

Unit 1 : Overview

Desktop publishing has several components like hardware, software and brainwork (i.e., design). Different forms and variations of each are available. In this unit an overview of the desktop publishing process the equipment is given.

Lesson 1 : Introduction

1.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Steps in desktop publishing process.
- ◆ Brainwork in design.
- ◆ Six steps for success in desktop publishing.

1.2. Introduction

There is a greater need for effective design today than ever before. The spread of desktop publishing and word processing software coupled with the availability numerous typeface options and low-cost inkjet and laser printers have made readers more sensitive to effective design. As a result, design blunders that would once be tolerated are now noticed. Bad design is almost considered an insult by readers, who now know how to recognize careless design and production.

1.3. The Desktop Publishing Process

The desktop publishing process can be organized in the following steps:

Desktop publishing process.

- ◆ Assemble tools: Analyze hardware and software resources.
- ◆ Define project: Identify audience, message and budget limitations.
- ◆ Select Layout: Choose page size, borders and columns.
- ◆ Add headlines: Select typeface, type size, weights, widths and line spacing.
- ◆ Place body copy: Choose typeface, type size, line and letter spacing, punctuation and hyphenation.
- ◆ Add visuals: Select correct type of visual, resize, place on page, fine tune.
- ◆ Choose colors: Make sure that color enhances, rather than confuses, the message.

Graphics Design

- ◆ Production and printing: Choose output resolution (i.e., dots per inch) and paper (weight, color and texture).

1.4. What is Design?

Design is the process of taking responsibility for the appearance and the content of your pages. You need to continually ask questions, make appropriate decisions, and pay attention to details. You have to break large projects into their component parts and then refine each part. Design is taking the time to do the job right. Try it, and if it works, make it better.

Design is the process of taking responsibility for the appearance and the content of your pages.

Effective design is the result of planning before acting. You first analyze the purpose of the document and the obstacles to overcome. You then analyze the environment where the publication will appear, including the reader's level of motivation and where the reader will encounter the publication. You must examine documents competing for the reader's attention.

1.5. Six Steps to Success

Regardless of whether you're designing, successful the result of following the same six step procedure:

- ◆ **Establish goals and organize your material:** Analyze your message and your readers. You shouldn't even being to think about what your publication should look like until you have answered the Who, What, Where, When, and Why questions.
- ◆ **Choose an appropriate format and page layout:** What's the overall "look" of your publication? How many columns of type will you use? How many colors will you use? What color, weight, and texture paper will be printed? What graphic accents will you use to direct the reader's eyes?
- ◆ **Make appropriate typeface, type size, and spacing decision:** Although we live in a picture-oriented world, the majority of your message will appear as headlines and body copy. Your job is to create titles and headlines that attract attention and body copy that's transparent and doesn't interfere with your reader's ability to quick message.
- ◆ **Add and manipulate visuals:** When possible, replace words with visuals. Visuals encompass illustrations, charts, graphs, tables, organizational timelines, and more. Keep in mind that each type has advantages and disadvantages, and each type requires careful placement on the page.

Six Steps to Success.

Overview

- ◆ **Build momentum into your page:** After you have readers' attention, you need to keep them interested in your publication. Break large amounts of material into bite-sized chunks by using organizational devices such as subheads, pull quotes, and sidebars.
- ◆ **Refine and fine-tune until you drop:** Perfect wholes are the results of perfect details, and you get perfect details by breaking a project into its component parts and fine-tuning each part. A single glaring error can undermine the credibility and readability of your document.

1.6. Exercise

1.6.1. Multiple choice questions

- a. Effective desiqu is the result of
 - i) Setting
 - ii) Studying
 - iii) Working
 - iv) Planning.
- b. When possible replace words with
 - i) Blanks space
 - ii) Numbers
 - iii) Visuals
 - iv) Sentences.

1.6.2. Question for short answer

- a) What is design?

1.6.3. Analytical question

- a) What are the steps for success?

Lesson 2 : Importance of Good Design

2.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ How design improves the quality of publishing.
- ◆ How design increases the profit.

2.2. How Design Add Values to your Ideas

Design sometimes takes place before words are written, but in most cases the starting point consists of previously written words. Design adds value to these words in four ways:

Design Add Values

- ◆ Design enhances readership.
- ◆ Design provides organization.
- ◆ Design provides unity.
- ◆ Design sets your publications apart.

If design doesn't add value to the words, then the words should be distributed as a typewritten manuscript or a word-processed file that readers can read on the screen of their computer!

2.3. Design Enhances Readership

Effective design pre-sells readers on the importance of your words. Design enhances your words by making them appear more valuable and easier to read. People make immediate assumptions about the value of your words by the appearance of your pages. A well-designed page projects a spirit of optimism and an atmosphere of professionalism. A cluttered page indicates that the person preparing the document didn't care enough about the words to take the time to present them as neatly as possible. And if the person preparing the document didn't care about the document, then why should the reader?

Compare figure 1.1 with figure 1.2. Which projects a more professional image?

Readership studies have documented the amazing impact that design has on readership. The most recent study was done in Australia by Colin Wheildon and reported in his recent book, *Type and Layout: How Typography and Design Can Get Your Message Across - or Get in the Way* (Berkley, CA: Strathmoor Press, 1995). Colin's research indicated the following:

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- ◆ Changes in headline typography can increase readership from 57 % to 92%, meaning a readership gain of 38%. Readership of the worst possible combination of typeface dropped legibility to a mere 3%.
- ◆ Body copy comprehension jumped from 12% to 67% when a different typeface was used.
- ◆ Subtle changes in line spacing typically increased body copy comprehension from 77% to 98%.
- ◆ Setting body copy against a background screen could reduce comprehension from 70% to 3%, depending on the "grayness" of the background.
- ◆ Headline colors could reduce the comprehension of adjacent type from 67% to 17%.
- ◆ Revising the layout of a page increased readership from 32% to 67%, doubling the impact of the message without changing a single word or increasing printing costs.

2.4. Design Provides Organization

Your readers are in a hurry. They don't have time to read everything that enters their mailboxes or gets handed to them. Effective design provides a hierarchy to information that helps readers quickly separate what's important from what's less important. Design helps readers avoid "information overload" and helps them quickly locate desired information.

*Design Provides
Organization*

Which document helps you to quickly locate information? Which of the headlines would you read first?

2.5. Design Provides Unity

Design can multiply your printing communication dollars by creating unity within and among your publications. Within a document, design can create a whole from a series of pages. Design can also create a whole from a series of brochures or newsletters.

The elements of unity include consistent margins, column placement, graphic accents, typeface, type size, and color choices. Things as simple as consistent margins and the consistent use of a few well-chosen typefaces can create a welcome familiarity.

2.6. Design Influences Income

Your income and job security will increase to the extent that you can effectively wear more than one hat. If you're a writer/designer or marketer/designer, for example, you can command a higher salary and enjoy more job security than someone who can be replaced by a freelancer.

Where does design come from?

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Fig. 1.1: This document lacks a clearly defined starting point and information hierarchy.

2.7. How Design Makes Money

Design doesn't cost money; design makes money. Design helps you utilize the most of printing and distribution costs. Make no mistakes about it: design influences readership. Refer to the studies mentioned earlier in this lesson. Think about the impact that increased readership can have.

How Design Makes Money

When you present your words with care, they appear valuable. You can charge more for them, and your message will be treated with more respect.

Where does design come from?

Effective design begins by recognizing your reader's impatience. Readers usually have something else they'd rather be doing. Your document represents an interruption. The best way to attract your reader's attention is the promise that they will be able to quickly locate desired information.

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Organization must precede readability

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Elements of information management

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The penalties of visual confusion

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Taking stock

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Analyzing your publication and your readers

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Evaluating potential reader interest

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How much does your reader already know?

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Fig. 1.2: A page with a clearly defined hierarchy is easier to read.

2.8. Design Saves Time

You don't have to make typeface, type size, margin, color, and paper decisions every time you start a new project. You can create a family of templates (empty or formatted documents that you complete by "filling in the holes") and styles (combinations of typeface, type size, and line-spacing settings that you can access with the click of a mouse). This way, you not only make your own job easier, but you can also enhance the efficiency of your clients and coworkers.

2.9. Design and Desktop Publishing Efficiency

You can't attain enhanced design skills without simultaneously attaining enhanced desktop publishing skills. You can't design and produce good-looking documents if you're not working efficiently.

*Design and Desktop
Publishing Efficiency*

2.10. Exercise

2.10.1. Multiple choice questions

- a. Changes in headline typography can increase readership up to
- | | |
|----------|----------|
| i) 0% | ii) 30% |
| iii) 50% | iv) 90%. |
- b. For an appropriate typeface body copy comprehension can jump up to
- | | |
|----------|-----------|
| i) 0% | ii) 50% |
| iii) 67% | iv) 100%. |
- c. Revising the layout of a page can increase the readership up to
- | | |
|----------|-----------|
| i) 0% | ii) 33% |
| iii) 67% | iv) 100%. |

2.10.2. Questions for short answers

- How does design influence income?
- Discuss how design can add value to ideas.
- How can design save time of a desktop publishing operation?

2.10.3. Analytical question

- Discuss several advantages of good design.

Lesson 3 : Choosing the Right Software

3.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Facilities of dedicated page layout program.
- ◆ Whether you need or not a page layout program.

3.2. Introduction

Desktop publishing is technology-based. The better your technology, the more control you enjoy over your finished designs. Better tools lead to better output. This chapter helps you identify the tools you need to succeed.

Avoid under-buying. Frustration quickly sets in when you don't have the proper tools. In the long run, quality hardware and software results in better-looking documents in less time. Also, don't depend too much on computer salespeople for guidance. Most salespeople don't know as much about desktop publishing and your particular needs as you will know after you read this book.

3.3. Do You Need a Dedicated Page Layout Program?

Word processing programs are suitable for documentation, price sheets, and simple one- or two-column newsletters printed in a single color. For all but the simplest projects, however, dedicated page layout programs offer significant advantages over word processing programs. Here are some of the reasons page layout programs are a superior choice for complex projects:

Word processing programs are suitable for documentation, price sheets, and simple one- or two-column newsletters printed in a single color.

- ◆ **Text placement:** Page layout programs make it easier to place text anywhere on the page. Although some word processing programs let you place text in frames anywhere on the page, the process is not nearly as intuitive as "grabbing and dragging" a text or graphic element anywhere on a page, as you can do with a page layout program.
- ◆ **Setting up page layouts:** With most page layout programs, you can set up left and right master pages that display the vertical column setup and position horizontal and vertical guides at numerous locations.
- ◆ **Working with fonts:** Page layout programs offer more precise control over word and letter spacing. They make it easier to

create better-looking text columns and to fine-tune headline spacing.

- ◆ **Working with scanned images:** Most page layout programs offer sophisticated capabilities for manipulating scanned images, including lightening or darkening images. Most page layout programs also operate significantly faster than word processing programs when pages contain one or more complex illustrations or scanned images.
- ◆ **Working with print shops:** Unlike word processing programs, page layout programs can add registration marks to your pages. These marks, placed outside the printing area of your document, help the print shop precisely align artwork on the printing press so that each page is placed in exactly the right position for printing. In addition, most page layout programs can create color separations, which involves separating a color image into its four component colors (cyan, magenta, yellow, and black) and then outputting each as a separate layer.

3.4. How much of a Page Layout Program do you Need?

Two types of programs are available: frame-based programs such as Microsoft Publisher and Corel (formerly Ventura) Publisher and column-based programs such as PageMaker. QuarkXPress lets you choose between either type. With frame-based programs, you create "containers" for placing text and graphics on a page. Column-based programs offer a bit more creative freedom. Here are some of the differences you might notice between high-end and low-end page layout programs:

Two types of programs are available: frame-based programs such as Microsoft Publisher and Corel (formerly Ventura) Publisher and column-based programs such as PageMaker.

- ◆ **Ease of use:** Many low-end programs are less intuitive than full-featured page layout programs. Sometimes simple shortcuts, such as the capability to assign styles by using keystroke combinations, are not available.
- ◆ **Assistance:** If you run into a problem using a high-end program such as PageMaker or QuarkXPress, help is generally available. This may not be true if you're using a program with is less-devoted help file.
- ◆ **Font handling:** Excellence in typography is the result of paying attention to details such as controlling the minimum and maximum amounts that spaces between words can be closed or opened in order to line up the last letters of each line. Many popular low-end programs do not allow you to control this.

Overview

- ◆ **Document length and complexity:** Low-end programs may run into difficulty with long documents. You may not be able to "chain" multiple files together to create book-length manuscripts, for example. Color handling and image-manipulation capabilities may be limited. The capability to manipulate letter and word spacing may be limited, and you may not have as much control over hyphenation.

3.5. Exercise

3.5.1. Multiple choice questions

- a. Desk-top publishing is
 - i) Hardware based
 - ii) Software based
 - iii) Technology based
 - iv) Design based.
- b. Quark X-press is a
 - i) Column based
 - ii) Frame based
 - iii) Supports all of the above
 - iv) Supports none of the above.

3.5.2. Question for short answer

- a) How does page layout programs assist while working with fonts?

3.5.3. Analytical question

- a) Give a comparative study between high and low-end page layout program.

Lesson 4 : Choosing the Right Font

4.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Sources of fonts.
- ◆ Features of font managers and font editors.
- ◆ Kerning.

4.2. Introduction

Acquiring additional typeface options represents the single most important contribution you can make to your desktop publishing and design skills. Type is your primary tool of communication. Just as a carpenter can't work without wood, you can't work without type.

Typeface refers to the particular design, or "look" of a family of type, such as 'Times' or 'Arial'. Within each family, numerous variations are available. Each variation—such as italic, hold, semi-bold, extra-bold, or condensed, is referred to as a font. A font refers to a complete character set (uppercase and lowercase alphabet, numbers, punctuation, and symbols) depicting a single variation of a single typeface. When you buy type, you can buy the entire family or just the font you need.

4.3. Where does Type come from?

The majority of type used on computers today is scalable type. Scalable type, as the name implies, is a typeface design that you can increase or decrease in size. With scalable type, you create the type, as you need it from the font outlines stored on your computer's hard disk.

There are two primary sources for scalable type resident fonts and downloadable fonts. Resident fonts are built into your printer. You must load the matching screen fonts onto your computer so that your computers can display them onscreen. Resident fonts are installed when you load your printer driver. The advantage of resident fonts is that they print quickly. The disadvantages are that your design options are limited (usually only the most basic fonts are included).

Scalable type, as the name implies, is a typeface design that you can increase or decrease in size.

Downloadable fonts are the second source of scalable type. The outlines for downloadable fonts are stored on your computer's hard disk and sent to the screen (for display) and to the printer (for

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printing) as needed. Two types of downloadable fonts are available: free and discretionary.

- ◆ **Free downloadable fonts** are included with Windows or your Apple Macintosh's operating system software. You can install them when you install the operating system. In addition, just about every major software publisher includes downloadable fonts with their programs. When you purchase one of today's page layout or word processing programs, you're likely to get several (in some cases, hundreds) of quality fonts at no extra cost. The advantage of these downloadable fonts is their low purchase price (they're free) and the design options they offer.
- ◆ **Discretionary downloadable fonts** refer to typeface designs you purchase to serve a definite purpose. Discretionary downloadable fonts are sold by firms called typeface foundries and are distributed on floppy disks or CD-ROMs. You can also download fonts from on-line computer services such as CompuServe.

A single CD-ROM can contain the font outline for thousands of typefaces. In most cases, these fonts are locked: you can examine them, but you can't use them until you get an unlocking code from the typeface publisher. The unlocking code enables you to load the typeface onto your computer's hard disk. The advantage of distributing type on CD-ROM is that the process is environmentally friendly and saves space and a virtually unlimited selection of fonts is as close as your telephone.

4.4. Font Managers

When you expand your font library, problems soon arise. It takes time and effort to add and remove fonts, so you tend to work with too many fonts open. Each open font occupies memory (which can contribute to slow program loading and system crashes) and clutters your Font menu (making it more difficult to locate the font you really want).

Font managers, such as Fifth Generation System's Suitcase for the Macintosh and Ares's Font Minder for Windows, make it easy to add and remove individual fonts or groups of fonts. You can organize your fonts around function (such as news letters or annual reports) or by client (IDG Books, Bill's Texaco, or The Wooden Spoon). These font groupings can be quickly and easily added or removed as a single unit.

Font Managers

4.5. Font Editors

Font editors, such as Altys Fontographer and Area Font Chameleon, enable you to change the appearance of type. Designers use font editors to create new typeface designs, but you may want to purchase one to create a logo or special effects, as shown in figure 4.1.

With Fontographer, for example, you can scan your handwriting or your firm's logo and make it into a typeface that can be applied as a single character.

4.6. Kerning

Although the white space is designed into a typeface, inevitably some letter combinations will be too tight and others will be too loose. Kerning editors, such as Fontographer, enable you to fine-tune letter spacing of specific letter combinations, which can greatly improve the appearance of your publications as well as eliminate the need to manually adjust letter spacing for headlines set at frequently used sizes. Some programs, including QuarkXPress, allow you to edit kerning tables without editing the font itself.

Kerning

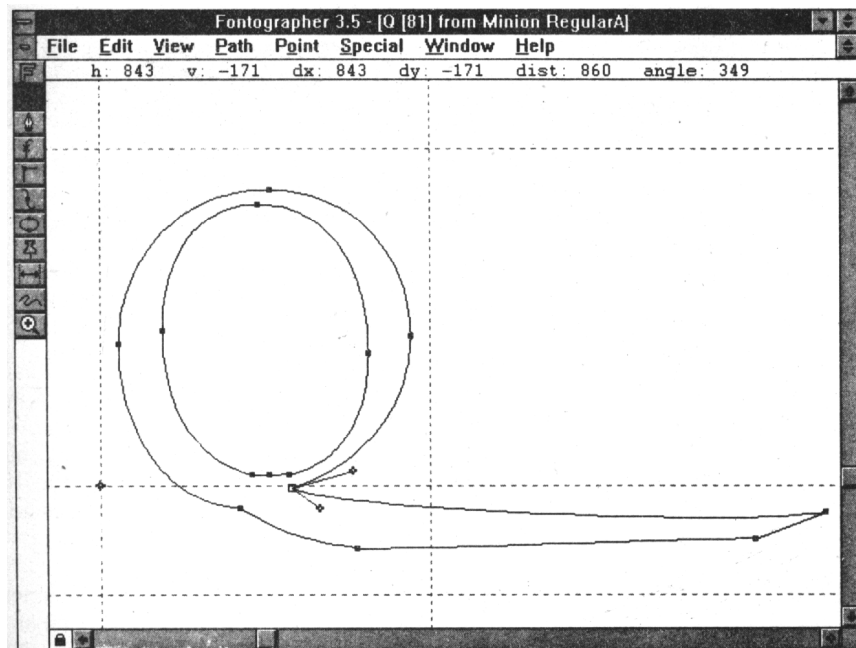


Fig. 4.1: You can use font editors to modify existing typefaces or to design your own typeface.

Overview

4.7. Exercise

4.7.1. Multiple choice questions

- a. Resident fonts are built in to the
 - i) Operating system
 - ii) DTP package
 - iii) CD-ROM
 - iv) Printer.
- b. A fontographer is a
 - i) Font
 - ii) Font manager
 - iii) Font editor
 - iv) Font collection.

4.7.2. Questions for short answers

- a) What is the difference between free and discretionary fonts?
- b) What is kerning?

4.7.3. Analytical questions

- a) Discuss different sources of type.
- b) Discuss about different types of DTP software.

Lesson 5 : Working with Pictures

5.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Different types of photo manipulation hardware.
- ◆ Photo manipulation software.

5.2. Introduction

You can get as involved with scanned images as you want. Working with pictures involves several categories of hardware and software: image scanners (which convert images taken with your film-based camera into digital files) and photo manipulation software (which allows you to add or subtract colors and modify photographic images as well as add texture effects).

5.3. Image Scanners

An image scanner is a necessity if you frequently work with photographs. Scanners convert black-and-white photographs and 35mm color slides into digital files that you can manipulate on your computer and add to your documents. Even if you continue to submit black-and-white photographs or 35mm color slides to your printer, an image scanner can help you do a better job of cropping and placing photographs on a page. Scanners also allow you to use a hand-drawn sketch as the basis for a sophisticated, color-filled drawing.

An image scanner is a necessity if you frequently work with photographs.

There are three types of image scanners: hand-held, flatbed, and slide.

- ◆ To use a hand-held scanner, you must manually move the scanner over the image.
- ◆ To use a flatbed scanner, you must work from a printed photograph. Most flatbed scanners can scan an entire photograph at a single pass. These scanners are faster and more accurate than hand-held units.
- ◆ To use a slide scanner, you must work from film or slides.

Another advantage of owning an image scanner is that most come with OCR (Optical Character Recognition) software. OCR software converts printed pages into word-processed files. For example, if you didn't backup your hard disk and it crashed, you could restore

Overview

a file by scanning a printout, saving hundreds of hours of retyping. Of course, you need to have a printout of the manuscript.

5.4. Photo Manipulation Software

As digital photography replaces film-based photography, darkrooms are becoming a thing of the past. Photo manipulation software, such as Adobe PhotoShop, enables you to retouch photographs on your computer. You can bring out shadow detail, reduce bright spots, and even modify the image.

Photo manipulation software, such as Adobe PhotoShop, enables you to retouch photographs on your computer.

You can also use photo manipulation software to enhance text. You can fill text with photographs, and create collages with transparency effects, such as layering text with the lower levels visible through the top layers.

Digital photography is associated with a long learning curve. The sooner you become familiar with it, the sooner you can take advantage of it. Even if you don't become an expert photo retoucher, you should become familiar with the process so that you can direct the efforts of others.

5.5. Image Managers

Image managers enable you to catalog clip art and scanned images. Instead of searching through your hard desk to locate an elusive illustration by name (which you may have forgotten), you can quickly locate it by viewing it at a reduced size. With image managers, you can view thumbnails of your entire illustration library at reduced size and select an image by simply clicking on it. Aldus Fetch is an example of a Macintosh image manager, and Corel makes a similar program for the Windows environment.

5.6. Digital Cameras

Filmless, digital cameras represent the latest technology to emerge. Digital cameras eliminate the costs and delays of film processing as well as the need to scan images. With a digital camera, images go directly from the camera into your computer. At this point, there is no "middle" ground. There are several relatively low-cost digital cameras and numerous professional digital accessories, but both have compromises.

Digital Cameras

Low-cost digital cameras (ranging from \$600 to \$700) are unacceptable for serious use. They lack the sharpness and color quality available with 35mm cameras and conventional films. In addition, these low-cost cameras are of fixed focal length. You can't choose between wide-angle lenses (which take in an entire

room or group of people), telephoto lenses (which allow you to fill an image with just a person's head and throw the background out of focus) or macro lenses (which allow you to take pictures of small objects, such as grasshoppers).

5.7. Exercise

5.7.1. Multiple choice questions

- a. Which one is a photo manipulation software?
 - i) Microsoft word
 - ii) Adobe PageMaker
 - iii) Adobe PhotoShop
 - iv) Quark X-press.

5.7.2. Questions for short answers

- a) What are the three types of image scanners?
- b) What is the advantage of digital camera?

5.7.3. Analytical question

- a) Discuss the feature of different photo manipulation hardware and software.

Lesson 6 : Using Advanced Hardware

6.1. Learning Objectives

On completion of this lesson you will be able to describe:

- ◆ Different types of advanced hardware for desktop publishing.
- ◆ Advantages of the advanced hardware.

6.2. Introduction

Computers with performance entirely adequate for standard word processing, spreadsheet, and database applications often appear totally inadequate when used for desktop publishing applications involving scanned images. The slowdowns in speed become intolerable and you quickly find yourself running out of hard disk space. The following sections describe some of the issues to consider when upgrading your computer or purchasing a new one for desktop publishing.

6.3. CD-ROM Players

Each day there are more and more reasons to purchase a CD-ROM player. Increasing numbers of programs are being delivered on CD-ROM. Installing a program from a CD-ROM is a snap compared to the hassle of inserting and removing too many diskettes to install a software program.

CD-ROMs offer immediate or near-immediate access to additional typefaces and clip art. A single CD-ROM, such as those from Adobe and Monotype, can contain all available typefaces plus thousands of pieces of clip-art illustrations, including maps, special symbols, and decorative typefaces.

CD-ROM Players

Additional reasons to add a CD-ROM to your computer include the increasing availability of interactive training as well as the ability to take advantage of the royalty-free color photographs Corel and other vendors offer. CD-ROMs make it so easy to distribute huge files that would otherwise be too large to economically distribute.

6.4. Additional Memory and Hard Disk Capacity

Today's sophisticated page layout and word processing programs require a great deal of computer memory and hard disk storage space. This is partly because they can do more things but also because the files are larger. Graphic files, especially those

*Additional Memory and
Hard Disk Capacity*

involving scanned color images, quickly become huge! And programs and their RAM requirements get bigger every year.

With additional computer memory, you can have more than one program open at one time. With enough system memory, you can have your page layout, charting, and drawing programs open at the same time, allowing you to quickly move among them. You can create a chart or a drawing and seamlessly place it into the page without quitting one program and opening another.

With increased capabilities come increased storage needs. You'll be surprised how quickly your hard disk fills up when you start creating complex documents containing scanned images and complex illustrations. Even if you're not using state-of-the-art applications, your productivity increases when you increase your hard disk capacity. Performance usually increases as hard disk capacity increases, too. In addition, you won't have to spend so much time swapping files and making tape backups of completed projects.

6.5. Removable Storage Media

Several vendors offer removable hard disk storage. There are several reasons why many desktop publishers consider removable hard disks a necessity rather than a luxury.

*Removable Storage
Media*

- ◆ Removable hard disk enables you to easily take large documents, including scanned images. An eight-page newsletter containing several scanned images, illustrations and the necessary fonts can quickly grow too large to be carried in any other way.
- ◆ Removable hard disks make it fast and easy to back up your work and the backups offer immediate file access. It can take several hours to make a tape backup of your hard disk, and you can't work off of the tape. The information on the tape has to be retrieved and reloaded onto the hard disk.
- ◆ Removable hard disks make it easy to archive completed projects. You can easily access the information at a later date.

6.6. Big Screen Monitors and Video Accelerators

A big screen monitor can make a major contribution to increased efficiency.

A big screen monitor can make a major contribution to increased efficiency. Instead of viewing just a portion of a page, on-screen, you can view the whole page. This reduces the amount of zooming, or hanging magnification, needed.

Overview

Video accelerator help you work faster when you create sophisticated illustrations or retouch photographs. Video accelerators often contain their own memory, which increases the detail visible on your monitor. When you create a graduated fill pattern, you'll see a smooth transition from black to white rather than abrupt jumps. Video accelerators are a virtual necessity when you do creative photo manipulation with programs such as Adobe Illustrator. You'll be able to work faster and with more detail.

6.7. High Resolution Laser Printers

Resolution, measured in dots-per-inch (dpi), refers to the clarity and crispness of the camera-ready art. As the number of dots-per-inch increases, text and scanned images appear sharper; photographs display more gray or middle tones; and screened backgrounds, or graduated fills, appear smooth rather than mottled (or grainy).

Also, as dots-per-inch increase, smooth transitions between light and dark replace banding, or abrupt "jumps." High-resolution printers can also offer faster performance because they typically include more memory.

At one time, 300 dots-per-inch were considered a breakthrough. Today, 600 dots-per-inch is becoming the norm. Firms such as Laser Master and Hewlett Packard offer laser printers with 900, 1,200, and even 1,800 dot-per-inch resolution.

Many of these high-performance printers permit you to print on 11 by 17 inch pages, or even larger. You can print two-page spreads at a time. You can also bleed text and graphics to the edges of the printing area of your pages as well as include crop marks beyond the printing area of your pages to guide your print shop when they place your pages on their printing press.

6.8. Color Printers

Color printers can be used for proofing or final output in small quantities. They are definitely not replacements for print shops. Don't plan on printing 500 copies of your newsletter on them. Office color printers are perfect for proposals and important documents containing color charts and graphs that will be distributed to a few key people, however. Color printers are also ideal for making "masters" that can be taken to a commercial duplication service that has color copiers.

Color printers can be used for proofing or final output in small quantities.

6.9. Special Papers

If you are creating camera-ready artwork on your laser printer, you'll want to investigate the many special-coated, or glossy, papers available. These highly reflective papers reproduce both text and scanned photographs with greater detail. They are usually heavier and thicker than the "copier grade" paper normally used for proofing. Heavier papers also are ideal for creating mechanical paste-ups.

Finally, you should investigate papers containing borders or graphic elements printed in color. These papers allow you to "appear in color on a black-and white budget." Special papers are available for a variety of purposes, including brochures, correspondence, reports, and presentations. Chances are that your clients or prospects will think you printed your piece in color only your paper supplier have to know that your "color brochure" was actually created on your black-and-white laser printer-on the way to the meeting!

6.10. Exercise

6.10.1. Multiple choice questions

- a. Resolution of laser printer is measured in
 - i) Dpi
 - ii) MB
 - iii) MHz
 - iv) GB.

- b. Today the normal resolution of laser printers is
 - i) 300 dpi
 - ii) 600 dpi
 - iii) 900 dpi
 - iv) 1200 dpi.

6.10.2. Questions for short answers

- a) Why more memory is better for DTP?
- b) What are the advantages of removable storage media?

6.10.3. Analytical question

- a) Discuss about different types of advanced hardware for DTP.