chapter 3

Communicating Over the Internet

"We have got to start meeting this way."

—Lily Tomlin as Ernestine, WebEx Commercial

In this chapter, you will learn how to:

- Define the rules of Internet etiquette (Netiquette) for being a good citizen of the Net.
- Configure an e-mail client and use it to send, receive, answer, forward, and file e-mail; filter out unwanted mail; and detect fake mail IDs.
- Subscribe to, participate in, and set up your own listserv mailing lists.
- Configure a newsgroup reader, participate in USENET newsgroups, and create your own Web-based discussion forum.
- Set up a blog to keep an online diary or weblog of events.
- Configure an RSS reader to feed you news about new content posted at Web sites of interest.
- Enter an IRC chat room where you can participate in meaningful, real-time conversations.
- Configure an instant messaging client to IM your buddies on the Internet.
- Configure your computer for videoconferencing and participate in conversations that let you see and hear your conversants.
- Use the telnet protocol to connect to remote host computers on the Internet.
- Use text-based FTP commands to upload and download files on legacy systems that do not have graphical FTP clients.

THE most powerful use of the Internet is for communicating with other users. Never before has a communications medium made it so quick, easy, and cost-effective to communicate with tens of millions of users all over the world. So great is the benefit that the Internet can truly be called a supermedium for communicating.

In this chapter, you will learn about *electronic mail*, an asynchronous message transmission medium between two people; *listserv*, a way of communicating ideas to a specific group of people; *newsgroups*, online discussion groups in which the topics are organized hierarchically, enabling users to read and write messages and converse about the topics in a manner comparable to attending a conference; *blogs*, weblogs that users keep online to inform each other about what they are doing; *RSS*, which feeds you news headlines so you can keep up with what is happening at other Web sites; and the real-time technologies of *Internet Relay Chat (IRC)*, *instant messaging* (IM), and *videoconferencing*, which enable you to converse with other users who are online. As a bonus, this chapter will conclude by teaching you how to log on to a remote computer via telnet and use text-based FTP commands to prepare you for the possibility that you may someday need to communicate from a legacy system that does not have the latest protocols.

Before you begin communicating on the Information Superhighway, however, you should learn some of the rules of the road. Therefore, we begin with a discussion of Internet etiquette.

Internet Etiquette (Netiquette)

The term **Netiquette** was coined by combining the words "Internet etiquette" into a single name. Netiquette is the observance of certain rules and conventions that have evolved to keep the Internet from becoming a free-for-all in which tons of unwanted messages and junk mail would clog your Inbox and make the Information Superhighway an unfriendly place. By following the Netiquette guidelines, you can become a good citizen of the Net.

Netiquette Guidelines

In the "Netiquette Guidelines" section of this book's Web site, you will find links to the official rules of etiquette and ethics for responsible use of

the Internet. Chief among these is RFC 1855, which was developed by the Responsible Use of the Network (RUN) Working Group of the Internet Engineering Task Force (IETF). This document consists of a bulleted list of specifications organizations can use to create their own guidelines. For example, Arlene Rinaldi's award-winning Netiquette Home Page, which is titled "The Net: User Guidelines and Netiquette," contains the Netiquette guidelines used at Florida Atlantic University. The introduction explains that use of the Internet is a privilege, not a right:

> The use of the network is a privilege, not a right, which may temporarily be revoked at any time for abusive conduct. Such conduct would include, the placing of unlawful information on a system, the use of abusive or otherwise objectionable language in either public or private messages, the sending of messages that are likely to result in the loss of recipients' work or systems, the sending of "chain letters" or "broadcast" messages to lists or individuals, and any other types of use which would cause congestion of the networks or otherwise interfere with the work of others.

Another example of Netiquette guidelines was developed by Frank Connolly in conjunction with the American Association for Higher Education and EDUCAUSE. Connolly's *Bill of Rights and Responsibilities for Electronic Learners* is a succinct and eloquent statement of Netiquette guidelines. To read these guidelines, follow the links to the *Bill of Rights* at this book's Web site, where you will also find a link to a related article by Connolly entitled "Intellectual Honesty in the Era of Computing." The most commonly known Netiquette rules are as follows:

- Use business language and write professionally in all work-related messages.
- Remember that your message may be printed or forwarded to other people.
- Proofread and correct errors in your message before sending it.
- Do not use all capital letters, because this connotes shouting.
- Keep in mind that your reader does not have the benefit of hearing your tone of voice and facial clues.
- Remember that the time, date, and reply address are added automatically to your e-mail message; therefore, you do not need to type this information.
- Always include an appropriate subject line in an e-mail message.
- Respond promptly to e-mail.

Computer Ethics

Whenever you use the Internet, you should observe the ethics principles illustrated in Figure 3-1, which lists the Ten Commandments of Computer

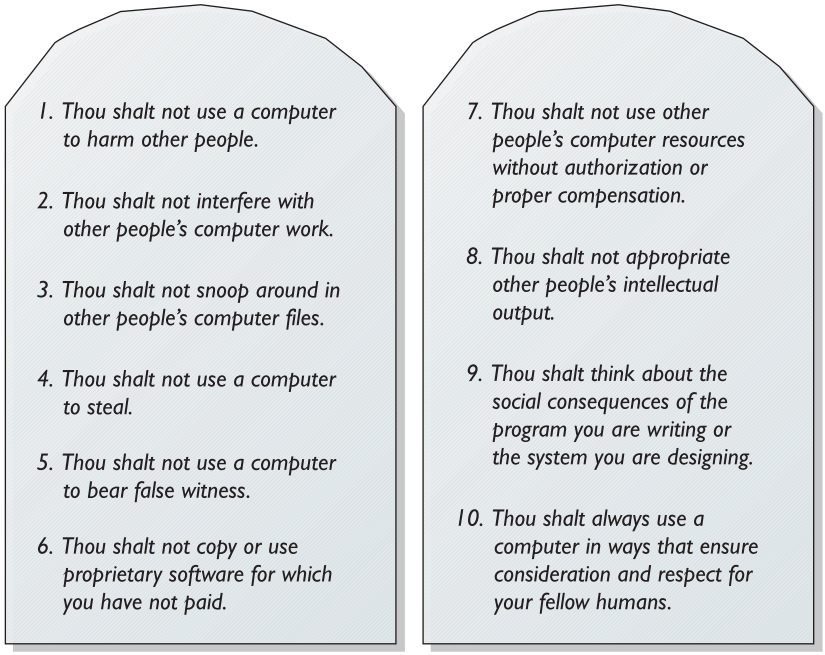


FIGURE 3-1 *Whenever you use the Internet, you should observe the Ten Commandments of Computer Use, which were developed by the Computer Ethics Institute at www.cpsr.org/program/ethics/cei.html.* ■

Use. These principles were developed by the Computer Ethics Institute in Washington, DC. Computer Professionals for Social Responsibility (CPSR) maintains a list of other current links to Web sites devoted to computer ethics on the Internet. To peruse them, go to www.cpsr.org/program/ethics/ethlink.htm.

Spam

On the Internet, the term **spam** refers to unwanted messages posted to newsgroups or sent to a list of users through e-mail. The term can be used as either a verb or a noun. To spam means to send unwanted messages to a list of users on the Internet. Likewise, unwanted messages you receive are called spam.

Perhaps the most obnoxious form of spam is unwanted commercial advertising. The Coalition Against Unsolicited Commercial Email (CAUCE) has done the math, and the outlook is daunting. As CAUCE chairman Scott Hazen Mueller explains, "There are 24 million small businesses in the United States, according to the Small Business Administration. If just one percent of those businesses sent you just one e-mail advertisement a year, that's 657 e-mail advertisements in your inbox each day" (CAUCE, 2001). To prevent this from happening, Congress is working on legislation that will create a national "Do Not Spam" list. Follow this book's Web site link to learn the latest about anti-spam legislation.

There are other forms of spam besides unwanted commercial advertising. A lot of chain letters, for example, are circulating on the Internet. Chain letters are spam; do not send or forward them. If you get one, you

may consider sending a message to the originator stating that chain letters are an unethical use of the Internet and that the sender should be ashamed of so littering the Information Superhighway. Be aware, however, that responding to spam lets the spammer know that your e-mail address is valid, thereby increasing the likelihood that you may receive more spam.

There is an example of a chain letter at this book's Web site. The title of this letter is "Share the Wealth of the Internet!" Not only did this chain letter use e-mail as its transmission medium, but it blatantly advocated the use of newsgroups to spread the message. Such use of the Internet is improper and highly unethical. Be a good Netizen; never originate or participate in such a spam, and discourage anyone who spams you from ever doing so again.

Some useful suggestions for fighting spam are found at this book's Web site. If you follow the links to "Fight Spam on the Internet," you will find a tutorial entitled "How to Complain to Providers About Spam." By following the link to the blacklist of Internet advertisers, you can see the worst offenders and read how they have violated the rules of Netiquette.

Hoaxes

Some pretty incredible hoaxes have been propagated across the Internet. The hoaxes are designed to prey on people's fears and sensitivities or their desires to keep the hoax spreading to other users over the Net. An example is the Netscape-AOL giveaway hoax. It was sent all over the Internet via e-mail by the following chain letter:

> Netscape and AOL have recently merged to form the largest Internet company in the world. In an effort to remain at pace with this giant, Microsoft has introduced a new email tracking system as a way to keep Internet Explorer as the most popular browser on the market. This email is a beta test of the new software and Microsoft has generously offered to compensate those who participate in the testing process. For each person you send this email to, you will be given $5. For every person they give it to, you will be given an additional $3. For every person they send it to you will receive $1. Microsoft will tally all the emails produced under your name over a two week period and then email you with more instructions. This beta test is only for Microsoft Windows users because the email tracking device that contacts Microsoft is embedded into the code of Windows 95 and 98. I know you guys hate forwards. But I started this a month ago because I was very short on cash. A week ago I got an email from Microsoft asking me for my address. I gave it to them and yesterday I got a check in the mail for $800. It really works. I wanted you to get a piece of the action. You won't regret it.

Another hoax that surfaces from time to time is the sulfnbk.exe virus hoax. The message comes from one of your friends telling you that a previous e-mail may have infected your computer with a nasty virus called sulfnbk.exe. The message tells you to delete the file sulfnbk.exe

from your computer and then send e-mail to all your friends warning them to do likewise because your messages may have infected their computers.

In reality, the file sulfnbk.exe is part of the Windows operating system. Fortunately, deleting this file does not render your computer inoperable. As it turns out, sulfnbk.exe is needed only to resolve long filename extensions during file recovery operations after a catastrophic system crash.

Figure 3-2 shows the sulfnbk.exe hoax message. The author will keep secret the name of the distinguished professor who sent it. The danger is that someday, such a hoax could entice people to do something that could result in data loss or a computer crash. If you receive a message you suspect may be a hoax, follow this book's Web site link to the catalog of hoaxes at the U.S. Department of Energy's Computer Incident Advisory Capability (CIAC) Web site, where you can look to see whether the hoax is a recognized one. For many of the hoaxes, the CIAC will recommend actions you can take to discourage the spreading of the hoax. To look up a hoax and find out what to do about it, follow this book's Web site link to the CIAC Internet hoaxes page. Printed there are dozens of hoaxes, along with an analysis of how each hoax worked. At the CIAC site you will also find links to Web pages warning you about the major chain letters and viruses you need to watch out for on the Internet.

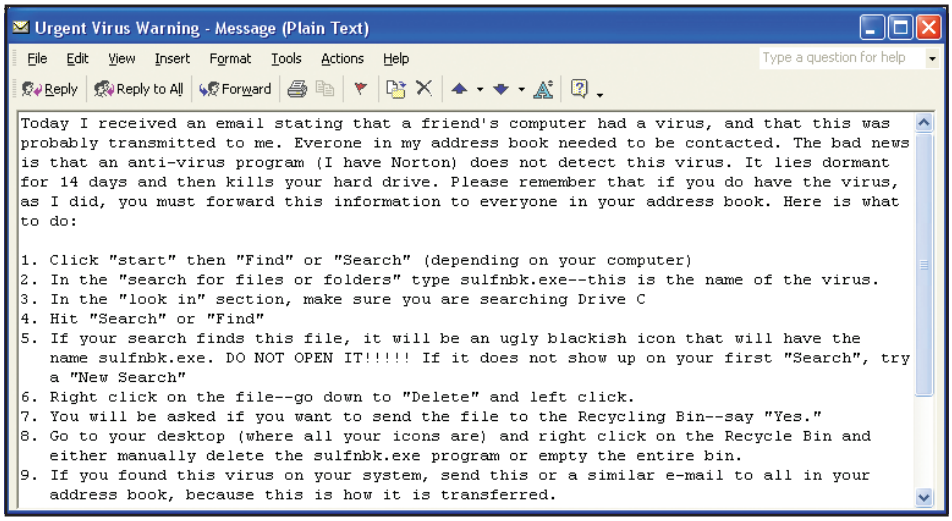


FIGURE 3-2 *The SULFNBK.EXE virus hoax, as sent to me by a distinguished professor colleague. Before you follow such instructions, check the antivirus centers to find out whether the message is a hoax.* ■

Viruses

Some of the more harmful chain letters and hoaxes have transmitted viruses across the Internet. Although it is not possible for your computer to catch a virus from an e-mail message directly, the mail message can contain attachments which, if you open them, can give your computer a virus. One of the most harmful such e-mail viruses was the Love Bug virus. It spread as an attachment to an e-mail message titled "I Love You" and asked you to open the attachment, which was named LOVE-LETTER-FOR-YOU.TXT.VBS. If you were using the Microsoft Outlook and Outlook Express e-mail programs, opening the attachment sent copies of the message to all the users in your computer's address book. The messages appeared to come from the person who owned the sending computer, serving as further enticement to open the attachment, because it appeared to come from someone you knew. In addition to spreading itself to your friends, the message also deleted certain kinds of files from your computer and replaced them with more copies of the virus.

The best way to guard against catching a virus through e-mail is never to open an attachment to an e-mail message, especially if the attachment has an executable filename extension such as *.exe*, *.vbs*, or *.class*. Macros in MS Word DOC files and MS Excel XLS files can also transmit viruses. Before you open any e-mail attachment, make very sure that the source of the message is one you trust and that the message actually came from that person. If you have any doubts, follow this book's Web site link to the CIAC Virus page to see if the message you received is part of an officially recognized virus attack.

A message may appear to come from a trusted acquaintance when in fact it came from a worm. Recently some viruses spread via e-mail that did not require the recipient to open the attachment. In addition, there are malicious virus programs that mimic the e-mail addresses of people from your address book. It is very important to keep current antivirus protection software on your computer. Most virus scanners have an option to scan incoming mail messages automatically; setting this option can help you avoid opening a malicious message. To keep yourself informed of the latest viruses, follow this book's Web site links to About.com's antivirus site, McAfee's antivirus center, Symantec's Antivirus Research Center (SARC), and CNET's antivirus help site.

Lurking

To **lurk** means to participate in a conversation on the Internet without responding to any of the messages. You receive and read the messages, but you do not say anything in return. Thus, you are lurking!

It is not unethical to lurk. To the contrary, lurking is often a good idea at first. For example, suppose you join a listserv that has been going on for a while. Instead of jumping right in and writing something that may make you seem really out of touch with what is going on, it is smarter to lurk for a while so you can pick up the gist of the conversation before joining in.

The same guideline applies to newsgroups. Before you begin writing messages in a newsgroup, spend some time looking around at what has been written previously in that newsgroup. When you write something, you want to sound as though you know what is going on. Writing messages that waste the time of other users on the Net is inconsiderate.

Ditto for chat rooms. When you enter a chat room in which other people are talking, spend some time listening to get the gist of the conversation before you chime in.

Flames

On the Internet, a **flame** is a message written in anger. The term flame can be used either as a verb or a noun. To flame someone is to send them an angry message. Angry messages that people send you are known as flames.

You need to be careful, especially if you have a temper. Form the habit of thinking carefully about what you write, and proofread messages several times before you send them. Make sure the message truly conveys the emotions you want to communicate. If you are extremely angry and send a hastily written flame, you may regret it later on. When you cool off a few

minutes later, you may wish you could tone down the message a little, but it will be too late. The message has already been sent, and unfortunate damage may be done to your relationship with the receiving party.

Firefighters

Sometimes flaming can get out of hand, especially when it occurs in a newsgroup or a listserv with a lot of users. People start sending messages with more heat, and things can get ugly. Someone has to step in and write a message intended to restore peace. Because that puts an end to the flames, such peacemakers on the Internet are known as **firefighters**.

Smileys and Emoticons

One of the problems inherent in text messages is that you cannot see the body language or facial expression of the person sending the message. Not knowing for sure whether something is said in jest can lead people to make false assumptions about the intent of a message. You need to be careful, because miscommunication can cause serious problems.

To give the person reading your message a clue to what your emotions are, emoticons were devised. **Emoticons** are combinations of a few characters that, when turned sideways, conjure a facial expression. The most common form of emoticon is the smiley, which conveys a happy facial expression. Turn your book clockwise, and you will see that the characters `:)` convey a happy face. The smiley often has a nose `:-)` and sometimes winks `;-)` at you. Left-handed people can use a left-handed smile `(:` which can also have a nose `(-:` and can wink `(-;` at you.

Emoticons are not always happy. For example, `:(` is a frown, and `:-(` is a frown with a nose. Someone really sad may be crying `:~~(` and someone obnoxious may stick out the tongue `:-P` at you. You can even convey drooling `:-P~~` with an emoticon. There are hundreds of these faces. For a more complete list, go to this book's Web site and follow the links to smileys and emoticons.

Three-Letter Acronyms (TLAs) and Jargon on the Net

To shorten the amount of keyboarding required to write a message, some people use three-letter acronyms, appropriately known as TLAs. A **three-letter acronym (TLA)** is a way of shortening a three-word phrase such as "in my opinion" by simply typing the first letter of each word, such as *imo*. I'm not a proponent of three-letter acronyms, because life on the Internet is already filled with enough jargon, abbreviations, and technical terms. TLAs are so common, however, that no book about Internet fundamentals would be complete without mentioning them.

For a complete list of Internet jargon, go to this book's Web site and follow the links to the Web's official "Jargon File" site. You can also get a printed copy of the Jargon File, which is called *The New Hacker's Dictionary* (MIT Press, ISBN 0-262-68092-0).

Electronic Mail

Electronic mail has revolutionized the way people communicate when they cannot talk in person. No longer must people wait for traditional postal mail delivery, which has become known as "snail mail" due to its comparative slowness. On the Internet, if both the sender and the receiver log on frequently, it is possible to exchange several messages with someone in a single day.

Electronic mail is highly efficient. Compared to other forms of communication, e-mail is probably the greatest time-saver in the world. Because you must initiate the reading of your e-mail by running your e-mail software, you read e-mail only when you decide to do so; thus, e-mail does not interrupt your workday. If you are too busy to read e-mail, or if you are on vacation, your e-mail queues up in your Inbox, waiting patiently for the next time you log on. When you travel, you can dial up and read your e-mail, using almost any telephone line anywhere in the world. You can even avoid the need for a phone line if your computer is equipped for wireless communications or if you have a cell phone that supports wireless e-mail.

Getting an E-mail Account

Before you can begin using e-mail, you must have an **account**. An account enables you to log on to the computer that hosts your e-mail service. The computer that hosts your account is known as your mail server. On the mail server, your account consists of file space where your e-mail queues up waiting for you to read it and a login procedure that enables you to log on and access your files.

You get the account from your Internet service provider (ISP). Chapter 2 tells you how to select an ISP. When the ISP sets up your account, you will be told the name of your account. Usually this is your own name (such as fred.hofstetter) or your initials (such as fth) or a nickname (such as freddy). If your account name is something impersonal such as a number (such as 02737), ask your ISP how to go about changing the number to something more user-friendly. Be careful, because once you choose a name, many computers will not allow you to change it.

In addition to being told the name of your account, you will be given a password you must enter each time you log on to your account. The password prevents unauthorized users from logging on under your name and gaining access to your mail. Most host computers permit you to change your password. Choose a password you will remember, but do not select one that is easy to guess, because you do not want someone malicious to guess your password and log on under your name. That person could send offensive mail under your name and cause problems for you. Do not use your first or last name as your password, for example. If you are known to love Corvettes, do not make *Corvette* your password. Choose something unlikely to be guessed. Include a combination of letters, numbers, and special characters. If you ever suspect that someone has guessed your password, change it immediately. Above all, remember your password. ISPs do not like it when you forget your password and they have to reset it for you.

Your ISP will also tell you the IP address of the mail server that hosts your e-mail account. The IP address will be in domain-name format, such as mail.udel.edu. You will need to know all three items—your account name, your password, and the mail server's IP address—to complete the tutorial exercises in this chapter.

Selecting an E-mail Client

The software program that you use to read your e-mail is known as an **e-mail client**. The most popular e-mail client is Microsoft Outlook, which is the e-mail program that ships as part of Microsoft Office. If you use the Microsoft Internet Explorer (IE) browser but not Office, you'll have a free version of Outlook called Outlook Express. This chapter contains detailed instructions on how to use the Microsoft Outlook Express e-mail client. If you are an AOL user and you have AOL mail, you can do the exercises in this chapter by using the AOL mail client that is built in to your AOL account. You can also install Microsoft Internet Explorer and follow the instructions in this chapter by using Outlook Express for mail.

Organizations that install a Web browser other than Internet Explorer often use the mail program that ships as part of that browser for mail. Netscape users, for example, often use the built-in Netscape mail program, which is called Netscape Messenger. Mozilla users get Mozilla Messenger or Mozilla Thunderbird. On the Macintosh, most users read mail with the built-in e-mail client that simply is called Mail. Regardless of the particular software you use, the concepts covered in this chapter apply to all e-mail clients.

The e-mail tutorial in this chapter is written for Microsoft Internet Explorer and Outlook Express. It is possible that your copy of Microsoft Internet Explorer may be set to bring up some other e-mail client, such as Microsoft Exchange or Microsoft Outlook. If that happens when you work through the exercises in this chapter, you can change mail packages by following these steps:

1. Pull down Microsoft Internet Explorer's Tools menu and choose Internet Options; the Internet Options dialog appears.
2. Click the Programs tab.
3. Pull down the E-mail menu and choose Outlook Express mail.
4. Click OK to close the Internet Options dialog.

Deciding on POP vs. IMAP and HTTP

When you configure an e-mail client, you must specify whether the mail delivery protocol is POP, IMAP, or HTTP. Knowing how to set this option is important, because you must choose a protocol that your mail server supports.

Post Office Protocol (POP) was invented for delivering mail post-office style from the server to your PC. When a person logs on to read mail, the mail gets moved physically from the server to the PC, where the user reads the mail without needing to remain online.

You can use **Internet Message Access Protocol (IMAP)** when you want the mail to remain on the server instead of being delivered physically to your PC. This enables you to read your mail from different computers. IMAP is therefore the strategic choice for someone who is on the move and needs to be able to read mail from different locations, such as at home, in the office, in a classroom, or in a branch office.

HTTP is the Web's protocol, which is used for Web-based e-mail servers, the most famous of which is Hotmail. If you are setting up a mail reader to access your Hotmail account, you use the HTTP protocol.

The distinction among these ways of receiving your mail is no longer as clear as it was in the beginning. It now is possible, for example, to configure a POP client to leave the mail on the server. You can also configure an IMAP client to download the mail post-office style so you can read the mail offline.

The best idea is to use the protocols for the purpose for which they were designed. If you need a client to access a Web-based e-mail server such as Hotmail, use HTTP. If your mail server supports POP and you want to have your mail delivered to your PC, use POP. If your mail server supports IMAP and you want the mail to reside on the server, use IMAP. For a more detailed comparison, follow this book's Web site link to POP versus IMAP.

Step-by-Step 3-1

Configuring Your E-mail Client

You must configure your e-mail client before you can begin reading mail. Configuring an e-mail client means telling it the essential information it needs to know, such as the name of your e-mail account, your password, and the IP addresses of your ISP's incoming and outgoing mail servers. You can also set preferences that determine whether the mail will get deleted from the host or stay there after the mail gets downloaded to your computer. To configure your e-mail client, follow these steps:

Step 1 Get Internet Explorer running if it is not already onscreen.

Step 2 Select the Mail icon to drop the menu down, and select Read Mail.

Step 3 If you get a dialog asking you to select a folder for your mail, select the Inbox folder unless you want your mail kept somewhere else.

Step 4 If you have not set up Internet Explorer for mail, the Internet Connection Wizard launches. The wizard asks you several questions.

Step 5 First, the wizard asks for your Internet mail account name, as shown in Figure 3-3. I typed **Fred T. Hofstetter** here.

Step 6 Second, the wizard asks for your e-mail address. Your e-mail address is your account name followed by an @ sign, followed by the domain name of your ISP's host computer. For example, if your account name is SantaClaus and your host computer is northpole.com, you should type **SantaClaus@northpole.com** here.

Step 7 Third, the wizard asks whether you want the mail server to be set up as POP3, IMAP, or HTTP. If you are not sure how to set this, see the previous section of this chapter, titled "Deciding on POP vs. IMAP and HTTP." Then you enter the name of your incoming mail server and your outgoing mail server, which in the case of Santa Claus would be **mail.northpole.com**. Figure 3-4 shows how Santa would complete this step.

Step 8 The wizard asks you to enter your e-mail logon name and password.

Step 9 The wizard asks for your Internet mail account name; type the name you want this to be. Santa Claus would type something like **North Pole mail** here, for example.

Step 10 Next, the wizard asks whether you are using a phone line or a network connection; answer accordingly.

Step 11 If you have multiple connections to the Internet, the wizard asks what Internet connection to use. You should choose the same connection you made when you configured your Web browser, unless you have a reason for doing otherwise.

Step 12 When the wizard finishes, Outlook Express is ready to fetch your mail.

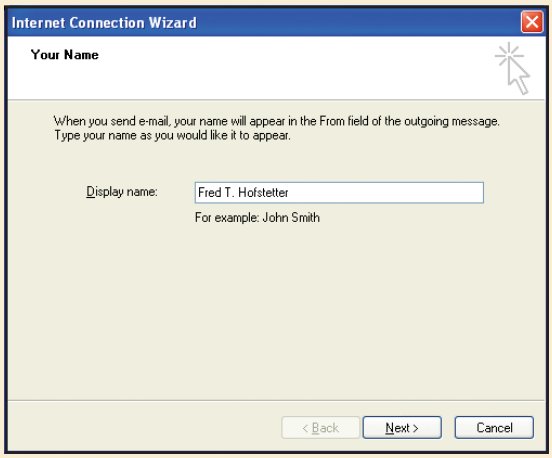


FIGURE 3-3 *The Internet Connection Wizard asks you a series of questions and uses your answers to configure your connection. When the wizard asks for your display name, type your name as you want it to appear in the From field of the messages you will send to people.* ■

Pulling down this menu gives you the choice of POP3, IMAP, or HTTP.

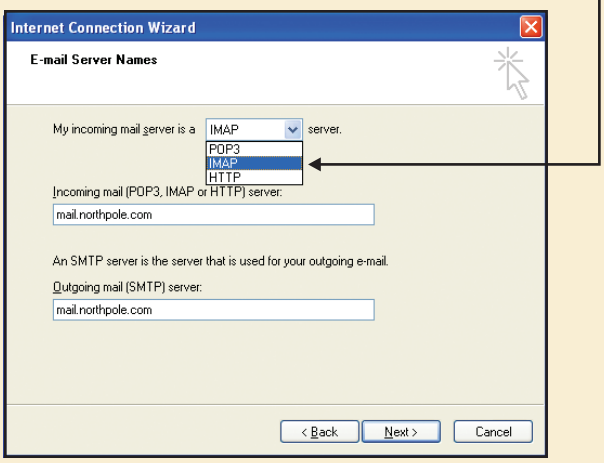


FIGURE 3-4 *When the Internet Connection Wizard prompts you for the domain names of your incoming and outgoing mail servers, you also get a menu to pull down to select the POP, IMAP, or HTTP protocol. If you are not sure how to set this, read the section of this chapter about POP versus IMAP and HTTP.* ■

Advanced E-mail Configuration Settings

Advanced configuration settings enable you to customize the handling of your mail. The typical user may never need to change the settings, but an IT professional should know where the settings are and what the different options do.

To access these advanced configuration settings, you begin by getting your e-mail client running. If you have IE, for example, you click the e-mail

button or pull down the Tools menu and choose Mail and News | Read mail. When your e-mail client appears onscreen, you pull down its Tools menu and choose E-mail Accounts. In Outlook Express, you select the account you want to change and click the Properties button. If you are using the full-fledged version of Outlook, you select the account you want to change and click the More Settings button.

The configuration settings will appear in a dialog box that has tabs labeled General, Servers, Connection, and Advanced. Clicking these tabs reveals options you can review or alter if you want to make changes in the configuration. The settings are explained here:

- **General tab** Settings on the General tab let you change the name of the e-mail account and alter general information about the user who owns this account. You can change the user's display name, the organization with which the user is affiliated, and the reply e-mail address.
- **Servers tab** Here you can change the addresses of the incoming and outgoing mail servers and change the incoming server's delivery protocol to POP, IMAP, or HTTP. You can also supply a user name and password and set the mail program to log on automatically when you read mail. You should choose the automatic logon option, however, only if you are the only person who has access to this computer.
- **Connection tab** True to its name, the Connection tab lets you specify the way your computer will connect to the mail server. Depending on how the computer is connected to the Internet, the choices may include local area network, telephone modem, or dialup networking.
- **Advanced tab** Here you can inspect the port numbers used for incoming and outgoing mail, and you can change the timeout, which is the amount of time the client will wait for the server to respond to a request to read or send mail. You should not change the port numbers unless your network administrator has told you to do so. POP normally uses port 110, IMAP uses port 143, and the outgoing server uses port 25, which is the default Simple Mail Transfer Protocol (SMTP) port. POP also has a secure version that uses port 995, and the secured version of IMAP uses port 993.

Step-By-Step 3-2

Sending and Reading Mail

Having configured the e-mail client, you are now ready to send and receive mail. This exercise steps you through the process of sending a message to yourself so you will be sure to have a message waiting to be read later in this chapter. Follow these steps:

Step 1 In Internet Explorer, click the Mail icon and choose New Message; the New Message window appears as shown in Figure 3-5.

Step 2 Your cursor will already be in the To field, so enter the e-mail address of the person to whom you want to send a message. The first time you do this, send a message to yourself so you will be sure to have a message waiting to be read in the "Reading Mail" part of this tutorial.

Step 3 Click once in the Subject field and enter a short phrase telling what this e-mail is about. If this is your first message, you might type **My first mail message** for the subject.

Step 4 Click in the large blank area beneath the subject field to position your cursor in the composition area. Here is where you type the message you want to send. If this is your first message, type something like **Hello, world! This is my very first e-mail message.**

Step 5 Click the Send button to send the message. It may take a minute or two for the message to get sent and delivered.

Step 6 Whenever you want to check your mail, click the Mail icon to drop the menu down, and then select Read Mail; the Outlook Express window appears.

Step 7 In Outlook Express, select your Inbox by clicking it once. If you chose IMAP when you configured your mail account, your Inbox is a subfolder of the Messages folder on your mail server; if you chose POP3, click the Inbox in your Outlook Express folder.

Step 8 If new mail has arrived, the Inbox window displays a menu of your incoming mail messages, as shown in Figure 3-6.

Step 9 To preview a message, click its title once, and the message appears in the window at the bottom of the screen. To read the message, double-click its title; the message appears in a Message window. When you finish reading the message, close the message window.

Step 10 In your Inbox, the mail message will now be marked as having been read. The message will stay on your computer unless you delete it.

Step 11 If you want to delete the message, click its title once to select it, and then click the Delete button.

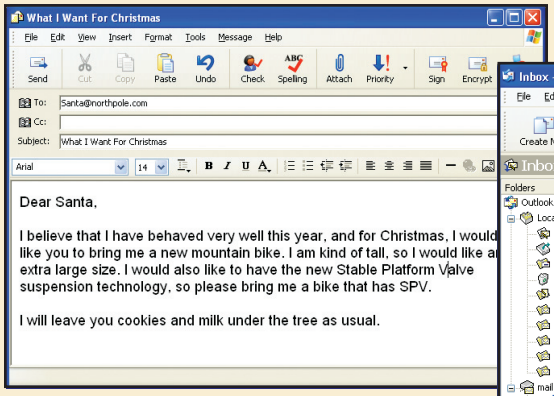


FIGURE 3-5 *In the New Message window, you type into the To field the e-mail address of the person to whom you want to send the message. Type the topic of the message into the Subject field, and type the body of the message into the text area below the subject field.* ■

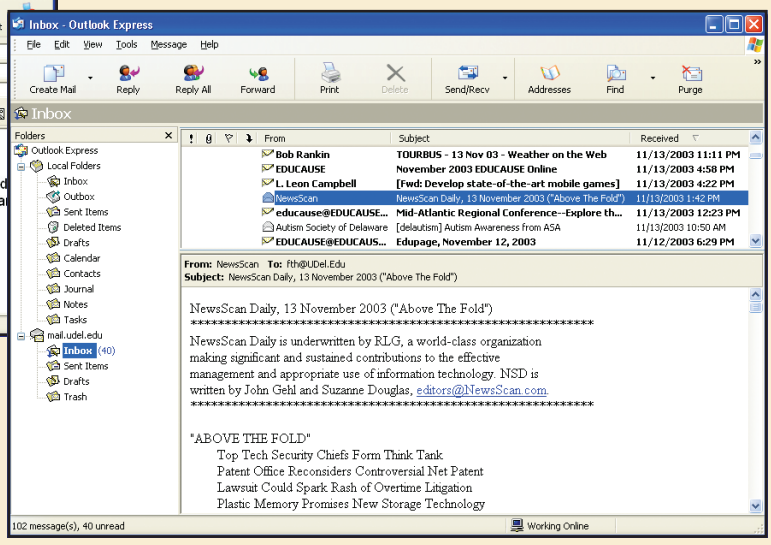


FIGURE 3-6 *The Outlook Express Inbox displays a menu of incoming messages. Double-click the title of the message you want to read.* ■

Answering and Forwarding Mail

While you are viewing a message onscreen, you can respond to it by clicking either the Reply button to reply to the sender or the Reply All button to reply to the sender and all of the recipients. A shortcut for replying to the sender is to press CTRL-R; to reply to all, press SHIFT-CTRL-R.

At some point you will want to send someone a copy of mail you receive. Instead of going through all the steps needed to copy and paste the message into a new message window, you can simply forward the message by clicking the Forward button, which brings up a new Message window containing the message to be forwarded. In the To field, enter the e-mail address of the person to whom you want to forward the message. In the body of the message, enter anything more that you want to send along with the message, such as a few words indicating why you are forwarding this. Then send the message as usual.

Filing and Retrieving E-mail Messages

Occasionally you will receive an important message that you want to keep so you can refer to it later on. Instead of deleting it, you can file it. To file an e-mail message means to move it into a folder on your hard drive from the Inbox folder where your incoming mail accumulates. There are three processes to learn related to filing e-mail messages: creating an e-mail folder to hold your messages, filing mail into an e-mail folder, and retrieving filed mail whenever you want to read it again.

Creating an E-mail Folder

To file mail, you can create different folders regarding different topics. If you are using Microsoft Outlook or Outlook Express, you create the new folder in the Folders pane. First you click the place where you want to create the new folder. For example, click Local Folders. Then you pull down the File menu and choose New | Folder to bring up the Create Folder dialog. Enter a name for the new folder and click on the folder into which you want to insert the new folder. When you click OK to close the dialog, you will see the new folder in the list of folders in the Folder pane.

Filing Mail into an E-mail Folder

You can file mail in any e-mail folder on your computer. Get your Outlook window onscreen and select your Inbox to reveal the titles of your messages. To file one of the messages, click and drag the title of the message and drop it into the folder you want to file the message in. Another way to file a message is to click the title of the message you want to file, pull down the Edit menu, and choose Move to Folder. This brings up a Move dialog where you can select the folder you want to file the message in.

Retrieving Mail from an E-mail Folder

Filing mail would serve no purpose without a way to retrieve it when you want to refer to it again. To retrieve a filed e-mail message, you click one of

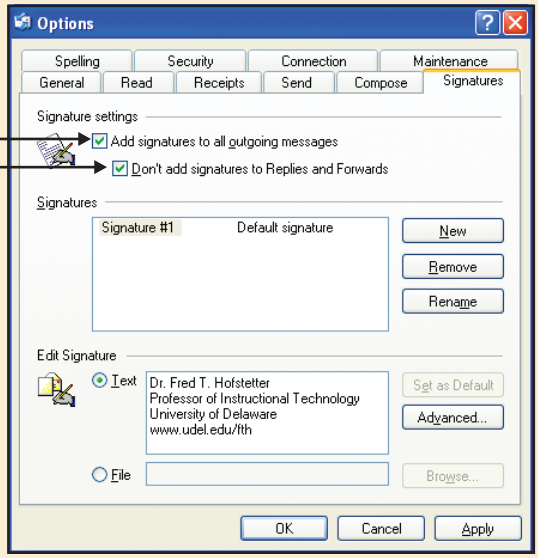
Try This!

Creating an E-mail Signature

When you send someone an e-mail message, it is nice to include information about yourself so the person receiving the message will know something about you, such as your street address, where you work or go to school, and your telephone number. To keep from having to enter this information each time you send an e-mail message, you can create an **e-mail signature**, which is a block of text that is automatically appended to the e-mail messages you originate. To create an e-mail signature, follow these steps:

1. In Outlook Express, pull down the Tools menu and choose Options to bring up the Options dialog.
2. Click the Signatures tab, click the New button, and type your signature into the text box, as illustrated in Figure 3-7.
3. To make the signature appear automatically at the bottom of all your messages, click the option to add signatures to all outgoing mail messages.
4. Click OK to close the Signature dialog; then click OK to close the Options dialog.

Check this box to add your e-mail signature to all outgoing messages.



Uncheck this box if you want signatures on replies and forwards.

FIGURE 3-7 *When you edit your e-mail signature, keep it short. Four to seven lines is about right. Signatures that are too long are bad Netiquette.* ■

the folders shown in the Folders pane on the left of the Microsoft Outlook or Outlook Express window. If the Folders pane is not visible, pull down the Microsoft Outlook View menu and choose Folder List or pull down the Outlook Express menu and click the Push Pin to keep the folder list open. When you click to select one of the folders, the Inbox window displays the titles of the mail messages filed in this folder. To retrieve a message, double-click its title.

Sending Mail Attachments

A mail attachment is a file you attach to an e-mail message. When you send the message, the attached file is sent along with it. File attachments can be text documents, pictures, audio recordings, movies, spreadsheets, or virtually any kind of file you are accustomed to using on your computer.

To attach a file to an e-mail message, you compose the message as usual. Before sending the message, you click the Insert File button to make the Insert Attachment dialog appear. Use the controls to locate the file and click its name to enter it into the File name field. Then click the Attach button to complete the process. When you send the message, a copy of the attached file goes along with it.

Try This!

Using an E-mail Address Book

Before you can send e-mail to someone, you must know the person's e-mail address. To avoid having to look up a person's e-mail address every time, you can record it in an **address book**, which is an index of the e-mail addresses you want to keep for future use. To address an e-mail message to someone in your address book, you simply go into your address book, click the person's name, and choose the Send Mail option. This makes an e-mail composer screen appear with the person's e-mail address filled in automatically. The following exercise gets you started using your address book. Follow these steps:

1. Click the Outlook Express Addresses button to make the Address Book window appear, as illustrated in Figure 3-8.
2. To add a name to the address book, click the New button; when the menu pops out, click New Contact. The Properties dialog appears, as shown in Figure 3-9.
3. In the blanks provided, fill in the person's first name, last name, e-mail address, and a nickname.
4. If you know that the person reads mail with a plaintext (i.e., non-HTML) mail reader, click the option to send e-mail using plaintext only. These days, most people read mail with HTML-enabled mail readers, so leave this option unchecked if you are unsure.
5. Click OK to close the Properties dialog box, and check to see that the person has been added to your address book. If you ever want to change any of this information you added in steps 3 and 4, double-click the user's name in your address book.

Click the New button to add a new contact to the address book.

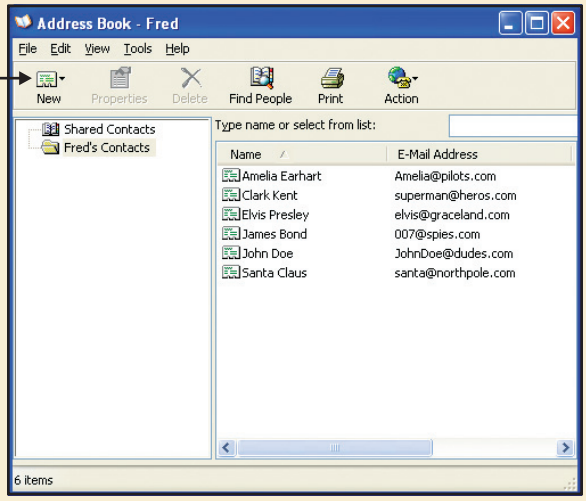


FIGURE 3-8 *An address book consists of an index of e-mail addresses. To send someone a message, click to select the person's name; then click the Action button and choose Send Mail.* ■

Check this plain-text only box if the person cannot receive HTML e-mail.

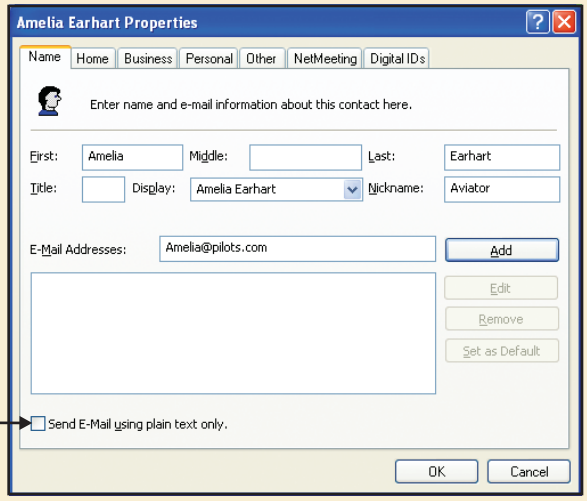


FIGURE 3-9 *Fill out this form to create a new entry in an address book. Type the person's name and e-mail address on the Name tab. If you also want to record the person's home or business address and phone number, click the Home tab or the Business tab.* ■

Try This!
continued

After you have entered a person's name into the address book, you can address an e-mail message by selecting that person's name from the address book. Follow these steps:

1. From your Outlook Express Inbox window, pull down the Message menu and choose New Message to make the New Message window appear.
2. In the To and Cc fields, notice the address-book icons at the left. Click the address-book icon in the To field to bring up the Select Recipients dialog.
3. Click once on the name of the person to whom you want to address the message.
4. Click the To, Cc, or Bcc button, depending on whether you want the person to receive the original message, a carbon copy, or a blind carbon copy (the Bcc recipient's address is hidden from the other recipients).
5. Click OK to close the Select Recipients dialog box; the person's name appears in the address part of your message.

Addressing E-mail to Groups of People

As social beings, it is natural for computer users to want to communicate with groups of people. You might be working on a project at work or at school, for example, and you would like to send a message to all the people working on that project with you. Instead of having to enter each person's e-mail address each time you want to send the group a message, you can use your address book to create mailing lists consisting of as many users as you like. To create a mailing list, go to the Outlook Express menu and click the Addresses button to make the Address Book window appear. Click the New button to pop out the menu, and choose New Group. In the Properties dialog box, fill in a name for the group, and click the Select Members button to bring up the list of names you can add to the group. Double-click each name you want to add to the group. When you have finished, click OK.

To send e-mail to this group of people, you simply address an e-mail message to the name of the group.

Searching E-mail Messages

When you have a lot of accumulated mail, you will eventually lose track of where everything is. Happily, you can search your mail messages to find things. To search an e-mail message, pull down the Outlook Express Edit menu and choose Find | Message to bring up the Find Message dialog. Type the word or phrase you want to find; fields are provided for searching the From, To, Subject, or Message categories.

Click the Find Now button to begin the search. The results of your search appear in a listbox beneath the search controls. Double-click a title in the listbox to bring up its message.

warning *Junk mail may invite you to click an Unsubscribe link to remove yourself from the list. Clicking that link can trigger malicious code. It is better to block the mail with a filter than to click the Unsubscribe link.*

Dealing with Unwanted E-mail

There are two ways to deal with unwanted e-mail: just delete it or send a reply indicating your disdain for the unwanted mail. Be aware, however,

that if the message is unwanted commercial advertising, sending a reply will tell the sender that yours is a valid e-mail address, and you may receive even more spam as a result.

If you believe the unwanted mail is illegal, such as a mail message containing child pornographic material or other criminal activity, you can report the transmission by forwarding it to the appropriate authorities. For example, you can find out how to contact your local FBI office at www.fbi.gov. It may help to forward the message to the postmaster at your Internet service provider, informing your ISP of the unwanted activity and asking for it to be stopped. To send mail to your postmaster, assuming your ISP is northpole.com, you would address the mail to **postmaster@northpole.com**.

You may also wish to support legislation to stop the unwanted mail, especially if it is unwanted commercial advertising. In that case, follow this book's Web site link to the Coalition Against Unsolicited Commercial Email (CAUCE), the Forum for Responsible and Ethical E-mail (FREE), and the Spam Recycling Center. When this book went to press, 18 states had anti-spam laws.

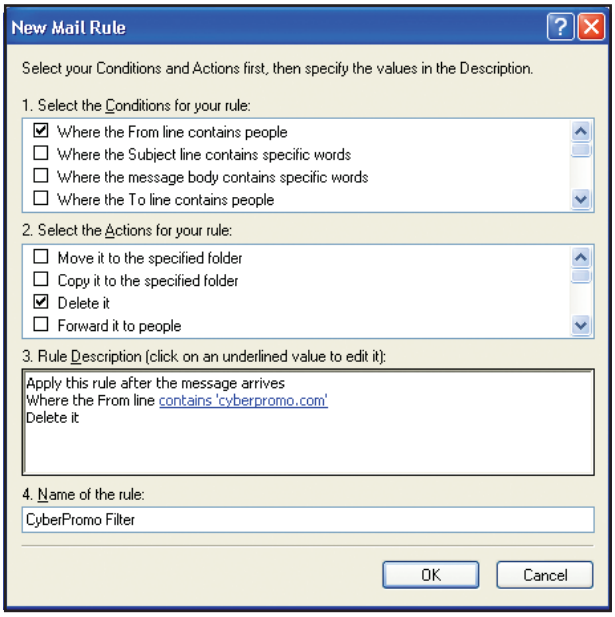


FIGURE 3-10 *You can use the New Mail Rule dialog to filter incoming mail. You can move, copy, delete, or forward the filtered mail. In this example, because your goal is to block spam, you set the action to delete the message.* ■

Using Mail Filters

You can block mail from unwanted sources by using mail filters. A mail filter blocks mail coming from any e-mail address that you forbid. You can also block mail by filtering keywords in the subject line. To set a mail filter, pull down the Outlook Express Tools menu and choose Message Rules | Mail. When the Message Rules dialog appears, click the New button to create a new rule. When the New Mail Rule dialog appears, enter the criteria for the messages you want to block. For example, Figure 3-10 shows how to block junk mail from cyberpromo.com.

Detecting Fake Mail IDs

If you get mail saying it is from someone that you doubt actually wrote the message (such as a message from your boss giving you a million-dollar raise), someone may have used a bogus From field when they sent you the message. You can get more information about where the message came from by revealing the headers of the mail message. To reveal the headers of the message you are viewing, pull down the File menu, choose Properties, and click the Details tab.

note *The Message Rules apply only to POP3 accounts. If you are using an IMAP or HTTP mail account, these instructions do not apply.*

Encrypting Your Mail

If you are concerned about privacy, you may want to consider encrypting your e-mail messages. To **encrypt** a message means to run it through an encoder that uses an encryption key to alter the characters in the message. Unless the person wanting to read the message has the encryption key needed to decode it, the message appears garbled.

Consider a simple example of an encryption key "123" that shifts each successive character in the message by 1, 2, or 3 characters in the alphabet. Encrypted, the message *Hello world* appears as *Igomq zptoe*. In practice, encryption keys are much longer and the encoding process is so complex you would need a supercomputer to crack the key to an encrypted message.

Outlook Express has an Encrypt icon you can click when you want a message to be sent encrypted. For this to work properly, however, you need to have a Digital ID, which consists of a public key, a private key, and a digital signature. Chapter 13 explains these Internet security concepts and provides you with detailed instructions for encrypting and digitally signing your mail.

E-mail Priority Settings

Outlook has a priority-setting option that lets you set the priority of an e-mail message. You set this option when you send a message, and when the message arrives at its destination, a priority flag indicates how important it is. The person receiving the messages can sort them in order of priority and read the most important ones first. To set the priority for an e-mail message, you click the arrow alongside the Priority button in the New Message window. This pops out a quick menu that enables you to set the priority to high, normal, or low. Click the setting you want and then send the mail as usual.

Return Receipt Requested

For a really important message, you may want to be sure the person you sent it to has received it. To verify the receipt of a message, you can set an option for the person's e-mail client to send you a return receipt when the person opens the message. To request a return receipt on a message you are composing with Outlook Express, you pull down the Tools menu and select Request Read Receipt. There is no guarantee, however, that the person who receives the message will choose the setting that acknowledges receipt. Many users, in fact, say no when asked if they want the receipt sent.

Spell-Checking

As a final touch, before you send an e-mail message, you may want to spell-check it and correct any spelling mistakes. To check the spelling, pull down the Tools menu and choose Spelling or click the Spelling button in the New Message window.

Web-based E-mail

Several Internet service providers make it possible for you to read your mail on the Web, using a Web browser instead of an e-mail program. Reading mail on the Web is convenient because you can access your e-mail from any computer that has a Web browser and an Internet connection.

Several Internet portal sites offer Web-based e-mail services. You can register at the portal to receive a free Web-based e-mail account. Then you

can read and send mail with your browser. Popular Web-based e-mail services are at hotmail.com and mail.yahoo.com. Setting up an account like this comes in handy when you travel, for example, because your e-mail can be delivered to any PC connected to the Internet, such as at a public library or an Internet café.

America Online has a Web-based e-mail service that lets AOL users read their AOL mail from a browser as an alternative to reading it with the AOL mail program. Microsoft Network users can read their MSN mail with Hotmail.

Follow this book's Web site links to learn more about the Web-based e-mail services available from Hotmail, Yahoo!, AOL, and other Web-based e-mail providers.

Sending Mail as HTML

In the Web-page authoring part of this book (Part II), you learn how to use HTML, which stands for hypertext markup language. You can use HTML when you want your e-mail messages to include bolding, italics, underlining, colors, fonts, and special symbols that do not get transmitted in plaintext messages. If you know that the person to whom you are sending an e-mail message is using an e-mail program that can handle HTML, you may wish to consider sending the mail as HTML instead of plaintext.

E-mail programs that can handle HTML include Netscape Messenger, Microsoft Outlook, and Outlook Express. Web-based e-mail programs such as Microsoft Hotmail and Yahoo! mail also understand the HTML option. On the other hand, if you know that the person reads mail with a text-based e-mail program such as PINE, which is popular on UNIX systems, you should not set the HTML option, because HTML mail does not display properly in a text-based e-mail reader. To send Outlook mail as HTML, pull down the Format menu and select Rich Text (HTML). After you select this option, you can put pictures in your e-mail messages. Be aware, however, that including pictures in HTML mail messages makes the files considerably larger and therefore take longer to send and receive, especially for users with dial-up access.

listserv Mailing Lists

Now that you know how to send and receive electronic mail, you are ready to take advantage of the powerful capabilities of listserv, an Internet service that uses e-mail protocols to distribute messages to lists of users. The messages get served to everyone whose name is on the list, hence the name *listserv*.

There are tens of thousands of listserv mailing lists that you can join. Almost every subject imaginable has a mailing list already set up for people to receive and exchange information about that topic. When someone sends a message containing new information to the mailing list, everyone on the list receives a copy of the message.

Some listserv mailing lists are moderated, meaning that someone screens incoming messages before they get distributed to the list. Most mailing lists are not moderated, meaning that you can freely send messages. Some lists are used only to distribute messages from the list's owner to the members of the list, and others let the members of the list participate in the discussion. Listservs can be used to distribute electronic magazines called **e-zines**, in which each new issue gets e-mailed to all the members of the list periodically. You can easily set up your own listserv mailing list, for example, through which you could publish your own e-zine.

How to Subscribe to a Listserv Mailing List

Because a listserv uses e-mail protocols that virtually every user of the Internet already knows, listserv is easy to learn and use. There are two ways to subscribe to a listserv mailing list. First, many listservs have a Web page where you sign up by filling out a form that prompts you for your name and e-mail address. When you click the Submit button to submit the form, your name gets added to the list. The second way to join a listserv mailing list is to send its host computer an e-mail message saying you want

Try This!

Subscribing to Listservs in Your Profession

Joining the right listserv is one of the most strategic ways you can keep up with what is happening in your profession. Following are instructions for joining some of the best listservs about the Internet.

- **NewsScan** Instructions for joining NewsScan are provided in the section on "How to Subscribe to a Listserv Mailing List." If you have not already joined NewsScan, please do so. I consider it the best single source for keeping up with what is happening.
- **Tourbus** The best listserv for someone new to the Internet is Tourbus. Two times a week you will receive in your e-mail a message giving you the scoop on search engines, spam, viruses, cookies, urban legends, and the most useful sites on the Net. When this book went to press, 90,000 users from 130 countries were riding the Tourbus. To subscribe, go to www.tourbus.com and follow the onscreen instructions.
- **LockerGnome** At lockergnome.com, you can subscribe to lists that will send you newsletters containing tips, updates, and industry news for Windows, OS X, or Linux users. A list called *Mobile Lifestyle* will send you news of MP3 releases, streaming video sites, online radio stations, media player skins, Webcam pages, DVD reviews, and new multimedia hardware and software. *Tech News Watch* includes the latest technology reviews, press releases, news, subscriber feedback, and stuff that does not fit into any of the other LockerGnome newsletters. To subscribe, go to www.lockergnome.com and follow the onscreen instructions.
- **Listservs in Your Discipline** You can use the Web to find out about listservs across a broad range of disciplines and professions. To search for listservs that interest you, go to the Liszt Directory at www.topica.com, the CataList Catalog at www.lsoft.com/lists/listref.html, and the Tile.Net directory at tile.net/lists.

to subscribe. For example, suppose you want to join NewsScan, a listserv that sends out news about new technology five times each week. To subscribe to NewsScan, follow these steps:

1. Use your e-mail client to create a new message window.
2. Address the message to **NewsScan@NewsScan.com**.
3. Enter the word **Subscribe** into the subject field of the message.
4. Send the message.

Although most listservs send you a reply right away, do not expect to receive an instant reply because it may take a while for your new subscription to get processed. Before too long, however, you will receive an e-mail reply from the server letting you know that you are now subscribed to the NewsScan mailing list. Read the first message carefully. If you subscribed via the Web, the first message may instruct you to send a confirming e-mail message. This confirmation prevents other people from impersonating you and signing you up to the listserv. The first message also normally contains the instructions for how to unsubscribe from the list. Therefore, you may wish to file the first message to save these instructions for future use.

Because hundreds of thousands of people subscribe to NewsScan, it is tightly controlled by the people who moderate it. NewsScan's purpose is to distribute technology news e-zine style rather than to host discussions via the listserv. Therefore, if you try to post messages to the NewsScan listserv after you join it, you will probably receive a reply that NewsScan does not enable discussions among the members of the listserv.

Receiving Listserv Messages: Remember to Lurk

The easiest part of belonging to a listserv is receiving the messages it sends you. The messages sent by the listserv appear automatically in your e-mail Inbox, where you read them like any other e-mail message. As illustrated in Figure 3-11, the From field of your e-mail message will indicate that it came from the listserv.

If you join a listserv that allows you to send as well as to receive messages, remember the advice that was provided in the Netiquette section at the beginning of this chapter. Before you jump in and start originating your own messages, remember to lurk for a while by reading without responding until you get the gist of the ongoing conversation. When you start sending messages, make sure each message fits the topic or purpose of the listserv. If the topic does not fit the purpose of the listserv, you should not send it there.

If you do not want the messages from a listserv arriving in your daily e-mail, you can use an e-mail filter to collect them and place them in a separate file for reading later. To do this, follow the instructions presented previously in this chapter in the section on using mail filters.

This message came from the NewsScan listserv.

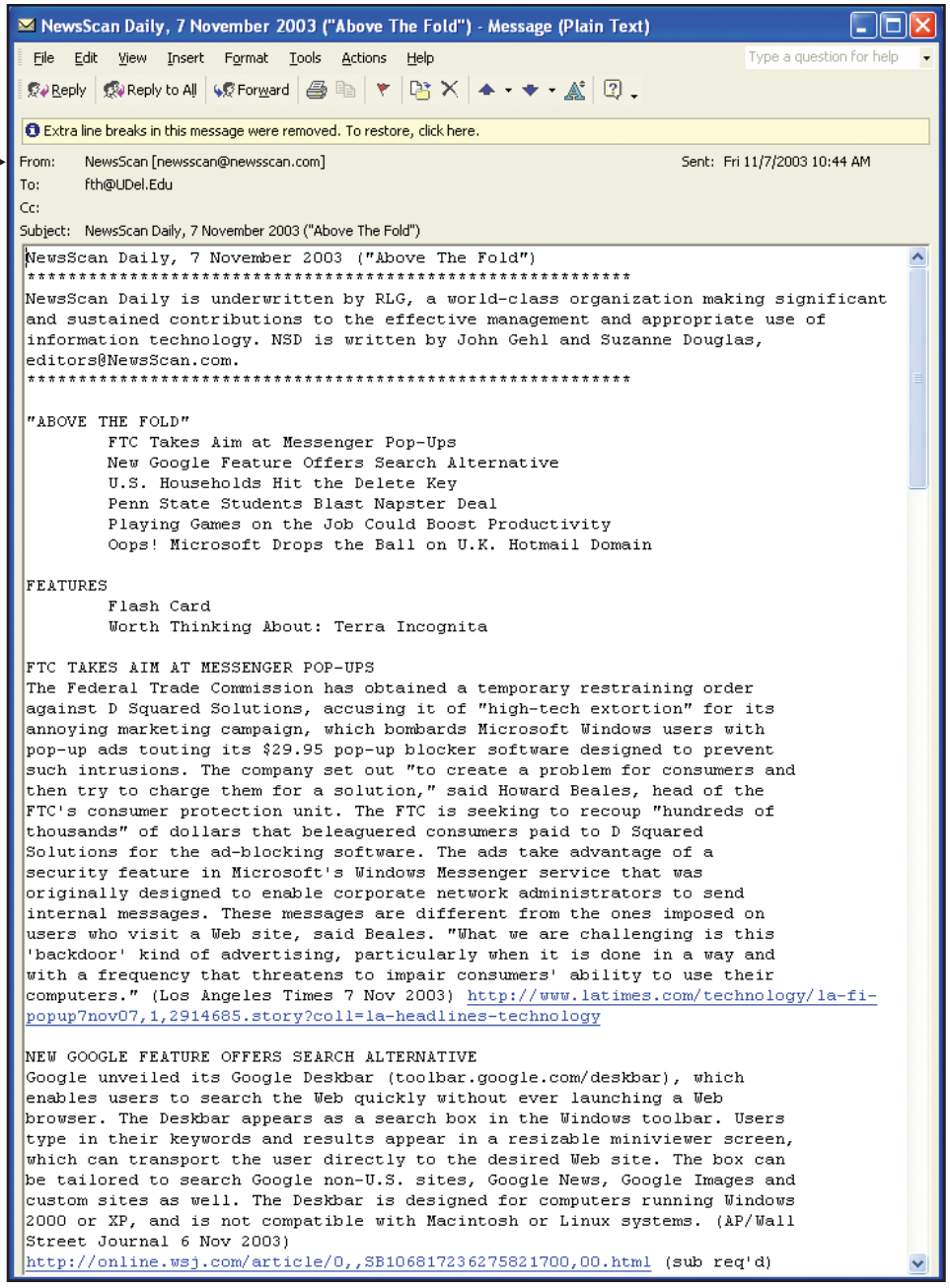


FIGURE 3-11 *You can tell that this message came from a listserv by looking at the From field, which identifies the name of the listserv that sent this newsletter.* ■

Responding to a Listserv Message

Responding to a listserv message is easy because the address of the listserv is already in the From field or the Reply field of the listserv message. To respond, simply press your Reply button, and enter your response just as you would send an ordinary e-mail message. Remember that your reply will be sent to lots of people, however, so make sure that what you write pertains to the purpose of the listserv.

If you want to respond only to the individual who sent the message, remember to edit the To field so the reply will go to the sender instead of to

everyone on the list. It can be embarrassing when a private message intended for an individual gets copied to an entire list full of people.

Sending a New Message to a Listserv

When you join a listserv mailing list, you will be told how to address new messages you want to send to the list. Because listserv addresses can be technical and hard to remember, it is a good idea to enter this address in your e-mail client's address book so you will not forget it. To send a new message to the listserv, you send e-mail to this address just as if you were sending mail to an individual user. Once again, please remember that your message will be sent to lots of people; make sure it is a proper use of the listserv.

Filing Messages Received from Listservs

Occasionally you may receive a message from a listserv that you want to file for later reference. Because messages from listservs arrive as e-mail messages, you can click your File button and file them just like any other e-mail message.

Pausing a Listserv

If you plan to be away from your computer for a while, such as on a vacation, you may want to send a command to the listserv to make it stop sending messages to you. To pause a listserv, send it the following command in the body of an e-mail message, leaving the subject blank:

SET NOMAIL

To resume the listserv, send the following command:

SET MAIL

Because there are several software packages listserv owners can use to manage their listservs, not all listservs respond to the same set of commands. If a listserv does not respond to the SET NOMAIL command, for example, you may need to unsubscribe to get the listserv to stop sending you messages and then subscribe again when you want to resume. If the listserv has a Web site, look there for documentation of the features you can use to control the sending of messages.

Finding Out Who Belongs to a Listserv

It is natural to be curious about who belongs to a listserv. When you send messages to a listserv, everyone on the list gets a copy of your message. To find out who is getting a copy, send the listserv the following command in the body of an e-mail message, leaving the subject blank:

REVIEW *listname*

If that does not work, try:

WHO *listname*

note *Each listserv has two addresses you will want to keep track of. First is the listserv address, the address to which you send your Subscribe command. Second is the list address to use when you want to send messages to everyone on the list. The listserv will tell you the list address in response to your Subscribe command.*

note *The Review and Who commands must be sent to the listserv address, not the list address. If you send a command to the list address, every member of the list will get it; this can be embarrassing, and it marks you as a newbie on the Net.*

Replace *listname* with the name of the list. The listserv will respond by e-mailing you a list of its members, unless the list has a privacy policy not to reveal the members of the list.

If the listserv does not respond to the Review and Who commands or if you do not know the e-mail address of the listserv, try going to the listserv's Web site and looking there for documentation of the features you can use.

Receiving Messages in Digest Mode

Digest mode is a way of receiving several messages packaged in one e-mail with an index at the top summarizing the subject and sender of each message. If a listserv is full of activity, for example, and sends you several messages a day, you may prefer to receive one digest message instead of many individual messages. To tell a listserv you want to receive the messages in digest mode, send it the following command:

SET *listname* MAIL DIGEST

Replace *listname* with the name of the list. The listserv will begin sending you a digest of each day's messages. To end digest mode and make the list send each message in a separate e-mail, send the listserv the following command:

SET *listname* MAIL

Unsubscribing from a Listserv

Sometimes you join a listserv only to find that its content does not meet your needs, or you get sent so many messages that you just cannot keep up with them. In either case, you will probably want to unsubscribe from the listserv. To unsubscribe, follow the steps in the message you got from the listserv. Many listservs write unsubscribe instructions at the bottom of every message so you can always find out how to unsubscribe.

note *Do not send the signoff message to the list address. Doing so will not unsubscribe you from the list. Rather, your signoff message will go to every member of the list, marking you as a novice who does not fully understand how to use a listserv.*

If you subscribed from a Web site, you can probably fill out a form at the Web site that will unsubscribe you. Otherwise, try sending an e-mail message to the listserv address, which is the address you used when you joined the listserv. Leave the subject line blank, and as your message, type **SIGNOFF** followed by the name of the listserv.

Listserv Archives

Many listservs have archives in which the messages sent to the list are filed. You can read and in many cases search the archives online. You can send listserv commands to see the archives, or if the listserv keeps archives on the Web, you can use your Web browser to inspect them. There is a Web-based archive of the messages at the NewsScan listserv, for example; to see them, follow this book's Web site link to the NewsScan archive. Likewise, there is an archive of the Tourbus listserv; follow the link to the Tourbus archive to see the archived Tourbus messages.

Listserv Command Summary

Table 3-1 contains a summary of some of the commands you can send a listserv. For a more complete list, send the listserv the command **LISTSERV REFCARD**. Remember that if you joined the listserv from the Web, the easiest way to send commands is probably by clicking the controls at the listserv's Web site. The trend is to put commands at the listserv's Web site instead of requiring you to send them via e-mail.

Setting Up Your Own Listserv

If you want to set up your own listserv, you can do so for free at a Web site such as topica.com or groups.yahoo.com that offers free list creation. This is one of the perks to keep people coming back to the site where they see the commercial ads that pay for the "free" service. On the other hand, if you want to avoid the commercial ads that appear on messages sent in a free listserv, you can pay a fee to get an advertisement-free list. You can also check to see if ad-free listservs are available from your ISP.

To set up a listserv you can get for free, follow this book's Web site link to setting up your own free listserv.

Listserv Command	What the Command Does
SUBSCRIBE listname *full_name*	Subscribes you to the list or changes the name under which you were previously subscribed; replace *full_name* with your name.
SUBSCRIBE listname ANONYMOUS	Subscribes you to the list anonymously, if the listserv allows that for this list.
REVIEW listname	Requests information about a list, including who owns it and who belongs to it.
SET NOMAIL	Makes the listserv stop sending you messages. (To resume, send the command SET MAIL.)
RELEASE	Find out information about the listserv software being used to run this listserv, and who maintains the server.
SIGNOFF listname	Unsubscribes you from the list.
SET listname CONCEAL	Hides your listing from REVIEW.
SET listname NOCONCEAL	Lets you be listed by REVIEW.
SET listname MAIL DIGEST	Makes the listserv send a day's messages in a single e-mail with a table of contents at the top.
SET listname MAIL	Ends digest mode and makes the listserv send you separate messages.
SHOW STATS	Shows statistics about the listserv.
SEARCH listname keyword1 <keyword2…>	Search the listserv archives; for more search options, send the LISTSERV REFCARD command.
QUERY listname	Queries your set of options on the listserv; use SET to change them.
LISTSERV REFCARD	Asks the listserv to e-mail you a reference card listing commands users can send the listserv.

TABLE 3-1 *Listserv Commands*

Newsgroups and Forums

Wonderful as they may be, e-mail and listserv have some shortcomings. E-mail is a great way for individuals to exchange messages with one another, and listserv makes it easy to send mail to lists of people. But it is not easy to maintain your train of thought in a conversation conducted via e-mail. That is because e-mail queues up in your Inbox on a variety of topics, requiring your mind to shift gears continually as you read mail on different subjects.

Enter the USENET newsgroup, which is a resource invented in the late 1970s by students who wanted a better way to converse over the Internet on specific topics. In the following tutorial, you learn how USENET newsgroups enable users to hold virtual conferences over the Internet. You will find out what newsgroups exist in your profession, learn how to join and participate in a newsgroup, and know how to go about creating a new newsgroup.

For more background on how USENET started, follow this book's Web site link to USENET history.

Computer Conferencing

USENET newsgroups are based on the concept of computer conferencing. Just as physical conferences are held on different topics around the country, so does a USENET newsgroup concentrate on a given subject. Just as physical conferences consist of a series of meetings dealing with different topics within the subject of the conference, so newsgroups divide into topics that make it easy for you to participate in the discussion that interests you. The main difference between a physical conference and a newsgroup is that the Internet is bounded neither by time nor by space—anyone can participate in any discussion at any time from any place where there is an Internet connection. Another advantage of newsgroups is that you can participate simultaneously in various discussions of different topics. At a physical conference, on the other hand, you can attend only one session at a time.

Universe of USENET Newsgroups

There are more than 50,000 USENET newsgroups on the Internet. Newsgroups have dotted names such as rec.bicycles.racing that describe what the groups are about. The part of the name up to the first dot is known as the prefix. Common prefixes are *news* for newsgroups that actually deal with news, *comp* for discussions about computers, *sci* for science, *soc* for social issues, *talk* for debates on controversial subjects, *rec* for recreation, and *misc* for miscellaneous topics that do not fit into the other categories.

USENET Hierarchy

USENET newsgroups are organized hierarchically. Each newsgroup has a list of topics. Under each topic is a list of subtopics. Under each subtopic comes a list of messages that users have written in response to that subject. By traversing this hierarchy with a newsgroup reader, you can quickly go to any part of a newsgroup and participate in the topic of your choice.

Messages written in a newsgroup are called *postings* or *articles*. The articles look like e-mail between one user and another, but instead of just being sent between people, the postings can be read by anyone in the world through a news server that provides access to those newsgroups.

Configuring Your Newsgroup Client

Before you can read news, you need to configure your newsgroup client. To do this, you need to know the name of your newsgroup server. It will be a domain name; if you were Santa Claus, for example, the newsgroup server would be named something like news.northpole.com. If you do not know the name of your newsgroup server, ask your Internet service provider. Then get Outlook Express running, click the Tools button, choose Accounts, click the News tab, and click Add | News. Figure 3-12 shows that the Internet Connection Wizard begins to ask you a series of questions.

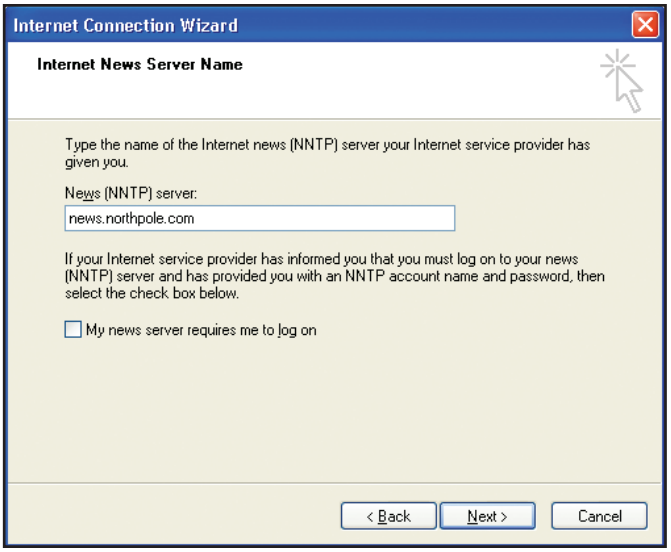


FIGURE 3-12 *The Internet Connection Wizard helps you configure your newsgroup client. In this step, the wizard is asking you to type the name of your news server. If you do not know what the name is, ask your Internet service provider to tell you.* ■

1. The wizard asks you to type your name as you want it to be displayed when you write a newsgroup message; type your name and then click Next.
2. The wizard asks you to type your e-mail address. Do so and then click Next.
3. The wizard asks you to enter your Internet news server name. Type the name of the newsgroup server you received from your Internet service provider and click Next.
4. Depending on how you are connected to the Internet, the wizard may ask you some other questions; follow the onscreen instructions to answer the questions.
5. When the wizard is finished, it asks you to click Finish to complete the configuration. Click Finish.
6. When the wizard asks if you want to view the list of available newsgroups, click Yes.

To learn how to choose a newsgroup from this list, proceed to the next part of this tutorial, "Choosing a Newsgroup."

Choosing a Newsgroup

Your Internet service provider subscribes to a number of newsgroups from which you can choose one or more that you would like to read. To select a newsgroup, you need to make Outlook Express list the names of the available newsgroups. If you just ran the Internet Connection Wizard in the previous section of this chapter, the list is already on your screen; otherwise, in Outlook Express, click the icon next to the name of your

news server in the left-hand column, as shown in Figure 3-13. Then click the Newsgroups button.

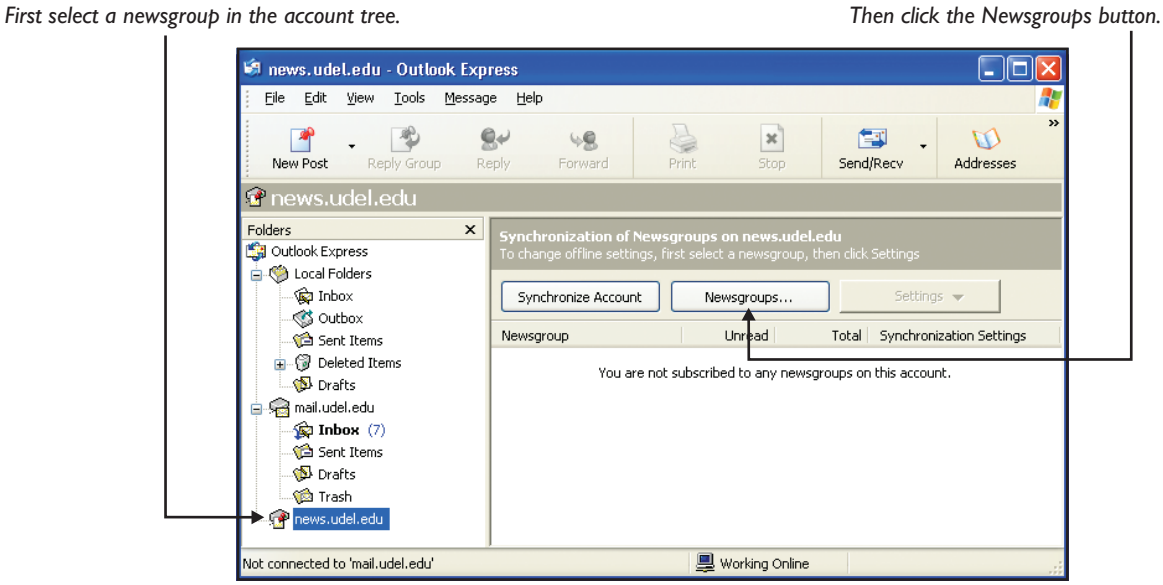


FIGURE 3-13 *When Outlook Express displays the newsgroup options, click to select a news server in the account tree, and then click the Newsgroups button to see the groups on that server.* ■

When you click the Newsgroups button, Outlook Express downloads all the available newsgroups and displays them for you, as illustrated in Figure 3-14. To subscribe to a group, select it by clicking on it, and then click Subscribe. You can narrow the list by entering a keyword in the box labeled *Display newsgroups which contain*. To get the full list back, remove the keyword. If you want to unsubscribe from a group, you can select it from the list and click Unsubscribe.

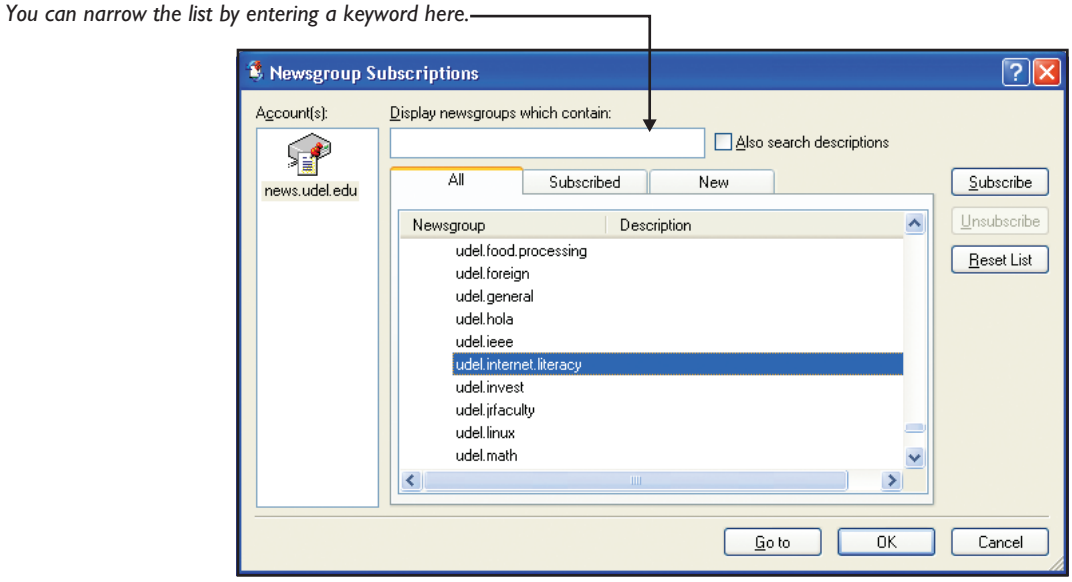


FIGURE 3-14 *When Outlook Express displays the list of available newsgroups, you click to select the name of the group to which you want to subscribe and then click the Subscribe button.* ■

To subscribe to a group you already know the name of, start typing the name of the group to shrink the list. When you see the group you want, select it by clicking on it, and then click Subscribe. Click OK when you finish choosing newsgroups.

In the list of newsgroups, you will see that the names of newsgroups are grouped by title, using compound names such as *rec.sport.basketball.college*. Here *rec* specifies recreational topics, *sport* specifies a subgroup of recreation, and so on.

Good newsgroups to join first are news.newusers.questions and news.announce.newusers, where you can read the articles about newsgroup technique and Netiquette before you begin posting your own messages to any newsgroups. If you have trouble using newsgroups, you can ask questions in news.newusers.questions.

Reading a Newsgroup

Newsgroups are threaded. Each thread represents a different topic being discussed in the newsgroup. To read a newsgroup, double-click the icon next to your newsgroup server to reveal the list of newsgroups to which you are subscribed.

In the list of newsgroups, click to select the name of the newsgroup you want to read. Your computer contacts your ISP and downloads a directory of the messages in the newsgroup; then the directory of messages appears onscreen.

If a message has a plus sign alongside it, that means the message has a hierarchy of other messages beneath it; click the plus sign to reveal the hierarchy. Click the minus sign if you want to collapse the hierarchy.

New messages you have not read yet are printed in bold. To read a message, double-click it. Outlook Express downloads the message and displays it in a message window. To read the next message in the newsgroup, click the Next button (up arrow); to read the previous message, click the Previous button (down arrow).

To help you find your way through the newsgroup, Outlook Express lets you sort the messages in a variety of ways, as shown in Figure 3-15. To sort by subject, click the subject button; to sort by who sent the message, click the From button; to sort by date, click the Sent button.

Responding to a Newsgroup

Responding to a newsgroup is a lot like responding to an e-mail message. The main difference is that instead of being sent to an individual, your response gets posted to the newsgroup. Some newsgroups are moderated, meaning that someone looks over the messages you send to the newsgroup and makes sure the messages fit the purpose of the newsgroup before they get posted to the newsgroup. Many newsgroups are unmoderated, meaning that users can freely write messages without any form of review or censorship.

The rules of Netiquette dictate that when you are first learning to use newsgroups, you should write your test messages in the newsgroup news.test. Subscribe to news.test now. If you have trouble, refer to the instructions in the previous section on choosing a newsgroup. Other practice

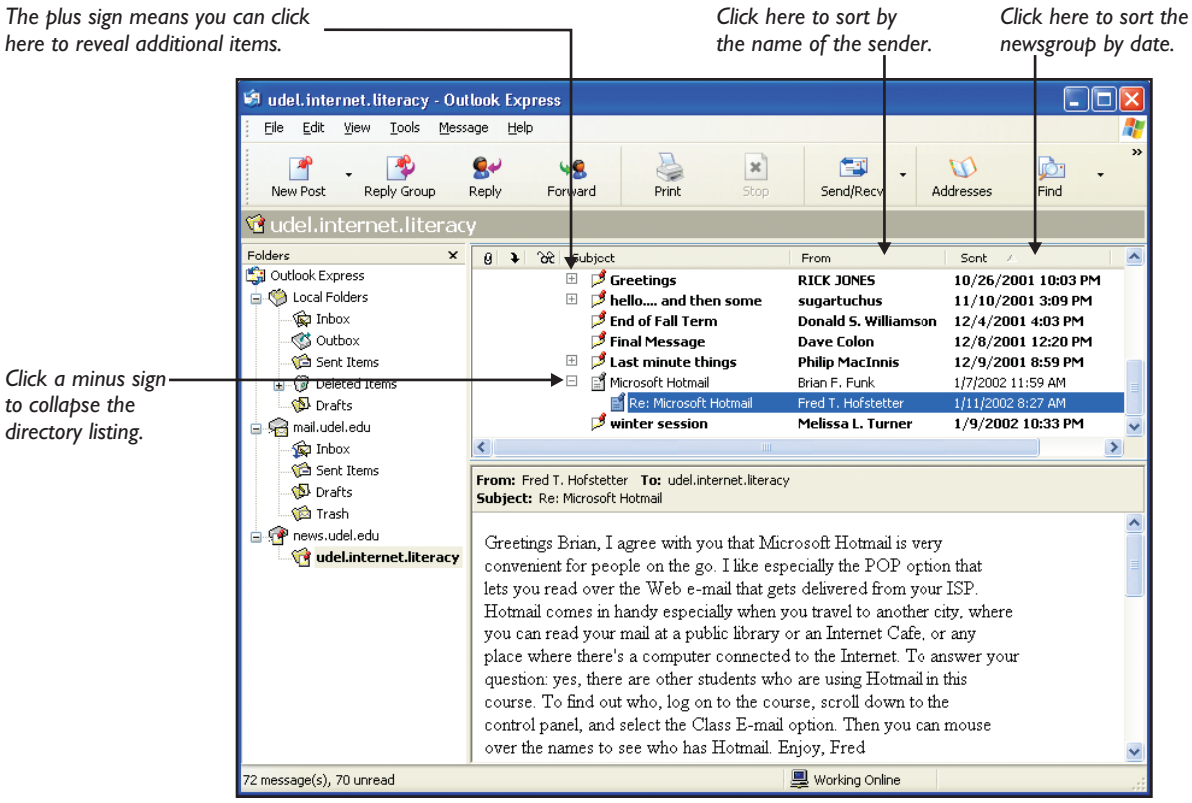


FIGURE 3-15 *Outlook Express lets you sort newsgroup messages by subject, author, and date. Click a plus sign to expand the hierarchy of messages, or click a minus sign to collapse it.* ■

newsgroups are at alt.test and misc.test. Following are the steps for writing a message:

1. While reading the newsgroup message to which you want to respond, click the Reply Group button.

2. If you want to reply to just the author, click the Reply button. The mail composition window appears, with a blank message automatically addressed.

3. Complete the message as if you were creating an e-mail message, and then click the Send button to send the message.

Inside Info

Newsgroups Are Searchable

Remember that anyone can use Google to perform a full-text search of anything written in a newsgroup. Prospective employers, for example, can use Google to search newsgroups for things written by job applicants. It is possible that writing dumb stuff in newsgroups now could reduce your chance of getting a good job later on. Anything you write in a public newsgroup will probably remain on the Internet forever. Never write anything in a newsgroup that may embarrass you later on, and never write anything in a public newsgroup that you wouldn't want the whole world to see.

Creating a New Topic in a Newsgroup

While participating in a newsgroup, you may want to start a conversation on a new topic. To create a new topic, enter the newsgroup in which you want to create a new topic of conversation. Click the New Post button; a mail composition window appears with a blank message automatically addressed to the newsgroup. Complete the message as if you were sending electronic mail, and click the Send button to send the message.

The next time you read the newsgroup, you should find your new topic listed in the newsgroup's hierarchy. If your topic is not there yet, it is possible that the server has not yet processed it, or in the case of a moderated newsgroup, the newsgroup's owner may have disallowed the topic. If your posting is rejected, Netiquette calls for the newsgroup's moderator to send you an e-mail message to let you know why your message was not accepted into the newsgroup.

Finding Newsgroups in Your Profession

Go to cyberfiber.com for a comprehensive listing of USENET newsgroups. Click the subject you are interested in to see an outline of newsgroups devoted to that topic. To join a newsgroup, just click it, and your Web browser will automatically subscribe you and take you there.

Another way to find out about newsgroups in your profession is to use the Google USENET search engine, which can perform full-text searches of the Internet's newsgroups. Chapter 2 provides detailed information on how to use Google to find out about information written in newsgroups. When you find the information you are looking for, Google identifies the name of the newsgroup it came from. Then you can subscribe to that newsgroup to explore more of the information it contains. Google finds groups aligned to your topic as well as threads and articles in other groups containing your search words.

Inside Info

Microsoft Technical Support Newsgroups

An invaluable technical resource for IT professionals who are working with Microsoft products is the hierarchy of newsgroups hosted on Microsoft's newsgroup server at news.microsoft.com. To access the Microsoft newsgroups, pull down the Outlook Express Tools menu, choose Accounts, click News, and click the Add button to bring up the Internet Connection Wizard. Follow the wizard's instructions to create your news.microsoft.com account. Then you can click that account to peruse the Microsoft newsgroups and subscribe to the groups of your choice.

Web-based Discussion Forums

Web-based discussion forums are an alternative to newsgroups. Like newsgroups, forums have discussions that are organized according to topic and subtopic in which users can participate much like a newsgroup. Unlike newsgroups, however, forums are not cataloged as part of the public USENET service on the Internet. What you write in a forum, therefore, does not get searched by the USENET search engine described in the previous section.

Several examples of Web-based forums are linked to this book's Web site. Follow the links to some of the forums you will find recommended there to experience what Web-based forums are like. Some of the more

popular forums reside at the Motley Fool at boards.fool.com, where you can search the forums for topics that interest you.

If you would like to host your own Web-based discussion, you can do that at sites such as DelphiForums.com, where you can create your own discussion forums on the Internet. Another popular free discussion host is Yahoo! Groups at groups.yahoo.com. For others, do a Google search for the keywords *forum hosting*.

Blogging

As you learned in Chapter 1, keeping a weblog through blogging has become one of the most popular ways of using the Web. There are two reasons for its popularity. First, people like to keep diaries full of chronological entries describing events that have taken place. Second, blogs are very quick and easy to create. People who would become frustrated learning HTML, for example, can easily create a blog, because the blogging tools prompt users to type in their news and click a Submit button to trigger a server-side process that automatically stores the content and creates the HTML needed to display it onscreen. One of the most popular blogging sites at www.blogger.com refers to this process as "push-button publishing for the people."

The popularity of blogging has given rise to a large number of blogging sites. When this book went to press, there were 38,379 channels cataloged at www.syndic8.com, which is a directory of XML- and RSS-driven weblogs and syndicated newsfeeds. The mass-market popularity of these channels has given rise to a large number of authoring tools. You can peruse these tools by following this book's Web site link to blogging. One of the leading tool providers is blogger.com, which is owned by Google. Taking a look at the tools and services available at blogger.com provides a good overview of the kinds of services that blogging enables. At blogger.com you will find

- A template you fill out specifying where you want your postings to appear and what style they should appear in.
- A form you fill out to make a posting. This form-driven design makes it possible for people who do not know HTML to create weblogs. People who do know HTML can use it nonetheless.
- A Publish button which, when clicked, FTPs the posting to the site of your choice.
- Free hosting services if you do not already have a Web site.

Reading RSS Channels and Feeds

Depending on who defines it, RSS can stand for different things. In Chapter 1, for example, you learned that RSS stands for Rich Site Summary. In a more technically correct sense, RSS stands for RDF Site Summary, where

RDF stands for Resource Description Framework and specifies the XML syntax from which RSS is derived. Not everyone likes these highly technical terms, however. Less technical people say that RSS stands for Really Simple Syndication. Whatever you call it, RSS has become very popular. It provides a quick and easy way for Web developers to summarize what is happening at their sites into a feed that can be channeled to other sites that want to display the news headlines with links to follow for more information.

RSS readers are available for all the major operating systems. Under Windows, popular RSS readers include BlogExpress and SharpReader. On the Macintosh, there is NetNewsWire. Linux users have an RSS reader called Lifera. This book's Web site provides links to these and other popular RSS readers. There is also a Web-based RSS reader called BlogLines that enables you to read RSS feeds from your browser.

RSS files are sometimes called channels or newsfeeds. Whatever you call them, they normally have either XML or RDF filename extensions. To subscribe to an RSS feed or channel, you simply copy its link into your RSS reader. You can often find a Web site's RSS feed by looking for the icon alongside a link to such a feed. To copy the link, right-click (Windows) or CONTROL-click (Macintosh) this icon to pop out the quick menu; then choose Copy Shortcut or Copy Target Address. To subscribe, paste the link into the appropriate section of your RSS reader. In some readers, you can drag the link from your browser to your RSS reader.

IRC Chat Rooms

Chat rooms are places on the Internet where you can go to talk with other users in real time. Following the metaphor for which this technology is named, you imagine yourself entering a room in which you can converse with other users you will find there.

One of the oldest and most established chat-room protocols is Internet Relay Chat (IRC), which consists of several networks of IRC servers that support chat on the Internet. The largest IRC networks are EFnet (the original IRC net, often having more than 32,000 people chatting at once), Undernet, IRCnet, DALnet, and NewNet.

IRC conversations are organized into channels. You can join one or more communication channels and converse with other users who are subscribed to the same channel. EFnet often has more than 12,000 channels. Conversations may be public, allowing everyone in a channel to see what you type, or private between only two people who may or may not be on the same channel.

To connect to an IRC server, you must run an IRC client program. The most popular clients for Windows are mIRC and PIRCH. On the Macintosh, the IRC client is Ircle. You can download the client of your choice by following this book's Web site links to IRC.

It is also possible to join an IRC chat through your Web browser. When you enter an IRC chat through your browser, a Java-based IRC client is downloaded automatically, without requiring you to set up anything special in advance.

IRC is not a game. The users you will meet there are real people, and you should treat them with the same courtesy as if you were talking to them in person. You should be aware that it is possible, however, for robots to enter chat rooms and lead you to believe they are human.

This book's Web site links to an IRC Help site. One of its subsites is an IRC Prelude site for people new to chat rooms. Before you begin using Internet Relay Chat, you should follow the links to the IRC Help site and the IRC Prelude site and learn the rules of the road and the principles of IRC Netiquette you will find there. Then you will be ready to visit CityLive, IrCQ-Net, and other chat networks linked to this book's Web site.

Instant Messaging

Instant messaging (IM) is a real-time communication protocol with which you can send and receive instant messages over the Internet. An instant message is an electronic notification that appears on your computer screen automatically to notify you that an important message just arrived in your e-mail or someone wants to talk with you now or something just happened that you wanted to know about, such as the value of one of your stocks moving up or down on the stock market.

To prevent instant messaging from becoming a free-for-all in which anyone on the Internet could interrupt your work instantly, you use a buddy list to identify the people who are allowed to contact you. When you are online, your buddies can send you instant messages, and you can chat with them live over the Internet. If you are busy working on something that you do not want interrupted by an instant message, however, you can set your busy flag. If someone sends you an instant message while your busy setting is on, the person will be told you are busy, while you continue working uninterrupted.

Instant messaging has become so popular that its acronym *IM* has become a verb, which is pronounced eye-emm. To IM someone means to send them an instant message over the Internet.

There are four major brands of instant messaging: ICQ, AOL Instant Messenger (AIM), Microsoft's MSN Messenger, and Yahoo! Messenger. When this book went to press, AOL dominated instant messaging with 100 million users worldwide. The AOL-owned ICQ had 68 million users, MSN Messenger had 66 million, and Yahoo! Messenger 36 million. According to Nielsen/NetRatings, MSN Messenger had the highest growth rate, having grown 21 percent over the previous year, while Yahoo! Messenger grew by 11 percent and AOL increased 2 percent.

As audio and video technology progresses, IM clients are beginning to support multimedia. In a multimedia chat, users who have microphones and speakers can talk out loud to each other and hear what the participants are saying. Users with cameras attached to their computers can appear on the screen of the people they are chatting with. Multimedia chat requires a much higher bandwidth than text-based chat, however, and many users do not have fast enough connections for real-time video. Not to worry, because text-based chat offers a lot of functionality for getting

your message across. Even if you have a slow connection that does not have enough bandwidth for multimedia, you will be happy to discover how effective a plaintext-based chat can be for conversing with other users over the Internet.

When you are deciding which brand of instant messenger to use for your own chatting, you need to consider the fact that the different brands do not interoperate with each other. AOL Instant Messenger chatters, for example, cannot use AIM to chat with Microsoft's MSN Messenger users. When you choose an instant messenger, therefore, you need to use the brand where your friends are or convince your friends to get the brand you choose.

ICQ

True to its name, ICQ (pronounced I Seek You) is an instant messaging service that lets you contact people you want to chat with on the Internet and create peer-to-peer communication channels that are quick and easy to use. The latest version adds a file-sharing option for setting up a folder on your PC in which you can share files with your buddies.

ICQ provides a contact list in which you keep the names of the ICQ users with whom you want to be in contact. You can add more friends or business associates to your contact list at any time, or you can remove people when you no longer want them to contact you. Figure 3-16 shows how ICQ displays the names of your buddies who are online. You can use the rich set of Send options in Figure 3-17 to send messages, files, Web pages, or greeting cards to your friends. Figure 3-18 shows that you can TXT your friends via the Short Message Service (SMS), which is a protocol for sending text messages to mobile phones. ICQ also lets you keep a to-do list and set alarms that will remind you to perform a task or help you remember something important, such as your wedding anniversary. When this book went to press, a tool was being tested that would permit ICQ users to communicate with AOL Instant Messenger users. For more information, go to www.icq.com.

FIGURE 3-16 *ICQ displays the names of your buddies who are online. In addition to IMing your buddies, you can press a button to search Google. This is but one of many ways in which instant messaging vendors are extending the scope of what you can do from an IM window.* ■

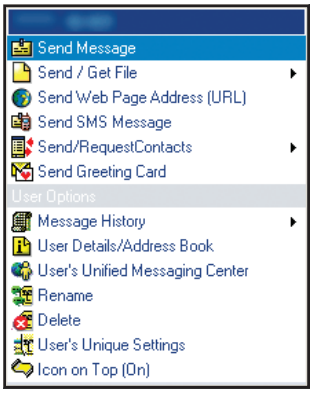


FIGURE 3-17 *ICQ has a rich set of send options. To TXT friends on their mobile phones, click the option to send an SMS message.* ■

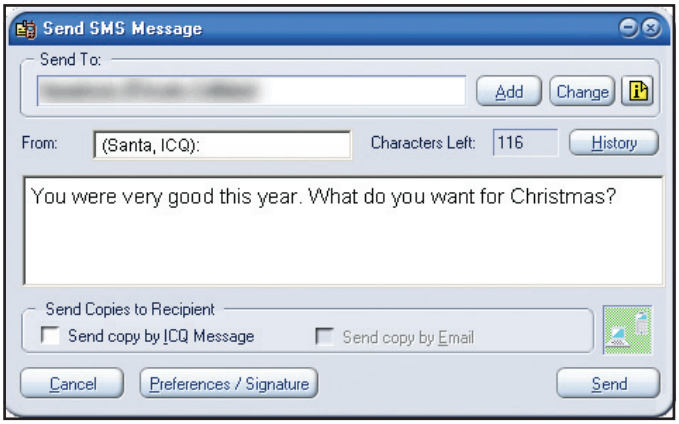


FIGURE 3-18 *When you type an SMS message, try to fit what you have to say in a single transmission instead of sending lots of shorter messages. The sentences illustrated here, for example, could have been sent in separate messages, but that would have created an extra round trip, making the transmission take longer than a single message.* ■

AOL Instant Messenger

As you might expect, AOL, which is the largest Internet service provider, has the largest instant messaging network. AOL subscribers access it via the Buddy List feature. Other users can participate via the AOL Instant Messenger (AIM) product, which is available to anyone, not just AOL members. Especially popular is the AIM Express version, a Web-based AIM client with which you can IM from any Web-connected computer. You can use AIM to accomplish the following tasks over the Internet:

- Receive instant notification when you have mail, your stocks move up or down, or a specific friend or family member comes online.
- Send instant messages.
- Share pictures, sounds, and animation with people on your AIM buddy list.
- Talk live with your friends and family through your computer.
- Chat with friends and family or people with similar interests.
- Stay on top of the news and stocks.
- Use IM Forwarding to deliver messages to your cell phone when you are away from your PC.

This icon indicates that the conversation is encrypted.

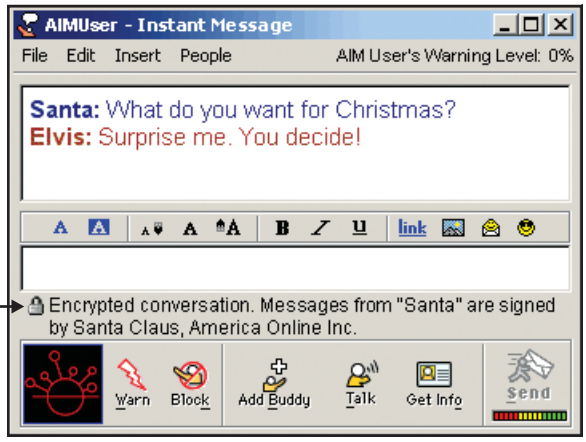


FIGURE 3-19 *AIM gives you the option of encrypting and digitally signing your messages. You should consider using this option whenever you send a message that needs to be kept private. Chapter 13 shows you how to get your own digital signature.* ■

The latest version of AIM has an encryption feature so you can send encrypted messages and files. The chat in Figure 3-19 is using this encryption option. Notice that the messages are digitally signed.

When this book went to press, AIM was beginning to support interactive game-playing as a way to increase its popularity. Figures 3-20 and 3-21 show that you can AIM your mobile buddies. Go to www.aim.com if you want to get started using AOL Instant Messenger.

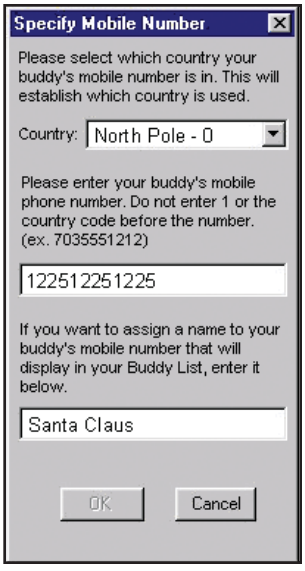


FIGURE 3-20 *You can use AIM to send a message to a mobile phone number. If you assign a name to the mobile phone number, it appears in your buddy list, as illustrated in Figure 3-21.* ■

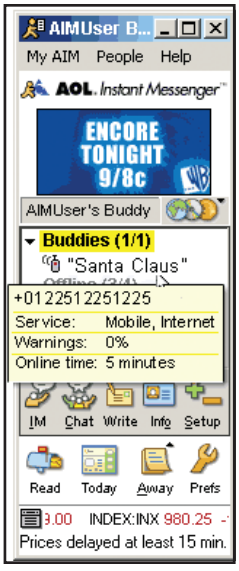


FIGURE 3-21 *Mobile buddies appear in your AIM buddy list. Hovering over a mobile buddy pops out an alert showing how long your buddy has been online.* ■

Microsoft MSN Messenger Service

Microsoft markets its MSN Messenger Service as a great way to make free phone calls to your friends and family. All you need are a Passport or Hotmail account, a multimedia PC, a 28.8 Kbps modem or faster, a sound card, speakers,

a microphone, and Internet access. MSN Messenger Service supports the following features:

- **Voice calls with microphones** Call PC to PC or PC to phone anywhere in the United States or Canada. This feature is not available, however, to users who are behind a firewall or a router that blocks these kinds of binary transmissions.
- **Online status and instant message exchange** See when your friends are online and exchange instant messages with them. You can chat with up to four friends in the same message window.
- **File sharing** Trade pictures, music, documents, and more—right from MSN Messenger Service.
- **Reaching beyond computers** You can send messages to pagers and cell phones.
- **Automatic typing indicator** To help keep you from interrupting, MSN Messenger Service shows you when one of your friends is typing a response.
- **Customization** Change font styles and colors. Choose your own system sounds.
- **Emoticons** Express yourself with pictures like `:)` and `;-)`.
- **Games** The latest version has free games, including tic-tac-toe and checkers.
- **Information On Demand** There are tabs to display MSNBC news, weather, and traffic reports.
- **Webcam** Users with high bandwidth can use a video webcam option powered by Logitech.

Figure 3-22 shows an MSN Messenger chat in progress. MSN Messenger has built-in support for COPPA, the Child Online Privacy Protection Act, which allows you to control whether or not your children can use the service. For more information, go to messenger.msn.com.

Yahoo! Messenger

If you are a Yahoo! devotee, you may wish to consider using its brand of instant messenger, called Yahoo! Messenger. It lets you access information throughout the Yahoo! portal, and it supports multiparty voice conference calls with hands-free full-duplex conversation. Full-duplex means you can talk and listen at the same time. Users with high bandwidth can use a Super Webcam feature to engage in broadband video messaging at speeds up to 20 frames per second. The search tool enables IM users to look up movie listings and restaurant addresses, which display as clickable links in the chat

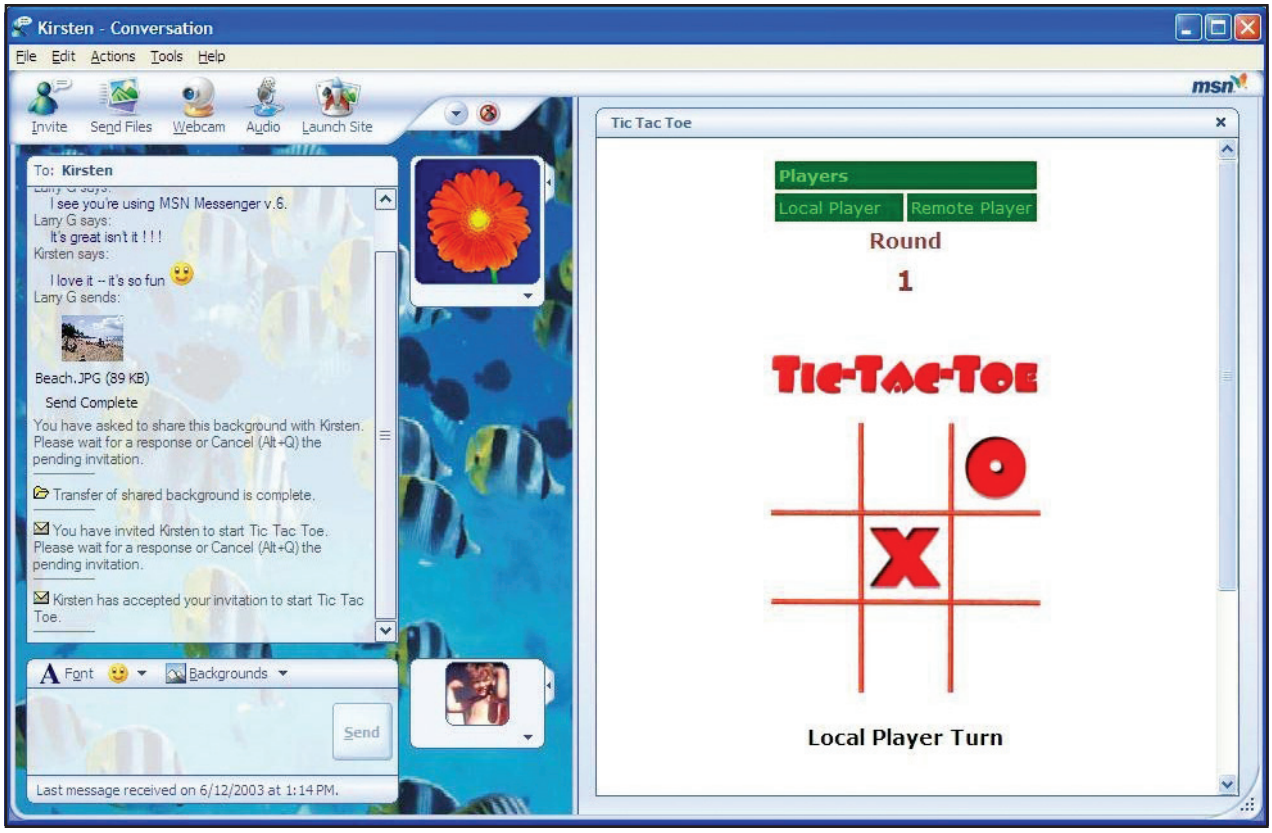


FIGURE 3-22 *MSN lets you play fast-paced games with your buddies. In this example, two users have decided to play a game of Tic-Tac-Toe over an aquarium background. Other games include Solitaire Showdown and Mindsweeper Flags.* ■

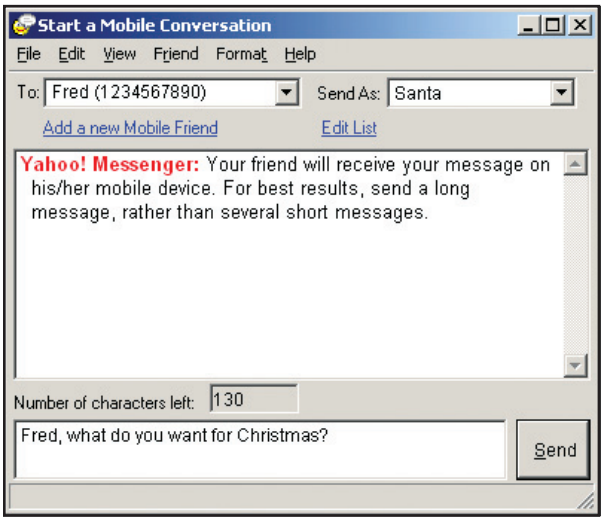


FIGURE 3-23 *When a PC user initiates a mobile phone conversation, Yahoo! Messenger advises that for best results, you should send a long message rather than several short messages.* ■

FIGURE 3-24 *On the mobile phone, the buddy sees the message (top), chooses to reply (middle), and answers appropriately (bottom).* ■

window. Windows users can download IMVironments and create themed backgrounds for the chat window. One of the IMVironments, for example, lets you get "in the zone" with Britney Spears.

You can also use Yahoo! Messenger to send messages to buddies who have mobile phones. Figure 3-23 shows a message being sent from a PC, for example, and Figure 3-24 shows how the message appears on the phone. For more information, go to messenger.yahoo.com.

Whiteboarding, Audioconferencing, and Videoconferencing

It is not always enough just to see what the other users are typing in a conversation. Sometimes you want to see other information that is on their screen as well. For example, a group of professionals collaborating on an economic model might want the conversants to be able to see a spreadsheet, play what-if games, and work together to evolve the best business plan. Distance-learning students collaborating on a scientific research project could similarly benefit from being able to contribute data from remote locations and view the results on a screen shared across the network. The type of computer program that enables remote users to share a common screen across the network is called **whiteboard** software, and the act of sharing such a screen is called *whiteboarding*.

Audioconferencing adds an aural dimension by enabling you to hear what people are saying into a microphone during a conversation, and with videoconferencing, you can see them as well. Virtually every computer sold today comes with a microphone and speakers that can be used for audio conferencing. For less than $50, you can add a camera to your computer so participants can see as well as hear you during a conference. In a videoconference, each person's PC has a video camera and a microphone attached to video and audio adapters that digitize what the camera sees and the microphone hears. Because digital audio and video transmissions contain many more bits of information than textual communications, you need a faster connection to the Internet than is required for text-based chat. A lot of research and development is being done on compressing audio and video to make them require less bandwidth, however, and hopefully videoconferencing will become more widespread when the cost of transmitting it decreases.

In the meantime, if you try to use more bandwidth than your local communication line can handle, you will notice your service degrade. Some day, as the Internet continues to develop, everyone will probably be able to use audio and video without worrying about bandwidth limitations. Until then, a good rule of thumb is to use text-based chat unless you really need audio and not to use video unless the participants really need to be able to see what you are doing on camera. If you need to use a camera but do not have enough bandwidth for the audio to work uninterruptedly, try turning off the audio channel and use text-based chat in combination with the video. Although the video frame may not update very often under these conditions, it will not be as disturbing as an audio channel that keeps dropping out due to low bandwidth. Many corporate intranets, on the other hand, have high-speed connections that permit the use of high-quality videoconferencing. If you are fortunate enough to be on such a LAN, you can enjoy today the full benefits of the emerging videoconferencing technology.

WebEx

More than 8,000 companies are using a Web-based whiteboard and computer-conferencing service created by WebEx. Based on industry standards for scalable distributed networks, the WebEx platform has grown

rapidly because it integrates well with any Web-based environment. Features include the real-time sharing of applications, presentations, or documents as well as Web co-browsing, live chat, record and playback, remote control, and file transfer. Figure 3-25 shows that files and applications on any participant's desktop can be opened and shared in real time during a WebEx meeting. Figure 3-26 shows that you click the WebEx Video tab to view live video images of the participants who have cameras.

Because the system is Web-based, WebEx can be used by Windows, Macintosh, and UNIX users to collaborate on applications running on different platforms. Spontaneous presenter delegation enables any one of the participants to become the presenter and share applications and data resident on their desktop. For more information, go to www.webex.com.

CUseeMe and CUworld

One of the first videoconferencing applications on the Internet was called CUseeMe. CU stands for Cornell University, where the software

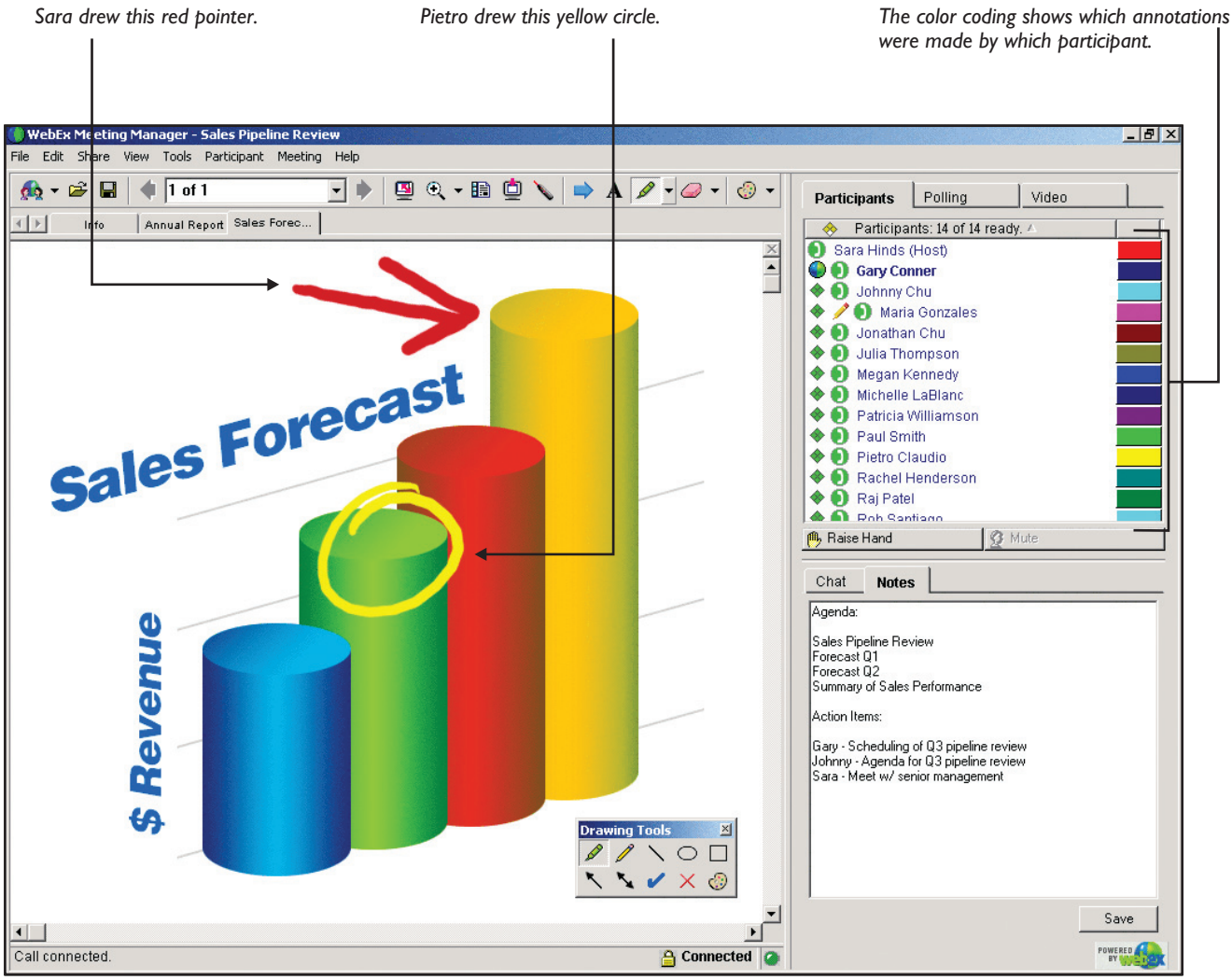


FIGURE 3-25 *With WebEx, presenters can show documents, run applications, and remotely control the participants' computers. During a meeting, you can use the drawing tools to make annotations that all the participants will see.* ■

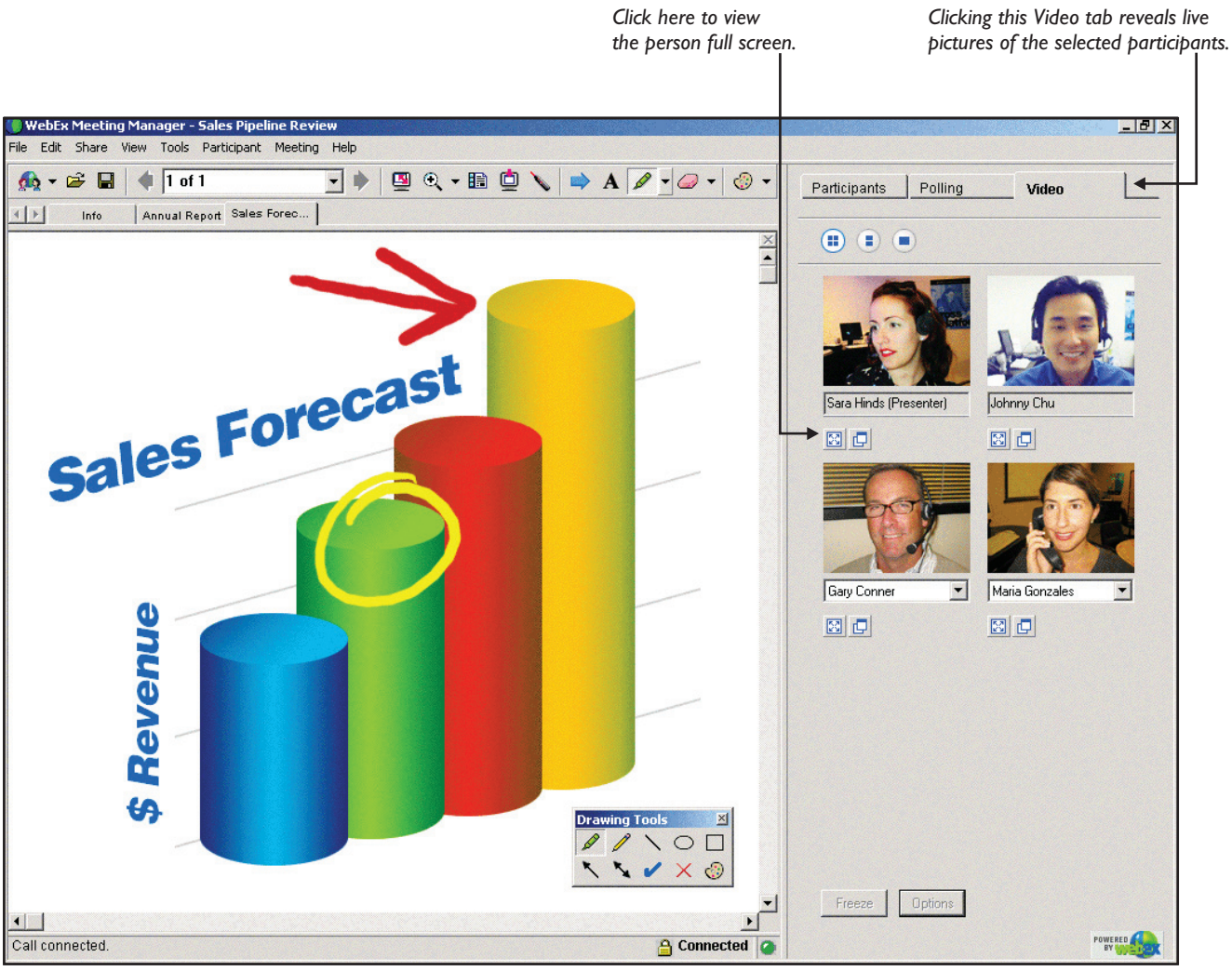


FIGURE 3-26 *To view live video images of the participants who have cameras, you click the WebEx Video tab.* ■

was developed. Since then, CUseeMe grew into a large family of products aimed at a broad range of users from homes to schools and businesses. In 2003, a company called CUworld was formed through acquisition of the consumer business of the former CUseeMe Networks. The new CUworld service is found online at www.cuworld.com, where anyone can get a free guest membership.

At CUworld, videochats are organized in channels around a central interest theme such as Family, Relationships, Sports, Teens, Travel, and Women. Within each channel you can visit existing videochat rooms or create your own room to discuss a topic that may not already be listed.

Because video requires high bandwidth, CUworld uses a network of Internet reflector sites that handle routing and trafficking problems. The frame rate depends on traffic, and rarely do you get the smooth, full-motion video you are used to on TV, but a new frame comes often enough to give you a good idea of the other person's appearance and body language. To learn more, go to www.cuworld.com and check it out.

Try This!

Take WebEx for a Free Test Drive

You can experience the power of WebEx first-hand by getting a free demo delivered live by WebEx representatives. You do not need a video camera to do this. Follow these steps:

1. Go to www.webex.com and follow the link to join a live demo.
2. When you get a screen asking you to choose a region, such as North America, Europe, Australia, or Asia, click the region that represents your locale.
3. You will be given the option of joining a live demo now, which repeats every 30 minutes, or you can sign up for a more detailed overview at a specific date and time. For the purpose of this exercise, choose the option to join a live demo.
4. You are served a form on which you must enter your first name, last name, and e-mail address. Fill out that information and click the Join Now button.
5. At the prompt to install the WebEx client on your computer, follow the online instructions to install this browser plug-in. On my computer, this installation took three minutes over an ISDN line.
6. When the WebEx Meeting Manager appears, follow the onscreen instructions to join the demonstration, and enjoy your journey into videoconferencing!

NetMeeting and LiveMeeting

When this book went to press, Microsoft was in the process of transitioning from NetMeeting to LiveMeeting for its videoconferencing software. Introduced in 1996, NetMeeting worked its way into the Windows operating system, where it became part of Windows 2000 and Windows XP. For earlier versions of Windows, NetMeeting was freely downloadable. Known especially for its integration with the Microsoft Office programs, NetMeeting enabled users to call each other over the Internet, using the H.323 calling protocol. Figure 3-27 shows a NetMeeting session in which three users are discussing the design of a PowerPoint presentation.

In 2003, Microsoft purchased a videoconferencing company named Placeware and renamed the product LiveMeeting. By the time you read this, LiveMeeting will be integrated throughout the Microsoft Office suite, much as NetMeeting was in previous versions of Windows. To learn more, go to www.microsoft .com/livemeeting.

Inside Info

H.323 Multimedia Communication Standard

H.323 is a standard for transmitting multimedia communications, such as audiovisual conferences, across a packet-switched network. Ideally, such a standard should enable Internet users to participate in the same conference, regardless of their specific brands of videoconferencing software. With today's products, however, you generally need to be using the same brand to participate in a videoconference. As videoconferencing products continue to emerge, it is hoped that the vendors will make them truly interoperative, although the market-driven pressures that cause vendors to differentiate their products may make this interoperability impractical to achieve. You can read the H.323 standard by going to the International Telecommunications Union (ITU) at http://www.itu.int and searching for H.323.

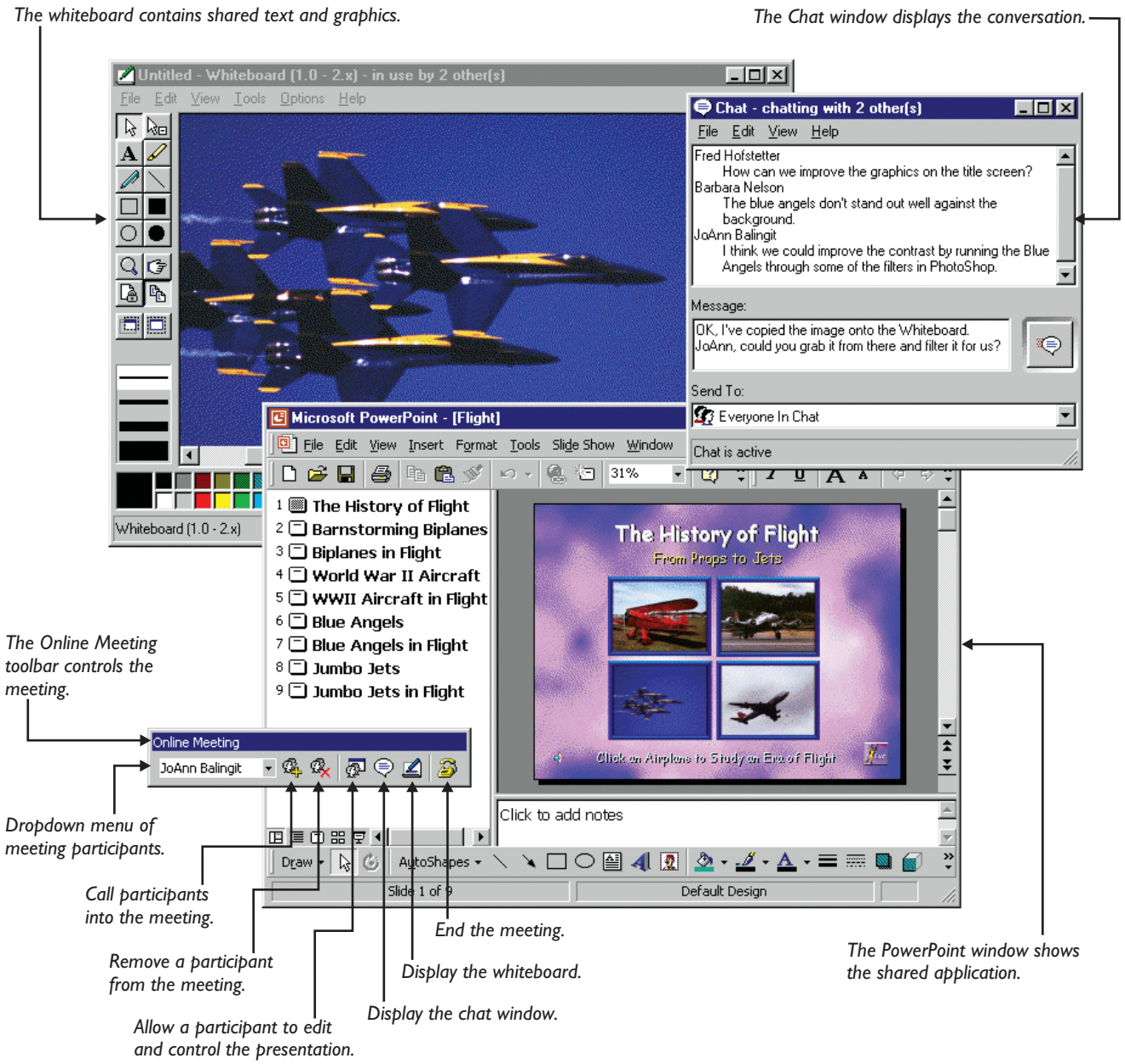


FIGURE 3-27 *You can use Microsoft Office to make audiovisual conference calls when you want to collaborate with colleagues over the Internet. In this example, three developers in remote locations are consulting on the design of a PowerPoint presentation. Each developer sees the Whiteboard window, the Chat window, and the PowerPoint window. The moderator uses the Online Meeting toolbar to control the meeting.* ■

Logging on to Legacy Systems via Telnet

If your career goal is to become an IT professional, you need to be prepared for the possibility that you may someday need to log on to a legacy system that does not have the multimedia communication capabilities presented previously in this chapter. To log on remotely to such a legacy system, you use the **telnet** protocol, which enables individual users to log on

to remote host computers on the Internet. Once you are logged on, you can access the services provided by the remote host.

When you telnet to a remote host computer, it prompts you for your user name and your password. Some hosts allow an anonymous login. When prompted for your user name, you type **anonymous** or **guest**, and when prompted for a password, you either type nothing, you type **guest**, or you follow the procedure specified wherever you found out about the site. After you log on as an anonymous user, you can access the remote host's public resources. To access private resources, on the other hand, you need to log on as a specific user in an account that is permitted to access the desired resource.

Telnet can save you money on long-distance telephone charges. Suppose you live in Philadelphia and you want to log on to a remote host computer in Los Angeles. Instead of dialing up to the remote host in Los Angeles, you can telnet there to avoid the cost of the long-distance telephone call. You pay only for your existing Internet connection from your Internet service provider.

Running a Telnet Client

The software that enables your computer to telnet to other computers on the Internet is known as a *telnet client*. Your computer may already have a telnet client program installed on it. For example, all Windows users have a telnet client program called telnet.exe. To run it, you click the Start button, choose Run, and then type **telnet** and press ENTER. If your computer does not have a telnet client, contact your ISP and ask about getting a telnet client for your computer at little or no cost.

As the Web increases in popularity, telnet is becoming less important as a way to find information because it's easier to query databases by using graphical tools on the Web than to type commands at a telnet prompt. Nevertheless, telnet remains an essential Internet resource, especially for programmers and developers who use telnet to log on remotely and perform operational tasks to manage Web sites and keep servers running properly.

Setting the Local Echo Option

When you visit a telnet site, you might not see printing on your screen when you type keys on your computer keyboard. This happens when telnet sites do not echo the keys you type. To solve this problem, pull down your telnet client's Preferences or Settings menu and choose the Local Echo option. If your telnet client is command-line based, type the command **set localecho** and press ENTER.

Freeing Up the Remote Connection

When you finish using the remote computer, you should close your telnet connection to free up resources for other users who may want to connect there. To close a telnet session, type **logout** (or **quit**, **close**, **exit**, or **bye**, depending on the conventions followed at the remote host) and press ENTER.

Try This!

Telnetting to the Weather Underground

You can use telnet to log on remotely to any other computer on the Internet. All you need to know is the computer's IP address or domain name. If the remote host does not support anonymous login, you also need an account (i.e., user name) and password to log on.

Suppose you want to log on remotely to rainmaker.wunderground.com to get your local weather report. Follow these steps:

1. Get your telnet software running. If you have Windows, for example, click the Start button, choose Run, and then type **telnet** and press ENTER.
2. To see a list of the telnet commands, type **Help** and press ENTER. Peruse the list of commands to see the kinds of things you can do, but do not enter any commands yet.
3. The command that connects you to a remote host is called *open*. To telnet to rainmaker, type the following command, and press ENTER:

   open rainmaker.wunderground.com
4. When the remote host responds, it provides instructions telling how to proceed. In this example, follow the onscreen instructions to get a menu of the rainmaker options.
5. Choose the option to print the forecast for a selected city, and follow the onscreen instructions to determine your state's two-letter code and your city's three-letter code. You need to know the city's three-letter code to print out its forecast.
6. The three-letter code for Philadelphia, for example, is PHL. New York City is NYC. Los Angeles is LAX.
7. When you finish checking the weather, follow the onscreen instructions to exit the program. To make sure you are logged off, type **close** and press ENTER.
8. Now use your browser to go to http://rainmaker.wundergound.com and compare the difference between accessing your local weather information via the legacy telnet program and accessing it via the modern graphical Web interface.

Transferring Files via Legacy FTP Commands

In Chapter 1, you learned that FTP is the protocol for transferring files over the Internet. The program you use to FTP files is called an *FTP client*. There are two basic kinds of FTP clients: text-based command-line clients and graphical user interface (GUI) clients. Prior to the invention of GUI clients, the only way to FTP files was to use the text-based commands. Today most Webmasters use GUI clients, which enable you to FTP files by clicking and dragging onscreen controls. In Chapter 7, you learn how to use a graphical FTP client to publish a Web site. This graphical FTP client is all most users will ever need to know.

If you are studying for the CIW Foundations exam, however, you should also learn the text-based commands, which you may encounter on the exam. The reason Webmasters still need to know the text-based FTP commands is that GUI clients may not be usable in some situations. If you telnet to a legacy system from which you need to transfer a file, for example, you might not be able to make the transfer with a modern GUI client.

Instead, you may need to type text-based FTP commands to transfer the files. This chapter concludes, therefore, by teaching you the text-based FTP commands. If you are not studying for the CIW exam, you can skip over the text-based commands and proceed to the Chapter 3 review.

Step-by-Step 3-3

FTPing a File on a Legacy System

Transferring a file via text-based FTP commands is a nine-step process. The following example steps you through using these commands to download a copyright form from the Library of Congress. After you work through this process, you can follow the same procedure to download other kinds of files from other FTP servers on the Internet. Remember that command-line FTP is needed for legacy systems only. If you are studying for the CIW exam, or if your career goal is to become an IT professional, you can learn how to use command-line FTP by following these steps:

Step 1 Bring up a command prompt on the computer from which you plan to issue the FTP commands. If you have Windows, for example, you can get to a command prompt by clicking Start | Programs | Accessories | Command Prompt. Do this now if you want to work through this example on your computer.

Step 2 Go into the folder or directory into which you want to download or upload a file. To go into a folder at the Windows command prompt, you use the command *cd*, which stands for change directory. For help in using this command, type **help cd** and press ENTER.

Step 3 Type **FTP** and press ENTER to start the command-line FTP client. You should see an FTP prompt onscreen. Type **Help** and press ENTER to see the available FTP commands. Table 3-2 guides you in the most common uses of these commands.

Step 4 Use the Open command to connect to the FTP host on which you want to upload or download a file. The command syntax is *open* followed by a space, followed by the domain name or IP address of the FTP host. In this example, type **open ftp.loc.gov** and press ENTER to connect to the FTP server at the Library of Congress.

Step 5 Log on to the FTP server. In this example, type the username **anonymous** and press ENTER. You will be prompted to type your e-mail address as the password. Do this as instructed.

Step 6 Navigate to the directory in which you want to upload or download a file. In this example, type the command **dir** and press ENTER to list the available directories. To enter one of these directories, you use the command *cd*, which stands for change directory. In this example, type **cd pub/copyright/forms** and press ENTER. This takes you into the folder that contains downloadable copyright forms from the Library of Congress. Type **dir** and press ENTER to see the available forms.

Step 7 You need to set the mode to ASCII or binary, depending on the kind of file you want to transfer. ASCII is the default, which you use for text files such as TXT, HTML, and XML documents. Use binary for images, audio, software, PDF, and DOC files. In this example, type **binary** and press ENTER to set the mode to binary, because you will be transferring a PDF file.

Step 8 Use the Get command to download (or use the Put command to upload) the file you want to transfer. In this example, type **get formtxs.pdf** and press ENTER. After the file gets downloaded, use the Windows Explorer to open it. What you downloaded is the Library of Congress copyright form for registering nondramatic literary works, including computer programs. If you ever write a computer program that you want to copyright, you can use this form to register your copyright.

Step 9 When you finish transferring files, go to your FTP prompt, type **close**, and press ENTER to log off.

Command	Description	Example
open	Open an FTP connection	open ftp.loc.gov
close	Close an FTP connection	close
dir	Print an index of the contents in the current directory	dir
cd	Change to a different directory	cd pubs
cd ..	Go up one level of the directory hierarchy	cd ..
cd /	Go to the root directory of the FTP server	cd /
ascii	Set the transfer mode to ASCII, which is for plain text file types such as TXT, HTML, and XML	ascii
binary	Set the transfer mode to binary, which is for non plaintext files such as DOC, EXE, GIF, JPG, PDF, and ZIP	binary
get	Download a file	get formtxs.pdf
put	Upload a file	put formtxs.pdf
mget	Get multiple files from the current directory of the FTP server	mget *.* mget *.pdf
mput	Upload multiple files to the current directory of the FTP server	mput *.* mput *.pdf
help	Print a list of all FTP commands or get help regarding a specific command	help help ascii

TABLE 3-2 *Legacy System FTP Commands* ■

Chapter 3 Review

Chapter Summary

After reading this chapter and completing the step-by-step tutorials and Try This! exercises, you should understand the following facts about communicating over the Internet:

Internet Etiquette (Netiquette)

- Netiquette is the observance of certain rules and conventions that have evolved to keep the Internet from becoming a free-for-all in which tons of unwanted messages and junk mail would clog your Inbox and make the Information Superhighway an unfriendly place to be.
- On the Internet, the term spam refers to unwanted messages posted to newsgroups or sent to a list of users through e-mail.
- The best way to guard against catching a virus through e-mail is never to open an attachment to an e-mail message, especially if the attachment has an executable filename extension.
- To lurk means to participate in a conversation on the Internet without responding to any of the messages. It is good to lurk until you pick up the gist of the conversation.
- On the Internet, a flame is a message written in anger. Peacemakers who work to diminish the flames are known as firefighters.
- Messages written on the Internet are normally written in lowercase letters, with capital letters appearing only at the start of the first word of each sentence and on proper nouns, such as the term Internet. WHEN YOU WRITE IN ALL CAPS, ON THE OTHER HAND, YOU ARE SHOUTING! On the Internet, shouting is almost always considered poor taste, so do it sparingly, if at all.
- Emoticons are combinations of a few characters which, when turned sideways, conjure a facial expression. The most common form of emoticon is the smiley, which conveys a happy facial expression.
- To shorten the amount of keyboarding required to write a message, some people use three-letter acronyms, appropriately known as TLAs.
- The Web's official Jargon File site can teach you how to understand some of the more commonly used Internet jargon. In printed form, the Jargon File is published as a book titled *The New Hacker's Dictionary*.

Electronic Mail

- Before you can begin using e-mail, you must have an account on the computer that hosts your e-mail service. On the host computer, your account consists of file space where your e-mail queues up waiting for you to read it and a login procedure that enables you to log on and access your files.
- The software program you use to read your e-mail is known as an e-mail client. The most popular e-mail client is Microsoft Outlook, which ships as part of Microsoft Office. If you use the Microsoft Internet Explorer (IE) browser but not Office, you'll have a free version of Outlook called Outlook Express.
- POP stands for Post Office Protocol. True to its name, POP was invented for delivering mail post-office style from the server to your PC.
- IMAP stands for Internet Message Access Protocol. You can use IMAP when you want the mail to remain on the server, instead of being delivered physically to your PC. This enables you to read your mail from different computers.
- An e-mail signature is a block of text that is automatically appended to the e-mail messages you originate.
- A mail attachment is a file you attach to an e-mail message. When you send the message, the attached file is sent along with it. You need to be careful to avoid catching viruses from e-mail attachments that people send you. Most virus scanners have an option to scan incoming mail messages and file attachments automatically; setting this option can help you avoid opening a malicious message.
- An e-mail address book can help you keep track of the e-mail addresses of people to whom you send mail. You can use a mailing list to send a message to several people at once.

- To encrypt a message means to run it through an encoder that uses an encryption key to alter the characters in the message. Unless the person wanting to read the message has the encryption key needed to decode it, the message appears garbled.
- Several Internet portal sites offer Web-based e-mail services that enable you to read your mail via the Web. Reading mail on the Web is convenient because you can access your e-mail from any computer that has a Web browser and an Internet connection.

Listserv Mailing Lists

- Listserv is an Internet service that uses e-mail protocols to distribute messages to lists of users. The messages get served to everyone whose name is on the list, hence the name *listserv*.
- Joining the right listserv is one of the most strategic ways you can keep up with what is happening in your profession. Some of the best listservs for keeping up with what is happening on the Internet are NewsScan, Tourbus, and LockerGnome.
- You can use the Web to find out about listservs across a broad range of disciplines and professions. To search for listservs that interest you, go to the Liszt Directory at www.topica.com, the CataList Catalog at www.lsoft.com/lists/listref.html, and the Tile.Net directory at tile.net/lists.
- If you want to set up your own listserv, you can do so for free at a Web site such as topica.com or groups.yahoo.com that offers free list creation. If you want to avoid the commercial ads that appear on messages sent in a free listserv, you can pay a fee to get an advertisement-free list.

Newsgroups and Forums

- USENET newsgroups originated as a grassroots effort by students who wanted a better way to organize conversations over the Internet. The hierarchical structure of a newsgroup mirrors the manner in which physical conferences are organized.
- Newsgroups have dotted names such as rec.bicycles.racing that describe what the groups are about. The part of the name up to the first dot is known as the prefix. Common prefixes are *news* for newsgroups that actually deal with news, *comp* for discussions about computers, *sci* for science, *soc* for social issues, *talk* for debates on controversial subjects, *rec* for recreation, and *misc* for miscellaneous topics that do not fit into the other categories.
- Messages written in a newsgroup are called *postings* or *articles*. The articles look like e-mail between one user and another, but instead of just being sent between people, the postings can be read by anyone in the world through a news server that provides access to those newsgroups.
- Responding to a newsgroup is a lot like responding to an e-mail message. The main difference is that instead of being sent to an individual, your response gets posted to the newsgroup. Some newsgroups are moderated, meaning that someone looks over the messages you send to the newsgroup and makes sure the messages fit the purpose of the newsgroup before they get posted to the newsgroup. Many newsgroups are unmoderated, meaning that users can freely write messages without any form of review or censorship.
- Be aware that when you delete a message from a public newsgroup, this will not necessarily prevent it from going around the world, because newsgroups get copied from node to node as they make their way over the Internet. When you delete a message, it gets deleted from your ISP's copy of the newsgroup, but that may be too late to keep it from going around the world, and some servers do not honor canceled messages.
- You can find out about newsgroups in your field of study or line of work by going to cyberfiber.com or by conducting a Google USENET search.
- Web-based discussion forums are an alternative to newsgroups. Like newsgroups, forums have discussions that are organized according to topic and subtopic in which users can participate much like a newsgroup. Unlike newsgroups, however, forums are not cataloged as part of the public USENET service on the Internet.
- You can set up your own Web-based discussion forum at DelphiForums.com and Yahoo! Groups at groups.yahoo.com.

Blogging

- Keeping a weblog through blogging has become one of the most popular ways of using the Web.

Tens of thousands of channels are cataloged at www.syndic8.com, which is a directory of XML- and RSS-driven weblogs and syndicated newsfeeds.

- The mass-market popularity of these channels has given rise to a large number of authoring tools. One of the leading tool providers is blogger.com, which is owned by Google.

Reading RSS Channels and Feeds

- RSS stands for RDF Site Summary, where RDF stands for Resource Description Framework and specifies the XML syntax from which RSS is derived.
- RSS has become very popular. It provides a quick and easy way for Web developers to summarize what is happening at their sites into a feed that can be channeled to other sites that want to display the news headlines with links to follow for more information.
- RSS readers are available for all the major operating systems. Under Windows, popular RSS readers include BlogExpress and SharpReader. On the Macintosh, there is NetNewsWire. Linux users have an RSS reader called Lifera. There is also a Web-based RSS reader called BlogLines that enables you to read RSS feeds from your browser.
- RSS files are sometimes called channels or newsfeeds. They normally have either XML or RDF filename extensions. To subscribe to an RSS feed or channel, you simply copy its link into your RSS reader.

IRC Chat Rooms

- One of the oldest and most established chat-room protocols is Internet Relay Chat (IRC), which consists of several networks of IRC servers that support chat on the Internet.
- The largest IRC networks are EFnet (the original IRC net, often having more than 32,000 people chatting at once), Undernet, IRCnet, DALnet, and NewNet.
- IRC conversations are organized into channels. You can join one or more communication channels and converse with other users who are subscribed to the same channel.
- Conversations may be public, allowing everyone in a channel to see what you type, or private between only two people who may or may not be on the same channel.

Instant Messaging

- Instant messaging (IM) is a real-time communication protocol that lets you send and receive electronic notifications that appear onscreen automatically to notify you that an important message just arrived in your e-mail or someone wants to talk with you now or something just happened that you wanted to know about, such as the value of one of your stocks moving up or down on the stock market.
- To prevent instant messaging from becoming a free-for-all in which anyone on the Internet could interrupt your work instantly, you use a buddy list to identify the people who are allowed to contact you.
- There are four major brands of instant messaging: ICQ, AOL Instant Messenger (AIM), Microsoft's MSN Messenger, and Yahoo! Messenger.
- The Short Message Service (SMS) is a protocol for sending text messages to mobile phones. Through SMS, you can IM a TXT message to a mobile buddy.

Whiteboarding, Audioconferencing, and Videoconferencing

- The type of computer program that enables remote users to share a common screen across the network is called whiteboard software, and the act of sharing such a screen is called whiteboarding.
- More than 8,000 companies are using a Web-based whiteboard and computer-conferencing service created by WebEx. Because the system is Web-based, WebEx can be used by Windows, Macintosh, and UNIX users to collaborate on applications running on different platforms.
- One of the first videoconferencing applications on the Internet was called CUseeMe. The service now is called CUworld, which was formed through a corporate acquisition of the consumer business of the former CUseeMe Networks. The new CUworld service is found online at www.cuworld.com, where anyone can get a free guest membership.
- In 2003, Microsoft purchased a videoconferencing company named Placeware and renamed the product LiveMeeting. By the time you read this, LiveMeeting will be integrated throughout the Microsoft Office suite, much as NetMeeting was in previous versions of Windows.

- H.323 is a standard for transmitting multimedia communications, such as audiovisual conferences, across a packet-switched network. Ideally, such a standard should enable Internet users to participate in the same conference, regardless of their specific brands of videoconferencing software. With today's products, however, you generally need to be using the same brand to participate in a videoconference. You can read the H.323 standard by going to the International Telecommunications Union (ITU) at www.itu.int and searching for H.323.

Logging on to Legacy Systems via Telnet

- To log on to a remote host, you use the telnet protocol, which enables individual users to log on to remote host computers on the Internet.
- As the Web increases in popularity, telnet is becoming less important as a way to find information, because it's easier to query databases by using graphical tools on the Web than it is to type commands at a telnet prompt. Nevertheless, telnet remains an essential Internet resource for programmers and developers who use telnet to log on remotely and perform operational tasks needed to manage Web sites and keep servers running properly.
- When you visit a telnet site that does not echo the keys you type, you will not see printing on your screen when you type keys on your computer keyboard. To solve this problem, type the telnet command **set localecho** and press ENTER.

Transferring Files via Legacy FTP Commands

- Webmasters still need to know the text-based FTP commands because GUI clients may not be usable in some situations. If you telnet to a legacy system from which you need to transfer a file, for example, you may not be able to make the transfer with a modern GUI client. Instead, you may need to type text-based FTP commands to transfer the files.
- Before you start your FTP program, change into the directory in which you want to transfer or upload a file.
- Typing the Help command at an FTP prompt prints a list of all the FTP commands you can enter. For more help about any specific command, type **Help** followed by a space and the name of the command.
- You need to set the mode to ASCII or binary, depending on the kind of file you want to transfer. ASCII is the default, which you use for text files such as TXT, HTML, and XML documents. Use binary for images, audio, software, PDF, and DOC files.

Key Terms

account *(9)*
address book *(17)*
e-mail client *(10)*
e-mail signature *(16)*
emoticon *(8)*
encrypt *(19)*
e-zine *(22)*
firefighter *(8)*
flame *(7)*
instant message (IM) *(36)*
Internet Message Access Protocol (IMAP) *(11)*
lurk *(7)*
Netiquette *(2)*
Post Office Protocol (POP) *(10)*
spam *(4)*
telnet *(45)*
three-letter acronym (TLA) *(8)*
whiteboard *(41)*

Key Terms Quiz

1. Coined by combining the words "Internet etiquette" into a single name, _____ is the observance of certain rules and conventions that have evolved to keep the Internet from becoming a free-for-all in which tons of unwanted messages and junk mail would clog your Inbox and make the Information Superhighway an unfriendly place to be.
2. Unwanted messages posted to newsgroups or sent to via e-mail are called _____.
3. To _____ means to participate in a conversation on the Internet without responding to any of the messages. You receive

and read the messages, but you do not say anything in return.

4. An electronic message written in anger is called a(n) _____.
5. _____ are combinations of a few characters which, when turned sideways, conjure a facial expression.
6. To log on to the computer that hosts your e-mail service, you must have a(n) _____ on that computer.
7. The software program you use to read your e-mail is known as an e-mail _____.
8. The _____ protocol was invented for the purpose of delivering mail post-office style from the server to your PC.
9. The _____ protocol was designed for situations in which you want the mail to remain on the server instead of being delivered physically to your PC.
10. _____ is the protocol that enables individual users to log on to remote host computers on the Internet.

Multiple-Choice Quiz

1. On the Internet, chain letters are considered to be a form of
   a. Advertising
   b. E-commerce
   c. Flame
   d. Spam
2. Which of the following was a hoax?
   a. Love Bug
   b. Netscape-AOL giveaway chain letter
   c. Nimda
   d. rotfl
3. The best way to guard against catching a virus through e-mail is never to open an e-mail
   a. Attachment
   b. Client
   c. Message
   d. Address book
4. Which of the following file types, upon simple opening, cannot by itself infect your computer with a virus?
   a. DOC
   b. EXE
   c. TXT
   d. VBS
5. On the Internet, it is unethical to
   a. Emote
   b. Firefight
   c. Lurk
   d. Spam
6. In configuring an e-mail client, what protocol should you use to read incoming Web-based e-mail?
   a. HTTP
   b. IMAP
   c. POP
   d. SMTP
7. On the Internet, what protocol does an e-mail client's outgoing server use?
   a. IMAP
   b. POP
   c. SMPT
   d. SOAP
8. In the Windows operating system, if you do not have the Windows Explorer set to display the entire filename, an e-mail attachment named HAPPY.JPG.SCR will appear as follows:
   a. HAPPY.JPG
   b. HAPPY.JPG.SCR
   c. HAPPY.JPG Warning: This Could Carry a Virus
   d. HAPPY.JPG.SCR Warning: This Could Carry a Virus
9. To block mail from unwanted sources, you set up a
   a. Blog
   b. Digital signature
   c. Mail filter
   d. Mail folder
10. Which Internet service uses e-mail as its transmission protocol?
    a. Blog
    b. Listserv
    c. Newsgroup
    d. Telnet

Essay Quiz

1. Go to the Coalition Against Unsolicited Commercial Email (CAUCE) at www.cauce.org. What is the latest news in their fight against spam? Follow the link to see how you can help, and consider whether you should join CAUCE. Do you think you should join the organization? Would joining CAUCE be strategic for either you or your employer? Why or why not?
2. Go to the CIAC hoaxes page at hoaxbusters.ciac.org, and scroll down to read about the latest hoaxes. Which hoax do you think is the most dangerous to have circulating about the Internet? What kind of damage could it do to the Internet and/or to your computer?
3. Go to the Bill of Rights and Responsibilities site by following the links in the "Netiquette" section of this book's Web site. Read carefully the Bill of Rights and Responsibilities for Electronic Learners that you find there. Do you agree with all the items covered in this Bill of Rights? What do you disagree with? Do you plan to abide by these guidelines? Do you think they leave out anything important? What else should be covered in terms of policies and procedures for electronic communications in your school or workplace?
4. Reveal the full headers on an e-mail message that someone sends you. What additional information can you glean from the complete headers as to who sent the message and how it was routed to your computer? Do you think this could help you identify an attacker who sends harmful messages to you or to your co-workers?
5. This chapter warns against viruses that can be transmitted in e-mail attachments. When this book went to press, the most harmful virus that had appeared to date was the Love Bug virus. Follow this book's Web site link that monitors the latest viruses. What is the name of the latest virus to have appeared to date? How does the virus work; that is, how is it transmitted, what triggers it, and what effect does it have on the user's files or computers? Do you think it is worse than the Love Bug virus? Why or why not? What impact would this latest virus have on your coworkers if it attacked your school or workplace?

Lab Projects

• Lab Project 3-1: Creating a Listserv

A listserv provides any school or company with an easy way of communicating or discussing issues of common concern to fellow employees via e-mail. Imagine that your employer has assigned you the task of creating a listserv for your workplace. To create such a listserv, follow these steps:

1. Follow this book's Web site links to one of the recommended sites that host listservs on the Web.
2. Peruse the site's features and policies. If you do not like what you see, return to step 1 and choose another site.
3. Set up the listserv, following the instructions at your chosen listserv hosting site.
4. Using your word processor, draft an invitation to send to your fellow employees, inviting them to join the list. In this message, write step-by-step instructions for the employees to follow in joining your list. Save the message on your hard drive.
5. Following the step-by-step instructions you wrote in step 4, join the list you created in step 3.
6. Test the listserv and make sure it works properly. To test the list, e-mail it a message. Use your e-mail client's Send feature to send the mail now instead of having it queue in your Outbox. Soon the message you sent should appear in your Inbox. Open the message to make sure it arrived correctly.

If your instructor has asked you to hand in this assignment, what you will submit is the draft invitation you created in step 4. Make sure your name is at the top of it; then save it on disk or follow the other instructions you may have been given for submitting this assignment.

• Lab Project 3-2: Creating a Discussion Forum

Web-based discussion forums provide one of the most powerful yet easiest ways for the employees of a workplace to communicate on topics of mutual concern. Imagine that your employer has just found out about forums and has asked you to set up Web-based forum your fellow employees can use to discuss issues of common concern with your employer. To set up such a forum, follow these steps:

1. Follow this book's Web site links to one of the recommended sites that host forums on the Web.
2. Peruse that site's features and policies. If you do not like what you see, return to step 1 and choose another site.
3. Set up the forum, following the instructions at the forum site you chose in steps 1 and 2.
4. Using your word processor, draft an invitation to send your fellow employees, inviting them to join the forum and participate in the discussion. In this message, write step-by-step instructions teaching your coworkers how to participate in the forum. Save the message on your hard drive.
5. Test the forum and make sure it works properly. To test the forum, create a new topic in it. The first message in a forum is normally a Welcome message that welcomes users to the discussion and states the forum's purpose.
6. Invite one of your fellow students or coworkers to the forum and ask him or her to write a response to the message you wrote in step 5. Log on to the forum and see if you can read this response properly.

If our instructor has asked you to hand in this assignment, what you will submit is the draft invitation you created in step 4. Make sure your name is at the top of it; then save it on disk or follow the other instructions you may have been given for submitting this assignment.