

Covers
Windows Vista
Service Pack 1!

SPECIAL EDITION

USING[®]

Microsoft[®]

Windows Vista[®]

Second Edition

THE *ONLY* **WINDOWS VISTA** BOOK YOU NEED

que[®]

Robert Cowart and Brian Knittel

SPECIAL EDITION USING MICROSOFT® WINDOWS® VISTA, SECOND EDITION

Copyright © 2008 by Que Publishing

All rights reserved. No part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. No patent liability is assumed with respect to the use of the information contained herein. Although every precaution has been taken in the preparation of this book, the publisher and author assume no responsibility for errors or omissions. Nor is any liability assumed for damages resulting from the use of the information contained herein.

International Standard Book Number: 0-7897-3781-7

Library of Congress Cataloging-in-Publication data is on file.

Printed in the United States of America

First Printing: April 2008

Trademarks

All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Que Publishing cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

Windows is a registered trademark of Microsoft Corporation.

Warning and Disclaimer

Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied. The information provided is on an “as is” basis. The author(s) and the publisher shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book.

Bulk Sales

Que Publishing offers excellent discounts on this book when ordered in quantity for bulk purchases or special sales. For more information, please contact

U.S. Corporate and Government Sales
1-800-382-3419
corpsales@pearsontechgroup.com

For sales outside of the U.S., please contact

International Sales
international@pearsoned.com

This Book Is Safari Enabled

The Safari® Enabled icon on the cover of your favorite technology book means the book is available through Safari Bookshelf. When you buy this book, you get free access to the online edition for 45 days. Safari Bookshelf is an electronic reference library that lets you easily search thousands of technical books, find code samples, download chapters, and access technical information whenever and wherever you need it.

To gain 45-day Safari Enabled access to this book

- Go to <http://www.informit.com/onlineedition>
- Complete the brief registration form
- Enter the coupon code AGR7-6NCP-6SXP-3EPS-WP1M. If you have difficulty registering on Safari Bookshelf or accessing the online edition, please email customer-service@safaribooksonline.com.

Associate Publisher
Greg Wiegand

Executive Editor
Rick Kughen

Development Editor
Rick Kughen

Technical Editor
Mark Reddin

Managing Editor
Patrick Kanouse

Project Editor
Seth Kerney

Indexer
Ken Johnson

Publishing Coordinator
Cindy Teeters

Multimedia Developer
Dan Scherf

Book Designer
Anne Jones

INTRODUCTION

WELCOME

Thank you for purchasing or considering the purchase of *Special Edition Using Microsoft Windows Vista* Second Edition. It's amazing the changes that 20 years can bring to a computer product such as Windows. When we wrote our first Windows book back in the mid-1980s, our publisher didn't even think the book would sell well enough to print more than 5,000 copies. Microsoft stock wasn't even a blip on most investors' radar screens. Boy, were they in the dark! Who could have imagined that a little more than a decade later, anyone who hoped to get hired for even a temp job in a small office would need to know how to use Microsoft Windows, Office, and a PC. Fifteen or so Windows books later, we're still finding new and exciting stuff to tell our readers.

Some people (including the U.S. Department of Justice) claim Microsoft's predominance on the PC operating system arena was won unethically through monopolistic practices. Whether or not this is true (we try, almost successfully, to stay out of the politics in this book), we believe that Windows has earned its position today through reasons other than having a stranglehold on the market. Consider that Windows NT 3.1 had 5 million lines of code. Windows Vista weighs in with about 50 million and takes up 4 or 5 gigabytes (sometimes more!) of disk space by itself. This represents a lot of work by anyone's accounting. Who could have imagined in 1985 that a mass-market operating system two decades later would have to include support for so many technologies, most of which didn't even exist at the time: DVD, DVD±RW, CD-R and CD-RW, Internet and intranet, MP3, MPEG, WMA, DV, USB, FireWire, APM, ACPI, RAID, UPS, PPOE, gigabit Ethernet, 802.11g, WPA2, IPv6, Teredo, fault tolerance, disk encryption and compression...? The list goes on. And that 4GB of disk space Vista occupies? It would have cost more than a quarter of a million dollars in 1985. Today, it costs a dollar or two.

Although rarely on the bleeding edge of technology, and often playing the role of the dictator with partner businesses and exterminator with competing businesses, Bill Gates has at least been benevolent from the users' point of view. In 1981, when we were building our first computers, the operating system (CP/M) had to be modified in assembly language and

recompiled, and hardware parts had to be soldered together to make almost any new addition (such as a video display terminal) work. Virtually nothing was standardized, with the end result being that computers remained out of reach for average folks.

Together, Microsoft, Intel, and IBM changed all that. Today you can purchase a computer, a printer, a scanner, an external disk drive, a keyboard, a modem, a monitor, and a video card over the Internet, plug them in, install Windows, and they'll work together. The creation and adoption (and sometimes forcing) of hardware and software standards that have made the PC a household appliance the world over can largely be credited to Microsoft, like it or not. The unifying glue of this PC revolution has been Windows.

Yes, we all love to hate Windows, but it's here to stay. Linux and Mac OS X are formidable alternatives, but for most of us, at least for some time, Windows and Windows applications are "where it's at." And Windows Vista ushers in truly significant changes to the landscape. That's why we were excited to write this book.

WHY THIS BOOK?

We all know this book will make an effective doorstop in a few years. You probably have a few already. (We've even written a few!) If you think it contains more information than you need, just remember how helpful a good reference can be when you need it at the 11th hour. And we all know that computer technology changes so fast that it's sometimes easier just to blink and ignore a phase than to study up on it. Windows Vista is definitely a significant upgrade in Windows's security and sophistication—one you're going to need to understand.

Windows Vista might seem similar to its predecessor, Windows XP, but it's a very different animal. Yes, the graphics and display elements are flashier, but it's the deeper changes that matter most. With its radically improved security systems, revamped Control Panel, friendlier network setup tools, new problem-tracking systems, improved support for mobile computers, and completely revamped networking and graphics software infrastructures, Vista leaves Windows XP in the dust. In all ways, it's superior to any operating system Microsoft has ever produced.

Is Windows Vista so easy to use that books are unnecessary? Unfortunately, no. True, as with other releases of Windows, online help is available. As has been the case ever since Windows 95, however, no printed documentation is available (to save Microsoft the cost), and the Help files are written by Microsoft employees and contractors. You won't find criticisms, complaints, workarounds, or suggestions that you use alternative software vendors, let alone explanations of *why* you have to do things a certain way. For that, you need this book! We will even show you tools and techniques that Microsoft's insiders didn't think were important enough to document at all.

You might know that Windows Vista comes in a bewildering array of versions, primarily Home Basic, Home Premium, Business, Enterprise, and Ultimate (not to mention Starter, which is sold only in emerging markets, and several extra versions sold in the European Union to comply with antitrust court-mandated restrictions). But Vista is Vista, and all that

really distinguishes the versions is the availability of various features. *Most* of the differences matter only in the corporate world, where Vista will be managed by network administrators, so you don't need to worry about those yourself. For the remaining features, we tell you when certain features do or don't apply to your particular version of Windows Vista. (And we show you how to upgrade from one version to a better version, if you want the features your copy doesn't have!)

In this book's many pages, we focus not just on the gee-whiz side of the technology, but why you should care, what you can get from it, and what you can forget about. The lead author on this book has previously written 16 books about Windows, all in plain English (several bestsellers), designed for everyone from rank beginners to full-on system administrators deploying NT Server domains. The coauthor has designed software and networks for more than 20 years and has been writing about Windows for 10 years. We work with and write about various versions of Windows year in and year out. We have a clear understanding of what confuses users and system administrators about installing, configuring, or using Windows, as well as (we hope) how to best convey the solutions to our readers.

While writing this book, we tried to stay vigilant in following four cardinal rules:

- Keep it practical.
- Keep it accurate.
- Keep it concise.
- Keep it interesting, and even crack a joke or two.

We believe that you will find this to be the best and most comprehensive book available on Windows Vista for beginners through advanced users. And whether you use Windows Vista yourself or support others who do, we firmly believe this book will address your questions and needs.

Our book addresses both home and business computer users. We assume you probably are not an engineer, and we do our best to speak in plain English and not snow you with unexplained jargon. As we wrote, we imagined that you, our reader, are a friend or co-worker who's familiar enough with your computer to know what it's capable of, but might not know the details of how to make it all happen. So we show you, in a helpful, friendly, professional tone. In the process, we also hope to show you things that you might not have known, which will help make your life easier—your computing life, anyway. We spent months and months poking into Vista's darker corners so you wouldn't have to. And, if you're looking for power-user tips and some nitty-gritty details, we make sure you get those, too. We try to make clear what information is essential for you to understand and what is optional for just those of you who are especially interested.

We're also willing to tell you what we don't cover. No book can do it all. As the title implies, this book is about Windows Vista. We don't cover setting up the Server versions of this operating system called Windows 2000 Server, Windows Server 2003 Server, and the

upcoming Windows Server code named “Longhorn.” However, we do tell you how to connect to and interact with these servers, and even other operating systems, including Mac OS X, Linux, and older variants of Windows, over a local area network.

Because of space limitations, there is only one chapter devoted to coverage of Windows Vista’s command-line utilities, batch file language, and Windows Script Host. For that (in spades!), you might want to check Brian’s book *Windows XP Under the Hood*, which is still relevant to Vista.

Even when you’ve become a Windows Vista pro, we think you’ll find this book to be a valuable source of reference information in the future. Both the table of contents and the very complete index will provide easy means for locating information when you need it quickly.

HOW OUR BOOK IS ORGANIZED

Although this book advances logically from beginning to end, it’s written so that you can jump in at any location, quickly get the information you need, and get out. You don’t have to read it from start to finish, nor do you need to work through complex tutorials.

This book is broken down into six major parts. Here’s the skinny on each one:

Part I, “Introducing Windows Vista,” introduces Vista’s new and improved features and shows you how to install it on a new computer or upgrade an older version of Windows to Vista. It also shows you how to apply Service Packs to keep your version of Vista up-to-date. Finally, we take you on a one-hour guided tour that shows you the best of Vista’s features and walks you through making essential settings and adjustments that will help you get the most out of your computer.

In Part II, “Using Windows Vista,” we cover the core parts of Vista, the parts you’ll use no matter what else you do with your computer: managing documents and files, using the Windows desktop, starting and stopping applications, searching through your computer’s contents, printing, and the new “Sidebar” desktop gadgets. Don’t skip this section, even—or rather, *especially*—if you’ve used previous versions of Windows. Vista does many things differently, and you’ll want to see how to take advantage of it!

Vista has great new tools for viewing, playing, creating, editing, and managing music, movies, and pictures. In Part III, “Multimedia and Imaging,” we show you how to use the new Windows Media Player, purchase music online, burn CDs, extract and edit images from cameras and scanners, use Windows Movie Maker to edit video, and create DVDs. Finally, we show you how to use Windows Media Center, which lets you view all that stuff, and on a properly equipped computer, records and plays back your favorite TV shows. We even show you how to burn DVDs from your recorded shows and compress them for playback on other devices.

In Part IV, “Windows Vista and the Internet,” we help you set up an Internet connection and then move on to Vista’s Internet tools. We provide in-depth coverage of the new and improved (and safer!) Internet Explorer and the new and improved (and safer!) Windows Mail, which replaces the Outlook Express email and newsgroup reader provided with previous versions of Windows. The final two chapters show you how to set up your own web server and how to diagnose Internet connection problems.

Networks used to be found only in high-falutin’ offices and corporate settings. Now, any home or office with two or more computers should have a network. A LAN is inexpensive, and with one you can share an Internet connection, copy and back up files, and use any printer from any computer. In Part V, “Networking,” we give you a tour of Windows Vista’s network features, walk you through setting up a network in your home or office, and show you how to take advantage of it in day-to-day use. We also show you how easy it is to share a DSL or cable Internet connection with all your computers at once, show you how to network with other operating systems, and finally, help you fix it when it all stops working.

Part VI, “Maintaining Windows Vista,” covers system configuration and maintenance. We tell you how to work with the Control Panel and System Administration tools, provide tips and tricks for customizing the graphical user interface to maximize efficiency, manage your hard disk and other hardware, and describe a variety of ways to upgrade your hardware and software (including third-party programs) for maximum performance. We show you how to troubleshoot hardware and software problems, edit the Windows Registry, and for real power-users, show how to use the command-line interface.

When Windows was introduced nearly two decades ago, computer viruses, online fraud, and hacking were only starting to emerge as threats. Today (thanks in great part to *gaping* security holes in previous versions of Windows), computer threats are a worldwide problem, online and offline. In Part VII, “Security,” we provide a 360-degree view of Windows Vista’s substantial improvements in security. Here you’ll find out both what Vista will do to help you, and what you must do for yourself. We cover protection against viruses and spyware, loss and theft, hackers and snoops, and fraud and spam—in that order.

Part VIII, “Windows on the Move,” shows you how to get the most out of Windows Vista when either you or your computer, or both, are on the go. We show you how to use wireless networking safely, how to get the most out of your laptop, and how to connect to remote networks. We also show you how you and others can work together using your computers and Windows Meeting Space, and we finish up with a chapter that shows you how to use Remote Desktop to reach and use your own computer from anywhere in the world.

Appendix A, “Windows Programs and Services,” lists all the programs and services provided with all the versions of Windows, so you can find out just what each of those things do that you see in the Task Manager and Control Panel.

Appendix B, “What’s New in Service Pack 1,” covers Service Pack 1 (SP-1) of Windows Vista, which shipped in the first half of 2008. There you can learn about the latest security and bug fixes and the few new added features in Service Pack 1.

CONVENTIONS USED IN THIS BOOK

Special conventions are used throughout this book to help you get the most from the book and from Windows Vista.

TEXT CONVENTIONS

Various typefaces in this book identify terms and other special objects. These special typefaces include the following:

Type	Meaning
<i>Italic</i>	New terms or phrases when initially defined.
Monospace	Information that appears in code or onscreen.
Bold monospace	Information you type.

Words separated by commas—All Windows book publishers struggle with how to represent command sequences when menus and dialog boxes are involved. In this book, we separate commands using a comma. Yeah, we know it's confusing, but this is traditionally how the *Special Edition Using* book series does it, and traditions die hard. So, for example, the instruction “Choose Edit, Cut” means that you should open the Edit menu and choose Cut. Another, more complex example is “Click Start, Settings, Control Panel, System, Hardware, Device Manager.”

Key combinations are represented with a plus sign. For example, if the text calls for you to press Ctrl+Alt+Delete, you would press the Ctrl, Alt, and Delete keys at the same time.

TIPS FROM THE WINDOWS PROS

Ever wonder how the experts get their work done better and faster than anyone else? Ever wonder how they became experts in the first place? You'll find out in these special sections throughout the book. We've spent a lot of time under the Windows hood, so to speak, getting dirty and learning what makes Windows Vista tick. So, with the information we provide in these sections, you can roll up your shirt sleeves and dig in.

SPECIAL ELEMENTS

Throughout this book, you'll find Notes, Cautions, Sidebars, Cross-References, and Troubleshooting Tips. Often, you'll find just the tidbit you need to get through a rough day at the office or the one whiz-bang trick that will make you the office hero. You'll also find little nuggets of wisdom, humor, and lingo that you can use to amaze your friends and family, not to mention making you cocktail-party literate.

TIP

We specially designed these tips to showcase the best of the best. Just because you get your work done doesn't mean you're doing it in the fastest, easiest way possible. We show you how to maximize your Windows experience. Don't miss these tips!

NOTE

Notes point out items that you should be aware of, but you can skip them if you're in a hurry. Generally, we've added notes as a way to give you some extra information on a topic without weighing you down.

CAUTION

Pay attention to cautions! They could save you precious hours in lost work.



We designed these elements to call attention to common pitfalls that you're likely to encounter. When you see a Troubleshooting Tip, you can flip to the end of the chapter to learn how to solve or avoid a problem.

CROSS-REFERENCES

Cross-references are designed to point you to other locations in this book (or other books in the Que family) that will provide supplemental or supporting information. Cross-references appear as follows:

→ For information on updating offline web pages, **see** "Browsing Offline," **p. 299**.

Sidebars

Sidebars are designed to provide information that is ancillary to the topic being discussed. Read this information if you want to learn more details about an application or task.

WINDOWS MEDIA PLAYER

In this chapter

Learning the Basics 260

Getting Music and Video on Your Computer 266

Taking Your Music and Video On the Go 272

Organizing Your Music Collection 279

Updating Media Information and Album Art 282

Tips from the Windows Pros: Playing Audio from Your Portable Device
Through Your Car Stereo 285

LEARNING THE BASICS

Windows Media Player has grown into a pretty amazing application with multiple personalities. Its talents include playing music and video files from online sources or local drives (including DVDs), playing online radio and TV stations, displaying specialized web pages, organizing your music files (MP3s and WMAs), burning music CDs, copying and syncing to portable MP3 players, and providing a conduit to online media shopping sites.

MEDIA TYPES COMPATIBLE WITH MEDIA PLAYER

Windows Media Player can play the file types shown in Table 8.1.

TABLE 8.1 WINDOWS MEDIA PLAYER–SUPPORTED FILE TYPES

File Type	File Name Extension(s)
Music CD (CD audio)	.cda
Intel Indeo video	.ivf
Audio Interchange File Format (digitized sound)	.aif, .aifc, .aiff
Windows Media (audio and video)	.asf, .asx, .wax, .wm, .wma, .wmd, .wmv, .wvx, .wmp, .wmx, .wpl
Windows Media Center video	.dvr-ms
Windows video and audio	.avi, .wav
QuickTime content*	.mov, .qt
Windows Media Player skins	.wmz, .wms
MPEG (Motion Picture Experts Group) video	.mpeg, .mpg, .m1v, .mp2, .mpa, .mpe, .mp2v, .mp2
AU (UNIX audio)	.au, .snd
MP3 (digital audio)	.mp3, .m3u
MIDI (Musical Instrument Digital Interface)	.mid, .midi, .rmi
DVD video	.vob

Formats not supported: RealNetworks (.ra, .rm, .ram), iTunes (.m4p, .acc, .mp4)

** Only QuickTime files version 2.0 or earlier can be played in Windows Media Player. Later versions of QuickTime require the proprietary Apple QuickTime Player.*

NOTE

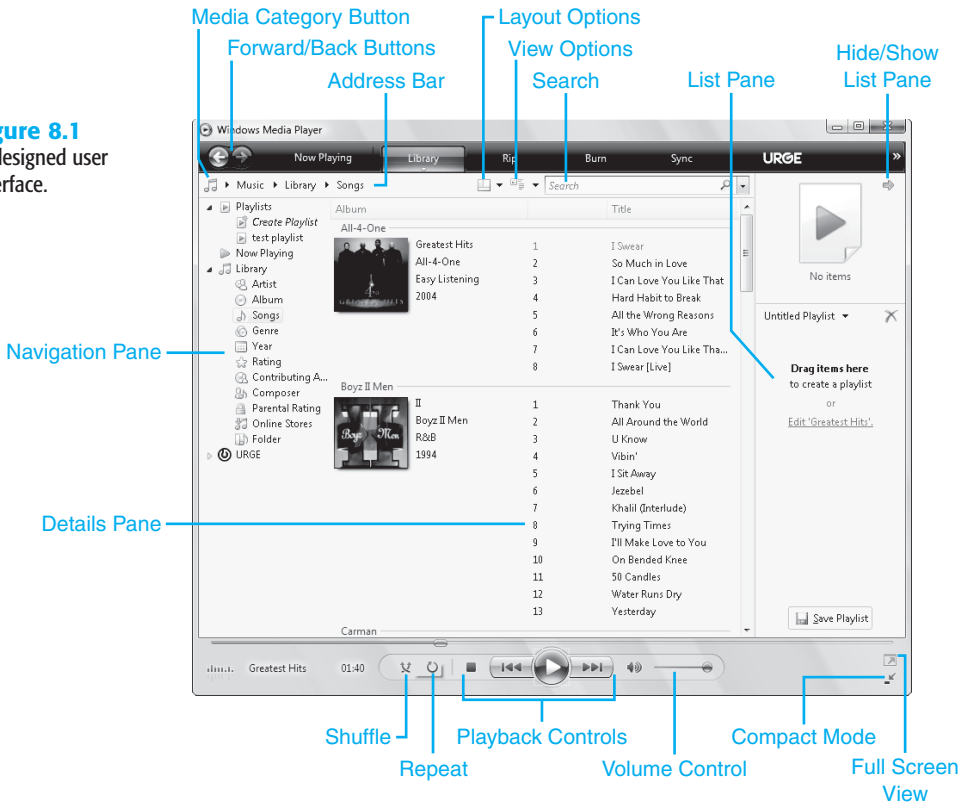
Vista doesn't come from Microsoft with DVD playback capability, except in the editions containing Media Center—Vista Home Premium and Vista Ultimate. If your version of Vista does not contain Media Center and you want to play back DVD video and .mp2v files, you must first install a hardware or software DVD decoder on your system. If you insert a

DVD and it doesn't run, that's probably the problem. Installing a decoder is typically a simple software update you can download from the Web. To get a DVD decoder, search the Web for WinDVD or Power DVD. The decoder will cost you a few bucks, probably around \$10. (Although current boxed editions of both players are around \$50–\$60.)

GETTING AROUND WINDOWS MEDIA PLAYER 11

Media Player 11 has a redesigned user interface, as shown in Figure 8.1, to make it easier for you to manage and enjoy your digital media. The classic menus have been replaced by an organized tab system, making managing and viewing your digital media easier than ever.

Figure 8.1
Redesigned user interface.



NAVIGATING MENU TABS

The tabs in Media Player 11, shown in Figure 8.2, provide a way to quickly focus on the task you want to perform.

Figure 8.2

New redesigned tabs in Media Player 11.



These tabs are accessed from the top of the Media Player 11 window and perform the following tasks:

- **Now Playing**—When you select online or locally stored content for playback, the Now Playing window displays a list of the content you’re playing. An optional Visualizations feature can be used to display album art (when available) or various animated abstractions that change in response to the music.

TIP

Many visualizations are available online for use with Windows Media Player 11. A personal favorite of mine called PixelTrip can be obtained from the Windows Media Player website at <http://www.wmplugins.com/ItemDetail.aspx?ItemID=881>. *Another excellent visualization* is provided by Brian Spangler and is called TwistedPixel. You can download it from his website for free at www.visolu.com/TwistedPixel.

- **Library**—Use this feature to organize and locate your favorite media types you’ve downloaded or created with Rip. As you download and create music, Media Player automatically creates album and artist information for audio and video content. You also can view content by type and by genre.
- **Rip**—Click this button to copy all or selected tracks from your favorite music CDs to the Music folder on your system.

TIP

When you copy music, by default, Windows Media Player prevents copied tracks from being played on any other computer. If you want to disable this feature so you can move copied music from one PC to another, uncheck the box labeled Copy Protect Music in the Rip Music dialog box that appears when you click More Options in the Rip tab menu.

- **Burn**—After you download or convert music tracks to WMA format, use this feature to transfer your music mix to writable CDs (CD-R or CD-RW media).

TIP

Be sure you fill your CD with all the music you want to play; unlike conventional CD-mastering programs or Windows Vista’s Copy to CD feature in other parts of the operating system, Windows Media Player’s Copy to CD feature closes the CD (so it no longer can accept data) after you copy your selected music to it, even if you use only a small portion of the CD. Why? Standalone CD players are designed to handle single-session CDs and won’t work if you add music later. If you want to create a CD for playback on your computer, use Windows Explorer’s Copy to CD feature instead, which will allow you to copy music over several sessions.

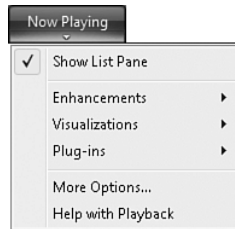
- **Sync**—After you download or convert music tracks to WMA format, use this feature to transfer your music mix to PlaysForSure compatible portable audio players.
- **Media Guide/Online Stores**—This option enables you to purchase media online or select from a variety of online content.

The arrows below each tab provide quick access to setting and options relevant to the task of that tab. For instance, as shown in Figure 8.3, the arrow below the Now Playing tab provides the options for playback Enhancements as well as the capability to change the current Visualization.

TIP

To show the classic menus, right-click an empty area of the taskbar or an empty area around the playback controls and select Show Classic Menus or press Ctrl+M.

Figure 8.3
New tab menus for accessing options in Windows Media Player 11.



REDESIGNED BROWSING AND SEARCHING

The navigation of the music library is similar to that in Windows Explorer.

NOTE

For the best browsing and search experience, ensure that the media information is correct and up to date as described in the section “Updating Media Information and Album Art.”

You can browse your media by performing the following steps:

1. Click the Select a Category button to choose the type of media to browse, as shown in Figure 8.4. Options include Music, Pictures, Video, Recorded TV, and Other Media.
2. Choose the desired view for your media. This includes Artist, Album, Songs, Genre, and more.
3. Narrow the items shown for the chosen view by clicking the arrow on the Address bar, as shown in Figure 8.5.

Figure 8.4
Select a media category.

Media Category

Navigation Views

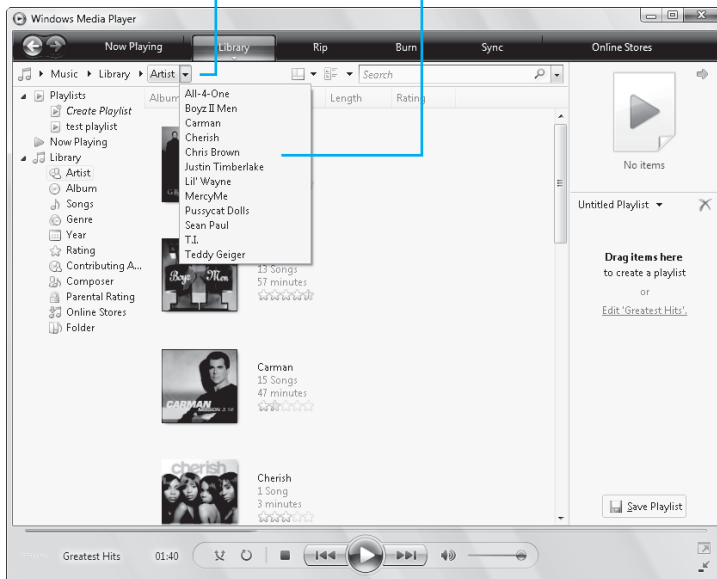


TIP

More views can be found by right-clicking Library in the Navigation Pane and selecting Show More Views.

Figure 8.5
Narrow the items shown in the view by using the Address bar.

Address Bar Options for Current View

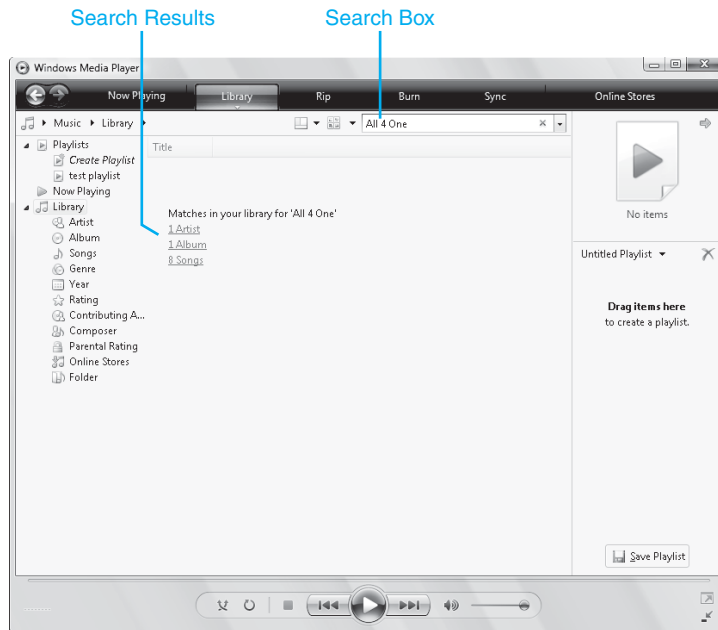


NOTE

To return to a higher level in the current view, click the desired level in the Address bar.

Searching can also be used to narrow the view of a chosen media category. After you have chosen a category as described in Step 1, enter your search term into the search box as shown in Figure 8.6.

Figure 8.6
Searching is a fast and easy way to narrow your media views.



PLAYING AUDIO AND VIDEO IN WINDOWS MEDIA PLAYER 11

There are three options for playing audio and video media in Windows Media Player 11. These include audio CDs and video DVDs, media stored on your hard disk, and media accessible over a home network.

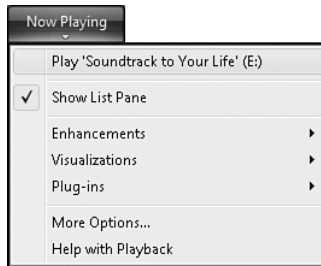
PLAYING AN AUDIO CD OR DVD

To play an audio CD or DVD in Windows Media Player 11, follow these steps:

1. Insert the CD or DVD you want to play into your computer's CD-ROM or DVD-ROM drive.
2. Click the arrow below the Now Playing tab and select the drive that contains the disk you want to play, as shown in Figure 8.7.
3. While a disk is playing, you can use the Play/Pause, Previous, and Next buttons of the playback controls shown in Figure 8.1 to navigate the songs or chapters on the disk, or you can double-click the song or chapter in the List pane to play it immediately.

Figure 8.7

Select the CD you want to play from the Now Playing menu.

**TIP**

To play a DVD in full screen, click the View Full Screen button shown in Figure 8.1 or press Alt+Enter while the video is playing or paused.

PLAYING MEDIA STORED ON YOUR HARD DISK OR NETWORK SHARE

To play an item stored on your hard disk, add it to the library following the instructions in the section “Adding Items from Your Computer to Your Library.” After the item is added to the library, you can select the media you want to view by double-clicking it in the Library view. If you want to add an item to the Now Playing list, right-click the item and select Add to Now Playing. Now Playing items can be navigated using the same playback controls described in the previous section.

→ To play media shared over your home network, see the section labeled “Sharing Media Throughout Your Home.”

TIP

When playing large amounts of media from your library, you may want to have the player randomly choose the next song to play or shuffle your playback. To do this, click the Turn Shuffle On button shown in Figure 8.1.

GETTING MUSIC AND VIDEO ON YOUR COMPUTER

Media Player 11 offers many ways to add media to your media library. These methods include ripping music from CDs to your computer, purchasing media from online stores, and adding media items already stored on your computer to the library.

RIPPING SONGS FROM CDs ONTO YOUR COMPUTER

The process of copying music from a CD to your computer and converting it to a format that Media Player understands is known as *ripping*. Songs ripped using Windows Media Player 11 automatically appear in the media library for playing.

NOTE

For best results when ripping music, make sure your computer is connected to the Internet. When connected to the Internet, Media Player retrieves media information for inserted CDs and stores this information in the ripped media files. If the media information is incorrect or missing, you can add it or edit it after ripping. For information on how to add or edit media information, see “Updating Media Information and Album Art” later in this chapter. In addition, the filenames of the ripped music files can be set to use this media information in different ways. To do this, click the arrow below the Rip tab and select More Options. In this dialog box, you can change the rip music location by selecting Change under the Rip Music to This Location section. The ripped music filename is changed by selecting File Name from this same section and formatting the filename as desired. I choose to use Track Number followed by the Song Title with a space as the separator. I use this because it results in a very neat Music folder when organized as described in “Organizing Your Media Collection.”

To rip music to your computer, complete the following steps:

1. Choose the desired format and bit rate for the file by clicking the arrow below the Rip tab, as shown in Figure 8.8. Select the desired options from the Format and Bit Rate commands. For more information on these options, see “Choosing a File Format” and “Choosing a Bit Rate” later in this section.

Figure 8.8
Change Format and Bit Rate in the Rip menu.



2. Insert a CD into the CD-ROM drive and click the Rip tab, as shown in Figure 8.9.

NOTE

By default, Windows Media Player 11 begins ripping automatically when you are on the Rip tab and insert a new CD. Automatic ripping options can be changed by selecting More Options from the Rip tab menu.

3. After the player has started ripping the CD, you may choose to uncheck songs that you do not want Media Player to rip to your computer. You can also stop or start by clicking the Stop Rip or Start Rip buttons that appear in the Rip view.

Figure 8.9

The Rip tab used for copying from CDs to your computer.



CHOOSING A FILE FORMAT

By default, Windows Media Player 11 uses the Windows Media Audio Format. This format offers a balanced combination between sound quality and file size. Other available formats are

- **Windows Media Audio Pro**—Ideal for portable devices because of its higher sound quality at low bit rates.
- **Windows Media Audio Variable Bit Rate**—Results in smaller file size with the same audio quality.
- **Windows Media Audio Lossless**—Provides the best audio quality with the largest file size.
- **MP3**—Provides added flexibility with similar audio quality and a slightly larger file size than Windows Media Audio.
- **WAV**—Another lossless format providing added flexibility with high audio quality and large file size.

CHOOSING A BIT RATE

The bit rate determines the audio quality and file size of the resulting file. Typically, lower bit rates result in smaller file sizes that have lower audio quality. Alternatively, high bit rates result in high quality audio with very large file sizes.

You should choose a bit rate that balances quality and file size to meet your usage needs. A good bit rate is usually 96Kbps or 128Kbps if you plan to use your audio on portable devices

with limited storage. Higher bit rates should be used for audio archiving on your PC where storage space is not an issue. True audiophiles won't be satisfied with MP3s ripped at anything under 192Kbps, however.

SHOPPING FOR MUSIC AND VIDEO FROM ONLINE STORES

Online stores provide a quick and easy way to legally download your favorite music or videos. Media Player 11 allows the browsing and purchasing of media from many online stores that are part of the PlaysForSure program. Although many stores are available, I will focus on the Napster service for buying songs and listening to online radio. Before October 2007, there was an online store called URGE, which was a partnership between Microsoft and MTV. It was fully integrated within Media Player and let you buy media directly from Library view, as shown in Figure 8.10. Unfortunately, this alliance ended, and MTV allied with the Rhapsody media service instead of Media Player.

Figure 8.10
The URGE music store was integrated directly into the library. Stores after SP-1 are not.



CHOOSING AN ONLINE STORE

The Online Stores tab displays the currently chosen online store, or might read Online Stores or Media Guide in the case that there is no store currently active. To choose an online store, click the arrow below the Online Stores tab, as shown in Figure 8.11, and select the desired store from the list. If you want to use a store not listed in the Online Stores menu, select Browse All Online Stores. Then you can choose Napster or whatever.

Figure 8.11

Use the Online Stores menu to choose your desired store.



SETTING UP AN ACCOUNT

Most online stores require a similar setup process of creating a username and password, entering your billing information, and choosing your account type. To set up an account for Napster, follow these steps:

1. Find Napster in the Browse Online Stores list, and read the instructions for downloading the Napster plugin for Media Player.
2. Select Create New Account in the dialog box that appears, as shown in Figure 8.12.

Figure 8.12

Napster store Sign In dialog box.



3. Enter your billing information and select an account type.

Common account types are as follows:

- **Purchase Only**—Standard account type that allows purchasing songs on an individual basis. Songs can usually be played on the computer, burned to a CD, or transferred to a portable device.
- **Subscription with Streaming**—Subscription account that allows unlimited streaming of all content contained in the store's catalog. You must be connected to the Internet at all times to use this type of account.

- **Subscription with Streaming and Download**—Subscription account that allows the download of music to your computer for playback when not connected to the Internet.
- **Subscription with Streaming, Download, and Sync**—Subscription account that allows you to download media and sync it to a PlaysForSure-compatible portable device.

ADDING ITEMS FROM YOUR COMPUTER TO YOUR LIBRARY

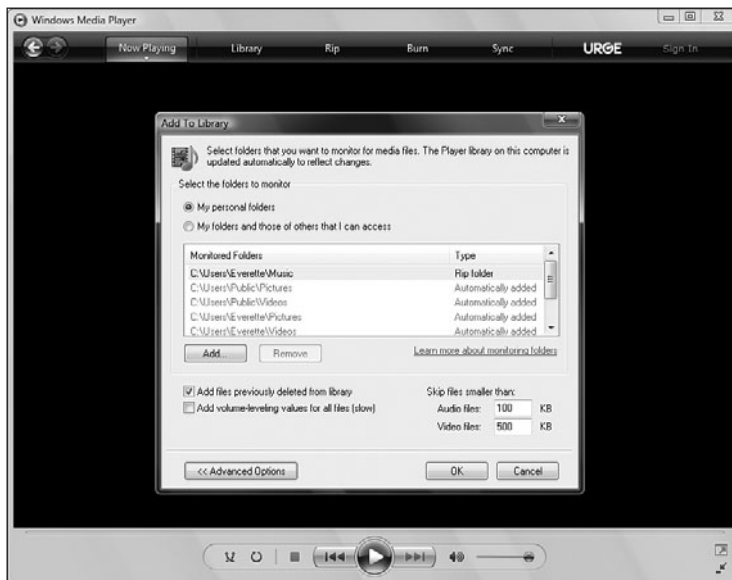
By default, Windows Media player 11 searches certain folders on your computer for media files and automatically adds these files to your library. If your media does not appear in the library automatically, it is located in a folder that is not monitored by Media Player. To change the folders that are monitored, perform the following steps:

1. Click the arrow below the Library tab and select Add to Library.
2. In the Add to Library dialog box, click Advanced Options.
3. As shown in Figure 8.13, you can Add or Remove monitored folders as well as change options for monitoring.

TIP

To add .m4a, .mp4, .m4p, or .aac files from iTunes to your Media Player 11 library, you must first convert the files to a compatible format such as Windows Media Audio or MP3. Many software programs convert media files, such as Xilisoft Audio Converter. To find one of these programs, search Google for “Audio Converter” and look for one that supports your desired source file type.

Figure 8.13
Add to Library options.



TAKING YOUR MUSIC AND VIDEO ON THE GO

Windows Media Player 11 provides many ways that make it easier than ever to take your music and video files with you. Media Player 11 has built-in functions for burning CDs, synchronizing files to your portable media player, and for sharing your media throughout your home network.

Media Player 11 and PlaysForSure Versus iTunes & iPod

One of the first questions that is asked is should I get an iPod or another type of MP3 player? Having used a large number of portable music players in the past, I would recommend one of the excellent, more featured alternative players. If you are choosing a new portable device, the first consideration is the software you currently use for your digital media. If you currently use iTunes for your digital media management and purchasing, then you should definitely choose the iPod since it would integrate with your current media system. However, if you currently use Windows Media Player or any other PC-based media software, I would recommend using Windows Media Player in conjunction with a PlaysForSure compatible device. Of the portable devices I have used, the Creative Zen Vision:M, found at www.creative.com, is by far a superior device. The device has an incredible screen offering 256,000 colors to view your video as well as extremely crisp audio provided by Creative's patented audio processors. The player also includes the ability to listen and record FM radio as well as support for TiVo-to-Go, both of which the iPod lacks. Other advantages over the iPod include the longer battery life of 4 hours of video or 14 hours of audio playback. The Zen provides a much larger number of formats, which is its main advantage over the iPod, in my opinion. Instead of being limited to a couple of audio and one video format, the Zen offers support for the WMA, MP3, and WAV audio formats as well as MPEG1/2/4-SP, WMV9, Motion-JPEG, DivX, and XviD, and Tivo-to-Go video support. All PlaysForSure devices also support the large number of online content providers available through Windows Media Player 11 instead of being restricted to only one provider, as iTunes/iPod are, the iTunes Store. Finally, with the newly redesigned Media Player 11, the benefits of the standardized PlaysForSure program offer far superior function to the proprietary iTunes software suite without the need to install another piece of software onto your system. For this reason, it is my recommendation to choose Windows Media Player 11 and a compatible PlaysForSure device over iTunes and the iPod as long as your current media software is not iTunes.

BURNING CUSTOMIZED CDS

Media Player 11 provides the capability to create customized CDs for playing in your home or car CD player. Before you can burn a CD, you must first have a Windows Vista-compatible CD burner and a blank CD-R disc. To burn a custom CD, perform the following steps:

1. Begin by selecting the Burn tab.
2. Click the arrow below the Burn tab and select Audio CD, as shown in Figure 8.14.
3. Insert a blank CD into your CD burner drive.

NOTE

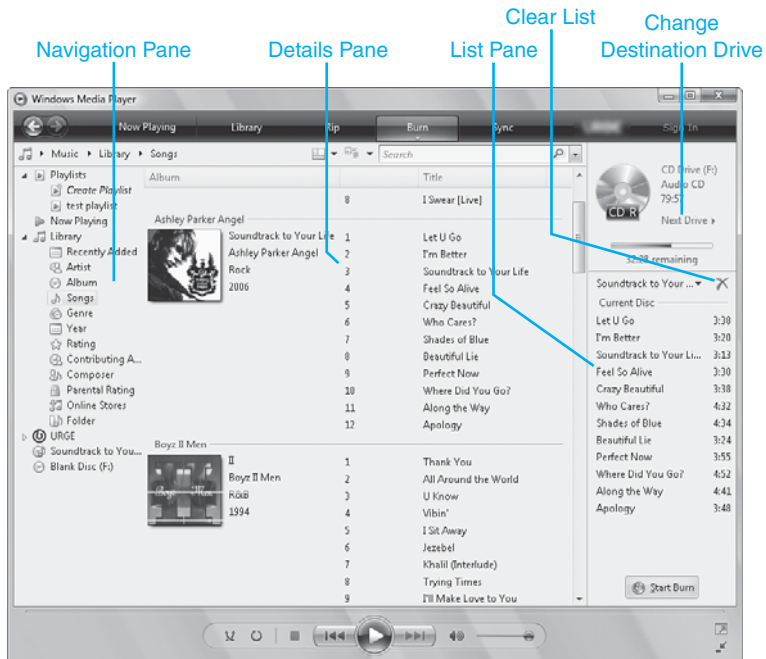
If you have multiple CD burners, you can change the destination burner by clicking Next Drive in the List pane of the Burn view, as shown in Figure 8.15.

Figure 8.14
Select Audio CD from the Burn menu.



4. Create the list of songs to burn by dragging items from the Details pane to the List pane to add those items to the burn list. To remove items from the list, right-click the item and choose Remove from List. Items can be rearranged by clicking and dragging the songs to match the order you desire for your CD.

Figure 8.15
Use the List pane to change the destination drive, set up the burn list, and start the burn.



NOTE

As you add items to the list, you will notice the time remaining, or free time on the disk, decrease to account for the newly added songs. If you choose more files than can fit on a single CD, you can choose to remove some items or have Media Player automatically split the list to burn two CDs.

- At the bottom of the List pane, choose Start Burn, as shown in Figure 8.15. It is recommended that you not perform other tasks while the burn is in progress. The current progress can be viewed in the burn list.

SYNCING FILES TO YOUR PORTABLE MEDIA PLAYER

The first step to synchronizing your files with your portable media player is to choose a portable device. Many players will work with Windows Media Player 11, but for the best experience, you should look for a device that is PlaysForSure compatible.

Tivo-To-Go

For users with a Tivo Series 2 DVR, there is now a way to get those recorded episodes of 24 onto your portable player for watching on the go. This requires a PlaysForSure Video mobile device that states its support for Tivo-To-Go videos. An excellent player, and one I use quite often for this purpose, is Creative's Zen Vision:M. To use this feature, you must first have a Tivo that is connected to your home network. See your Tivo manual for how to do this. Secondly, you will need to download the free Tivo desktop software from Tivo's website at www.tivo.com/tivotogo. After it is installed, follow the instructions on Tivo's website or the Tivo desktop help file for how to transfer your recordings to your PC. After your recordings have transferred successfully to your PC, you can add them to your Media Player 11 Library, as described in "Adding Items from Your Computer to Your Library," and sync the files to your device either automatically or manually as described next.

PlaysForSure is a program between Microsoft and hardware vendors that ensures the best operation with Windows Media Player 11 without the need to install drivers or software for those devices. PlaysForSure is separated into many compatibilities that describe what services a device offers. To view a list of PlaysForSure devices, visit www.playsforsure.com. When shopping for your PlaysForSure device, look for the logos shown in Figure 8.16.

Figure 8.16
PlaysForSure logos indicate available services for the device.



After you have your device, open Media Player and connect the device to your computer. Media Player prompts you to choose either Automatic or Manual sync method. For a description of these methods, see the corresponding section that follows. If you decide later to change the sync method, click the arrow below the Sync tab, point to the device, and select Set Up Sync. You can then select or clear the Sync This Device Automatically check box.

CHOOSING WHAT SYNCs AUTOMATICALLY

If your device is set to sync automatically, the items selected to sync will be updated each time you connect your device to your computer. To select the items that will be synchronized, follow these steps:

1. Click the arrow below the Sync tab, point to the device name, and select Set Up Sync.
2. In the Device Setup dialog box, shown in Figure 8.17, you can choose the playlists that are synchronized with your device. Using the available playlists, select Add to sync the selected playlist with the device. To stop a playlist from synchronizing, select it in the Playlists to Sync list and choose Remove.

TIP

To make sure your favorite playlists sync in the event that your device runs out of storage space, make sure to use the priority arrows in the Device Setup dialog box to set the priority of the selected playlist.

Figure 8.17

The Device Setup dialog box allows you to choose the playlists to sync and their priority.



SELECTING ITEM TO SYNC MANUALLY

If your device is set to sync manually, each time you want to make changes to the files on your device, you must create a list of files to sync. To remove files from your device,

navigate the device using the Navigation pane to find your file. Right-click the file and choose Delete. To set up a list of files to sync to the device, perform the following:

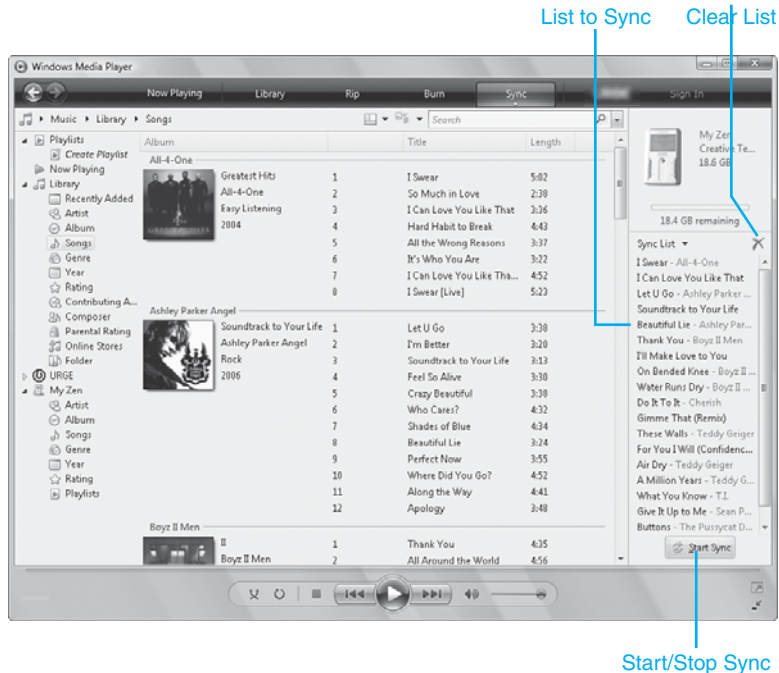
1. Select the Sync tab and clear the sync list by clicking the Clear List pane button as shown in Figure 8.18.
2. Find your media in your library and drag them to the List pane to add them to the Sync List as shown in Figure 8.18. To select multiple items, hold down the CTRL key while selecting your media. To remove items from the Sync List, right-click the item and select Remove from List.

TIP

To have Media Player automatically choose a set of random songs from your library, you can choose Click Here on the List pane when there are no items in the Sync List. After doing this, you can add or remove items from the list and click Shuffle Now.

3. After you have set up your Sync List, make sure that all the items will fit on your device by looking at the List pane. Remove any necessary items from the Sync List and click Start Sync.

Figure 8.18
Sync view allows you to manually set up your Sync List for your device.



SHARING MEDIA THROUGHOUT YOUR HOME

Before you begin to set up media sharing throughout your home, you will need to make sure you have all the required equipment. To enable media sharing, you will need a home network and a networked digital media player. A networked digital media player, also known as a digital media receiver, is connected to your network and plays the content shared by Media Player on your Windows Vista machine. Suitable digital media receivers include other Windows Vista PCs and the Xbox 360, as well as a number of standalone units that can be found by visiting the PlaysForSure website at www.playsforsure.com.

To connect a digital media receiver to your network, you can use an ethernet cable or a wireless network adapter. Consult the documentation that comes with your device for more information on getting it connected to your home network. If you are connecting another Windows Vista PC as a digital media receiver or setting up a new home network, see Chapter 20, “Creating a Windows Network,” later in this book.

After your device is connected to the network, turn it on and complete any configuration steps that may be needed to finalize the installation. If you are using another Windows Vista PC as your device, you must select the Find Media Others Are Sharing check box in the Media Sharing dialog box shown in Figure 8.19. After your device is fully connected and operational, complete the following steps to enable media sharing on your Windows Vista PC with your newly installed digital media receiver.

1. Click the arrow below the Library tab and select Media Sharing.
2. In the Media Sharing dialog box, enable media sharing by checking the Share My Media check box, as shown in Figure 8.19, and click OK.

Figure 8.19
The Media Sharing dialog box shown if media sharing is currently disabled.



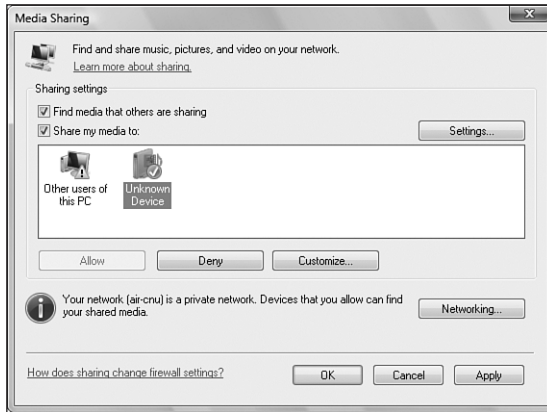
3. To allow sharing with your device, find the device in the list of devices in the Media Sharing dialog box and choose Allow, as shown in Figure 8.20. If you want to prevent access to a device, choose Deny.

TIP

To change what library items are shared with new devices by default, choose Settings in the Media Sharing dialog box. To change what library items are shared with a certain device, select that device from the device list and choose Customize.

Figure 8.20

The Media Sharing dialog box shown if media sharing is enabled. Notice the addition of the device list.



After you have sharing enabled, you are ready to play your media on your new digital media receiver. For information on how to do this, see the documentation that came with your device. If your digital media receiver is another Windows Vista PC, the shared media will appear in the Library view of Windows Media Player 11, as shown in Figure 8.21.

Figure 8.21

Accessible shared media appears in the Library view of Windows Media Player 11.



Shared Media on Your Network

CAUTION

Not all shared media will play back on your digital media receiver. Check your device's documentation for information on supported media types. Also note that media obtained from online stores may be supported only if purchased and might not be supported if obtained from a subscription service.

ORGANIZING YOUR MUSIC COLLECTION

To keep track of all your media that you have added to your library, you must learn to organize your library and files for easy access of your favorites. Your media library can be set up to contain playlists that allow you to quickly play your favorite music. In addition, arranging the media files on your computer's hard disk in a neat fashion will greatly aid you in the event that you need to back up your media files for transfer to a new PC or for repair of your current PC.

CREATING YOUR OWN CUSTOM PLAYLISTS

With Windows Media Player 11, it is easier than ever to create and edit custom playlists to contain your favorite media. With playlists, you can create the perfect layout of songs for any occasion. To create a new playlist, follow these instructions:

1. Open Windows Media Player 11 and select the Library tab. If you need to clear the List pane, click the Clear List pane button shown earlier in Figure 8.18.
2. To add media to your playlist, drag items from your media library onto the List pane, as shown in Figure 8.22. To rearrange items in the playlist, select and drag the item to the desired location. To remove items from the list, right-click the item, and select Remove from List.
3. When you are finished creating your playlist, select Save Playlist at the bottom of the List pane, as shown in Figure 8.22, and enter the name for your playlist.

NOTE

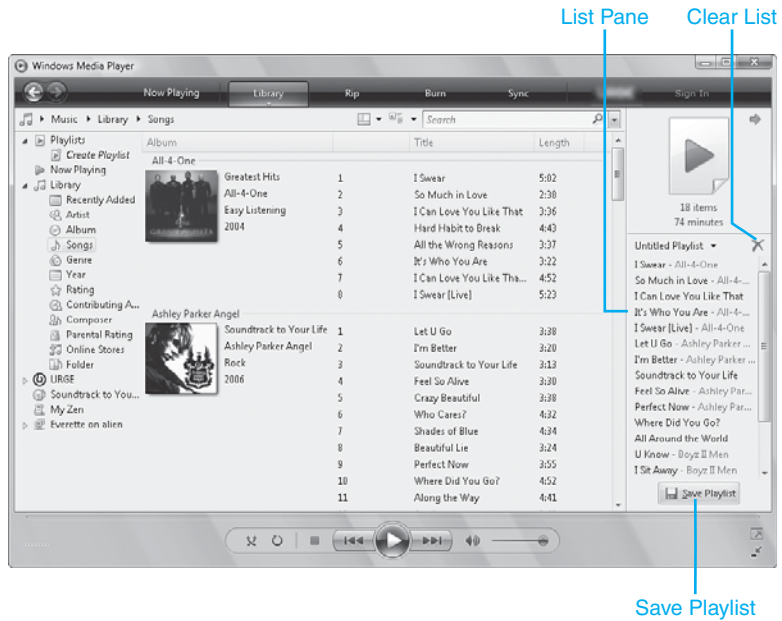
After your playlist is saved, you can play it by right-clicking it in the library Navigation pane and selecting play. In addition, the playlist may be edited anytime by selecting it from the Navigation pane and choosing Edit in List Pane. After it is opened in edit mode, make any changes to the playlist as described in Step 2 and select Save Playlist to save your changes.

CREATING AND EDITING AUTO PLAYLISTS

An auto playlist is a playlist that is set up with a set of filters. Using these filters, the content of these playlists is automatically updated to reflect changes to your media library. To create a new auto playlist, complete the following steps:

1. Click the arrow below the Library tab and select Create Auto Playlist.
2. Type the name of your new auto playlist into the Auto Playlist Name box.
3. In the bottom half of the window, set up your filters by selecting Click Here to Add Criteria, as shown in Figure 8.23. You can add as many filters as you would like to your auto playlist. To remove a filter, select it and choose Remove.

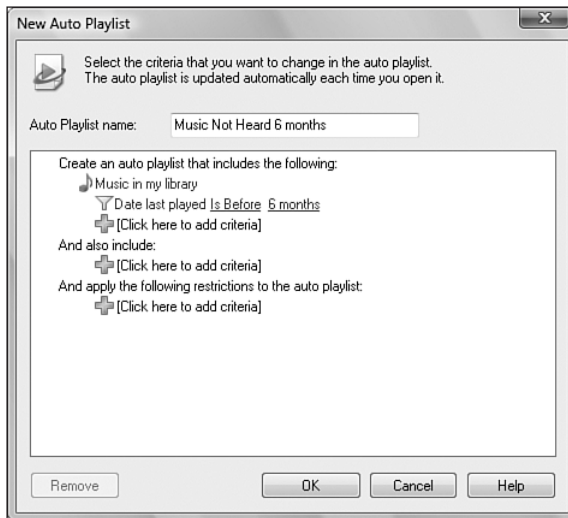
Figure 8.22
Drag items to the List pane to create a new playlist.



NOTE

To edit an existing auto playlist, right-click the playlist in the Navigation pane and select **Edit**.

Figure 8.23
Name your auto playlist and create filters.



ORGANIZING YOUR MEDIA COLLECTION

Over time, your PC will have media files scattered all over the hard drive. This can make it difficult to find all your media files in the event that you want to create a backup. Your media library may also become cluttered with media files you no longer want or that you want to remove from your media library.

CAUTION

Before performing this next section, ensure that all your media has the correct media information as described in “Updating Media Information and Album Art.” This will prevent the creation of incorrectly named folders and improperly grouped media.

To arrange your media files into an organized central location, perform the following:

1. Make sure your Rip music settings are set to use your Music folder and the filename is set up as described in the first note under “Ripping Songs from CDs onto Your Computer.”
2. Click the arrow below the Library tab and select More Options.
3. Set up the Automatic Media Information Updates for Files section of the Library Options dialog box, as shown in Figure 8.24, and click OK.
4. Apply these changes to your media library files by clicking the arrow below the Library tab and selecting Apply Media Information Changes. The result will be a single Music folder, your rip music folder, arranged in folders by artist. Each Artist folder will contain Album folders that contain the songs that appear on that album.

TIP

When browsing your media files using Windows Explorer, you can set your view to any icon view to see the Album Art displayed for Album folders and a Collection of one or more Album Art images on Artist Folders. This provides a nice visual way to view your media files when you are not using Windows Media Player 11.

HOUSECLEANING FOR YOUR MEDIA LIBRARY

Although Media Player 11 automatically removes files from the library that are no longer present in the file system, you may at some point decide that you want to clean out your library. If you have tons of files that you no longer use and want to remove them from your library, you have two options:

First is to leave the file on your computer’s hard drive and remove the file only from the library. This is a good choice if you think you might want to add the file back at a later time or if you just want to hold on to that file for sentimental reasons.

Figure 8.24
Settings to have your media files renamed and rearranged using your rip music settings.



Second, you can have Media Player 11 remove the file from both your library and your PC. This results in the file being permanently lost and should be used only if you are sure you are never going to want the file again.

To remove media from your library, find the item in the Library view. Right-click the item and choose Delete. In the dialog box, choose the appropriate option for removal, as described previously.

UPDATING MEDIA INFORMATION AND ALBUM ART

Most of the time, your media information will already be correct because it is downloaded when you rip a CD or it is embedded in the file when you buy music from an online store. However, on occasion, the media information that is downloaded for a file on your hard drive or for a CD is incorrect or missing. Incorrect or missing media information is a major problem when ripping CDs that are not well known or are a mix of different songs previously burned onto a CD.

TIP

To ensure your files stay organized and updated, make sure you update your media files after changing any media information or album art. To do this, click the arrow below the Library tab and select Apply Media Information Changes.

CAUTION

Do not use the automatic Find Album Info features if the song was originally ripped as part of a mixed CD. This is because all files on that original CD are linked, and if you choose the album info for one file, all other files will be changed back to the album of the chosen file, thereby forcing you to redo the album info for every file in that mix CD. A word of advice—when in doubt, use the manual procedures for updating media info and album art.

ADDING OR EDITING MEDIA INFORMATION

In some cases, the media information of a file may be incomplete or missing. This inaccurate media information should be corrected immediately to ensure that your library and files remain neatly organized and easy to navigate and maintain. It is a lot easier to find your favorite song if it contains the correct media information than if its media information reads “Track 2, Unknown Album, Unknown Artist,” along with about 400 other songs in your library. It may be tedious, but supplying your media library with correct information will make things much more enjoyable in the long run. You can enter media information into Windows Media Player 11 in several ways, including automatically from online databases, dragging items, and using the Advanced Tag Editor.

AUTOMATICALLY GET MEDIA INFORMATION FROM AN ONLINE DATABASE

Many albums have their information stored in online databases accessible to Windows Media Player 11. This is usually the easiest and fastest way to update your media information. To do this, complete the following steps:

1. Find the album you want to update in the Album view of the library.
2. Right-click the album and select Find Album Info.
3. Follow the instructions on the Find Album Information dialog box to search for the correct information and update the album.

If you are unable to find the album information in the online database, or if your media was originally part of a mix CD, you must use one of the manual options. The first of these is useful if you have at least one file in your library that has correct information for the album. Files with incorrect media information can be dragged on top of a file with the correct media information. Confirm the move and media information change to add the correct media information to the desired file. If this option is not possible, you must use the Advanced Tag Editor. This is the most powerful option for editing your media information and personally is my favorite because each file is edited independently and there is no chance you can mess up the media information you have already entered for other files. To use the Advanced Tag Editor, right-click a song in the library and select Advanced Tag Editor. Enter the correct media information in the boxes for the Track Info tab and the

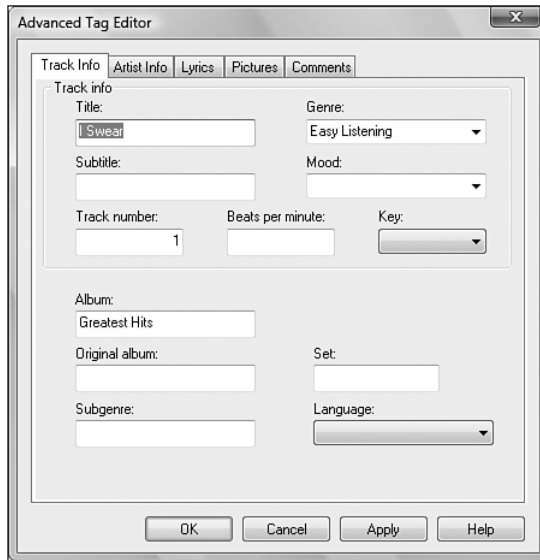
Artist Info tab, as shown in Figure 8.25 and click OK. Although not all information will always be filled in, the essential fields are as follows:

- **Track Info tab**—Title, Genre, Track Number, Album
- **Artist Info tab**—Artist, Album Artist

TIP

To enter multiple artists in the Artist field, enter all artists separated by semicolons.

Figure 8.25
The Advanced Tag Editor is the most powerful way to modify a file's media information.



ADDING OR CHANGING ALBUM ART

The most common missing piece of media information is the album art. The album art provides a visual representation of every album in your media library and is displayed in the Expanded Tile view of your media library; it's used as well by many portable media players and digital media receivers.

TIP

Make sure all media information is correct before updating album art. This will reduce the risk of files being assigned incorrect album art.

To add or edit the album art, complete the following:

1. Click the Library tab and locate the album for which you want to add or change the album art.
2. To automatically find the album art, right-click the album and select Find Album Info. Search for the correct media information and click the correct entry.

If the media information found is correct, but there is a generic album art image or if the media information is not found at all, you must manually set the album art. The following steps describe how to manually add or change the album art.

1. Click the Library tab and locate the album for which you want to add or change the album art.
2. Find the image you would like to use on your computer or on the Internet. Good websites for finding album art are Google images, images.google.com, and albumart.org. When you find the desired album art, right-click the image and select Copy.
3. In Windows Media Player 11, right-click the album art box of the desired album and select Paste Album Art. The Album Art for all songs in that album is updated with the new album art.

TIPS FROM THE WINDOWS PROS: PLAYING AUDIO FROM YOUR PORTABLE DEVICE THROUGH YOUR CAR STEREO

So now you know how to work Media Player and how to organize your media with complete media information and album art. You have synchronized your media to your portable device. The majority of music that people listen to during the day is in the car during the commute to and from work. Next, I explain the options you have for getting your newly stocked portable player connected to your car stereo so that you never have to carry a CD again.

To decide the best method to use, you need to know a little bit about your car stereo. If you have not already checked, see whether your stereo has an auxiliary input. This information can usually be found in the vehicle or stereo's manual, or you may need to call your local dealership. Another option to look into is whether your stereo supports a stereo Bluetooth link. After you know this information, review the following options, listed from best sound quality to worst, and choose the one that best suits your needs. In all cases, the portable media player's headphone jack is used as the audio source.

- **Auxiliary Input**—This is a direct connection to your stereo either through an auxiliary (front/rear) or an adapter connected to your specialized CD changer input. There is little interference with this type of connection and as a result, it is highly recommended over other methods.

- **Bluetooth Link**—If your stereo supports a Bluetooth link, you can get an adapter for your portable device that will allow a high-quality wireless direct connection with your stereo. Because the link is wireless, the Bluetooth link is subject to slightly more interference than the Auxiliary Input method.
- **Cassette Adapter**—This option offers quality similar to that of the FM options discussed next. However, because it is not bound to the FM spectrum, it is subject to less interference and noise. This device connects from your portable device directly into your car's cassette player.
- **Wired FM Transmitter**—This option does offer decreased sound quality to the previous option because of the limitations of the FM spectrum. A wired FM transmitter is a device installed in line with your stereo's FM antenna. While an audio source is connected to the device, the car's antenna is switched off and the audio signal is modulated to a set FM frequency, such as 88.9 FM. When there is no audio input source, the device switches the antenna back on to keep from interfering with FM radio reception.
- **Wireless FM Transmitter**—This is identical in operation to the wired FM transmitter, except that it modulates the audio to the FM frequency and then broadcasts it within a short range (usually 3–6 ft.) so that it can be picked up by your vehicle's antenna. Notice that this device does not switch off the vehicle's antenna, because it requires it for operation. Although most used, this option has the lowest audio quality because of the large amount of interference introduced by the wirelessly transmitted FM signals competing with other local FM stations.

NUMBERS

- 2 Sides option (Printer Properties dialog), 217
- 8P8C connectors, 593
- 10BASE-T Ethernet, 618-620
- 10BASE5 Ethernet, 593
- 32-bit versions of Windows Vista, 32
- 64-bit processors, software compatibility, 1002
- 64-bit versions of Windows Vista, 32
- 100BASE-T Ethernet, 618-620
- 802.11i protocol (WPA2), 599
- 100Mbps Ethernet (Gigabit), 620

A

- Access Control attributes (Registry), 1059-1060
- access controls, restrictive configuration, 1218
- access permissions. *See* permissions
- Access Points (AP), wireless networks, 623
- access privileges, Active Directory, 608
- accessibility settings
 - display, 840-841
 - keyboards, 838-839
 - mouse, 841
 - sound, 839-840
- active application buttons (taskbar), 140

- active defenses (attacks)
 - access controls, restricting, 1218
 - firewall configuration, 1212-1213
 - NAT device configuration, 1212, 1215-1216
 - packet filtering, 1213-1215
 - passwords versus password-less file sharing, 1217-1218
 - routers, securing, 1216
- Active Desktop items, 234-235
- Active Directory
 - distributed databases, 607
 - domain name system (DNS) integration, 608
 - function of, 607
 - Group Policies, 607
 - groups
 - access privileges, 608
 - containers, 607-608
 - networks
 - advanced search tool, 752
 - computer searches, 750
 - domain-type searches, 748
 - file/folder searches, 750-752
 - missing printers, 781
 - policy-based restrictions, 741
 - printer searches, 750, 760
 - publishing shared folders, 751-752
 - resource search functions, 741

- Active Directory Scripting Interface (ADSI), 1122
- Active Server Pages (ASP), site development, 586
- ActiveX controls
 - add-ons (IE7), 445
 - unsigned controls, 455
- ad hoc networks, 1262, 1271-1273
- adapter cards, movement within motherboards, 1014
- adapters (network), 625-627
- Add Favorite dialog (IE7), offline browsing options, 432
- Add Hardware applet (Control Panel), 1013-1016
- Add or Remove Programs applet (Control Panel), 140-145, 998-1000
- Add Printer Wizard, installing
 - networks, 759
 - printers, 210-213
- add-ons (IE7)
 - crash detection, 448
 - download protections, 445-446
 - invalid signatures, 447
 - management of, 30, 447-448
 - scripting functions, 445
- Address bar (IE7), 428-430
- Address Book (Windows Mail 7), 495
 - backups, maintaining, 506-507
 - distribution lists, 493-494
 - entries
 - adding, 492-493
 - deleting, 493
 - editing, 493

address spoofing, 1208

Administrative Tools, 872-873, 922-923

administrators

accounts

accessing, 115-116

troubleshooting, 1203

Registry entries, editing, 1057-1058

VHDMount (Virtual Server 2005) operation, 1167

Adobe Acrobat Reader, 468-469

ads (pop-ups/unders), IE7

blocking in, 457-458

exceptions in, 458-459

ADSI (Active Directory Scripting Interface), 1122

ADSL (Asymmetric Digital Subscriber Line), 395-396

Advanced System Settings option (System Properties), 870

Advanced tab, Printer Property sheets, 216

Aero desktop environment, 13-14. *See also* glass

adding items to, 131

default appearance, 125-126

efficient use of, 159-161

files, saving on, 132-134

icons, 127-130

Recycle Bin, 125-128

shortcuts, creating, 131-132

Sidebar gadgets, 126

taskbar, 125

visual color palette, 124-125

Agent tool (newsgroups), 526

AGP video cards, 1019-1020

album art, updating, 284-285

All Users, 1087

ALLUSERSPROFILE environment variable, 1086

Alt+F4 keystroke, foreground window closure, 159

Alternate Configuration features, 1308

always-on connections (broadband), configuring, 413-416

analog camcorders, 325

analog modems

installing, 401-406

Internet access, 394-395

anonymous web access, 572

ANSI.SYS, MS-DOS environment optimization, 1099

antivirus software, 1136-1138

AOHell, 1244

AP (Access Points), wireless networks, 623

ap.bat, 1112

APPDATA, 1086

Appearance and

Personalization applet (Control Panel), 902

Appearance and

Personalization view (Category view), 812

Apple Newton, 1357

AppleTalk, 598

AFP (AppleTalk File Protocol), 683

printers, configuring on

Windows networks, 765

Application Compatibility Wizard. *See* Program

Compatibility Wizard applications. *See also* software

adding, 143-144

compatibility

Linux, 37-38

virtualization, 110-111

crashes, handling, 156-157

DOS applications, printing from, 222-223

flipping via Flip 3D, 159

installing

new installations (Add or

Remove Programs

applet), 145, 998

via networks, 145

launching, 145-146

Computer, 147-149

Start button, 147

Windows Explorer,

147-149

MS-DOS environments

ANSI.SYS issues, 1099

AUTOEXEC.NT cus-

tomization, 1096-1099

CONFIG.NT cus-

tomization, 1096-1099

configuring for optimal performance, 1092-1102

DOSKEY issues, 1099

partitions, separating from data partitions, 933

removing via Add or Remove Programs applet, 140-142

transferring between computers via Windows Easy Transfer Companion,

102-103

troubleshooting via Program Compatibility Wizard, 977-979

Windows applications, printing from, 220-222

Applications tab (Task Manager), 884-885

appointments (Calendar), entering, 248-249

archiving via photos, 305-306

arguments (command-line), 1071-1072

ASP (Active Server Pages), site development, 586

assigning

drive letters, 936

permissions

restricted objects, 1203

to user groups,

1198-1199

sounds with events, 911-913

tasks via Scheduled Tasks

utility, 1125

AtomFilms.com website, 342

attachments

newsgroups

binaries, 524

multi-part, 524-525

multimedia, 525-526

Windows Mail 7

opening via, 485

sending via, 485

virus prevention, 486

attacks (networks)

address spoofing, 1208

back door attacks, 1208

defense measures, 1209

active defenses,

1212-1218

preparations, 1210-1211

DoS (Denial of Service),

1209

- eavesdropping, 1208
 - email hoaxes, 1208
 - exploits, 1208
 - identity theft, 1209
 - impersonation, 1208
 - open doors, 1208
 - password cracking, 1207
 - phishing, 1209
 - social engineering, 1208
 - Trojan horses, 1208
 - viruses, 1208
 - audio**
 - accessibility settings, 839-840
 - CDs/DVDs
 - bit rates, 268
 - file format selection, 268
 - playing, 265-266
 - ripping, 266-268
 - events, associating with, 911-913
 - Internet Explorer 7
 - MP3s, downloads (Windows Media Player), 441-442
 - streaming (Windows Media Player), 439-440
 - Web elements, 436-438
 - MP3 files
 - copyright controversies, 441
 - downloading (Windows Media Player), 441-442
 - MP3 Pro format, 442
 - MP3.com website, 441
 - portable players, 441
 - streaming audio, 439-440
 - playback, 914
 - recording, 914
 - Volume Control settings, 351-353, 360
 - Windows Movie Maker, exporting to, 332
 - Windows Sound Recorder, 350-351
 - auditing**
 - networks for vulnerabilities, 1242
 - permissions, 1196-1197
 - policies, local settings, 1229-1230
 - authentication**
 - Kerberos, 610
 - two-factor authentication, 1250-1251
 - two-way authentication, 1250
 - web servers, 571-572
 - Authenticode, software downloads, 444**
 - auto playlists, creating, 279-280**
 - auto-scrolling, three-button mouse, 924**
 - AutoComplete feature**
 - enabling/disabling (IE7), 429-430, 461
 - Tablet Vista, 1366
 - AUTOEXEC.NT, MS-DOS environment optimization, 1096-1099**
 - automatic caching, offline folders, 1307**
 - automatic updates, 1142**
 - IIS, 582
 - SP2 (Service Pack 2), 995
 - Windows Update, 987-988
 - AutoMovie, 343-344**
 - AutoPlay, 820-821**
 - AVI video format, 438**
- B**
- back door attacks, 1208**
 - backgrounds**
 - changing, 96
 - GUI display properties, setting, 908
 - Backup and Restore Center, 23-24**
 - Complete PC backups
 - creating, 1160-1161
 - restoring, 1172
 - WBADMIN command-line tool, 1162-1164
 - features, 1150-1152
 - file and folder backups
 - Complete PC backups versus, 1152-1153
 - creating, 1153-1155
 - format of, 1156
 - restoring, 1157-1160
 - removable media for backups, 1155-1156
 - backups. See also restoring**
 - Address Book (Windows Mail 7), 506-507
 - Backup and Restore Center, 23-24
 - Complete PC backups, 1160-1164, 1172
 - file and folder backups, 1152-1160
 - features of, 1150-1152
 - removable media for backups, 1155-1156
 - baseline backups, 1222
 - Complete PC backups, 24
 - creating, 1160-1161
 - restoring, 1172
 - WBADMIN command-line tool, 1162-1164
 - email
 - web-based email, 1154
 - Windows Mail 7, 505, 508
 - FATfile system and, 1154
 - multi-disc backups, finding files in, 1202
 - network shares, 1153
 - NTBackup files, restoring, 1203
 - recovery certificates, 1179-1181
 - Recycle Bin, 1154
 - Registry
 - Regedit utility, 1047-1048
 - system restore, 1047
 - third-party utilities, 1046-1047
 - security disaster planning, 1222
 - software, 656-658
 - System Recovery Options menu, creating from, 983-984
 - systems, network media selections, 616
 - third-party backup tools, 1200-1201
 - troubleshooting, 1201-1202
 - UPS (Uninterruptible Power Supplies)
 - configuring, 1027-1028
 - installing, 1023-1026

- selecting, 1025-1026
- testing configuration, 1028
- user profiles, 1154
- VHDMount (Virtual Server 2005)
 - Administrator operation, 1167
 - command-line syntax, 1165-1166
 - downloading, 1164
 - driver installation, 1168-1170
 - installing, 1165
 - Windows Explorer operation, 1166-1167, 1170
- Balanced profile (power usage), 1284**
- basic disks, 930-931**
- Basic Tasks, creating in Task Scheduler, 1125-1126**
- batch files, 1104**
 - ap.bat, 1112
 - basics of, 1104-1107
 - creating, 1104-1105
 - e.bat, 1113
 - ping, 1105
 - programming
 - call statement, 1110-1111
 - for statement, 1111-1112
 - goto statement, 1110
 - if statement, 1108-1110
 - set statement, 1107-1108
- batteries**
 - mobile computing, 1283-1286
 - power profiles, 1284
- Battery Status icon (Mobility Center), 1281**
- BCD (Boot Configuration Databases), editing, 957**
- Berkeley "r" commands, Internetworking via UNIX and Linux, 680-682**
- Berners-Lee, Tim, 424**
- bidirectional satellite dishes, 397**
- binary attachments (news-groups), 524**
- bindings (networks), 690-691**
- BIOS**
 - altered settings, troubleshooting, 1033
 - hardware, boot order, 1010
 - settings, correct configuration of, 1010-1011
 - USB controllers, port settings, 1018
- bit rates (audio CDs/DVDs), selecting, 268**
- BitLocker, 1182**
 - Drive Preparation tool, 1183-1184
 - EFS (Encrypted File System) versus, 1189-1190
 - encryption process, 1186-1189
 - manual hard disk preparation, 1184-1185
 - recovery process, 1187
 - system requirements, 1183
 - TPM (Trusted Platform Module), 1185-1186
 - troubleshooting, 1202
- Blackberry devices, receiving email on, 255-256**
- Blackcomb (codename), 4**
- blocking**
 - network services
 - packet filtering, 1214-1215
 - troubleshooting, 1241
 - pop-up/under ads (IE7), 457-458
- Boot Configuration Databases (BCD), 957**
- boot manager, changes to, 67-68**
- boot menu, editing entries, 74-76**
- boot process**
 - troubleshooting, 957, 972-975
 - wrong BIOS settings, 1033
- breadcrumbs, 82**
 - Computer folder, 172-175
 - Windows Explorer, 165, 170-171, 175-177
- bridges, disparate networks, 658-659**
- Brightness control (Mobility Center), 1281**
- broadband connections**
 - configuring, 411-416
 - ICS (Internet Connection Sharing), 718-719
 - PPPoE configuration, 412
- broadband DSL, 703**

broadcasting television programs to TV or projector, 381-383

browsing

- network printers, 760
- Windows Media Player, 263-265

bug fixes, IIS, 582

burning

- CDs
 - custom CDs, 272-274
 - music CDs, 262
 - photo CDs, 300-303
- DVDs
 - DivX files, 390
 - images to, 357-360
 - Windows Media Center, 383-384

buy.com website, 613

C

cable modems

- installing, 401-406
- Internet connections, 396
 - configuring, 411-416
 - troubleshooting, 536-537

cable service, LAN, 705

- Internet connections, 710-713
- multiple computer LAN configurations, 724-726
- troubleshooting, 736

cabling

- covers, 628
- crimp-on connectors, 630
- general installation guidelines, 629-630
- network printers, 616, 624-625
- networks
 - 10/100BASE-T
 - Ethernet, 618-620
 - 1000Mbps Ethernet, 620
 - HomePlug, 622
 - HomePNA, 620-621
 - IEEE 802.11g Wireless, 622-623
 - selection criteria, 617-618
 - testing, 794
 - updating older systems, 624

- plenum, 629
- Practical Network Cabling*, 630
- testing, 794
- troubleshooting, 659
- UTP (Unshielded Twisted-Pair), 594-595
- wired Ethernet, 593-594
- wiring channels, 659
- cache cleanup, Internet Explorer**, 952
- Cailliau, Robert**, 424
- Calculator**, 147, 252
- Calendar**, 25, 247
 - appointments, entering, 248-249
 - configuring, 251-252
 - creating, 248
 - publishing, 249-250
 - subscribing to, 249
 - tasks, setting up, 251
- call statements, batch file programming**, 1110-1111
- callbacks, dial-up/VPN networks**, 1291
- cameras (digital)**
 - Windows Photo Gallery, 292-295
 - zooming, 348
- Caps Lock key, altering location on keyboard**, 924
- car stereos, playing portable media players through**, 285-286
- Carbon Copy (CC)**, 1331
- cascade ports (hubs)**, 634-635
- cascading elements, Start menu**, 924
- CataList website, mailing list repository**, 510
- Category view (Control Panel)**, 805-806, 810
 - Appearance and Personalization category, 812
 - Classic Mode applets, 814-820
 - Clock, Language, and Region category, 813
 - Ease of Access category, 813
 - Hardware and Sound category, 809
 - Mobile PC category, 811
 - Network and Internet category, 808
 - System and Maintenance category, 807
 - User Accounts and Family Safety category, 811
- CAUCE (Coalition Against Unsolicited Commercial Email)**, 508-509
- CD-RW drives, archiving photos via**, 305
- CDO (Collaboration Data Objects)**, 1118
- CDs**
 - audio CDs/DVDs
 - bit rates, 268
 - file formats, 268
 - playing, 265-266
 - ripping, 266-268
 - backups on, 1155-1156
 - burning
 - custom CDs, 272-274
 - music to, 262
 - photo CDs, 300-303
 - installing software from, 998, 1106
 - movies, HighMAT technology, 342
- censorship, news servers**, 511
- CERN (European Laboratory for Particle Physics), Web browser development**, 424
- CertEnroll folder**
 - Windows 200x Server shared status, 748
- certificates**
 - digital signatures, 490
 - file encryption certificates, 93
 - IE verification, 446
 - missing VPN, 1308
 - SSL encryption, 456
 - VeriSign, 456
- CGI (Common Gateway Interface) scripts**, 558, 573
- Change Advanced Power Settings**, 1284
- Change What the Power Buttons Do setting (Mobility Center, Power Options)**, 1283
- Character Map**, 252-253, 892-895
- Character Pad (Input Panel)**, 1362
- CIFS (Common Internet File System)**, 673
- CIPHER command-line tool**, 1175-1176, 1202
- Classic Mode applets (Control Panel)**, 814-820
- clean installations of Windows Vista**, 49-62
- clicks (stylus pen)**, 1362
- clients**
 - Client for Microsoft Networks
 - adding, 642-644
 - file and printer sharing functions, 602
 - client programs (email), 475
 - client/server networks, 592
 - Remote Desktop Client, 1342, 1346-1349
- Clinton, William**, 424
- clips (video), Windows Movie Maker**
 - assembling, 333-334
 - editing, 334-336
 - effects, adding, 337
 - narration, adding, 338-339
 - organizing, 332-333
 - titles, adding, 339-340
 - transitions, adding, 336-337
- Clock, Language, and Region view (Category view)**, 813
- cmd command**, 1277
- CMOS (Complementary Metal-Oxide Semiconductors)**, 1033
- codenames for Windows Vista**, 4
- Collaboration Data Objects (CDO)**, 1118
- collection bin (Windows Movie Maker), video clips**
 - assembling, 333-334
 - editing, 334-336
 - organizing, 332-333
- color**
 - correction, movies, 347
 - depth, configuring GUI display properties, 915-919

- hue, 905-906
- luminosity, 905-906
- photos, adjusting in
 - Windows Photo Gallery, 296
- saturation, 905-906
- schemes, configuring GUI display properties, 903-905
- Color Management tab, Printer Property sheets, 216**
- Color Refiner dialog, GUI settings, 905-906**
- COM (Component Object Model), 604**
- COM(serial) ports, printer installations, 210-212**
- COM+ distributed applications, network interaction, 604**
- COM/DCOM Unleashed, 604**
- Command Line completion, 1075**
- command prompt**
 - backups, creating from, 983-984
 - command-line
 - editing, 1074
 - syntax, 1071-1072
 - commands, running with elevated privileges, 1079
 - current folders, 1073-1074
 - default drives and directories, changing at the same time, 1079
 - filenames
 - completing, 1075
 - quoting with spaces, 1072-1073
 - pipes, 1075-1078
 - pushd, 1079-1080
 - redirection, 1075-1078
 - special characters, 1077
 - troubleshooting from, 970
- Command Prompt window**
 - cut and paste, 1078
 - keeping open after execution, 1094
 - opening, 1070, 1078
 - properties, 1092-1094
- command-line, 1070**
 - Command Prompt environment
 - command-line syntax, 1071-1072
 - editing via, 1074
 - commands, 1071, 1078, 1102-1103
 - management tools
 - net use command, 1081-1083
 - sc command, 1083-1084
 - shutdown command, 1085
 - network resources, managing via, 778-779
 - programs, information
 - about, 1080-1081
 - syntax, Command Prompt environment, 1071-1072
 - TCP/IP diagnostics, 543
 - ipconfig, 544-545
 - pathping, 547-548
 - ping, 545-546
 - route, 548-549
 - tracert, 546-547
 - utilities
 - list of, 1080
 - network administration, 782-783
- commercials, skipping, 374**
- Common Gateway Interface (CGI) scripts, 558, 573**
- Common Internet File System (CIFS), 673**
- compatibility**
 - hardware requirements, checking with Windows Vista Upgrade Advisor, 43-48
 - junction points and symbolic links, 109-110
 - planning for,
 - Internetworking with Macintosh, 683-684
 - software, Program Compatibility Wizard, 1002-1003
 - virtualization, 110-111
 - Windows applications with Linux, 37-38
- compatibility mode, 130**
- Compatibility tab (Program Compatibility Wizard), 978-979**
- Complete PC backups, 24**
 - creating, 1160-1164
 - file and folder backups versus, 1152-1153
 - restoring, 1172
- Complete PC Restore tool. See Windows Complete PC Restore tool**
- Component Object Model (COM), 604**
- compression (files), 198-202, 948-949, 953**
- Computer Associates Arcserve, 616**
- computer identification, checking, 796-797**
- Computer Management utility, 778**
- Computer Name Changes dialog, 414**
- COMPUTERNAME environment variable, 1086**
- ComSpec, 1086**
- CONFIG.NT, MS-DOS environment optimization, 1096-1099**
- configuring**
 - BIOS settings, 1010-1011
 - calendars, 251-252
 - default user profile, 116-117
 - Dial-Up Networking, RAS, 1289-1292
 - Disk Defragmenter, 945-946
 - fax service (Windows Fax and Scan), 309
 - cover pages, 310-311
 - fax receiving options, 310
 - fax settings, 312
 - sender information, 310
 - gadgets, 242-243
 - Guide (Windows Media Center), 372-374
 - Internet connections, 94, 406
 - broadband connections, 411-416
 - dial-up connections, 409-411
 - high-speed setup, 411-416

- ISP accounts, 407-409
 - manually, 407-409
 - New Connection Wizard, 406
- Internet Explorer 7, 448-453
- multiple monitors, 917-918
- networks
 - checking for problems, 790-791, 795-797
 - checking network configuration, 795-797
 - client additions, 642-644
 - protocol additions, 642-644
 - service additions, 642-644
- parental controls in Windows Media Center, 385-386
- peer-to-peer networks, 642
 - TCP/IP, 644-646
 - Windows Firewall, 652-653
- printers, 206-207
 - print documents, 225-226
 - properties of, 214-219
- Recycle Bin, 925
- simple websites, 567-569
- sound playback and recording, 914
- System Restore tool, 964-965
- TCP/IP, 646-649
- UPS, 1027-1028
- VPN connections, 1292
- Windows Firewall, 1230-1231
- Windows Firewall with Advanced Security, 1236-1238
- Windows Media Center hardware, 368-370
- conflicts (hardware)**
 - HCL (Hardware Compatibility List), 1034-1035
 - hidden devices, 1035
 - resolving, 827-837
 - troubleshooting, 1035
- connections**
 - Dial-Up Networking
 - current location checks, 1293
 - disconnecting, 1296
 - monitoring, 1296
 - multiple location management, 1292-1293
 - without roaming profiles, 1293-1294
 - forwarding, 580-581
 - FTP Server, disconnecting, 579
 - IIS installation requirements, 560
 - Internet
 - analog modems, 394-395
 - cable modems, 396
 - changing default connections, 418-419
 - choosing, 397-400
 - configuring, 406-416
 - dial-up connections, 416-418
 - Dial-Up Networking, 1289-1292
 - DSL (Digital Subscriber Line), 395-396
 - equipment, 400
 - ISDN(Integrated Services Digital Network), 395
 - mobile connections, 421-422
 - modem installation, 401-406
 - multiple connections, 419-420
 - ordering services, 401
 - satellite service, 397
 - status checks, 418
 - troubleshooting, 420-421
 - wireless access, 397
 - Internet connections, configuring, 94
 - networks, checking for problems, 797-798
 - sharing routers, 703
 - Windows Media Center and Xbox 360, 380-381
- connectivity (networks), testing, 797-798**
- connectors**
 - Gigabit Ethernet (1000Mbps), 620
 - wiring order, 630-631
- console programs, 1070**
- Console Window properties, 1093**
- Consumer Reports website, printer reviews, 230**
- Consumer Search website, printer reviews, 230**
- contacts, Windows Mail 7**
 - disabling auto-additions, 520
 - sending via, 508
- containers, Active Directory, 607-608**
- Content Advisor (IE7)**
 - ratings resources, 461
 - site objectionable content, controlling, 459-461
- Content Controls, Internet Explorer 7, 459-461**
- Control Panel, 83-84, 139, 804**
 - Add Hardware applet, 1013-1016
 - Add or Remove Programs applet, 140-145, 998-1000
 - Administrative Tools, 872-873
 - Appearance and Personalization applet, 902
 - applets list, 1400-1401
 - Category view, 805-820
 - default display, 805
 - Default Programs, 823
 - Set Associations option, 824
 - Set Program Access and Computer Defaults option, 825
 - setting, 824
 - Fonts applet, 920
 - GUI modifications, 898
 - Keyboard applet, 847
 - Mouse applet, 847-850
 - Performance Information and Tools applet, 850, 856
 - Adjust Indexing options, 855
 - Visual Effects, 854-855

- Windows Defender, 853-854
 - Windows Experience Index, 850-853
 - Phone and Modem Options, property settings, 541-542
 - Printers applet, 205
 - Regional and Language Options, 867
 - shortcuts, creating, 895-896
 - System applet, updating device drivers, 992-993
 - System Properties, 868-872
 - System Tools applet, Scheduled Task utility, 1124-1125
 - Task Scheduler, 881
 - Visual Effects dialog, 890-891
 - Windows SideShow, 872
 - Convert utility, 947-948**
 - convertible Tablet PC, 1358, 1361**
 - converting**
 - handwriting to text, 1370
 - hard disks to dynamic storage model, 933
 - recorded television programs to DivX files, 388-389
 - cookies**
 - deleting, 950
 - website preferences, setting (IE7), 455
 - copy protection (music), 262**
 - copying web pages to home directories (IIS), 567, 569**
 - copyright restrictions, 262**
 - MP3 audio files, 441
 - online graphics (IE7), 436
 - corporate environments, wireless networks, 1267**
 - corporate networks**
 - ban on personal websites, 555
 - Windows Vista features, 39-40
 - corrupted files (Registry), troubleshooting, 1063**
 - cover pages (faxes), customizing, 310-311**
 - crashes**
 - add-ons (IE7) as cause, 447
 - Ctrl+Alt+Del keystroke, troubleshooting, 158
 - forced shutdowns, 158
 - Fusion prevention mechanism, 1003
 - handling, 156-157
 - crimp-on connectors (cabling), 630**
 - critical updates, 95, 994, 1422**
 - cropping photos in Windows Photo Gallery, 296**
 - crossover cables, network wiring installations, 632-633**
 - Ctrl key, altering location on keyboard, 924**
 - Ctrl+Alt+Del keystroke, forced shutdowns, 158**
 - Ctrl+F6 keystroke, open window cycling, 161**
 - current drivers, 1074**
 - current folders, Command Prompt environment, 1073-1074**
 - custom CDs, burning, 272-274**
 - Customize Flicks window, 1373**
 - Customize Start Menu dialog, 899-900**
 - customizing. *See also* personalizing**
 - color, GUI display properties, 905-906
 - environment variables, 93
 - fax cover pages, 310-311
 - playlists, 279-280
 - Recycle Bin, 127
 - sounds associated with events, 911-913
 - Start menu, 98, 898-900
 - Taskbar, 900-901
 - cut and paste, Command Prompt window, 1078**
 - Cutler, Dave, 7**
- D**
- Data Collector Sets (Reliability and Performance Monitor), 859**
 - data encapsulation, VPN, 1287**
 - Data Execution Prevention (DEP), 871, 1142-1144**
 - data forks (Macintosh), 683**
 - data partitions, separating from application partitions, 933**
 - data security, 23-24**
 - data transfers, Windows Easy Transfer, 100-103**
 - Date and Time applet, 821-823**
 - Dazzle DV-Editor SE, 345**
 - DCOM (Distributed COM), 604**
 - DDNS (Dynamic Domain Name Services)**
 - DynDNS Updater, 1337
 - Remote Desktop, 1335-1336
 - DDR SDRAM modules (RAM), 1012**
 - Debugging Mode boot option, 973**
 - deep searching, 190**
 - Default Datatype option (Printer Properties dialog), 217**
 - default documents, web server home directories, 556-557, 572**
 - default drivers, 1074**
 - default email programs, 476**
 - default firewall settings, restoring, 1234**
 - default home pages (Internet Explorer 7), 426**
 - default Internet connections, changing, 418-419**
 - default mail preferences, setting (IE7), 453**
 - Default Programs (Control Panel), 823**
 - Set Associations option, 824
 - Set Program Access and Computer Defaults option, 825
 - default search engine, setting in Internet Explorer 7, 99**
 - default Start menu, resetting, 900**
 - default user profiles, configuring, 116-117**
 - defragmenting hard disks, 943-946, 1012**

deja.com Web-based news server, 510

deleting

- cookies, 950
- email (Windows Mail 7), 483
- files
 - Disk Cleanup utility, 949-952
 - from printer queues, 224
 - Internet Explorer, 952
 - media files, 281-282
 - troubleshooting, 1203
- gadgets, 245-246
- history (IE), 31
- print jobs from queues, 224
- user accounts, 90

demand-dialing, ICS (Internet Connection Sharing), 703, 714-717

Denial of Service (DoS) attacks, 1209

DEP (Data Execution Prevention), 1142-1144

Department of Justice (DOJ), Microsoft consent decree, 426

Derfler, Frank, 630

desktop, 15-16

- Active Desktop items, 234-235
- arranging, 182
- backgrounds, changing, 96
- drag-and-drop support, 181
- icons, 127-129, 908
- images
 - block-like appearance, 928
 - GUI display properties, 906-908
- immediate access, Windows key+M, 159
- Meeting Space, sharing views in, 1319-1320
- Recycle Bin, manually emptying, 128
- Screen Rotation control (Mobility Center), 1282
- See user interface (UI), 125
- shortcuts
 - alias designation, 132
 - troubleshooting, 157-158
- Sidebar, hiding, 241-242

desktop environment (Aero)

- adding items to, 131
- efficient use of, 159-161
- files, saving, 132-134
- icons, 127-130
- Recycle Bin, 125-128
- shortcuts, creating, 131-132
- Sidebar gadgets, 126
- taskbar, 125
- visual color palette, 124-125

Details pane, 167, 183

device drivers. See drivers

Device Manager, 793-794, 825-827

- Add Hardware applet (Control Panel) versus, 1016
- devices, removing, 1018
- network diagnostic functions, 793
- resource conflicts, resolving, 835-837

Device Settings tab, Printer Property sheets, 216

DHCP (Dynamic Host Configuration Protocol), 413-416

DHCP servers, TCP/IP automatic configuration, 647-648

diagnostic tools, 22, 804. See also testing; troubleshooting

- AutoPlay, 820-821
- Control Panel, 804
 - Administrative Tools, 872-873
 - Category view, 805-820
 - default display, 805
 - Default Programs, 823-825
 - Keyboard applet, 847
 - Mouse applet, 847-850
 - Performance Information and Tools applet, 850-856
 - Regional and Language Options, 867
 - shortcuts, 895-896
 - System Properties, 868-872
 - Task Scheduler, 881

Visual Effects dialog, 890-891

Windows SideShow, 872

Date and Time applet, 821-823

Device Manager, 793-794, 825-827

Ease of Access Center, 837

- display settings, 840-841
- keyboard settings, 838-839

mouse settings, 841

sound settings, 839-840

Event Viewer, 792-793

game controllers, 846

ipconfig, 795-796

iSCSI Initiator, 891

MMC (Microsoft Management Console), 874-875

Event Viewer, 876-879

Services folder, 880

Shared Folder node, 879-881

Network and Sharing Center, 789-790

Network Diagnostics, 790-791

network problems

Device Manager, 793

Event Viewer, 792-793

Network window, 788

Network window, 788-789

ping, 797-798

Power Options icon, 860-861

Program and Features, 861-867

Reliability and Performance Monitor

Data Collector Sets, 859

Performance Monitor, 858

Reliability Monitor, 858-859

Resource Overview, 857

System Configuration utility, 881-883

System Diagnostics Report, 860

System Information, 889-890

System Tools folder, 892-895

- Task Manager, 883
 - Applications tab, 884-885
 - Networking tab, 888-889
 - Performance tab, 887-888
 - Processes tab, 885-886
 - Services tab, 887
 - Users tab, 889
- troubleshooting, 895
- Windows Firewall, 791-792
- dial-up networks, 605**
 - callbacks, 1291
 - configuring, 1288-1289
 - connections
 - callbacks, 1291
 - configuring, 409-411
 - current locations, checking, 1293
 - disconnect status, 1296
 - email connections, 1295
 - enabling (RAS), 1297, 1300
 - ending, 1296
 - establishing, 1293-1294
 - hanging up, 418-419
 - Internet connections, 530
 - ISP dialing process, 420-421
 - launching, 416-418
 - managing from multiple locations, 1292-1293
 - modifying accounts, 409-410
 - monitoring, 1296
 - multiple locations, managing, 1292-1293
 - software configuration problems, 535-536
 - terminating, 416-418
 - troubleshooting, 420-421, 530, 535-536
 - without roaming profiles, 1293-1294
 - gateway settings, 1292
 - incoming access, 1297-1300
 - properties tables, 1290-1291
 - RAS (Remote Access Services), 1286-1287
 - enabling dial-up connections, 1297, 1300
 - connection properties, 1289-1292
 - required setup information, 1288-1289
 - remote networks, 1295-1296
 - routing issues, 1296-1297
- Dial-Up Properties dialog**
 - Advanced tab, 1292
 - General tab, 1290
 - Networking tab, 1291
- dialing rules (Windows x and Scan), 315**
- digital cameras**
 - Windows Photo Gallery, 292-295
 - zooming, 348
- digital certificates, software safety (Internet Explorer 7), 446**
- digital IDs, 490-491**
- Digital Locker, 143-144**
- digital media receivers, 277**
- digital signatures, 447, 490**
- Digital Video Magazine website, 345**
- directories**
 - browsing, IIS, 557, 572-573
 - folders versus, 129
 - structure of, 105-108
 - junction points and symbolic links, 109-110
 - virtualization, 110-111
 - virtual directories, IIS, 574
- Directory Services Restore Mode boot option, 973**
- Disable Automatic Restart on System Failure boot option, 973**
- Disable Driver Signature Enforcement boot option, 974**
- disabling**
 - copy protection (music), 262
 - hidden file extensions, 97-98
 - logon at startup, 93-94
 - updates via Windows Update, 990
 - Windows features, 1001
 - Windows Firewall, 1231
- disaster planning, network security, 1222-1224**
- Disk Cleanup utility**
 - cleanup analysis reports, 950
 - file groupings, 950-951
 - frequency of execution, 952
 - function of, 949
- Disk Defragmenter, 943-946**
- disk drives**
 - PATA, 1012
 - SATA, 1012
 - shared drives, 753
 - speed upgrades, 1012
- disk files, printing to, 227-228**
- disk management**
 - Disk Management utility, 935
 - drive letters, assigning, 936
 - dynamic disk management, 939
 - extending hard disks, 940
 - joining hard disks, 937-939
 - joining volumes together, 936-937
 - shrinking hard drives, 940
 - spanned volume creation, 940-941
 - striped volume creation, 941-942
 - WSH (Windows Script Host), 1117-1118
- disk storage requirements, Windows Media Center, 374-376, 388-389**
- disparate networks, bridging, 658-659**
- display fonts, 843**
- display properties, modifying, 902-905**
- Display Settings dialog, 915-919**
- display settings. See screen settings**
- displaying**
 - effective permissions, 1196
 - file extensions, 97-98
 - gadgets, 245
 - hidden files, 925
 - images
 - screen savers, 356-357
 - slideshows, 355-356
 - via Windows Explorer, 354-355
 - installed software, 999-1000
 - PDF documents from websites, 468-469
 - print documents, 225-226
 - protected web pages, 1241

- Registry, Regedit utility, 1050-1051
- television programs on
 - HDTV or projector, 380
- updates via Windows Update, 990
- Windows Boot Manager, 972
- workgroup networks, absent computers, 660-661
- distributed applications (networks)**
 - COM+, 604
 - Peer-to-Peer networking service, 604
 - remote procedure calls (RPCs), 603
- Distributed COM (DCOM), 604**
- distribution lists, Address Book (Windows Mail 7), 493-494**
- DivX files**
 - DVDs, burning to, 390
 - television programs, converting to, 388-389
- DLL (Dynamic Link Libraries), 1003-1004**
- DMA channels, 832-833**
- DNS (Domain Name Service)**
 - Active Directory, 608
 - cost, 561
 - dynamic, 561, 710
 - IIS configuration guidelines, 560-562
 - Inverse, 710
 - ISP, free services, 709
- DNSSuffix dialog, 415**
- documents**
 - disaster planning, 1223
 - faxing, 228
 - filename extension associations, 222
 - Meeting Space, sharing in, 1321
 - opening, application launches, 146
 - printing
 - configuring, 225-226
 - offline, 222
 - Print Manger, 221
 - print queue properties, 225
 - to disk files, 227-228
 - troubleshooting, 228-230
 - via Internet (IPP), 762-763
 - XPS (XML Paper Specification), 226-227
- Documents folder, 149-150, 165, 923-924**
- domain networks, 740**
 - joining, 653-655
 - policy-based restrictions, 741
 - printers, setting permissions, 773
 - roaming user profiles, 741
 - searching, 748
 - Windows 200x Server, 748-749
 - wireless networks, 1266
 - workgroup networks versus, 742
- domains**
 - Inverse DNS, 710
 - registering, 561, 709
- DOS applications**
 - editing advanced settings, 1100-1102
 - printing from, 222-223
- DoS attacks (Denial of Service), 1209**
- DOSKEY, MS-DOS environment optimization issues, 1099**
- dosx, 1099**
- double-click mode**
 - mouse, 135, 927
 - stylus pen, 1362
- downloading**
 - critical updates, 95
 - gadgets, 239-241
 - MP3 files, 441-442
 - multimedia, Internet Explorer 7, 435-448
 - program files, deleting (Disk Cleanup utility), 950
 - Service Pack (SP2), setup files, 995
 - software
 - add-on crash detection (IE7), 448
 - add-on management (IE7), 447-448
 - digital certificates (IE7), 446
 - Download.com, 442
 - drive-by (IE7), 445-446
 - installing, 999
 - invalid signatures (IE7), 447
 - mirror sites, 442
 - progress bar, 443
 - Tucows.com, 442
 - version updates, 443
 - virus scanning, 443
 - ZIP compression, 443
 - Tweak UI tool, 919
 - websites, offline browsing (IE7), 432
- drag-and-drop support, 137-138, 181**
- DreamScene wallpaper (Ultimate Extras), 997**
- Drive Preparation tool (BitLocker), 1183-1184**
- drive-by software downloads (Internet Explorer 7), 445-447**
- drivers, 204**
 - Command Prompt environment, 1074
 - devices
 - removing (Device Manager), 1018
 - updating (System applet), 992-993
 - inbox drivers, 204
 - installing, VHDMount (Virtual Server 2005) operation, 1168-1170
 - kernel-mode drivers, 1018
 - missing, troubleshooting, 1017
 - printers, 204
 - network printer installations, 772-773
 - Property sheets, 214-216
 - searching (Microsoft Downloads Site), 213
 - updates
 - manual updates, 992-993
 - Windows Update settings, 1007-1008
 - user-mode drivers, 1018
 - WIA drivers, opening, 321

drives

- autotyping, 1033
- drive letters
 - hard disk assignments (Disk Management), 936
 - non-existent letters, mapping shared folders, 757
 - unused letters, mapping shared folders, 754-757
- maintenance, 997
- mapping (net use command), 779-780

DSL (Digital Subscriber Line), 395-396

- connections
 - high-speed connections, 411-416
 - Remote Desktop, 1334
- modems, troubleshooting Internet connections, 536-537
- services, LAN, 710, 736

dual-boot systems, 38**DualView feature, 1019****dubbing television programs to VHS via Windows Media Center, 384****DV camcorders, 325, 346****DVD Maker, 357-360****DVDs**

- audio CDs/DVDs
 - bit rate, 268
 - file formats, 268
 - playing, 265-266
 - ripping, 266-268
- backups on, 1155-1156
- burning
 - DivX files, 390
 - Windows Media Center, 383-384
- decoders, 260-261
- installing software from, 998, 1006
- keyboard shortcuts in Windows Media Center, 386
- playing
 - in Windows Media Center, 378-379
 - troubleshooting, 260-261
- recording to, 357-360

DVR (Digital Video Recorders), 373. See also television**dynamic disks**

- aggregation, joining hard disks, 937-939
- upgrades, 939

dynamic DNS services, 561, 710**dynamic IP addressing, 413-415****dynamic storage models, hard disks, 931-933****dynamic web pages, 557****DynDNS Updater, 1337****E****e.bat, 1113****Ease of Access Center, 837**

- display settings, 840-841
- keyboard settings, 838-839
- mouse settings, 841
- sound settings, 839-840

Ease of Access view (Category view), 813**Easy Microsoft Windows Vista, 126****eavesdropping, 1208****editing**

- BCD (Boot Configuration Databases), 957
- boot menu entries, 74-76
- command-lines, Command Prompt environment, 1074
- DOS application settings, 1100-1102
- metadata, 15
- movies
 - alternatives to Windows Movie Maker, 345
 - nonlinear editing, 325
 - Windows Movie Maker, 334-345
- recorded television programs via Windows Movie Maker, 384
- Registry keys via Regedit utility, 1053-1055

remote computers, Registry entries (Regedit utility), 1056-1057

user computers, Registry entries (Regedit utility), 1057-1058

Effects dialog, GUI settings, 906**EFS (Encrypted File Systems), 1173-1174**

- BitLocker versus, 1189-1190
- CIPHER command-line tool, 1175-1176, 1202
- encrypted files
 - restoring, 1181
 - securing, 1178-1181
- folder recommendations for, 1178
- rules for usage, 1177-1178
- troubleshooting, 1202

elevated privileges, 85-86, 567**email**

- accounts (Windows Mail 7)
 - configuring, 478-480
 - modifying, 495-496
 - multiple management for single users, 498-500
- addressing (Windows Mail 7), 483-484
- backups
 - account information, 508
 - maintaining (Windows Mail 7), 505
 - web-based email, 1154
- Blackberry devices, receiving on, 255-256
- checking while traveling (Windows Mail 7), 503-505
- client programs, 472, 475
- creating (Windows Mail 7), 483-484
- default programs, 476
- deleting (Windows Mail 7), 483
- filtering (Windows Mail 7), 501-502
- formatting, 490
 - complaints from recipients (Windows Mail 7), 520
- HTML 489

- messages, 523-524
- plain text, 489
- hoaxes, 1208
- links, troubleshooting (IE7), 467
- Microsoft E-Mail Updates Service, 1226
- newsgroups
 - availability after synchronization, 522
 - marking news indicators, 522
 - size options (Windows Mail 7), 526
- organizing (Windows Mail 7), 500-506
- out of office auto replies (Windows Mail 7), 503
- PDA (Personal Data Assistants), receiving on, 255-256
- phishing
 - AOHell*, 1244
 - avoiding, 1252
 - example, 1244-1248
 - Gold Lock, 1249
 - identity management software, 1251-1252
 - overview, 1244
 - Phishing Filter, 1246, 1248
 - two-factor authentication, 1250-1251
 - two-way authentication, 1250
- photos, sharing via Windows Photo Gallery, 299
- PPC (Pocket PCs), receiving on, 255-256
- reading (Windows Mail 7), 481-483
- receipt requests (Windows Mail 7), 488
- remote networks, retrieval issues, 1295-1296
- replying to (Windows Mail 7), 482
- scans, emailing, 319
- secure email (Windows Mail 7), 490-491
- sending (Windows Mail 7), 484
- signature setup (Windows Mail 7), 487
- spam
 - avoiding, 1256-1257
 - filtering, 1254
 - international filtering, 1255-1256
 - overview, 1252-1253
 - Phishing Filter, 1256
 - protecting email addresses from, 1253-1254
 - reporting, 1257-1258
 - Safe Senders list, 1254-1255
- transfer protocols (Windows Mail 7)
 - HTTP, 481
 - IMAP, 480
 - POP3, 480
 - SMTP, 480
- VPN/dial-up network connections, 1295
- web-based email, 1154
- WSH (Windows Script Host), 1118-1119
- EMF (Enhanced Metafile Format), 204**
- Empty Recycle Bin command (File menu), 128**
- emulation, WOW64 emulation layer, 33**
- Enable Advanced Printing Features option (Printer Properties dialog), 217**
- Enable Bidirectional Support option (Printer Properties dialog), 217**
- Enable Boot Logging startup option, 973**
- Enable Low-Resolution Video boot option, 973**
- encryption**
 - BitLocker, 1182
 - Drive Preparation tool, 1183-1184
 - EFS (Encrypted File Systems) versus, 1189-1190
 - encryption process, 1186-1189
 - manual hard disk preparation, 1184-1185
 - preparation for use, 1185
 - recovery process, 1187
 - system requirements, 1183
 - TPM (Trusted Platform Module), 1185-1186
 - troubleshooting, 1202
- EFS (Encrypted File Systems), 1173-1174**
 - CIPHER command-line tool, 1175-1176, 1202
 - folder recommendations for, 1178
 - restoring encrypted files, 1181
 - rules for usage, 1177-1178
 - securing encrypted files, 1178-1181
 - troubleshooting, 1202
- file encryption certificates, managing, 93
- Internet Explorer 7, 456
- IPP (Internet Printing Protocol), 762
- keys, 1174
- numeric encryption, 1174
- offline folders (mobile computing), 1306
- wireless networks, 636
- enterprise management, LAN monitoring, 799**
- enterprise networks, 592**
- Environment Variables option (System Properties), 871-872**
- erasing via stylus pen, 1363**
- Error Checking tool, 946-947**
- error messages**
 - File Sharing Is Turned Off, 789
 - Network Discovery Is Turned Off, 788
 - printers, troubleshooting, 228
- error reports, deleting (Disk Cleanup utility), 951**
- Ethernet**
 - 10BASE-T, 618-620
 - 10BASE5, 593
 - 100BASE-T, 618-620
 - 1000Mbps, 620

- bridging via phone line networks (HomePNA), 658-659
- cabling installation guidelines, 628-629
- IEEE 802.11 (Wireless Ethernet), 596-597
- Eudora mail client, 475**
- EULA (End-User License Agreements), 1028-1031**
- Event Viewer, 792, 976**
 - log entry sources, 793
 - Microsoft Management Console (MMC), 876-879
 - network diagnostic functions, 792-793
- events, associating sounds with, 911-913
- exchanging files via FTP Server, 577-579
- executable Windows programs list, 1380-1399
- execute attribute (CGI scripts), 558
- existing documents, opening, 146
- existing email accounts, modifying (Windows Mail 7), 495-496
- existing network adapters, checking configurations, 626-627
- existing wireless networks, joining, 641-642
- exploits, 1208
- Explorers, 17-18**
- exposure (photos), adjusting in Windows Photo Gallery, 296
- extended desktops, 917
- extended partitions, 930-931
- extended view mode (laptop computers), 1020
- extending hard disks, Disk Management utility, 940
- exterior TVs, troubleshooting, 926
- External Display control (Mobility Center), 1282**
- External Display tile (Mobility Center), 1314**
- external routers**
 - purchasing advice, 709
 - ICS (Internet Connection Sharing) versus, 708

F

- F11 key, Full Screen view (Internet Explorer), 160**
- F5 refresh key, 161**
- Family Safety Settings, 32**
- Fast Ethernet, 594**
- FAT file system**
 - backups and, 1154
 - volumes, property sheets, 934
- FAT16 partitions, converting to NTFS (Convert utility), 947-948**
- FAT32 partitions, converting to NTFS (Convert utility), 947-948**
- fault tolerances, 932
- Favorites Center, 30**
- Fax Options dialog, 312**
- fax service (Windows Fax and Scan)**
 - configuring, 309
 - cover pages, 310-311
 - fax receiving options, 310
 - fax settings, 312
 - sender information, 310
 - dialing rules, 315
 - faxing slides and transparencies, 322
 - hardware and software requirements, 308-309
 - monitoring outgoing faxes, 315
 - overview, 308-309
 - previewing faxes, 314
 - printing received faxes, 316
 - receiving faxes, 316
 - sending faxes, 313-315
 - troubleshooting, 230, 320-322
- faxes**
 - fax service (Windows Fax and Scan)
 - configuring, 309-312
 - dialing rules, 315
 - faxing slides and transparencies, 322
 - hardware and software requirements, 308-309
 - monitoring outgoing faxes, 315
 - overview, 308-309
 - previewing faxes, 314
 - printing received faxes, 316
 - receiving faxes, 316
 - sending faxes, 313-315
 - troubleshooting, 230, 320-322
 - sending, 228
 - Windows Fax and Scan, 25
 - WinFax Pro software, 228
- feeds (news), 511**
- FEK (File Encryption Keys), 1174**
- File and Printer Sharing for Microsoft Networks, 602, 642-644**
- File menu commands, 128**
- File Sharing Is Turned Off (error message), 789**
- file systems**
 - IFS
 - installation requirements, 560
 - security, 583
 - navigating, 177-179
 - meta-information views, 182-184
 - multiple item selection, 181-182
 - right-clicking, 180
- files**
 - Active Directory networks, searching in, 750-752
 - Administrator accounts, troubleshooting, 1203
 - AFP (AppleTalk File Protocol), 683
 - attachments (Windows Mail 7)
 - opening, 485
 - sending, 485
 - virus prevention, 486
 - backups
 - Complete PC backups, 1152-1153
 - creating, 1153-1155
 - file format of, 1156
 - multi-disc backups, 1202
 - restoring, 1157-1160
 - compression, 948-949
 - Computer files, 149
 - custom startup files, MS-DOS, 1102
 - data forks (Macintosh), 683

- Disk Cleanup utility, 949
 - cleanup analysis reports, 950
 - frequency of execution, 952
 - groupings, 950-951
 - encryption, 1173-1174
 - certificate management, 93
 - CIPHER command-line tool, 1175-1176, 1202
 - EFS (Encrypted File System) versus BitLocker, 1189-1190
 - folder recommendation, 1178
 - restoring encrypted files, 1181
 - rules for usage, 1177-1178
 - securing encrypted files, 1178-1181
 - troubleshooting, 1202
 - extensions, viewing, 97-98
 - formats
 - audio CDs/DVDs, 268
 - backups, 1156
 - Windows Movie Maker, 326
 - FTPServer, exchanging via, 577-579
 - hidden files, 149, 925
 - icons, 127
 - In Use by Another User error message, 781
 - Internet Explorer, cache cleanup, 952
 - managing
 - third-party management tools, 953-954
 - Windows Explorer, 135-136
 - MIME mappings, 573-574, 585
 - multiple files, selecting, 181-182
 - My Computer, Tiles view, 149
 - naming
 - completion, Command Prompt environment, 1075
 - extensions, document associations, 222
 - Internetworking compatibility, 684
 - Macintosh compatibility, 684
 - quoting with spaces, Command Prompt environment, 1072-1073
 - resetting associations (media) in Windows Media Player, 438
 - networks, naming in, 743-744
 - NTBackup files, restoring, 1203
 - Offline Folders
 - automatic caching options, 1307
 - identifying for use, 1302
 - inability to mark availability, 1309
 - marking for sharing, 1307
 - missing, 1309
 - synchronizing, 1305-1306
 - typical uses, 1307
 - use guidelines, 1304
 - ownership, taking, 1197
 - packing, 198-200
 - permissions
 - IIS installation, 567
 - NTFS, 1192-1199
 - previous versions, restoring, 1190-1191
 - Print Manager, dragging to, 221-222
 - print-to-disk option, 227-228
 - printer queues, deleting from, 224
 - program files, moving, 129
 - resource forks (Macintosh), 683
 - restoring
 - encrypted files, 1181
 - NTBackup files, 1203
 - previous versions, 1190-1191
 - Recycle Bin, 127-128
 - saving to desktop, 132-134
 - searches
 - changing settings, 190-193
 - deep searching, 190
 - grouping and stacking, 197-198
 - intermediate searching, 189-190
 - Search pane, 195-196
 - troubleshooting, 201-202
 - while typing, 192-195
 - security, 200-201
 - sharing, 742, 799
 - enabling, 790
 - file names, 743
 - Internetworking with Windows XP and 2000, 667-669
 - Network and Sharing Center, 744-746
 - passwords versus passwordless file sharing, 1217-1218
 - UNC (Universal Naming Convention), 743-744
 - wireless networks, 1266-1267
 - troubleshooting, 799, 956
 - types of
 - associations, 1038
 - Windows Media Player support, 260
 - views, customizing, 185-187
 - Windows Photo Gallery, importing to, 290
 - zipped files, 198-202, 953
- filters**
- email (Windows Mail 7), 501-502
 - junk mail, 19
 - movies, adding to, 337-338
 - Phishing Filter, 1246-1248
 - photos in Windows Photo Gallery, 289
 - routers, 726-727
 - spam, 1254-1256
 - video effects, adding to clips (Windows Movie Maker), 337
- Find Printers dialog, 760**

firewalls, 19, 1142

- configuring, 1212-1213
- enabling, 1225-1226
- function of, 1212-1213
- personal firewalls, 1216
- website availability, incoming port settings, 581
- Windows Firewall, 792
 - checking for inadvertent blockages, 791
 - configuring, 791, 1213, 1230-1231
 - default settings, 1234
 - disabling, 1231
 - enabling, 1225-1226, 1231
 - exceptions, 12131-1234
 - function of, 1213
 - improvements to, 606
 - monitoring suspicious activities, 1221
 - network connection settings, 1234
 - opening for IIS, 566
 - peer-to-peer network configurations, 652-653
 - Windows Firewall with Advanced Security, 1235
 - configuring, 1236-1238
 - rules creation, 1238-1240

FireWire (IEEE-1394)

- crossover cable connections, 632-633
- laptop cards, 345
- Maxtor external 1394
 - FireWire hard drive, 345
- printer ports, 208-209
- Windows Movie Maker, 326

FIRST (Forum of Incident Response and Security Teams), 1224**fixed IP addresses**

- assigning, 727
- configuring, 415-416

fixes

- Critical Updates, 1422
- hotfixes, 1422
- Optional Updates, 1422

flat cuts (transitions), 336-337**Flip-3D, 13, 921, 1375****flowcharts (Internet connection diagnostic tool), 532-534****fly-open menus, 134, 924****Folder list (Windows Mail 7), 477****Folder Options dialog (Control Panel), 187-189****Folder view, 137-138****folders**

- Active Directory networks,
 - searching in, 750-752
- Administrator accounts,
 - deletion problems with, 1203
- compressing, 948-949
- current folders, Command Prompt environment, 1073-1074
- directories
 - comparisons, 129
 - junction points and symbolic links, 109-110
 - virtualization, 110-111
- Documents folder, 149-150, 165
- email folders, creating (Windows Mail 7), 500-506
- encryption, 1173, 1178
- Folder view
 - creating in, 138
 - deleting, 138
 - dragging/dropping, 137-138
- hidden files, viewing, 925
- monitored folders, changing in Windows Media Player, 271
- moving, 138
- multiple items, selecting, 181-182
- Music, 149-150
- offline folders, 767
 - automatic caching options, 1307
 - identifying for use, 1302
 - marking for sharing, 1307
 - synchronizing, 1305
 - synchronizing manually, 1306
 - typical uses, 1307
 - use guidelines, 1304
- organization of, 767
- permissions, inheritance of, 1194

Pictures, 149-150

Printers folder, 205-206, 219

searching, 189

- changing settings, 190-193
- deep searching, 190
- grouping and stacking, 197-198
- intermediate searching, 189-190
- Search pane, 195-196
- troubleshooting, 201-202
- while typing, 192-195
- security, 200-201
- sharing, 747-748, 768-771, 790
- shortcuts, creating, 767
- views, customizing, 185-189
- virtual folders, 1004-1005
- Windows Explorer, viewing in, 137-138

Folders Options Control Panel applet, 169-170**Font Substitution option (Printer Properties dialog), 217****fonts, 841**

- information sources, 843-844
- installing, 845
- monospaced fonts, 843
- ornamental fonts, 843
- points, 842
- previewing, 920
- proportionally spaced fonts, 843
- size, changing, 96
- small screen fonts, troubleshooting, 928
- strokes, 842
- substitutions, 844
- types, 842

Fonts applet (Control Panel), 920**for statements, batch file programming, 1111-1112****forced shutdowns, 158****foreground windows, closing via Alt+F4, 159****forgotten passwords**

- password reset disks, 91-92
- recovering, 112-115

- forks, 683
 - form factors, Windows Media Center PCs, 365-366
 - Form-to-Tray Assignment option (Printer Properties dialog), 217
 - formatting email messages (Windows Mail 7), 489-490, 523-524
 - forwarding
 - non-standard services to DMZ hosts (routers), 734-735
 - TCP Services, routers, 733-734
 - UDP Services, routers, 733-734
 - FPNOHOSTCHECK, 1086
 - fragmented hard disks, repairing, 944
 - frame relays, LAN Internet connections versus DSL service, 711
 - fraud. *See* phishing attacks
 - FreeBSD, 36
 - Freed, Les, 630
 - FreeNews.net website, free news servers listings, 511
 - FreeScan, 1242
 - frequent backups, security disaster planning, 1222
 - FTP folders, visibility of, 1240
 - FTP Server
 - disconnecting from, 579
 - file exchanges, 577-579
 - IIS components, installing, 565
 - secure settings, establishing, 575-576
 - website content, publishing, 576-577
 - Fusion, 1004, system stability, 1003
 - FxsSrvCp\$ folder, Windows 200x Server shared status, 749
- G**
- gadgets, 16-17, 234-235
 - adding, 238-239, 244
 - configuring, 242-243
 - downloading, 239-241
 - moving, 243-244
 - opacity, changing, 245
 - removing, 245-246
 - troubleshooting, 254
 - viewing, 245
 - Game Explorer, 32
 - games
 - controllers, 846
 - Windows Hold'Em feature (Ultimate Extras), 997
 - garbage character displays (MS-DOS applications), troubleshooting, 1127
 - garbled text (printers), troubleshooting, 229
 - Gates, Bill, 1357
 - gateway settings, dial-up/VPN networks, 1292
 - General tab
 - Folders Options Control Panel, 169
 - Printer Property sheets, 215
 - gestures, 1363-1364
 - GIF file format, IE7 support, 436
 - Gigabit Ethernet (1000Mbps), 594, 620
 - glass, 13. *See also* Aero interface
 - GNU, 37
 - GoBack, 24
 - Gold Lock, 1249
 - Google.com, 464
 - newsgroups, message size options, 526
 - Registry keys, name searches, 1062
 - Web-based news server, 510
 - Gore, Albert, 424
 - goto statements, batch file programming, 1110
 - GoToMyPC, 1331
 - grassroots networking, 661
 - Group Policies, 607
 - groups
 - access privileges, Active Directory, 608
 - containers, Active Directory, 607-608
 - searches, 197-198
 - user groups
 - assigning permissions to, 1198-1199
 - restricted objects permissions, 1203
 - Guest user accounts, 91
 - GUI (Graphical User Interfaces), 898
 - Administrative Tools folder, easy access method, 922-923
 - Aero desktop environment
 - default appearance, 125-126
 - icons, 127-130
 - putting items on, 131
 - Recycle Bin, 125, 127-128
 - shortcuts, 131-132
 - Sidebar gadgets, 126
 - taskbar, 125
 - visual color palette, 124-125
 - Caps Lock key, altering location on keyboard, 924
 - Ctrl key, altering location on keyboard, 924
 - display properties
 - color depth settings, 915-919
 - color schemes, 903-905
 - custom color creation, 905-906
 - desktop icons, 908
 - effects, 906
 - modifying, 902-911, 914-919
 - resolution settings, 915-919
 - screen savers, 909-911
 - themes, 914-915
 - wallpaper images, 906-908
 - Documents folder, changing location of, 923-924
 - efficient use of, 159-161

- exterior TV, troubleshooting, 926
- logins, 123-124
- modifying, 898
- Monitor and Adapter Properties dialog, 918-919
- new features, 12
 - Aero interface, 13-14
 - desktop, 15-16
 - Explorers, 17-18
 - metadata editing, 15
 - searches, 14-15
 - Sidebar, 16-17
 - speech recognition, 18
 - Start button (orb), 14
 - Start menu, 15
- Recycle Bin, configuring, 925
- Start menu
 - customizing, 898-900
 - fly-open menus, 924
 - resetting defaults, 900
- taskbar, 138-142, 900-901
- three-button mouse, auto-scrolling, 924
- tips
 - Flip 3D limitations, 921
 - font previews, 920
 - OS version determination, 920-921
 - visual effects tools, 922
- Tweak UI tool, 919
- Windows Explorer, file management, 135-138
- Windows Media Center, 370-371
- Windows Media Player
 - browsing and searching, 263-265
 - menu tabs, 261-263

Guide (Windows Media Center)

- setting up, 372-374
- television programs
 - recording, 373
 - selecting, 372

H

- hackers, 1207-1208, 1132
- handedness, specifying, 1371
- handouts, sharing in Meeting Space, 1321

handwriting

- converting to text, 1370
- Handwriting Personalization window, 1364-1365
- Handwriting Recognition tool, 1364-1366, 1371
- importance of, 1356

hanging up, dial-up connections, 418-419


hard disks

- boot problems, troubleshooting, 957
- defragmenting, 943-946, 1012
- drive letters, assigning (Disk Management), 936
- dynamic storage model, 931-933
- encryption via BitLocker, 1182
 - EFS (Encrypted File System) versus, 1189-1190
- encryption process, 1186-1189
- preparation for, 1185
- recovery process, 1187
- system requirements, 1183
- TPM (Trusted Platform Module), 1185-1186
- troubleshooting, 1202
- error handling, 946-947
- extending (Disk Management utility), 940
- joining, 936-939
- management tools
 - Disk Management utility, 935-939
 - FAT volumes, 934
 - NTFS volumes, 934
 - Removable Storage utility, 942-943
 - third-party, 953-954
- manual preparation via BitLocker, 1184-1185
- media files, playing, 266
- organizational strategies, NTFS alternatives, 933-934
- primary IDE channel, 1011
- RAID, 930, 942, 1181-1182
- SCSI, 1011

- secondary IDE channel, 1011
- Serial ATA, 1011
- shrinking (Disk Management utility), 940
- spanned volumes, creating (Disk Management utility), 940-941
- striped volumes, creating (Disk Management utility), 941-942
- traditional storage model, 930-931
- troubleshooting
 - file structure problems, 956
 - hardware problems, 956
 - overview, 954
 - strategies, 955-956
 - unrecognized hard disks, 956-957
- Ultra DMA EIDE, 1011
- upgrading, 1011

hardware

- conflicts, 827-837, 1035
- Device Manager, network diagnostic functions, 793
- devices
 - drivers, 1017
 - resource reassignment, 1019
- drivers
 - device drivers, 1017
 - updating, 992-993
- hard disks
 - defragmenting, 1012
 - troubleshooting, 956
- HCL (Hardware Compatibility Lists), 1034-1035
- installing, 1013-1016
- Internet connections
 - installing, 401-406
 - selection criteria, 400
 - troubleshooting, 539-543
- monitors, multiple installations, 1019-1023, 1032-1033
- noisy systems, quieting, 958-959
- non-working hardware, troubleshooting, 1034
- optimization tips, 1035

- printers
 - configuring, 206-207
 - installing, 206-213
 - missing drivers, 212-213
 - troubleshooting, 210-212
 - removing, 1018
 - small network requirements, 613
 - upgrading, 48-49
 - BIOS settings, 1010-1011
 - EULA, 1028-1031
 - hard disks, 1011
 - page file sizes, 1010
 - RAM, 1010-1013
 - SPP, 1028-1030
 - Windows Vista Upgrade Advisor, 43-48
 - UPS (Uninterruptible Power Supplies)
 - configuring, 1027-1028
 - installing, 1023-1026
 - intelligent units, 1024
 - selecting, 1025-1026
 - testing configuration, 1028
 - Windows Media Center
 - configurations, 368-370
 - requirements, 364-365
 - Windows Movie Maker
 - requirements, 326
 - wireless networks, 623
 - Hardware and Sound category (Category view), 809**
 - Hardware Compatibility Lists (HCL), 619, 1034-1035**
 - HDTV, Windows Media Center**
 - requirements for, 364-365
 - television programs, viewing, 380
 - Help and Support Center (Start menu), 125, 139, 153-154, 981-982**
 - Help System, 122, 153-154**
 - Hibernate mode, 21, 104, 155-156**
 - Hibernation files, deleting (Disk Cleanup utility), 951**
 - hiding**
 - devices, conflicts, 1035
 - files
 - Computer, 149
 - disabling extensions, 97-98
 - viewing, 925
 - icons, Notification Area, 901
 - Sidebar, 241-242
 - updates
 - troubleshooting, 1006
 - via Windows Update, 989
 - Welcome Center, 81
 - High Performance profile (power usage), 1284**
 - high-speed Internet connections, 411-416**
 - hiring professionals, network installations, 615**
 - histories**
 - IE, deleting, 31
 - Tablet PC/pen computing, 1356-1358
 - Windows, 6-8
 - Windows Media Center, 363
 - hives (Registry), 1039-1040, 1059**
 - HKEY_CLASSES_ROOT key (Registry), 1040-1042**
 - HKEY_CURRENT_CONFIG key (Registry), 1039-1041**
 - HKEY_CURRENT_USER key (Registry), 1041-1043**
 - HKEY_LOCAL_MACHINE key (Registry), 1039-1042**
 - HKEY_USERS key (Registry), 1039-1042**
 - Hold Mismatched Documents option (Printer Properties dialog), 217**
 - home directories**
 - IIS, copying web pages to, 567-569
 - web servers, default documents, 556-557, 572
 - websites
 - setting file permissions, 567
 - URL filename translation, 556
 - home networks, sharing media files, 277-278**
 - home pages (IE7), 556-557, 572**
 - default pages, 98-99, 426
 - multiple home pages, 30
 - home theater systems. See Windows Media Center**
 - home wireless networks, 1267-1269**
 - HOMEDRIVE, 1086**
 - HOMEPATH, 1086**
 - HomePlug (HomePlug Powerline Alliance), 597, 622, 628**
 - HomePNA (Home Phoneline Networking Association), 597, 620-621, 628**
 - host file (networking), 699-700**
 - HotBot.com search engine, 464**
 - hotfixes, 994, 1422**
 - hotpatching, 988**
 - HP-compatible printers, property settings, 216-218**
 - HTML (Hypertext Markup Language), 425**
 - editors, 451-453
 - Windows Mail 7
 - formatting email, 489
 - scripting protection, 498
 - HTTP (Hypertext Transfer Protocol), 429, 481**
 - hubs, 593**
 - cascade ports, 634-635
 - cost ranges, 613
 - N-way autosensing, 624
 - network wiring, multiple connections, 634-635
 - switching, 624
 - troubleshooting, 659-660
 - hue (color), 905-906**
- 
- I/O**
 - cancellation, 22
 - port assignments, 833
 - ICMP (Internet Control Message Protocol), 1240**

icons

- desktop, 127-130
- files, 127
- GUI display properties, setting, 908
- hidden icons, Notification Area, 901
- shortcuts, 129-130
 - settings alteration, 129

Icons view (Computer), 149**ICS (Internet Connection Sharing), 606, 625**

- broadband DSL, 703
- broadband schemes, 718-719
- demand dialing, 703
- dial-up schemes, 714-717
- external routers versus, 708
- function of, 1215-1216
- outside network access, enabling, 728-732
- Remote Desktop connections, 1337-1339
- residential gateways, 706-709

IDE channels, hard disk assignment, 1011**IDE drives, switching to SATA drives, 934****identification (network computers), setting, 651-652****identity management software, 1251-1252****identity theft, 1209****IE7 (Internet Explorer 7). See Internet Explorer 7 (IE7)****IEEE 801.11g (Wireless G), 596****IEEE 802.11 Wireless Ethernet, 596-597****IEEE 802.11g Wireless networking, 622-623****IEEE-1394 (FireWire)**

- crossover cable connections, 632-633
- laptop cards, 345
- Maxtor external 1394 FireWire hard drive, 345
- printer ports, 208-209
- Windows Movie Maker, 326

if statements, batch file programming, 1108-1110**IIS (Internet Information Services), 692. See also web servers**

- components of, 565, 575-579
- connection limits, Windows Vista, 558-559
- default document searches, 556-557, 572
- directories
 - browsing, 557, 572-573
 - home directories, 556, 567-569
 - virtual directories, 574
- DNS (Domain Name Service), 560-562
- domain registration, 561
- installing
 - Administrator user logins, 562
 - components listing, 562-564
 - connection requirements, 560
 - critical security fixes, 565
 - decision guidelines, 559-560
 - file system requirements, 560
 - home directory file permissions, 567
 - opening firewall, 566
 - security warnings, 555
 - welcome page, 566
- licensing restrictions, Windows Vista, 558-559
- localhost, 566
- log files, 580
- memory requirements, 560
- MIME mappings, 573-574
- program execution options, 557-558
- scripting, enabling, 573
- security
 - automatic updates, 582
 - bug fixes, 582
 - file systems, 583
 - tools, 555
- simple websites, configuring, 567-569
- SMTP server settings, 574-575
- supported features, 554

- troubleshooting
 - bad links, 585
 - server access, 584
 - site connections, 584
 - unresponsive servers, 584
 - wrong web page versions, 585

websites

- availability settings, 580-581
- home directories, 556
- managing (IIS Manager), 569-575
- simple configurations, 567-569
- virtual directories, 556
- Windows File Types Registry, 557

images

- backups
 - Complete PC backups, 1160-1164
 - VHDMount (Virtual Server 2005), 1164-1170
- burning to
 - CDs, 300-303
 - DVDs, 357-360
- GIF file format, 436
- Internet Explorer 7
 - copyright restrictions, 436
 - mouse over action, 436
 - resizing, 436
 - supported file formats, 435-436
- JPEG file format, 435-436
- Pictures folder, 288
- PNG file format, 436
- scanning, 317
- screen savers setting as, 356-357
- slideshows, viewing as, 355-356
- Windows Explorer
 - burning images to CD, 300-301
 - viewing via, 354-355
- Windows Movie Maker, 324
 - importing into, 332
 - movie production, 325
 - video clip capturing, 327-333

- video clip conversion, 333-334
- video formats, 325-326
- Windows Photo Gallery, 288
 - adding to, 289, 294-295
 - adjusting color in, 296
 - adjusting exposure in, 296
 - archiving via, 305-306
 - burning images to CD, 301-303
 - cropping in, 296
 - filtering in, 289
 - fixing in, 295-296
 - importing into, 290
 - organizing in, 290
 - previewing in, 290
 - printing from, 297-298, 303-304
 - red eye fixes, 296
 - sharing via, 299
- IMAP (Internet Message Access Protocol), 480**
- impersonation, 1208**
- importing**
 - audio tracks into Windows Movie Maker, 332
 - digital still images into Windows Movie Maker, 332
 - photos to Windows Photo Gallery, 290
- In Use by Another User error messages, 781**
- in-place upgrades, Windows Vista, 62-65**
- in-wall wiring, network installations, 631-632**
- Inbox (Windows Mail 7), 476-477**
- inbox drivers, 204**
- incident plans (disaster plan development), 1223-1224**
- incoming calls, VPN connections, 1300-1301**
- incoming messages (Windows Mail 7)**
 - deleting, 483
 - reading, 481-483
 - replying to, 482
- incoming network connections**
 - by modem, 605
 - Remote Assistance, 606
 - Remote Desktop, 605
 - Terminal Services, 605
 - Windows Meeting Space, 606
- indexing, 190-193**
- Indexing Options dialog, 855**
- “information superhighway,” notion of, 424**
- infrared printer ports, 208-209**
- infrastructure wireless networks versus ad hoc networks, 1262**
- inheritance (permissions), 1194**
- inkjet printers, 231**
- Input Panel (Tablet PCs), 1361-1363**
- installing**
 - antivirus software, 1136-1138
 - backup software for networks, 656-658
 - fonts, 845
 - hardware
 - Internet connection hardware, 401-406
 - methods of, 1013-1016
 - IIS (Internet Information Services)
 - components listing, 562-564
 - connection requirements, 560
 - critical security fixes, 565
 - decision on use guidelines, 559-560
 - file system requirements, 560
 - home directory file permissions, 567
 - memory requirements, 560
 - opening firewall, 566
 - security warnings, 555
 - welcome page, 566
 - internal ISDN adapters, 404
 - Internet connection hardware, 401-406
- LLDP responder, Windows XP, 667
- modems, 401-406
- multiple monitors, 1023
 - secondary display adapters, 1021-1022
 - troubleshooting areas, 1020-1021
 - video card support, 1019
- network adapters, 405-406, 625-627
- networks
 - hiring professionals, 615
 - optional components, 691-694
 - SNMP, 694-696
 - wireless networks, 635-642
 - wiring for, 628-635
 - new applications, 145, 998
 - printers, 206-207
 - COM (serial) ports, 210-212
 - extra drivers, 772-773
 - local printers, 208-213
 - network printers, 759-761, 766
 - non-listed printers, 212-213
 - programs from networks, 145
 - service packs, 994-996, 1424-1427
 - software, 998
 - antivirus software, 1136-1138
 - backup software, 656-658
 - from CD/DVD, 998
 - from Internet download, 999
 - side-by-side installs, 1003-1004
 - troubleshooting, 1006-1007
 - viewing installed software, 999-1000
- SUA (Subsystem for UNIX-Based Applications), 681-682
- UPS (Uninterruptible Power Supplies), 1023-1026

- VHDMount (Virtual Server 2005), 1165, 1168-1170
- Windows Vista
 - clean installations, 49-62
 - in-place upgrades, 62-65
 - multiboot installations, 66-70
 - network installations, 50
 - troubleshooting on notebook computers, 55
 - virtual machine process, 73
- wireless networks, 635, 641-642
 - SSID (Service Set Identifier), 636
 - Wireless Network Setup Wizard, 638-641
- wiring for networks, 628-630
 - crossover cables, 632-633
 - in-wall, 631-632
 - multiple hub connections, 634-635
 - patch cables, 630
 - punchdown blocks, 632
- Intel Corporation website, Speed Check tool, 549**
- intelligent UPS units, 1024**
- IntelliMirror, 132, 609**
- interactive website scripts, 585-586**
- intermediate searching, 189-190**
- internal ISDN adapters, installing, 404**
- international spam filtering, 1255-1256**
- Internet, 609**
 - connections
 - analog modems, 394-395
 - cable modems, 396
 - changing default connections, 418-419
 - checking connection status, 418
 - configuring, 94, 406-416
 - dial-up connections, 409-410, 416-421
 - DSL (Digital Subscriber Lines), 395-396, 1334
 - high-speed connections, 411-416
 - installing equipment, 401-406
 - IP addresses, 1335-1336
 - ISDN (Integrated Services Digital Networks), 395
 - internal ISDN adapter installations, 404
 - international travel tips, 421-422
 - mobile connections, 421-422
 - multiple connections, 419-420
 - Remote Desktop connections, 1337-1339
 - satellite service, 397
 - selecting equipment, 400
 - troubleshooting, 420-421
 - wireless access, 397
 - equipment, choosing, 400
 - ICS (Internet Connection Sharing), 606, 625
 - broadband DSL, 703
 - broadband schemes, 718-719
 - demand dialing, 703
 - dial-up schemes, 714-717
 - external routers versus, 708
 - function of, 1215-1216
 - outside network access, enabling, 728-732
 - Remote Desktop connections, 1337-1339
 - residential gateways, 706-709
 - Internet 7, 452
 - ISP (Internet Service Providers), choosing, 397-401
 - LAN (Local Area Networks), 394, 702
 - cable services, 705, 710-713
 - configuring, 713-721, 724-727
 - connection sharing routers, 703
 - DSL services, 710
 - frame relays, 711
 - ICS (Internet Connection Sharing), 703, 714-719
 - IP address management, 705-709
 - ISDN service, 713
 - overview, 703-705
 - Remote Desktop, 709-710
 - routed services, 705
 - shared DSL/cable services, 736
 - shared modems, 736
 - speed requirements, 702-703
 - VPN, 709-710
 - wireless, 711-712
 - modems
 - installing, 401-406
 - shared modems, 736
 - wireless modems, 406
 - multiple connections, managing, 419-420
 - network adapters, installing, 405-406
 - port forwarding, Remote Desktop, 1338-1341, 1351-1352
 - satellite dishes, 397
 - troubleshooting
 - dial-up connections, 530, 535-536
 - flowchart diagnosis, 532-534
 - ipconfig command, 529, 544-545
 - LAN problems, 537-539
 - methodology, 531-532
 - modem problems, 536-537
 - network cabling diagrams, 530
 - Network Connections settings, 530
 - network hardware problems, 539-543
 - pathping command, 547-548
 - ping command, 545-546, 551-552
 - route command, 548-549
 - software configuration problems, 535-539
 - TCP/IP utilities, 543
 - TraceRoute.org reverse tracer tools, 550
 - tracert command, 529, 546-547
 - tSpeed Check, 549
 - Whois Database, 550
 - Windows Calendar, 452

- Windows Mail, 452
- Windows Media Center, 452
- Windows Media Player, 452
- Windows Photo Gallery, 452
- Internet Connection Sharing (ICS).** *See* **ICS (Internet Connection Sharing)**
- Internet Control Message Protocol (ICMP), 1240**
- Internet Explorer 7 (IE7)**
 - Address bar, 428
 - audio
 - MP3 files, 441-442
 - streaming (Windows Media Player), 439-440
 - Web elements, 436-438
 - bad downloads, protecting against, 443-445
 - cache cleanup, 952
 - certificate verification, 446
 - Content Controls, 459-461
 - default home pages, 426
 - default mail settings, configuring, 451-453
 - default news settings, configuring, 451-453
 - default search engine, setting, 99
 - email links
 - troubleshooting, 467
 - F11 key (full screen view), 160, 426-427
 - GIF image format, 436
 - graphics, 436
 - hacker targeting, 464
 - home page, setting, 98-99
 - HTML editor programs, 451-453
 - JPEG image format, 435-436
 - launching, 426
 - Links bar, 427-428
 - Live Search box, 425
 - malware protection, 1147
 - Microsoft Live ID, 465-466
 - multimedia, downloading, 435-448
 - new features, 30-31, 425
 - Parental Controls, 459
 - PNG image format, 436
 - preference settings, 448
 - advanced, 450, 456
 - AutoComplete, 450, 461
 - background image printing, 462
 - certificates, 450
 - connections, 450
 - content advisor, 450
 - default mail, 453
 - fonts, 450
 - general, 449
 - HTML editor, 453
 - multimedia, 450
 - newsgroups, 453
 - objectionable content controls, 459-461
 - pop-ups/unders, 457-459
 - privacy, 450
 - programs, 450
 - search options, 462
 - security, 450, 453-455
 - site history, 449
 - temporary file cache, 449
 - safer alternatives, 464
 - Search Companion, 462-464
 - security
 - add-on downloads, 447-448
 - digital certificates, 446
 - drive-by software downloads, 445-446
 - site navigation, 428
 - tabbed pages, browsing, 430-433
 - URL, 428-430
 - video
 - AVI format, 438
 - fps (frames-per second), 437
 - MPEG format, 438
 - playback (Windows Media Player), 438-439
 - streaming (Windows Media Player), 439-440
 - Web elements, 436-438
 - WMV format, 438
 - web feeds, automatic searches for, 425
 - web pages
 - crashes caused by, 467
 - graphic errors, 467
 - load errors, 467
 - offline browsing, 432
 - page not available errors, 467
 - saving for later viewing, 434-435
 - websites, software
 - download progress, 443
 - downloading, 442
 - mirror sites, 442
 - version updates, 443
 - virus scanning, 443
 - ZIP compression, 443
 - working offline, 433-434
- Internet Information Services (IIS).** *See* **IIS (Internet Information Services)**
- Internet Options dialog**
 - Advanced tab, 450, 456
 - Certificates tab, 450
 - Connections tab, 450
 - Content tab, 450
 - General tab, 449-450
 - Multimedia tab, 450
 - Privacy tab, 450, 454-455
 - Programs tab, 450, 453
 - Security tab, 450, 453-455
- Internet Printing Protocol.** *See* **IPP (Internet Printing Protocol)**
- Internet Properties dialog, 419**
- Internet Protocol (TCP/IP)**
 - adding, 642-644
 - IPSEC, 599, 1238
 - IPv6, 599
 - Properties page, 645-646
- Internet-based storage services, 754**
- Networking, 664**
 - Linux, 672-673
 - Berkeley “r” commands, 680-682
 - CIFS protocol, 673
 - NFS, 678-679
 - Samba, 673-676
 - SMB protocol, 673
 - Telnet, 676-678
 - Mac OS X, 685-687
 - applications, lost file associations, 698
 - applications, running concurrently, 698
 - compatibility planning, 683-684

- file data forks, 683
- file name compatibility, 684
- file resource forks, 683
- shared printers on
 - Windows, 690
 - Windows printers on Mac, 688
- Telnet sessions, Telnet Host Service (UNIX), 677-678
- UNIX, 672-673
 - Berkeley “r” commands, 680-682
 - CIFS (Common Internet File System) protocol, 673
 - mangled line feed/carriage returns, 697
 - NFS, 678-679
 - Samba, 673-676
 - SMB (Server Message Block) protocol, 673
 - SUA (Subsystem for UNIX-Based Applications), 680
 - Telnet sessions, 676-678
 - Windows 95, 670-672
 - Windows 98, 667, 670-672
 - Windows Me, 667, 670-672
 - Windows XP, 665
 - installing LLDP responder for Windows XP, 667
 - password protection and simple file sharing, 667-669
 - TCP/IP as default network protocol, 666-667
 - Windows 2000, 665
 - installing LLDP responder for Windows XP, 667
 - password protection and simple file sharing, 667-669
 - TCP/IP as default network protocol, 666-667
- InterNIC website, Whois Database, 550**
- interrupt handlers, 829**
- intranet tools list, 609**
- Inverse DNS, 710**

IP addresses

- computer assignments, 644-646
- DDNS (Dynamic Domain Name Services), Remote Desktop connections, 1335-1336
- fixed IP addresses
 - assigning, 727
 - configuring, 415-416
- Inverse DNS, 710
- LAN (Local Area Networks), Internet connection management, 705-709
- NAT (Network Address Translation), 706-709
- static IP addresses, 709, 1335
- IPCS folder, Windows 200x Server shared status, 749**
- ipconfig command**
 - DNS settings, 544-545
 - function of, 544-545
 - host name, 795
 - Internet connections, troubleshooting, 529
 - IP address ranges, 795
 - LAN (Local Area Network) connections, testing, 537-539
 - network configuration checks, 795-796
 - network masks, 796
- ipconfig/all command, 538-539**
- ipMonitor, LAN monitoring tool, 800**
- iPods versus PlaysForSure compatible devices, 272**
- IPP (Internet Printing Protocol), 762-764**
- IPSEC (Internet Protocol Security), 599, 1238**
- IPSentry, 800**
- IPv6 (Internet Protocol version 6), 28, 599**
- IR blasters, 382**
- IRQ (Interrupt Requests), 828-829**
- IR receivers, 382**
- IR signals, broadcasting television programs to TV, 381-383**

ISA buses, 827

iSCSI Initiator, 891

ISDN (Integrated Services

Digital Network), 395

- internal adapter installations, 404
- LAN Internet connections, 713

ISP (Internet Service Providers)

- accounts, configuring, 407-409
- choosing, 397-400
- dial-up process, troubleshooting, 420-421
- DNS service, 561
- domains, registering, 709
- frequent traveler options, 399-400
- mobile connections, 421-422
- news servers, 511
- selection criteria, 398-399
- services, ordering, 401
- static IP addresses, 709
- troubleshooting, 420-421

J

JavaScript controls, 445

joining

- domain networks via
 - Windows 200x Server, 653-655
- existing wireless networks, 641-642
- hard disks via
 - dynamic disk aggregation, 937-939
 - mount points, 937-939
- networks, 612
- volumes (Disk Management), 936-937
- wireless networks in
 - home offices, 1267-1269
 - corporate environments, 1267
 - public hot spots, 1270
 - small offices, 1267-1269
 - someone else's office, 1269-1270
- JPEG file format, IE7 support, 435-436**

JScript, 1114
 junction points, 109-110
 Junk E-Mail options, 1254
 junk mail filtering, 19

K

Keep Printed Documents option (Printer Properties dialog), 217
Kerberos authentication, 610
kernel-mode drivers, 1018
Keyboard applet (Control Panel), 847
keyboards
 accessibility settings, 838-839
 Caps Lock key, altering location of, 924
 Ctrl key, altering location of, 924
 shortcuts
 DVDs in Windows Media Center, 386
 listing, Help and Support Center, 125
 Remote Desktop, 1347-1349
keys, 1039
 encryption, 1174
 Registry
 Access Control attributes, 1059-1060
 adding, 1054
 copy name function, 1055
 deleting, 1055
 editing, 1053-1055
 meanings (Google), 1062
 renaming, 1055
Keyspan 1394 FireWire laptop card, 345
keystrokes
 Alt+F4 (foreground window closure), 159
 Ctrl+F6 (open window cycling), 161
 Windows key+M (immediate desktop), 159

L

L2TP (Layer 2 Tunneling Protocol), 599
LAN (Local Area Networks), 394
 Alternate Configuration features, 1308
 backup software, installing, 656-658
 bridging, 658-659
 computer setup, security guidelines, 1225
 ICS (Internet Connection Sharing), 606, 703
 broadband schemes, 718-719
 dial-up schemes, 714-717
 Internet connections, 702
 cable services, 705, 710-713, 724-726, 736
 configuring, 713-721, 724-727
 connection sharing routers, 703
 DSL services, 710, 736
 frame relays, 711
 IP address management, 705-709
 ISDN service, 713
 overview, 703, 705
 Remote Desktop, 709-710
 routed services, 705, 726-727
 shared modems, 736
 shared routers, 719-721
 speed requirements, 702-703
 testing, 537-539
 VPN, 709-710
 wireless, 711-712
 IPP-capable printers, 763-764
 multiple connections, 1308
 network monitoring, 799-800
 peer-to-peer, 612
 physical media
 HomePlug powerline, 597
 HomePNA phoneline, 597
 IEEE 802.11 (Wireless Ethernet), 596-597
 NIC (Network Interface Cards), 593
 UTP (Unshielded Twisted-Pair) cabling, 594-595
 wired Ethernet networks, 593-594
 testing via ipconfig command, 537-539
laptop computers
 DualView feature, 1019
 extended view mode, 1020
 mirror mode, 1020
Last Known Good Configuration boot option, 973
Layer 2 Tunneling Protocol (L2TP), 599
Layout flyout menu, 184
LCD monitors
 blurry images, 927
 native resolution settings, 917
 refresh rates, 918
legacy program installations, troubleshooting, 1007
licenses (IIS), Windows Vista licensing restrictions, 558-559
Link Level Discovery Protocol. See LLDP (Link Level Discovery Protocol)
links, troubleshooting (IIS), 585
Links bar (IE7), 427-428
LinkSys Powerline EtherFast 10/100 Bridge, 622
Linux, 37
 internetworking, 672-673
 Berkeley "r" commands, 680-682
 NFS, 678-679
 Samba, 673-676
 SMB/CIFS protocol, 673
 Telnet, 676-678
 Windows application compatibility, 37-38
 Windows Vista versus, 38-39
List view (Computer), 149

listing installed services via sc command, 1083-1084
 listservs. *See* mailing lists
 Live File System option (Windows Photo Gallery), 302
 Live ID, 465-466
 Live Search box (Internet Explorer 7), 425
 live thumbnails, 13
 LLDP (Link Level Discovery Protocol), 603, 665, 799
 LLDP responder, Windows XP installations, 667
 LMHash, 671
 local account policies, configuring, 1228-1229
 local area connections, checking network configurations, 797
 local area network (LAN). *See* LAN (Local Area Networks)
 local audit policies, configuring, 1229-1230
 local password policies, configuring, 1228-1229
 Local Policy Editor, 1227-1230
 local printers
 connections
 FireWire, 208-209
 infrared port, 208-209
 parallel port, 208-209
 serial port, 208-212
 installing, 208-213
 missing drivers, searching, 212-213
 troubleshooting, 210-212
 local security policies, configuring, 1227-1228
 local user groups. *See* user groups
 LOCALAPPDATA, 1086
 localhost (IIS), 566
 LocalTalk, 598
 locking down. *See* securing
 log files (IIS), 580
 logins, 79
 at startup, disabling, 93-94
 logoff process, 105, 139, 155
 Remote Desktop, 1349
 Security Center, balloon notifications, 123
 Welcome screen, 123-124

LOGONSERVER, 1086
 Longhorn (codename), 4
 LPR and LPD Print Services, 602
 LPR-based printers (UNIX), configuring on Windows networks, 764-765
 luminosity (color), 905-906

M

Mac OS X

applications
 lost file associations, 698
 running concurrently, 698
 Internetworking with, 685-687
 AFP (AppleTalk File Protocol), 683
 compatibility plans, 683-684
 files, data forks, 683
 file name compatibility, 684
 files, resource forks, 683
 Mac shared printers on Windows, 690
 Windows printers, 688
 printers
 AppleTalk protocol on Windows networks, 765
 Mac shared printers on Windows, 690
 Windows printers, 688
 macros, benefits of, 161
 mailing lists, 510
 Malicious Software Removal Tool (MSRT), 19
 malware
 avoiding, 1147-1148
 defending against, 1134
 antivirus software, 1136-1138
 automatic updates, 1142
 DEP (Data Execution Prevention), 1142-1144
 firewalls, 1142
 Internet Explorer 7 malware protection, 443-445, 1147
 service hardening, 1146

UAC (User Account Control), 1144-1145
 Windows Defender, 1138-1139, 1141
 Windows Security Center, 1135-1136
 rootkits, 1134
 spyware, 1133-1134
 viruses, 1132-1133
 worms, 1133
 Man In The Middle (MITM), 1264
 Management Console plugins list, 1401-1402
 management tools
 AutoPlay, 820-821
 Control panel, 804
 Administrative Tools, 872-873
 Category view, 805-820
 default display, 805
 Default Programs, 823-825
 Keyboard applet, 847
 Mouse applet, 847-850
 Performance Information and Tools applet, 850-856
 Regional and Language Options, 867
 shortcuts, 895-896
 System Properties, 868-872
 Task Scheduler, 881
 Visual Effects dialog, 890-891
 Windows SideShow, 872
 Date and Time applet, 821-823
 Device Manager, 825-827
 Ease of Access Center, 837-841
 game controllers, 846
 iSCSI Initiator, 891
 MMC (Microsoft Management Console), 874-875, 881
 Event Viewer, 876-879
 Services folder, 880
 Shared Folder node, 879
 Power Options icon, 860-861
 Programs and Features, 861-867

- Reliability and Performance Monitor
 - Data Collector Sets, 859
 - Performance Monitor, 858
 - Reliability Monitor, 858-859
 - Resource Overview, 857
- System Configuration utility, 881-883
- System Diagnostics Report, 860
- System Information, 889-890
- System Tools folder, 892-895
- Task Manager, 883-884
 - Applications tab, 884-885
 - Networking tab, 888-889
 - Performance tab, 887-888
 - Processes tab, 885-886
 - Services tab, 887
 - Users tab, 889
- troubleshooting, 895
- manual updates**
 - driver updates, 992-993
 - Windows Update, 989
- mapping**
 - network drives, net use command, 779-780
 - shared folders
 - to unused drive letters, 754-757
 - without drive letters, 757
- Marketplace (Windows), 143-144**
- master file table (MFT), NTFS pre-allocation to volumes, 944-945**
- Mastered option (Windows Photo Gallery), 302**
- Maxtor external 1394 FireWire hard drive, 345**
- media**
 - pools, managing devices (Removable Storage utility), 942-943
 - sharing, 790
 - updating information, 282-284
- Media Center (Windows). See Windows Media Center**
- Media Center Extender, 370**
- media files**
 - album art, updating, 284-285
 - deleting, 281-282
 - media information, updating, 282-284
 - organizing, 281-282
 - sharing via home networking, 277-278
- Media Player (Windows). See Windows Media Player**
- Meeting Space, 1315**
 - configuring, 1316-1318
 - leaving meetings
 - joining existing, 1319
 - leaving, 1321
 - sharing
 - desktop views, 1319-1320
 - documents, 1321
- Melissa virus, 1133**
- memory**
 - addresses, 834-835
 - DDR SDRAM modules (RAM), 1012
 - IIS installation requirements, 560
 - MS-DOS program settings, editing, 1100-1102
 - RAM
 - adding, 1012-1013
 - DDR SDRAM modules, 1012
 - maximum requirements, 1013
 - SDRAM modules, 1012
 - upgrading, 1010
 - SDRAM modules (RAM), 1012
 - troubleshooting, Windows Memory Diagnostic tool, 968-970
- memory-mapped I/O, 833**
- metadata, 167**
 - editing, 15
 - viewing, 182-184
- MGI VideoWave, 345**
- Michelangelo virus, 1132**
- Microsoft Backup Utility, 616**
- Microsoft Client for Microsoft Networks, 642-644**
- Microsoft Downloads Site, 213**
- Microsoft HighMAT technology, 342**
- Microsoft Live ID, obtaining, 465-466**
- Microsoft Management Console (MMC), 874-875**
 - Event Viewer, 876-879
 - Shared Folder node, 879-881
- Microsoft Message Queue, 692**
- Microsoft SpyNet, 1141**
- Microsoft Technet website**
 - IIS security tools, 555
 - Service Pack 2 (SP2) downloads, 995
- Microsoft Technical Support, OS desupport dates, 122**
- Microsoft Typography website, 843**
- Microsoft Virtual PC, 74**
- MIME (Multipurpose Internet Mail Extensions), 557**
 - mappings, 573-574, 585
 - message format (Windows Mail 7), 489
 - web browser interpretation, 557
- MIRA, 1357**
- mirror mode, laptop computers, 1020**
- mirroring**
 - RAID, 1011
 - volumes, dynamic storage model (hard disks), 932
 - websites, downloading software from, 442
- missing**
 - files (offline folders), troubleshooting, 1309
 - hard disks, troubleshooting, 956-957
 - print jobs, troubleshooting, 229
 - printers (Active Directory networks), troubleshooting, 781

MIT (Massachusetts Institute of Technology), Kerberos authentication, 610

MITM (Man In The Middle), 1264

mixed networking, updating older systems, 624

MMC (Microsoft Management Console), 874-875

Event Viewer, 876-879

Services folder, 880

Shared Folder node, 879-881

mobile computing, 1280. See also Remote Desktop

battery optimization, 1283-1286

Internet connections, 421-422

LAN (Local Area Networks), multiple connections, 1308

Mobility Center, 1281-1282

offline folders, 1301

encrypting, 1306

identifying, 1302

making shared folders available to others, 1307

managing, 1306

synchronizing, 1305

troubleshooting, 1309

using offline, 1303-1304

presentations, 1312-1315, 1328

RAS dial-up networking, 1286

callbacks, 1291

configuring, 1288-1289

email connections, 1295

ending connections, 1296

establishing connections, 1293-1294

gateway settings, 1292

incoming access, 1297-1300

managing connections

from multiple locations, 1292-1293

monitoring connections, 1296

properties tables, 1290-1291

remote network resources, 1295

routing issues, 1296-1297

VPN (Virtual Private Networks), 1287

callbacks, 1291

configuring, 1288-1289

email connections, 1295

ending connections, 1296

establishing connections, 1293-1294

gateway settings, 1292

incoming access, 1297-1300

manually adding router information, 1309-1310

monitoring connections, 1296

properties tables, 1290-1291

remote network resources, 1295

routing issues, 1296-1297

troubleshooting, 1308

Mobile PC view (Category view), 811

Mobility Center, 21

Battery Status icon, 1281

Brightness control, 1281

External Display control, 1282

External Display tile, 1314

Power Options, 1283

Presentation Settings, 1282, 1312-1313

Screen Rotation control, 1282

Sync Center, 1282

Volume control, 1281

Wireless Network icon, 1281

modems

analog modems, 394-395

cable connections, troubleshooting software configuration problems, 536-537

cable modems, 396

connectivity problems, diagnosing, 542-543

dial-up process, troubleshooting, 420-421

DSL connections, troubleshooting software configuration problems, 536-537

hardware problems, diagnosing, 540-542

installing, 401-406

types, changing, 404

wireless modems, 397, 406

Monitor and Adapter Properties dialog, 918-919

monitoring
LAN (Local Area Networks), 799-800

networks

remote connections, 1296

suspicious activities, 1221

outgoing faxes, 315

Windows Media Player folders, 271

monitors

blank monitors, troubleshooting, 927

CRT versus LCD, 917

LCD

blurry images, 927

CRT versus, 917

refresh rates, 918

Monitor and Adapter Properties dialog, 918-919

multiple monitors

configuring, 917-918

installing, 1019-1023

troubleshooting, 1032-1033

refresh rates, potential damage from, 918

resolution, changing, 96

screen flicker, reducing, 925

Screen Rotation control (Mobility Center), 1282

screen savers list, 1402

slow motion, troubleshooting, 927

window edges off screen, troubleshooting, 926

monospaced fonts, 843

Mosaic Web browser, 424

motherboards

adapter cards, movement of, 1014

RAID features, 1011

RAM compatibility, 1013

mount points, joining hard disks, 937-939**mouse**

- accessibility settings, 841
- double-click mode, 135
- Double-Click option, 927
- right-click context menus, 132
- single-click mode, 135
- Single-Click option, 927
- three-button mouse, auto-scrolling, 924

Mouse applet (Control Panel), 847-850**mouse over action, online graphics (IE7), 436****movies**

- assembling video clips into, 333-334
- AutoMovie, creating via, 343-344
- color correction, 347
- converting, 333-334
- editing
 - nonlinear editing, 325
 - Windows Movie Maker, 334-344
- effects, adding, 337
- filters, adding to, 337-338
- improving, 346-348
- Microsoft HighMAT technology (Windows Movie Maker), 342
- narration, adding, 338-339
- producing in Windows Movie Maker, 325-326
- saving in Windows Movie Maker, 340-343
- sharing over Web, 342
- titles, adding to, 339-340
- transitions, adding between clips, 336-337
- troubleshooting, 345-346
- Windows Movie Maker
 - alternatives to, 345
 - assembling video clips, 333-334
 - audio tracks, 332
 - AutoMovie, 343-344
 - clip capture process, 325-332
 - compatible file formats, 325-326

- converting clips to movies, 333-334
- digital still images, 332
- DV camcorder compatibility, 346
- editing in, 325, 334-345, 384
- effects, 337
- hardware requirements, 326
- launching, 327, 331
- Microsoft HighMAT technology, 342
- narration, 338-339
- organizing video clips, 332-333
- playback controls, 334
- producing movies in, 325-326
- saving in, 340-343
- titles, 339-340
- transitions, 336-337
- troubleshooting, 345-346
- Windows Photo Gallery
 - adding to, 289
 - organizing, 290

moving

- gadgets on Sidebar, 243-244
- program files, 129

MP3 files, 441, 526**MP3 players. See portable media devices****MP3 Pro format, 442****MP3.com website, 441****MPEG video file format, 438****MS-DOS, 1094**

- ANSI.SYS, 1099
- applications
 - advanced memory settings, 1100-1102
 - garbage characters displays, 1127
 - list of, 1399-1400
 - too many files open error message, 1127
- AUTOEXEC.NT, 1096-1099
- CONFIG.NT, 1096-1098
- custom startup files, 1102
- DOSKEY, 1099
- editing advanced settings for DOS applications, 1100-1102

environment

- ANSI.SYS issues, 1099
- AUTOEXEC.NT customization, 1096-1099
- CONFIG.NT customization, 1096-1099
- configuring for optimal program performance, 1092-1102
- DOSKEY issues, 1099
- history of Windows, 6
- ntvdm, 1095
- troubleshooting, 1127
- unavailable commands, 1102-1103

MSMQ (Microsoft Message Queuing), 692**MSN Media, streaming audio, 440****msodexnt, 1099****MSRT (Malicious Software Removal Tool), 19****multi-disc backups, finding files in, 1202****multi-part attachments, newsgroups, 524-525****multibooting Windows Vista, 66-70, 73****multithreaded video cards, 1023****multimedia. See movies; music; video****multimonitor video cards, 1019-1021****multiple email accounts (Windows Mail 7), checking, 520****multiple computers, enabling access on (Remote Desktop), 1342, 1346-1353****multiple home pages, 30****multiple hubs, connecting, 634-635****multiple Internet connections, managing, 419-420****multiple items, selecting, 181-182****multiple monitors**

- configuring, 917-918
- DualView feature, 1019
- installing, 1019-1023
- primary displays, inability to select, 1032-1033

- troubleshooting, 1032-1033
- video cards, 1019-1021
- multiple network adapters, installing, 627
- Multipurpose Internet Mail Extensions (MIME). *See* MIME (Multipurpose Internet Mail Extensions)
- music. *See also* audio
- CDs/DVDs
 - CDs, burning to, 262
 - copy protection, disabling, 262
 - online stores, 269-270
 - Windows Media Center, playing in, 378
 - photos, adding to, 377
 - playlists, creating, 279-280
 - Windows Media Center, playing in, 378
- Music folder, 149-150
- My Computer
 - applications, launching, 146
 - files, Icons view, 149
- My Documents (Start menu), 139
- My Network Places (Start menu), 139
- My Pictures (Start menu), 139

N

- N-way autosensing hubs, 624
- name servers. *See* DNS service
- naming
 - computers, 56
 - networks
 - files, 743-744
 - printers, 743-744, 759
- NAP (Network Access Protection), 20
- narration, adding to
 - movies/video, 338-339
- NAT (Network Address Translation), 1300-1301
 - devices, configuring, 1212, 1215-1216
 - Internet Connection Sharing (NCS), 706-709
 - VPN connections, enabling incoming calls, 1300-1301
- National Center for Supercomputing Applications (NCSA), 424
- National Public Radio (NPR), streaming audio, 439
- navigation tools (IE7), 428
- Neptune (codename), 8
- net command, 779
- .NET initiative, 604
- net use command
 - command-line management tools, 1081-1083
 - drives, mapping, 779-780
- NETLOGON folder, Windows 200x Server shared status, 748
- Netmeeting. *See* Windows Meeting Space
- netsh command, 1278
- network adapters
 - 10/100BASE-T costs, 613
 - configuration checks, 626-627
 - high-speed connections, configuring, 411-416
 - installing, 405-406, 625-627
 - types of, 619
 - wireless networks, 623
- Network Address Translation (NAT). *See* NAT (Network Address Translation)
- Network and Internet category (Category view), 808
- Network and Sharing Center, 744-746, 789-790
- network cards, 613
- Network Connection Properties dialog, Networking tab, 1292
- Network Diagnostics Framework dialog, 28, 790-791, 1275-1276
- Network Discovery, 655, 790
- Network Discovery Is Turned Off error message, 788
- Network Explorer, 766
- Network File Sharing (NFS), 602
- Network File Systems (NFS). *See* NFS (Network File Systems)
- Network Interface Cards (NIC). *See* NIC (Network Interface Cards)
- Network Location Awareness API, 28
- Network News Transport Protocol (NNTP), 509
- Network Setup Wizard
 - ICS (Internet Connection Sharing)
 - broadband scheme configuration, 718-719
 - dial-up scheme configuration, 714-717
 - peer-to-peer networks, configuring, 642, 644-646
- Network Troubleshooting Wizard, 790
- Network window, 789
 - network diagnostic functions, 788
 - troubleshooting, 660
- Networking tab (Task Manager), 888-889
- networks, 27-28, 665
 - Active Directory, 741
 - access privileges, 608
 - advanced search tool, 752
 - computer searches, 750
 - containers, 607-608
 - distributed databases, 607
 - DNS (Domain Name System) integration, 608
 - file searches, 750-752
 - folder searches, 750-752
 - Group Policies, 607
 - printer searches, 750
- adapters
 - 10/100BASE-T costs, 613
 - existing, checking, 626-627
 - high-speed connections, 411-416
 - installing, 405-406, 625-627
 - types of, 619
 - wireless networks, 623
- Alternate Configuration features, 1308
- appliances, 664

- backups
 - shares, 1153
 - software installations, 656-658
 - system media selections, 616
- beneficial uses of, 590
- bindings, 690-691
- bridging, 658-659
- cables
 - 10/100BASE-T Ethernet, 618-620
 - 1000Mbps Ethernet, 620
 - cabling diagrams, 530
 - Home Plug, 622
 - HomePNA, 620-621
 - IEEE 802.11g Wireless, 622-623
 - physical challenges, 659
 - selection criteria, 617-618
 - updating older systems, 624
 - UTP (Unshielded Twisted-Pair), 594-595
 - wired Ethernet networks, 593-594
- command-line utilities, administration of, 782-783
- common uses of, 590
- computer identification, configuring, 651-652
- computer usage, managing via Computer Management utility, 778
- connections, troubleshooting, 530
- configuring manually, 642-644
- corporate networks, features of, 39-40
- costs of, 591
- creating, overview of, 612
- defenses, testing, 1219-1221
- dial-up networking
 - connecting without roaming profile, 1293-1294
 - connection monitoring, 1296
 - current connection location options, 1293
 - disconnection, 1296
 - effective use of resources, 1295
 - email retrieval issues, 1295-1296
 - multiple connection locations, 1292-1293
 - RAS (Remote Access Services), 1286-1292
- distributed applications interaction
 - COM+, 604
 - Peer-to-Peer networking service, 604
 - RPC (Remote Procedure Calls), 603
- domain networks, 740
 - searching, 748
 - workgroups versus, 742
- drives, mapping via net use command, 779-780
- files
 - In Use by Another User error message, 781
 - names, 743-744
 - sharing, 602
- folders
 - offline, 767
 - sharing, 747-748
 - shortcuts, 767
- grassroots networking, 661
- home networks, sharing media files, 277-278
- HomePlug wiring guidelines, 628
- HomePNA wiring guidelines, 628
- host files, 699-700
- hubs, 593
 - cost ranges, 613
 - N-way autosensing, 624
 - non-working lights, 659-660
 - switching, 624
- ICS (Internet Connection Sharing), 606, 625
- installing, 50, 615
- IntelliMirror, 609
- Internet services and tools, 609
- Internet-based file storage services, 754
- intranet services and tools, 609
- joining, 612
- LAN (Local Area Networks)
 - monitoring, 799-800
 - multiple connections, 1308
 - location of, 649-650
 - managing, WSH (Windows Script Host), 1117-1118
 - missing computers, troubleshooting, 696
 - monitoring tools, 800
 - .NET software framework, 604
 - Network and Sharing Center, 744
 - finding network shares, 745-746
 - network map, 745
 - sharing and discovery area, 745
 - status area, 745
 - Network Explorer, 766
 - offline folders, 1301
 - automatic caching options, 1307
 - file/folder identification for use, 1302
 - file/folder manual synchronization, 1306
 - file/folder synchronization, 1305
 - file/folder use guidelines, 1304
 - inability to mark for availability, 1309
 - marking shared folders, 1307
 - typical uses, 1307
 - older networks, organization of, 767
 - online documentation, 767
 - optional components, installing, 691-694
 - outside access, enabling, 728-735
 - passwords, managing, 93
 - peer-to-peer networks, 642-646, 652-653, 740
 - performance, improving, 624
 - physical media
 - HomePlug powerline, 597
 - HomePNA phoneline, 597

- IEEE 802.11 (Wireless Ethernet), 596-597
- NIC (Network Interface Cards), 593
- UTP (Unshielded Twisted-Pair) cables, 594-595
- wired Ethernet networks, 593-594
- planning
 - adequate capacities, 616
 - tasks overview, 612-613
- power issues, UPS (Uninterruptible Power Supplies), 617
- printers, 208
 - AppleTalk protocol, 765
 - cabling, 616, 624-625
 - extra driver installations, 772-773
 - installing, 759-761, 766
 - LPR/LPD protocol (UNIX), 764-765
 - management privileges, 761-762
 - names, 743-744, 759
 - overview, 757-758
 - permissions, setting, 773
 - pooling, 776
 - separator pages, 776-777
 - sharing, 602, 771-775
 - spool directory location, 775
 - user tracking, 774-775
- projectors, presentations over mobile networks, 1315
- protocols
 - AppleTalk, 598
 - configuring, 646-649
 - definition of, 598
 - IPSEC (Internet Protocol Security), 599
 - IPv6 (Internet Protocol Version 6), 599
 - L2TP (Layer 2 Tunneling Protocol), 599
 - LLDP (Link Layer Discovery Protocol), 603
 - LocalTalk, 598
 - NFS (Network File Sharing), 602
 - PPP (Point-to-Point Protocol), 598
 - PPPoE (Point-to-Point Protocol over Ethernet), 598
 - PPTP (Point-to-Point tunneling Protocol), 599
 - SSTP (Secure Socket Tunneling Protocol), 599
 - TKIP (Temporal Key Integrity Protocol), 1264
 - WEP (Wired Equivalent Privacy), 1264
 - WPA (Wi-Fi Protected Access), 599
 - WEP (Wired Equivalency Privacy), 598
- Registry entries, setting all at once, 1066-1068
- remote access
 - connections, 605-606
 - implementation, 625
- Remote Assistance
 - enabling, 1322
 - features of, 1322
 - requesting, 1323-1325
 - responding to requests, 1326-1327
- Remote Desktop
 - connections, 1342-1347, 1351
 - enabling, 1332-1333
 - function of, 1331
 - multiple computer access, 1342, 1346-1353
- remote networks, 741
- resources, 599, 778-779
- roaming user profiles, 603
- security, 655
 - assessing personal risk, 1206-1207
 - attacks, 1207-1218
 - disaster planning, 1222-1224
 - firewall guidelines, 1225-1226
 - FTP folders, 1240
 - holes, 1206-1207
 - Kerberos authentication, 610
 - LAN guidelines, 1225
 - local policy configuration, 1227-1230
 - Network Discovery, 655
 - protected Web pages, viewing, 1241
 - router access to Telnet, 1241
 - scanning for vulnerabilities, 1242
 - sensitive web pages, visibility of, 1240
 - shared folders, visibility of, 1240
 - standalone guidelines, 1224-1225
 - updates, 1226-1227
 - Windows Firewall with Advanced Security, 1235-1240
 - Windows Firewall, 1230-1234
- services, 600-602
 - inability to block, 1241
 - packet filtering, 1214-1215
- share backups, 1153
- shared disk drives, enabling, 753
- shared folders, mapping drive letters, 754-757 without drive letters, 757
- shared resources, 748-749
- small networks, hardware requirements, 613
- SNMP (Simple Network Management Protocol), 694-696
- storage, 664
- suspicious activities, monitoring, 1221
- switches, 593
- troubleshooting, 696, 787
 - cables, 794
 - carriage returns, 697
 - configuration checks, 790-791, 795-797
 - connectivity checks, 797-798
 - Device Manager, 793-794
 - diagnostic questions, 786-787
 - diagnostic tools, 788, 792-793

- Event Viewer, 792-793
- file sharing problems, 799
- general categories, 787
- line feeds, 697
- Macintosh issues, 698
- missing computers, 696
- Network and Sharing Center, 789-790
- Network Diagnostics, 790-791
- Network window, 788-789
- overview, 786
- printer sharing problems, 799
- questions to ask, 786-787
- Windows Firewall, 791-792
- types of, 591-592
- UNC (Universal Naming Conventions), 743-744
- UPnP (Universal Plug and Play), 606
- VPN (Virtual Private Networks), 591, 605, 1287
 - adding manual routing information, adding, 1309-1310
 - callbacks, 1291
 - configuring, 1288-1289
 - connection process, 1287
 - connection properties, 1292
 - data encapsulation, 1287
 - email connections, 1295
 - enabling computer access, 1297, 1300-1301
 - enabling incoming calls via NAT, 1300-1301
 - ending connections, 1296
 - establishing connections, 1293-1294
 - gateway settings, 1292
 - incoming access, 1297-1300
 - manually adding router information, 1309-1310
 - missing certificates, 1308
 - monitoring connections, 1296
 - properties tables, 1290-1291
 - remote network resources, 1295
 - routing issues, 1296-1297
 - troubleshooting, 1308
 - tunnels, 1287
- Windows 200x Server
 - joining, 653-655
 - XP Pro versus, 613-614
- Windows Firewall, 606
- wireless networks
 - ad hoc networks, 1262, 1271-1273
 - adding manually, 1273
 - automatic connections, 1272
 - command-line tools with, 1277-1278
 - domain, 1266
 - encryption keys, 636
 - encryption protocols, 636
 - infrastructure networks, 1262
 - installing, 635-642
 - joining, 1267-1270
 - manual additions, 1273
 - manual connections, 1272
 - overview, 1262
 - preferred network order, 1271-1273
 - private networks, 1266
 - public networks, 1266
 - security, 1262-1267
 - SSID (Service Set Identifier), 636
 - switching between, 1271
 - troubleshooting, 1273-1276
- wiring
 - correct order in connectors, 630-631
 - installing, 628-635
- workgroups
 - domains versus, 742
 - searching, 748
- XP Pro versus Windows 200x Server, 613-614
- New Connection Wizard, 406**
- New Driver option (Printer Properties dialog), 217**
- New Fax dialog, 313**
- New Hardware Wizard, 1014-1016**
- News Rover tool (news-groups), 526**
- news servers**
 - accessing, 509-510
 - feeds, censorship of, 511
 - FreeNews.net, 511
 - locating, 511
 - missing connections, troubleshooting, 523
 - missing newsgroups, troubleshooting, 521
 - monthly cost, 511
 - NNTP (Network News Transport Protocol), 509
 - UUCP (Unix-to-Unix Copy Protocol), 509
 - Web-based servers, 510-511
- Newsbin Pro tool (news-groups), 526**
- newsgroups**
 - accessing, 509-510
 - account configuration (Windows Mail 7), 512-513
 - Agent tool, 526
 - attachments
 - binaries, 524
 - multi-part, 524-525
 - multimedia, 525-526
 - evolution of, 509, 524
 - Google.com, 526
 - locating via Windows Mail 7, 513-514
 - mailing lists versus, 510
 - messages
 - managing (Windows Mail 7), 517-518
 - marking new indicators, 522
 - posting (Windows Mail 7), 515-517
 - reading offline (Windows Mail 7), 518-519
 - unavailability after synchronization, 522
 - missing from news servers, troubleshooting, 521
 - News Rover tool, 526
 - Newsbin Pro tool, 526
 - preferences, setting (IE7), 453

- reading in Windows Mail 7, 513-517
 - subscribing to (Windows Mail 7), 514-515
 - Usenet, 10, 509-510
 - viruses, safety measures, 524
 - Xnews tool, 526
 - Newsguy.com Web-based news server**, 511
 - newsreader tools**, 526
 - NFS (Network File Systems)**, 602, 678-679
 - NIC (Network Interface Cards)**, 593, 619
 - noisy devices, quieting**, 958-959
 - non-booting computers, troubleshooting BIOS settings**, 1033
 - non-linear editing (movies/video)**, 325
 - non-listed printers, installing**, 212-213
 - non-Plug and Play device, installing**, 1014-1016
 - NorthernLight.com search engine**, 464
 - notebook computers, troubleshooting Windows Vista installations**, 55
 - Notepad**, 253-254
 - Notification Area (taskbar)**, 139, 901
 - Novell NetWare, internet-working**, 665
 - NTBackup files, restoring**, 1203
 - NTFS (New Technology File Systems)**
 - alternative organizational strategies, 933-934
 - FAT16/32 partitions, converting to (Convert utility), 947-948
 - file permissions, 1192-1193
 - advanced settings, 1195
 - assigning to groups, 1198-1199
 - auditing, 1196-1197
 - inheritance of, 1194
 - taking ownership of files, 1197
 - viewing effective permissions, 1196
 - IIS installation requirements, 560
 - MFT (Master File Tables), pre-allocations to volumes, 944-945
 - printer permissions, 1199
 - volumes, property sheets, 934
 - ntvdm (Windows NT Virtual DOS Machine)**, 1095
 - numeric encryption**, 1174
- ## O
- O'Hara, Shelley**, 126
 - objectionable content, controlling (IE7)**, 459-461
 - Odyssey (codename)**, 8
 - offline**
 - browsing, Web pages (IE7), 432
 - printing, 222
 - working, Internet Explorer 7, 433-434
 - offline files, deleting (Disk Cleanup utility)**, 951
 - Offline Files Wizard**, 1302
 - offline folders**, 767, 1301
 - offline folders**
 - automatic caching options, 1307
 - availability, inability to mark, 1309
 - identifying for, 1302
 - missing, 1309
 - mobile computing, 1301-1304
 - encrypting, 1306
 - managing, 1306
 - shared folders, making available to others, 1307
 - troubleshooting, 1309
 - sharing, marking for, 1307
 - synchronizing, 1305-1306
 - typical uses, 1307
 - use guidelines, 1304
 - older programs. See legacy programs**
 - On-Screen Keyboard (in Input Panel)**, 1362
 - online stores, Windows Media Player and**, 269-270
 - opacity, changing in gadgets**, 245
 - open door attacks**, 1208
 - open windows, cycling through via Ctrl+F6**, 161
 - OpenGL support, screen savers and**, 911
 - OpenType font outline technology**, 841-844
 - optimization**
 - environment variables, setting, 1085-1091
 - program environments, configuring, 1092-1102
 - temporary files, specifying location of, 1091-1092
 - tips, system hardware, 1035
 - Optional Updates**, 1422
 - orb (Start button)**, 14
 - organizing**
 - email, folder creation (Windows Mail 7), 500-506
 - media files, 281-282
 - photos in Windows Photo Gallery, 290
 - video clips in Movie Maker, 332-333
 - Orientation option (Printer Properties dialog)**, 217
 - ornamental fonts**, 843
 - OS (Operating Systems)**, 1087
 - Microsoft desupport dates, 122
 - networking with other operating systems, 664-665
 - OS environment variable**, 1087
 - OS X (Macintosh), Internetworking**, 685-687
 - OS/2, history of Windows**, 7
 - out of office auto replies (email)**, Windows Mail 7, 503
 - Outlook 2000**, 474-475
 - Outlook 2003**, 474-475
 - Outlook 97**, 474-475
 - Outlook 98**, 474-475
 - Outlook Express. See Mail**
 - outside network access, enabling**, 728-735
 - ownership of files, taking**, 1197

- P**
- PA Server Monitor, 800**
 - packets**
 - filtering
 - blocking network services, 1214-1215
 - routers, 1213-1215
 - size, pinging, 551-552
 - testing (ping tool), 545-546
 - packing files, 198-200**
 - page file sizes, upgrading, 1010**
 - Page Order option (Printer Properties dialog), 218**
 - Page Protect option (Printer Properties dialog), 218**
 - Paint, 253**
 - parallel printer ports, 208-209**
 - parental controls, 32, 90**
 - Internet Explorer 7, 459
 - Windows Media Center, 385-386
 - partitions, separating applications and data, 933**
 - passphrases, 1265**
 - Password Protected Sharing, 672**
 - passwords**
 - Administrator accounts, 115-116
 - changing, 90
 - cracking, 1207
 - email accounts (Windows Mail 7), troubleshooting, 519
 - forgotten passwords, recovering, 112-115
 - IPP (Internet Printing Protocol), 762
 - network passwords, managing, 93
 - passwordless file sharing versus, 1217-1218
 - policies, local settings, 1228-1229
 - protection
 - internetworking with Windows XP and 2000, 667-669
 - sharing, 790
 - recovery disks, 115
 - reset disks, 91-92
 - Remote Desktop, 1333
 - sharing, 790
 - PATA (Parallel ATA) disk drives, 1012**
 - patch cables, wiring guidelines, 630**
 - PATH environment variable, 1087, 1090-1091**
 - PATHEXT environment variable, 1087**
 - pathping (TCP/IP utility), 547-548**
 - pausing print jobs, 224-225**
 - PC Anywhere, 1331**
 - PC emulation, 74**
 - PC form factors, Windows Media Center, 365-366**
 - PC Magazine website, 230**
 - PCIe (PCI Express), 1019-1020**
 - PCT (Private Communication Technology), IE7 encryption, 456**
 - PDA (Personal Data Assistants), receiving email on, 255-256**
 - PDF (Portable Document Format) documents, 468-469**
 - peer-to-peer (P2P) networks, 28, 591, 604, 612, 740**
 - configuring, 642
 - TCP/IP, 644-646
 - Windows Firewall, 652-653
 - folders, sharing, 769-771
 - Internet Protocol (TCP/IP) Properties page, 645-646
 - searching, 748
 - Pen and Input Devices menu, 1372-1373**
 - pen computing, 1356-1358, 1374. See also Tablet PC, Tablet Vista**
 - pen flicks, 1363-1364, 1373-1375**
 - pending documents, viewing network printers, 761-762**
 - PenPoint, 1356**
 - performance**
 - hard disk defragmentation, 1012
 - new features, 20-21
 - Performance Information and Tools applet (Control Panel), 856**
 - Adjust Indexing options, 855
 - Visual Effects, 854-855
 - Windows Defender, 853-854
 - Windows Experience Index, 850-853
 - Performance Monitor (Reliability and Performance Monitor), 23, 858**
 - Performance tab (Task Manager), 887-888**
 - Perl scripts, site development, 585**
 - permissions, 1192-1193**
 - advanced settings, 1195
 - assigning to groups, 1198-1199
 - auditing, 1196-1197
 - for printers, 1199
 - IIS installation, 567
 - inheritance of, 1194
 - printers, setting, 773
 - restricted objects, assigning, 1203
 - taking ownership of files, 1197
 - viewing effective permissions, 1196
 - personal firewalls, 1142, 1216**
 - Personalization dialog, 902**
 - color depth settings, 915-919
 - color schemes, 903-905
 - custom color creation, 905-906
 - desktop icons, 908
 - effects, 906
 - resolution settings, 915-919
 - screen savers, 909-911
 - sounds, 911-914
 - themes, 914-915
 - wallpaper images, 906-908
 - personalizing screen settings, 95-96. See also customizing phishing attacks, 1209**
 - AOHell*, 1244
 - avoiding, 1252

- example of, 1244-1248
- Gold Lock, 1249
- identity management software, 1251-1252
- overview, 1244
- Phishing Filter, 1246-1248, 1256
- preventing, 456
- two-factor authentication, 1250-1251
- two-way authentication, 1250
- Phone and Modem Options (Control Panel), property settings, 541-542**
- phoneline networks (HomePNA)**
 - bridging via Ethernet, 658-659
 - disadvantages of, 621
 - monthly costs of, 621
 - wiring guidelines, 628
- Photo Gallery, 26, 288, 452**
 - adding photos to, 289, 294-295
 - archiving photos in, 305-306
 - burning photos to CD, 301-303
 - cropping photos in, 296
 - digital cameras, 292-295
 - filtering photos in, 289
 - fixing photos in, 295-296
 - importing files to, 290
 - Live File System option, 302
 - Mastered option, 302
 - organizing photos in, 290
 - previewing photos in, 290
 - printing photos from, 297-298, 303-304
 - scanners, 290-292, 304-305
 - sharing photos via, 299
- photos. *See also* images**
 - burning to
 - CDs, 300-301
 - DVDs, 357-360
 - Pictures folder, 288
 - scanning, 317
 - screen savers, setting as, 356-357
 - Windows Explorer, burning photos to CD, 300-301
 - Windows Media Center
 - printing from, 377
 - slideshows, 376-377
 - Windows Photo Gallery, 288
 - adding to, 289, 294-295
 - adjusting color in, 296
 - adjusting exposure in, 296
 - archiving via, 305-306
 - burning photos to CD, 301-303
 - cropping in, 296
 - filtering in, 289
 - fixing in, 295-296
 - organizing in, 290
 - previewing in, 290
 - printing from, 297-298, 303-304
 - red eye fixes, 296
 - sharing via, 299
- physical paths (web servers), changing, 571**
- PICS (Platform for Internet Content Selection), site content ratings, 461**
- pictures. *See* images; photos**
- Pictures folder, 149-150, 288**
- ping command**
 - batch files, 1105
 - function of, 545-546
 - LAN connections, testing, 537-539
 - larger packets, 551-552
 - network connectivity, checking, 797-798
 - packet testing, 545-546
- pipes, Command Prompt environment, 1075-1078**
- PKZip utility, 953**
- plain text formatting (email), 489**
- planning networks, 612-613, 616**
- playback (sound), configuring, 914**
- playing**
 - audio CDs, 265-266
 - DVDs, 265-266
 - troubleshooting, 260-261
 - Windows Media Center, 378-379
 - hard disk media files, 266
 - music in Windows Media Center, 378
 - portable media players through car stereo, 285-286
- playlists, creating, 279-280**
- PlaysForSure compatible devices, 272-274**
- plenum cables, 629**
- Plug and Play hardware devices, installing, 1013-1016**
- PNG image format, IE7 support, 436**
- Point-to-Point Protocol (PPP), 598**
- Point-to-Point Protocol over Ethernet (PPPoE), 412-413, 598**
- Point-to-Point Tunneling Protocol (PPTP), 599**
- points (fonts), 842**
- pooled printers, configuring, 776**
- POP (Post Office Protocol), 480**
- pop-up/under ads (IE7), 457-459**
- popd (Command Prompt environment), 1079-1080**
- port forwarding, Remote Desktop connections, 1338**
 - Internet Connection Sharing, 1339
 - routers, 1340-1341, 1351-1352
- portable entertainment systems, 365**
- portable media players**
 - MP3 audio files, 441
 - PlaysForSure compatible devices versus iPods, 272
 - playing through car stereo, 285-286
 - synchronizing with Windows Media Player, 274-276
- Portrait mode (Tablet PC), 1371**
- Ports tab (Printer Property sheets), 215**
- posting newsgroup messages (Windows Mail 7), 515-517**

PostScript printers

print-to-disk option,
227-228

property settings, 216-218

power supplies

UPS (Uninterruptible
Power Supplies), 617
configuring, 1027-1028
installing, 1023-1026
selecting, 1025-1026
testing configuration,
1028

usage profiles, 1284

Power Options (Mobility Center), 1283

Change Settings Before
Giving a Presentation,
under Personalization set-
ting, 1283

Change What the Power
Buttons Do setting, 1283

Power Options Advanced Setting dialog, 1286**Power Options icon, 860-861****Power Saver profile (power usage), 1284****power toys, 997-998****powerline networks (HomePlug)**

bridges, 622
typical network setup, 622
wiring guidelines, 628

PPC (Pocket PCs), receiving email on, 255-256**PPP (Point-to-Point Protocol), 598****PPPoE (Point-to-Point Protocol over Ethernet), 412-413, 598****PPTP (Point-to-Point Tunneling Protocol), 599****Practical Firewalls, 610****Practical Network Cabling, 610, 630****Practical Network Peer Networking, 610****preferred network order (wireless networks), 1271-1273****prefetching, 20****Presentation Settings feature (Mobility Center), 1282, 1312-1313****presentations**

Change Settings Before
Giving a Presentation,
under Personalization set-
ting (Mobility Center,
Power Options), 1283
mobile computers,
1312-1315, 1328

Preview pane (Windows Mail 7), 185, 477**previewing**

faxes, 314
fonts, 920
photos in Windows Photo
Gallery, 290

primary display adapters, inability to select multiple monitors, 1032-1033**primary partitions, 930-931****Print Directly to the Printer option (Printer Properties dialog), 218****Print Manager, 204**

files, dragging to, 221-222
Printers folder, 205-206

Print Server Properties dialog, 774-775**Print Spooled Documents First option (Printer Properties dialog), 218****print\$ folder, Windows 200x Server shared status, 749****print-to-disk option, PostScript printers, 227-228****Printer Memory option (Printer Properties dialog), 218****Printer Properties dialog, 217-219****Printers and Faxes (Start menu), 139****Printers applet (Control Panel), 205****Printers folder, 206**

printers
management features,
205
removing from, 219
Windows 200x Server
shared status, 749

printing/printers

Active Directory networks
missing, 781
searching, 760

background image controls
(IE7), 462

by dragging files to Print
Manager, 221-222

configuring, 206-208

consumer review sites, 230
cost-saving procedures,
230-231

disk files, 227-228

documents

configuring, 225-226
rendering, 204

DOS application files,
222-223

drivers, 204

EMF (Enhanced Metafile
Format), 204

error messages, trou-
bleshooting, 228

extra drivers, installing,
772-773

faxes, 228, 316

garbled text, troubleshoot-
ing, 229

ink usage, conserving, 231
installing, 206-208

COM(serial) ports,
210-212

non-listed printers,
212-213

IPP-capable printers, LAN
connections, 763-764

local printers

FireWire connection,
208-209

infrared port connection,
208-209

installing, 208-213

parallel port connection,
208-209

serial port connection,
208-212

troubleshooting, 210-213

management of (Printers
folder), 205

mangled line feed/carriage
returns, troubleshooting
(UNIX), 697

missing jobs, troubleshoot-
ing, 229

- multiple default settings, 216
- network printers, 208
 - AppleTalk protocol, 765
 - browsing, 760
 - cabling issues, 616
 - installing, 759-761, 766
 - LPR/LPD protocol (UNIX), 764-765
 - management privileges, 761-762
 - names, 743-744
 - naming, 759
 - overview, 757-758
 - permissions, 773
 - spool directory location, 775
 - user tracking, 774-775
- no output, troubleshooting, 229
- offline print option, 222
- permissions, 1199
- photos
 - from Windows Media Center, 377
 - Windows Photo Gallery, 297-298, 303-304
- pooling, 776
- preprinting checklist, 220-221
- Print Manager, 204-206
- print-to-disk option, 227-228
- Printers folder
 - management features, 205
 - removing from, 219
 - Windows 200x Server shared status, 749
- print jobs, 204
 - launching DOS applications, 222-223
 - launching Windows applications, 220
 - printing via Internet (IPP), 762-763
 - sending to other printers, 781
 - usage patterns, recording, 774-775
- properties, changing, 214-219
- Properties dialog options, 216-218
- Property sheets, 215-216
- purchasing, advice on, 230-231
- queues, 204
 - canceling all print jobs, 224
 - deleting files from, 224
 - managing, 223-224
 - modifying document properties, 225
 - offline jobs, 222
 - pausing, 224-225
 - restarting, 224-225
 - resuming, 224-225
 - UNIX queues from Windows, 675
 - viewing, 223-225
- removing, 219
- searching for, 750
- selecting by
 - URL (IPP), 762-763
 - website (IPP), 763
- separator pages
 - creating, 776-777
 - predefined files, 777
 - substitution sequence, 777
- sharing printers, 771-775
 - cable requirements, 624-625
 - diagnosing problems, 799
 - enabling, 790
 - troubleshooting file and printer sharing problems, 799
 - wireless networks, 1266-1267
- spooling, 204
- stalled jobs, sending to other printers, 781
- troubleshooting, 228-230
- UNIX queues from Windows (Samba), 675
- UPS (Uninterruptible Power Supplies), 1026
- Windows application files, 220-222
- Windows printers from UNIX, 675-676
- XPS (XML Paper Specification), 226-227
- Printing Defaults option (Printer Properties dialog), 218-219**
- privacy preferences, setting (IE7), 454-455**
- Private Communication Technology (PCT), IE7 encryption, 456**
- private wireless networks, 1266**
- privileges. *See also* permissions**
 - elevated privileges, 85-86
 - Registry security controls, 1063
 - UAC (User Account Control), 85
- Problem Reports and Solutions applet, 979-981**
- problems. *See* troubleshooting**
- Processes tab (Task Manager), 885-886**
- Product Activation, 70-72**
- productivity, 29-30**
- profiles**
 - dial-up networks, connecting without, 1293-1294
 - roaming profiles, 603, 741, 1293-1294
 - scan profiles, 318-319
 - user profiles, 79
 - backups, 1154
 - changing settings, 93
 - default profile configuration, 116-117
 - directory structure, 105-111
- Program Compatibility Wizard, 977-979, 1002-1003**
- PROGRAMDATA, 1087**
- PROGRAMFILES, 1087**
- Programs and Features applet, 861-867, 1007**
- progress bar, downloading software, 443**
- projectors, television programs**
 - broadcasting to, 381-383
 - viewing via Windows Media Center, 380
- PROMPT environment variable, 1087**

Properties dialog, 132
 HP-compatible printer options, 216-218
 PostScript printer options, 216-218

property sheets, 133, 214-216
 Advanced tab, 216
 changing drivers, 214-216
 Color Management tab, 216
 Device Settings tab, 216
 General tab, 215
 multiple default settings, 216
 Ports tab, 215
 Security tab, 216
 Sharing tab, 215
 Utilities tab, 216

protected Web pages, viewing, 1241

PUBLIC, 1087

Public Folder Sharing feature, 769-771

public wireless networks, 1266

Published folder, Windows 200x Server shared status, 749

publishing
 calendars, 249-250
 shared folders, Active Directory, 751-752
 software, Authenticode verification, 444
 website content via FTP Server, 576-577

punchdown blocks, network wiring installations, 632

purchasing
 printers, advice on, 230-231
 routers, 709

pushd, Command Prompt environment, 1079-1080

Q

QoS Packet Scheduler, 642-644

queues (printers), 204
 deleting files from, 224
 managing, 223-224

pausing, 224-225
 print jobs, canceling, 224
 restarting, 224-225
 resuming, 224-225

Quick Launch Bar, 139
 enabling, 96-97
 item capacity, 160
 launching applications, 145
 Show Desktop icon, 149
 Windows Explorer shortcut, 136

QuickTime Player, 440

quieting noisy systems, 958-959

quoting filenames with spaces, Command Prompt environment, 1072-1073

R

RAID (Redundant Array of Independent Disks), 930
 arrays, 1181-1182
 dynamic disk storage, 942
 mirroring, 1011
 striping, 1011

RAID 0, 932, 1182

RAID 1, 932, 1182

RAID 5, 932, 1181

RAM (Random Access Memory)
 adding, 1012-1013
 available technologies, 1012
 compatibility with motherboard, 1013
 cost fluctuations, 1012
 DDR SDRAM modules, 1012
 requirements, 1012-1013
 minimum size, 1010
 SDRAM modules, 1012
 starting addresses, 834-835
 upgrading, 1010

RAS (Remote Access Service), dial-up networks, 605, 1286
 callbacks, 1291
 configuring, 1288-1289
 connections
 email connections, 1295
 ending, 1296
 establishing, 1293-1294
 managing from multiple locations, 1292-1293
 monitoring, 1296
 gateway settings, 1292
 incoming access, 1297-1300
 properties tables, 1290-1291
 remote network resources, 1295
 routing issues, 1296-1297

raw spooling, 204

read attribute (CGI scripts), 558

ReadyBoost, 20

ReadyDrive, 21

RealPlayer,
 downloading/installing, 440

receipt requests, messages (Windows Mail 7), 488

receiving faxes, 310, 316

Recent Documents (Start menu), 139

Recommended Updates, 994

recording
 narration for movie clips (Windows Movie Maker), 338-339
 sound, 914
 television programs
 converting to DivX files, 388-389
 disk storage requirements, 374-376
 editing with Windows Movie Maker, 384
 Windows Media Center, 373

recovering. See also restoring
 BitLocker encrypted drives, 1187
 forgotten passwords, 112-115

recovery certificate backups, 1179-1181

Recycle Bin, 125
 backups, 1154
 configuring, 925
 customizing, 127
 emptying, 128
 files
 deleting (Disk Cleanup utility), 951
 restoring, 127-128
 storage capacity, 127

red eye (photos), fixing in
Windows Photo Gallery,
296

redir, 1099

redirection

Command Prompt environ-
ment, 1075-1078
web servers, 556

**Redundant Array of
Independent Disks (RAID).**
*See RAID (Redundant
Array of Independent
Disks)*

reflection (Registry), 1045

refresh key (F5), 161

refresh rates (monitors), 918

**REG files (Registry),
1066-1068**

**Regedit utility (Registry edi-
tor)**

data types, 1051

other user computers, edit-
ing, 1057-1058

Registry

adding keys, 1054

backups creation,
1047-1048

deleting keys, 1055

editing keys, 1053-1055

entries, searching,
1051-1052

key copy name functions,
1055

key value additions, 1053

key value changes, 1054

key value deletions, 1054

renaming keys, 1055

viewing, 1050-1051

Registry restoration, 1049

remote computers, editing,
1056-1057

startup repair with, 970-971

supported data types, 1051

**Regional and Language
Options (Control Panel),
867**

registering domain names,
561

**Registrar Registry Manager
tool, 1061**

Registry

associations, 1038

backups

Regedit utility,
1047-1048

system restore, 1047

third-party utilities,
1046-1047

errant startup programs,

removing, 1064-1066

exporting, 970

file corruption, signs of,
1063

function of, 1038

hives, 1039-1040, 1059

HKEY_CLASSES_ROOT
keys, 1040-1042

HKEY_CURRENT_CON-
FIG keys, 1039-1041

HKEY_CURRENT_USER
keys, 1041-1043

HKEY_LOCAL_MACHIN
E keys, 1039-1042

HKEY_USERS keys,

1039-1042

keys, meanings of (Google),
1062

mass entries, setting across
networks, 1066-1068

modification, dangers of,
1038

organization of, 1039

privileges, security controls,
1063

recovery process, 1063-1064

reflection, 1045

Registrar Registry Manager,
1061

Registry Toolkit, 1061

restoring, 1046-1049

retrieving entries from other
Windows installations,
1059

security attributes, editing,
1059-1060

troubleshooting, 1066

TweakVI, 1062

virtual registries, 1004-1005,
1044

website resources, 1062

Registry Editor. *See Regedit*

**REG_BINARY data type,
1051**

**REG_DWORD data type,
1051**

**REG_EXPAND_SZ data
type, 1051**

**REG_MULTI_SZ data type,
1051**

REG_SZ data type, 1051

reinstalling

uninstalled updates, trou-
bleshooting, 1006

Windows Vista for startup
repair, 975-976

**Reliability and Performance
Monitor, 22, 857-859**

**remote access, network
implementation, 625**

**Remote Access Service
(RAS). *See RAS (Remote
Access Service)***

Remote Assistance

enabling, 1322

features, 1322

remote client access, 606

requesting, 1323-1325

responding to requests,
1326-1327

remote computing, 1280

battery optimization,
1283-1286

LAN (Local Area
Networks), multiple con-
nections, 1308

Mobility Center, 1281-1282

offline folders, 1301

encrypting, 1306

identifying, 1302

making shared folders
available, 1307

managing, 1306

synchronizing, 1305

troubleshooting, 1309

using offline, 1303-1304

RAS dial-up networking,
1286

callbacks, 1291

configuring, 1288-1289

email connections, 1295

ending connections, 1296

establishing connections,
1293-1294

gateway settings, 1292

incoming access,

1297-1300

- managing connections
 - from multiple locations, 1292-1293
- monitoring connections, 1296
- properties tables, 1290-1291
- remote network
 - resources, 1295
- routing issues, 1296-1297
- Registry entries, editing, 1056-1057
- VPN (Virtual Private Networks), 1287
 - callbacks, 1291
 - configuring, 1288-1289
 - email connections, 1295
 - ending connections, 1296
 - establishing connections, 1293-1294
 - gateway settings, 1292
 - incoming access, 1297-1300
 - manually adding router information, 1309-1310
 - monitoring connections, 1296
 - properties tables, 1290-1291
 - remote network
 - resources, 1295
 - routing issues, 1296-1297
 - troubleshooting, 1308
- Remote Desktop. *See also* mobile computing**
 - availability of, 1331
 - Client, accessing, 1342, 1346-1349
 - Connection dialog, 1342, 1346-1349
 - connections
 - DDNS, 1335-1336
 - disconnecting, 1349
 - DSL, 1334
 - establishing, 1333
 - Internet Connection Sharing, 1337-1339
 - networks, 1342-1347, 1351
 - port forwarding, 1338-1341, 1351-1352
 - properties table, 1343
 - reasons for changing, 1344-1345
 - routers, 1336
 - static IP addresses, 1335
 - troubleshooting, 1350
 - VPN, 1351
 - enabling, 1332-1333
 - function of, 1331
 - keyboard shortcuts, 1347-1349
 - LAN Internet connections, 709-710
 - logins, 1349-1351
 - multiple computer access, 1342, 1346-1349, 1351-1353
 - passwords, 1333
 - properties, 1346
 - remote client access, 605
 - testing, 1333
 - web-based client configuration, 1349
- remote networks, 741**
 - connections
 - disconnect status, 1296
 - modems, 605
 - monitoring, 1296
 - dial-in access, enabling, 1297, 1300
 - effective use of resources, 1295
 - email, retrieval of, 1295-1296
 - Remote Assistance, 606
 - Remote Desktop, 605
 - Terminal Services, 605
 - VPN access, enabling, 1297, 1300
 - Windows Meeting Space, 606
- Remote Procedure Calls (RPC), 603**
- Remote Settings option (System Properties), 869**
- remote workstations, 591**
- removable media**
 - backups, 1155-1156
 - USB flash drives, security, 1199-1200
- Removable Storage utility, media pools, 942-943**
- residential gateways (ICS), 706-709**
- resizing**
 - desktop images, 908
 - online graphics (IE7), 436
 - Taskbar, 901
- resolution**
 - desktop images, 908
 - GUI display properties, configuring, 915-919
 - monitors, changing, 96
 - native settings, 917
 - slow motion, troubleshooting, 927
 - window edges off screen, troubleshooting, 926
 - Windows Fax and Scan, 318
- Resolution option (Printer Properties dialog), 218**
- resource forks (Macintosh), 683**
- Resource Overview (Reliability and Performance Monitor), 857**
- Restart Manager, 21**
- restarting print jobs, 224-225**
- restoring. *See also* recovering**
 - Complete PC backups, 1172
 - default firewall settings, 1234
 - disaster planning procedures, 1222-1223
 - files
 - backups, 1157-1160
 - encrypted files, 1181
 - Recycle Bin, 127
 - folder backups, 1157-1160
 - System Recovery Options menu backups, 983-984
 - from Windows Complete PC Restore tool, 967-968
 - NTBackup files, 1203
 - previous versions of files, 1190-1191
 - Registry, 1046-1048
 - from restore point, 1049
 - problem diagnosis, 1063-1064
 - via Regedit utility, 1049
 - restore points
 - creating, 965-966
 - deleting (Disk Cleanup utility), 951
 - restoring from, 966-967, 1049

restricting
 access controls, 1218
 permission assignments, 1203

resuming print jobs, 224-225

reverse tracer tool, route testing, 550

Review Fax Status window, 316

RFM (Reduced Functionality Mode), 1031

right-clicking
 context menus, 132-135
 manipulating objects, 180
 shortcuts, 160
 stylus pen, 1362

ripping audio CDs/DVDs, 266-268

RJ-45 connectors, 593

roaming user profiles
 domain networks, 741
 remote networks, connecting without, 1293-1294
 Vista networking, 603

root folders, sharing disk drives, 753

rootkits, 1134

routed services, 705, 726-727

routers
 blockages, checking (tracer tool), 546-547
 cost, 620
 DMZ host forwarding, 734-735
 external routers versus ICS (Internet Connection Sharing), 708
 filters, 726-727
 locking down, 1216
 network protection measures, 726
 packet filtering, 1213-1215
 purchasing advice, 709
 Remote Desktop connections, 1336, 1340-1341, 1351-1352
 shared routers
 broadband configuration, 719-721
 dial-up configuration, 719-721
 UPnP (Universal Plug and Play), 722-723

TCP Services, forwarding, 733-734

Telnet access, preventing, 1241

traffic tests, checking (pathing tool), 547-548

UDP Services, forwarding, 733-734

VPN (Virtual Private Networks)
 connections, 1296-1297
 manual additions, 1309-1310
 wireless networks, 623

routing tables, management of (route tool), 548-549

Roxio.com website, 345

RPC (Remote Procedure Calls), 603

RSS feeds, 30

rules (firewalls), creating, 1238-1240

Run (Start menu), 139

S

Safe Mode boot option, 972

Safe Mode with Command Prompt boot option, 973

Safe Mode with Networking boot option, 972

Safe Senders list, 1254-1255

Samba
 client tools, 673-674
 downloading, 673
 features, 673
 Internetworking with UNIX and Linux, 673
 printing to
 UNIX queues from Windows, 675
 Windows printers from UNIX, 675-676
 server tools, 674-676

sans-serif fonts, 842

SATA drives, 934, 1012

satellite dishes, 397

satellite modems, 406

satellite service, Internet access, 397

saturation (color), 905-906

saving
 files on desktop, 132-134
 movies in Windows Movie Maker, 340-343
 Web pages, later viewing option (IE7), 434-435
 Windows Sound Recorder files, 350-351

sc command, command-line management tools, 1083-1084

sc queryex, 1083-1084

Scan dialog, 316

Scan Profiles dialog, 319

scanner service (Windows Fax and Scan), 25
 configuring, 316
 emailing scans, 319
 faxing scans, 319
 hardware and software requirements, 308-309
 manipulating scanned images, 319
 overview, 308-309
 scan profiles, 318-319
 scanning photos, 317
 scanning slides and transparencies, 322
 troubleshooting, 320-322

scanners, Windows Photo Gallery, 290-292, 304-305

scanning
 networks for vulnerabilities, 1242
 photos, 317

Scheduled Tasks utility, 749, 1124-1125

Scratch-out gesture, 1363-1364

screens (monitors)
 flicker, reducing, 925
 personalizing settings, 95-96
 rotation, 1282, 1374
 screen savers
 changing, 96
 configuring GUI display properties, 909-911
 creating from photos, 356-357
 list of, 1402
 SETI@home Project, 909-910

script attribute (CGI scripts), 558

scripts

- ASP, 586
- dangers of, 586
- filename extensions, 1114
- IIS (Internet Information Services), 573
- Perl, 585
- WSH (Windows Script Host), 1114-1117

SCSI hard disks, 1011**SDRAM modules (RAM), 1012****Search command (Start menu), 146****Search Companion (IE7), 462-464****search engines, 99, 464****Search for Extraterrestrial Intelligence (SETI), screen saver project, 909-910****Search tool (Start menu), 202****searches, 14-15**

- Active Directory
 - advanced options, 752
 - networks, 750-752
 - printers, 750, 760
- device drivers, 1017
- domain networks, 748
- IE7 (Internet Explorer 7)
 - options, 462
- printers
 - Active Directory, 750, 760
 - drivers, 212-213
- Registry, Regedit utility, 1051-1052
- Search pane, 195-196
- stacking, 197-198
- Start menu, 82
- troubleshooting, 201-202
- while typing, 192-195
- Windows Media Player, 263-265
- workgroup networks, 748

secondary display adapters, multiple monitor installations, 1021-1022**secure email (Windows Mail 7), sending/reading, 490-491****Secure Online Key Backup feature (Ultimate Extras), 997****Secure Socket Tunneling Protocol (SSTP), 599****Secure Sockets Layer (SSL), IE7 encryption, 456****security, 18-20**

- access controls, restricting, 1218
- bulletins, subscribing to, 1211
- cable services, LAN Internet connections, 712-713
- corporate networks, ban on personal websites, 555
- data security, 23-24
- encryption
 - BitLocker, 1182-1190, 1202
 - EFS (Encrypted File Systems), 1173-1181, 1202
 - file encryption certificates, managing, 93
 - Internet Explorer 7, 456
 - IPP (Internet Printing Protocol), 762
 - keys, 1174
 - numeric encryption, 1174
 - offline folders (mobile computing), 1306
 - wireless networks, 636
- files, 200-201
- firewalls
 - configuring, 1212-1213
 - personal firewalls, 1216
 - Windows Firewall, 791-792
- FTP Server configuration, 575-576
- hackers, 1132
- IIS (Internet Information Services)
 - automatic updates, 582
 - bug fixes, 582
 - file systems, 583
 - level of risk, 555
 - tools, 555
- Internet Explorer 7
 - add-on crash detection, 448
 - add-on management, 447-448

- digital certificates, 446
- hacker targeting, 464
- software download protections, 445-447

malware

- avoiding, 1147-1148
- defending against, 1134-1147
- overview, 1132
- rootkits, 1134
- spyware, 1133-1134
- viruses, 1132-1133
- worms, 1133
- Microsoft E-Mail Updates Service, 1226
- NAT devices, configuring, 1212, 1215-1216
- networks, 655
 - active defenses, 1212-1218
 - assessing personal risk, 1206-1207
 - attacks, 1207-1218
 - disaster planning, 1222-1224
 - firewall guidelines, 1225-1226
 - FTP folders, 1240
 - holes, 1206-1207
 - Kerberos authentication, 610
 - LAN guidelines, 1225
 - local policy configuration, 1227-1230
 - monitoring suspicious activities, 1221
 - Network Discovery, 655
 - protected Web pages, 1241
 - routers, 1216, 1241
 - scanning for vulnerabilities, 1242
 - sensitive web pages, visibility of, 1240
 - shared folders, 1240
 - standalone guidelines, 1224-1225
 - Telnet, 1241
 - testing defenses, 1219-1221
 - updates, 1226-1227

- Windows Firewall with Advanced Security, 1235-1240
- Windows Firewall, 1230-1234
- offline folders (mobile computing), 1306
- packet filtering, 1213
- permissions, 1192-1193
 - advanced settings, 1195
 - assigning to groups, 1198-1199
 - auditing, 1196-1197
 - for printers, 1199
 - inheritance of, 1194
 - taking ownership of files, 1197
 - viewing effective permissions, 1196
- phishing
 - AOLHell*, 1244
 - avoiding, 1252
 - example, 1244-1248
 - Gold Lock, 1249
 - identity management software, 1251-1252
 - overview, 1244
 - Phishing Filter, 1246-1248
 - two-factor authentication, 1250-1251
 - two-way authentication, 1250
- preferences, setting (IE7), 453-455
- RAID arrays, 1181-1182
- RAS (Remote Access Service), 1297, 1300
- routers
 - locking down, 1216
 - network protection measures, 726
 - packet filtering, 1213-1215
- scripts, dangers of, 586
- Service Packs, 994
- USB flash drives, 1199-1200
- UAC (User Account Control), 84-87
- user groups, creating, 112-113
- website resources, 1226, 1240
- Windows Firewall, 606, 652-653
- Windows Mail 7, 496-498
- wireless networks, 1262
 - file and printer sharing, 1266-1267
 - MITM (Man In The Middle), 1264
 - security keys, 1264-1266
 - snooping, 1263
- Security category (Category view), 808**
- Security Center, balloon notifications, 123**
- Security tab, Printer Property sheets, 216**
- Select Recipients dialog, 313**
- selecting**
 - bit rates for audio CDs/DVDs, 268
 - file formats for audio CDs/DVDs, 268
 - multiple items, 181-182
 - online music stores, 269-270
 - Tablet PC, 1360
 - television programs in Windows Media Center, 372
 - UPS (Uninterruptible Power Supplies), 1025-1026
 - Windows Vista Premium Ready PC, 48
- sender information, configuring (Windows Fax and Scan), 310**
- sending**
 - attachments (Windows Mail 7), 485
 - email (Windows Mail 7), 484
 - faxes, 228, 313-315
- Separator File option (Printer Properties dialog), 218**
- separator pages, 776-777**
- serial (COM) ports, printer installations, 210-212**
- Serial ATA hard disks, 1011**
- serial printer ports, 208-212**
- serif fonts, 842**
- Server Message Block protocol (SMB), 673**
- server-side scripts**
 - attributes of, 558
 - enabling, 573
- Servers Alive LAN monitoring tool, 800**
- service hardening, 19, 1146**
- service packs**
 - checking for latest versions, 995
 - Critical Updates, 994
 - cumulative nature of, 994
 - Hotfixes, 994
 - installing, 994-996
 - Service Pack 2 (SP2), 496, 995-996
 - Service Pack-1 (SP-1), 1423-1428
 - types of updates in, 994
- service recovery, 22**
- Services dialog (MMC), 880**
- Services tab (Task Manager), 887**
- Set Associations option (Control Panel), 824**
- Set Program Access and Computer Defaults option (Control Panel), 825**
- set statements, batch file programming, 1107-1108**
- SETBLASTER, 1099**
- SETI@home Project website, screen saver/parallel processing project, 909-910**
- setting up. *See* configuring setup log files, deleting (Disk Cleanup utility), 951**
- shadow copies. *See* volume shadow copies**
- Shared Documents folder, 747-748**
- Shared Folder node (MMC), 879-881**
- sharing**
 - desktop views in Meeting Space, 1319-1320
 - disk drives, enabling, 753
 - documents in Meeting Space, 1321
 - enabling, 790
 - files, 742
 - file names, 743
 - media files via home networking, 277-278

- Network and Sharing Center, 744-746
- troubleshooting, 799
- UNC (Universal Naming Convention), 743-744
- folders, 747-748, 768
- mapping drive letters, 754-757
- mapping without drive letters, 757
- offline folders (mobile computing), 1307
- organization of, 767
- passwords versus passwordless file sharing, 1217-1218
- publishing (Active Directory), 751-752
- Shared Documents folder, 747-748
- Shared Folder node (MMC), 879-881
- visibility of, 1240
- Windows 200x Server, 748-749
- workgroup networks, 769-771
- modems, inability to access on LAN (Local Area Networks), 736
- movies over Web, 342
- over wireless networks, 1266-1267
- photos via Windows Photo Gallery, 299
- printers, 771-775
 - cabling requirements, 624-625
 - troubleshooting, 799
- routers
 - broadband connections, 719-721
 - dial-up connections, 719-721
 - outside network access, 732-735
 - UPnP (Universal Plug and Play), 722-723
- Sharing tab, Printer Property sheets, 215**
- shortcuts**
 - alias designation, 132
 - Control Panel applets, creating, 895-896
 - desktop, creating for, 131-132
 - folders, creating for, 767
 - icons, 129-130
 - right-click, 160
 - settings alteration, 129
 - troubleshooting, 157-158
 - Windows Explorer, creating for, 136
- Show Desktop icon (Quick Launch Bar), 149**
- shuffling playback in Windows Media Player, 266**
- shutdown command, command-line management tools, 1085**
- shutdown process**
 - options for, 104-105
- shutdowns, 154**
 - forced shutdowns, 158
 - Hibernate option, 155-156
 - Log Off option, 155
 - process of, 104-105
 - Sleep, 155-156
 - Switch User, 155
- side-by-side DLL (Dynamic Link Libraries), 1003**
- side-by-side installs, 1003-1004**
- Sidebar, 16-17, 234-235**
 - gadgets
 - adding, 238-239
 - adding multiple times, 244
 - configuring, 242-243
 - downloading, 239-241
 - moving, 243-244
 - opacity, 245
 - removing, 245-246
 - troubleshooting, 254
 - viewing, 245
 - hiding, 241-242
 - running, 235-238
- SideShow (Control Panel), 872**
- signatures**
 - digital certificates, 490
 - email (Windows Mail 7), 487
- SIIG 1394 FireWire laptop card, 345**
- simple volumes, dynamic storage model (hard disks), 931**
- single-click mode (mouse), 135**
- Single-Click mouse option, 927**
- skipping commercials, 374**
- slate Tablet PC, 1358, 1361**
- Sleep button, 104**
- Sleep mode, 21, 155-156**
- slides**
 - faxing or scanning, 322
 - slideshows, 355-356, 376-377
- small networks**
 - hardware requirements, 613
 - wireless networks, 1267-1269
- small screen fonts, troubleshooting, 928**
- SMB (Server Message Block) protocol, 673**
- Smith, David L., 1133**
- SMTP (Simple Mail Transfer Protocol), 480**
- SMTP server, IIS settings, 574-575**
- Snipping Tool, 1367-1369**
- SNMP (Simple Network Management Protocol)**
 - installing, 694-696
 - LAN monitoring, 799
 - security risks, 695
- social engineering, 1208**
- software**
 - antivirus software, 1136-1138
 - compatibility, Program Compatibility Wizard, 1002-1003
 - compatibility mode, enabling, 130
 - downloading, 442
 - add-on crash detection (IE7), 448
 - add-on management (IE7), 447-448
 - digital certificates (IE7), 446
 - drive-by (IE7), 445-446

- from mirror sites, 442
- invalid signatures (IE7), 447
- progress bar, 443
- version updates, 443
- virus scanning, 443
- ZIP compression, 443
- firewalls, 1142
- identity management software, 1251-1252
- installing
 - CD installations, 998
 - DVD installations, 998
 - Internet downloads, 999
 - side-by-side installations, 1003-1004
 - troubleshooting, 1006-1007
 - viewing installed software, 999-1000
- Internet configuration problems
 - dial-up problems, 535-536
 - LAN problems, 537-539
 - modem problems, 536-537
 - troubleshooting, 535-539
- malware
 - avoiding, 1147-1148
 - defending against, 1134-1147
 - overview, 1132
 - rootkits, 1134
 - spyware, 1133-1134
 - viruses, 1132-1133
 - worms, 1133
- uninstalling, 1000-1002, 1007
- updates, 994
- Windows Defender, 1138-1139, 1141
- Software Protection Platform. See SPP**
- sound**
 - accessibility settings, 839-840
 - CDs/DVDs
 - bit rates, 268
 - file format selection, 268
 - playing, 265-266
 - ripping, 266-268
 - events, associating with, 911-913
 - Internet Explorer 7
 - MP3s, downloads (Windows Media Player), 441-442
 - streaming (Windows Media Player), 439-440
 - Web elements, 436-438
 - MP3 files
 - copyright controversies, 441
 - downloading (Windows Media Player), 441-442
 - MP3 Pro format, 442
 - MP3.com website, 441
 - portable players, 441
 - streaming audio, 439-440
 - playback, 914
 - recording, 914
 - Volume Control settings, 351-353, 360
 - Windows Movie Maker, exporting to, 332
 - Windows Sound Recorder, 350-351
- SP-1 (Service Pack-1)**
 - installing, 1424-1427
 - testing, 1423
 - uninstalling, 1428
 - Vista changes to, 1423-1424
- SP2 (Service Pack), 496, 995-996**
- spam**
 - avoiding, 1256-1257
 - CAUCE (Coalition Against Unsolicited Commercial Email), 508-509
 - filtering, 1254
 - international filtering, 1255-1256
 - legal measures, 508-509
 - overview, 1252-1253
 - Phishing Filter, 1256
 - protecting email addresses from, 1253-1254
 - reporting, 1257-1258
 - Safe Senders list, 1254-1255
 - Windows Mail 7 limitation features, 496-498
- spanned volumes**
 - dynamic storage model (hard disks), 931
 - hard disks, creating (Disk Management utility), 940-941
- speakers, Volume Control settings, 351-353, 360**
- special characters, Command Prompt environment, 1077**
- special effects, adding to clips (Windows Movie Maker), 336-337**
- speech recognition, 18, 150-153**
- Speed Check tool, Internet transfer speed monitor, 549**
- spool directories, 775**
- spooling documents (printers), 204**
- SPP (Software Protection Platform), 1028-1030**
- SpyNet, 1141**
- spyware**
 - overview, 1133-1134
 - protecting against with Windows Defender, 1138-1141
- SQL Slammer worm, 1133**
- SRT (Startup Repair Tool), 22, 963-964**
- SSID (Service Set Identifiers), wireless network setup, 636**
- SSL (Secure Sockets Layer), IE7 encryption, 456**
- SSTP (Secure Socket Tunneling Protocol), 599**
- stacking searches, 197-198**
- Standard Ethernet, 594**
- Standard user accounts, 88-90**
- Standby mode, 21**
- Start button**
 - opening Start menu, 81
 - orb, 14
 - programs, running from, 147
- Start menu, 15, 81-82**
 - columns, dual arrangement, 138
 - Control Panel, 139
 - customizing, 98, 898-900
 - default items, 138
 - errant programs, eliminating, 1064-1066
 - fly-open menus, 924
 - Help and Support, 139
 - Help and Support Center, 153-154

- icons, 127
- Log Off, 139
- My Documents, 139
- My Network Places, 139
- My Pictures, 139
- opening, 81
- Printers and Faxes, 139
- properties, 898
- Quick Launch Bar, 139
- Recent Documents, 139
- recently access applications, 138
- resetting defaults, 900
- Run, 139
- searches, 82, 146, 194-196, 202
- shortcuts, troubleshooting, 157-158
- Switch User command, 155
- Turn Off, 139
- Start Windows Normally**
 - boot option, 974**
- startup files, MS-DOS, 1102**
- startup process**
 - logins at startup, disabling, 93-94
 - performance, 20
 - secure startups, 19
 - troubleshooting
 - boot options, 972-975
 - command prompt, 970
 - creating backups from
 - System Recovery Options menu, 983-984
 - Regedit, 970-971
 - reinstalling Windows Vista, 975-976
 - Startup Repair tool, 963-964
 - System Recovery options, 962-963
 - System Restore tool, 964-967
 - Windows Complete PC Restore tool, 967-968
 - Windows Memory Diagnostic tool, 968-970
 - unwanted startup programs, eliminating, 1064-1066
- Startup Repair tool, 22, 963-964**
- static IP addresses**
 - assigning, 727
 - ISP assignment, 709
 - Remote Desktop, 1335
- static web pages, web servers, 557**
- Sticky Notes, 1367**
- storage capacity (Recycle Bin), 127**
- storage devices, upgrading to dynamic disks, 939**
- streaming**
 - audio, 439-440
 - video
 - minimum connection speeds, 439
 - playback (IE7), 437
 - sources, 439-440
- stretching desktop images, 908**
- striped volumes**
 - dynamic storage model (hard disks), 932
 - hard disks, creating (Disk Management utility), 941-942
- strokes (fonts), 842**
- stylus pens, 1362**
 - gestures, 1363-1364
 - Pen and Input Devices menu, 1372-1373
 - pen flicks, 1363-1364
- SUA (Subsystem for UNIX-Based Applications), 36, 680-682**
- subfolder driver letters, mapping, 756-757**
- subscriptions**
 - calendars, 249
 - newsgroups, Windows Mail 7, 514-515
- substitutions (fonts), 844**
- superfetching, 20**
- Switch User command (Start menu), 155**
- switches**
 - 10/100BASE-T Ethernet, 619
 - network switches, 593
- switching**
 - between wireless networks, 1271
 - hubs, 624
 - users, 105
- symbolic links, 109-110**
- Sync Center (Mobility Center), 29-30, 1282, 1305**
- Synchronization Manager, 1305**
- synchronizing**
 - newsgroups, 522
 - offline folders, manual settings, 1306
 - portable media players with Windows Media Player, 274-276
- System and Maintenance category (Category view), 807**
- System applet (Control Panel), updating device drivers, 992-993**
- System Configuration utility, 881-883**
- System Diagnostics Report, 860**
- system file recovery, 22**
- System Information tool, 889-890**
- system management**
 - new features, 22-23
 - Scheduled Tasks, 1124-1125
- system performance**
 - environment variables, setting, 1085-1091
 - program environments, 1092-1102
 - temporary files, specifying location of, 1091-1092
- System Properties (Control Panel), 868-872**
- System Protection option (System Properties), 869-870**
- System Recovery options, 962**
 - backups, creating from, 983-984
 - command prompt, 970
 - Startup Repair tool, 963-964
 - System Restore tool, 964-967
 - Windows Complete PC Restore tool, 967-968
 - Windows Memory Diagnostic tool, 968-970
- system restore, Registry backup creation, 1047**

System Restore tool

- configuring, 964-965
- creating restore points, 965-966
- restoring from restore points, 966-967

system stability, 1003**System Tools applet****(Control Panel), 1124-1125****System Tools folder,****Character Map, 892-895****System Tray. See Notification Area****SystemDrive, 1087****SystemRoot environment variable, 1087****SYSVOL folder, Windows****200x Server shared status, 749****T****tabbed browsing, 30, 430-433****Tablet PC**

- gestures, 1363-1364
- history of, 1356-1358
- Input Panel, 1361-1363
- pen flicks, 1363-1364, 1375
- regular PCs versus, 1359, 1361
- selecting, 1360
- Settings menu, 1370-1372
- stylus pens, 1362-1363
- troubleshooting
 - pen cursor, 1374
 - pen flicks, 1374
 - screen rotation, 1374
- uses for, 1358-1359

Tablet Vista, 29

- AutoComplete, 1366
- Handwriting
 - Personalization window, 1364-1365
 - Handwriting Recognition tool, 1364-1366
 - new features, 1360
- Pen and Input Devices menu, 1372-1373
- Snipping Tool, 1367-1369
- Sticky Notes, 1367

Tablet PC Settings menu, 1370-1372**Windows Journal, 1369-1370****Task Manager, 883-884**

- Applications tab, 884-885
- applications, launching, 146
- Networking tab, 888-889
- Performance tab, 887-888
- Processes tab, 885-886
- Services tab, 887
- troubleshooting, 895
- Users tab, 889

Task Scheduler, 881, 1123-1126**taskbar, 125, 141-142**

- active application buttons, 140
- customizing, 900-901
- drag-and-drop support, 181, 901
- Notification Area, 139, 901
- repositioning, 140
- resizing, 901
- Start menu, dual column arrangement, 138

Taskbar and Start Menu**Properties dialog, 140, 900-901****tasks (calendars), scheduling, 251, 1125****TCP Services, forwarding (routers), 733-734****TCP/IP**

- auto-configuration via
 - DHCP servers, 647-648
- default network protocol,
 - Internet networking with Windows XP and 2000, 666-667
- configuring, 646-649
- Internet problems, troubleshooting, 543-549
- ipconfig command, 544-545
- pathping command, 547-548
- peer-to-peer networks, configuring, 644-646
- ping command, 545-546
- route command, 548-549
- tracert command, 546-547

television. See TV**Telnet**

- Internet networking with UNIX and Linux, 676-678
- router access, preventing, 1241

Telnet session (UNIX), 676-678**TEMP environment variable, 1087****Temporal Key Integrity Protocol (TKIP), 1264****temporary files**

- Internet files, 950
- location of, specifying, 1091-1092
- offline files, deleting (Disk Cleanup utility), 951

Teredo IPv6 Tunneling support, 28**Terminal Services, remote client access, 605****testing. See also diagnostic tools; troubleshooting****fax modem, 320****networks**

- cables, 794
- configurations, 795-797
- connectivity, 797-798
- defenses, 1219-1221

Remote Desktop, 1333**scanner, 321****SP-1 (Service Pack-1), 1423****UPS configurations, 1028****text, converting handwriting to, 1370****thin clients, 1331****ThinkPad, 1356****third-party utilities**

- backup tools, 1046-1047, 1200-1201
- disk management tools, 953-954
- Internet problems
 - reverse tracert, 550
 - Speed Check, 549
 - troubleshooting, 549-550
 - Whois Database, 550

three-button mouse, auto-scrolling, 924**thumbnails**

- deleting (Disk Cleanup utility), 951
- live thumbnails, 13
- Thumbnails view (Computer), 149

- Tiles view (Computer), 149**
- Timbuktu, 1331**
- titles, adding to movies/video clips, 339-340**
- TiVo**
 - Tivo-To-Go, 274
 - Windows Media Center versus, 372
- TKIP (Temporal Key Integrity Protocol), 1264**
- too many files open error message, MS-DOS applications, 1127**
- top-level keys (Registry), 1039-1042**
- Torvalds, Linus, 37**
- TPM (Trusted Platform Module), 19, 1185-1187**
- TraceRoute.org website, 550**
- tracert tool (TCP/IP utility), 529-530, 546-547**
- transferring data between computers, Windows Easy Transfer, 100-103**
- transitions**
 - flat cuts, 336-337
 - video clips, adding (Windows Movie Maker), 336-337
- transparencies, faxing or scanning, 322**
- Travan tape storage, 616**
- Trojan horses, 1133, 1208**
- troubleshooting, 962. *See also* diagnostic tools; testing**
 - absent computers, work-group networks, 660-661
 - application crashes, 156-157, 977-979
 - backups, 1201-1202
 - BitLocker, 1202
 - blank monitors, 927
 - boot process, 957
 - Character Map, 895
 - devices, missing drivers, 1017
 - dial-up networks
 - ISP, 420-421
 - routing issues, 1296-1297
 - DVDs, playing, 260-261
 - EFS (Encrypted File System), 1202
 - errant startup programs, Registry entries, 1064-1066
 - fax services, 230
 - files
 - In Use by Another User error message, 781
 - compressing, 202
 - deleting, Administrators account, 1203
 - folders, deleting, 1203
 - garbage characters display, MS-DOS applications, 1127
 - hard disks
 - file structure problems, 956
 - hardware problems, 956
 - overview, 954
 - strategies, 955-956
 - unrecognized, 956-957
 - hardware
 - conflicts, 1035
 - general guidelines, 1034
 - Help and Support Center, 981-982
 - hidden updates, 1006
 - hubs, 659-660
 - IIS (Internet Information Services), 584-585
 - installing
 - software, 1006-1007
 - Windows Vista, notebook computers, 55
 - Internet connections, 420-421, 528
 - dial-up problems, 535-536
 - dial-up settings, 530
 - flowchart diagnosis, 532-534
 - hardware configuration problems, 539-543
 - ipconfig command, 544-545
 - ipconfig tool, 529
 - LAN problems, 537-539
 - methodology, 531-532
 - modem problems, 536-537
 - Network Connections settings, 530
 - pathping command, 547-548
 - ping command, 545-546
 - pinging with larger packets, 551-552
 - route command, 548-549
 - router configuration, 530
 - software configuration problems, 535-539
 - Speed Check, 549
 - TCP/IP utilities, 543
 - TraceRoute.org reverse tracert tools, 550
 - tracert command, 529, 546-547
 - tracert network cabling diagram, 530
 - Whois Database, 550
- Internet Explorer 7, 467**
- LAN (Local Area Networks), shared connections, 736**
- Macintosh networking**
 - inability to run concurrent applications, 698
 - lost application associations, 698
- mangled line feed/carriage returns**
 - UNIX networking, 697
- missing**
 - computers from networks, 696
 - printers, Active Directory networks, 781
- monitors**
 - LCD monitors, 927
 - multiple monitors, 1020-1021, 1032-1033
 - resolution, 927
 - screen flicker, 925
 - screen savers, 911
 - wallpaper images, 928
 - window edges off screen, 926
- mouse clicks, 927**
- movies, 345-346**
- MS-DOS, 1127**
- Network window, 660, 788-789**

- networks, 696-698
 - cables, 659, 794
 - configuration checks, 790-791, 795-797
 - connectivity checks, 797-798
 - Device Manager, 793-794
 - diagnostic questions, 786-787
 - diagnostic tools, 788, 792-793
 - Event Viewer, 792-793
 - file and printer sharing problems, 799
 - file sharing problems, 799
 - general categories, 787
 - LAN monitoring, 799-800
 - Network and Sharing Center, 789-790
 - Network Diagnostics, 790-791
 - overview, 786
 - printer sharing problems, 799
 - questions to ask, 786-787
 - services, 1241
 - types of network problems, 787
 - Windows Firewall, 791-792
 - news servers, 523
 - newsgroups, 521-522
 - non-booting computers, BIOS settings, 1033
 - Notepad, 254
 - offline folders, 1309
 - output to exterior TVs, 926
 - passwords, email accounts (Windows Mail 7), 519
 - photos, printing, 303-304
 - printing, 210-213, 228-230, 781
 - problem prevention, 976-977
 - Problem Reports and Solutions applet, 979-981
 - Programs and Features window, 1007
 - re-installing uninstalled updates, 1006
 - Registry
 - configuration changes don't appear for other users, 1066
 - corrupted files, 1063
 - recovery process, 1063-1064
 - Remote Desktop, 1350-1351
 - screen flicker, 925
 - screen savers, 911
 - searches, 201-202
 - shared connections (LAN)
 - cable connections, 736
 - DSL connections, 736
 - modem connections, 736
 - shortcuts, 157-158
 - Sidebar gadgets, 254
 - small screen fonts, 928
 - startup process
 - boot options, 972-975
 - command prompt, 970
 - creating backups from System Recovery Options menu, 983-984
 - Regedit, 970-971
 - reinstalling Windows Vista, 975-976
 - Startup Repair tool, 963-964
 - System Recovery options, 962-963
 - System Restore tool, 964-967
 - Windows Complete PC Restore tool, 967-968
 - Windows Memory Diagnostic tool, 968-970
 - Tablet PC, 1374
 - Task Manager, 895
 - tips for, 982-983
 - too many files open error message, MS-DOS applications, 1127
 - uninstalling
 - software, 1007
 - updates, 1006
 - Volume Control, 360
 - VPN (Virtual Private Networks), 1296-1297, 1308
 - wallpaper images, 928
 - Windows Fax and Scan, 320-322
 - Windows Mail 7, 520-521
 - Windows Media Center, 387-388
 - Windows Messenger, 1241
 - Windows Update, 1005
 - wireless networks, 1273-1276
 - Wordpad, 255
 - TrueType font outline technology, 841-844**
 - Turn Off (Start menu), 139**
 - TV tuner, troubleshooting, 387**
 - Tweak UI tool, 919**
 - TweakVI tool, editing Registry, 1062**
 - two-factor authentication, 1250-1251**
 - two-way authentication, 1250**
 - typefaces, 841**
 - information sources, 843-844
 - installing, 845
 - points, 842
 - substitutions, 844
 - types, 842
 - Typography (Microsoft) website, 843**
- ## U
- UAC (User Account Control), 19, 84-87, 1079, 1144-1145**
 - UDP Services, forwarding (routers), 733-734**
 - UI (User Interfaces), 122**
 - Aero, 124
 - default appearance, 125-126
 - icons, 129-130
 - putting items on, 131
 - Recycle Bin, 125-128
 - shortcuts, 131-132
 - Sidebar gadgets, 126
 - taskbar, 125
 - visual color palette, 124-125
 - breadcrumbs, 172-175
 - efficient use of, 159-161

- file system navigation, 177-184
- file views, 185-187
- folder views, 185-189
- logon process, 123-124
- panes, toggling, 184-185
- taskbar, 138-142
- Windows Explorer, 135
 - breadcrumbs, 165, 170-171, 175-177
 - Details pane, 167
 - file management, 135-138
 - new features, 164-167
 - toolbar, 165-166
 - WebView, 167-170
- Ulead Video Studio, 345**
- Ulead.com website, 345**
- Ultimate Extras, 997**
- Ultra DME EIDE hard disks, 1011**
- UNC (Universal Naming Convention), 743-744**
- unidirectional satellite dishes, 397**
- uninstalling**
 - applications, 141-142
 - programs, 140
 - software, 1000-1002, 1007
 - SP-1 (Service Pack-1), 1428
 - updates
 - troubleshooting, 1006
 - with Windows Update, 991
- University of Illinois, Mosaic Web browser development, 424**
- UNIX, 35-36**
 - carriage returns, troubleshooting, 697
 - Internetworking, 672
 - Berkeley “r” commands, 680-682
 - CIFS (Common Internet File System) protocol, 673
 - NFS, 678-679
 - Samba, 673-676
 - SMB (Server Message Block) protocol, 673
 - SUA (Subsystem for UNIX-Based Applications), 680
 - Telnet, 676-678
 - mangled line feeds, troubleshooting, 697
 - printers, LPR/LPD protocol, 764-765
 - UUCP (Unix-to-Unix Copy Protocol), news server protocol, 509
- unrecognized hard disks, troubleshooting, 956-957**
- updates**
 - album art, 284-285
 - automatic updates, 1142
 - Critical Updates, 1422
 - critical updates, downloading, 95
 - driver updates
 - manual updates, 992-993
 - Windows Update settings, 1007-1008
 - hardware, device drivers, 992-993
 - hidden updates, troubleshooting, 1006
 - hotfixes, 1422
 - importance of, 1211, 1226-1227
 - media information, 282-284
 - Microsoft E-Mail Updates Service, 1226
 - networks, mixed types, 624
 - Optional Updates, 1422
 - re-installing uninstalled updates, troubleshooting, 1006
 - service packs, 994-996
 - software, downloading, 443
 - uninstalling, troubleshooting, 1006
 - Windows Update
 - automatic updates, 987-988
 - changing update settings, 990
 - disabling updates, 990
 - hiding updates, 989
 - manual updates, 989
 - repairing/uninstalling updates, 991
 - SP-1 installation, 1425-1426
 - troubleshooting, 1005
 - viewing updates, 990
- upgrades**
 - hard disks, 1011
 - hardware, 48-49
 - EULA, 1028-1031
 - overview, 1010
 - SPP, 1028-1030
 - older operating systems, Microsoft desupport dates, 122
 - page file sizes, 1010
 - RAM, 1010
 - storage devices to dynamic disk model, 939
 - Windows Media Center, 367-368
 - Windows Vista, 62-65
 - options for, 35
 - versions of, 66
- Upgrading and Repairing Networks, Fourth Edition, 610***
- UPnP (Universal Plug and Play), 606**
- UPS (Uninterruptible Power Supplies), 617, 976**
 - configuring, 1027-1028
 - installing, 1023-1026
 - intelligent units, 1024
 - selecting, 1025-1026
 - testing configuration, 1028
- URGE online music store, 269**
- URL (Uniform Resource Locators), 428**
 - AutoComplete feature (IE7), 429
 - components of, 429
 - entry of, 429-430
 - error messages, 429
 - filename translation, website home directories, 556
 - home pages, 556-557, 572
 - HTTP protocol, 429
 - IIS, localhost, 566
 - IPP printers, selecting by, 762-763
 - websites, virtual directories, 556
- US-CERT (Computer Emergency Response Team), browser security advice, 464**
- USB backup devices, troubleshooting, 1201**

USB controllers, BIOS settings, 1018

USB flash drives, security, 1199-1200

Use Printer Halftoning option (Printer Properties dialog), 218

Usenet

lack of oversight authority, 509

newsgroups versus, 510

User Account Control (UAC), 19, 84-87, 1079, 1144-1145

user accounts

Administrator accounts, accessing, 115-116

changing settings, 90-93

creating, 89-90, 270

deleting, 90

logins

disabling at startup, 93-94

process of, 123-124

password recovery disks, 115

password reset disks, 91-92

switching, 105

types of, 88

user groups, creating, 112-113

User Accounts and Family Safety view (Category view), 811

user groups

creating, 112-113

permissions, assigning to, 1198-1199, 1203

restricted objects, permission assignments, 1203

user interface (UI). See UI (User Interfaces)

user profiles, 79

backups, 1154

changing settings, 93

default user profile, configuring, 116-117

directory structure, 105-108

junction points and symbolic links, 109-110

virtualization, 110-111

roaming, 603, 741

User Variables, 1089

user-mode drivers, 1018

USERDOMAIN, 1087

USERNAME, 1087

usernames, changing, 90

USERPROFILE environment variable, 1087

Users tab (Task Manager), 889

Utilities tab, Printer

Property sheets, 216

UTP (Unshielded Twisted-Pair) cables, 594-595, 618-620

uuencode message format, 489

V

VBScript, 1114

vCards, sending via Windows Mail 7, 508

VeriSign, certificate issuances, 456

Veritas Backup Exec, 616

VHDMount (Virtual Server 2005)

Administrator operation, 1167

command-line syntax, 1165-1166

downloading, 1164

driver installation, 1168-1170

installing, 1165

Windows Explorer operation, 1166-1167, 1170

VHS, dubbing television programs to (Windows Media Center), 384

video

analog camcorders, 325

acquisition sources, 325

clips (Windows Movie Maker)

assembling in, 333-334

capture process, 327-332

converting to movies, 333-334

editing in, 334-336

effects, adding, 337-338

file formats, 325-326

filters, 337-338

hardware requirements, 326

launching, 327, 331

media associations, 438

narration, 338-339

organizing, 332-333

saving projects, 340-343

titles, 339-340

transitions, 336-337

troubleshooting, 387-388

DV camcorders, 325

DVDs, burning to, 357-360

editing tools, 345

Internet Explorer 7

AVI format, 438

fps (frames per second), 437

MPEG format, 438

playing (Windows Media Player), 438-439

streaming, 437-440

Web elements, 436-438

WMV format, 438

non-linear editing, 325

online stores, 269-270

Web cameras, 325

Windows Media Center, playing, 378-379

video cards, 1019-1021

VideoMaker magazine website, 345

View tab (Folders Options Control Panel), 170

virtual directories

IIS, 574

redirection, 556

websites, 556

virtual domains, 559

virtual folders, 1004-1005

virtual machines, 73, 130

Virtual PC, 74

Virtual Private Networks

(VPN). See VPN (Virtual Private Networks)

virtual registries, 1004-1005

Virtual Server 2005,

VHDMount

Administrator operation, 1167

command-line syntax, 1165-1166

downloading, 1164

driver installation, 1168-1170

installing, 1165

Windows Explorer operation, 1166-1167, 1170

virtualization, 110-111, 1044
viruses, 1208
 attachments, 486
 history of, 1132-1133
 Melissa, 1133
 Michelangelo, 1132
 newsgroups, safety measures, 524
 software downloads, scanning, 443
Vista SP-1, RFM, 1031
Vista Ultimate, 996-998
Vista (Windows). See Windows Vista
visual color palette, desktop environment, 124-125
Visual Effects dialog (Control Panel), 890-891
Visual Effects tab (Computer Performance Options property sheets), 854-855
visual effects tools, 922
visualizations, Windows Media Player, 262
VMWare, 74
voice commands. See speech recognition
Volume Control, 351-353, 360, 1281
volumes
 MFT (Master File Tables), pre-allocations, 944-945
 shadow copies, 24, 1150, 1190
VPN (Virtual Private Networks), 605
 callbacks, 1291
 computer access, enabling, 1297, 1300-1301
 configuring, 1288-1289
 connections
 failures, missing certificates, 1308
 LAN Internet connections, 709-710
 process of, 1287
 properties, 1292
 routing issues, 1296-1297
 data encapsulation, 1287
 email connections, 1295
 enabling (RAS), 1297, 1300
 ending connections, 1296

establishing connections, 1293-1294
 gateway settings, 1292
 incoming access, 1297-1301
 monitoring connections, 1296
 properties tables, 1290-1291
 Remote Desktop connections, 1351
 remote network resources, 1295
 router information, manually adding, 1309-1310
 routing
 information, manual additions, 1309-1310
 issues with, 1296-1297
 troubleshooting, 1308
 tunnels, 1287

W

wallpaper (desktops)

block-like appearance, 928
 DreamScene (Ultimate Extras), 997
 GUI display properties, setting, 906-908

WBADMIN command-line tool, 1162-1164

Web browsers. See also

Internet Explorer 7

alternatives to Internet Explorer 7, 464
 Berners-Lee, Tim, 424
 Cailliau, Robert, 424
 function of, 555
 MIME types, interpretation of, 557
 Mosaic, 424
 virtual directories, redirection, 556

web cameras, 325

web feeds, automatic searches for Internet Explorer 7, 425

web pages

Address bar, length reduction (IE7), 428
 audio
 elements, 436-438
 streaming (Windows Media Player), 439-440

enlarging view (Internet Explorer 7), 426-427
 GIF image file format, 436
 graphics

copyright restrictions, 436
 mouse over action, 436
 resizing, 436
 troubleshooting (IE7), 467

home directories (IIS), copying to, 567-569

JPEG image file format, 435-436

Links bar, 427-428

loading errors, troubleshooting, 467

MP3 audio

copyright controversies, 441

downloading (Windows Media Player), 442

playing (Windows Media Player), 441

navigation tools (IE7), 428

offline browsing (IE7), 432

page not available errors, troubleshooting (IE7), 467

PNG image file format, 436
 saving for later viewing, 434-435

troubleshooting, 467

video

AVI format, 438

elements, 436-438

fps (frames per second), 437

MPEG format, 438

playing (Windows Media Player), 438-439

streaming (Windows Media Player), 439-440

WMV format, 438

web servers. See also IIS (Internet Information Services)

access, troubleshooting, 584
 authentication, 571-572
 function of, 555
 home directories, default documents, 556-557, 572
 MIME types, file labeling, 557

- physical paths, changing, 571
- programs
 - dynamic pages execution, 557
 - execution options, 558
 - server-side scripts, 558, 573
 - static pages execution, 557
- unresponsive servers, troubleshooting (IIS), 584
- virtual directories, redirection, 556
- Windows File Types
 - Registry, MIME types, 557
- web-based clients, Remote Desktop configuration, 1349**
- web-based email, backups, 1154**
- web-based news servers, 510-511**
- webpads, 1357**
- websites**
 - Apple.com, 440
 - AtomFilms.com, 342
 - availability settings (IIS), connection forwarding, 580-581
 - background images, print controls, 462
 - buy.com, 613
 - CataList, 510
 - connections
 - forwarding, 580-581
 - troubleshooting, 531-532, 584
 - Consumer Reports, 230
 - Consumer Search, 230
 - content rating systems, 461
 - cookies, enabling/disabling (IE7), 455
 - Digital Video Magazine, 345
 - Download.com, 442
 - FreeNews.net, 511
 - home directories
 - setting file permissions, 567
 - URL filename translation, 556
- IIS (Internet Information Services)
 - managing, 569-575
 - security tools, 555
- Intel Corporation, Speed Check tool, 549
- InterNIC, Whois Database tool, 550
- IPP printers, selecting by, 763
- Microsoft Downloads, 213
- Microsoft Technet, IIS security tools, 555
- mirror sites, software downloads, 442
- MSN Media, 440
- National Public Radio (NPR), 439
- objectionable content, controlling, 459-461
- offline browsing (IE7), 432
- PC Magazine, 230
- PDF documents, viewing, 468-469
- personal websites, banned on corporate networks, 555
- pop-ups/unders ads
 - blocking, 457-458
 - exceptions, 458-459
- publishing via FTPServer, 576-577
- Real Broadcast Network, 440
- Registry tips and tricks, 1062
- Roxio.com, digital editing tools, 345
- scripts
 - ASP, 586
 - dangers of, 586
 - Perl, 585
- search options
 - Search Companion (IE7), 462-464
 - setting (IE7), 462
- security 454-456, 459-461, 1240
- server connections, encrypted sessions, 456
- SETI@home Project, 909-910
- software downloads
 - add-on crash detection (IE7), 448
 - add-on management (IE7), 447-448
 - certificates (IE7), 446
 - drive-by (IE7), 445-446
 - invalid signatures (IE7), 447
 - mirror sites, 442
 - progress bar, 443
 - version updates, 443
 - virus scanning, 443
 - ZIP compression, 443
- TraceRoute.org, reverse tracer tool, 550
- Tucows.com, 442
- Ulead.com, digital editing tools, 345
- URL (Uniform Resource Locators)
 - AutoComplete, 429, 461
 - components of, 429
 - entry of, 429-430
 - error messages, 429
 - filename translation, 556
 - HTTP protocol, 429
 - VideoMaker magazine, 345
 - virtual directories, 556
 - Windows Marketplace, 619
 - wrong page versions, troubleshooting (IIS), 585
- WebView, 167-170**
- Welcome Center, 80-81**
- welcome page (IIS), 566**
- Welcome screen, 78-79**
- WEP (Wired Equivalency Privacy), 598, 1264**
- Whistler (codename), 8**
- White, Nick, 1029**
- Whois Database tool, domain registration information, 550**
- WHQL (Windows Hardware Quality Laboratories), 1014**
- Wi-Fi Alliance, IEEE 802.11**
- Wireless Ethernet, 596**
- WIA drivers, 321**
- wildcards, command-line tools, 1071**
- windir environment variable, 1087**

- Windows 2000**
 - history of Windows, 8
 - Internetworking with, 665
 - password protection and simple file sharing, 667-669
 - TCP/IP as default network protocol, 666-667
- Windows 2003 Server, 592**
- Windows 200x Server**
 - domain networks, joining, 653-655
 - shared administrative folders, 748-749
 - XP Pro versus, 613-614
- Windows 3.x, history of Windows, 6**
- Windows 95**
 - history of Windows, 6
 - Internetworking, 670-672
- Windows 98**
 - history of Windows, 6
 - Internetworking, 667, 670-672
- Windows 98 Second Edition, history of Windows, 6**
- Windows Anytime Upgrade, 66**
- Windows Backup and Restore Center. See Backup and Restore Center**
- Windows Boot Manager, 972**
- Windows Calendar. See Calendar**
- Windows Communication Foundation HTTP Activation, 692**
- Windows Complete PC Restore tool, 967-968**
- Windows Defender, 19, 853-854, 1138-1141**
- Windows Disk Diagnostics, 22**
- Windows Driver Foundation, 1018**
- Windows DVD Maker, 357-360**
- Windows Easy Transfer, 100-102**
- Windows Easy Transfer Companion, 102-103**
- Windows Experience Index, 850-853**
- Windows Explorer, 82, 97, 135**
 - applications, launching, 146
 - breadcrumbs, 165, 170-177
 - CDs, burning photos to, 300-301
 - Details pane, 167
 - Documents folder, 149-150, 165
 - elevated privileges, running with, 567
 - files
 - customizing views, 185-187
 - managing, 135-136
 - security, 200-201
 - system navigation, 177-184
 - viewing extensions, 97-98
 - zipping and packing, 198-202
 - folders
 - customizing views, 185-189
 - deleting, 138
 - viewing, 137-138
 - images, viewing with, 354-355
 - indexing, changing settings, 190-193
 - Music folder, 149-150
 - new features, 164-167
 - panes, toggling, 184-185
 - Pictures folder, 149-150
 - programs, running from, 147-149
 - screen appearance, 136
 - searches
 - changing settings, 190-193
 - deep searching, 190
 - grouping and stacking, 197-198
 - intermediate searching, 189-190
 - Search pane, 195-196
 - troubleshooting, 201-202
 - while typing, 192-194
 - shortcuts, creating, 136
 - toolbar, 165-166
- VHDMount (Virtual Server 2005) operation, 1166-1167, 1170
- WebView, 167-170
- Windows Fax and Scan, 25**
 - dialing rules, 315
 - emailing scans, 319
 - fax service configuration, 309
 - cover pages, 310-311
 - fax receiving options, 310
 - fax settings, 312
 - sender information, 310
 - faxing
 - scans, 319
 - slides and transparencies, 322
 - hardware and software requirements, 308-309
 - manipulating scanned images, 319
 - monitoring outgoing faxes, 315
 - overview, 308-309
 - previewing faxes, 314
 - printing received faxes, 316
 - receiving faxes, 316
 - scanning
 - photos, 317
 - profiles, 318-319
 - settings, 316
 - slides and transparencies, 322
 - sending faxes, 313-315
 - troubleshooting, 320-322
- Windows File Protection, 1003**
- Windows File Types Registry, MIME types, 557**
- Windows Firewall, 791-792**
 - configuring, 791, 1213, 1230-1231
 - default settings, 1234
 - disabling, 1231
 - enabling, 1225-1226, 1231
 - exceptions, enabling, 1231-1234
 - IIS (Internet Information Services), opening for, 566
 - network connection settings, 1234
 - peer-to-peer networks, configuring for, 652-653

- security, 606
- suspicious activities, monitoring, 1221
- Windows Firewall with Advanced Security, 1235**
 - configuring, 1236-1238
 - creating rules, 1238-1240
- Windows for Pen Computing, 1356**
- Windows for Workgroups, history of Windows, 6**
- Windows Hardware Quality Laboratories (WHQL), 1014**
- Windows Hold'Em feature (Ultimate Extras), 997**
- Windows Journal, 1369-1370**
- Windows key+M keystroke, immediate desktop access, 159**
- Windows Live, 986**
- Windows Mail 7, 452**
 - accounts
 - checking multiple accounts, 520
 - configuring, 478-480
 - information backups, 508
 - modifying existing accounts, 495-496
 - multiple user accounts, 498-500
 - newsgroup accounts, 512-514
 - Address Book
 - backups, 506-507
 - distribution lists, 493-494
 - entries, adding, 492-493
 - entries, deleting, 493
 - entries, editing, 493
 - looking up people who aren't in, 495
 - attachments
 - opening, 485
 - sending, 485
 - virus prevention, 486
 - contacts
 - disabling auto-additions, 520
 - sending, 508
 - data backups, 505
 - earlier Outlook versions
 - versus, 474-475
- email
 - addressing, 483-484
 - checking while traveling, 503-505
 - creating, 483-484
 - filtering, 501-502
 - formatting complaints
 - from recipients, 520
 - formatting messages, 523-524
 - formatting options, 489-490
 - organizing, 500-506
 - out of office auto reply, 503
 - receipt requests, 488
 - secure, 490-491
 - sending, 484
 - signature setup, 487
 - transfer protocols, 480-481
- HTML scripts, security protections, 498
- identity on outgoing mail, 520
- Inbox
 - appearance of, 476-477
 - Folders list, 477
 - Microsoft welcome letter, 476
 - Preview pane, 477
- incoming messages
 - deleting, 483
 - reading, 481-483
 - replying to, 482
- initial startup, 476
- launching, 476
- missing folders, troubleshooting, 521
- missing mail servers, troubleshooting, 521
- newsgroups
 - accessing, 509-510
 - locating accounts, 513-514
 - managing, 517-518
 - message size options, 526
 - messages, marked as new, 522
 - posting, 515-517
 - reading, 513-517
 - reading offline, 518-519
- setting up accounts, 512-513
- subscribing to, 514-515
- overview, 472-474
- passwords, 519
- SP2 (Service Pack 2), security features, 496
- spam
 - legal measures, 508-509
 - limitation features, 496-498
 - vCards, sending, 508
- Windows Management Instrumentation (WMI), WSH (Windows Script Host), 1120-1122**
- Windows Marketplace, 143-144, 619, 1000**
- Windows Me**
 - history of Windows, 6, 8
 - Internetworking, 667, 670-672
- Windows Media Center, 362, 452**
 - DVDs
 - burning television programs to, 383-384
 - keyboard shortcuts, 386
 - playing, 378-379
 - hardware
 - configuration, 368-370
 - requirements, 364-365
 - history of, 363
 - interface, 370-371
 - Media Center Extender, 370
 - music, playing, 378
 - parental controls, setting, 385-386
 - PC form factors, 365-366
 - photo slideshows, 376-377
 - television
 - broadcasting to TV or projector, 381-383
 - burning DivX files to DVDs, 390
 - burning to DVDs, 383-384
 - converting to DivX files, 388-389
 - disk storage requirements, 374-376
 - dubbing to VHS, 384
 - Guide setup, 372-374

- program selection, 372
 - recording programs, 373
 - viewing on HDTV or projector, 380
- troubleshooting, 387-388
- upgrading to, 367-368
- Windows Vista version
 - based on, 366
- Xbox 360 connections, 380-381
- Windows Media Player, 452**
 - audio
 - streaming audio, 439-440
 - CDs
 - bit rate, 268
 - burning, 272-274
 - file formats, 268
 - playing, 265-266
 - ripping, 266-268
 - copy protection, disabling, 262
 - DVDs
 - bit rate, 268
 - file formats, 268
 - playing, 265-266
 - ripping, 266-268
 - file types supported, 260
 - hard disk media files, playing, 266
 - home networking and, 277-278
 - interface
 - browsing and searching, 263-265
 - menu tabs, 261-263
 - media associations, setting, 438
 - media files
 - deleting, 281-282
 - organizing, 281-282
 - updating album art, 284-285
 - updating media information, 282-284
 - monitored folders, changing, 271
 - MP3 audio
 - downloading, 442
 - playing, 441
 - online stores, 269-270
 - playlists, creating, 279-280
 - PlaysForSure compatible devices versus iPods, 272
 - portable media players
 - playing through car stereo, 285-286
 - synchronizing with, 274-276
 - shuffling playback, 266
 - streaming audio/video, 439-440
 - video
 - playback support, 438
 - playing, 438-439
 - streaming, 439-440
- Windows Meeting Space, 25, 606, 1315**
- Windows Memory Diagnostic tool, 22, 968-970**
- Windows Messenger, 1241**
- Windows Mobility Center**
- Mobility Center, 21**
 - Battery Status icon, 1281
 - Brightness control, 1281
 - External Display control, 1282
 - External Display tile, 1314
 - Power Options, 1283
 - Presentation Settings, 1282, 1312-1313
 - Screen Rotation control, 1282
 - Sync Center, 1282
 - Volume control, 1281
 - Wireless Network icon, 1281
- Windows Movie Maker, 347-348**
 - alternatives to, 345
 - assembling video clips, 333-334
 - audio tracks, importing, 332
 - AutoMovie, 343-344
 - clip capture process, 325-332
 - converting clips to movies, 333-334
 - digital still images, importing, 332
 - DV camcorders, control compatibility, 346
 - editing, 334-344
 - alternative editing tools, 345
 - non-linear editing, 325
 - recorded television programs, 384
 - effects, adding, 337
 - file formats, 325
 - compatible formats, 326
 - Microsoft HighMAT technology, 342
 - filters, adding, 337-338
 - hardware requirements,
 - FireWire port, 326
 - launching, 327, 331
 - narration, 338-339
 - organizing clips, 332-333
 - playback controls, 334
 - producing movies, 325-326
 - saving projects, 340-343
 - titles, 339-340
 - transitions, 336-337
 - troubleshooting, 345-346
- Windows NT, history of Windows, 7**
- Windows NT Virtual DOS Machine (ntvdm), 1095**
- Windows OS, version determination, 920-921**
- Windows Pen Services, 1357**
- Windows Photo Gallery, 26, 288, 452**
 - adding photos to, 289, 294-295
 - archiving photos in, 305-306
 - burning photos to CD, 301-303
 - cropping photos in, 296
 - digital cameras, 292-295
 - filtering photos in, 289
 - fixing photos in, 295-296
 - importing files to, 290
 - Live File System option, 302
 - Mastered option, 302
 - organizing photos in, 290
 - previewing photos in, 290
 - printing photos from, 297-298, 303-304
 - scanners, 290-292, 304-305
 - sharing photos via, 299

- Windows Script Host (WSH).** *See* **WSH (Windows Script Host)**
- Windows Search Engine (WSE),** 15
- Windows Security Center,** 1135-1136
- Windows Server 2003,** 592
- Windows services, list of,** 1403-1420
- Windows SideShow (Control Panel),** 872
- Windows Sound Recorder,** 350-351
- Windows Task Scheduler,** 881, 1123-1126
- Windows Update, 986**
 - automatic updates, 987-988
 - changing update settings, 990
 - disabling updates, 990
 - driver update settings, 1007-1008
 - hiding updates, 989
 - manual updates, 989
 - repairing/uninstalling updates, 991
 - SP-1 (Service Pack-1) installation, 1425-1426
 - SP2 (Service Pack 2) installation, 995
 - troubleshooting, 1005
 - viewing updates, 990
 - website, 994
- Windows Vista**
 - activating, 70-72
 - boot menu, editing entries, 74-76
 - corporate network features, 39-40
 - development codenames, 4
 - exiting, 154-156
 - hardware requirements, 42-48
 - improvements over Windows XP, 5
 - installing
 - clean installations, 49-62
 - in-place upgrades, 62-65
 - network installations, 50
 - reinstalling, 975-976
 - troubleshooting on notebook computers, 55
 - Linux versus, 38-39
 - logging process, 123-124
 - multibooting, 66-70, 73
 - new features, 8-11
 - accessories, 24-27
 - for data security, 23-24
 - for entertainment, 31-32
 - for networking, 27-28
 - for performance, 20-21
 - for productivity, 29-30
 - for stability, 22-23
 - for system security, 18-20
 - in interface, 12-18
 - in Internet Explorer, 30-31
 - reinstalling for startup repair, 975-976
 - updates, downloading, 95
 - upgrading
 - options for, 35
 - versions of, 66
 - versions of, 4-5
 - compared, 32-35
 - with Windows Media Center, 366
- Windows Vista Premium Ready PC,** 48
- Windows Vista Ultimate Edition**
 - power toys, 997-998
 - Ultimate Extras, 996
 - downloading, 996
 - DreamScene wallpaper, 997
 - Secure Online Key Backup feature, 997
 - Windows Hold'Em feature, 997
- Windows Vista Upgrade Advisor,** 43-48
- Windows XP**
 - compatibility, junction points and symbolic links, 109-110
 - history of Windows, 7-8
 - internetworking with, 665
 - installing LLDP responder, 667
 - password protection and simple file sharing, 667-669
 - setting TCP/IP as default network protocol, 666-667
 - Windows Vista improvements over, 5
- Windows XP Professional,** 613-614
- WINE,** 37
- WinFax Pro software,** 228
- WinRescue utility, Registry backups,** 1046-1047
- Wired Equivalency Privacy (WEP),** 598, 636, 1264
- wired Ethernet networks,** 593-594
- Wireless Connection Properties dialog,** 1273
- Wireless Ethernet (IEEE 802.11)**
 - current standards, 596
 - security vulnerabilities, 597
 - Wi-Fi Alliance, 596
- wireless Internet access,** 397
- wireless modems,** 397, 406
- Wireless Network icon (Mobility Center),** 1281
- Wireless Network Setup Wizard,** 638-642
- wireless networks (IEEE 802.11g), 622**
 - ad hoc networks, 1262, 1271-1273
 - adding manually, 1273
 - automatic/manual connections, selecting, 1272
 - command-line tools with, 1277-1278
 - domain, 1266
 - encryption keys, 636
 - encryption protocols, 636
 - existing networks, joining, 641-642
 - features overview, 623
 - hardware requirements, 623
 - infrastructure networks, 1262
 - installing, 635-636, 638-642
 - Internet connections on LAN (Local Area Networks), 711-712
 - joining, 1267
 - at home or small offices, 1267-1269
 - existing networks, 641-642
 - in corporate environments, 1267
 - in public hot spots, 1270
 - in someone else's office, 1269-1270

- manual additions, 1273
- overview, 1262
- preferred networks, 1271-1273
- private networks, 1266
- public networks, 1266
- security
 - file and printer sharing, 1266-1267
 - MITM (Man In The Middle), 1264
 - overview, 1262-1263
 - security keys, 1264-1266
 - snooping, 1263
 - SSID (Service Set Identifier), 636
 - switching between, 1271
 - troubleshooting, 1273-1276
- wiring networks**
 - correct order in connectors, 630-631
 - installing, 628-635
- wiring channels, 659**
- wiring guides, Windows Media Center, 368-370, 380-381**
- WMI (Windows Management instrumentation), WSH (Windows Script Host), 1120-1122**
- WMV video format, 438**
- Wordpad, 254-255**
- workgroup networks, 740**
 - computers, absence of, 660-661
 - domain networks versus, 742
 - file sharing, troubleshooting, 799
 - folders, sharing, 769-771
 - printer sharing, troubleshooting, 799
 - searching, 748
- World Wide Web (WWW)**
 - growth of, 424
 - HTML (Hypertext Markup Language), 425
 - origins and development, 424
 - site registrars, 424
- worms, 1133**
- WOW64 emulation layer, 33**
- WPA2 (Wi-Fi Protected Access 2), 599**
- Writing Pad (in Input Panel), 1362**
- WSE (Windows Search Engine), 15**
- WSH (Windows Script Host), 1113**
 - ADSI, 1122
 - applications (Windows), 1122-1123
 - disk and network management, 1117-1118
 - messaging and email, 1118-1119
 - scripts, creating, 1114-1117
 - WMI, 1120-1122
- WSH (Windows Script Host), 1113**

X - Y - Z

- Xbox 360, Windows Media Center connections, 380-381**
- Xnews tool (newsgroups), 526**
- XPS (XML Paper Specification), print output, 226-227**
- zipped files, 198-200, 443**
 - creating, 953
 - troubleshooting, 202
- zones (security), 454**
- zooming (cameras), 348**