1

Why Having Chosen Mac OS X Was by No Means a Dopey Idea

In This Chapter

If Your Computer Was Really Your Friend, It Wouldn't Crash On You So Often • Tiger Is Non-Crashy and Faster

Tiger Is Non-Crashy and Faster and Easier To Use • In Most States, Your Spouse Owns Half of That $2,000 Mac

U2's Next Album Isn't Coming Out On 8-track • You Can Run Nearly Any App

Tiger's Got a Creamy Nougat Center of Thick, Rich Unix

I suppose I should start off by stressing that I am totally on your side. I'm your pal; I'm your friend. I don't think I'm willing to cosign a car loan for you or anything like that, but on the whole, when you picture Andy Ihnatko in your mind, just take a stock mental image of St. Francis of Assissi and add a hat and a downright stupid quantity of personal electronics, and you'll have me down to a T. Two reasons for this visualization: First, because I really do want you to be a happy, capable, and proud user of Mac OS X Tiger; and secondly, I'm spending all this time writing a chapter telling you why Tiger is a great OS.

Honestly, I'm to be commended. Those people who seek out and eradicate disease, hunger, poverty, et al.? Punks, all of 'em. When the Nobel Prize committee comes to their senses and starts recognizing the intense personal sacrifices committed in the name of computer books, I expect to be eating lutefisk front-and-center with the best of 'em.

Look at it this way: I already have your money. And yet, here I am, sitting in a hotel room in Kauai, reassuring you about the wisdom of Mac OS X, when I'm supposed to be at the beach competing

in the Xbox Pipeline Masters Tournament — a surf contest that I was *heavily* favored to win. Plus, there were going to be girls there, probably. So why am I doing this? Exactly. Selfless dedication to the needs of you, the reader. No, don't thank me; honestly, I just don't know any other way.

So I wanna start off by reaffirming the reasons why Mac OS X is the best thing since sliced cat's pajamas. Some of you (guessing by the adoption numbers available in 2004) are still migrating to X from earlier versions of the Mac OS. Others are coming here from Windows.

And even if you're upgrading from a previous version of X, all the basic concepts of Why Mac OS X Continues To Be A Good Idea bear repeating. As Mac users, our most adorable communal attribute is our eagerness to evangelize. Let's say that you're flying to New York and the guy in the middle seat is using a Windows notebook. Naturally, you're going to harangue him about your Mac, but are you *sure* you have enough material to maintain a one-sided conversation for the *entire* four-hour flight? Forewarned is forearmed. By mastering the bromides in this chapter, you'll have the information you need to convert another poor unfortunate to the True Path.

REDUCE BULK, REDUCE STRESS

It's probably a good idea to just tear this whole chapter out of the book and keep it in a coat pocket or purse, for discreet reference when these opportunities arise, or to hand off to someone who's on the fence. You won't miss a single trick, plus there's an excellent chance that you'll be forced to go out and buy another copy of the book. It's called "Smart Marketing," people.

IF YOUR COMPUTER WAS *REALLY* YOUR FRIEND, IT WOULDN'T CRASH ON YOU SO OFTEN

We all like to have a little variety thrown into our workday. But when your computer freezes up on you 20 minutes before the deadline of a critical project and you know that you had plenty of unsaved changes, well, you yearn for the stable, reliable, hour-to-hour routine of a life in the federal prison system.

Every edition of the Macintosh operating system before Mac OS X was a steady evolution of the same OS that shipped with the original Macintosh 128K in 1984, which means it uses the same methods of managing programs and memory that were in vogue during the Reagan Administration. Sure, it made sense back then; with the ever-present threat of an intercontinental thermonuclear holocaust hanging over our heads, all of a computer's programs crashing at once really didn't seem like such a big problem, all things considered.

Thankfully, times have changed. New ideas about OS architecture and memory management were developed and perfected and started to appear in Windows and other operating systems, while the Macintosh OS was stuck in the early 1980s. Before too long, the Mac got a bad reputation: It was known as that one operating system that always crashes, taking all of your work down with it; and it was also known for being about as agile as a pig ice-skating on three legs, one of which was actually wearing a skate.

Such slings and arrows are a thing of the past, thanks to protected memory and preemptive multitasking. *Protected memory* is a memory-management scheme in which the operating system isolates every piece of running software, assigning it a private, walled-off little box of memory.

A SPECIAL WORD FOR FORMER WINDOWS USERS

If you **are** coming to the Mac OS X fresh from Windows, let me say straight off: This is going to be great. Our Kool-Aid is just **so** much better than theirs. The only downside is that nearly all private insurers categorize the removal of the Microsoft Quality Control and Rights Management chips from your brainstem as elective surgery. Well, let me assure you that it's a simple outpatient procedure and in time, you'll think of it as the best $1,100 you ever spent.

Just keep some ice on the sutures, and the pain, swelling, and scarring will be kept to a cozy minimum.

Under the old scheme, the OS used one big memory space for all software. When one app trashed its space, it also trashed the space that every other app used. Result: *Boom*. One app might accidentally write data to a bit of memory that another app is using. Again: Boom. The difference between protected memory and the way the Mac OS used to do things is like the difference between roommates living in a two-bedroom apartment and sharing an open loft space. Oscar Madison can decorate his bedroom with day-old newspapers and week-old pizzas, and it won't affect Felix Unger in the slightest.

Preemptive multitasking is a bit more complicated. Essentially, it's the way that the OS juggles multiple tasks. The old OS could run multiple apps, sure, but it used an unsophisticated scheme called *cooperative multitasking*. Those of you who've ever worked with Humans before see the flaw in this scheme right away: It only works if all of the running apps cooperate with each other; and because software is an ego-driven tangle of selfish personal

interests, the "cooperation" was marginal at best. When a running app needed to perform a function, it would seize complete control of the CPU and only relinquished it to other running apps when its immediate task was complete. It all usually happened so fast the user barely noticed, but still, cooperative multitasking is *fake* multitasking.

▼ **Note**

For a flawless demo of the limits of cooperative multitasking, just pull down a menu in Mac OS 9. Every other function comes to a dead stop; the snippet of code that handles the menu bar now completely owns the Mac, and nothing else can happen until you let go of the mouse button. If you don't have Mac OS 9 handy, go and brush your teeth while your significant other is exfoliating. You can try as best you can, but you can't get around the fact that there's just one sink and one mirror.

The old Mac OS fakes real multitasking well, but X is better. The OS prioritizes all of the apps' ongoing tasks so that no one app can tie up the CPU.

As a result, Mac OS X is way more stable and feels way more responsive. Applications can indeed freeze up, but each piece of software, including the OS itself, runs in its own little bunker of protected memory. One malcontented piece of code can't bring down the entire Mac.

Under Mac OS 9, you're probably forced to restart your Mac once a day. As a longtime Mac OS X user, I can tell you that the only times I ever restart my Mac are when I've installed new software that requires me to do so. This way is better.

▼ **Note**

Still, let's not completely pooh-pooh the advantages of using a computer that can crash at any given moment with the slightest provocation and take

all of your open documents down with it. When I upgraded to Mac OS X, my only big disappointment with it was that I suddenly couldn't use "My Mac crashed and ate all my work" as an excuse any more. It was almost as bad as when I replaced my 12-year-old Pontiac with my first brand-new car. All of a sudden, people started expecting me to show up at work **on time** and stuff. It was a very stressful turn of events.
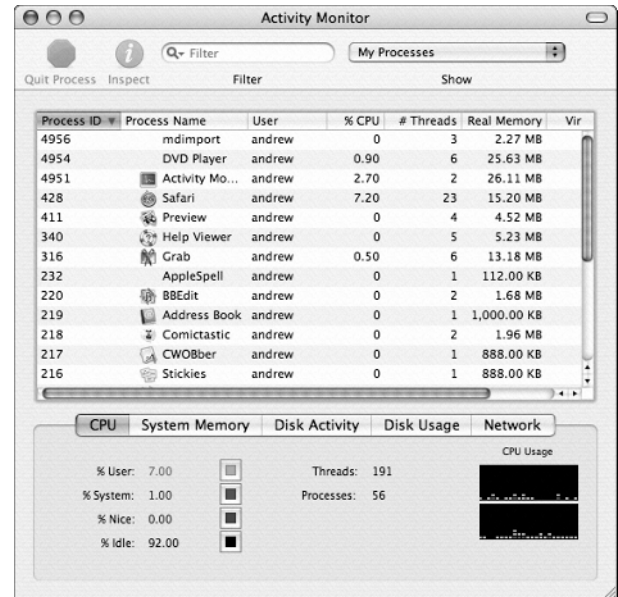
TIGER IS NON-CRASHY *AND* FASTER

Mac OS X was written from the ground up, recycling little. Along the way, all of its basic code was enhanced and covered with Teflon to make it slicker and more aerodynamic.

If that weren't enough, Mac OS X is optimized to take full advantage of modern Mac hardware, such as the G4's Velocity Engine coprocessor, the absurdly advanced architecture of the G5, machines with multiple microprocessors, and even new technologies for sharing the processing power of several Macs across a network. One of the five most powerful supercomputers on the planet is a roomful of Macs that act like a single brain. It's Mac OS X that makes this possible, and it's unique throughout the entire industry.

Thanks to X's support of multiprocessing, any time Apple wants to make a faster Mac, all it needs to do is add more processors. Figure 1-1 is a graph of how hard a two-processor Mac works while playing music, building a DVD, *and* emulating a Windows PC all at once!

Bottom line: The first time you boot your old computer with Mac OS X, you'll feel as though you've taken the stock engine out of your Volkswagen and replaced it with something you tore out of a Porsche while its owner was off in Vail.

Figure 1-1
The Activity Monitor is the Mac's "dashboard" for examining performance.

TIGER IS NON-CRASHY *AND* FASTER *AND* EASIER TO USE

I've been focusing on *technical* advances that have been made in the field of OS architecture since 1984. But Apple spent a colossal amount of time reconsidering how Humans interact with computers, and (by extension) how computers can be encouraged not to be such truculent free-willed nincompoops.

From the Dock to the new Aqua user interface and beyond, Mac OS X's elegance and ease is as big an improvement over Mac OS 9 as Mac OS 9 is over any version of Windows. Check out Chapter 8, which is all about the universal and holistic Dock (Figure 1-2), Mac OS X's biggest and best basic improvement to the Mac interface.

Figure 1-2

The Dock. The glorious, wonderful, funderful Dock is just one of the Mac's many X-only user-interface innovations.

▼ Note

Gosh, you're **still** reading this chapter? I'm terribly flattered. I think that Mac OS X has already made a smashing case for itself at this point in the proceedings, and if you're reading the rest of this, it can only mean that you're enjoying the writing. It's an overwhelming vote of confidence and I shall endeavor to be worthy of it.

IN MOST STATES, YOUR SPOUSE LEGALLY OWNS HALF OF THAT $2,000 MAC

Funny, isn't it, that when you come home after blowing thousands of dollars of the household budget on a new toy, *other* members of the house actually insist on getting a turn at the keyboard, too! I mean, really. Does the simple but effective phrase "Mine mine mine mine *mine!!!*" mean nothing to these people?

The petty demands of your spouse and your kids will still sting, but at least they can't mess around with your personal files and customized settings. Mac OS X is a true multiuser operating system. If you set up the Mac with separate accounts for Mom, Dad, and little D'Artagnian, it's like owning three different Macs. Mom and Dad don't have to look at their kid's Sailor Moon desktop picture, and the kid will never pore through Mom and Dad's copy of Quicken and learn that the folks blew his entire college fund on that

new Cadillac Escalade parked outside. Chapter 18 is all about sharing your Mac and its resources with other people.

U2'S NEXT ALBUM ISN'T COMING OUT ON 8-TRACK

Mac OS X is the present, and it's the future. There is no serious ongoing development of Mac OS 9 software. Every important app, every utility that shaves an hour of work out of your day, every incredible new piece of hardware, every revolutionary Internet resource, every component of iLife that awakens talents in you that you've hitherto envied only in others (as well as every efficient mechanism for locating and viewing pictures of scantily clad people on the Internet) will be available solely and exclusively for Macs running OS X. Not Mac OS 9.

YOU CAN RUN NEARLY ANY APP

God knows why you'd want to run apps not specifically written for Mac OS X, but you can. Mac OS X can bamboozle all of your old OS 9 software into thinking it isn't running on the most advanced OS on the planet. It's sort of like when aliens abduct Amish people and make their spaceship look like it's made out of pine lumber and hay, just to keep them from freaking out. Read Chapter 10 to see me heap additional derisive abuse upon the idea of running old apps, which I also parenthetically talk about how to actually do. But the main thrust is on pouring you

a nice hot cup of General Foods International® Coffee and browbeating you into forsaking all that is non-Mac OS X in this world.
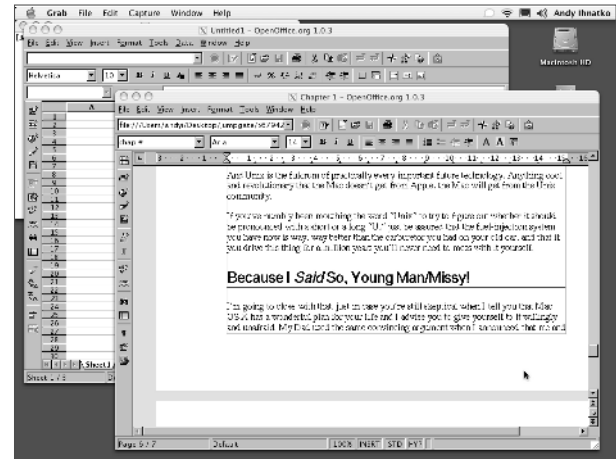
On top of *that,* you can also run most Windows apps, by buying a special piece of Windows-emulation software sold by Microsoft. And because Mac OS X has a creamy nougat center of thick, rich Unix, you can also run hundreds of free, commercial-grade apps written and supported by the open-source software community. Oh, wait. . . did I mention that Tiger's got a creamy nougat center of thick, rich Unix?

TIGER'S GOT A CREAMY NOUGAT CENTER OF THICK, RICH UNIX

And this is the point in the pitch when the car salesman talks about how this model has a Hanley-style fuel-injection system instead of an old-fashioned venturi carburetor: you haven't the foggiest idea what either term means, but so long as it makes the car go faster, that's all you're interested in.

Unix makes the Mac go better. No question. It means that your Mac is more stable; it's more secure from attacks by viruses and Trojan horses and evil, egg-sucking weasel system crackers trying to sneak in through its connections to the rest of the world. It also works with almost any network up to and including the one that controls the group consciousness of the hyperintelligent race of cyborgs that shall surely enslave us all some day.

With Unix at the heart of X, the Macintosh community gets a lot of things for "free." That's literally true; open-source software (in which the apps are copyrighted, but they're authored by the entire developer community and can be freely distributed) is a big deal in Unix, and everything from games to audio-recording apps to a complete suite of Microsoft Office–compatible apps are available for little more than the cost of duplication, if anything (see Figure 1-3).

Figure 1-3

Open Office, a Microsoft Office–compatible suite of apps, is free for the downloading.

▼ Note
Plus, there are a lot of bars and clubs near the Massachusetts Institute of Technology where you won't get anywhere with anybody unless you're wearing a wristwatch with more than 2MB of flash storage and can honestly claim to be running some sort of Unix at home. Word to the wise.

But getting things for free is also metaphorically true. Apple tried — twice — to create its own next-generation operating system from the ground up. Both times, they quickly got bogged down in the infinite and stubborn details of forging revolution. Ten seconds after they decided to base Mac OS X around Unix, the new OS inherited all of Unix's advantages. It's aggressively a network-friendly OS; it's secure; it's extensible; it's based on international standards; and it's supported and maintained by uncountable developers, which means that when something very basic breaks, chances are excellent that the problem is already well understood and easy for Apple to fix.

And Unix is the fulcrum of practically every important future technology. Anything cool and revolutionary that the Mac doesn't get from Apple, the Mac will inherit from the Unix community.

So I've sold you on the Unix and given you the technical reasons why it's a very good thing for the Mac. But if you've numbly been mouthing the word Unix to try to figure out whether it should be pronounced with a short or a long *U*, just be assured that the fuel-injection system you have now is way, way better than the carburetor you had on your old car; and that if you drive this thing for a million years, you'll never need to mess with it yourself. If you do care to learn a little about Unix, however, and you want to take that giant leap forward towards enlightenment and productivity, be sure to check out Chapter 20, taking a deep breath first if necessary.

TIGER'S WHERE ALL THE *ACTION* IS, BABY!

If you're thrown off by all of the rah-rah-rah Macintosh boosterism in this chapter, I warn you that (a) it's well merited, and (b) you've probably already got ten coffee stains on this book, so don't even think of trying to return it.

I don't know if you read my credentials before buying this humble tome, but I write about *all* forms of technology. My newspaper column isn't just about Macs: it's about Windows and Linux and PDAs and wristwatches that go *pinggg!* in clever ways. Mac OS X is my primary operating system of choice, but I use Windows each and every day, and of the. . . um. . . dash it. . . (Andy does a quick 360 of his office) *nine* functioning computers in this room, four of them are running operating systems other than

Mac OS X. I'm a Mac user and an Apple fan, but it's not for lack of choice or lack of options. Windows is harder to use, it's inconsistent, it's nearly impossible to master, it's baffling and unpredictable at times, and, quite simply, it's not a cutting-edge OS. Historically, Windows has lagged at least two years behind Mac OS in terms of speed, stability, and features.

Just look at Spotlight, Tiger's built-in system-level resource for retrieving information on your Mac. "What is an operating system?" Well, theoreticians have been revising the answer ever since the term "Operating System" was invented. One of the newest and most promising of the Big Ideas is to give the OS the responsibility of organizing and tracking all the info on your hard drive. Sure, you'll still have to put stuff in files, and you're going to continue to create and name documents, but in the Push-Button World of Tomorrow, getting a hold of that Word document that someone emailed you last week — the report explaining why, precisely, there was any need whatsoever for your studio to continue to make terrible movies starring former *Saturday Night Live* cast members — will be your computer's job, not yours. Instead of navigating through files and folders, you'll just ask for a list of Word documents received last week that talk about SNL, and bango! It's there.

If you own a Mac, the Push-Button World of Tomorrow is here today. If you have Windows, you'll be delighted to hear that it'll be part of the OS in a year. Or more.

It's hard to ignore Apple and Microsoft's track records. Windows XP came out in 2001, and apart from two large maintenance updates, has remained unchanged ever since. The differences between Mac OS X 10.0 and Tiger, on the other hand, are nearly as profound as the difference between X and Windows itself.

WHY MICROSOFT IS THE WAY IT IS

It's not that Microsoft is full of dopes, slackers, and layabouts. No more than any company with a staff greater than, say, four, anyway. It's just that Apple and Microsoft have achieved their success through two nearly opposite algorithms. Apple continues to be a highly profitable and successful company through innovation. If they *stop* being the first to bring power and sophistication to consumers, well, they become Just Another Computer Company. It's actually more complicated than that (give me 40 minutes and I'll explain why Steve Jobs is the Walt Disney of technology, maintaining a clear vision of what his company's role is in the world), but that'll do for now.

Microsoft is by nature far more conservative. They don't work with technology: they work with *markets*. They couldn't be the first to sell a mouse-driven graphical operating system because the market didn't exist. Not until Apple created it, at least. They sell to people who are buying, which a fantastically successful model for business — and remember, a business' first obligation to its customers is to *stay* in business — but it's also one that keeps Microsoft permanently at the back of the pack.

After all, your customers can't tell you to make something that they've never heard of, you know?

And what about Linux? It easily matches Tiger for power and in many ways exceeds it in raw speed. But it's not an invisible OS that simply does what you need it to do. It requires regular hands-on maintenance, like a muscle car. Because it's been built by thousands of hands, it doesn't work consistently from task to task. If anything, the only thing that you can count on is that its developers think you're a lot more experienced than you actually are. Yes, Linux works with digital cameras; yes, there's iPhoto-like software for cataloguing and organizing your photos. However, whereas plugging your camera into a Mac is the first step of a one-click process to import its contents, on Linux it's the first step of a 71-step process for getting your computer to recognize and work with the camera. You can do better. And congratulations: you *are.* You've got Tiger. I can't tell you how impressed I am with your choice.

I'm going to close with that, just in case you're still skeptical when I tell you that Mac OS X has a wonderful plan for your life, and I advise you to give yourself to it willingly and unafraid. My dad used the same argument when I announced that a couple of friends and I were going to drive to Rhode Island and get the album art from R.E.M.'s *Automatic for the People* tattooed across our backs. It was *very* effective, and I avoided making the worst mistake of my life.

Instead, I got Weird Al Yankovic's *Dare To Be Stupid* cover, and have gotten nothing but compliments on it ever since.