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# VolNet Program Internet Skills Development Manual

## User's Manual

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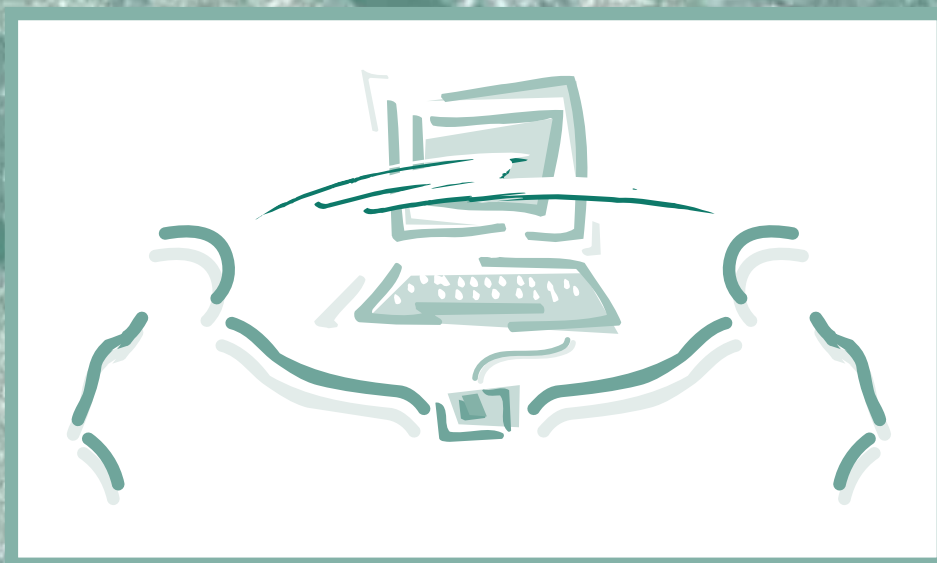
# VolNet Program Internet Skills Development Manual

## User's Manual

NOVEMBER 1999

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# Introduction to the *Internet Skills Development Manual*

# HISTORY OF VOLNET

In the February 1998 budget, the federal government announced the creation of the Voluntary Sector Network Support Program (VolNet) to "expand the technological capacity of the voluntary sector" and to "enhance the capacity of voluntary organizations." It established a target of offering connectivity to 10 000 voluntary organizations by March 31, 2001. This target will be reached by providing organizations with access to computer equipment and Internet connections, support and Internet skills development. One aspect of skills development is the distribution of this document, the *VolNet Program Internet Skills Development Manual — User's Manual*.

In October 1997, consultations were held with approximately 50 national voluntary sector organizations. Subsequently, it was decided to establish the VolNet National Advisory Committee (VNAC).

VNAC had several meetings throughout 1998. In January 1999, these discussions culminated in a report entitled *Building the Technological Capacity of the Voluntary Sector*. VNAC provides advice and guidance for the VolNet program, and helps to ensure its success by its involvement in program implementation and partnership building. The VolNet program design and the *VolNet Delivery Agency Proposal Guide* reflect the key recommendations of the report.

Within the context of VolNet's mission and goals, VNAC developed the following objectives for the VolNet program:

- increase the number of voluntary organizations connected to the Internet by 10 000;

- increase voluntary organizations' awareness of the benefits and strategic importance of the Internet;

- enhance the voluntary sector's ability to share information with other voluntary organizations, governments and stakeholders via the Internet;

- address the barriers to using the Internet that are the result of social inequalities of race, poverty, gender, disability, age or language by assisting voluntary organizations working in these areas to access and use the Internet;

- where appropriate, assist voluntary organizations to empower their constituents through the use of the Internet; and

- ensure that organizations become aware of the need for a strategy to sustain the use of the Internet within the organization.

# What Is the *Internet Skills Development Manual?*

The Internet Skills Development Manual, produced by First Nations Communications, Inc., is a User's Manual intended for those who have no computer experience or just a basic knowledge of either Windows or Macintosh operating systems. To get the most from this manual, users should have access to a computer with an Internet connection, preferably on an individual basis. Most terms and ideas are described in reference to specific Internet programs. However, the concepts are all transferable, and the user should be able to apply what is learned to any Internet program.

## *Internet Skills Development Manual* Goals and Objectives

After this course the user will be able to:

- understand the Internet and its related issues;

- use a variety of Internet tools with confidence;

- use e-mail to create mass mailing lists;

- use the Internet to obtain information through the World Wide Web, e-mail and newsgroups;

- perform effective Internet searches;

- attach, download, copy and manipulate Internet files; and

- set up and customize Internet applications.

These goals will be achieved through the use of a basic introduction to computers and three easy-to-follow Internet modules. These modules follow a natural progression, leading the user through a logical learning curve. For best results, the modules should be followed in the order presented; however, experienced Internet users may wish to begin at Module 2 or Module 3 to broaden their skills and increase the efficiency of their Internet time.

**NEW TERM:** DOWNLOAD refers to the copying of a file from any on-line (Internet) source to your local computer. The term "downloading" is usually used in connection with actively copying a file, as opposed to the automatic download some Internet programs execute on a regular basis.

# FIRST-TIME COMPUTER USERS

Many people have never used a computer and feel intimidated by the very thought of doing so. If you are afraid of computers, do not believe for a moment that you are alone, because this is a natural reaction to the unknown. The goal of this section is to introduce you to computers in a simple and understandable way. You will be taken through every step of the process from turning on the machine to finding and using the basic tools available on modern computers. The main thing to remember in this section is that computers are designed to be easy to use.

## PHILOSOPHY FOR BEGINNERS

Here are some general ideas to keep in mind when you are dealing with computers. They will help you learn to get along with computers and stay calm when you run into some of the many pitfalls computer users encounter.

- **Computers are designed to be easy to use.** Designers truly want their computers to be easy to use, and they try their best to cater to all levels of computer users. Often you can find the solution to a problem simply by exploring the screen you have showing. Children are naturally good with computers mainly because they are not afraid to explore what everything does.

- **You cannot hurt the computer.** Making mistakes will not cause any permanent problems, and there are only certain specific circumstances that will result in deleted files. In most cases, the computer will double-check with you before deleting any file by presenting you with the following phrase: "Are you sure you want to delete this file?" and the option to answer "Yes" or "No."

- **Computers make mistakes sometimes.** When the computer starts doing unusual things it is not necessarily your fault. Even the best computer whizzes working with the newest systems sometimes have problems for no apparent reason.

- **You can always shut down the system and start again.** If you find yourself completely lost or the computer is not responding to anything you do, you always have the option of turning the machine off and starting again.

# BASIC PARTS OF THE COMPUTER

- **HARDWARE**
- **SOFTWARE**

There are two major parts of a computer system, and everything to do with computers will fall under one of the two categories of hardware and software.

## HARDWARE

The "hardware" refers to all of the physical components of the computer system including the following:

- The monitor is the display screen similar to a television screen.

- The keyboard is self-explanatory. Remember typewriters?

- The mouse is the small hand-held device attached to your computer. You will notice two or three buttons on the top of the mouse, and if you look underneath it you will find a roller ball that is controlled by moving the whole mouse around on any flat surface.

- The computer, tower or case is the heart of the computer system. We will refer to this as the "tower" simply to prevent confusion. This is the part that contains most of the high technology components of the computer, and it can be identified by the fact that it does not seem to do anything obvious. One sure method of identifying the tower is by following the cord that is attached to the keyboard or the mouse. These will both lead into the back of the tower.

**INFO:** Many high tech terms, such as RAM, ROM, drive space, sound card or Pentium chip, refer to hardware components that are incorporated in the tower. Do not be intimidated by this! You do not need to know any of the technical jargon or even understand what these things do to run a computer system. Think about the fact that many excellent drivers do not have any idea of how modern, high technology engine components work, but this does not affect their driving ability. Computer usage is quite similar. The one major feature of the tower you need to know about is the "power" or "on" button, which is usually found on the front of the tower.

- Diskettes and other portable storage media are used to store and transport your computer files and are usually found integrated into the tower or attached to the tower via a connection in the back. This technology is advancing very quickly and newer, better, faster products are coming out every year. For instructional purposes we will only be referring to the tried and true floppy disk (or diskette). Most towers will have the diskette reader built into them with a convenient access slot found right on the front. Usually the diskette is simply inserted directly in the appropriate slot and ejected by a small button right next to it.

- Speakers, printers and other optional features are hardware components available for computer systems, but they are not part of the basic required components and their use is usually fairly obvious.

## SOFTWARE

The "software" refers to all of the computer programming that makes the computer do what you want it to do. Everything that a computer does is controlled by the software. Even though there is not a tangible "software" object to see or touch, it is actually the most important part of a computer. Most of what you will be learning in this manual applies to the software programs you will be using. It makes little difference what hardware the software is installed on.

There are different terms for different types of software, and there are many overlapping terms and other somewhat confusing concepts. These will be introduced throughout this manual in places where they will have some meaning for you. For now you should be aware that in general terms programs, programming, applications and operating systems all refer to a computer's software.

Operating systems are the first programs you will be learning about. Just as the name implies, operating systems are designed to help you run the computer. They organize the computer and help you to access the different programs the computer has available for you. Currently, the most popular operating systems for desktop computers are Microsoft's Windows series and Apple's Mac OS series. Both of these systems make extensive use of the mouse to help you navigate and use the computer's programs.

# GETTING STARTED

- ## POWERING UP
- ## THE MOUSE
- ## THE "START" BUTTON
- ## WINDOWS TIPS
- ## FINDING THE RIGHT PROGRAM

## POWERING UP

Turn your computer on. The first power switch to look for is on the tower. There may be many switches and buttons on the tower which are close to doors and panels that perform other functions. Usually the main power switch is plainly labelled, but if necessary try them all until you find the one that lights up the indicator lights. *Remember: You cannot hurt the computer.* If you inadvertently open up a door or a tray, simply press the "close" button next to the one that opened it.

Sometimes the monitor will be hooked up so that it turns on automatically when you turn on the power to the tower. If it does not turn on automatically, there is usually a power button on the front, near the bottom of the screen. Once again, there will usually be an indicator light to tell you when the power is on.

**NOTE:** Computers take a few moments to turn on, and often there are procedures necessary to complete the start-up. Consult your instructor or system administrator for any necessary passwords or other sign-on procedures required for your computer.

**NEW TERM:** SYSTEM ADMINISTRATOR is a person within an organization to whom computer maintenance duties are assigned. This person is responsible for ensuring the proper functioning of the organization's computer system and he or she is often the primary troubleshooter for any computer problems in the organization.

## THE MOUSE

Now your screen should be lit up, so it is time to try out your mouse. Grab the mouse and move it around to see how it is connected to the on-screen cursor. This on-screen cursor and the mouse itself are both referred to as the mouse since they are so closely tied together. The left and right buttons on the top of the mouse are the ones you will press anytime you are asked to "click" on something. Always press the left mouse button when you are "clicking" on something unless you are specifically instructed to "right click," in which case you use the right mouse button. In addition to the "click" and the "right click," there is a "double click." The "double click" also uses the left mouse button but, as is implied, you press the button fairly quickly, twice in succession. "Double clicking" sounds as simple as "clicking" but many people find that some practice is required to consistently make the computer understand that you are not doing two separate single "clicks."
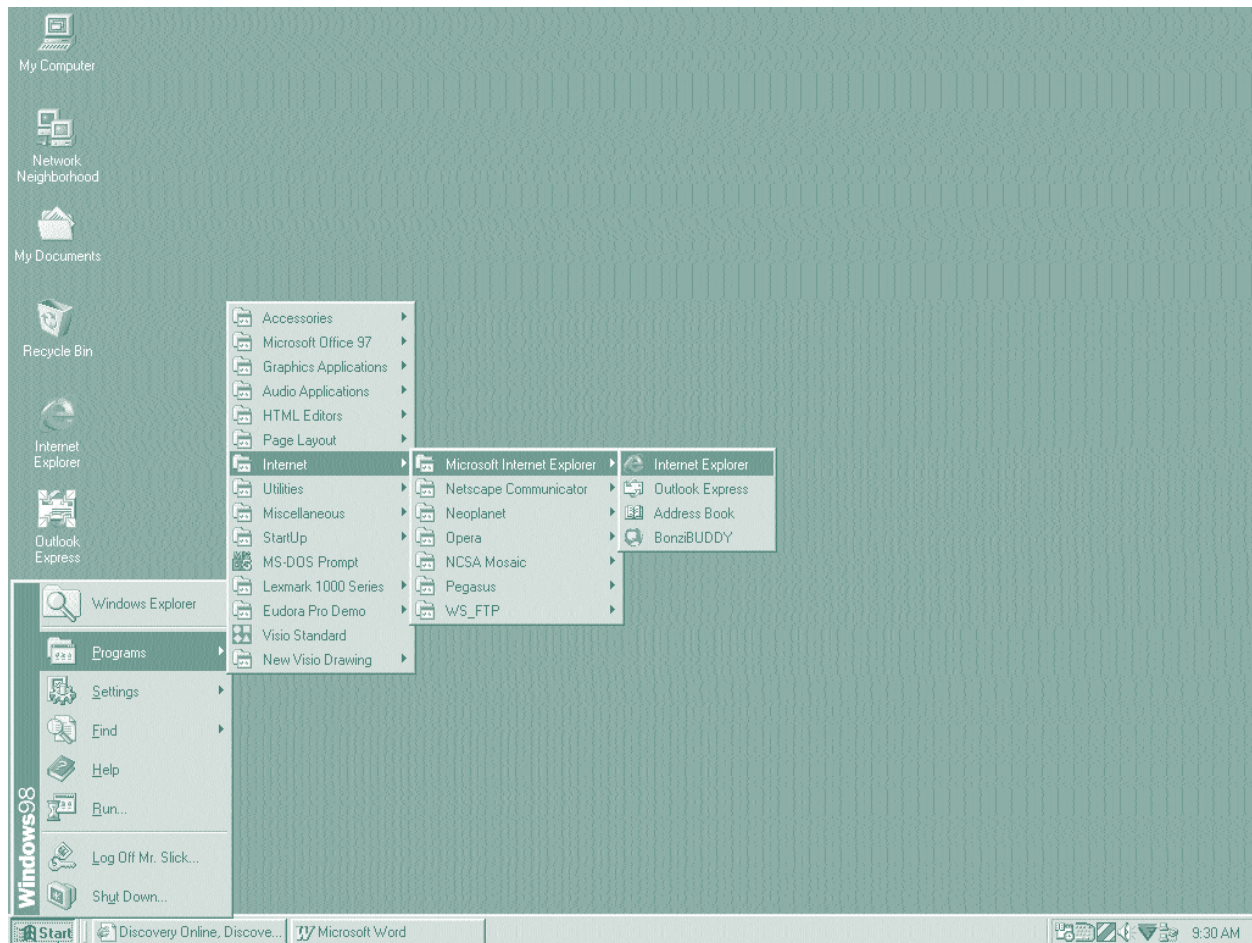
## THE "START" BUTTON

In Microsoft's Windows operating system, you should have a taskbar on the bottom of your screen with a "Start" button in the bottom left corner. If this is not showing due to the customization of the opening screen, simply move your mouse (cursor) to the bottom of the screen to make this taskbar appear. Click on the "Start" button to show the major task headings available on your computer.

## WINDOWS TIPS

The windows (hence the program name "Windows") in Figure 1 were made to appear by first clicking on the "Start" button and then placing the mouse over the appropriate headings. In this case, the mouse was placed on the heading "Programs," then "Internet," then "Microsoft Internet Explorer." Take note of the small arrows to the right of the some of the headings ( ▶ ). In Windows, any heading with this symbol beside it will have subheadings available to view simply by leaving your mouse over the heading for a few moments. Also note the three periods beside some of the headings ( … ). These indicate that clicking on this heading will open up a new window, which will give you more options or information about the pertinent subject.

**Figure 1 • *Opening Screen in Windows Showing Pathways from the "Start" Button***



START BUTTON

**NEW TERM:** WINDOWS refers to each of the "screens" displayed on your monitor, and to message boxes and other information boxes that appear. This term will become more understandable as you become familiar with the operating system and see how multiple applications can be open at the same time.

## FINDING THE RIGHT PROGRAM

To find the Internet programs installed on your computer, you will want to explore under the "Programs" heading (see Figure 1 on page 9). In this example, the major heading "Programs" leads directly to the heading "Internet," which lists all the major Internet applications installed on this computer. You may have to search to find where these are installed on your computer system. Try looking under "Accessories," "Communications" or "Utilities." If you are still having trouble finding your Internet programs, use the "Find" command on the "Start" button to look for them. When you find the program you are looking for, simply double click on it to start it; or if you prefer, right click and then click on "Open." You will find that, as with this example, many computer tasks have several methods of achieving the same results.

Depending on what program you decided to start on, you should now find yourself looking at an Internet application, likely either an e-mail program or a Web browser. You may find that you cannot seem to access this program correctly or that your screen shows an error message saying that your Internet hookup is not correct. This is because most systems require you to dial up your Internet connection separately. Look for your dial up program using the same method you just used; you may find it as "Dial-Up Networking" or "Connect." Contact your instructor or system administrator if this causes you any problems — a password may be required. Your Internet service provider (ISP) should be able to assist you with this if your system administrator is not available.

You should now be able to start your computer and access your Internet programs (or other programs) by following the windows leading from the "Start" button.

# A Brief Introduction to Word Processing Programs

Microsoft Word is a word processing program that lets you type, organize and format documents. Think of it as a typewriter combined with a printer's toolbox and laid out for you to use easily. There are many functions in Word that can format and lay out almost any type of document, but for our purposes you simply need to be aware of how to find it on your computer and how to open up a new document.

The Word program can be found using the same methods described earlier. Open a new document in Word by clicking on "File" on the menu bar at the top of your screen, then clicking "New." With the new document open, you can now type anything you like by using the keyboard.

Word is an excellent program to learn when you have extra time available. (It is probably not a good time right now while you are studying the contents of this manual.) Remember the "philosophy for beginners" and simply try all the buttons using your mouse. Most functions are self-explanatory, and you can immediately see the results of each function.

As you will see on the next page, Microsoft's Word program (Figure 2) and Corel's WordPerfect (Figure 3) are nearly identical in most major functions. The need to make popular programs like these easy to use ensures that important functions are laid out in an intuitive way. You will even find that many of the icons are virtually identical. In general, the icons used in most of the programs you encounter will follow this trend towards a standard, easily recognizable format.

**NEW TERM:** ICONS are the small graphic images modern operating systems display to help you use and navigate the programs on your computer system.
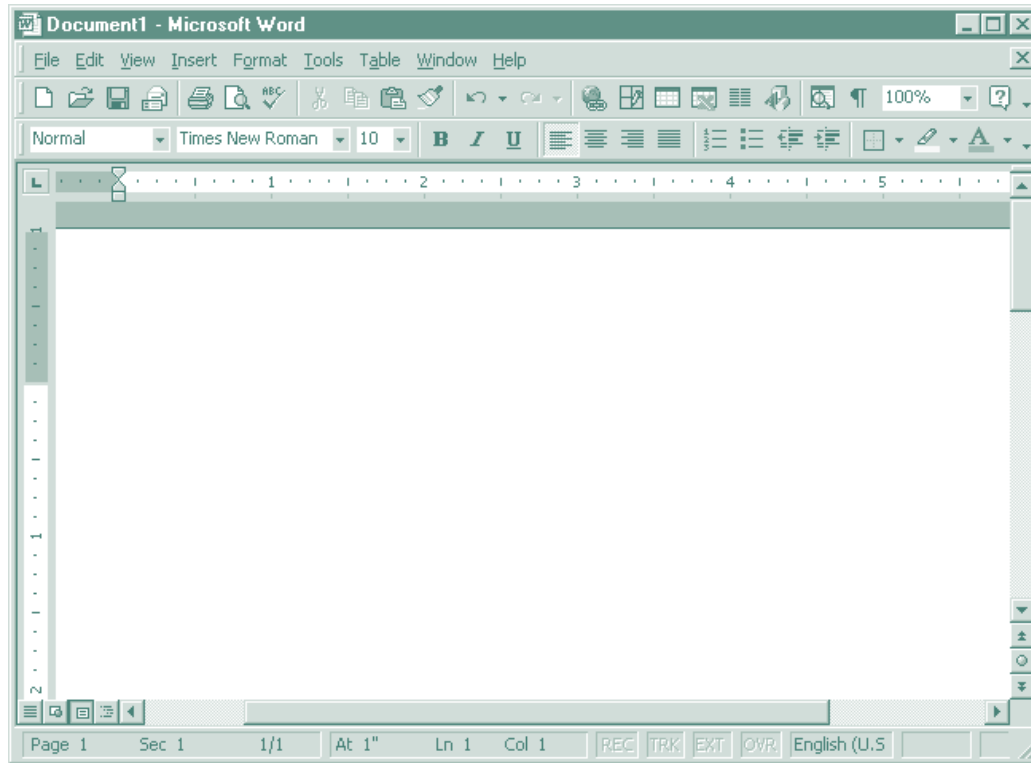
**Figure 2 •** *Microsoft Word 2000*



**Figure 3 •** *Corel WordPerfect 8*
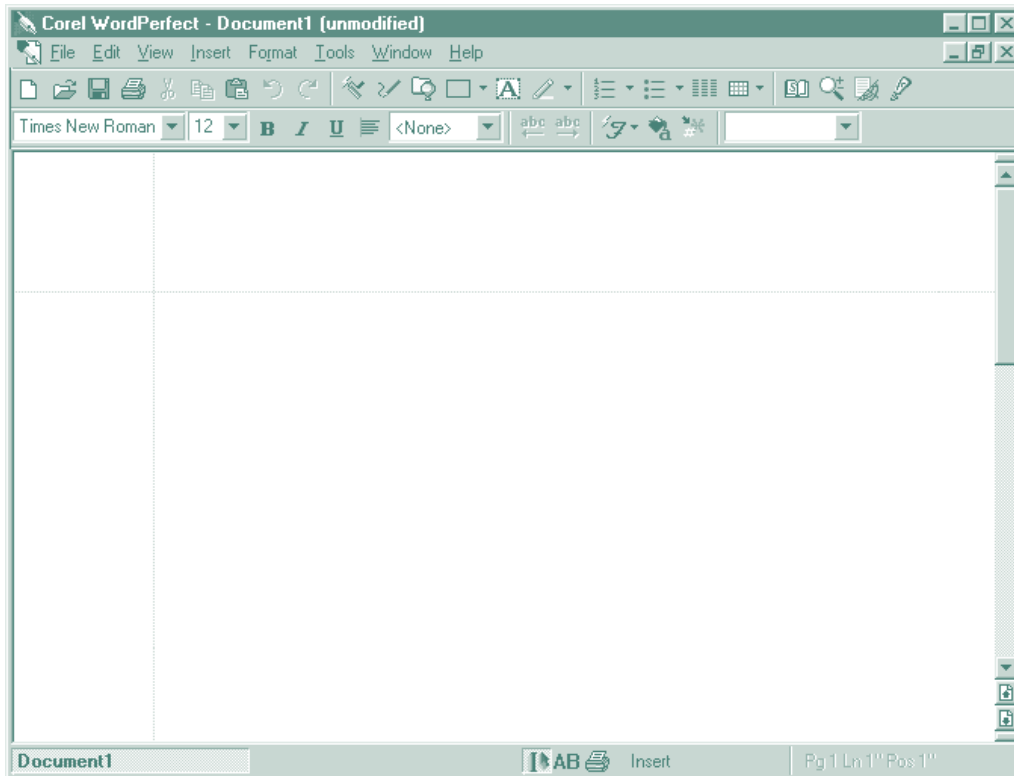
## SAVING YOUR WORK

### *From Word into Your Folder*

1.  Click on "File" on the menu bar.

2.  Click on "Save As."

3.  At the top of the "Save As" window you will now see a drop down arrow, which you will click on. Go to "Hard Drive (C:)," or just "(C:)," which you will double click on to go down to the next level (see Figure 4). If going down does not take you to the hard drive, try using the button to the right of the drop down arrow, which will take you up levels. This may be necessary in order to find the hard drive.

**Figure 4 • *"Save As" Window Showing Drop Down Options (Microsoft Word 2000)***
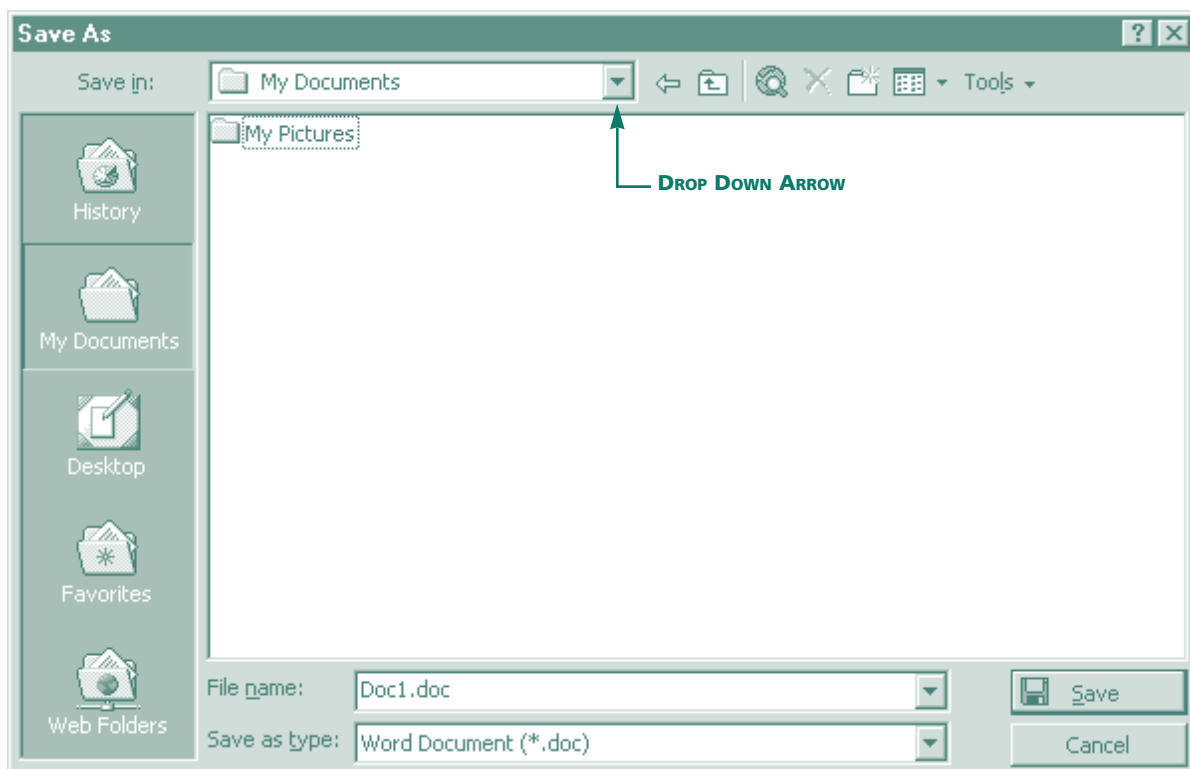


4.  You will now have a list of folders showing in your display window. Click on the folder "My Documents."

5.  If you do not yet have your own folder, create one for yourself now. The fifth button to the right of the drop down arrow will create a new folder for you. This folder will always be found in "My Documents" in the "Hard Drive (C:)."

6.    Decide on a name for your file and type it in the space beside "File name."

7.    Click the "Save" button to save your document.

8.    Now you can save this document to this folder while you are working on it simply by clicking the diskette icon on your toolbar. Remember to save often, as you can never be sure of when the computer may "crash." You can always return to your last save if you have to reboot your computer for any reason.

**NEW TERM:** CRASH is the term experienced computer users use when a computer stops working correctly. It is used most often when the program "freezes" in one spot and none of the controls respond.

### *From Word onto Diskette*

1.    Click on "File."

2.    Click on "Save As."

3.    Insert your diskette into your tower, then click on "3½ Floppy (A:)" (go up or down levels as needed [see step 3 on page 13] to find it).

4.    Decide on a name for your file and type it in the space beside "File name."

5.    Click the "Save" button to save your document to the diskette.

6.    You can watch for the small indicator light near the diskette opening to verify that it is active.

7.    Clicking on the diskette icon will now save your document to diskette. Usually you will want to save in your folder. Saving to diskette is considerably slower and you will want to save often.

8.    Verify that you have saved successfully in the correct location by finding the file on your diskette before closing the program. Click on "File," then click on "Open." Go up or down levels to find "3½ Floppy (A:)" and click on it to see what is stored on the floppy.

# HINTS AND TIPS FOR BEGINNERS

- **CLOSING PROGRAMS AND MINIMIZING WINDOWS**
- **SHUTTING DOWN YOUR COMPUTER**
- **ALTERNATIVE METHODS**
- **LEARNING NEW PROGRAMS**
- **MORE ON THE MOUSE**
- **COPYING AND PASTING**

## CLOSING PROGRAMS AND MINIMIZING WINDOWS

In the Windows operating system, you will find that most programs use similar menu bars, toolbars and other functions to help you make the transition between programs. Some of the functions you will find in nearly all Windows-based programs are the "Close," "Restore" and "Minimize" buttons. These can be found in the top right corner of any program that is currently operating.

The "Close" button is an "x" which you click on to shut a program down. If you have made any changes, a window will appear asking if you want to save the changes you have made. This is another example of how difficult it is to make serious mistakes on the computer. If you are in doubt about what changes you may have made, simply click "No" when this prompt appears.

The "Restore" button with the overlapping windows icon restores the program window to a medium size. This is a handy feature when you are switching between several programs for any reason, such as copying parts of one document or graphic program into another document.

The "Minimize" button puts the program on hold and places it on the taskbar on the bottom of your screen. Simply click on the corresponding box on the taskbar to bring it back up to full size.
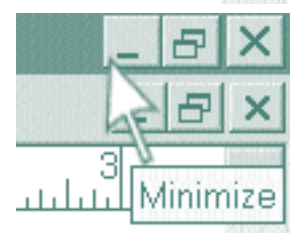
## SHUTTING DOWN YOUR COMPUTER

Even though you will not do any permanent damage by cutting the power to your computer, there is a shutdown procedure that is normally followed.

1. Close any programs you have open. Do not forget any programs you have minimized on the taskbar.

2. Click the "Start" button and click on "Shut Down."

3. Wait a few moments for the computer to shut down. You will be prompted when it is safe to turn off the power. Remember to turn off the power for the computer's accessories also.

If you have to turn off your computer without going through the shut down procedure, you will usually lose any unsaved information you have added in any programs. As well, the computer will take a little longer to start when you next turn your computer on.

**TIP:** Experienced computer users have the habit of saving frequently. Any time you are inputting information on a computer, it is a good idea to save your information frequently. This writes the information into a place where it will not be lost if your computer has to be shut down. *Remember: Computers make mistakes sometimes* and any computer can be shut down by a power blackout or other unforeseen circumstances. Being prepared for the worst is the best way to get along with computers. They are not infallible and there will be times when a program freezes while you are using it. Making frequent use of the "Save" button (diskette icon) can prevent you from losing your work.

## ALTERNATIVE METHODS

When working with computers, you are going to discover that there are often many different methods of achieving the same results. For example, people who understand "tree" style diagrams can often find things much faster by right clicking on the "Start" button, then clicking "Explore" to access the Windows Explorer program. Others prefer to start their programs by working through "My Computer." All of these methods are correct as long as you get the desired results.

## LEARNING NEW PROGRAMS

This flexibility also means that if you are not afraid to play with your computer, you can often get the results you want even if you have not been formally trained in the required programs. You will find that many modern programs use similar buttons and features in similar ways. If you have some extra time to put together a company newsletter, do not be afraid to try. *Remember: Computers are designed to be easy to use.*

## MORE ON THE MOUSE

In addition to the various clicking features of the mouse, there are also other functions you should be aware of.

- **Highlighting Objects:** The mouse is used to highlight objects on your screen. These methods vary but generally clicking or double clicking on a word or object will highlight it. A method called "dragging" is used to highlight larger blocks of text in word processing and other programs. Dragging refers to holding down the left mouse button (as opposed to clicking and releasing the button) while you are moving the mouse. All of the text you pass the mouse over while the button is depressed will be highlighted for you.

- **Drag and Drop:** In some applications there is a very easy method of moving files and objects in your computer system. Simply click on a highlighted object and hold the button down while you are moving the mouse to drag objects. When the object is in the desired position, release the mouse button to drop the object.

### Mouse Practice Exercises

Let's open up a word processing program and practise some of the mouse functions.

1. Open a word processing program. Use your mouse to click on the "Start" button and follow the windows through "Programs" and "Microsoft Office" to "Microsoft Word." Click on Word, or any word processing program, to start it up. The program will normally open with a new blank document ready for you to practise on. If it does not, then open a new document by clicking on "File" on the menu bar at the top of your screen, then on "New."

2. Type in some text using your keyboard.

3. Experiment with your mouse until you can comfortably execute each of the following moves.

- Use the **single click** to move the text cursor. In word processing programs, there is a cursor tied to your mouse and there is a cursor tied to the text. The text cursor is the flashing line that indicates where your typing will be inserted. The mouse cursor is the one that follows your mouse movement. Use the mouse cursor and the single click to move the text cursor.

- Use the **double click** to highlight a word. Attempt a triple click, which will highlight the whole paragraph in the newest programs.

- **Drag** the mouse to highlight sections of text. Hold the left mouse button down while moving the mouse to execute the drag feature. Notice how dragging down the margin highlights the corresponding lines of text, and practice highlighting sentences within paragraphs to see how this feature follows the lines of text.

- **Drag and drop** some text within your document. Double click a word to highlight it and then use the left mouse button to drag the word to another part of your document. When you release the mouse button, the word will drop into the document as close to the mouse cursor as the document allows.

- **The right mouse button** accesses some of the more advanced functions of the word processing program. Highlight different parts of your document and try right clicking to see what happens. Since this is only a practice document do not worry if you lose parts of it or you mess things up. *Remember: You cannot hurt the computer* and *you can always shut down the system and start again*.

- When you are comfortable with the mouse functions, remember to close your word processing program using the close button in the top right corner. You may want to save this practice document to use in later exercises.

## COPYING AND PASTING

Copying and pasting are two functions of modern office programs that are convenient and very useful. As the names imply, they allow you to make a copy of something and then paste it into a different document or into a different part of the same document. The newest operating systems even allow you to copy and paste between different types of programs in some circumstances.

The copy and paste functions are found by clicking on "Edit" on your menu bar. The four steps of copying and pasting are:

1. Highlight what you want to copy.

2. Click on "Edit," then on "Copy" (the highlighted text or object will be saved into a temporary location called a clipboard).

3. Using your mouse, place your text cursor where you want to paste the text or object.

4. Click on "Edit," then on "Paste" to transfer what is on the clipboard to where you positioned the text cursor.

Try this using your practice document. It may seem redundant when you can simply drag text around your document, but remember that copying and pasting can be done between different documents and sometimes even between different programs.

# Module 1
# Introducing the Internet

## OBJECTIVES FOR THIS MODULE:

1.  You will gain further understanding of the potential uses and benefits of the Internet.

2.  You will be introduced to the basic features of common Internet programs.

3.  You will gain experience using Internet programs to send messages and find information.

# What Is the Internet?

The Internet can be defined in two ways.

- It is a **network** of computers that can communicate with each other. That is, the computers can send and receive information. It has three components: e-mail, the World Wide Web and newsgroups.

- It is a **community** of millions of users who choose to interact, discuss and share information through the convenience of their own computers.
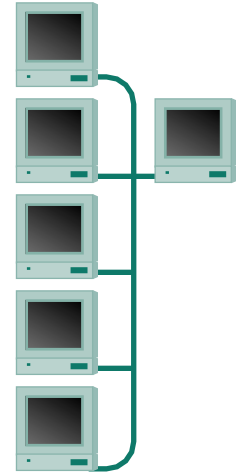
The basic ideas for the Internet were first developed by university researchers with funding from the United States Department of Defense. The Department of Defense wanted its computer networks to be able to communicate effectively even if some sections were knocked out by enemy actions. Thus developed the Internet's method of using multiple connections with the ability to reroute information through alternative pathways if necessary. The modern Internet still follows the basic concept of having many pathways available for any Internet communication. This redundancy is invisible to the casual user but its goal of remaining interconnected, even if some parts are out of service, means the Internet as a whole does not break down. Over the years, the Internet has developed to where it now reaches millions of people in over 61 countries.[1]

Why do you need to know about the Internet? The Internet is becoming a major communications tool of this generation. In terms of people who are employed in it or because of it, the Internet is already quite large. Lawyers, entire divisions of companies, Internet service providers and all government departments have many Internet users. Significantly, a large portion of the Internet is now made up of many smaller organizations and individuals. You too will likely find the Internet valuable for your communications needs and as a significant advertising and information distribution method.

When it is written with a small "i," "internet" is usually referring to a local area network that may or may not be part of the larger "Internet" referred to throughout this manual.

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1. **http://www.sagenetworks.com/webservices/inetstory.cfm**

## WHAT IS THE INTERNET USED FOR?

The Internet is used for:

- sharing and exchanging information;
- publicity, promotion and marketing;
- acquiring knowledge;
- personal communication; and
- e-commerce.

**NEW TERM:** E-COMMERCE is the abbreviation for electronic commerce; almost anything can be ordered over the Internet if you have a valid credit card. Consult Module 2, Chapter 2, before trying this!

As mentioned, the Internet consists of three major components: e-mail, the World Wide Web and newsgroups. We will define and describe each as we progress through this module.

# INTRODUCING E-MAIL

## WHAT IS E-MAIL?

E-mail is electronic mail. The Internet is used to transfer your e-mail message to someone else who has a computer hooked up to the Internet, which means that sending e-mail is fast, easy and economical. Once you have tried e-mail it will be obvious why experienced users refer to conventional mail by the somewhat derogatory slang term "snail mail." There is no comparison once you have discovered the speed and convenience of e-mail.

**INFO:** The Internet is one network, worldwide. Therefore, you can e-mail your long lost cousin in Rome or Tokyo as easily and economically as sending a memo across the hall. Because of the way the Internet is organized, the charge for using it is measured by time and not distance. Therefore long distance communication by e-mail is extremely economical as well as being very fast and easy.

## WHAT E-MAIL CAN DO FOR YOU

E-mail is the fastest method for people with Internet access to exchange messages. By using the Internet, e-mail can transfer messages across the globe nearly as quickly as two computers across the room can exchange messages. As well, these messages can include other computer files such as sound, video and programs if the computers are compatible.

Some of the major advantages of e-mail include:

- **Saving time.** The ability to e-mail many different people at once and the nearly instantaneous transfer of the messages saves time. Using e-mail can also save time that is wasted trying to contact people by phone.

- **Saving natural resources.** There is no wasted paper in e-mail, as it is a paperless system.

- **Preventing confusion.** E-mail eliminates the lag time of conventional mail so communications are never "in the mail."

- **Saving money.** Even if all the above advantages do not save you money, the savings in postage, courier fees and long-distance charges can be significant for most organizations.

## ANATOMY OF AN E-MAIL

E-mail consists of two major parts (see Figure 5 on page 27).

- The header section includes all the information the computer needs to address the e-mail.

- The body is your message to the recipient.

### *The Header Section*

#### E-mail Addresses

E-mail addresses can be described as the names of computers (or networks of computers) within the Internet. When you send e-mail through the Internet, your computer simply sends your message to the computer indicated in the address. E-mail addresses always include the symbol @ which is read as "at." This format indicates to the Internet that this is a message to pass along and not something to be acted upon or interfered with by other computers. E-mail addresses are most specific on the left and become progressively more broad as you move right. Thus, a typical e-mail address may look like this:

**johndoe@anycompany.ca**

Where:

- "johndoe" is the particular recipient you are sending the e-mail to;

- "@" indicates that what follows is where the recipient is located;

- "anycompany" is the computer, or network of computers, where the recipient can be found; and

- ".ca" is attached to the "anycompany" as an extension indicating that this is a Canadian e-mail address.

Be aware that the final extension on the e-mail address (".ca" above) is a very loose standard; there are currently no enforced rules for these extensions.

**NOTE:** E-mail addresses are almost always in lower-case letters with no spaces.

**NOTE:** E-mail addresses are very sensitive to typographical errors. Any error in the address will prevent the e-mail from being delivered. Fortunately, most e-mail programs will return a message to you to let you know if your e-mail was undeliverable.

### C.c. and B.c.c.

Carbon copy and blind carbon copy are usually found within the header section and are used just as they are in other business correspondence. Sending identical copies of your message to two or more recipients is as easy as typing in the appropriate addresses.

### Subject

The subject line of the header section is very important. This is the part of your e-mail that recipients will see when they first check their e-mail. Because of the nature of e-mail, it can be difficult for the recipient to sort incoming messages. The subject line allows you to add a short description of your e-mail, which will appear on the recipient's incoming mail list. For the recipient, not having a subject is frustrating and it may be considered discourteous.

### *The Body*

The body of the e-mail is the message you are sending. This can be written right in your e-mail program, or copied and pasted from a word processing program. Many e-mail programs include some common basic features of word processing programs to help you compose your message.

**Figure 5 • *E-mail Composition Screen Showing the Header Section and Body***
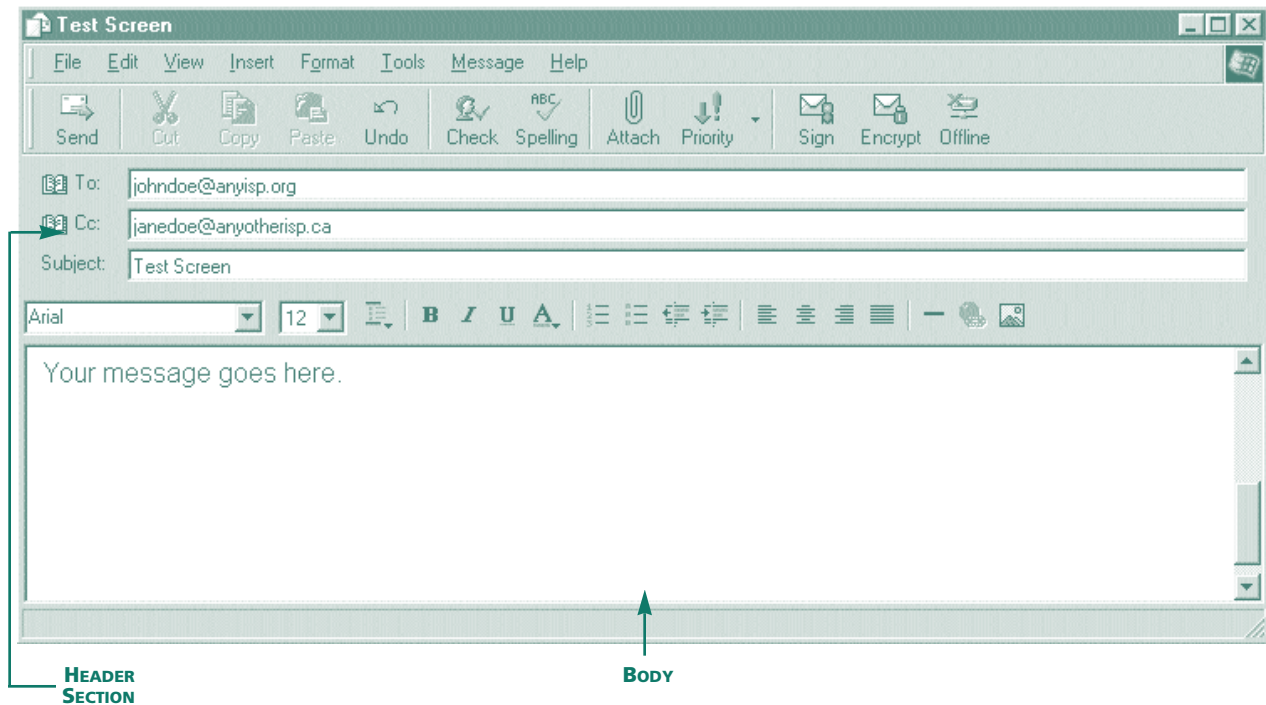


**ALERT:** Because e-mail messages often pass through many computers, never e-mail anything that must remain confidential. By the end of Module 2, you will be able to find the most recent security techniques on the Web easily.

## INTRODUCTION TO E-MAIL PROGRAMS

E-mail is sent over the Internet using e-mail programs. These programs can be a part of a Web browser program or they can be stand-alone applications. Naturally, the most popular e-mail programs are distributed with the most popular Web browsers. We will use Outlook Express for demonstration purposes and we will refer to Netscape Messenger and stand-alone e-mail software briefly. A solid understanding of the ideas and concepts in these programs will allow you to work comfortably in any e-mail program.

E-mail programs format your messages into language that is compatible with other computers on the Internet. They also work with your Internet service provider's computer to store messages when you are not hooked up to the Internet. This prevents the loss of any messages but it is not noticeable to the casual user.

The features common to most e-mail programs include these three:

- **A folder or program for composing new mail:** This will help you compose your message and format it for transmission over the Internet.

- **A folder for outgoing mail:** This is for mail that has been already sent, and usually includes a folder for outgoing mail that has not yet been sent.

- **A folder for incoming mail:** This is your computer's storage space for incoming mail. If you are not connected to the Internet when you have a message coming in, your Internet service provider's computer stores your mail for you until your own computer can download these files. Also, many e-mail programs will store incoming messages for a set time even after you have read them. This can be a convenient reference for business communications.

## OUTLOOK EXPRESS

Outlook Express is one of the more popular e-mail programs on the market today because it is marketed with the Microsoft Internet Explorer Web browser program.[2] Outlook Express can be opened using the "Start" button in a similar manner to opening other programs in Windows-style computer systems, or it is often available on your desktop for even more convenient access. When you open this program, you will see that it has easy-to-use menu and toolbars similar to other user-friendly programs, as well as three windows (see Figure 6).

**NEW TERM:** DESKTOP, when working with windows-style operating systems (most desktop computers), refers to the opening screen where program shortcuts are available, as opposed to the full menu of programs available through other pathways such as the "Start" button.

### *The Outlook Express Menu and Toolbars*

At the top of your screen are your menu and toolbars. As in most modern programs, they are fairly self-explanatory. A few minutes spent exploring their functions will get you acquainted with their uses quickly. The following lists will give you a brief description of each button and its function. Most e-mail programs use similar functions, and the transition should be fairly simple for you even if you use a different e-mail program.

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2.  Web browsers are programs designed to navigate the World Wide Web. They are explained in detail in the next chapter.

**Figure 6 • *Outlook Express Showing the Inbox Display Windows***



MENU BAR       DISPLAY WINDOW       TOOLBAR
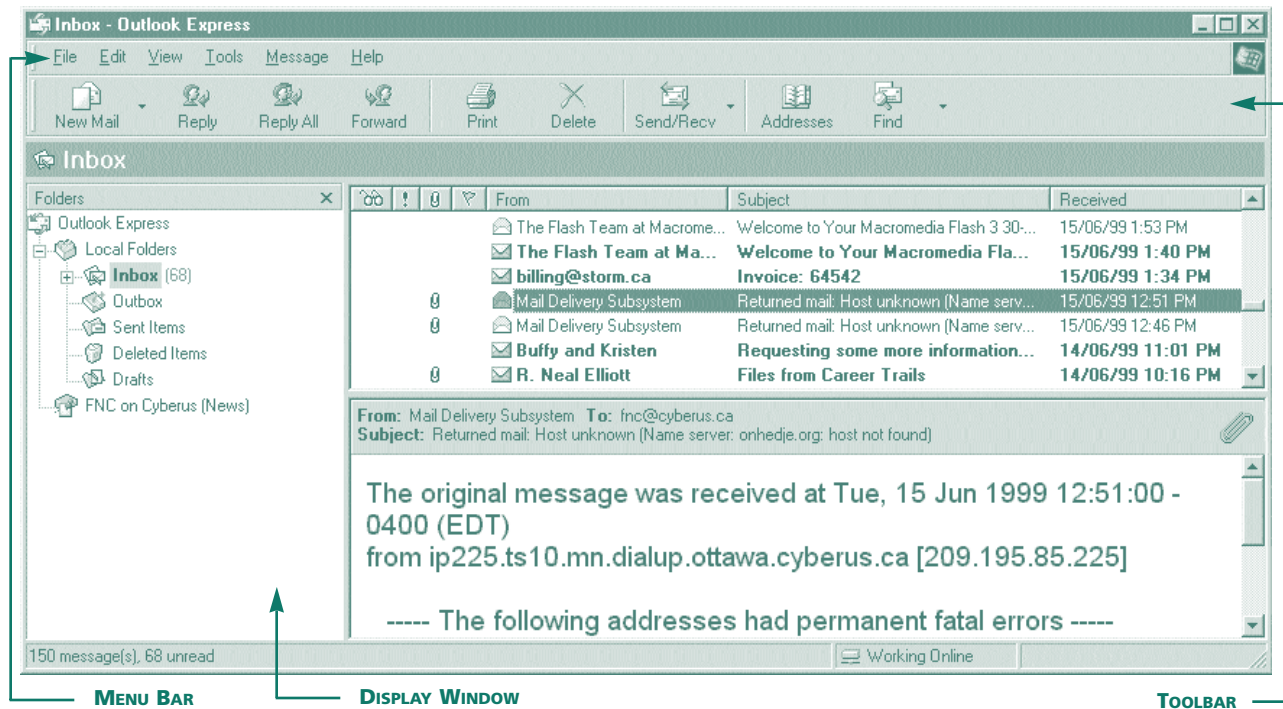
**Menu Bar**

- **File:** Accesses many of the standard file tasks and some e-mail-specific tasks such as the option of working off-line to save Internet time.

- **Edit:** Contains copy, paste, move and delete functions as usual, plus the e-mail "Mark as Read" functions.

- **View:** Provides the standard view functions as they apply to e-mail, sorting and layout of messages.

- **Tools:** Has many of the same functions as other buttons and features on the toolbars. Make a point of exploring the "Options" section of this button, as it has many of the important features of the e-mail program.

- **Message:** All the functions pertaining to messages are found here, such as reply and new message.

- **Help:** Accesses useful tips and information to help you work with the e-mail program.

**Toolbar**

- **New Mail:** Opens up the e-mail composition window for you to send a new e-mail.

- **Reply:** Opens the e-mail composition window also. However, it has the reply address already inserted for you, and, on your composition screen, it inserts a copy of the message you are replying to.

- **Reply All:** Similar to the "Reply" button, however it has the reply addresses of all of the recipients of the original message already inserted for you, in addition to the address of the original sender.

- **Forward:** Allows you to forward a message that you have received to a third party. Again, the message is inserted into your composition screen for you.

- **Print:** Offers standard print features and options.

- **Delete:** Removes the highlighted item.

- **Send/Recv:** Connects to the Internet and sends and receives any unsent messages when you have been working off-line.

- **Addresses:** Accesses the address book.

- **Find:** Accesses a search program for messages.

### *The Outlook Express Display Windows*

The display windows in Outlook Express change according to which folder you are using. In the left window, you will see the available folders to choose from. These are as easy to use and as intuitive as the toolbar buttons are. For example, clicking on the "Inbox" folder will change the other two displays to show information relevant to the inbox folder. In Figure 6 on page 29, the top right displays a listing of any mail you have received, including such pertinent information as the date it was received and its subject. The bottom right displays the contents of any e-mail you choose from the convenient listing just above it.

### *How Do I Send E-mail with Outlook Express?*

Sending messages with Outlook Express is an easy process and simple messages can be sent in just a few steps.

1.   Click "New Mail" to take you from the Outlook Express home screen to the e-mail composition window (see Figure 7).

2.   Type the e-mail address of the recipient in the "To:" line.

3.   Type the subject of your e-mail in the "Subject:" line.

4.   Type the message you want to send in the large composition screen.

5.   Click your mouse on "Send." You just sent e-mail.

   Some e-mail programs do not stay connected to the Internet at all times. This feature can save you valuable Internet time but you must remember to press the appropriate send or receive messages button when you want to send e-mail and when you want to check for incoming e-mail.

6.   Verify that your e-mail has been sent. Check in your "Sent Mail" or equivalent folder to confirm that your message has been successfully sent.

That is it. Your e-mail has been sent successfully, and for your peace of mind you even verified it.

You will notice that the e-mail composition window also has toolbars and functions. Directly above the composition window you will find many of the standard word processing functions to assist you with your writing. At the top you will find functions similar to many office programs. On the central toolbar you will find the functions more specific to mail programs. Some of these more advanced functions allow you to perform many useful tasks and are described in detail in Module 2.

**Figure 7 •** *Outlook Express E-mail Composition Window*



SUBJECT

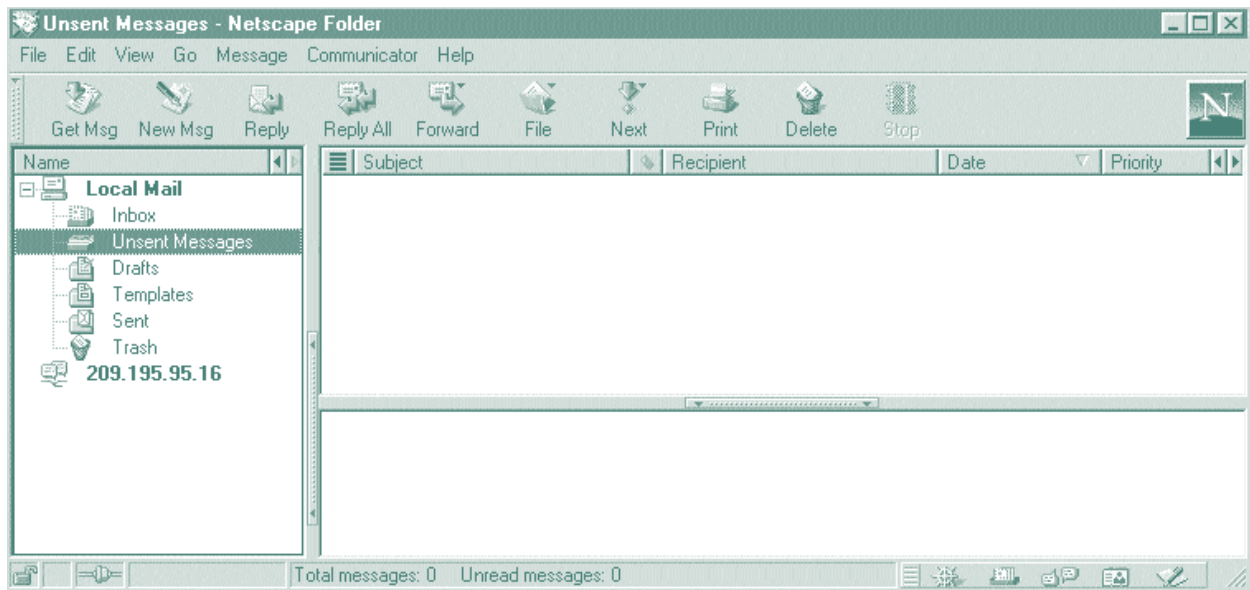COMPOSITION
SCREEN

RECIPIENT'S
ADDRESS
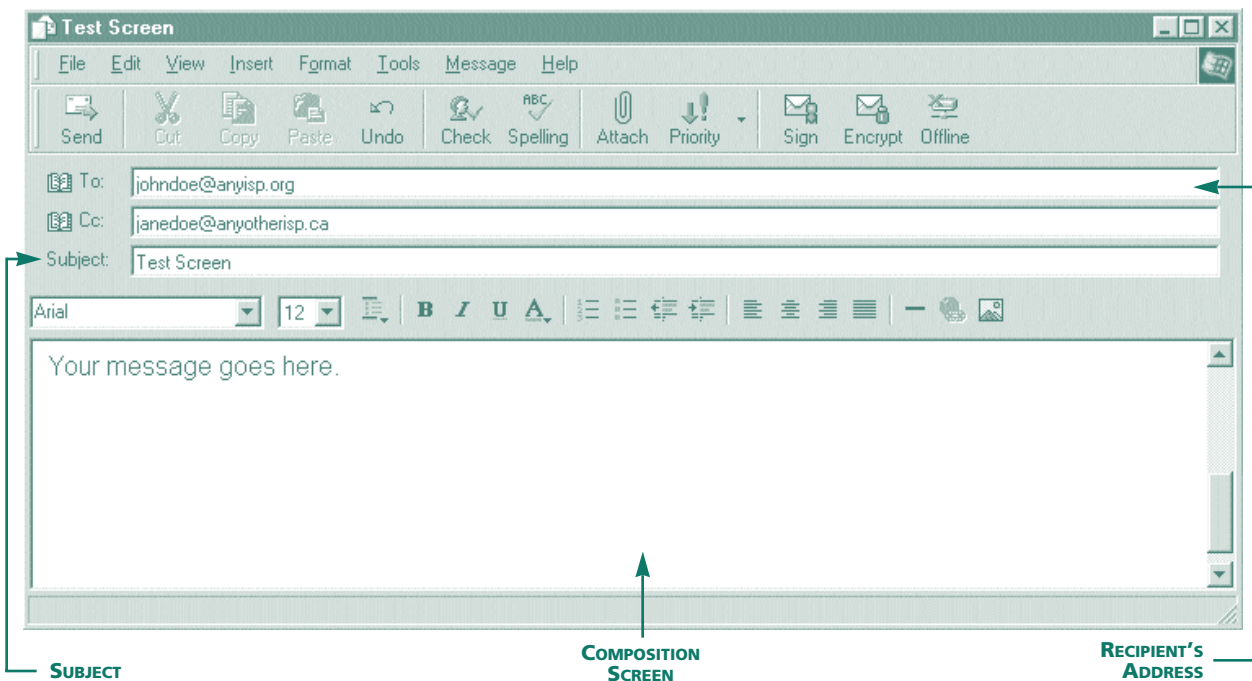
## E-mail Exercises

- Take a few minutes to send your instructor an e-mail message now. Be sure to include your name in the subject line of the header so your instructor can verify your new skill.

- Use any extra time to compose a test message to an associate you deal with regularly. Do not send this message now, but save it in your e-mail program's folder for messages that you do not want to send yet. In Outlook Express this is called "Drafts," and you can send your draft there by clicking "File," "Copy to Folder," "Drafts." You can now verify this is saved in the correct location by closing your new mail screen and clicking on the folder "Drafts" in the left display window.

## NETSCAPE MESSENGER

Netscape Messenger is another e-mail program distributed with a popular Web browser, Netscape Navigator in this case. As is the case with Outlook Express, Netscape Messenger is a very intuitive program and all the basic concepts of e-mail apply, even if the layout and the names of the buttons are different (see Figure 8).

**Figure 8 • *Netscape Messenger***

### *How Do I Send E-mail with Netscape Messenger?*

Not surprisingly, sending e-mail with Netscape Messenger is just as easy as sending a message with Outlook Express. You follow the same steps, and even the e-mail composition window appears nearly identical (see Figure 9).

**Figure 9 • *Netscape Messenger E-mail Composition Window***
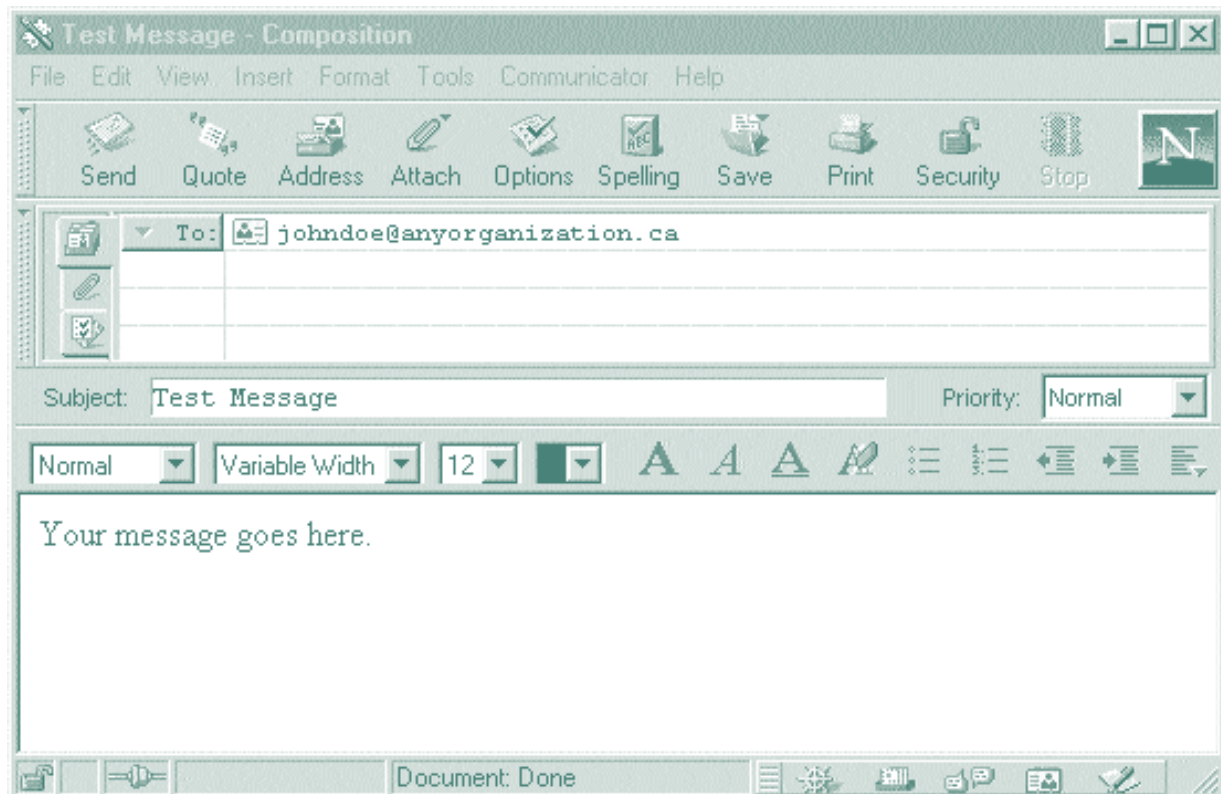


## EUDORA PRO EMAIL, PEGASUS MAIL AND OTHERS

Eudora Pro Email and Pegasus Mail follow a layout similar to other e-mail programs, with toolbars and information windows to help you work with the program (see Figures 10 and 11 on page 34). You will find that the buttons and their functions are described for you as you explore the program with your mouse, and there is also a "Help" button for further explanations.

**Figure 10 •** *Eudora Pro Email*



**Figure 11 •** *Pegasus Mail*

## INTRODUCTION TO MAIL SERVERS

Mail servers (also known as Webmail) are programs designed to provide e-mail addresses independent of your own computer. Mail servers 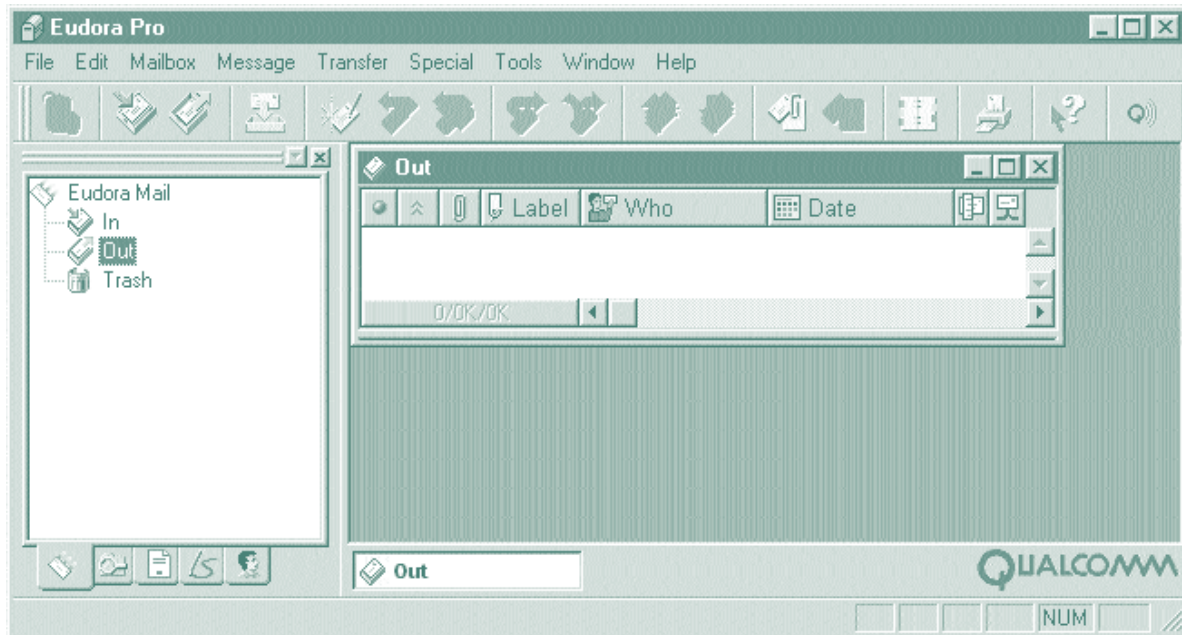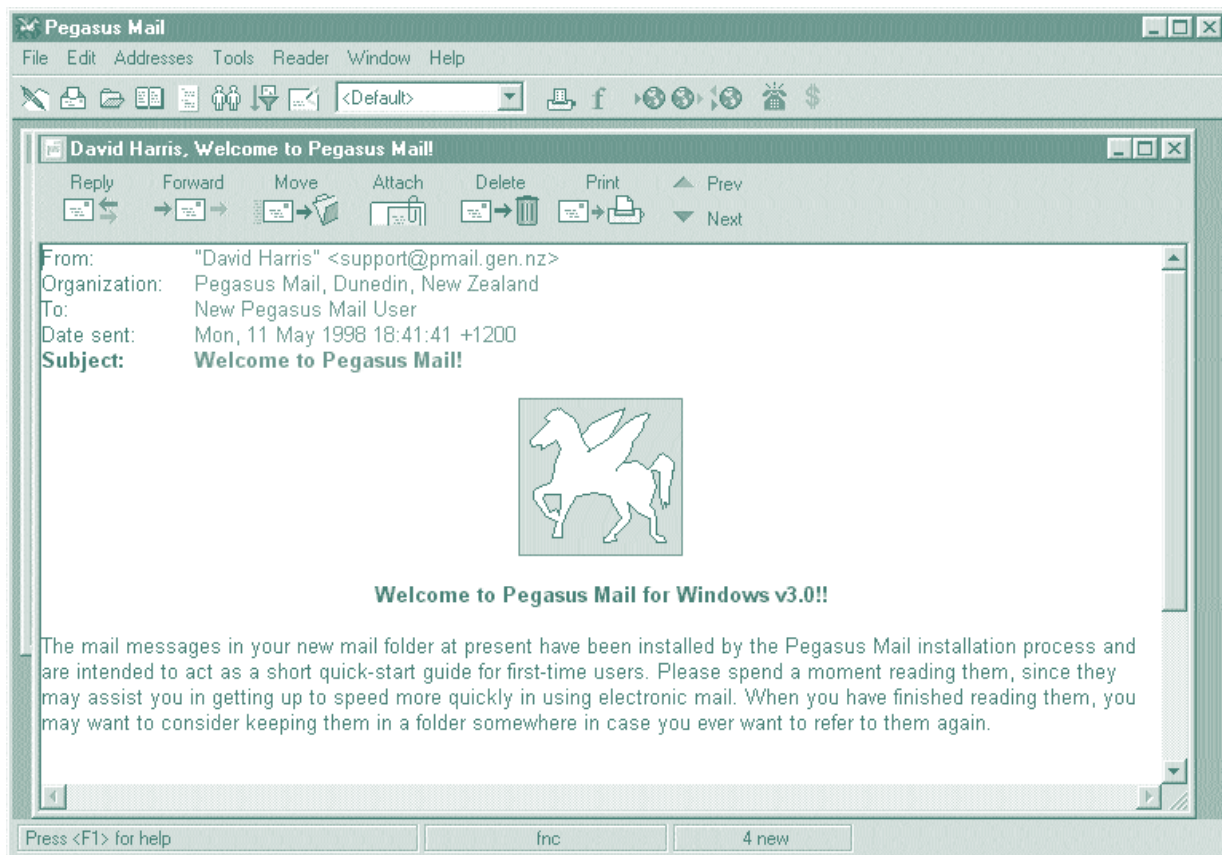are accessed through the World Wide Web (described in the next chapter) and are even easier to operate than standard e-mail programs, although they usually offer only limited features. Think of them as post offices where you can get your own post office box. Mail servers are convenient to use because they can be accessed easily from any computer with an Internet connection, and your e-mail address remains the same no matter what computer you use. The most convenient part is the fact that the majority of mail servers are offered as a free service.

To use a mail server, you must first choose one. There are many different servers available but they all function essentially the same way. The most important criterion is dependability. Choose a company with a good reputation to uphold, so you can depend on the mail server always to be operational. Some Web addresses of popular mail servers for you to explore include:

**http://www.freemark.com**

**http://www.hotmail.com**

**http://www.juno.com**

**http://www.mail.com**

**http://www.mailcity.lycos.com**

**http://www.rocketmail.com**

**http://mail.excite.com**

When you begin using a mail server, there will be a sign-in procedure to open up your e-mail account, and you may be prompted to answer questions that you do not find relevant. Some of these answers are used in order to include you in e-mail directories. Answering a few questions is not much of a bother if it means you may get e-mail from an old friend you have lost contact with, or from an important associate who has misplaced your e-mail address. There will also be a brief sign-in procedure every time you access your e-mail from a mail server. This is necessary for security purposes and is only a minor inconvenience.

**NOTE:** Remember to write down your password and any details that you need to access your e-mail.

Business travellers often find Web-based mail servers especially convenient because many institutions now have Internet access available. Libraries, community centres and private "cyber-cafés" offer travellers access to the Internet, and access to your e-mail if you use a Web-based mail server.

As shown in Figure 12, Hotmail has the same basic functions as regular e-mail programs even though the buttons appear different.

**Figure 12 • *Hotmail Mail Server***
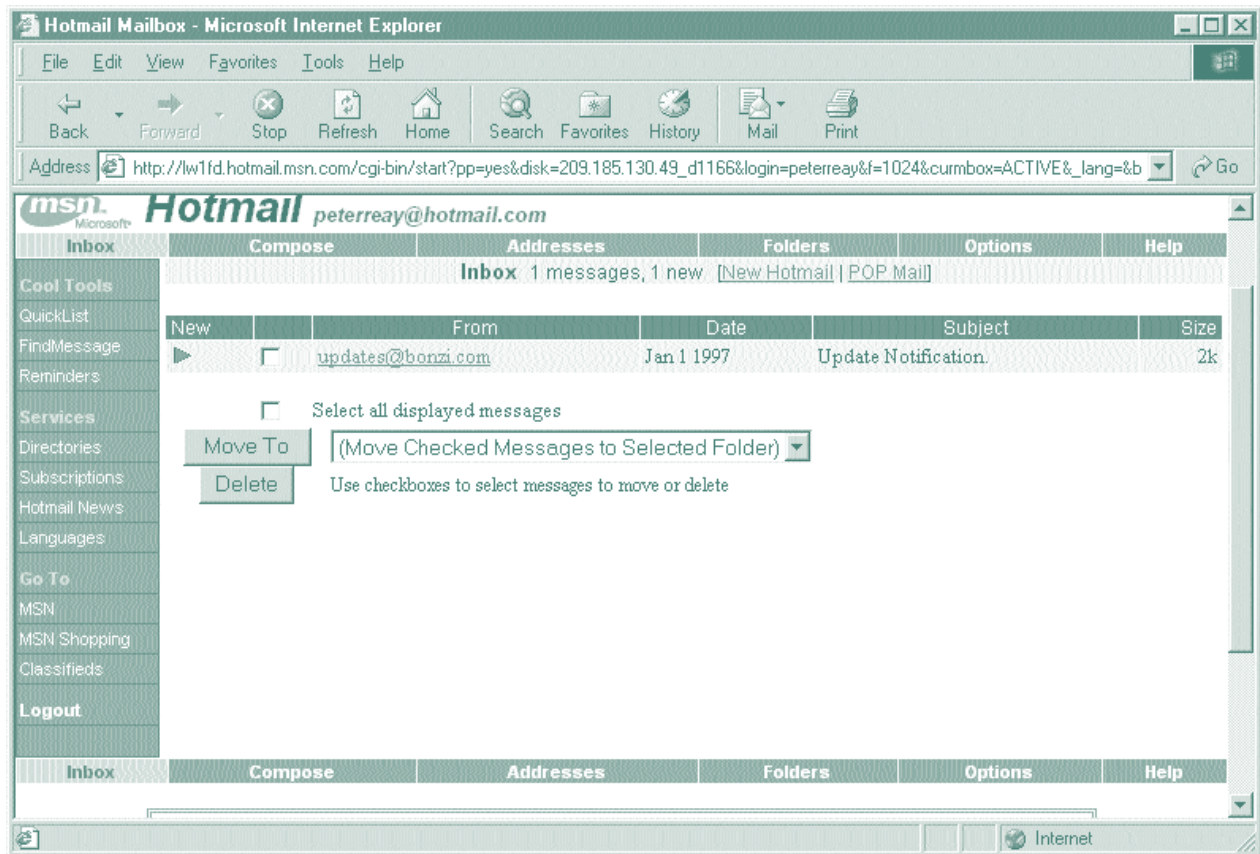
# INTRODUCING THE WORLD WIDE WEB

- ## WHAT IS THE WORLD WIDE WEB?
- ## THE WEB BROWSER
- ## INTERNET EXPLORER BUTTONS
- ## INTRODUCTION TO NETSCAPE NAVIGATOR
- ## HOW THE MOUSE WORKS ON THE INTERNET
- ## WEB SITE ADDRESSES
- ## INTRODUCTION TO SEARCH ENGINES

## WHAT IS THE WORLD WIDE WEB?

The World Wide Web (referred to as "the Web") is one of the fastest growing parts of the Internet. The Web is a network of computer documents arranged and posted publicly for anyone's access. There are large numbers of computers around the world that host these documents but because of the nature of the Web, all of these Web sites are only a mouse click away. As you work through these lessons you will find that this vast resource need not be intimidating. Soon you, too, will be surfing the Web for informative Web sites.

**NEW TERM:** WEB SITES are documents arranged in a format specifically designed for easy access from the Web. Many of these sites use special programming to make them interesting and interactive information sources. Often they will have connections to different pages within a Web site or to other related Web sites. Generally, you as the Web surfer do not see the programming, but you benefit from the user friendliness these programs offer.

**NEW TERM:** SURFING is a slang term meaning exploring the Web or using the Web with ease.

## THE WEB BROWSER

Web browsers are programs designed to access and navigate the Web. There are many browsers available including Netscape Navigator, Internet Explorer, Opera and NCSA Mosaic. Currently, the most popular browsers are Netscape Navigator and Internet Explorer. In this manual, we will refer to these two most often, but you will find that a good working knowledge of these browsers will allow you to operate any browser efficiently.

As you get started and open your Web browser, you will find that it is similar to using any modern office program. There are four main parts to your Web browser: a menu bar, a navigation bar, a location bar (see Figure 13), as well as a display window.

**Figure 13 • *Internet Explorer Bars***



The following gives you a brief description of each menu item and button on your Web browser and its function. As our example, we will use the Internet Explorer Web browser; you will see the similarities to Netscape Navigator when we cover it later. Most browsers use similar functions, and the transition should be fairly simple for you even if you use a different browser.

## INTERNET EXPLORER BUTTONS

### *The Menu Bar*

- **File:** opens, saves, prints and performs file manipulations similar to other office programs.

- **Edit:** allows you to cut, copy and paste some Web documents.

- **View:** has many interesting functions, several of which are specific to customizing the Web browser.

- **Favorites:** allows you to store a list of shortcuts to access Web pages of your choice immediately.

- **Tools:** functions in a similar way to other office programs, but it provides tools and functions specific to the Web browser, such as personalizing the Web browser to suit your preferences.

- **Help:** gives you access to information and tips that are related to Internet Explorer.

## *The Navigation Bar*

- **Back:** sends you back to the previous Web page.

- **Forward:** sends you ahead to the next Web page. This will only work if you have used the "back" button so that there is a Web page to move forward to.

- **Stop:** stops the downloading of the Web page or program you are currently downloading.

- **Refresh:** downloads the Web page you are currently in again. Sometimes a Web page will have a minor glitch in it from a poor connection or some other problem. This button is an easy way to remedy this inconvenience.

- **Home:** returns you to your "home" Web page. This home page is the default page your Web browser is set to start at. In Internet Explorer your home page can be set through "Tools" on the menu bar.

- **Search:** accesses a search program.

- **Favorites:** is identical to "Favorites" on the menu bar.

- **History:** provides a listing of the recent Web pages you have visited.

- **Mail:** accesses an e-mail program.

- **Print:** prints the page you currently have in your display window.

## *The Location Bar*

- **Address Line:** shows you the address of the Web site you are currently visiting.

- **Drop Down Arrow:** shows, when you click on it, the most recent sites you have accessed by actually typing in the address. This will not show addresses you reached by clicking on links from other Web sites.

**NEW TERM:** LINK is the abbreviation of hyperlink, and is a mouse-activated shortcut from one Web page to another. This may occur within the same Web site or between different sites. The link will automatically take your Web browser to the correct Web page address.

## INTRODUCTION TO NETSCAPE NAVIGATOR

As shown in Figure 14, many of the menu items and buttons on Netscape Navigator are similar to those on Internet Explorer. The basic functions of all Web browsers are similar, and the need for easy use ensures similar layouts.

**Figure 14 •** *Netscape Navigator*
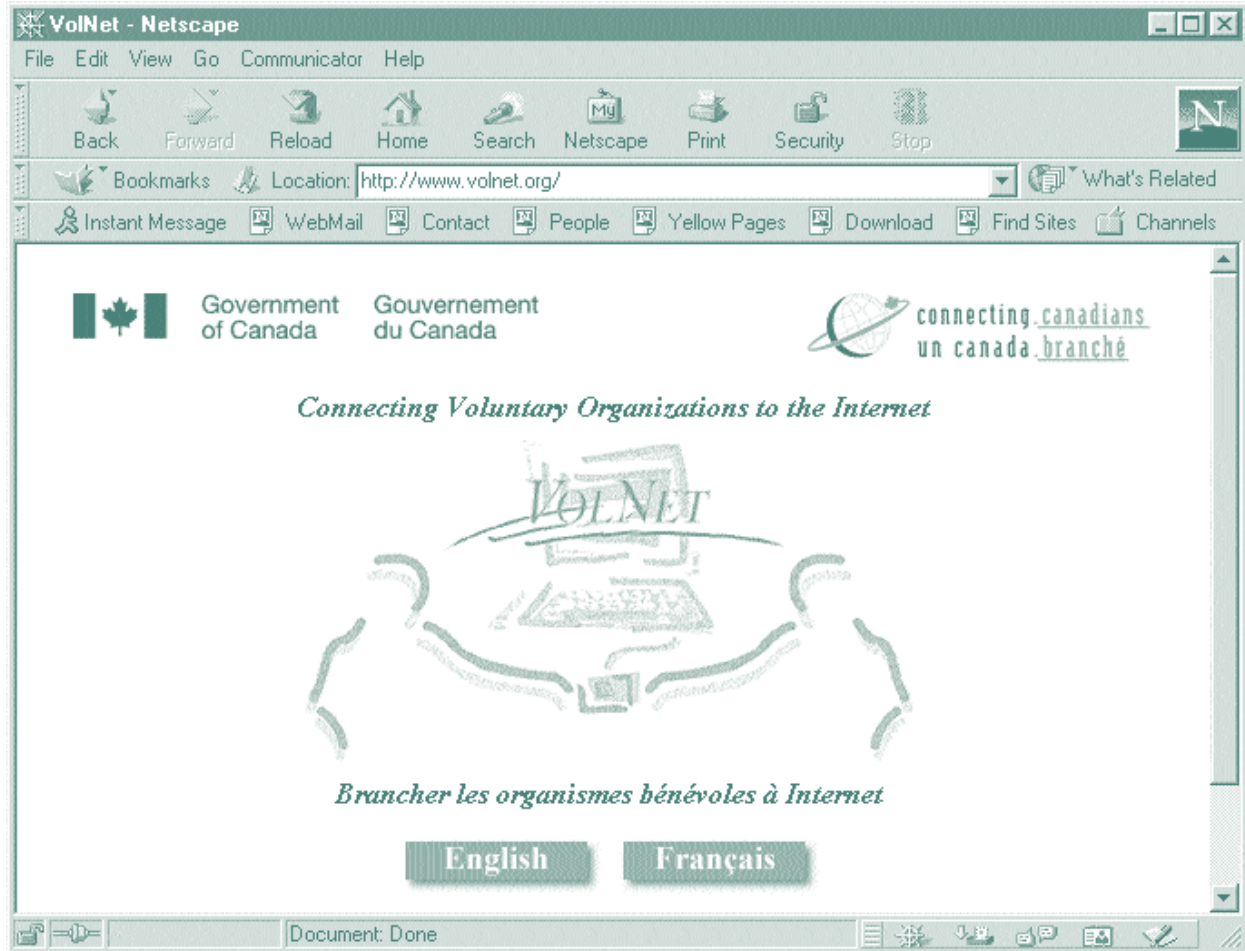
## HOW THE MOUSE WORKS ON THE INTERNET

Although the mouse is the hand-held roller ball accessory, we will refer to the cursor on the screen as the mouse since it is the term most people relate to. The mouse works on the Internet just as it does in other modern office programs, but with some extra functions. These functions help you navigate through and between Web pages. In most Internet applications, the mouse will change to a hand when it moves over an active function, as shown here.

The cursor changes from the arrow to the hand icon telling the user to click here to follow that link.

Some of the functions available to your mouse include:

- **Hyperlink,** which leads to a new Web page. This may be a new page within a Web site or a completely different Web site.

- **Next Page,** which leads to the next page of the same Web site you are currently in. This is seen most often when you are looking at longer articles that require a continuation of the text.

- **E-mail address,** which leads to an e-mail composition window already addressed to the desired recipient.

- **Hot Spot,** which produces special functions of the Web site, such as animation, music or other interactive features.

## WEB SITE ADDRESSES

Web site addresses are the key to accessing the various Web sites. The basis of any Web address is the URL.

**NEW TERM:** URL, or Universal Resource Locator, is the address that will show in the address line of the location bar. The URL is similar to regular mail addresses because certain sections refer to certain parts of the address. When you are reading a URL, the broadest area of the address is on the left and it becomes progressively more specific as you move to the right. Thus, in the URL **http://infoseek.com/home/** "http" refers to the computer language the Web site is written in, "infoseek.com" is the name of the Web site, and "home" is a specific Web page within the Web site. The slash marks "/" are dividers between different sections of the URL. You will notice that Web site names use extensions (such as ".com") similar to e-mail addresses.

**TIP:** "http://" is universal for all Web sites, so most Web browsers add this to the start of any address you type into the address line.

**NOTE:** URLs are very sensitive to any typographical errors. Missed periods, upper- or lower-case letters in the wrong place and missing slash marks can all affect your results. Remember to include the final slash mark if it is essential to the URL.

## Webmail Exercise

Now that you know basics of your Web browser, you can open an account with a Web-based mail server. Start off by opening your browser program, and use your mouse to place the cursor in the browser's address line. Clear any address that is currently there using the "Delete" or "Backspace" keys on your keyboard, then type in **http://www.hotmail.com** or any of the servers listed in the "Introduction to Mail Servers," then hit "Enter."

This will take you to Hotmail's sign-in page, which has a link to the sign-up page. Click your mouse on the text "Sign Up Now" in order to bring up Hotmail's Terms of Service page, which you may want to read over. Click the "I Accept" button at the bottom of this page to link to the Registration page. Fill in the Registration page and click the "Submit" button, and you will have a Web-based e-mail account.

Do not be intimidated by the registration page, as you will find that most Web and computer forms will not allow you to make any serious mistakes. The program itself will prompt you and advise you to make any needed corrections to the form. Remember to write down your e-mail address and password, as you will need these every time you want to check your e-mail.

Test your new e-mail address by sending yourself a message using Outlook Express or any other e-mail program. When you log into Hotmail to check your test message, take a few minutes to explore the Hotmail site and become familiar with the various links and folders available to you. The easiest way to view your incoming messages is to click directly on the message you wish to see from the inbox folder.

## INTRODUCTION TO SEARCH ENGINES

Most search engines are Web sites with programs designed to help you find the information you want on the Web. These programs go through their archives of the Web looking for sites that include your indicated area of interest. To use a search engine, you first access the search engine you want to use by typing in its URL. The search engine Web site will have at least one space for you to type in keywords you want to look for. When you enter a keyword and start a search, the search engine will return a list of sites that match your keyword. This list of sites will have links for you to go directly to the site of your choice. Simply click on the Web site you want to visit.

**NOTE:** Technically the term "search engine" refers to a particular type of search program. It is used here, as in regular conversation, to encompass all types of search programs that are used in a similar manner.

Often when doing a search, you will get results that are not very helpful. A search can return results of several million Web sites, or none at all. The key to efficient Web surfing is in narrowing down your searches to return usable results. Module 2 deals extensively with methods of specifying your search criteria to give you the results you want.

### *How Do I Start a Search on the Web?*

If you want to try a search now, open your Web browser and type **http://www.altavista.ca** into the address line, then hit "Enter." This will put you into the search engine called AltaVista Canada (see Figure 15 on page 44). As you move your mouse around the page, you will notice that much of the text is linked to related sites. These links can be a good way for beginners to start exploring the Web; or if you have a particular interest you want to look for, type a keyword into the space beside the "Search" button, then click the button. It is recommended that new users first try out some of the links on the site and simply explore the Web using the mouse only. Trying to find a specific topic of interest can be frustrating if you have not learned any of the advanced navigation techniques explained in Module 2, Chapter 2.

**Figure 15 • *AltaVista Canada Search Engine***
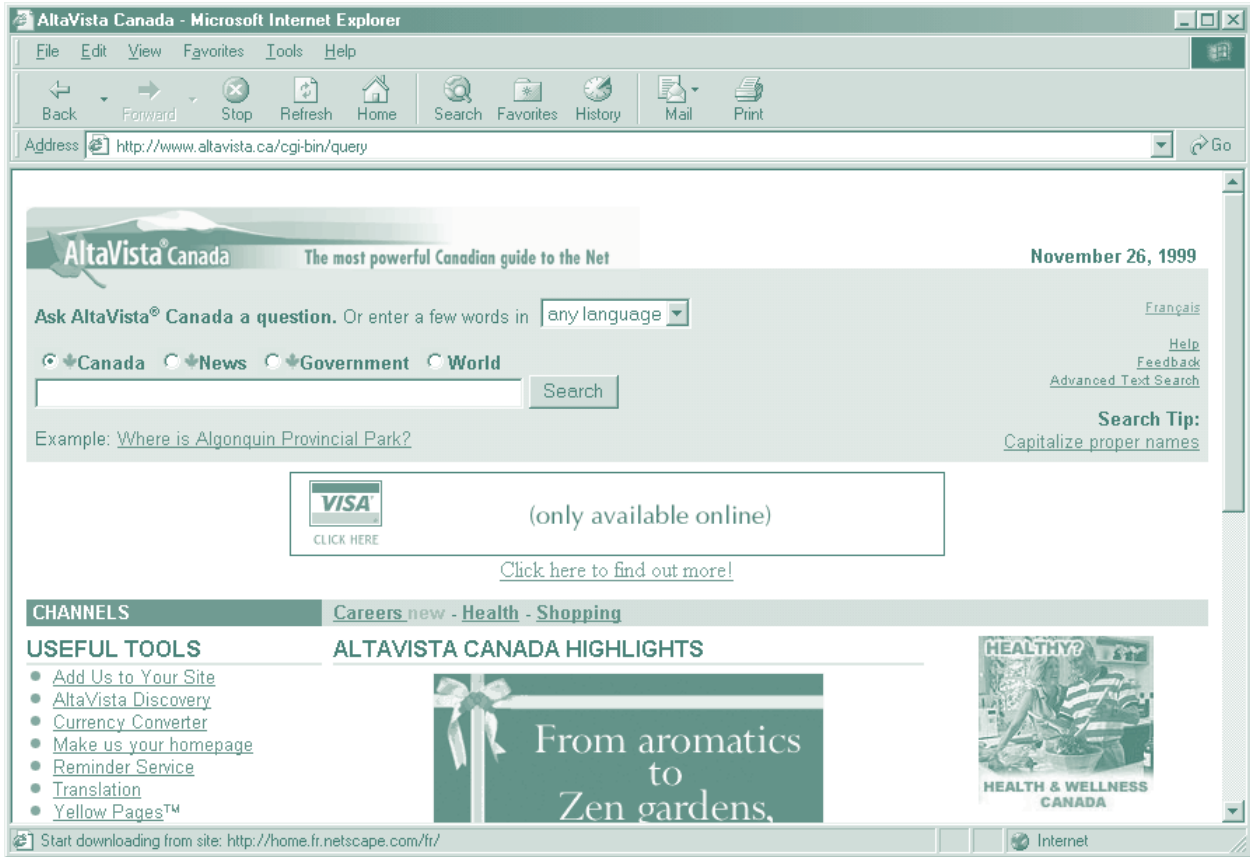


**TIP:** When surfing the Web, most blue-coloured text will be a link. This is nearly universal for all Web sites but it does not mean that only the blue text is linked. Often pictures and other graphic images will also be linked, and some text is blue only for artistic purposes. (Note: Module 2, Chapter 3, introduces methods of customizing your browser so that you can adjust these colors if you wish.)

## Search Engine Exercise

A short list of major search engines:

**http://www.altavista.ca**

**http://www.askjeeves.com**

**http://www.excite.com**

**http://www.hotbot.com**

**http://www.lycos.com**

**http://www.yahoo.ca**

Try following the links from any major search engine to locate some of the following:

- a major newspaper from your region;

- a youth organization, such as the YMCA or the Boys and Girls Club;

- any favourite magazine (note that not all magazines have Web sites);

- anything related to a Canadian ecological issue such as pollution or deforestation; or

- a television show or television network.

# INTRODUCING NEWSGROUPS

- **WHAT ARE NEWSGROUPS?**
- **ANATOMY OF A NEWSGROUP ADDRESS**
- **WHY ARE NEWSGROUPS USEFUL TO YOU?**
- **INTERNET ETIQUETTE BASICS**
- **HOW DO I VIEW A NEWSGROUP?**

## WHAT ARE NEWSGROUPS?

Newsgroups are like large bulletin boards on which you can read messages posted by people all over the world, and on which you may post messages that can potentially be read by people all over the world. Usually you subscribe to a newsgroup that specializes in information relevant to you or your organization. As a subscriber, you receive new postings to the newsgroup automatically, just as you would receive e-mail. Interacting with a newsgroup is just as easy as using e-mail with the major difference being the public nature of newsgroups. There are many different newsgroups, and their topics of interest are as varied as their users, so finding a newsgroup relevant to your own interests should be easy.

**INFO:** Newsgroups can be particularly useful for finding up-to-date information and opinions on a particular subject. Because you can post questions of your own on the site, if you locate a newsgroup with your particular area of interest, you will have a large source of knowledge available to answer your inquiries.

Newsgroups are similar to e-mail and the Web because a program is required to access and use them. There are numerous programs available, and some of the newer Web browser programs include this feature with their software package. To get the most from newsgroups, dedicated newsgroup software (such as Free Agent) can help you sort and manage your newsgroup activities. These programs usually operate in manner very similar to e-mail programs, and the basic skills you have already acquired are directly transferable to newsgroups.

### *Mailing Lists and Other Discussion Groups*

There are also many e-mail discussion groups that provide a service similar to newsgroups. However, while newsgroups are available to browse through at your convenience, e-mail discussion groups are often more of a mailing list, and they can quickly generate a significant amount e-mail. This can be bothersome when you are looking for other important e-mail, unless you set up a separate e-mail address dedicated to receiving these mailing list messages.

There are also other types of discussion groups on Web sites, and sometimes newsletters are available that summarize discussion group activities and provide links to the relevant discussion. Almost any type of discussion group you can think of is available on the Internet.

## ANATOMY OF A NEWSGROUP ADDRESS

Newsgroup addresses or names are organized in levels similar to the way Web addresses are organized, that is, with the most general area of the name on the left and with the name getting progressively more specific as you move to the right. Thus, in the newsgroup **news.announce.newusers**, "news" is the most general part of the name and "newusers" is the most specific part of the name. Periods separate the different sections of the name.

**NOTE:** There are even newsgroups for people just starting to use newsgroups! The above newsgroup is one of many excellent ones for new users to read up on the basic philosophy and etiquette of newsgroups. There are also newsgroups specifically for new users to test their software. Use **alt.test** or **misc.test** for testing, so as not to waste valuable space on legitimate newsgroups.

## WHY ARE NEWSGROUPS USEFUL TO YOU?

Newsgroups can be a very large source of up-to-date information on almost any topic that interests you. There are thousands of newsgroups on the Internet, so the chances of finding a newsgroup specific to your interests or your organization's interests are very good. Furthermore, most newsgroups delete postings after a specified time period usually measured in weeks, making them among the most up-to-date sources for information or opinions.

Many newsgroups have a core person or group of people who edit any postings to their newsgroup. These "moderators" achieve this by having all new postings sent to an e-mail address for review before they are posted to the newsgroup itself. This delays new postings somewhat but benefits all participants by reducing redundant and irrelevant information on the newsgroup site.

## INTERNET ETIQUETTE BASICS

- The key to good Internet etiquette is to remember that there is a person behind any correspondence on the Internet.

- Remember that everything you send over the Internet is stored in many places and could come back to haunt you if it is not appropriate.

- Take time to get a feel for the discussion group before posting any of your own writing. Standards vary from group to group, and what may be acceptable to some people may be rude to others.

- Remember that the only part of you that anyone on the Internet sees is what you write. Double-check your grammar and spelling if you want to make a good impression.

- Avoid writing all in capital letters; Internet users regard this as SCREAMING or YELLING.

- Be aware of "emoticons," which may change the tone of any e-mail or newsgroup correspondence. Do not be offended if you receive a derogatory message with a smiley emoticon.

  :-) = ☺, if you tilt your head to the left.

  This implies that the sender is only joking. Other emoticons imply other emotions.

This is only a short listing of the most basic etiquette issues. It will get you started comfortably, and you will find that more comprehensive knowledge comes through use of, and practice on, the Internet. You do not have to be intimidated by this, as everybody started as a new user of the Internet, and most people will discreetly e-mail you personally if you do make any major etiquette mistakes.

## HOW DO I VIEW A NEWSGROUP?

If you would like to view a newsgroup now, open Internet Explorer's mail program and click on the folder in the left window which is labeled "[your computer's Internet name] on [your Internet provider's name] (News)." In plain English just look for "(News)" as the rest is simply your Internet address location. From the newsgroup window that opens you can click on the "Newsgroups" button to bring up a list of newsgroups available from your Internet service provider. **News.groups** is a good place to start if you would like to see information and questions from people starting newsgroups and other newsgroup-related issues. Click on the arrow in the top left corner to drop down a list of discussion highlights within this group. From here you can double click on any listing that appeals to you.

# EXTRA PRACTICE EXERCISES

- **E-MAIL**
- **WORLD WIDE WEB**
- **NEWSGROUPS**

## E-MAIL

- Practise sending e-mail from your Web-based mail server to your desktop e-mail program and the reverse.

- Copy and paste some text from a word processing program to an e-mail. This can be done by highlighting the desired text and using the "Edit" and "Copy" functions on the menu bar. Open your e-mail program and paste the text into the body of the e-mail by using the right click on your mouse.

- Open your e-mail program and explore some of the buttons and functions. Type some text into the body and see what word processing functions are available to you.

## WORLD WIDE WEB

- Explore some of the Web sites listed in Appendix III. Simply type a URL directly in the address line of your Web browser, then hit "Enter" to get started.

- Try to follow links relating to a topic that is relevant to your organization. See what information is as available directly concerning your organization or try to find information on an issue that your organization is currently facing. Use the search engine **http://www.google.com** if you want to try a search using keywords. This is one of the easier search engines for people new to the Web.

- Search for an old friend's e-mail address. Most major search engines will have a search feature available specifically for this purpose. Look for a link labelled "White Pages," "People Search" or a similar phrase. From there you will find a new search page where you can enter as much information about the person as you have. Be aware that finding people on the Web can be difficult. Not all people are listed in all directories, and you may get a very large number of results for people with common names.

## NEWSGROUPS

- Using your Web browser, explore the Web site **http://www.deja.com**
  This is an excellent resource to see the variety of newsgroups available on
  the Internet.

- Using your e-mail program (which may be a part of your Web browser), visit the
  newsgroup **news.announce.newusers**. This is an excellent site for new users
  to browse for information and etiquette tips.

Remember to enjoy the Internet, as it is a tool designed for people to use. Every year,
new programs and systems make the Internet more user friendly and more accessible.

# Module 2
# Advanced Options

## OBJECTIVES FOR THIS MODULE:

1. You will learn how to attach files to e-mail messages.

2. You will understand the strengths and limitations of e-mail attachments.

3. You will learn how to use e-mail address lists and groups.

4. You will develop effective Web search techniques.

# ADVANCED E-MAIL MANAGEMENT

- ## ATTACHING FILES TO E-MAIL
- ## ADDRESS LISTS
- ## CREATING GROUPS
- ## E-MAIL OPTIONS

## ATTACHING FILES TO E-MAIL

When electronic mail was in its early stages, the software packages were very basic, did not have many features and, mostly, just sent text. Today, however, software packages come with many word processing tools and other advanced features that increase the power and flexibility of e-mail. One of the most useful is the ability to attach files to e-mail.

Attaching files to e-mail is one of the most convenient methods of business communication. Because attached files are left in their original format, they can be downloaded by the recipient as though the files were sent on diskette. This allows the recipient to work on the document in the format it was sent in and then return it in the same format. For example, you may want to send your head office a proposal for review. By forwarding this as an e-mail attachment, your head office will receive your work almost immediately and will be able to review it exactly as it appears on your own computer. They can then make changes, add comments and return the document to you as easily as you sent it to them.

There are some guidelines for sending attachments that you should be aware of.

- Not all e-mail programs can send and receive attached files. Attachments are a relatively new feature of e-mail.

- Attachments can only be sent to compatible computers with the appropriate software. The recipients cannot use the Word document you sent if they only have WordPerfect installed on their computer.

- Any type of file can be sent if the computers are compatible, but some types of large files take considerable time to send. (In reference to computers, any length of time over 10 minutes is considered long.) This will vary with the type of Internet hookup you have; but, in general, only large files such as video and graphic images take significant lengths of time.

**ALERT:** Computer viruses can be transferred with attached files. Using a virus scanner on e-mail attachments is a good habit to develop.

**NEW TERM:** COMPUTER VIRUS is a computer program that spreads through computer systems consuming memory space without serving any useful function. Often it is actively destructive, seeking out and interfering with other programs on your computer. Module 3, Chapter 3, introduces anti-virus scanning programs.

### *How to Attach Files*

Attaching files to e-mail is one of the easier functions to accomplish if your e-mail software is equipped for it. Click on the appropriate button on the composition window's toolbar and follow the prompts. If you are using Outlook Express or Netscape Messenger, the "Attach" button uses a paper clip icon. Clicking on this produces a locator window where you can type in the name of the file you want to send. Or you can use the drop down box to locate the file you want to send and click on it to enter the name in the appropriate location. Then just click on the "Attach" button and your file is attached to your e-mail. It is common practice to indicate in your e-mail message that a file is attached so the recipient does not overlook it. Many people will courteously check with recipients ahead of time to verify that they have the appropriate software to open any attached files.

Sometimes it can be difficult to locate the files you want to attach, especially if you are not a regular on your computer system. If you often find yourself in this situation, it is helpful to have a temporary folder in a location you can find easily. Simply copy the files into this temporary folder after using your usual method for finding files. (The Windows Explorer program or the "Find" command). Then, when you are sending e-mail with attachments you will know exactly where to find the necessary files.

**TIP:** If your e-mail program is unable to attach files, most modern software will allow you to copy and paste a document's text directly from a word processing program into the body of your e-mail. If necessary, you can e-mail any word processing program document by converting it into a text-only file using your computer's capabilities: click "File," then click "Save As." Click on the "Save as type" drop down arrow and choose the file type "Text Only" (*.txt)(see Figure 16). As a text document this file can be sent over regular e-mail.

**Figure 16 • *"Save As" Window Showing Drop Down Options for File Types (Microsoft Word 2000)***
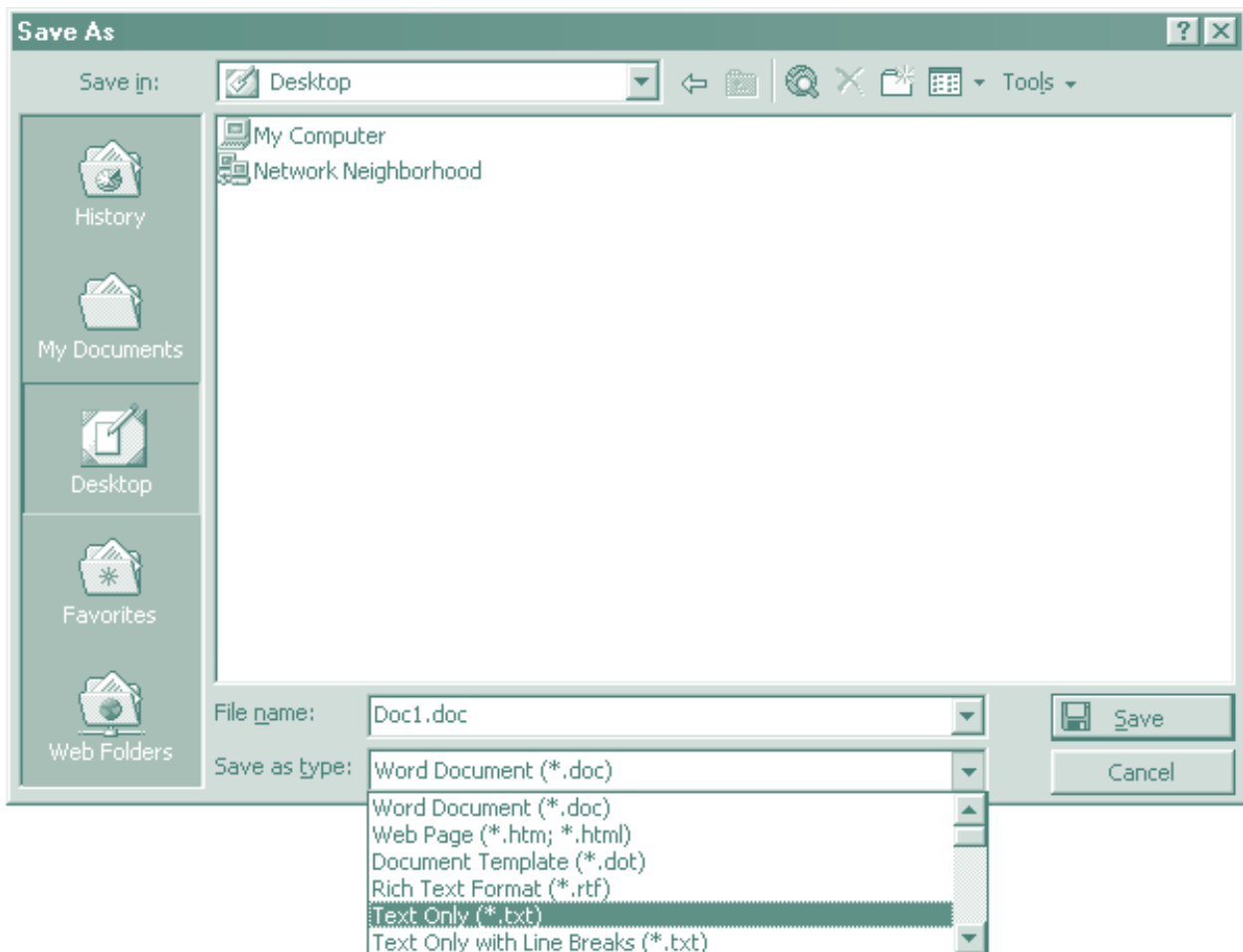
Attaching files to e-mail is accomplished with a few easy steps.

1. Compose your e-mail as you normally would. Remember to advise the recipient of the attachment and the program the attached file is formatted in.

2. Click the "Attach" button.

3. Enter the file name in the window using the keyboard or the drop down box, then click the "Attach" button.

4. Send the e-mail as usual.

5. Check the "Sent Mail" folder if you want verification.

## E-mail Attachments Exercise

Try sending yourself an e-mail with an attachment. Open a word processing program and create a small document to practise with. Save it in a location that you can find easily such as in "My Documents" or on a floppy disk, then close the program. If you have an e-mail account with a Web-based mail server, you should be able to send a message to it from the computer system you are using. Open your e-mail program (probably Netscape Messenger or Outlook Express) and click on the "New Msg" or "New Mail" button. Type your Web mail address in the "To:" line, then click on the "Attach" button. Find the file you just created and click on it to put it in the "File name" line, or simply click on that line and enter the file name with the keyboard. Click the "Attach" button, which should return you to the composition screen where there should be a section showing your attachment. Send your e-mail in the usual manner by clicking on "Send."

Now use your Web browser to access your Webmail account and check your inbox for the mail you just sent yourself. Double click on the attachment to view it.

## ADDRESS LISTS

Many e-mail programs can store a list of addresses for you. This convenient feature allows you to keep a list of e-mail recipients with their e-mail addresses and other information such as phone numbers. These address lists are designed to save time and are arranged so that adding or changing items is easy and convenient. Address lists are usually accessed from an e-mail program's toolbar. The major functions and features are self-explanatory. Clicking on the "New" or "New Address" button leads to a new address window (see Figure 17). Fill in the blanks and follow the prompts to make new entries to your address list. The most convenient aspect of address lists is the ability to use them for mass mailing lists (see Creating Groups on page 57).

**Figure 17 •** *Netscape Messenger New Address Window*

## Address List Exercises

- Make some entries to the address list to practise the steps involved. Exit the program and ensure that you can go back and find the addresses you just entered. Use fictitious names and information if you are not using your own computer.

- Use your Web browser to access your Web-based e-mail account and enter some addresses there. These can be real addresses since this account is yours alone no matter what computer you use to access it.

## CREATING GROUPS

Often you will want to send the same message to many people. This, as with conventional mail, is known as a mass mail out and, when done efficiently, can save enormous amounts of time. This can be especially convenient for keeping communication open between organizations that are otherwise isolated.

To make mass e-mailing easy for you, most e-mail programs that store addresses can also group them. The grouping feature is usually found with the address storage feature. Once your mass mailing list is complete you can send out a mass mailing simply by entering the group name in the "To:" line.

**Figure 18 • *Outlook Express Group***
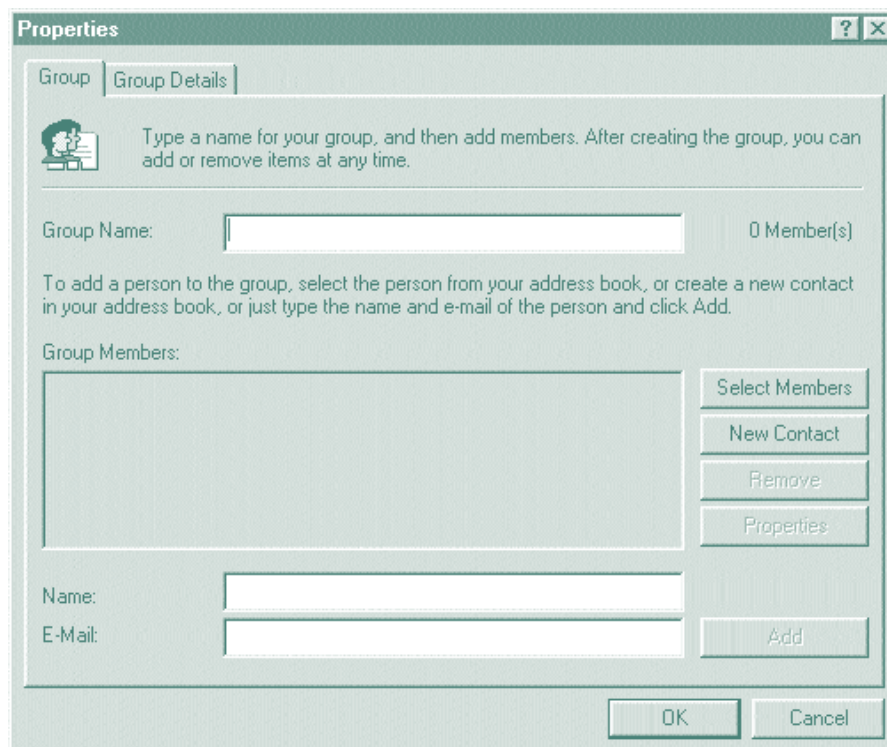
As you can see from Figures 18 (on page 57) and 19, the task of maintaining mailing lists is made easy for you in the more popular e-mail programs. Simply add or remove contacts by entering addresses and clicking the appropriate buttons.

**Figure 19 • *Netscape Messenger Mailing List***
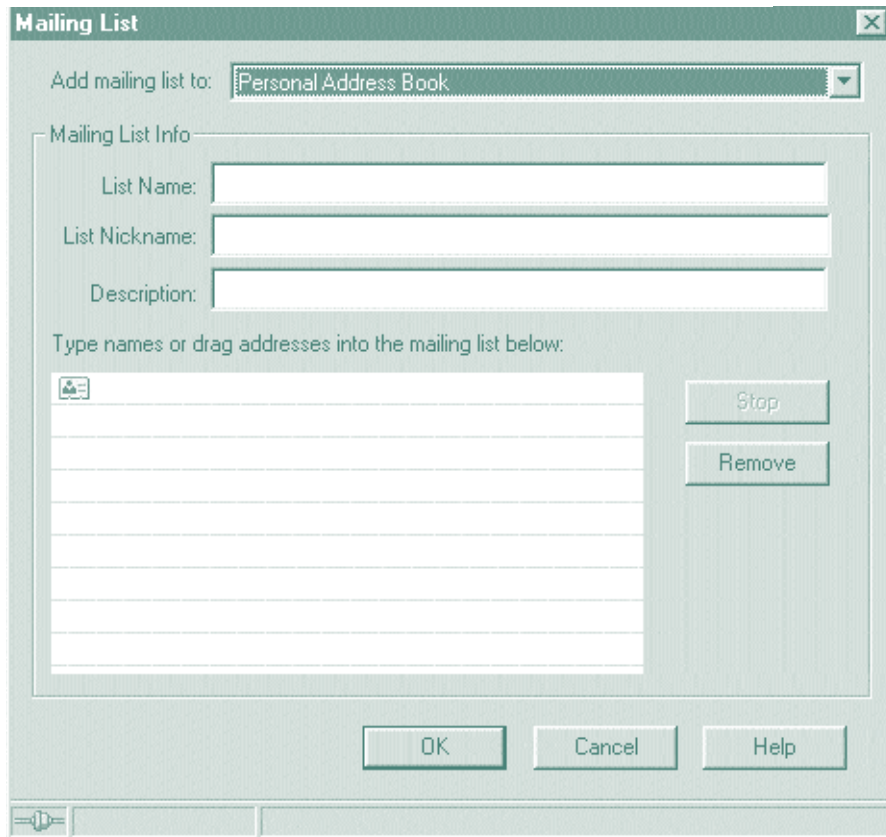


**NOTE:** Be sure to use accurate descriptive names for your mailing lists and keep your lists current. Mass e-mail is so fast and easy it is possible to send the wrong e-mail to the inappropriate recipient if you are not careful.

## Creating Groups Exercises

- Enter several other participants' e-mail addresses into your e-mail program's address list and group them into a mailing list. Compose a short note and mass mail the group by entering the group name in the "To:" line.

- Open your Hotmail account and enter some of the other participants' e-mail addresses in the address book through the link "Addresses"(near the top of your screen) and "Create New" next to the heading "Individuals." Form them into a group using the "Create New" link next to the heading "Groups." Try a mass mail out by entering the group name in the "To:" line of the composition window.

## E-MAIL OPTIONS

Many of the options available with the two major e-mail programs are very similar, and each program has just a slightly different interface. Some of the options include setting the priority level of a message, automatically checking to see if mail has been received, and setting up signatures and nicknames. You can access your options or preferences from the appropriate item on the menu bar (see Figure 20).

**Figure 20 • *Outlook Express Options***
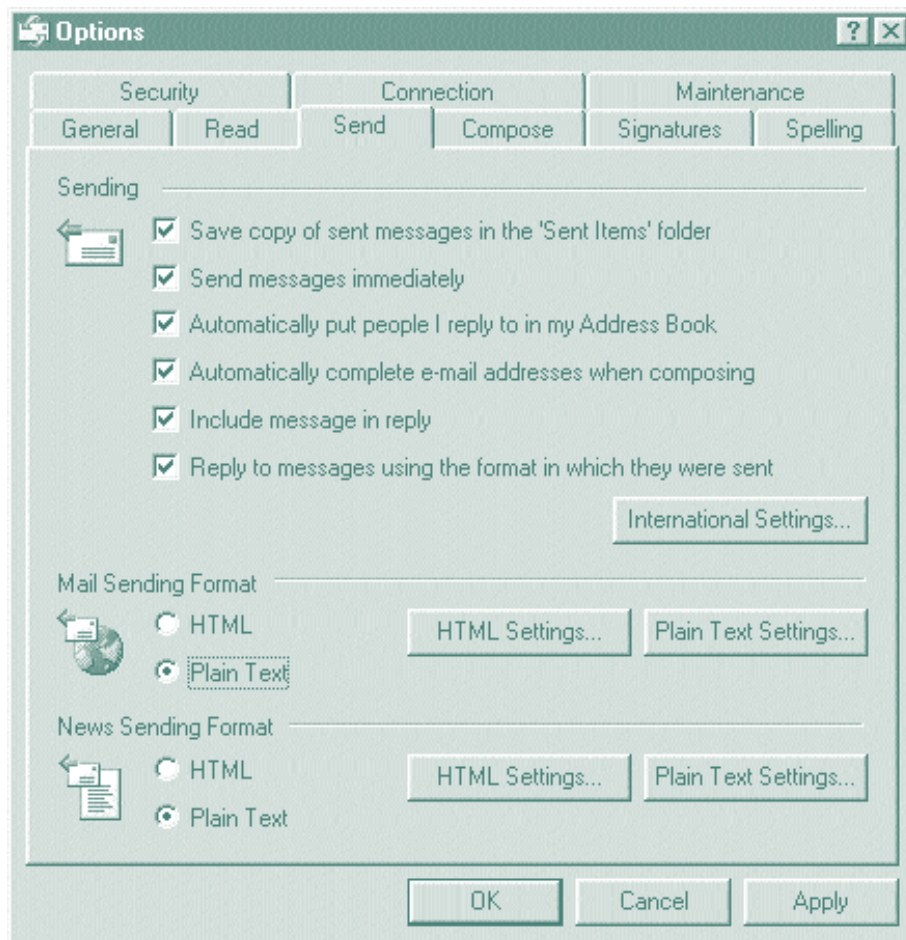


**NEW TERM:** SIGNATURE, as it applies to e-mail programs, is usually used to forward your contact information. It usually has space for 5 to 10 short lines of text and it is used as your personal signature on e-mail documents. Because signatures are generally restricted to basic text characters, you will often see imaginative borders and other graphics using these text characters in an attempt to personalize them. However, it is recommended that you keep your signature simple and professional if you use it on any business correspondence.

**NOTE:** There is a feature built into some of the newer e-mail programs that must be noted. Check in the options of your e-mail program to see what format your e-mail is being sent in and, if you find an option to use ".html" (a standard Web programming language) you may wish to switch it to ".txt" (text only). Older e-mail programs cannot read HTML messages. The use of HTML for e-mail is becoming popular due to its flexibility and advanced features but it is far from universal among e-mail users. To change this in Outlook Express click on "Tools" and then "Options." In the options box, click on the tab at the top labeled "Send" and you will see the mail sending format near the bottom of the screen. Click on the appropriate button if you want to change the format your messages are sent in. If you use newsgroups you will want to ensure that your news sending format is set for plain text, as the HTML format is not widespread among newsgroups.

**TIP:** In terms of Internet etiquette, signatures are especially important when making postings to newsgroups because people often will want to respond to your questions or comments personally, to avoid an abundance of redundant responses being posted to the newsgroup. Common practice would then be for you to choose the best response to your question and post that as a follow-up to your own posting.

# ADVANCED NAVIGATION TECHNIQUES AND WORLD WIDE WEB FEATURES

- **ADVANCED WEB SEARCH FEATURES**
- **INTRODUCTION TO OPERATORS**
- **SEARCH ENGINES' ADVANCED FUNCTIONS**

## ADVANCED WEB SEARCH FEATURES

### *How Can I Narrow Down My Search?*

The World Wide Web has an incredible number of Web sites and is growing constantly. Considering that a general search of "America" could return a list of tens of millions of Web sites, it is obvious that to get useful information from the Web you need to filter this information. Fortunately, search engines have built-in functions to help narrow down your searches so you can obtain the information needed.

There is a wide variety of search engines available, and finding those that suit your needs is a matter of personal preference. Different search engines are often tailored to groups with unique search needs. There are search engines specifically for newsgroups, shoppers, mailing lists and other groups. There are even search engines designed to conduct searches using other search engines.

Numerous sites on the Web describe popular search engines and their features. In Appendix III, under the heading Search Engine Information, there are some sites where you can find information about search engines' features and strengths. If you or your organization regularly need information from the Web, having a short list of search engines suited to your specific needs will save you considerable time and effort in the long run. Take the following example: You are looking for a newsgroup to get up-to-date information on what's new in recycling. You may go to a popular search engine and frustrate yourself using keywords that return many related Web sites but not many newsgroups. Instead, take the time to save time. Begin by searching for a Web site that describes search engines, such as **http://www.searchenginewatch.com** From there you can quickly find a search engine designed specifically for searching within newsgroups, such as **http://www.deja.com** Now by simply entering "recycling" as your keyword you will get helpful results — newsgroups about recycling.

**TIP:** Most browser programs have a method for saving the addresses of any Web pages you like. These features are most commonly referred to as "Bookmarks" (Netscape Navigator) or "Favorites" (Internet Explorer). Use them to save your favourite search engines and any other Web pages you use regularly. This is done by clicking on the "Favorites" or "Bookmarks" button when you have the desired Web page open, then clicking on "Add to Favorites [or Bookmarks]."

## Advanced Web Search Exercise

Open your Web browser and type **http://www.searchenginewatch.com** in the address window then hit "Enter." Save this site with "Bookmarks" or "Favorites" and then explore this Web site using your mouse and the links to check out some of the available search engines and their features. If you have time, bookmark some of the search engines that look useful to you, and bookmark some of the more informative pages for later reference.

Before examining some of the tools available to most search engines, there are a few general ideas to consider for all Web searches.

- Be as specific as possible. General searches usually return far more Web sites than are useful.

- Ensure proper spelling. As in other computer applications, minor spelling and typographical errors can cause major changes in your results.

- Use accurate words that correctly describe what you want to find. The English language is not always a precision tool. For example, a Web search for aliens will return pages concerning UFO encounters and pages about illegal immigrants.

**NOTE:** When using the Web for research, you should be wary of unusual sources for information. Anyone can post almost anything they want on the Web, and it is your responsibility to stick with reliable sources for accurate facts. Professional institutions' Web sites may be less flashy than other more sales-oriented sites, but finding accurate information is more productive than trying out the newest interactive Web technology. If, for example, you are searching for information on how to keep your new cat healthy, avoid sites with an interest in you as a customer and find your information from a trusted source, such as a national veterinary association.

**NOTE:** Be aware of copyright issues when using the Web for research purposes. Treat information retrieved from the Web the same way you would treat information found in a regular library.

**NOTE:** Electronic commerce (e-commerce) is rapidly revolutionizing the business world, from on-line stock market trading to Internet shopping and on-line auctions. As an experienced consumer who is new to the Internet, you should periodically review the latest developments in e-commerce. A Web search using the keywords "e-commerce security" will provide a list of Web sites posting the most current e-commerce trends and pitfalls, as well as the latest news in encryption techniques to block technology-smart criminals. Try to stay up to date on any problems that are in the news and shop only on Web sites that use reputable methods.

As a general rule, Internet security always manages to stay one or two steps ahead of high technology thieves. However, just as in your normal everyday affairs, you should not give out your credit card number without being reasonably sure of whom you are dealing with. If an advertisement looks too good to be true, spend a few minutes doing a search of the company's name on your favourite search engine. Fraudulent hoaxes cannot stand up to scrutiny and the Internet community readily publishes any abuses in this area.

## INTRODUCTION TO OPERATORS

Here are some tips to remember when using operators:

- Operators help to refine a search by focussing the questions asked of the search engine.
- Follow rules of syntax and check your spelling.
- Use accurate and descriptive terms.

### *What Are Operators?*

Operators are tools that search engines use to help you refine your searches. They narrow down the search with functions that help specify exactly what you are looking for. They do not automatically give good results.

**NOTE:** There are no spaces between the operators and the term or terms they are referring to. The examples given illustrate the correct usage.

| Operator | Function | Example |
|---|---|---|
| " " | Quotation marks indicate a series of words that must appear next to each other. Any phrase in a search must be contained within quotation marks. | **"To be or not to be"** will return pages that have this exact word string. |
| + | A plus sign indicates that all the terms listed must appear somewhere in the search results. | **sports+hockey** will return pages that include both sports and hockey. |
| - | A minus sign means that you want a search that does not include a particular part of that subject. | **sports-hockey** will return pages that include sports but not pages about sports that include hockey. |
| \| | (Inserted by pressing the shift with the backslash key.) A "pipe" means to search within these results. | **sports\|hockey** will return pages by searching for sports first, then searching for hockey within the pages found with the sports search. |
| link: | A link search looks for pages with a particular word in a hyperlink. | **link:dogs** will return pages with the word "dogs" in a hyperlink. |
| URL: | A URL search looks for pages with a particular word in their URL. | **url:dogs** will return pages with the word "dogs" in their URL. |
| title: | A title search looks for pages with a particular word in their title. | **title:dogs** will return pages with the word "dogs" in their title. |
| alt: | The alt function looks for pages having a particular picture name. | **alt:dogs** will return pages with a picture named "dogs." A dog picture with a different name will not appear in these results. |

**NOTE:** The operators and functions described above are not complete. Search engines use many operators, and some will be slightly different from those described here. For instance, some search engines may use "T:" as opposed to the full word "title:" when searching for a keyword within the title of a Web page. Most search engines have guides available on-line for your reference. This information is usually found as a simple link from the search engine site; look for "Hints" or "Tips" in most cases. If you want to verify the correct operator usage in a particular search engine, refer to the on-line guide or to one of the many Web sites describing search engines and their functions.

**TIP:** Instead of using the usual left mouse click to link to a new Web page, try using your right mouse click. Then select "Open in new window." This will allow you to keep the current page open while you continue your search with the new window.

## Operators Exercise

Using your Web browser, return to **http://www.searchenginewatch.com** and look for information concerning the operators for any search engine you think you might use regularly. When you find this information, try using your mouse to highlight the text by dragging, then use "Edit" and "Copy" to copy it. You can now open a word processing program in a new window and paste this text into a blank document by using "Edit" and "Paste." You will likely find that this makes the text much more compact than you would expect, and now you can edit and print the necessary information as a handy reference while you are working on-line. (Some older operating systems may not be able to do this. If necessary you can usually print directly from the Web page by clicking on "File" and "Print," but your results may not be laid out very clearly due to the unique method of assembling Web pages and their graphic components.)

## SEARCH ENGINES' ADVANCED FUNCTIONS

### *Are There More Choices?*

In addition to the regular options for narrowing down a Web search, many search engines offer a more advanced search. These advanced search options come with preset parameters (or scope) that you can select as desired. Usually these parameters are chosen through the use of drop down boxes. Therefore, they are often less flexible than other methods of specifying your search, but sometimes they are exactly what you need. Here are some of the more common options available with advanced searches.

- **Country:** only searches for pages that originate from a certain country.

- **Language:** only searches for pages that use a particular language.

- **Extension:** searches for pages with only a certain type of file extension. (File extensions are used to help classify different types of files. See page 70 for more on this.)

Many advanced search pages have links that provide definitions and examples for each of these criteria, and explain in detail how to use them to return the results you want. For anyone new to the Web, these advanced search pages can be one of the easiest ways to narrow down your search criteria in an obvious and understandable manner. Figure 21 is a good example of how self-explanatory advanced search programs can be.

**Figure 21 •** *Yahoo Advanced Search Web Page*
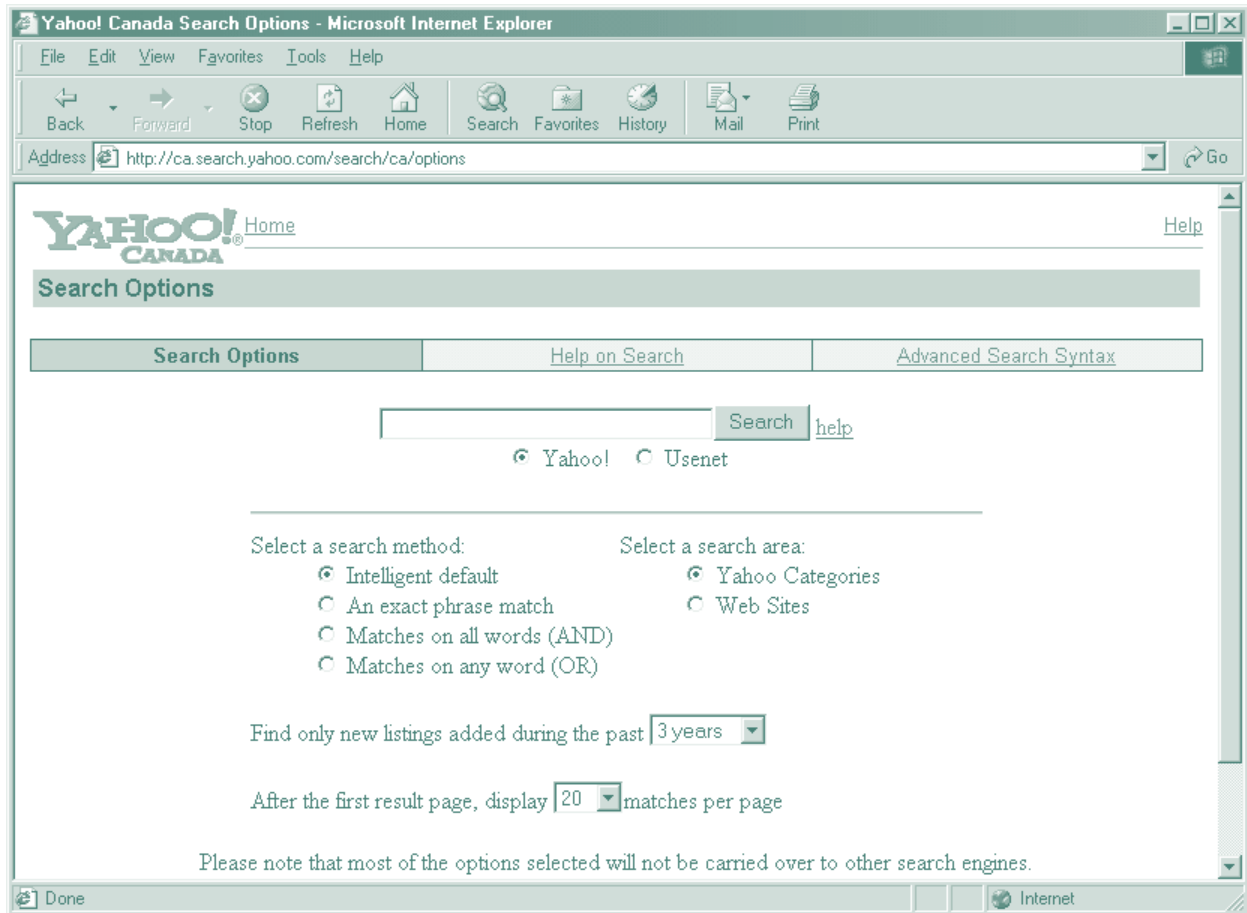
# MORE ADVANCED CONCEPTS

- **INTERNET BROWSER OPTIONS**
- **ON-LINE FORMS**
- **FILE EXTENSIONS**

## INTERNET BROWSER OPTIONS

Internet options (or preferences) allow users to customize their browsers by changing, adding or deleting certain functions. Although each browser offers essentially the same options, there are differences in presentation (see Figures 22 and 23).

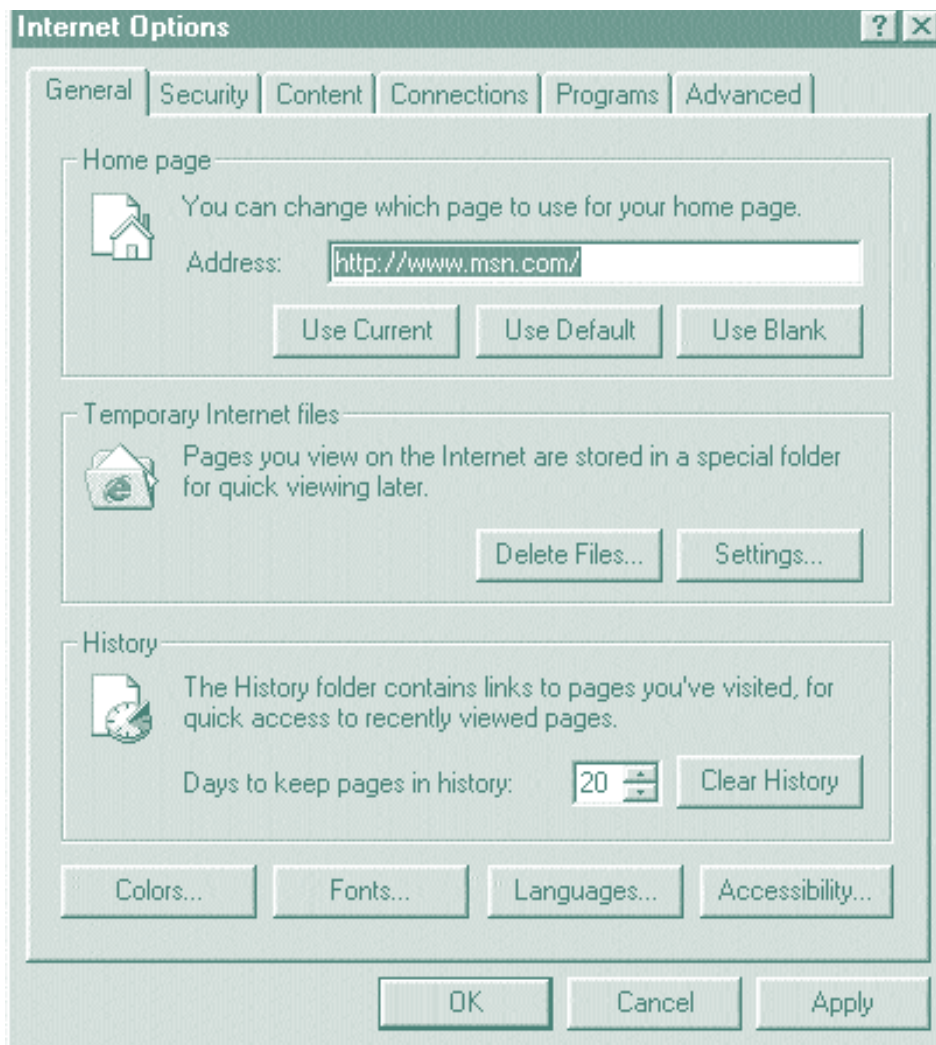**Figure 22 •** *Internet Explorer "Internet Options" Found Under "Tools"*

**Figure 23 •** *Netscape Navigator "Preferences" Found Under "Edit"*
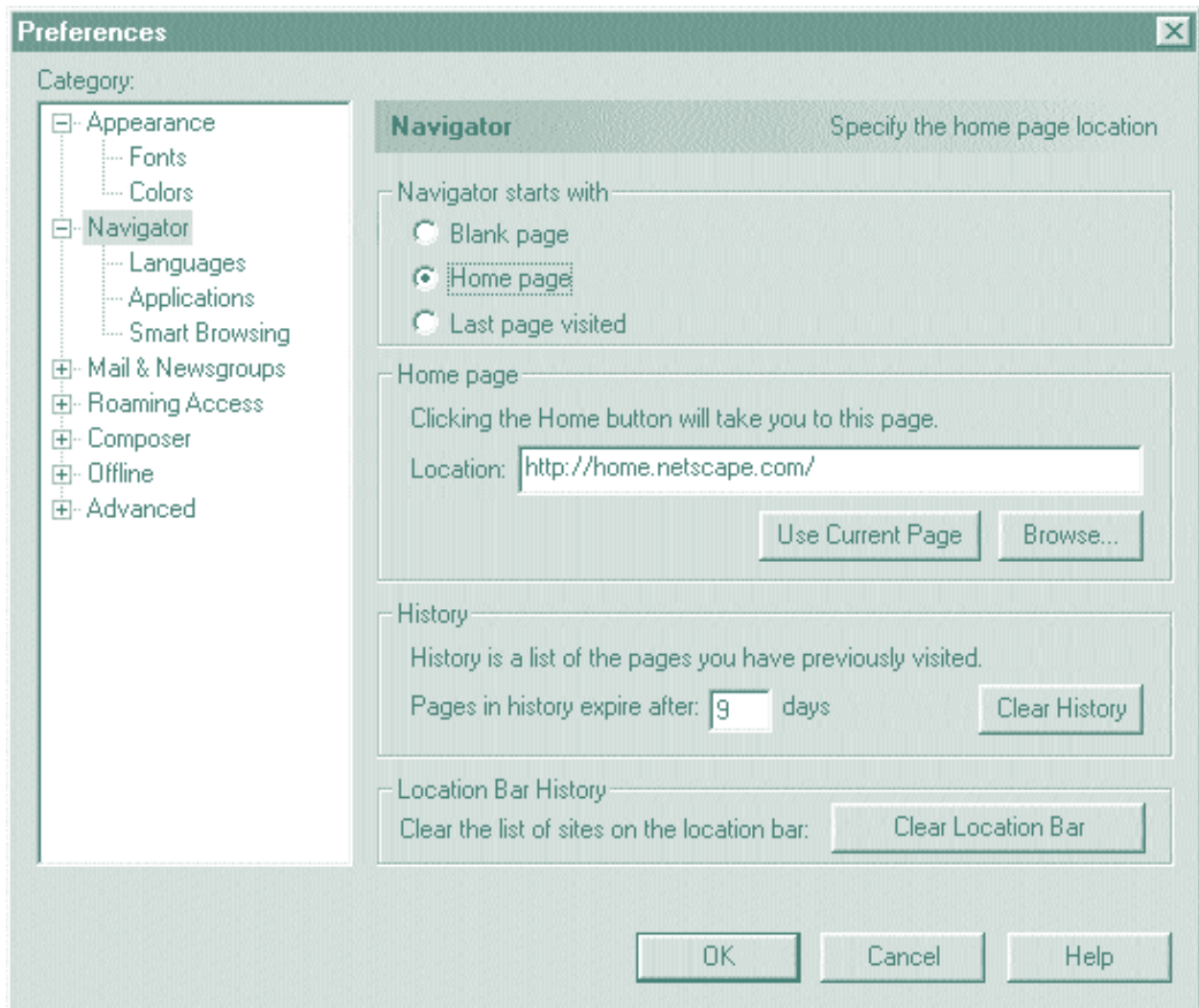


## Internet Browser Options Exercise

Explore your browser's features and customize them to suit your needs. Try some of the customizing features to see what you like or what is distracting.

### ON-LINE FORMS

Electronic commerce (e-commerce) sales are growing at a phenomenal rate. These transactions are conducted through the use of on-line forms, and a variety of ways to send and process this information. The forms use fields that are areas on a Web page where users can fill in information. There are several ways of doing this but the most common are the following.

**Check Boxes:** fields that allow the user to select more than one choice in an option group.

1. ☐
2. ☐
3. ☐

**Radio Buttons:** allow only one option to be selected at a time.

◉ Yes.
◯ No.

**Text Boxes:** similar to a Web browser's Location Bar in that the user types in the information. Fields such as "First Name" and "Address" are types of text boxes.

**Drop Down Lists:** have arrows that give the user a pre-defined set of choices. They are like text boxes that have the information already entered.

Jon ▼
Marc
Eric
George
Aleks
Jon
Chouck

After the information is submitted (or sent) over the Internet, the server gathers the information through a common gateway interface (CGI — see Appendix I), which then converts it to an e-mail and sends it to a designated address. The receiver then processes the information and completes the transaction.

**NEW TERMS:** SERVER and CLIENT are related terms referring to where a computer works within the Internet. A server is a networking or host computer that formats and processes a client computer's requests for access to the Internet. Your Internet service provider acts as a server to your computer, the client. It might help to think of the server as a switchboard operator that standardizes your client request and forwards it to the appropriate recipient. (Note: This is a very simplified condensation of a much more complex and technical idea. The definitions used here are in reference to Internet applications only and do not necessarily reflect accurate usage for these terms in other applications.)

## On-line Forms Exercises

- Open your Web browser and explore the Web site **http://www.ncsa.uiuc.edu/SDG/Software/Mosaic/Docs/fill-out-forms/example-1.html** This is an excellent place to explore in detail the different types of input methods for on-line forms. Use your mouse to try all the different buttons here.

- Open your Web browser and explore the Web site **http://www.ecommercetimes.com** This is a good place to read about the impact of electronic commerce and find up-to-date information on the current, related issues.

- Organizations that are funded by private donations will want to research the possibilities for soliciting funds over the Internet. Use your favourite search engine and try the keywords "Internet commerce" to get started.

## FILE EXTENSIONS

File extensions are the last three or four characters of a file's name. They come after a period and are the labels that classify a file as a particular kind of file.

There are only two extensions that are Internet specific: ".html" and ".htm". However, there are some file types that are used quite often. These are defined below.

**.exe**   indicates that the file starts, or executes, the program and the other files that are a part of it. It is similar to turning the key in a car's ignition.

**.html**   is HyperText Mark-up Language, the computer language that is used to generate Web pages.

**.htm**   indicates HTML files that were created using older software versions that could support file extension names of only three characters.

**.pdf**   or Portable Document Format, is the file extension for documents that are produced with Adobe Acrobat. The great advantage to these files is that they appear in exactly the same format across different platforms (IBM and Macintosh) and screen sizes.

**.zip**   shows that a file has been compressed to reduce the amount of space it occupies, particularly in cases where file space is limited as in a floppy disk. Individual documents can be "zipped" or, in the case of many documents, an entire folder can be compressed at once. In order to access a file of this type, you need a program such as WinZip to extract the files it contains. (Module 3 provides more information on this.)

## File Extensions Exercise

Check out the Web site **http://whatis.com/ff.htm** for a listing of many of the file extensions in use.

# EXTRA PRACTICE EXERCISE

## INTERNET SCAVENGER HUNT

Using the techniques you have learned, attempt to find all of the following in the shortest possible time. Write down the Internet addresses of each of them as you find them.

- Any image of the Eiffel Tower.

- A newsgroup that discusses any issue related to the organization that is providing you with this Internet training.

- A headline from today's newspaper.

- Any group discussing the underlying issue or issues in the above headline.

- The results of the latest Formula One race.

- A Web site primarily concerned with wind power. (This means wind power as an alternative energy source — sailboats do not count.)

- Any reference to your own family name. This can be family tree information, historical references, clan history or any other type of reference you wish. Try to be as specific to your own family as you can, as names like Smith are not much of a challenge otherwise.

# Module 3
# Applications

**OBJECTIVES FOR THIS MODULE:**

1.  You will learn how to download files and install software from the Internet.

2.  You will be introduced to some of the software tools available on the Internet.

3.  You will gain an understanding of the flexibility and potential of the Internet.

# WHERE AND HOW TO DOWNLOAD FILES AND SOFTWARE FROM THE WEB

- **DOWNLOADING FILES**
- **WHERE TO DOWNLOAD FILES**
- **INSTALLING SOFTWARE**
- **UNZIPPING A FILE USING WINZIP**

The majority of the programs discussed in the previous module, plus nearly all browser plug-ins are available for free download. In this module, you will learn how to download files and install software from the Internet.

## DOWNLOADING FILES

When a file is made available on a Web site, a link is made to it in the same manner as a Web page would link to another Web page. When your browser discovers it is not programmed to handle the type of file the page is linked to, it responds with an option to run or open the file from its current location, or copy it to your local hard drive for later use.

**INFO:** Web developers consider it a common courtesy to list a file's byte size near its link, to warn the user of the estimated download time of the file.

In Internet Explorer, when you click on a link to a file, the dialogue box that appears will ask you whether you would like to open the file from its current location, or save it to use later (see Figure 24). It is always best to save it for later use, especially if the file is of a considerable size. (In Netscape Navigator, if the file is a program (.exe) it is assumed you will want to save it, so it takes you straight to the "Save As" window.)

**Figure 24 • *Internet Explorer Dialogue Box***
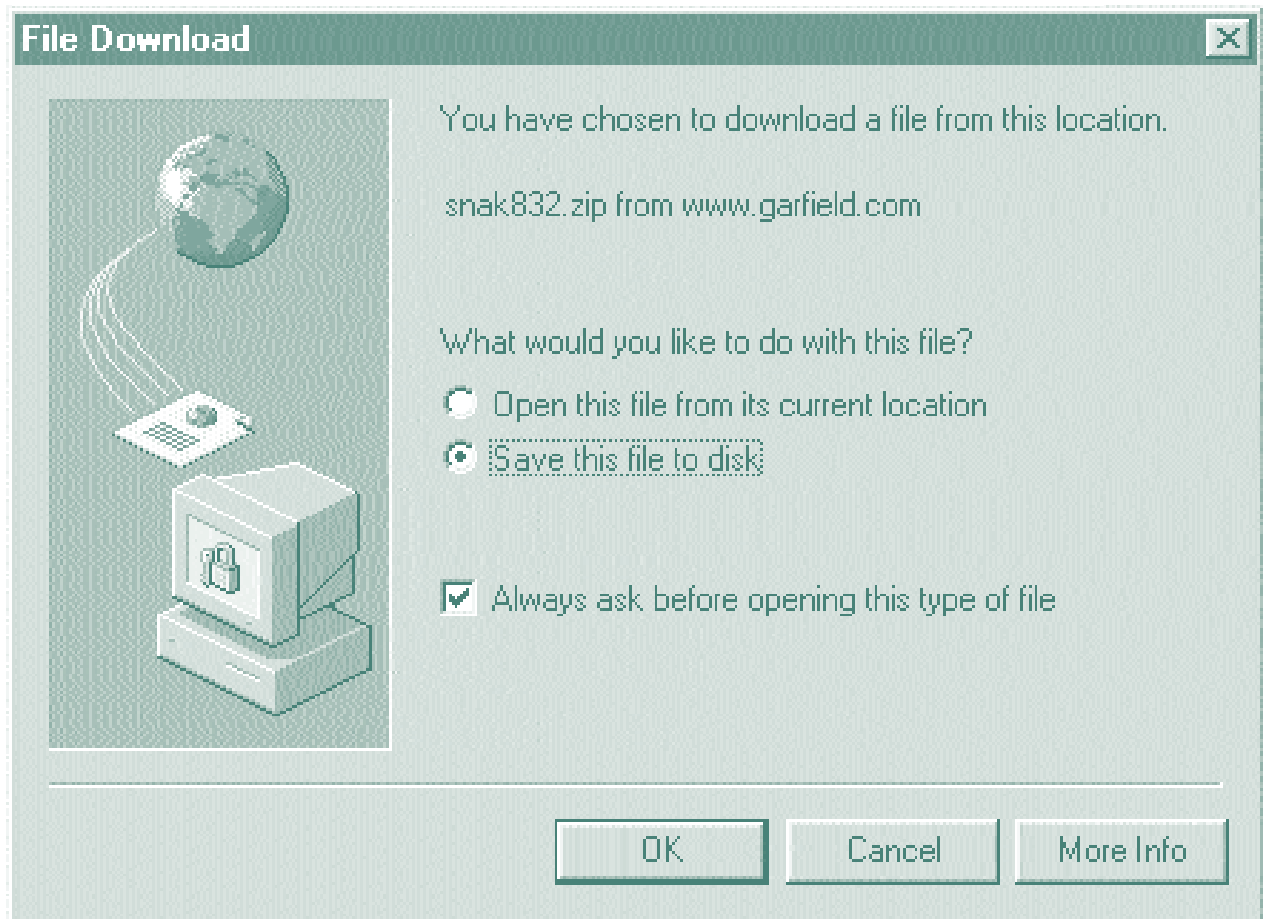


When you choose "Save this file to disk," and click on "OK," the "Save As" window will appear. This is the same window you will find under "File" and "Save As" in most other Windows programs. In the drop down box at the top, you can select the disk drive to save to (be sure there is enough space), and in the main portion, you can select a folder. Click "Save" after selecting a folder. See Figures 25 and 26 on page 76.

**Figure 25 •** *Internet Explorer Save to Folder*
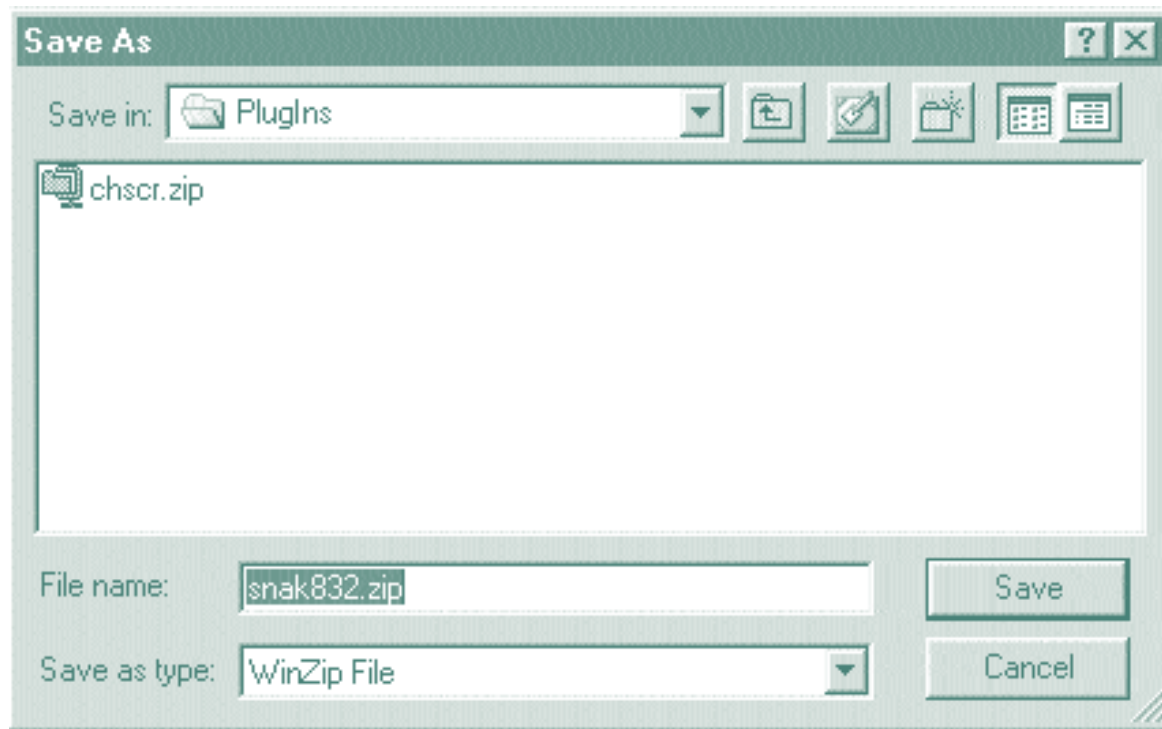


**Figure 26 •** *Netscape Navigator Save to Folder*
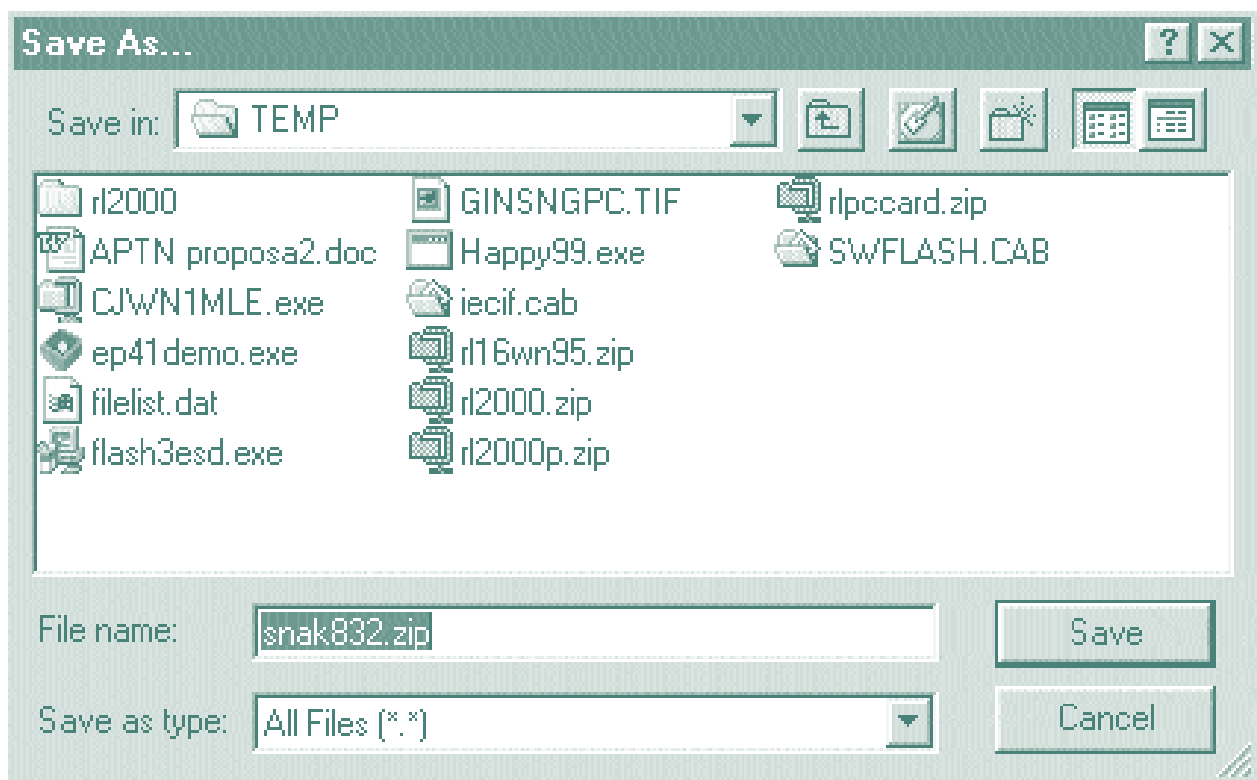
After you have done this, both Internet Explorer and Netscape Navigator will replace the "Save As" window with a window showing the progress of your download. Depending on the way your browser's preferences are set, another window may notify you when the download is complete. See Figures 27 and 28.

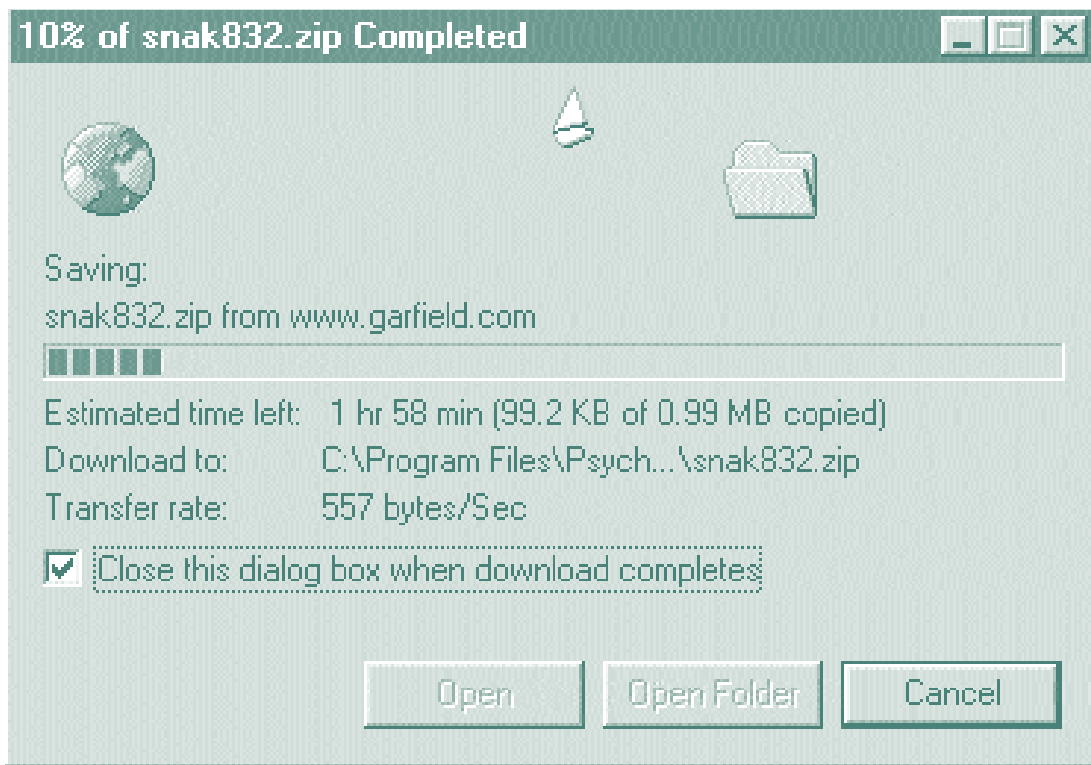**Figure 27 •** *Internet Explorer Animated Saving Icon*



**Figure 28 •** *Netscape Navigator Save*

**TIP:** It is advisable to use a dedicated temporary folder to store Internet downloads. This prevents any lost time or confusion due to misplaced downloads.

## WHERE TO DOWNLOAD FILES

There are many sites that offer free downloads of shareware, freeware, commercial software demos and other applications. It is common to find demonstration versions of software packages available for download on the makers' corporate Web site. Two of the most popular dedicated download sites are TUCOWS — The Ultimate Collection Of Winsock Software (**http://www.tucows.com**) and c|net's Download.Com (**http://www.download.com**).

**NEW TERMS:** FREEWARE and SHAREWARE are software packages. Those that can be downloaded for free and are commonly referred to as "freeware." Free downloads that are disabled in any way or are programmed only to function for a certain length of time are referred to as "shareware." Shareware is made available so consumers can try the software out before buying it. You are expected to pay for, and register your use of, the software if you wish to continue using it after the expiration date.

**NOTE:** Be aware of copyright infringement issues when downloading anything from the Internet. Most available downloads of programs will have information with them concerning your rights and obligations.

## Downloading Exercise

Download sites are generally organized in a hierarchical format, starting with the most general terms and getting more specific the further you move down the hierarchy. It is also common for these sites to offer a search function, so that if you know the type of software, or the program's name, you can locate it quickly.

Software distributed on the Internet is usually in one of two common forms: an executable file or a zip file. As mentioned in Module 2, an executable file can be identified by the file extension ".exe" and can be used in its present form, once it is downloaded.

A zip file has the extension of ".zip" and must be "unzipped"; that is, the files it contains must be extracted and saved to a temporary location on your hard disk. This process is described in the Unzipping a File Using WinZip section.

Open your Web browser and visit one of the two download sites mentioned on page 78 to see what is available for free download. Try a search for "free downloads" to find some of the other download sites available to you.

## INSTALLING SOFTWARE

Once you have located and downloaded the software you want to use, you need to follow the installation routine, which is quite simple.

Before you begin, you should close all other applications you have open. Start the installation procedure by seeking out the executable file in Windows Explorer and double clicking it (or use your own preferred method of finding and opening files). This will automatically open "Install Shield," which is a program that copies the program files to their proper locations on your hard disk and puts the program shortcuts on the "Start" button menu.

Usually, you'll be faced with a dialogue box with "Back," "Next," and "Cancel" or "Abort" buttons centred on the screen. The necessary information is usually preset as a default in the prompts. Therefore you can usually just keep clicking on the "Next" button to finish the installation successfully.

Sometimes, it will be necessary to either restart (or "reboot ") your computer to complete the installation, or before you can use the newly installed program.

**NEW TERM:** REBOOT or RESTART refers to shutting down your computer and powering it up again. Some computers offer the option of restarting without completing a full shut-down. The self-diagnostic start-up procedure will complete the software installation as mentioned above, and can often resolve minor system "bugs" that sometimes occur in computers.

**TIP:** Remember to delete the program file from its temporary download folder after you have installed the software. This will reduce unnecessary clutter in your computer's memory.

## UNZIPPING A FILE USING WINZIP

If the software that you have downloaded (or any other type of file) is a zip file, you will have to have WinZip or an equivalent application installed on your system.

WinZip can be found for free download at **http://www.winzip.com** and is the most popular file-compression utility currently available (see Figure 29).

With WinZip installed, when you double click the zip file, it will be opened automatically into WinZip. The other files that the zip file contains will be listed as they would be in Windows Explorer. (This may sound confusing, but if you focus on the fact that each zip file usually contains several other compressed files, it will make more sense.) From here you can double click the file in WinZip, which will automatically extract the files to the Windows temporary folder and run the file.

**Figure 29 • *WinZip 7.0***
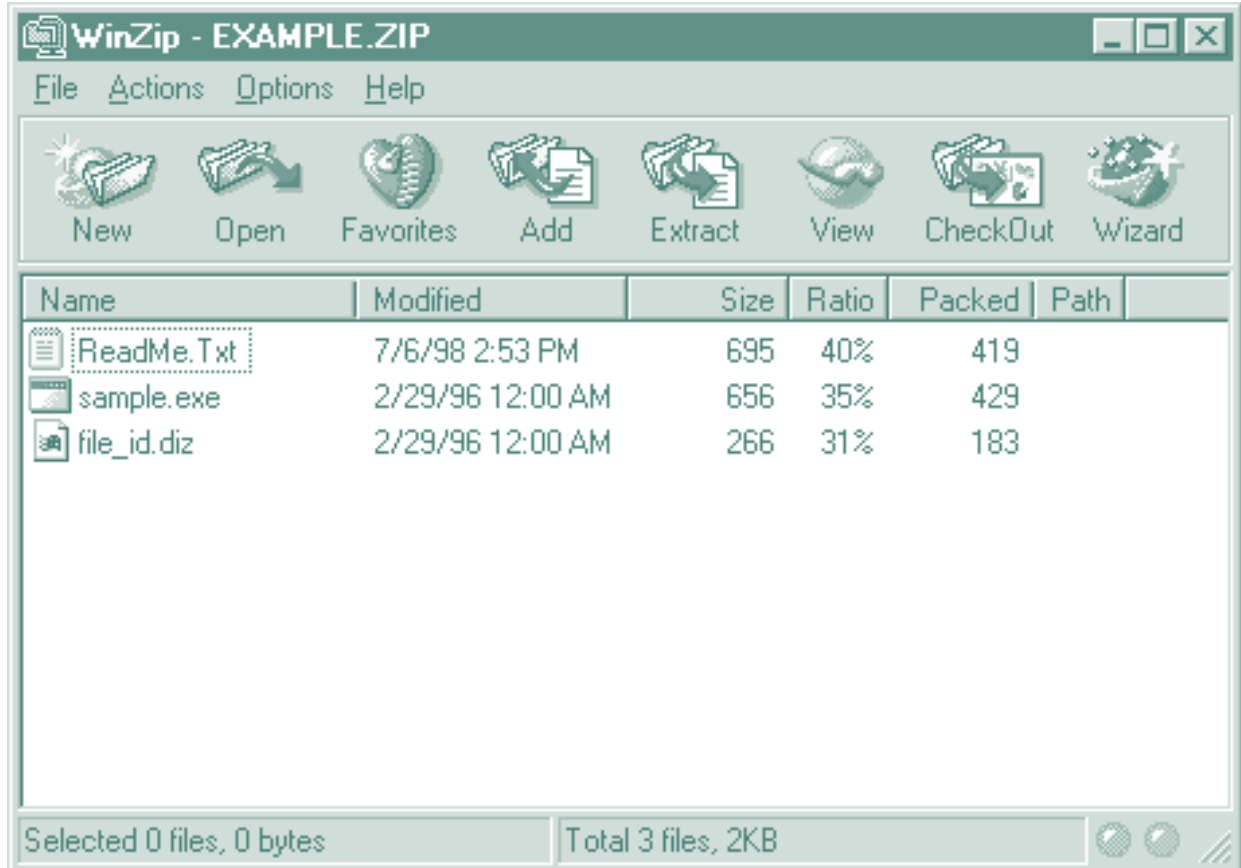
This is obviously the easy way, but if for some reason you have decided you would like to keep the extracted files, follow this procedure:

1.    Click the "Extract" button on the WinZip toolbar.

2.    In the window this brings up, find the folder you want to extract the files into, and click "Extract."

You will now find the zipped files in the folder you extracted them into. Note that it is best to extract a zip file into an empty folder, unless the zip file only contained a single file, so that you don't mix files up.

## Optional Downloading Exercise

For this exercise you will download and install a screen saver onto your computer. Start by opening your Web browser and going to the site **http://www.freesaver.com** Since this is only a practice exercise, please choose the smallest size screen-saver download you can find. Remember that kilobytes (KB) are considerably smaller than megabytes (MB) when you are comparing the file sizes of the various downloads.

**NOTE:** Downloading a program takes some time because of the large amount of information being transferred to your computer. This will vary depending on your computer system, the type of Internet hook-up you have and the size of the file you are downloading. Usually the limiting factor is the speed of the modem you are using.

After you have chosen a screen saver, click on its link to begin the download procedure. It is a good habit to write down the exact name of the download and the folder it is being saved into. You may need this information later when you are installing the new program. Once the download is complete, start the program by finding and opening it. You may have to reboot your computer to complete the installation, but most modern screen-saver downloads do not require this and simply following the prompts will usually work.

Assuming that everything has gone smoothly, you should now be able to go into your desktop settings and choose your new screen saver. Look for your display settings in "My Computer" on the desktop or through "Settings," accessed from the "Start" button. Do not be alarmed if you could not successfully execute this download, as there are many possible problems to every download. Try downloading a different screen saver and review the tips and techniques discussed in the "Help" link on the **http://www.freesaver.com** Web site.

# BROWSER PLUG-INS

- ## WHAT ARE PLUG-INS?
- ## THE POWER OF PLUG-INS
- ## COMMON PLUG-INS
- ## INSTALLING PLUG-INS

## WHAT ARE PLUG-INS?

Plug-ins are programs designed to expand the capabilities of another program. As the demand grows for multimedia (audio and video) and interactive content on the Internet, many third-party organizations create Web browser plug-ins that allow Web browsers to deliver this type of content. For example, on many news-related Web sites (such as CNN's site), video and audio clips are often available to accompany the articles.

The most common plug-ins are made available for free download from many Web sites. Both Microsoft and Netscape offer free downloads of plug-ins written for their browsers (or provide links to sites where they can be downloaded) on their official Web sites. To make this even simpler, both Microsoft and Netscape have added an automatic download and install feature on their newer browsers (Version 4 or later) that detects when a page contains certain plug-ins, and gives you the option to install them or not.

Netscape's official Web site can be found at:
**http://www.netscape.com**

Microsoft's official Web site can be found at:
**http://www.microsoft.com**

## Plug-ins Exercise

Explore the above Web sites and see what plug-ins are available for free download.

## THE POWER OF PLUG-INS

Plug-ins can deliver not only streaming audio and video, but also interactive animations and virtual reality — almost anything that their creators can dream of.

**NEW TERM:** VIRTUAL REALITY is a term that implies the computer user will experience a computer-generated "reality" using an assortment of interactive tools. However, this term has been misused recently and it is now applied to many types of three dimensional imaging methods that fall far short of the original use of the phrase.

**NEW TERM:** STREAMING refers to audio and video files that can be played while they download, so that the user does not have to wait for the entire file to finish downloading before viewing it or listening to it.

Since the Internet evolves so quickly, it is impossible to mention every plug-in and its uses, but to give you an idea of the capabilities, a few of the most popular are listed below.

## COMMON PLUG-INS

### RealNetworks' RealPlayer

RealAudio and RealVideo are the two most popular formats for the delivery of streaming audio and video content (see Figure 30). Streaming content makes live broadcasts possible over the Internet. Many radio stations from around the world are also broadcast in RealAudio. Although live video "Webcasts" are not seen very often, many events of public interest, such as concerts and conferences of varying types and topics are available.

Figure 30 • *RealNetworks' RealPlayer*

### *Apple QuickTime and QuickTime VR*

QuickTime began as a delivery method for digitized video, and has evolved alongside the Web. With its latest Version 3, the Apple QuickTime plug-in lets you experience streaming animation, music and video, and with QuickTime VR (QTVR), photographic virtual reality. QTVR allows panoramic images to be rotated a full 360 degrees by the user, and hotspots in specific areas of the image lead to other panoramas, letting the user explore virtual worlds as they would in reality. It is often used for virtual walk-throughs of historic buildings and houses for sale, or for rotating views of commercial merchandise.

### *Macromedia's Shockwave and Flash*

Macromedia is the creator of the multimedia industry's primary CD-ROM authoring (programming) tool, called Director. Its Shockwave plug-in was created to allow the on-line delivery of content created with this program.

Flash is the current standard for delivery of streaming vector animation on the Web. This technology, when combined with the power of Shockwave, opens up many possibilities, from fully animated Web pages to interactive games.

## INSTALLING PLUG-INS

Installing browser plug-ins is almost identical to installing any other software, with a few minor variations. Some plug-in installation procedures will ask for the location of your browser's plug-in folder. The most common locations for Internet Explorer and Netscape Navigator are listed here.

Internet Explorer:
**C:\Program Files\Internet Explorer\Plugins**

Netscape Navigator:
**C:\Program Files\Netscape\Communicator\Program\Plugins**

Another difference is that some plug-ins will only install in either the Netscape Navigator or Internet Explorer version, but not both at once. In this case, if you are using both browsers, you will have to run the installation twice.

Invariably, before you can use the newly installed plug-in, you will have to either reboot or restart your browser.

# OTHER INTERNET APPLICATIONS

- **ALTERNATIVE BROWSERS AND E-MAIL CLIENTS**
- **COMMUNICATIONS TOOLS**
- **FTP CLIENTS**
- **FILE COMPRESSION UTILITIES**
- **ANTI-VIRUS SCANNERS**
- **RESTRICTED ACCESS**

Now that we've sparked your interest with plug-ins, let's take a look at other software that is available for free download from the Internet. Not only are Netscape Navigator, Internet Explorer and other browsers available, but also many other software applications. As well, there are programs that introduce entirely new possibilities and uses for the Internet. For example, both Mirabilis' ICQ and AOL's Instant Messenger alert you when contacts and friends are on-line, making it possible to conduct live chats, or send and respond to messages instantly. On-line conferencing between several remote parties is just one of the many advanced applications available to Internet users.

## ALTERNATIVE BROWSERS AND E-MAIL CLIENTS

Opera (see Figure 31): Made by Opera Software, this browser is light on features, optimized for speed and currently the most popular browser aside from Netscape Navigator and Internet Explorer. Opera is also made to be compatible with plug-ins written for Netscape Navigator.

**Figure 31 • *Opera***
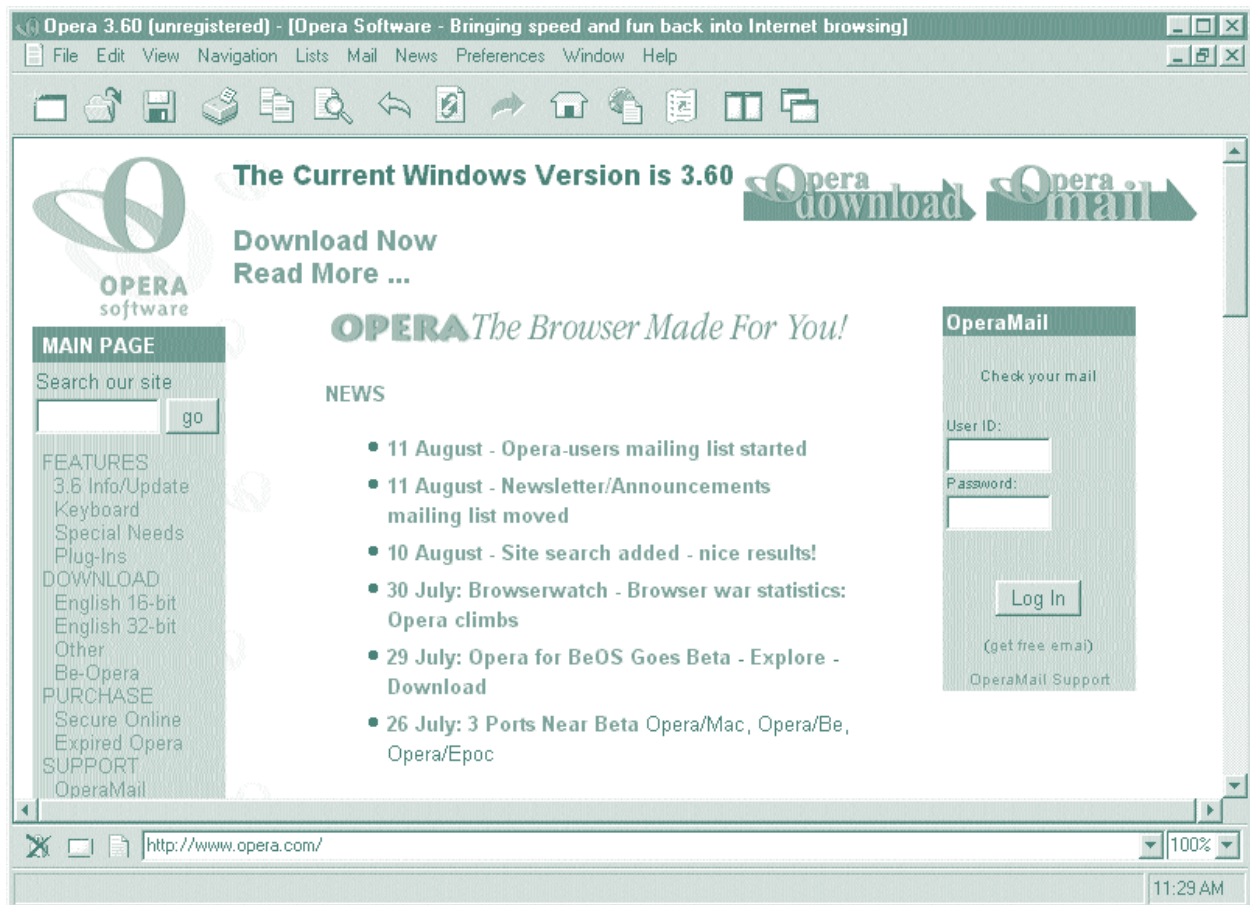
NCSA Mosaic (see Figure 32): NCSA Mosaic was a pioneering Web browser, the first graphics-based Web browser available. This gives NCSA Mosaic its fame, but it is known for being buggy, and for having little or no support for modern Web standards.

**NEW TERM:** BUGGY is a slang term referring to computer "bugs," which are software problems that, in certain situations, prevent the software from operating as it is intended to.

**Figure 32 • *NCSA Mosaic***
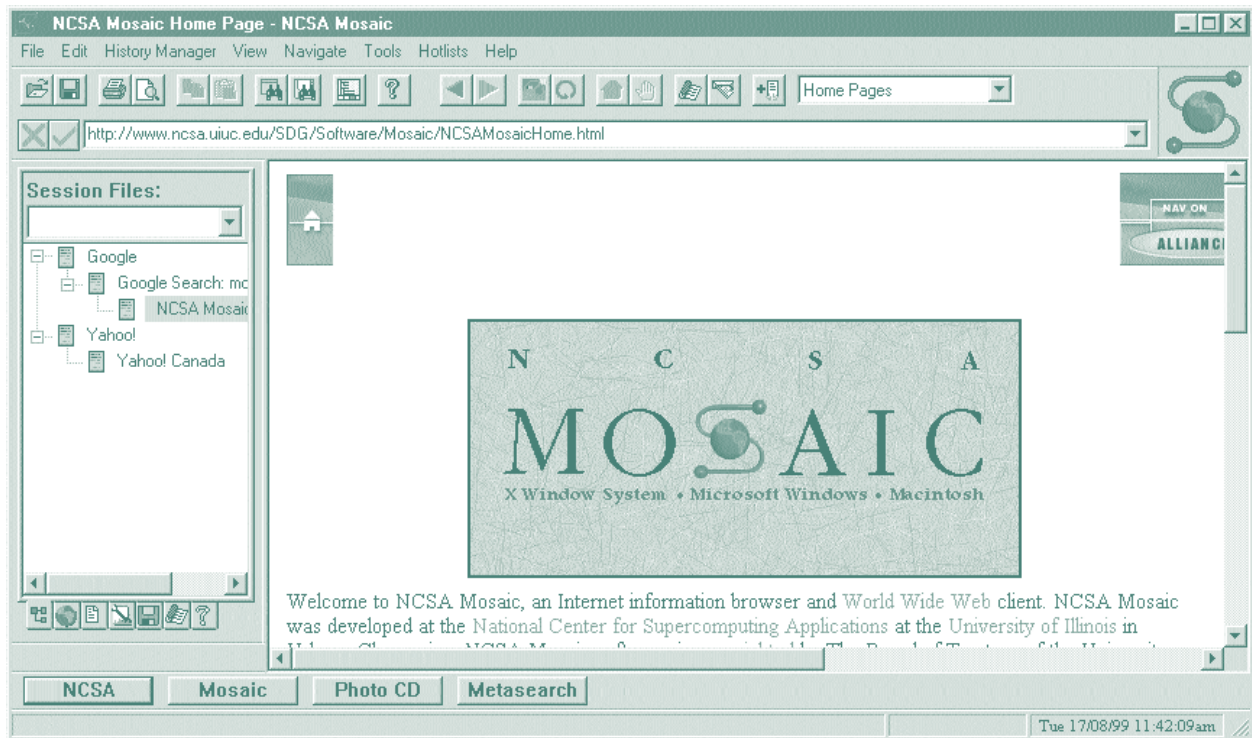
Eudora Pro Email (see Figure 33): This e-mail client is known mainly for its e-mail filtering, sorting and automation functions. Eudora Pro Email is often used for cataloguing and categorizing e-mail addresses to send out mass e-mails, such as newsletters, in addition to its more common sending and receiving functions.

**Figure 33 • *Eudora Pro Email***
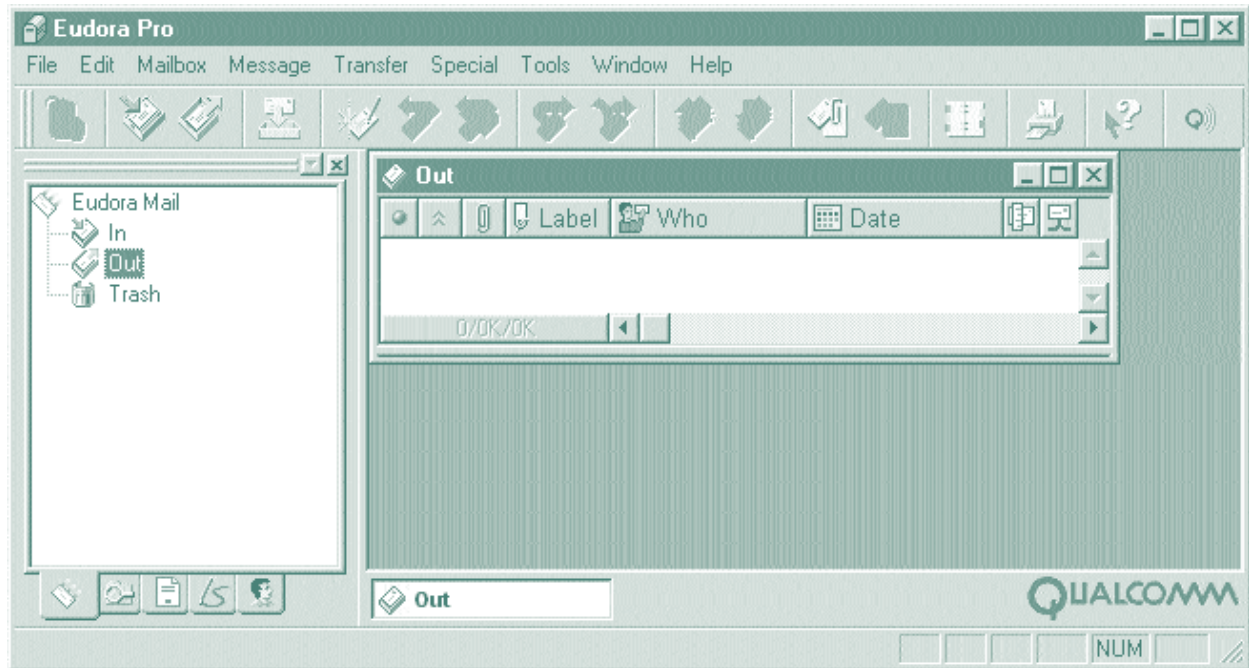
Pegasus Mail (see Figure 34): This e-mail client is often recommended for those who are new to e-mail, since it takes you step-by-step from setting it up to accessing your Internet service provider's mailbox. It is similar to Eudora Pro Email, but lacks many of Eudora's advanced features.

**Figure 34 • *Pegasus Mail***
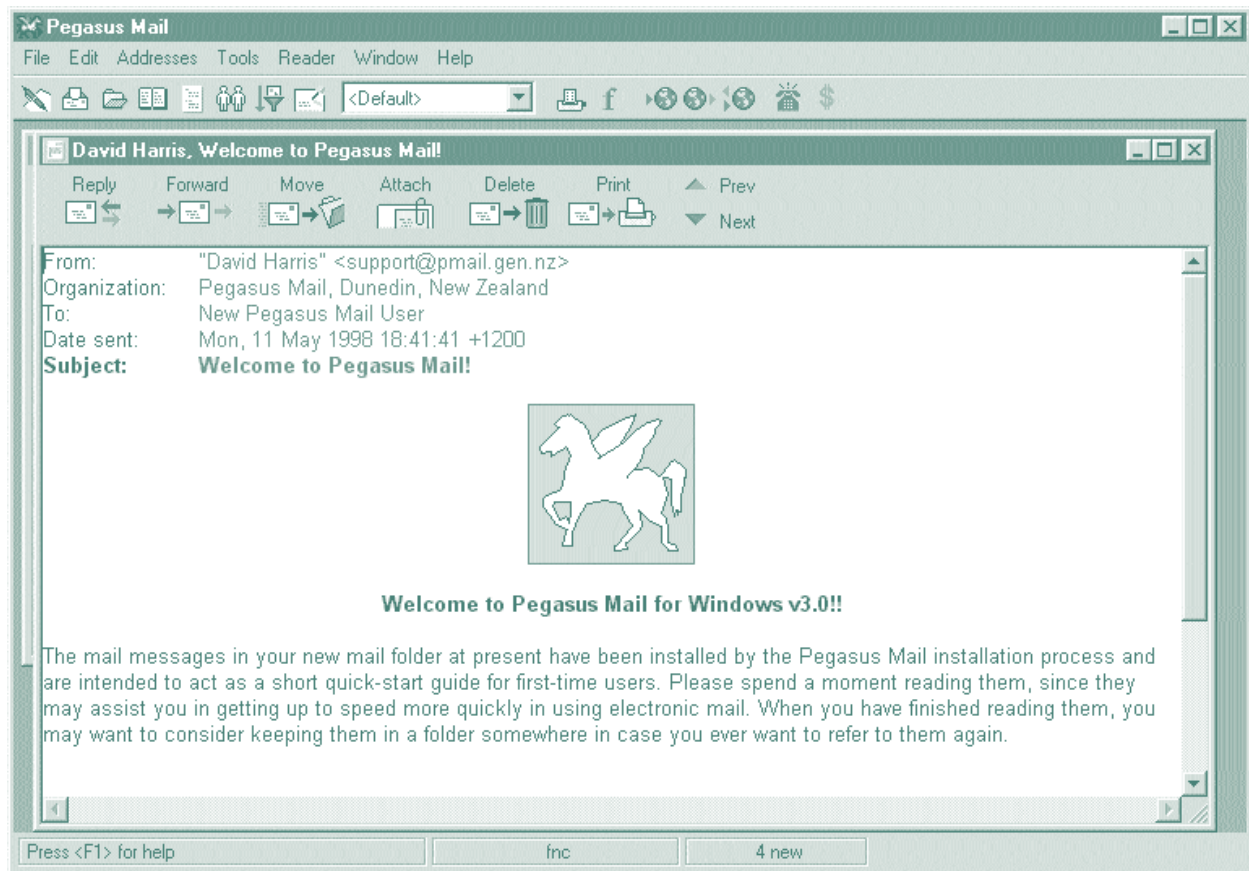
## COMMUNICATIONS TOOLS

Mirabilis ICQ, AOL Instant Messenger and PowWow are programs that perform very similar functions. When you and people you know are on-line and running these programs, they will alert you to each other's presence on-line, and allow you to send messages to each other (see Figure 35). It is also possible to have a live chat, where you can see each other typing in a split window. Recent versions of ICQ ("I Seek You") also equip users to send voice messages, computer files, Web addresses, e-mails and more.

MIRC is the leading Internet Relay Chat (IRC) client currently available. IRC allows a practically limitless number of people to meet in a single channel or "room," much like a real-time newsgroup, and to transfer files. IRC is often used in a similar fashion to telephone conference calls for either business discussions or social chats.

**Figure 35 •** *Mirabilis ICQ*
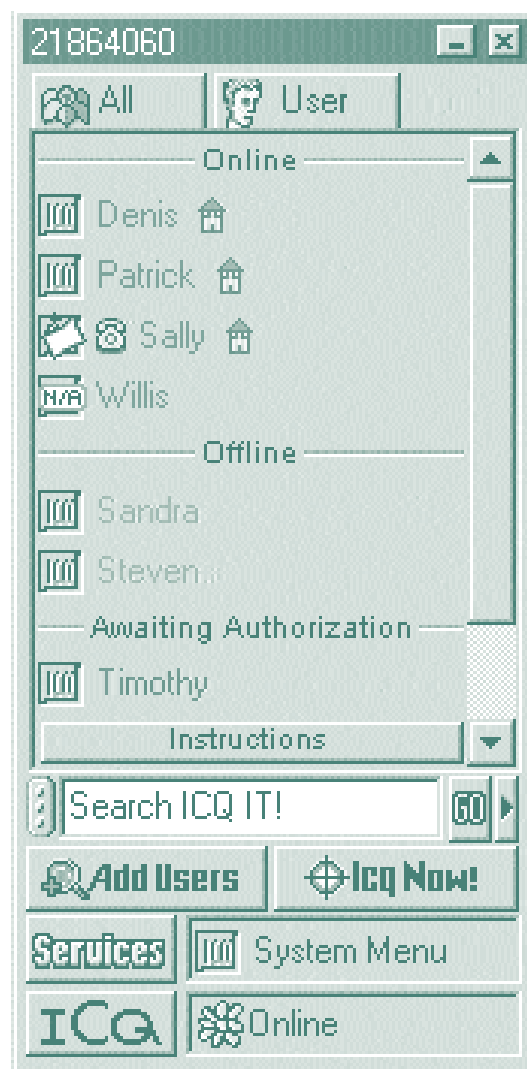
**TIP:** The previously mentioned programs are a very economical alternative to expensive conference calls. Conferencing in a printed format has the added bonus of eliminating any disagreement over what was or was not said. As well, controversial issues seem to be resolved more easily when people realize that their input can be saved or printed for later reference. Be aware that some of the newest Web browsers are already implementing some of these functions, and they will become more common on the Internet.

## FTP CLIENTS

FTP stands for File Transfer Protocol, which simply means that its sole purpose is the transfer of files between computers. These programs allow you to connect to FTP servers and view their contents, much as you would the contents of your own hard drive or floppy disk, and copy files from them in much the same fashion (see Figure 36).

**Figure 36 • *File Transfer Protocol***
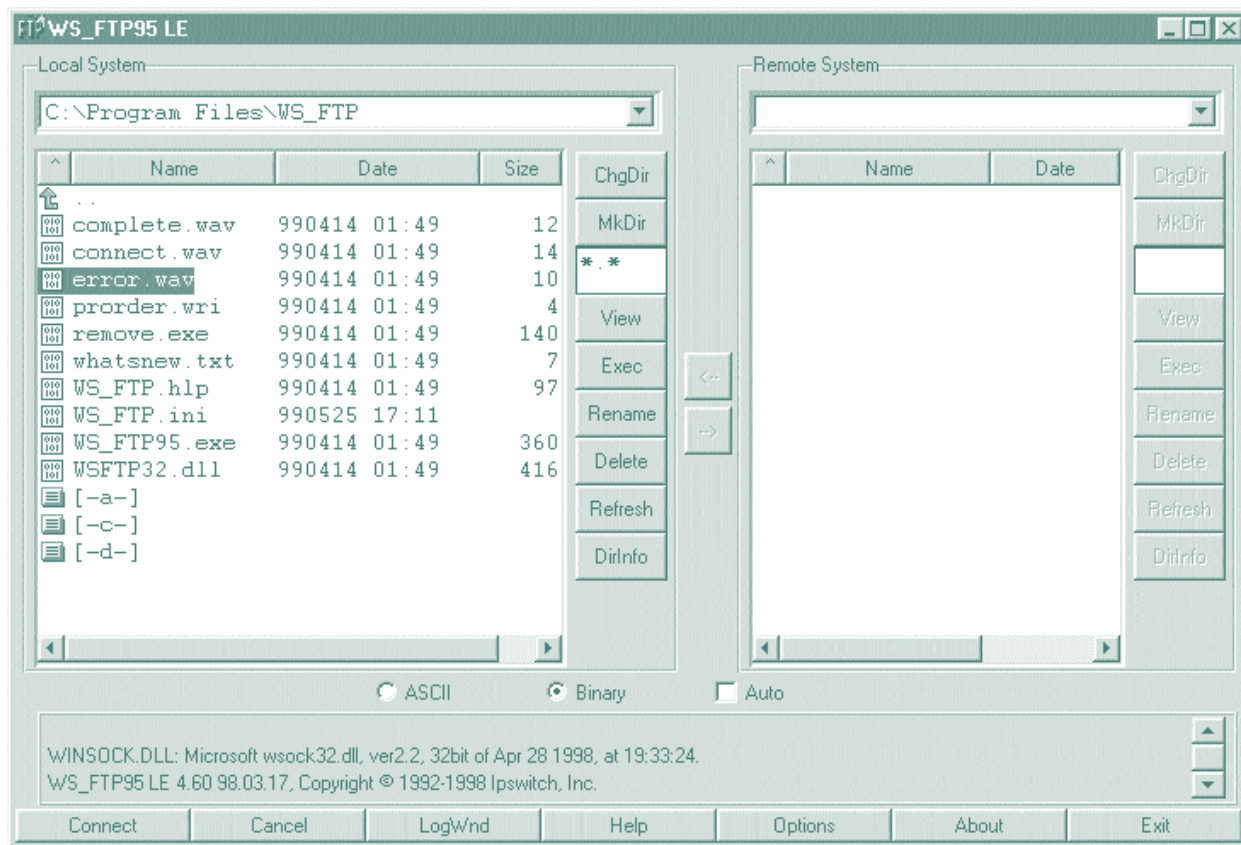
## FILE COMPRESSION UTILITIES

The most common programs of this type are WinZip (see Figure 37) and Aladdin Systems' StuffIt Expander. Their purpose is to compress one or more files efficiently into a single smaller file, and to extract the original files from this archive. The compressed file can be up to 80 percent smaller than the sum of the originals.

These files can be easily identified by their file extensions: ".zip" for zipped files and ".sit" for Stuffit files.

**Figure 37 • *WinZip 7.0***
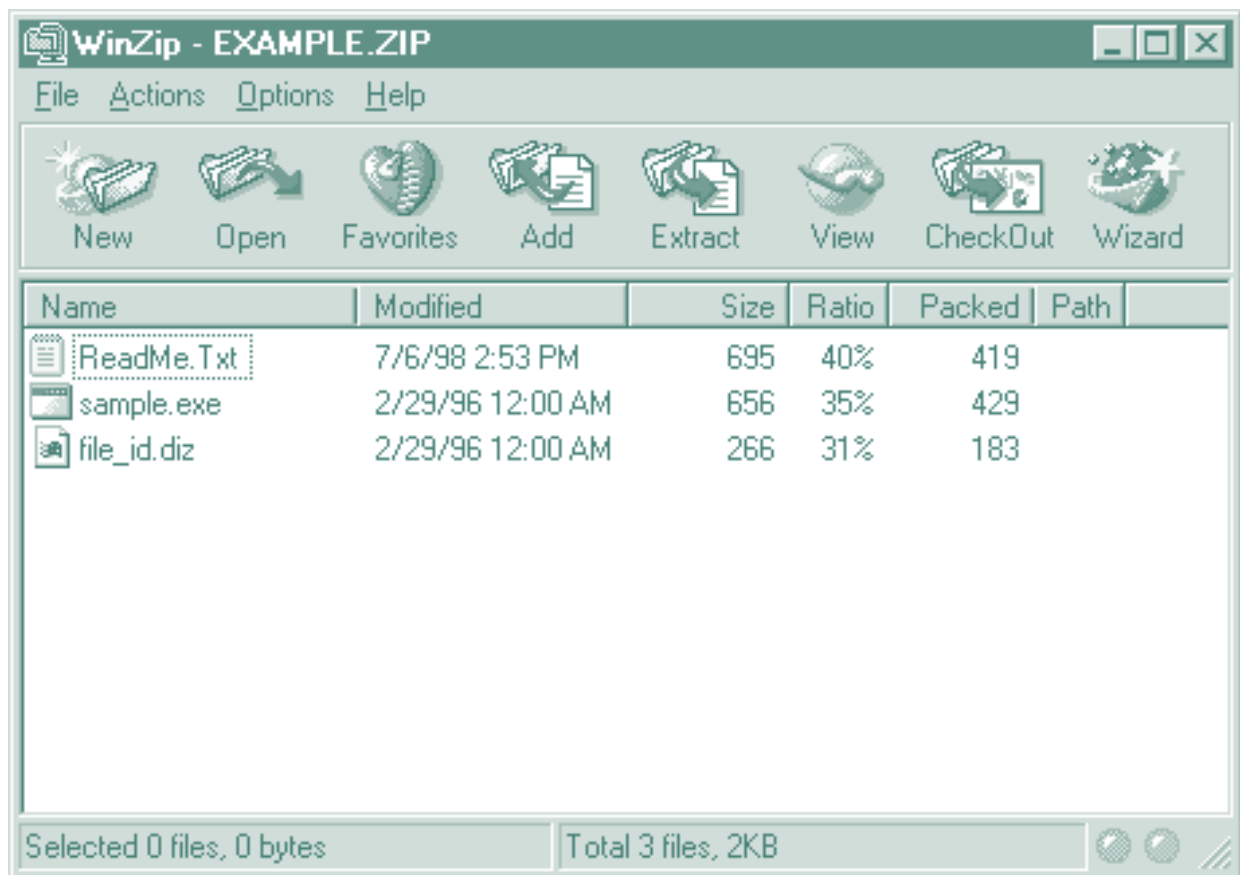
## ANTI-VIRUS SCANNERS

Computer viruses are small, malicious programs that attach themselves to other software, reproduce and then interfere with the proper operation of the host program. Viruses spread to other computers through the use of shared floppy discs and other storage devices, and, increasingly, through the Internet and other networks.

Anti-virus scanners are evolving applications that carry a list of all computer viruses known at the time. They "look" through files of an entire hard drive checking for every virus they know of, and give the user the option either to clean the infected files, or to delete them if they cannot be cleaned. Most anti-virus scanners can also clean incoming e-mail attachments and your other memory accessories such as floppy disks.

Figure 38 shows McAfee VirusScan. Two other popular anti-virus packages are Norton Antivirus and ThunderByte.

**Figure 38 • *McAfee VirusScan***
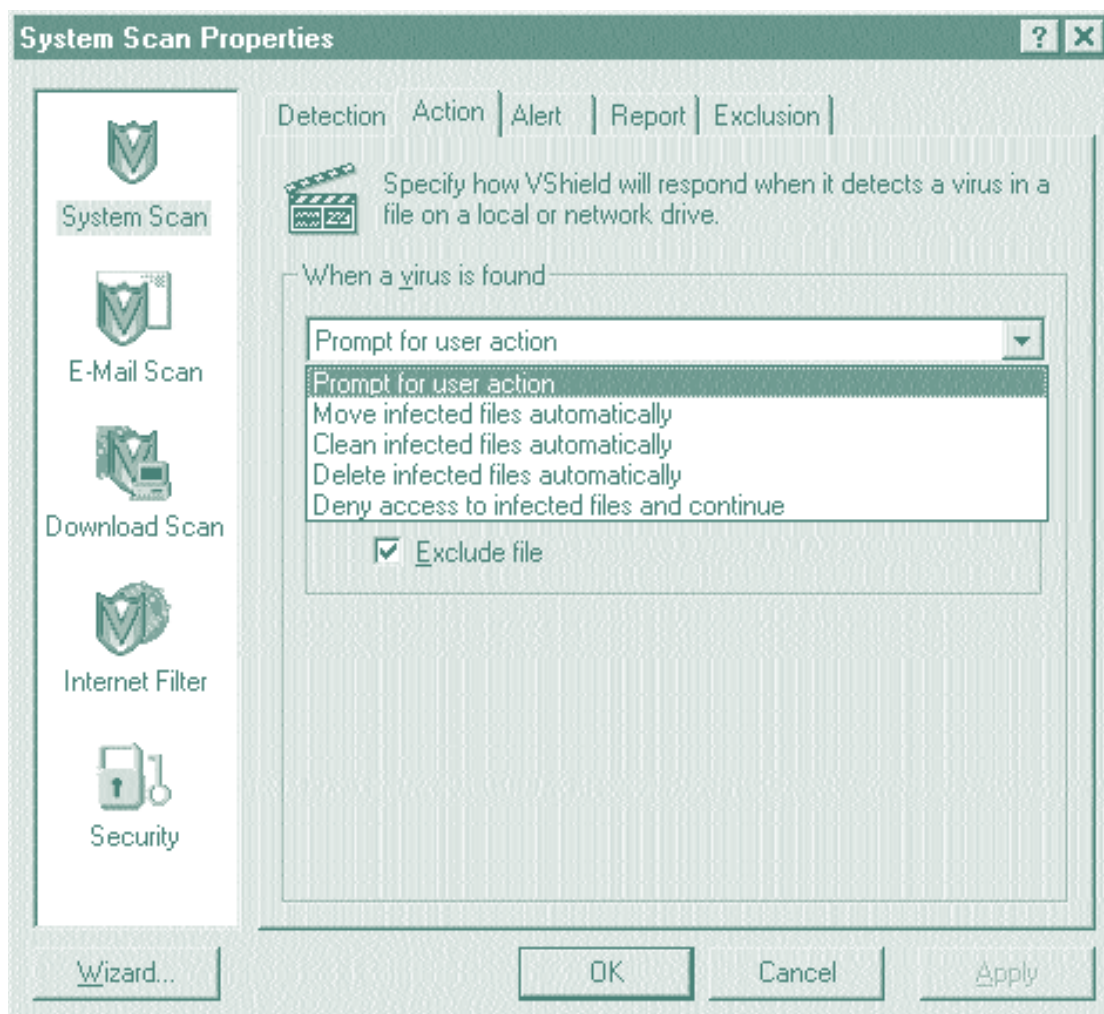
## RESTRICTED ACCESS

These programs act as a filter between your Internet applications (Web browser, e-mail and newsgroup clients) and the Internet. They can be configured to block out Web pages and newsgroups containing adult content or hate content, scanning them against a list of unacceptable words, phrases and a constantly updated database of Web addresses.

They are also capable of replacing offensive words with asterisks (*), and offer many different levels of censorship and activity logging.

The most popular of these programs are Cyber Patrol, CYBERsitter and Net Nanny (see Figure 39).

**Figure 39 • *Net Nanny***
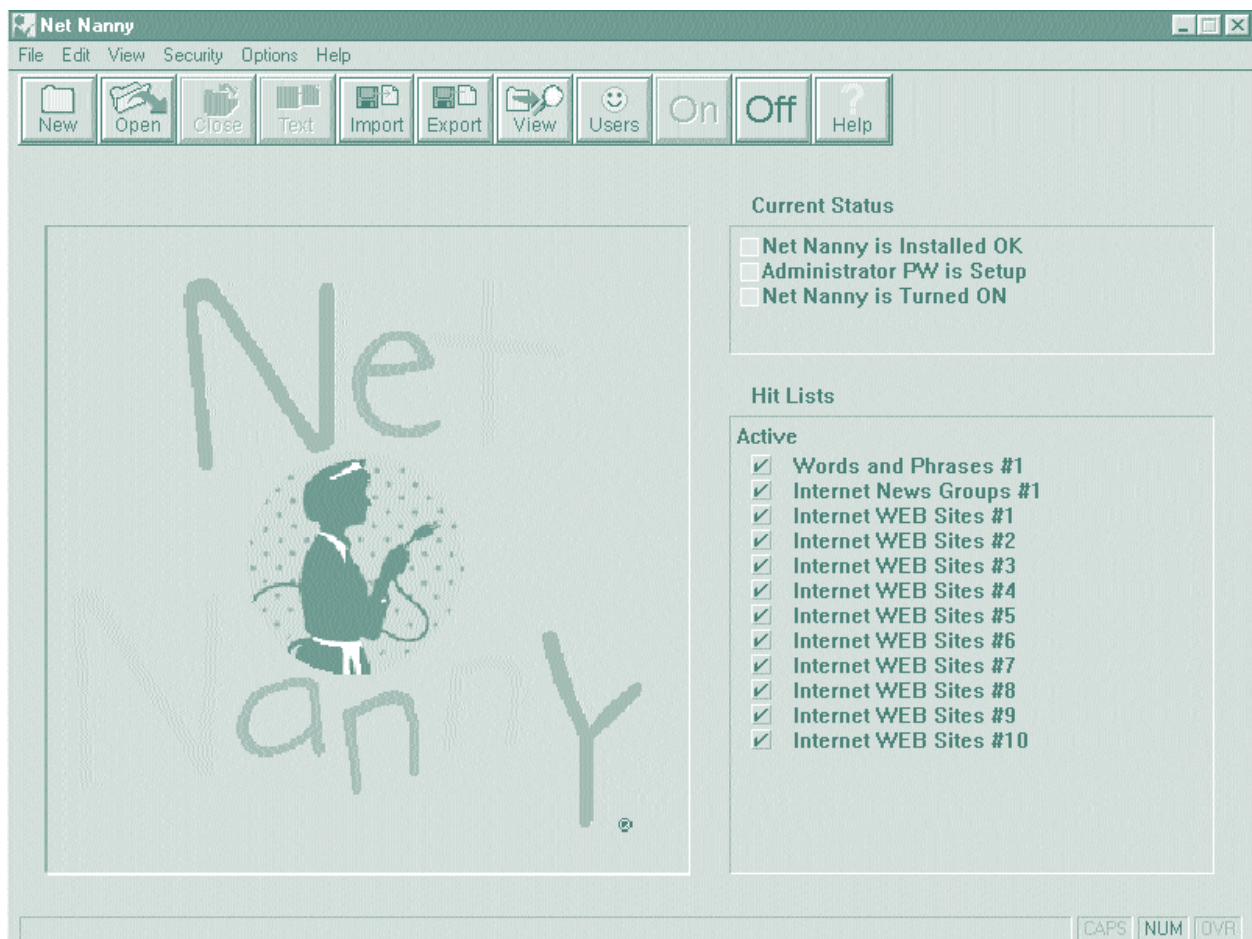
# EXTRA PRACTICE EXERCISES

For this exercise you will download Adobe Acrobat Reader, which lets you view and print Portable Document Format (PDF) files. This is the current standard for transferring documents between different computer systems while retaining the original layout and format of the document.

As a real world example, you could distribute a newsletter by e-mail as a PDF attachment. You could create the newsletter in Adobe Acrobat (which must be purchased) and then simply send it as an e-mail attachment. The recipients may have completely different computer systems, but by using Adobe Acrobat Reader (which is free) they would be able to view and print the newsletter exactly as you designed it. Using Adobe Acrobat and an e-mail mailing list of your distant offices is a fast and easy method of keeping everyone up to date on the current issues concerning your organization. The recipient offices can easily print and post your newsletter for everyone to read at their convenience.

First, open your Web browser and go to **http://www.adobe.com/prodindex/ acrobat/alternate.html** There you will find a list of options for an assortment of standard computer platforms. Simply click on the correct download for your type of computer system and follow the prompts (refer to the Downloading Files section beginning on page 74 if necessary). Remember to write down exactly where in your computer the file is being downloaded.

While you are waiting for the download to finish, you may want to learn more about PDF and Acrobat at **http://www.adobe.com/products/acrobat/main.html**

When the download is complete, right click the "Start" button, then click on "Explore" to open the Windows Explorer program. There you can follow the path you wrote down earlier to the Acrobat Reader file and double click it to start the installation. Follow the prompts and continue clicking "Next" until you finish.

If you have any problems with your download consult the Web site **http://www.adobe.com/support/downloads/main.html** Adobe has excellent customer assistance information available on its site for any problems you may encounter. Most software distributors try very hard to make things as easy as they can for their users.

Once Adobe Acrobat Reader is installed, you can view any PDF file by double clicking on it, or by starting Acrobat Reader first and then choosing "File," then "Open," then the file you want to view. PDF files can be found on the Web by going to the Web site **http://www.pitt.edu/~document/titles/** Scroll down the list and you will see many links with the ".pdf" extension that you can click on to test the download.

## ALTERNATIVE EXERCISE

It is strongly recommended that you successfully complete the exercise above before attempting this one.

For this exercise, you will download one of the currently popular plug-ins, the Flash plug-in, to view some of the animated sites on the Web. Although the Flash plug-in is fun and entertaining, it has little real world value in an office environment. This exercise will demonstrate the flexibility of the Web as an information distribution method.

Macromedia's Flash plug-in is available at **http://www.macromedia.com** as freeware. Click the hyperlink for downloads and then the link for the shockwave and flash players. Follow the prompt screens to the end of the download. Do not forget to make notes to yourself as needed, and remember to reboot your computer before starting to use the new plug-in.

Now that you have downloaded the Flash plug-in, visit Disney's Web site at **http://www.disney.com** for demonstrations of how plug-ins can increase the impact of Web sites. Disney makes very good use of this plug-in in many areas of its Web site. Since it is one of the more extensive Web sites around, exploring it is an interesting exercise in itself.

# Appendixes

# GLOSSARY OF TERMS AND DEFINITIONS

This glossary covers many of the basic terms Internet users will encounter. Some of these terms have not been used in this manual and are listed here for future reference.

## A

### Address
The location of an Internet resource. An e-mail address looks similar to **johndoe@anycompany.com** A Web address looks like **http://www.anycompany.com**

### Add-in
A mini-program that runs in conjunction with a Web browser or other application, which enhances the functionality of that program. In order for the add-in to run, the main application must be running as well.

### Anchor
Either the starting point or destination of a hyperlink.

### Anonymous FTP
An anonymous FTP site allows Internet users to log in and download files from the computer without having a private user ID and password. To log in, you typically enter "anonymous" as the user ID and your e-mail address as the password.

### Archie
The system used in searching FTP sites for files.

### ASCII
American Standard Code for Information Interchange, a set of 128 alphanumeric and special control characters. ASCII files are also known as plain text files.

### AU
(.au) — a common audio file format for UNIX systems.

### AVI
Audio Video Interleave — a common video file format (.avi). Video quality can be very good at smaller resolutions, but files tend to be rather large.

# B

### Bandwidth

A measurement of the volume of information that can be transmitted over a network connection at a given time, often measured in bits per second (bps). Higher bandwidth gives a higher rate of data transfer.

### Binary

The system by which combinations of zeros and ones are used to represent any type of data stored on a computer.

### Bit

A digital number of either zero or one. The smallest unit of computerized data. All of the data in computers can be broken down to ones and zeros and each is referred to as a bit.

### Bitmap File

A common image format (.bmp) defined by a rectangular pattern of pixels.

### Bookmark

A pointer to a particular Web site. Within browsers, you can bookmark interesting pages so you can return to them easily.

### BPS

Bits per second — a measurement of the volume of data that a modem or other Internet connection is capable of transmitting. Typical modem speeds today are 14.4 Kbps (14 400 bits per second) and 28.8 Kbps. ISDN offers transfer rates of 128 Kbps.

### Browser

A program run on a client computer for viewing World Wide Web pages. Examples include Netscape Navigator, Internet Explorer and NCSA Mosaic.

# C

### Cache

A region of memory where frequently accessed data can be stored for rapid access. Web browsers often maintain a cache of Web pages to reduce download time and for use with the "back" button.

### CGI

Common Gateway Interface — the specification for how an HTTP server should communicate with server gateway applications.

**Chat**

A system that allows for on-line communication between Internet users. See IRC.

**Client-Server**

A communication protocol between networked computers in which the services of one computer (the server) are requested by the other (the client).

**Compressed**

A reference to a data file that has been reduced in size by special programs designed to reduce file sizes without affecting content. Data files available for download from the Internet are usually compressed in order to save server space and reduce transfer times. Typical file extensions for compressed files include ".zip" (DOS/Windows) and ".tar" (UNIX).

**Cookies**

The collective name for files stored on your hard drive by your Web browser that hold information about your browsing habits, such as what sites you have visited, which newsgroups you have read and other Internet activities.

# D

**Dial-up Connection**

A connection to the Internet via phone line and modem. Connection types include PPP and SLIP.

**Direct Connection**

A connection made directly to the Internet. This is usually much faster than a dial-up connection.

**Discussion Group**

A particular section within the USENET system that is typically, though not always, dedicated to a particular subject of interest. Also known as a newsgroup.

**DLL File**

Winsock — a Microsoft Windows DLL file that provides the interface to TCP/IP services, essentially allowing Windows to use Web browsers, FTP programs and others.

**Domain**

The Internet is divided into smaller sets known as domains, including ".com" (business), ".gov" (government), ".edu" (educational), ".ca" (Canadian) and others.

# E

**E-mail**
Electronic mail.

**Emoticon**
A combination of characters that form a facial expression. For example, if you turn your head sideways, the characters :) make a smiley face, and the characters 8) make a four-eyed smiley. They're frequently used in e-mail messages to convey a particular tone. If you wanted to insult somebody jokingly, without starting a flame war, you could write, "I think you are a total loser :)."

**Eudora Pro Email**
A popular freeware and commercial e-mail management program.

# F

**FAQs**
Frequently Asked Questions — a collection of commonly asked questions and answers, usually relating to a Web site or discussion group.

**Flame**
An insulting message exchanged via e-mail or within newsgroups. A series of flames is known as a flame war.

**FTP**
File Transfer Protocol — a specific format or set of rules for exchanging files between computers via the Internet.

# G

**Gateway**
Computer hardware and software that allow users to connect from one network to another.

**GIF**
Graphics Interchange Format — a common image format. Most images seen on Web pages are GIF files.

**Gopher**

A system allowing users to search for files via menus or directory structures. Uses plain English names and is text-based only.

# H

**Helper Application**

A program allowing you to view multimedia files that your Web browser cannot handle internally, such as images, and audio and video files. The file must be downloaded before it can be displayed or played, as opposed to plug-ins, which allow you actually to view the file over the Internet without downloading first.

**Home Page**

The first page of a Web site. Also, the Web site that automatically loads each time you launch your browser.

**Host**

The name of a specific computer within a larger domain.

**Hot Java**

A Web browser developed by Sun Microsystems that takes full advantage of applets written in the Java programming language.

**HTML**

HyperText Mark-up Language — a collection of tags typically used in the development of Web pages.

**HTTP**

HyperText Transfer Protocol — a set of instructions for communication between a server and a World Wide Web client.

**Hypertext**

A document that contains links to other documents, commonly seen in Web pages and help files.

# I

**Information Superhighway/Infobahn**

These terms were coined to describe a possible upgrade to the existing Internet through the use of fibre optics or coaxial cable to allow for high speed data transmission. This highway does not exist — the Internet of today is not an information superhighway.

### IRC

Internet Relay Chat — the system allowing Internet users to conduct on-line text-based communication with one or more other users.

### ISDN

Integrated Services Digital Network — a system of all digital, high bandwidth telephone lines allowing for the simultaneous delivery of audio, video and data. Data travel at 128 Kbps.

### ISP

Internet service provider — the company that provides you with a connection to the Internet via either a dial-up connection or a direct connection.

### IP Address

Internet Protocol Address — every computer on the Internet has a unique identifying number, such as 191.1.24.2.

### Internet

The worldwide network of computers communicating via an agreed-upon Internet protocol.

# J

### Java

A programming language, similar to C++, created by Sun Microsystems for developing applets that are capable of running on any computer regardless of the operating system.

### JPEG

Joint Photograhic Experts Group — a common image format. Most of the images you see embedded into Web pages are GIFs, but sometimes, especially in art or photographic Web sites, you can click on the image to bring up a higher resolution (larger or sharper image) JPEG version of the same image.

# K

### Killfile

Found within newsreaders, a list of undesirable authors or threads to filter out.

### Knowbot

A system for finding Internet users' e-mail addresses via their first and last names. Due to the rapid growth in the volume of e-mail users, this system is not perfect.

# L

### LAN
Local Area Network — a network of computers confined within a small area, such as an office building.

### Listserv
An electronic mailing list typically used by discussion groups. When you subscribe to a listserv, you will receive periodic e-mail messages about the topic you have requested.

### Log In
A procedure used at the start of some applications to verify the identity of the user. This sign-in procedure is often found in mail servers, newsgroups and even on individual computers if computer security and network security are local issues.

### Lurking
The act of reading through mail lists and newsgroups without posting any messages. It is considered good netiquette to get the feel of the topic by lurking before adding your own opinions.

### Lynx
A popular, text-only World Wide Web browser.

# M

### Mailing List
A list of e-mail addresses to which messages are sent. You can subscribe to mailing lists typically by sending an e-mail to the contact address with the necessary information.

### MIDI
Musical Instrument Digital Interface — a high-quality audio file format.

### MIME
Multipurpose Internet Mail Extension — a protocol for allowing e-mail messages to contain various types of media (text, audio, video, images, etc.).

### Mirror Site
An Internet site set up as an alternative to a busy site; contains copies of all the files stored at the primary location. Using the nearest mirror site to your own location will normally achieve faster downloads.

**MPEG**

Motion Picture Experts Group — a video file format offering excellent quality in a relatively small file. Video files found on the Internet are frequently stored in the MPEG format.

**Multimedia**

A combination of media types on a single document, possibly including text, graphics, animation, audio and video.

# N

**Nag Notices**

A slang term referring to the notices that appear periodically while you are working with some shareware products. These notices are put in these programs to remind users to properly pay for and register the program.

**Nameserver**

A computer running a program that converts domain names into appropriate IP addresses and vice versa.

**NCSA Mosaic**

One of the first graphical World Wide Web browsers.

**Netiquette**

Short for Internet etiquette.

**Newbie**

A new Internet user.

**Newsgroup**

A particular section within the USENET system that is typically, though not always, dedicated to a particular subject of interest. Also known as discussion groups.

**Newsreader**

A program designed for organizing the threads received from a mailing list or newsgroup.

**Network**

A system of connected computers exchanging information with each other.

# O

### On-line
When you connect to the Internet, you are on-line.

### On-line Service
Services such as America Online, CompuServe, Prodigy and the Microsoft Network, which provide content to subscribers and usually connections to the Internet, although these connections are sometimes limited. For example, some on-line services only added Web browsing abilities fairly recently.

# P

### Packet
A piece of data. The TCP/IP protocol breaks large data files into smaller "packets" for transmission. When the data reach their destination, the program using this protocol makes sure that all packets have arrived without error.

### Page
A Web page, one page of a Web site, specifically an HTML document.

### PING
Ping — a program for determining if another computer is presently connected to the Internet.

### Pixel
Short for picture element — the smallest unit of resolution on a monitor, commonly used as a unit of measurement.

### Plug-in
A small application that extends the built-in capabilities of your Web browser. Examples include Macromedia's Shockwave, providing animation, and RealAudio, offering streamed sound files over the Internet.

### PKZIP
A widely available shareware utility allowing users to compress and decompress data files. Helps reduce storage space and transfer times.

### POP
Post Office Protocol — a method of storing and returning e-mail.

**Post**

To send a message to a mailing list or newsgroup.

**PPP**

Point-to-Point Protocol — a protocol for converting a dial-up connection to a point-to-point connection over the Internet. It is frequently used for accessing the World Wide Web over phone lines, and is considered more stable than a SLIP connection.

**PGP**

Pretty Good Privacy — a security system for Internet communication where two keys are required to send a message safely. A public key encrypts (scrambles) the message for transfer over the Internet. The recipient's private key deciphers (unscrambles) the message.

**Protocol**

An agreed-upon set of rules by which computers exchange information.

**Provider**

An Internet service provider, or ISP.

# Q

**Queue**

A list of e-mail messages that will be distributed next time you log onto the Internet.

**QuickTime**

A common video file format created by Apple Computer. Video files found on the Internet are often stored in the QuickTime format; they require a special viewer program for playback.

# R

**Register**

With shareware, when you contact the vendor and pay for the product, you are registering. In return, you will receive either a password to turn off the nag notices or a copy of the full commercial version.

**Robot**

A program that automatically searches the World Wide Web for files.

# S

**Search Engine**
A tool for searching for information on the Internet by topic. Popular engines include Infoseek, Inktomi and Web Crawler.

**SGML**
Standard Generalized Markup Language — a standard for mark-up languages. HTML is one version of SGML.

**Site**
A collection of related Web pages or a stand-alone Web page.

**SLIP**
Serial Line Internet Protocol — a protocol allowing you to use a dial-up connection as an Internet connection, similar to a PPP connection but far less stable.

**SMTP**
Simple Mail Transfer Protocol — a protocol for exchanging e-mail messages over the Internet.

**Snail Mail**
Slang term for conventional mail services such as the post office.

**SPAM**
Refers to the sending of unwelcome messages to a newsgroup or mailing list to promote a commercial product or Web site, or the actual messages sent for promotional purposes.

**Subscribe**
The act of becoming a member of an organization. On the Internet it refers to signing on to a mailing list, a newsgroup, an on-line service or an Internet service.

# T

**T1**
A category of leased telephone line service, allowing transfer rates of 1.5 MBps (megabytes per second) over the Internet. This is an expensive service for home use but it is often found in business environments.

**TAR**
Tape ARchive — a compression format commonly used in the transfer and storage of files residing on UNIX computers.

**TCP/IP**

Transmission Control Protocol/Internet Protocol — this protocol is the foundation of the Internet, an agreed-upon set of rules directing computers on how to exchange information with each other. Other Internet protocols, such as FTP, Gopher and HTTP are subcategories of TCP/IP.

**Telnet**

A protocol for logging on to remote computers from anywhere on the Internet.

**Thread**

An ongoing message-based conversation on a single subject, such as the conversational dialogue following a particular topic in a discussion group.

**TIFF**

Tag Image File Format — a popular graphic image file format.

**Trolling**

Deliberately posting false information in order to elicit responses from people.

# U

**UNIX**

A powerful operating system used on the Internet. World Wide Web servers frequently run on UNIX.

**Upload**

To copy a file from a local computer connected to the Internet to a remote computer. The opposite is "download."

**USENET**

Short for User's Network, the collection of the thousands of bulletin boards residing on the Internet. Each bulletin board contains discussion groups, or newsgroups, dedicated to a myriad of topics. Messages are posted and responded to by readers either as public or private e-mails.

# V

**Veronica**

A system used in searching gopher menus for topics.

**Visit**

Synonymous with viewing a World Wide Web site.

**VolNet**

Voluntary Sector Network Support Program. VolNet is part of the Government of Canada's Connecting Canadians initiative, which aims to make the Information Highway accessible to all Canadians in the new millennium.

# W

**WAIS**

Wide Area Information Servers — a system of searchable text databases.

**WAN**

Wide Area Network — a system of connected computers spanning a large geographical area.

**WAV**

Waveform Audio (.wav) — a common audio file format for DOS/Windows computers.

**WINSOCK**

Winsock — a Microsoft Windows DLL file that provides the interface to TCP/IP services, essentially allowing Windows to use Web browsers, FTP programs and others.

**WWW**

World Wide Web, or simply the Web. A subset of the Internet that uses a combination of text, graphics, audio and video (multimedia) to provide information on almost every subject imaginable.

# X

**X-Pixelmap**

An uncompressed color image file format (.xpm).

**X-Bitmap**

An uncompressed black and white image file format (.xbm).

# Z

**ZIP**

A compressed file format (.zip). Many files available on the Internet are compressed or zipped to reduce storage space and transfer times. To uncompress the file, you need a utility like PKZip(DOS) or WinZip (Windows).

# INTERNET POLICY CONSIDERATIONS

Most organizations introduce an internal policy to help guide their Internet use. This is done to ensure that the Internet enhances their efficiency. Since Internet needs vary from one organization to another, any Internet policy must be customized on a case-by-case basis.

Some of the key questions to consider when establishing guidelines for your organization's Internet policy include:

- Who needs access to the Internet and who has priority if access time is limited?

- How much Internet time is available to the organization?

- What is the policy regarding personal Internet usage?

- Who is responsible for editing and confirming the content of any outgoing e-mail and newsgroup postings?

- Who is responsible for maintaining and enforcing the necessary security measures to protect your organization's computers and any confidential files on your system?

In most organizations, any problems that arise concerning Internet use are usually the result of employees' ignorance of the issues. Nobody knowingly imports a virus into a computer; being aware of any Internet pitfalls is the largest part of avoiding them. Concerning postings to newsgroups, it is usually sufficient to make employees aware that their outgoing correspondence may be interpreted as representing the organization's views. Mature employees can be very self-policing if they know the issues that concern the organization.

It is recommended that a short printed policy be distributed to everyone who may need access to the Internet. This should be fairly explicit to let employees know exactly what is allowed and what is expected of them. Remember to have some Internet time available outside of regular work hours to keep good employee relations and encourage efficient use of the Internet while working.

# RECOMMENDED WEB SITES

## INTERNET ACCESSIBILITY FOR THE DISABLED

http://connect.gc.ca/en/931-e.htm

http://www.trace.wisc.edu

http://www.cast.org

http://www.abilityinfo.com/category/orgs.html

## SEARCH ENGINE INFORMATION

http://www.nueva.pvt.k12.ca.us/~debbie/ library/research/adviceengine.html

http://cuiwww.unige.ch/meta-index.html

http://www.searchenginewatch.com

## GLOSSARIES

http://www.onelook.com

http://www.webreference.com/internet/glossaries.html

http://whatis.com

## PLUG-INS AND OTHER DOWNLOADS

http://www.internet.com/sections/downloads.html

http://www.filemine.com

http://www.filelibrary.com

## NEWSGROUPS

http://www.deja.com

http://www.webpromotion.co.uk/newsgroups.htm

http://www.orst.edu/instruct/for112/morenews.html

## WEB SITE DEVELOPMENT

http://goodpractices.com

http://www.websitelinks.com

http://www.massnetworks.org/~nicoley/schools

## INTERNET SERVICE PROVIDERS

http://thelist.internet.com

http://www.thedirectory.org

http://www.currents.net/resources/ispsearch

## VOLUNTARY SECTOR

http://www.volnet.org

http://www.dal.ca/~henson/np-sites.html

http://www.web.net/vsr-trsb/members-e.html

http://www.idealist.org