Chapter 1

Why Switch? Demystifying the Mac Mantra

In This Chapter

- ► Why switch?
- Overcoming objections
- Advantage Apple
- It's okay to switch

A pple Macintosh computers aren't perfect. They can't cure bad breath, save your marriage, or fix a bad hair day. Talk to enough Mac owners, and you'll find one who thinks he got a lemon and wasn't satisfied with Apple's service. You can probably find a cheaper computer that will do what you really need. The majority of computer users get by using Microsoft Windows, and you can, too.

So why even think about switching? Macs offer a far better experience, that's why. Value matters in tight economic times. In big ways, such as security and industrial design, and in countless little details, Apple makes the extra effort to get things right — right for the user, not for some corporate purchasing department. For those of us who spend a good part of our lives in front of a video display, those easier-to-use controls, well-thought-out software choices, and better hardware fit and finish all add up to create a tool that lets us do what we want and doesn't get in our way. For more casual users, the simpler Mac design means less head-scratching while you figure out how to perform that task.

Life is too short for Windows aggravation. Computers are now integral parts of our lives: We use them for work, for play, and for communication; we use them to find mates, to shop, to express ourselves, to educate our children, and to manage our money. They help us fix our homes, cure our diseases, and make new friends. No one has time to fuss over them, fix crashes, fight viruses, clean out hard drives, figure out why the printer won't work, reload the software, or press Ctrl+Alt+Delete. We need computers to be there when we want them. For the most part, Macs *are* there when we need them. Macs just work.

Steve Jobs' other company

Steve Jobs helped found Apple and is widely credited with creating the company culture of excellence. For ten years, Jobs moonlighted in another job: running Pixar Animation, now part of Disney. There have been many movie studios in the history of film, but few have produced ten smash hits in a row: *Toy Story; Toy Story 2; Toy Story 3; A Bug's Life; Monsters, Inc.; Finding* *Nemo; The Incredibles; Cars; Ratatouille;* and *Wall-E.* All were critically acclaimed box-office successes that made extensive use of the very latest in computer animation technology. But the key to their popularity was subordinating the gee-whiz special effects to the telling of a compelling story. Want to know what makes Macs different? Rent one of these movies.

Microsoft isn't run by a bunch of idiots. The company is managed by some very smart people, and it hires top-notch engineers. Just getting a product as complex as Windows out the door takes extraordinary talent. But Windows is designed for corporations. A Microsoft engineer revealed in his blog that one of the company's corporate users had 9,000 programs for Windows. The user simply couldn't afford to update them for new releases. Microsoft Windows has to support all the old software that's out there. Apple is better able to let go of the past and therefore is more nimble in developing new ways to make your life easier.

Apple sees its mission as harnessing the rapid advances in computing hardware to create revolutionary new products that improve our lives. The Macintosh, the iPad, and the iPhone are all filled with groundbreaking innovations. They're cool to look at and to own. Why buy boring?

Taking Your Best Shot

The question of which is a better personal computer — a Macintosh or a Windows PC — provokes passion matched by few other controversies. Were the world less civilized, Apple fans would long since have been burned at the stake by the more numerous Windows users who are fed up with hearing how great Macs are. Instead, the debate rages over claims that Macs aren't suitable choices because they're too this or can't do that. The following sections outline the principal objections.

"Macs are too expensive"

These days, every dollar counts. At this writing, you can buy a new Windows computer for as little as \$300. Netbooks sell for even less. But a cheap product that causes you daily aggravation — and has to be replaced in a couple of years — is no bargain. When you price configurations from quality manufacturers that match the standard features on a Mac, the difference in price drops and often disappears. In the United States, you can buy a complete and very usable Mac desktop setup for less than \$600 (assuming that you already own a suitable display, keyboard, and mouse), and you can buy an ultralight MacBook Air laptop for less than \$1,000. If those prices are too much for your budget, see the tips in Chapter 3 for getting a Mac for less.



The arguments for buying a Mac are based on quality and total cost of ownership, not on initial purchase price. PCs have hidden costs, such as virus-protection software and periodic disk rebuilding, and they generally are replaced more often than Macs are. Few people boast about how cheap their car is or how little they spent for their home entertainment center. Quality matters, and when cash is scarce, quality matters even more.

"Switching is too hard"

I'm not saying that switching from a Windows PC to a Mac is painless. If you've been using Windows for a while, you're used to its idiosyncrasies. You made a big investment in learning how to use all that Windows software, not to mention the amount you paid for it. You may find some aspects of the Mac hard to get used to, though I guide you through them all in Chapter 4. But on the whole, switching isn't that bad. Macs and Windows PCs have more commonalities than they have differences. And Apple has new tools to make switching even easier, including a Windows Migration Assistant, described in Chapter 6, and an optional One-to-One program at the Apple store that does the file transfer work for you. All in all, I think that you'll find a switch easy enough and worth the effort.

"I'll be left with no software"

Many Windows advocates claim that less software is available for the Macintosh. The standard smart-aleck Mac-user answer is "Yeah, we really miss all those viruses and spyware programs." But some truth to this objection exists. Certain highly specialized programs run only in Windows. Where equivalents exist for the Mac, you may have fewer choices. On the other hand, thousands of software titles are available for the Mac, and they cover the needs of most users quite well. In fact, some great software is available only for the Mac. Every new Mac comes with the following:

- ✓ Apple applications: These applications handle your e-mail, instant messaging, address book, calendar, and (of course) iTunes.
- ✓ The Apple iLife suite: This collection of programs lets you manage photos, make movies, authoring DVDs, create websites, and compose your own music. It even teaches you how to play an instrument.
- The Mac App Store: An easier way to buy quality, inexpensive software. Pioneered for the iPhone. It attracts an army of developers, big and small.
- ✓ A built-in camera and powerful FaceTime videoconferencing software: All new Macs (laptops and iMac desktops) that have a built-in display have the camera, and the software works with industry standards.

Some longtime Windows-only software is now available for the Mac, as developers have realized that they were missing an important market. One example is AutoCAD, widely used by architects and mechanical designers. Another is the popular QuickBooks accounting system for small business, though it lacks some features of the Windows version. Moreover, the Mac OS X operating system is built on top of Unix, and Apple follows the Single Unix Specification (SUS). Therefore, a large amount of software developed for Unix and Linux operating systems can run on your Mac, including many popular, free open-source packages. Much of that software *doesn't* run in Windows.

Finally, Macs can also run Windows, so you can still run the odd program for which an equivalent isn't available on the Mac. All new Macs run on Intel microprocessors — the same ones that power most Windows machines. In fact, any Mac sold since mid-2005 is also a full-fledged, strictly kosher PC, one that can run the Windows 7 operating systems as well as any PC on the market. So if you must run software that's available only for Windows, you can use it on a Mac, too. Yeah, you have to buy and install Windows separately, but I walk you through that task in Chapter 16.

"Macs are dying out"

Macs *were* close to dying out in the 1990s. Their share of the personal computer market was less than 3 percent. That share has been climbing steadily, however, and at last report was 15 percent in the United States. Market share doesn't tell the whole story, however. Apple commands some 35 percent of all profits made from selling personal computers. Its competitors are locked in a death spiral, competing on price and doing everything they can to shave costs at the expense of quality. The success of the iPad, the iPhone, the iPod, and the iTunes Store makes more PC users consider Apple. More than half of all new Macs are purchased by people who were using Windows, and 40 percent of college students buy Macs.

"Macs are not expandable"

Since the earliest days of the IBM Personal Computer, PCs have come in big boxes that a user could open to install expansion cards or to add memory and hard drives. Steve Jobs horrified the techie end of the PC world when he built the original Macintosh as a self-contained unit that users weren't supposed to open. Although Apple offers a model with expansion slots (the topof-the-line Mac Pro), and although memory slots on current Macs are easy to access, Apple encourages expansion by hooking up accessories with easierto-use high-speed cabling. Apple invented FireWire, a blazingly fast expansion port that lets users attach high-performance devices without opening the box. The PC world responded by developing its own fast expansion port, USB 2.0, which Apple then adopted.

Now Apple and Intel have jointly developed an even faster way to hook up accessories: Thunderbolt. (It's not easy to top a name like FireWire.) Thunderbolt packages on a wire the same PCI Express technology used in modern PC expansion slots. It's a game changer, with speeds up to 20 times faster than USB 2.0 and 12 times faster than FireWire 800. You can connect more than one device to a Thunderbolt port, and it even doubles as a Mini DisplayPort so that you can hook a large video display to the end of that Thunderbolt daisy chain.



All new Macs offer Thunderbolt and USB 2.0 ports, and many include a FireWire port, allowing a wide range of accessories to be attached just by plugging them in.

See Chapter 2 for an introduction to the Mac models now available.

"Macs don't comply with industry standards"

Early in Apple's history, Steve Wozniak, a co-founder of Apple and its engineering genius, came up with a clever way to squeeze more bits onto a floppy disk (an early form of portable data storage). Unfortunately, this design made floppy disks written on early Macs unreadable on IBM PCs. That gave Apple a reputation of being an odd duck from a standards standpoint. Apple has never been able to shake that reputation completely, even though it later added PC-compatible floppy drives and is now exemplary in sticking to industry standards. Indeed, Apple was the first to popularize now-ubiquitous computer industry standards such as Wi-Fi wireless networking and the Universal Serial Bus (USB). Other standards gobbledygook that Macs support include Gigabit Ethernet, Bluetooth, IEEE-1394 FireWire, PCI Express, Thunderbolt (see Chapter 3 for more details), and the Intel microprocessor architecture. The Apple web browser, Safari (also available for Windows), carefully follows the latest HTML5 Internet standards — more so than Microsoft's Internet Explorer does.

Will Apple license OS X for other PCs?

A perennial question in the Apple-watching community is whether Apple will license its OS X operating system to run on other PCs. After the Apple switch to Intel processors, there remains no technical reason why this can't be done. Indeed, Apple has to go to some lengths to discourage clever programmers from modifying (hacking) OS X to run on personal computers sold by other manufacturers. One scenario has Apple mimicking the Microsoft strategy and selling OS X to anyone to run on any computer that meets minimal standards. Every indication says that Apple will continue to try to keep OS X to itself and follow its high-end branding strategy, but Apple is known for creating surprises.

"I need Windows for work"

So run Windows on your Mac. You have to buy a copy, which is an added expense. But both operating systems run fine on a Mac, and you can still use Mac OS X when you're not working. Using third-party virtualization software, you can run both operating systems at the same time, with Windows applications appearing on the Mac OS X desktop alongside native Mac applications. I tell you more about how all this works in Chapter 16.

"Macs are a poor game platform"

True, more games exist for the PC, but plenty are available for Macs, including top titles like *World of Warcraft, Call of Duty, StarCraft II*, and *Spore*. Many more are coming. Large game companies like Blizzard have committed to the Mac platform, though many independents have not. The Apple iPad, iPhone, and iPod touch have proved to be successful portable game platforms, attracting new game developers to the Apple universe. All low-end Macs include integrated graphics processors; the high-end Mac mini, all iMacs and the 15- and 17-inch MacBook Pro laptops add a second high-performance AMD Radeon HD graphics chip; and the Mac Pro can be ordered with two top-of-the-line graphics processors. Multicore main processors add more graphics performance, and Lion's OpenGL unlocks the power of these graphics devices for more computing tasks. If you're a serious gamer, you probably know all about the latest graphics processors, but I tell you more about them in Chapter 2.

"Windows 8 will kill Apple"

Microsoft spent five years and billions of dollars developing the Vista operating system, in part to end the scourge of computer viruses and spyware that have plagued the PC world for more than a decade. After Vista proved to be an embarrassment, Microsoft spent more years and more billions to rework it into Windows 7. During the same period, Apple has been devoting its energy to improving its OS X operating system from the user's perspective. While Windows 7 and Windows Vista were gestating, Apple released six improved versions of OS X, code-named Jaguar, Panther, Tiger, Leopard, Snow Leopard, and now Lion. (Someone at Apple likes big cats.) Perhaps Windows 8 will close the gap. We'll see.

Considering All Aspects — Advantage Apple

Apple has adopted strategies that give it important advantages over the competition provided by Microsoft. The following sections explore what you need to know about each one.

One neck to wring

Microsoft sells its Windows operating system to dozens of companies that make personal computers. This practice has benefits in that competition among these PC vendors keeps prices down, but it also means that Microsoft has to support a bewildering variety of hardware designs and components. This support includes not just all the variations now being sold, but also products that are no longer being sold but are still in use, including PCs made by companies that have left the business. Outside a brief flirtation with licensing in the mid-1990s, Apple has maintained complete control of the design and manufacture of products that use its software. This *vertical integration* greatly simplifies Apple's development efforts, allowing it to bring out new versions of its operating system much more often than Microsoft has been able to.

Vertical integration also has benefits for customers in terms of reliability and service. If you have a problem with hardware or software, Apple has a strong incentive to fix it. With the computer, operating system, and much of the software supplied by a single vendor, Mac users don't have to worry about being shuttled from company to company ("I'm sorry, but you'll have to contact Fly-by-Night Software to solve your movie-editing bug; it makes that application"). Any problems with the extensive suite of software that comes with a Mac are Apple's problems. There's only one neck to wring.

Are Mac users too smug about viruses?

Computer-industry pundits are continually warning Mac users that the pandemic of viruses, worms, Trojans, and other malware that plagues the PC world will soon be coming to Macintosh users. They've been issuing these warnings for more than a decade, as I remember, but that doesn't mean they won't be right someday. The Mac market is no longer too small for virus writers to bother with. On the other hand, Apple has the resources, skills, and commitment to try to keep ahead of the malware threat. OS X Lion introduces important security improvements, and Apple issues regular security fixes through its Software Update program. Good security practices still make sense in the Mac world, and I tell you ways to keep your Mac secure in Chapter 10.

Apple is the industry thought leader

Anyone who follows the high-tech industry is used to reading articles about amazing new technologies that are going to revolutionize our lives — and then never hearing about them again. One of Apple's roles in the computer industry is picking and choosing among those new ideas. For the most part, technologies that Apple picks are adopted by the rest of the industry, particularly by Microsoft. Apple may not have invented the graphical user interface, Wi-Fi wireless networking, USB, the smartphone, or tablets but Apple's adoption and careful implementation of these technologies made them industry standards. Apple users get the good new stuff first.

Appearances matter

Sometimes, you *can* judge a book by its cover. Sometimes, function follows form. Early in Apple's history, Steve Jobs recognized that aesthetics matter. The design team that created the first Macintosh computer included a fine artist who was involved in everything from the design of the graphical interface to the artwork on the cardboard box that the Mac came in. When Jobs returned to Apple, he restored artistic quality to prominence at Apple. From the original lollipop-colored iMacs to the latest iPad, Apple products have won awards for excellence in industrial design. Figure 1-1 shows the elegant current iMac all-in-one computer.



Quality industrial design means more than arranging all the buttons and jacks in a pleasing way. It also means questioning each feature and eliminating unnecessary doodads. The result is something that isn't just easy to look at, but also easy to understand and simple to work with.



Photo courtesy of Apple, Inc.

A case in point is the optional Apple Remote. Remotes for most consumer products rival an airplane cockpit in complexity; the Apple version has just six buttons.

Looking forward, not backward

Apple leadership in technology extends beyond picking winners. Apple is also the company that decides when to tell a once-popular technology, "You're fired." It was the first to introduce 3½-inch floppy disks on personal computers and the first to drop their use as a standard feature. Other technologies that Apple was the first to drop include the RS-232 serial port and the dialup modem. You can still find these features as external add-ons if you really need them, but Apple realized that most of us no longer do. Letting go of old technology wards off the feature bloat that plagues the computer industry. Unneeded features increase complexity and make machines harder to use and more prone to problems.

Getting top-notch products

Apple makes money on the products it sells. Unit for unit, Apple is the most profitable company in the industry. How does the company do that with such a small share of the market? The same way that Mercedes-Benz or BMW or Armani does: by branding. Apple doesn't sell products that are interchangeable with products sold by half a dozen other companies. It sells unique products — products that are sufficiently superior that customers willingly pay a bit more for them. The benefit to you, as a Mac buyer, is the simple reality that no company can keep such an enviable position in the long run without delivering top-notch goods. You do get what you pay for.

iPad, iPod, and iPhone

Apple's runaway success with the iPod personal music player, introduced in 2001, has given the company the kind of market dominance in mobile computing that Microsoft has enjoyed in the PC market.

The iPhone has been hailed as a revolution in personal communications. It comes in two versions: a four-band phone that uses the worldwide GSM standard, allowing its use anywhere, and a version compatible with the Qualcomm standard used by Verizon in the U.S. Both versions include iPod music, a pair of cameras, and video technology and direct Internet access via Wi-Fi or cellular phone links. Apple includes a version of its operating system called iOS in the iPhone, iPad, and iPod touch, with a well-integrated and easy-to-use interface, all in spectacularly elegant packages.

Apple gives away a version of its iTunes music software that runs in Windows. The company is betting that iPod, iPad, and iPhone customers who use Windows will be impressed by iTunes' ease of use and will give the Macintosh a closer look when they're ready to upgrade their computers. You find out more about iTunes in Chapter 11.

Switching Sides Can Sting

The Mac-versus-PC debate ranks as one of the great divides in the modern world. Just because these feelings are whipped up by marketing departments doesn't mean that they lack emotional impact. Your computer choice forms part of your personal identity. Mac users have a reputation for a certain smugness. ("You just got a virus? You mean, like a cold?") Much of that attitude is defensive, of course. It's no fun being a minority in a PC-dominated world. ("You bought a what? Are they still making those?") Few other choices we make in life can be as self-defining — perhaps religion, political party, and sports team to cheer for. People who move from New York City to Boston, for example, invariably suffer mental scars inflicted by changing their baseball allegiance from the New York Yankees to the Boston Red Sox. (Some of them never recover and have to live the rest of their lives eking out a living writing books for technology novices.)

This kind of psychological trauma doesn't have to happen to you just because you switch computer platforms. Think of it this way: The PC won the great war. Apple was forced to abandon the Motorola processor family and convert to Intel. Macs are now just PCs in more stylish packages with better software. You're not abandoning your mother's cooking — just sampling a different cuisine.

No matter what I say, you probably won't completely escape the emotional side of switching to a Mac. When you feel the shame of betrayal and the pangs of guilt coming on, repeat this mantra: "It's just a computer. It's just a computer."

An optional brief history of Apple

You don't need to read this sidebar to make your decisions, but no book on switching to the Mac would be complete without a little history of how Apple got where it is today. None of the science-fiction magazines that warped our formative minds dared to predict the level of computing power that we have beneath our fingertips or in our shirt pockets today. Further, no high-tech story is as compelling as the legend of Steve and Bill, two kids from the West Coast of the United States who revolutionized the world.

Apple Computer was founded on April Fools' Day, 1976, by three young men: Steve Jobs, Steve Wozniak, and Ronald Wayne. Their original mission: Sell low-cost circuit boards on which hobbyists would build their own computers, based on the newly invented microprocessor. That mission quickly changed when Jobs found that a local electronics shop wanted more fully assembled systems and gave him an order for several dozen of them. The price of the first Apple product, the Apple I, was \$666.66, more than the price of today's far more capable Mac mini. Adjusted for inflation, the Apple I would cost about \$2,600 in 2011 dollars — more than enough for a Mac Pro, or a top-of-the-line 27-inch iMac plus an iPad.

The Apple I used a 6502 microprocessor, which was considered to be easier to program than the early groundbreaking devices from Intel and Zilog, and featured a BASIC interpreter. *BASIC* is a particularly simple computer language invented by Dartmouth professor John Kemeny to help teach programming. A young programmer named Bill Gates dropped out of Harvard — horrifying his parents — to start a business selling software to the fledgling microcomputer industry. He chose the imaginative name *Microsoft* for his venture. A BASIC

(continued)

interpreter for microcomputers was the company's first product, and Apple was among its earliest customers. The choice of corporate names was prophetic: a utilitarian contraction versus a friendly fruit icon.

The Apple II quickly supplanted the primitive Apple I and propelled Apple Computer to early leadership in personal computing. Dan Bricklin wrote VisiCalc, the world's first spreadsheet program, for the Apple II. If you crunch numbers for a living, imagine what the world was like when a spreadsheet was just a wide piece of ruled paper on which calculations were recorded one at a time by hand, and you can appreciate the impact of VisiCalc.

Microsoft got its big break when International Business Machines (IBM) decided to try its hand at making a personal computer and chose Gates' company to supply the all-important operating system. Although IBM is now a well-respected name in computing, back in the 1970s, it pretty much owned commercial computing. Almost every major corporation in the world used IBM computers. Young computer professionals were told by older hands that no one was ever fired for buying IBM. Some Apple IIs had made their way into the corporate world because of VisiCalc, but they were soon replaced by beige boxes sporting IBM logos, the Microsoft operating system named DOS, and an even better spreadsheet program: Lotus 1-2-3.

The Apple II was a hard act for Apple to follow. Apple made two disastrous attempts: the Apple III (a souped-up Apple II) and the Lisa. The Lisa was a machine ahead of its time, pioneering the use of a mouse to move a pointer on the screen and letting users initiate actions by manipulating icons representing programs, data files, and hard drives, for example. But this *graphical user interface* couldn't overcome a \$10,000 starting price, and few Lisas were sold. Jobs, fed up with the increasingly corporatized development environment at Apple, led a renegade team to develop a more affordable computer, based on much of the same technology as Lisa. The new Macintosh was announced during the 1984 Super Bowl in what is perhaps the best television commercial ever made. You can view it at www.uriahcarpenter. info/1984.html.

Besides its mouse and graphical user interface, the Macintosh was packaged as a single unit with a built-in, high-resolution (for its time) black-on-white screen that crisply displayed the information that would eventually print on paper. IBM PCs offered green letters on a black background in just one font. The higherquality Mac display enabled a "what you see is what you get" document-creation process and started the desktop publishing revolution. The Mac also introduced 3½-inch floppy disks, and its Motorola 68000 microprocessor could address more memory than the Intel 8088 in the IBM PC, allowing the use of more sophisticated programs.

Microsoft hedged its bets by developing software applications for the new Mac, including the word processing program named Word and the spreadsheet named Multiplan. Jobs and Gates personally negotiated a contract that let Microsoft sell a simplified version of the graphical interface named Microsoft Windows 1.0. When Microsoft later released a full-blown graphical user interface in Windows 3.0, Apple sued, but the courts ruled that it was covered by that one-page contract. Word became the flagship word processor for Windows, and Excel, with a graphical interface like Multiplan's, drove out Lotus 1-2-3.

Jobs left Apple in 1985 after some disagreements with the board of directors and started a new computer company, NeXT. It built a graphical interface on top of an operating system named Unix that was developed by the American Telephone & Telegraph Company (AT&T). Unix was popular with computer researchers because of its flexible design and because a version with source code was available.

Apple continued to introduce more powerful versions of the Macintosh, adding hard drives, laser printers, and high-resolution color displays. Its share of the personal computer market continued to decline relative to IBM PCs and their clones. In 1994, Apple switched from the Motorola 68000 series microprocessor to the PowerPC chip, jointly developed by Motorola, IBM, and Apple. The PowerPC was designed to allow programs to run faster than those run by the Intel chips, but the theoretical advantage never materialized as Intel chip engineers used innovative techniques to keep up.

In 1997, Apple acquired NeXT, and Steve Jobs rejoined the company, soon taking the helm. A year later, he reinvigorated Apple sales with the iMac, an all-in-one computer that echoed the original Macintosh. A flat-panel version appeared in 2002. Apple soon replaced its OS 9 operating system (the lineage of which goes back to the first Macintosh) with a new system: Mac OS X, based on the NeXT operating system. The iPod was launched in 2001.

In 2005, Jobs ended the personal computer microprocessor wars when he announced that Apple would switch to x86 Intel microprocessors, the same microprocessors used in Windows PCs. All Macs manufactured since 2006 employ Intel microprocessors. In 2007, Jobs introduced the Apple TV (TV), extending the Apple brand to the living room, as well as the spiffy iPhone, setting a new standard in mobile communication. The companion iPod touch shares many iPhone features except the phone and has become a popular game platform. In 2010, Apple introduced another revolutionary product, the iPad, replacing it a year later with the iPad 2. More than 425,000 inexpensive or free applications for the iPhone, iPod touch, and iPad are available online at the iTunes Store.

In 2010, Jobs announced that he was taking a leave of absence from day-to-day Apple management for health reasons, though he was on hand at Apple's 2011 developer conference to introduce OS X Lion. We wish him well.

2 Part I: Informed Switching Starts Here _____