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Personal Publishing with the Macintosh[®]

Featuring PageMaker[®]2.0

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Terry Ulick

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Introduction

T his book is a revision to *Personal Publishing with the Macintosh Featuring PageMaker Version 1.2.* But, I have have tried to do more than simply revise the original PageMaker book. Since writing it a year and a half ago, there have been many changes that have affected the evolution of the book you are now reading.

There are obvious changes. The Macintosh has grown into a family of remarkable computers including the Macintosh Plus, Macintosh SE, and Macintosh II. When the original book was written, there were only two wordprocessing programs and a few graphics programs. PageMaker (the focus of this book) was fairly new. There were hardly any image scanners, no large screen displays, and very few hard disks for mass storage. The only Post-Script laser printer was available from Apple Computer. As you will learn, all that has changed. The Macintosh world has exploded with product development in all areas, all to the benefit of personal publishers.

For me, there has been another, more significant, change that took place since writing the original version of this book.

When I first wrote *Personal Publishing with the Macintosh*, I wanted to write a book that would not only show people how to get started with a Macintosh and PageMaker but would also teach them something about the rather abstract art of publishing. I am the editor and publisher of *Personal Publishing* magazine. Through five years of publishing it and giving talks and courses on desktop publishing, I began to realize that people needed more than another computer book. When I taught desktop publishing, I discovered that most people had problems with the conceptual aspects of page creation and the entire publishing process.

It is easy to learn how to use a Macintosh and PageMaker. It is hard to know how to create documents that accomplish their goal. So I attempted to blend my philosophy on publishing with a how-to tutorial on using a desktop publishing system. It was different from other computer books, and I didn't know exactly what the reaction would be.

The first reaction I got to my approach to this subject area came at a computer show. Someone who had read *Personal Publishing with the Macintosh* recognized me from my picture on the back of the book and came over to talk to me. He said that my book had changed his life. Just like that. It had changed his life.

In my mind, I immediately reacted with a "C'mon, don't lay that on me. That book couldn't change your life. It's just a computer book. Not the Bible. Not a self-help book."

But the person went on to tell me that there were things that he had always wanted to publish and share with people. He did not, however, have the skills needed to do so nor did he have the financial resources to publish traditionally. He said that *Personal Publishing with the Macintosh* showed him a way that he could afford to publish due to the attractive price of the publishing system. In addition it had given him the basic skills and inspiration to go and give it a try. He did, and he was very happy about it. He told me that I had shown him the way. Little did he know that he had shown me the way.

I consider desktop publishing a totally beneficial technology. You can only benefit from it. Unlike word-processing programs or spreadsheets, you can see dollar savings in the cost of typesetting and pasteup. In many cases, like short-run printing, you can save money by using a laser printer as a printing press. If you have the need to communicate in print in a professionallooking manner, there is very little you can do to lose when you adopt the personal publishing philosophy. With my knowledge of publishing and the fact that desktop publishing can be very helpful to people, I realized that I could, and should, do more than talk about what buttons to push. Recently, dozens of books and hundreds of magazine articles have been written on the subject. They all concentrate on the machines and the programs. Since much of this information is written by computer journalists who have never really published anything, they cannot relate to the publishing process. All they have done is write. A desktop publishing system allows you the power to publish: to make public announcement of, to make known. Publishing is the power to influence, to enlighten, and to share.

As you read this book, remember that. As I explain the devices used, the keystrokes, the mouse movements, and the mechanics of desktop publishing, remember that what I am really explaining is the road to the power to publish—to change your life.

Sharing the knowledge of the publishing process has forever changed me. I have inspired people to go out and inspire countless others. In that sense, I have helped more people than I can imagine. I have contributed something to this life and to this world. That is the beauty and satisfaction that personal publishing brings me.

Read on, publish, and may you share in the rewards that I have experienced as a publisher. They are rewards that have forever changed my life.

> Terry Ulick Itasca, Illinois

PART ONE

Assembling a Personal Publishing System

CHAPTER



A Personal Publishing System

I must create a system or be enslaved by another man's. —William Blake

The Macintosh personal computer offers you a wonderful way to assemble a variety of individual software and hardware products into a system. The Macintosh, including the Macintosh Plus, the Macintosh SE, and the Macintosh II, has enough RAM (random access memory) to allow a number of programs to reside in the machines memory at one time and be accessed when needed by the MultiFinder (part of the operating system of the Macintosh). The MultiFinder is a great feature because it will allow you to load up a number of programs that you will find handy to have access to at one time. MultiFinder allows you, for example, to load PageMaker, Microsoft Word, and MacDraw into the Macintosh's RAM. All three programs are up and ready for you to use. When you switch to one program, the one you were working in will freeze, keeping all your data intact when you return to it. As you will learn, this is a fantastic way of creating a true publishing system.

Keeping more than one program in the basic memory of the 1mb (megabyte) of RAM is impractical, but all of the versions of the Macintosh now allow memory expansion to at least 4mb, which will provide plenty of

RAM for use with MultiFinder. It is important to have enough RAM; PageMaker requires 512k of RAM to operate, more than is available when using a 1mb Macintosh with MultiFinder.



Helpful Hint

The MultiFinder is simple to use and is one of the most useful features for the Macintosh. If you are not familiar with the MultiFinder, it is the part of the operating system that allows you to load more than one program into the memory of the Macintosh at one time. Whenever you choose, you may switch among the programs. For example, if you are working in MacWrite and find that you need to create a drawing for your text file, normally you would have to save your MacWrite file, quit the program, start MacPaint, create your drawing, move it to the clipboard or scrapbook, quit MacPaint, return to MacWrite, and paste in the graphic. Those are a lot of steps for such a simple task.

By using the MultiFinder, you would start MacWrite, return to the Finder (the Desktop where all the program and data files are located), and start up MacPaint. Then, whenever you wish, you can go to either program, or the Finder to start up even another program.

When the programs are loaded into the MultiFinder, an icon of a Macintosh screen will appear in the upper right corner of the screen. This is the MultiFinder icon. (See Fig. 1-1.)



Figure 1-1.

The Finder with the MultiFinder icon in the upper right-hand corner of the menu bar. You can see which programs are active in the MultiFinder by going to the Apple menu and clicking on it. The programs in memory will be displayed at the bottom of the pull-down menu.

With the power of the MultiFinder, you can assemble a group of programs that work together as a system. For example, if you are writing text that has illustrations, by using the MultiFinder you could load MacWrite and MacDraw together and switch between the two programs while you create your document. The same concept would apply if you were creating a financial document. You could load the MultiFinder with MacWrite and Microsoft Multiplan and copy spreadsheet tables into your text file.

The MultiFinder transforms the Macintosh from a single-application computer into a multiapplication computer. At the time of this writing, MultiFinder allows some multitasking (background printing, for example), but it is not yet a true multitasking operating system. Such systems allow the programs loaded to continue operating (such as sorting a database file while you are working with another program) when you move to a different program. Using the MultiFinder, the action of switching freezes the operation of whatever program you are using when you switch to another program. The program has been designed to operate as a true multitasking operating system, and future versions will include such functionality. For now, it is quite useful for the tasks you will encounter in creating complex documents. (See Fig. 1-2.)

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Figure 1-2. The MultiFinder acts as a "window" on your configured system, allowing you to move from program to program, sharing data from each program. The MultiFinder is the magic program that allows you to create an easy-to-use publishing system.

Hardware Switching

Just as the MultiFinder allows you to assemble a combination of programs to create a larger software system configuration on your Macintosh, you may also work with a variety of input and output devices. Hardware (such as the Apple LaserWriter, the Apple LaserWriter Plus, the Apple ImageWriter dotmatrix printer, external floppy disk drives, hard disk drives, graphic input tablets, communication links to other computers, and digitizers) may all be connected to a single Macintosh to create a comprehensive publishing system. The Macintosh is capable of supporting a variety of devices, all with ease.

A typical Macintosh publishing system consists of a Macintosh, a hard disk drive, a LaserWriter Plus, and a digitizer for scanning photographs or line art (graphics), and a large screen monitor. Similar in nature to the MultiFinder, the Macintosh allows you to switch between many different devices. For example, a standard LaserWriter, a LaserWriter Plus, and an ImageWriter can all be connected to the Macintosh at one time. Using "Chooser" from the Apple menu will allow you to switch between these devices at any time.

For multiple input devices (such as a cable from another computer for data transfer or a digitizer), you can purchase inexpensive serial port switching devices and choose between the various devices you have connected to your Macintosh. Many hard disks and digitizers use the Small Computer System Interface (SCSI) connector of the Macintosh, which allows the daisy-chaining of up to seven devices.

Support Products

In addition to the basic programs (word-processing programs, drawing programs, page makeup software, and MultiFinder), there are many supportive utility programs that will enhance and round out your publishing system.

These programs often operate as desk accessories (called up from the Apple icon on the Macintosh screen). There are spelling checkers, keyboard macro programs, art file previewers, electronic on-screen rulers, and even the Macintosh's own calculator, notepad, clipboard, and scrapbook, all of which will help complete your publishing system.

A Publishing System

Fig. 1-3 illustrates the many hardware and software products that can be combined and used simultaneously to form a Macintosh publishing system. Each of the products will be detailed in the following chapters, but for now we can see that the Macintosh is both powerful and flexible in its ability to be assembled as a publishing system.

Each of the items in Fig. 1-3 performs a unique function. All can be used as stand-alone products. Put together, they turn a simple Macintosh into a full-powered graphic arts workstation capable of creating professionalquality documents and publications.



Figure 1-3. The above hardware and software, when combined, provide all the tools needed to create professional-looking documents from scratch without leaving the Macintosh.

The System Approach

As outlined above, creating documents and publications is best handled by assembling your Macintosh into a publishing system. The magical combination of hardware and software that makes up your publishing system will evolve and grow as your skills and resources grow.

Now is the time to stop thinking of creating text as word processing, creating drawings as creating art, and putting pages together as page makeup. It is time to think of all of those functions as one and the same: publishing. And with your Macintosh publishing system, you're ready to begin.

C HAPTER

Selecting the Right Hardware

He who does anything because it is the custom makes no choice. —John Stuart

In creating your publishing system, you have many choices of hardware configurations. Whether you are about to purchase a Macintosh personal computer or already own one, you must make some choices.

A publishing system is quite different from traditional computers. The purpose of a publishing system is to create a graphic, printed product. To that end, the hardware you select (such as a large-screen monitor) may seem excessive, but you will quickly understand that conventionally configured computers were not designed for desktop publishing.

You will find that the more tools that you have to create and collect graphic images (such as a scanner) and the better you are able to envision the page you are creating (with a large-screen monitor that will allow you to view two pages—full size), the faster you will be able to respond to the page you are creating. That reaction—that response—will allow you not only to conceptualize a page but also to view it, modify it, and actually create it on the screen of your publishing system. The heart of such a system is the computer. The machine of choice in desktop publishing is the Macintosh. For smaller budgets, there is the Macintosh Plus or Macintosh SE. For all-out power publishing—including the creation of color pages—there is the Macintosh II.

Macintosh Plus

The basic Macintosh Plus, shown in Fig. 2-1, comes with 1mb of RAM, allowing for limited use of the MultiFinder, but the RAM can be expanded up to 4mb. It uses an 800k drive (a double-sided drive as opposed to the single-sided 400k drive used on the first Macintoshes). With an external 800k drive, you will find that you can have PageMaker held completely on the internal 800k drive and have your external drive free for data files and holding smaller programs (such as MacWrite and MacPaint).



Figure 2-1. The Macintosh Plus, which features 1mb of RAM, an internal 800k disk drive, an optional external 800k disk drive, and a full-featured keyboard and allows RAM expansion by adding memory to the motherboard of the computer.

As is true of all Macintoshes currently sold, the Macintosh Plus uses the SCSI connector, a high-speed peripheral port that will play an important role in future expansion products for the Macintosh Plus.

The SCSI port allows up to seven different devices to be connected in a daisy-chain fashion. The high speed of the port (320k per second) makes this possible. This new port will allow connections to high-speed hard disk file servers, optical disk technology, tape backups for your hard disk drives, and other such devices.

The Macintosh Plus, as well as the Macintosh SE and Macintosh II, incorporate two important features:

RAM Cache: The Macintosh Plus allows you to define an area of memory to hold commonly used system operations in RAM. The amount of RAM devoted to the Cache can be controlled. When used, the system operates faster because the computer does not have to access the disk drives as often for basic operating system functions. For those of you who want all the RAM available, the Cache can be turned off entirely.

Hierarchical File System: The operating system contains a Hierarchical Filing System (HFS) that allows for a logical system of file handling. The HFS allows storage for as many files as your disk drives can hold. Files can be placed on the desktop as files, but files may also be placed in file folders. This is the basis of HFS. By placing all your word-processing program files in a Text folder, and then inside of the Text folder creating a number of file folders for specific subjects, you can create a logical system of files that can be located without searching through hundreds of file names on the desktop.

Macintosh SE

The Macintosh SE, shown in Fig. 2-2, has all the features found on the Macintosh Plus, but it is slightly faster (about 20 to 30 percent), has a low-profile keyboard, can accept expansion products (such as add-on cards for large-screen displays), and allows you to mount a hard disk drive inside the actual computer. On a Macintosh Plus, you must add a hard drive externally and connect it to the second drive port or SCSI port.



Figure 2-2. The Macintosh SE.

If you are just starting out, it makes more sense to purchase a Macintosh SE than a Macintosh Plus. It's not that much more expensive, it offers expandability, and it is faster.

Macintosh II

The Macintosh II, shown in Fig. 2-3, is not only the top computer in the Macintosh line, but it is also one of the best computers ever made. It is a unique blend of the classic Macintosh, with all of the expandability of the Apple II and IBM PC, but with speed and power that make almost any other microcomputer pale by comparison.



Figure 2-3. The Macintosh II.

Unlike the Macintosh Plus and Macintosh SE, the Macintosh II comes as a large box containing the microprocessor, a combination of floppy and/or hard disk drives, and six expansion ports. In the tradition of the IBM PC, devices (such as monitors) are attached through add-on cards that fit into the expansion slots.

The open architecture of the Macintosh II allows you to create a system that fits your needs perfectly. You are not restricted to the small screen of the standard Macintosh. In fact, you can attach more than one screen, one of which could be color.

The Macintosh II is the first Macintosh to support color. Even though PageMaker works in black and white right now, the color capabilities will play a strong role in the future of creating pages. A color system will allow you to use programs (such as Cricket Draw) that work in color. If you are using offset printing for reproducing your publication, the color art you create can be set as color separations for color-process printing on a Linotype Imagesetter (a high-end typesetter that works with PostScript).

Although you may not need color at first, the Macintosh II shines in many other ways. It is an absolute speed demon. Using a 68020 processor rather than the 68000 processor found on the Macintosh Plus and Macintosh SE, the Macintosh II increases speed and performance in almost all functions. The faster processor allows the larger screens to be refreshed faster and the programs to run faster.

The Macintosh II offers everything you could dream of as the heart of your desktop publishing system. Expandability, speed, support of multiple monitors, and even color. But it comes at a price. A typical Macintosh II system with 1mb of RAM, a monochrome monitor and video card, floppy disk drive, 40mb internally mounted hard drive, and keyboard will cost you about \$6,200. That's a heavy price tag for most people.

Whether you start with a Macintosh Plus or a Macintosh II, you will still be able to create the same page using PageMaker. It works the same with all three versions of the Macintosh. The nice part is that you now have a choice of Macintosh computers—one of which should fit your budget and production needs. **Excellence In Publishing**

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Printers

The choice of printer for your publishing operation is quite simple. If you need professional-quality type, you will need a LaserWriter, LaserWriter Plus, or other PostScript laser printer (such as the QMS 800 Plus II or the Texas Instruments 2115, a heavy-duty PostScript printer).

If you plan to use your publishing system for very simple applications that do not require top-quality type, then you could use just the Apple ImageWriter II (a dot-matrix printer designed for use with the Macintosh), which is shown in Fig. 2-4, although it cannot match the speed or quality of a LaserWriter printer.





To understand which of these devices will best suit your needs, note that each machine is very different in its approach to printing pages.

ImageWriter II vs. the LaserWriter

When comparing the power of the ImageWriter II to that of the LaserWriter (or comparable PostScript printer), the first difference is the method of printing. The ImageWriter II is a dot-matrix impact printer, and the Laser-Writer is a nonimpact printer that images a xerographic drum using a laser beam. One prints images by striking the paper with tiny hammers and an inked ribbon; the other, by imaging a xerographic drum, then transferring the image to a sheet of paper.

The second major difference is the quality of the image. The ImageWriter II is designed to reproduce exactly the image created on the screen of the Macintosh. The screen resolution is only 72dpi (dots per inch). (Here "dots" stands for "pixels," small squares on the screen that can be turned on or off, from white to black. This capability allows the creation of type and graphics by turning the pixels on or off to form shapes.) When you print pages using the ImageWriter II, it simply reproduces the 72dpi resolution of the Macintosh screen. This results in a very low-resolution image. Even in a high-quality print mode, the ImageWriter II simply adds extra pixels to create darker, fuller shapes than those represented on the screen. (See Fig. 2-5.)



Figure 2-5. Images created by the ImageWriter II. Although a great general-purpose dot-matrix printer, its low resolution will not meet the needs of many personal publishers.

Additionally, the ImageWriter II is a line printer. It can print only one line, 9 pixels high, at a time. It has no on-board computer or control of what those lines will be. It is simply a reproduction tool for getting the images from the screen of the Macintosh onto paper. This is great for data, mailing labels, and draft versions of publications, but it cannot approach the raw graphic power offered by the LaserWriter.

As you will learn in Chapter 3—Selecting the Right Software, the ImageWriter II also lacks one of the most important features of a Macintosh publishing system: the PostScript page description language.

As already noted, the ImageWriter II is designed to reproduce only what is on the screen of the Macintosh. The LaserWriter and LaserWriter Plus go far beyond that capability. They contain a massive on-board computer and the PostScript language and PostScript controller. PostScript, as you will learn, uses the screen of the Macintosh to simulate only what is actually printed when controlled by the PostScript language. As a result, the Post-Script-generated images are created as a complete page, printed one page at a time, at a resolution of 300dpi, dramatically higher than the ImageWriter II. This difference is clearly illustrated in Fig. 2-6.



Figure 2-6. Images created by the LaserWriter. With its 300dpi imaging, use of xerography instead of hammers striking an inked ribbon, and access to real typefaces with the PostScript page description language, this is a powerful tool for publishing.

The workings of the LaserWriter and other PostScript laser printers are complex, but it is essential that you understand them. If you are going to spend between \$5,000 and 8,000 on a printer, it had better do a lot for you. The next section will explain, in as simple as terms as possible, how they function and why they are worth the high price.

Laser Printers

Laser printers are completely different from typewriters, letter-quality printers, or dot-matrix printers.

The major difference is that they are nonimpact printers. This means that no hammers or pins strike the paper. Instead, laser printers employ a printing system exactly like the one found in a photocopier, commonly referred to a xerography.

The Apple LaserWriters, for example, are built around a Canon LBP-CX laser xerographic print engine. Just as a photocopier images a photosensitive drum with light reflected from a piece of paper on a platen and then transfers the image to a plain sheet of paper and bonds the image to the paper with heat, the LaserWriters employ the same technique using a laser beam instead of the mirror and lenses found on photocopiers. (See Fig. 2-7.)



Figure 2-7. The laser images the surface of a xerographic drum, which is then transferred to the paper using a series of rollers and a heat-bonding process.
The laser beam images the xerographic drum as it rotates. Each line contains 2400 pixels of information (8 inches by 300dpi). The entire page is 10.9 inches long, resulting in 3270 pixels imaged vertically. The entire imaging surface (8 by 10.9 inches) contains 7,848,000 possible pixels that can be addressed. Since the PostScript language sends a description of the entire page to the LaserWriter at one time, the LaserWriter obviously needs a great deal of memory and processing power to address those millions of possible dots.

Unlike dot-matrix printers in the bit-mapped graphics mode, the PostScript language does not need to define each possible pixel. For example, a horizontal rule 3 pixels high by 8 inches wide would not be described to the laser printer as "place a pixel at coordinate x1,y1; x1,y2; x1,y3, etc." Instead, PostScript would instruct the laser to start imaging at the starting point of the rule, keep the laser on until the beam has gone eight inches, go back, and do the same for two more pixel lines.

This efficient style of describing images allows the creation of intensely complex images (such as type and art) to be described to the printer by PostScript as opposed to having each bit on the page turned on or off in the classic bit-mapped manner.

To do this, the information describing the page is stored in RAM and the laser printer works with the native PostScript language to process those instructions into movements of the laser, turning it on and off to image the page.

Additionally, PostScript laser printers conserve memory and make the use of true type fonts possible by holding the mathematically based descriptions of the type fonts in the LaserWriter's ROM (read only memory). The LaserWriter, for example, has 1/2mb of ROM, which holds the PostScript routines, three type families—Helvetica, Times, and Courier—and a symbol font. Each of the type styles features regular, regular italic, bold, and bold italic versions. In other words, the LaserWriter has thirteen type fonts located in its ROM. (See Fig. 2-8.)



Figure 2-8. Fonts available on the standard LaserWriter.

The LaserWriter Plus offers the advantage of 1mb of ROM, which contains the PostScript routines, the Helvetica, Times, Courier, and symbol fonts, plus seven additional fonts: Palatino, ITC Avant Garde, ITC Bookman, Helvetica Narrow, New Century Schoolbook, ITC Zapf Chancery, and ITC Dingbats (a collection of cute symbols). (See Fig. 2-9.) Helvetica Narrow Regular Helvetica Narrow Regular Obligue **Helvetica Narrow Bold** Helvetica Narrow Bold Oblique ITC Avant Garde Gothic Book ITC Avant Garde Gothic Book Oblique ITC Avant Garde Gothic Book Demi ITC Avant Garde Gothic Book Demi Oblique ITC Bookman Light ITC Bookman Light Italic ITC Bookman Demi ITC Bookman Demi Italic Palitino Regular Palitino Italic Palitino Bold Palitino Bold Italic New Century Schoolbook Regular New Century Schoolbook Italic **New Century Schoolbook Bold** New Century Schoolbook Bold Italic ITC Zapf Chancery Medium Italic ITC Zapf Dingbats: ♥▲****●▼I▼□*

Figure 2-9. Fonts available on the LaserWriter Plus, in addition to those on the standard LaserWriter.

Each of the additional fonts (except for ITC Zapf Chancery and ITC Dingbats) come in regular, regular italic, bold, and bold italic versions.

Hot Tip

The LaserWriter Plus costs \$799 more than the standard LaserWriter, and a standard LaserWriter may be updated to a LaserWriter Plus at any time for that amount. Adobe—the manufacturer of the PostScript language, controller cards, and fonts—charges \$185 for a typical family such as Palatino Regular, Palatino Regular Italic, Palatino Bold, and Palatino Bold Italic. Consequently, buying downloadable versions of these fonts on disk (discussed in Chapter 2) would cost over \$1,200 to get the typographic resources of the LaserWriter Plus. As a result, if you like the type styles on the LaserWriter Plus, it is more economical to purchase it than use a standard LaserWriter with the same fonts in downloadable form. As shown in Fig. 2-10, the two laser printers are identical.

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 The LaserWriter and the LaserWriter Plus are identical in appearance. Neither contain any complex controls; instead, they have simple lights to indicate the condition of the unit (such as a yellow light for when the unit is out cf paper).

Both LaserWriters, and most other PostScript laser printers, contain interfaces for AppleTalk and a standard RS-232C port.

The RS-232C port allows the printers to work with virtually any computer. Any computer using a communications program and talking to the LaserWriter in PostScript will let PostScript files be printed. There is, in addition, a special setting that allows the LaserWriters to emulate the Diablo 630 command set. This allows the units to act as letter-quality printers using the Courier monospaced font, controlled by any word-processing program that drives the Diablo 630 printer.

All the processing in the LaserWriters is handled by a Motorola 68000 processor—the type that controls the activity of the Macintosh itself. In fact, the LaserWriters are essentially very powerful computers that create images on paper instead of on a display screen.

The printers can, once a page is described to the printer (anywhere from a few seconds to a few minutes, depending on the complexity of the page), output pages at up to 8 per minute. A wide variety of papers can be used, including transparency materials, and using the manual feed slot, odd-sized sheets and envelopes can be used. Heavy-duty printers (such as the Texas Instruments 2115) can hold 500 sheets of paper and output pages as fast at 15 per minute.

Obviously, there is a lot that can be said about laser printers. In fact, there are books devoted exclusively to their workings. This discussion should give you a working knowledge of the units, their power, and why they are such an important part of your publishing system. The combination of the 300dpi imaging power, the PostScript language and controller, the excellent resident typefaces, and the ability to use the printer with ease from not only the Macintosh but almost any computer makes PostScript laser printers premier personal publishing tools.

Hard Disks

From the description of the PostScript laser printers, you can see that imaging a page in the highly graphic form used with a publishing system requires large data files. A typical PostScript file describing a 16-page document can take up to 270k of disk space. You will quickly realize that, if you put enough pages together, you will need more storage space than even the Macintosh Plus 800k disk drives offer. -----

Hot Tip

An attractive storage system for your files is the Apple 20mb SCSI Hard Disk. The data capacity is 20.77mb (formatted) or roughly the equivalent of twenty-five 800k disk drives. This would allow you to use the hard disk as your primary storage device, holding all your programs and data files.

The decision to purchase a hard disk for your system is one that will be based upon the volume of data and programs you work with. Even using the MultiFinder, the Macintosh must access program and data files during operation. If you have MultiFinder fully loaded with four programs, you may find yourself having to switch disks in and out of disk drives. With all programs and data residing on a hard disk, you will eliminate the need to swap disks. In addition, the SCSI hard disk accesses information much faster than a floppy disk drive.

In building a serious publishing system, the mass storage offered by a hard disk will benefit you. Not only will you have many programs and vast amounts of data available for use, but you will also have a faster-working system.

Hard disk drives are available from Apple as internal units for the Macintosh SE and the Macintosh II. The SE has a storage capacity of 20mb, while the II can store up to 80mb. External hard disk drives are available for all the Macintoshes using the SCSI port. Drives from Apple are available in size from 20mb to 80mb. Hard drives from other manufacturers offer storage as large as 300mb.

When purchasing a hard disk, leave yourself room for future expansion. You may at first feel that a 20mb drive will suit you fine, only to learn later that a 40mb drive would have been more practical.

The Assembled System

The ideal Macintosh publishing system shown in Fig. 2-11 includes the speed and performance of the Macintosh II, the wonderful library of resident type families of the LaserWriter Plus, a 19-inch large screen display, and the mass storage of the Hard Disk 80. In addition, the system should include a second disk drive (for easy duplication of disks, holding master disks for copyprotected software).





Peripheral Hardware

Beyond your base publishing system as detailed earlier, you will find that you can make your system even more powerful by adding a few key peripherals. Most are inexpensive, yet they will prove to be worth far more than their price.

The basic peripherals to your system fall into three categories: graphic input devices, mouse alternatives, and communication links.

Graphic input devices, quite simply, allow you to take real objects or images and convert them into a picture on the screen of your Macintosh. This process is called digitizing.

Being familiar with a Macintosh, you will no doubt have your opinions on the mouse. People either love it or hate it. I have come to truly appreciate the speed and simplicity of the mouse, but there are definitely some activities I cannot perform with it, such as tracing a line drawing with great detail, or writing or drawing as if I were holding a pen or pencil. For these situations there are graphic input tablets. As will be described later, such tablets act as an electronic sheet of paper where you can write on the surface, replacing the mouse with a pencil-shaped stylus.

Finally, there will be times when not all of the information in your publication will be created on your computer. You may wish to get information from an electronic bulletin board, on-line information service, or another computer. For such situations, you will need a modem, a cable for connecting to the modem or another computer, as well as the software to control the communications between your Macintosh and the outside world.

Digitizers

Microcomputers are becoming quite capable in the capture of real-world images for reproduction. Digitizers for the Macintosh can reproduce line art accurately and can create a pretty decent halftone of a photograph.

Line art (such as drawings, type, and unique items such as company logos) can be digitized. Since the images are generally saved in the MacPaint file format, you may go in and clean up the images using MacPaint's Fatbits feature and eraser, as well as any of the other drawing tools to enhance the digitized image. The ability to clean up line art makes it possible to incorporate company logos, technical drawings, and other art that would be difficult to create from scratch using MacPaint. (See Fig. 2-12.)



Figure 2-12. Sample of a logo captured by a digitizer, and then enhanced and cleaned up using the Fatbits editing feature of a paint program.

Although line art reproduces well enough to be cleaned up, digitizing photographs presents a different set of conditions. Unlike line art, photography includes a full spectrum of grays. There is no way for a computer, working in a bit-mapped mode (pixels that are either black or white), to represent the color gray. It can only show black or white.

The reproductions of photographs you see in magazines and newspapers face the same problem. A newspaper, for example, is printed only with black ink. To reproduce a photograph, a halftone must be made. Many people find this process is a bit difficult to comprehend. It is really an illusion anyway. What you see is really a collection of black "dots" that are made larger or smaller. These dots are very small. When side by side, an illusion of the photographic original is created by the different sizes of dots. The smaller dots give the impression of light grays or no dot at all for white, and larger dots give the impression of darker tones, including full-size dots side by side to represent black. All the dots are capable of being the same size (a full dot creates black), but instead the dots shrink in size to create a matrix of different sizes that give the impression of the gray tones found in a photo. The easiest way to understand this is to examine Figs. 2-13 and 2-14 or a halftone from a newspaper.





A photograph that has undergone conversion to a halftone using a screen placed in front of a piece of film that can create only black or white images. The screen converts the gray values into large or small dots.

If you look closely, you can see that the photos in Fig. 2-13 are made up of thousands of tiny dots. The more dots per inch, the finer the appearance of the halftone. Most newspapers use halftones that are made up of 65 lines of dots per inch. Most magazines use 133 lines per inch. Higher-quality printing allows halftone screens of up to 300 lines per inch, resulting in a halftone image with dots so small it is hard to tell that they are there at all!



Figure 2-14.

When magnified, the dot pattern and the various sizes of dots that make up a halftone can be seen. Note that all the dots are part of a grid that allows them to be the same size, but they are made larger and smaller to simulate gray.

Reproducting photographs uses a process not unlike that of the Macintosh screen—a matrix of dots. However, unlike the dots in a halftone, computer dots (pixels) can be only one size. They cannot shrink to create an illusion of gray scale information. Pixels on a computer can be either black or white, and all are the same size.

As you can see, this creates a real dilemma when it comes to creating an electronic halftone on the Macintosh. There are ways for a halftone to be created, but as of now, the results are not of a quality equal to the film halftones used in conventional printing. For example, using a LaserWriter with a resolution of 300dpi, it is conceivable that you could create a halftone dot matrix of 5 by 5 pixels, or 60dpi (in 5-pixel matrix dots). Each matrix contains 25 dots that can be filled with varying numbers of pixels to create a gray tone. For example, a very light gray would have only one pixel made black in the very center of the matrix, and a black would be made of turning all 25 pixels in the matrix to black pixels. The various combinations in between would, conceptually, give you a workable set of gray-scale information from which to create a halftone.



Helpful Hint

Conceptually, this works well, but it cannot be executed effectively. The devices that can work out this complex system are very expensive, and the resulting electronic halftones take a long time to create and require an enormous amount of storage space on your disk drives. For all practical purposes, if your publication needs a good halftone, the best way to get it is still to have a professional printer create a film halftone for you and to place it in your publication as a film negative or as a positive version that you add to your page.

This does not mean that photography and digitizers cannot work well together. Far from it. The current crop just cannot equal the quality that we are used to in other printed matter.

Recently, new scanners have been introduced that offer support for gray-scale information. The halftone still prints out to the resolution of the printing device (so a LaserWriter 300dpi halftone will be crude next to a 2540dpi Linotype Imagesetter halftone, which will be near-magazine quality), but with gray-scale information captured, the image may be edited for contrast and brightness in specific areas once the image has been captured. Unlike a simple scanner that creates a bit-mapped image at whatever resolution it works at (300dpi, for example), a gray-scale capture will print to the quality of whatever output device it is printing to.

If you are planning to use a scanner for straight line art printed on a 300dpi laser printer, then a low-cost bit-mapped scanner will work great. If you plan to create halftones and print them at a variety of resolutions on different dpi output devices, then you will want to shop for a scanner that captures gray-scale information.

In either case, I suggest purchasing a flatbed scanner. This type of scanner works much like a photocopier. It has a lid that opens, and you place your art on a glass platen. This allows you to position your art precisely for the scan. A sheetfed scanner, one which pulls your art with rollers over the scanning element, does not allow precise control of the position or alignment of the original art. If you want your horizontals and vertical lines to remain true horizontal and verticals, the flatbed scanner is the only way that you can control the position of the art relative to the scanning element.

Graphic Input Tablets

There has been one area of debate about the Macintosh that still rages to this day: the mouse. You either love it or hate it. But if you are going to use a Macintosh, you will have to accept it.

For most activities, the mouse is actually a very effective tool. It allows you to point to and select information in a very intuitive fashion. It is so simple that it becomes an automatic response. For example, if you are working and you need to point to something with the mouse, you move the mouse, keeping your eyes on the screen. You don't look at the mouse, it becomes an extension of yourself. Your eyes remain on the screen, concentrating on what you are doing, not on locating keys. You do not even have to make sure that you press the key the right number of times to get to where you need to go.

Even though I feel that the mouse is an intuitive and deceptively powerful movement device, there are areas where an alternative to the mouse can be more effective. A classic example is creating your signature. No matter how hard I have tried, I have yet to be able to create my signature accurately using the mouse. It just isn't good for that type of cursor movement. As shown in Fig. 2-15, a graphic tablet is a simple device. It is a thin rectangle that houses a square tablet surface. The tablet is a physical representation of the screen of the Macintosh. When you use your fingertip or a stylus (a pointed, pencil-shaped pointer), it moves the cursor on the Macintosh screen just as if you were moving the mouse.



Figure 2-15. A graphic input tablet. Art is drawn by moving the stylus on the surface of the touch tablet. This allows for easy tracing of art.

Communication Links

Your publishing system will be lacking if it is not capable of communicating with the outside world or other equipment within your system. This is done with a modem or a null modem cable (if you have another computer such as a second Macintosh or an IBM PC or clone).

Why do you need a modem? It can be used for many purposes. It will allow you to communicate with other computer owners, transfer text files from an author or field office computer, and access the wonderful world of on-line information services (such as CompuServe and The Source). Also, and this is perhaps the most important reason, it will allow you to transfer your PageMaker files to a professional typographer who can output your files on a typesetting machine at a resolution of up to 2540dpi.

Using such a typesetting service allows you to get the ultimate in quality from your documents. Output on a typesetter, they are of a quality equal to that found in any book or magazine. Of course, this service is an additional cost. You can proof your page on a laser printer, send it via your modem to a typesetter, and get back an exact duplicate of the laser-printed page except that the resolution will be much higher than the 300dpi produced by the LaserWriter.

Of course, this application is for special documents. A good case study would be a company that produces financial reports. The LaserWriter is perfect for printing the monthly reports they produce, but once a year they create Annual Reports for shareholders and want the type in the Annual Reports to be of the highest quality. A modem allows them to send their pages for output on an Allied 300P typesetter at 2540dpi. This way they have the best of both worlds: inexpensive laser printer-produced type for day-to-day activities and top-quality typesetter output when needed.

The Macintosh is connected to a modem by a cable connected to the serial port of the Macintosh, the fourth device vying for the serial port. Once again, a port switcher is a must!

If you use another computer, either a Macintosh or an IBM PC variety, you will find it desirable to connect the two computers with a cable. The cable connects to the serial ports of the computers but requires a special cable called a null modem cable. This cable is the same as the one used to connect a modem, except that it switches two of the wires used inside the cable. It is a small distinction, but without it the two computers would never be able to talk to one another.

With the correct software (covered in detail in Chapter 3), you will be able to transfer files directly between the two computers without using a modem. This is essential if you have only one phone line. If you connected your two computers, each to its own modem, each would need its own phone line to call the other. Obviously, a direct link like the null modem cable is much more practical.



Hot Tip

Communication is becoming an increasingly important part of personal publishing and computer use in general, making a modem purchase a wise decision. One word of advice: Purchase a modem that is either a Hayes or adheres completely to the Hayes protocols. Others will not work with all software and will result in trouble in the communication process. Hayes is the standard, and why buck the system on something as terribly tedious as telecommunications?

Large-Screen Monitors

While making pages, you will quickly learn that the standard monitors of the Macintosh Plus and Macintosh SE, and even the Apple Monochrome or Color monitors for the Macintosh II, only allow you to see a section of the page you are creating at one time when you are working at actual size.

You can see the entire page on-screen at a reduced size, but this does not let you read the type. Ideally, you would like to see the entire page, full size, at one time. Since PageMaker also allows you to work on facing pages—two at one time—it would be great to work on both pages at one time at actual size.

The Macintosh screens allow only a window on the actual page, but by expanding your system with a large-screen monitor, you will be able to work on an entire page at its actual size.

Large-screen displays are either vertical in orientation, allowing you to work on one page at full size or horizontal in orientation, allowing you to work on two pages at full size. The choice should be based on how your publication is created. Most publications have facing pages, so the horizontal monitors offer you the most flexibility; you can work on a single page or facing pages, giving you the best of both worlds.

Adding a large-screen monitor to your Macintosh varies in difficulty. The Macintosh Plus is the most difficult since it was not designed to be expandable. Consequently, it must be opened up so that a connector can be attached to the motherboard of the computer, which will lead to the monitor. This work must be done by a qualified technician. Even though it is a bit of trouble, the benefit is worth it. The Macintosh SE is somewhat easier since it was designed with expansion possibilities. To add a large-screen monitor, a qualified technician is still required to open the case of the SE and add a plug-in card that will allow you to attach the monitor. The Macintosh II is a whole different story. To add a large-screen monitor, you simply open the Macintosh II yourself, snap in a video card, close the case, and attach the cable from the monitor to the connector on the video card on the back of the Macintosh II. The whole process takes about 10 minutes and requires no technical help.

There are a number of such monitors available, ranging in price from \$1,000 for a Macintosh Plus to over \$3,000 for a 19-inch color monitor for the Macintosh II. You will have to shop around and compare features and prices to find the monitor that fits your style of operating—and your budget. (See Fig. 2-16.)





The Final System

So there you have it. We have reviewed all the hardware you will need to have a complete publishing system on your table or desktop.

Start off small or, if you have the need and financial resources, take full advantage of the amazing power of the maximum system. If you already own your Macintosh, your system price will be cut by at least \$2,000. Either way, if you purchase any sort of professional typesetting services or graphic art services, such a system should be able to pay for itself in a short period of time.

Dollar savings may at first be the most attractive reason to purchase a publishing system, but, as a user myself, it is the power the system affords me that has been the real benefit, not the money it has saved me.

Finding the Right Hardware

With as much new hardware as there is for the Macintosh, it would be impossible to detail each possible product in the categories detailed above. At the back of this book, you will find a product reference section, broken down by category, that will give you the names and addresses of manufacturers. Write to them and get as much product information as you can. Then, when you narrow your choices, contact the manufacturer to find out where you can see a demonstration of the product in your area. Test before you buy!

CHAPTER



Selecting the Right Software

Where necessity speaks it demands. —Russian Proverb

In the beginning of Chapter 2, I called hardware the heart of the publishing system. This chapter will introduce you to its soul, the software needed to drive all of that hardware.

In writing this chapter, I am especially impressed by the power and abilities of the software covered here. It will allow you to do amazing things. You will start with a blank screen and in a very short time be able to convert that blank page into a page full of type and graphics.

Since the beginning of the book, I have stressed that you must build a system. This rule is very evident in the selection of software. All the programs you will use in your publishing system, when assembled and under the control of the Switcher, will act as one complete publishing program.

A Natural System

If you examine the path you follow in producing your publication, or almost any other publication, you will discover that there is a well-defined process involved in publishing. The steps are remarkably simple, but they often look complex when you are doing them, simply because you are in the middle of doing detail work.

The functions that your personal publishing system software should allow you to perform are:

Capturing text Formatting text into type Creating graphic elements Integrating type and graphics into page form

It's that simple. Now stop and think about what you do when you create a document or publication. You write it, have it typeset or print it out on a letterquality printer, get photographs or line art that will be included, then finally paste those elements together page by page so that they may be reproduced. This is the publishing process.

The goal in gathering software for your publishing system is to duplicate those tasks in an electronic fashion. Ideally, these four functions should take place directly from your system and never involve manual assistance of any kind.

The following is an examination of which software will allow you to convert your manual efforts to electronic activity in each of these four categories.

Capturing Text

Most of your time in producing any publication is spent writing, editing, or rekeying text. If you are a Macintosh owner, you probably already do this on the Macintosh.

The choice of word-processing programs for the Macintosh boils down to MacWrite (Apple Computer, Inc.) or Word (Microsoft, Inc.). In my opinion, both are fine for the publishing system. Word has many features not found on MacWrite—such as style sheets, complete control over type size, style, linespacing (in points), paragraph indents and spacing, and mail merge, division layouts for general applications.

Word does allow you to control the linespacing in your document. MacWrite does this for you automatically, allowing you no choice. Because Word lets you have total control over type size and linespacing, it is more attractive. In addition, it allows more control in the text entry process, meaning that there is less manipulating when you are actually putting your pages together.

MacWrite, although limited for office-style correspondence, works fine for publishing. It has all the functions needed to create text files for use by the PageMaker program.

What is important is what both programs share. Both allow you to create files of unlimited size (limited by your disk space only) and choose the size, style, and format of the type. Each program can set tabs, choose which fonts are used, create different sizes of text, and control justification (ragged right or left, or centered). All of this is controlled from the programs and can be seen on the screen as you prepare your document.

Additionally, each program can also import text files in ASCII format, allowing you to take files that do not contain any formatting at all, bring them in as unformatted files, and add all the style characteristics you desire. Such ASCII text files come from file transfers from other computers and other Macintosh programs (such as a database or spreadsheet) that do not format the appearance of text when moved between programs. (See Fig. 3-1.)





Using either MacWrite or Word will allow you to control the appearance of the type in your publication. PageMaker, which will be explored later, is a page assembly program that uses these formatted text files to create finished pages. It brings the text files from MacWrite and Word in with all the formatting information. So if you made your text ragged right in Word, that's how it will fill a column in PageMaker. (See Fig. 3-2.)



Figure 3-2. The text file from Fig. 3-1, which has undergone formatting using Word's type and style menus to control the appearance of the text, converting it into type.



Helpful Hint

It is best to create your formatted text files as completely as possible in the word-processing programs. Although PageMaker does have textediting features and the ability to format type, it is slower and not as fully featured as the word-processing programs. The word-processing programs feature special functions (such as search and replace, block moves and deletes, and block copies) that make preparing your document quite easy.

The choice between MacWrite and Word is a difficult one. For the publishing system, both will do fine. For powerful style sheet formatting and sophisticated type formatting, in addition to other tasks outside the publishing process, Word can do more, making it an attractive program for general use.

Writing Utilities

Word and MacWrite may be greatly enhanced by adding writing utilities to the programs. Two such programs are QuickWord (EnterSet, Inc.) and MacLightning (Target Software, Inc.).

QuickWord is a keyboard macro utility that is worth its weight in gold. The program allows you to fill a table with short (one to four letters) abbreviations of commonly used words or sentences and, while writing, type in the abbreviation instead of the actual word or sentence. (See Fig. 3-3.)



Figure 3-3.

The QuickWord table. In the first column, you enter your own abbreviations for commonly used words. The second column contains their replacement. When you type in the abbreviation in a word-processing program, QuickWord replaces the abbreviation with the replacement.

QuickWord operates "on the fly." This means that as soon as you type in the abbreviation followed by a space and any punctuation (including an apostrophe), it will immediately replace the abbreviation with the full word or sentence. You actually see the cursor backspace, wipe out the abbreviation, and replace it with the word or sentence.

This makes the typing of difficult or repetitive words a breeze. Since you may use different words for different types of documents, you may save the abbreviation tables as files, although only one may be open at a time. On-the-fly programs are attractive to use because they are memoryresident and fast. When you are typing, they do not stop you or slow you down in any way.

The second on-the-fly essential is MacLightning. It is an on-the-fly, memory-resident spelling checker. (See Fig. 3-4.)





When MacLightning does not recognize a word entered on the keyboard, it beeps. You may correct the word manually or call up the scrollable dictionary to find the correct word so that it can replace the misspelled word automatically. It always starts with a suggested spelling.

There are many spelling checkers that will check a file once it has been created and saved. MacLightning has the advantage of spell-checking the words as you enter them. In addition, if you start a sentence without capitalization, it will beep. If you type in a word that is not contained in its dictionary, it beeps. At the beep, hitting the command key and the 1 key will

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bring up an on-screen dictionary with a suggested spelling of the questioned word. If the suggested spelling is not the correct word, you may pick from any of the others or type in your own. You may also scan the pages of the dictionary. If the word you have typed is correct but is not in the dictionary, you may add it to the dictionary at that point.

Spell-checking can also take place in a traditional batch mode where you may check the entire file at one time, but the on-the-fly feature is what makes the program special.

Both QuickWord and MacLightning are held in the system as desk accessories and may be called up at any time from the Apple menu.



Helpful Hint

The combination of a word-processing program, QuickWord, and MacLightning gives you a comprehensive system for writing with speed and accuracy. The joy of the Macintosh is found in the many programs that have been developed to speed and aid you in something as mundane as entering text, the first step in creating your publication.

Formatting Type

The process of formatting your text into type is simply a matter of selecting type styles and sizes from the menus in your word-processing program. (See Figs. 3-5 and 3-6.)

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Figure 3-5. Text, unformatted, in Word.

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Figure 3-6. File in Word, now formatted by selecting type and choosing its size, style, and format from pull-down menus.

By using a working plan of what your publication should look like when it has been completed, you can format your text while you are writing it, saving yourself the step of formatting separate text files.

Once your text file has been converted into formatted type, it is ready to be placed on a page created by using PageMaker. The art of formatting your text is covered in Chapter 11—Formatting Type.

File Transfer Programs

As mentioned in Chapter 2, your system should include hardware (such as a modem and a null modem adapter cable) that will allow for file transfers. You will need software to control the transfer of files between your computers, either by modem or by direct link between two computers.

For telecommunications with a modem, you will need a telecommunication program (such as SmartCom II from Hayes or MacTerminal from Apple Computer, Inc.). Both of these programs control the actions of your Macintosh when it is connected to a modem. Furthermore, they send the appropriate codes to the modem to control its activities.

Telecommunication programs allow you to transfer files from computer to computer, access information services (such as CompuServe or The Source), and access electronic bulletin boards. The programs handle the sending and saving of files and other such disk-based activities for you.

Between the two, SmartCom II offers the easiest operation, plus the very special ability to call another Macintosh user, who is equipped with a Macintosh, modem, and SmartCom II, and interactively create graphics! The program has a set of drawing tools, and both of you may work on the same drawing over the phone lines. (See Fig. 3-7.)



Figure 3-7.

The screen from SmartCom II. Everything you need to telecommunicate easily is contained on menus or icons, making it one of the easiest telecommunication programs to use.

In addition to telecommunication programs, if you connect two computers to transfer files, you could use the telecommunication programs in a terminal mode (simply waiting for data from whatever it is connected to). There is a better answer and one that will make the process much less difficult.

A program (such as MacLink Plus by DataViz, Inc.) is designed expressly for the purpose of file transfer, primarily between the Macintosh and the IBM PC. It allows a quick, simple file transfer process, and each is even available with the null modem cable. MacLink is especially useful in that it not only transfers text and data but also keeps the formatting from many of the data files of programs (such as WordStar, MultiMate, Multiplan, and Word). When these IBM PC files are transferred to the Macintosh, formatting attributes (such as margins, boldface, and underline) are kept intact. This saves a lot of formatting time. (See Fig. 3-8.)

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Figure 3-8. Screen from MacLink Plus indicating the conversion of files between the Macintosh and the IBM PC. Note that it indicates file formats, which allow you to retain the formatting attributes in the file during the file transfer.

The program has error-checking protocols, so data transfer is next to flawless. If you are going to be using data from IBM PCs, such a program is essential.

Creating Graphic Elements

For too long, if you had to prepare a document or report, newsletter or publication, the creation of illustrations was time-consuming and expensive and usually required the use of an artist or design service. As a result, many publications ended up as pages and pages of type, with very few illustrations to enhance or articulate the information in the text.

The good news is that the Macintosh has opened the door for the creation of professional-looking graphics in personal publishing. With the availability of very easy-to-use drawing programs, charting programs, and even clip-art (files of pre-drawn graphics to be used as needed), you can now produce graphics quickly, inexpensively, and without sending out for help.

Graphic programs for the Mac come in a number of varieties. The first is the free-form drawing package (such as MacPaint or MacDraw), where you create graphics and drawings from scratch. These programs allow you to create a wide range of drawings, from abstract renderings all the way through to highly structured presentation graphics complete with type.

MacPaint

MacPaint has introduced users to the Macintosh's unique ability to produce graphics with just a few movements of the mouse. MacPaint is not only easy to use; it is also powerful. It allows you to create graphics up to 8 by 10 inches using the screen of the Macintosh as a window on the complete drawing. It uses a drawing system called bit-mapped graphics, which allows you to control each addressable pixel on the screen (a pixel is the smallest point on a screen that can be presented as either black or white). Bit-mapped graphics can be modified, stretched, condensed, inverted, rotated, and outlined. You may even magnify the screen to a fatbits mode where you may edit your drawing pixel by pixel.

For these reasons, MacPaint proves to be an effective, multipurpose drawing tool. If you are creative, MacPaint will allow you to create drawings quickly and precisely. (See Fig. 3-9.) 58 Chapter 3



Figure 3-9.

The classic MacPaint screen. Here, just about any image you can imagine can be created using the simple drawing tools represented on the menu.

MacDraw

For more complex drawings, Apple Computer has a program called MacDraw, which is a structured drawing program. It uses many of the same principles and techniques of MacPaint, but it is intended for more advanced uses such as drafting, charting, making drawings that may be enlarged or reduced dramatically, and working in pages larger than the standard 8-1/2 by 11 inches.

Unlike MacPaint, MacDraw works with a coordinate system, remembering where lines, circles, and shapes start and stop. It connects those shapes with the width and texture of line you desire, and will fill those shapes with patterns or solids if indicated. What makes MacDraw special is that, when you enlarge or reduce a drawing, it actually redraws the shape to the new size. It would connect the shapes with the same rule width as the original drawing, and refills the drawing with a desired texture, if chosen.
This procedure is quite different from MacPaint, which enlarges or reduces drawings much like a magnifying glass. To illustrate this, examine Fig. 3-10, where a simple triangle was created with both MacPaint and MacDraw, and each was then enlarged to 200 percent of its original size.



Figure 3-10. Two triangles. The ones on the top are created in MacPaint; the ones on the bottom, in MacDraw. Note that when enlarged, the bit-mapped MacPaint drawing becomes distorted, but the MacDraw triangle, being plotted by coordinates, is redrawn smoothly.

Note that, by using bit-mapped graphics, MacPaint's enlarged drawing simply magnifies the ragged slopes of the triangle sides. Also, MacPaint enlarges the pattern inside the triangle, making a visible, exaggerated dot pattern. The MacDraw enlargement holds up much better. The rules that make up the triangle have been completely redrawn at the new size, keeping the weight of the rule the same, and there is no ragged quality to the line. Additionally, it refills the pattern inside the triangle, keeping the same pattern as in the original drawing.

This quality makes it possible to create very complex drawings at a large size, then reduce them, keeping all the quality of the larger original. It also allows small drawings to be made larger without distortion. Consequently, you can change the proportions of a drawing without changing the quality.

The LaserWriter works well with MacDraw, which is an excellent addition to MacPaint for your general drawing needs.

Clip Art

Not everyone can sit down and create drawings from scratch, especially when it comes to drawing people, buildings, cars, fancy borders, and banners and using special type fonts and other such artistic enhancements. Fortunately, there are now a number of clip art packages that contain ready-to-use drawings for your publications.

Clip art programs are created in the MacPaint or MacDraw PICT format and can be used by moving the clip art in and out of the Macintosh's clipboard or scrapbook. The drawings may be modified with MacPaint or MacDraw and integrated into text files, just as with any MacPaint or MacDraw graphic.

The drawings range from outright bad to exceptionally good, so you will want to preview all of the drawings in a clip art package before purchasing it. Most good computer stores keep a clip art sample book of the packages they sell. Each of the drawings has been printed out for you to examine. Choosing the right set of drawings can be difficult, but, fortunately, many packages have been grouped in a sensible fashion, such as borders, letters, or drawings of people. Fig. 3-11 shows the variety of clip art images available.





There are even packages springing up that offer clip art in Encapsulated PostScript (EPS), which is the highest quality image you can produce since it is written in pure PostScript and can often be almost photographic in quality (in fact some offer EPS photos). These files may also be placed on a PageMaker page.

Charts

One of the most difficult and time-consuming tasks is producing charts and graphs. It requires taking statistical data and converting it into accurate graphic representations that not only inform but also are attractive. Charts and graphs are some of the most commonly used publication and presentation graphics, and creating them requires a special type of program. A few determined souls could produce charts and graphs from scratch using MacPaint or MacDraw, but this would be pointless since there are excellent charting programs available (for example, Graph by Cricket).

Graph offers a combination spreadsheet/statistical analysis program and graphics package all in one. It allows you to enter all the values needed for your chart or graph at one time into a spreadsheet-style grid. It then takes that information and draws line charts, bar charts, pie charts, scatter charts, and combinations of those styles. Once the data has been entered, you may redraw the chart as many times as you wish, in as many styles as you wish. Labels, headlines, and additional graphic elements may be added to the drawing, allowing you to customize it to your most demanding specifications. (See Fig. 3-12.) 63 The Right Software





Drawings created in Graph may be used in word-processing documents and in your publications to enhance your statistical data.

An additional feature of Graph is that it works in color with the ImageWriter II and other color-printing devices, adding the ability to create presentation graphics as well as charts and graphs in your publications.

Advanced Graphics Software

For those of you who have mastered MacPaint and MacDraw, there are now a number of incredible high-end drawing and graphics packages that go far beyond basic drawing into PostScript effect, and sophisticated curve drawing that allows the creation of art studio-quality art. (See Figs. 3-13 and 3-14.)









Special type handling and PostScript effects are possible using a program such as Cricket Draw. The art may be saved in a number of formats that can be placed directly on a PageMaker page.

Programs such as Cricket Draw, LaserPaint, Adobe Illustrator, GraphicWorks, and SuperPaint offer features that will expand your ability to create graphics. Some feature color; some operate in pure PostScript.

As you master the creation of graphics, you will want to explore such programs to help you create sophisticated art for your pages.

Page Assembly Software

At this point you have been introduced to software packages that allow you to create text files using a word-processing program and to create a variety of illustrations using MacPaint, MacDraw, charting programs, and clip art. The final step in preparing your publication is to put all of those elements together in publication form.

To assist in this process, a special type of program is available for the Macintosh: page assembly software.

As the name implies, page assembly software allows you to create publication pages. Working with this program, you create a publication, which is a group of pages that is usually in a column format (more than one column of type per page) and contains several different text files, graphic files, and page elements. The page assembly software allows you to assemble all of these pieces quickly and then print them in finished form at one time as a complete publication.

Using this type of program allows you to assemble pieces of text and graphics, much like a keyline-pasteup artist assembles them on an art board. Only you will be assembling them on the screen of the Macintosh and using the mouse to move pieces of type. You will also be able to preview the page at a reduced size prior to its being printed.

Although you could use a word-processing program to assemble columns of type and place graphic elements, it is much easier to work in the page environment of page assembly software. Word-processing programs display only text and graphics in actual size, limiting your ability to study the design of a page. They do not offer tools to draw lines, boxes, and other such graphic elements directly from the program, as do page assembly packages.

The purpose of page assembly software is to allow you to assemble your publication much in the same manner as if you were to do it with galleys of type, graphics, and photostats, using rulers, T-squares, and paste. They allow you to move elements about on a page with little difficulty, enabling you to pursue a "what-if" attitude toward the page being created. Since the page is presented to you at a reduced size on the screen, you are constantly aware of its appearance, much as an artist uses a reduced-size photostat of a page to study its design.

Page assembly software provides a special set of features that will make producing your publications much more efficient.

Downloadable Type Fonts

The last software you will acquire will be new typefaces for use in your publications. These are type fonts that use the full resolution of PostScript, but, rather than residing in your laser printer, they come on disk for downloading to the laser printer or an imagesetter.

PostScript laser printers are capable of using such fonts by storing them in the machine's RAM and using them just as they would a resident type font. In addition, you must install "screen" versions of the fonts so that you can place them on a page, and so that your program will know how to instruct the LaserWriter to access them.

Downloading the fonts is a simple matter. You can use a special download program that comes with the fonts or a program (such as Page-Maker) has routines that will call the fonts from the disk for you. Either way, it is quite easy.

Laser resolution fonts come from a variety of suppliers, and the variety of fonts entering the market should allow you to find the type style you need for your publication if you have to match one that you are currently using.

Electronic Page Assembly

The remainder of this book will examine how to combine text and graphics files using a page assembly program called PageMaker (Aldus Corporation). The results is a publication created electronically. Once you work with such a system, you will experience control and flexibility in your publication work. The age of electronic page assembly has arrived!

Finding the Right Software

With as much new software as there is for the Macintosh, it would be impossible to detail each possible product in the categories detailed above. At the back of this book, you will find a product reference section, broken down by category, that will give you the names and addresses of manufacturers. Write to them and get as much product information as you can. Then, when you narrow your choices down, contact the manufacturer to find out where you can see a demonstration of the product in your area. Test before you buy!

PART TWO

The Nature of the Printed Page

CHAPTER



The Page

Vision is the art of seeing things invisible. —Jonathan Swift

T he page is similar to the trees in the forest. Imagine how hard it would be to envision the forest you are standing in when you can see only the trees that surround you. The trees are beautiful. They all are. It gets dark, and soon you are lost.

Imagine being a forest ranger high above the trees. From that height, you can see not only the beauty of the trees but also the grandeur of the forest. You are above the forest and in control. The forest ranger has the best of all possible situations. He or she can climb down and walk through the woods or climb the tower and view the trees as a whole, examining the intricate patterns and colors they create.

No, I'm not rambling, I'm simply stating an obvious trait that most people have when they start creating documents and publications. They are wrapped up in words and letters. They get hung up on the most minute detail (such as the absolutely right word), yet they do not look at the page. Beautiful words on an ugly page make beautiful words look ugly. Like the forest ranger, you have to be in command and be able to climb the tower and view the page as a landscape, as a whole. You must also, like the ranger, be able to go down and examine your words from their roots up.

If this all sounds philosophical, it is. Page assembly is not simply a mechanical or electronic activity; it is a way of looking at pages. If you are going to be the one who puts the page together, you are responsible for everything on it. This means that you must be in control of the page and have the power to make it look the way you want it to. To achieve this level of skill involves a philosophical approach. Before you can attempt to assemble a page with any authority or skill, you must first understand what a page is, what its role is, and how it relates to those who read it.

Many Hats

Page assembly requires that you wear many hats. You must be a writer, editor, proofreader, artist, and critic. Putting a publication, newsletter, or document together is an art. We now have the technology that allows us to perform that art ourselves. In the past, we often relied on artists, typesetters, or printers to control the appearance of our works. With personal publishing technology, that responsibility now rests on your shoulders.

I am not going to concentrate on the words that go into your publication—just their value and how to place them. To understand the nature of a page, you must first examine what a page is and what goes on it.

Page Architecture

Fig. 4-1 shows the bare essence of a page. It is a rectangle, usually vertical in nature, with nothing on it.



Figure 4-1. The page. All pages start off the same: blank. It is up to you to decide what will go on it.

The rectangle is what most people have come to expect a page to be. Publications that deviate from this shape are often attention getting, but somehow the reader will always react to the fact that the page is sideways, square, or whatever shape you have made it. Many people, especially when they are trying to promote an idea or want to get attention, will try to change the shape of a page. Yes, they get attention, but not always results. A very simple principle on the shape of a page comes from looking around you. Pick up a piece of paper, a magazine, a sales brochure, or a phone book; almost all adhere to the standard vertical rectangle. They use it for a good reason: It works.

The vertical rectangle is the de facto standard page shape. It is what people expect and anticipate a page to be. This is not to say that your pages have to follow this rule. It simply says that if you wish to communicate effectively, use the standard page shape as your first attempt.

Odd-shaped pages are for special situations or documents that need a special shape. The vertical rectangle is the standard for one reason: It is the most pleasing shape for a page or publication. If it wasn't, paper would not be 8-1/2 by 11 inches, and neither would most publications.

It is the shape, not the size, that matters. For example, software documentation, paperback books, pamphlets, and other such off-sized publications all adhere to the basic vertical rectangle. Even though their size differs from the standard, they all adhere to the proportions.

The nature of a vertical rectangle creates a subtle set of rules of what looks good on it and what doesn't.

Page Elements

Starting with the blank page, you must decide what you will put on it. Most likely, it will be text, and in many cases there will be additional elements such as headlines, subheads, illustrations, and photographs. Each of these elements will affect how the page looks. Blending all those elements and making them look good together is an art. This can be evidenced by examining the difference between a simple report (single column of type, set full width, with no graphic elements) vs. a magazine page (multiple columns of type, heads, subheads, captions, photography, rules, page numbers, and other such elements).

The report is simple in nature. There is little chance of creating a badlooking report as long as the type is the right size and margins are sized in proportion to the type. It is a simple concept, carried out in a simple and effective manner, and there is little that can hurt the design or distract the reader.

The magazine, working with the same amount of space, has much more to deal with. There are dozens of elements on the page, all of which must strike a balance or the page will look bad and readability will suffer. The rule here is that the more elements there are on the page, the more chance there is of disrupting the value of the page or distracting the reader.

No matter what type of page you are producing, there are simple rules that should be followed to make page elements work in harmony and make a page more readable.

These rules apply to most published works, but not all. They are intended to make the page more readable. If you are producing a scientific document, the subject matter may not allow you the luxury of putting all of the following design concepts in place, but you can try. I will explain the major elements on a page one by one and discuss how they work best.

Headlines

Not every page should have a headline, but almost every document or publication should. Simply put, a headline is the identifying element that tells readers what it is that they are about to read. For this reason, the headline should be clear and readable, both in the content of the words used and in the way it is presented graphically. Headlines should, in all cases, identify the subject matter of the document or publication without confusion.

The type used for the headline can be any size or style and placed almost anywhere on a page. The main thing is that it identifies itself as the headline.

If the page your headline is on has a lot of text on it, the headline should be larger than the text and stand out clearly from the text. If there is only a headline and no text on a page, you are free to create a headline from virtually any readable size of type and position it freely on the page. The concept here is simple. The headline is the identifying element. What it must compete with determines its nature. (See Fig. 4-2.) 76 Chapter 4





Two headlines on two very different pages. The page without text has the freedom to be aesthetic, but the headline on the page with columns of text must be large and wider than the columns to identify itself as a headline.

Headlines are used throughout publications. In books, they start sections; in magazines, they start articles; in reports, they act as title pages. Wherever you use a headline, follow the simple rule of looking at the page and making sure the headline is the first thing that captures your attention.

Text

The bulk of most pages is made up of words that have been typeset and are in a column format. This is usually called the text of a page. Since it will occupy the majority of pages and will be the main information environment for your readers, text should be easy to read. Text on standard-sized pages works best when broken into more that one column on a page. For most documents or reports, two columns are preferred. Magazines look best with three columns. Books, which tend to have smaller pages (even though they follow the vertical rectangle rule), look best with one single column.

There are additional differences among books, magazines, and reports. The size of the type in each is different. Reports are often typewritten or use larger type. Magazines use a lot of text and small type. Books, having smaller pages, tend to use larger type than magazines.



Helpful Hint

A rule starts to emerge. A column is determined not by the nature of the document but by the size of type used. Maximum readability is at 50 characters per column. That means a typewritten page looks best with a single column, since with a 10-pitch you can fit about 50 characters on a line on a standard 8-1/2 by 11 inch page with 1-1/2 inch margins.

The same goes for books. Their pages are smaller, but, in general, the type is sized to contain about 45-50 characters per line. Magazines, with their small type, can fit between 35-45 characters per line. So the rule is that the number of characters in the line establishes the column width. There is another way of looking at it. If you want to design a page that uses two columns, how large should you make the type? Simple! It should be large enough to fit 50 or so characters across each column. Modern typesetting has

allowed such tight spacing of type that 65 characters is common. A good example of this is a typewritten page. Using a standard 10-pitch type, 50 characters would look good. If you changed your typewriter element to a proportional-spaced type style, you would most likely end up with over 60 characters in the same space, with the same readability.

Fig. 4-3 illustrates how various type styles and sizes are used in different column widths. Note how each different type size results in a different-size column width. Readability is the main concern. Never force your type just to fit a layout. Let the layout evolve from the readability of the type.

Modern typesetting has allowed such tight

Modern typesetting has allowed such tight

Modern typesetting has allowed such tight spacing of type

Modern typesetting has allowed such tight spacing of type

Modern typesetting has allowed such tight spacing of type

Figure 4-3. Samples of various typefaces in different sizes and column widths, all set to be easy to read.

Subheads

A page full of text, except in very specific scientific, medical, and financial publications or literary works, can become very tedious. Furthermore, column after column of text makes it hard for readers to go back and find certain sections for reference or to scan through a document or publication and find subjects that interest them. To solve this problem, use subheads to break up columns of text and, more importantly, identify changes of subject matter within the text. The chapter you are reading, for example, contains many subheads. This section of text was identified by the bold type "Subheads."

Imagine reading this entire book without subheads. If I did not place subheads in the text, the result would be pages and pages of type. Not only would the book look uninteresting as you flip through the pages in a store trying to see what type of information is held within, but it would fail to help you locate the subjects in the book. The secret of developing effective subheads is to use them not to stimulate your readers visually but to provide reference points for them. Just as you must divide your thoughts into sentences and group sentences into paragraphs, you must also group paragraphs with like subject matter and identify them with a subhead.



Helpful Hint

Graphically, a subhead can take on a variety of sizes and styles. There are some basic rules to follow:

Do not make subheads larger than headlines.

Do not use subheads simply as a graphic element.

Use subheads to define blocks of related subject matter.

Make subheads bolder than text. Be sure they are easy to see.

Keep subheads short, to the point, and easy to understand.

Subheads should have a line of space preceding them.

Text can start on the line after a subhead, or you can skip a line.

As already described, subheads play a very specific role on a page. They add color and definition to a page, as well as serve as reference points for readers. If your publication lends itself to subheads, use them to your advantage. Keep the style tasteful, usually flush left, and in a typestyle that compliments the text (such as in the same style except in bold).

Graphic Elements

Adding line art and photography to a page creates a more complex page environment. You must not only choose the line art or photograph to be used but also size it and locate it on the page.

Later in this book, in the chapters on designing pages, I will explore various layouts when using line art or photography. At this point, it is important to consider that using either will greatly enhance the page for the reader. The page will be more interesting graphically, and the photographs and line art should help illustrate concepts within the text.

Art for art's sake is not a good practice in building a page. Certainly, a piece of text that has no break in subject matter, with few subheads, can become boring. A solution is often to add a graphic to a page. The page will be attractive only if the graphic compliments or enhances the text in some fashion. I have seen stories on people in industry illustrated with abstract graphics, pictures of trees, silhouettes of what appear to be the person, and other similar attempts. Sometimes they work, but many times they don't.

If you are stuck with a page that is just downright boring, you must come up with either a fantastic graphic idea (the role of an art director at a magazine or book publisher) or run the text as is, not making matters worse with a poor illustration or—even worse—an exaggerated use of type as a graphic element.

Captions

If you use line art or photos on your page, you may also use the caption, a simple element. The caption elaborates or explains the illustration. Never make the caption type larger or more expressive than the text. The goal is to stay within the style of the text, since a caption is actually an extension of the text.

Use the same (or a complimentary) typeface and a size slightly smaller than you are using for your text. Often, captions are made italic to set them apart from text. The same rule applies when numbers or names (such as "Illustration One") are used. Keep them the same size as the text; with shorter statements, often a bold version of the type works better than italic.

Page Numbers

Multiple-page documents need a numbering system. The location and style of page numbers is also an important page element.

Traditionally, page numbers are called folios. The running head includes the name of the publication, the issue date, or other header- or footer-style material.



Other Page Elements

There are several other page elements that will end up on your pages: charts and graphics, author photographs, and deck copy (a long subhead that simply describes the text in greater detail than the headline to draw the reader into the text). All these elements should follow the basic concepts expressed in this chapter. They should all have a relationship to one another and work together to make an attractive page. (See Fig. 4-4.)





The Single Page

All the concepts discussed in this chapter relate to a single, isolated page. But in producing a publication or document, pages do not stand alone; they must exist with other pages. Chapter 5 discusses how to create relationships among pages.

It is essential to make a single page look good and to understand the nature and balance of elements upon it before you start building multipage environments.

CHAPTER



More Than One Page

A rock pile ceases to be a rock pile the moment a single man contemplates it, bearing within him the image of a cathedral. --St. Exupery

If a page is a singularly unique entity, as discussed in Chapter 4, then what happens when you put a number of pages together? The very nature of a publication or document is that it contains more than one page. And, of course, all the pages must work together to form a whole, a unified effort. This complicates matters greatly because now not only does the single page you were working on have to look good—they all do!

Multipage Environments

A publication is difficult to put together for many reasons, mainly because there is so much going on. Each page can contain dozens of elements: headlines, photos, subheads, captions, artwork, color, text, and folios. Furthermore, each page faces another page. Sometimes a page will face a blank page, but mostly pages full of multiple elements face pages full of multiple elements. When pages face each other, the two pages are called a spread.

Spreads are the first tier in a multipage environment. When people look at your publication, they do not view just a single page; they also view the page across from it. For this reason, when designing a publication, you must stop thinking in terms of single-page units. You must, at a minimum, think of designing pages as spreads.

Since two pages face each other, you have to ensure that elements on one page do not interfere with elements on the other. The goal is to create a symmetry of shapes and a balance of typographic design. For example, if you are working on a spread that contains two photographs and each is a different size and shape, the two facing photographs might create a visual conflict. If you are able to make each photo have the same size and shape, you may then create an attractive spread, with the photos not only illustrating ideas but also creating a sense of order on the pages. They would then build a relationship with each other and bring order to the visual impact of the pages.

You will not always be able to have the correct elements on every spread to create a perfect balance, but there are a number of conditions to avoid. The goal is always to have pages that work together and do not fight each other.

Why is this so essential? Let's take a look in Figs. 5-1 and 5-2 at a good spread and a bad spread from a report.

87 More Than One Page





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Figure 5-2. The same pages from Fig. 5-1 reassembled to have balance and order. Columns are now of equal width, and the graphic elements have at least some unity by starting at the same horizontal point on the two pages.

As you can see, a bad spread can be made into a good spread if you plan properly. This requires some planning, taking into consideration that spreads are the lowest common denominator in publication design. Keeping elements consistent will help with the design process, but there is more to it than that.

Expectations

When you design a publication of any type, your reader begins to relate to it in a subconscious manner. If you have done a great job on a collection of short stories, with the first five stories all starting on the right-hand page with a pleasant illustration on the left-hand page of the spread, you would disrupt the flow your publication has established if suddenly you were to change the format and start the sixth story on the left-hand page and put the illustration on the right-hand page.

First, it would defy logic to use this practice. Obviously, the pages should be kept consistent with the first five stories. But such things do happen. Pick up books or magazines and you will see this type of layout practiced all the time. The reason for this is that the person who was placing the elements on the pages was not thinking of the publication as an entity, a single unified work. And a publication is a single unified work.

When a reader picks up a publication, all the pages—not just the spreads—have an impact upon the reader since they are all part of a whole. The reader is looking at a publication. The individual stories and pages are all single elements inside the publication. If the publication lacks an overall design and if there are no relationships developed throughout the pages, the design is not good.

Being a multipage environment, your publication must be designed so that all pages compliment each other. In well-designed publications, you can tear out any two pages, and they will look good together.

Designing Publications

Once you have mastered the art of making spreads look good, the next step is to try to make the entire publication look good, having a cohesive structure just as the two pages of a spread must. Soon you will start looking at magazines and seeing beautiful spreads; however, farther back in the magazine you will see spreads full of odd-sized ads and poorly placed text. You will start noticing that perhaps an art director did the opening spreads but did not do the pages later in the book. Those were left to a nonartist. Such conditions will show whether the publication was designed as a publication or as a series of spreads. Most publications, especially magazines, use the spread design level. It is easier to create a publication this way. It is much more work to design an entire publication than it is to design two pages. With tight deadlines, it is easy to see why magazines take this route, but there is little excuse for it in any publication. (See Fig. 5-3.)



Figure 5-3. A 16-page publication examined as a single unit. Each page has a relationship to another page in its spread, and every spread and page have a relationship in the entire publication. This is best understood when you are able to view all of the pages at one time.

CHAPTER



Pages on the Macintosh

Custom adapts itself to expediency. —Tacitus

When you use the Macintosh and PageMaker to create pages, you are creating a page that is conceptually the same as described in the previous two chapters. It still has all the elements of text, heads, graphics, folios, etc. It still creates pages one at a time, and you must be sure that those pages abide in harmony with the rest of the pages in your document or publication. The main difference is that the Macintosh simply allows you to make pages faster and better. It also allows you to modify and change elements easily.

Chapter 4 describes all the elements on a page. Using manual methods of page assembly, you would create these elements in an abstract manner. Text would be written on a typewriter or word processor. Examining a type book, you would pick out an appropriate type style size and column width and send these specifications and the text to a typesetter.

When the type is set, you may find that it does not look as good as you would like. But after considering the time it took to set and the cost of setting it over, you end up using the type that you have, even though you are not completely satisfied.

Formatting Choices

Using the Macintosh for creating type from your text offers you the option of resetting that type quickly. If you set the type in 10-point Helvetica and find you are not happy, just select the type and, from pull-down menus, change the type to 10-point Times Regular, as shown in Figs. 6-1 through 6-4.



Figure 6-1.

Text has been entered into Microsoft Word using 10-point Helvetica. The column width is 3 inches. After examining the type, you decide that it is not what you really wanted.

95 Pages on the Macintosh



Figure 6-2. The entire text file is selected and ready to accept a type size, style, or font change.

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Figure 6-3. From the type menu, Times is chosen. The entire text file is changed in a matter of seconds from Helvetica to Times.

97 Pages on the Macintosh

Laser Mast	er Article 📃		p
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Laser Page Masters¶ ¶ Some of the most serious considerations in the desktop publishing process are: How many copies of yow document you are going to need; and, if they are going to be page masters for large-run reproduction, which output device to create the pages with to yield the best reproduction.¶ The answers to the above questions have some clearly defined answers that will not only allow you reproduce your pages with high quality, but will also save you money to boot.¶ The next chapter describes the basic reproduction methods available today: photocopies, instant printing, offset printing, and using your laser printer as your printing device. Each of these reproduction consideration.¶ For example, if you are producing a 300-page report, mostly all type with a few charts and line-art illustration using black ink and mou only need 20			7

Figure 6-4.

The final type in Times Regular. The whole process took well under a minute. When changes can be made that easily, you have the ability to modify page elements until they are just the way you want them without incurring added expense.

The rules that apply to type also apply to other page elements (such as photographs). Chapter 2 detailed devices (such as scanners) that allow you to create digitized images of line art and photographs. Using the Macintosh and images created with such scanners, you can also preview the size of your line art or photographs and view them prior to printing in a page environment. Figs. 6-5 through 6-9 show a digitized for-position-only photo being placed on a page in the page assembly program PageMaker. This example will show how, working electronically, you can make changes before the work is done or the publication is printed.

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Figure 6-5. The small PS pointer represents a Encapsulated PostScript file to be placed.

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99 Pages on the Macintosh



Figure 6-6. The digitized photo is moved onto the page. It looks a bit small, so you decide to see if it would be more effective at a larger size.

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Figure 6-7. By clicking on the photo, a set of handles that allows the photo to be stretched and pulled are made available. Using the upper corner handle, the photo is pulled out to fill the width of the page.

101 Pages on the Macintosh



Figure 6-8. The photo at full width is much more pleasing. Now, the actual photo will be sized to match this digital representation.

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Figure 6-9. Finally, type is added to the page, giving a real feel of how the photo works on the page.

Macintosh Advantages

The examples in this chapter illustrate how the Macintosh helps you explore the page concept fully. You can, as described in the beginning of Chapter 4, see the forest for the trees. You can examine type with incredible detail and flexibility. You can size and scale line art and photographs on the page and mingle text and graphics freely from the word-processing program on through to the page assembly software.

The Macintosh, assembled as a publishing system, allows you to view the creation of your publications with both perspective and detail. From a single headline to the page to spreads to entire publications, the screen of the Macintosh allows you to examine your page and romance it. Fig. 6-10 shows PageMaker once more, this time with the spread the photo is on. This is the way to make pages, with the ability to preview them and understand them.



Figure 6-10. PageMaker allows you to examine a spread at a reduced size on the Macintosh screen at any time, allowing you to view relationships between pages.

CHAPTER

Electronic Page Assembly

It is critical vision alone which can mitigate the unimpeded operation of the automatic. — Marshall McLuhan

Chapters 5 and 6 stressed the nature of the page and how single pages bound together in publication form must work together as a single entity. This is not an easy task. It takes a good understanding of what a page is and what a publication is (Chapters 4 and 5). Furthermore, it takes a working knowledge of typography and page design. These will be covered in upcoming chapters.

For many people, the thought of putting words, pictures, and the dozens of other elements together is an overwhelming task. For example, say that I handed you a pile of typewritten text, photographs, and a list of elements that have to be placed at specific locations in the text and told you it all had to fit in a 32-page publication. And that's all. Could you deal with it? Could you work out all the details such as how large to make the type and column width, crop the photos, make sure that the special graphics elements end up in the right spots, and, finally, fill the 32 pages completely, with the last line ending at the bottom of the last page? It's easy.

Case Study

That may sound like a mean example, but every day thousands of publication designers are faced with this problem. When I was an art director for a magazine, the editor and publisher would each come in with a stack of goodies for me. The editor would have all the text that was to be sent to the typesetter, as well as line art, photographs, headlines, captions, and other such elements. The publisher would have all the ads that were to go in the magazine. The ads were especially fun, since some were color and had to go only on the pages of the magazine that had color. Many of the ads had to be on certain pages, such as color ads that had to be on black and white printing forms. The publisher would also tell me that, based on the number of ads sold, the magazine would be X number of pages long. The magazine had to be printed on forms that would be 8 or 16 pages, so if things didn't work out right, there was no room to compensate. When the publisher said 96 pages, that was how large the magazine would be, and that was it.

So there I sat with text, art, ads, position requests, and the job of making it all fit perfectly in the size the publisher wanted. Not only that, I could not have columns or stories end abstractly. They had to end flush. On top of all that, it all had to go in, and it all had to look good. After all, I was the art director. That was what I was paid for.

How did I do it? The hard way. I sat there and counted everything. I would estimate how long the type would be, spec it, and send it to the typesetter. I would add up all the ads and begin a plan of what ads would go on what pages. I would place all the color and special-position ads first and leave the rest for placement to balance out pages when I did the actual layout.

When the type got back, I would measure it precisely and add all the type and all the ad page values together. If they came within 4 to 6 pages under the page count the publisher wanted, I knew I was all right. If they went over, I would meet with the publisher and editor and tell them that there was not enough room for everything they wanted in. Something would have to change. The magazine would need to be made bigger or we would have to cut out editorial. (We always cut editorial.)

Then, when I was only a few pages off the mark, I would begin laying out the magazine one article at a time. I would take one article, for example, and count its page value (type, heads, photos, captions, etc.). I would take the value (for example, 3-1/2 pages) and say that the minimum number of pages this article would fit in will be 4 pages. On my layout, I would mark the next 4 pages for that article. So what about the 1/2 page that was short of filling 4 pages? Simple. I would go to the ads, pick out a 1/2-page ad, and place it on the last page of the article. This way I would have an opening spread that I could do something nice with graphically and then follow it by a clean type layout of the text sharing the page with a simple 1/2-page ad.

I would continue this method throughout the magazine, keeping a closer watch as I approached the end of the magazine. If all went well, I would have an attractive magazine by using a principle of estimating, working with real values, knowing that all the elements would fit tightly into the defined space, and then laying each element in one by one, making all articles end flush by compensating with fractional-sized ads. If there were no ads, I would adjust with the size of the photos.

It was pretty simple, and I got to do it every month!

A Better Way

The above example is a perfect argument for a better way of handling the page assembly process. While I was sitting there with stacks of text waiting for typesetting, art, and illustrations that needed to be sized and working with ads that the publisher gave me, I spent most of my time wading through it all just trying to make heads or tails out of it. Today, there is a better case study. For example, let's say that I was at the same publishing company, but instead of typewriters and legal pads with notes on them, the publisher, editor, and art director (yours truly) all had Macintoshes and a shared LaserWriter. Starting with the editor, instead of typing his or her text and having me mark it up with typesetting codes and sending it to a typographer, the editor would enter the text on the computer and format it at the same time. I, as art director, would set up different formats in Microsoft Word using style sheets so that the editor could simply select a headline, for example, and attach the headline style sheet to it. There would be style sheets for just about every element in the publication (such as a department format or a feature format). The column widths would be there, and the editor would know whether the story was too long or too short. Best of all, when it came time to give the magazine to me, I would have all the actual editorial values available. I would know exactly how much space the editorial would occupy. Using a scanner to digitize art and halftones, I would create scaled-to-size art or for-positiononly elements for the pages. Those editorial values and the photo/art values would give me a perfect estimate of the editorial count for the issue.

The next benefit is that the type is set. The editor entered all the text as formatted type, so there is no further proofreading of the type when it comes back from a typesetter. Additionally, I do not have to spend time putting typesetting specifications in the text.

That gives me my editorial budget. Yes, budget! Publishers equate type and advertising values and create a budget based on how much there is to work with.

Next, the publisher keeps track of all of the advertisers, but rather than handing me a handwritten list, advertisers are tracked with a spreadsheet program (such as Microsoft Excel). All the ads are marked in columns for size, shape, color, and position. This is much easier for me to work with. I can take the spreadsheet and sort the ads by color, size, or alphabetically (when I need to find materials). Working with a Macintosh of my own, I have created an electronic budget that simulates my old paper version. This time a spreadsheet takes all the measures of type and the value of ads and tells me exactly how many pages the material will require. From there on out, it is still a battle of working things out between the publisher and the editor if anything needs to be cut.

The savings in time is incredible. What used to take at least a week is now done in a day. And once all of us agreed on the final layout and budget, I could start putting the magazine together. The type is set, I have a computer equipped with page assembly software, and the magazine will be ready for the printer in a matter of days.

As a result, the time we have saved creating these complex pages electronically has given the sales staff more time to sell ad space for the magazine. Using this system, the sales staff gains at least a week.

Computer-Aided Publishing

The concepts just discussed can apply to any publishing situation. Computeraided publishing can give a newsletter more time to gather the latest-breaking stories. It allows fund-raising groups to cut their cost on typesetting and hiring an artist every time they need to send out fund-raising brochures. It gives almost everyone in the publishing process an advantage by allowing them to create type, put it into page form easily, and, most of all, stop to look at the publication as a whole. If it doesn't look right, it's easy to change.

When you compare the manual process with the computer-aided process, there is no way the manual process can compete with the benefits of computer-aided publishing. On a time-savings basis alone, the publishing system wins hands down, as Fig. 7-1 illustrates.

Activity	Hours
Manual System	
Text Entry	
Type Specification	2
Typesetting	
Proofing Galleys	4
Lavout	
Pasteup	8
Total:	41
Macintosh Publishing System	
Text Entry	
Proofing Galleys	
Layout	3
Total•	14 5

Figure 7-1. Comparison of the amount of time required for the manual production of a newsletter and the electronic production of a newsletter done with a Macintosh publishing system.

111 Electronic Page Assembly

As Fig. 7-1 shows, the publishing system saves a great deal of time. The text still takes the same amount of time to enter. There is no typesetting, so that cost and time are saved. Since the galleys are created directly on the Macintosh, the editor has already proofed them, but the files are passed through an electronic spelling checker again and reread, resulting in 1.5 hours of final proofing time. The layout of the newsletter is still a process of experimentation and thought, so the amount of time is the same as in traditional typesetting. But, since the artist is working on the screen of the computer using actual electronic type rather than photocopies of galleys, once the layout is complete, it is done. There is no need for a pasteup, since the type and art are made up as pages in the computer.

Finally, before being printed, the art director can print out a thumbnailsized version of the newsletter ("thumbnail" is a term used for very small drawings of layouts, often real pages reduced photographically to only 1 or 2 inches tall) and view the newsletter as a whole, examining the layout one more time and getting approval from the publisher.

Such a system allows the production of publications to take place in a more sane manner. The electronic environment the computer uses is much easier to manipulate than galleys of text and pieces of paper. The publication is produced as a whole, not in single pages. Clearly, there is an advantage here.

Conversion

Once you understand the benefits of electronic page assembly, you may begin assembling your Macintosh publishing system. From there, you can take over the jobs you may have traditionally sent out. This will offer you savings in production time and cost. However, if you are to be successful, you will need to master the skills you have relied upon others for. You will need to master type usage, layout, and graphics.

If you are ready, this book now makes the jump from why to how.

PART THREE

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Page Design

CHAPTER

The Grid

Order is the shape upon which beauty depends. —Pearl S. Buck

F inally, we begin to make pages. But even before we get into page assembly using PageMaker, there is more to learn. We know that a page is an individual element that must coexist in a publication environment with other pages, but that is all we have learned.

Before we can jump in and start making pages, we have to learn the structure of a page, the dynamics of type, and how to choose the elements that will go on the page. It boils down to the question: Now that we know that the page is the lowest common denominator in a publication, what is the lowest common denominator of the page? The answer is: the grid.

A Skeletal Structure

OK, to indulge in more imagery, if the final page is the completed animal that we are out to capture, then under the skin and the flesh must lie a skeleton— something that gives form to all those columns of type and graphic elements.

Every page does have such a structure, even though the creator of the page may not realize it. In publication creation, the framework of a page is the page grid.

The grid does pretty much what its name implies. It establishes a structure to build upon. Fig. 8-1 shows the most basic example of a page grid. It is a standard-sized page (8-1/2 by 11 inches), with a grid defining the live area (the area that will be occupied by type and graphic elements) as 5 inches wide and 9 inches tall. The live area is centered on the page, with equal margins on the top, bottom, and sides.



Figure 8-1. A simple page grid. The solid line is the 8-1/2 by 11 inch page, the dotted line the 5 by 9 inch live area that will become a column of type.

Looking at the grid, it appears to be pretty basic. You might ask why bother to create one. There are many good reasons to create a grid for even the most simple of pages. First, in a multipage document, you will want the type, or live area, to fall in exactly the same location on every page. If you were to go and just start putting type on a page, the type would jump from page to page. The grid establishes the exact location of the live area on every page.

When done manually, most newsletter, book, and magazine publishers print actual grid sheets with a light blue ink (the light blue ink, called nonrepro blue, will not show up when printed). The pasteup artists use the grid to ensure that type and graphic elements are positioned at the same locations on every page. The printed grid also allows them to save a lot of time since they do not have to draw a grid for every page they must paste up.

PageMaker, the page assembly program we will use, allows us to create a grid, called a master page. This grid is shown on the screen (and in the examples created in this chapter) but, just like the nonrepro blue ink, does not print when your page is printed. Creating master pages will be explained in Chapter 14—Building Master Pages.

Defining the Live Area

In creating a grid of any type, you will need to establish your page size (often called the trim size), the margins, and the live area. The live area is where active elements such as type will go. The margins can contain elements as well, some of which may bleed off the page. For example, a header, footer, or folio can reside in the margin instead of the live area. These are elements that will remain constant from page to page, so they do not need to be part of the live area.

The first step in creating your grid is to determine the actual size of the physical page. For our example, it is 8-1/2 by 11 inches. Once this parameter is established, you must determine whether the pages will be printed on both sides of the page (double sided) or just on one side (single sided). The reason for this is that double-sided pages will require both folio and margin adjustments. The actual trim area is identified by crop marks, simple rules in each corner that say where the page starts and stops.

Working in the Gutter

Most publications are bound. Whether spiral, three-ring notebook, saddlestitched, or perfect bound, the result of binding is that the area of the page that is bound is not visible. With very thick books, the part of the page that is bound can have up to 1/4 inch that you cannot see.

The part of the page that rests in the bound area is called the gutter. On a spread, the right side of the left-hand page is the gutter, and the left side of the right-hand page is the gutter.

If you center the live area on a page and it is bound, the loss of space in the gutter area will result in the live area not being centered on the visible page. To solve this, it is best to put a wider margin on the gutter of your page.

Publications bound in three-ring notebooks are difficult to plan for. The holes come in almost 1/2 inch, but when the page is viewed, the reader still views the entire page. Here, you could leave the page centered accurately, just as long as it has enough of a margin in the gutter area so that there is no chance that type or live matter will end with holes in it.



Helpful Hint

In planning either single- or double-sided pages, examine the binding process your publication will use and allow enough room for the gutter. Single-sided pages need a gutter margin only on their left side; doublesided pages need gutter margins on the right side of the left-hand page and on the left side of the right-hand page. We will now make our sample page in Fig. 8-1 a single-sided page, but we will adjust our margins and live area to accommodate the gutter. We will add 1/2 inch to the gutter. The live area was 5 inches wide centered on an 8-1/2 inch page, leaving a left and right margin of 1-3/4 inches. Being a single-sided page, the gutter falls on the left, so we must make this margin wider and the outside right-hand margin smaller. This results in the gutter margin being 2 inches and the outside margin being 1-1/2 inches, as shown in Fig. 8-2.



Figure 8-2. The page grid, now reflecting the gutter margin. The live area has been shifted away from the gutter, creating a wider margin to accommodate the binding process.

This same principle will apply to any bound publication. The first step in establishing the value to add to the gutter margin is to talk to the person who will bind the publication for you and discuss how much room should be allowed for that binding process. Try to keep the gutter allowance as small as possible. If you overcompensate, you will have a page with a live area that looks off-center.

Columns

Now that your live area and margins have been firmly established, the next areas a grid should define are columns. If your column will be the same width as the live area, then you have already defined your column. If you are working with multiple columns, you must decide how many and what their widths are to be.

On our sample page, we are going to create a simple two-column format. Each column will be 2-1/4 inches wide, with 1/2 inch of space between the columns. These columns are indicated on the grid in Fig. 8-3.





A two-column format has been established. Each column is 2-1/4 inches wide and touches the outside live area, leaving a 1/2-inch margin between the columns filling the 5-inch live area.

Graphic Elements

Now that the columns have been placed, we can enhance the page with grid locations for graphic elements that will appear on every page. We are going to complete our page with a vertical rule between the columns, a box around the live area, and a folio line for the page number. All the graphic elements we will be adding are printing elements, simply meaning that we want them to be black on our grid instead of nonrepro blue. We want them to reproduce when printed, so they will be printed along with the type when added to the page.

Printing elements are drawn the same way as nonprinting elements. If you're printing grid sheets, the sheets would be printed in black and nonrepro blue. In printing the sheets, you would instruct the printer which items are printed in blue and which are printed in black. When creating an electronic master page in PageMaker, the same concepts will apply. We will learn how that is done in Chapter 14—Building Master Pages.

Back to our grid. We first draw a rule that is centered between the two columns, or 1/4 inch from either column since the space is 1/2 inch wide. The rule runs the same height as the type columns.

The next step is to surround the entire live area with a ruled box. This will encase the live area and give the page definition. This boxed rule will be placed in the margin area, not the live area of the page. It will surround the live area by 1/4 inch on all four sides.

Finally, a folio is added. The folio will contain only the page number and will be centered at the bottom of the page. A simple baseline rule will indicate where the type will be placed. The baseline will be 1/4 inch down from the bottom of the ruled box, centered. Fig. 8-4 shows the completed grid with all elements in place.



Figure 8-4. The completed page grid.

Working with the Grid

Once your grid is complete, you will have a defined set of sizes to work with. Type will be set at 2-1/4 inches wide and break into 9-inch columns. The rules that remain the same from page to page are already printed for you, saving you the tedious task of adding them to every page.

But just because you have a grid does not mean there is no flexibility. Far from it. You may run type full width, blocking out the vertical rule when space is needed for headlines or captions for full-width photographs.

Elements do not have to remain inside the box either. A photo can start inside the box and bleed off the page, knocking out the outside rule as it does so.

The grid is simply the structure for the majority of elements that are on your page and allows for consistent placement of those elements. Furthermore, since each page uses the same box, rules, and graphic elements, every page will be consistent. The grid is a foundation but not a boundary. (See Fig. 8-5.)



Figure 8-5. An actual page created using the page grid. Note how the grid has acted as a guide but has not restricted the creative use of graphic and typographic elements.

CHAPTER



Working with Type

The beautiful rests on the foundation of the necessary. —Emerson

 $T_{\rm ype}$ is so abstract that it is almost impossible to make definitive statements about it.

What is good typography and what is bad typography? What is type? What's the difference between the type from a professional typographer and the type produced by a laser printer? Such questions are hard to answer.

Different people have different typographic needs. A publisher of fine art prints would need to have the ultimate in quality type. A small businessman needing sales order forms would not need such quality.

For a very long time, typesetting has been in the hands of professional typographers and professional publishers. This is a very small market, and, as such, they have had to pay a high price for their typesetting devices. A professional typographer, for example, may have customers ranging from very demanding advertising agencies to small companies needing only price lists and forms typeset. The problem is that because the typographer has those advertising agencies demanding ultra-high-quality type, they must purchase equipment and staff to meet those demands. They charge a good price for the service, and the ad agencies are willing to pay it. Unfortunately, the smaller company that has type set ends up paying that large price because the typographer has set his type on equipment that far exceeds his typographic needs.

The reason for personal publishing's incredible popularity is that, for the first time in history, typography is out of the hands of the typographer and in the hands of the person who has bought type. Type can now be created in house, on devices (such as laser printers) that are appropriate for the typographic needs of most people.

Simply put, people with medium-resolution typographic needs can use a laser printer instead of a typesetter.

Responsibility

It may sound as if I am knocking typographers. I'm not. Typographers are first and foremost a service organization. They specialize in producing highquality type on high-priced, high-resolution typesetting devices. They are needed and have a place in the publishing process. It is just that now you have the option of using typography that matches your real needs.

You also must not fool yourself into thinking that all your typesetting needs can be handled by a laser printer. The laser printer produces a resolution of 300dpi. In the professional typesetting community, the lowestresolution type is generally about 1000dpi. That is quite a difference. If you need to produce your documents at a higher resolution, you can still produce them and proof them on the laser printer. But you would send them out to a professional typographer that has a typesetting device capable of outputting your files at a higher resolution (such as 1100dpi or 2540dpi).

You must know when you can work with the 300dpi output of the laser printer or when you need to send out for higher-resolution output.

What Is Type?

This is a tough question, but the answer is quite interesting. Type is commonly known as letters and numbers that are created on machines such as typewriters and typesetters. The characters are well formed and consistent in their size and style. Unlike handwritten text, type is most often created by machines or devices rather than by our own hands. But there is more to it than that.

For example, the type you are now reading is not actually type at all. It is an impression, created on a printing press, of an image created by a laser printer, of a digitized photograph of an impression of an actual piece of type.

Sound complicated? Well, a history lesson will help. The most accurate definition of type is the old wooden or metal casts of letterforms that were used prior to the 1950s. At that time type was a physical entity—you could pick it up and hold it in your hand. The various pieces of type were put together by typographers and locked up into forms. The type was then coated with ink, and a piece of paper was placed on the type, pressed with a roller, and removed. The paper would then contain an impression made from the real type. So what a reader actually read was not type, but an image of the type.

This was the standard method of creating printed documents for centuries, until about 30 years ago. Someone figured out a great system to replace the wood or metal type. The process involved taking photographs of type impressions, putting them on a strip of film, and photographically reproducing the type images. This was the start of phototypesetting. This beginning process was very crude, but, eventually, it ended up being controlled by computer devices from a keyboard and became the standard for typesetting. The old process of using physical letterforms was replaced by a system that used photographs of the letters' images.

The next step came when lasers entered the scene. Using a laser beam to image a sheet of photosensitive paper, type could be digitized (at a much higher level than discussed in Chapter 2) and then imaged by moving the laser on the paper to create the letterforms. Today, digital typography is becoming the standard imaging device used by typographers to create images of type.

Laser printers employ the same concept and technology to image type. They use a digital image of type that is stored in the memory of the machine, image the photosensitive drum inside, and make an impression of that image on a piece of paper passing through the laser printers. Many typographers will try to tell you that what you get from a laser printer is not real type. This could not be further from the truth. Laser printers employ the same imaging process and many of the same type originals as the most expensive typesetting device. The only difference is that laser printers do so at a lower resolution and, to the typographers' dismay, in your place of operation, not theirs.

Once Again, What is Type?

Now we can examine the nature of the letterforms that we have come to call type. Type comes in a variety of styles. Each style creates a different feel when you look at it. For example, script brings to mind wedding invitations and flowing images. Serif type, which is the style of type you are viewing right now, is what we have come to expect in books and information. It has authority and makes a definite statement. Sans serif type (such as Helvetica) is clean and modern. It is easy to read, so it works well for headlines, road signs, or wherever words need to be communicated quickly.

Type is a series of letterforms, forming the alphabet and numbers, in upper- and lowercase, in a consistent manner. Handwriting, for example, could not be called type because you could not repeat two letterforms in the exact same way.

Furthermore, type has an individual style: serif, sans serif, scripts, outline, block, and cursive.

So type is a set of letterforms of a unique style that can be repeated as many times as needed to form words, sentences, paragraphs, and pages.

Fonts

You will see the name "font" used in connection with type. It is simply the name of the specific typeface that you have chosen (such as Times or Helvetica). The many programs used in desktop publishing use the term font in a liberal manner, allowing you to make a font bold, italic, outlined, or shadowed. A true font is only one of those versions, but the digital nature of the type allows you to modify one font into many different fonts by electronically altering the type. Laser printers, however, do contain different fonts for regular, bold, regular italic, and bold italic. This is because each of these is a different font. The user interface of the Macintosh, however, groups all these versions as styles of a font, so they have continued with that form of user interface, even though it is technically inaccurate.

Identifying Type

To begin to decide which typeface you will use, it is important to be able to identify the different fonts available for your laser printer. Let's take a look at the most commonly used font, Times, which is a serif typeface. (See Fig. 9-1.)



Figure 9-1. The letter A in Times Regular. This is a serif typeface and is one of the most popular typefaces of all times. The additional strokes on the bottom of the letter are serifs.

Times is distinguishable as a serif typeface. It has thick and thin strokes and perpendicular strokes at the ends of the strokes. Almost all serif faces share this trait.

The differences between serif and sans serif faces (typefaces that do not contain serifs and most often have even weight in their lines) from this point on are more subtle. For example, Fig. 9-2 shows the same letter in Bookman Regular.



Figure 9-2. A Bookman Regular capital A. Note that it shares many of the characteristics of the Times Regular A, but the differences are now subtle. Different widths, line thickness, and other subtle traits make it different from Times.

As you can see in Fig. 9-2, the differences between many typestyles are subtle. Learning to identify typefaces by sight is a learned art. You must simply work with them enough to learn those subtle differences.

The typefaces resident on PostScript laser printers are fairly distinct, but the serif faces are similar enough to one another that it may take some time before you can quickly identify one from another. Let's take a look at some typefaces:

Helvetica Helvetica Narrow Avant Garde Courier *Zapf Chancery* Bookman New Century Schoolbook Palatino Times

As you can see, they are all attractive, but some are similar. I placed the serif typefaces last. Right now they may seem easy to identify because they are large and are associated with their names. Let's take a more difficult test. Examine the next four blocks. The differences in typestyles are subtle. They can be identified by looking for classic traits, such as the

The differences in typestyles are subtle. They can be identified by looking for classic traits, such as the

The differences in typestyles are subtle. They can be identified by looking for classic traits, such as the

The differences in typestyles are subtle. They can be identified by looking for classic traits, such as the

Now, without names and the large sizes, could you quickly identify each of these four typefaces? As you can tell, each is quite different but still similar enough that you may confuse one with another. The answer, by the way, is, from the top: Palatino, Bookman, New Century Schoolbook, and Times.

This example does more than illustrate that type must be learned; it shows how the subtleties and differences can affect the look and feel of a document. For example, Palatino is more condensed than Bookman, which is the widest of the typefaces above.

There are many type styles from which you may choose. The one that is right is a purely selective process. But once you find a typeface that you want to use, you will need to learn the mechanics of type.

Type Mechanics

Type is available not only as a style but also in many sizes, weights, and line spacings. The size and line spacing of a typeface make changes in its overall appearance. To use type, you must learn the sizing system as well as how to select the line spacing for it.

The first consideration is how big the type is or should be.

Helpful Hint

Type is not measured in inches but in points, a unit of measurement used in the graphic arts industry. A point is simply a very small unit of measurement. It measures 0.0138 inch, with 72 points to an inch. Both type size and line spacing are generally measured in points. This is a convention that you will have to learn to live with. Type comes in so many sizes that, realistically, it needs a very small unit of measure to identify its size. It would be difficult to measure the difference between 24-point type and 28-point type in inches.



Fig. 9-3 shows the range of one typeface in a variety of point sizes.

Helvetica 10 Point Helvetica 11 Point Helvetica 12 Point Helvetica 13 Point Helvetica 14 Point Helvetica 15 Point Helvetica 16 Point Helvetica 17 Point Helvetica 18 Point Helvetica 19 Point Helvetica 20 Point

Figure 9-3. Helvetica in a range of point sizes.

OK, now for more confusion. Just because a typeface is identified by a point size does not mean that it is actually the exact height of the identifying point size.

Type is identified by three main characteristics. Fig. 9-4 illustrates the identifying traits.





What is interesting is that, even though a typeface may be identified as 36 points, it is not actually 36 points tall. Believe it or not, there is a reason for this. As described in Fig. 9-4, type is made up of ascenders and descenders: basically, the tops of letters (such as h, l, or k) and the bottoms of letters (such as g or y). If the type were set so that the tops of the ascenders and the bottoms of the decenders went to the full height of the point size, then there would be times that, when the type was set solid (no extra spacing between lines), the bottom of a y would touch the top of an h. To avoid this, type is designed to fit aesthetically within its point size, so that when type is set solid—for example, 24-point type on 24-point linespacing—no characters will touch one another.

So, the question arises, if you cannot measure type by its actual size, how do you know what size it is? Refer once again to Fig. 9-4. Note that type has a baseline. When set solid, the measurement from baseline to baseline will tell you the size of the type, as long as it has been set solid with no extra space between lines.

Identifying the size is not difficult. Most 24-point type, for example, matches pretty much in height. Most professionals use a clear plastic type gauge (available at art supply stores), which is simply different sizes of type printed in black on a clear background. You lay this gauge over your type, and it will indicate the type size of your samples. It will also contain a leading guide. Leading is the graphic arts term for linespacing. It is used in the program PageMaker, so remember that the term "lead" or "leading" simply means the number of points between each line.

Make Your Own Type Gauge

I have found that one useful trick is to make a type gauge right off a laser printer, using a clear transparency sheet instead of a piece of paper. Simply set all the different sizes of type in this fashion:

9 Point 10 Point 12 Point 14 Point 18 Point 24 Point The same method can be used for linespacing. Set baseline rules using the underline key, and then set the linespacing (in PageMaker) to various linespacings, as follows:

10 maint anasima			
TO point spacing			
	·		
10			
12 point spacing			
12 point spacing			

The Finer Points of Type

Beyond identifying and sizing type, there are a few more essentials that will assist you in working with type.

Picas. A unit of linear measurement used by typesetters and printers. You will often see this as a standard for measuring the width of type. There are 12 points to a pica or 6 picas to 1 inch.

em Space and em Dash. A unit of width in typesetting that is equal to the height of the typeface's size. For example, an em dash in 12-point Times is a dash that is 12 points wide. The em space is commonly used for paragraph indentation. The em dash is used as the wide dash, the equivalent of the double hyphen used in typing to represent a dash.

Letterspacing. The amount of space between letters. On sophisticated typesetting machines, this can be controlled. Using PageMaker, you can control the maximum and minimum amounts of letterspacing. If you study the type in this book, you will see that the amount of space between letters in each line will vary. This is the result of justifying lines.

Wordspacing. The amount of space between words. It uses the same concept as letterspacing. The rule of thumb in typography is to add wordspacing first, and then if the space between words becomes too excessive, add letterspacing to fill the line out using the maximum allowable wordspacing. Wordspacing is preferred over letterspacing. Once again, you can control the maximum and minimum amounts of wordspacing in PageMaker.

Justification. Making the right-and left-hand margins flush. Space is added between the words and/or letters to fill out the width of the line to create an even right-hand margin. You may be familiar with this concept from using word-processing programs.

Kerning. The process of removing space between specific pairs of characters. It is an important feature. For example, when a capital T and a capital A are set without kerning, there is too much space between the T and the A. The reason for this space is that the A has a slanted shape and the T has empty
space on the bottom. When the two characters are next to each other, the space between the letters is exaggerated. Fig. 9-5 shows this effect, and how by using a kerning pair the A is moved slightly to the left to create the correct visual spacing between the letters.



Figure 9-5. Kerning overlaps the two characters T and A to create the correct visual spacing between the letters. This particular kerning instruction would work only with the TA pair, not when a T or an A is next to any other letter.

A Starting Point

Working with type is a learning experience. Handled properly, type can make your page look great. Bad typography can ruin a page. The next two chapters take a look at choosing a type style and how to format your text consistently to give your pages a slick, finished look.

CHAPTER

PostScript and LaserWriter Type Styles

Nothing is more difficult, and therefore more precious. than to be able to decide. -Napoleon I

This chapter details the typefaces available to you in the form of resident fonts on the LaserWriter and the LaserWriter Plus, as well as many fonts that are available on disk as downloadable fonts from various vendors. It will show each face in detail and all the variations of each face.

If you have not yet purchased a LaserWriter, LaserWriter Plus, or other PostScript printer, this will help you decide which model has the typefaces you will want. If you already own a LaserWriter or LaserWriter Plus, this chapter will act as a quick reference to the typefaces available to you.

All type styles shown are laser fonts. When you buy a LaserWriter or LaserWriter Plus, a disk comes with the unit with screen fonts for the resident fonts on that printer. The screen fonts allow you to use the laser fonts in your text files. Downloadable fonts come with both screen fonts, and the actual fonts that are downloaded, or sent, to the printer when used.

If you plan to use a LaserWriter printing service or a typesetting service offering Linotronic output, you will also need the appropriate screen fonts to access the laser fonts on their equipment.

Contact whatever service you will be using and ask them for a disk with the laser fonts they have available on their equipment. You will then install the screen fonts onto your system using the Font/DA Mover utility that comes with your Macintosh system disk. If you do not have a Font/DA Mover utility, ask your typesetting service or Apple dealer for a copy.

Once the laser font screen fonts are in your system, use them exactly the way you would use the standard Macintosh bit-mapped type.

The following pages will identify the name of the type font, and indicate which LaserWriter it is available on.

In the product reference section of this book, there are names of many companies that offer additional downloadable PostScript type fonts. If you contact them, they will send you samples of their type, which will help you decide which type fonts are right for you. Name of font: Helvetica 14 point Available on: LaserWriter, LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Italic:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline: abcdefghljklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: Helvetica Narrow 14 point Available on: LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: Times 14 point Available on: LaserWriter, LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Italic: *abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ*

Outline: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: Courier 14 point Available on: LaserWriter, LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Italic:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline:

abadafightjklimagagrastuvuzyz ABCDEFRITUKUANOBORSTUVVIXXZZ

Shadow:

Name of font: Avant Garde 14 point Available on: LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline: abcdefghljklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: Zapf Chancery 14 point Available on: LaserWriter Plus

Regular:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Outline:

abcdefghijk{mnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: Palatino 14 point Available on: LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Italic: *abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ*

Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: New Century Schoolbook 14 point Available on: LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Italic:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: Bookman 14 point Available on: LaserWriter Plus

Regular: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Regular Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold: abcdefghijklmnopqrstuvwxyz ABCDEFGHLJKLMNOPQRSTUVWXYZ

Bold Italic: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Outline:

abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Bold Outline: abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ

Shadow:

Name of font: Symbol 14 point Available on: LaserWriter, LaserWriter Plus

Regular:

αβχδεφγηιφκλμνοπθρστυϖωξψζ ΑΒΧΔΕΦΓΗΙϑΚΛΜΝΟΠΘΡΣΤΥςΩΞΨΖ

Name of font: Zapf Dingbats 14 point Available on: LaserWriter Plus

CHAPTER



Formatting Type

Honest labour bears a lovely face. —Thomas Dekker

Now that you have learned some of the basics of typography and have had a chance to examine the typefaces available to you on laser printers, it is time to start thinking about how your text will be formatted into type.

PageMaker is great since you can enter type in just about any fashion and later format it into the type styles you will want to use. When writing, if you do not feel comfortable changing sizes and styles, you can wait until you have finished writing before worrying about formatting the page. This is also the way that you would work with text from ASCII files or from telecommunicated type that contains no formatting.

Planning for PageMaker

PageMaker, the page assembly program you will be working with, makes full use of whatever formatting it can with your word-processing program. If you can put type in bold, that is how PageMaker will place it on the page if it can work with your word-processing program's formatting. When it can, Page-Maker follows your size, font, style, tab, and alignment commands. These may be modified once you are in PageMaker, but remember that PageMaker is not a word-processing program. It is quicker to make format changes in your word-processing program.

The only area that you need not worry about with PageMaker is the column width. When using PageMaker, you will be working with a master page grid that will have defined column widths. When you place your text in PageMaker, it will format the type to the column width on the grid.

These are the major considerations in preparing text for use in Page-Maker, but the real secret is deciding what type fonts you are going to use, how large they will be, and how the page will look.

Formatting Text into Type

Before launching into PageMaker, let's plan what our pages will look like. Starting with a simple text file, we will take it from raw copy into a formatted state that will be ready for use in PageMaker and printed on a PostScript laser printer. The word-processing program will be Microsoft Word 3.0.

The first choice that must be made is what type font will be used for text, headlines, subheads, and captions. As we study the samples of type, we must keep in mind that we are going to create a simple report with a classic look. We choose Times Roman Regular 10 point for the text, Times Roman Bold 60 point for the headline, Helvetica Bold 11 point for subheads, and Helvetica Regular Italic 9 point for captions.

Fig. 11-1 shows the text file in its unformatted state. The first step is to go in and format the type into the selected type fonts. This is illustrated in Figs. 11-2 through 11-5.

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Figure 11-1. The text file for our report. The type shown is unformatted. The next step is to begin formatting the text file for use in PageMaker.

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Figure 11-2.

The headline is formatted. Note that the right-hand margin is set arbitrarily. Since we will be using the grids in PageMaker for our column widths, we do not have to worry about it here. 157 Formatting Type

Laser Page	Bookman N Helvetica Narrow Palatino Times Helvetica Avant Garde ThinTimes	5
♥ Some of the most serious considerations in the deskt- document you are going to need; and, if they are goin output device to create the pages with to yield the bes The answers to the above questions have some ob reproduce your pages with high quality, but will also. The next chapter describes the basic reproduction mo offset printing and using your laser printer as your pi	9 Point 10 Point 12 Point 14 Point 18 Point 24 Point	ny.copies.of.yow. production,.which .only.sllow.you .instant.printing,. ction.methods.are.
appropriate for a different reproduction consideration. For. example, if. you. are. producing. a. 300-page. rep illustrations, using black ink, and you. only need 20- rather. than. to. bring it. to an offset. printer. Offset. print and needing multiple colors of ink. Bu far. your. best. Page I Normal+	ort, . mostly. all. type. with . a. few- copies, . it. would. be. beşt. to. print. i tring. is. best. for. documents. printed remoduction, method, for the show	charts . and . line-art. t. on. a. laser. printer . in. large quantities . example, is, to, use

Figure 11-3.

The body copy (text) is formatted by selecting it from format character menu and making it all 10-point Times Roman Regular. The linespacing for the entire document is made 11.5 points.

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Figure 11-4.

4. Scrolling down the text, subheads are selected from the format character menu and made Helvetica Bold 11 point. The Command Key-A "repeat action" key combination is used to format the remaining subheads without having to return to the menu.

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Image: File Edit Search	Format Font D Hide Ruler	ocur %R	nent Window	
0. 1 1. 2. originals and reproduction possible, if	Character Paragraph Section	жD ЖM		
For example, since there are methods and instant printing, the cost savings within hudget. There are many such so is to, as described earlier, know yo knowledge will allow you to mix the.	Styles Define Styles	жв ЖT	. laser. page. masters. with. offset. ion. device. may. keep. your. job- out.of. your. reproduction. budget. cesses. available. to. you This. pg. process. at. the. best. price. []	
Figure 1. Chart detailing quanities be ff Figure 2. Laser Frinter vs. Imagesette	Plain Text Bold ✓ <i>Italic</i>		alarussaye.f	
¶ One. of. the. great. advantages. of. most. de support. more. than. one. printing. device that. even. if. you. are. using. a. dot-matrix still take. advantage. of. the. unlimited. re-	<u>Underline</u> Outlinc Shadow	1. 193 1 293 1 1 1 1	ring: released, is. the. fact. that. they. PostScript. printers This. means. wlett-Packard. LaserJet, you. can. nousce. bu. using. the. PostScript.	
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Figure 11-5.

Finally, the report contains two illustration captions. These are made Helvetica Regular Italic by formatting them to 9-point Italic. The first words in the caption are made Bold in the same manner.

The entire text file is now saved, formatted, and ready for use in PageMaker.



Helpful Hint

Consistency is the best rule for a good-looking publication. Keep all text the same size and column width. Make headlines clean and easy to read. Subheads should be strong enough to be noticed, but they should not overpower the text. Do not use more than three or four different fonts per page, preferably all from the same type family (such as Times Roman Regular, Italic, and Bold).

If you follow these simple rules, you will have a publication that is not only attractive but easy to format as well.

ASCII Files

Of course, PageMaker will work with a number of other word-processing programs (such as MacWrite, WriteNow, and even simple notepad-type text files). Whenever possible, PageMaker will keep whatever typographic formatting it can from a word-processing program.

If you are having difficulty or problems with a word-processing program, save the file as "Text" or copy it to the clipboard and paste it into PageMaker. This will result in totally unformatted characters except for paragraph endings. These are commonly referred to as ASCII text files.

Pure ASCII text files, which can be created by most word-processing programs, are placed keeping only paragraph returns. All the default formats in PageMaker for size, linespacing, type style, font, and alignment are used. Once placed on a PageMaker page, you can select any type you desire and use PageMaker's extensive formatting power to convet the ASCII text into type.

PART FOUR

Working with PageMaker

CHAPTER

12

Putting the Pieces Together

Let no one say I have said nothing new; the arrangement of the subject is new. —Pascal

In the past eleven chapters we have learned to assemble a variety of hardware and software into a nicely configured publishing system, gathered up the correct software to create page elements, explored the nature of a page in a multipage environment, and taken a look at the nature of type. We took raw text and formatted it into type. Now comes the point of all that work assembling your publication.

Page Assembly

This section will detail the use of an excellent page assembly program called PageMaker. In a very short time, you will see how all the concepts explored up to this point will come into play when you start using it.

PageMaker offers you a clean sheet of paper that you may fill with whatever you want. It offers you a tremendous number of tools to place elements in a multipage environment with ease and grace. It is a classic "power" program. To make full use of all that power, the subjects covered in the book up to now will be of great help.

Although I have gone into great detail about the equipment and basic software you will need for your publishing system, I have not yet explained the purpose of functionality of page assembly software. Along the way we have been collecting bits and pieces: text files formatted into type, headlines, captions, and subheads. We have art files, clip art, and digitized images. Now we want to take all of these elements and put them together in page form. We do not want the simple page produced by a word-processing program but rather a complex multicolumn page where elements can be intermingled and viewed as a whole, then changed quickly if you are not happy with the result.

PageMaker allows you to do all of this. It is simple in nature, so it is easy to learn, but it gives you all the tools and power to create sophisticated pages.

Page Relationships

Unlike a word-processing program, PageMaker lets you place multiple columns on a page. If you work with large text files, your text may exceed a single page and go for several pages. When this happens, you enter the multipage environment I keep mentioning.

Let's say that you have created ten very complex pages. There are illustrations, graphic elements, headlines, and a huge text file that starts on page 1 and continues through page 10. If this had been done manually, you would have ten boards that had gone through pasteup. Done in PageMaker, you have built ten pages on the screen. Now, you examine the pages and find that on the first page you have repeated a paragraph when you entered the text! All that work, and you missed it, even after several sessions of proofing the pages. Let's examine how the two different systems would handle this situation.

The manual process—pasteup—would require that you go to page 1, remove the paragraph, and adjust the rest of the type on the page. The page is now a paragraph short. So you have to move a number of lines from page 2 to fill out page 1. This step is repeated on all ten pages. On page 10, you are a paragraph short, but it looks better there than on page 1! In essence, you have had to go back and manually paste up ten pages again because of one small mistake. With PageMaker, you would start the same way. You would select the bad paragraph and electronically "cut" it from the page. So now what happens? As with the art board, does a hole just stare at you? No. In PageMaker, all the text from one file is a whole. Even from column to column and page to page, that text is one entity. If you remove a paragraph from page 1, it immediately repaginates the document. It moves all the text up without your intervention. If you go to page 10, you will see that the document is one paragraph shorter, as it was on the art boards. The difference is that this took a matter of seconds, not a matter of hours.

With that type of power, you can envision that, if you can take a paragraph out, you can also add a paragraph and have all the pages adjust themselves automatically. And you would be right. But the beauty is that you can adjust for that lost paragraph anywhere. For example, you have a box on page 5 representing a photo. Instead of writing filler copy, why not make the photo bigger? So shorten the two paragraphs above the photo box and go to page 10. You will see that the type has returned to the bottom of the page. The text is now correct and ends flush. Next, go back to the photo box, click on it to get handles for stretching and pulling, and make the box larger to fill out the space. In a matter of minutes, you have electronically corrected a problem that would be catastrophic in a manual system. (See Fig. 12-1.)

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Figure 12-1. PageMaker is from Aldus Corporation. This is the opening screen that greets you when you enter the program. Aldus (pictured) stands for a man named Aldus Manutius, a Venetian printer from the 15th century who, even in those early days of print, saw the need for a more economical page assembly process. He created a small yet readable typeface called Chancery, which allowed books to be smaller and thus less expensive.

Hot Tip

There are a number of page assembly products on the market. Currently PageMaker is the most efficient example of interactive page assembly among the moderately priced programs. PageMaker retails for less than \$500, making it one of the more expensive products for the Macintosh. However, if you are serious about page makeup, it is well worth the money. I have used professional page assembly products designed for newspapers and books, costing over \$100,000, and I find PageMaker to be easier to use and more logical. It also offers features that equal those on the \$100,000 systems.

PageMaker

PageMaker allows you to put all the pieces together in an organized, simple way, but it has the power to do everything you need to do. That's the easiest way to sum up why I chose PageMaker as the subject of this book.

The next chapters will take you from clicking open PageMaker for the first time to pushing it to its limits. And if you get to its limits, then you are a pretty good page maker!

CHAPTER

13

Working with PageMaker

The best preparation for good work tomorrow is to do good work today. —Elbert Hubbard

 $P_{ageMaker comes on floppy disks with an excellent user guide, reference guide, installation guide, and quick-reference card.$

You will want to make backup copies of the disks before installing the program onto your hard disk. Installation is quite easy. You can work from a copy of the program disk if you are using floppies (which I don't suggest), or you can copy the program and data files (be sure not to copy the system files) on the PageMaker disks to a folder on a hard disk (the best solution) and simply double click on the program icon to start the program.

Although PageMaker comes with its own QuickTour file that will show you all the program's capabilities, I am going to start from scratch and not reference the QuickTour or sample files.

Once you have created backup disks and installed PageMaker on your hard disk, you are ready to start. In addition to PageMaker, have a large text file and a few paint or draw graphic files created so you can place those elements on pages. When you have all that, you are ready to begin.

Some Basics

PageMaker is an application program, and it can be started from the PageMaker program icon or from a file that has been created by it. The files that PageMaker creates are termed publication files. The publication files contain the text and graphics that you have formed into pages. They contain copies made from your original files, so once a publication file has been created, you do not need the text or graphics files used to create the publication file. It has all the information it needs.

The program can work with files from a number of programs. Text files can be had from many of the word-processing programs for the Macintosh listed in Chapter 3 or from the clipboard if there is any text there. Graphics files in a variety of formats (also listed in Chapter 3) can also be placed on PageMaker pages. (See Fig. 13-1.)



Figure 13-1. PageMaker program "PM. 2.0" and publication files in a folder on the Macintosh desktop. To start the program, double click on either the program or publication files.



If you are using downloadable fonts, keep the print area in mind. The fonts occupy space in the laser printer's RAM. PageMaker has less room to work with in the laser printer if you have loaded too many additional fonts.

You may create and print pages in either a vertical or horizontal position. The horizontal, or landscape, version allows the creation of documents such as flyers or brochures that fold one or two times and are read with a horizontal orientation instead of the standard vertical. (See Fig. 13-2.)



Figure 13-2. Landscape pages may be produced. This allows the type to be positioned vertically on a horizontal page, which is useful for brochures and 5-1/2 by 8-1/2 inch folded documents.

PageMaker Tools

Working directly in PageMaker, you will be able to use on-screen rulers; edit type; control tabs; change type styles and sizes; draw rules, boxes, shaded boxes, and circles; and move items freely on the page or even to another page.

Most simple graphics can be created directly in PageMaker, so you need not prepare such elements before entering the program. Any complex graphics should be prepared in advance with a graphics program.

PageMaker's tools will allow you to scale or crop graphics created in paint or draw formats, so create your illustrations freely. They can be sized perfectly from within PageMaker.

A Multilayered Page

A final consideration in thinking about how you place items on pages with PageMaker is that items can be placed on top of other items. At any time, you can move an item that is underneath another item to the front. Likewise, you can take an item that is on top of all others and elect to send it to the back.

This concept is very much like using paper when pasting a page together manually. If you wish, you can cover up items by pasting something over them. For example, say that you have an illustration that you would like to have a line of type run through (such as a banner). You could take the rectangle drawing tool, create a rectangle over the illustration in white with a black rule around it, then add a line of type on top of that.

You would have an illustration on the bottom layer, a white rectangle with a black border rule on the middle layer, and black type on the top layer. As you can see, you can build complex images using the layering technique.

PageMaker is so powerful that if you look at the finished page and think the banner and type may be covering an important part of the illustration, you can simply go to the page, click on the illustration, and from the edit menu select "Bring to the front." The illustration will now move to the top layer, covering the banner and type. If you decide that everything is all right, with the illustration still selected, you can select "Move to the back." The illustration will move to the bottom layer, with the banner and type covering it again.

This is a procedure that you will come to appreciate and will use time and time again as you create pages in PageMaker.

Start Your Engines

Keeping in mind the nature of PageMaker as explored in this chapter, it is time to start building pages in PageMaker. Chapter 14 will examine building the page grid, called a master page.

CHAPTER

Building Master Pages

A good beginning makes a good ending. —English Proverb

T he first step before creating any pages is to establish which printer and laser printer prep file (a required system file) you are going to use.

To identify the printer you intend to use, select "Print" from the the file menu. An on-screen menu pops up, and the menu has a "change" option that allows you to select which printer you will be using and whether you are using the Aldus prep file or the Apple prep file, as shown in Fig. 14-2.



Figure 14-1. The screen that greets you when you start PageMaker directly. To start building a master page, go to the file menu and choose "New."

After the opening screen, when you click the mouse button, you are presented with only the menu bar. By choosing "New" from the menu bar (as shown in Fig. 14-1), you can start building your master page.



Figure 14-2. The menu for selecting a printer and appropriate prep file.

The choice of printer is pretty easy to answer. You select either the printer you have or the printer you plan to output your page files to.

Next, click on the file menu. From it you can choose one of two options. The first is "New," which will create a new file for you and then allow you to create a page grid for that file. The second option is "Page setup" and is useful if you work consistently with pages that have the same size and margins. This option will allow you to enter page and margin information that will become the default every time you create a new file. For now, we will start from scratch and choose "New." PageMaker will automatically bring up the dialog box in Fig. 14-3.

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The page setup dialog box is where you will define the basic characteristics of your page. Let's examine each choice:

Page size: This allows you to choose the size of paper you will be printing on: Letter, Legal, A3, A4, A5, Tabloid, or Custom (where you define the page size up to 17 by 22 inches). As discussed in Chapter 13, each size of paper will give a different imaging area. For most applications, you will use Letter, which will give you a maximum imaging area of 8 by 10.9 inches (if you are not using downloadable fonts; if you are, then it reduces the imaging area to 7.7 by 10.1 inches). For now, choose "Letter."
Orientation: This allows you to create vertical text columns on the page positioned vertically or horizontally. "Tall" is for a vertical orientation; "Wide" is for a horizontal, or landscape, orientation. For now, select "Tall."

Double sided: Clicking in this box will set up the page file for right- and left-hand pages. If you do not click it in, it will set up your publication for single-sided, right-hand pages. The sample pages used throughout this book use double-sided pages. To follow along, click on this box.

Facing pages: If your publication is double sided, this option will allow you to display facing left- and right-hand pages, or spreads, on the screen as you are working on them. The sample pages used in this book show single pages. In most instances, you will want to work in spreads, with left- and right-hand facing pages displayed.

Start page #: This allow you to choose the starting page number for your file. It can be any number between 1 and 9999. Next to that is the number of pages in the file, which can be anywhere from 1 to 128.

This includes the margins for the inside, outside, top, Margin in inches: and bottom. From Chapter 8, remember that you must leave room in the gutter for binding. The gutter margin is usually larger than the outside margin. PageMaker labels the gutter as the inside margin. The inside margin is the right side of a left-hand page and the left side of a right-hand page. For our publication, where we detailed our type formatting in Chapter 11, we will set up a 7 by 10 inch live area on our 8-1/2 by 11 inch page. This means that for the inside and outside margins we have 1-1/2 inches to work with. We will make the inside margin 7/8 inch to allow for the gutter and the outside margin 5/8 inch. The top and bottom margins leave us 1 inch to work with. Since a folio line will rest on the bottom of the page, we will make the top margin smaller than the bottom to leave room for the folio line. The top margin will be 3/8 inch and the bottom area, 5/8 inch. One note: PageMaker makes you enter whole numbers such as ".5" for "1/2." You must convert the values to whole numbers when you enter them. PageMaker also allows you to switch from measuring in inches to various other measuring standards (such as centimeters or picas) in a menu box called "Preferences." On an ongoing basis, you may find those units of measurement easier to work with. We will cover this later.

At this point you have filled in all the information needed to define your page setup. When you click OK, PageMaker will present you with your pasteboard, PageMaker's name for your page positioned on a working area. You now see your page, as shown in Fig. 14-4.

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Figure 14-4. The page—with margins defined—on the pasteboard.

Your page is now in a fit-in-window size. You may view the page as shown or at actual size or at 50, 75, or 200 percent sizes. Most of the time, you will be working in the fit-in-window size where you may view the whole page at once.

Let's examine some of the elements on the PageMaker pasteboard:

Menu Bar: This element contains the menu listings—File, Edit, Options, Page, Type, Lines, and Shades. The options contained in each of these menus will be discussed later.

Title Bar: This element contains the name of the file you are working on.

Publication: Your publication page is represented in the center of the screen.

Toolbox: This element contains a number of symbols or icons that will act as drawing, pointing, and text-selection tools.

Master Page Icons: These symbols indicate whether you are working with left- and right-hand pages or just right-hand pages. Furthermore, clicking on either will bring up the master page, either left or right, and place your grid elements there.

Page Icon: This symbol lets you know how many pages are in your publication and allows you to move to any page by clicking on the page number you want to go to. Only 16 pages can be displayed in the bar. Clicking on either area to the left or right of the page icons will allow you to scroll through the pages.

Scroll Bar: This element allows movement of the page and pasteboard. Scrolling is essential when viewing the page at actual size or at 200 percent. Moving the boxes on the scroll bar moves the page being viewed vertically or horizontally.

You will work more with each of these as you build your page. Right now, however, examine the representation of the page on the pasteboard (Fig. 14-4). The physical page is represented by the black shadowed outline. The margins we have defined are represented by the dotted lines. Note that the page icon indicates that you are on page 1, a right-hand page. Note that the left margin is greater than the right and that the top is less than the bottom. This reflects our gutter and folio adjustments.

Creating a Master Page

The next step is to jump from page 1 to the master pages to set up the grid for the page and add some items that will appear on every page, as well as print on every page.

To jump to the left-hand master page, simply go to the L master page icon and click on it. Fig. 14-5 shows how the L master page icon is now darkened, indicating that you are on the left-hand master page.

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Figure 14-5. The left-hand master page. Here you can establish all the characteristics and printing items that you want to appear on every left-hand page.

There are two steps that you should now take that will help you set up your master page.

The first is to call up on-screen rulers that will allow you to know the exact location of the pointer. This will let you point to any area on the page and know its exact vertical and horizontal position. This is done by going to the options menu and clicking on the "Rulers" choice. Rulers will now appear across the top and left of the pasteboard as shown in Fig. 14-6.





In the upper left-hand junction of the two rulers are two crossed dotted lines. From the toolbox, make sure you have the pointer tool selected. Move the pointer into the upper left-hand corner of the junction box and place the pointer on the junction of the two dotted lines. Hold down the button of the mouse and drag the pointer to the upper left-hand corner of the live area on your publication page. When you have the pointer in the exact upper left-hand corner of the live area, release the mouse button. This action moves the zero of both rulers to the upper left-hand corner of your live area. You may, at any time, move the zero value of the ruler to any position on the page. This will help, for example, when you need to start type at an abstract point and run it 3 inches down.

When you first enter the master page, both rulers should have the zero set in the right spot, but this example illustrates how to move the zero in case it is not.

The next step is to establish how many columns you want your page to contain. For this example, you will want to create two columns of type with .25 inch between each column. In PageMaker, it is very simple to make columns. You can create one column by doing nothing. The live area would be one column, 7 inches wide. To make two to twenty columns, you go to the options menu again and select the "Column guides" option. This will bring up a dialog box as shown in Fig. 14-7.

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I more allowith the page. Now take a look at your publication page. It shows two columns with dotted lines as in Fig. 14-8.



Figure 14-8. The columns appear as dotted lines on the publication page. The dotted lines are position elements; they will not appear when the page is printed.

The next task is to place a rule at the bottom of the page and add a folio for automatic page numbering at the bottom of the page.

You will now want to change the view of the page to actual size so you can position your rule with more precision. To do this, go to the page menu and select "Actual size." Or with the pointer on the pasteboard, click the right mouse button, which is a shortcut toggle between "Fit in window" and "Actual size." The screen will change to the actual size. In addition, the rulers will now reflect the change, showing more increments.

Use the scroll bars to go to the bottom left-hand corner of the page, as shown in Fig. 14-9.



Figure 14-9. The publication page is now actual size, and the pointer is positioned at the bottom left-hand corner of the live area by using the scroll bars to move the page.

Fig. 14-10 details how to draw a straight-line rule on the page. After you have drawn the rule, you may select its weight from the lines menu, as shown in Fig. 14-11. A 1-point rule is selected from a variety of choices.







Figure 14-11. With the rule selected (it has handles at each end), you may go to the lines menu and change its width at any time.

To create the automatic numbering folio shown in Fig. 14-12, move to the center of the live area, between the two columns. Go to the toolbox and click on the text icon (the A). Move the text icon (an I-beam shape) to where you would like the page number (centered between the two columns and 1/8 inch below the rule), and press "Command," "Option," and "P" at the same time. One zero will appear. The page numbering will start at this position and will use the number of the page you are working on.



Figure 14-12. The final element on the page grid is an automatic numbering folio line.

The type is in a default size and mode. For the example, you will want to change the type to Times Roman Regular 9 point. To do this, move the I-beam pointer to the left of the type. Holding down the mouse button, drag it across the zeros until they are selected (white type in a black box). With the zeros selected, move the I-beam pointer up to the type menu bar. The I-beam will change back to a pointer when you leave the pasteboard. Open the type menu and select "Type specifications." A dialog box will appear as in Fig. 14-13. From here, select the size (9 points), font (Times Roman), and style (plain). The folio line will now use this type selection on every page.



Figure 14-13. The "Type specifications" dialog box allows you to choose type font, size, linespacing (leading), autoleading, and styles for the type you have selected.

The final step is to move back to the toolbox and select the pointer tool again. Go back to the folio number and move it into the exact position if it had changed at all as a result of changing type styles. You may now go to the page menu and return the page to "Fit in window." The completed master page is shown with all the desired elements in Fig. 14-14.



Figure 14-14. The completed left-hand master page. The next step is to do it again for the righthand master page.



Helpful Hint

This takes care of the master page for the left-hand pages. Next, you would repeat this process for the right-hand page. This can be done by selecting all the items on the left-hand master page. To do this, choose "Select all" from the edit menu. All the items on the page have been made active and can be copied to the clipboard by going to the edit menu and selecting "Copy." Click on the right-hand master page, and select "Paste" from the edit menu. All the elements are placed on the page as a group and may be moved into position by moving the pointer over them and dragging them into position. Clicking outside the selected items will deselect them and allow you move each one independently. Copying the page elements does not include column guides, so you will also need to define the column guide for the right-hand master page. It is important to note that each master page is done separately even though they may be the same. More often than not, if the page is identical in margins and format, you would create the file as single sided. Most double-sided pages have folios and columns that are slightly different on each master page. An example would be a more sophisticated folio line with the date in the outside corners of the folio line. You would need to put it on the outside of each page, so each master page would be different.

Ready to Begin

Once you have completed the same routines for the right-hand master page, you are ready to click the page 1 icon and begin placing items on your page grid. Placing elements is covered in Chapter 15.

Right now is a good time to save your publication. Frequent saving is a good practice to follow. Begin now by saving your grid as SAMPLE.PUB. To save, go to the file menu, select "Save," and name your publication. This is also a good time to make a backup of your publication file by selecting "Save as" from the file menu and giving the file a backup name which will save an additional copy of the file.

CHAPTER



Placing Elements on a Page

The difference between landscape and landscape is small, but there is a great difference in the beholders. —Emerson

Once the master page grids have been created, the next step is the most exciting: actually placing elements on the page.

Placing a Headline

The first element you should place is the headline. Not only is this the first element on the page, it is also an element that does not fit into the two columns. It was designed to go across the entire width of the live area. If you placed it in the first column, it would break the headline to fit into the column.

For such situations, there are two ways of placing such an element.

First, you can place the element using the "Place" command from the file menu. You will then see a dialog box on your screen like the one in Fig. 15-1.



Figure 15-1. Choosing "Place" from the file menu presents a choice of files, both text and graphic, that can be put anywhere on the page. Here, the file "PAGES" is selected. You can choose to keep the formatting of the file by choosing "Retain format" or drop all formatting by choosing "Text only."

When you click on the name of the file, PageMaker presents the publication page with a new icon. Text files have icons in the shape of the upper left-hand corner of a block of text. Paint files are represented by a page corner with a paint brush in it. Draw and PICT files have the same type of icon, but with a pencil in it. Scanned images in the TIFF format are represented by an icon with an "X" in it. Finally, EPS files have an icon with a large "PS" in it. If you have chosen a text file, you should get the pointer icon with the text in it. The file chosen, "PAGES," is a Microsoft Word file, so a text icon appears on the screen, as shown in Fig. 15-2.







Helpful Hint

To ignore the columns on the page, you can place the text in a specially sized text column that overrides the standard text columns. To do this, point to the exact place you wish the specially sized text block to start. When you click on the text icon, press the mouse button down but DO NOT release it. Drag the mouse with the button held down. You will see a solid-line box forming in whatever direction you move. This "elastic" column can be made any size. When you have created the box you desire (such as a full-width column for the headline), release the mouse button. The text will flow into the box and not adhere to the grid columns, as shown in Fig. 15-3. This is an extremely important tool for placing elements (such as captions and headlines) that are larger or smaller than the column size you are working in.





Placing a headline across two columns by holding down the mouse key when starting to place text, dragging the elastic box to create a custom column width, then releasing the mouse button to place the text, which ignores the standard columns.

Examine Fig. 15-3, which shows the placement of text after the headline. Note that the text, which is active or selected, has horizontal lines on the top and bottom, with very small handles on them. These handles allow you to move the excess type up and down, much like taking the bottom of a window shade and pulling it up and down. In fact, Aldus even uses the term "window shade" to describe this action.

So take the bottom handle of your textual window shade and move it up and down to see what happens. Move it up a line and stop. Move it down a line and stop. Finally, move it all the way up to the top of the first line of text, that belongs in a column and stop. Now all that should be present is the headline. Next, make your headline larger, the goal being to fill the width of the page. To start this process, go to the toolbox and select first the text tool and then the headline. The results should match those in Fig. 15-4.



Figure 15-4. The text is window shaded back to the point where only the headline is on the page. Select the text tool from the toolbox, then select the headline for a type size change.

Sizing a Headline

With the headline selected, the next step is to access the "Type specification" dialog box from the type menu. The type is currently at 24 points. For the heck of it, change the size to 48 points. The dialog box goes away, and you will see the results. If the type is still not filling the line, go back and make it larger.

After making the type larger, it may be too large and will word wrap, forming two lines. In that case, go back and make it smaller. It's a bit of a guessing game, but after a few tries you will get the headline to be the exact width of the live area, which will be very attractive, as shown in Fig. 15-5.



Shortcut

This time, save yourself a step. Instead of moving the mouse to the type menu, press "Command" and "T" at the same time. This will bring up the type menu without using the mouse. PageMaker uses many such shortcuts, and I will point them out as we can take advantage of them.



Figure 15-5.

The headline has been sized by experimentation so that it is the full width of the live area. The next task is to select the headline type to get back the type handles. Go to the bottom handle. Note that the handle has a plus sign (+) in it. The plus sign means that there is more type to be placed. When all type has been placed, a pound sign (#) occupies the bottom handle. Click the mouse on the bottom handle. You will then get back the text icon. This is the rest of the type that has yet to be used.

By clicking on the headline and getting back your type handles, you can click on the bottom handle and get the type icon for the rest of the text that has yet to be placed. Once you have the text icon, you can start placing columns of text.



Helpful Hint

Move to the first column and choose a starting point for your text. You will notice that when you move the text near a column grid line, the icon tends to move to the line by itself. That is because the snap-to-guides tool is on. You can turn this tool on and off from the options menu. The snap-to-guides tool assures you that text and graphics elements will align themselves on the nearest grid line. This tool is quite useful and, for general placement, should be left on most of the time. Turn it off for precision work; leave it on for general placement.

Even though you have your text icon back, you should note that you now wish to place two columns of type, both starting at the exact same spot horizontally. To assist you in making sure that both columns start at the same height, you can use the ruler guides.

Ruler guides are lines that are pulled from either the vertical or horizontal rulers. They act much like a column guide because they have a snap-to quality. Text placed next to a ruler guide will snap to it if the snapto feature is on. Unlike column guides, once the text is flowing in a column, it does not stop at ruler guides. For this example, you need to place a horizontal ruler guide where the two columns will start.

Go to the toolbox and click on the pointer. Note that you have lost the text icon. That's OK; you can get it back. With the pointer, go up to the top ruler, go anywhere in it, and press the mouse button down, but do not release it. Now drag the pointer down. Note that it is dragging a dotted line with it. The dotted line is the ruler guide. Drag it into place on your page, and release

the mouse button. You now have a guide for placing your two columns. The ruler guide can be moved at any time and can be put away by dragging it back up into the ruler. (See Fig. 15-6.)



Figure 15-6. A ruler guide is pulled down from the top ruler and aligned for the top of the type in both column.

Now, go back to the headline block and click on it with the pointer to make it active. Go to the bottom handle and click on it. You once again have your text icon. Next go into the first column at the intersection of the left-hand side of the column and the ruler guide. Click the mouse button. The text will begin flowing in the column. It will fill the first column completely and stop at the bottom. Change to the actual size view.

Shortcut

This time instead of using the menu, press the option, command, and mouse buttons at the same time anywhere in the pasteboard area. The screen now shows the page actual size. Note that the portion of the page shown actual size is the same area to which you were pointing when you clicked the mouse button.

Examine how the type has flowed into the column and how it has aligned itself to the left grid line. The text is justified, since the word file was justified. Note how the column guide works as a margin on the right for the text as it flows in.

With one column of text placed, it is time to click the bottom handle on the first column of text to get the text icon for the next column of text. Fig. 15-7 shows the screen at this point.







Figure 15-8. Both columns of text have been placed. The page has taken shape quite well. The last step is to add a rule between the two columns.

Adding a Rule

The final step in creating the first page is to place a rule between the two columns of text. The rule will be a hairline rule centered between the two columns and will start at the top of the columns of type and stop at the bottom.

Go to the toolbox, get the straight-line icon, make your page actual size, and then scroll to the center of the page, at the top of the two type columns. Position the crosshair pointer in the center of the columns, and press the mouse button down. Drag the crosshair cursor down. When it reaches the bottom of the screen, keep the button down. The screen will start scrolling and drawing the line down the page. When you reach the bottom of the columns, stop the cursor at the bottom grid. The rule is now drawn. Go to the line menu and select "Hairline." The page is now complete. (See Figs. 15-9, 15-10, and 15-11.)

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Figure 15-9.

By selecting the straight-line icon from the toolbox, you can draw rules anywhere on the page. Here, the snap to guide has been turned off, and a hairline rule has been drawn between the two columns.

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Figure 15-10. The rule, still selected (indicated by the handles on the top and bottom), is made a hairline width from the lines menu.







Shortcut

If the rule did not place itself in the center between the columns, press the backspace key. Any time you activate an element, you may erase it simply by hitting the backspace key.

This time, go to the options menu, turn off the snap to guide, and go back. Now you will be able to position the cursor with much less difficulty. Draw the line as already described. When you are through, hit the right mouse button to view the entire page, and there is your first page!

On to the Next Page

With the first page complete, you can continue placing the rest of your text and graphics on the next page. To do this, go to the page menu and select the "Insert page" choice. A dialog box will pop up and ask if you want to add a page after the current page or before the current page. Select "After current page," since you want to work on page 2. (See Fig. 15-12.)



Figure 15-12. To insert pages, you can insert the page either before or after the page you are on.

A page-2 icon will appear at the bottom of the screen with the page icons. A new page will appear on the screen, ready for placement of text and graphics. This page will be special since you will need to place a graphic on it in addition to the remaining type.



Helpful Hint

You can create a file by adding a page at a time. A better way is establish the number of pages for your document when opening the file and indicating the number of pages (for example, 24) that you would like your document to be. If you document is shorter than the number of pages indicated, you can remove the extra pages at any time. This will save you the task of adding a page each time.

Placing Graphics on a Page

Placing graphics files on a PageMaker page is no more difficult than placing text. It is a simple matter of going to the file menu, choosing the "Place" command, and picking the name of the graphics file you wish to place. Once you click on the "Place" command, the file will appear on the screen. It will have a set of handles—one at each corner—and handles in the middle between each corner.

The handles allow a variety of edits to be performed on the graphic. You can enlarge or reduce it in any proportion, such as making it wider or taller (stretching it in only one direction as you do so) or making it wider or taller while keeping its true proportion.

Fig. 15-13 illustrates a graphics file as it is placed on page 2 of the publication.



Figure 15-13. Graphics created with paint, draw, or scanner programs are placed just like text using the "Place" command. When they are active, they have handles on the tops, sides, and corners.

The next step is to decide where to place the graphic on the page. Since no particular placement was specified, you have a great deal of freedom and can put the graphic anywhere on the page.

The first page of the report, while attractive, was also quite plain. It contained only a headline and two columns of type. Now that you have an illustration, you may want to enhance the style of the page by using the graphic in a dynamic fashion. This could be done in a number of ways. The graphic could be enlarged, could bleed off the page (go off the edge of the page), or, being most adventurous, could extend into the column next to it.

Resizing Graphics

If a graphic, once placed, has areas that you would like to remove, you can crop it. Go to the toolbox, get the cropping tool, go the graphic, and click on it. The handles will appear. Put any of the handles inside the cropping tool, click the mouse, and drag. You will see that the graphic is being cropped. Crop the graphic as desired.

What if you took off too much? Don't worry. The entire graphic is still there. You can see this quite easily by taking the cropping tool, going inside the graphic area, and pressing the mouse. Holding down the mouse button, move the graphic around. Note that the graphic moves freely so you can reposition it in the cropped size. It also shows that the entire graphic is still there. This means that you can take the cropping tool, go back to the handles, and resize the crop without having lost any of the graphic. This is a very handy tool. You can crop the box to the size you want, go in the graphic, press the mouse button down to grab it, and position it as desired. And you can recrop at any time.

A graphic, once placed, can be resized in a number of ways. The quickest way to understand this is to grab the bottom right handle and pull down and then to the right. Note that the graphic fills whatever size area you are creating when pulling the handle. Note also that the proportion of the graphic can change. There are times when this is desirable and times when it is not. You can control the proportion ratio and return to the original size at any time.

To reduce or enlarge any graphic in proportion to its original shape, press down the shift key as you drag a corner handle. The graphic will retain its original shape, but now at a new size. Object-oriented graphics (such as from PICT files or draw programs) can be enlarged or reduced perfectly since they are essentially redrawn as their size is changed, so they are not distorted by a stretch in any direction. Paint, or bit-mapped graphics, do not fare as well. When stretched, they will distort due to the resolution of the original drawing versus the resolution of your printing device. You can end up with strange patterns in shaded areas, extremely ragged lines, and a pretty bad looking illustration. There are, however, certain percentage enlargements or reductions that will not cause such dramatic distortions. By holding down the command key as you resize the graphic, the paint graphic will snap to various sizes. These are sizes that, depending upon your printer, will create the least amount of distortion. The ability to resize a graphic, stretch it in any direction, keep proportions, and scale paint graphics to their best print resolution shows how powerful PageMaker's graphics handling capability is. If you do not like the stretched shape and want to return the graphic to its original proportions, simply get the pointer, hold down the shift key, and click on any of the handles. The graphic will return to its true proportion but not its original size if that had been changed.

When a graphic element enters a live column area, you must wrap the type around the graphic. This is a fairly complex task in conventional typesetting, but PageMaker has made the process quite easy. It involves several new functions, so let's create your first wrap!

Wrapping Type

The first step is to place the graphic exactly where it is going to go on the page. This is done by simply using the pointer, moving inside the graphic, pressing the mouse button, holding it down, and moving the mouse. The graphic will now move about the page with ease. Place the graphic in the vertical middle of the page and, page 2 being a left-hand page, on the outside of the page. Place the graphic so that it both bleeds off the page and crosses over into the second column of type, as illustrated in Fig. 15-14.


Figure 15-14. The graphic is placed on the page. Note that it both bleeds off the page and crosses over the column lines into the live area of column two.

When PageMaker fills a column with text, it will fill the column until it either reaches the end of the column or reaches a graphic element. So when you place the continued text in column one, it should stop at the graphic.

Go back to page 1 by clicking on the page-1 icon. From page 1, go to the bottom of the second column and click on the type. You will get the type handles back. Click on the bottom handle, and you will have you text icon back. Move the text icon down to the page icon area. It will change to a pointer. Don't worry; when it's off the pasteboard, it changes to a pointer. Click on page 2.

Once on page 2, go to the top of the first column and click the mouse; the text will flow in and stop at the graphic. At the bottom handle, click again to get the text icon and go under the graphic and fill the bottom of the column. Get the text icon from the bottom handle of the column. Go to the top of the next column, place your text icon at the top left corner, and click the mouse button. Text will begin filling the column. It will stop at the graphic. The type will now have handles on it. With the pointer, go up in the ruler and grab a ruler guide. Drag it down, placing it flush with the line of the bottom window shade. Click the bottom handle to the text icon again. Position the text icon at the upper left-hand corner of the ruler guide and the left of the column, even if it is covered by the graphic. Click the mouse. The text will flow in, filling the bottom of the column and stopping at the end of the column. (See Figs. 15-15 and 15-16.)



Figure 15-15.

Page 2, with the graphic in place and text flowed in the first column and up to the intruding graphic in the second column, where a ruler guide has been placed at the bottom text handle. The text icon is gotten from the text where it stopped at the graphic and is now placed at the ruler guide and allowed to reflow over the graphic to the bottom of the column.

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Figure 15-16. At actual size, position the screen to see the area where the wrap will occur.

Here comes the fun—creating a wrap around the graphic. What happens next is quite simple. Go to either the top or bottom left handle on the type covering the graphic and, clicking the mouse, drag it to the right. Drag until the text is to the right of the graphic. As you can see, text blocks can be resized just like graphics. Go to the bottom of the page and window shade the text back up to a little below the graphic. Once again, drag down a ruler guide and align it with the bottom text handle.

Now, at the upper left-hand corner of the column guide and the ruler guide, click the text icon that you got from the text block wrapped on the right of the graphic and flow the text in under the graphic to the bottom of the column. Click on the pasteboard and study your page. You now have a perfect wrap around the graphic. By using the ruler guides to place the text blocks correctly, the linespacing in the right-hand column is correct. It should look roughly like Fig. 15-17.



Figure 15-17. Text flowed into the page as a wrapped column.

Another style of handling a wrap is to change the column guides, both in wraps and in general layout and grid creation. Column guides are not locked into the general area they are currently in. The options menu does have a guide lock that will lock them so they cannot accidentally be changed, but you can, at any time, change the width of any column on the page (when there are two or more columns). The widths of the columns change, but the space between the columns does not. So in this example, the 1/4-inch space between the margins will remain constant.

To move a column guide to the right of the graphic, make sure that you are using the pointer. Do not get a text icon. Position the pointer in the area between the two columns above the graphic, as in Fig. 15-18, and place the pointer on either of the two column guides.



Figure 15-18. The pointer should rest on one of the two column guides when you are attempting to change column widths.

Now, press the mouse button. The pointer will change to a double arrow pointing left and right. This simply means that you may move that column guide in either direction. Since the goal is to create a column guide to the right of the graphic, move the column guide mover icon to the right. You will see the dotted column guide lines move with you. Using the ruler or the left-hand column margin, determine when the right-hand column guide is 1/4 inch from the right of the graphic. When it is positioned correctly, let go of the mouse. Note that the text you have already placed does not change because you have moved the margins. The column guide should look like the one in Fig. 15-19.



Figure 15-19. The column guide has been moved to the right of the graphic to form a new column to place text in, so that text will wrap around the graphic.

Here comes the amazing part. Before you begin, read the first few words in the text block below the graphic in the right-hand column.

Now, go to the text block above the graphic in the right-hand column and click on it. You will get the handles back. Click on the bottom handle. This will give you the text icon. Position the icon at the top left corner of the new small column to the right of the graphic, as shown in Fig. 15-20.

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Figure 15-20. The text icon, taken from the bottom of the text block on the top of column two, is in place for adding text to the new small column to the right of the graphic.

Now, it's time for fun. Simply click the text icon. Text will flow into the new column and stop at the block of type underneath it. Now, take a look at the words where you started placing the text. Rather than being the word that comes after the bottom block of text (which would make sense since you placed this block after the bottom text block), the new column has pulled the words from the bottom block up into the new block and has filled the bottom block with the text from later in the text file.





Figure 15-21. Text flowed into the page as a wrapped column by changing the column widths.

PageMaker threads the text through blocks. Since you clicked on the text block above it and then filled the column, it knew that you wanted to flow the text in a continuous stream between the text blocks. Now, here's an interesting point. What if the text block was a caption and not part of the text flow?

That is easy. Instead of going to the text block above the graphic to get the text icon, you would wait until you got to the caption (perhaps located at the end of the file), click on the caption type, and place it in the small column. It would not thread the type since the text came from a different location in the text file. It is still part of the thread of text, just located in a different area. If you were to take a paragraph out of page 1, for example, the block of text placed last with the caption (even though it is located in the middle of the text) would end up one paragraph shorter as a result. It's all part of connecting text in the threading fashion.

So, you have a pretty impressive second page. You have learned to make columns variable widths, place graphics, and do a text wrap. Not bad!

There is another form of text wrap. The one you did on page 2 was a wrap around a square shape. There will be times when you will need to wrap around abstract shapes such as circles or free-form art.

For such situations, place the text until you reach the graphic, which will block the flow of text. Get the text icon from the text block, place a ruler guide as described for the square wrap, and place the text over the graphic. Pull the text right over it so that both the text and the graphic will be visible. At this point, you must manually create your wrap by changing to the text tool. If the graphic is on the left of the column, use tabs and spaces to move the text away from the graphic, creating a free-form wrap that follows the graphic. If the graphic protrudes into the right-hand side of the column, press the return key to create the same effect by ending the line short of the graphic element. This is a bit more work, but good results can be obtained.

Finally, we will add a rule to the center of the page. This brings up the question of why, if you wanted the rule to be on every page, didn't you include it as a master page item? You could, and, in most cases, it is best to do so. This particular sample would have graphics that would cross over columns, so the rules would have shown up in the graphic.

As will be covered shortly, there are some tricks to solve this problem, but, for now, it was easier to create the rules on the page and work around the graphic. Draw the rules in the same fashion as on the first page. Only this time, work the rules so there are two: one above and one below the graphic. The second page is now complete, as shown in Fig. 15-22.



Figure 15-22. The second page, complete with text, graphic, text wrap, and rules.

Let's move on to page 3, the final page in our sample file, where we will complete the text and learn a basic concept of filling a page so that columns end flush.

Making a Page End Flush

Start page 3 by clicking on the bottom of the type at the end of column two on page 2 to get the text icon. Move to the page menu and choose "Insert a page" after the current page.

Move to the top left corner of page 3 and place the text icon in the upper left-hand corner. Click the mouse button and fill the column. Now click on the bottom handle of column one and get the text icon. Move to the top of column two. Position the icon in the upper left-hand corner and place the text.

The text will fill column two, but not completely. You will notice that, in the bottom of the column, the handle has a new symbol in it. Up to now, it always had a plus sign, meaning that there would be more text. It now has a number sign (#), which means that the text file has ended. So your page now has two uneven columns of type, as shown in Fig. 15-23.



Figure 15-23. Page 3 with all remaining text placed in the two columns. The problem is that both columns end at a different place. The desired effect is to have both end so that they are even on the bottom.

Making the two columns end flush is quite easy. It involves clicking the columns to get their handles, shortening column one, making column two longer, and repeating the process until both are even. A first attempt at this is shown in Fig. 15-24.



Figure 15-24. The first column is made shorter, and the second column is made longer. The text from column one moves over to the top of column two, changing the symbol in the bottom of column two from the end-of-file sign to a plus sign. Pull the second column down, and the additional text will appear. Pull it all the way until you get the end-of-file sign.

Fig. 15-25 shows the final adjustments so each column is the same depth as the other. An empty space is now available at the bottom of the page, which you will fill with a boxed message.

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Figure 15-25. After a few attempts, the columns have been adjusted to where they both end flush. What is left is an empty space at the bottom of the page.

Adding Type and Boxes

The message box is not only going to contain type, it will also contain type with the type in white and the box in black.

To do this, you must first create the type. Since the message is a filler, it is not part of any text file. You will enter it from the keyboard.

The type will be centered across the page and will run across the width of the page. The first thing you need to do is go to the options menu, choose "Column guides," and select one column. The page will contain the type, unchanged, but no column guides. Make the page actual size by pressing the right mouse button and scroll to the bottom left-hand corner where the blank space is. Select the type tool from the toolbox. Go to the type menu and select "Align center." This will center the type on the page. Then go to the type menu; when the dialog box appears, choose Times Roman 24-point bold. Press OK and return to the page. Place the I-beam text cursor against the left column, click the mouse to activate text insertion, and begin typing in your message. The type will center itself in the size and style you have chosen.

When you are through, you will have type on the bottom of the page that looks like the sample in Fig. 15-26.



Figure 15-26. Type centered on page about to be boxed."Align center" option from the type menu was used.

If the type is not perfectly aligned for height, get the pointer and move it around until the type is aligned.

The next step is to draw a box around the type. This is very easy. Go to the toolbox and select the square icon. This is the box-drawing tool. Go to the left margin below the columns of type and above your new type, press the button of the mouse, and begin dragging the mouse toward the bottom right-hand corner of the live area. The screen will scroll automatically as you do this, allowing you to see when you have reached the desired spot. Now release the button. A box will be drawn around the text. It should look like the sample in Fig. 15-27.



Figure 15-27. A box is drawn around the new type using the box-drawing tool from the toolbox.

Now comes a strange series of events. From the type menu, you will make the type white by selecting "Reverse type." That's right! The type will be white, which means you will not be able to see it. To do this, get the text tool, select the type, go to the type menu, and select "Reverse type." The type on the screen will disappear. But don't worry, it's still there, only it's white. The second step is to get the pointer back, place it on the line of the box, and click the mouse button. The handles appear on the box, meaning that it is selected. At this point, you could change the thickness of the rule using the lines menu or change the shade in the box using the shades menu. Go to the shades menu and select black as the shade for the box. The result will be a solid black box where the type used to be. Don't panic. The box is just sitting in front of the type. The goal is to move the box behind the type.

To do this, go to the edit menu, as shown in Fig. 15-28. On the menu are selections called "Bring to front" and "Send to back." What you want to do is send the black box to the back so that the white type is in front of the black box. Since the box is already selected, simply click on the "Send to back" command. The results should be like that of Fig. 15-28—white type against a black background.



Figure 15-28. By sending the black box to the back, the white type is now in front of the box and shows up perfectly. For a finishing touch, the vertical rules are added between columns.

The final step is to add the rules between columns, which is also shown in Fig. 15-28.

Publication Complete

The ability to draw boxes, circles, and other shapes; add rules; send elements to the front or back; and color type black or white all give PageMaker a pretty sophisticated system of handling graphics creation from within the program. The pages created used most of PageMaker's more basic abilities, although there are still many subtle tricks that will be covered in the next chapters.

CHAPTER 16

Adding Graphic Elements

Life is very nice, but it lacks form. It's the aim of art to give it some. —Jean Anouith

After working with placing text on pages in PageMaker, you will find yourself starting to explore the many graphics possibilities that the program offers.

Using the Toolbox

With a simple set of drawing tools, termed primitives, the toolbox offers you a chance to create many different graphic elements on a page. Let's start by examining the features found in the toolbox.

The toolbox appears at the start of a PageMaker session in the upper right-hand corner of the pasteboard. You may move the box anywhere on the screen by clicking on the top bar and moving it to the desired location. The toolbox contains eight boxes. I will detail each one, starting from the top row and working right.



Pointer tool: The most commonly used tool, the pointer allows you to point to an object (such as a graphic or a column of type) and make it active, meaning that you can do things to it or with it. It allows you to move elements, window shade type columns, and remove them from the

pasteboard by pointing to something, clicking the mouse, and hitting the backspace key.

Diagonal tool: This tool allows you to draw a straight line in any direction. The line drawn can be made different weights or styles by selecting them from the lines menu.

Perpendicular tool: I call this the straight-line tool, mainly because it allows you to draw horizontal or vertical straight lines. This is used for drawing rules between columns and across a page, for underlining heads, and for creating simple graphics. When selected, just like the diagonal tool, the lines may be made different weights from the lines menu. Additionally, you may draw rules at a 45-degree angles by pulling up or down as you are drawing the line.

Text tool: This tool allows you to enter text from scratch, edit existing text, or select blocks of text for modification. A simple rule is to use this tool whenever you are working in type.

Square-corner tool: I call this the box tool. It lets you create boxes of any size or shape by dragging with the mouse. Like the line-drawing tools, the rules can be made different weights or styles with the aid of the lines menu. Additionally, you can fill any box with a standard pattern, from white to light grays to dark grays to black, as well as special patterns.

Rounded-corner tool: This tool acts exactly the same as the square-corner tool, except that the corners are rounded. You may select various rounded styles for the corners by selecting "Rounded corners" from the options menu.

Circle-oval tool: This tool has all the line and shading attributes of the square-corner and rounded-corner tools but can draw ovals. By holding down the shift key as you drag the mouse, you can draw a perfect circle.

Cropping tool: Once a graphic is placed and selected, it has a series of handles on the sides, top, and corners. Using this tool, you can crop the photo from the sides, top, or bottom, using one of the corner handles.

The graphics you can create with these simple drawing tools are just the type of graphics you need on publication pages. You can create rules and ruled boxes and crop graphics to fit areas. Best of all, they all operate in the objectoriented programs. They are not bit-mapped graphics like those from paint programs, so they will be printed at the full resolution of the printing device used.

Working with Graphic Files

You can, as discussed in Chapter 15, import graphics files for placement on the publication page. Such graphics can be cropped using the cropping tool as detailed here. They can also be proportioned and sized as discussed in Chapter 15.



Adding Shading to Areas

Shaded blocks can be created and type can be placed over them, with the type in black or white. PageMaker offers you the ability to draw boxes or circles, fill them with a variety of patterns, and then place type in them.

Many times, unless large type is used, this effect is not very good. The dot patterns are fairly large and are big enough to distort smaller type. The only exception is black, with white type, as detailed in Chapter 15. Fig. 16-1 shows both large and small type in a shaded box. You can see that this works well only with large type.





Covering Master Page Elements

There will be times when there are graphic elements on a page that you want to remove or cover a small section of. A good example is a page grid with vertical rules between columns on every page. In a 24-page document, where every page is text, only the headline and one graphic on page 5 will run over the rules if you place them on the master page grids. You should place the rules on the grid and let them show up on every page. This saves you the task of drawing rules on every page.

So what about the headline and photo that will cross over the rules? Simple. Draw a box over the areas where the rules are that will conflict with the headline and photo. Draw boxes over the areas. From the shades menu, choose "White"; from the lines menu, choose "None." This acts as a form of electronic white-out. Fig. 16-2 illustrates the box before changing to white with no rule; Fig. 16-3 shows the effect after changing.



Figure 16-2. A box is drawn where the headline will go. Make the box large enough for the headline, with some room underneath it.



Figure 16-3. The box is made white by selecting "White" from the shades menu, and the rule is changed to "None" from the line menu, leaving a pure white area for the headline.



Shortcut

You will find yourself using this white-out trick all the time. Use it to cover mistakes and even to create such interesting effects as a shadowed box. Create a black box, copy it using the edit menu, paste it down on top of itself, and fill the top box with white (with any size rule). This will create a drop-shadow box.

TIFF and EPS Files

There are two important graphic file formats that you will encounter as you work with PostScript or begin to include digitized art or halftones in your pages.

The first format, TIFF, is a standard file format for scanned art and halftones placed on PageMaker pages. This file format allows you to place a very high-resolution scanned image on the page (such as 300dpi) yet have it represented at an accurate size regardless of the screen resolution. A paint-style image of the art or halftone will be placed on the page representing this high-resolution image, as shown in Fig. 16-4.



Figure 16-4.

A TIFF file placed on a page, with its on-screen representation of the scanned graphics file.

Like all graphics, the image can be cropped, stretched, and made larger or smaller. Of course, with such an image, such changes will cause distortions since the image is bit-mapped—just a very high-resolution paint file.

The TIFF file allows an image to be presented on the screen of the scanned image. Consequently, if you wish to create an irregular wrap, align it with text, or perform some other special considerations, having the screen image is invaluable.

The second file format, Encapsulated PostScript (EPS), is useful only if you will be printing to a PostScript device. Essentially, EPS is a file of the text that creates a PostScript image. When a page or graphic is printed in PostScript, there are no graphics or bitmaps, only standard ASCII text that describes the position of all elements or pixels that are in the PostScript file. As a result, a PostScript file is not a graphics file; it is simply a text file.

PageMaker can take PostScript files that contain art or type or just about anything and place them directly on the page as long as they have been saved in the EPS file format. This allows the addition of some of the great PostScript effects that can be created only with PostScript graphics programs or directly in PostScript.

Most often, when placed on the page, the EPS file will be placed as a gray box at the size the PostScript file states the image will be. The box will contain some simple type that tells the name of the file but most likely will not contain a screen image of the file. A screen image can be present if the file contains a metafile (a special set of codes in the file that creates a screen image), but most programs currently create just a box for size.

When the file is placed on the page, you can, as with any graphic, change the proportions. The results may be not only surprising but also unpredictable. I am simply pointing out that it can be done.

Even though the EPS file will appear as a box on the screen, when it prints to a PostScript printer, it will print to the full resolution of that printer. It is there that you will see exactly what the image looks like, as shown in Fig. 16-5.

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Figure 16-5. An EPS screen box representing the resulting printed version.

Experiment with All the Tools

There are many things that can be done with the simple drawing tools in the PageMaker toolbox. Each time you create a new publication you will find new uses for these tools.

CHAPTER



Linking PageMaker Files

There's no limit to how complicated things can get, on account of one thing always leading to another. —E. B. White

If PageMaker has one limitation in the creation of publications, it is its page file limit of 128 pages. Since many books and reports run longer than 128 pages, you will have to plan for this situation. In many cases, the file limitation size can be handled if you understand that the publications are often divided into parts or chapters.

If you have a publication with a section that runs longer than 128 pages, this chapter will help you plan your publication so as not to be restricted by the page limitation.

The First Options

If your publication is divided in any fashion, such as parts or chapters, then make each part or chapter a single-page file. If the parts or chapters individually exceed the 128-page limitation, then you will need to split the text file (a subject to be covered shortly). It is always best to try to structure your text files to fit in the page limit when using PageMaker, even if the split comes at a subhead or illustration break. Try finding logical breaks first. If your text is structured to accommodate these breaks, you will not need to read this chapter. If you have files that are always longer than 128 pages (such as catalogs, price lists, and technical documentation), you will have to learn to split your text files. This will allow you to create page files that, when printed, will result in pages that look as if they all came from one file. There are some shortcomings in doing this, however.

First, let's examine how to handle a file that exceeds 128 pages.

Splitting Text Files

For very long text files, regardless of nature (text, prices, graphics), create the first 128 pages as usual. Place all your elements. When you get to the bottom of page 128, simply stop, save your file, and print out the file if you like (at least print out the last page—page 128—so you can see where your text ended in the first page file).

Quit PageMaker and start up the word-processing program used to create your text file. Call up the text file you placed in the first page file, and save it under a different file name (such as FILE NUMBER 2), using the "Save as" option from your word-processing program. This will give you a second copy of the file to work with.

The next step is to enter the copy of the file (FILE NUMBER 2), define a block at the beginning of the file, and scroll down to the very spot where your text file ended in the first page file. Finish defining the text block and delete it. This will remove the text used in the first page file and leave you with a new text file that starts where you need to begin the second page file. Select "Save" to store the file.

Now return to PageMaker and create a second page file that matches the grid of the first. For this reason you may want to build a master page file, store it under the name MASTER PAGE FILE, and use it to start up each new page file, always saving the finished file under a different name so as not to erase MASTER PAGE FILE.

When you open the second page file, simply start placing text from File Number 2. Continue until you fill the next 128 pages. If you are using automatic page numbering, be sure to change the "Start page number at:" option to 129 from "Page setup" on the file menu. If the file exceeds 256 pages, repeat this process, going back to the word-processing program and creating a third version of the text file, a fourth, and so on until all your text has been placed.

This process requires several additional steps but will allow you to use PageMaker for very long documents. There is one serious drawback to this solution, however.

Shortcomings

As described in earlier chapters, PageMaker uses a threaded text flow in the page file. A change on page 1 will affect the rest of the text on the pages. If you remove or add text, all the rest of the pages will adjust.

Once you reach the file limitation and start a second file, that relationship is lost. A major change on page 1 will not affect page 129; it will only affect the pages of the page file it is in. For this reason, if you are working with a volatile document that may undergo radical changes throughout the file, the threading feature of PageMaker will not help you. In many cases, you may have to rebuild files from scratch.

Now, this is the exception more often than the rule. Although Page-Maker has its page limitation, the same problem would occur if you were to assemble the pages manually. Remaking page files in PageMaker is much easier than having boards rekeylined!

Build in "Break Points" on Long Files

Whenever possible, break up your text so that you will have some points at which to stop and start files that will not dramatically affect one another. This can be done with most publications. It is important to be aware that PageMaker creates 128-page blocks that are filed and cannot be linked except in layout from file to file and by sharing the master page grid file if you make one.

CHAPTER



PageMaker Unleashed

All things are possible until they are proved impossible—and even the impossible may only be so, as of now. —Pearl S. Buck

T he preceding chapters have discussed starting from scratch and going through to making completed page files. We have also talked about what to do if all your pages won't fit in one of PageMaker's page files at a time.

There is more to PageMaker than that. It is full of shortcuts and powerful features that, once you master the above concepts, you can use all the time.

This chapter covers each feature separately, but not in relationship to any particular page file or publication. Apply them whenever and wherever you can in your publication.

Stretching Text

One of the best-kept secrets of both PageMaker and the word-processing programs is that when printing to a PostScript printing device using Post-Script laser fonts (and even bit-mapped fonts created as graphics), they can be stretched and modified the same way you would any graphic.

If you are in PageMaker and select type that was entered as type or as a text file, all you can do to it is make it larger or smaller and change its size and style. That is because it is treating type as type. When you import a graphic from MacDraw (or other draw-based graphic programs), however, it treats it as a graphic, and you may change the size and proportions of a graphic element. So, make type a graphic element!

To do this, use MultiFinder (if you have enough memory—if not, go to MacDraw, and copy the intended type to the clipboard) and load PageMaker and MacDraw. A good example of how this feature works is the problem we had with the headline in our sample opening page in Chapter 15. The headline entered the file too small. The goal was to make the headline the width of the page.

Using the type tool, select the headline, copy it to the clipboard using the "Copy" option from the edit menu, then go to MacDraw. Once in MacDraw, paste the type down on the grid. Select the type by clicking on it, copy it to the clipboard again, and switch back to PageMaker. First, select the old headline and hit the backspace key to remove it. You now can paste in the headline from the clipboard using the "Paste" option. Another method is to paste the selected type to the scrapbook, then place the type back onto the page.

The results are that the headline is now on the PageMaker page as a graphic element ready to be stretched and pulled. Fig. 18-1 shows how the headline looks when it is first pasted into the page.

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Using the pointer, move the type to the upper left-hand corner of the live area where you want the top left corner of the type to be. If you want to keep the type accurate and in proportion, hold down the shift key and drag the bottom right handle until the type is the full width of the columns as in Fig. 18-2.



Figure 18-2. The type is stretched across the page by holding down the shift key and using the bottom right handle to drag the type across the page until it is full width.

This technique is fantastic for sizing headlines and for creating type of incredible shapes and proportions. By not holding the shift key and using the various handles, you could stretch the type to very creative proportions, exceeding the standard type-handling capabilities of PageMaker. Figs. 18-3 through 18-6 show how the same type can be stretched in a variety of fashions.

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Figure 18-3. The type is first made the full width of the column. Using the bottom handle, it is then pulled down to create a condensed version of the type.

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Figure 18-4. Stretching down even farther, the type becomes an extreme graphic element.

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Figure 18-5. Using a single word and the techniques in Figs. 18-3 and 18-4, a dramatic headline is created.

a strong all spectrate page from an addition of a strong source and a strong source and strong source and strong source and the strong source and


Figure 18-6.

Using a single letter, the stretching and pulling technique allows the letter to become the size of the pages, which illustrates an unbelievable ability to manipulate type. This image prints very well on the PostScript printer or typesetter.

Odd-Sized Columns

In the tutorial on creating a PageMaker page from scratch, we created only even columns, although you did learn how to create different column widths by moving the pointer between columns to one of the column guides, holding the mouse button down to get a double arrow, and then moving the columns.

Many pages use various column widths on a page. This book page, for example, has one tiny column for subheads and icons and a wide column that holds the text. You may set your master page grids to accommodate such grids. Simply use the same technique when setting up the master pages.

Fig. 18-7 shows such a page grid being created. This one uses two small columns, each one on either side of one large column.

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Figure 18-7. A master page grid with three odd-sized columns.

Changing Column Widths with Text Placed

If you have placed a column of text and then decide later that you would like to change it, you can. Start with the first block of text on the page. The PageMaker manual suggests that you move the rest of the blocks off the page onto the pasteboard so they are out of the way. Using the pointer, click on one of the column handles, and resize it. This is shown in Fig. 18-8.



Figure 18-8. The first text block is selected, the other blocks have been moved off the page, and the column is being changed to a new size.

Take the next column of type, position it, grab a corner handle, and resize it, as in Fig. 18-9.

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Figure 18-9. The next text column is resized and positioned on the page.

Changing Size and Leading of Type

PageMaker offers much more flexibility in the formatting of type than any word-processing program.

When you call up the "Type specifications" option of the type menu, you have total control over the size and style of the type, as well as the leading (linespacing).

In this dialog box, you can choose any type style that is available for your printer. Simply clicking on the font chooses it. The menu also features a scrollable type size menu, indicating the available sizes. This is here to let you know which screen fonts are installed and to provide a quick reference of standard sizes. Under these menus are style options for normal, bold, italic, underline, and strikethru. The real power comes with the next item in this dialog box. The size box will present the size of the type in its current format. Note that when you first view the box, it is reversed. For fonts, you may enter any point size in the box between 4 and 127 in 1-point increments. That is virtual sizing of type.

The second power feature allows you to control the spacing between the lines using the leading box. Any point size from 1 to 127, this time in full- or half-point increments, may be selected. This gives total control over the size and spacing of type.



Helpful Hint

The "Preferences" option in the edit menu allows you to change the ruler and measurement system from inches to inches decimal (such as 5.3 inches), millimeters, picas, or ciceros. Since type is measured in points and picas (12 points) are the standard unit of measurement in typesetting, you will find the use of this measuring system helpful. You may switch measurement preferences at any time, so feel free to use whichever one works best for the task at hand.

If you choose, the default for the program is "Auto leading," which will choose an appropriate linespacing for the type size selected ("Auto leading" calculates linespacing at 1.2 times the point size of the type, such as 12 point linespacing for 10 point type). When you enter a value in the leading box, "Auto leading" is automatically turned off. Clicking in its box will return the spacing to "Auto leading."

Finally, the menu offers position control of normal, superscript, and subscript.

PageMaker's "Type specifications" option in the type menu is a real power tool. Use it fully. It offers much more control of type sizing than your word-processing program. Remember, the menu only affects type that has been selected on the page by the text tool.

Fig. 18-10 shows the PageMaker type specification dialog box from the type menu.

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Figure 18-10. PageMaker's type specification dialog box is one of the best around, offering total control over the size and spacing of type.



Helpful Hint

Once a text block has been placed, there is no need to keep it there. You may use the pointer to click on the text and then move it in any direction or on to any page. To move a text block to another page, simply move it onto the pasteboard, click on the page you want to paste it on, and do so. Remember that, if it is a part of a larger text file, it is still threaded into the file, so changes elsewhere will affect it. This is a simple but useful feature.

Hyphenation

PageMaker offers fully automatic hyphenation. When a text file is placed with the hyphenation feature on, it places hyphens, actually discretionary hyphens, whenever it can to fit as many characters on a line as possible. This is especially important for justified columns of type.

A discretionary hyphen is simply a hyphen that is used only when needed to break a line. For example, the word "hyphen" could be hyphenated "hy-phen." Of course, you would only want the hyphen at the end of a justified line. To get a hyphen in the appropriate place if the word is not included in PageMaker's 110,000 word dictionary (such as a unique word not found in most dictionaries), press the command and hyphen (-) keys at the same time at the appropriate break point. When the word is in the middle of a line, the hyphen will not appear. If it ends up at the end of the line and the program can break the line better by using the discretionary hyphen, it will.

The program lets you embed discretionary hyphens in very long words manually so that when justifying text in a word-processing mode, it will break the long word to make a page look better.

When justifying columns in page making for publications, hyphenation should be turned on. This way, when you flow a column of text in a justified mode, it will hyphenate any words needed to create the smallest amount of space between words on each line. Because it may not have every word that can be hyphenated in its dictionary, you can opt for prompted hyphenation. This will stop text flow when a long word that is not in the dictionary and is at the end of a line is encountered. It will bring up a menu with the word, in context with the text around it. You can go and place hyphens at the correct places in the word. You then have the option of saving this word to the supplemental dictionary so you will not have to hyphenate it again. Clicking on the "Next" option will bring up the next word PageMaker cannot divide. So it goes until the file is placed.

This method of placement will allow you to build a large supplemental dictionary of words that you use often but that are not in the main dictionary. You can also add hyphenated words directly into the supplemental dictionary using an ASCII text processor.

The hyphenation feature is fantastic, but there are some cases where you do not want to hyphenate a word. If a word is hyphenated and you do not wish it to be, simply go to the right of the hyphen with the text tool, and hit the backspace key. The hyphen will go away. It does not remove the hyphen from the word in the dictionary, so feel free to use this option.

Tabs

When a text file is placed in PageMaker, it uses the tabs set in the wordprocessing program. However, once on a page, you may want to change the spacing or number of tabs. PageMaker has a complete tab-handling system for its own text entry and to edit tabs from your text files.

The indent/tabs dialog box shows a ruler, with tabs from the current text file indicated, as well as a value for the paragraph indent if there is any.

The increments depend on the view you have selected, so use actual size as a minimum for the most accurate placement. Up to 20 tabs may be set, each one left-aligned, right-aligned, centered, or decimal, as well as leader dot tabs in periods, dashes, underline characters, or any special character that you define. It will also support hanging indents where the line exceeds the left margin. This dialog box also allows first line indent for paragraph indents. The complete indent/tabs dialog box, which is accessed from the type menu, is shown in Fig. 18-11.



Figure 18-11. The indent/tabs dialog box from the type menu.

Kerning, Letterspacing, and Wordspacing

PageMaker also has automatic kerning of characters, as discussed in Chapter 9—Working with Type.

With automatic kerning on, the program will kern specific pairs of characters (such as Yo, We, To, Tr, Ta, Wo, Tu, Tw, Ys, Te, P., Ty, Wa, yo, we, T., Y., TA, PA, and WA). This set of characters will work with most fonts. Some fonts can kern additional sets (such as OV, OY, VA, YO, Av, Wt, and Wm). These are known as kerning pairs. Whenever they are encountered when text is placed and automatic kerning is on, they will be kerned.

Kerning can be either on or off, but you can select the minimum point size for automatic kerning. Kerning slows down the placement of type into columns. Also, it is not often important with smaller type sizes, so you can select at what point size you wish characters to be kerned (such as 12 point).

When you get into larger sizes of type, especially headlines that can be as large as 96 point, you may wish to go beyond automatic kerning and kern further. This can be done manually, which will allow tighter kerning on large fonts and the ability to kern pairs aesthetically for graphic purposes.

To kern any two letters, place the I-beam text tool between the two letters, click the mouse to get an insertion point, and hold down the command key and press the backspace key for each increment (one-twenty-fourth of an em space) you wish to delete between the characters. You can also add space between two characters by holding the command and shift keys down while hitting the backspace key, resulting in adding incremental space between the characters.

Beyond kerning, menus also allow you to adjust the spacing of justified text with both wordspacing and letterspacing. Selecting "Spacing" from the type menu brings up a dialog box with minimum, desired, and maximum percentages of wordspacing and minimum and maximum percentages of letterspacing. The combination of these two options allows you to have loose or tight letterspacing and more control over wordspacing, which is attempted before letterspacing.

You will need to experiment with these values for the particular type size and style you are using, the default values work well, and you can compare the changes you make with the default values.

The combination of kerning, letterspacing, and wordspacing give you ample control over the composition of the type on your page. How far you wish to push these values is up to you.

Oversized Pages

If you want to produce pages that are larger than the standard size sheet your printer can handle (in page sizes up to 17 by 22 inches), PageMaker can do it using its tiling feature. It divides each page into a size that is printable and prints each block or tile. When they are output, you can paste them together to form a finished page. Also, choose "Wide" from the print dialog box—your tiles will go accross rather than down.



Reverse Type and Rules

You will notice that in both the type menu and the lines menu, there are options for "Reverse type" and "Reverse lines." As the terms imply, this will allow you to place white type or rules on a black background or dark graphic. All you need to do to reverse type or lines is to select the type or line and choose the reverse feature from the menu. To be able to see the type or line, you may have to go immediately to the edit menu and select "Bring to front" if you have placed it.

And It Keeps Coming

These are a few of the special features and powers that you will find inside PageMaker. As I have worked with the program, I keep seeing more and more such features, and the program is getting better all the time. Use the features here as you become more comfortable with the program.

CHAPTER



Printing Page Files

'Tis pleasant, sure, to see one's name in print. —Byron

Once you have completed a page file in PageMaker, the file is ready for printing. There are two primary devices that you will print to on a regular basis, and printing couldn't be easier.

The first choice is a laser printer; the second, a PostScript typesetting service. Even if you do not have a PostScript laser printer, you can take advantage of the fact that PageMaker will let you create PostScript files that can be sent to a service for output on either a PostScript laser printer or a highresolution typesetter.

Printing Pages and Files

From the file menu, choose "Print." A dialog box will appear. Here you will have a number of choices.

The first choice is the number of copies you want of each page.

The second is the range of pages to print. In a file you can print all, just one, or a range of pages. If the pages are oversized (such as tabloid pages), you can select "Tile" to print out the pages in single-sheet blocks. These will eventually have to be put together to form the completed page.

You can also choose "Thumbnails." The thumbnail printout is a sheet that prints a reduced-size version of all 16 pages in the file on one sheet so that you can examine them as an entire publication.

A final option is to reduce or enlarge the page with some printers (such as PostScript printers). You can, for example, print the page at 25 percent of its actual size. Or you can print a page at 200 percent of its original size. You can turn the tiling feature on and print a giant page.

Fig. 19-1 shows the print menu.

	File Edit Options Page Type Lines Shades
	"LaserWriter"
	Copies: 🚺 🗌 Collate 🗌 Reverse order 🛛 Cancel
2	Page range: 💿 All 🔿 From 🚺 To 24
3 -	Paper source: ④ Paper tray 🛛 🔿 Manual feed
4-	Options: 🔲 Proof print 🛛 Thumbnails, 🚺 per page
	🗋 Substitute fonts 🔤 Smooth 🔲 Crop marks
	Tile: 🔿 Manual 🔘 Ruto, overlap 0.65 inches
8 - 8 -	Scaling: 100 percent
9-	Printer type: LaserWriter Plus Driver: Aldus Change)
	Paper: Letter Options: Tall

Figure 19-1. The PageMaker print menu.

Using High-Resolution PostScript Services

Many people are using typesetting services for their page output. These services operate in a number of fashions. Some work from your disk; others have you telecommunicate your file to them.

Most of the laser-printing services charge around \$1.00 per page. If you live near one, you can go to the store and wait for your printout. Some services let you rent time on a Macintosh and a PostScript laser printer so you can do it yourself.

If there is no such service in your area, there are services that you may send your disks to (many are listed in the product reference section of this book). They will output the pages for you (usually the same day) and mail the disk and the pages to you.

For a higher quality, there are now many typesetting services that will typeset PostScript files created using PageMaker. They accept your Page-Maker page files in two ways; first by disk, second by telecommunication. The fastest way is by telecommunication.

The typesetters will print your files on a typesetter, most likely an Linotronic 100 or 300. You can choose the level of resolution you want your document printed at. The LaserWriter prints at 300dpi, the Linotronic 100 prints the PageMaker file at 1270dpi, and the Linotronic 300 prints at 2540dpi.

Of course, the high-resolution printing costs more. A typical Linotronic 100 page averages \$10-15 per page. The more pages you have, the better the price gets.

Turn-around time is usually next day, and you should obtain an estimate of the charges before you let the typesetter create the pages for you.

Top Quality

From the inexpensive output of PostScript laser printers to the Linotronic 300, which prints pages at over 2500dpi, the PostScript files created by PageMaker allow you to obtain the right level of quality for your needs. If you need the highest-possible quality, it's there. If your needs are average, the LaserWriters are pure workhorses that turn out top-quality pages, even if at a medium resolution.

CHAPTER



High-Volume Printing

Old ways will always remain unless someone invents a new way... --Elbert Hubbard

 \mathbf{F} or short-run printing, the laser printer is an excellent device. For 100 copies of a report or 200 copies of a press release, it couldn't be better. There are situations, however, where the laser printer is not the appropriate printing device for the actual printing of your pages.

Large Print Runs

If you plan to print 5000 copies of a page or publication created on your laser printer, you would want to have it printed in the conventional manner (such as a regular or instant printer).

Also, if you create publications such as a newsletter, you will need the 11 by 17 inch sheets that most inexpensive laser printers cannot print. I, for example, print a monthly magazine. I create my pages on the laser printer, but there is no way I could print my magazine on it. It doesn't print in color, it

doesn't handle printing 32 pages on one sheet (at actual size!), and I don't think it can turn out thirty-five thousand 110-page magazines in one day like my publication printer can.

Clearly, the point is that there are jobs that you can print on the laser printer and there are jobs that you let a printer take over, working from your page master or boards.

The trick is to know when to make the jump.

When to Print Pages with a Printer

So where does the break come for in-house printing versus going to a printer with your page masters?

First, the laser printer manual suggests that the monthly duty cycle for a typical laser printer is between 3000 and 7000 sheets a month. That's a good indicator. If you have an order form that you need 3000 copies of, that would just about eat up your duty cycle for one job. Clearly that is a job best handled by an instant printer. Keep your laser printer free for what it was intended: making pages, not just cranking them out.

The second consideration concerns color. If you need multiple copies of your page printed in more than one color, you will need to take it to a printer, since the laser printer can print in only one color—black (although Chapter 21 will show you how to get amazing color from your laser-printed pages if you print in small quantities).

Third, if you have a publication like a newsletter or report that you need printed on larger sheets (such as 11 by 17 inches) for folding, binding, and saddle stitching or other binding methods, take your pages to a printer.

The secret is to recognize that the laser printer is a great small-run printer for print runs under 1000. Using it for that type of printing, it will last longer, and you will free it up for general page production.

Preparing Pages for Printing

Speaking from experience, many printers balk at printing from laser printer originals. They will look at it and tell you the resolution is too low for them to do a quality job or that the image from the xerographic drum is not dark enough. These are the two major objections.

I have met with these, and here is how I handle it. With confidence, I tell the printer that I expect an exact duplication of the laser printer original; I do not expect an improvement upon it. If the printer can print from higherquality originals, I am sure that this lower-resolution page will be no problem. I further say that I expect no more than that and that, if necessary, I will OK a proof of the page and take responsibility if the printed job is equal to the proof.

As for the grayness of the original, the laser printer-produced page, especially with heavy black areas, does have a much lighter cast than type. But, I have had printers print light blue pencil marks, smudges, and many assorted things on a page that were far lighter than the laser-printed page.

Tell the printer you know that the page is lighter than real type but that it is certainly dark enough to be photographed in his reproduction process it just takes a bit of care. Since there are no cut marks or shadows from elements being glued to the page, it has no shadows or trouble areas that will show up in the film.

Printers usually shoot a film negative slightly overexposed to remove shadow lines. The laser page does not present that problem, so they can still overexpose. This results in a fine reproduction of the original due to the fact that overexposure using film negatives will actually remove some of the ragged, very tiny pixels that give type a slightly ragged appearance. The reverse is true with instant printers who use positive-acting printing plates. They should underexpose. Remember—film negative, overexpose; film positive, underexpose.

These comments will let the printer know that you know something about the process. Use this book as an example if there is a battle. It was printed from laser-printed originals. How can there be an argument then?

Printers often grumble because you are bringing in a new set of problems. Work them out. Once the job is done and it turns out well, the printer will look forward to working with you.

CHAPTER



Multicolored Pages

Colors speak all languages. —Joseph Addison

When printing multicolored pages with a traditional offset or instant printer, you may find that you can save yourself money by creating pages that are color separated.

Preparing Pages for Two-Color Printing

The pages in two-color printing have type or rules, or even graphics, in a color and black type. No matter how you format the page, you can create page originals that separate the two different colors, which will save you money. The printer will not have the table time of preparing the two film negatives needed to print the job, even though two negatives and plates still need to be made for each page.



This time, remove all the black printing elements on the page, leaving only the elements that will print in color. Print the page. You will now have the page original for the color printing. The two sheets contain all the elements on your page. If you hold the two up to the light, one on top of the other, you will see how the page fits together.

If you have more than one page, do this to all the pages that will print in color and print each color at one time.

Creating Color Separations

Let's take the sample page we created in PageMaker of the report in Times Roman type with the headline on it.

Fig. 21-1 shows the full page with both colors on it.

275 Multicolored Pages





For an its the earlor pipe alose interface, say 200 to keeping the changes, go a site open the fills, and actual to the parts of the films, manage all the text and a site open to be a placed on the parts. A set is the access here: The master pipe a site open will be page. Don't reacted the set are page menu and choose the access to be reacter forms. This will completely refutered the remaining be set are to be page. You should near here a page as in Fig. 21-3, with

1,0000,0

Now, you will want to color the headline and make the rest of the page black. To make the black page, get the pointer, click on the headline, and press the backspace key. Fig. 21-2 shows the black ink version of the page.



Figure 21-2. The black printing portion of the page.

To make the color page, close the file, say NO to keeping the changes, go back, open the file, and return to the page. This time, remove all the text and the rule you have placed on the page. A problem arises here. The master page items are still on the page. Don't worry. Go to the page menu and choose the option "Remove master items." This will completely remove the remaining black items from the page. You should now have a page as in Fig. 21-3, with only the headline on it.

277 Multicolored Pages



Figure 21-3. The color printing portion of the page.

Now you have two pages, each separated for color, that you can give to your printer. This process also works for more than one color. You can do three of four colors in the same way.

Photocopier Printing

Doing your own color separation is also very useful for personal printing on personal photocopiers (such as the Canon PC 20) that use different color toner drums.

In the previous example, if you needed 50 copies, you could run the black page with a black toner drum and the color page with another color of toner drum by using the same sheets run through twice. If you are using a personal copier in the method described above, creating color-separated pages is a must. This method is flawless for multicolor photocopier printing. White-out or paper masks always create shadows.

Color Bonding

A new and very exciting system has been developed that allows you to take pages printed with black toner on your laser printer or even your photocopier and convert the black images into an incredible array of colors, even white and metallic.

How is this possible? The secret is a system that takes special colortransfer film placed on top of the laser-printed page and passes them through a hot-bonding machine. When the heat is applied, the transfer film adheres to wherever there was toner on the page. When you peel away the film, the color sticks to the toner, and the rest remains on the film sheet. The result is color type, graphics, halftones—anything that was printed with toner.

The transfer films are roughly \$1.00 each and come in gloss or matte finishes, as well as white and metallic. This means you could take a black sheet of paper, print on it with toner, bond a gold transfer sheet to it, and get a black sheet with gold art and type. Note the page will be black when it comes out of the printer.

The beauty here is that you can use any color stock or paper and, getting even more elaborate, use multiple colors on one sheet. This is done by cutting the transfer film into sizes to fit elements on the page. Type could be red, a chart could be brown, art could be blue. After you have positioned pieces of transfer film to fit those areas, you simply run the sheet through the bonding unit, pull away the film, and you have a great multicolor page.

With the creative use of different colors and weights of paper and the creative application of colors, you can create truly impressive report covers, signs, ad mock-ups, or just plain art. For most of these applications, you would never have thought they could be created with a laser printer.

If you have the need for short-run color pages and really want to impress people, this is the perfect solution. The systems are available from Kroy Sign Systems and Omnicrom Systems Corporation (addresses and phone numbers are in the product reference section at the end of the book), and each bonding unit retails for less than \$1,000. Special papers are available, as are a wide range of transfer films that vary in price. On average, as mentioned earlier, the color comes out to about \$1 a page, so this is a system for presentationquality pages, not hundreds of copies.

CHAPTER

Grids and Page Samples

Every production must resemble its author. —Cervantes

will complete this book with some examples of the type of pages you can make with your personal publishing system. As you examine them, remember that they were all created using only PageMaker, a Macintosh, and a LaserWriter Plus.

As much as I love the programs and equipment discussed throughout this book, I must finish my exploration of the subject with the most important consideration in using such a system: you. You are the key to a successful and good-looking publication or document. If a page comes out of your printer and looks great, it is because you have mastered the use of type and have sharpened your design skills. If it looks bad, don't blame it on the programs or equipment. Once again, you are responsible.

The secret to personal publishing is your publishing skill. The technology is just a wonderful set of tools that you use to carry out your ideas in graphic form. A personal publishing system is only useful if you use it effectively. This book was written to introduce you to the system and to prove that it can allow you to produce great publications. It is here for you to take advantage of. Let it be a reflection of yourself and may you be proud.



Basic Report: Page size: 8-1/2 by 11 inches. Live area 7 by 9 inches centered on the page. The running head rests above the live area with a 1-point rule and 12-point Helvetica type. The folio rests below the live area and has a 1-point rule with a 12-point page number centered beneath it. Two ruler guides have been placed on the master page. The top guide is the baseline for the report title; the bottom guide is the starting position for text.

Sample Page

Report On Pagination Concepts—1986

Strategic Planning, 1986-1990

Personal publishing tools are a recent development for most personal computer users. In fact, the programs and devices that have made personal publishing a reality are only about a year old. By any standard, this is new technology, and as such has a long way to go before it is mature.

If you look back at the original VisiCalc, and take a look at the current crop of advanced spreadsheets like Excel or 1-2-3, you will see how time brings about product development. Personal publishing is so new that most of the potential has yet to be realized. Beyond that, most of the users are new to "publishing" concepts, and the programs that are available are exciting not only because they are good, but because they are new.

This article will attempt to explore the subject of "pagination," which is the art of taking text and graphics and assembling them into page blocks. When you create pages, you are actually paginating a document.

The current personal publishing programs all attempt to help you paginate documents as easily as possible. To evaluate if a program actually does help you paginate your documents in the best way, it is important to understand what pagination is, what types of pagination there are, and how professional publishers have dealt with paginating the thousands of pages they process on a regular basis, using their methods as a "standard."

Pagination Styles

There are two basic methods of pagination: Interactive and batch. The names describe precisely what they do.

Interactive pagination is the process whereby you work with the software interactively to place elements on a page. For most interactive programs, this means that every element of the page, from page numbers to lines between columns, must be placed there by your specific instruction. You control the placement of all elements. The software acts much like an electronic pasteup board on which you glue down type and pictures, and draw rules, boxes, and other graphics. When you complete one page, you move on to the next, and begin the process again. If the text you are placing continues, you "carry over" the text to the next page.

Batch processing works simply as the name implies: All elements are processed at one time, in one process. A simple example of this is the way a word processer prints pages. You create a text file, define the margins and line length for the printed pages, and tell the word processer to "print." The word processer goes into a batch pagination mode. It follows the page description you have defined, fills the first page with text, and when full, fills the second page with text, prints that, and continues until the entire file has been printed. The difference in this system is that you enter a set of instructions one time, and the program uses those nules to print the entire document without your involvement.

Batch and interactive page assembly are the foundation of automated publishing. Each is essential, yet each is quite different. The type of pagination product you use is determined by the type of document you will be processing.

Professional Pages

Prior to developing this publication, I published a magazine for professional publishers. Even though the systems they often use can cost \$100,000 and up, they still have the same basic

1

Basic Report: The design of this report is an attempt to replicate traditional typewritten reports but to enhance the page by using larger type and bold heads and subheads in varying sizes. The headline is set in Helvetica 24 point, aligned left. The subheads are set in Helvetica Bold 18 point, aligned left. The text is set in Helvetica 12 point, with autoleading, aligned left. There is one line space between items or subjects, followed by a subhead, then text with no extra space between the subhead and the text.



Basic Report, Two Column: This report is identical to the basic report grid and sample page, except that a two-column format has been introduced for the text. The page size, live area, running head, folio, and headline remain the same. From the "Column guides" option in the options menu, "2" columns was entered with .25-inch space between columns. These are indicated by the dotted lines running vertically down the center of the page.

Sample Page

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Professional Pages

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Basic Report, Two Column: To increase the readability of the basic report and to adhere to the rule of column widths being established by the number of characters per line being best between 35 and 50, the text has been set in the same size and style, but it has been changed into a two-column format. The result is a report that retains the traditional report appearance but is simply easier to read. An added benefit is that the report has a more attractive look, moving it past the typewritten style of the full-width report.

1



Designed Report: The grid for the basic report has been completely redesigned to have a more formal, designed appearance. To accomplish this, a two-column format has been established. The left column will hold hanging indent subheads. The right column, which is much wider, holds text and the headline and also establishes the ruler guide for the running head and folio. The page is 8-1/2 by 11 inches, with a 7 by 9 inch live area. The left column is 9 picas; the right column is 31 picas. The running head rests above the live area, using 12-point Helvetica resting above an abstract length bold rule. The folio is a simple page number below the live area in Helvetica 12 point.



Designed Report: This report leaves the traditional typewritten feel behind in favor of a typeset appearance. The design allows a 9-pica-wide column of white space for every page, broken only by subheads. This use of subheads provides a very clear division of subjects within the report. The headline is also surrounded by white space, the report name has been moved to the running head, and the specific subject of the report has been enlarged into headline status. It is set in Helvetica Narrow 36 point, aligned left. The text is set in 12-point Times, providing a more formal look, also aligned left. The subheads are set in 18-point Helvetica Bold, are placed as hanging indents, and have a rule that runs the full width of the page.



Modern Newsletter: Although the appearance of the newsletter looks complex, the grid is very simple. Once again, it is a 7 by 9 inch live area, one column, on an 8-1/2 by 11 inch page. There is no running head, only a folio line on the bottom with the issue date on the inside of the page, the page numbers on the outside of the page, and a 1-point rule under the folio.





Modern Newsletter: Type is run across the page and justified. With such a wide type measure, the type is large so that readability is kept in proportion to the 7-inch width of the type. Palatino 12 point on 14-point linespacing is used. Subheads are created by making the first few key words of each news item 14-point Palatino Bold. The logo was created with Palatino Bold 72 point for the large type, and Palatino 20 point for the the small type. The boxed area contains Helvetica 9 point. For a finishing touch, a graphic was created for the main subject matter to be placed in a black box in the upper left-hand corner. The box has rules above it, creating a feeling of motion and bringing the reader down into the page.



Modern Newsletter with Graphics: The newsletter on the previous page can include graphic elements such as a chart. This grid shows the basic grid, but column guides have been added by going to the options menu and using the "Column guides" option, selecting two columns. The graphic is then placed on the page, and the column guides are moved to wrap the type around the graphic as shown on the next page.



Modern Newsletter with Graphics: The newsletter format works well with graphic elements. Here, a simple chart, created with a spreadsheet program and saved in the PIC file format, is placed on the page. Type columns are created to run the type around the graphic. Surrounding graphics with text is very attractive. In this case, the type creates a natural box around the chart, so the chart does not need a ruled box around it.



Classic Newsletter: This newsletter is more traditional looking but uses a more complex grid. The basic format is a 7 by 9 inch live area. Under the live area are 1-point rules above and below the folio lines; the publication name, page number, and issue date are positioned between the rules. The folio type is Times 12 point, centered on the page. There are three columns on the page, which were created by selecting "3" from the "Column guides" option in the options menu, and then moving them to create a custom column arrangement. The two right-hand columns are 14 picas wide, and the left-hand column is 10 picas wide. One-point rules are placed between the columns.
Sample Page

The Pagination Report

Personal publishing tools are a recent development for most personal computer INSIDE: users. In fact, the programs and devices that have made personal publishing a Stategic Planning: reality are only about a year old. By any 1986-1990 standard, this is new technology, and as such has a long way to go before it is Batch vs. Interactive mature. If you look back at the original Adding Graphics VisiCalc, and take a look at the current crop of advanced spreadsheets like Excel or Creating Wraps 1-2-3, you will see how time brings about product development. Personal publishing Designing Newlsetters is so new that most of the potential has yet to be realized. Beyond that, most of the users are new to "publishing" concepts, and the programs that are available are Working with a Variety of Formats exciting not only because they are good, but because they are new. This article will attempt to explore the subject of "pagination," which is the art of Volume 1, Number 7 taking text and graphics and assembling April 1986 them into page blocks. When you create pages, you are actually paginating a Terry Ulick document. Editor The current personal publishing 1986 Quarterly Sales First 23 Second 153 Third Ø Fourth Pie chart sales will be dramatically higher in 1986 programs all attempt to help you paginate documents as easily as possible. To evaluate if a program actually does help you paginate your documents in the best way, it is important to understand what

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Sear ferginaansarap tarin senger sell han tarin ak side nath representative nam n° scheren hildenn tarin n° scheren hildenn tarin. Classic Newsletter: The logo is created in Times, setting it to whatever point size will fill the full width of the page. The two right-hand columns contain the main text, which is set in Times 11 point on 13-point linespacing, aligned left. The subheads are Times Bold 14 point, with no space between the subhead and text. The left-hand column is used for special items (such as sidebars), supplemental information, and, as shown on this opening page, the sidebar that states what is in the issue. Graphics are also allowed to be extended into the area, as illustrated here. Since the graphic is not surrounded by text on all sides, a box has been added around it. The left-hand column also provides needed white space in an otherwise full page.

pagination is, what types of pagination

there are, and how professional publishers

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Report Cover: The cover of the 8-1/2 by 11 inch report can be formatted quite easily if used on an ongoing basis. This grid uses two columns, placed visually, with a bar and the type as a repeating element on all the report covers in the series. The columns will assure that the subject matter headline will always start in the same spot, as will the rule and the words "A REPORT," which is set in Helvetica 14 point, all uppercase, with two spaces between each letter.

Sample Page STRATEGIC PLANNING: 1986-1990 Pagination Concepts A REPORT

Report Cover: The grid makes the creation of this report cover quite easy. The type is placed in the right-hand column, aligned left. The first line of type is set in Helvetica 14 point, all uppercase, with two spaces between each letter. The very large type is created by setting the type in MacDraw in Bookman, copying it to the clipboard, then pasting it on the PageMaker page. Once on the PageMaker page, it is handled as a graphic, so it may be stretched in any direction. Here, it is stretched to be very tall and condensed, giving a very modern look. **296** Chapter 22



Directory Cover: Since the directory cover is almost pure art, it is a simple grid. It is a single column, 7 by 9 inches centered on an 8-1/2 by 11 inch page. The only graphic element is a heavy rule across the top, which could be used on a series of report covers as an identifying element.



Directory Cover: Using type and a paint graphic, the directory cover is a highly graphic cover. First, the art was created in MacPaint. It was then placed on the page and cropped to fit the area perfectly using the cropping tool. Then, the top line was set in Avant Garde and sized to fill the width of the page. Finally, the word "DIRECTORY" was set in Avant Garde Bold Outline in MacDraw, copied to the clipboard, and moved into PageMaker. It was then stretched to the desired size and effect and positioned as shown. The outline type is opaque, blocking out the art behind it.

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Directory Page: A directory can have hundreds of pages, all the same, so it is important to do as much of the work as possible on the master page. Here, just about everything except the type and division markers are placed on the grid. Five equal columns were created, then 1-point rules were placed between them. A large boxed area for reversed type is placed on the top of the page; a rule runs underneath it. A ruler guide establishes the top of the actual columns. Under the live area, a 1-point rule was placed, and a folio was created for the outside of each page.



Pagination Products A-C

	Product	Product	Product	Product
	Name	Name	Name	Name
	Company	Company	Company	Company
Product	Name	Name	Name	Name
Name	Address Line	Address Line	Address Line	Address Line
Company	City, State, Zip	City, State, Zip	City, State, Zip	City, State, Zip
Name	Description of	Description of	Description of	Description of
Address Line	Product	Product	Product	Product
City, State, Zip	(000) 000-0000	(000) 000-0000	(000) 000-0000	(000) 000-0000
Description of	• •	1		
Product	D	Product		Product
(000) 000-0000	В	Name	C	Name
(000) 000 0000		Company		Company
Product	Product	Namo	Product	Name
Nama	Nemo	Addrose Lino	Namo	Address Line
Company	Compoon	Address Line	Compony	City State 7in
Company	Nome	City, State, Zip	Nome	Description of
Name	Address Line	Description of		Description of
Address Line	Address Line	Product	Address Line	
City, State, Zip	City, State, Zip	(000) 000-0000	City, State, Zip	(000) 000-0000
Description of	Description of	L	Description of	
Product	Product	Product	Product	Product
(000) 000-0000	(000) 000-0000	Name	(000) 000-0000	Name
		Company		Company
Product	Product	Name	Product	Name
Name	Name	Address Line	Name	Address Line
Company	Company	City, State, Zip	Company	City, State, Zip
Name	Name	Description of	Name	Description of
Address Line	Address Line	Product	Address Line	Product
City, State, Zip Description of	City, State, Zip Description of	(000) 000-0000	City, State, Zip Description of	(000) 000-000
Product	Product	Product	Product	Product
(000) 000-0000	(000) 000-0000	Name	(000) 000-0000	Name
		Company	()	Company
		Nama		Name
		Addrose Lino		Address Line
		City State Zie		City State Zin
		Description of		Description of
		Broduct		Product
			1	1 (000) 000-000

Directory Page: This page was created to be as easy to read and easy to use as a directory. The large black bar on the top has highly visible type identifying the products on the page. The type is Helvetica Bold 24 point, created as white type from the type menu and placed in the bar. The type reverses to white out of the black. The same technique is used for the division markers (A, B, C), only at a smaller size and where needed. The text is Helvetica 14 point, aligned left, with the product name in bold.



Magazine Page: The grid for a magazine page must be complete, yet flexible. This grid is for the opening page of a magazine article. Each page contains a 7 by 10 inch live area, surrounded by a hairline-ruled box 1 pica from the live area on the bottom and sides. A hairline rule and folio line are also placed at the top of the page, with the hairline rule completing the box above it. Three 13-pica-wide columns were created, and hairlines were placed between them. A hairline-ruled box, 2 picas tall, was placed on the top of the live area, with a 3-point rule under it in the center column. Two hairline rules were drawn to surround deck copy that is located above the columns of text.





me. "I'm a writer as much as an artist, so the opportunity to mix words and images was very attractive to me. I'm also kind of a technology buff; I enjoy the tech-

no trips that you can do in creating art with the Mac, manipulating an image. "I like to blend different media, and

"I like to blend different media, and you start blending media right away on the Mac. In Angieyes, for instance (see Figure 2), we were working with writing, paint tools, and digitized images-that's three different media right there. There's a kind of synergy that develops between the different media

Figure 1. Michael Gosney with a Macintosh image of "Angieyes." The final version is on the next page.

ical or spiritual in nature. Angieyes, for instance, is meant to represent the different points of view or personalities of a human being. The color was fairly carefully conceived—the red on teft is more bodily, while the blue on the right is more spiritual. I like the idea of bringing opposites together. "I'm working on pieces now where I conceive the photograph and direct "Digitizing is very useful, though, for comps on simple projcets, and for rough layouts. With ThunderScan you can either include graphic elements in a rough layout, or modify an existing layout, or modify an existing ready run, for instance. divitize it.

ready run, for instance, digitize it, and modify it in MacPaint or MacDraw to develop the rough."

There are situations where fine art and agency work come together, however. Jim Hance, a designer for Donovan Gosney, made what Gosney describes as "an interesting innovation" using MacVision to scan an existing photograph. The result (see Figure 3) was a photographic special effect that

Magazine Page: This page uses all the tricks. It has a variety of type styles, sizes, graphic elements, a photo box, and wrapped type, and it still manages to look tasteful. The top bar contains Helvetica 14 point uppercase type with one space between each letter. The headline is Times 60 point, centered. The deck copy between the two horizontal rules is Times Italic 14 point, centered. Text is Times 10 point on 11.5-point linespacing, in 13-pica-wide columns. The caption under the black photo box is Times Italic 10 point to the width of the photo. The type is wrapped around the photo box, which was visually placed on the page for the proper balance with no specific grid rule for its location.

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Business Cards: For practical applications, items prepared for traditional or laser printing may be created using PageMaker. This example of a business card shows how to create a grid for the live area of three business cards and place outside of the area the crop marks that indicate where to trim the edges of the cards and where to cut the cards apart. This was done by measuring a standard business card and adding the crop marks with the use of the on-screen rulers. All that is left is to add the type.

303 Sample Pages



Business Cards: The first business card is created by entering the text and then selecting and sizing the type. This card contains Times Bold 18 point for the bold name and Times 14 point for the subtitle. The rest of the type is in 12-point Times and Times Italic. All type was set aligned left. Once the first card was created, it was selected and copied, and then pasted in the next two card positions. The names were then edited using the text tool. Finally, the cards were printed at a printer and then cut apart.

PART FIVE

References

REFERENCE



Glossary of Graphic Arts Terms

Alphabet Length. The amount of space taken up by the twenty-six lowercase alphabetic characters in a particular font.

Ascender. That part of the character that extends above the x height of the font (as in the lowercase b).

Baseline. The imaginary line that characters rest on in a line of text.

Bleed. An illustration, tint, or photograph that extends off the edge of the page.

Body. The part of a character that is between the baseline and the top of the x height.

Body Copy. The main text in a document, as opposed to headlines, captions, etc.

Caption. Text used to describe an illustration.

Coated Paper. A paper with a smooth finish, varying from eggshell to glossy.

Color Separation. The process of separating a color photograph or illustration into its component colors. Full-color illustrations are broken down into four colors: magenta, yellow, cyan, and black.

Condensed. Referring to type, a face that is narrower in relation to its height than the regular variation of that face.

Continuous Tone. An illustration that includes grays as well as black and white.

Copyfitting. The process of determining how much copy will fit in a given space or adjusting copy through editing or formatting to fit a given space.

Crop. To cut the edges of an illustration to fit in a given space.

Crop Marks. The cross hairs placed in the corners of a page to show the printer where to cut.

Descender. A part of a character that descends below the baseline (as in the letter g).

Display Face. Any typeface, particularly when used in a larger size, that is appropriate for headlines and other special uses.

Dummy. A rough layout of a page, document, or publication.

em. A relative unit of measurement that is as wide as the point size of the current face.

em Dash. A dash that is one em wide. Used like a comma or colon.

em Space. A space that is as wide as the point size of the current font. Used primarily for first-line indents on paragraphs.

en. A unit of measurement that is half the width of an em.

en Dash. A dash that is longer than a hyphen, but shorter than an em dash. Used in things like the Boston–New York Express and 9 AM–5 PM.

Expanded. Referring to type, a face that is wider in relation to its height than the regular variation of that face.

Flush Left and Flush Right. Type that lines up with the left or right margin, also called ragged right and ragged left, respectively.

Folio. Page number.

Hairline. Technically, the thinnest rule that you can get from your equipment. On a 300dpi laser printer, it is one three-hundredth of an inch.

Hyphenation. Adding hyphens to columns of text so excessive amounts of white space aren't left between words in justified type and ragged type is not too ragged.

Galley. Type that is set in long narrow strips the width of a column, before the columns are made up into pages.

Gutter. The space near the spine (the right side on left-hand pages, the left side on right-hand pages) allowed for binding in a double-sided publication.

Gray scale. A strip of standard gray tones, ranging from white to black.

Halftone. A continuous tone image that has been photographically converted to a pattern of very small dots.

Imposition. The layout of pages as they will be printed, taking into account how the paper will be folded and cut.

Italic. A typeface variation in which letters slope forward. True italic typefaces are designed, as opposed to oblique faces, which are just slanted versions of the regular face.

Justification. Setting type with both left and right margins even.

Kerning. The process of moving together letters that would normally look too far apart. Used especially in large type sizes and with certain letter pairs (such as the capital A and the capital T).

Leader. A row of dots or dashes used to separate items in tables (as in a phone directory).

Leading. Traditionally, the the thin strips of lead that were placed between lines of type with hot type. This term is often used synonymously with linespacing, though incorrectly so.

Linespacing. The distance from the baseline of one line to the baseline of the line below it. Technically, it is the amount of leading plus the point size of the type.

Mechanical. Camera-ready boards, with all text and graphics in place, that are sent to the printer.

Moire. An undesirable pattern resulting from incorrect halftone screen angles.

Oblique. A term used to describe typefaces that are slanted a number of degrees to the right. Similar to, but not the same as, italic faces.

Opacity. A property of paper, referring to how hard it is to see through.

Orphan. A single line of type from the bottom of a paragraph left alone at the top of a column or page.

Pagination. The process of creating pages from text, graphics, photographs, and illustration.

Pica. A unit of measurement equal to one-sixth of an inch, or 12 points.

Point. A unit of measurement equal to one-seventy-second of an inch.

Process Colors. The four colors used in four-color separations: yellow, magenta, cyan, and black.

Ragged Right and Ragged Left. Type that does not align on one side. Also referred to as flush left and flush right, respectively.

Rule. A line of any width, varying from a hairline to a wide, dark bar.

Running Head. Text that repeats at the top of successive pages.

Scaling. Reducing or enlarging an image or piece of type.

Scanner. A device used to read images into digital form so they can be manipulated electronically.

Screen. A fine mesh used to create halftones.

Serifs. The fine strokes at the ends of letters in many typefaces.

Small Caps. A set of capital letters that is the size of lowercase letters.

Widow. A single line of type from the top of a paragraph left alone at the bottom of a column or page.

Wrap. A section of text that runs around a graphic or illustration. Also called a run-around.

REFERENCE



Glossary of Special Terms Used in PageMaker

Actual Size. On-screen presentation of page at the same size at which it will print (100% size).

Alignment. The positioning of text within columns. There are four ways to align text: flush left (ragged on the right), flush right (ragged on the left), centered (ragged on both the left and right), and justified (flush on both the left and right). Text may be selected at any time and aligned in any of the four styles from the type menu.

Bitmap File. A file usually created with a paint program that creates an image using pixels that are either black or white and, in some cases, color. Such files will usually print to the resolution of the printer selected for use. A bitmap image created at a screen resolution of 60dpi will be printed one-fifth its original size on a 300dpi laser printer.

Cicero. European unit of measure for type size equaling 4.55 millimeters.

Clipboard. An area of memory where text and graphics may be copied to and from. Elements may be cut, copied, and pasted from the clipboard within PageMaker or to and from other programs. The clipboard information is only retained when the computer is on.

Column Guides. A menu option where you may choose anywhere from one to twenty columns on a page or master page. The space between columns may also be selected from the same menu. The column guides appear as dotted lines on the screen.

Crossbar. An icon that represents the cursor for drawing lines and boxes.

Custom Column. A column width that has been changed to differ from that on the column guides on the master grid.

Diagonal-Line Tool. A drawing tool from the PageMaker toolbox that allows lines to be drawn at any angle.

Discretionary Hyphen. A hyphen placed in a word using PageMaker that will be used only at the end of a line. This is useful when the "Justify column" command is used. If the word containing a discretionary hyphen appears in the middle of the line, the hyphen will not be visible nor will it print.

Double-Sided Page. Choosing the "Double sided" option in the page setup menu creates left- and right-hand master pages and alternates the gutter (inside) margin.

Draw Files. Graphic and text files created in a draw program that plots coordinates for graphics, allowing you to take full advantage of the resolution of the printing device used.

Enlarge and Reduce. Use of the handles defining the boundaries of the graphic to enlarge or reduce any graphic element. You can make the graphic larger or smaller by moving the pointer with the mouse button held down. Holding the shift key when clicking on any of the four corner handles will reduce or enlarge the graphic proportionally to the original. Holding down the command key while resizing a point-type graphic will optimize the graphic for reproduction on your chosen printer.

Facing Pages. In a publication or on the pasteboard of the PageMaker screen, two pages that face each other when printed and bound.

Flow. Movement of text into a column. Using the "Place" command to place a text file presents you with a text icon. Placing the text icon in a column and clicking on the mouse will flow the text into the column.

Font Substitution. Substitution of an existing font for a type font that is not on your system, if this print option is selected.

Guides. A nonprinting guideline that appears on the screen as dotted lines. There are three types: margin guides, ruler guides, and column guides. When the snap-to-guides feature is on, text and graphic elements will align themselves to guides.

Handles. A device to shorten or lengthen text and to reduce or enlarge graphics. Handles for text blocks appear at the top and bottom of a column of text. Graphic handles are small square boxes on the corners and the centers of each side of the graphic.

Insertion Point. The creation of an insertion point to add or edit text, using the text icon to place the blinking vertical cursor text.

Inside Margin. The gutter margin. On left-hand pages, it is on the right side of the page; on right-hand pages, it is on the left side of the page.

Kerning. Taking a pair of letters that would appear too far apart if left with normal letterspacing and moving the right character closer to the left character to appear more natural looking.

Leading. The amount of space, measured in points, between the baselines of type. Also called linespacing.

Letterspacing. The amount of space between letters in a typeset column. The amount of space is usually controlled by minimum and maximum values.

Master Page. Grids for pages are created as master pages. On the screen, they are represented by page icons with a L or R. A single-sided publication will have only one page icon, a double-sided publication will have two. Clicking on the icon will bring you to the master page, where columns, ruler guides, and printing elements may be placed that will appear on all pages in the file.

Measurement. From the preferences menu from the edit menu, you may switch the ruler measurement default between inches, inches decimal, picas, millimeters, and ciceros.

Page Icon. The small representation of the pages in a file that appear on the bottom of the screen. Clicking on a page icon will bring you to that page.

Pasteboard. The general work area surrounding the page on the Page-Maker screen. Items may be placed on the pasteboard and, when changing to another page, will remain on the pasteboard for use on other pages.

Place. The command that allows you to call files from a menu and place them on your page. Both text and graphics files may be placed. With text files, there is the option to place the text with or without formatting.

PostScript. The page description language that is used by PageMaker to send all the information needed by a PostScript device to print a page.

Publication. The production of a page file. Also referred to as a "pub."

Ruler Guides. A nonprinting guide that can be used to align items. With the "Rulers" command on, moving the pointer into the vertical or horizontal ruler, clicking, and dragging onto the page will bring a ruler guide onto the page.

Selection Box. Creation of a box around a number of items that may be moved at one time by using the pointer, clicking in one spot, dragging to another, and releasing the mouse button.

Snap to Guides. When turned on, text or graphics placed next to a margin, ruler, or column guide will jump to align with the guide.

Story. The entire set of text blocks threaded together in a publication. There may be as many stories as you wish in a publication.

Text Block. Text, when placed, with handles on the top and bottom and four corner. The start of the text has a handle that is empty. The bottom handle will have a plus symbol (+) if there is more text or a number symbol (#) if the file has been placed completely.

Threaded. All text blocks from a single file that have been placed are connected in the order in which they were placed. Even though they have been broken into separate blocks, they are still connected or threaded together. Taking out text in the first block will shorten the length of the last text block.

Thumbnail. Reduced versions of the pages. These reductions are printed at such a size that 16 pages will fit on a single sheet of paper.

Tile. A printing technique that allows large pages to be printed with a printer not capable of printing the indicated page size. The page is broken into blocks, which are printed a sheet at a time and then manually assembled into a final page.

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View. The size at which you view your page. On the screen, the page may be viewed at 50, 75, 100 (actual size), or 200 percent or "Reduce to fit," which makes the page fit in the window at the largest size possible while still allowing you to view the entire page.

Wordspacing. The amount of space between words in a typeset column. There are usually minimum and maximum values for the amount of space allowed.

Zero Point. The point of intersection of the two zeros on the PageMaker on-screen rulers. These may be moved to different locations in relationship to the page.

REFERENCE



Products

Art Tools

Clickart Effects T/Maker Co. 1973 Landings Dr. Mountain View, CA 94043 (415) 962-0195

EZ Trace

Heizer Software Co. 5120 Coral Ct. Concord, CA 94521 (415) 827-9013

Gridmaker Folkstone Design, Inc. P.O. Box 86982 North Vancouver, British Columbia Canada V7L 4P6 (604) 986-8060

KroyKolor

Kroy, Inc. 7560 E. Redfield Rd. Scottsdale, AZ 85260 (800) 521-1593 (602) 951-1593

Laser FX Postcraft International P.O. Box 938, #127 St. Catherine's, Ontario Canada L2R 6Z4 (800) 263-5720 (416) 641-0768 Pages! Image Club Graphics, Inc. 2915 19th St., N.E., #206 Calgary, Alberta Canada T2E 7A2 (800) 661-9410 (403) 250-1969 SmartScrap & The Clipper Solutions, Inc. 29 Main St., P.O. Box 989 Montpelier, VT 05602 (802) 229-0368

Portfolio: Designs For Newsletters

Aldus Corp. 411 First Ave., South, #200 Seattle, WA 98104 (206) 622-5500

Clip Art

Clickart Portfolio Series T/Maker Co. 1973 Landings Dr. Mountain View, CA 94043 (415) 962-0195

Compuset Clip Art Disk #1 Compuset 517 3rd St., #40 Eureka, CA 95501 (707) 444-0485

DeskTop Art Dynamic Graphics, Inc. 6000 N. Forest Park Dr. Peoria, IL 61614 (800) 255-8800

Digit-Art Laser Graphics Image Club Graphics, Inc. 2915 19th St., N.E., #206 Calgary, Alberta Canada T2E 7A2 (800) 661-9410 (403) 250-1969 Generic News Stories Generic News Service P.O. Box 647 Ruidoso Downs, NM 88346 (505) 378-8260

Japanese Clip Art Enzan-Hoshigumi Co., Ltd. 310 Still River Rd., P.O. Box 131 Still River, MA 01467 (800) 962-6686

Mac Art Library Compucraft P.O. Box 3155 Englewood, CO 80155 (303) 791-2077

Mac Atlas Professional Version Micromaps P.O. Box 757 Lambertville, NJ 08530 (800) 334-4291 Mac Memories Series Image World, Inc. P.O. Box 10415 Eugene, OR 97440 (800) 457-6633 (503) 485-0395

McPic!

Magnum Software 21115 Devonshire St., #337 Chatsworth, CA 91311 (818) 700-0510

Paste-Ease

Innovative Data Design 2280 Bates Ave., Suite A Concord, CA 94520 (415) 680-6818

Draw Software

Adobe Illustrator

Adobe Systems, Inc. 1585 Charleston Rd. Mountain View, CA 94043 (415) 852-0271

Cricket Draw

Cricket Software 30 Valley Stream Pkwy. Malvern, PA 19355 (215) 251-9890

Easy 3D

Enabling Technologies, Inc. 600 S. Dearborn St., #1304 Chicago, IL 60605 (312) 427-0408

Poster Maker Templates Strider Software West 8570 Beecher Lake Rd. Pembine, WI 54156 (715) 324-5487

Wetpaint Classic Clip-Art Dubl-Click Software 18201 Gresham St. Northridge, CA 91325 (818) 349-2758

Mac 3D

Challenger Software 18350 Kedzie Ave. Homewood, IL 60430 (800) 858-9565 (312) 957-3475

MacDraft

Innovative Data Design 2280 Bates Ave., Suite A Concord, CA 94520 (415) 680-6818

MacDraw

Apple Computer, Inc. 20525 Mariani Ave. Cupertino, CA 95014 (800) 538-9696 (408) 973-2222 Minicad 2D/3D Diehl Graphsoft, Inc. 8370 Court Ave., #202 Ellicott City, MD 21043 (301) 461-9488 Plot It Mesa Graphics P.O. Box 600 Los Alamos, NM 87544 (505) 672-1998

File Conversion Hardware/Software

Daynafile

Dayna Communications, Inc. 50 S. Main, #530 Salt Lake City, UT 84144 (800) 531-0600

Drive 5.25 Abaton Technology Corp. 7901 Stoneridge Dr. Pleasanton, CA 94566 (415) 463-8822

The Graphics Link PC Quik-Art, Inc. 394 S. Milledge Ave., #200 Athens, GA 30606 (800) 523-1796

The Harmonizer

Applied Creative Technology, Inc. 10529 Olympic Dr. Dallas, TX 75220 (800) 433-5373 (214) 358-4800

Maclink Plus

Dataviz, Inc. 16 Winfield St. Norwalk, CT 06855 (203) 866-4944

PS Translator

Compugraphic Corp. 200 Ballardville St. Wilmington, MA 01887 (800) UCALLCG (617) 658-5600

Fonts, PostScript

Adobe Type Library Adobe Systems, Inc. 1585 Charleston Rd. Mountain View, CA 94043 (415) 852-0271

Allotype Type Library Allotype Typographics 1600 Packard Rd., #5 Ann Arbor, MI 48104 (313) 663-1989

Bullets & Boxes

Caseys' Page Mill 6528 S. Oneida Ct. Englewood, CO 80111 (303) 220-1463

Clickart Letters

T/Maker Co. 1973 Landings Dr. Mountain View, CA 94043 (415) 962-0195 **Complementary Type** Software Complement 8 Pennsylvania Ave. Matamoras, PA 18336 (717) 491-2492

Faces Invincible Software 9534 Burwick San Antonio, TX 78230 (512) 344-4228

Fluent Fonts, Fluent Laser Fonts Casadyware, Inc. P.O. Box 223779 Carmel, CA 93922 (800) 331-4321

Fontastic Plus, Fontagrapher Altsys Corp. 720 Ave. F, #108 Plano, TX 75074 (214) 424-4888

Font Sheets Crown Communications P.O. Box 11626 St. Paul, MN 55111-0626 (612) 698-0051

Foreign Fonts Edition Devonian International Software P.O. Box 2351 Montclair, CA 91763 (714) 621-0973

Image Club Lasertype Image Club Graphics, Inc. 2915 19th St., N.E., #206 Calgary, Alberta Canada T2E 7A2 (800) 661-9410 (403) 250-1969

LaserFonts

Century Software, Inc. 2483 Hearst, #175 Berkeley, CA 94709 (415) 549-1901

Laser Perfect Fonts Neoscribe International P.O. Box 633 East Haven, CT 06512 (203) 467-9880

LaserWorks Laserware, Inc. P.O. Box 668 San Rafael, CA 94915 (800) 367-6898

Linguists' Laser Fonts Linguists' Software 106R Highland St. South Hamilton, MA 01982 (617) 468-3037

Mac the Linguist 2 Megatherium Enterprises P.O. Box 700-417 Redondo Beach, CA 90277 (213) 545-5913

World Class Fonts Dubl-Click Software 18201 Gresham St. Northridge, CA 91325 (818) 349-2758

Graphic Input Devices

A+ Mouse MSC Technologies, Inc. 2600 San Tomas Expwy. Santa Clara, CA 95051 (800) 523-5189

MacTablet Summagraphics Corp.

777 State St. Extension Fairfield, CT 06430 (203) 384-1344

Imagesetters

Lasercomp Imagesetter Monotype 2500 Brickvale Dr. Elk Grove Village, IL 60007 (312) 350-5600 Linotronic Linotype Co. 425 Oser Ave. Hauppauge, NY 11788 (516) 434-2000

Large-Screen Monitors

The Big Picture

E-Machines, Inc. 7945 S.W. Mohawk St. Tualatin, OR 97062 (503) 692-6656

Laserview Display System

Sigma Designs, Inc. 46501 Landing Parkway Fremont, CA 94538 (415) 770-0100

Megascreen Video System Micrographic Images Corp. 20954 Osborne St. Canoga Park, CA 91304 (818) 407-0571

Nutmeg/Xerox Full Page Display Nutmeg Systems, Inc. 5 South Ave. New Canaan, CT 06840 (203) 966-3226

Radius Full Page Display

Radius, Inc. 1050 E. Duane Ave., Suite F Sunnyvale, CA 94086 (408) 732-1010 Stretch Screen Network Specialties 1485 Bayshore Blvd. San Francisco, CA 94124 (205) 633-4300

Superview Video System Supermac Technology 295 N. Bernardo Mountain View, CA 94043 (415) 964-8884

Vista 1600 Cornerstone Technology, Inc. 175A E. Tasman Dr. San Jose, CA 95134-1620 (408) 433-1600

Laser Printers

CG 400-PS

Compugraphic Corp. 200 Ballardville St. Wilmington, MA 01887 (800) UCALLCG

LaserWriter, LaserWriter Plus

Apple Computer, Inc. 20525 Mariani Ave. Cupertino, CA 95014 (800) 538-9696 (408) 973-2222

LZR 2665

Dataproducts Corp. 6200 Canoga Ave. Woodland Hills, CA 91365 (818) 887-8000

Omnilaser 2115

Texas Instruments, Inc. P.O. Box 809063 Dallas, TX 75380-9063 (800) 527-3500

Personal Laser Printer

General Computer 215 First St. Cambridge, MA 02142 (617) 492-5500

Laser Printer Controllers

PS Jet, PS Jet Plus

The Laser Connection 7852 Schillinger Park, West Mobile, AL 36608 (800) 245-5477

PS Jet Printer, PS Jet Plus Printer The Laser Connection 7852 Schillinger Park, West

Mobile, AL 36608 (800) 245-5477

QMS PS 800 Plus, QMS PS 2400 QMS, Inc.

1 Magnum Pass Mobile, AL 36618 (205) 633-4300

ScripTen Qume Corp. 2350 Qume Dr. San Jose, CA 95131 (800) LASER55

VT600 Plain-Paper Typesetter

AM Varityper 11 Mount Pleasant Ave. East Hanover, NJ 07936 (800) 631-8134 Laser Printer Paper/Accessories

CF Laseredge Laser Printer Paper Laser Text Publishing Systems, Inc. 481 Washington St. New York, NY 10003 (212) 925-4551

Crane's Bond, Crane's Crest Crane 37 South St. Dalton, MA 01226 (413) 684-2600

Hammermill Laser Plus Hammermill Laser Print Hammermill Papers East Lake Rd. Erie, PA 16533 (814) 456-8811

Laser Printer Labels Avery 818 Oak Park Rd. Covina, CA 91724 (818) 915-3851 Multifeeder, Laserfeeder BDT Products, Inc. 17152 Armstrong Ave. Irvine, CA 92714 (800) 346-3238

Pro-Tech Laser Printer Paper James River Corp. 356B Sewall St. Ludlow, MA 01056 (800) 521-5035

Stakolator Micro-Mania 501 N.E. Trade Center Woburn, MA 01801 (800) 654-DISC

Velobind Punch/Binder Velobind, Inc. 650 Almanor Ave. Sunnyvale, CA 94086 (800) 824-6243

Paint Software

Fullpaint

Ann Arbor Softworks, Inc. 2393 Teller Rd., #106 Newbury Park, CA 91320 (805) 375-1467

Graphicworks

Mindscape, Inc. 3444 Dundee Rd. Northbrook, IL 60062 (800) 221-9884 (312) 480-7667 Laserware, Inc. P.O. Box 668 San Rafael, CA 94915 (800) 367-6898 (415) 453-9500

LaserPaint

Mac Calligraphy 2.0 Enzan-Hoshigumi Co., Ltd. 310 Still River Rd., P.O. Box 131 Still River, MA 01467 (800) 962-6686 (617) 456-8255

MacPaint

Apple Computer, Inc. 20525 Mariani Ave. Cupertino, CA 95014 (800) 538-9696 (408) 973-2222

SuperPaint

Silicon Beach Software, Inc. P.O. Box 261430 San Diego, CA 92126 (619) 695-6956

Scanners/Digitizers

Abaton Scan 300, Scan 300/FB

Abaton Technology Corp. 7901 Stoneridge Dr. Pleasanton, CA 94566 (415) 463-8822

Jet Reader

Datacopy Corp. 1215 Terra Bella Ave. Mountain View, CA 94043 (800) 821-2898

Kurzweil 4000

Kurzweil Computer Products 185 Albany St. Cambridge, MA 02139 (800) 843-8031

MacScan

New Image Technology, Inc. 10300 Greenbelt Rd., #104 Seabrook, MD 20706 (301) 464-3100

MS-300 Series

Microtek Lab, Inc. 16901 S. Western Ave. Gardena, CA 90247 (213) 321-2121

PC Scan, PC Scan Plus Dest Corp. 1201 Cadillac Ct. Milpitas, CA 95035 (408) 946-7100

ScanJet

Hewlett-Packard Co. 700 71st Ave. Greeley, CO 80634 (303) 350-4000

Spectrum Digital Systems LS-300

Spectrum Digital Systems 2702 International Lane Madison, WI 53704-3122 (800) 541-6661

ThunderScan

Thunderware, Inc. 21 Orinda Way Orinda, CA 94563 (415) 254-6581

Scanner Software

The Lithographer Knowledge Engineering P.O. Box 2139 New York, NY 10116 (212) 473-0095

Mac Image

Datacopy Corp. 1215 Terra Bella Ave. Mountain View, CA 94043 (800) 821-2898

Publish Pac

Dest Corp. 1201 Cadillac Ct. Milpitas, CA 95035 (408) 946-7100

True Form Spectrum Digital Systems 2702 International Lane Madison, WI 53704-3122 (800) 541-6661

Word Processing Software

FullWrite Professional

Ann Arbor Softworks, Inc. 2393 Teller Rd., #106 Newbury Park, CA 91320 (805) 375-1467

MacWrite

Apple Computer, Inc. 20525 Mariani Ave. Cupertino, CA 95014 (800) 538-9696 (408) 973-2222

Microsoft Word

Microsoft Corp. 16011 N.E. 36th Way Redmond, WA 98073-9717 (800) 426-9400

WordPerfect

WordPerfect Corp. 288 W. Center St. Orem, UT 84057 (800) 321-5906

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