Thinking Person's Complete Guide to Mac OS X



Learn Mac OS X Snow Leopard

Scott Meyers Mike Lee

Learn Mac OS X Snow Leopard

Scott Meyers and Mike Lee

Learn Mac OS X Snow Leopard

Copyright © 2009 by Scott Mevers and Mike Lee

All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without the prior written permission of the copyright owner and the publisher.

ISBN-13 (pbk): 978-1-4302-1946-0

ISBN-13 (electronic): 978-1-4302-1947-7

Printed and bound in the United States of America 987654321

Trademarked names may appear in this book. Rather than use a trademark symbol with every occurrence of a trademarked name, we use the names only in an editorial fashion and to the benefit of the trademark owner, with no intention of infringement of the trademark.

Lead Editors: Clay Andres, Joohn Choe

Technical Reviewer: Joe Kissell

Editorial Board: Clay Andres, Steve Anglin, Mark Beckner, Ewan Buckingham, Tony Campbell, Gary Cornell, Jonathan Gennick, Michelle Lowman, Matthew Moodie, Jeffrey Pepper, Frank Pohlmann, Ben Renow-Clarke, Dominic Shakeshaft, Matt Wade, Tom Welsh

Project Manager: Sofia Marchant

Copy Editors: Nicole Abramowitz, Kim Wimpsett Associate Production Director: Kari Brooks-Copony Production Editors: Laura Cheu, Kelly Winquist Compositor: Kinetic Publishing Services, LLC

Proofreader: Linda Seifert Indexer: John Collin

Cover Designer: Kurt Krames

Manufacturing Director: Tom Debolski

Distributed to the book trade worldwide by Springer-Verlag New York, Inc., 233 Spring Street, 6th Floor, New York, NY 10013. Phone 1-800-SPRINGER, fax 201-348-4505, e-mail orders-ny@springer-sbm.com, or visit http://www.springeronline.com.

For information on translations, please contact Apress directly at 233 Spring Street, New York, NY 10013. E-mail info@apress.com, or visit http://www.apress.com.

Apress and friends of ED books may be purchased in bulk for academic, corporate, or promotional use. eBook versions and licenses are also available for most titles. For more information, reference our Special Bulk Sales—eBook Licensing web page at http://www.apress.com/info/bulksales.

The information in this book is distributed on an "as is" basis, without warranty. Although every precaution has been taken in the preparation of this work, neither the author(s) nor Apress shall have any liability to any person or entity with respect to any loss or damage caused or alleged to be caused directly or indirectly by the information contained in this work.

The source code for this book is available to readers at http://www.apress.com.

Contents at a Glance

	scal Reviewer	
	ts	
PART 1	Getting to Know Snow Leopard	
CHAPTER 1	Working in Snow Leopard: The Aqua Interface	3
CHAPTER 2	The File System	39
CHAPTER 3	Using Spotlight, Exposé, Spaces, and Dashboard	49
DADT		
PART 2	Customizing and Administering	g
	Leopard	
CHAPTER 4	System Preferences	67
CHAPTER 5	Printing, Peripherals, and Bluetooth in Snow Leopard	127
CHAPTER 6	Common Mac OS X Maintenance	151
CHAPTER 7	Backup, Synchronization, and Recovery of Data	171
CHAPTER 8	Mac OS X Security	183
		_
PART 3	Communications and the Intermal	net
CHAPTER 9	Connecting to the Internet	201
CHAPTER 10	Browsing the Web with Safari	219
CHAPTER 11	Mail, Address Book, and iCal	247
CHAPTER 12	iChat	283
CHAPTER 13	MobileMe	303

PART 4	Working with Applications	
CHAPTER 14	Application Basics	. 315
CHAPTER 15	Snow Leopard Applications	. 325
CHAPTER 16	iLife '09	. 339
PART 5	Getting to Know Darwin	
CHAPTER 17	Introducing Darwin and the Shell	. 353
CHAPTER 18	Extending the Power of Darwin	. 399
PART 6	Snow Leopard Networking	
CHAPTER 19	Snow Leopard Networking	. 425
CHAPTER 20	Working with Remote Servers and Networks	. 439
CHAPTER 21	Snow Leopard As a Web Server	. 459
PART 7 ■	Snow Leopard Development and Scripting	
CHAPTER 22	Mac OS X Automation with Automator and AppleScript	. 481
CHAPTER 23	Mac OS X Development: The Application Frameworks	
CHAPTER 24	Mac OS X Development: The Tools	. 537
CHAPTER 25	Mac OS X Development: Objective-C	. 579

PART 8	Cross-Platform Solutions	
CHAPTER 26	Working with Microsoft Windows and Other Operating Systems 6	23
PART 9	Appendixes	
APPENDIX A	What's New in Snow Leopard?6	33
APPENDIX B	Installing and Setting Up Snow Leopard6	37
APPENDIX C	Our Favorite Applications	55
INDEX	6	65

Contents

About the Techn Acknowledgmen	rsical Reviewerts	xxv
PART 1	Getting to Know Snow Leopard	I
CHAPTER 1	Working in Snow Leopard: The Aqua Interface	3
	The Menu Bar	3
	The Apple Menu	
	Application Menus	
	Status Menus	
	The Finder (and the Desktop)	9
	The Finder's Toolbar	10
	The Finder's Sidebar	11
	The Finder's Views	12
	Common Finder Tasks	16
	The Desktop	25
	Customizing the Finder	26
	The Dock	29
	Favorite Application Icons	30
	Open Applications	30
	Folders and Stacks	31
	Minimized Windows	34
	The Trash	34
	Dock Preferences	35
	Summary	37
CHAPTER 2	The File System	39
	The Overall File Structure of Snow Leopard	39
	The Users Folder and Your Home	

	The Applications Folder	41
	The Library Folders	42
	The Library and System Library Folders	42
	Personal Library Folder	43
	Other Library Items	46
	Other Common Folders	47
	Hidden Folders	47
	Summary	48
CHAPTER 3	Using Spotlight, Exposé, Spaces, and Dashboard	49
	Searching with Spotlight	10
	Performing a Basic Search in Spotlight	
	Refining and Saving Your Searches	
	Setting Up Smart Folders	
	Using Spotlight Technology in Other Applications	
	Using Exposé and Spaces	
	Exposé	
	Spaces	
	Using Dashboard	
	Summary	
PARI 2	Customizing and Administering Leopard	
CHAPTER 4	System Preferences	67
	•	
	Personal Preferences	
	Appearance	
	Desktop & Screen Saver	
	Dock	
	Exposé & Spaces	
	Language & Text	
	Security	
	Spotlight	81
	Hardware	
	CDs & DVDs	82
	CDs & DVDs	82 83
	CDs & DVDs	82 83 90

	Mouse	95
	Trackpad	97
	Print & Fax	99
	Processor	99
	Sound	100
	Internet & Wireless	102
	System	103
	Accounts	103
	Date & Time	109
	Parental Controls	112
	Software Update	117
	Speech	119
	Startup Disk	121
	Time Machine	121
	Universal Access	122
	Summary	125
CHAPTER 5	Printing, Peripherals, and Bluetooth	
	in Snow Leopard	127
	Printing in Mac OS X	127
	How "Print" Happens	
	Setting Up a USB Printer	128
	Printer Drivers	
	Connecting to a Network Printer or Shared Printer	130
	Printer Options and the Print Queue	134
	Printing from an Application	135
	Connecting Bluetooth Devices	137
	Connecting External Storage	142
	Storage Media	143
	Storage Interfaces	143
	Connecting Other Peripherals	145
	Digital Cameras	146
	Input Tablets	149
	Summary	150
CHAPTER 6	Common Mac OS X Maintenance	151
	Disk Setup and Maintenance	151
	Performing First Aid	
	Erasing and Formatting a Volume	155

	Partitioning a Disk	156
	Using RAID	158
	Creating and Restoring Disk Images	160
	Burning an Image File to a CD or DVD	161
	Managing Applications	162
	Installing	162
	Updating	163
	Uninstalling Applications	164
	Managing Fonts	167
	Summary	169
CHAPTER 7	Backup, Synchronization, and Recovery of Data	171
	The Difference Between Backups and Synchronization	172
	Backing Up Your Data with Time Machine	
	Synchronization	
	Other Methods of Backup, Sync, and Recovery	
	Summary	182
CHAPTER 8	Mac OS X Security	183
	Passwords and Keychains	183
	The Keychain Feature	183
	Creating Your Own Keychains and Keychain Items	188
	Other Keychain Options	191
	Data Encryption with the FileVault	191
	Other Security Features	194
	Summary	197
PARI 3	Communications and the Inter	net
CHAPTER 9	Connecting to the Internet	201
	Connecting to the Internet Using Dial-Up Networking	201
	Setting Up Your Dial-Up Connection	202
	Initiating Your Dial-Up Connection	205
	Setting Up Multiple Dial-Up Configurations for a Modem	206
	Broadband (High-Speed) Network Connections	207

	Configuring Your Mac for a Broadband Connection	210
	Making an AirPort Internet Connection.	
	Creating Separate Networking Profiles for Different Locations	
	Summary	217
CHAPTER 10	Browsing the Web with Safari	219
	Safari Basics	220
	The Basic Interface	220
	Setting Your Home Page	228
	Searching the Web	
	Bookmarks	229
	Adding Bookmarks	229
	Managing Bookmarks	229
	Bookmark Preferences	230
	Tabbed Browsing	230
	Creating New Tabs	231
	Moving Tabs	232
	Closing Tabs	232
	Downloading Content from the Web	232
	Viewing Image Files and PDFs in Safari	233
	Web Forms and AutoFill	234
	Security	236
	Secure Browsing	236
	Blocking Web Content	236
	Private Browsing	237
	Cookies	238
	Emptying the Browser Cache	238
	Advanced Safari Features	239
	Universal Access	239
	Setting a Default Style Sheet	240
	RSS Feeds in Safari	240
	Adding Feeds	241
	Reading Feeds	242
	Feed Options	243
	Safari Plug-Ins	244
	Web Clippings	244
	Summary	246

CHAPTER 11	Mail, Address Book, and iCal	247
	Mail	247
	Working in Mail's Interface	248
	Adding Mail Accounts	256
	Receiving and Managing E-mail	263
	Sending E-mail	269
	Creating Notes and To Dos	272
	Reading RSS Feeds in Mail	273
	Address Book	273
	Adding and Editing Contacts	274
	Learning About My Card	275
	Creating Groups	276
	Sharing Contacts	276
	Viewing Shared Contact Lists	
	Printing Labels and Envelopes	
	iCal	
	Adding Calendars to iCal	
	Adding and Editing Events	
	Using To Dos.	
	Inviting Others to Events and Appointments	
	Adding Time Zone Support	
	Subscribing to Other Calendars	
	Sharing Your Calendars	
	Learning About iCal and CalDAV	
	Summary	282
CUADTED 10	iChat	000
CHAPTER 12	iChat	283
	Getting and Setting Up an iChat Account	283
	Logging In to Your iChat Account and Setting Your Status	285
	Adding and Managing Buddies	286
	Communicating with iChat	
	Text Chat	
	Instant and Direct Messaging	
	Audio and Video Chats	
	Background Effects	
	Variations on Video Chat	
	Mobile Text Messaging	
	File Transfers	
	Screen Sharing	295

	Integrating with Mail
	Advanced Status Messages
	Customizing iChat
	General297
	Accounts
	Messages
	Alerts
	Audio/Video298
	Nifty iChat Features299
	iChat Theater299
	Tabbed Chat
	Saving Your Chats300
	Smileys
	Alternatives to iChat
	Summary301
CHAPTER 13	MobileMe
	Setting Up MobileMe303
	MobileMe E-mail, Contacts, and Calendars
	Web Hosting and Gallery
	iDisk309
	Data Syncing
	Back to My Mac310
	Application Integration
	Summary311
	■ Working with Applications
CHAPTER 14	Application Basics
	Installing an Application Package
	Starting the Installer
	Customizing Your Installation
	File Dialogs: Opening and Saving Files
	Other Common Application Features
	Choosing a Document's Default Application
	Using the Services Menu
	Using AppleScript and Automator
	Summary 324

CHAPTER 15	Snow Leopard Applications	325
	QuickTime PlayeriTunes	
	Importing Media into iTunes	
	Creating Playlists	
	Sharing and Streaming iTunes Media	
	Syncing iPods and iPhones	
	Preview	
	Photo Booth	
	Other Default Snow Leopard Applications	
	Summary	
CHAPTER 16	iLife '09	339
	iPhoto '09	339
	Photo Management	
	Photo Editing	
	Printing and Sharing Your Photos	344
	iMovie '09	345
	iWeb '09	347
	GarageBand '09	349
	iDVD	351
	Summary	352
PART 5 CHAPTER 17	■ Getting to Know Darwin Introducing Darwin and the Shell	252
UNAF IEN 17		
	Darwin Basics	
	Darwin Semantics	
	The File System	
	Introducing the Shell	
	Moving Around Darwin	
	Wildcards	
	Working with Files and Directories	
	More Essential Commands	
	Pipes, Redirection, and Background Tasks	
	Working As Root	
	audooro	3/0

	Editing Files	380
	Vim	380
	Emacs	385
	Nano	387
	File Permissions and Attributes	389
	ACLs and Extended File Attributes	391
	Customizing Terminal and the Shell	394
	Terminal Setup	394
	Setting Up Your Shell Environment	
	Creating Commands with Aliases and Functions	397
	Summary	398
CHAPTER 18	Extending the Power of Darwin	399
	Getting Started with Shell Scripting	399
	Variables	402
	Controlling the Flow	404
	Input and Output	
	Advanced Scripting with Perl, Python, and Ruby	
	Perl	
	Python	
	Ruby	
	Installing New Darwin Software	
	MacPorts and Fink	
	Compiling Software from the Source Code	
	Step 1: Configure	
	Step 2: Build	
	Step 3: Install	
	Summary	423
PART 6	Snow Leopard Networking	
71111	onow Loopara Hothorking	
CHAPTER 19	Snow Leopard Networking	425
	Setting Up the Firewall	
	Monitoring Network Traffic	
	Network Utilities	430
	Info	
	Netstat	430
	Ping	431
	Lookup	404

	Traceroute	431
	Whois	431
	Finger	432
	Port Scan	432
	Advanced Networking with Darwin	432
	Wireless Networking with AirPort	434
	Port Forwarding	436
	Summary	438
CHAPTER 20	Working with Remote Servers and Networks	439
	Making the Connection	439
	Navigating in the Finder	
	Connecting Directly	
	Connecting in Darwin	
	Third-Party Solutions	
	Connecting to MobileMe	
	iDisk	447
	Back to My Mac	447
	Third-Party Integration	
	Informal Networking	449
	Target Disk Mode	450
	AirPort	451
	FireWire and Ethernet	452
	Bonjour	452
	Sharing	453
	DVD or CD Sharing	454
	Screen Sharing	454
	File Sharing	455
	Printer Sharing	455
	Scanner Sharing	455
	Web Sharing	455
	Remote Login	456
	Remote Management	456
	Remote Apple Events	456
	Xgrid Sharing	456
	Internet Sharing	457
	Bluetooth Sharing	457
	Summary	457

CHAPTER 21	Snow Leopard As a Web Server459
	Apache
	PHP
	Database
	SQLite
	MySQL
	PostgreSQL
	Tips and Tricks474
	Making Sites the Document Root
	Troubleshooting Permissions
	Domain Name Tricks
	Custom Domains Without DNS
	Dynamic DNS
	Summary
PARI /	Snow Leopard Development and Scripting
CHAPTER 22	
	Mac OS X Automation with Automator
	and AppleScript481
	and AppleScript481
	and AppleScript481Automator483
	and AppleScript 481 Automator 483 Actions 484 Workflows 486 Using Actions 489
	and AppleScript 481 Automator 483 Actions 484 Workflows 486 Using Actions 489 Variables 495
	and AppleScript 481 Automator 483 Actions 484 Workflows 486 Using Actions 489 Variables 495 Advanced Automator Shenanigans 499
	and AppleScript 481 Automator 483 Actions 484 Workflows 486 Using Actions 489 Variables 495 Advanced Automator Shenanigans 499 How Automator Works 503
	and AppleScript 481 Automator 483 Actions 484 Workflows 486 Using Actions 489 Variables 495 Advanced Automator Shenanigans 499 How Automator Works 503 AppleScript 503
	and AppleScript 481 Automator 483 Actions 484 Workflows 486 Using Actions 489 Variables 495 Advanced Automator Shenanigans 499 How Automator Works 503 AppleScript 503 Analyzing the Code 505
	and AppleScript 481 Automator 483 Actions 484 Workflows 486 Using Actions 489 Variables 495 Advanced Automator Shenanigans 499 How Automator Works 503 AppleScript 503

CHAPTER 23	Mac OS X Development: The Application Frameworks	513
	Ease of Use	513
	Application Kit	
	Foundation	
	Core Data	
	Image Kit	518
	QuickTime Kit	519
	Integration	519
	Address Book	520
	Automator	521
	MobileMe Integration with the DotMac Kit	521
	Calendar Store	521
	Instant Message	523
	PDF Kit	524
	Publication Subscription	
	Spotlight	
	Quick Look	
	Scripting Bridge	
	WebKit	
	Beauty	
	Core Animation	
	Core Image	
	Core Graphics	
	Core Video	
	Image I/O	
	Performance and Concurrency	
	NSOperation	
	Grand Central Dispatch	
	OpenCL	
	Accelerate	
	Other Application Frameworks	
	Cocoa	
	Java AppleScript	
	WebObjects	
	BSD/X11	

CHAPTER 24	Mac OS X Development: The Tools	537
	Apple Developer Connection	537
	Installing Xcode Tools	538
	Introduction to Xcode	538
	Xcode Preferences	538
	Documentation	541
	Project Organization	543
	Interface Builder	549
	The Interface	550
	The Inspector	551
	The Library	555
	The Nib	557
	Programming in Xcode	558
	The Editor	558
	Debugging	562
	Other Features	567
	Other Tools	568
	Instruments	568
	Quartz Composer	569
	Dashcode	570
	Core Image Fun House	572
	FileMerge	572
	IconComposer	573
	Property List Editor	574
	Shark	574
	Bug Reporter	575
	More Information	576
	Summary	577
CHAPTER 25	Mac OS X Development: Objective-C	579
	Objective-C Syntax	580
	Objective-C Improves C	
	Memory Management	
	Scalars	
	Logging	
	Strings	
	Arrays	
	Booleans	

	Equality	583
	Void	584
	Emptiness	585
	Objective-C Memory Management	585
	Object-Oriented Programming with Objective-C	590
	Declaring an Interface	590
	Implementing the Class	592
	Class Methods	594
	Init and Dealloc	595
	Instance Methods	597
	Protocols	600
	Objective-C Dynamic Runtime	602
	Categories	603
	Method Swizzling	606
	Key Value Coding	609
	Objective-C 2.0	610
	Class Extension	610
	Fast Enumeration	611
	Garbage Collection	612
	Properties	614
	64-bit/iPhone Changes	618
	Blocks	619
	Learn More	619
	Summary	620
PART 8	Cross-Platform Solutions	
CHAPTER 26	Working with Microsoft Windows and Other	
	Operating Systems	623
	Working with Other File Types and File Systems	
	Sharing Files with Windows	
	Running Microsoft Windows on Your Mac	
	Boot Camp.	
	Parallels Desktop and VMware Fusion	
	CodeWeavers CrossOver (and Wine)	
	Accessing a Windows Computer Remotely	631
	Cummary	ເທດ

PART 9 **Appendixes**

APPENDIX A	What's New in Snow Leopard?	. 633
	User Changes in the System	. 633
	Overall Appearance	. 633
	Improved Stacks	. 633
	Exposé Refinements	. 633
	Tweaked System Preferences	. 634
	Application Enhancements	. 634
	Mail, iCal, and Address Book	. 634
	Safari 4	. 634
	Image Capture	. 634
	QuickTime	. 634
	Xcode Tools	. 634
	Under the Hood	. 635
	Intel Only	. 635
	Grand Central	. 635
	OpenCL	. 635
	64-bit	. 635
APPENDIX B	Installing and Setting Up Snow Leopard	. 637
APPENDIX C	Our Favorite Applications	. 655
INDEX		. 665

About the Authors



TRS-80s and Apple IIs (his first computer was an Apple IIe that served him well until he got his second computer . . . a shiny new Macintosh). Professionally, after college and after bartending for a few years, Scott took a job as an Apple sales specialist and consultant for a Midwestern computer retailer that was long ago bought out by another company. Since then, Scott has had many titles including Web Developer, Senior Development Editor, Marketing Product Manager, Information Systems Specialist, and Acquisitions Editor—all revolving around the computer

industry and often alongside one of his trusty Macs (currently a MacBook Pro).

Scott lives in Carmel, Indiana (just outside of Indianapolis), with his wife, two kids, an old fat cat, and a crazy mutt of a dog. When not working or writing, Scott likes building and modifying tube amplifiers and then making loud guitar noises through them, traveling, photography, and watching FCB beat Real Madrid.

Scott can be contacted at scott@beyondmac.com. Answers, updates, and errata for this book can be found at www.beyondmac.com.



MIKE LEE, the world's toughest programmer, is the founder and CEO of United Lemur, a philanthropic revolution disguised as a software company. Mike has had a role in creating many popular iPhone applications, including Obama '08, Tap Tap Revenge, Twinkle, and Jott.

Prior to the iPhone, Mike cut his teeth—and won an Apple Design Award—at the Seattle-based Delicious Monster Software. Mike is a popular blogger and occasional pundit and has been seen on Twitter as @bmf.

Mike is originally from Honolulu but currently lives in Silicon Valley with two cats. Mike's hobbies include weightlifting, single malts, and fire.

Mike can be contacted at mike@unitedlemur.org.

About the Technical Reviewer



■JOE KISSELL is the senior editor of TidBITS, a web site and weekly e-mail newsletter about the Macintosh and the Internet, and the author of numerous print and electronic books about Macintosh software, including the best-selling *Take Control of Mac OS X Backups*. He is also a senior contributor to *Macworld*. Joe has worked in the Mac software industry since the early 1990s and previously managed software development for Nisus Software and Kensington Technology Group. He currently lives in Paris, France.

Acknowledgments

A great deal of love and thanks go out to my family: Sara Beth, Ethan, and Isabel—writing sucks away a lot of time and occasionally makes me cranky, and I couldn't do this without their support (and I often wonder why I still get it).

A big thanks to everyone who worked on this book with me: Mike, Joe, Sophia, Nicole, Laura, Kim, Kurt, Joohn, Clay, and everyone else I missed. Bringing a book to market requires a lot of people doing a lot of work, and I appreciate it all.

Thanks also goes out to the folks at Apple who continue to amaze us with great products and great support for their products.

Finally, a shout-out to all the great people I've worked with at the old Apress office in Berkeley, California. They made this, and countless other Apress books, more than just possible; they made them great. I wish them all the best of luck.

Scott Meyers

In addition to the teams at Apress and Apple without whom this book could not exist, I have to acknowledge three groups of people who have accompanied me on this ride.

First, I have to thank the mentors who have given so freely of their time and knowledge to make me the engineer I am today. I can only hope to live up to your lessons.

Second, I have to thank the trail of broken engineers and designers who have followed me into the madness in which great software is forged. You've earned your success.

Finally, I have to thank the crazy people who should know better than to set aside their perfectly adequate lives to pursue their passions armed with little more than a book and a dream. You are the reason we write.

Mike Lee

Introduction

Whether you're new to the Mac or just new to Snow Leopard, we wrote this book for you. We didn't say new to computers. That's what makes this book unique. Maybe you're an infrequent upgrader or a programmer from another platform who bought a Mac to write software for the iPhone. We talk to you, without talking *down* to you.

We don't explain to you what a mouse is, but we do tell how using a mouse on a Mac is different from using a mouse on Windows. We give detailed summaries of every part of Mac OS X, from the Finder to Terminal.

We give you a tour of the Applications folder, with chapters dedicated to Snow Leopard applications and iLife, Apple's digital lifestyle suite. We get you connected, with chapters on Safari, iChat, and MobileMe, as well as on the productivity trio of Mail, Address Book, and iCal.

We don't stop at the consumer stuff. We point out the Pro versions and link to the documentation. We provide generous screenshots and actual, usable sample code. We talk about the UNIX layer that lives beneath Aqua's candy shell. We show you how to master your Mac with shell scripts, AppleScripts, and Automator.

We show you how to install the Xcode developer tools. We take you on a tour of the Cocoa frameworks and get up close and personal with Objective-C, the native programming language of both Mac OS X and iPhone OS.

Whether you want to learn how to produce a podcast with GarageBand or become the next App Store millionaire with Xcode, we get you started. With the power that we help you unlock from your Mac, this book doesn't just pay for itself; it beats the returns on Wall Street.

PART 1

Getting to Know Snow Leopard

Working in Snow Leopard: The Aqua Interface

Whether you are new to OS X or just new to Snow Leopard, the first step to getting the most out of your computer is to learn a bit about Aqua. Apple has designed what many people think is the most attractive, user-friendly interface of any popular computer operating system today; however, if you come to OS X after years of using Windows or some other operating system, you will likely encounter a number of features that are different and perhaps even confusing. Also, if you are just making the upgrade from Tiger or an earlier Mac OS X version, you will immediately notice a number of differences in Snow Leopard; even if you're upgrading from Leopard to Snow Leopard, you may notice a few refinements to the interface. This chapter will go over the interface basics of Snow Leopard and show you how to get the most out of it, specifically:

- · The menu bar
- The Finder and the desktop
- The Dock

The Menu Bar

The menu bar may seem like an odd choice as the first topic to cover in this book; however, it is one of the primary user-interface (UI) elements for both controlling and getting information in OS X. It is also the UI element that is most unique to OS X (and actually the Mac OS since its inception). The menu bar (shown in Figure 1-1) is divided into three primary areas: the Apple menu, the application menus, and the status menus.



Figure 1-1. The OS X menu bar in Leopard

The Apple Menu

The Apple menu on the far-left side of the menu bar (shown expanded in Figure 1-2) is a special menu containing a number of system-level commands and resources that are particularly handy to have easily accessible. This includes the About This Mac command; shortcuts to Software Update; the System Preferences command; shortcuts to Dock preferences; the Recent Items command (including shortcuts for applications, documents, and servers); the Force Quit command that allows you to immediately quit an application; the Sleep, Restart..., and Shut Down... commands; and the Log Out *User...* command. Most of these are fairly obvious as to what they do; however, some additional information about some of these items may be helpful.



Figure 1-2. The Apple menu

The About This Mac command opens a window (shown in Figure 1-3) that gives you some fairly self-explanatory information about your computer. Clicking the light gray text under the large Mac OS X that reads Version 10.6 will cycle through additional information, including the exact operating system build number and the computer's serial number (this is a much easier way to get your serial number than searching around for it on your actual computer). The More Info button in the About This Mac window launches the System Profiler application that contains all sorts of information about your computer and the software installed on it.



Figure 1-3. About This Mac window

The Recent Items command opens a submenu that by default shows you the last ten applications, documents, and servers you accessed (for a total of up to thirty items). You can adjust these defaults in the Appearance panel in System Preferences (we'll talk about System Preferences in depth in Chapter 4). You'll also see an option here to clear all items if, for whatever reason, you don't want that information to display.

The Force Quit command opens a new window that shows all the currently running Aqua applications. From this window you can select any of those applications to quit immediately. By immediately, we mean right away—no saving files or anything. The application will just quit. About the only times you may find yourself needing this is if an application freezes up (or in Apple lingo, *stops responding*) or if you need to *relaunch* the Finder (if you force quit the Finder, it will start back up, so in Apple lingo, rather than force quit the Finder, you relaunch it).

Tip You can also force quit any item from the Dock by Control-Option-clicking on the desired item in the Dock and selecting Force Quit from the contextual menu (if you apply this to the Finder instead of Force Quit, you will see Relaunch). If all else fails, holding down Command-Option-Shift-Esc for a few seconds will force quit the foreground application.

Note You may notice that some menu items have an ellipsis (...) after them, and some don't. According to Apple's Human Interface Guidelines (http://developer.apple.com/documentation/userexperience/Conceptual/AppleHIGuidelines/XHIGIntro/XHIGIntro.html), items with the ellipsis require some additional user interaction to complete a task. In general, this means an item will either prompt you or open a window with additional options. Another item common in menus is the sideways triangle on the far right, which indicates the menu item will open a submenu, and of course keyboard shortcuts are viewable for a number of menu items.

Application Menus

Moving just to the right of the Apple menu begins the application menus. This is where people new to Macs tend to get thrown off; you see, in OS X, there is only one application menu bar, and this is it. The application menus, however, are dynamic in the sense that the information in one menu bar reflects the application running in the foreground. So if Microsoft Word is the active foreground application, the menu bar will provide the menu items provided by Microsoft Word (see Figure 1-4). If you bring the Finder or another application to the foreground, the menu bar will change to provide menu items for that application.



Figure 1-4. The menu bar's application menu presents Microsoft Word's menus when you're using Microsoft Word. Compare this to the Finder's menus in Figure 1-1.

Note While Mac OS X runs many applications concurrently (i.e., it multitasks), it assumes that the user is generally actively using one application at a time. The application that is currently being used is referred to as the *foreground* application; other applications are said to be running in the *background*. Sometimes the foreground application is also called the application that has *focus*.

In keeping with standard Mac UI guidelines, many menu items are the same from one application to another; additionally, the general arrangement of the menus should be fairly consistent from one application to another (however, developers can create applications that deviate from this in sometimes minor and sometimes major ways). The first menu to the right of the Apple menu, called the *application menu*, should always reflect the name of the current foreground application. In addition to the application menu, almost all proper Aqua applications have at least the following additional menus: File, Edit, Window, and Help. Interface Builder, part of the Xcode tools, sets up the following application menus by default: New Application, File, Edit, Format, View, Window, and Help. Everything between the Edit and Window menus tends to vary from application to application.