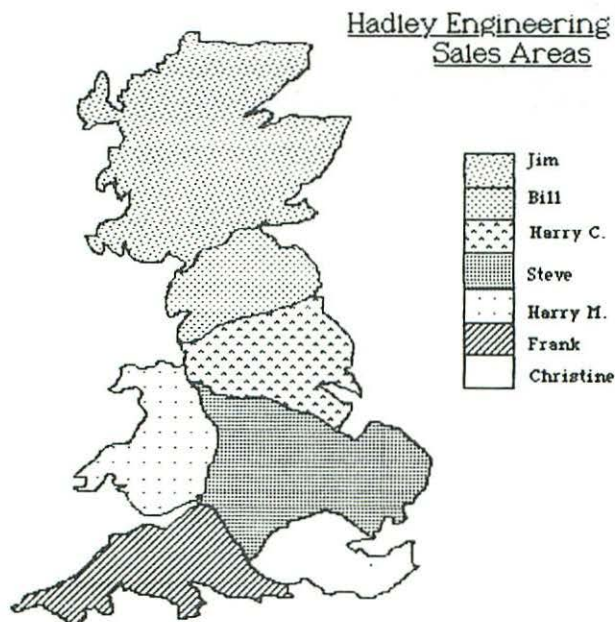


Figure 5.9: Map with Headings

Once you have printed the picture, you should close your file, saving the changes you have made. Then you are ready to open a new file and begin drawing from scratch again.

Conclusion

At the beginning of this chapter I said that MacPaint had a huge variety of options and

thus far I have covered probably about a quarter of them. Since I have finished describing how to set up the first example, now seems a good time to pause and take stock of what has been covered so far. The I shall talk in the next chapter about using the Shape tools.

The main idea of this chapter was to get some practice in using the tools and, most importantly, the mouse. Together they are a formidable combination but it does take time to develop a bit of skill in manoeuvring the mouse to the best effect.

Drawing accurate lines needs quite a bit of concentration although MacPaint does let you draw straight lines automatically and will even restrict how the line is drawn to horizontal or vertical. Even when you get in a mess, MacPaint gives you plenty of opportunity to correct your mistakes and improve your diagrams with Eraser, FatBits, Revert and Undo.

If you have managed to master moving the mouse and drawing lines, you have gone a long way towards being able to put MacPaint to very practical use.

CHAPTER 6

More About MacPaint

The drawing tools in MacPaint fall roughly into two categories — those which allow you to draw free-form lines and pictures (Pencil, Paintbrush and Spraycan) and those which draw rectangles, ovals and polygons. In this second category, drawing is more structured — the shape of what is drawn is, in the case of rectangles, predetermined. This means that you don't need to be so concerned about the accuracy of the lines you draw — the drawing is done for you. All you have to do is concentrate on the size and position of the shapes.

In this chapter, I am going to explore the use of shapes to create diagrams and drawings. MacPaint gives you five separate shape-drawing tools — Rectangle, Oval, Rectangle with rounded corners, free form rounded shapes and Polygons. For each of these shape tools you have the option of either filling them with any of the available patterns or leaving them unfilled. As well as being able to use patterns to fill the shapes, you can also vary the thickness of the border or have no border at all.

Using the shape tools is drawing a lot of different shaped boxes. This sounds very simple as, indeed, it is, but at the same time it offers great potential. A simple rectangle can represent many things — it can be the border of card, the walls of a house, the outline of a form, part of a machine. Other shapes can have the same significance and even though you may not have the same freedom of movement and design as when using the Pencil and Paintbrush, you still have scope for drawing diagrams in great detail without having to rely too much on artistic ability.

I am going to begin by looking at the use of the unfilled shapes. The example I am going to use is a flowchart. Flowcharts are generally associated with writing computer programs and that is the example I shall be using. However, they can be useful in general problem-solving where you want to make a series of logical decisions taking into

account all possibilities. Before I describe how to set up the flowchart, I shall give an explanation of the principles and conventions of drawing them.

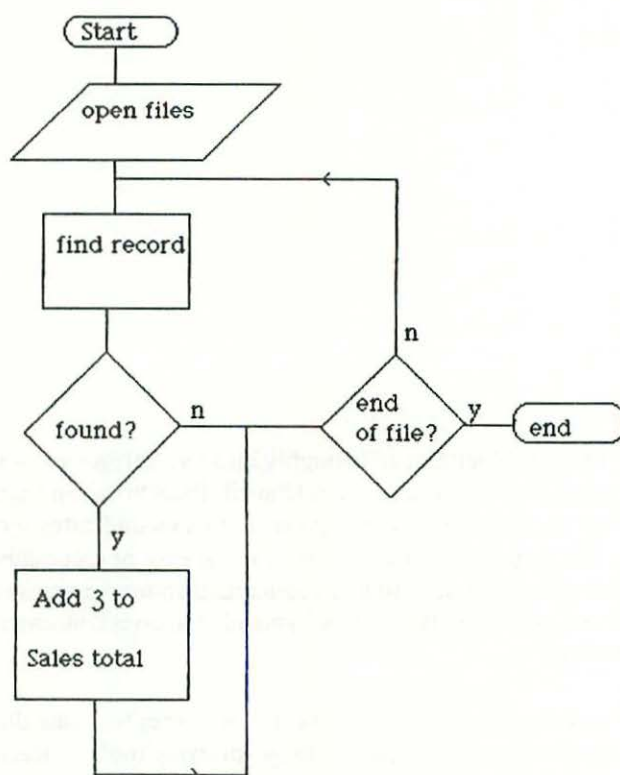


Figure 6.1: Programming Flowchart

Drawing a flowchart

In **Figure 6.1** is the completed computer flowchart. The aim in drawing any flowchart is to ensure that the computer program written will be logical and will take into account all the processes which will occur. In my example, I have taken a file of sales records and I want to add 3 units to each sales figure. To do this, I must break the process down into steps and then consider a number of factors which are going to effect the program I write. The steps involved are:

- (i) Get the records.
- (ii) Add 3 to each sales figure.
- (iii) Finish the process.

A number of questions arise which I have to think about:

- (i) What happens if I can't find a record?
- (ii) How will I stop the process when there are no records left?
- (iii) Once I've processed one record, how will I go on to the next?

The flowchart helps me to map out the processes involved and determine how to tackle the problem when I start programming. It should ensure that the processes are all correctly linked and that I don't get stuck in any dead ends.

You will notice on the flowchart that there are a number of different shaped boxes being used. This is because flowchart conventions use a different boxes to indicate different procedures. These are illustrated in **Table 6.1**. If you are not familiar with them here is a short explanation of the meaning of each one:

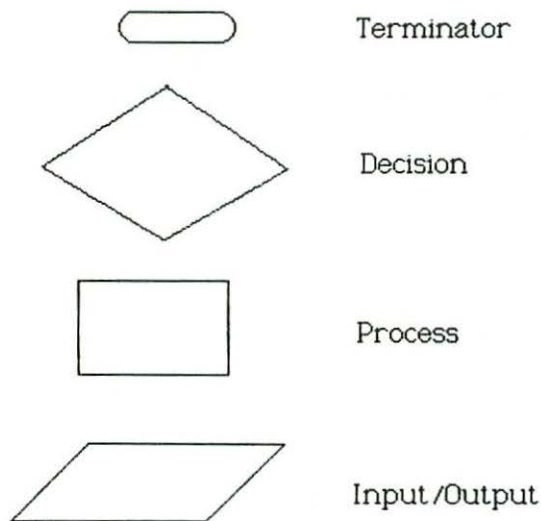


Table 6.1: Flowchart Symbols

Terminator Box: Although this is called a terminator box it actually serves to indicate both the starting and finishing point of the whole process.

Decision Box: Decision boxes are used for asking the questions. For example in my flowchart figure I have two decision boxes one which says 'Found?' the other 'End of File?'. To each of these questions there must only be two replies, yes or no. The decision box is there to determine which way to go depending on the answer. If it is the end of the file then you finish, if it isn't you go and find another record.

Process Box: When you have found the record you want to do something to it. The instructions will be held in process boxes, usually with one instruction per box.

Input/Output: This box is used for getting the information on which you are going to work.

There are also conventions concerning the lines which connect the boxes. If it can be avoided, the lines should not cross one another. There should only be one line going into a box and one going out (except decision boxes where there are two coming out). If you send a line back to a box it should join the line going into the box, not go straight into the box. For lines which are looping back there should be an arrow indicating the direction of flow.

The variety of shapes of boxes you can draw makes MacPaint invaluable for flowcharts. There is also the advantage of being able to move the boxes around. If you have ever had to design flowcharts with a pencil and a piece of paper, you will know how messy it can become. You have to rub out and move lines and boxes — often it's quicker to start again.

Let's look now at how to draw the different types of box. Begin by closing any files you may have been working on and select the option New from the File menu to give yourself a clean page to work on.

Terminator box — round cornered rectangle

The first box in the flowchart is a terminator which, as I explained earlier, is used both for the starting and the finishing point of the flowchart. To draw the box, you need to select the unfilled rounded rectangle tool. To allow any shape you must drag the mouse on the window in the direction you choose. As you move the mouse back and forth the shape will enlarge and contract so that you can adjust its size and shape until you are satisfied. Then you can release the mouse.

For the terminator box, you need a long narrow rectangle. When you are drawing it, you must remember that the point at which you start dragging the mouse will form one of the corners of the box so you must make sure of your positioning before you start. Remember, however, that you can always Undo your mistakes and start again.

Input/Output — polygon

The input/output box is a parallelogram and to draw it you need to select the unfilled polygon tool. Once you have selected this tool, you need only click on the mouse to start drawing lines, you don't need to drag the mouse. Click on the mouse each time you want to change direction. When you close the parallelogram, MacPaint will stop drawing. If you don't close it accurately MacPaint will continue to draw the line. To stop it doing this, double-click on the mouse. As with any of the tools, you can use FatBits to make alterations to your shapes if necessary.

Process box — rectangle

The process box is very straightforward to draw — it is a simple rectangle. As with the rounded rectangle, the starting position of the cursor forms a corner of the box and you can drag the box in any direction for any distance until you get the size and shape of box you want.

Decision box — polygon

You need a diamond shape for the decision box and this, like the input/output box can be created with the polygon tool. The polygon tool will only draw completely straight lines vertically or horizontally so, for the diamond, the lines may appear slightly crooked.

Making copies

On the flowchart there are two of each type of box with the exception of the parallelogram. Rather than draw a second box, it is possible to make copies of the boxes you have already. This has two advantages, not only does it save on time on drawing, but it also gives more uniformity to the diagram — the boxes don't end up being slightly different sizes and shapes.

To make a copy of a box you need first to select it. If you remember in MacWrite, selecting text was done by dragging the mouse across sections which were then highlighted. A similar principle applies in MacPaint but since the drawings are not always of such a regular shape as lines of text might be, selecting them is dealt with in a slightly different way. At the top of the tool chart is an icon of a rectangle with a dotted outline. This is the Selection tool. Choose this tool and move onto the window. The cursor will have become a cross made up of a dotted line. Position it near one of the boxes you have drawn and drag across the box. You will find that the border of the box you have selected will be a moving dotted line. This is to indicate that what is inside it has been selected and can be moved, copied, or deleted.

Now go to the keyboard and press down the Shift and Command keys together. At the same time position the mouse arrow inside the selected box and drag it. As you drag clear of the original position, you will find that a copy of the box has been made.

Continue to drag the box until it is in the correct position in the flowchart. Repeat this process with each of the boxes you want to duplicate. Be careful not to release the mouse as you are dragging it or you will find yourself with more copies than you had bargained for.

Text and Lines

Once you have your boxes in position, you need to add text to the boxes and join them up. Entering the text simply requires using the Alphabet tool and typing inside the boxes. To join the boxes, you can use the Straight line tool or the Pencil and to ensure that the lines are absolutely straight draw them while holding down the Shift key.

When you are using a line to indicate that the process loops back on itself, the line needs to have an arrow on it to indicate in which direction of flow.

On the lines coming out of decision boxes there must be a 'y' and an 'n' to show which way to go according to whether the specified condition is true or false.

Making changes

Since I designed the flowchart, a new condition has arisen which I must take account of. If the sales figure is already over 100 I don't want to add to it. So when I write the program I must test for this before I add 3 to the sales total. This also needs to be added to the flowchart, so I must make an appropriate alteration.

Lasso

When you copied and moved the boxes to create the flowchart, you used the Selection tool to specify which box you wanted. The Selection tool is useful when you want to select fairly regular shaped areas of the drawing, but in this case I want to insert a new box between the 'found' decision box and the process box which says 'Add 3 to sales total'. To do this, I must not only move the process box but also the lines attached to it. I am going to use the Lasso.

Lasso allows me to draw a line around the area I want to select. When I have done this the edges of the object are traced with a moving line. Lasso is much more precise than the Selection tool about what is selected, but it provides fewer facilities.

To move the process box and lines, select the Lasso tool and draw a line around them. A moving dotted line will replace the normal outline of everything inside the area you lassoed. You can now use the mouse to drag the lassoed area downwards. Once the new box has been added you will want to rejoin the lines.

To make sure that they are still correctly aligned, press the Shift key while you move the box, which will ensure that you will only be able to move it vertically downwards.

Figure 6.2 shows the finished flowchart with the new decision box added. The process now checks whether or not the sales total is over 100 before adding to it. If it is, the process will loop back to look for the next record.

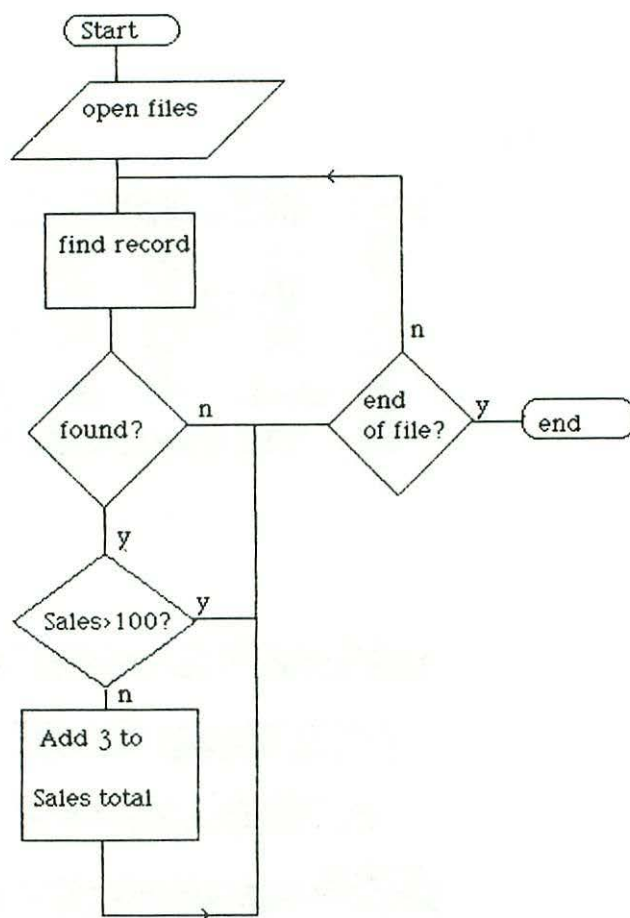


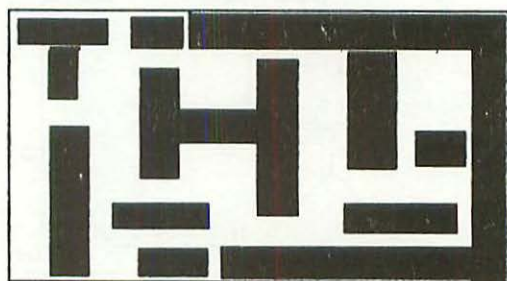
Figure 6.2: Flowchart with added decision box

When the flowchart is complete you can print it out. It is a simple guide to writing a program or making decisions. The secret of a good flowchart is to keep it simple — if you have a mass of boxes and lines going in all directions, the flow becomes very hard to follow.

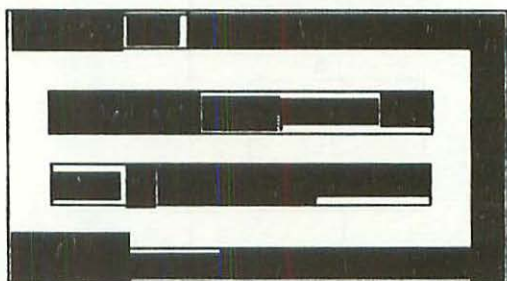
Filled Shapes

Joanna Davies was successful in her application for the job of Warehouse manager at Hadley Engineering. One of the first things that became apparent when she started the job was that the warehouse had become very disorganised over the years. Shelving had been added haphazardly and the whole place is now in a mess. To improve the situation, Joanna is going to put forward a reorganisation plan for the warehouse

using the existing shelving as far as possible. She has used MacPaint to draw up a plan of the new organisation. To illustrate her point she has drawn a plan of the existing layout of the warehouse and she is going to use MacPaint to manipulate the shelving and produce the new layout from the same shapes. The contrasting plans are illustrated in **Figure 6.3**.



Current Warehouse layout



Proposed Warehouse Layout

Figure 6.3: Warehouse Layout

Drawing filled shapes is the same as unfilled ones except that the shape you draw will be filled with whatever pattern is currently selected. This will cover anything beneath it (the hollow shapes will leave any shapes below visible).

Joanna's warehouse diagram is a hollow rectangle containing a number of filled rectangles representing the warehouse shelves. She is going to take the original hotchpotch of shelving and rearrange it so that it looks like the second diagram in Figure 6.3. If you want to follow this example, draw a copy of the first diagram and then follow the description set out below.

Rearranging the shapes — select and rotate

Moving the shelves on the drawing is a question of selecting them individually and repositioning them. There are two things to be considered when doing this. The first is to be careful, when selecting the individual shapes, not to leave a gap between the border of the shape and the selection box. If you do, the gap will be moved as well and you will find yourself overlapping with other shapes in order to get them close together. Secondly, some of the shelves will be the wrong way up to fit in to the space available. You need to use Rotate to change them. Rotate is an option on the Edit menu. It is only effective when an item is selected and it is used to turn the selected area 90 degrees to the left each time you choose the option.

On the Edit menu you will also see the options Flip Horizontal and Flip Vertical. Each of these will move a selected shape by flipping it over either from one side to the other or from top to bottom.

Another example of the use of MacPaint is to decide on an office layout. It is often very helpful to have a drawing in which you can manipulate the furniture to visualise what the office will look like with different layouts. By using MacPaint it is possible to draw the office and the pieces of furniture you want to use, and then produce several copies of the picture rearranged in various ways.

Getting the dimensions right

One of the problems you may encounter if you use MacPaint in this way is how to get the proportions and dimensions of the shapes right. The easiest way of overcoming this problem is to make use of the Area Fill tool and the two checked patterns. Before you begin drawing you should select the large check pattern and the Area Fill tool. You should then fill the blank screen with the check pattern. This will then act as a grid for you to work with. You can then use filled shapes (remember that if you are using the filled-in shape options, you can fill the shapes with plain white if you want to) on the grid.

To illustrate this, let's take the example of arranging the office furniture. (See **Figure 6.4.**) I filled the window with the checked pattern. I then drew a white filled rectangle to the size I wanted to represent the office space. The office dimensions are 10ft by 20ft and I allowed two squares per foot. I intended to put two desks, a filing cabinet, a cupboard, a telex machine and a bookcase in the office. So that I could easily gauge the dimensions of the furniture, I drew each piece outside the area I designated for the office, and then moved it inside.

If I had wanted to achieve even greater accuracy in the sizing of the furniture, I could have used the smaller check pattern to draw it. This can be particularly useful if you are

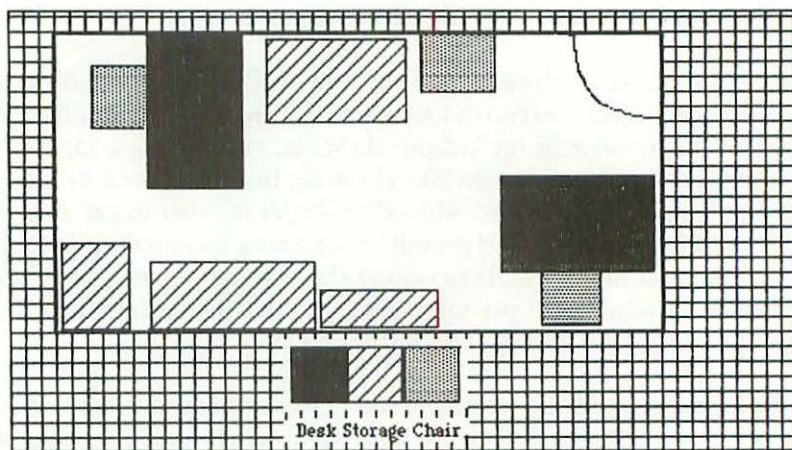


Figure 6.4: Office Plan

trying to arrange a room with a limited amount of space where actually fitting in all the furniture may be more important than the aesthetics of the layout. The only obstacle I have taken account of in my drawing is the door into the room, but you would probably also have to consider the position of radiators, windows and power and telephone points.

Additional Shape features

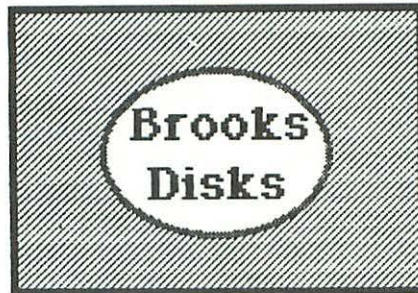
I have already covered most of the basic shape features in MacPaint and I have also looked at Rotate. In this section I am going to explore a few more of the combinations which you can use to produce interesting effects. If you look at **Figure 6.5** you can see three examples of logos for Brooks Disks. I have combined several features to achieve the effects and I shall be looking at these here.

Figure 6.5 (a) is an example of using the Invert feature of the Edit menu. Its function is to reverse the colours of a selected area so that the white area becomes black and the black becomes white. To create the logo, I typed in the words Brooks Disks in 24 point Venice font with italics. Then I drew a rectangle around them which I filled with a black on white dot pattern. The final step was to select the area and invert it to create the effect you can see in the figure. Invert will let you change the black on white, white on black combination as often as you like.

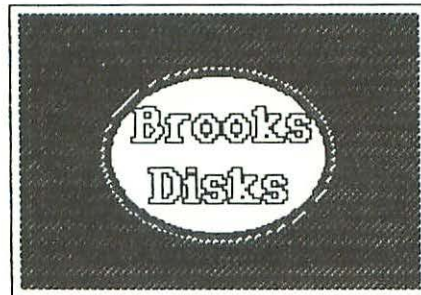
Figure 6.5(b) introduces several features of MacPaint. I have drawn an oval around the words with a thick patterned border. To get a patterned border you have to press the Option key down as you are drawing the shape. The border must be one of the thicker ones in order to achieve a good effect. With the narrow border you will usually



(a)



(b)



(c)

Figure 6.5: Company Logos

end up with just a dotted line, because it is too thin to show the full pattern. I drew the rectangle outside with a thick black border and then filled the space in between the two shapes.

Figure 6.5(c) is the same picture as (b) except that I have used the option Trace Edges from the Edit menu to alter its appearance. Trace Edges gives you the outline of the all the lines you have drawn and the centre part will be turned white.

Conclusion

If you consider how MacPaint works, you will see that it revolves around the arrangement of black dots on a white screen, and the ability to add, move or remove those dots. Different combinations of dots and different ways to add and remove them provide you with the tools to create an endless variety of drawings from the most basic doodle to complex technical diagrams.

Learning to use MacPaint effectively takes time, especially if, like me, you have no particular drawing skill. Yet I have found that by using the more restricted MacPaint tools (those I have looked at in this chapter), you can create useful designs without having to rely on freehand drawing.

Let's recap on what has been covered in this chapter. You have seen how you can draw shapes as opposed to just lines. These shapes are automatically drawn for you to a size that you determine. You are able to alter the thickness and border of the shape you draw, and you can fill it with any pattern you choose. Once you have drawn and coloured the shapes you can move them about the screen, turn them on their sides or upside down, make copies of them. Not only are all these things possible, they are easy to do. The majority can be accomplished with one or two actions — select a pattern, select a tool and off you go.

CHAPTER 7

Applications using MacPaint

By now you should have a good idea of how MacPaint works. This chapter aims to give you further ideas for its use.

In this chapter I am going to talk less about how to use MacPaint and more about the different types of application it is suited to. Clearly it is for drawing. You have already seen a variety of diagrams and pictures and you have had ample practice in creating them for yourself. However, there are some specific areas where including illustrations and diagrams is particularly appropriate, and I have chosen several of these to look at in detail here. Each section is illustrated with examples for you to draw and I shall be giving details of any particular features of MacPaint not already covered in the previous chapters.

Illustrations for advertising

For many people, a common place to advertise is in newspapers or periodicals. MacPaint is an ideal way to set up illustrations for this type of advertisement. Often the print quality in newspapers is poor. Illustrations are usually black and white drawings. You have seen the way MacPaint works, so you will realise that it is very well suited to this type of drawing. In this section I am going to use an example of one such advertisement.

Everglaze Windows often advertises in local newspapers and likes to illustrate the advertisements with pictures of the types of windows it sells. **Figure 7.1** is an example. Below I have described how to produce it in MacPaint.

Leaded lights window: The basic window consists of unfilled rectangles. Having drawn them, I used the Trace Edges option of the Edit menu to give a double line round the edges.



Figure 7.1: Advertisement.

To get the criss-cross pattern, I had to use Edit Pattern because there is normally no diamond-shaped pattern available. Edit Pattern can be accessed by double-clicking on the pattern you want to change. In this case, I took the wide diagonal line pattern and added a diagonal line in the opposite sense. Once I had created my new pattern I filled the window frames with it.

Georgian style window: Inside an unfilled rectangle I drew one smaller rectangle which I then copied to represent each separate pane of glass. I copied the rectangle by selecting it, and then dragging it while holding down the Option and Shift keys. This ensured that the panes of glass would be correctly aligned.

I used the polygon tool to draw the open window at the top. Again I pressed the Shift

key before starting to draw so that the lines would be only at 45 or 90 degree angles to one another.

To achieve the shadow under the open part of the window I used Area Fill. Finally, to give the illusion of glass in the windows, I used the Brush and diagonal line pattern to draw some lines on the window panes. I repeated this effect on the door as well.

When I drew the house, I thought that a complete brick pattern would look overpowering, so instead I used the Spraycan and the brick pattern to give a lighter impression of brickwork. On the roof, I used the tile pattern which MacPaint provides and then I added the writing afterwards. I have found it best to add the text later because the lettering will then create its own clear space.

The wording at the bottom of the picture is in Geneva font point size 18 with emboldened style and middle alignment. You need to be careful when using the middle alignment because, unlike in MacWrite where the margin settings determine the middle point, the point around which the text is aligned in MacPaint is that which you determine by positioning the cursor. You must also make sure that the text does not disappear off the edge of the window. If it does, it is not retrievable and you may find you will have to retype it.

For the bottom two lines I added outline and shadow to the style selection and then when I had typed them in, I selected and inverted them.

In designing this advertisement I found that one of the most useful features was being able to use the Shift key to restrict the movement of the mouse with various tools so that I could be sure that the lines I drew were straight and at the correct angle. The Shift key works with nearly all the MacPaint tools. I have listed how it works with the various tools below.

Shift key — restricting the MacPaint tools

For restricting lines, the shift key works in two ways — with Eraser, Spraycan, Brush, and Pencil it will only allow horizontal or vertical lines to be drawn. With the Straight line and Polygons, only 90 and 45 degree lines can be drawn.

As well as constraining line drawing, Shift will let you move the window only horizontally or vertically with the Hand. Any selected item can likewise only be moved in those two directions.

As far as rectangles and ovals are concerned, Shift lets you draw only squares or circles. In fact the only tools not affected by the shift key are irregular rounded objects and text.

When you use the Shift key it needs to be pressed only once before you start drawing a line and it will continue to be effective until you release the mouse keypad to start another line. Once you have started drawing a line with the Shift key in force, the line will continue on the same path regardless of where you drag the mouse. This is very convenient if, like me, you find it hard to keep lines going exactly straight.

Diagrams to replace words

There seems increasingly to be a trend away from giving written instructions and towards giving instructions in pictorial form — the Macintosh itself is a prime example. All kinds of signs and sets of rules use fewer words and rely more on pictures.

Packaging symbols

For my first example of replacing words with pictures, I have reproduced the parcel handling symbols that are commonly seen on boxes. (**Figure 7.2**) To draw each symbol, I used the shape tools.



Figure 7.2: Packaging Symbols.

For the glass and the umbrella icons, I first drew a circle with the oblong tool and Shift key. Then I drew a straight line across the circle and erased the half I didn't want. I found this was a much easier method of getting a curved line than drawing it freehand.

FatBits was also a great help to get rid of unwanted lines between the different shapes. Although it may seem tedious to have to erase or add dots one by one, in fact it can be quicker than relying on steadiness of hand to erase small areas using the rather cumbersome eraser. Remember also that you can use Eraser in Fatbits to rub out individual dots and you can restrict movements in Fatbits by means of the Shift key. Once I was satisfied with the symbols themselves, I selected each one individually and inverted them.

Now if I want to send any fragile objects through the post, I have the necessary symbols to fix onto them.

Cassette deck

As well as being easy to understand, pictures can also reduce the space and time used for giving explanations. The example of the cassette deck diagram is a case in point. I chose the cassette deck as an illustration to show how you can draw complex-looking picture very easily in MacPaint. If you look at the diagram of the cassette deck as illustrated in **Figure 7.3** you will see that although it contains a lot of detail, it is in fact made up entirely of regular shapes which can be drawn very quickly. It is really a set of rectangles and squares drawn inside one another and then labelled. Fortunately, many modern designs are built with smooth lines and few frills so that producing diagrams of them is much simpler.

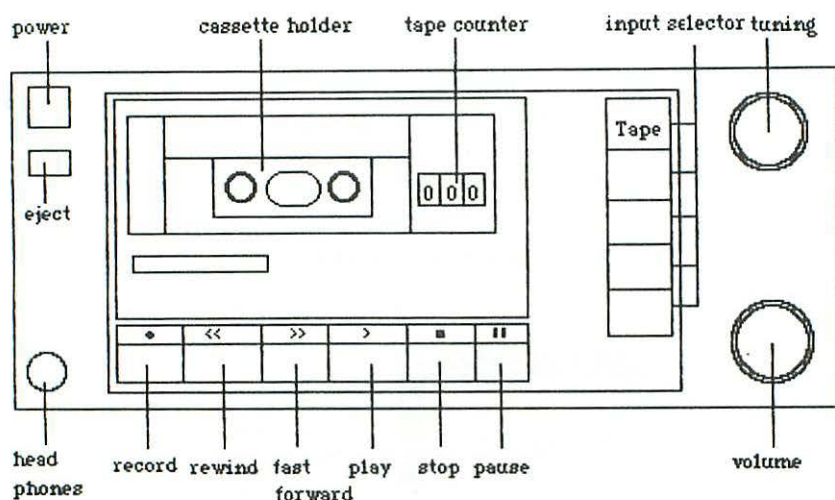


Figure 7.3: Cassette Deck.

Visual aids

Training courses for business people are becoming lucrative business, particularly in the computing field. Participants expect to be entertained by a stream of changing pictures, flashing lights, music and so forth. Macintosh is very well suited for producing the types of visual aid that have become part of many courses and seminars given on a range of business topics.

From my own experience I know that producing visual aids can be very time-consuming. In this section I am going to talk about using Macintosh to produce the kind of diagram that you can transfer onto an acetate sheet for use on an overhead projector. These types of diagram can also be reproduced into training manuals.

The course I am going to use as an illustration is called 'What is a computer?' and the diagrams form a series of steps which build into a picture of a full computer system. (See **Figure 7.4**).

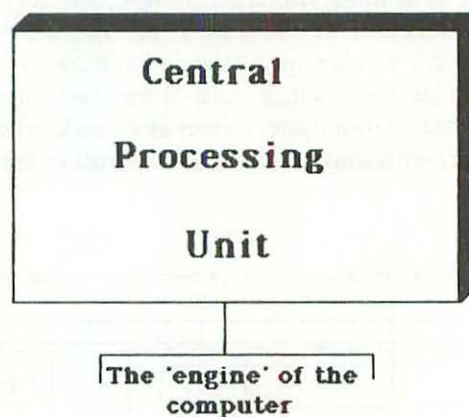


Figure 7.4(a): The CPU.

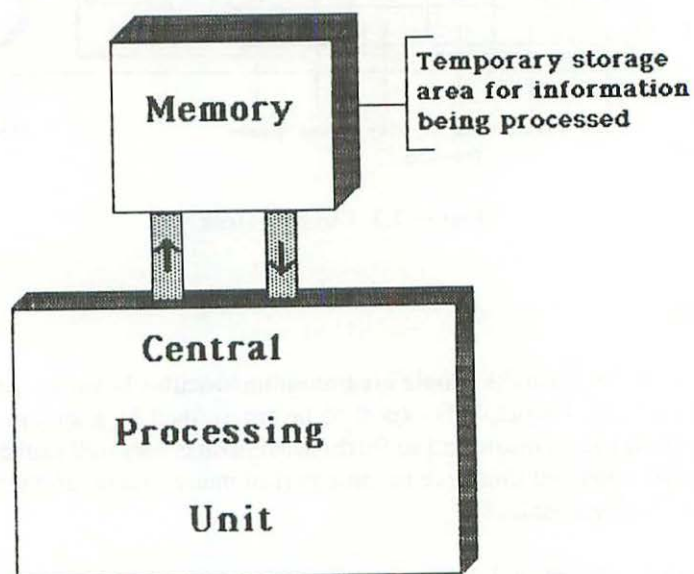


Figure 7.4(b): Memory.

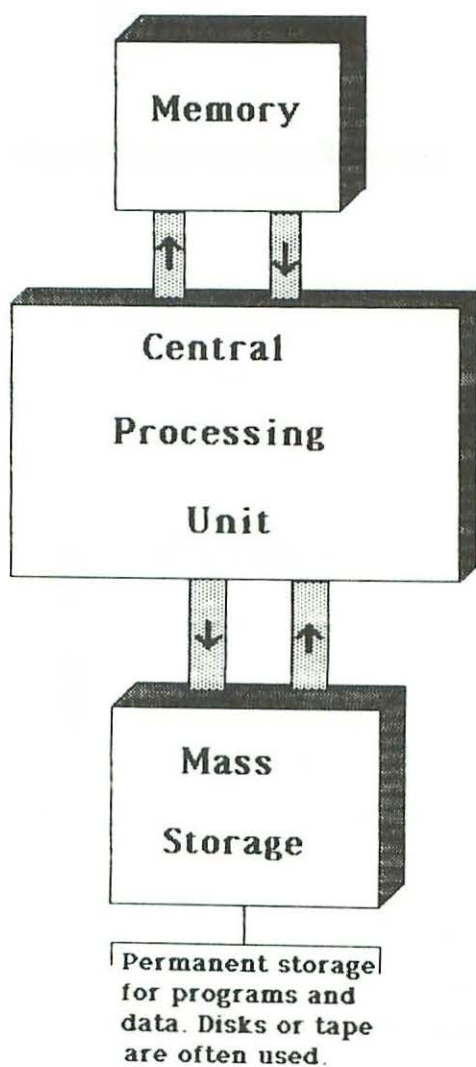


Figure 7.4(c): Mass Storage.

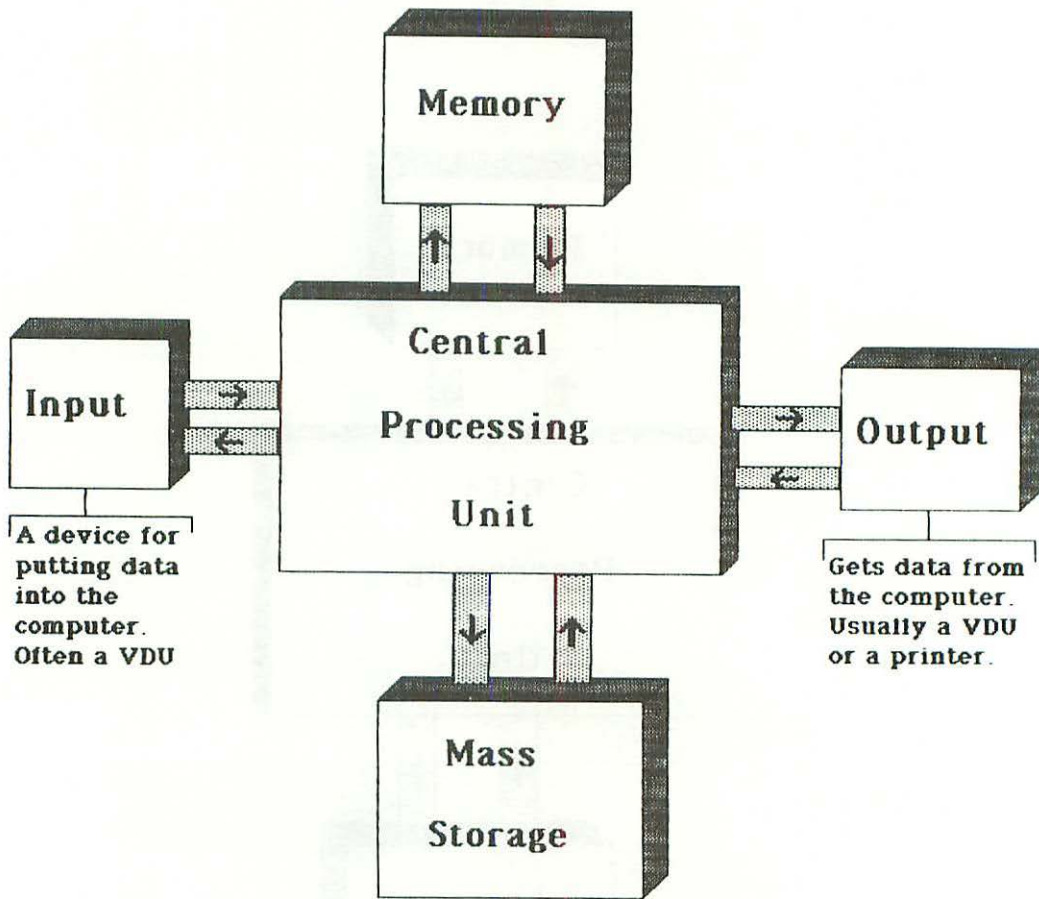


Figure 7.4(d): Input/Output Devices.

The diagrams are all straightforward — each consists of simple rectangles with a shaded box surrounding it. Further shaded rectangles join one to another. The arrows indicating the flow of information were the most difficult. I created these by drawing one arrow and copying and rotating as necessary. I positioned the arrows by using the Lasso rather than Selection, so that there would be no empty area around them.

Once you have designed your diagrams you can print them directly onto acetate. This saves the intermediate step of having to photocopy the drawings onto the clear sheets.

With MacPaint you also have the advantage of being able to make alterations so that the diagrams prepared for one course or lecture can be modified for another. If the course is to be taught by several people the diagrams can be introduced into notes on how to teach the course so that future teachers know how to use them. Indeed, the possibilities are endless. In chapter 8 I shall be looking at how you can merge MacPaint drawings into MacWrite documents.

Forms and charts

One of the problems with many word processing packages (as opposed to dedicated word processors) is that it is not possible to rule vertical and horizontal boxes. Often you have to draw them yourself, afterwards. This does not always produce satisfactory results, and if a particular form is to be sent to someone else it doesn't always create a good impression. Bearing this in mind, I have devised a couple of examples using MacPaint to overcome these shortcomings and produce presentable alternatives.

Holiday planner chart

In the Hadley Engineering warehouse, Joanna Davies has to work out a holiday chart. (In the first two weeks of August she may need to take on extra staff). She also wants to use the chart to evaluate holiday requests. **Figure 7.5** is the first chart she drew up.

Aug	1	2	3	4	5	6	7	8	9	10	11	14
Joe												
Dave												
John												
Mary												
Jill												
Fred												
Pete												
Joan												
Iain												

Figure 7.5: Holiday Chart.

To set up the chart and to ensure that the boxes were evenly sized I began by putting a border round the edge of the window. I filled it with a checked pattern. By doing this, I was able to use the small squares to get the spacing between the lines exactly equal. Then I used the Straight line tool to draw the grid. Although MacPaint does provide a grid facility on the Goodies menu, it is more difficult to work with.

I have only shown the chart for 14 days in my example since this fitted into the window conveniently. However there is nothing to stop you selecting the whole window (double-click on the Selection box), and then taking a copy of it (Copy option of the Edit menu) which you can move to another area of the page.

In general this type of chart has a great many uses. Here I used it for a holiday plan but it is equally useful for producing timetables, time sheets, mileage charts and so on. As always with such things the drawback is that it does take time to set up. There is the advantage, however, of being able to use the same structure over again.

Job application form

In the past I have often had to fill in poorly-designed job application forms, where prospective employers want you to write your life history in a space the size of a postage stamp. Designing a form on the Macintosh gives you scope to experiment with the size and content of the form. In addition, it allows you to create different forms for different types of job. If, for example, educational qualifications are not important, then you can cut down the space allotted to such details. MacPaint can give you great flexibility, to prepare an application form suited to the job.

Figure 7.6 is an example of an application form for a job at the Hadley Engineering warehouse. In designing it I made considerable use of the Straight line tool, the Hand and the Show Page facility. Although there was nothing complicated in the drawing, I found that the window size was rather restrictive, so I had to keep moving the window. As I drew, I also referred frequently to the Show Page option to see how the whole thing looked. When you use Show Page as well as being able to reposition the window, you can also move the whole picture around on the page. You do this by putting the arrow outside the window area and dragging. This will pull the whole picture in any direction. One thing you must be careful of, however, is not to pull the picture off the edge of the page as this will erase the picture for good — this is one point where MacPaint doesn't offer you a second chance.

As a final test I printed out the form and filled it in to check that there was enough space in each of the boxes for the details requested. It is also helpful to fill in a copy of the form to make sure that the questions you ask are clear and unambiguous. If you have devised a form for obtaining particularly complex information it is often worth including a completed copy of the form to act as guideline. You could create a completed copy in MacPaint.

Conclusion

When I first approached MacPaint I looked on it with a degree of scepticism. The manual and Scrapbook showed me marvellous pictures of Japanese girls and realistically scaly fish. I thought these were impressive but certainly beyond the limits of my artistic talent. I feared I had landed myself with an expensive doodling toy.

Hadley Engineering Ltd

Job Application Form

Please complete this form in black ink and return to Ms. J. Davies, Warehouse Manager, Grange Lane, Cranley before 5th September.

Surname		First name(s)	
Address		Date of Birth	
		Nationality	
		Sex	
Phone no.			
Education			
Dates	Name & Address of Institution	Exams passed	Grade
Employment (most recent first)			
Dates	Employers name and address	Job title & responsibilities	
May we take up references from your last employer?			
I certify that all the above information is correct.			
Signed Date			

Figure 7.6: Application form

I'm pleased to admit that I was wrong. I looked at the everyday articles around me and saw that many of them contained drawings, pictures, diagrams. Articles that I used all the time, some of which I bought, some of which I needed to produce myself. These were all fertile ground for creating examples of practical ways to use MacPaint in business and I have exploited them in the past three chapters. I make no apologies for this as my aim has been to show that MacPaint is not a computer-orientated artist's tool, it is for people whose talents lie in the commercial world and who need a practical business tool.

In these chapters you have seen how MacPaint works, how to use it yourself and some of the things you can use it for. I've shown you a number of different areas where you can use MacPaint to create your own designs.

CHAPTER 8

Integrating MacWrite and MacPaint

In this chapter I am going to be talking about how to transfer pictures from MacPaint to MacWrite. I shall also be giving you some examples of when it is best to use this technique.

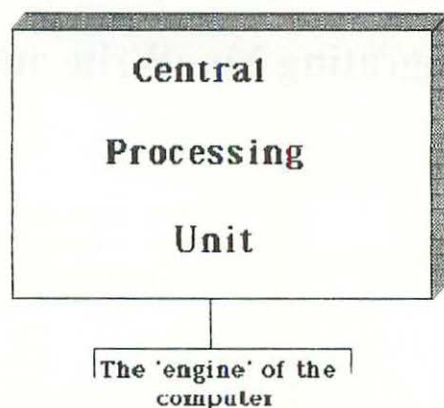
Transferring from MacPaint to MacWrite

As I discussed earlier on, although it is possible to use text in MacPaint, it does not offer the range of facilities of text editing and formatting which are available in MacWrite. Therefore if you want to combine pictures with text it is better to transfer your pictures into MacWrite than try to set up the text with MacPaint's limited facilities.

In Chapter 7, I suggested some instances where introducing MacPaint diagrams into a MacWrite document could be useful. One of the examples I gave was that of incorporating diagrams set up for overhead slides into the training manuals accompanying a course or seminar. I am going to look at this example in more detail now and show you how to move diagrams from MacPaint into MacWrite and make alterations to them.

Take a look at **Figure 8.1**. In it, I have reproduced part of a page from a training manual set up to accompany a course called 'What is a computer?' The text of the page is interspersed with some of the diagrams created in chapter 7.

Drawings can be introduced into MacWrite by two means. One is directly via the Clipboard in which case you make a copy of the drawing you want to transfer and then swap straight to the MacWrite document and Paste it in. This has the advantage of speed but the disadvantage of being able to move only one picture at a time. This can become very tedious, particularly if you only have one disk drive and programs and files stored on separate disks. The alternative is to use the Scrapbook. This is slower than using Clipboard, because the drawing must first be selected and copied; then



One of the most important parts of a computer is the **Central Processing Unit** (CPU for short). This is the component which does all the work. As its name suggests it processes any information you give to work on. This work may be doing calculations, making a copy of a file, printing out a document and many other tasks. Each of these jobs will be handled by the CPU. You can think of the CPU as the engine of the computer.

The CPU processes information in small chunks, it would not take a whole file of information at once as it does not have room for it. Another component of the computer takes care of storing the information while the CPU gets on with the actually item by item processing. This component is called **Memory**.

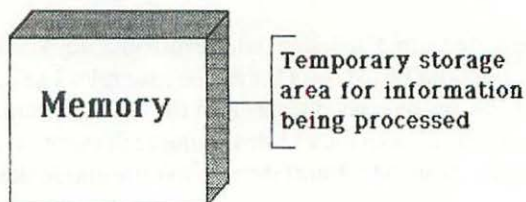


Figure 8.1: Notes on 'What is a computer?'

Scrapbook must be opened and the drawing pasted into it. Scrapbook will, however, keep a permanent copy of each diagram you copy to it, so the drawings may be used more than once.

Which ever method you use, once the drawing has been selected and copied, you then need to close MacPaint and open the MacWrite document. You can then paste the drawing where you want it. For the sake of speed, I would say it is better to put the diagrams in as you go along, otherwise you spend a lot of time scrolling backwards and forwards to get the cursor in the right position.

The area of the diagram is not actually accessible for adding text. If you try to position the cursor near the drawing, MacWrite will respond by drawing a box round it similar to the Selection box that you drew in MacPaint (see **Figure 8.2**). This box has several uses.

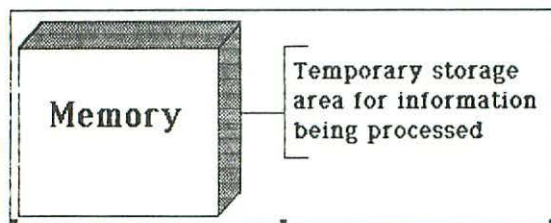


Figure 8.2: MacPaint diagram in MacWrite

- (i) Changing the position of the drawing on the screen — you do this by putting the arrow right on the outside line and dragging the box either to the left or the right. It is not possible to move up or down.
- (ii) Altering the size of the drawing — on the bottom line of the box are three small black squares. If you put the arrow on one of these boxes and drag it the shape and size of the picture will change. This can be helpful if you want to use a diagram which was originally quite large and for space reasons needs to be condensed in the text. (**Figure 8.3.**)

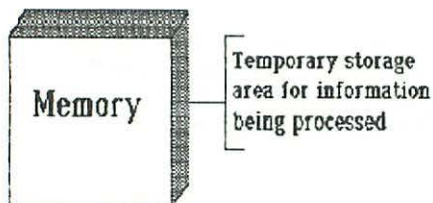
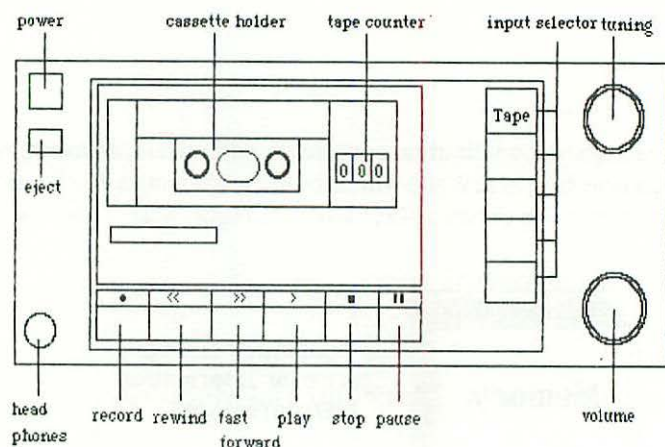


Figure 8.3: Condensed MacPaint diagram

- (iii) Copying, moving or deleting the diagram — when the box is in place, the diagram can be cut, copied or pasted in the same way as you would do in MacPaint with the Selection box or with highlighted text in MacWrite

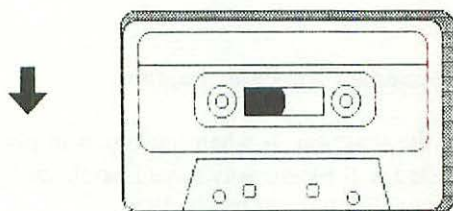
The box will disappear when you click on the mouse outside the border of the box and you can resume normal editing.

Apart from moving the MacPaint diagrams across the screen and changing their size, it is not possible actually to edit the picture itself. Similarly, if the diagram has any text attached, you will not be able to alter it, either. You will find that the full width of the screen is inaccessible where you have put the diagram. This means that if you want to



Instructions

1. Plug in the cassette recorder and switch it on by pressing the button marked Power. Wait a few moments while the recorder does its self-test.
2. Press the button marked 'tape' to indicate you want to use the cassette player.
3. Open the cassette player door by pressing the eject button. The door will open slowly by itself, do not try to force it open.
4. Take the cassette you want to play out of its case and, with exposed tape end pointing downwards, put it gently into the cassette player. The tape will be spooled anticlockwise (left to right) so the lefthand spool should be full when you start playing it.



5. Having inserted the tape, push the door closed gently. Do not attempt to start playing it until the door is completely closed.
6. Push the button marked play on the diagram above to begin listening to the tape.

Figure 8.4: Instructions for operating a cassette deck

add any notes to the side of the diagram or if you want to label it, you must do it in MacPaint before transferring it.

Another limitation is that you can move the picture only as a block. You cannot select individual parts of it as you can in MacPaint. So if you want to use different parts of a picture as separate items, you will have to move them separately.

Some applications integrating MacPaint and MacWrite

Instructions

In chapter 7, I talked about using MacPaint to produce diagrams to replace written instructions. It is possible to condense and simplify instructions considerably by using symbols. There are, however, occasions where diagrams alone do not convey enough information to be fully understood. In such instances, the diagrams act to complement the written instructions but cannot entirely replace them.

Using a combination of diagrams and written instructions is common for electrical appliances.

To illustrate how to set up these types of instructions, I have deliberately chosen a simple and familiar example — using a cassette recorder (**Figure 8.4**). I chose this because although it is familiar, it reveals an important point about writing any kind of instructions — you mustn't forget the basics. It is easy to plunge straight into the seemingly complex part of an operation, forgetting the necessary but simple steps leading up to it.

Notices

MacPaint allows you to use much larger lettering than MacWrite, 72 points compared with 24 points. This means that in cases where particularly prominent lettering is necessary to draw people's attention to a notice, it can be convenient to type the heading in MacPaint and then transfer it into MacWrite where you add the rest of the text. This is the method I used in devising the notice illustrated in **Figure 8.5**.

MacWrite to MacPaint

While it is possible to move text into MacPaint from MacWrite, this facility is limited to the amount of text which will fill the MacPaint window. If you try to transfer a longer piece of text, the part which lies outside the window will disappear. This means that bringing in text is laborious and pointless, since it is as easy to transfer the other way.

In case of FIRE

1. If possible, raise the alarm and inform your supervisor.
2. Do not attempt to tackle the fire.
3. Leave the building by the nearest exit.
4. Do **not** stop to collect your personal belongings.
5. Report to the designated meeting point for your area of the factory and wait there until a roll-call has been done. Please do not leave until this has been done.
6. Do not reenter the building until you are told it is safe to do so.

Figure 8.5: Fire Notice

Conclusion

MacPaint gives you great flexibility in drawing diagrams and adding text to them. In size of lettering it has even better facilities than MacWrite. It does, however have only limited text editing facilities, so there are occasions when transferring diagrams to MacWrite can be an advantage. These occasions are usually when you want to include illustrations in a long text document.

Although it can be convenient to make the transfer, there are some restrictions on doing so. First, once transferred the area occupied by the diagram is not accessible, except for moving and changing the size of the picture. The diagram cannot be larger than the size of the MacPaint window, because this is the largest area which may be selected in MacPaint and so copied to the Scrapbook.

Transferring can be a very effective way of introducing illustrations into text documents and thus making them more interesting and more informative.

CHAPTER 9

Closing remarks

I am going to use this chapter as a summary of the key features of The Macintosh and MacPaint and MacWrite. I shall give some general rules about using them.

Macintosh

Macintosh is an enjoyable machine to use. Once you get the hang of the mouse and icons you can move around quickly. They are consistently used in Finder, MacWrite and MacPaint so once you have learnt the principles it is not difficult to apply them to the different packages. When writing this book, very little of the promised software (MacProject, MacBasic, MacLogo etc) had been released, but if they follow the same pattern as MacPaint and MacWrite, the first hurdle of getting familiar with the basic tools should be very easy to overcome.

Disk limitations

I have a Macintosh which has one integral disk drive. I find this put a number of restraints on the use of the machine.

Finder, MacPaint and MacWrite take up a large portion of the Write/Paint disk. This means that most of the files you create have to be stored on another disk. With only one disk drive, this means a considerable amount of swapping backwards and forwards between disks whenever you want to open or close and save a file. Admittedly, Finder does most of the work for you, but the time it takes does cause irritation, particularly when you want to copy several files from one disk to another. Unfortunately there is no way round this.

The limited space on the disk means that, on occasions, I am confronted with a message telling me that the disk is nearly full and that I will have to delete some files if I

want to continue. This happens most often in MacPaint which demands something in the region of 35 to 40k of disk space in which to operate. This can be quite aggravating because the Macintosh will then close my file for me whether I want to or not. This has made me very space conscious. Here are several ways to economise on space used on the Write/Paint disk:

- 1) Clear out any unused items from Scrapbook — it is a real space hog. The examples provided are interesting to look at but I hardly ever use them.
- 2) I don't use the Notepad File which is provided on the disk so I deleted its contents — I find that just looking at it creates a file which used up 2k of precious space.
- 3) Finder itself provides you with a method of clearing space — the Font Mover. Most of the time I stick to straightforward Font styles and save the others to a separate file where they take up less space.
- 4) Delete the sample files which came on the Write/Paint disk.

Although the space saving is meagre, it is often the difference between having to stop and being able to keep going. The problem of space has also made me decide that an additional disk drive is really a must if you want to use the machine and your time most efficiently.

Finder

Unlike many operating systems, I find that not only is Finder very easy to use (again thanks to the mouse and icons) but very robust. By that, I mean that it very seldom gives out on me. In fact, there have only been two occasions. On both occasions, it was clear what I had done wrong and I was given the chance to start again immediately.

MacWrite

MacWrite's main strengths are that it combines all the features you would expect of a word processor with the additional benefit of being able to vary the size and style of lettering. Most of what you need is on the screen or easily accessible in menus. You can save your energies for typing documents rather than hunting through a manual to find, say, the underline key combination. Any function which is not immediately visible on the screen will usually be presented through a series of dialogue boxes giving you the available options once you have chosen a facility from the menu.

Editing

The Edit Menu is consistent in Finder, MacWrite and MacPaint. The select, cut, paste, copy procedures are standard and contain several safeguards. In MacWrite, for every

editing option there is also the possibility of undoing it and then redoing if you choose. Not all word processors are so forgiving.

As well as having menus to work, with MacWrite lets you use all kinds of shortcuts on the keyboard to give you access to the editing options. In fact, I find that I don't use these very much as it is just as quick to use the mouse.

Font and Style

Although most of MacWrite's facilities are fairly standard, Font and Style are two features which make it extraordinary. The usual range of word processing style options extends to under-lining and emboldening. MacWrite additionally offers out-lining, italics and shadowing. Different fonts and letter sizes are also exceptional features of MacWrite. Having these available expands the range of applications so that you can be more imaginative in writing standard documents, and design documents and text that ordinarily would not have been possible. Letterhead and advertisements are examples.

Other Features

The facilities available in Finder are also useful in MacWrite. In chapter 4 I showed you how to use the Scrapbook to keep a standard paragraph, how to use the Calculator to do the sums for an invoice, and how to use the special characters to write a letter in French.

None of these features is unique to MacWrite as a word processor, but the ease with which you can use them is certainly untypical. MacWrite actually shows you these features on the screen, you don't have to hunt for them or stumble on them by accident.

I find one of the best features of MacWrite is that learning how to use it is actually enjoyable. Usually getting familiar with a new package involves a considerable amount of frustrated effort as you struggle with unhelpful instructions.

MacPaint

At first sight, MacPaint is a very unusual and apparently unbusiness-like package. That it does not deal in columns of figures or 50 page management reports makes it seem rather frivolous. It is hard to imagine business people wasting their time drawing pictures with a sophisticated etch-a-sketch toy.

These prejudices were compounded when I first started to use MacPaint and found that my first efforts were not much more than doodling.

It does not take long, however, to realise that diagrams and illustrations play a big part in many areas of business. Advertising relies heavily upon them, technical information and instructions are clarified with diagrams and symbols and signs are increasingly taking the place of words in giving information. Looked at in this light, MacPaint becomes a much more useful tool and can be used to create diagrams which don't require a lot of skill in drawing.

Tools

To use the MacPaint drawing tools most effectively you need some practice with manoeuvring the mouse. Once you have mastered that it gets easier. As I discussed in the chapters on MacPaint, the tools fall into two broad categories — one for free form line and shape drawing and the other for drawing more controlled, regular shapes. The second of these proved to be the most useful.

Creating different shaped and patterned boxes is really the key to get the most practical benefit from MacPaint. Most of the examples I used in this book depended largely upon drawing rectangles and oblong shapes. I also used the straight line tool extensively and of course the Eraser.

Using MacPaint becomes easier once you realise that everything you draw is made up of small black dots which, by using the FatBits facility, can be manipulated individually. This means that you can make your diagrams very accurate without actually having to be tremendously skillful at drawing.

Patterns

MacPaint gives you a more than adequate number of patterns and also the opportunity to create your own. Once again they are made up of combinations of dots and can be grouped to represent roof tiles, bricks and a whole range of other designs. Each can be used to fill areas, to draw lines and borders or as shading.

Text

Although it lacks the text editing facilities of MacWrite, MacPaint does give you the same style and font features as MacWrite and also lets you use larger font size — up to 72 point. Generally, text is used for labelling and describing diagrams. It can, however, be helpful to use the larger font sizes which are not available in MacWrite.

Overall I find MacPaint a very useful tool and not at all the gimmick I had expected it to be. Its limitations are mainly caused by the relatively small work area — the

window. Most of the time it is possible to overcome this by moving the window with the Hand tool. It is restrictive on occasions, however, when I want to transfer a document from MacPaint to MacWrite and find only a window at a time can be moved. Also if you want to rotate a diagram which is as large as the window, turning it on its side means any part which extends outside the current window will be lost. In these instances, I wish that the facility to move diagrams could be extended to apply to the Show Page feature so that larger diagrams could be manipulated.

Imagewriter

Thus far I have really said very little about the Apple printer which I use. That's because it works so easily and so well that I don't have to think about it at all. I just switch it on, load it with paper and that's all there is to it. I have the 10 inch model and I find it adequate for all my needs.

In addition, if you study your Imagewriter User's Manual you will see that it is also possible to extend the features available to designing your own fonts. I haven't attempted this as the range already available is quite adequate for me.

A final word . . .

My aim in this book has been to show you how the Macintosh can be used in business. I have shown you how to write letters, adverts and forms, to create diagrams to illustrate, inform and instruct. Along the way I got a good deal of enjoyment from discovering what Macintosh could do. I did not set out to cover every aspect of the Macintosh, but to select those features which I find I use the most. You may have found great uses for some of those which I have overlooked — I hope I have left something to your imagination.

I have covered the only basic aspects of Macintosh — the software which comes with the machine. However, there are certainly other packages available — the 'Multi' series and two accounts packages MacCash and MacLedger, with a considerable number to come in the near future. I am certainly looking forward to getting my hands on them and testing Macintosh's powers further.

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This book shows you how to master the built in facilities of one of the most exciting new desk top micros, the Apple Macintosh.

The Macintosh, together with its bundled software packages MacWrite and MacPaint, has set new standards for user-friendliness, through its use of pictures (icons) to represent commands and operations which, on other machines, can only be carried out using complex typed instructions.

Alison McCallum-Varey shows how you can quickly master the basic facilities of MacWrite and MacPaint, using the icons and mouse, before moving on to more sophisticated applications. Because of the ease of use of the Macintosh you will find that, armed with this book, you will soon be able to prepare complex reports, graphs and illustrations using MacWrite and MacPaint.

Several examples of each type of application are included, so that you can practise using each of the many helpful commands. No experience of computing is assumed, and the author uses a helpful and sympathetic style throughout, so the book will be ideal for the first-time users of the Macintosh.

Alison McCallum-Varey runs a software design consultancy based in London, England. She is author of Quill, Easel, Archive and Abacus, a book for users of the software of the same name from Psion Limited.

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