

LEARNING MADE EASY



10th Edition

MacBook[®]

for
dummies[®]
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Customize your Desktop
with widgets

Learn the new features and
updates from macOS Sonoma

Protect yourself with built-in
Mac security features

Mark L. Chambers

*Author of MacBook For Dummies,
iMac For Dummies, and Macs For
Seniors For Dummies*

MacBook® For Dummies®

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by Mark L. Chambers

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Introduction

Laptop owners are special people.

You see, a laptop owner demands everything from a computer that a desktop owner does: reliability, performance, expandability, and ease of use. Owners of Mac Studio, Mac Pro, Mac mini, and iMac desktop computers can draw the line right there, because their computers are designed for a stationary existence. But you and I are MacBook owners. We also need that same computer to be an inch thick (or less). We demand that it run for hours on a single battery charge. We require that it be light as a feather. We want to conquer the coffee shop, the library, and even a lecture hall or two!

Today's Apple laptops deliver all that and more. If you've bought one of these modern masterpieces — or you're thinking about it — I applaud your good taste, common sense, and discerning eye. MacBooks have everything: super performance; a top-shelf LED screen; rugged reliability; and a trouble-free, powerful operating system.

I wrote this book for myself — and for every other MacBook owner who wants to become a laptop technowizard. In these pages, you find a guide to both your laptop's hardware and macOS Sonoma, the latest version of Apple's superb operating system. After I cover the basics that every laptop owner should know, you find out how to accomplish all sorts of cutting-edge audio, visual, and internet projects. (Oh, and if you already have another of my books, you know that I don't skimp on the power-user tips and tricks that save you time, effort, *and* money.)

Foolish Assumptions

So who is the target audience for this book? As in past editions, I make no assumptions about your previous knowledge of computers and software. I figure that you've just bought a MacBook or are considering buying one. Perhaps you've found a bargain on a gently used older MacBook, and you need guidance as you learn the ropes. Those are the *only* assumptions I make. And unlike other books that require a lot of technical expertise to understand, this book's only requirement is your desire to become a Mac laptop *power user* (someone who produces the best work in the least amount of time and has the most fun doing it)!



TIP By the way, if your friends and family predicted that you'll spend half your life savings on software — or that no “decent” software is available for Mac computers — just smile quietly to yourself! The MacBook comes complete with more productivity software than any Windows box, and this software is better than anything available on a PC!



REMEMBER This book was written on one of the latest MacBook Air models with an M-series Apple Silicon processor. Because of changing hardware, owners of older Mac laptops may not be able to follow along with every feature I cover. If you've upgraded an older MacBook to macOS Sonoma, however, you should be able to use most of this book with no problem.

About This Book

In writing about the MacBook, I've kept one precept firmly in mind: macOS Sonoma, the operating system you'll run, is just as important as the laptop itself. Therefore, you'll find that *MacBook For Dummies*, 10th Edition, is just as much about familiarizing you with all the software you get as it is with introducing hardware features such as the keyboard and the Force Touch trackpad. After all, it's relatively easy to connect a power cable and turn on *any* new computer. What comes next is the challenging part!

As in my other *For Dummies* titles, I respect and use the same everyday language you do, avoiding jargon, ridiculous computer acronyms, and confusing technobabble whenever possible.

If you're upgrading from a PC running the Windows operating system, I've got tips, tricks, and entire sections devoted to those hardy pioneers called *Switchers*. You discover both the similarities and differences between your MacBook running Sonoma and a PC running Windows. I also show you how to make the switch as easily and quickly as possible.

A word about the conventions I use: Even with an absolute minimum amount of technospeak, this book needs to cover the keys you have to press or menu commands you have to choose to make things work. Therefore, please keep in mind this short list of conventions as you read:

- » **Stuff you type:** If I ask you to type (or enter) something, such as in a text box or field, that text appears in bold, like this:



- **REMEMBER** **Type me.**

You usually have to press Return before anything happens.

» **Menu commands:** I list menu paths and commands by using another format. This instruction indicates that you should click the Edit menu and then choose the Copy menu item:

- Edit ⇒ Copy

» **Web addresses:** No up-to-date book on a computer would be complete without a bag full of web addresses for you to check out. When you see these in the text, they look like this: www.dummies.com. (By the way, that website does exist, and I highly recommend it!)

» **For the technically curious:** Your MacBook is an elegant and sophisticated machine, and it's as easy to use as a computer can be. But from time to time, you may be curious about the technical details that surround your hardware and software. (Perhaps you disassembled alarm clocks as a kid, as I did.) Techie stuff is denoted with a margin icon, as discussed in the next section. You don't have to read the technical notes unless you want to know what makes things tick. (Pun by sheer accident.)

Icons Used in This Book

Like other technology authors, I firmly believe that important nuggets of wisdom should *stand out on the page!* With that in mind, this *For Dummies* book includes margin icons for certain situations:



TIP

This icon is the most popular icon in the book. You find it parked next to suggestions I make to save you time and effort (and even cash!).



TECHNICAL
STUFF

You don't have to know this information, but the technologically curious love high-tech details. (We're great fun at parties, too.)



WARNING

Always read this information before you take action! I'm discussing something that could harm your hardware or throw a plumber's helper into your software.



REMEMBER

Consider these nuggets to be highlighter stuff — not quite as universally accepted (or as important to the author) as a Mark's Maxim (described next), but good reminders nonetheless. I use this icon to reinforce what you should remember.



MARK'S
MAXIM

These gold-plated, cream-of-the-crop truisms are *MFRs* (short for My Favorite Recommendations). In fact, I'll bet that just about any MacBook power user would tell you the same. Follow my Maxims to avoid

the quicksand and pitfalls I've encountered with all sorts of Macs for four decades.

Beyond the Book

Thanks to my hard-working good friends at Wiley, extra content accompanies this book. Fire up your Safari browser, go to www.dummies.com, and search for **MacBook For Dummies** to find the following:

- » **Cheat Sheet:** I've created Cheat Sheet pages that cover things like common keystrokes and maintenance procedures that every MacBook owner should follow on a regular basis.
- » **Updates to this book, if any.**

Where to Go from Here

Each chapter is a reference for a specific hardware or software topic. Thanks to the fruit of the hard work of my editors, you can begin reading anywhere you like because each chapter is self-contained. If you want to get the most out of this tome (and your MacBook experience), however, there's nothing wrong with reading this book from front to back. I will point out, though, that J. K. Rowling and Stephen King have nothing to fear from my no-frills prose!

Time for the first Mark's Maxim in this book:



MARK'S
MAXIM

Take your time. After all, learning how to use your MacBook isn't a race. And don't worry if you're not a graphic artist, professional

photographer, or video editor. With your Mac laptop and its software, you don't have to be!

Part 1

Tie Myself Down with a Desktop? Preposterous!

IN THIS PART ...

Tour the features of your MacBook and macOS Sonoma.

Compare the different MacBook models.

Unpack and set up your MacBook.

Maintain your laptop's battery *the right way*.

Familiarize yourself with the basics of macOS.

Chapter 1

Hey, It Really Does Have Everything I Need

IN THIS CHAPTER

- » Identifying the important parts of your Mac laptop
 - » Comparing MacBook models and getting set up
 - » Handling your MacBook with care
 - » Buying additional stuff you might need
-

Most action films have one scene in common: I call it “gearing up,” because the good guys strap on their equipment in preparation for battle. (The era doesn’t matter: You see “gearing up” scenes in movies like *Gladiator*, *Predator*, and *Aliens*.) You’re sure to see lots of clicking straps and equipping of offensive weapons (and sometimes even a dash of war paint). The process usually takes a minute or so all told, with whiplash camera work and stirring martial music in the background.

Well, fellow Mac road warrior, it takes only *two seconds* and *one move* — closing the lid — for you to gear up. Your MacBook is a self-contained world, providing virtually all the essentials you’ll find on a desktop iMac, Mac Studio, or Mac mini. This is indeed the second “decade of the laptop,” meshing nicely with your smartphone and that wireless connection at your local

coffee shop. You've selected the right companion for the open road.

Unlike Apple's other designs — such as the Mac mini and the Mac Pro — your MacBook's exterior looks much like a PC laptop. (In fact, with software like Parallels Desktop, a Mac laptop *can* run Windows if it absolutely must.) But your laptop holds several pleasant surprises that no PC laptop or tablet can offer — and, with the MacBook Air and MacBook Pro, you'll lose pounds and inches from your chassis!

In this chapter, I introduce you to the hardware and all the major parts of the machine. You even find out how to unpack and connect your computer. And as frosting on the cake, I preview the software of which Apple is so proud, as well as the accessories you should buy now rather than later.

Welcome to your Mac laptop, good reader. Gear up!

An Overview of Your Mac Laptop

Sure, your MacBook Pro may be about half an inch thin (a MacBook Air is even more svelte; I get to that later in the chapter), but a lot of superb design lives inside. You encounter the same parts you'd find in a desktop machine. In the following sections, I discuss those important parts — both the stuff you can see and the stuff that's shoehorned within.

FEELING OUTDATED? NEVER!

Are you using an older MacBook? It seems that Apple's product line changes every time you tear a page off your 12-month calendar. In addition, every new generation of laptops includes new whiz-bang features. Sometimes, you

can add those features separately to your older machine, such as an external video camera, but you can't update some things, such as your MacBook's motherboard. Sigh.

Here's my take on this situation: If your older laptop does what you need at a pace you can accept, *there's no need to upgrade it*.

Skeptical? Here's the proof: Before my upgrade to a MacBook Air, yours truly was lugging around a pristine iBook G3, which booted macOS Tiger and did absolutely everything I demanded. (A little more patience was required, certainly, but technology authors are simply *brimming* with patience.) The moral: Avoid upgrade fever unless you really *need* a new companion.

If you're the proud owner of an older MacBook, as long as it can run macOS Sonoma, you can still enjoy this book and discover new tips and tricks from it. Unless the current breed of M2/M3-based Mac laptops has a feature you absolutely can't use on your mature MacBook (such as Thunderbolt 4 support), you can sail on with your current computer, fiercely proud of The Bitten Apple that appears on the cover. Although this book was written with the current M3-based MacBook Pro and M2-based MacBook Air models in mind, virtually everything you read here still applies to your older laptop. Unless it's steam-powered, of course.

The parts you probably recognize

Every laptop requires some of the same gizmos. [Figure 1-1](#) helps you track them down. Of course, as you'd expect, a computer has a body of sorts in which all the innards and brains are stored, a display screen, a keyboard, a trackpad or other pointing device, and ports for powering and exchanging data with outside toys.

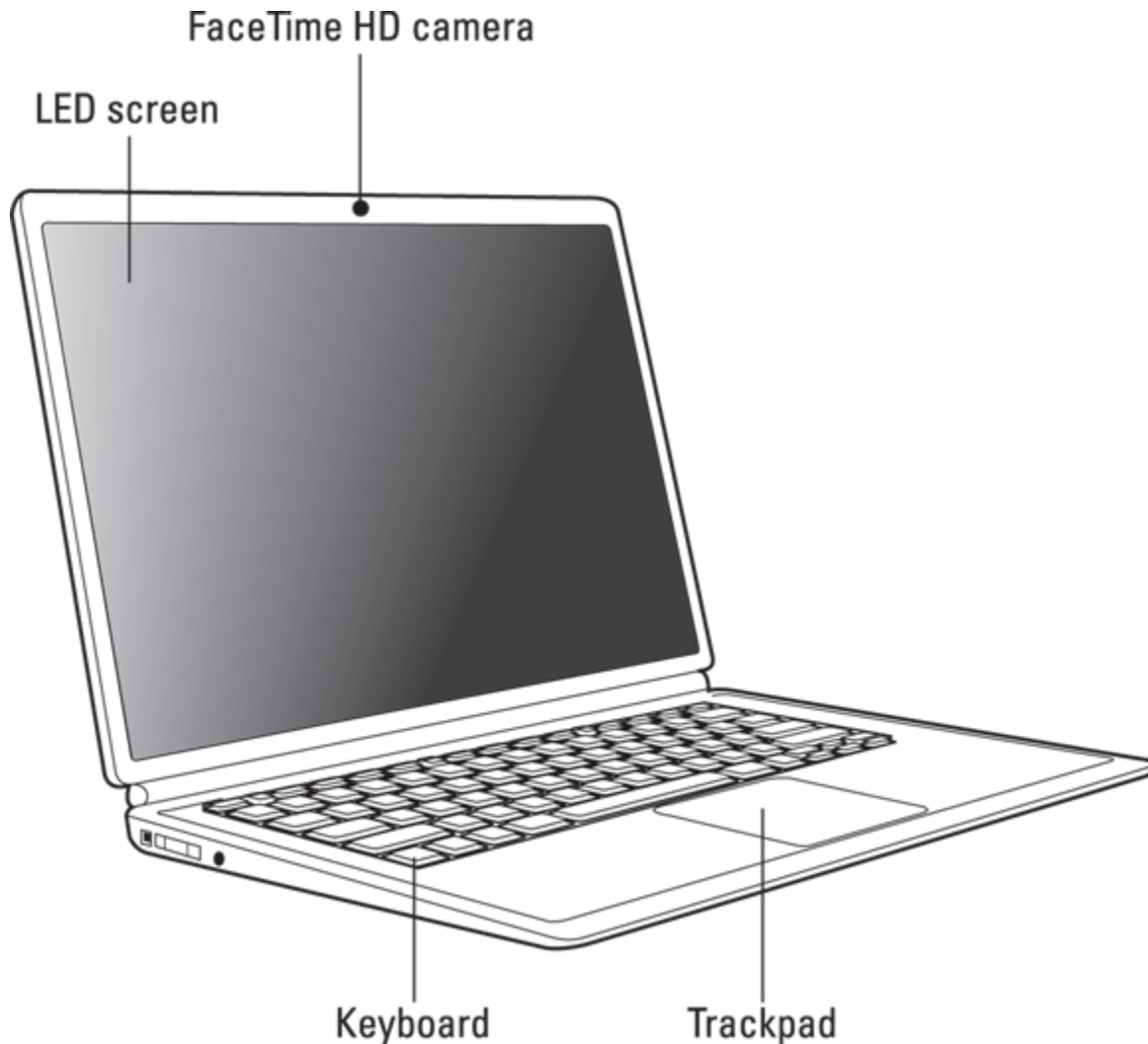


FIGURE 1-1: The charismatic form of a typical Mac laptop.

That magnificent screen

What a view you have! Today's Mac laptops feature a 13-, 14-, 15- or 16-inch LED display. LED screens use far less electricity than their antique CRT ancestors, and they emit practically no radiation.

Apple's laptop screens offer a *widescreen* aspect ratio (the screen is considerably wider than it is tall), which augurs well for those who enjoy watching movies. (A favorite editor of mine loves it when I use the antique word *augur*, meaning *to predict or foretell*.)

The keyboard and trackpad

Hey, here's something novel for your laptop. Unlike the external input devices on a standard desktop computer, your MacBook has a built-in keyboard and trackpad (which does the job of a mouse). The illuminated keyboard is a particular favorite of mine, offering special keys for activating all sorts of features within macOS (as well as keys for adjusting more mundane things like brightness and volume).

The latest crop of Mac laptops feature a great trackpad design as well. The Force Touch trackpad can sense the amount of pressure you apply with your fingers, activating features in macOS Sonoma that used to require a right click (such as displaying the definition of a word in a Pages document or displaying a map of an address in Contacts). The Force Touch trackpad can even provide tactile feedback to your fingertips while you're using some applications!



REMEMBER The MacBook Air and MacBook Pro don't have an internal optical drive. (More on both models later in this chapter.) You can pick up an external optical drive from Apple for about \$80. (Such is the price you pay for super-thin and super-light.) Many third-party manufacturers also produce external optical drives for the MacBook.

Food for your ears

A machine this nice had better have great sound, and the Mac doesn't disappoint. You have a couple of options for Mac laptop audio:

- » All Mac laptops sport a minimum of built-in stereo speakers and three microphones (heck, the high-end

MacBook Air and all MacBook Pro models have *six* speakers).

- » Use the built-in headphone jack to connect your Mac's audio to a pair of headphones, a more powerful (and expensive) external speaker system, or a home stereo system. (Of course, portable USB and Bluetooth speaker systems can provide better-quality audio.)

The power cable

Sorry, you can't get a wireless power system — yet. (Apple's working hard on this one.) All current MacBook models use a USB-C port for charging the battery. The USB-C cable also does double-duty as a port for Thunderbolt 4 and USB-C-compatible devices. (If you're familiar with the MagSafe power cord used on older MacBooks, take note: This USB-C cable connection does **not** detach easily if pulled, so it's time to resume being careful navigating around your MacBook while it's charging!)



REMEMBER Many MacBook owners ask me whether they should disconnect the power after the battery is fully charged or leave it connected. I leave the cable connected. It won't cause any damage to your MacBook, and you can continue to use your laptop while it's charging. (Oh, and road warriors prefer a laptop battery that's always topped off when it's time to go mobile!)

The power button

MacBooks with Touch ID actually turn on whenever you open them. To turn these models off, you press and hold the Touch ID button on the far-right side of the keyboard.

Owners of the older MacBooks still have a power button. It's in the top-right corner of the keyboard, bearing the familiar “circle with a vertical line” logo.

The FaceTime HD camera

Check out that tiny square lens above your screen. That's a built-in FaceTime HD camera, which allows you to chat with others in a videoconferencing environment by using the Messages and FaceTime applications that come with Sonoma. You can even take photos with the camera, using the Photo Booth software that comes with your laptop, or set up a travelin' webcam. (If you need a higher-resolution camera — or one that can be easily turned or tilted — check out the discussion later in this chapter.)



TIP Note that a green light appears next to the lens when the camera is on — handy information that could prevent visual embarrassment! As my technical editor points out, you can also cover the lens for guaranteed privacy. (Some companies even offer plastic clips especially designed for covering the lens.)

The battery

Apple's current laptop computers don't include user-replaceable batteries. The battery is sealed inside the case and can be replaced only by an Apple technician. But you should get several years of trouble-free operation from your MacBook's battery, especially if you maintain it properly (as I show you in [Chapter 2](#)).

The holes called ports

The next stop on your tour of Planet Laptop is Port Central — those stellar holes on the sides of your computer. Each port connects a different type of cable or device, allowing you to easily add all sorts of functionality to your computer.

Here's a list of what you'll find and a quick rundown of what these ports do. Although the latest MacBook models carry only USB-C/Thunderbolt 4 and HDMI ports, I've included additional port types that may appear on older MacBooks running macOS Sonoma.



TIP If you need a number of these older ports for different legacy hardware, consider buying a laptop dock that provides multiple ports for your MacBook through a single USB-C or Thunderbolt port. I discuss the laptop dock device in more detail at the end of this chapter.

The following connections are used for external devices and networking:

» **Thunderbolt 3/Thunderbolt 4 port:** The Thunderbolt 3 port (and its faster descendent, Thunderbolt 4) is the expansion racehorse of today's MacBooks. At 40Gbps, Thunderbolt 4 offers the fastest data-transfer rates and the ability to add all sorts of peripherals, from external drives to monitors to wired Ethernet connections. (A *peripheral* is another silly techno-nerd term that means a separate device you connect to your MacBook.) Although Thunderbolt 4 devices are somewhat more expensive than their USB cousins, it's important to note that USB-C and Thunderbolt 4 devices actually connect to the same ports on your MacBook! (Of course, the

Thunderbolt 4 connection is much, *much* faster than a USB-C connection.)



TIP

Although Thunderbolt-compatible monitors are available, they're significantly more expensive than standard displays. Luckily, you can also buy an adapter for this port that allows you to send the video signal from your MacBook to another VGA, DVI, or HDMI monitor.

- » **USB port(s):** Short for *universal serial bus*, the familiar USB port is the jack-of-all-trades in today's world of computer add-ons. Most external devices you want to connect to your laptop (such as portable drives, scanners, and digital cameras) use either a USB 3 or USB-C port. (Today's PCs also include USB ports, allowing you to share external USB peripherals such as optical drives and scanners between your MacBook and your desktop PC.) Get the lowdown on Thunderbolt and USB ports in [Chapter 23](#).



REMEMBER

All current MacBook models use the cutting-edge USB-C port that allows you to charge the laptop, connect a Thunderbolt 4 or USB-C device, or connect an external monitor or projector — all from one port! To make the USB 3.0 connection, you'll need a USB-C-to-USB 3 adapter (about \$20). If your MacBook doesn't have an HDMI port, you'll need a USB-C Digital AV Multiport adapter (about \$70) to connect an external display.

- » **Ethernet port:** Older MacBook Pro laptops used to include a standard Gigabit (10/100/1000) Ethernet

port, so the laptop was immediately ready to join your existing wired Ethernet network. But because today's MacBook Air and MacBook Pro are designed to be completely wireless — as I explain in [Chapter 11](#) — they don't have a built-in wired Ethernet port. If a wired connection is a necessity, you can add a Thunderbolt-to-Gigabit Ethernet (or USB-C-to-Gigabit Ethernet) adapter to add a wired network port to your laptop. Or you can invest in a laptop dock with a wired Ethernet port (which I discuss at the end of this chapter).

- » **SD/SDXC card slot:** Depending on the model, your MacBook may include an SDXC (Secure Digital Extended Capacity) card slot, allowing you to plug SDXC memory cards from digital cameras, cellphones, and portable devices directly into your laptop.
- » **Headphone jack:** Last (but certainly not least), you can send the high-quality audio from your rectangular beast to a set of standard headphones.

Don't forget the parts you can't see

When you bought your new digital pride and joy, you probably noticed a number of subtle differences between the MacBook Air and the pricier MacBook Pro models. I call these differences the *Important Hidden Stuff* (or IHS, if you're addicted to acronyms). They're just as important as the parts and ports you can see.

Internal devices are as follows:

- » **CPU:** Today's Mac laptops feature either the Apple M1, M2 or M3 line of CPUs. The higher the number after the *M*, the faster and more powerful the processor. (This is definitely *not* rocket science.)

» **Storage:** Today's MacBook models are equipped with solid-state drives that use memory chips. The drive capacities are different across the entire MacBook product line.

Solid-state drives have several advantages over traditional magnetic hard drives: You'll find no moving parts in a solid-state drive, and it offers better performance than a standard hard drive. Think of the solid-state drive as an internal USB flash drive that uses RAM chips rather than magnetic platters to hold your data.

Wireless communications devices include the following:

» **Wireless Ethernet:** "Look, Ma, no wires!" As mentioned earlier, you can connect your laptop to an existing wireless Ethernet network. All current Mac laptops have built-in wireless hardware. With wireless connectivity, you can share documents with another computer in another room, share a single high-speed internet connection between computers, or enjoy wireless printing. Truly *sassy!*



TIP

Rest assured, you can use the latest MacBooks with any standard 802.11b/g/n/ac/ax wireless network. And yes, PCs and Macs can intermingle on the same wireless network without a hitch. (Scandalous, ain't it?)

» **Bluetooth:** Let's get the old "digital pirate" joke out of the way: "Arrgh, matey, I needs me a wireless parrot." (Engineers again ... sheesh.) Although strangely named, Bluetooth is another form of wireless connectivity. This time, however, the standard was

designed for accessories such as your keyboard and mouse and devices like wireless headphones and your smartphone. (The latest Macs support version 5.3 Bluetooth hardware.)

Here's the hidden display device:

» **Video card:** None necessary! That's because the Apple M-series processors handle your graphics needs all by themselves, with no required additional hardware. Your M1-series MacBook is fine for typical home and business laptop applications. If your applications rely heavily on high-speed 3D graphics or digital video, however, you'll be pleased as punch to discover that today's M2 and M3 processors offer graphics that are well suited to high-end mobile 3D modeling, video editing on the road, and ... well, honestly, blasting the latest video game enemies into small smoking pieces with aplomb.

Meet the MacBooks

So far in this chapter, I've discussed the common hardware shared by today's MacBook models. Now it's time to compare the MacBook Air and MacBook Pro with an eye toward selecting the right one for you. (Unless you decide to pick up one of each. Certainly an elegant choice, but not everyone has that option!)

Consider the least expensive MacBook: the 13-inch MacBook Air (shown in [Figure 1-2](#)), which is unique for both its size and weight. Yet the Air is just like the MacBook Pro. Well, mostly.



rvlsoft/Adobe Stock

FIGURE 1-2: Behold the MacBook Air.

“Hold on, Mark. How can it be so singular and yet share so much with its road-warrior sibling?” I answer that question in the following sections, which discuss the many similarities and the handful of striking differences among both of the laptop models in the MacBook line. If you’re considering buying an Apple laptop, these sections can help you decide whether you’d like to go ultra-thin or stick with the more traditional (and slightly thicker) laptop crowd.

One thing’s for sure: Apple *never* creates a mundane design!

Comparing the MacBooks

Do you remember when Apple introduced the first iMacs? Although they had the same basic components as any other computers — a monitor, keyboard, ports, speakers, and cables — the iMac was revolutionary because it was completely self-contained. And it came in colors. And it didn’t have a floppy drive. In fact, Apple redesigned the common computer with the focus on *style* and *ease of use* and scrapped the floppy drive (and rightly so, seeing as how floppies had become practically useless and were unreliable to boot).

I consider the MacBook Air and the MacBook Pro to be extensions of the iMac revolution. With these designs, Apple focused on *physical dimensions* and *weight*, and tossed out everything that isn't absolutely necessary for the lecture hall, boardroom, or city park. I'm happy to note, however, that these ultra-light MacBooks are neither toys nor bare-bones netbooks. In fact, the MacBook Air has some of the features of the high-end MacBook Pro.

What are the similarities?

Consider the similarities among the different models:

- » **Widescreen display:** Each model sports a widescreen, backlit LED display. The MacBook Air offers a 13- or 15-inch display and the MacBook Pro is the star of the show, with the highest resolution available on any Apple laptop. (It's available in a 14- or 16-inch display.)
- » **Apple M-series processor power:** Your shiny new MacBook Air comes from Apple with the M1 or M2 processor, while the MacBook Pro models can be ordered with either the M3, M3 Pro, or M3 Max. (The M3 series increases in power and speed with the Pro and the Max versions of the CPU. Think "M3 good, M3 Pro better, M3 Max best.")
- » **Keyboard and trackpad:** Both MacBook models offer a backlit keyboard, the unique Force Touch trackpad, and a Touch ID sensor, which allows you to use your fingerprint to log in and pay for online purchases. (Read more about Force Touch and Touch ID in [Chapter 3](#).)
- » **Sonoma:** All current laptops from Apple naturally run the latest version of macOS with aplomb.

- » **FaceTime:** Every MacBook is video-ready, using a built-in FaceTime camera. You can record audio with the built-in microphones as well.
- » **Sealed battery:** You can't swap batteries with any models in Apple's current MacBook line because the battery is sealed inside. (Think iPad and iPhone.)
- » **Wireless support:** The MacBook Air and MacBook Pro each have the latest wireless hardware built in (802.11ax). Both models feature built-in Bluetooth hardware. (Read more about wireless networking in [Chapter 11](#).)

I think most Apple laptop owners would agree that these major MacBook features show there's no underpowered pushover in the lineup!

So what's so flippin' radical?

I'm glad you asked! Here's the checklist of striking differences that set the MacBook Air apart from the MacBook Pro:

- » **Physical dimensions:** You need a thin laptop? You've come to the right place! The current M2 Air laptop measures a mere 0.44 inches in height (at its tallest point) when closed. Oh, and hold on to your chair for this one: The MacBook Air is also the lightweight champ, at 2.7 pounds! (That's a couple of pounds you won't be carrying around all day at that convention expo. Take it from this traveler: You *will* feel the refreshing difference in just an hour or two.) By comparison, the 13-inch M3 MacBook Pro weighs 3.4 pounds, and the 16-inch MacBook Pro is a (comparatively) hefty 4.7 pounds.
- » **Cost:** At the time of this writing, an entry-level 13-inch M1 MacBook Air will set you back \$999. By

comparison, the 14-inch MacBook Pro is \$1,599, whereas the 16-inch MacBook Pro model starts pricier at \$2,499.

- » **Ports:** As I mention earlier in this chapter, both of the two current MacBook models offer only three types of ports: the USB-C/Thunderbolt 4 (which requires adapters for use as a USB 3.0 and external video port), the HDMI video port (available only on the MacBook Pro), and a headphone jack. The MacBook Air includes two Thunderbolt 4/USB-C ports, and the MacBook Pro includes two or three Thunderbolt 4/USB-C ports (depending on the configuration).



REMEMBER As I mention earlier, all current MacBooks lack a wired Ethernet port. All three models require a USB-C-to-Gigabit Ethernet adapter to connect to a wired Ethernet network. (Rats.)

- » **Sealed case:** You can't add or replace RAM modules or the battery on the MacBook Air or the MacBook Pro. If you haven't ordered your laptop yet, it's a *very good* idea to configure your MacBook with the maximum RAM it can carry, because you won't be able to add more in the future.
- » **No built-in optical drive:** The lack of this drive is a departure from most Windows laptops, and it applies to all current MacBook models. Apple decided that owners of these slimmer, trimmer laptops are likely to use a wireless connection for transferring files and media. But what if you have to reinstall applications that are available only on disc? If you need to read or burn discs, you can buy a separate external USB SuperDrive for about \$80.

As you can see, these striking differences make the choice between a MacBook Air and a MacBook Pro easy indeed. To wit:

- » The MacBook Air is designed for travelers who appreciate minimum weight and size. These folks see a laptop as a race car: nimble, with reduced weight, and no unnecessary frills. (Think of a typical NASCAR entry: Who needs an expensive stereo or air conditioning?)
- » The MacBook Pro is all about the brilliant high-resolution display, of course, and it's considerably faster than the MacBook Air. The MacBook Pro appeals to presenters, graphics professionals, and video editors, who appreciate the higher-resolution display, the cooling fan, better graphics and the increase in performance. Oh, and if you spend the extra coin for a MacBook Pro, you'll enjoy the increased memory capacity and SSD storage options that can be configured when you order (up to an incredible 128GB of RAM and up to 8TB of internal drive space)!

Look, Ma, no moving parts!

You're probably familiar with the common species of *usbius flashimus*, more commonly called the USB flash drive. With one of these tiny devices, you get the equivalent of a 8-512GB drive that plugs into a USB port, allowing you to carry your data with you as you jet across the continents. But have you ever asked yourself, "Self, why don't they make *internal* drives that use this same technology?"

Actually, dear reader, solid-state drives have been around for years. (Think iPhone.) Unfortunately, however, the solid-state memory used in today's flash drives gets pretty expensive as capacity increases. In

fact, cost has been the limiting factor, because a solid-state drive offers advantages that set it apart from a conventional magnetic hard drive:

- » **No moving parts:** Unlike a typical magnetic hard drive, you find no read-write heads and no magnetic platter — just gobs of happy silicon memory chips. In effect, a solid-state drive works along the same lines as your MacBook's system RAM. Unlike your Mac's RAM, though, a solid-state drive doesn't lose the data it stores when you turn off your laptop. As you can imagine, no moving parts on a computer in motion is superior on two levels:
 - The solid-state drive never wears out or needs replacing.
 - If your laptop is accidentally abused — for example, if it gets knocked off your desk — it's far less likely that you'll lose a hard drive's worth of priceless data when it hits the ground.
- » **Speed:** Oh my goodness, is this thing fast! Your MacBook will boot, restart, or awaken in far less time, and everything you do on your laptop will benefit from the speed boost. A solid-state drive can read data far faster than a conventional magnetic hard drive.
- » **Power usage:** Forget your hard drive spinning up from sleep mode. The solid-state drive uses far less power than a conventional hard drive, resulting in significantly longer battery life.
- » **Blessed silence:** The solid-state drive is silent. (No more of that gargling noise while the disk is accessed. *Sweet.*)

Whoa! Where's my familiar USB port?

It is indeed a bit disconcerting to encounter *anything* electronic these days that doesn't sport a USB 3.0 port, from a smart speaker in your kitchen to your printer in your office. However, don't be hesitant about the USB-C/Thunderbolt 4 ports on your new MacBook: They are versatile performers, with *much* faster transfer speeds than the older USB 3.0 hardware. Heck, you can do just about everything better and faster with your USB-C ports, including charging your MacBook, connecting an external monitor using DisplayPort, joining a wired Ethernet network, or connecting a superfast external drive!

If you do need to connect to an older legacy port — a USB 3.0 device, wired Ethernet port, or a VGA or HDMI display — you will have to invest in the correct USB-C adapter. The entire lineup of Apple connection adapters is available from the Apple website, or you can easily order a third-party adapter online. And rest assured that more and more USB-C devices are on the way, so that external drive you buy in the future will likely use USB-C anyway! These adapters are required only for older technology.

Adding a DVD drive

Personally, I have no problem toting around an external USB DVD burner in my backpack with my MacBook Air. (Then again, I'm a senior and I have a huge library of music CDs and DVD movies.) Heck, half the time, you're likely to leave it at home because you don't install software or listen to CDs every day. The folks at Cupertino want you to download your movies and music from the iTunes Store and your software from the App

Store, so if you follow the Apple Path, you still don't need an optical drive!

A USB SuperDrive from Apple costs a mere \$80, and it can read and write DVDs as well as any built-in drive. But you'll need a \$20 USB-C-to-USB adapter to connect it. You can also use any third-party USB-C DVD drive that's compatible with Apple's laptops and macOS Sonoma.

Location, Location, Location!

If you choose the wrong spot to park your new laptop, I *guarantee* you'll regret it. Some domiciles and office cubicles don't offer a choice. You have one desk at work, for example, and nobody will hand over another one. But if you can select a home for your MacBook, consider the important placement points in this section:

- » **Keep things cool.** Your new laptop is silent, but that super-fast M-series processor generates heat. Make sure that the location you choose is far from heating vents and shielded from direct sunlight. I also recommend a laptop cooling pad, which elevates the base of your laptop to allow air to circulate underneath. (Note that only MacBook Pro models are equipped with their own fans.) Although you can stow your MacBook in the close confines of a bag or backpack while it's in Sleep mode, avoid putting that laptop away while it's hot! Let your MacBook Pro cool off first.
- » **Outlets are key!** Your computer needs at least one nearby outlet and perhaps as many as two:

- **A standard AC outlet** (using a current adapter if you're traveling abroad, if necessary)
- **A nearby Ethernet jack** (if you use a wired Ethernet network)



TIP If you prefer to send your data over the airwaves, consider wireless networking for your Mac. I discuss everything you need to know in [Chapter 11](#).

- » **Don't forget the lighting.** Let me act as your mom. (I know that's *quite* a stretch, but bear with me.) She'd say, "You can't possibly expect to work without decent lighting! You'll go blind!" She's right, you know. You need a desk lamp or floor lamp at minimum if you need to refer to books or documents often in your work. And you do want to look your best during FaceTime calls, right?
- » **Plan to expand.** If your laptop hangs out on a desk, allow an additional foot of space on each side. That way, you have room for external peripherals, more powerful speakers, and an external keyboard and mouse if you need them.



TIP If you want to keep an external keyboard handy, consider using a laptop shelf. These Plexiglas or metal stands elevate your laptop several inches above the desk, putting the screen in a better ergonomic position and allowing you to park your keyboard and external mouse below.

Unpacking and Connecting Your MacBook

You'll love the following sections. They're short and sweet because parking a laptop on your desktop is a piece of cake. (Sorry about the cliché overload, but this really *is* easy.)

Unpacking for the road warrior

Follow these guidelines when unpacking your system:

- » **Check for damage.** I've never had a box arrive from Apple with shipping damage, but I've heard horror stories from others (who claim that King Kong must have been working for That Shipping Company).



TIP

Check all sides of the box before you open it. If you find significant damage, take a photograph (just in case).

- » **Search for all the parts.** When you're removing those chunks o' foam, make certain that you've checked all sides of each foam block for parts snuggled therein or taped for shipment.
- » **Keep all packing materials.** Do *not* put the box and packing materials in the trash. Keep the box and all packing materials for at least a year, until the standard Apple warranty runs out. If you have to ship your laptop to an Apple service center, the box and the original packing are the only way for your machine to fly.

And now, a dramatic Mark's Maxim about cardboard containers:



MARK'S
MAXIM

Smart computer owners keep their boxes far longer than a year. If you sell your laptop or move across the country, for example, you'll want that box. *Trust me on this one.*

- » **Store the invoice for safekeeping.** Your invoice is a valuable piece of paper.



REMEMBER Save your original invoice in a plastic bag, along with your computer's manuals, original software, and other assorted hoo-hah. Keep the bag on a shelf or stored safely in your desk, and enjoy a little peace of mind.

- » **Read the Mac's manual.** "Hey, wait a minute, Mark. Why do I have to read the manual from Apple along with this tome?" Good question, and here's the answer: The documentation from Apple may contain new and updated instructions that override what I tell you here. (Say, "*Never* cut the red wire. Cut the blue wire instead." Or something to that effect.) Besides, Apple manuals are rarely thicker than a restaurant menu.



TIP

You can always download the latest updated manuals for Apple computers in electronic format from Apple's website. (Adobe's PDF format is the standard for reading documents on your computer. You can open and display any PDF document in Sonoma by using the Preview application or the Quick Look feature.) I always keep a copy of the PDF manual for my MacBook Air on my internal drive, just in case.

Connecting Cables 101

Your MacBook makes all its connections simple, but your computer depends on you to get the outside wires and thingamabobs where they go.

The absolutely essential connection

After your new MacBook is resting comfortably in its assigned spot (I assume that's a desktop), you need to make just one required connection: the power cable. First, plug the cable into the corresponding USB-C port on the MacBook; and then plug 'er into that handy AC outlet. After your battery is completely charged, you can go mobile at a moment's notice.

Adding the internet to the mix

If you have high-speed internet service, or if you're in an office or school with a local computer network, you can probably connect through your older MacBook's built-in Ethernet port (or by using an adapter with your USB-C port). You make two connections:

- 1. Plug one end of the Ethernet cable into the Ethernet port (or the USB-C-to-Ethernet adapter on a current MacBook Air or MacBook Pro).**

2. **Plug the other end of the Ethernet cable into the Ethernet port from your network.**

Your network port is probably one of the following: an Ethernet wall jack, an Ethernet hub or switch, or a cable, fiber, or DSL internet router (or sharing device).



TIP Will you be joining a wireless network? If so, you can find the information you need about configuring Sonoma for wireless networking in [Chapter 11](#).

Great — a Lecture about Handling My Laptop

Proper handling of your laptop is important, so take a moment to read the Rules of Proper Laptop Department. Okay, perhaps I'm lecturing a bit, but a little common sense goes a **long** way when you're handling *any* computer equipment, and your laptop is no different. (Scolding mode off.)

Keep these rules in mind while opening and carrying your laptop:

- » **The cover is your friend.** Open your laptop's cover slowly, without jerking or bending it.
- » **Close it before you move it.** By closing your laptop, you put your macOS operating system into sleep mode, and older MacBooks that use a magnetic hard drive will automatically spin down, making it safer to move. The laptop is still on; it will spring back to life when you open the cover.

- » **Don't stack stuff on your laptop.** You'd be surprised how many horror stories I've heard about laptop owners piling a stack of books or other heavy stuff on their computers. Remember that LED display? Made of glass?
- » **Be nice to your keyboard.** Don't press those keys too hard! Use the same amount of pressure you use on a desktop computer's keyboard. (And use an external keyboard whenever possible.)
- » **Keep food and drinks far away.** Care to turn your MacBook into an expensive doorstop? Go ahead and park your soda next to it. (Oh, and crumbs are perfect if you're interested in buying replacement keyboards.)
- » **Keep your laptop as level as possible.** Using your older Mac laptop while it's tilted too far in any direction can eventually cause problems with your magnetic hard drive. I kid you not. (If your MacBook uses a solid-state hard drive, of course, this rule doesn't apply.)

An Overview of Mac Software Goodness

The following sections answer the most common novice computer question: "What the heck will I *do* with this thing?" You find additional details and exciting factoids about the software you get for free, software you'll want to buy, and stuff you can do on the internet.

What comes with my laptop?

Currently, Apple laptops ship with the following major software applications installed and ready to use:

- » **macOS Sonoma:** Naturally, your MacBook comes preloaded with Sonoma.
- » **Apple's digital lifestyle suite:** You know you want these applications! They turn your Mac into a digital hub for practically all kinds of high-tech devices, including camcorders, digital cameras, tablets, portable music players, and even smartphones. [Chapters 13](#) through [16](#) focus on the major applications that will appeal to MacBook owners: Music, TV, Photos, iMovie, and GarageBand.
- » **Apple's digital productivity suite:** Owners of new MacBooks can download all three of Apple's great productivity applications — Pages, Numbers, and Keynote — for free in the App Store. Pages is a desktop publishing jewel, Numbers is a great spreadsheet tool, and Keynote is a superb slideshow/presentation application. [Chapters 17](#) through [19](#) are your guides to the basic functions of all three applications. 'Nuff said.



REMEMBER The installed software on your MacBook may change as new programs become available.

Connecting to the internet from your lap

What's a modern computer without the internet? Apple gives you great tools to take full advantage of every road sign and off ramp on the Information Superhighway right out of the box:

- » **Web surfing:** I use Apple's Safari web browser every day. It's fast and well designed, with features such as tabbed browsing and a customizable Start page.

If *tabbed browsing* sounds like ancient Aztec to you, don't worry. [Chapter 8](#) is devoted to Safari.

- » **Instant messaging and video chat:** *Messages* lets you use your MacBook to chat with others around the world for free on the internet. You can also use the FaceTime application to video-chat with folks who have an iPhone or iPad, as well as another Mac. If you've never seen a video chat, you'll be surprised just how good your friends and family look! [Chapter 12](#) introduces you to both Messages and FaceTime.



REMEMBER Always wear a shirt when videoconferencing.

- » **Email:** Soldier, Apple has you covered. The Apple Mail application is a full-featured email system complete with defenses against the torrent of junk mail awaiting you. (Imagine a hungry digital predator with an appetite for spam.) Send pictures and attached files to everyone on the planet, and look doggone good doing it.

Applications that rock

Dozens of small applications are also supplied with macOS Sonoma. I mention many of them in later chapters, but here are three good examples to whet your appetite:

- » **Calendar:** Regulate your days throughout the year with this fully featured calendar application. (And yes, you can share your calendar events with others.)
- » **Contacts:** Throw away that well-thumbed collection of fading addresses on paper. Use the Sonoma Contacts application to store, search, and recall just about any

piece of information on your friends, family, and acquaintances.

- » **Chess:** This isn't the chessboard your dad used! Play the game of kings against a tough (and configurable) opponent — your MacBook — on a beautiful 3D board. Heck, your Mac even narrates the game by speaking the moves!



TIP You can use the data you store in your Contacts in other Apple applications included with Sonoma, such as Apple Mail and Messages.

Other Stuff That Nearly Everyone Wants

No man is an island, and no computer is either. I always recommend the same set of stuff for new Windows and Mac laptop owners. These extras help keep your new MacBook clean and healthy (and some make sure *you're* happy as well):

- » **A laptop sleeve or case:** Most laptop owners eschew the traditional bulky laptop bag because a bag broadcasts the fact that you're carrying a valuable MacBook (and adds yet another item to carry on your trip). On the other hand, if you pack your MacBook in a briefcase, book bag, or backpack, you need to provide protection from bumps and scratches. (Make sure that any sleeve or case you buy provides padding around the entire computer, not just on the top surface.) That's where a laptop sleeve or thin case comes in. I use the very cool BookBook hardback leather case

from Twelve South (www.twelvesouth.com), which looks — you guessed it — like an old-fashioned leather-bound book. (I think it makes me appear scholarly while disguising my MacBook.) The BookBook (shown in [Figure 1-3](#)) is available for all sizes of MacBooks, costs about \$80, and provides long-lasting, cushioned protection for your expensive road warrior computer.

- » **An external camera:** Your MacBook has a built-in FaceTime camera, but many folks prefer a stand-alone external camera that they can pan, tilt, and point where they like (especially moviemakers or podcasters who need high-resolution video clips of whatever’s happening around them). Most of these gems can be clipped to your MacBook, or they may include a desktop stand for use on any flat surface. (Oh, and choose a well-lighted environment, so you don’t look like something out of a horror film.) With the Continuity Camera feature in macOS, you can even use your iPhone as an external camera! (See [Chapter 12](#) for more details on Continuity Camera.)
- » **Surge suppressor:** Even an all-in-one computer like your laptop can fall prey to a power surge. I recommend using one of these:
 - **A basic surge suppressor** with a fuse can help protect your MacBook from an overload.
 - **A UPS (uninterruptible power supply)** costs a little more but does a better job of filtering your AC line voltage to prevent brownouts or line interference from reaching your computer.



TECHNICAL
STUFF

Your laptop’s battery immediately kicks in if you experience a blackout, of course, so a UPS

is less important for your MacBook. But any computer tech will tell you that filtered AC current is far better for your laptop, and your UPS can also provide backup power for external devices that *don't* have a battery.

- » **A laptop docking station:** Will your MacBook often do double duty as both a desktop computer *and* a mobile powerhouse? If so, a laptop docking station will prevent you from disconnecting a bird's nest of USB-C cables each time you hit the road. In essence, you need to unplug only one connection between your MacBook and the docking station. *All* your external desktop peripherals — monitor, backup drive, USB trackball, and such — remain blissfully in place. When your MacBook returns to the desktop, you simply reconnect that one USB-C cable, and you're back in business. Most docking stations also sport a wired Ethernet port and at least one or two USB 3.0 ports, so you won't need to use adapters to make these legacy connections.
- » **Screen wipes:** Invest in a box of premoistened screen wipes to keep your screen pristine. Your MacBook's screen can pick up dirt, fingerprints, and other unmentionables faster than you think.



WARNING Make sure that your wipes are especially meant for LED, LCD, or laptop computer screens.

- » **Cables:** Depending on the external devices and wired network connectivity you'll be using, these are
 - **A standard Ethernet cable** (for wired networks or high-speed internet)

- **USB-C cables and adapters** for devices you already have
- » **Wrist rest:** You may have many reasons to buy a new Mac laptop, but I know that a bad case of carpal tunnel syndrome isn't one of them. Take care of your wrists by carrying a keyboard wrist rest in your laptop bag.



FIGURE 1-3: The BookBook case provides protection and camouflage for your MacBook.

Chapter 2

Turning On Your Portable Powerhouse

IN THIS CHAPTER

- » Turning on your MacBook
 - » Checking your MacBook for proper operation
 - » Setting up macOS Sonoma
 - » Getting your MacBook set up and registered
 - » Copying information from a Windows PC
-

If you've already been through [Chapter 1](#), you got as far as unpacking your MacBook (and connecting at least one cable to it). And unless you bought this computer solely as a work of modern art, it's time to actually turn on your MacBook and begin living The Good iLife. (Plus you still get to admire that Apple design whilst using TV.) After you get your new beauty powered on, I help you here with an initial checkup on your MacBook's health. Then I wax enthusiastic about maintaining (and even augmenting) your laptop battery.

I also familiarize you with the initial chores you need to complete before settling in with your favorite applications. These tasks include setting up macOS and moving the data and settings from your existing computer to your MacBook Pro or MacBook Air.

In this chapter, I assume that macOS Sonoma (version 14) was preinstalled on your MacBook or that you just completed an upgrade to Sonoma.

Throwing the Big Leaf Switch

The power switch on most MacBook models is located in the top-right corner of the keyboard. If your MacBook has a Touch ID sensor, it acts as the power button. To turn on your laptop when it's open, simply press the sensor. If your new MacBook is closed, all you have to do is open your laptop to power up!

You hear the pleasant startup tone that's been a hallmark of Apple computers for many years now. Don't be alarmed if you don't immediately see anything onscreen because it takes a few seconds for the initial Apple logo to appear.



REMEMBER In my experience, a simple, quick press of the power button on some older MacBook models sometimes just doesn't do it. Instead, you actually have to hold down the button for a count of two or so before the computer turns on.

If your Mac laptop ever locks up tight and you can't quit an application (I discuss quitting in [Chapter 3](#)), the power button gives you another option: Hold it down for five seconds or so, and your MacBook shuts off *completely*, even if your laptop is locked up tight. If you're using a MacBook with a Touch ID sensor, press the sensor and hold it to turn your laptop off; then press the Touch ID sensor again to turn your laptop back on.

While the Apple logo appears, you see the familiar "moving bar" progress indicator appear. That's the sign that your MacBook is loading Sonoma. Sometimes the

bar can take a bit to disappear. As long as it's moving, though, something good is happening — after all, Sonoma has to load file sharing, networking, and printing components (and such).

At last, your patience is rewarded, and you see the Sonoma Setup Assistant appear.

Mark's Favorite Signs of a Healthy Laptop

Before you jump into the fun stuff, don't forget an important step: a quick preliminary check of the signs that your new mobile Mac survived shipment intact and happy.

If you can answer yes to each of these questions, your MacBook likely made the trip without serious damage:

1. Does the laptop's chassis appear undamaged?

It's pretty easy to spot damage to your MacBook's svelte metal and glass design. Look for scratches, dents and puncture damage.

2. Does the LED screen work, and is it undamaged?

Does the cover open smoothly? Are any individual dots (or *pixels*) on the LED screen obviously malfunctioning? Malfunctioning pixels appear black or in a different color from everything surrounding them. (Techs call these irritating anarchists *dead pixels*.) Unfortunately, some new LED screens may include one or two dead ones.

3. Do the keyboard and mouse work?

Check your MacBook's built-in trackpad by moving your finger across its surface; the pointer should

move onscreen. To check the keyboard, press the Caps Lock key on the left side, and observe whether the Caps Lock light turns on and off. (Don't forget to check for good batteries in all your wireless input devices and make sure they're turned on.)

If you do notice a problem with your MacBook (and you can still use your Safari browser and reach the web), you can make the connection to an Apple support technician at www.apple.com. If your MacBook remains dead — like an expensive paperweight — and you can't get to the internet, you can check your phone book for a local Apple service center, or call the AppleCare toll-free number at (800) 275-2273. [Chapter 20](#) also offers troubleshooting information.

You Won't Lecture Me about Batteries, Will You?

No, this isn't a lecture. In fact, the only lecture I put you through in this book concerns backing up (which, naturally, ***you should do***). Instead, consider these tips as your rules of the road for monitoring and charging your battery:

- » **Recharge your laptop in sleep mode or when powered off.** The battery recharges faster when your laptop is off or in sleep mode. (I go into more detail on sleep mode in [Chapter 5](#).)
- » **Keep your laptop plugged into an AC socket (or a car inverter, which plugs into your car's power outlet) whenever possible.** I take every opportunity to top off my laptop's battery, and so should you.



TIP

If you don't have much time to charge your battery before you're away from an AC socket — say, half an hour — don't use your MacBook while it's plugged in and charging. That way, your battery will gain the maximum benefit from the charge time. (When you're using your MacBook while it's charging, the charging process takes much longer.)

- » **Save your juice.** To get the most juice you can scavenge, here are some easy tricks:
 - **Turn off your laptop when possible**, or close it to enter sleep mode.
 - **Open the Battery pane in System Settings** and change your Low Power Mode to Always.
 - **Turn off unnecessary hardware.** To conserve battery power as much as possible, disconnect any unnecessary USB or Thunderbolt devices. Also turn off your Wi-Fi wireless hardware if you're not connected to a network. (I cover Wi-Fi wireless networking in [Chapter 11](#).) Naturally, this also enhances your laptop's security!
 - **Reduce the brightness of the display** from your laptop's keyboard by pressing the F1 key.
 - **Avoid using processor-intensive applications** (such as Adobe Photoshop or iMovie).
- » **Monitor your battery level.** I love the battery-monitoring system built into macOS. Your laptop's battery life can be displayed in the Finder menu as a simple battery icon, or you can add it to your Control Center display from the Control Center pane in System Settings.



TIP

Here's a MacBook power user trick: Click the battery icon in the Finder menu to display the most power-hungry applications that you're currently running! If you're low on power and you need to conserve your precious charge, you can quit those apps (if possible) to extend your computing time.

Keep in mind that the charge percentage shown with the battery icon is an estimate based on your current System Settings and power use. If you change your Battery settings or remove a USB device that draws power from your laptop, you see that change reflected in the battery meter.

macOS Sonoma provides even more detailed information on battery usage in the Battery pane within System Settings. [Figure 2-1](#) shows the Usage History display, where you can see both your Energy Usage and your Screen On Time for the last 24 hours or the last 10 days.

» **Calibrate your battery.** You can “train” your battery to provide the maximum charge by calibrating it, which Apple recommends doing monthly. The process is a snap:

1. **Charge your battery until the menu bar's battery meter indicates that the unit is fully charged, at 100%.**
2. **Keep your laptop connected to an AC socket for another two hours to ensure a maximum charge.**
3. **Disconnect the power cord, and use your laptop on battery power until it's fully**

discharged and automatically switches to sleep mode.



WARNING Make sure that you close all your applications when you see the low-battery warning dialog box so that you don't lose anything.

4. **Allow your laptop to sleep (or turn it off) for a full five hours.**
 5. **Reconnect the AC cord, and fully charge your battery.**
- » **Invest in an external battery.** If you often find yourself running out of battery power on the road without an AC socket handy, consider buying an external battery. This handy unit is specially designed to charge your MacBook and other USB-powered devices when no other power source is available. A rechargeable battery can power and charge your MacBook, as well as an iPhone, iPad, and other USB devices.



FIGURE 2-1: Monitor your battery usage from the System Settings Battery pane.



REMEMBER

If your battery is no longer holding a charge — in other words, if you fully charge it and unplug the AC adapter, only to discover that you have only a few minutes of battery life — it's time to invest in a replacement battery. If you use an older Mac laptop with a replaceable battery, you can buy a new battery (from Apple or an online vendor) and install it yourself. Unfortunately, owners of current MacBook models must take their computers in for servicing. Today's Mac laptop is a sealed unit, and you can't replace the battery yourself.

HOT PATOOTIE! IS MY LAPTOP STEAM-POWERED?

Laptops generate heat. Today's superfast Apple Silicon multicore processors can work up a head of steam (pun intended) while you're using them. Some of that heat radiates from the bottom of the computer, even though current MacBook Pro models have at least one fan. (Note that Apple's M-series processor line produces far less heat than Intel processors.)

What you might not realize, however, is just how *much* heat your MacBook can produce. You won't get burned if you shift your MacBook from a desk to your lap (Apple dislikes lawsuits as much as the next company), but that laptop will be uncomfortably hot if you've been using it for hours! Note that running some applications actually causes your MacBook to heat up faster (usually applications that perform complex math, manipulate video, or display high-resolution 3D graphics).

To avoid that burning sensation, buy a laptop stand or cooling pad for your desk. These nifty metal or Plexiglas pedestals raise your laptop off your desk, allowing air to flow under the computer for better cooling. Also, a laptop stand elevates the screen to a more-ergonomic position. Some stands even include a built-in fan powered by one of your USB ports. (The keyboard might suddenly be harder to use, naturally, but that's yet another reason why I recommend an external keyboard when you're using your Mac laptop at a semipermanent desk location. The other reasons are that an external keyboard saves wear and tear on your laptop keyboard, and you get the ease of using a full-size keyboard.)

Harriet, It's Already Asking Me Questions!

After your MacBook is running and you've given it the once-over for obvious shipping damage, your next chore is to set up your laptop. Unlike most other tasks in this book, I don't cover the setup process step by step. Apple "tweaks" the questions that you see during setup on a regular basis, and the questions are really very easy to answer. Everything is explained onscreen, complete with onscreen Help if you need it.

However, I do want you to know what to expect as well as what information you need to have at hand. I also want you to know about support opportunities, such as the AppleCare Protection Plan and Apple's iCloud internet services — hence, this section. Consider it a study guide for whatever your MacBook's setup procedure has to throw at you.

Setting up macOS Sonoma

After you start your MacBook for the first time — or if you just upgraded from an earlier version of macOS — your MacBook will likely automatically launch the Sonoma setup procedure. The setup process takes care of several tasks:

» Setup provides Sonoma your personal information.

As I mention in [Chapter 1](#), your MacBook ships with a bathtub full of applications, and many of those use your personal data (like your address and telephone number) to automatically fill out your documents.



REMEMBER Apple has recently strengthened its efforts to guard your privacy online. If personal stored information starts you worrying about identity theft, I congratulate you. If you're using your common sense, it *should*. However, Apple doesn't disseminate this information anywhere else, and the applications that use your personal data won't send it anywhere, either. And the Safari web browser fills out forms on a web page automatically *only* if you give your permission — and security-conscious MacBook owners like me prefer to enter things manually. I applaud Apple's decades-long commitment to privacy and security, and I trust them with my personal data.

» **Setup creates your user account.** You're prompted for a username and password, which Setup uses to create your administrator-level account.

» **Setup configures your language and keyboard choices.**

macOS Sonoma is a truly international operating system, so Setup offers you a chance to configure your MacBook to use a specific language and keyboard layout.

» **Setup configures your email accounts within Apple Mail.**

If you already have an email account set up with your internet service provider (ISP), keep that email account information handy to answer these questions. (The list should include the incoming POP3/IMAP and outgoing SMTP mail servers you'll be using, your email address, and your login name and password. Don't worry about those crazy acronyms, though,

because your ISP will know exactly what you mean when you ask for this information.) Sonoma can even automatically configure many email accounts for you — including web-based services such as Google Mail, Yahoo! Mail, and AOL Mail — if you supply your account ID and password. *Sweet.*

» **Setup allows you to sign up for an iCloud ID and Apple’s iCloud service.**

iCloud makes it easy to share data automatically between your MacBook and devices like an iPhone or iPad, along with Apple email accounts (through both web mail and the Apple Mail application). I go into all these in more detail in [Chapter 9](#). For now, just create your iCloud ID (also often called an Apple ID), sign up for iCloud, and take the opportunity to feel smug about owning an Apple computer.



REMEMBER All sorts of macOS applications hinge on your iCloud account, including the App Store, Messages, the iTunes Store, and FaceTime. Without an iCloud account, these applications will either offer limited features or may not allow you to use them at all! If you skip the iCloud account-creation process during setup, you can take care of that chore at any time. It’s free and painless, and makes you one of the “in crowd.”

» **Setup sends your registration information to Apple.**

As a proud owner of a MacBook, take advantage of the year of hardware warranty support and the free 90 days of telephone support. You have to register to use ‘em, but rest assured that all this info is confidential.

» Setup launches Migration Assistant.

This assistant guides you through the process of *migrating* (an engineer's term for *copying*) your existing user data from your old Mac or PC to your new MacBook. Naturally, if your MacBook is your first computer, you can skip this step with a song in your heart! (Read more on Migration Assistant in the section "[Importing Documents and Data from Your Old Mac.](#)")

Registering your MacBook

I'll be honest here: I know that many of us (myself included) don't register every piece of computer hardware we buy. However, your MacBook is a different kettle of fish, and I *strongly* recommend that you register your purchase with Apple during the setup process. You spent a fair amount on your laptop, and it's an investment with a significant number of moving (and expensive) parts. In fact, I heartily advocate the purchase of an AppleCare+ Protection Plan extended warranty with your new MacBook for the ultimate in peace of mind. If you can invest a couple of hundred dollars more, you'll have either one or three full three years of service coverage from the purchase date.

Even the hardest of techno-wizards would agree with this important Mark's Maxim:



MARK'S
MAXIM

If you don't register your MacBook, you can't receive support from Apple.

Rest assured that Apple is not one of those companies that constantly pesters you with email advertisements and near-spam. I've registered every Apple computer

I've owned, and I've never felt pestered. (And I have an *extremely* low tolerance for pester.) However, just in case your tolerance is even lower than mine, Apple's registration process allows you to disable this email communication.

Importing Documents and Data from Your Old Mac

If you're upgrading from an older Mac computer running a previous version of macOS to your new MacBook, I have great news for you: Apple includes the Migration Assistant utility application that can help you move (whoops, I mean, *migrate*) all sorts of data from your old Mac to your new machine. It does so via your laptop's wired or wireless Ethernet network connection or an existing Time Machine backup on an external drive. The list of stuff that gets copied over includes:

- » **User accounts:** If you set up multiple user accounts (so that more than one person can share the computer), the utility ports them all to your new MacBook.
- » **Network settings:** Boy howdy, this is a real treat for those with manual network settings provided by an ISP or network administrator! Migration Assistant can re-create the entire network environment of your old Mac on your new MacBook.
- » **System Preferences settings:** If you're a fan of tweaking and customizing macOS to fit you like a glove, rejoice. Migration Assistant actually copies over all the changes that you've made within System Preferences (now called System Settings) on your old

Mac! (Insert sound of angelic chorus of cherubim and seraphim: *Hallelujah!*)

- » **Documents, Photos, and Music:** The files in these folders are copied to your new MacBook.
- » **Applications:** Migration Assistant tries its best to copy over the third-party applications that you've installed in your Applications folder on the older Mac. I say *tries its best* because you might have to reinstall some applications, anyway. Some developers create applications that spread out all sorts of files across your internal drive, and Migration Assistant just can't keep track of those nomadic files. Also, some other applications make the trek just fine, but you might have to re-enter their serial numbers.



REMEMBER If you're migrating from an Intel Mac to a new M-series Apple Silicon MacBook, you may also find that some applications can no longer be launched — unfortunately, these apps are not compatible with Apple's processor. I recommend checking with the software developer to see whether a new version of the app that supports M-series processors is available.



TIP Setup launches Migration Assistant automatically if you indicate that you need to transfer stuff during the setup process, but you can also launch Migration Assistant manually at any time. Click the Launchpad icon on the Dock (which bears a grid icon); then click the search box at the top of the screen and type **Migration**. Click the Migration Assistant icon to

launch the application. Note that Migration Assistant will close any running applications, so make sure to save and close any open documents.

To use Migration Assistant to copy your system from your older Mac, you need one of the following:

- » **Wired or wireless network connection between the computers:** If you've already hooked up your new MacBook to your wired or wireless Ethernet network while using Setup Assistant, eschew cables completely! (Note, however, that a Wi-Fi migration will be much slower than migrating with either a direct cable connection or a wired network connection.) Of course, the other Mac must be connected to the same network you're using on your MacBook.
- » **Thunderbolt cable (compatible with all recent MacBook, Mac mini, Mac Pro, and MacBook models):** A Thunderbolt connection will transfer your data between the two computers at lightning speed! (Bad pun intended.) Apple sells a Thunderbolt 4 cable that's perfect for the job for \$69 at the Apple Store.
- » **Time Machine external drive:** If you're using Time Machine on the older Mac with an external drive, you can migrate directly from your most recent backup — just plug your external Time Machine drive into your new MacBook.

If you'll be using a Thunderbolt cable, make sure that the two machines are connected with the cable first.

Typically, you'll also have to load Migration Assistant on the source Mac (or a free Windows program downloaded from www.apple.com, if the source computer is a PC).

After the two computers are connected, simply follow the onscreen instructions displayed within the Migration

Assistant window. The application will lead you through the process step by step. If you need to return to the previous step at any time, click the Back button that appears at the bottom of the screen.



REMEMBER Migrating your data across a network takes time, so please be patient with the process!

Manually Importing Documents and Data from Windows

If you're a classic Windows-to-Mac *Switcher*, you made a wise choice, especially if you're interested in the creative applications supplied by Apple. Although you can choose to start your Apple computing life anew, you probably want to migrate some of your existing documents and files from that tired PC to your bright, shiny new MacBook.

If you're switching from a PC to a Mac, you can run the Windows version of the Migration Assistant on your PC (available from Apple's website) to automatically handle most of your migration tasks for you, and you should witness the miracle of your PC's photos, video, music, and documents suddenly appearing on your MacBook. Unfortunately, you'll have some exceptions. Some stuff won't make the move because the Windows Migration Assistant simply can't recognize and transfer files and folders from some nonstandard locations. For example, folders you created yourself at the root of your PC's drive likely won't be recognized, and naturally, your Windows

programs won't run under macOS. Owners of M-series Apple Silicon MacBooks can buy a virtual PC application like Parallels Desktop from Parallels International (www.parallels.com) to run Windows. (However, you'll still have to move those Windows applications manually to your laptop.)

Here's the good news, though: You can easily copy those files that weren't transferred! Moving items manually from a USB flash drive or over a network is easy.



TIP

The macOS Help system contains an entire subsection on specific tricks that you can use when switching from Windows to Mac, including how to connect to a Windows network and how to directly connect the two computers.

In general, you can move documents, movies, photos, and music without a problem. [Table 2-1](#) illustrates what can be moved between Windows (versions 7, 8, 8.1, 10, and 11) and macOS, as well as the application that you use in Sonoma to open those files and documents.

TABLE 2-1 Moving Media and Documents betwixt Computers

<i>File Type</i>	<i>Windows Location</i>	<i>macOS Location</i>	<i>Mac Application</i>
Music files	Music folder	Music folder	Music
Video and movie files	Videos folder	Movies folder	QuickTime/DVD Player/TV
Digital photos	Pictures folder	Pictures folder	Photos

<i>File Type</i>	<i>Windows Location</i>	<i>macOS Location</i>	<i>Mac Application</i>
Office documents	Documents folder	Documents folder	Mac Office/Open Office/Pages, Numbers, and Keynote

Chapter 3

The MacBook Owner's Introduction to macOS Sonoma

IN THIS CHAPTER

- » **Introducing the macOS Sonoma Desktop**
 - » **Launching and quitting applications**
 - » **Mastering Finder windows, items, and shortcuts**
 - » **Customizing the Dock and Desktop**
 - » **Getting help**
-

Ah, the Finder. Many admire its scenic beauty. But don't ignore its unsurpassed power or its many moods. And send a postcard while you're there.

Okay, so the Sonoma Finder might not be *quite* as majestic as the beautiful region it's named after, but it's the basic toolbox you use every day while piloting your MacBook. The Finder includes the most common elements of macOS: window controls, common menu commands, icon fun (everything from launching applications to copying files), keyboard shortcuts, and even emptying the Trash. In fact, you could say that if you master the Finder and learn how to use it efficiently, you're on your way to becoming a power user!

This chapter is your Finder tour guide, and we're ready to roll. I satisfy your curiosity about your new playground and introduce you to the basic elements of the Sonoma Desktop. I also outline the resources available if you need help with macOS.

Oh, and I promise to use honest-to-goodness English in my explanations, with a minimum of engineerspeak and indecipherable acronyms. (In return, promise that you'll boast about Sonoma to your family and friends. Aunt Harriet might not be as technologically savvy as we are.)

Your Own Personal Operating System

Sonoma is a special type of software called an *operating system* (or *OS*, as in *macOS*). This means that Sonoma essentially runs your MacBook and allows you to use all your other applications, such as Music and Adobe Photoshop. It's the most important computer application — or *software* — that you run.



TIP

Think of a pyramid, with Sonoma as the foundation and other applications running on top.

You're using the OS when you aren't running a specific application, such as these actions:

- » Copying files from a USB flash drive to your laptop's internal drive
- » Navigating files and folders on your drive
- » Choosing a different screen saver

Sometimes, Sonoma even peeks through an application while it's running. macOS controls application actions such as these:

- » The Open, Save, and Save As dialogs you see when working with files in Photoshop

- » The Print dialog that appears when you print a document in Pages (Apple's desktop publishing application)

In the following sections, I escort you around the most important hotspots in Sonoma, and you meet the most interesting onscreen thingamabobs you use to control your laptop. (I told you I wouldn't talk like an engineer!)

The Sonoma Desktop

The Sonoma Desktop isn't made of wood, and you can't stick your gum underneath it. But this particular desktop does work much like the surface of a traditional desk. You can store things there, organize things into folders, and take care of important tasks such as writing and drawing (using tools called *applications*). Heck, you even have a clock and a trash can, and you can add a Calendar.

Gaze upon [Figure 3-1](#), and follow along as you venture to your Desktop and beyond. I discuss each of these Desktop elements in more detail later in this chapter.



FIGURE 3-1: Everything Sonoma starts here: the macOS Desktop.

Meet me at the Dock

The Dock is a versatile combination: one part organizer, one part application launcher, and one part system monitor. From the Dock, you can launch applications. The postage-stamp icon represents the Apple Mail application, for example, and clicking the spiffy compass icon launches your Safari web browser. Icons on the Dock also allow you to see what's running and to display or hide the windows displayed by your applications.

Each icon on the Dock represents one of the following (many of which are proudly displayed in [Figure 3-2](#)):

- » An application you can run (or that's running)
- » An application window that's *minimized* (shrunk)

- » A web page’s URL link
- » A document or folder on your system
- » A network server, shared document, or shared folder
- » Your Trash



FIGURE 3-2: The Dock can contain all sorts of exotic icons.



TIP

The Dock is highly configurable:

- » It can appear at different edges of the screen.
- » It can disappear until you move the pointer to the edge to call it forth.
- » You can resize it.

Check out that Control Center

Let’s face it: Even with more than two decades of excellent design behind it, your macOS Desktop can be a somewhat confusing landscape! A laptop often needs a quick settings change around campus, at the airport, or the coffee shop. With Sonoma, Apple’s designers devised the macOS Control Center to round up all these stray options and present them in a single, convenient spot.

The Control Center is easily customized, too — after all, this is macOS — so you can decide what goes where! Some settings can either appear on your Finder menu bar or the Control Center. You can learn all the details in the section titled “[Taking Control of Your MacBook](#),” later in this chapter.

Dig those crazy icons

By default, Sonoma typically displays at least one icon on your Desktop: your Mac's internal drive. (If your internal drive's icon doesn't appear on the Desktop, choose Finder ⇒ Settings, click the General entry in the sidebar, and then select the Hard Disks check box to display your drive icons.) To open a drive and view or use the contents, you double-click the icon. Each icon is a shortcut of sorts that represents something, including

- » CDs and DVDs (if you have an optical drive)
- » External drives and USB flash drives
- » Applications and documents
- » Files and folders
- » Network servers you access

Note that an icon can represent applications you run and documents you create. Sometimes, you *single*-click an icon to watch it do its thing (as on the Dock), but usually you *double*-click an icon to make something happen.

There's no food on this menu

The menu bar isn't in a restaurant. You find it at the top of the Desktop, where you can use it to control your applications. Virtually every application you run on your laptop has a menu bar.

To use a menu command, follow these steps:

1. **Click the menu title (such as File or Edit).**
2. **Choose the desired command from the list that appears, as shown in [Figure 3-3](#).**

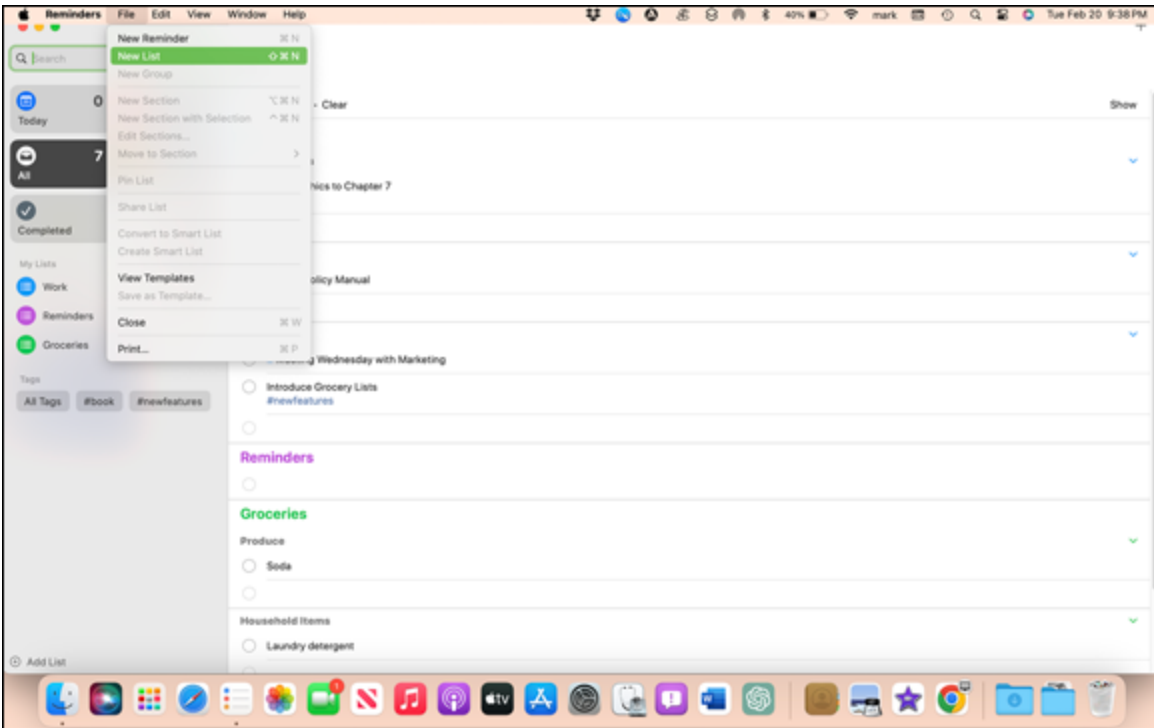


FIGURE 3-3: Clicking a menu displays a list of menu commands.

When you click a menu, it extends down so that you can see the commands it includes. While the menu is extended, you can choose any enabled menu item (just click it) to perform that action. You can tell that an item is enabled if its name appears in black-and-white. Conversely, a menu command is disabled if it's grayed-out. Clicking it does nothing.



REMEMBER When you see a menu path printed in this book (such as File ⇒ Save), it's just a visual shortcut that tells you to click the File menu and then choose Save from the menu that appears.

Virtually every Mac application has some menus, such as File, Edit, and Window. You're likely to find similar commands on these menus. But only two menus are in *every* macOS application:

- » The *Apple menu*, which is identified by that jaunty Apple Corporation icon (🍏). This menu is special because it appears on both the Finder menu bar and the menu bar in every application you run. Whether you're in Music, Photoshop, or Microsoft Word doesn't matter: If you see a menu bar, the 🍏 menu is there. The menu contains common commands to use no matter where you are in Sonoma, such as Restart, Shut Down, and System Settings. [Figure 3-1](#), shown previously, proudly displays the Apple icon and menu in the top-left corner.
- » The *Application menu*, which always bears the name of the active application. The TV menu group appears when you run the Sonoma TV application, for example, and the Word menu group appears when you launch Microsoft Word.



TIP

You can also display a context or shortcut menu — which regular human beings call a *right-click menu* — by right-clicking the Sonoma Desktop, an application, a folder, or a file icon. (Because your MacBook is equipped with a trackpad, you can right-click by tapping the trackpad with two fingertips. I explain tapping later in the section titled, “[Wait a Second: Where the Heck Are the Mouse Buttons?](#)”)

The Finder menu bar is your friend

Whenever the Finder itself is ready to be used (or, in Macspeak, whenever the Finder is the *active* application), the Finder menu bar appears at the top of the screen. You know that the Finder is active and ready when the word *Finder* appears at the left end of the menu bar.

IT'S APPLE TO THE RESCUE!

UNIX is the established, super-reliable OS that powers most of the high-performance servers that make up the internet. UNIX has built-in support for virtually every hardware device ever wrought by the Hand of Man (including all the cool stuff that comes with your MacBook). It's also well-designed and highly efficient.

Unfortunately, standard UNIX looks as hideous as old-fashioned character-based DOS, complete with a confusing command line. So ease of use for normal human beings like you and me goes out the window. Enter the genius types at Apple, who understood more than 20 years ago that all UNIX needed was a state-of-the-art, novice-friendly interface. To wit: macOS was developed with a UNIX foundation (or *core*), so it shares the reliability and performance of UNIX. But the software engineers at Apple (who know a thing or two about ease of use) made it good-looking and easy to use.

There's always room for one more window

You're probably familiar with the ubiquitous window itself. Both Sonoma and the applications you run use windows to display things such as

- » The documents you create
- » The contents of your drive

The window shown in [Figure 3-1](#) earlier in this chapter is a Finder window, where Sonoma gives you access to the applications, documents, and folders on your system. You use Finder windows to launch applications, perform disk chores such as copying and moving files, and navigate your internal and external drives.

Widgets on parade

Widget. What a ridiculous word — it reminds me strongly of the browser cookie, another modern computing term that I find hilarious. Anyway, after using your macOS widgets for a few weeks, you'll find yourself a huge fan

of these tiles, just like me. Widgets are standalone modules that you can add to your Control Center and your Desktop that constantly display specific information (and, in some cases, allow you to interact with them in some way). Apple provides a wide variety of widgets, and I describe how to add them to your system later in this chapter.

Wait a Second: Where the Heck Are the Mouse Buttons?


Sonoma takes a visual approach to everything. What you see in [Figure 3-1](#), earlier in this chapter, is designed for point-and-click convenience, because the *trackpad* is your primary navigational tool while you're using your Mac laptop. You move your finger over the surface of the trackpad, and the pointer (also called the cursor) follows like an obedient pup. The faster you move your finger, the farther the pointer goes. When your pointer is over the desired item, you tap it (or *click* it, if you prefer the more familiar term); it opens; you do your thing; life is good.



WARNING *Never use any object other than your finger on the trackpad!* That means no pencils (no, not even the eraser end), pens, or chopsticks; they can damage your trackpad in no time.

If you've grazed on the other side of the fence — if you're one of Those Who Were Once Windows Users — you're probably accustomed to using a mouse with at least two

buttons. This brings up the nagging question: “Hey, Mark, where the heck *are* the buttons?”

In a nutshell, the buttons simply ain’t there if you’re using your Mac laptop’s trackpad. The entire surface of the trackpad can act as both buttons. To customize how the trackpad operates, click the  menu on the Finder menu bar, click System Settings on the menu that drops down, and then click the Trackpad entry in the sidebar at the left of the System Settings window. From the Point & Click pane of that pane, for example, you can

- » **Enable the Tap to Click switch.** Now when you tap quickly anywhere on the trackpad, your Mac laptop counts that as a click. Tap twice quickly, and your MacBook recognizes a double-click.
- » **Click the Secondary Click pop-up menu.** A single tap with two fingers displays the right-click menu (which I cover in more detail in a page or two), or you can choose to click in either bottom corner.
- » **Click the Look Up & Data Detectors pop-up menu.** If your Mac laptop is equipped with a Force Touch Trackpad, you can choose how Force Click operates (along with the Force Click and Haptic Feedback switch, which provides physical feedback from the trackpad). Note that these two controls don’t appear if your MacBook has an older trackpad.
- » **Adjust your tracking speed and Force Click pressure.** Click and drag the Tracking speed slider to speed or slow the rate at which the pointer moves. The Click pressure slider controls how hard you must press to activate Force Click.

Apple has done a great job of illustrating each gesture available from the Trackpad pane in System Settings. A

short video clip shows you both the gesture itself and the effect of that gesture within macOS.

DOING THE MULTI-TOUCH AND FORCE CLICK THINGS

Today's crop of MacBooks has the smartest trackpads on the planet because Apple's latest mice and trackpads include two features. *Multi-Touch* allows you to control the view of a document by using specific finger motions on the trackpad surface, and *Force Click* activates specific features if you press the trackpad surface harder. (To use a Force Click, you need a MacBook that's equipped with a Force Touch trackpad.)

At the time of this writing, here's the rundown:

- **Two-finger scrolling:** Move two fingers over the surface of the trackpad to scroll the contents of the active Finder window or application in the same direction. You can use the scroll function to move up and down through the pages of a document, for example, or to move up and down through a long web page. Who needs scroll bars?
- **Two-finger zooming:** Pinching your thumb and forefinger together on the trackpad zooms out on a document or image. The reverse (moving your thumb and fingertip away from each other) zooms in. (iPhone and iPad owners are grinning broadly right now because they use the same motions.)
- **Two-finger Smart Zoom:** Tap twice with two fingers to zoom in, and double-tap again with two fingers to zoom out.
- **Two-finger rotating:** Move your thumb and forefinger in a circle on the trackpad to rotate an image or document in the corresponding direction.
- **Two-finger paging:** Swipe your thumb and forefinger to the left or right across the trackpad to page through a document or to move to the next or previous image in a set.
- **Three-finger full-screen switching:** Swipe your thumb and first two fingertips to the left or right across the trackpad to move among open applications in full-screen mode.
- **Two-finger Notification Center display:** Swipe to the left with two fingers from the right edge of the trackpad, and Sonoma displays the Notification Center. To hide the panel, reverse the gesture and swipe from the left edge to the right, using two fingers.

- **Action in Mission Control, Launchpad, and your Desktop:** Using the combination of thumb and fingers you specify, you can configure the display and operation of these features within Sonoma.
- **Display additional information:** You can Force Click text or links in documents, web pages, and email messages to display related data, or you can Force Click a document icon to display its contents without opening it. Other Force Click functions vary by application, but you can check the Help system within any application to see whether it offers Force Click commands.

Note that not all Multi-Touch gestures work with older MacBook trackpads.

I'll be honest: When my laptop is on my desk at home, I plug in a Logitech optical trackball. This neat device has two buttons and a scroll wheel, saving me wear and tear on my trackpad and offering even finer control in my applications. In fact, a new industry has sprung up for tiny USB mousing devices made especially for laptops. Some devices are smaller than a business card, but they still carry a full complement of two buttons and a scroll wheel. If you'd rather have an external trackpad while desk-bound, consider Apple's wireless Magic Trackpad. At \$149, it's on the expensive side, but it perfectly mirrors the features offered by your MacBook's trackpad.

In this book, I refer to the *pointer* whether you're using the trackpad or a mouse. So here's a Mark's Maxim that I think you'll appreciate more and more as you use your laptop:



MARK'S
MAXIM

If you can afford a USB or wireless Bluetooth mouse, trackpad, or trackball for your laptop, buy it.

If you tap the trackpad with two fingertips (or click the right mouse button on a USB mouse), Sonoma performs the same default function that a right click does in Windows. When you right-click most items — icons, documents, even your Desktop — you get a *shortcut menu* of commands that are specific to that item.

[Figure 3-4](#) shows a typical convenient shortcut menu in a Finder window. I have all sorts of cool items at my disposal on this menu because of the applications I've installed that make use of such a menu.

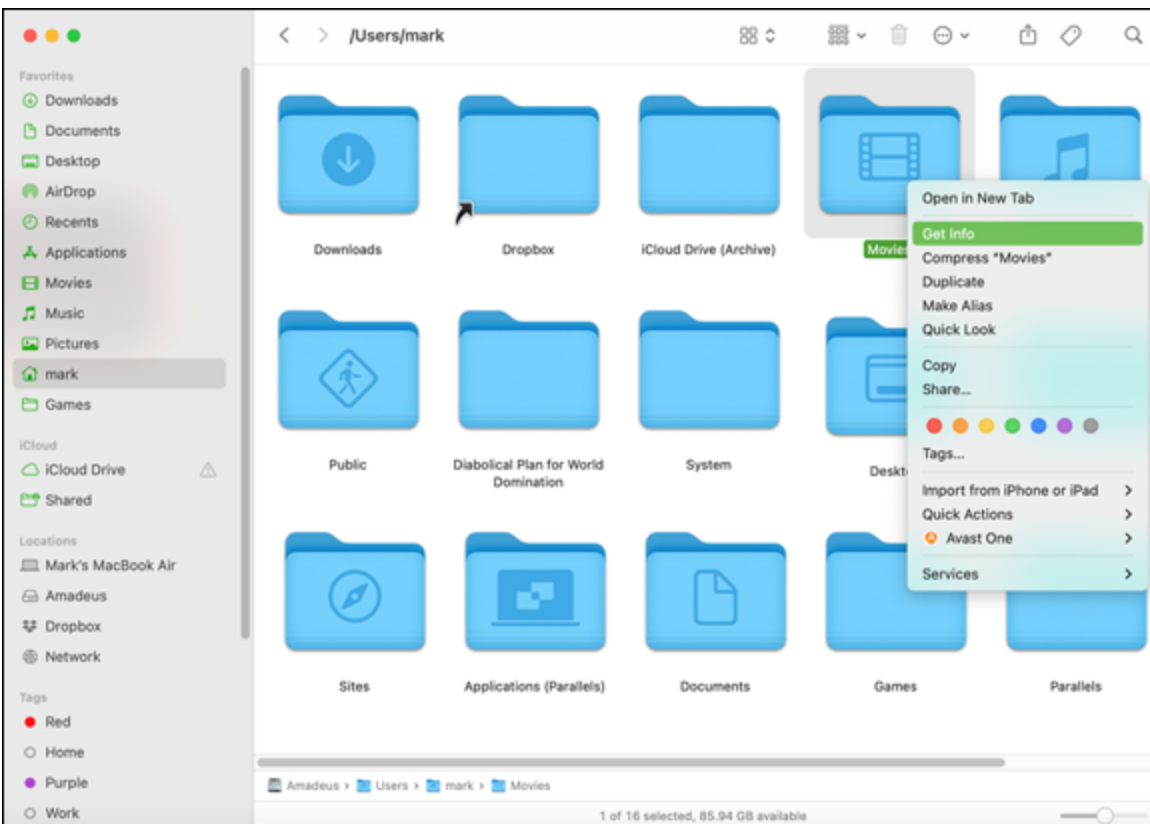


FIGURE 3-4: Welcome to your shortcut menu!



TIP If you're using a USB or Bluetooth mouse, don't forget to visit the Mouse pane in System Settings to configure it. (Some third-party mouse and trackball

manufacturers also supply their own software that offers extra features.)

Launching and Quitting Applications with Aplomb

Now it's time to pair your new trackpad acumen with the Sonoma Finder window. Follow along with this simple exercise. Move the pointer over the Music icon in the Dock. (This icon bears the symbol of a musical note.) Then tap the trackpad once. (See the preceding section for details on how to configure it.) Whoosh! Sonoma *launches* (or starts, or runs) the Music application, and you see a window much like the one shown in [Figure 3-5](#).



TIP

If an application icon is already selected (which I discuss later in the chapter), you can simply press ⌘+O to launch it. The same key shortcut works with documents, too.

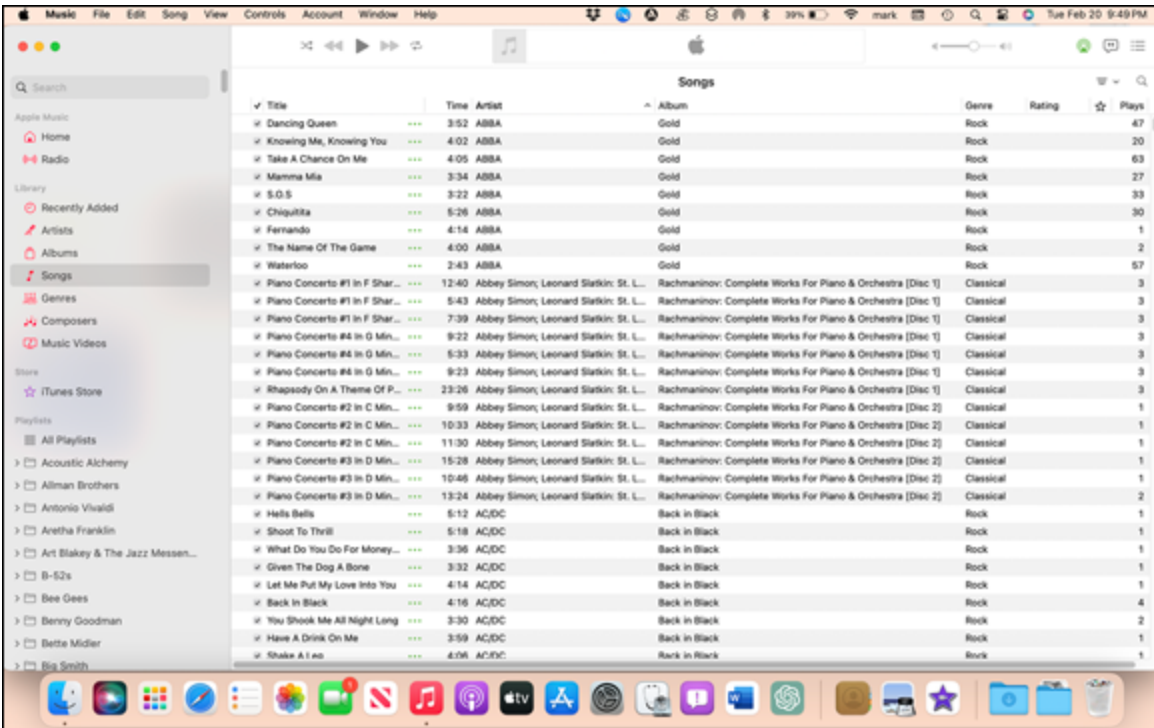




FIGURE 3-5: Click a Dock icon to launch that application.

Besides the Dock, you have a plethora of ways to launch an application or open a document in Sonoma:

- » **From the  menu:** You can launch several applications from anywhere in Sonoma by using the  menu. Choose System Settings to change all sorts of settings, such as your display background and icon appearance. Choose App Store to launch the macOS App Store and display software that you can download to your laptop. (Most of this software are commercial applications that you have to pay for, but many great free applications are available as well.) You can also use the App Store to see whether update patches are available for your Apple software.
- » **From the Launchpad:** Arrange all your application icons in a full-screen display. (The Launchpad icon on the Dock is a grid of colored squares.) If you have more than one screen (or *page*) worth of applications,


swipe two fingers to the left or right on the trackpad to move between pages. To launch an application, just click the icon. (If you're the proud owner of an iPhone or iPad, the Launchpad is familiar because it corresponds directly to the iOS Home screen on those devices.)

- » **From the Desktop:** If you have a document you created or an application icon on your Desktop, you can launch or open it from the Desktop by double-clicking that icon (rapidly tapping the trackpad twice with one finger when the pointer is on top of the icon).



TIP

Double-clicking a device or network connection on your Desktop opens the contents in a Finder window. This method works for external drives and USB flash drives. Just double-click 'em to open them and display their contents in a Finder window. Applications and documents typically launch from an external drive just as they launch from your internal drive (the one that's typically named *Macintosh HD*). So you don't have to copy stuff from the external drive just to use it. Note, however, that running an application directly from your external drive usually causes the application to run significantly slower.

- » **From the Recent Items selection:** When you click the  menu and hover the pointer over the Recent Items menu item, the Finder displays all the applications and documents you've used over the past few computing sessions. Click an item in this list to launch or open it.
- » **From the Login Items list:** Login items are applications that Sonoma launches automatically each

time you log in to your user account. I cover login items in detail in [Chapter 10](#).

- » **From the Finder window:** You can also double-click an icon within the confines of a Finder window to open it (documents), launch it (applications), or display the contents (folders).

DIG THAT CRAZY LAUNCHPAD!

You can customize your Launchpad display by dragging icons to arrange them in the order you prefer. (I have all the applications I use the most on the first Launchpad page, for example.) Drag an application icon to the right or left side of the screen to move it to another page.

Launchpad, like a Finder window, allows you to create folders to help organize your applications. To create a folder in Launchpad, drag one application icon on top of another and then add other icons by dragging them to the folder (or remove them by dragging them out of the folder). To run an application within a folder, click the folder icon to display the icons within it and then click the desired application. To change a folder name, click the folder to open it, click the folder name to display a text-editing box, type the new moniker for the folder, and press Return.

If you want to remove an application from Launchpad — *which also deletes the application from your MacBook* — click the icon, and continue pressing the trackpad until all the icons start to wiggle. (Yes, you read that correctly; I wrote *wiggle*. iPhone and iPad owners with older versions of iOS know what I mean.) Click the tiny delete (X) button that appears next to the icon whose application you want to delete, and the icon — and its application — disappear. Press Esc to stop all that wiggling. (Note that applications supplied with Sonoma can't be deleted this way.)



TIP The macOS Quick Look feature can display the contents of just about any document or file — but without actually opening the corresponding application! *Sweet*. To use Quick Look from a Finder window, click a file to select it and then press the spacebar.

After you finish using an application, you can quit that application to close its window and return to the Desktop. Here are several ways to quit an application:

- » **Press ⌘ + Q.** This keyboard shortcut quits virtually every Macintosh application. Just make sure that the application you want to quit is currently active first. (The application name should appear immediately to the right of the 🍏 menu.)
- » **Choose the Quit command from the application's menu.** To display the Quit command, click the application's named menu on the menu bar. As I just mentioned, this menu is always to the immediate right of the 🍏 menu. Safari displays a Safari menu, for example, and that same spot in the menu bar is taken up by Calendar when Calendar is the active application. Refer to [Figure 3-5](#), and look for the Music menu, right next to 🍏 at the top of the figure.
- » **Choose Quit from the Dock.** You can right-click an application's icon on the Dock and then choose Quit from the menu that appears.



TIP

A running application displays a small dot below its icon on the Dock.

- » **Click the Close button in the application window.** Some applications quit entirely when you close their window, such as the System Settings window. Other applications might continue running without any window, such as Safari or Music; to close these applications, you have to use another method in this list. (More on window controls such as Close in the next section.)



» **WARNING** Choose Force Quit from the **⌘** menu. *This is a last-resort measure!* Use this method only if an application has frozen and you can't use another method in this list to quit. (It should be marked as unresponsive in the Force Quit dialog.) Force-quitting an application doesn't save any changes to any open documents in that application!

TOUCHING BASE WITH THE TOUCH BAR

Older MacBook Pro models may sport a *Touch Bar*, which runs across the top of the keyboard. This strip of real estate is actually a touch-sensitive LED display (on a much smaller scale than your MacBook Pro's main screen, of course), and it changes according to the application you're running. If you're familiar with the function keys that have appeared on personal computer keyboards for decades, you'll understand the idea — but unlike the static F1 through F12 keys of previous Macs, the Touch Bar offers application-specific icons. Heck, in some applications, the Touch Bar acts as a slider control for photo editing, an emoji selector in a mail message, or even a theme display in a presentation!

You can also customize the display of controls offered by the Touch Bar within many applications, so you can specify exactly what functions appear. Or, in a bow to older software that doesn't use the Touch Bar, you can even display the standard set of 12 function keys.

Integrated into the Touch Bar is the same fingerprint-reading Touch ID sensor that's featured on today's MacBooks, iPhones, and iPads, allowing you to unlock your laptop, use Apple Pay, and identify yourself to secured applications — all with the touch of your finger.

Performing Tricks with Finder Windows

In the following sections of your introduction to macOS, I describe basic windows management in Sonoma: how to move things around, how to close windows, and how to make windows disappear and reappear like magic.

Scrolling in and resizing windows

Can you imagine what life would be like if you couldn't see more than a single window's worth of stuff?

Shopping would be curtailed quite a bit — and so would the contents of the folders on your MacBook's drives!

That's why Sonoma includes *scroll bars* that you can click and drag to move through the window's contents. (By default, scroll bars don't appear in Sonoma until you move the pointer close to them.) You can

- » Click the scroll box and drag it. For the uninitiated, that means clicking the darker portion of the bar and holding your finger on the trackpad while you move your finger in the desired direction.
- » Click anywhere in the empty area above or below the scroll box to scroll pages one at a time.
- » Hold down the Option key and click anywhere in the empty area above or below the bar to scroll to that spot in the document.



TIP

You can also drag two fingertips across the trackpad to scroll a window's contents (both vertically and horizontally). To control trackpad behavior, open System Settings and click the Trackpad pane. You can read all about configuring trackpad settings in the earlier section, ["Wait a Second: Where the Heck Are the Mouse Buttons?"](#)

[Figure 3-6](#) shows two vertical scroll bars in a typical Finder window, as well as the Sidebar and three Finder Tabs.



FIGURE 3-6: A plethora of helpful window controls.



TIP

Often, pressing the Page Up and Page Down keys moves you through a document one page at a time. Also, pressing the arrow keys moves the insertion pointer one line or one character in the four compass directions.

You can also resize most Finder and application windows by enlarging or reducing the window frame itself. Move the pointer over any corner or edge of a window and then drag the edge in any direction until the window is the precise size you need. (More information on dragging pops up later in this chapter.)

Minimizing and restoring windows

Resizing a window is indeed helpful, but maybe you simply want to banish the doggone thing until you need it again. That's a situation for the Minimize button, which also appears in [Figure 3-6](#) earlier in the chapter. A *minimized* window disappears from the Desktop but isn't closed; it simply reappears on the Dock as a miniature icon.

Minimizing a window is easy: Move the pointer over the Minimize button (the second of the three buttons in the top-left corner of the window). A minus sign appears on the button to tell you you're on target. Then click. Here's a good shortcut: Double-clicking the window's *title bar* (the top frame of the window, which usually includes a document or application name) minimizes the window.

To restore the window to its full size (and its original position on the Desktop), just click its window icon on the Dock.

Moving and zooming windows

Perhaps you want to move a window to another location on the Desktop so that you can see the contents of multiple windows at the same time. Click the window's title bar and drag the window anywhere you like; then release the mouse button.



TIP Many applications can automatically arrange multiple windows for you (examples include Microsoft Word and PowerPoint). Choose Window ⇒ Arrange All if this option appears.

To see everything a window can show you, use the Zoom feature to expand any Finder or application window to its maximum practical size. (Zooming a Finder window is different from zooming with the Multi-Touch feature, because you're expanding only the size of the Finder window, not an image or document.) Note that a zoomed window can fill the entire screen. If that extra space isn't applicable for the application, the window might expand to only a larger part of the Desktop.

To zoom a window, move your pointer over the third button in the top-left corner of the window. Again, refer to [Figure 3-6](#), which struts its stuff and illustrates the position. (Man, that is one versatile figure.) A double-arrow icon appears on the Zoom/Full-Screen button. Click to expand your horizons to full-screen, or hold down the Option key while clicking (which changes the icon to a plus sign) to zoom the window to maximum size.

TOGGLING TOOLBARS THE SONOMA WAY

It's time to define a window control that's actually *inside* the window for a change. A *toolbar* is a strip of icons that generally appears below the window's title bar (although toolbars can appear in other locations as well). These icons typically perform the most common actions in an application; the effect is the same as choosing a menu command or pressing a keyboard shortcut. Toolbars are popular these days. You see 'em in everything from the Finder window to most application windows.

You can usually banish a window's toolbar to make extra room for icons, documents, or whatever the window happens to be holding. Just choose View ⇒ Hide Toolbar. To restore the toolbar to its original position, choose View ⇒ Show Toolbar. **Note:** If you toggle the Finder window toolbar off, you also lose the Finder window's Sidebar.

Speaking of *full-screen* operation, it comes in very handy on a smaller laptop display. A single application fills the screen without displaying a window frame or traditional Finder menu bar. The method you use to switch to full-screen mode varies depending on the application, so there's no one menu command or one keyboard shortcut that always does the deed. Most of the applications included with macOS Sonoma use View ⇒ Enter Full Screen, and many applications have a button you can click in the window to switch back and forth. A click of the Zoom/Full-Screen button (without holding down the Option key) switches most Apple applications into full-screen mode. Finder windows can also be switched to full-screen mode in Sonoma! To exit full-screen mode, just press Esc.

So how do you switch among applications if they're all in full-screen mode?

- » Move your pointer to the bottom of the screen to display the Dock, where you can click another application to switch to it.
- » Invoke Mission Control, and choose another application there. (More about Mission Control later in this chapter.)

- » Swipe three fingers to the left or right across the trackpad surface.
- » On the keyboard, press the ⌘ + Tab shortcut to cycle through the applications you have running.



MARK'S
MAXIM

ONLY ONE CAN BE ACTIVE AT ONCE

Here's a very special Mark's Maxim in the macOS universe:

- **Only one application window can be active in Sonoma at any time.**

You can always tell which window is active:

- The active window is on top of other windows. (You can still use a window's Close, Minimize, and Zoom buttons when the window is inactive.)
- Any input you make by typing or by moving your finger on the trackpad appears in the active window.
- macOS *dims* the title bars of inactive windows you haven't minimized.

Closing windows

When you're finished with an application, or you no longer need to have a window open, move the pointer over the Close button in the top-left corner of the window (the first of the three buttons). When the X appears on the button, click it. And yes, I can make *one more* reference to [Figure 3-6](#), which I'm thinking of nominating as Figure of the Year.



TIP

Perhaps you have more than one window open in the same application, and you want to close 'em all in one fell swoop. Hold down the Option key while you click the Close button in any of the windows.

If you haven't saved a document and you try to close that application's window, the application gets downright surly and prompts you for confirmation: "Hey, human, you don't really want to do this, do you?" If you answer in the affirmative — "Why, yes, machine. Yes indeed, I do want to throw this away and not save it." — the application discards the document you were working on. If you decide to keep your document (thereby saving your posterior from harm), you can cancel the action and then save the document within the application.

Juggling Folders and Icons

Finder windows aren't just for launching applications and opening the files and documents you create. You can also use the icons in a Finder window to select one or more specific items or to copy and move items from place to place within your system.

A field observer's guide to icons

Not all icons are created equal. Earlier in this chapter, I introduce you to your MacBook's drive icon on the Desktop. Here's a little background on the other types of icons you might encounter during your mobile Mac travels:

- » **Hardware:** These icons are your internal drive as well as external peripherals, such as an external optical drive or a USB flash drive.

- » **Applications:** These icons represent the applications you can launch. Most applications have a custom icon that incorporates the company's logo or the specific application logo. Double-clicking an application usually doesn't load a document automatically; you typically get a new blank document or an Open dialog box from which you can choose the existing file you want to open.
- » **Documents:** Many of the files on your hard drive are documents that can be opened in the corresponding applications; the icon usually looks similar to the application's icon, so documents are easy to recognize. Double-clicking a document automatically launches the associated application (as long as macOS recognizes the file type, that is).
- » **Files:** Most of the file icons on your system are mundane things such as preferences and settings files, text files, log files, and miscellaneous data files. Yet most icons are identified by at least some type of recognizable image that lets you guess what purpose the file serves. You'll also come across generic file icons that look like a blank sheet of paper (used when Sonoma has no earthly idea what the file type is).
- » **Aliases:** An *alias* acts as a link to another item elsewhere on your system. To launch Adobe Acrobat, for example, you can click an Adobe Acrobat alias icon that you can create on your Desktop instead of clicking the actual Acrobat application icon. The alias essentially acts the same way as the original icon, but it doesn't take up the same amount of space — only a few bytes for the icon itself compared with the size of the actual application. Also, you don't have to go digging through folders galore to find the original application icon. (Windows switchers know an alias as

a *shortcut*. The idea is the same, although Macs had it first. Harrumph.) You can always identify an alias by the small curved arrow at the base of the icon, and the icon might also sport the tag `alias` at the end of its name.

You have two ways to create an alias. Here's one:

1. **Select the item (more on selecting items in the next section).**
2. **Choose File ⇒ Make Alias or press ⌘ + L.**

Here's another way to create an alias:

1. **Hold down ⌘ + Option.**
2. **Drag the original icon to the location where you want the alias.**



TIP

Note that this second method doesn't add the `alias` tag to the end of the alias icon's name unless you drag the icon to another spot in the same folder.

So why bother to use an alias? Two good reasons:

- » **You can launch an application or open a document from anywhere on your drive.** If you occasionally need to use another application while working on a Pages project, for example, you can add an alias and launch the other application directly from the folder in which you store those Pages documents. Speed, organization, and convenience abound. Life is good.
- » **You can send an alias to the Trash without affecting the original item.** When that school project is finished, you can safely delete the entire

folder without worrying about whether Pages will run the next time you double-click the application icon!

Selecting items

Often, the menu or keyboard commands you perform in the Finder need to be performed *on* something. Perhaps you're moving an item to the Trash, getting more information on the item, or creating an alias for that item. To identify the target of your action to the Finder, you need to select one or more items on your Desktop or in a Finder window. In the following sections, I show you just how to do that.

Selecting one thing

Sonoma gives you a couple of options for selecting just one item for an upcoming action:

- » **Move the pointer over the item and click.** A dark border (or *highlight*) appears around the icon, indicating that it's selected.
- » **If an icon is already highlighted on your Desktop or in a window, move the selection highlight to another icon in the same location by using the arrow keys.** To shift the selection highlight alphabetically, press Tab (to move in order) or press Shift+Tab (to move in reverse order).



REMEMBER Selecting items in the Finder doesn't actually *do* anything to them by itself. You have to perform an action on the selected items to make something happen.

Selecting a whole bunch of things

You can also select multiple items with aplomb by using one of these methods:

» **Adjacent items:**

- **Drag a box around them.** If that sounds like ancient Sumerian, here's the explanation: Click a spot above and to the left of the first item. Keep holding down your finger on the trackpad surface, and drag down and to the right. (This is called *dragging* in Macspeak.) A box outline like the one shown in [Figure 3-7](#) appears, indicating what you're selecting. Any icons that touch or appear within the box outline are selected when you release the button.
- **Click the first item to select it, and then hold down the Shift key while you click the last item.** Sonoma selects both items and everything between them.

» **Nonadjacent items:** Select these by holding down the ⌘ key while you click each item.

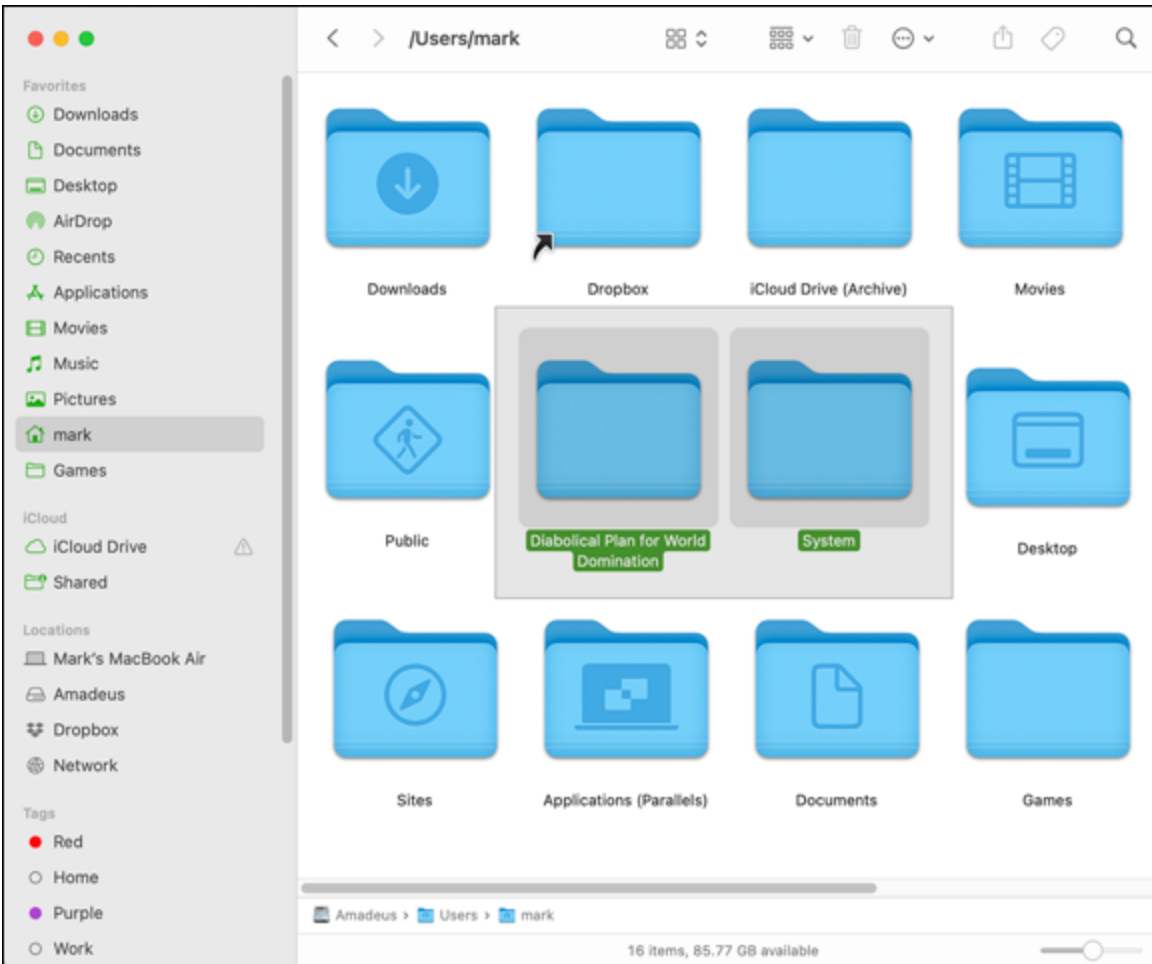


FIGURE 3-7: Drag a box around icons to select them.



TIP

Check out the status bar (which can appear at the top or bottom of a Finder window, depending on whether the toolbar is hidden). It tells you how much space is available on the drive you're working in, as well as how many items are displayed in the current Finder window. When you select items, it shows you how many you highlighted. (If you don't see a status bar, choose View ⇒ Show Status Bar.)

Copying items

Want to copy items from one Finder window to another or from one location (like a flash drive) to another (like your Desktop)? Très easy. Just use one of these methods:

» **On the same drive:**

- **To copy one item to another location:** Hold down the Option key (you don't have to select the icon first) and then click and drag the item from its current home to the new location.



TIP To put a copy of an item in a folder, just drop the item on top of the receiving folder. If you hold the item you're dragging over the destination folder for a second or two, Sonoma opens a new window so that you can see the target's contents. (This is called a *spring-loaded* folder. Really.)

- **To copy multiple items to another location:** Select them all (see the preceding section), hold down the Option key, and then drag and drop one of the selected items where you want it. All the items you selected follow the item you drag, rather like lemmings. Nice touch, don't you think?

To help indicate your target when you're copying files, Sonoma highlights the location to show you where the items will end up. (This works whether the target location is a folder or a drive icon.) If the target location is a window, Sonoma adds a highlight to the window border.

» **On a different drive:**

- **To copy one or multiple items:** Click and drag the icon (or the selected items if you have more than one) from the original window to a window you open on the target drive. (No need to hold down the Option key while copying to a different drive.) You can also drag one item (or a selected group of items) and simply drop the items on top of the drive icon on your Desktop.



REMEMBER The items are copied to the top level, or *root*, of the target drive.

If you try to move or copy something to a location that already has an item with the same name, you see a dialog that prompts you to decide whether to replace the file or to stop the copy/move procedure and leave the existing file alone. Heck, you can even keep *both*. macOS performs the copy or move but also appends the word *copy* to the item being copied. Good insurance indeed.

MY, WHAT AN ATTRACTIVE SIDEBAR ... AND SO USEFUL!

Have you noticed the Sidebar that typically occupies the left side of a Finder window? It's a pane of links to common locations and devices that you can use to jump like a flash to a specific spot on your internal drive. You can click the Applications link below the Favorites heading, for example, and you're transported to your Applications folder in an instant.

Here's a great example of Sidebar magic: I like as few icons on my Desktop as possible, so each book I'm working on gets its own folder. All the items for that project that might otherwise end up on my Desktop are saved to that folder instead. In fact, I make a point of adding my current book project folder to my Finder window Sidebar so that it's available immediately from any Finder window. To do this, just drag the folder into the column at the left

side of the Finder window and drop it on top of the Favorites heading in the Sidebar's list.

You can configure the items that will appear in your Sidebar: Choose Finder ⇒ Settings and then click the Sidebar tab of the Settings dialog to display the list. Then you can select and deselect check boxes to configure your sidebar to your liking.

Moving things from place to place

Moving things from one location to another location on the same drive is the easiest action you can take. Just drag the selected item or items to the new location. The item disappears from the original spot and reappears in the new spot.

Duplicating in a jiffy

If you need more than one copy of the same item in a folder, use the Sonoma Duplicate command. I use Duplicate often when I want to edit a document but want to ensure that the original document stays pristine, no matter what. I just create a duplicate and edit that file instead.

To use Duplicate, you can

- » Click an item to select it and then choose File ⇒ Duplicate.
- » Right-click the item and choose Duplicate from the menu.
- » Hold down the Option key and drag the original item to another spot in the same window. When you release the trackpad button, the duplicate file appears like magic!

The duplicate item has the word `copy` appended to its name. A second copy is named `copy2`, a third is `copy3`, and so on.



REMEMBER Duplicating a folder also duplicates all the contents of that folder. Therefore, creating a duplicate folder can take some time if the original folder was stuffed full (or contained files several hundred megabytes or larger). The duplicate folder has `copy` appended to its name, but the contents of the duplicate folder keep their original names.

Using Finder Tabs

Sonoma includes a powerful feature you can use to display multiple locations in the same window. *Finder Tabs* work just like the tabs in Safari (as well as other popular browsers for both Macs and PCs), allowing you to switch among multiple locations on your Mac *instantly* by clicking a tab to switch to that location. You can even drag files and folders from tab to tab!

To open a new tab in a Finder window, you have a wealth of choices:

- » Click the desired location, and press ⌘ +T.
- » Right-click the location, and choose Open in New Tab from the shortcut menu.
- » Click the Action icon (which bears a gear icon) on any Finder-window toolbar, and choose Open in New Tab.

Suppose that you're working on an iMovie project. You might create tabs by using the Applications item in the Finder window's Sidebar and a folder (or even a DVD or shared drive) named Work that contains your video clips. The location appears as a new tab below the toolbar. You can open as many tabs as you like, and you can drag the Finder Tabs themselves to reorder them. To close a tab,

hover the pointer over it and then click the X button that appears. That hard-working [Figure 3-6](#) (shown earlier in the chapter) shows three Finder Tabs at work.



TIP You can also set new folders to open in tabs instead of windows. Just click the Finder menu at the top of the Desktop, choose Settings, and then click the Open Folders in Tabs Instead of New Windows check box in the Settings dialog to enable it.

Keys and Keyboard Shortcuts to Fame and Fortune

Your MacBook's keyboard might not be as glamorous as the trackpad, but any Mac power user will tell you that using keyboard shortcuts is usually the fastest method of performing certain tasks in the Finder, such as saving or closing a file. I recommend committing these shortcuts to memory and putting them to work as soon as you begin using your laptop so that they become second nature to you as quickly as possible.

Special keys on the keyboard

The Apple standard keyboard has special keys that you might not recognize — especially if you've made the smart move and decided to migrate from the chaos that is Windows to macOS! [Table 3-1](#) lists the keys that bear strange hieroglyphics on the Apple keyboard and describes what they do.

TABLE 3-1 Too-Cool Function Keys

Action/Key Name	Symbol	Purpose
Audio Mute	F10	Mutes (and restores) all sound produced by your MacBook
Volume Up	F11	Increases the sound volume
Volume Down	F12	Decreases the sound volume
Control	Ctrl	Displays the right-click/Control+click menu with the trackpad
Command	⌘	Primary modifier for menus and keyboard shortcuts
Delete	Delete	Deletes selected text
Option	Option	Modifier for shortcuts

Using the Finder and application keyboard shortcuts

The Finder is chock-full of keyboard shortcuts that you can use to take care of common tasks. Some of the handiest shortcuts are listed in [Table 3-2](#).

TABLE 3-2 Sonoma Keyboard Shortcuts of Distinction

Key Combination	Location	Action
⌘ +A	Edit menu	Selects all items (works in the Finder too)
⌘ +C	Edit menu	Copies the selected items to the Clipboard
⌘ +H	Application menu	Hides the current application window
⌘ +M	Window menu	Minimizes the active window to the Dock (also works in the Finder)
⌘ +O	File menu	Opens or launches an existing document, file, or folder (also works in the Finder)
⌘ +P	File menu	Prints the current document

Key Combination	Location	Action
⌘ +Q	Application menu	Exits (quits) the application and prompts you to save any changes
⌘ +T	File menu	Opens a new Finder tab with the currently selected location
⌘ +V	Edit menu	Pastes the contents of the Clipboard at the current pointer position
⌘ +X	Edit menu	Cuts the highlighted item to the Clipboard
⌘ +Z	Edit menu	Reverses (undoes) the effect of the last action you took
⌘ +?	Help menu	Displays the Help system (works in the Finder too)
⌘ +Tab	Finder	Switches between open applications
⌘ +Option+M	Finder	Minimizes all Finder windows to the Dock
⌘ +Option+Esc	Apple	Opens the Force Quit dialog
⌘ +Option+W	Finder	Closes all Finder windows



TIP

But wait; there's more! Most of your applications also provide their own set of keyboard shortcuts. While you're working with a new application, display the application's Help file and print a copy of the keyboard shortcuts as a handy cheat sheet.

If you've used a PC before, you're certainly familiar with three-key shortcuts. The most infamous is Ctrl+Alt+Delete, the beloved reboot/Task Manager shortcut nicknamed the *Windows three-finger salute*. Three-key shortcuts work the same way in Sonoma (but you'll be thrilled to know you don't need to reboot by using that notorious Windows shortcut!). If you're new to

computing, to use a three-key shortcut, hold down the first two keys and then press the third key.

Home, Sweet Home Folder

Each user account you create in Sonoma is actually a self-contained universe. Each user has unique characteristics and folders devoted to him or her, and Sonoma keeps track of everything that the user changes or creates. (In [Chapter 10](#), I describe the innate loveliness of multiple users living in peace and harmony on your laptop. Go ahead, invite the family!)

This unique universe includes a different system of folders for each user account on your system. The top-level folder uses the short username that Sonoma assigns when that user account is created. Naturally, the actual folder name is different for each person. Mac techno types typically call this folder your *Home folder*. (On the Sidebar, look for the teeny house icon below the Favorites heading, marked with your account name.)



REMEMBER When you're on the hunt for your Home folder, don't look for a folder that's actually named *Home*. Instead, look for the short username that was assigned when you created the user account.

Each account's Home folder contains a set of subfolders, including

- » Movies
- » Music
- » Pictures

- » Downloads (for files you download by using Safari or through Apple Mail attachments)
- » Public (for files you want to share with others on your network)
- » Documents (for files created by the user)

Although you can store your stuff on your Desktop, that gaggle of files, folders, and aliases can get crowded and confusing quickly. Here's a Mark's Maxim to live by:



MARK'S
MAXIM

Your Home folder is where you hang out and where you store your stuff. Use it to make your computing life *much* easier!

Create subfolders within your Documents folder to organize your files and folders even further. I create a subfolder in my Documents folder for every book I write so that I can quickly and easily locate all the documents and files associated with that book project.

I discuss security for your Home folder, as well as what gets stored where, in [Chapter 10](#). For now, remember you can reach your Home folder easily because it appears in the Finder window's Sidebar. One click of the Sidebar entry for your Home folder, and all your stuff is within easy reach. (If your Home folder doesn't appear in the Sidebar, that's easy to fix: Choose Finder ⇒ Settings, click the Sidebar tab of the Settings dialog, and then select the check box to display your Home folder.)

In addition to using the Finder window sidebar, you can reach your Home folder in these convenient ways:

- » **From the Go menu:** Choose Go ⇒ Home to display your Home folder immediately from the Finder window, or press ⌘ + Shift + H to accomplish the same thing.
- » **From the Open dialog:** The Sonoma standard File Open dialog includes the same Home folder (and subfolder) icons as the Finder window's Sidebar.
- » **In any new Finder window you open:** If you like, you can set every Finder window you open to display your Home folder automatically:
 1. **Choose Finder ⇒ Settings and click the General tab.**
 2. **Click the arrow button on the right side of the New Finder Windows Show pop-up menu.**

A menu pops up (hence the name).
 3. **Click the Home folder (with the house icon and your short username) on the menu.**
 4. **Click the Close button in the top-left corner of the dialog.**

You're set to go. From now on, every Finder window you open displays your Home folder as the starting location!



TIP Here's another reason to use your Home folder to store your stuff: *default locations!* Sonoma expects your stuff to be there when you migrate your files from an older Mac to a new MacBook, and all Apple applications can use your Home folder when loading and saving projects.

Working with Mission Control

For those power users who often work with a passel of applications, allow me to turn your attention to one of the sassiest features in Sonoma: Mission Control. [Figure 3-8](#) shows off the Mission Control screen:

- » **Press F3** to show *all* open windows using Mission Control, grouped by application; then click the one you want. [Figure 3-8](#) illustrates the tiled All Windows display on my MacBook Air after I press F3. Move the pointer on top of the window you want to activate — the window border turns blue when it's selected — and click to switch to that window. You can specify which keys you want to use in the Desktop & Dock pane in System Settings.
- » **Press Ctrl+F3** to show all open windows of the application that you're currently using; click the one you want to activate. This Mission Control function is great for choosing among all the images you've opened in Photoshop or all the Safari web pages populating your Desktop!

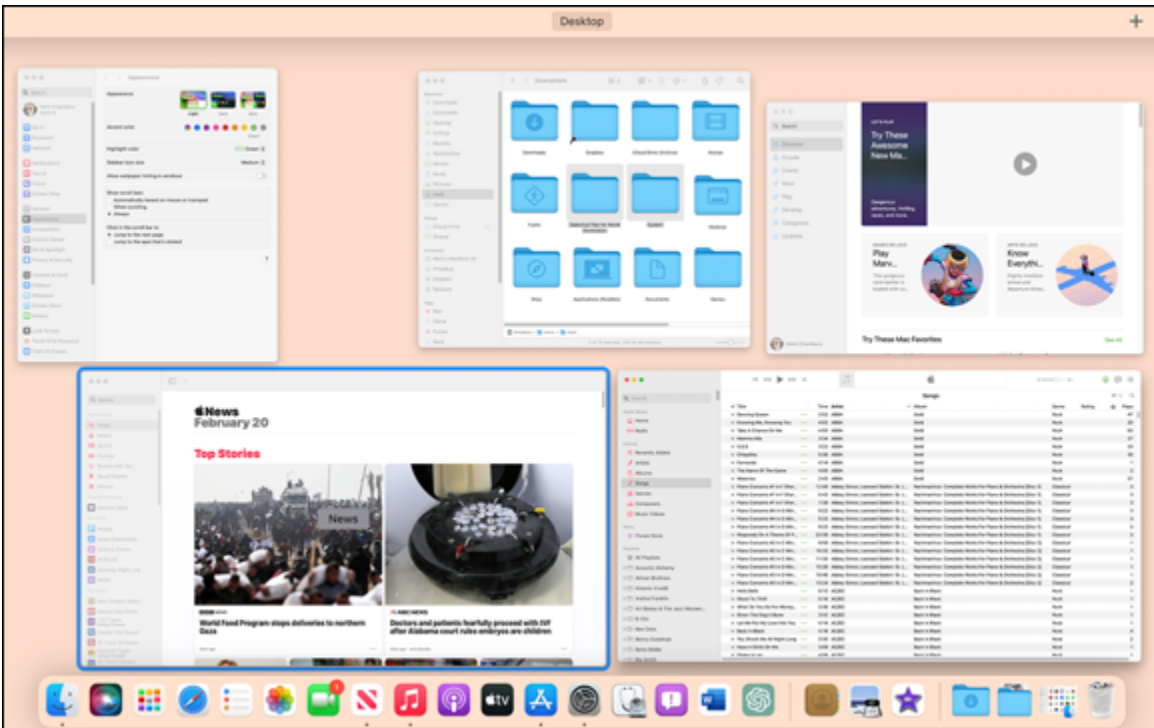


FIGURE 3-8: Mission Control is the desktop manager in Sonoma.

Astute observers will notice that the application’s menu bar also changes to match the now-active application.



TIP Besides the F3 and Control+F3 hot keys that I just discussed, Mission Control provides one more nifty function: Press $\text{⌘} + \text{F3}$, and all your open windows scurry to the side of the screen. Now you can work with drives, files, and aliases on your Desktop, and when you’re ready to confront those dozen application windows again, just press the keyboard shortcut a second time.

Naturally, these key combinations can be viewed and customized. Return to the comfortable confines of the Desktop & Dock pane in System Settings and click the Shortcuts button at the bottom of the pane to specify what key sequence does what.



TIP

Although the Mission Control screen appears automatically when necessary, you can launch it at any time from your MacBook's Launchpad display or by pressing the Mission Control key on your keyboard. From the trackpad, display the Mission Control screen by swiping up with three fingers.

Hiring a Stage Manager

macOS Sonoma includes another feature, Stage Manager, that allows you to focus on a single application window while enjoying quick access to other recent applications. I like to think of Stage Manager as an enhancement to the familiar ⌘ + Tab keyboard shortcut, which can cycle through the open application windows on your Desktop. You can turn Stage Manager on from the Desktop & Dock pane in System Settings, or you can toggle it on and off from the Control Center.

With Stage Manager on, you'll notice that the active application window appears at the center of your Desktop, while all other recent application windows are displayed at the left side of the Desktop as thumbnails. To switch immediately to another open app, just click the desired thumbnail. The thumbnail then expands as the active window, and the application you were using joins the thumbnail list.



TIP

You can toggle the thumbnail display off from the Desktop & Dock pane to save Desktop space, but the thumbnails are still available: Just move your pointer to the left edge of the screen and they'll appear. To open even more space, disable the Show Items in Stage Manager check box (you can always click directly on the Desktop to display these Desktop icons if you need them).

Switching Desktops with Spaces

Ah, but what if you want to switch to a different *set* of applications? Suppose that you're slaving away at your pixel-pushing job — say, designing a magazine cover with Pages. Your page design Desktop also includes Adobe's Photoshop and InDesign, which you switch among by using one of the techniques I just described. Suddenly, however, you realize that you need to schedule a meeting with others in your office, using Calendar, and you want to check your email in Apple Mail. What to do?

Well, you could certainly open Launchpad and launch those two applications on top of your graphics applications and then minimize or close them. But with Mission Control's *Spaces* feature, you can press the Control+← or Control+→ sequences to switch to a different "communications" Desktop, with Calendar and Apple Mail windows already open and in your favorite positions. (I've also created a custom "music" Desktop for GarageBand and Music.)

After you set up your meeting and answer any important email, simply press Control+← or Control+→ again to switch back to your “graphics” Desktop, where all your work is exactly as you left it. (And yes, Virginia, Spaces does indeed work with full-screen applications.)

To create a new Desktop for use in Spaces, click the Launchpad icon on the Dock and then click the Mission Control icon. Now you can set up new Spaces Desktops. Move your pointer to the top right of the Mission Control screen, and click the Add button (with the plus sign) that appears. (If you relocated your Dock to the right side of the screen, the Add button shows up in the top-left corner instead.) Spaces creates a new empty Desktop thumbnail. Switch to the new Desktop by clicking the label at the top of the Mission Control screen and then open those applications you want to include. (Alternatively, you can drag the applications from Mission Control to the desired Spaces label.) That’s all there is to it!

To switch an application window between Spaces Desktops, drag the window to the edge of the Desktop and hold it there. Spaces automatically moves the window to the next Desktop. (Applications can also be dragged between Desktops within the Mission Control screen.) You can also delete a Desktop from the Mission Control screen. Just hover your pointer over the offending Spaces label to display the thumbnail, and click the Delete button (with the X) that appears.



REMEMBER

You can jump directly to a specific Spaces Desktop by clicking its thumbnail in your Mission Control screen or by holding down the Control key and pressing the number corresponding to that desktop. Finally, you can always use the Control+← or Control+→ shortcuts to move between Desktops and full-screen applications.

Personalizing Your Desktop

Many folks put all their documents, pictures, and videos on their Sonoma Desktop because the file icons are easy to locate! Your computing stuff is right in front of you ... or is it?

Call me a finicky, stubborn techno-oldster — go ahead, it's true — but I prefer a clean macOS Desktop without all the iconic clutter. In fact, my Desktop usually has just three or four icons even though I use my MacBook several hours every day, often on multiple book projects. It's an organizational thing; I work with literally hundreds of applications, documents, and assorted knickknacks daily. Sooner or later, you'll find that you're using that many, too. When you keep your stuff crammed on your Desktop, you end up having to scan your screen for a particular file, alias, or type of icon. You end up taking more time to locate it on your Desktop than in your Documents folder! And don't forget: Open windows hang out on your Desktop too. To find anything, you have to close or move those windows!

Also, you'll likely find yourself looking at old icons that no longer mean anything to you or stuff that's covered in cobwebs that you haven't used in years. Stale icons — *yuck*.



TIP I recommend that you arrange your Desktop so that you see only a few icons for the files or documents you use most. Leave the rest of the Desktop for that cool image of your favorite actor or actress, or a still from your Aerial screen saver.

Besides keeping things clean, I can recommend other favorite tweaks that you can make to your Desktop:

» **Keep Desktop icons arranged as you like.**

1. **Choose View ⇒ Show View Options.**
2. **From the Sort By pop-up menu, choose the criteria that Sonoma uses to automatically arrange your Desktop icons, including the item name, the last modification date, or the size of the items.**

I personally like things organized by name, but many MacBook owners prefer to see things organized by date (putting the most recently modified item at the top, for example).

» **Choose a favorite background.**

1. **Right-click any open spot on your Desktop and choose Change Wallpaper from the shortcut menu.**

The Wallpaper pane appears, as shown in [Figure 3-9](#).

2. **Browse the various folders of background images that Apple provides, open a folder of your own images, or use an image from your Photos library.**

» **Display all the peripherals and network connections on your system.**

1. **Choose Finder ⇒ Settings.**
2. **Make sure that all four of the top check boxes on the Settings dialog are selected: Hard Disks; External Disks; CDs, DVDs, and iPods; and Connected Servers.**

If you're connected to an external network, or if you've loaded an external drive or device, these external storage locations will now show up on your Desktop. You can double-click that Desktop icon to view your external stuff.

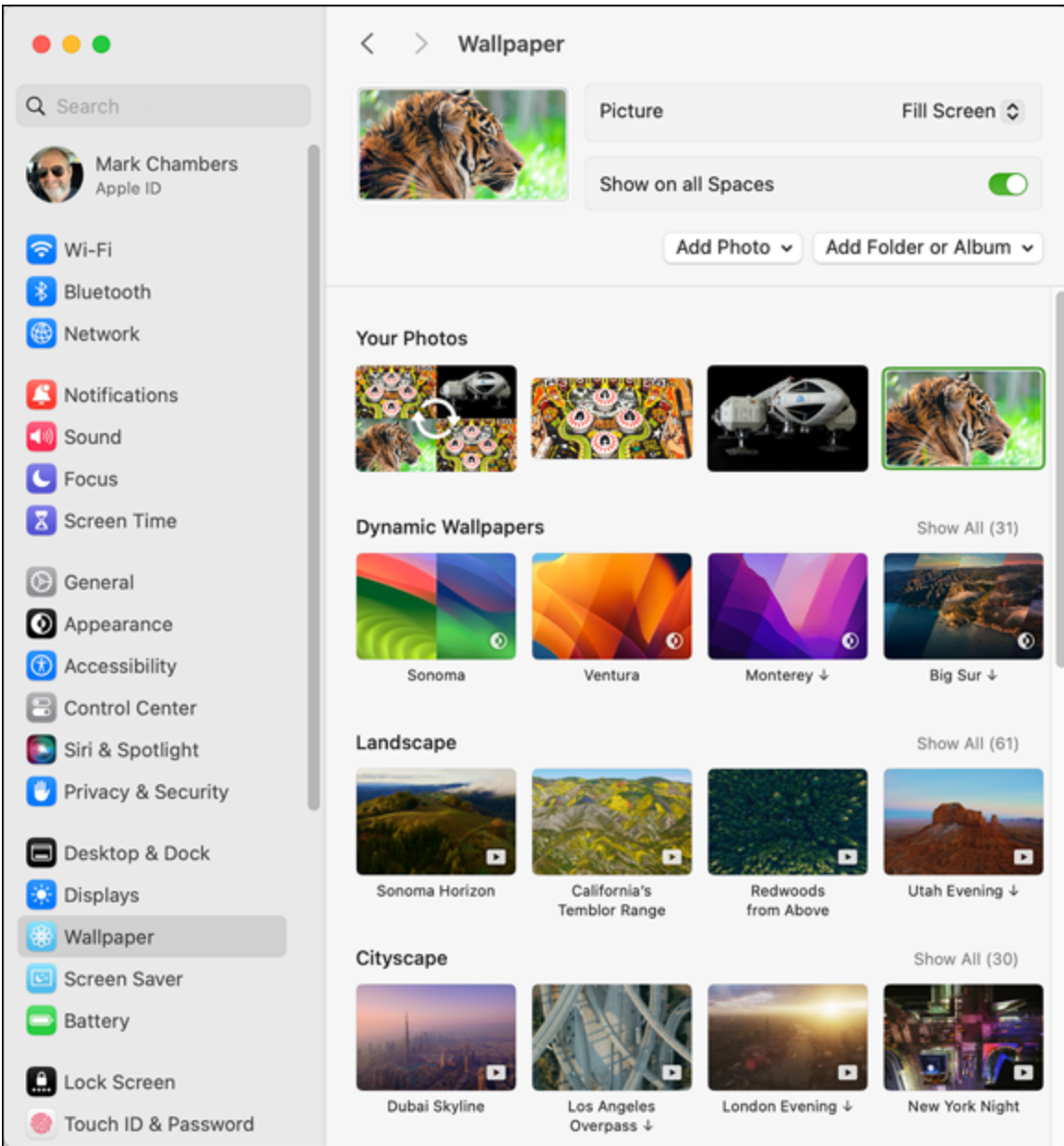


FIGURE 3-9: Choose a Desktop wallpaper of more interest.

Taking Control of Your MacBook

Another source of “customization glee” (yes, I am honestly that much of a computer nerd) is the macOS Control Center, which adds a welcome level of

convenience when changing system settings. To display the Control Center anywhere within Sonoma, click the Control Center icon in the Finder menu bar. (It looks like two horizontal sliding switches.) The Center appears as in [Figure 3-10](#), at the right side of the Desktop.

Most of the tiles you see displayed in the Control Center are simple switches for macOS features, like the Display and Sound sliders — you can click and drag them directly to adjust the display brightness and sound volume. The Wi-Fi tile is different (offering a submenu of multiple settings), allowing you to not only enable or disable your MacBook's Wi-Fi but also switch networks or display the full Network pane within System Settings.

You can specify what features are shown within the Control Center and which features remain on the Finder menu bar. Click the System Settings icon in the Dock; then click the Control Center entry in the sidebar. This pane displays the available features in a list on the right. Under the Other Modules heading, click the switches next to a module to enable or disable the display of the module in the Control Center and in the Finder menu bar. Note that the icons for the Clock, Spotlight, Siri, and Time Machine can appear only in the Finder menu bar, so they can't appear within Control Center.

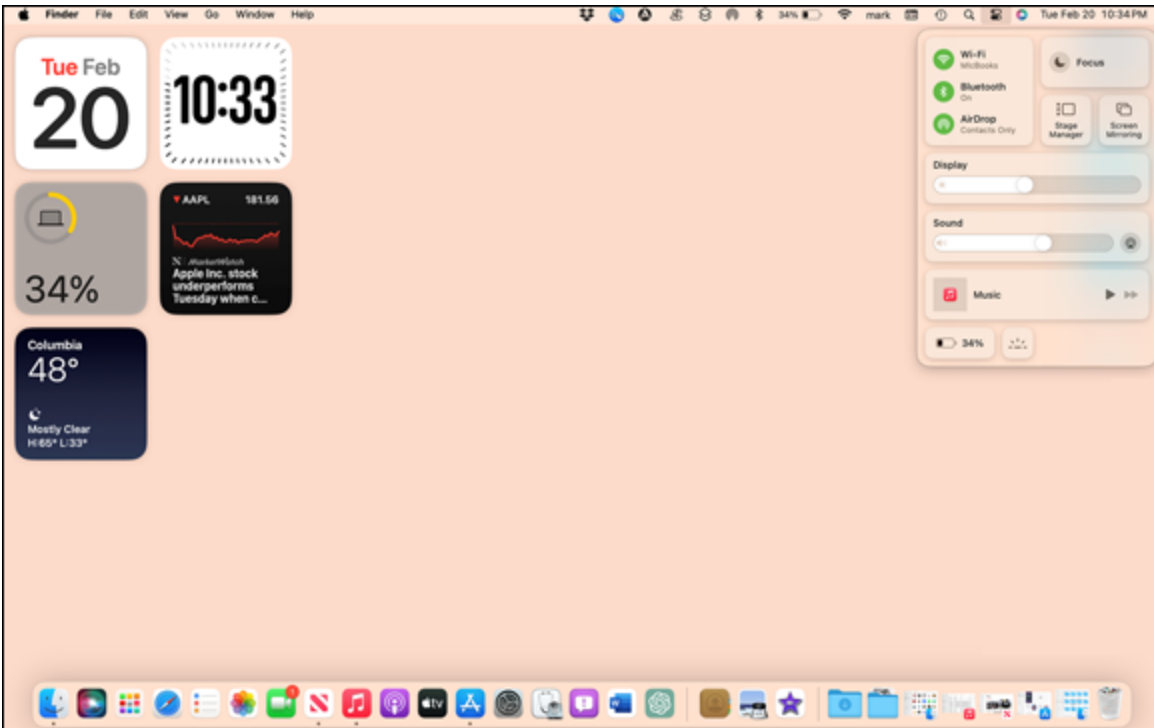


FIGURE 3-10: The Control Center makes it easy to quickly change global settings.

Customizing the Dock

In terms of importance, the *Dock* — the quick-access strip for applications and documents that appears on your Desktop — ranks right up there with the command center of a modern nuclear submarine. Therefore, it had better be easy to customize, and naturally, macOS doesn't let you down.

Adding applications and extras to the Dock

Why be satisfied with just the icons that Apple places on the Dock? You can add your own applications, files, and folders to the Dock as well:

- » **Adding applications:** You can add any application to your Dock by dragging its icon into the area to the *left*

side of the Dock (left side of the vertical line on the Dock). You'll know when you're in the proper territory because the existing Dock icons obligingly move aside to make space for it.



WARNING Attempting to place an application directly on the right side of the Dock sends it to the Trash (if the Trash icon is highlighted when you release the button), so beware. Note, however, that you can drop an application icon inside a Stack (more on that in a bit) or a folder that already exists at the right end of the Dock. (If you've repositioned the Dock on the left or right side of the screen, consider the top of the Dock to be the left side and the bottom of the Dock to be the right side.)

- » **Adding individual files and volumes:** You can add individual files and volume icons to the Dock by dragging the icon into the area at the *right* end of the Dock. (Attempting to place icons on the left end of the Dock opens the application associated with the contents, which typically isn't what you intended.) Again, the existing Dock icons move aside to create a space when you're in the right area.

To open the Dock item you've added in a Finder window, right-click the icon to display a Dock shortcut menu, where you can open documents, run applications, and have other assorted fun, depending on the item you choose.

- » **Adding several files or a folder:** Sonoma uses a feature called *Stacks*, which I discuss in a page or two, to handle multiple files or add an entire folder to the Dock.

» **Adding websites:** You can drag any URL from Safari directly to the right end of the Dock. Clicking that Dock icon automatically opens your browser and displays that page.



REMEMBER If you see *two* vertical lines in the Dock, you've turned on the Dock's Recent Applications feature, which displays icons for the last applications you've recently launched. (You can find this setting in the Dock & Menu Bar pane of System Settings.) Consider the vertical line farthest to the right to be the right side of the Dock when adding items to the Dock.

To remove an icon from the Dock, just click and drag it off the Dock. Note, however, that the original application, folder, or volume is *not* deleted; only the Dock icon itself is permanently excused. If you like, you can delete almost any of the default icons that macOS installs on the Dock; only the Finder and Trash icons must remain on the Dock.



TIP The Dock can also be set to display the most recent applications you've launched! Click the System Settings icon on the Dock and choose the Desktop & Dock pane; then enable the Show Suggested and Recent Apps in Dock switch. These application icons appear between the application and document sections of the Dock.

Using Desktop widgets

As I mention earlier in the chapter, you can easily add widgets to both your Control Center and your Desktop, but they especially capture my fancy on the Desktop (a new feature in macOS Sonoma). By default, Desktop widgets are always visible, providing information like the current time, date, and weather without requiring a single click. (Add the Stock widget and you can suffer, as well.)

To add one or more widgets to your Desktop, follow these steps:

- 1. Click the Time/Date display in the Finder menu bar.**

macOS displays the Notification Center.

- 2. Click the Edit Widgets button at the bottom of the Notification Center.**

The Edit Widgets sheet appears, complete with suggestions on modules you may want to add.

However, you're not limited to the suggestions; you can click any of the entries in the sidebar at the left to display the different categories of widgets.

- 3. Drag a module to the desired location on the Desktop.**

Alternatively, of course, you can drag the module to the upper-right of the Desktop to add the widget to your Notification Center instead.

- 4. Click the Done button at the lower-right corner of the sheet to save your changes.**



REMEMBER You can configure all widgets as a group from the Desktop & Dock pane in System Settings, including whether they should appear while you're using Stage Manager.

Keeping track with Stacks

Sonoma offers *Stacks*, which are groups of items (documents, applications, and folders) that you want to place on the Dock for convenience — perhaps the files needed for a project you're working on or your favorite game applications. I have a Stack named Wiley on my Dock that holds all the project files I need for the book I'm currently writing, for example.

To create a Stack, just select a folder containing the items and drag the folder to the right side of the Dock. As always, the Dock opens a spot at the right end of the Dock to indicate you're in the zone.

To display the items in a Stack, just click it:

- » **If the Stack holds relatively few items**, they're displayed in a really cool-looking arc that Apple calls a *fan*, and you can click the item you want to open or launch. [Figure 3-11](#) illustrates a typical Stack unfurled as a fan.
- » **If the Stack is stuffed full of many items**, the Stack opens in a grid display, allowing you to scroll the contents to find what you need.

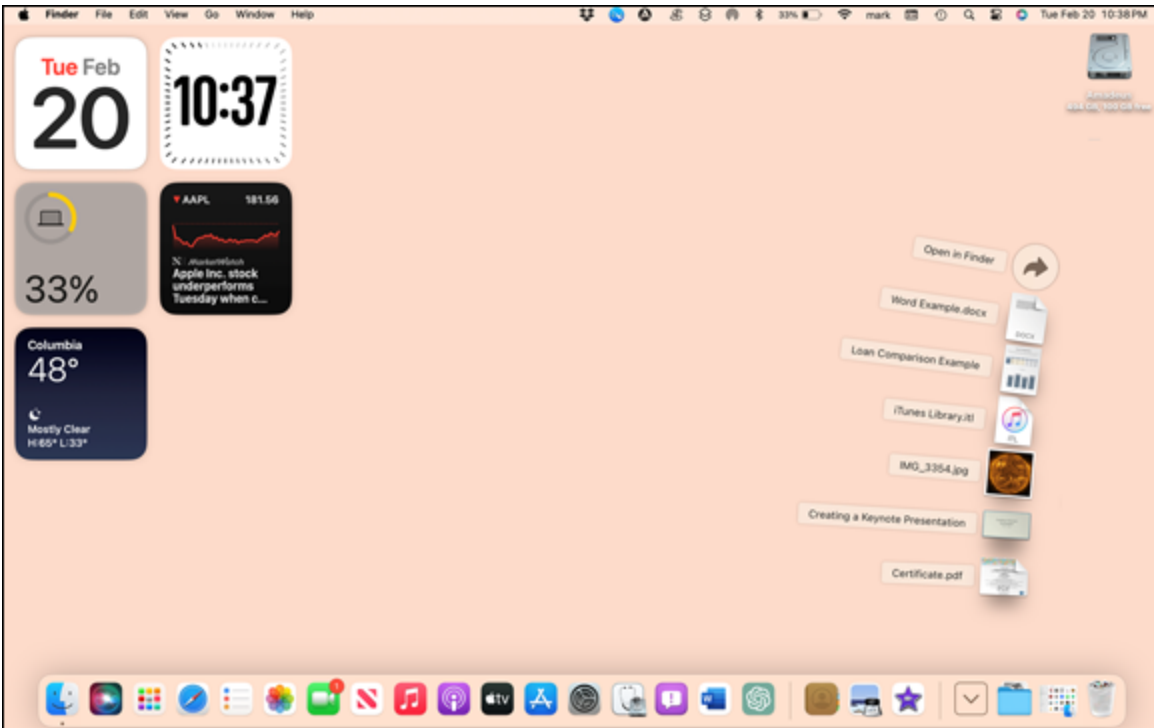


FIGURE 3-11: Stacks make it easy to access your stuff from the Dock.



TIP Sonoma provides display and sorting options for Stacks. Right-click the Stack icon and you can choose to sort the contents by name, date created or added, date modified, or file type. If you prefer a grid display (no matter how many items the Stack contains), you can choose Grid mode. Choose List to display the Stack's contents in much the same way as List view mode in a Finder window. List view mode also allows you to view folders in a Stack as nested menu items. Choose Automatic to return to the default view mode.

When set to Display as Stack, the Stack icon is displayed with icon images from the contents of the folder; if security is an issue, however, choose Display as Folder from the shortcut menu to display the Stack as a plain folder icon instead.

You can remove a Stack from the Dock by right-clicking the Stack icon and choosing Options from the shortcut menu that appears; then choose Remove from Dock from the submenu that appears. Alternatively, just drag that sucker right off the Dock.

You can also display the contents of a Stack in a Finder window. Right-click the Stack icon and choose the Open item at the bottom of the pop-up shortcut menu.



TIP If you add a folder full of items, the Stack is named after the folder; otherwise, Sonoma does the best job it can of figuring out what to name the Stack.

Apple provides a Stack that's already set up for you. The Downloads folder, situated next to the Trash, is the default location for any new files that you download with Safari or receive in your email. Sonoma bounces the Download Stack icon to indicate that you've received a new item.

Resizing the Dock

You can change the size of the Dock from the Dock settings in System Settings — but here's a simpler way to resize the Dock right from the Desktop.

Move your pointer over the vertical solid line that separates the left end of the Dock from the right end; the pointer turns into a funky vertical line with arrows pointing up and down. This is your cue to click and drag while moving up and down, expanding and shrinking the Dock, respectively.

You can also right-click when the funky line pointer is visible to display a shortcut menu of Dock settings. This

menu allows you to change your Dock preferences without the hassle of opening System Settings and displaying the Desktop & Dock settings.

What's with the Trash?

Another sign of a Mac laptop power user is a well-maintained Trash can. It's a breeze to empty the discarded items you no longer need, and you can even rescue something that you suddenly discover you still need!

The translucent Sonoma Trash icon resides on the Dock, and it works just like the Trash has always worked in macOS. Simply drag selected items to the Trash to delete them.



REMEMBER Note one *very* important exception: If you drag a Desktop icon for an external device or a removable media drive to the Trash (such as an external DVD drive), the Trash icon turns into a giant Eject icon, and the removable device or medium is ejected or shut down — not erased. Repeat, *not erased*. (That's why the Trash icon changes to the Eject icon — to remind you that you're not doing anything destructive.)

Here are other ways to chuck items you select to go to the wastebasket:

- » Choose File ⇒ Move to Trash.
- » Click the Action button on the Finder toolbar, and choose Move to Trash from the list that appears.
- » Press ⌘ +Delete.

- » Right-click the item, and choose Move to Trash from the shortcut menu that appears.

You can always tell when the Trash contains at least one item, because the basket icon is full of crumpled paper. You don't have to unfold a wad of paper to see what the Trash holds, however. Just click the Trash icon on the Dock to display the contents of the Trash. To rescue something from the Trash, drag the item(s) from the Trash folder to the Desktop or any other folder in a Finder window. (If you're doing this for someone who's unfamiliar with Sonoma, remember to act as though the task was a lot of work, and you'll earn big-time DRP, or Data Rescue Points.)

When you're sure that you want to permanently delete the contents of the Trash, use one of these methods to empty the Trash:

- » Choose Finder ⇒ Empty Trash.
- » Press ⌘ + Shift + Delete.
- » Right-click the Trash icon on the Dock, and choose Empty Trash from the shortcut menu that appears.

All You Really Need to Know about Printing

Because I'm near the end of this chapter, I turn now to a task that most MacBook owners need to tackle soon after buying their laptop or installing Sonoma: printing documents. Because basic printing is so important (and in most cases, so simple), allow me to demonstrate how to print a document.

Most of us have a Universal Serial Bus (USB) printer — the USB being the favored hardware connection in macOS. As long as your printer is supported by macOS, setting it up is as easy as plugging it into one of your MacBook’s Thunderbolt/USB-C ports. (Note that a USB 2.0 or 3.0 printer will require an adapter to connect to your MacBook’s USB-C ports.)



TIP Before you print, *preview!* Would you jump from an airplane without a parachute? Then why would you print a document without double-checking it first? Most applications now have their own built-in Preview thumbnails in the Print sheet, as shown in [Figure 3-12](#). This feature is definitely A Good Thing, because you see what the printed document will look like, possibly saving you both paper and some of that hideously expensive ink or toner.

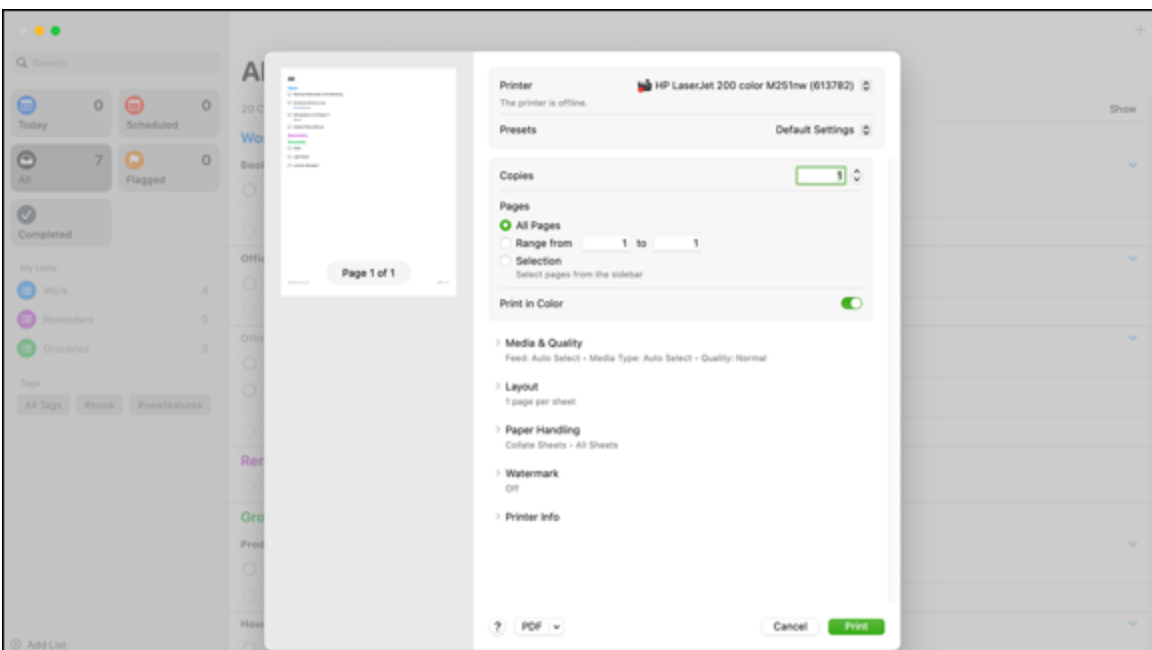


FIGURE 3-12: The Print Sheet is available from any application with any real guts.

To print from any application with the default page characteristics (standard 8½ × 11" paper, portrait mode, no scaling), follow these steps:

1. In your application, choose File ⇒ Print or press the ⌘ +P keyboard shortcut.

In most applications, macOS displays the simple version of the Print sheet, as shown in [Figure 3-12](#).

(To display all the fields under a specific heading, click the disclosure triangle next to the heading.)

Some applications use their own custom Print dialogs, but you should see the same general settings.

2. Click the Copies field and enter the number of copies you need.

You can also enable or disable collation, just as you can with those oh-so-fancy copiers.

3. Decide what you want to print.

- **The whole shootin' match:** To print the entire document, use the default Pages radio button setting of All.
- **Anything less:** To print a range of selected pages, select the Range From radio button and enter the starting and ending pages (or, if the application allows it, click the Selection radio button to choose a selection of individual pages).

4. (Optional) Choose application-specific printing parameters.

Each macOS application provides different headings so that you can configure settings specific to that application. You don't have to display any of these extra settings to print a default document, but the power is there to change the look dramatically when necessary. If you're printing from Contacts, for

example, you can click the disclosure triangle next to the Contacts heading on the Print dialog and elect to print a phone list, an envelope, mailing labels, or an email list from the Style pop-up menu.

5. **When everything is a go for launch, click the Print button.**

The printing system in macOS offers more settings and more functionality, of course. But I can tell you from my experiences as a consultant and hardware technician that this short introduction to printing will likely suffice for 90 percent of the MacBook owners on Earth. 'Nuff said.

And Just in Case You Need Help ...

You can call on the resources described in this section if you need additional help while you're discovering how to tame Sonoma.



TIP

Some of the help resources are located on the internet, so your Safari web browser will come in handy when you search for answers.

The Sonoma built-in Help system

Sometimes, the help you need is as close as the Help menu on the Finder menu bar. You can get help for either of the following:

- » **A specific application:** From the application, just click Help. Then click in the search box and type a short phrase that sums up your query (such as *startup*

keys). You see a list of help topics on the menu. Just click a topic to display more information.

- » **General topics:** Click a Finder window and then click Help on the menu bar. Again, you see the search box, and you can enter a word or phrase to find in the Help system.

The Apple web-based support center

Apple has online product support areas for every hardware and software product it manufactures. Visit <https://www.apple.com>, and click the Support link at the top of the web page.



TIP

The search box works just like the macOS Help system, but the knowledge base that Apple provides online has *a lot* more answers.

Online resources

Many online publications offer tips and tricks on using and maintaining macOS Sonoma.

My personal online favorites are Macworld (<https://www.macworld.com>) and the Wiley For Dummies website (<https://www.dummies.com>).

Local Mac user groups

I'd be remiss if I didn't mention your local Mac user group. Often, a user group maintains its own website and discussion forum. If you can wait until the next meeting, you can even ask your question and receive a reply from a *real live human being* — quite a thrill in today's web-centric world!

To locate a local user group by using your internet connection, launch Safari, click the Address box, and type

Mac User Group *location*

Instead of *location*, type the desired spot on the map, such as

Mac User Group Columbia Missouri

Don't forget to press Return!

Part 2

Shaking Hands with macOS Sonoma

IN THIS PART ...

Learn more about the new features within macOS Sonoma.

Use System Settings to fine-tune how Sonoma works.

Keep track of practically everything using Reminders, Notes, Notifications, Maps, and News.

Use Spotlight to search your entire system (or network) in seconds.

Chapter 4

What's New in Sonoma?

IN THIS CHAPTER

- » Adding widgets to the macOS Desktop
 - » Discovering Safari profiles
 - » Admiring Aerial screen savers
 - » Flexing new muscles in Gaming Mode
-

Have you upgraded to Sonoma from the previous version of macOS, Ventura? Or have you just bought a new MacBook with Sonoma preinstalled? Either way, you've opened the door to a number of new features, and this chapter was written especially for you. (And if you're not rubbing your hands together with gleeful anticipation, you *should* be — I know I am.) Here, you'll find descriptions of my favorite new features that ship with the latest version of macOS.

Note that a number of other new Sonoma features appear elsewhere in the book. The new features you find here, however, are what I consider the *real* standouts, so they're showcased separately.

Let the fun begin!

Widgets Invade Your Desktop

If you're like me, your computing day runs so much smoother with specific information always conveniently

in reach. For me, that's the time, the date, the battery level on my MacBook, my local weather, and the stock market ticker. Even though all this information can still appear in your Notification Center, macOS Sonoma now allows you to park them squarely on your macOS Desktop (which, as any dedicated Mac power user can tell you, is The Definition of Convenience)!

Adding your favorite widgets couldn't be easier, either. Open the Notification Center and scroll down (if necessary) until you reach the Edit Widgets button and give it a solid click, whereupon Sonoma opens the Edit Widgets sheet at the bottom of your screen (as shown in [Figure 4-1](#)). Check out that sidebar, which groups all your widgets by subject, including third-party applications that you've installed that support widget display. A quick drag from this sheet to your Desktop (or to the Notification Center area on the right) allows you to place your widgets just where you want them.

These new widgets are quite intelligent. They move automatically to make room for new items on your Desktop. Change your Desktop wallpaper and they change color to make them easier to see. And many widgets are interactive, allowing you to browse, select, start, and pause media and content without opening an application.

Don't be surprised if a Calendar event from your iPhone appears on your Desktop, either! Some of these new widgets can share data through iCloud with your iPhone and iPad, so you can access your Contacts, Calendar events, Notes entries, and media from Photos. As always, you must be using the same Apple ID on all your Apple devices to share stuff so elegantly.

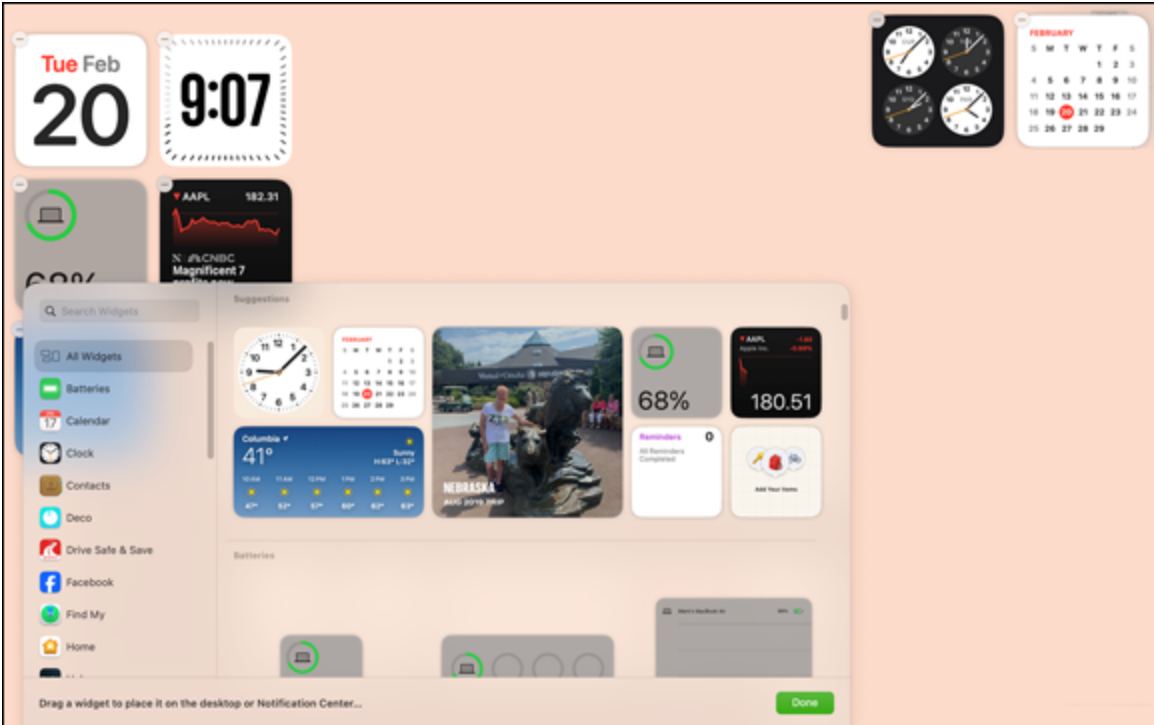


FIGURE 4-1: You have a wide range of widgets headed to your Desktop.

Safari Profiles Keep You Organized

My daily computer use is pretty much two flavors: personal and work. When I open my MacBook and crank up Safari to hit the web, the new Profiles feature now gives me the option to keep both worlds separate. [Figure 4-2](#) illustrates the Profiles pane from the Safari Settings window.

Profiles are very comprehensive, allowing not just separate bookmarks but also browsing histories, Favorites, tab groups, and even cookie files. (This is quite the boon for those who don't want their personal shopping cookies available while working on the company intranet!) If your university's website demands that you keep certain extensions loaded while you use it, why slow down your personal browsing experience when

you don't need them? With separate profiles for personal and school use, you can turn those extensions off automatically.

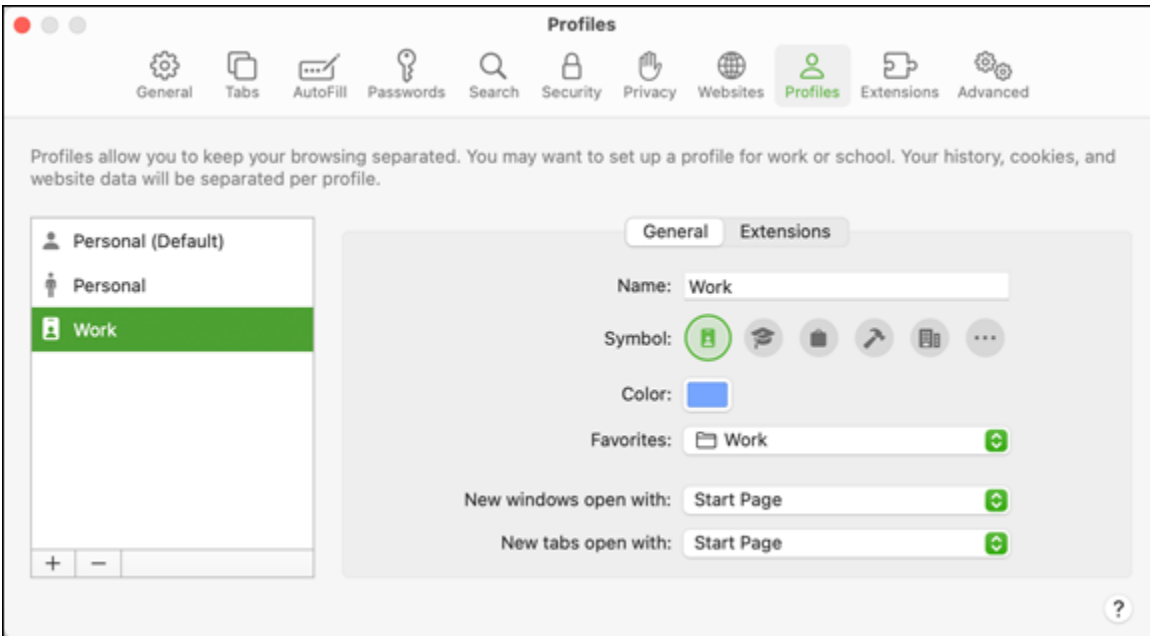


FIGURE 4-2: You can create multiple profiles to streamline your web browsing.



TIP

Don't forget that each profile you create can open new windows and new tabs with unique pages that you can configure — you're not limited to just the Start Page.

Ramp Up Your Gaming

Gamers demand performance. As an avid gamer myself, I can testify that any slowdown caused by your computer can cost you dearly while battling the enemy (whether they be artificial or human). With the speed of the Apple M-series processors attracting more attention in the gaming community, it makes sense that the folks in

Cupertino would add features meant for game performance.

Sonoma's new Game Mode makes it easy to optimize your MacBook for the best possible gaming experience, and it's virtually automatic: Simply launch your game, click the Zoom/Full-Screen button (the green circle at the upper left corner of the game window), and choose Enter Full Screen from the pop-up menu that appears. Now that you're in full screen, click the Game Mode menu icon (which resembles a console game controller) to verify that you're now using Game Mode.

So what does Game Mode actually do? It delivers the full power of your M-series processor to the game, and actually speeds up the Bluetooth signals between your wireless pointing device, any wireless controllers and any wireless audio you may be using. In other (less technical) words, these tweaks reduce any lag that would otherwise occur if your MacBook was "taking care of other business first."

Oh, and turning off Game Mode is automatic as soon as you close your game or exit full screen. Now go; game with abandon!

Put Your MacBook on Lockdown

I'll be absolutely forthright: This next feature that debuts with macOS Sonoma is probably not for you. Lockdown mode literally builds the strongest security firewall possible around your MacBook, making it much harder for hackers to breach. Unfortunately, though, that security comes with a downside as well, denying you access to a significant number of macOS features, as well as many websites and applications.

Most of us (including this technology author) simply don't need this level of security; as long as you're using the macOS firewall (which I discuss in more detail in [Chapter 11](#)) and you're running a solid antivirus application, your MacBook is safe from virtually all the dangerous aspects of the internet. However, if you're actually the target of a dedicated cyber attack, or your work demands the maximum protection against cyber attacks that your MacBook can provide, Lockdown mode is a necessity. In fact, using Lockdown mode on your MacBook automatically requires it to be used on all of your Apple devices, making it quite comprehensive. [Figure 4-3](#) illustrates the Lockdown mode switch, which you'll find in the Privacy & Security pane within System Settings.

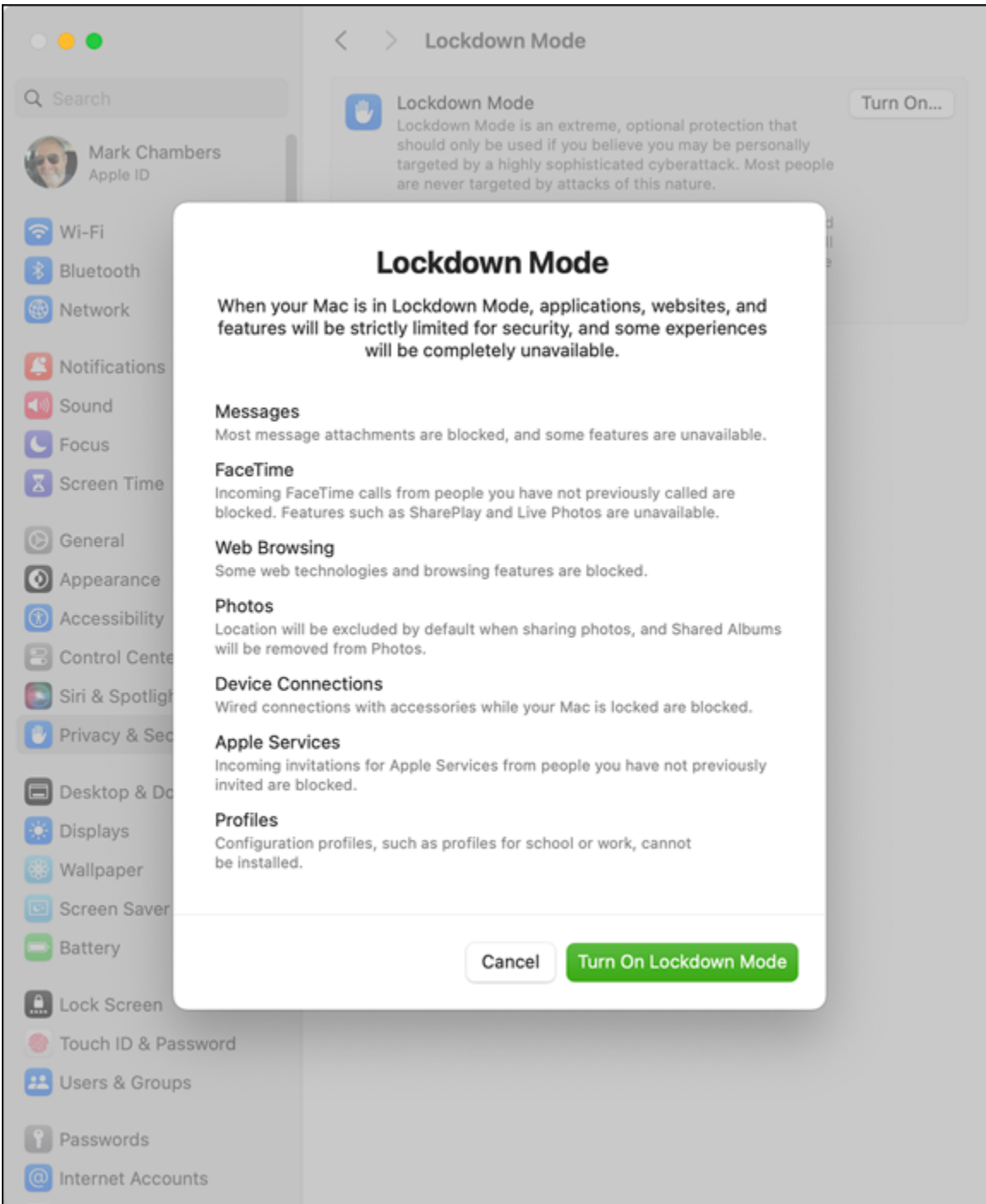


FIGURE 4-3: Lockdown mode provides enhanced security (at a price).

I don't have enough space to describe all the restrictions enforced in Lockdown mode, but if an application uses the internet (like FaceTime, Messages, or Mail) or exchanges data with an outside source, significant

functionality will be lost, and connections you could otherwise make with the internet will be disabled.

Screen Savers Go Hollywood

It's a Hollywood staple these days: the slow-moving overhead view taken by one of those fancy drones, following the protagonist driving or the horse galloping. (You get the idea.) They're hypnotic, especially at a high resolution — and with the arrival of macOS Sonoma, they're now available as stunning screen savers!

Although I cover the Screen Saver pane in [Chapter 5](#), I'm mentioning it here because Apple has put a lot of hard work into these impressive, slow-motion visual journeys (called Aerials), and you have a huge number to choose from. You can browse more than 60 in the Landscape category alone, and there are three other categories to boot: Cityscape, Underwater, and Earth. You can preview each full screen. It's possible to run just your favorite, of course, but with the five Shuffle Aerials options, you can randomly cycle through all the savers in a category, or the complete set. [Figure 4-4](#) shows a preview of my all-time favorite Aerial, the Yosemite Mountains.



FIGURE 4-4: The new Aerial screen savers will take your breath away.



REMEMBER You're not limited to using Aerials as screen savers. Click the Show as Wallpaper switch in the Screen Saver pane to use a still from the Aerial as your Desktop background!

Chapter 5

A Nerd's Guide to System Settings

IN THIS CHAPTER

- » Navigating System Settings
 - » Locating specific controls
 - » Customizing Sonoma from System Settings
-

Remember the old TV series *Voyage to the Bottom of the Sea*? You always knew you were on the bridge of the submarine *Seaview* because it had an entire wall made up of randomly blinking lights, crewmen darting about with clipboards, and all sorts of strange and exotic-looking controls on every available surface. You could fix just about anything by looking into the camera with grim determination and barking an order. After all, you were *On the Bridge*. That's why virtually all the dialogue and action inside the sub took place on that one (expensive) set: It was the nerve center of the ship, and a truly happenin' place to be. Just like the bridge of your favorite starship from an entire host of TV shows and movies.

In the same vein, I devote this chapter to the System Settings window and the most commonly used settings within it. After all, if you want to change how Sonoma works or customize the features in our favorite operating system, you should head toward System Settings. This one window is the nerve center of macOS and a truly happenin' place to be. Sorry, no built-in wall of randomly

blinking lights — but you *do* find exotic controls just about everywhere.

An Explanation — without Jargon, No Less

The System Settings window, shown in [Figure 5-1](#), is a self-contained beast. You can reach it in the following ways:

- » Click the Apple menu () and choose System Settings.
- » Right-click any uninhabited area of your Desktop and choose Change Wallpaper.
- » Last, but not least, click the Launchpad icon in the Dock and then click the System Settings icon (it looks like a collection of gears).

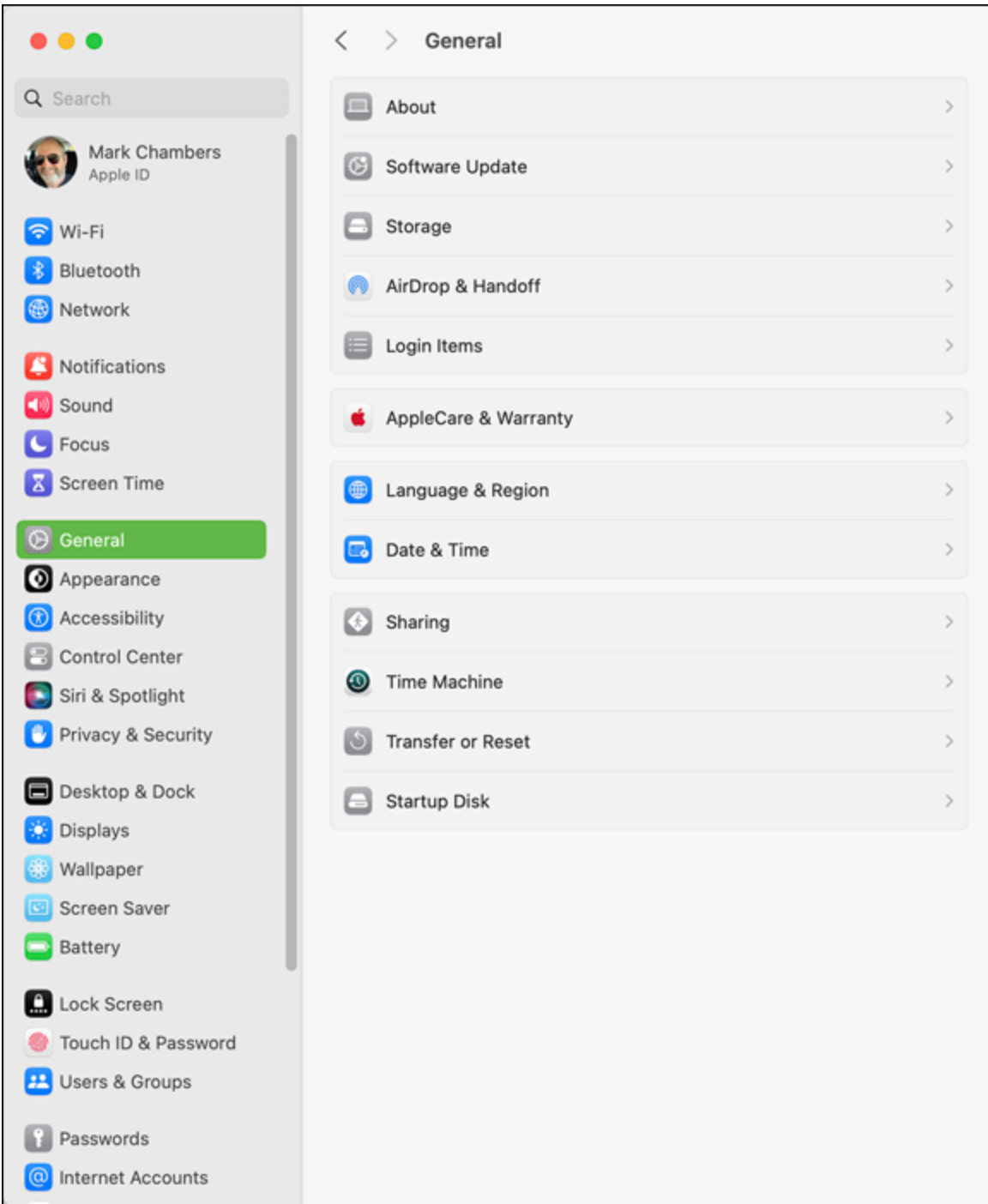


FIGURE 5-1: The powerhouse of settings and switches: System Settings.

When the System Settings window is open, you can click any of the entries in the sidebar to switch to that *pane*. The right side of the window morphs to display the settings for the selected pane. For example, [Figure 5-2](#)

shows the Sound pane, which allows you to set a system alert sound, configure your MacBook's built-in microphone, and choose from several different audio output options.

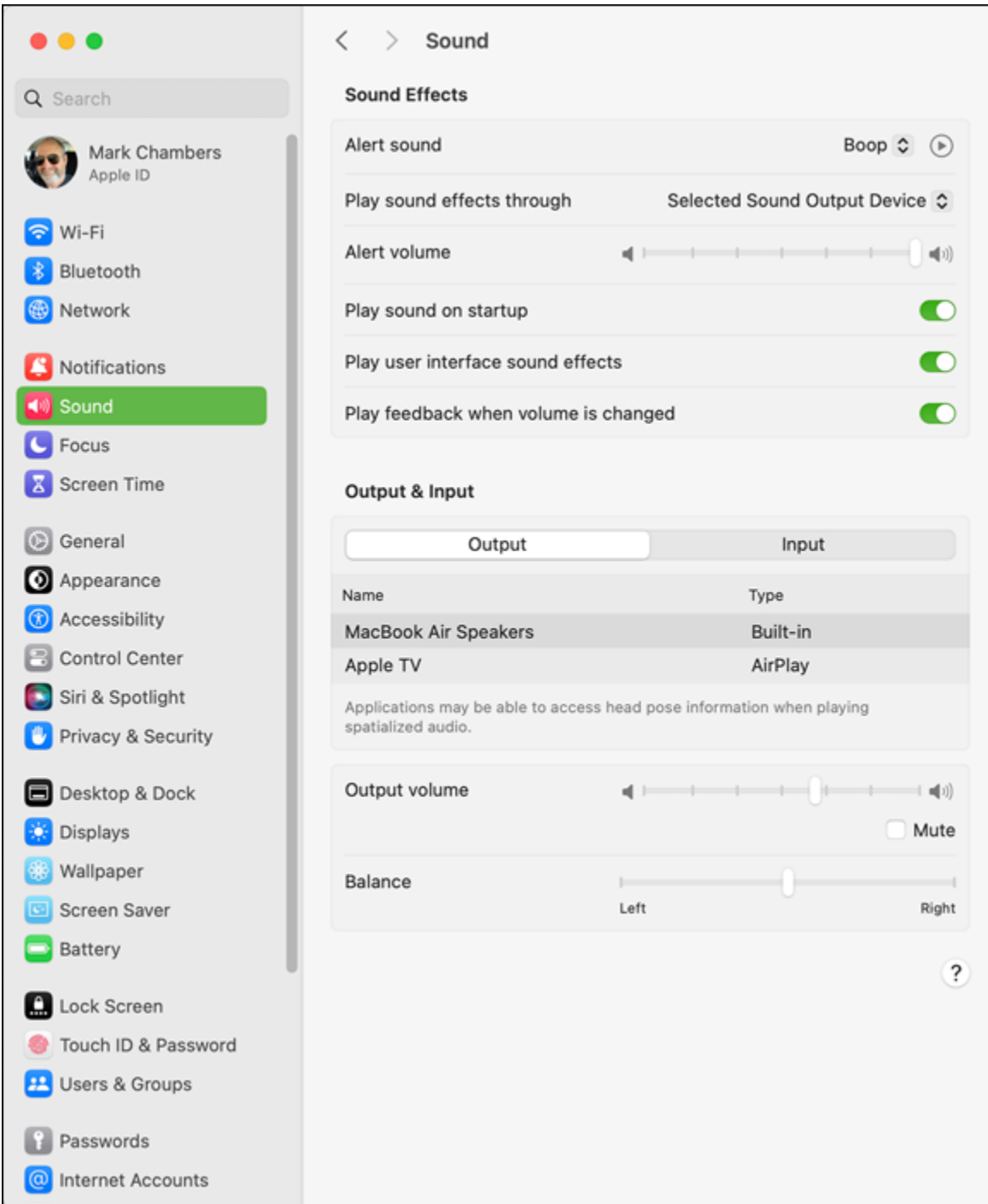


FIGURE 5-2: The Sound pane, proudly showing off the Sound Effects settings.

Many panes also include a number of entries that display additional settings, easily distinguished by their snazzy right-arrow icons at the far right of the pane. You can click these entries to switch to another section in the same pane. Many panes in System Settings have multiple sections. ([Figure 5-1](#) illustrates the General pane, which is populated completely by these section entries.) This design allows our friends at Apple to group a large number of related settings in the same pane (without things getting too confusing); if you use an iPhone or iPad, you'll recognize the layout immediately.



REMEMBER You can also click the familiar Back and Forward icons at the top of the window to move backward through the panes you've already visited and then forward again, in sequence. (Yep, these buttons work just like the browser controls in Safari. Sometimes life is funny that way.)



TIP You can right-click the System Settings icon in the Dock to jump to any pane from the shortcut menu. *Wowzers!*

You won't find an OK button that you have to click to apply any System Settings changes. Apple's developers do things the right way. Your changes to the settings in a pane are *automatically* saved when you click Back and exit a pane, or when you click the Close button in the System Settings window. You can also press ⌘ + Q to exit the window and save all your changes automatically. This is one of my favorite shortcuts.

HEY, I HAVE BONUS ICONS IN MY WINDOW!

Some third-party applications and media plug-ins can actually install their own panes in your once-pristine System Settings window. You see them arranged at the bottom of the window. Naturally, I can't document these invited guests in this chapter, but they work the same way as any other pane in System Settings. Click the entry in the sidebar, adjust any settings as necessary, and then close the System Settings window to save your changes.

Of course, if you see an icon at the bottom of the window that you *don't* recognize (or don't know which application installed it there), you should definitely investigate its origin. (I recommend doing a Safari search on the name of the icon along with the words *macOS Sonoma*.)

Locating That Certain Special Setting

Wouldn't it be great if you could search through all the different panes in System Settings — with those countless radio buttons, check boxes, and slider controls — from one place, even when you're not quite sure what you're looking for?

[Figure 5-3](#) shows exactly that kind of activity taking place. Just click in the System Settings Spotlight Search box (located at the top of the Settings sidebar, with the magnifying glass icon) and type just about anything. For example, if you know part of the name of a particular setting you need to change, type that. Sonoma proudly displays panes and keywords that might contain matching settings. And if you're a *switcher* from the Windows world, you can even type what you might have called the same setting in Windows.



TIP

You can also search for System Settings controls by using the Spotlight Search box from the Finder menu. Find more on this cool feature in [Chapter 6](#).

If you need to reset the Spotlight Search box to try again, click the X icon that appears at the right side of the box to clear it.

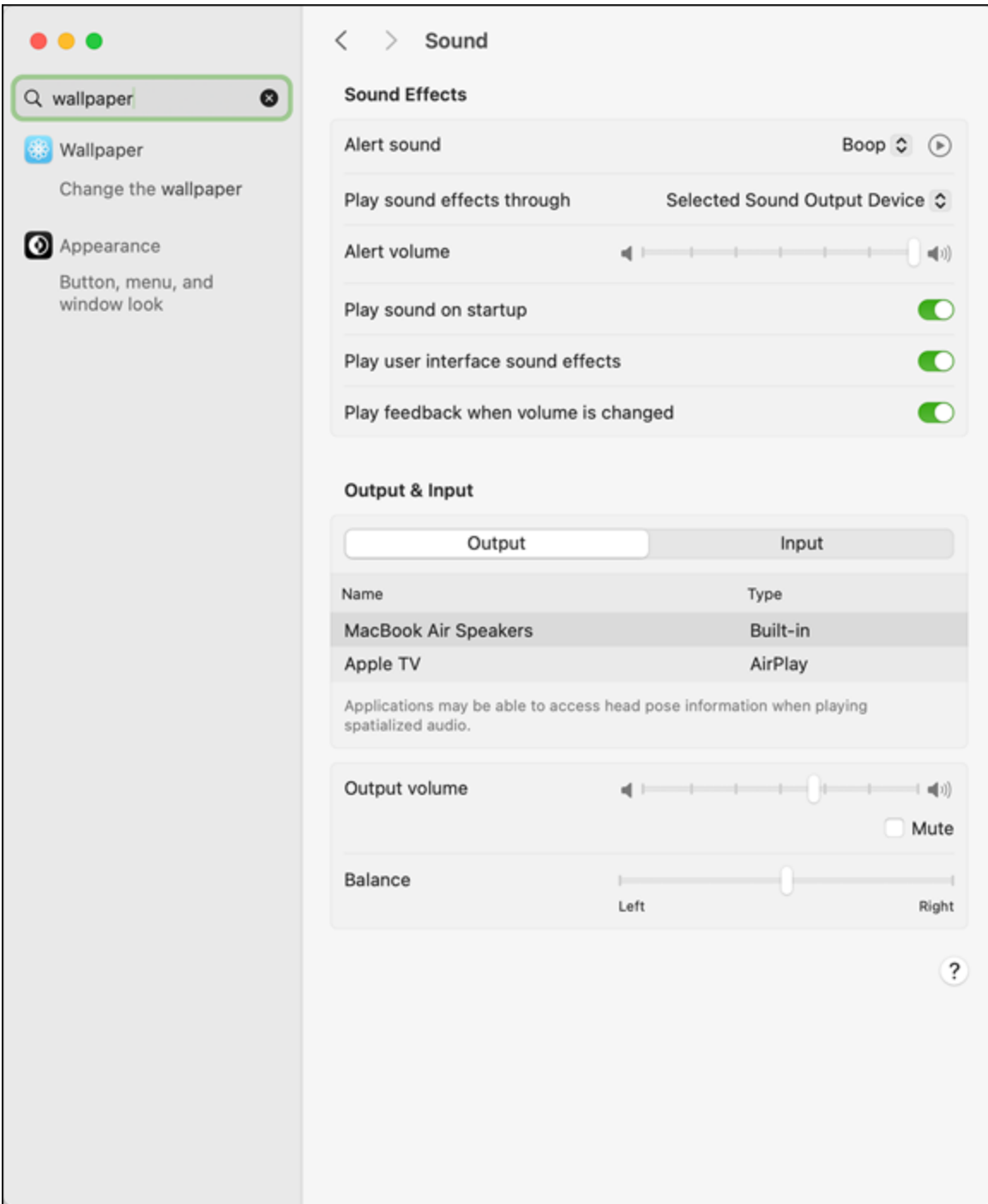


FIGURE 5-3: Searching for specific settings is a breeze with the Spotlight Search box.

Popular System Settings Panels Explained

It's time to get down to brass tacks. In this section, I take you through the most often-used panes in System Settings to show what magic you can perform. I don't discuss every pane, because I cover many of them in other chapters. In fact, you might never need to open some System Settings panes, such as the Language & Region pane. This chapter covers just about all the settings you're likely to use on a regular basis.

The Displays pane

If you're a heavy-duty gamer, you have an external monitor, or you work with applications such as Keynote or Photoshop, you probably switch your monitor's characteristics regularly. To switch easily, visit the Displays pane, shown in [Figure 5-4](#). It includes these settings:

- » **Display:** To allow Sonoma to choose the best resolution for your display, select the resolution from the list that includes the label (Default). To manually select a resolution, click the Show All Resolutions switch to turn it on, and then click the resolution you want to use from the full list that appears. Note that many of the resolutions displayed in the full list will look "stretched" on your MacBook's screen.



TIP

Ready to stream content to your TV directly from your MacBook — *without cables*? You can use Sonoma's wireless AirPlay feature to send the display from your desktop to your HD-TV. AirPlay requires an Apple TV unit that supports this feature (as shown in [Figure 5-4](#)). You can also send the audio from your MacBook directly to an AirPlay-enabled receiver or speaker system. To use AirPlay, click the Add button

(which bears a plus sign [+]) under the thumbnail image of your MacBook at the top of the pane and choose Apple TV (or your audio system) from the drop-down menu.

- » **Brightness:** Move the Brightness slider to adjust the brightness level of your MacBook's display. If you like, you can enable the Automatically Adjust Brightness switch to allow your MacBook to select a brightness level.
- » **True Tone:** Enable this switch, and your MacBook will automatically adjust the display colors to adapt to any change in lighting conditions — for example, if you move your laptop from a room using fluorescent lighting to a room with LED lighting, your color palette will subtly change to produce the closest match to your specified color profile.
- » **Color Profile:** Click a display ColorSync profile from the pop-up menu to control the colors on your screen. To create a custom ColorSync profile and calibrate the colors that you see, click the Customize item at the bottom of the menu, and then click the Add button to launch the Display Calibrator. This easy-to-use assistant walks you step by step through creating a ColorSync profile matched to your MacBook's gamma and white-point values.
- » **Night Shift:** The Night Shift feature allows Sonoma to automatically adjust your display to provide warmer colors during nighttime operation. Click the Night Shift button; then click Schedule to choose either Sunset to Sunrise operation or create your own custom schedule. You can also turn on Night Shift manually using the Turn On Until Tomorrow switch. Finally, adjust the Color Temperature slider to

increase or decrease the warmth of colors on your display.



TIP If you connect your MacBook to one (or more) external monitors, don't be surprised to see the Arrange Displays dialog appear as well. You can drag the output to a different monitor, or drag the menu bar to another screen; or you can choose to mirror the same output to all displays connected to your computer. (And don't forget, if you have an iPad running iOS 13 or later, you can use the Sidecar feature to turn that iPad into a second monitor — wirelessly! You'll find more on Sidecar in [Chapter 9](#).)

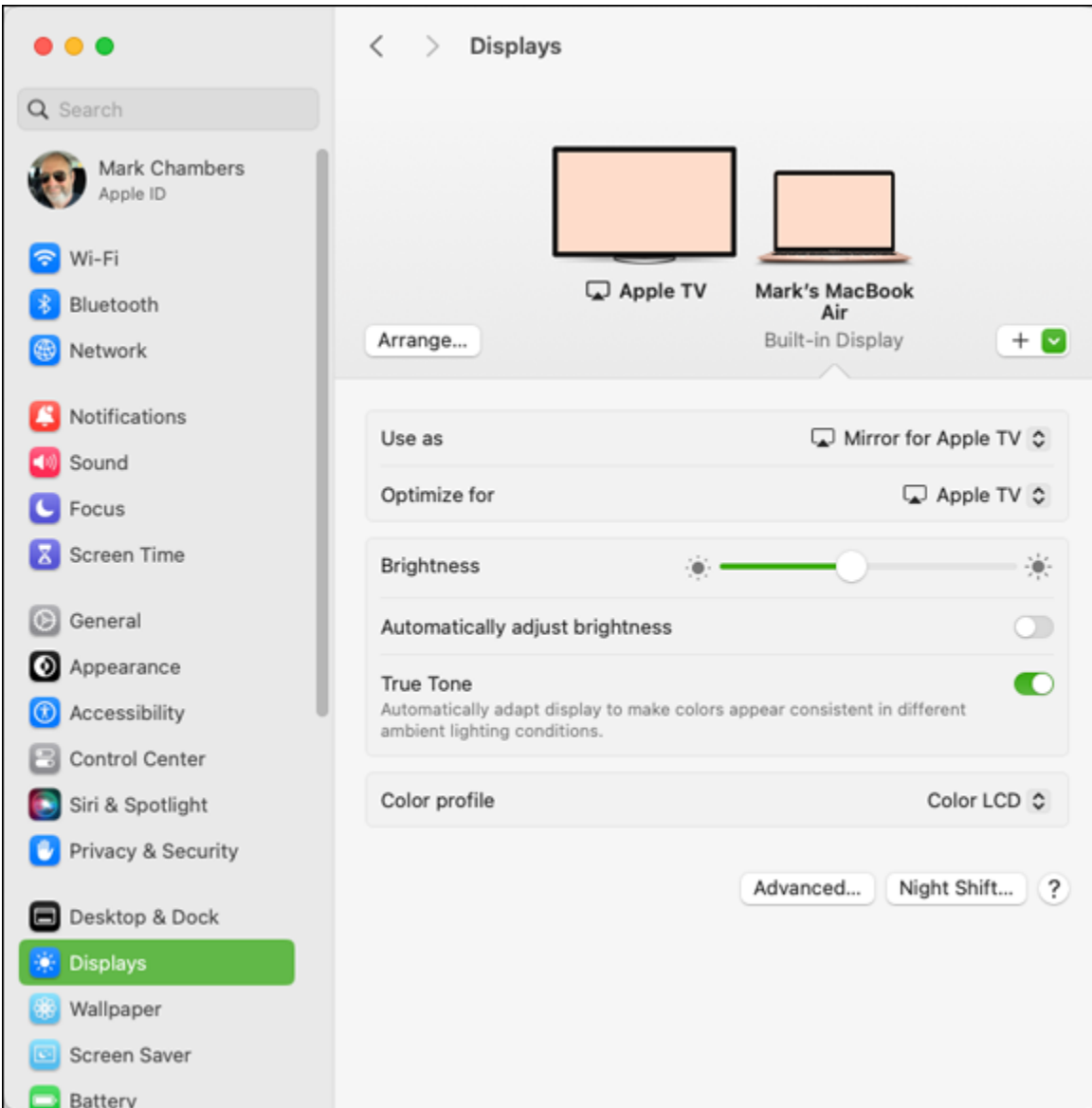


FIGURE 5-4: The Display pane makes it easy to change your screen resolution.

The Desktop & Dock pane

As you discover in [Chapter 3](#), the macOS Sonoma Desktop is a truly wondrous place — and therefore this pane is chock-full of cool stuff, divided into sections under the headings Dock, Desktop & Stage Manager, Widgets, Windows, and Mission Control. Our quest is to cover these sections!

Dock settings

I'll come clean: I think the Dock is the best thing since sliced bread. (I wonder what people referred to before sliced bread was invented?) You can use the settings shown in [Figure 5-5](#) to configure the Dock's behavior until it fits your personality like a glove:

- » **Size:** Pretty self-explanatory. Just drag the slider to change the Dock's scale.
- » **Magnification:** When you select this check box, each icon in the Dock swells like a puffer fish when you move the pointer over it. (The Magnification slider determines just how much it magnifies.) I really like this feature because I resize my Dock smaller, and I have a large number of Dock icons.
- » **Position on Screen:** Select a radio button here to position the Dock on the left, bottom, or right edge of the Desktop.
- » **Minimize Windows Using:** Sonoma includes two cool animations that you can choose from when shrinking a window to the Dock (and expanding it back to the Desktop). Click the Minimize Windows Using pop-up menu to specify the genie-in-a-bottle effect or the scale-up-or-down-incrementally effect.
- » **Double-Click a Window's Title Bar to Minimize/Zoom:** Select this check box to minimize or zoom a Finder or application window by simply double-clicking the window's title bar.
- » **Minimize Windows into Application Icon:** If this check box is not enabled, minimized application windows appear as thumbnail icons on the Dock. To minimize application windows into the application icon on the Dock — which can save space on your Dock — select this check box. (To restore a window that's been minimized into the application icon, right-click the icon

on the Dock and choose Restore from the menu that appears.)

- » **Automatically Hide and Show the Dock:** Select this switch, and the Dock disappears until you need it. (Depending on the size of your Dock, the Desktop real estate you gain can be significant.) To display a hidden Dock, move the pointer over the corresponding edge of the Desktop.
- » **Animate Opening Applications:** Active souls who like animation probably get a kick out of the bouncing application icons in the Dock, which indicate that you've launched an application and that it's loading. If you find this effervescence overly buoyant or distracting, deselect this check box.
- » **Show Indicators for Open Applications:** macOS indicates which applications are running in the Dock with a small gray dot in front of the icon. To disable these indicators, deselect this check box.
- » **Show Suggested and Recent Apps in Dock:** Enable this check box to park the icons for the three applications you used last at the right side of the Dock (a real boon for those of us who use the same group of applications often). macOS automatically updates the three icons as you use your MacBook. Sonoma also displays suggestions for applications you might need to launch based on the tasks you were last performing.

Desktop & Stage Manager settings

The settings in this section, shown in [Figure 5-5](#), are:

- » **Show Items:** This setting determines when items you've located on the Desktop will appear, like drive, file and folder icons. You can choose to show items only on the Desktop, only within Stage Manager, or

both. (If you disable both check boxes, the items are hidden.)

- » **Click Wallpaper to Reveal Desktop:** With a single click anywhere on your wallpaper, macOS can temporarily move all open windows to the edges of the Desktop, allowing you easy access to both your Desktop items and widgets. Choose Always from this pop-up menu to activate this feature at any time, or choose Only in Stage Manager to reveal the Desktop only when you're using Stage Manager.
- » **Stage Manager:** Click this switch to turn Stage Manager off and on. (I describe Stage Manager in detail in [Chapter 3](#).)
- » **Show Recent Apps in Stage Manager:** To display the thumbnails for recent applications in Stage Manager, turn this switch on. Disabling the switch hides the Stage Manager thumbnails until you move your pointer to the left edge of the Desktop.
- » **Show Windows From An Application:** This pop-up menu determines whether Stage Manager will display all open windows for an application when you select it (All at Once), or just the last window you used (One at a Time). If you choose the One at a Time option, you must click the app thumbnail to cycle through all its open windows.

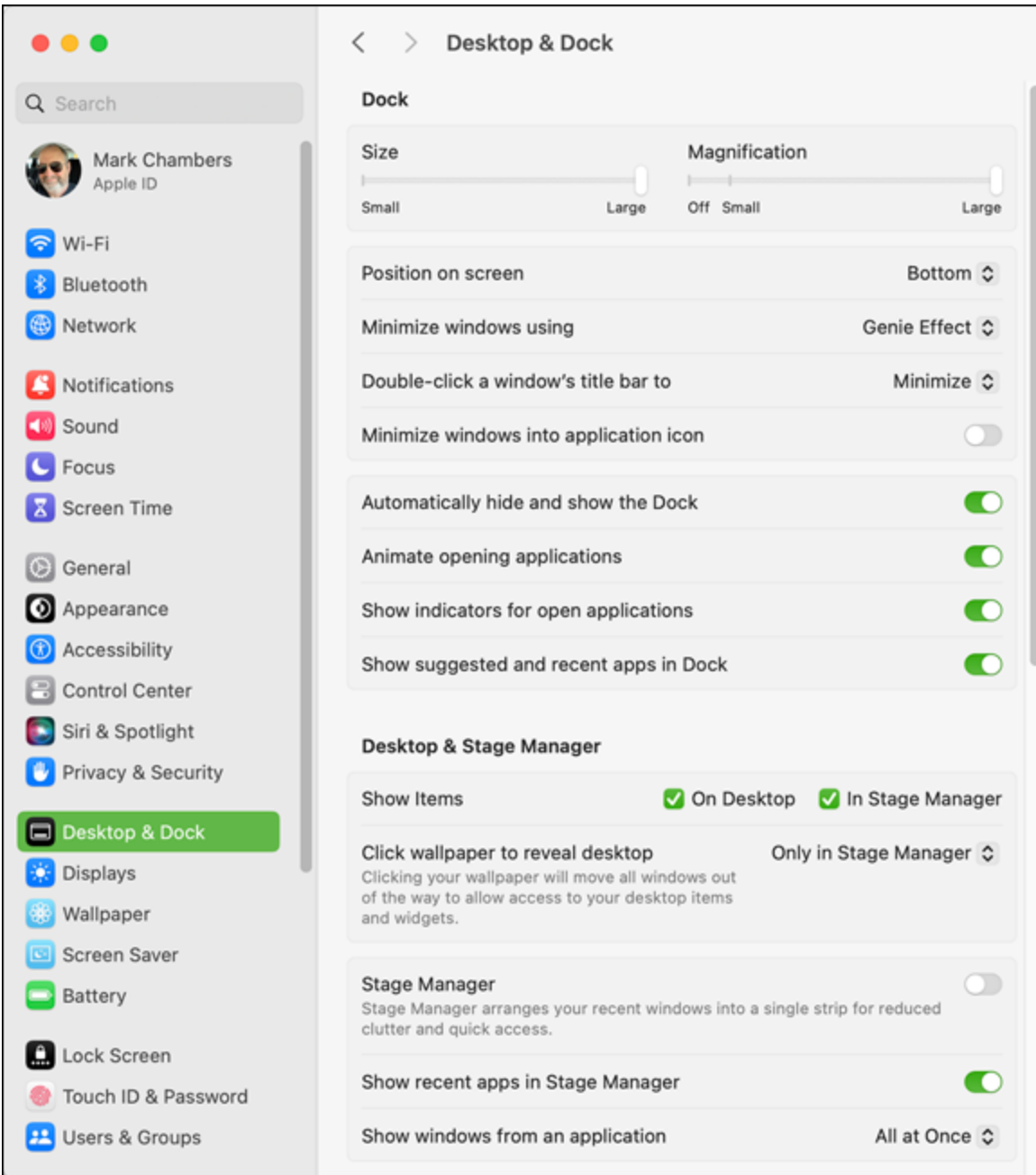


FIGURE 5-5: The Dock, Desktop, and Stage Manager settings.

Widgets settings

Now that widgets can comfortably reside on your Desktop, Sonoma provides three settings to fine-tune their operation. Shown in [Figure 5-6](#), these settings are:

- » **Show Widgets:** Widgets can always appear on your Desktop, or they can appear only while you're using Stage Manager. Disable both check boxes to hide widgets altogether.
- » **Widget Style:** Click this pop-up menu to determine whether your widgets will always be displayed in monochrome, in full color, or switch automatically between the two styles.
- » **Use iPhone Widgets:** Turn this switch on to allow widgets you've used in the past on your iPhone to appear in the Edit Widgets sheet.

Although it seems a bit out of place, this section also includes a pop-up menu that allows you to set your default web browser. The app you choose here will launch whenever you click a website link; by default, macOS uses Safari, which I cover like a blanket in [Chapter 8](#).

Windows settings

Naturally, the settings in this section have nothing to do with That Other Operating System — instead, they control the behavior of macOS application windows when you're opening and closing documents. The settings shown in [Figure 5-6](#) include:

- » **Prefer Tabs When Opening Documents:** You can specify when applications open documents in a new tab instead of a new window (either Never, Always, or when viewing in Full Screen).
- » **Ask to Keep Changes When Closing Documents:** Turn this switch on and macOS will specifically request your approval to save changes when closing a document. If turned off, the application will

automatically save your changes when you close the document.

» **Close Windows When Quitting an Application:**

Turn this switch on to allow widgets you've used in the past on your iPhone to appear in the Edit Widgets sheet.

Mission Control settings

[Figure 5-6](#) shows the Mission Control and Spaces settings that you can configure in this section. These features are described in [Chapter 3](#).

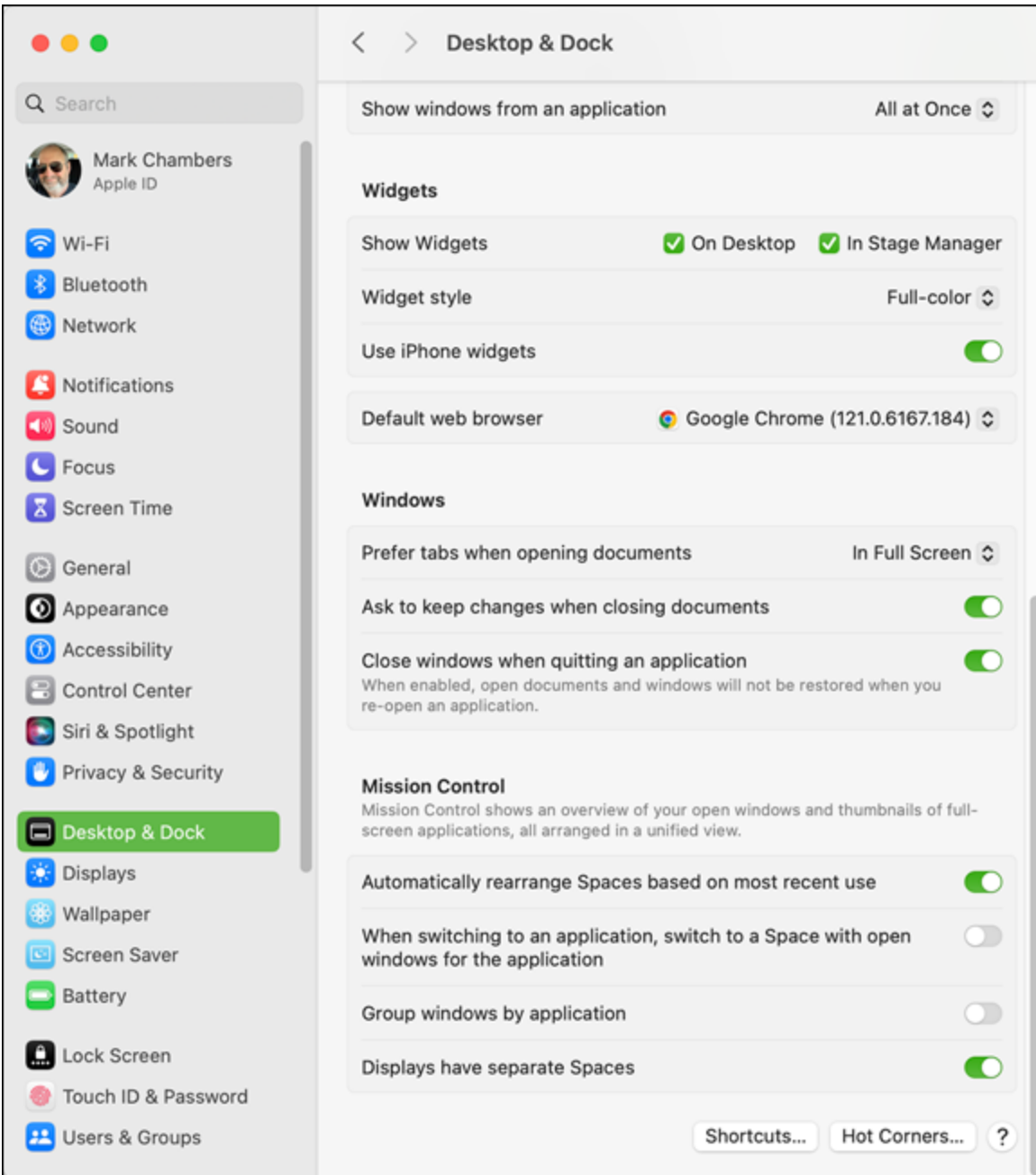


FIGURE 5-6: Set your Widgets, Windows, and Mission Control settings here.

The settings are as follows:

- » **Automatically Rearrange Spaces Based on Most Recent Use:** If this switch is set to On, Mission Control presents your most recently used Spaces first in the thumbnails at the top of the screen.

- » **When Switching to an Application:** When enabled, this setting allows you to switch applications between Spaces desktops by using the ⌘ + Tab shortcut. Sonoma jumps to the Desktop that has an open window for the application you choose, even if that Desktop is not currently active.
- » **Group Windows by Application:** When selected, this check box automatically arranges windows in the Mission Control screen by the application that created them.
- » **Displays Have Separate Spaces:** If you to have multiple monitors connected to your MacBook, you can select this check box to create a separate Spaces display for each monitor.
- » **Shortcuts:** Click this button to specify keyboard and mouse shortcuts. From each pop-up menu, set the key sequences (and mouse settings) for Mission Control, Application Windows, and Show Desktop.



REMEMBER You're not limited to keyboard and mouse shortcuts in the pop-up menus. Press the Shift, Control, Option, and ⌘ keys while a pop-up menu is open, and you see these modifiers appear as menu choices! (Heck, you can even combine modifiers, such as ⌘ + Shift + F9 instead of just F9.)

- » **Hot Corners:** Click this button to specify your hot-corner settings. These pop-up menus allow you to control the operation of the screen management features within Sonoma. Click one to designate that corner as one of the following:
 - **A Mission Control corner** displays the Mission Control screen.

- **An Application Windows corner** displays only the windows from the active application.
- **A Desktop corner** moves all windows to the outside of the screen to uncover your Desktop.
- **A Launchpad corner** activates the Launchpad screen.
- **A Quick Note corner** opens the Notes application and displays the New Note window.
- **A Notification Center corner** displays the Notification Center strip at the right side of your Desktop.

Note that you can also set the Screen Saver Start and Disable corners from here, as well as put your display to sleep or lock your MacBook.

The Screen Saver pane

Let's be honest here: A good screen saver can sometimes make the difference between a mundane computing session and an occasional moment of visual entrancement! macOS Sonoma doesn't disappoint in its selection of screen savers, covering a wide range of animation and subjects.

As shown in [Figure 5-7](#), the settings on the Screen Saver section are the following:

- » **Current Screen Saver:** The thumbnail image at the top of the pane represents your current choice of screen saver. To try out the screen saver in full-screen mode, hover your pointer over the thumbnail on the right and click the Preview button that appears. (You can end the test by moving the pointer.) To display the screen saver as your Desktop wallpaper, click the Show As Wallpaper switch to turn it on. If you're a fan

of the macOS Spaces feature, enable the Show On All Spaces switch to use this screen saver on all your Spaces.

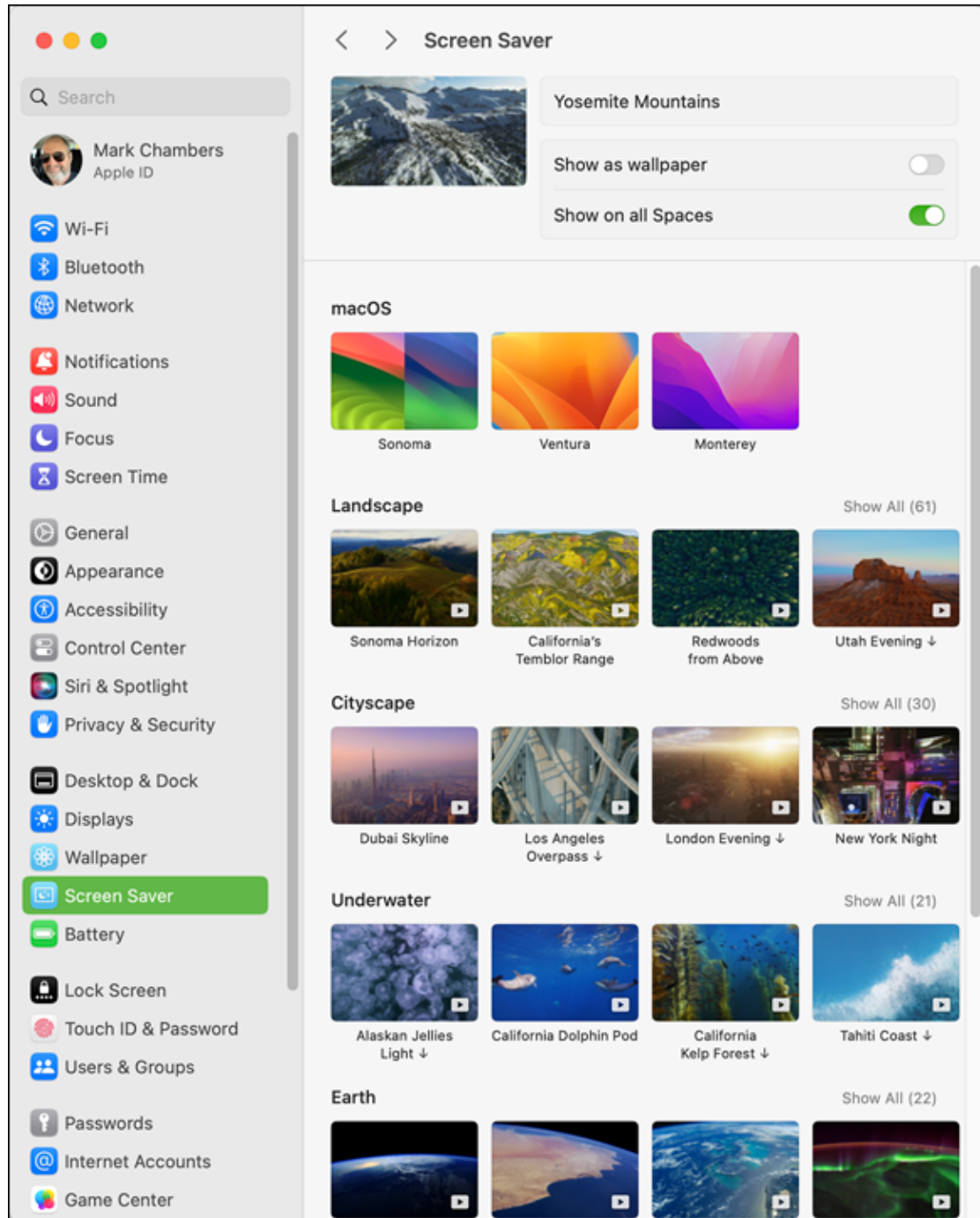


FIGURE 5-7: The Screen Saver pane offers a visual smorgasbord.

» **Lock Screen Settings:** This button allows you to fine-tune your MacBook's Lock screen and screen saver features by "jumping" to the System Settings Lock Screen pane. Click the Start Screen Saver When Inactive button pop-up menu to specify the period of inactivity that triggers the screen saver. (To disable the screen saver entirely, choose the Never setting.) You can also choose to turn off the display completely to save power (both on battery power and when you're charging). If you want your selected screen saver or the Lock screen to display the time as well, click the Show Large Clock pop-up menu and select the desired location for the clock. The clock can appear in 12- or 24-hour format. You can set macOS to display or hide the password hints and a message you supply on the Lock screen. Finally, you can configure your Fast User Switching feature, which I discuss in detail in [Chapter 10](#). (To return to the Screen Saver pane, click the Back arrow at the top of the pane.)



TIP

For additional security, click the Require Password After Screen Saver Begins or Display is Turned Off pop-up menu. You can set Sonoma to require your user account password before allowing anyone to turn off the screen saver or wake the display after a specified time (a great idea in an office environment, as you can imagine).

» **Screen Saver Thumbnails:** *Whoa!* We've hit screen saver heaven! Double-click a thumbnail to load that screen saver (and preview it, if desired). If a thumbnail carries a tiny Play icon in the lower-right corner, it indicates that the screen saver is animated. You can

also choose a Shuffle screen saver, which will display a selection of animated images featuring a common theme. If a category has more thumbnails than the pane can fit, click the Show All button to display the additional screen savers.

The General pane

The talented General pane, shown in [Figure 5-8](#), includes a number of sections that control a range of macOS features. It looks complex, but I cover each option here (and if you've used an iPhone or iPad, you'll be right at home).

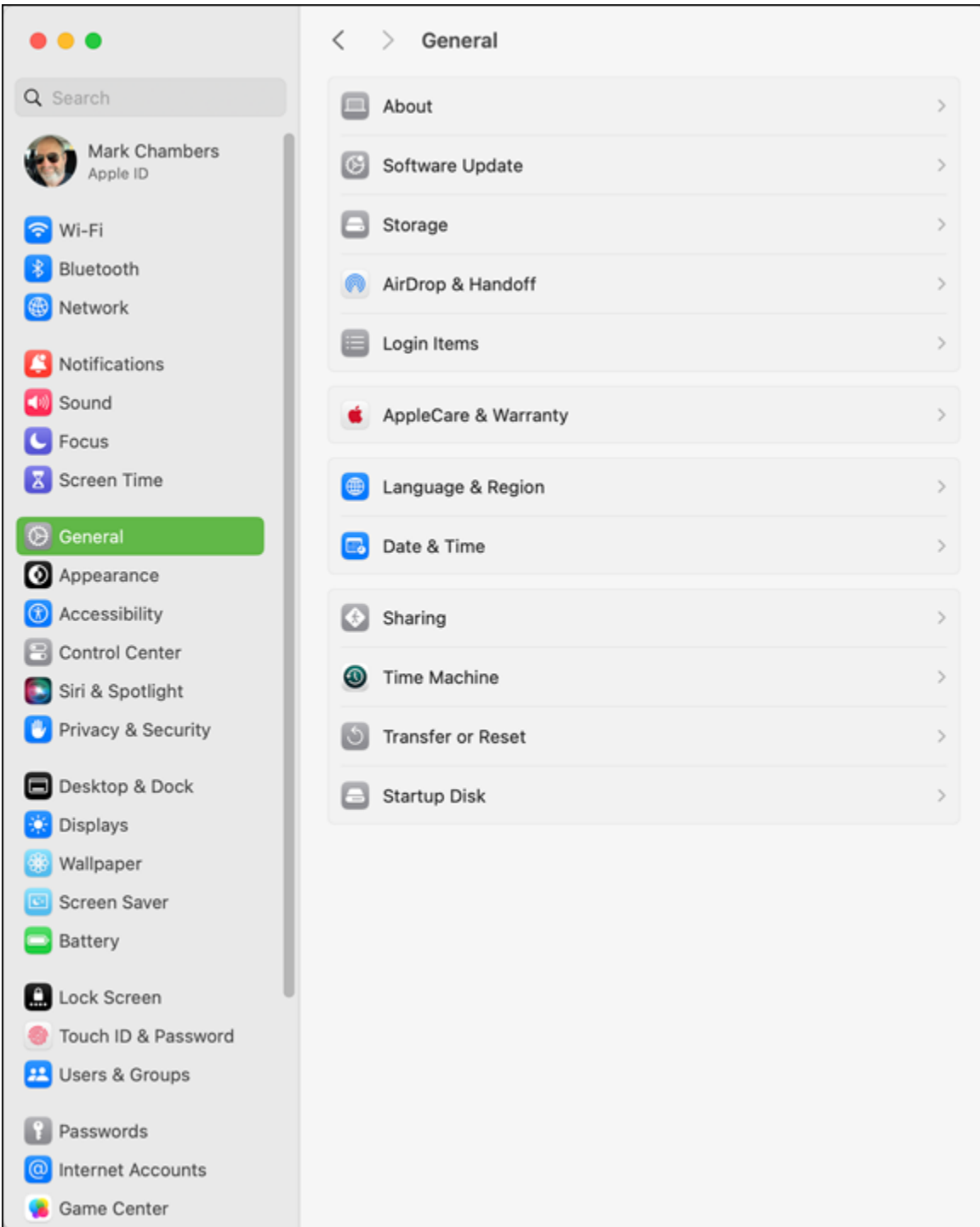


FIGURE 5-8: You get the General idea.

The entries are

- » **About:** Click this entry to display details about your MacBook's hardware (like your serial number, memory,

processor, and display) and your macOS Sonoma system, including the status of your warranty coverage.

- » **Software Update:** This entry allows you to check for macOS updates and apply them. To set macOS to automatically download and apply updates, click the round Info icon that appears to the right of the Automatic Updates item, and enable all the switches on the Automatically sheet that appears.
- » **Storage:** Click the Storage entry to locate unnecessary files, applications and documents and easily delete them. (I cover these settings and how to use them in [Chapter 21](#).)
- » **AirDrop & Handoff:** These controls allow you to enable or disable the macOS Handoff feature (which I cover in [Chapter 9](#)), as well as specify who can make an AirDrop or AirPlay connection to your MacBook (as I discuss in [Chapter 11](#)).
- » **Login Items:** In this section, you can specify what applications Sonoma will launch automatically when you first start your MacBook. For the full story, visit [Chapter 10](#).
- » **AppleCare & Warranty:** Click this entry to display a list of all your Apple devices and their current warranty status. Click any device in the list for specific support information.
- » **Language & Region:** This section allows you to select the primary language macOS uses, as well as a number of regional standards (such as temperature in Celsius or Fahrenheit, measurements in Metric/US/UK format, and the format for displaying dates and numbers).

- » **Date & Time:** Click this entry to control whether macOS sets the time and date automatically, as well as toggling between 12- and 24-hour formats and selecting a time zone. If you're an experienced traveler, you can also click the Set Time Zone Automatically Using Your Current Location to ensure your MacBook's clock is always correct with the local time!
- » **Sharing:** From this section, you can determine what type of hardware and software connections can be made to your MacBook. Each entry in the services list controls a specific type of sharing, including File Sharing (with other Macs and PCs running Windows, covered in [Chapter 11](#)) and Internet Sharing with other devices (also covered in [Chapter 11](#)). Other entries control printer sharing and file sharing over Bluetooth. To turn on any of these services, click the switch for that service to enable it. To turn off a service, click the switch to disable it. Click the Info icon at the far right of an entry to configure any additional settings specific to that feature. Finally, click the Edit button to change the default network name assigned to your MacBook during the installation process. Your current network name is listed in the Local Hostname text field.



MARK'S
MAXIM

Leave the Advanced Sharing features turned off. You should enable Remote Management, Remote Login, and Remote Application Scripting *only* if instructed to by an Apple technician or your network administrator. Sharing control of your MacBook over a network connection is a hacker's dream come true.

» **Time Machine:** Here's how you configure one of my favorite macOS features, the backup miracle that is Time Machine! To add a Time Machine drive to your system, connect an external drive and click the Add button (which carries a plus sign) — you'll want to select an external drive that has at least twice the capacity of your internal drive. Click the Options button, click the Backup Frequency pop-up menu, and choose Automatically Every Hour. You should leave the Time Machine backup drive connected to your MacBook — but if you can't, choose Manually from the Backup Frequency menu. In the future, when your Time Machine backup drive is connected, click the Time Machine icon in the Finder menu bar (which looks like a clock face with a circular arrow) and choose Back Up Now. You can also monitor the progress of the backup by clicking the Time Machine icon in the Finder menu bar.



TIP

By default, Time Machine backs up all the files and folders on your system; however, you may not need to back up some locations on your MacBook. (A good example is your iCloud Drive, which is already backed up to Apple's iCloud servers.) To save time and backup drive space, Time Machine allows you to exclude specific folders from the backup process. Click Options, and then click the Add button (with the plus sign) to select the drives or folders you want to exclude. They appear in the Exclude From Backups list.

» **Transfer or Reset:** This section allows you to launch the Migration Assistant to transfer data between Macs (and even between your MacBook and a PC running

Windows). [Chapter 2](#) provides more details on Migration Assistant. You can also elect to completely reset your laptop, erasing *all* of its contents and settings and returning it to factory-fresh condition. (Of course, this is A Good Idea if you're selling or donating your MacBook to someone else, but you should give the Erase Assistant a wide berth otherwise.)

- » **Startup Disk:** This final entry is for folks like me who have an external drive with a bootable macOS partition installed. Sonoma displays the bootable drives it finds connected to your MacBook, and you can select which partition your laptop should use. After you've selected a partition, click Restart to boot your MacBook using that version of macOS.

The Battery pane

I'm an environmentalist — it's surprising how many techno types are colored green — so the controls on this pane are pretty doggone important. When you use them correctly, you conserve power and extend your MacBook's battery life.

You can easily optimize your energy use automatically with the Low Power Mode pop-up menu (shown in [Figure 5-9](#))! I usually recommend that you choose the Only on Battery setting, which reduces the drain on your battery to extend its charge, but you can also choose Always (which reduces power consumption even if your MacBook is plugged in and charging).

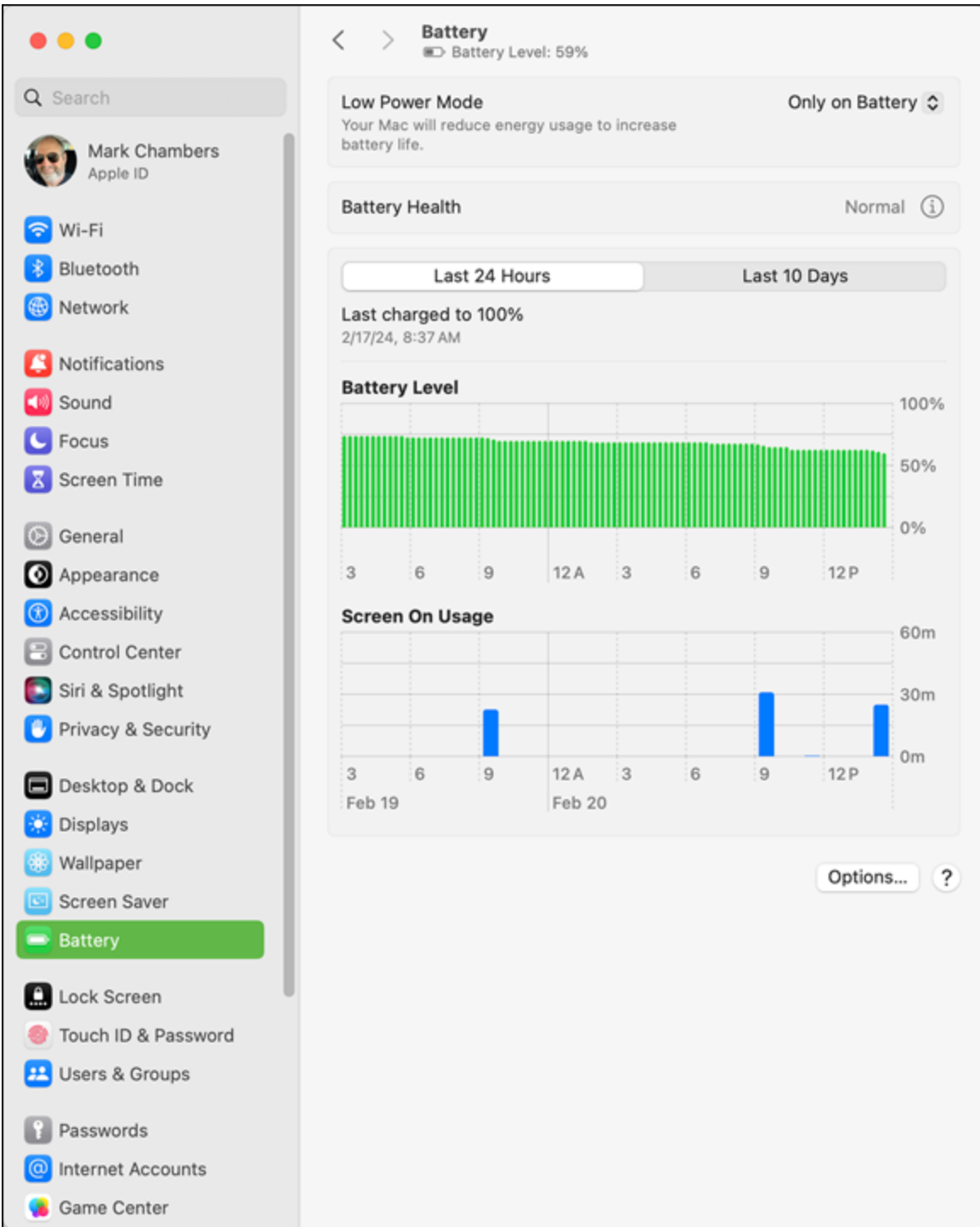


FIGURE 5-9: Reduce your MacBook’s power consumption from the Battery pane.

The Battery Level and Screen On Usage graphs can help you track the amount of time you’ve used your MacBook

and the battery's charge level for both the last 24 hours and the last 10 days.



TIP Click the Options button to dim your laptop's display — slightly reducing the brightness — while running on battery, which saves additional energy without adversely affecting your computing.

The Control Center pane

As I discuss in [Chapter 3](#), the Control Center is both powerful and convenient, allowing you to monitor and manage some of the most important features in macOS with a single click. (Okay, perhaps two clicks. Still quite impressive!) You can fine-tune the contents of both the Control Center and the Finder menu bar with the settings you see in [Figure 5-10](#):

- » **Control Center Modules:** This series of pop-up menus allow you to determine whether each of the modules in the list should appear in the Finder menu bar. (These modules *always* appear in the Control Center by default, but I like some of these icons displayed in the menu bar as well. For example, I can tell with a glance whether I have a Wi-Fi connection and how strong it is if the Wi-Fi menu bar icon is active.)
- » **Other Modules:** These modules can be added to either the Control Center or the Finder menu bar or both, depending on the switch settings you choose.
- » **Menu Bar Only:** These modules can appear only in the Finder menu bar, but you can still hide them if desired. Click the Clock Options button to choose the format of the clock display, and even set macOS

Sonoma to announce the time with a voice of your choosing!

» **Automatically Hide and Show the Menu Bar:**

Similar to the Automatically Hide and Show the Dock switch I describe in the “[Dock settings](#)” section, earlier in this chapter, you can click this pop-up menu to banish the Finder menu bar until you need it (either on the Desktop or in full screen view). To display the hidden menu bar, move your pointer to the top edge of your screen.

» **Recent Documents, Applications and Servers:** If you’re a fan of the Apple menu’s Recent Items submenu that I mention in [Chapter 3](#), here’s where you can specify how many recent items are displayed. The minimum you can choose from the pop-up menu is None, which disables the Recent Items submenu, and the maximum is 50 items.

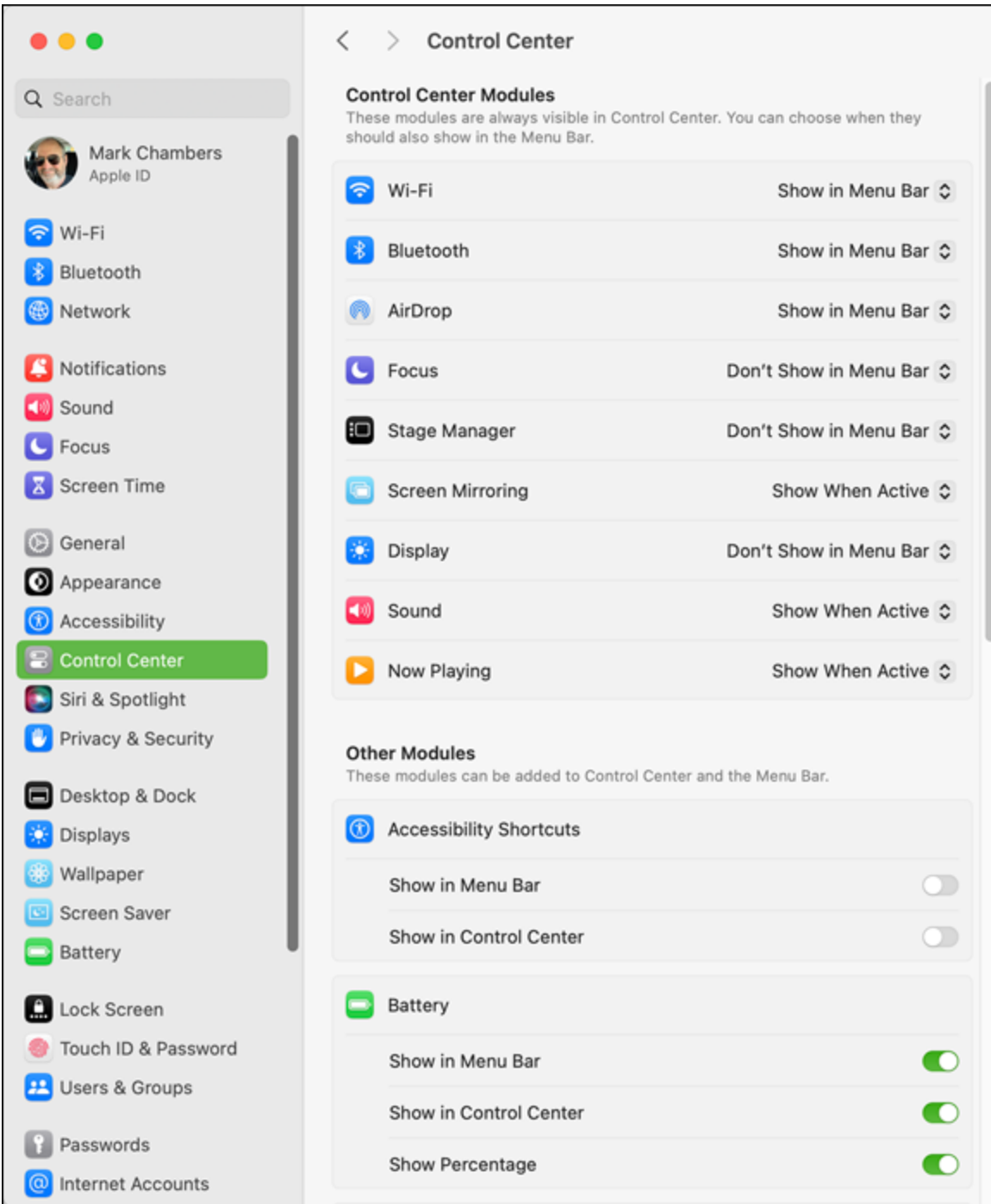


FIGURE 5-10: Customize your Control Center and Finder menu bar with these controls.

The Wallpaper pane

No offense to the awesome Sonoma horizon wallpaper, but what if you want to choose your own background?

You can change your MacBook's mood by using these options in the Wallpaper pane:

- » **Current Desktop picture:** You can click a picture in the thumbnail list in the right half of the screen to use it as your wallpaper. The Desktop is immediately updated, and the thumbnail appears in the *well* (the box at the top of the pane). To display a different image or open a folder of your own images, click the Add Photo or the Add Folder or Album buttons. If you click Add Photo, you can choose from individual images you've added to Photos, or browse for your heart's desire. A click on Add Folder or Album allows you to add multiple images, either from a Photos album or a folder on your drive.
- » **Layout:** Click this pop-up menu by the well to fit your background image to your screen (without cropping it), center it, fill the screen with it (cropping the edges if necessary), and stretch it to fill the screen (without cropping). Note that filling the screen in either case may distort the image. If you select Fit to Screen or Center, you can click the color swatch that appears to change the color of any "empty" areas on the Desktop.



REMEMBER The layout pop-up menu appears only when you're using your own pictures, so you don't see it if you're using a wallpaper image supplied by Apple.

- » **Show on All Spaces:** If you use the macOS Spaces feature that I describe in [Chapter 3](#) (or if you have an external monitor connected to your MacBook), you can enable the Show On All Spaces switch to use the same wallpaper on each Space and screen.



TIP

To display your photos in sequence, click the thumbnail with the two circular arrows. The wallpaper images are displayed in the sequence in which they appear in the thumbnail list, but you can also randomize the sequence and specify the duration for each image.



TIP

The Dynamic Wallpaper selections automatically change the brightness of your wallpaper image based on the local time of day! You can also force only the Light or Dark versions of these dynamic wallpapers with the pop-up menu that appears next to the well.

If a thumbnail carries a tiny Play icon in the lower-right corner, it indicates that the wallpaper is animated, and that it can also be used as a screen saver. (Typically these animated wallpapers are quite large, so if an arrow appears next to a thumbnail name, it will take a few moments to download from Apple). If a category has more thumbnails than the pane can fit, click the Show All button to display the additional wallpapers.

- » **Colors:** Do you prefer a soothing, solid-color wallpaper? This section at the bottom of the pane allows you to pick a color or choose a custom color from the palette (by clicking the icon bearing the plus sign [+]). You can choose to rotate between colors by clicking the icon with the two circular arrows.

iCloud settings

To configure your iCloud settings, click your account entry at the top of the System Settings sidebar and then click the iCloud entry. From the pane shown in [Figure 5-11](#), you can specify which types of data are automatically pushed to your MacBook and iOS devices. If you haven't created an iCloud account yet — or if you signed out of an existing account earlier — System Settings prompts you to enter your Apple ID and password.

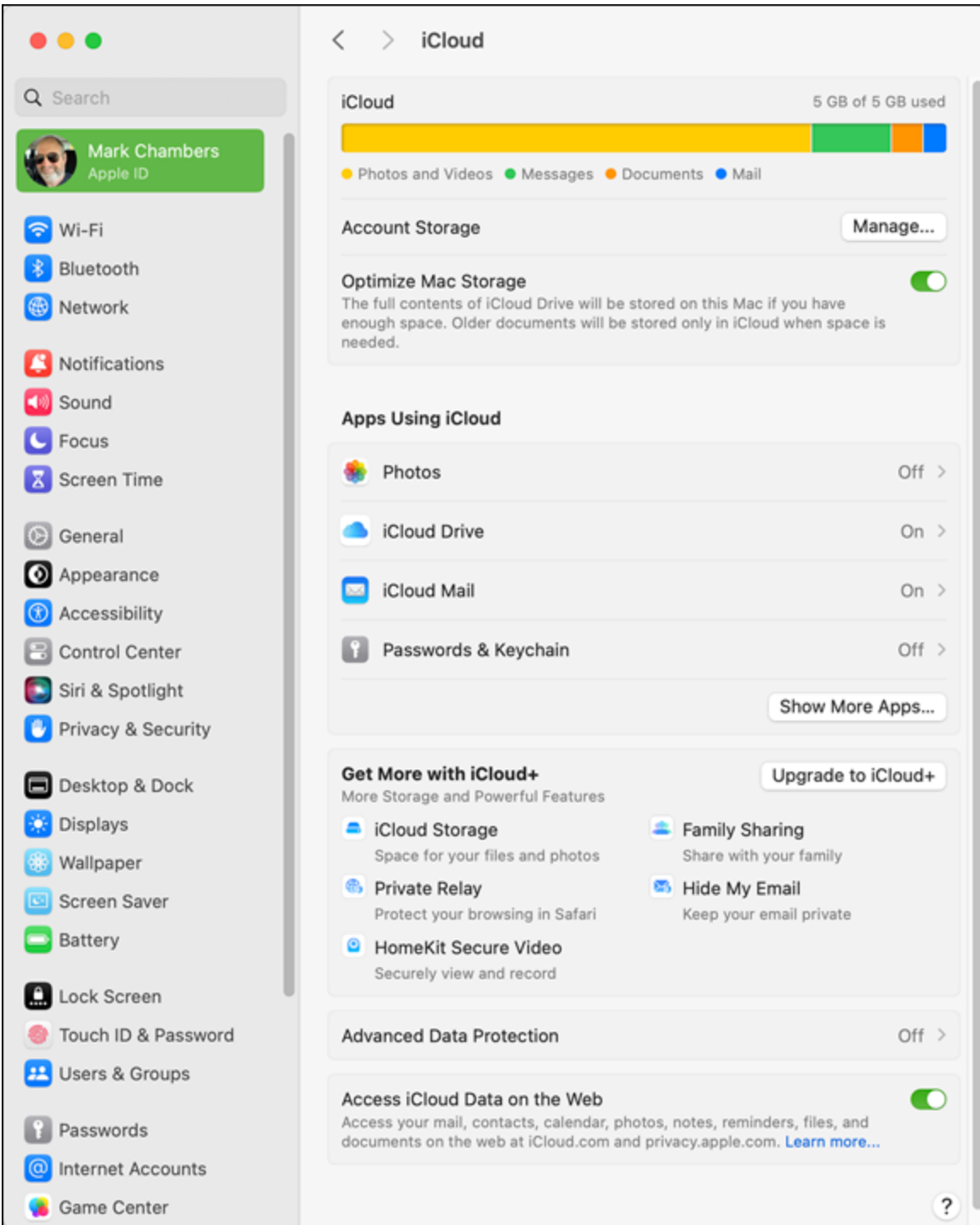


FIGURE 5-11: Control and configure your iCloud activity with these settings.

The sections are as follows:

- » **iCloud Storage Graph:** This graph gives an overall view of what's taking up space in your iCloud storage,

like photos, messages, documents, and mail.

- » **Account Storage:** Click the Manage button to display the individual applications using iCloud and the amount of space they're taking up, sorted in order of the worst offenders first. You can click any of these application entries to display actions you may be able to take to recover space, including deleting the data used by that application from your iCloud account.



TIP

Enable the Optimize Mac Storage switch to allow your MacBook to store the contents of your iCloud Drive on your internal drive (effectively opening more space on your iCloud Drive). If your MacBook's internal drive is running short on space, the oldest documents will automatically be moved back to your iCloud Drive to make more room. I always enable this option to help maximize my iCloud Drive storage.

- » **Apps Using iCloud:** Enable and disable iCloud access for specific applications, like Photos, iCloud Mail, Notes, and your iCloud Drive. To toggle iCloud access on for a specific app, click the entry. Note that only the most often-used apps are visible in the pane, but you can display the entire list by clicking the Show More Apps button.
- » **Get More with iCloud+:** Apple provides you with 5GB of iCloud storage for free, but if you need additional elbow room for more photos or files, you can upgrade to iCloud+ with a click. For 99 cents a month, you'll expand your iCloud territory to 50GB. (If you actually need 12TB [yes, that's *terabytes!*] of storage in iCloud, Apple can do it!)



TIP

Turn on Advanced Data Protection to enable the highest security for your iCloud data. Note, however, that you must set up the Account Recovery feature to ensure that you can retrieve your data if your MacBook is lost or stolen, or if you lose access to your iCloud account. Click the Turn On button at the top of the sheet to enable Advanced Data Protection and begin the process of creating a recovery key.



TIP

I recommend that you enable the Access iCloud Data on the Web switch at the very bottom of the pane — this feature allows you to use the tools provided online at www.icloud.com to access all of your iCloud data from any web browser, even without your MacBook! However, if security is an issue and you want to ensure that *only* your MacBook and trusted iOS devices can access your iCloud data, leave this option turned off.

Appearance pane

Aesop said, “Appearances are often deceiving.” Not so with macOS Sonoma! The settings shown in [Figure 5-12](#) guarantee that your Finder menu and Finder windows are pleasing to your eye — and that your scroll bars work the way you want.

The Appearance settings are the following:

- » **Appearance:** Click the Light, Dark or Auto option to switch between Light or Dark mode for your Finder menu bar, window buttons and window background,

and your Dock. The Auto option cycles between the Light and Dark modes based on the local time.

- » **Accent Color:** Click an Accent color to use for buttons and menus.
- » **Highlight Color:** Choose a color to highlight selected text in fields and pop-up menus.
- » **Sidebar Icon Size:** Select the size of the icons in the Finder window Sidebar (the strip to the left of the Finder window that displays your devices and favorite locations on your system). If you have a large number of devices, or if you've added several folders to the Sidebar, reducing the size of the icons allows you to display more of them without scrolling.

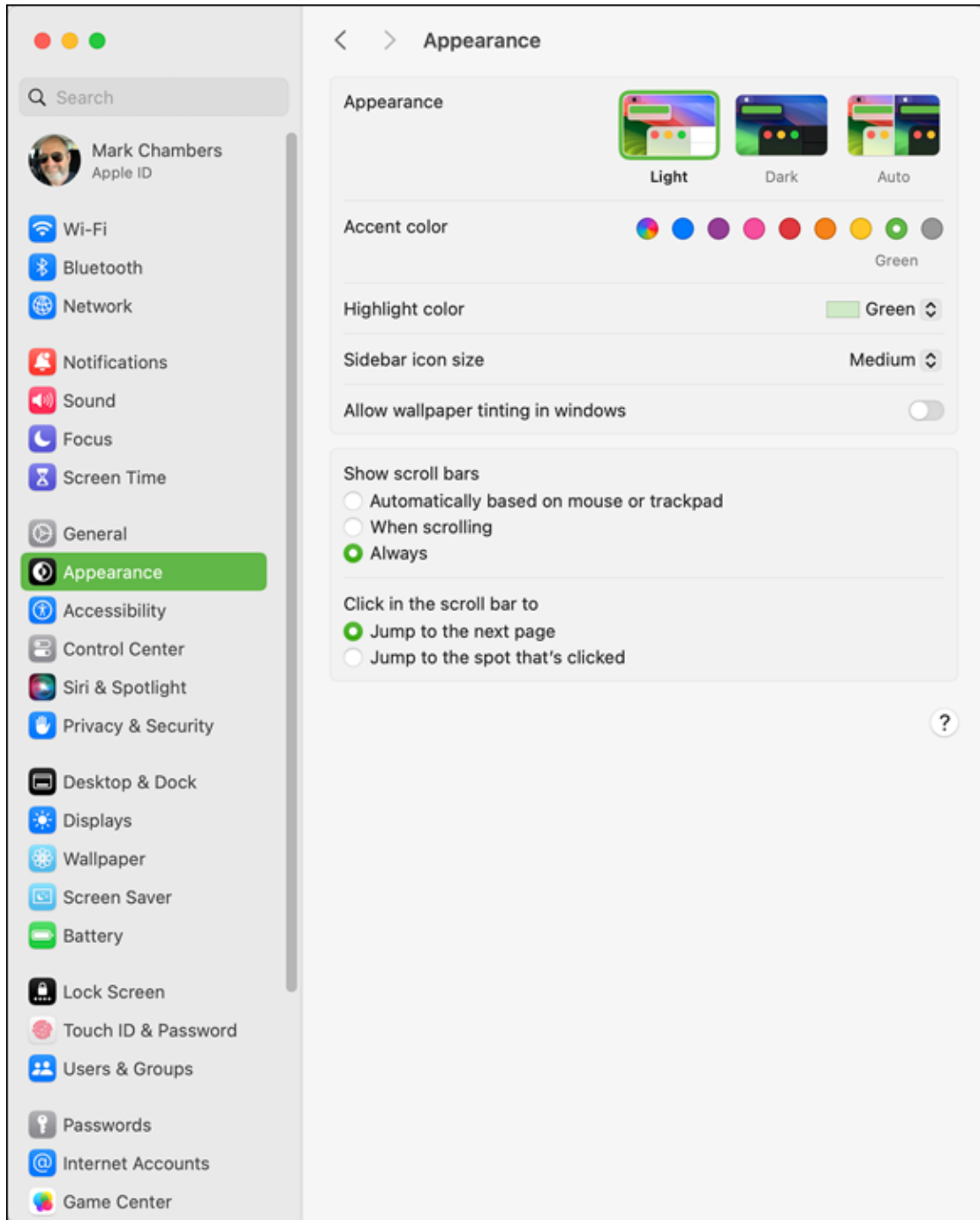


FIGURE 5-12: Tweak the appearance of macOS Sonoma on this pane.

» **Allow Wallpaper Tinting in Windows:** When this switch is on, macOS displays open windows with a tinted background when you're using Dark mode. (The tint reflects the primary color used in your desktop background.)

- » **Show Scroll Bars:** Specify when Sonoma should display scroll bars in a window. By default, they're placed automatically when necessary, but you can choose to display scroll bars always or only when you're actually scrolling through a document.
- » **Click in the Scroll Bar To:** By default, macOS jumps to the next or previous page when you click in an empty portion of the scroll bar. Select the Jump to the Spot That's Clicked radio button to scroll the document to the approximate position in relation to where you click.

Notifications settings

Although I discuss the Notification Center in [Chapter 7](#), I'll take a moment here to cover the settings you can use to control which notifications you receive and how they're displayed. The Notifications pane is shown in [Figure 5-13](#).

The settings in the Notification Center section include:

- » **Show Previews:** This pop-up menu controls the default action for notification previews. If set to Always, notifications for all applications will include a preview of the content (like a preview of the contents of a text message); if set to Never, previews will never appear with notifications. For additional privacy, you can also specify that previews will appear only if your MacBook display is not locked.
- » **Allow Notifications When the Display Is Sleeping:** If enabled, notifications are shown by default if your MacBook's display is asleep. If disabled, notifications are paused by default until the MacBook awakes from sleep mode.

- » **Allow Notifications When the Screen Is Locked:** Turn this option on to display notifications by default even when your laptop is locked (personally, I don't use this feature — if it's enabled, a locked MacBook could still display personal or sensitive information in a notification).
- » **Allow Notifications When Mirroring or Sharing the Display:** If enabled, this option allows notifications to be displayed if you're mirroring or sharing a display, such as a projector. Again, if you're security conscious, you may want to disable this feature. It's also a good idea to disable this switch if you're holding a Keynote presentation because your audience likely won't appreciate distracting notifications from News appearing on the screen!

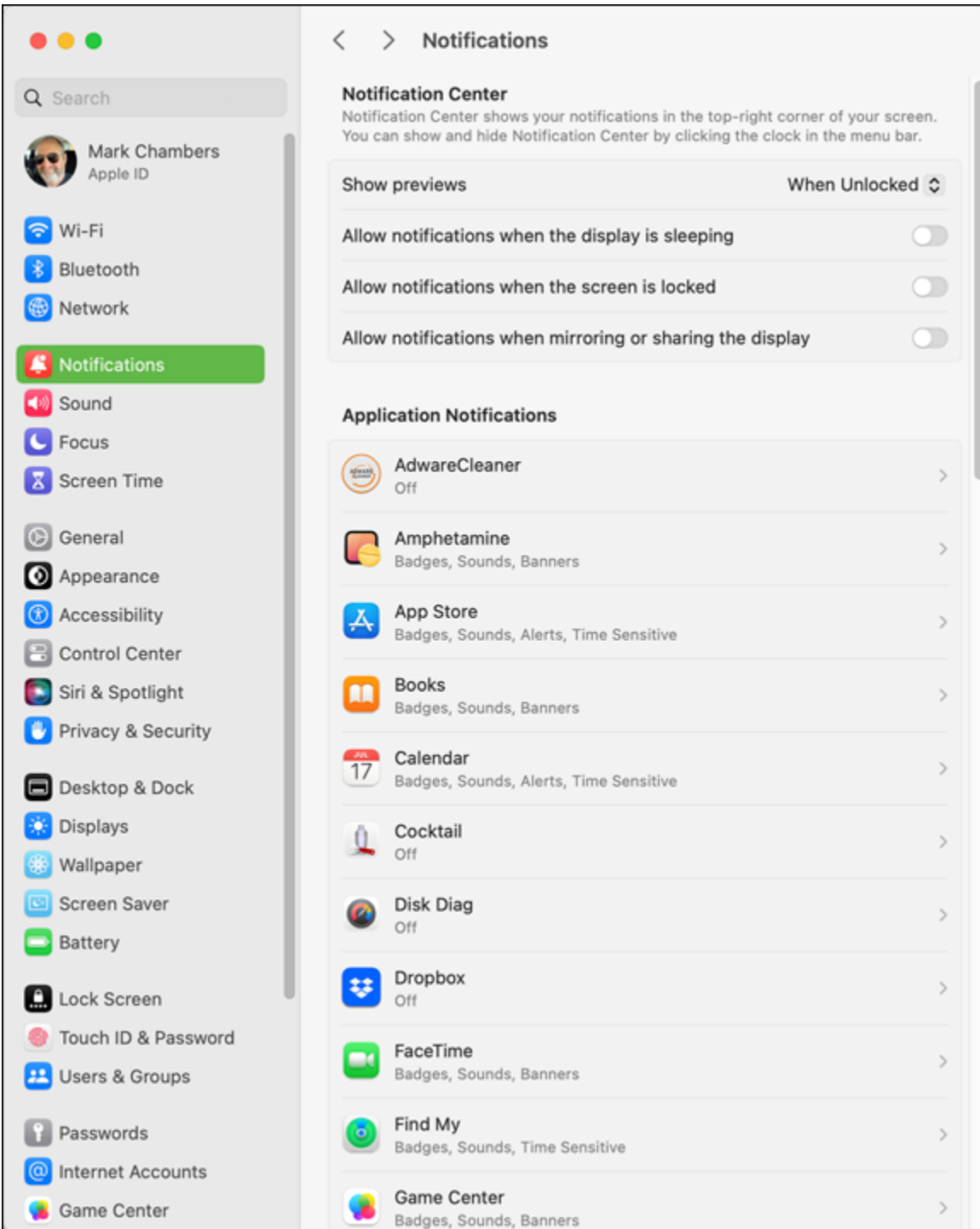


FIGURE 5-13: Each application that uses notifications can be individually configured.

The Applications Notifications section lists each application that can display notifications in macOS,

allowing you to individually configure each one. If you click an application entry, the following settings appear:

- » **Allow Notifications:** Consider this the “main switch” that completely turns notifications on or off for this application.
- » **Alert Style:** These three buttons specify which type of alert should appear under the Finder menu bar for this application. Choose None to disable notifications outside of the Notification Center for this application. Click Alerts to display the notification on your Desktop; alert messages remain onscreen until you click the confirmation button in the Alert dialog. Choose Banners to display alert messages that automatically disappear after a delay.
- » **Show Notifications on Lock Screen:** If it appears, you can enable this switch to allow notifications even if your MacBook is displaying the Lock screen. (Note that this setting overrides the default I describe in the previous section.)
- » **Show in Notification Center:** To display notification messages from this application in the Notification Center, turn this switch on.
- » **Badge Application Icon:** This switch toggles on and off the display of this application’s icon in alert boxes and in the Notification Center. It also activates the numeric display of pending items on the icon itself (for example, unread mail and messages).
- » **Play Sound for Notifications** To play a sound when alerts appear, enable this switch.
- » **Show Notification Preview:** If enabled, notifications for this application will include a preview of the content. You can also specify whether the preview will appear while your MacBook display is locked. (Note

that this setting overrides the default I describe in the previous section.)

- » **Notification Grouping:** From this drop-down list, you can specify that multiple notifications from the same source are displayed by application or by automatic arrangement, or turn off grouping altogether.

Chapter 6

Searching Amidst MacBook Chaos

IN THIS CHAPTER

- » Mastering basic Spotlight searching skills
 - » Selecting text and keywords for best results
 - » Displaying results in the Finder search window
 - » Customizing Spotlight within System Settings
-

What would you say if I told you that you could search your entire system for all the data connected with a person — and in only the short time it takes to type that person’s name? And I’m not just talking about files and folders that might include that person’s name. I mean *every* email message and *every* Calendar event that references that person — and even that person’s Contacts card, to boot. Heck, how about if that search could dig up every occurrence of the person’s name *inside* your PDF documents? What if it could even search folders shared on other Macs across your network?

You’d probably say, “That makes for good future tech. I’ll bet I can do that in five or ten years. It’ll take Apple at least that long to do it — and just in time for me to buy a new MacBook! (Harrumph.)”

Don’t be so hasty. You can do all this right now. (In fact, this functionality has been part of macOS for a number of years.) The technology is the macOS feature named *Spotlight*, built into Sonoma. In this chapter, I show you how to use it like a fearsome MacBook power guru.

Doing a Basic Search

[Figure 6-1](#) shows the Spotlight search box, which is always available from the Finder menu bar. Click the magnifying glass icon once (or press ⌘ +spacebar), and the Spotlight search box appears on your Desktop, front and center.

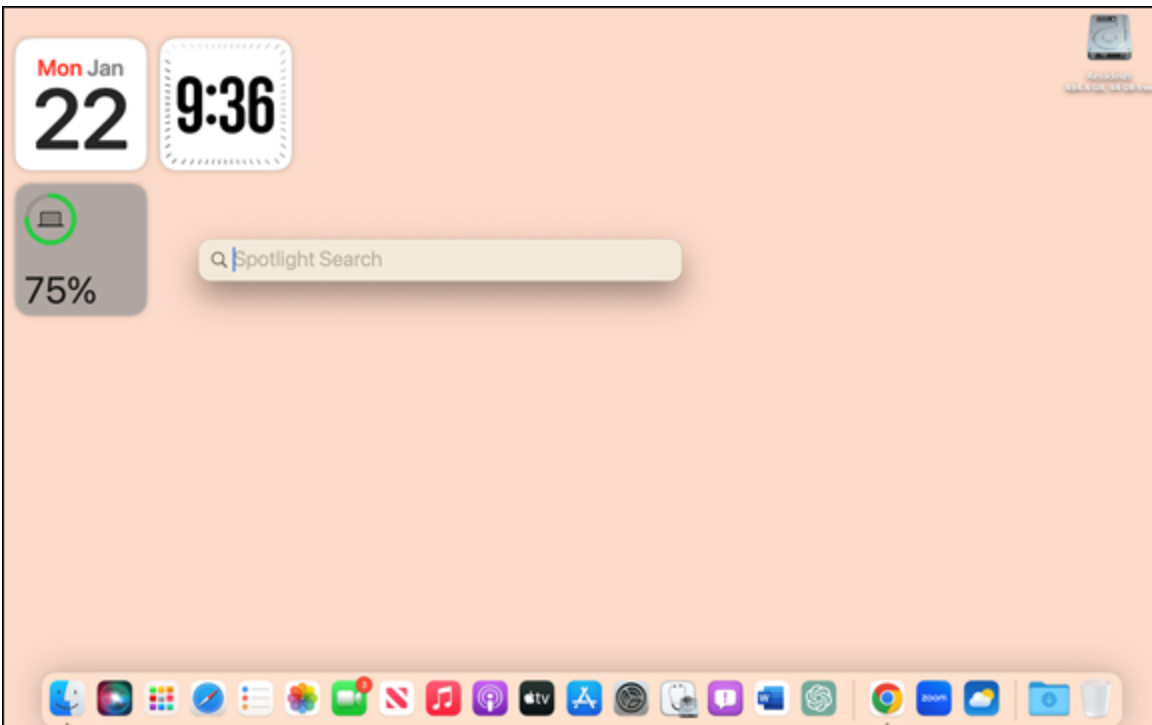


FIGURE 6-1: Lots of power purrs behind this single Spotlight search box.

To run a search, simply begin typing. (The words you type that you want to match are called *keywords*.) Matching items appear as soon as you type, and the search results are continually refined while you type the rest of your search keywords. You don't need to press Return to begin the search. If Spotlight recognizes an app by name, it displays that app name instantly, and you can launch it by pressing Return. (My brothers and sisters, it just doesn't get any easier than that. This is how I usually launch apps that aren't on the Dock.)

After a second or two, the Spotlight search box expands to display the results of your search, and the list is updated automatically in real time while you continue to type. The most-relevant items are grouped into categories — such as Messages, Websites, Definitions, Documents, Folders, Images, News, PDFs, and Contacts — right in the Spotlight search box. Spotlight Search takes a guess at the item that's most likely the match you're looking for (based on your Search Results list in System Settings, which I cover later in the chapter) and presents it first. To open the top item like a true Sonoma power user, just press Return.



TIP Although one or two keywords are typically enough to do the job, you can also type phrases, such as **emails from Mark Chambers** or **songs with sunshine in the title**.



TIP You can single-click many items in the list and press the spacebar to open them using the Quick Look technology built in to Sonoma! If Quick Look is supported by that document type, Spotlight displays the contents (such as a thumbnail image of a document, an album cover, or a website) or information on the item. For example, if the item is a News article, the story appears in the Quick Look window — without leaving the Spotlight search box. A Microsoft Word document? Why, it's displayed just as if you had opened it.

When you click an item in the list, Spotlight indicates which application will be used to open the item by

displaying the icon for that application in the upper-right corner of the Spotlight box. For example, you'll see the Music icon for a song and the Safari icon for a website. If you right-click an item, Spotlight allows you to share the item through Messages, Mail, Notes, or AirDrop.

Any text string is acceptable as a Spotlight search. However, here's a short list of the common search criteria I use every day:

- » **Names and addresses:** Because Spotlight has access to the Contacts application in Sonoma, you can immediately display contact information using any portion of a name or an address.
- » **Email message text:** Need to open a specific email message, but you'd rather not launch Mail and spend time digging through the message list? Enter the person's email address or any text string contained in the message you're looking for.
- » **File and folder names:** A simple item name is the classic search favorite. Spotlight searches your entire system for that one file or folder in the blink of an eye.
- » **Events and Reminder items:** Yep, Spotlight gives you access to your Calendar events and those all-important Reminders you've created.
- » **Specific songs and playlists:** Itching to hear "Rock Me Amadeus" by Falco? With the power of Spotlight and your Music library, you can satisfy your musical needs in seconds! (If you've subscribed to Apple Music, you can even search that streaming content as well.)
- » **System Settings:** Now things start to get *really* interesting! Try typing the word **wallpaper** in the Spotlight field. At least one of the results in the list will

be a System Settings pane! That's right: Every setting in System Settings is referenced in Spotlight.

- » **Weather, stocks, news, and sports scores:** Put Spotlight to work, and you can get instant displays of current weather and forecasts (type **weather** followed by a town name), stock figures (type the desired stock abbreviation), and even sports scores (type your favorite team name).
- » **Web pages:** *Whoa.* Stand back, Google. You can use Spotlight to search the web — and, if necessary, the web pages you've recently displayed in Safari!
- » **Metadata:** This category is pretty broad, but it fits. If you're not familiar with the term *metadata*, think of the information stored by your digital camera each time you take a photo — exposure setting, time and date, and even the location where the photo was taken, which are also transferred to Photos when you import. Here's another example: I like to locate Word documents on my system using the same metadata that's stored in the file, such as the contents of the Comments field. Other supported applications include Adobe Photoshop images, Microsoft Excel spreadsheets, Keynote presentations, Music media, and other third-party applications that offer a Spotlight plug-in.
- » **Airline flight information:** Type a flight number, and let Spotlight provide you information such as the flight's status, points of departure and arrival, and even gate numbers.

To reset the Spotlight Search and try another text string, press ⌘ +A to select the entire contents and then press Delete.

After you find the item you're looking for in the list at the bottom of the Spotlight search box, you can *double-click* the entry in the list to do any of these things:

- » Launch it (if the item is an application).
- » Open it in System Settings (if it's a setting or description on a System Settings pane).
- » Open it within the associated application (if the item is a document, website, News story, or data item).
- » Display it in a Finder window (if the item is a folder).



TIP

Here's another favorite time-saver: You can display all the files of a particular type on your system by using the file type as the keyword. To provide a list of all photos with the word *horse* in the title on your system, for example, use *images horse* as your keywords. The same goes for *movies* and *audio*.



TECHNICAL
STUFF

When you give Siri a command or ask Siri a question, macOS uses Spotlight's search features "behind the scenes" to locate everything from applications and documents to contacts and music tracks.

How Cool Is That? Discovering What

Spotlight Can Do

Don't get fooled into simply using Spotlight as another file-'n'-folder-name search tool. Sure, it can do that, but Spotlight can also search *inside* PDFs, Pages and Word documents, and HTML files, finding matching text that doesn't appear in the name of the file! To wit: A search for *Sonoma* on my system pulls up all sorts of items, not only files with *Sonoma* in their names, but also files with the text *Sonoma* within the documents themselves:

- » **Apple Store SF.ppt** is a PowerPoint presentation with several slides containing the text *Sonoma*.
- » **new ch03.doc** is a Microsoft Word file chapter of this book that mentions *Sonoma* in several spots.
- » **Conference Call with Wiley** is a Calendar event pointing to a conference call with my publisher about upcoming *Sonoma* book projects.

Not one of these three examples has the word *Sonoma* occurring anywhere in the title or filename, yet Spotlight found them because they all contain the text *Sonoma* therein. That, dear reader, is the *true* power of Spotlight; you'll never lose another piece of information in the hundreds of thousands of files and folders on your MacBook's drive.

Heck, suppose that all you remember about a file is that you received it in your mail last week or last month. To find it, you can type time periods, such as *yesterday*, *last week*, or *last month*, to see every item that you saved or received within that period. (Boy howdy, I *love* writing about TGIs — that's short for Truly Good Ideas.)



TIP

Need the answer to a quick math problem? No need to run the Calculator app; just type it in your Spotlight search box, using the notation we all learned in school!

Be careful, however, when you're considering a search string. Don't forget that (by default) Spotlight matches only those items that have *all* the words you enter in the Spotlight box. To return the highest number of possible matches, use the fewest number of words that will identify the item. For example, use *horse* rather than *horse image*, and you're certain to be rewarded with more hits. On the other hand, if you're looking specifically for a picture of a knight on horseback, using a series of keywords — such as *horse knight image* — shortens your search considerably. It all depends on what you're looking for and how widely you want to cast your Spotlight net.

IS SPOTLIGHT SECURE?

So how about all those files, folders, contacts, and events that you *don't* want to appear in Spotlight? What if you're sharing your Mac as a multiuser computer or accessing other Macs remotely? Can others search for and access your personal information through Spotlight?

Definitely not! The results displayed by Spotlight are controlled by file and folder permissions as well as your account login, just as the applications that create and display your personal data are. For example, you can't access other users' calendars using Calendar, and they can't see your Mail messages. Only *you* have access to your data, and only after you've logged in with your username and password. Spotlight works the same way. If a user doesn't normally have access to an item, the item simply doesn't appear when that user performs a Spotlight search. (In other words, only you get to see your stuff.)

However, you can hide certain folders and disks from your own Spotlight searches if necessary. Check out the final section of this chapter for details

on setting private locations on your system.

To allow greater flexibility in searches, Apple also includes those helpful Boolean friends that you may already be familiar with: AND, OR, and NOT. For example, you can perform Spotlight searches such as these:

- » **Horse AND cow:** Collects all references to both those barnyard animals into one search
- » **Batman OR Robin:** Returns all references to either Batman or Robin
- » **Apple NOT PC:** Displays all references to Apple that don't include any information about dastardly PCs

Expanding Your Search Horizons

I can just hear the announcer's voice now: "But wait, there's more! If you click the Search in Finder menu item at the bottom of your search results list, we'll expand your Spotlight search box into the Finder Search window!" (Fortunately, you don't have to buy some ridiculous household doodad.)



TIP

Keyboard mavens will appreciate the Finder Search window shortcut key, and I show you where to specify this shortcut in the final section of this chapter.

[Figure 6-2](#) illustrates the Finder Search window. To further filter the search, click one of the buttons on the

search criteria bar to create your own custom filter. Click the button with the + (plus) on the search criteria bar and then click the pop-up menus to choose criteria, such as the type of file, the text content, or the location on your system (for example, your internal drive, your Home folder, or a network server). You can also filter your results listing by the date when the items were created or last saved. To add new criteria, click the + (plus) button at the right end of the search criteria bar; to delete existing criteria, click the - (minus) button to the left of the + button for the offending criteria. To save a custom filter that you've created, click the Save button.

As you can see in [Figure 6-2](#), PDF documents and images appear as thumbnail icons, so you can use that most sophisticated search tool — the human eye — to find the picture you're looking for. (If you don't see thumbnail images, click the Icon view button on the toolbar.) Don't forget that you can increase or decrease the size of the icons by dragging the slider at the bottom right of the window.

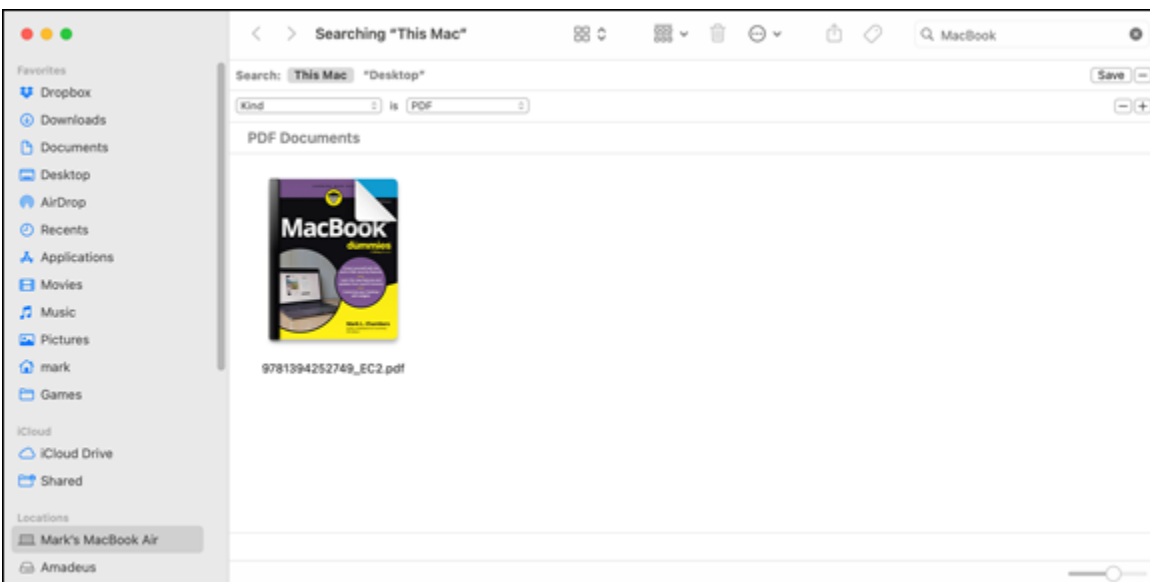


FIGURE 6-2: The spacious borders of the Finder Search window.



TIP

To display the contents of an item in the list using Quick Look (without leaving the comfortable confines of the Finder Search window), click the item to select it, and press the spacebar for a better view. Note that Sonoma must recognize the format of the file, and it must be supported by at least one application.

Again, when you're ready to open an item, just double-click it in the Finder Search window.

As I mention earlier, Spotlight can look for matching items on other Macs on your network only if those remote Macs are configured correctly. To allow another Mac to be visible to Spotlight on your system, enable File Sharing on the other Mac. (Oh, and remember that you need an admin-level account on that Mac — or access to a good friend who has an admin-level account on that Mac.)

Follow these steps to enable file sharing on the other Mac running macOS Sonoma:

- 1. On the Dock, click the System Settings icon (the one with the gears), or display the Spotlight search box, type System Settings, and press Return.**
- 2. Click the General pane and click the Sharing entry.**
- 3. In the Content & Media list on the right side of the Sharing pane, click the File Sharing switch to turn it on.**
- 4. Click the Close button in the System Settings window (or, if you're a keyboard power user, simply press the ⌘ + Q shortcut).**



REMEMBER You can search only those items that you have rights and permissions to view on the remote Mac (such as the contents of the Public folders on that computer). I discuss these limitations earlier in this chapter, in the sidebar [“Is Spotlight secure?”](#)

Customizing Spotlight to Your Taste

You might wonder whether such an awesome macOS feature has its own pane in System Settings — and you’d be right again. [Figure 6-3](#) shows off the Siri & Spotlight pane in System Settings. Click the System Settings icon on the Dock and then click the Siri & Spotlight entry in the sidebar to display these settings.

Click the check boxes in the Search Results section to determine which categories appear in the Spotlight search box. For example, if you don’t use any presentation software on your Mac, you can deselect the check box next to Presentations to disable this category (thereby making more room for other categories that you *will* use).

Click the Spotlight Privacy button at the bottom of the pane to specify disks and folders that should *never* be listed as results in a Spotlight Search. I know, I know — I say earlier that Spotlight respects your security, and it does. However, the disks and folders that you add to this list won’t appear even if *you* are the one performing the search — a great idea for folders and removable drives that you use to store sensitive information, such as medical records.

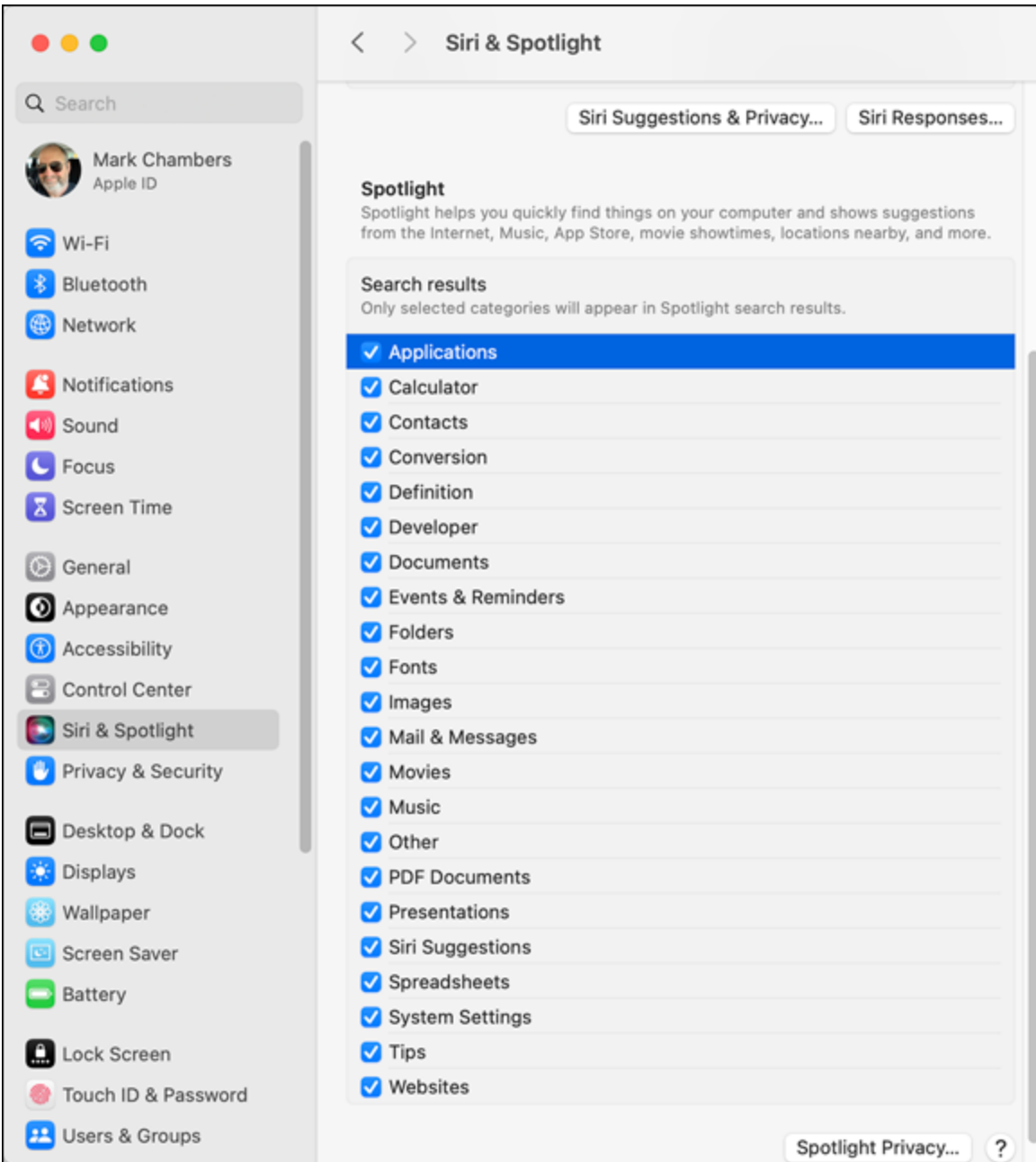


FIGURE 6-3: Fine-tune your Spotlight settings from System Settings.

To add locations that you want to keep private, click the Add button (+) and navigate to the desired location. Click the location to select it and then click Choose. Alternatively, you can drag folders or disks directly from a Finder window and drop them onto the pane.

Chapter 7

Using Reminders, Notes, Notifications, Maps, and News

IN THIS CHAPTER

- » **Setting reminders**
 - » **Making notes**
 - » **Using the Notification Center**
 - » **Navigating with Maps**
 - » **Staying current with News**
-

As I've said many times before in my books, "If it works in one place, it's likely to show up in another." In this case, five popular time-saving (and headache-preventing) apps have crossed over from the world of iOS devices — the iPhone and iPad— and landed securely on your Sonoma Desktop. These apps are Reminders, Notes, Notification Center, Maps, and News, all taken from the iOS world.

That's not the only good news, though: These five Mac applications work seamlessly with an iCloud account. So if you also use an iOS device (with the same Apple ID), much of the data you store — such as the notes you take and the reminders you make — is automatically synchronized among all your Apple computers and devices.

Because all five of these applications have a similar goal — keeping you in touch with the information, daily tasks, locations, and digital events that matter to you — I decided to cover them in one shiny chapter. Consider this chapter a guide that demonstrates how you can remind, note, notify, map, and read like a true power user.

Remind Me to Use Reminders

In its simplest form, a *reminder* is just a short phrase or sentence. You don't need to look far to find the Reminders application on your MacBook. Just click the Reminders icon on the Dock to display the main window, shown in [Figure 7-1](#).

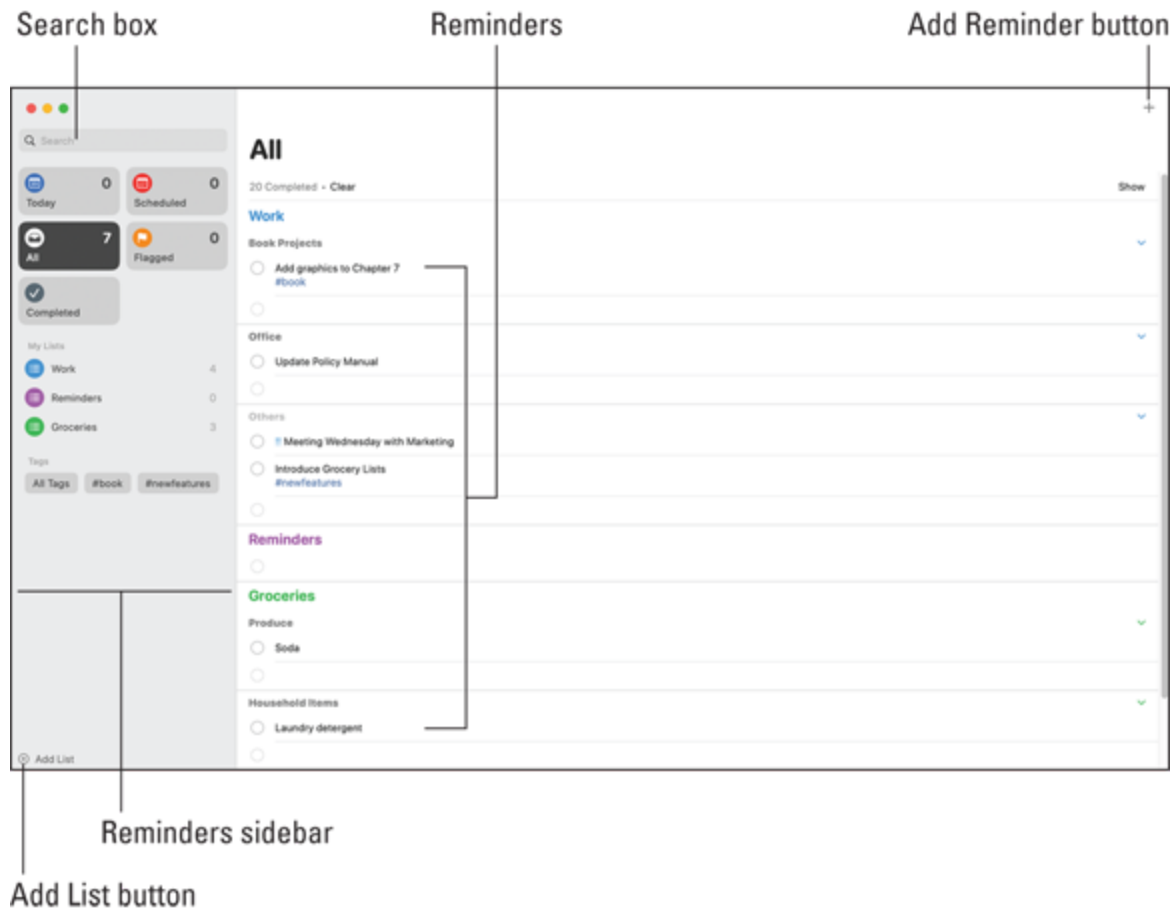


FIGURE 7-1: The main Reminders window in action.

These are the highlights of the Reminders window:

- » **Search box:** Click here and type a phrase or name to search for it among your reminders.
- » **Reminders sidebar:** You can add as many separate reminder lists as you like in the application (one for work, for example, and another for your Mac user group). In the sidebar, you can switch quickly among your lists.



TIP

You can hide or show the Reminders sidebar at any time using the View menu or by pressing ⌘ +Option+S. You save a significant amount of screen real estate when the display is hidden.

- » **Add List button:** Click this button (or press ⌘ +Shift+N) to add a new reminder list to the sidebar. The list name is highlighted in a text box, so you can simply type the new name and press Return.
- » **Reminders:** These entries are the reminders themselves. Each reminder is prefaced by a radio button; select the radio button when the reminder is complete, thereby moving that reminder automatically to the Completed list. And yes, if you click the Completed button in the sidebar and deselect the radio button for a reminder, it returns (like a bad penny) to the original list.
- » **Add Reminder button:** Click this button (or press ⌘ +N) to add a reminder to the selected list. Press Return afterward to save the reminder to your list.

Adding a reminder is straightforward. First, click an entry in the My Lists display or click the Today or Scheduled group and then click the Add Reminder button. (You can also click the blank reminder placeholder under a section heading.) Type a few words, and press Esc to create a basic reminder.



TIP

Click the File menu and choose New Section (or press the ⌘ +Option+N shortcut) to create a new section header in the current list. Section headings allow you to organize reminders by type.

Naturally, you're not limited to a simple text message! When you create a reminder, the application allows you to add notes, add a tag, link a location, or add a date to display a message. You can also hover your pointer over any existing reminder to display an Info button (the lowercase *i*-in-a-circle icon that appears at the right side of the entry). Click the Info button to display the Edit sheet, shown in [Figure 7-2](#).

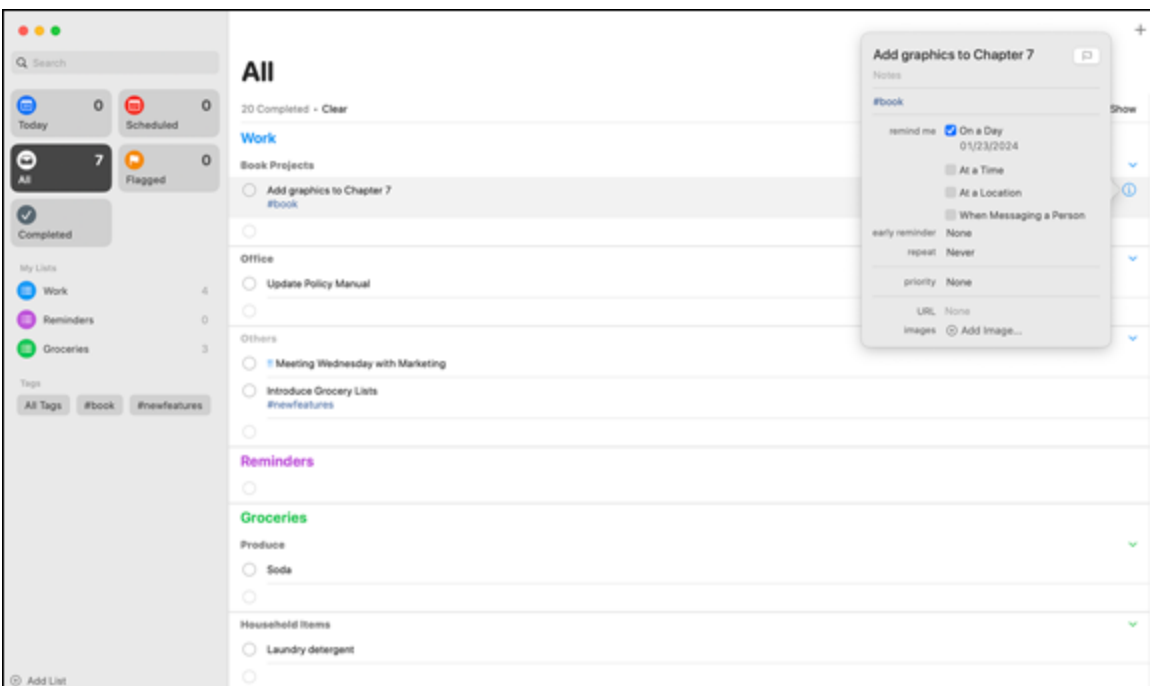


FIGURE 7-2: Editing a reminder.

These fields are on the Edit sheet:

» **Reminder text:** Click this text to edit the reminder text itself.

- » **Flag:** Click this button (bearing a flag icon) to add this reminder to your Flagged group. This button allows you to display just the flagged reminders you've created.
- » **Tags:** Click in this field to add one-word keywords that you can search on later, like "taxes" or "schoolproject." Reminders adds the "#" symbol in front of the tag, and you can choose from existing tags in future reminders.
- » **Notes:** Click the Notes label to enter a free-form text note along with the reminder.
- » **On a Day:** Select this check box if the reminder should appear in Notification Center on a particular day. By default, the date is the one selected when you created the reminder. You can click the Date and Time fields to change them.
- » **At a Location:** This feature is powerful. Select the At a Location check box and you can type an address in the Enter a Location field. Reminders monitor your current location on your iPad or iPhone by using Location Services. They notify you when you're leaving or arriving at that approximate location (and, optionally, on the date and time you specify in the On a Day field). You could create a reminder that notifies you on your iPhone when you're arriving at the mall on September 15 to pick up the watch that's being repaired. You can even specify that a reminder appear when you send a Message text to a specific person.
Shazam!
- » **Repeat:** If you select the On a Day check box, you can also set this reminder to repeat every day, week, month, or year at the same time.
- » **Priority:** You can assign one of four priorities to the reminder: Low, Medium, High, or None. Assigning a

priority prefaces the reminder text with one (Low), two (Medium), or three (High) blue exclamation points so that the reminder stands out from the crowd.

- » **URL:** Click this field and enter a web page to associate with the reminder. When the reminder is displayed, you can click this address to launch Safari and display that page.
- » **Images:** Click the Add Image button to browse your system for a photo to add to this reminder.

Click anywhere outside the Edit sheet when you've finished making changes. You can edit a reminder as often as you like. I sometimes need to change the date on a reminder multiple times as my schedule changes, for example.



TIP

To delete a reminder from the list, right-click it and choose Delete from the shortcut menu.

iCloud connectivity allows the Reminders application to share information with other Macs and iOS devices, as well as Microsoft Outlook on both PCs and macOS. To share reminders, click the System Settings icon on the Dock, click the Internet Accounts icon, and then click one of the accounts on the right side of the pane. If an account allows you to share data from the Reminders application — such as the iCloud account — you'll see a Reminders entry on the right side of the pane. (Note that you may have to click the Show More Apps button to see the Reminders entry.)



TIP

The Reminders application that comes with macOS Sonoma can even create an interactive grocery list! Add a new list using the button at the bottom of the Reminders sidebar and select Groceries from the List Type pop-up menu. Reminders will automatically create sections for you, like Produce and Household Items. Good going, Apple!

Taking Notes the Sonoma Way

Imagine a notepad of unlimited pages that's always available whenever you're around your MacBook, iPhone, or iPad. That's the idea behind Notes, and it's superbly simple. To open the macOS version of the application, click the Notes icon on the Dock. The window shown in [Figure 7-3](#) appears.

The salient stuff in the Notes window includes these items:

- » **Search box:** If you're hunting for a specific note, click this box and type a phrase or name to search for it.
- » **Folders sidebar:** You can create new folders to hold specific kinds of notes. In [Figure 7-3](#), for example, I added a Work folder. To add a new folder, choose File ⇒ New Folder or press ⌘ + Shift + N and type the new folder name. To switch between folders, display the Folders sidebar and click the desired folder. You can display or hide the Folders sidebar by clicking the

Show Folders button on the far-left side of the toolbar, or from the View menu.

- » **Notes list:** Each note you create appears as a separate entry in the list. You can click a note in the list to switch to it immediately.
- » **Create a Note button:** Click this button to add a new note. Notes uses the first line of text you type as the title of the note, which appears in the list.

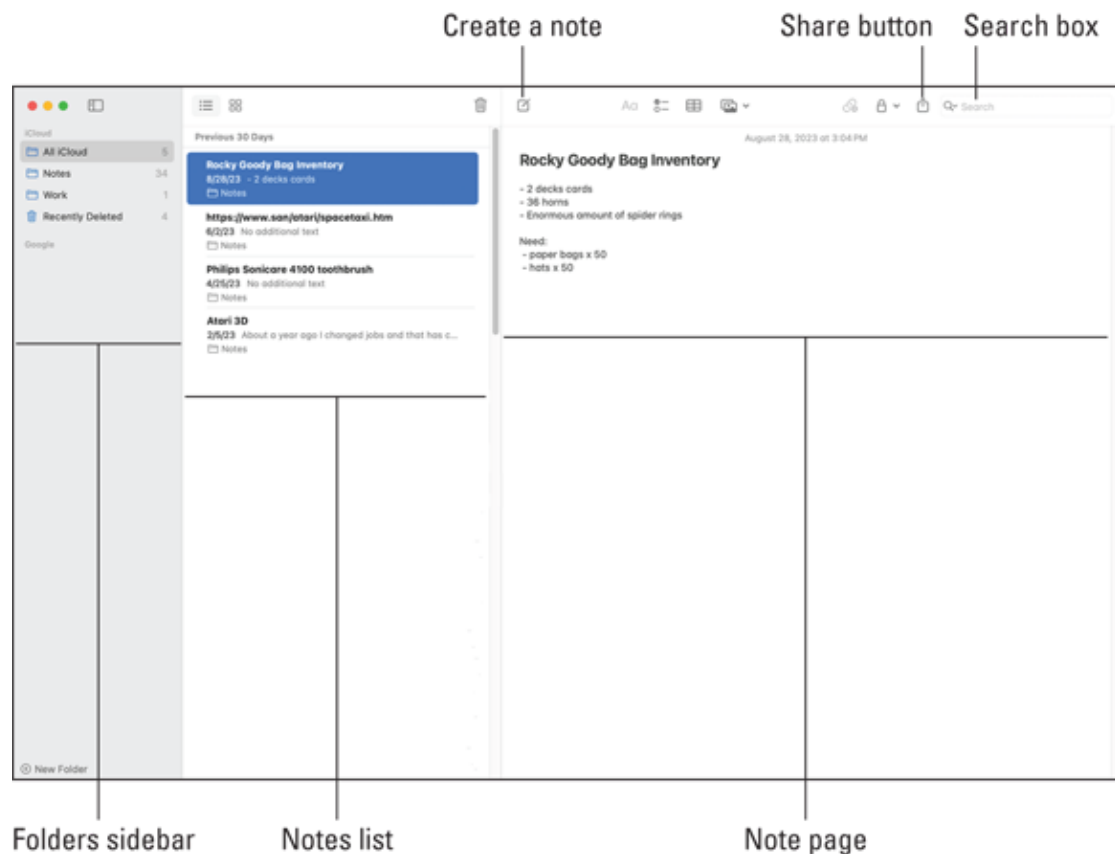


FIGURE 7-3: The notable Notes application window.

- » **Note page:** This free-form pane is where you type the body of your note. You can also drag images from a Finder window to include them in the body of the note, or embed PDF and audio files by dragging them from a Finder window as well. The Photos Browser, available

from the Notes toolbar, makes it easy to add images from your Photos library.

- » **Share button:** Got a shopping list to distribute? Open this pop-up menu to share the contents of the current note, just like the Share button that appears on the Finder window's toolbar. Sharing options can include a new email message, a new message in the Messages application, and exchanging information with another device via AirDrop.

To edit a note, click it to select it in the Notes list and then simply make your changes or additions on the note page. You can format the text from the Format menu, choosing everything from fonts and colors to bulleted and numbered lists. Toolbar buttons make it simple to add a checklist (complete with fancy controls that you can click to mark something completed), add a table or lock specific notes with a password.

To delete a note you no longer need, right-click it in the Notes list and choose Delete from the shortcut menu. The application moves the note to the Recently Deleted folder, where it can be retrieved for up to 30 days.



TIP

You can pin a note to the top of the Notes list to make it more visible; the note stays anchored to the top of the list whenever it's visible. Right-click the desired note in the list and choose Pin Note from the shortcut menu (or choose Unpin Note to return the note to regular status).

As mentioned earlier, a note can include tables to help organize your data, much like the Pages application! Click the Table button on the Notes toolbar to create a default table (two columns and two rows); then click the

first field and begin typing. Press Tab to continue to the next field in the table. To create a custom table, click within a cell (or select the table as a whole) and click the row and column controls that appear to specify the number of rows and columns.

Like Reminders, the Notes application can share information with Macs and iOS devices, as well as with Microsoft Outlook on both Macs and PCs. The process is the same as the Reminders application: Open System Settings and click the Internet Accounts icon; then click the desired account on the right side of the pane.

Accounts that support sharing data from Notes display a Notes check box on the right side of the pane (although you may have to click the Show More Apps button to see it). Imagine all the sundry things you include in a class project — notes, photos, charts and tables — all in one convenient location!



TIP

Need an extra layer of security for your notes? The application allows you to lock your notes to keep them private, requiring a password to view them. Click Notes ⇒ Settings and click Set Password, then enter your password twice and click the Set Password button. (MacBook keyboards with a Touch ID sensor can unlock notes with a fingerprint! Click Use Touch ID to start the ball rolling.) After your password or Touch ID is set, you can select a note in the list and click the Lock icon that appears in the Notes toolbar to lock it, which places a tiny lock icon next to the note's title. You can also right-click the note in the Notes list and choose Lock Note or Unlock Note.

Staying Current with Notification Center

Unlike Reminders and Notes, Notification Center isn't an application that you launch. Instead, the Notification Center appears at the far-right end of the Sonoma Desktop. It's always running, and you can display or hide the Notification Center at will.

Click the clock display (or, if you're using the trackpad, swipe with two fingers from the right edge to the left) to display your notifications. These notifications can be generated by a host of Sonoma applications and functions, including Calendar, Mail, FaceTime, Reminders, Game Center, Photos, Messages, Safari, Facebook, and even the Mac App Store. Third-party applications can also generate notifications.

The Notification Center displays all sorts of information that specifically applies to today's date (as shown in [Figure 7-4](#)), including Calendar events, Reminders, the current weather, and the latest stock figures. (In fact, the Notification Center actually scrolls vertically to show you more content.) You can specify what information is displayed by clicking the Edit Widgets button at the bottom of the Notification Center (as shown in [Figure 7-4](#)). To switch back to Notifications view, click the Done button that appears at the bottom of the Edit Widgets view.

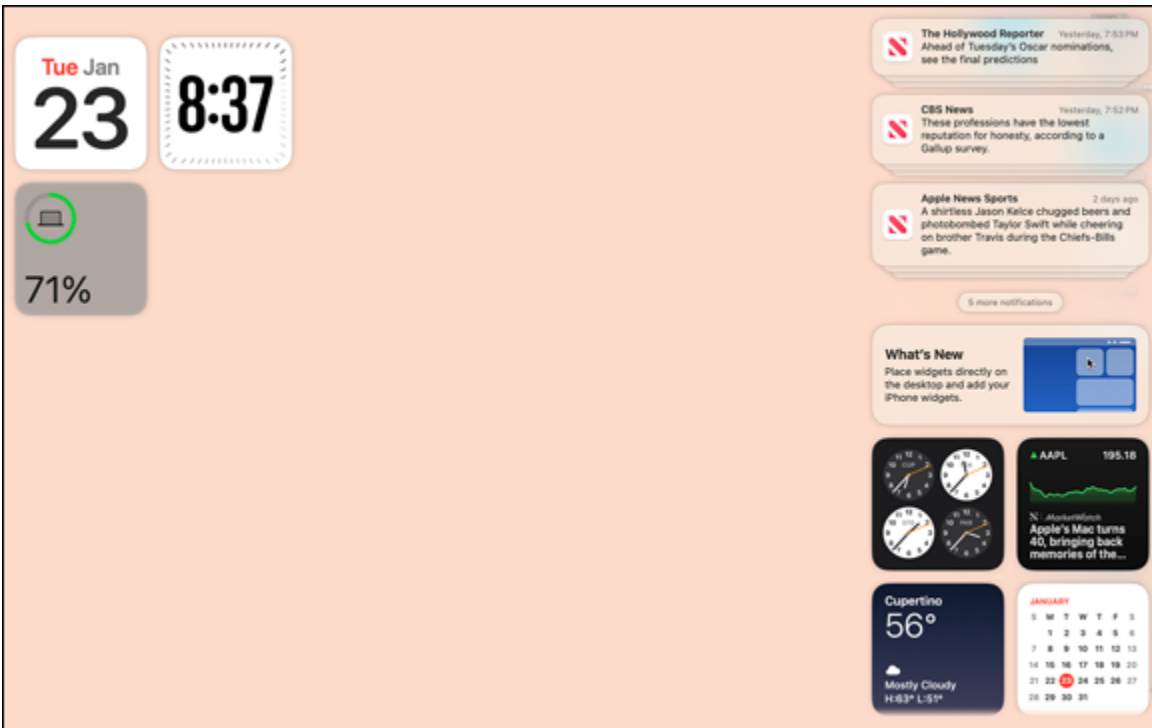


FIGURE 7-4: Notification Center muscles your Desktop to the side.

I love how Notification Center doesn't interfere with open applications; it simply moves the entire Desktop to the left so that you can see the Center. You can close Notification Center at any time by clicking anywhere on the Desktop to the left, clicking the clock display on the Finder menu bar again, or swiping two fingers across the trackpad in the opposite direction.

Notification entries that appear in Notification view are grouped below the application that created them. You can delete many entries from Notification Center by clicking the Delete button that appears next to the application heading (which bears an X symbol). Other entries, such as Calendar alerts, remain in Notification Center until the event has passed.

But wait — there's more to Notification Center than a strip of widgets! Depending on the settings you choose, notifications can also appear without Notification Center's being open at all. These notifications are

displayed as pop-up *banners* (which disappear in a few seconds) and *alerts* (which you must dismiss by clicking a button).



TIP One of the best new features in macOS Sonoma is the ability to drag widgets from your Notification Center (or from the Edit Widgets sheet) directly to your macOS Desktop! Sonoma automatically groups the widgets you've chosen and displays them whenever your Desktop is visible. Naturally, if you maximize an application window or switch to full screen, your Desktop widgets obligingly give up that screen real estate until you close the application.

Sonoma can also allow *actions* in notifications. Depending on the application or function that generates the notification, you may see buttons on a banner or an alert that allow you to take care of business (without requiring the application to be running). If a new email message is received in Apple Mail, for example, you can choose to reply to or delete the message. Websites can display updates as notifications, and you can answer a FaceTime or an iPhone call directly from the notification.



TIP You can configure the notifications for all your applications from the Notifications pane in System Settings. You can find details on the Notifications pane in [Chapter 5](#).

Introducing the Maps Application

If you own an iPad or iPhone, prepare yourself for a joyful state: Your beloved iOS Maps application also resides on your Dock! As long as you have a connection to the internet, Maps is ready to display locations, provide directions, and even supply informal views of important sites worldwide. (Recognize the grand dame in [Figure 7-5?](#))

Displaying an overhead view of an address is one of the simplest chores in all of macOS. In the Maps window, just click the search box at the top of the Maps sidebar, type the address, and press Return. Maps displays the address with a red pushpin to help you locate it.



TIP

Depending on the location you've chosen, you may also see a pop-up Info dialog that provides additional information, including convenient buttons that display the directions to that spot from your current location (or allow you to create your own route).

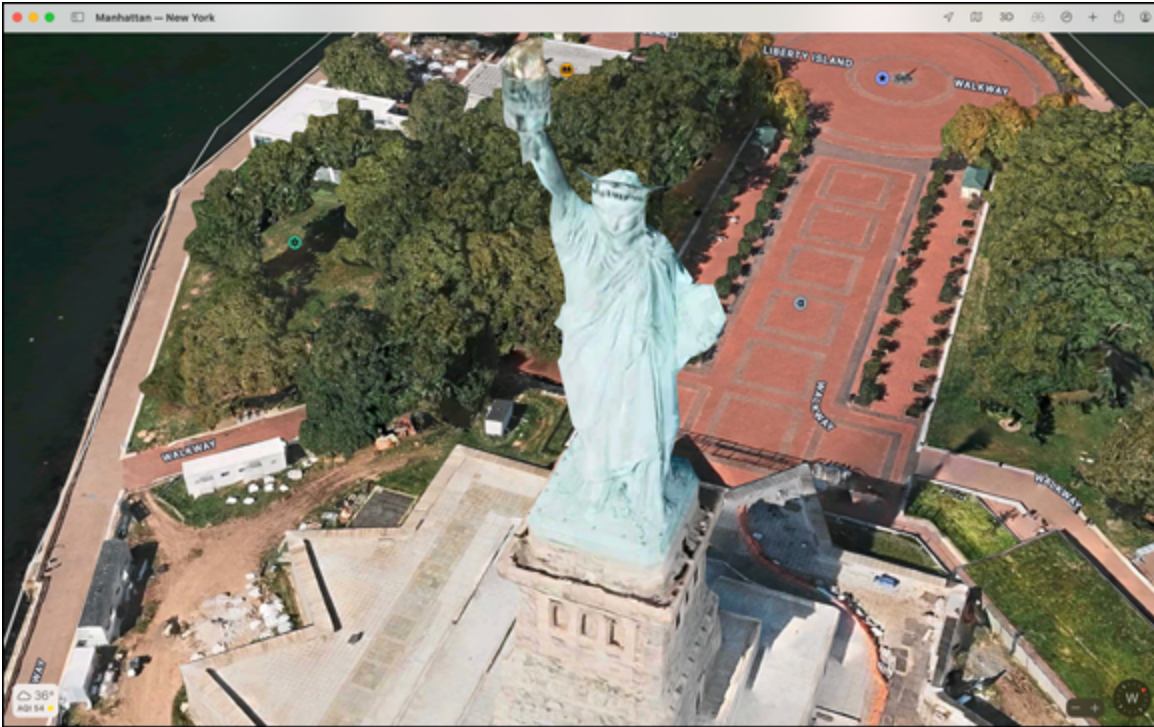


FIGURE 7-5: The Statue of Liberty shines in the Maps application.



TIP If you're in range of a Wi-Fi signal and have Location Services turned on, you can quickly map your current location by choosing View ⇒ Go to Current Location or pressing ⌘ +L.

Ah, but why stop with a simple address? You can also enter the following types of information:

- » The name of a landmark, monument, or building (such as *Statue of Liberty*).
- » The name of a business or restaurant (or even a genre of food, such as *Chinese*) followed by the city name. Maps displays matching sites with icons, complete with reviews, and you can click any of the locations to find more information on a location. [Figure 7-6](#) illustrates a search for *pizza* in my hometown of

Columbia, Missouri. You see the Info pop-up window that appears when I click a restaurant's icon, complete with a link to the website and reviews aplenty. (Note that multiple locations in the same general area will display a number icon.)

- » Attractions and services, followed by the city name. You can search for a gas station, movie theater, or local park.



TIP If you need to zoom in or zoom out on a Maps display, use the scroll function on your pointing device, click the plus and minus buttons in the bottom-right corner of the Maps window, or press the ⌘ +plus and ⌘ +minus shortcuts. To move around the Maps window, click and drag the map in the desired direction.

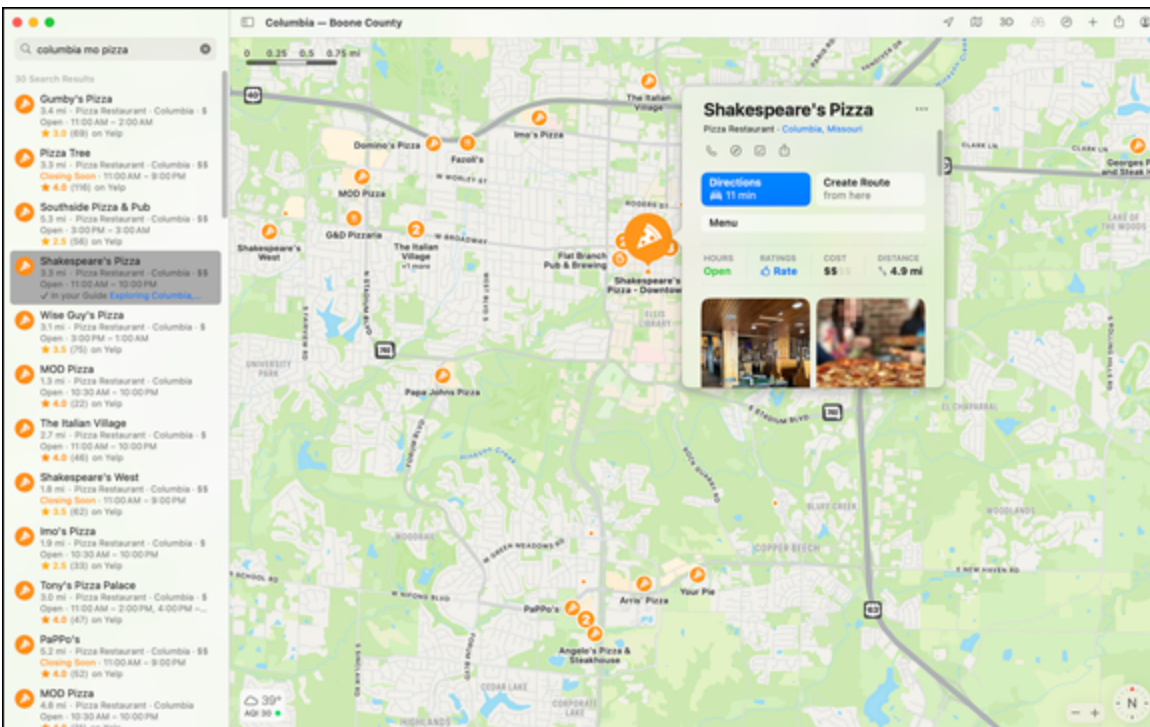


FIGURE 7-6: Looks like this pizza joint is highly rated.



TIP

Teachers and parents, take note: A virtual flyby of a famous site in Maps is a valuable (and cool) resource. Look for a Flyover Tour option in the Info panel when you're viewing famous tourist sites!

Switching Views in Maps

A traditional printed map offers you only one view, which may be perfectly fine for determining a route but provides no visual interest. (The word *banal* comes to mind.) Maps, on the other hand, offers four types of views, each of which offers certain advantages:

- » **Explore mode** is a familiar line map with streets and highways marked, including major buildings and landmarks.
- » **Driving mode** is best for planning a road trip, with real-time indicators of current traffic density.
- » **Satellite mode** is a photographic overhead view without streets or highways marked, which is great for getting panoramic views of your neighborhood or a location and its surroundings.
- » **Transit mode** displays public-transportation routes and bus, subway, and train schedules. Note, however, that Transit information isn't available in every location.

To select your view, click the Map Mode Menu button in the toolbar (it resembles a folded map) or press ⌘ +1 for Explore mode, ⌘ +2 for Driving mode, ⌘ +3 for Transit mode, or ⌘ +4 for Satellite mode. [Figure 7-5](#), shown

earlier, illustrates Satellite view, whereas [Figure 7-7](#) shows off the same location in Explore view.

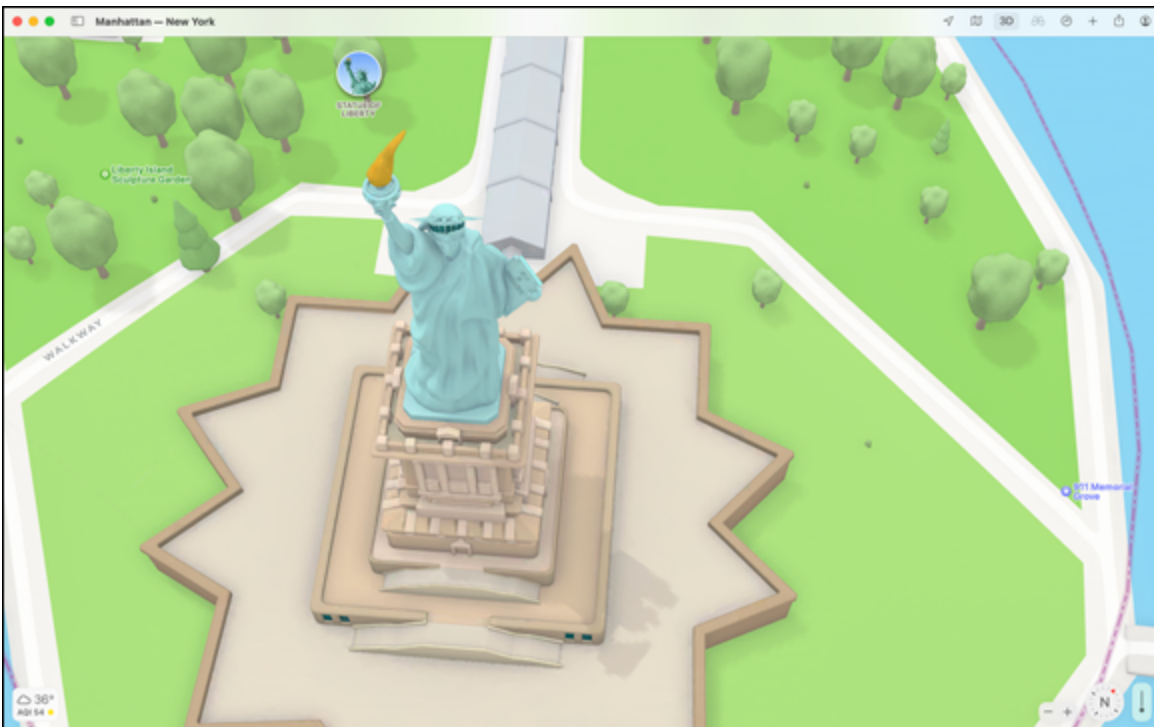


FIGURE 7-7: Explorer view reminds me of an auto GPS unit.



TIP

Have I mentioned the 3D map yet? No special glasses are required! For additional visual thrills, you can angle the Maps display with a slight 3D effect — nothing quite as grand as a 3D TV, but it does help add depth to Satellite view. To toggle 3D, press $\text{⌘} + \text{D}$ or click the 3D Map icon in the toolbar.



TIP

By default, Maps is oriented with north at the top of the screen, but if you need to change the orientation, click the red compass arrow in the bottom-right corner of the screen and drag it in the desired direction. To return to having north at the top of the screen, choose View ⇒ Snap to North.

Getting Directions Over Yonder

My primary use for a map is to get directions from one point to another, and Maps doesn't disappoint when it comes to navigation. Click the Show Directions button in the toolbar (which looks like an arrow in a circle) to display the panel you see in [Figure 7-8](#), and you're ready to plot your course.

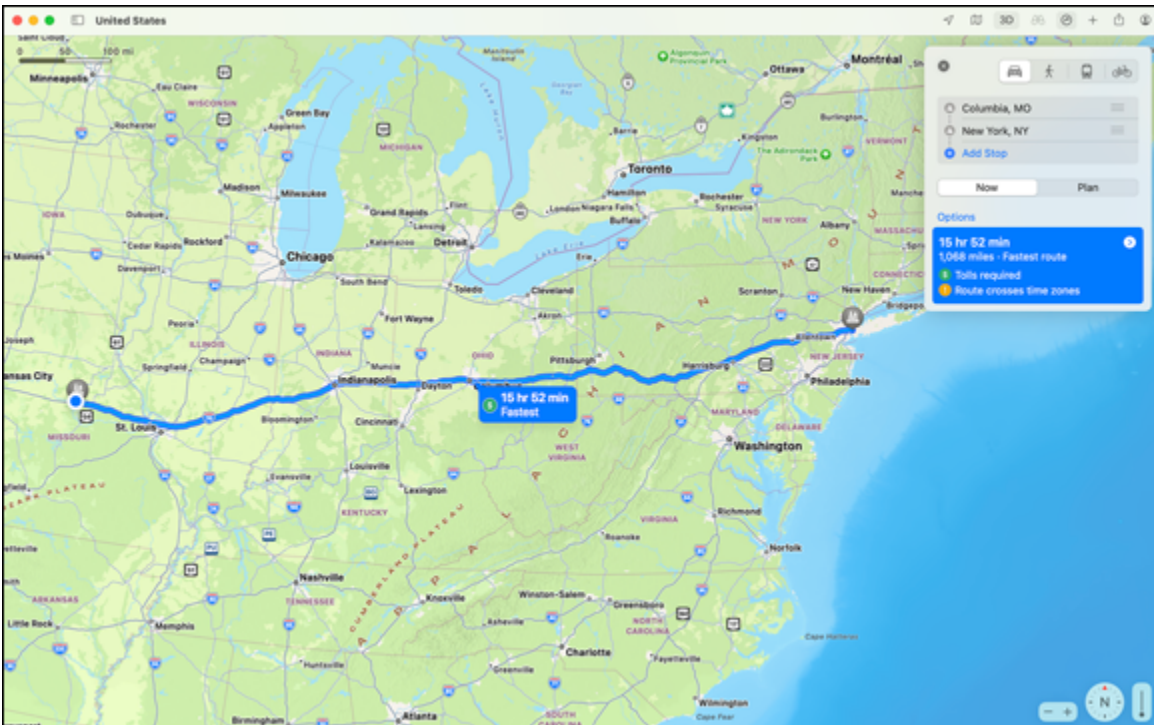


FIGURE 7-8: The Directions panel is ready to provide directions to your next crawfish boil.

Follow these steps to get directions between two addresses:

1. In the From box, type the starting address.

As you type, Maps provides a pop-up list of suggestions taken from your recent locations, as well as addresses from your Contacts database and matching streets from around the globe. To choose one of these suggestions, just click it. To clear the contents of the field, click the X button that appears on the right side of the box.

2. Click in the To box and type the destination address.

Note that your destination doesn't have to be a specific address. **Memphis, TN**, for example, works just fine. Maps displays a list of possible locations as you type, and you can click any suggestion to select it. If you enter the destination manually, press Return.

3. Maps displays the suggested route. Note the four buttons at the top of the panel; you can click the Drive button for road directions, click the Walk button for walking directions, click the Bicycle icon for cycling directions, or display mass-transit information by clicking the Transit button.

Maps usually offers more than one route for your trip. The first route provided is typically the fastest or shortest, and it appears in bright blue. To view one of the other routes, click a light-blue line, which turns bright blue to indicate that now it's the selected route. (You can see the approximate mileage and time for the selected route in the Directions panel.) Click the arrow next to

the option you prefer and you'll see a turn-by-turn list that provides the approximate mileage for each leg of the journey.

You can easily print the route map and directions by choosing File ⇒ Print (or pressing ⌘ +P) and then clicking the Show Details button at the bottom of the Print sheet to display all the options.



TIP If you'd rather create a PDF document with your map and directions, choose File ⇒ Export As PDF.

Finally, Maps allows you to share your maps and directions by using Mail, Messages, Notes, Reminders, or AirDrop, as well as to send the information directly to your iOS devices. Click the Share button at the far-right side of the Maps toolbar and then choose the desired sharing method.

Creating and Using Guides

How many times has a friend or member of your family asked you for an informal “itinerary” to a city or tourist attraction that you know well? Or perhaps you've arrived as a stranger to a big city, wondering where to go and what to do. With the Guides feature in Maps, you have an expert travel resource handy whenever your MacBook is near — and you can even create your own Guides for others to use!

As an example, say that you've just arrived in New York City and can't wait to explore the Big Apple. Sure, everyone is familiar with Times Square, the Empire State Building, and the Statue of Liberty, but what else should you see? With Maps, just enter **New** in the search box

and click New York, NY in the list of results. Maps displays New York City and its surroundings, along with the Info panel. Scroll down just a bit in the Info panel and you'll see some of the top Guides for New York City — in this case, “Your NYC Winter Bucket List” and “Must-Book Restaurants in NYC,” as shown in [Figure 7-9](#). To view all the Guides available for a location, click the Forward and Back arrow icons next to the Guides section. After you've found the Guide that catches your interest, click the thumbnail to display it.

Creating your own Guide is just as easy! You'll notice a heading in the Maps sidebar named My Guides — hover your pointer over the heading to display the Add Guide button, which bears a plus sign (+). Click the Add Guide button to display the New Guide panel. Here, you can enter a name for your Guide and select an image (or key photo) to appear with the Guide. Press Return to add the Guide to the sidebar.

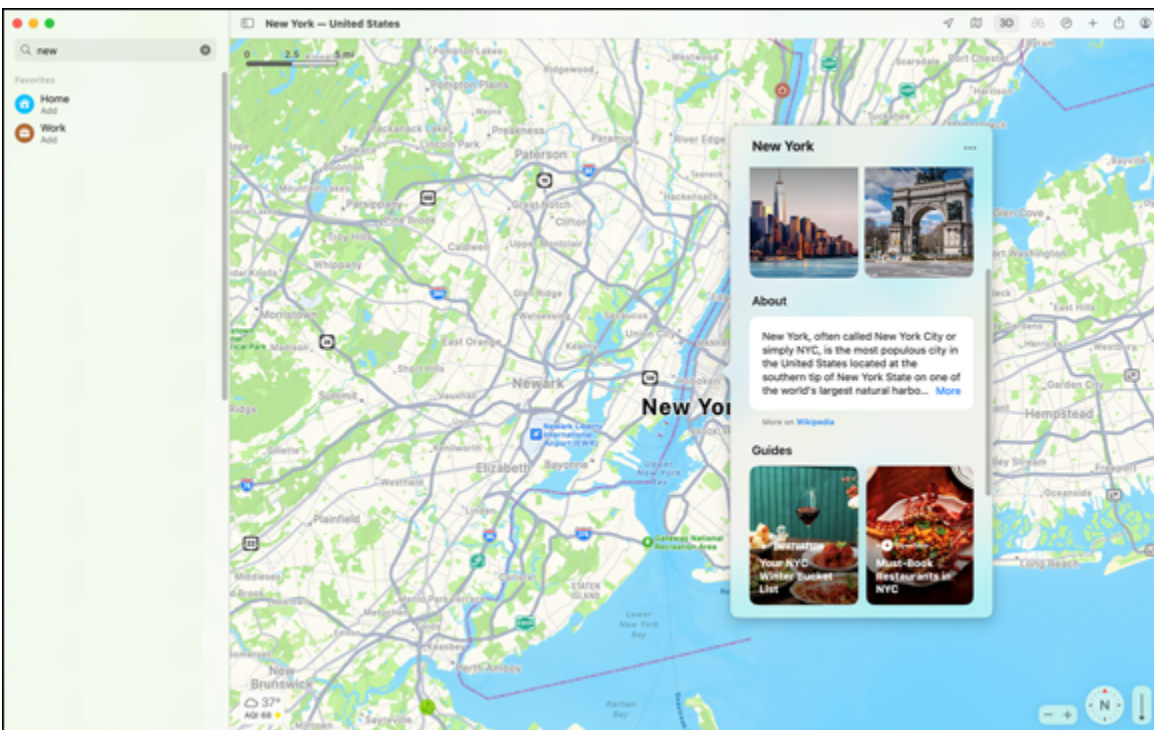


FIGURE 7-9: Here's a Guide for the best eating in the Big Apple.

Now comes the fun part: Use the search box to locate a specific location that you want to add to your Guide, whether it be a restaurant, hotel, or landmark. On the Info panel for that location, click the ellipsis icon (the three dots at the upper right of the panel), choose Save to Guide, and click the name of the Guide you just created. Note that the entry for your Guide now indicates that the Guide includes one place, and Maps will keep track of how many places you include.



TIP To share a Guide with others, click the Guide entry in the sidebar and then click the Sharing icon in the Maps toolbar. You can send a link to your Guide via Messages, Mail, Notes, Reminders, or by using AirDrop.

Catching Up on News

Are you a current events junkie like I am? Before the arrival of the internet, I used to remain glued to my TV, absorbing the latest information from the news channels — heck, I even subscribed to an old-fashioned *newspaper!* (To be honest, I still do, but it's the online edition of my hometown paper.) If news is your passion, let me introduce you to Sonoma's News app, shown in [Figure 7-10](#).

The News window includes a number of items to help in your perusal:

- » **Toolbar:** This familiar strip of buttons allows you to share stories and mark favorites with a single click.

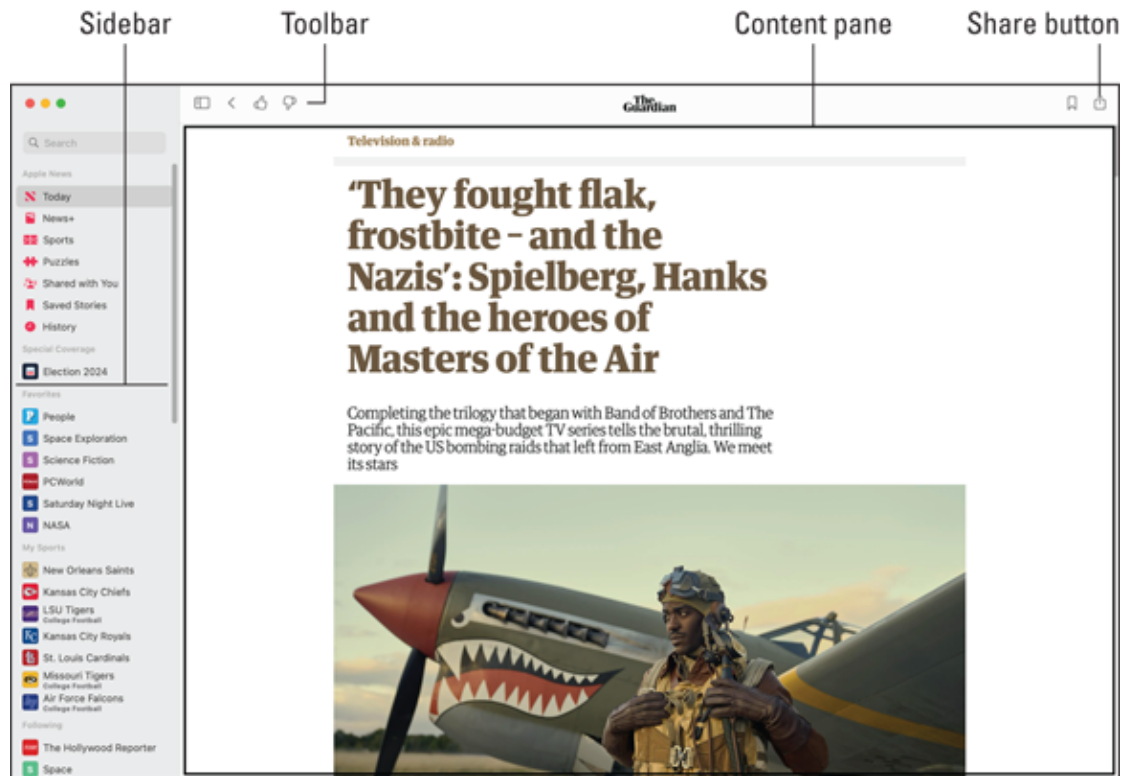


FIGURE 7-10: All the news that fits, News displays!

- » **Sidebar:** The News sidebar makes it easy to navigate among topics, news sources, and stories you’ve saved. You can display or hide the sidebar from the View menu, or you can click the Show/Hide Sidebar button in the toolbar.



TIP

Although the items in the sidebar change over time (as News “learns” your preferences and you add channels), you can right-click most of the entries and choose Unfollow Topic to remove items whenever you like. (Note that some items are included by News automatically and can’t be removed.)

- » **Content pane:** Here’s where News displays its content. Similarly to a web page in Safari, you can click an item title or accompanying image to load the

entire story. When a single story occupies the Content pane, you can click the left arrow icon at the far-left side of the toolbar to return to the item list.

- » **Share button:** If you'd like to share a link to the displayed story within a Mail message, social media post, or a Message, click the Share button to display the pop-up menu. You can also create a new Reminder or Note from the story. (The Share button appears only when you're reading a story.)



TIP Are you rushed for time? To save a story you're reading in the sidebar for later, press ⌘ +S. News adds the story under the Saved Stories heading in the sidebar.

Using Favorites and Channels

As I mention earlier, News actually “learns” what type of stories you like as you use it and will present stories that it thinks will interest you in the sidebar (under the “Suggested by Siri” heading). However, there are two News features that help you focus even more on certain topics and news sources: *favorites* and *channels*.



REMEMBER Many channels require that you pay a subscription fee (either through Apple or the provider themselves) before you can view the content — for example, *The Wall Street Journal* and *Wired* magazine. Of course, you can always find plenty of

free content within News, but don't be surprised if a premium channel is off-limits unless you subscribe! Depending on the Apple services you subscribe to, you may also be able to read digital versions of print magazines!

Within News, you can specify a news source as a channel, such as *Bloomberg* or *BBC News* — they will appear in the News sidebar. To choose channels, click File on the News menu bar and click Discover Channels. When you see a news source or a topic you'd like to monitor, click the Add button (which bears a plus sign) to change it to a red check mark. After you click Done, you see that your channel selections are added to the sidebar under the "Following" heading. To stop following a channel, right-click the channel entry in the sidebar and choose Unfollow Channel.



TIP News allows you to mark a specific channel as a favorite, indicating that you'd like to see more stories covering similar subjects. To mark a channel as a favorite, right-click that channel in the News sidebar and choose Add to Favorites, which will install that channel comfortably under the Favorites heading in the sidebar.



TIP If you'd like to block all the stories from a specific channel, right-click that channel's entry in the sidebar and choose Block Channel. You can manage your Block list from the File menu.

Part 3

Connecting and Communicating

IN THIS PART ...

Surf the web with ease using Apple's Safari browser.

Sync documents and data automatically using iCloud.

Share your laptop with other users safely.

Join or create a wireless network with your MacBook.

Use snazzy features like PhotoBooth, FaceTime, instant messaging, and screen sharing.

Chapter 8

Let's Go on Safari!

IN THIS CHAPTER

- » **Introducing the Safari window and controls**
 - » **Visiting websites and moving between sites**
 - » **Configuring a home page and Start Page**
 - » **Bookmarking, downloading, surfing, and printing web pages**
 - » **Protecting your privacy on the web**
-

I proudly surf the web via a lean, mean — and *fast* — browser application. That's Safari, of course, and it keeps getting better with each new version of macOS. Safari delivers the web the right way, without the wait. You'll find that features have been added to Safari that no other browser offers, such as the Reading List, which allows you to easily select articles and pages for later perusal.

If you need a guide to Safari, this chapter is yours. Sure, you can start using Safari immediately, but wouldn't you rather read a few pages so that you can surf like a power user?

Within these pages, I show you how to use those other controls and toolbar buttons in Safari — you know, the ones in addition to the Forward and Back buttons. You discover how to keep track of where you've been and where you'd like to go.

Pretend You've Never Used This Thing

Figure 8-1 illustrates the Safari window. You can launch Safari directly from the Dock, or you can click the Safari icon in Launchpad.

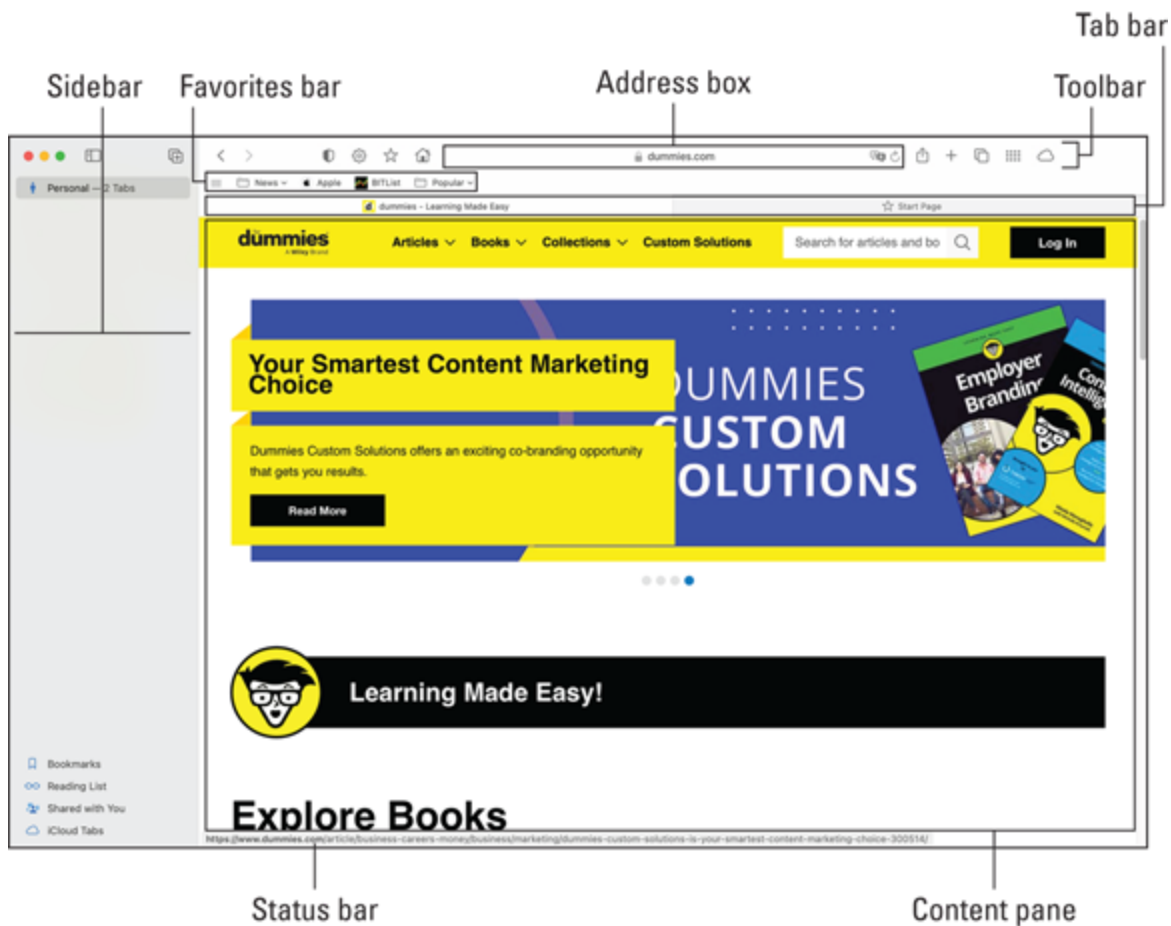


FIGURE 8-1: Safari at a glance.

These are the major sections of the Safari window:

- » **The toolbar:** Here are the most-often-used commands for tasks such as navigation, sharing content, and searching Google (or Yahoo!, or DuckDuckGo, or Bing). Also, here is where you can

type or paste the addresses of websites that you'd like to visit. (Note that the toolbar can be easily customized, so your toolbar icons will likely differ from those I use, shown in [Figure 8-1](#).)

- » **The Favorites bar:** Consider this bar to be a toolbar that allows you to jump directly to your favorite websites with a single click (or two). I show you later, in the section "[Adding and Using Bookmarks](#)," how to add sites to and remove sites from your Favorites bar. For now, remember that you can toggle the display of the Favorites bar by choosing View ⇒ Hide/Show Favorites Bar or pressing ⌘ + Shift + B.
- » **The Tab bar:** This toolbar allows you to quickly switch among multiple web pages that you've loaded, using what appear to be old-fashioned file-folder tabs (something familiar; familiar is good.) You can pin sites to the Tab bar permanently (see the sidebar "[Power users pin sites](#)," later in this chapter).
- » **The sidebar:** The sidebar pane allows you to organize and read your bookmarks, Reading List, and shared links. To hide or display the sidebar, click the Show/Hide Sidebar button at the far left side of the toolbar. (You can also choose View ⇒ Hide/Show Sidebar or press ⌘ + Shift + L.)
- » **The Content pane:** Congratulations! At last, you've waded through the pregame show and reached the area where web pages are displayed. The Content pane can be scrolled, and when you minimize the Safari window to the Dock, you get a *thumbnail* (minimized) image of the Content pane.



TIP

The Content pane often contains underlined text and graphics that transport you to other pages when you click them. These underlined words and icons are *links*, and they zip you right from one area of a website to another area (or to a different site altogether). You can tell when your pointer is resting on a link because it changes to that reassuring pointing-finger hand. Handy! (Sorry about that.)

- » **The Status bar:** The Status bar displays information about what the pointer is resting on, such as the address of a link or the name of an image; it also updates you about what's happening while a page is loading. To hide or display the Status bar, choose View ⇒ Hide/Show Status Bar or press ⌘ +/- (forward slash).

Visiting Websites

Here's the stuff that virtually everyone over the age of five knows how to do ... but I get paid by the word, and some folks might not be aware of the many ways to visit a site. You can load a web page by using any of these methods:

- » **Type (or paste) a website address in the Address box on the toolbar and press Return.** If you're typing an address, and Safari recognizes the site as one that you've visited in the past, it "helps" by autocompleting the address for you. Press Return if you want to accept the suggested site. (That's about as simple as life gets.) If the site is a new one, just keep typing.

The Safari Address box also acts as a *smart address* field, displaying a new pop-up menu of sites that match the text you enter. Safari does this by using sites taken from your History file and your bookmarks, as well as sites returned from Google, Yahoo!, DuckDuckGo, or Bing. If the site you want to visit appears in the list, click it to jump there immediately.

- » **Click a Bookmarks or Favorites entry.** Bookmarks appear in the sidebar and on the Bookmarks menu, whereas Favorites appear on the Favorites bar.
- » **Click a tab for a pinned site.** Pinned tabs appear as icons at the left end of the Tab bar.
- » **If the Home button appears on your toolbar, click the button to go to the home page that you specify.** Read more on this in the upcoming section [“Configuring Your Home Page and Start Page.”](#)
- » **If the Start Page button appears on the toolbar, click it to open the Start Page display.** Safari displays a wall of page icons from your Favorites, your most frequently visited sites, your Reading List, suggestions from Siri, and your iOS shared bookmarks. You can jump to a site by clicking the desired icon.
- » **Click an item you saved earlier in the Reading List.** To display items in your Reading List, click the entry bearing the eyeglasses icon at the bottom of the sidebar.
- » **Click a page link in Apple Mail or another internet-savvy application.** These links are typically highlighted or underlined to make them easier to see.



WARNING **Never** click a link in an email or open an attachment unless you know and trust the sender!
Seriously.

- » **Click a page link on another web page.** By default, Safari opens the new page in a separate tab.
- » **Select a web address in a document, right-click the selection, and choose Services ⇒ Open Page in Safari.** Safari automatically loads and displays the page.
- » **Type a search term in the Address box.** By default, Safari uses Google as a search engine, but you can also use Yahoo!, Bing, DuckDuckGo or Ecosia if you prefer. To set the default search engine, choose Safari ⇒ Settings; then, on the Search tab of the Settings dialog, make a choice from the Search Engine drop-down list. (You can switch to another engine by clicking the magnifying-glass icon that appears before you start typing in the Address box.)

Click the Address box, type the contents that you want to find, and press Return. Safari presents the search results page in Google for the text you entered. (In case you've been living under the internet equivalent of a rock for the past several years, *Google* (www.google.com) is the preeminent search site on the web. People use Google to find everything from used auto parts to ex-spouses.) Of course, if you've chosen a different default search engine, Safari displays results from that engine instead.

- » **Click a Safari page icon on the Dock or in a Finder window.** Drag a site from your Favorites bar (or drag the icon from the left side of the Address

box), and drop it at the right end of the Dock. Clicking the icon that you add launches Safari and automatically loads that site.



TIP

This trick works only on the end of the Dock to the right of the vertical line.

If you minimize Safari to the Dock, you'll see a thumbnail of the page with the Safari logo superimposed on it. Click this thumbnail on the Dock to restore the page to its full glory.



TIP

Speaking of full glory, Safari supports the same full-screen mode as many other Sonoma applications. Click the Zoom/Full Screen button in the top-left corner of the Safari window to switch to full-screen mode, or press the **Fn**+**F** shortcut (a good shortcut to memorize because it works with virtually all Sonoma-compatible applications). To make things convenient for you, the toolbar, Favorites bar, and Tab bar remain. To exit full-screen mode, press **Esc** or the **Fn**+**F** shortcut again.

Navigating the Web

A typical web-surfing session is a linear experience. You hop from one page to the next, absorbing the information you want and discarding the rest. After you visit a few sites, however, you may find that you need to return to where you've been or head to the familiar ground of your home page. Safari offers these navigational controls on the toolbar:

- » **Back:** Click the Back button (the left-facing arrow) on the toolbar to return to the last page you visited. Additional clicks take you to previous pages, in reverse order. The Back button is disabled if you haven't visited at least two sites.
- » **Forward:** If you've clicked the Back button at least once, clicking the Forward button (the right-facing arrow) takes you to the next page (or through the pages) where you originally were, in forward order. The Forward button is disabled if you haven't used the Back button and haven't navigated to another page.



TIP

Safari supports several trackpad gestures. You can scroll in either direction with two fingers to move backward and forward, for example, just as you'd move with the Forward and Back buttons. To zoom in and out on the Content pane, you can double-tap the trackpad or pinch with two fingers — yes, just like on an iPhone. (Ever get the notion that someday we'll have a single box called "The Device" that does it all?)

- » **Home:** Click this button (look for the little house) to return to your home page.



REMEMBER Not all these buttons and controls may appear on your toolbar; you may not see many of these toolbar controls unless you add them yourself. To display or hide toolbar controls, choose View ⇒ Customize Toolbar. The sheet that appears works just like the Customize Toolbar sheet in a Finder window: Drag the control you want from the sheet to your Safari toolbar, or drag a control that you don't want from the toolbar to the sheet. As with most buttons and controls in Mac applications, if you hover your pointer over an unfamiliar button on the toolbar, Safari displays a tooltip to identify the button for you.

- » **Show/Exit Tab Overview:** A click of this toolbar button displays all the tabbed sites you've opened, as well as the iCloud tabs from Safari on your other Macs, PCs, and iOS devices.
- » **AutoFill:** If you fill out lots of forms online — when you're shopping on websites, for example — you can click the AutoFill button (which looks like a little text box and a pen) to complete these forms for you. You can set what information is used for AutoFill by choosing Safari ⇒ Settings. Click the AutoFill toolbar button at the top of the Settings dialog to specify the information Safari will automatically insert in forms.



WARNING To be honest, I'm not a big fan of *automatically* releasing *any* of my personal information to *any* website, so I don't use AutoFill. If you do decide to use this feature, make sure that the connection is secure (look for the padlock icon in the Address box), and read the site's Privacy Agreement page first to

see how your identity data is treated. *Never* enter credit-card numbers or personal information on a website without a secure connection!

- » **Start Page:** Click this button to display the Start Page screen, which I discuss earlier. If you're having trouble finding it, the button bears a tiny, fashionable grid of squares.
- » **Zoom:** Shrink or expand the text on the page, offering smaller, space-saving characters (for the shrinking crowd) or larger, easier-to-read text (for the expanding crowd). To do so, click one of the Zoom buttons, which are labeled with a small and large letter A, respectively. (From the keyboard, you can press ⌘ += (equal sign) to expand and ⌘ + - (hyphen) to shrink.)



TIP

To return to the actual size display (without any zoom at all), press ⌘ +0.

- » **Bookmarks:** Click this button (which carries the star icon/Favorites symbol) to display or hide the Favorites bar.
- » **Stop/Reload:** Click Reload (a circular arrow in the Address box) to *refresh* (reload) the contents of the current page. Although most pages remain static, some pages change their content at regular intervals or after you fill out a form or click a button. By clicking Reload (look for the curved arrow in the Address box), you can see what's changed on these pages. (I use Reload every hour or so on CNN.com, for example.) While a page is loading, the Reload button turns into the Stop button — with a little X mark — and you can click it to stop the loading of the content from the current

page. This feature is a real boon when a download takes *foorrevvrr*, which can happen when you're trying to visit a popular or slow website. Using Stop is also handy if a page has very large graphics that are likely to take a long time to load.

- » **Sidebar:** Click this toolbar button at the left end of the Address box to hide or display the Safari sidebar. You'll find the complete description of the sidebar in the upcoming sections "[Adding and Using Bookmarks](#)" and "[Working with the Reading List](#)."
- » **History:** Click this button, which bears a clock symbol, to display or hide the History list, which I discuss in "[Using History](#)," later in this chapter.
- » **Mail:** Click this button (bearing an envelope icon) to send an email message with a link to the current page, just as though you clicked the Share button and chose Email This Page from the drop-down menu. Safari automatically opens Apple Mail (or your default email application) and creates a new message with the link already in the body. *Shazam!* Note that the Mail button may not work with all web-based email clients.
- » **Print:** Click this convenient button to print the contents of the Safari window. (Dig that crazy printer icon!)
- » **Website Settings:** Click this button to display (or change) the settings you've selected for this specific website. You can elect to use the Reader whenever possible to prevent most advertisements from appearing (more on this feature in the section titled "[Working with the Reading List](#)," later in this chapter), set the Zoom level, and enable or disable the blocking of pop-up ads.
- » **Privacy Report:** Click this button to display the number of web trackers contacted by the site you're

currently visiting, as well as the trackers contacted by the specific page you're viewing.

- » **iCloud Tabs:** Click this button to see a scrolling list of just the iCloud Tabs you've set on your iOS devices, PCs, and other Macs running Safari. Click an entry in the list to jump directly to that page.
- » **Share:** If you have an iPhone or iPad, you're probably familiar with this button, which carries a rectangle-and-arrow symbol. Click the Share button to send the current page (or a link to it) to various destinations, including your Reading List, an email message, or your Notes or Messages applications. You can also add a bookmark to the current page by clicking the Share button. [Figure 8-2](#) illustrates the Share button in action.

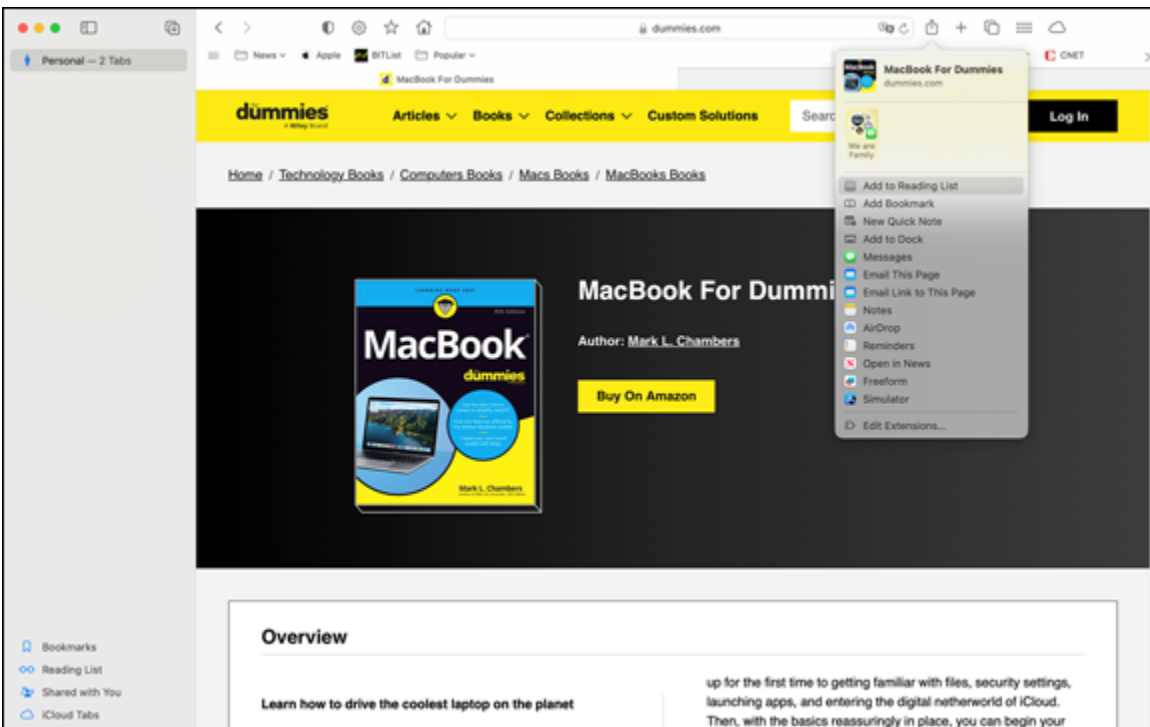


FIGURE 8-2: The Share button makes it easy to spread goodness and light!

Organizing with Profiles

Have you ever wished you could *really* organize your life? Like somehow separate your work life and your personal life into different neat little boxes? Well, good reader, good luck with that — I've been struggling with it for nearly 50 years now — but at least Safari can provide that separation for your browsing experience!

As a new feature in macOS Sonoma, Safari introduced *profiles*. A Safari profile stores all the data you acquire during a browsing session (like your History, Start page settings, cookies that you receive, Tab groups, and Favorites), allowing you to switch between profiles at work and at home. (For example, separate profiles are perfect if you're security conscious about work-related Favorites and History files showing up while you're at home.)

To create profiles, follow these steps:

- 1. Choose Safari ⇒ Settings and click the Profiles tab.**
- 2. Click Start Using Profiles.**
- 3. Enter the profile Name, Symbol, and Color to identify it.**

You can also choose to use your current Favorites folder or create a new one.

- 4. Click the Create Profile button.**

Safari displays the Profiles Management pane, where you can specify settings like the starting point for new browsing windows and tabs. From here, you can click the Add button (which carries a plus sign [+]) to create additional profiles as you need them.

After you've created multiple profiles, switching between them is supremely simple! If the sidebar is currently

displayed, click the Profile heading that now appears at the top of the sidebar; if the sidebar is hidden, click the Profiles drop-down menu that now appears at the far left of the Safari toolbar. You can click a profile name to switch to that profile.



TIP Don't be surprised when your Safari profiles suddenly appear on your other Macs and iOS devices! (If you're using the same Apple ID on your Macs, iPhone, and iPad, that is.)

Configuring Your Home Page and Start Page

Choosing a home page is one of the easiest methods of speeding up your web surfing. But a large percentage of the MacBook owners with whom I've talked have never set their own home pages; instead, they simply use the default home pages provided by their browsers. Declare your independence! With Safari running, take a moment to follow these steps and declare your freedom to choose your own home page:

- 1. In Safari, display the web page that you want to become your new home page.**



TIP I recommend selecting a page with few graphics or a fast-loading popular site.

- 2. Choose Safari ⇒ Settings or press ⌘ +, (comma).**

3. **Click the General tab of the Preferences dialog.**
You see the settings shown in [Figure 8-3](#).
4. **Click the Set to Current Page button.**
5. **Click the Close button to exit the Settings dialog.**

Alternatively, click the New Windows Open With pop-up menu and choose Empty Page if you want Safari to open a new window with a blank page. This choice is the fastest one for a home page.

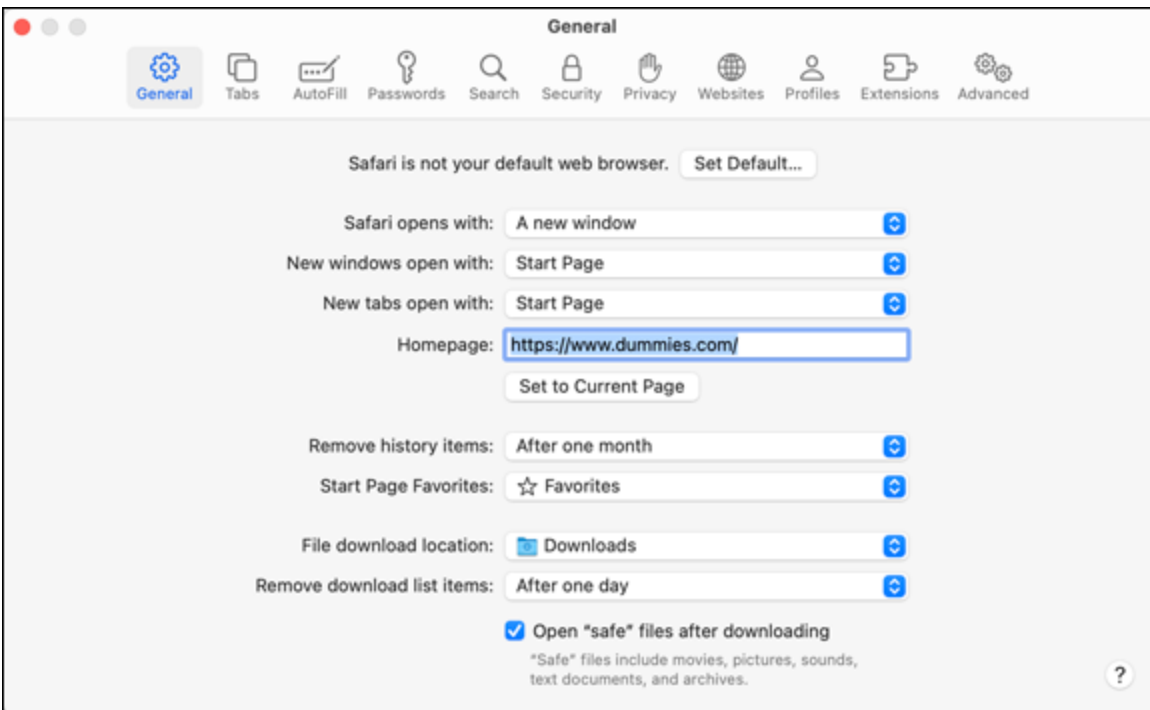


FIGURE 8-3: Adding your own home page is an easy change you can make.



TIP

Visit your home page at any time by clicking the Home button on the toolbar. If it doesn't appear on your toolbar, you can add it by choosing View ⇒ Customize Toolbar.

Apple provides you with a default Start page based on your Favorites, Reading List, History, and iCloud bookmarks, but you can modify the appearance and what sections appear by clicking the Settings icon at the lower-right corner of the Start page. Safari displays a pop-up menu with check boxes for each section or feature; to remove a section from the Start page, disable the corresponding check box. If you enable the final check box, Background Image, Safari also displays a series of preview thumbnails. Click an image to use it as your Start page background, or click the thumbnail with the plus sign to select your own. To exit the Settings menu, click any open area of the Start page.

Adding and Using Bookmarks

No doubt about it: Bookmarks make the web a friendly place. As you collect bookmarks in Safari, you're able to jump from one site to another with a single click of the Bookmarks menu or the buttons on the Favorites bar.

To add a bookmark, first navigate to the desired page and then do any of the following:

» **Choose Bookmarks ⇒ Add Bookmark.**

Safari displays a sheet where you can enter a name and description for the bookmark and choose where it appears (Favorites bar, Bookmarks folder, or Bookmarks menu).

» **Press the ⌘ +D keyboard shortcut.**

Again, the sheet requests a name and location.

» **Drag the icon next to the web address from the Address box to the Favorites bar.**

This trick works with other applications besides Safari, including in a Mail message or Messages conversation. Drag the icon from the Safari Address box to the other application window, and the web page link is added to your document.



TIP You can also drag a link on the current page to the Favorites bar, but note that doing this adds a bookmark only for the page corresponding to the link — not the current page.

To jump to a bookmark, do one of the following:

- » **Choose it from the Bookmarks menu.** If the bookmark is contained in a folder, which I discuss later in this section, hover your pointer over the folder name to show its contents; then click the bookmark.



- » **TIP Click the bookmark on the Favorites bar.** If you've added a great number of items to the Favorites bar, click the More icon (which bears the >> icon) at the edge of the Favorites bar to display the rest of the buttons.
- » **Click the Show Sidebar button on the Safari toolbar,** click the Bookmarks entry at the bottom of the sidebar, and then click the desired bookmark. The sidebar (shown in [Figure 8-4](#)) displays all your bookmarks, allowing you to review each collection at your leisure.
- » **Choose Bookmarks ⇒ Edit Bookmarks** or press ⌘ +Option+B to open the Bookmark list. For those

who prefer more information (and more onscreen elbow room) while selecting or organizing their bookmarks, the Bookmark list is the cat's meow. It displays both the name and web address of each bookmark in your collection.

The more bookmarks you add, the more unwieldy the Bookmarks menu and the sidebar can become. To keep things organized, choose Bookmarks ⇒ Add Bookmark Folder, and in the resulting dialog, type a name for the new folder. With folders, you can organize your bookmarks as *collections*, which appear in the column on the left side of the sidebar; as folders in the Bookmark list; and as menus on the Bookmarks bar. (Collections also appear as separate submenus on the Bookmarks menu on the Safari menu bar.) You can drag bookmarks into the new folder to help reduce clutter.

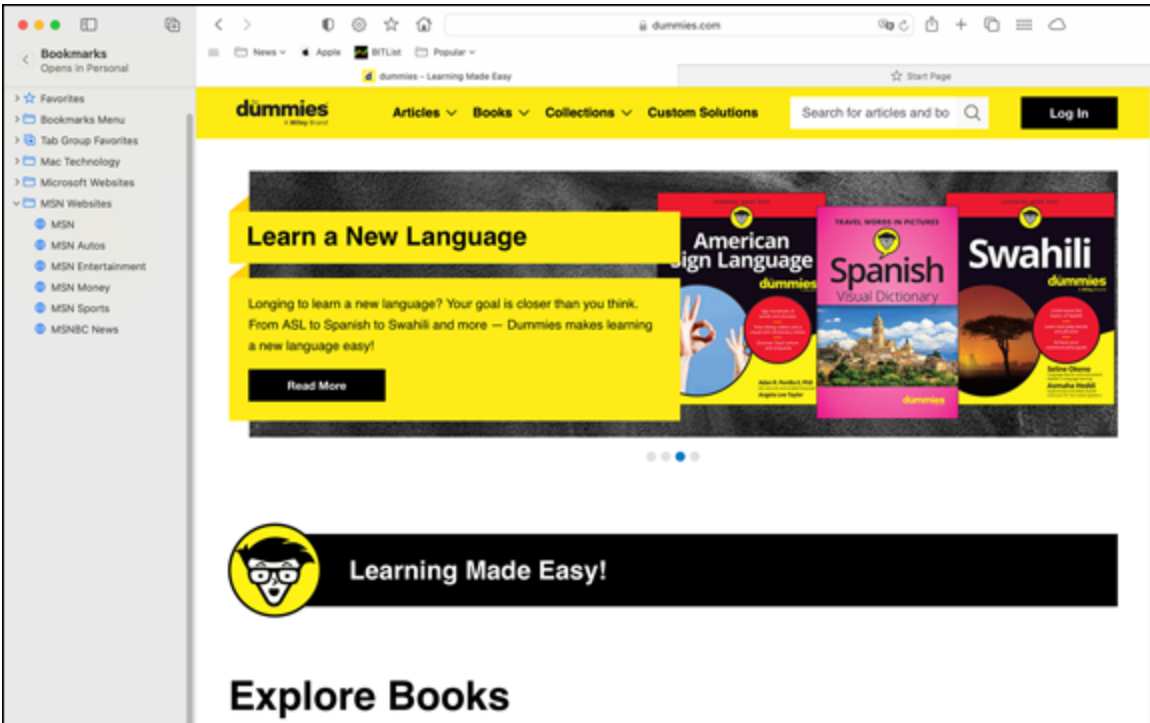


FIGURE 8-4: The sidebar's Bookmarks tab puts all your bookmarks in easy reach.

To delete a bookmark or a folder from any of these locations, right-click the icon next to the entry and choose Delete from the shortcut menu.



TIP If you have other Macs or iOS devices using the same Apple ID, Safari can share your bookmarks and Reading List selections across all Safari applications, including your iPad and iPhone! (It's a neat feature for those of us who rely heavily on bookmarks while surfing.) You can configure what Safari shares through iCloud from the Apple ID pane in System Settings.

SAFARI THE TRANSLATOR

I'm excited about the continuing development of the Safari Translation feature in macOS, and with good reason — you can visit a foreign-language site and Safari can translate entire pages at one time, rather than a single sentence or a paragraph! If the language is recognized and can be translated, Safari will display a message in the Address box. Click the Translate icon that appears at the right of the Address box — it looks like two speech bubbles from your favorite cartoon — and choose Translate to English from the menu. To return the page to its original content, click the Translate icon again.

There are limitations, of course: At this time, Safari recognizes only English, Spanish, German, Chinese, French, Russian and Portuguese. (Safari will identify whether it recognizes the language on a page.) The Translation feature also requires an internet connection, but that's required for surfing the web anyway. (No big deal there.)

I look forward to further improvements to this feature as Safari continues to mature. A world of new foreign websites is now ours to peruse!

Working with the Reading List

Now that you know all about bookmarks, I want to introduce another method of loading, saving, and retrieving specific pages in Safari. This method is hiding in the now-familiar confines of the Safari sidebar!

The sidebar's Reading List tab allows you to save entire pages for later perusal. From the keyboard, press ⌘ +Shift+L to display the sidebar, and click the Reading List entry at the bottom of the sidebar. Click Bookmarks ⇒ Add to Reading List or press ⌘ +Shift+D to add the current page to the list, or hover your pointer over the left end of the Address box and click the circular icon with the plus sign that appears. Oh, and don't forget that you can click the Sharing icon on the toolbar and choose Add to Reading List from the drop-down menu to achieve the same victory.

When you click one of those entries in the Reading List and then click the Show Reader View icon (it looks like a paragraph) that appears at the left end of the Address box, the real magic begins! If you click it, the Reader panel appears, displaying text articles free of advertisements and silly pop-ups. And if an article is continued over multiple web pages, the Reader panel automatically stitches them together to form a continuous block of text. (Think of an e-book displayed in Books on your MacBook and you get the idea.)

To delete an item from the Reading List, right-click the item and choose Remove Item from the shortcut menu.



REMEMBER If the Show Reader View icon appears in Safari's Address box — and you're *not* using the Reading List — don't panic! Because the page you're reading contains text articles, Safari is offering to display it

in the Reader panel. (If a page has nothing to display in the Reader panel, the icon disappears.) To display the page in the Reader panel, click the Show Reader View button in the Address box. To return to your mundane browsing experience, click the Reader icon again.



TIP If you're as big a fan of Reader View as I am, you'll be thrilled to learn that you can turn on this feature for every page on a website! When Reader View is the default, every page on a website that's compatible with the Reader panel automatically displays in Reader view. (I always set all my news websites — such as CNN and Macworld — to default to Reader view.) When you've navigated to the desired website, click the Website Settings button on the toolbar (if you've added it), or choose Safari ⇒ Settings for This Website. Click the Use Reader When Available check box to enable that feature, and you're good to go!

Downloading Files

A huge chunk of the fun you'll find on the web is downloading images and files. If you've visited a site that offers files for downloading, you typically click the Download button or the download-file link, and Safari takes care of the rest. While the file is downloading, feel free to continue browsing or even to download additional files; the Downloads status list helps you keep track of what's going on and when everything will finish transferring.

To display the Downloads status list from the keyboard, press ⌘ +Option+L. You can also click the Show Download button in the toolbar, which carries a down arrow within a circle.

By default, Safari saves any downloaded files to the Downloads folder (which I like and use) on your Dock. To specify the location where downloaded files are stored (to scan them automatically with an antivirus program, for example), follow these steps:

1. **Choose Safari ⇒ Settings or press ⌘ +, (comma).**
2. **Click the General tab of the Settings dialog (refer to [Figure 8-3](#)).**
3. **Click the File Download Location pop-up menu and choose Other.**

Safari displays a standard Open dialog, allowing you to choose the destination.

4. **Navigate to the location where you want to store the files.**
5. **Click the Select button.**
6. **Click the Close button to exit Settings.**

To download a specific image on a web page, move your pointer over the image, right-click, and choose Save Image As from the shortcut menu. Safari prompts you for the location where you want to store the file.

You can choose to automatically open files that Safari considers to be safe — things like movies, text files, and PDF files that are *very* unlikely to store a virus or a damaging macro. By default, the Open “Safe” Files After Downloading check box is selected on the General tab of the Safari Settings dialog. If you’re interested in

preventing *anything* you download from running until you've checked it with your antivirus application, you can deselect the check box and breathe easy.



TIP Luckily, Safari has matured to the point where it can seamlessly handle most multimedia file types that it encounters. If you've downloaded a multimedia file and Safari doesn't seem to be able to play or display it, however, try loading the file in QuickTime Player. *QuickTime Player* is the Swiss Army knife of multimedia players, able to recognize a huge number of audio, video, and image formats. To launch the Player, click the Spotlight search icon and then type **QuickTime Player**.

Using History

To keep track of where you've been, you can display the History list by clicking the History menu in Safari. To return to a page in the list, just choose it from the History menu. Note that Safari also arranges older history items by the date when you visited a site, so you can easily jump back a couple of days to that page you forgot to bookmark!

Safari also searches the History list automatically when it fills in an address you're typing. That's the feature I mention in "[Visiting Websites](#)," earlier in this chapter.

To view your Start Page display, choose Bookmarks ⇒ Show Start Page, or click the Start Page button at the right end of the Safari toolbar (if you've added it).



TIP

You can add a site to your Start Page manually by dragging a bookmark from the sidebar to the Start Page icon on the Favorites bar, or by dragging a link or URL address from another application to the Start Page icon at the left side of the Favorites bar. (A plus sign appears next to your pointer to indicate the addition.) To rearrange screens in the Start Page display, just drag a screen thumbnail to the desired location.

If you're worried about security and would rather not keep track of where you've been online, find out how to clear the contents of the History file in the upcoming section "[Handling ancient history.](#)"

Tabs Are Your Browsing Friends

Safari also offers *tabbed browsing*, which many folks use to display (and organize) multiple web pages at one time. If you're doing a bit of comparison shopping for a new piece of hardware among several online stores, for example, tabs are ideal.

When you hold down the ⌘ key and click a link or bookmark, a tab representing the new page appears at the top of the Safari window. Just click the tab to switch to that page.

You can also open a new tab by clicking the New Tab button in the toolbar or pressing ⌘ +T. To move among multiple tabs, simply click the desired tab header. If you're finished with a page, you can remove a tabbed

page by hovering your pointer over the tab and clicking the X button that appears.



TIP Trackpad fans will appreciate Safari's two gestures that control tabs. With multiple tabs active, you can do these things:

- » Pinch to display them all in the Tab Overview display (shown in [Figure 8-5](#)).
- » With the Tab Overview open, swipe with two fingers to move among tabs.

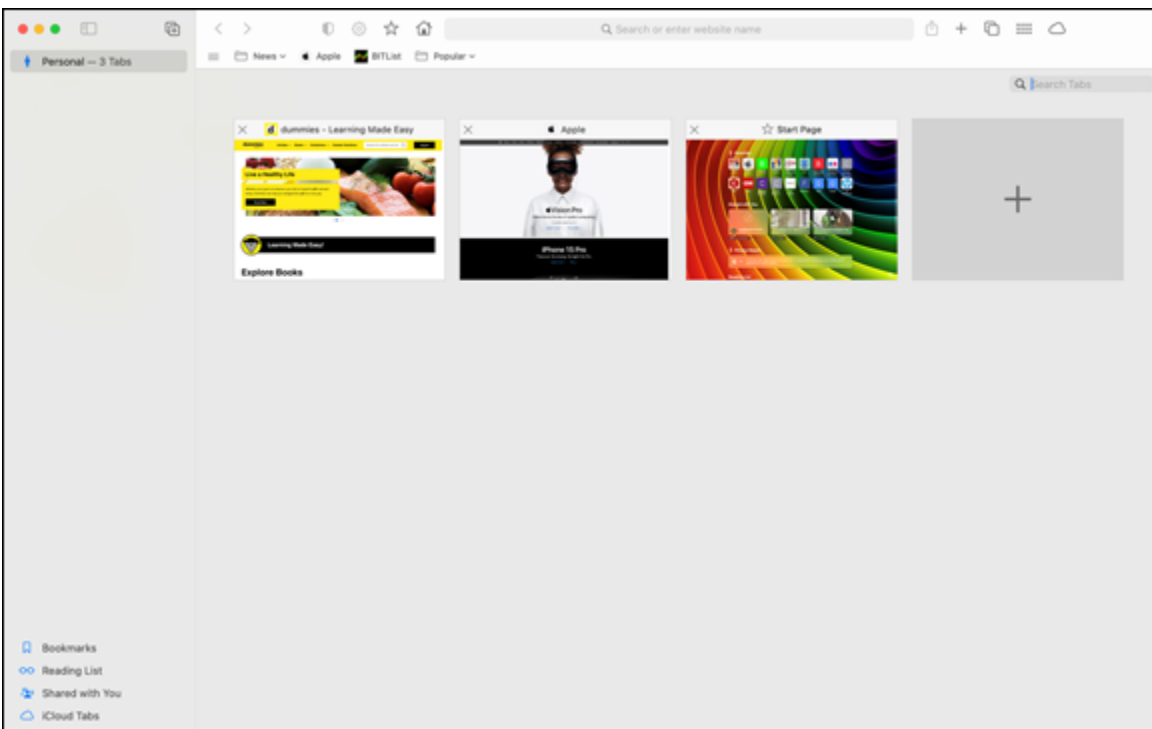


FIGURE 8-5: Hang on, Martha; we've struck tabs!

To display your tabs in Tab Overview without a trackpad, click the Show Tab Overview button that appears at the right end of the Safari toolbar. From All Tabs view, you can click any tab thumbnail to switch to that tab. (iCloud Tabs shared from your other Macs and iOS devices

appear at the bottom of the Tab Overview display.) To close a tab in Tab Overview, move your pointer over the thumbnail and click the X button that appears in the thumbnail's top-left corner. To close the Tab Overview display, click the Hide Tab Overview button at the right end of the Safari toolbar.



TIP All Tabs view also displays the iCloud Tabs you've set on your other Macs and iOS devices.

To fine-tune your tabbed browsing experience, choose Safari ⇒ Settings to display the Settings dialog, and click Tabs. From here, you can specify whether a new tab or window automatically becomes the active window in Safari and whether you want to switch tabs by pressing ⌘ +1 through ⌘ +9.



TIP If you open a page that plays audio — as background music or as part of a video shown on the page — you can click the speaker icon that appears on the tab header to mute that audio. (Think really, *really* irritating video advertisements.) To unmute the audio, click the speaker icon again. You can also display the Settings for this Website sheet to disable autoplay of videos with sound across all the pages on a website. Choose Safari ⇒ Settings for This Website, click the Auto-Play drop-down list in the resulting dialog, and choose Stop Media with Sound to banish those irritating videos from the current website.

POWER USERS PIN SITES

Safari also offers *pinned tabs*, which allows you to jump to a specific page. Pinned sites hang out at the left end of the Tab bar, usually sporting a recognizable symbol taken from the site itself. Unlike the standard tabs that I discuss in this section, however, pinned tabs are updated automatically in the background from the moment you launch Safari, which is perfect for continuously changing sites such as Facebook and Twitter.

To set a pinned tab, navigate to the page you want to pin and choose Window ⇒ Pin Tab. The pinned tab is added at the far-left end of the Tab bar, and you can click it at any time to return to that page.

To remove a pinned tab, click the tab to switch to that page and choose Window ⇒ Unpin Tab.

Printing Web Pages

If you've encountered a page that you'd like to print, follow these steps:

1. **Display the desired page.**
2. **Choose File ⇒ Print or press ⌘ +P.**
3. **In the Print dialog, select the number of copies you want to print.**
4. **Specify whether you'd like to print the entire page, only the current page, or a range of pages.**
5. **Click Print.**



TIP

A quick word about printing a page in Safari: Some combinations of background and text colors might conspire to render your printed copy worthless. In a case like that, use your printer's grayscale setting (if it has one), or click the Safari heading and deselect the Print Backgrounds check box (which can save you quite a bit of ink or toner). Alternatively, you can simply click and drag to select the text on the page, press ⌘ +C to copy it, and paste the text into TextEdit, Microsoft Word, or Pages, where you can print the page on a less-offensive background while keeping the text formatting largely untouched. You can also save the contents of a page as a PDF file by choosing File ⇒ Export as PDF or clicking the PDF pop-up menu at the bottom of the Print sheet and choosing Save as PDF. Finally, if the page is available in Reader view, you can print it from there and avoid most color conflicts!



TIP

If you'd rather mail the contents of a web page to a friend, click the Share button and choose Email This Page from the drop-down menu. If you've added the Mail button to your toolbar, one click does the job. Mail loads automatically, complete with a prepared email message. Just address the message to the recipients and click Send.

Protecting Your Privacy

No chapter on Safari would be complete without a discussion of security, against both outside intrusion

from the internet and prying eyes around your MacBook. Therefore, this last section covers protecting your privacy.

Although it's diminutive, the padlock icon that appears to the left of the website's name in the Address box when you're connected to a secure website means a great deal! A *secure site* encrypts the information that you send and receive, making it much harder for those of unscrupulous ideals to obtain private data, such as credit-card numbers and personal information. You can click the padlock icon (next to the site name) to display the security certificate in use on that particular site. A secure site web address begins with the prefix `https:` instead of `http:`. (The extra *s* stands for *secure*. A Good Thing.)

Yes, there are such things as bad cookies

First, a definition of this ridiculous term. A *cookie* — a small file that a website automatically saves on your Mac's drive — contains information that the site will use on your future visits. A site might save a cookie to preserve your site preferences for the next time or (as with shopping on [Amazon.com](https://www.amazon.com)) to identify you automatically and customize the offerings that you see.

In and of themselves, cookies aren't bad things. Unlike a virus, a cookie file isn't going to replicate itself or wreak havoc on your system, and only the original site can read the cookie that it creates. But many folks don't appreciate acting as a gracious host for a slew of snippets of personal information (not to mention that some cookies have highly suggestive names, which can lead to all sorts of conclusions; end of story).

You can opt to disable cookies or set Safari to accept cookies only from the sites you choose to visit. To change your Cookie Acceptance Plan (CAP, for those who absolutely crave acronyms), follow these steps:

1. **Choose Safari ⇒ Settings.**
2. **Click the Advanced tab of the Settings dialog.**
3. **Click the Block All Cookies check box to enable it.**



REMEMBER If a site's cookies are blocked, you might have to take care of things manually, such as by providing a password on the site that used to be read automatically from the cookie.



TIP Feeling nervous about the data stored by the websites you visit? You can always delete *all* that stored information with a single click. On the Privacy pane of the Safari Settings dialog, click the Manage Website Data button; then click the Remove All button. You'll be asked to confirm your draconian decision.

The Privacy pane also includes the Prevent Cross-Site Tracking check box, which works ... *sometimes*. Unfortunately, it's up to a particular website whether to honor Safari's request for privacy. Also, some sites — such as [Amazon.com](https://www.amazon.com) — use tracking legitimately to keep track of your likes and purchases each time you return. Apple includes Intelligent Tracking Prevention in Safari; this feature is automatic and works behind the scenes,

helping prevent unwanted intrusion into your browsing history. If you're especially worried about leaving a trail of breadcrumbs behind you on the web, I recommend selecting this check box.



TIP You can also check any site you visit for active trackers. Click the Privacy Report icon on the Safari toolbar and you'll see totals for the number of trackers contacted by both the site (as a whole) and the current page.

Finally, you can use the Websites tab of Safari Settings to limit websites' access to your MacBook's Location Services feature, which can pinpoint your current location. Facebook's website, for example, uses Location Services if you allow it to do so. Access can be set through prompting, or you can deny access to Location Services for all websites.

Banishing pesky iCloud Keychain passwords

I'm the world's biggest critic of *keychains*, which Sonoma uses to automatically provide all sorts of login information throughout the system. In Safari, for example, the password information is automatically entered for you whenever a website you've approved requires you to log in.

To be more specific, I'm sure that many readers will adopt the *iCloud Keychain* feature, which stores password and credit-card information for Safari and wirelessly distributes that information automatically to other Macs and iOS devices that use the same Apple ID. Apple even says that the passwords generated by iCloud

Keychain are more complex and harder to crack, which *sounds* more secure, right?

I'd rather keep a pet piranha in a cereal bowl than use this feature! Why? Whenever you're logged in, *anyone* who's logged into your MacBook with your user account gets control of your online persona (in the form of your passwords to secure websites). Safari, like an obedient puppy, automatically provides access to sites with stored keychain passwords.



REMEMBER If you'd like to take the far-less-convenient-but-*much*-safer, old-fashioned route of remembering your passwords yourself, follow my lead: Visit the Apple ID pane in System Settings, click the iCloud entry on the right side of the dialog, click the Passwords & Keychain check box, and turn off the Sync This Mac switch.

Now that I've warned you thoroughly, I feel better about mentioning the Passwords tab of Safari's Settings dialog for those who *do* decide to use iCloud Keychain. On the Passwords tab, you can view the iCloud Keychain information that Safari uses and remove a specific password or all passwords from your iCloud Keychain.

Handling ancient history

As you might imagine, your History file leaves a very clear set of footprints indicating where you've been on the web. To delete the contents of the History menu, choose History ⇒ Clear History (at the bottom of the History menu).

Safari also allows you to specify an amount of time to retain entries in your History file. Open the Safari

Settings dialog, click the General tab (refer to [Figure 8-3](#)), and then make a choice from the Remove History Items pop-up menu to specify the desired amount of time. Items can be rolled off daily, weekly, biweekly, monthly, or yearly. You can also turn off automatic removal.

Setting notifications

In Sonoma, Safari can allow websites you've approved to send you messages through Notification Center. The Websites tab of Safari's Settings dialog controls which sites are given this functionality. To prevent a website from sending notifications, click the Notifications entry in the list on the left side of the dialog and choose Deny from the drop-down menu next to the offending site. You can also remove a website from the list by clicking it and then clicking the Remove button.

Avoiding those @*!^%\$ pop-up ads

I hate pop-up ads, and I'm sure that you do, too. To block many of those pop-up windows that advertise everything from low-rate mortgages to "sure-thing" internet casinos, open the Safari Settings dialog, click the Websites tab, and select the Pop-up Windows entry in the list on the left side. Now you can allow or block pop-up ads for each website you visit!

Chapter 9

Expanding Your Horizons with iCloud

IN THIS CHAPTER

- » Using your iCloud Drive
 - » Sharing documents with iOS devices by using Handoff
 - » Expanding your Desktop with Sidecar
 - » Setting iCloud preferences
 - » Managing iCloud storage
-

Readers often ask me to name my favorite reasons that they should switch platforms. In other words, why should a Windows user who thinks all is well move to the Apple universe? I always mention the facts that Apple makes superior hardware and that Sonoma is a much better operating system than Windows 11. My favorite selling point is *innovation*. Apple comes up with the best ideas first, and everyone else plays catch-up.

Here's the perfect example: The folks at Apple got tired of synchronizing their iOS devices with their computers over USB cable. Remember those archaic days? When you took a photo with your iPhone or created a new document with your iPad, your new additions just sat in their original locations until you had a chance to sync your device with your MacBook. But with Apple's iCloud functionality, your stuff gets *automatically* synchronized

and backed up across the internet — something that the Windows world took years to perform seamlessly!

In this chapter, I save you the trouble of researching all the benefits of iCloud. Heck, that's one of the reasons you bought this book, right?

So How Does iCloud Work, Anyway?

All of today's iOS devices can display or play the same media: photos, music, books, TV shows, and such. Heck, iOS devices like your iPhone and iPad can even share applications. Therefore, it makes sense to share all your digital media effortlessly across these devices, and that's what iCloud is all about. Apple calls this synchronization *pushing*.

Here's how the pushing process works. Imagine that you just completed a Pages document on your MacBook (an invitation for your son's birthday party), but you're at the office and need to get the document to your family so that they can edit and print it from your son's iPad.

Before iCloud, you had to attach the document to an email message or upload it to some type of online storage (such as Dropbox or Microsoft's OneDrive); then a family member had to download and save the document to the iPad before working with it. With iCloud, you simply save the document on your MacBook to the Pages folder on your iCloud Drive, and macOS automatically pushes the document to the iPad (using the same Apple ID). Your document appears on the iPad, ready to be opened, edited, and printed — and it appears as well on any other devices that use the same Apple ID. [Figure 9-1](#) gives you an idea of what's happening in the

background when one of your devices pushes data with iCloud.

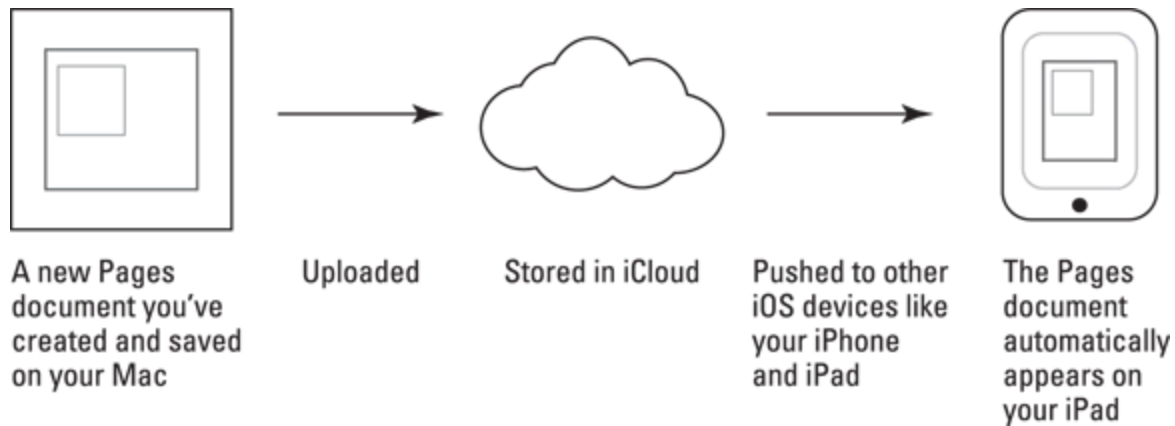


FIGURE 9-1: iCloud works by pushing data among all your iOS devices.

I'll admit that Windows *eventually* implemented a similar process with OneDrive. You can save documents within Office 365 to OneDrive and access them on other PCs and devices. Ah, but iCloud isn't limited to storing just your files and folders! Sonoma can also automatically synchronize your email accounts, Calendar, and Contacts entries with other iOS devices across the internet, so staying in touch is much easier (no matter where you are or which device you happen to be using at the moment).

Apple also throws in 5GB of free online storage that you can use for all sorts of things — not only digital media files, but also documents that you'd like to save online for safekeeping. Items you buy through the iTunes Store, Book Store, or App Store — music, video, podcasts, books, and applications — don't count against your 5GB limit. (More on how you can expand that 5GB limit later in the chapter.)



REMEMBER To join the iCloud revolution, you need an Apple ID. If you didn't create one during initial Sonoma setup – or you haven't already created one for your iPhone or iPad — you can create an Apple ID from the App Store.



TIP You can also access your documents through the web at <https://www.icloud.com>. Log in with your Apple ID and password to send mail; access your contacts and calendar; edit your notes and reminders; locate your devices; and use online versions of Photos, Pages, Numbers, and Keynote. (Note that you may be prompted to enter a security code from an Apple device the first time you log in to iCloud on the web.)

Moving, Saving, and Opening iCloud Documents

iCloud online storage for your documents is definitely neat. Your iCloud Drive functions much like other popular online storage services such as Dropbox and Microsoft OneDrive, allowing you to save documents, load documents, and move files to and from your internal drive with ease by using a Finder window. In fact, iCloud Drive keeps things tidy for you: If you move a file from your iCloud Drive to your local drive, it's also deleted automatically from iCloud Drive on your other Macs and

iOS devices that use the same Apple ID. (Sonoma prompts you for permission first, of course.)

[Figure 9-2](#) illustrates my iCloud Drive in action. You can access your iCloud Drive from the Finder window's Sidebar. Note that iCloud folders are automatically created for supported applications, such as Pages and Numbers, allowing you to click the corresponding iCloud folder from the application's Open dialog. In other words, *both* your iCloud Drive and the application-specific iCloud folder are available within the application's Open dialog. It's about as convenient as you can get.

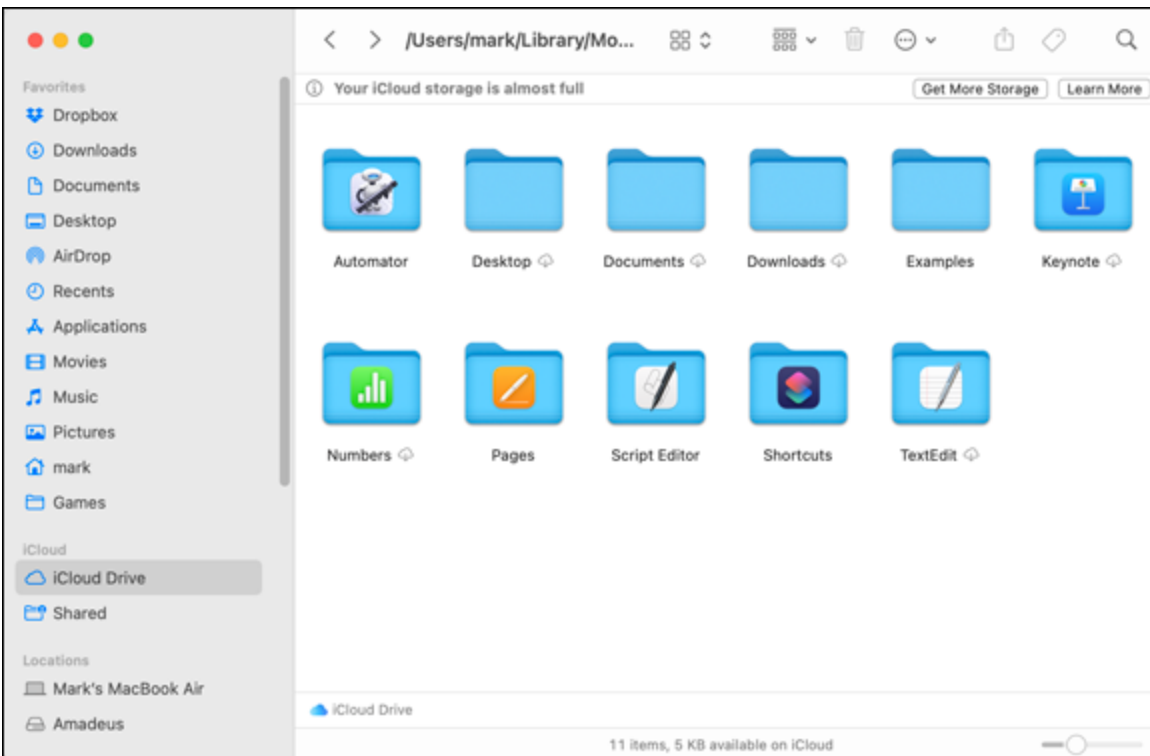


FIGURE 9-2: Each of these iCloud folders can joyously store documents.

Putting Handoff to Work

If you're like me, your favorite moment in a team track event is the all-important handoff of the baton from one

runner to the next. Handoff is the perfect name for this macOS feature, because it transfers what you're doing on your iOS devices to matching applications on your Mac!

Suppose that you're using Maps on your iPhone, and you realize that you'd rather view the location on your MacBook's larger screen (as well as print it from the USB printer connected to the Mac). If you're within Bluetooth-signal range of your MacBook, Handoff is ready to go: An icon for the macOS version of Maps automatically appears at the left end of the Dock in Sonoma. One click of that icon, and your laptop supercomputer opens Maps and displays the same location!

You're not restricted to just one application. Each time you open an application that Handoff supports (such as Safari or Mail), macOS offers you the chance to open the matching application on your MacBook and displays the current data from the iOS app.

To turn Handoff on, open System Settings and click the General icon in the sidebar; then click the AirDrop & Handoff option. Click the Allow Handoff Between This Mac and Your iCloud Devices switch to enable it.



REMEMBER Handoff must also be enabled on your iPhone or iPad to allow the connection. Open Settings on the device and display the General pane; then display the AirPlay & Handoff settings to enable the feature.

Caveats? Only two at this writing:

- » **Bluetooth is required.** Bluetooth networking must be turned on for both the iOS device and the MacBook

for Handoff to work, and the iOS device must be within a 30-foot radius of your MacBook. (That's the maximum distance over which Bluetooth hardware can broadcast; walls and other obstructions reduce that range.)

» **iOS 8 or later is a must.** Handoff is compatible only with iOS devices running iOS 8 or later.

Handoff works in the other direction as well, allowing you to pick up where you left off on your MacBook application by transferring the active session to your iPhone or iPad. Swipe the icon that appears on your iOS device to start the ball rolling.



TIP Your old friends Copy and Paste can even be used to share text, video, or images betwixt your MacBook and your iOS devices (or another Mac). This feature is called Universal Clipboard, and it allows you to copy items on the source device and paste them on the destination device! The process is automatic: Just copy the item as you normally would, let iCloud do all the technical stuff behind the scenes, switch to the other device, and paste the item. (Sorry, Microsoft: Only Macs and iOS devices need apply.)

Expanding Your Horizons with Sidecar

Do you own a late-model iPad running iOS version 13 or later? If so, rejoice! Sonoma includes a feature called *Sidecar*, which allows your iPad to act as a secondary display for your MacBook. As long as both devices use

the same Apple ID, you can use Sidecar to extend your Sonoma Desktop (giving you more screen real estate for applications and Finder windows), or you can use the Apple Pencil input device to turn your iPad into a drawing tablet.

To turn Sidecar on, open System Settings and choose the Displays entry from the sidebar. Click the Mirror pop-up menu near the top of the pane (which bears a plus sign), and then choose your compatible iPad from the menu that appears. If you decide on a wired connection, you'll need a USB-C cable that can connect to your iPad. As long as your iPad is within 30 feet of your MacBook, however, you can connect wirelessly by using Bluetooth.



TIP

After you've turned Sidecar on, you can click the Screen Mirroring icon that appears in the Finder menu bar to set the options for Sidecar.

Configuring iCloud

You control all the settings for iCloud from Sonoma's Apple ID pane in System Settings (shown in [Figure 9-3](#)). Click the System Settings icon on the Dock and then click the Apple ID entry at the top of the sidebar (next to your user picture). If you're prompted to sign in, enter your Apple ID and your password. Click the iCloud entry in the list on the right side of the Settings window to display the iCloud pane.

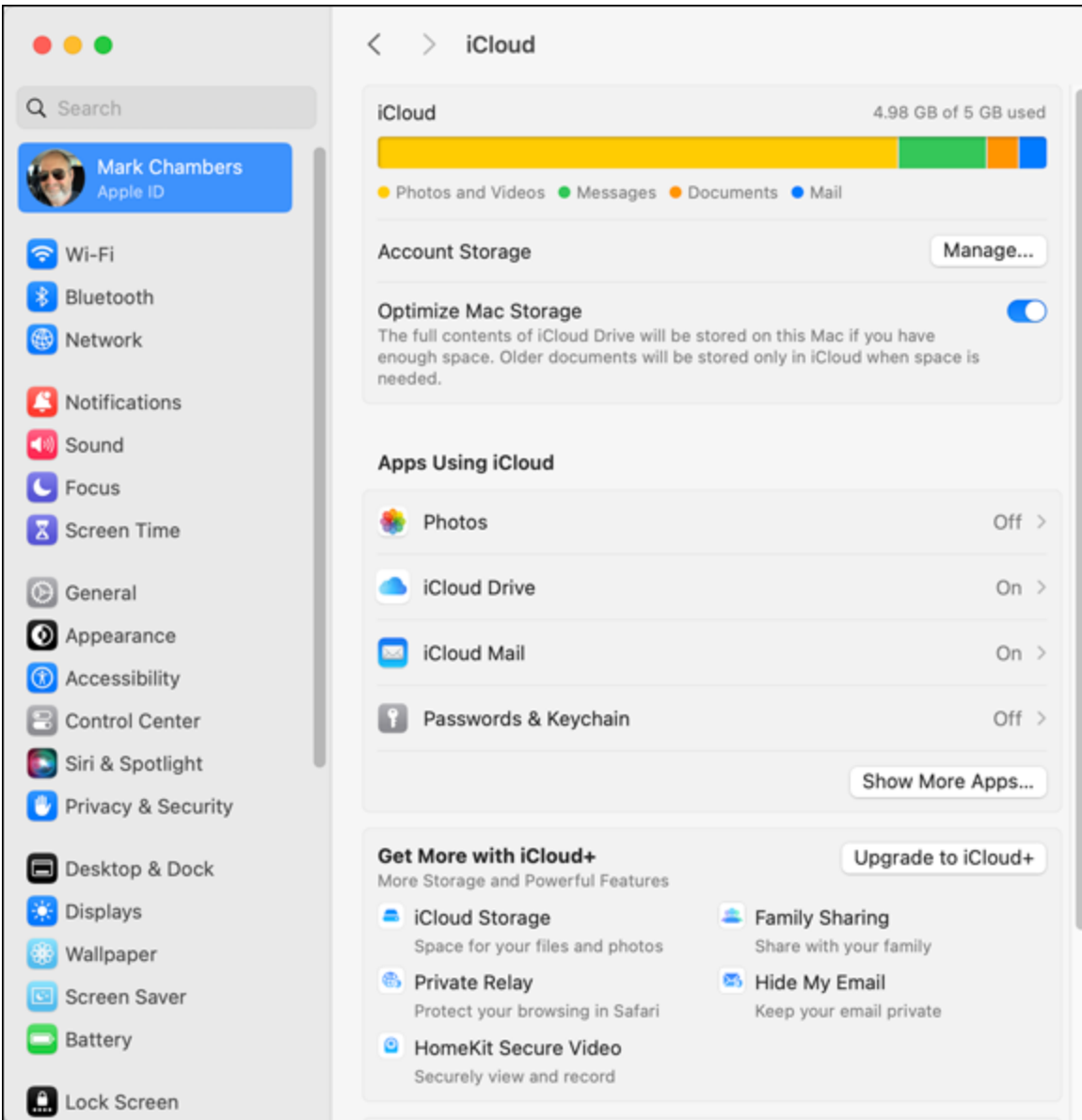


FIGURE 9-3: The iCloud pane appears in System Settings.

Most of the settings on the iCloud pane control whether a particular type of data — such as your photos, passwords, Mail message, or the contents of your iCloud Drive — is pushed to all your iOS devices. Click any of the entries to set the options for that app. (Click the Show More Apps button to display the entire list of iCloud-enabled apps.)

Note, however, that you can enable three other unique features from this pane:

- » **Photos:** Click the Photos entry to enable iCloud Photos, which stores *all* your photos in iCloud. (If you have a large number of photos, you may have to buy additional iCloud storage space to use the iCloud Photos feature.)



REMEMBER To turn on iCloud Photos from within Photos, choose Photos ⇒ Settings, click the iCloud tab, and select the iCloud Photos check box.

- » **iCloud Drive:** Click this entry and click Apps Syncing to iCloud Drive to specify which apps have access to store documents and data on your iCloud Drive. You can also disable iCloud Drive access completely by disabling the Sync this Mac switch.
- » **Find My Mac:** Talk about Buck Rogers! Imagine locating a lost or stolen MacBook from your iPhone or iPad. Now think about this: With Find My, you can even lock or completely wipe your MacBook's internal drive *remotely*, preventing unauthorized use and erasing your private data! After you access your MacBook from another iOS device, you can play a sound, send a message to be displayed onscreen, remotely lock the machine, or remotely wipe the drive. To use this feature, click the Show More Apps button to display the full list, click the Find My Mac entry, then make sure that both Find My Mac and Find My Network are turned on.



WARNING After you wipe the drive, you can't locate your MacBook again.

Managing Your iCloud Storage

Apple knows that you're curious about how much space you've taken up in your personal iCloud, and that information is displayed as a graph at the top of the iCloud pane — here you can see how much space is taken by photos and video, messages, documents, and mail.

To monitor how much space is used by individual applications, click the Manage button near the top of the iCloud pane. On the dialog that appears, shown in [Figure 9-4](#), you can see how much space you're using for each data type.

Other items that might appear on this sheet include Mail and selected iPad and iPhone apps that support iCloud.



TIP If you find yourself running out of iCloud storage space, you can click an entry in this list, then follow any instructions that appear to delete that data type.

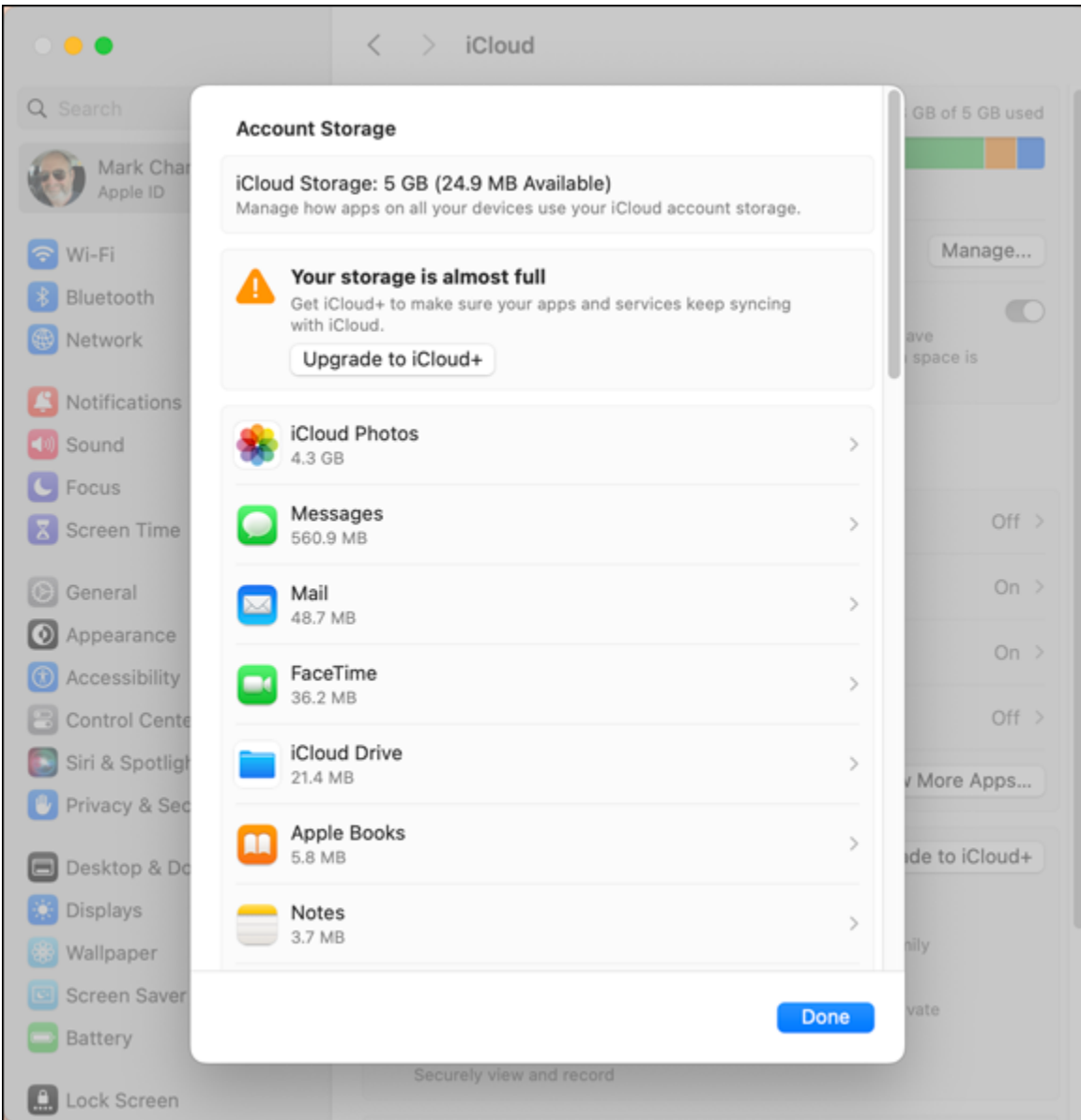


FIGURE 9-4: Checking on your iCloud data storage.

And if you need more elbow room than 5GB, Apple is happy to provide 50GB, 200GB, or even a whopping 2TB of additional iCloud storage for a monthly subscription fee of 99 cents, \$2.99, or \$9.99, respectively. Click the Upgrade to iCloud+ button on the iCloud pane, click the desired amount of storage, and click the Upgrade to iCloud+ button to subscribe.

Chapter 10

Creating a Multiuser MacBook

IN THIS CHAPTER

- » Understanding access levels
 - » Adding, editing, and deleting user accounts
 - » Restricting access and limiting accounts
 - » Logging in, sharing, and encrypting
-

Everybody wants a piece. (Of your MacBook, that is.)

Perhaps you live in a busy household with kids, significant others, grandparents, and a wide selection of friends, all of them clamoring for a chance to spend time on the internet, take care of homework, or enjoy a good game.

On the other hand, your MacBook might occupy a classroom or a break room at your office — someplace public, yet everyone wants their own Private Idaho on the MacBook, complete with a reserved spot on the internal drive and their own hand-picked attractive Desktop background.

Before you throw your hands up in the air in defeat, read this chapter and take heart! Here, you find all the step-by-step procedures, explanations, and tips to help you build a *safe* multiuser MacBook that's accessible to all.

(Oh, and *you* still get to use it, too. That's not being selfish.)

Once Upon a Time (an Access Fairy Tale)

Okay, so you don't have Cinderella, Snow White, or that porridge-loving kid with the trespassing problem. Instead, you have your brother Bob.

Every time Bob — you know, the only guy on the planet still using an ancient flip phone — visits your place, it seems he needs to do “something” on the internet, or he needs a moment with your MacBook to bang out a quick message with his web-based email application.

Unfortunately, Bob's forays onto your Mac always end up changing stuff, such as your Desktop settings, Contacts database, and Safari bookmarks.

What you need, good reader, is a visit from the Account Fairy. Your problem is that you have but a single user account on your system, and macOS Sonoma thinks that Bob is *you*. By turning your mobile supercomputer into a multiuser system and giving Bob his own account, Sonoma can tell the difference between the two of you, keeping your druthers separate!

With a unique user account, Sonoma can track all sorts of things for Bob, leaving your computing environment blissfully pristine. A user account keeps track of stuff such as

- » Contacts cards
- » Safari bookmarks and settings
- » Desktop settings (including background images, screen resolutions, and Finder tweaks)
- » Music libraries, just in case Bob brings his own music (resigned sigh)

Also, Bob gets his own reserved Home folder on your MacBook's internal drive, so he'll quit complaining about how he can't find his files. Oh, and did I mention how user accounts keep others from accessing *your* stuff? And how you can lock Bob out of where-he-should-not-be, such as certain applications (including Messages and Mail)? Heck, you can even lock Bob out of specific websites (including that offshore internet casino site he's hooked on)!

User accounts affect just about everything you can do in macOS and on your MacBook. The moral of my little tale? A Mark's Maxim to the rescue:



MARK'S
MAXIM

Assign others their own user accounts, and let Sonoma keep track of everything. Then you can share your MacBook with others and still live happily ever after!

Big-Shot Administrator Stuff

Get one thing straight right off the bat: *You* are the administrator of your MacBook. In network speak, an *administrator* (*admin*, for short) is the one who has the power to Do Unto Others, creating new accounts, deciding who gets access to what, and generally running the multiuser show. In other words, think of yourself as the monarch of macOS (the king or queen, not the butterfly).



TIP

I always recommend that you have only one (or perhaps two) accounts with administrator-level access on any computer. This way, you can be assured that no one can monkey with your Mac while you're away from the keyboard. So why might you want a second admin account? Well, suppose that you're away from your MacBook. Think "daughter takes it with her on a trip to Europe." You might need to assign a second administrator account to a *trusted* person who knows as much about your MacBook as you do. (Tell 'em to buy a copy of this book.) That way, if something breaks or an account needs to be tweaked in some way, the other person can take care of it while you're absent — but without getting access to your personal data. Don't forget that if necessary, you can always log in to your second admin account and change the password to guarantee security!

In the following sections, I explain the typical duties of a first-class MacBook administrator.

Deciding who needs what access

The two most common user account levels are

- » **Admin (administrator):** See the preceding section.
- » **Standard:** Perfect for most users, these accounts allow access to just about everything but don't let the user make drastic changes in Sonoma or create new accounts.



REMEMBER Both Admin and Standard accounts can be assigned specific limits by you or another admin account, using the Screen Time pane within Settings.

Another Mark's Maxim is in order:



**MARK'S
MAXIM**

Assign other folks standard-level accounts and then decide whether each new account needs to be modified to restrict access. *Never* assign an account admin-level access unless you deem that access to be truly necessary.

Standard accounts are quick and easy to set up, and I think they provide the perfect compromise between access and security. You'll find that standard access allows your users to do just about anything they need to do with minimum hassle.

Accounts are highly configurable, so you can make sure that your kids don't end up trashing your MacBook's internal drive, sending junk mail, or engaging in unmonitored chatting. (**Note:** Attention, all parents, teachers, and anyone who designs a single public-access account for a library or organization: This means *you*.)

Adding users

All right, Mark. Enough pregame jabbering. Show this good reader how to set up new accounts! Your MacBook already has one admin-level account (created during the initial Sonoma setup process). You need to be logged in to that account to add a user. To add a new account, follow these steps:

1. **In the Users & Groups pane of System Settings, click the Add User button.**

The empty user record sheet shown in [Figure 10-1](#) appears.



TIP

If Settings prompts you for permission to add a user, enter your login password to proceed.

2. **Choose the access level for this user from the New User pop-up menu.**

By default, the user receives a standard-level account. You can also choose an administrator account or a sharing-only account.



TECHNICAL
STUFF

The sharing-only account allows the user to copy or open shared files from your MacBook remotely (from another computer), but that user can't directly log in to your Mac.

3. **In the Full Name text box, type the name you want to display for this account (both in the Current User list and on the Login screen); then press Tab to move to the next field.**



TIP

macOS automatically generates an *account name* in the Account Name field for use as your screen and buddy name in Messages and various network applications. The account name is also the name of the folder that macOS creates on the computer's internal drive for this user. You can keep

the default account name or type a new one, but this name can't contain any spaces.

4. Type the password for the new account; then press Tab.

Having trouble coming up with a new password? Click the button with the key icon next to the Password field, and Sonoma is happy to display the Password Assistant, complete with a suggestion. You can choose the password's length and choose among several types: letters and numbers; numbers only; completely random; or even FIPS-181-compatible (government-quality). Click outside the dialog, and Password Assistant automatically copies the password you're considering into the Password and Verify text boxes. As always, when you enter or verify a password, macOS displays bullet characters for security.

5. If you entered a password manually, type it in the Verify text box and press Tab.

6. (Optional) If you decide to use the password-hint feature, you can enter a short sentence or question in the Password Hint text box.

The hint is displayed after three unsuccessful attempts to enter the account's password.



WARNING From a security standpoint, password hints are taboo. (I *never* use 'em. If someone is having a problem logging in to a computer I administer, you'd better believe I want to know *why*.) Therefore, despite the recommendation that Sonoma shows here, I strongly recommend that you skip this field. If you decide to offer a hint, *keep it vague!* Avoid hints like

“Your password is the name of the Wookiee in *Star Wars*.” And don’t embed the password in the hint!

7. Click the Create User button to finish and create the account.

The new account shows up in the Current User list and the Login screen.

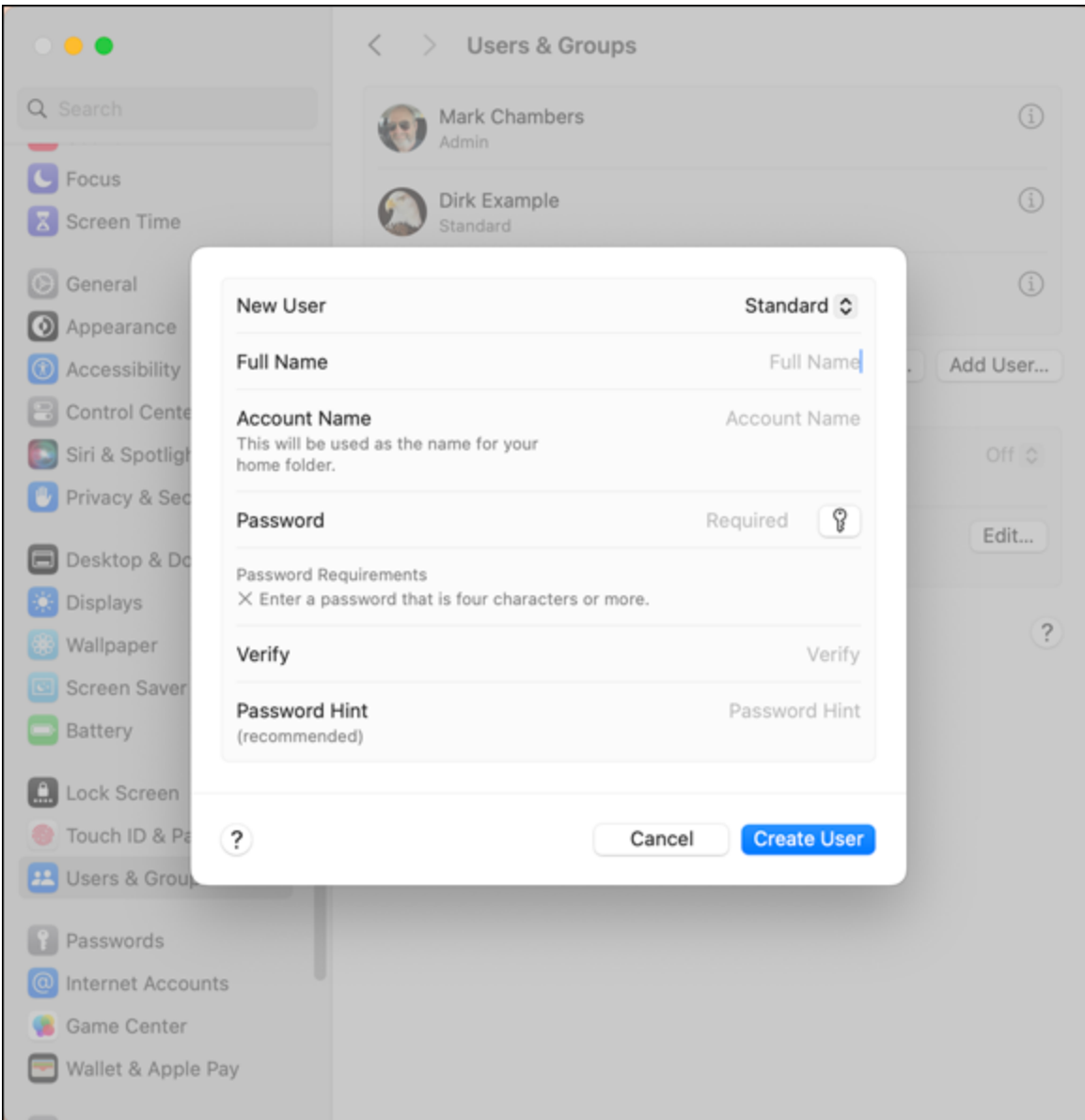


FIGURE 10-1: Fill out these fields, and you have a new user.

Each user's Home folder has the same default subfolders, including Documents, Movies, Music, Pictures, Public, and Downloads. A user can create new subfolders within their Home folder at any time.



TIP You may want to create a single standard-level account for an entire group of people to use. Perhaps you want to leave the MacBook in kiosk mode in one corner of the office, or everyone in a classroom will use the same account on the Mac. Keep your one admin-level account close to your bosom, and create a standard-level account for the Unwashed Horde. (There's also an option to create a Guest account if your MacBook will be used by others only infrequently — you'll find out more in the upcoming sidebar titled "[Working with the Guest account.](#)")

Here's one more neat fact about a user's Home folder: No matter what the account level, most of the contents of a Home folder can't be viewed by other users. (Yes, that includes admin-level users. This way, everyone who uses your MacBook gets their own little area of privacy.) In the Home folder, only the Public folder can be accessed by other users — and only in a limited fashion. (Read all about Home folders in [Chapter 3.](#))

Modifying user accounts

Next, consider the basic modifications you can make to a user account, such as changing existing information or selecting a new picture to represent that user's unique personality.

To edit an existing account, log in with your admin account, display the System Settings window, and click

Users & Groups to display the account list. Then follow these steps:

1. **In the list on the right side of the window, click the Info icon (a circle with a letter *I*) next to the account you want to change.**



REMEMBER If the accounts in the list are disabled and you can't select one, you must unlock the Users & Groups pane. Click the lock in the bottom-left corner of the Settings pane and type your password, if prompted.

2. **Edit the settings you need to change.**

Examples include temporarily enabling administrator rights for an account (by selecting the Allow This User to Administer This Computer switch) and resetting the account password (by clicking the Reset button).

3. **Click the round *picture well* (the circle that displays the image) to specify the thumbnail image that appears in the Login list next to the account name.**

Apple provides several good images (including emojis) in the preview collection. Just click a thumbnail to select it. You can also drag a new image from a Finder window or the Photos window and drop it into the picture well.

Note that some of these choices are available only when you're using an Admin-level account:

- **To choose an image from the default set of macOS icons:** Click the picture well, click the Suggestions entry at the left (see [Figure 10-2](#)), click the desired image, and then click Save.

- **To choose an image from your Photos collection:** Click the Photos entry, click the desired image, and then click Save.

Alternatively, you can click the picture well and then click the Camera entry to grab a picture from your MacBook's built-in FaceTime HD camera. When you're set to take the photo, click the camera icon and then click Save to accept it. *Most* cool. (You can also use Photo Booth to take an account image.)

4. **After you make your changes, press ⌘ + Q to save them and close the Settings window.**

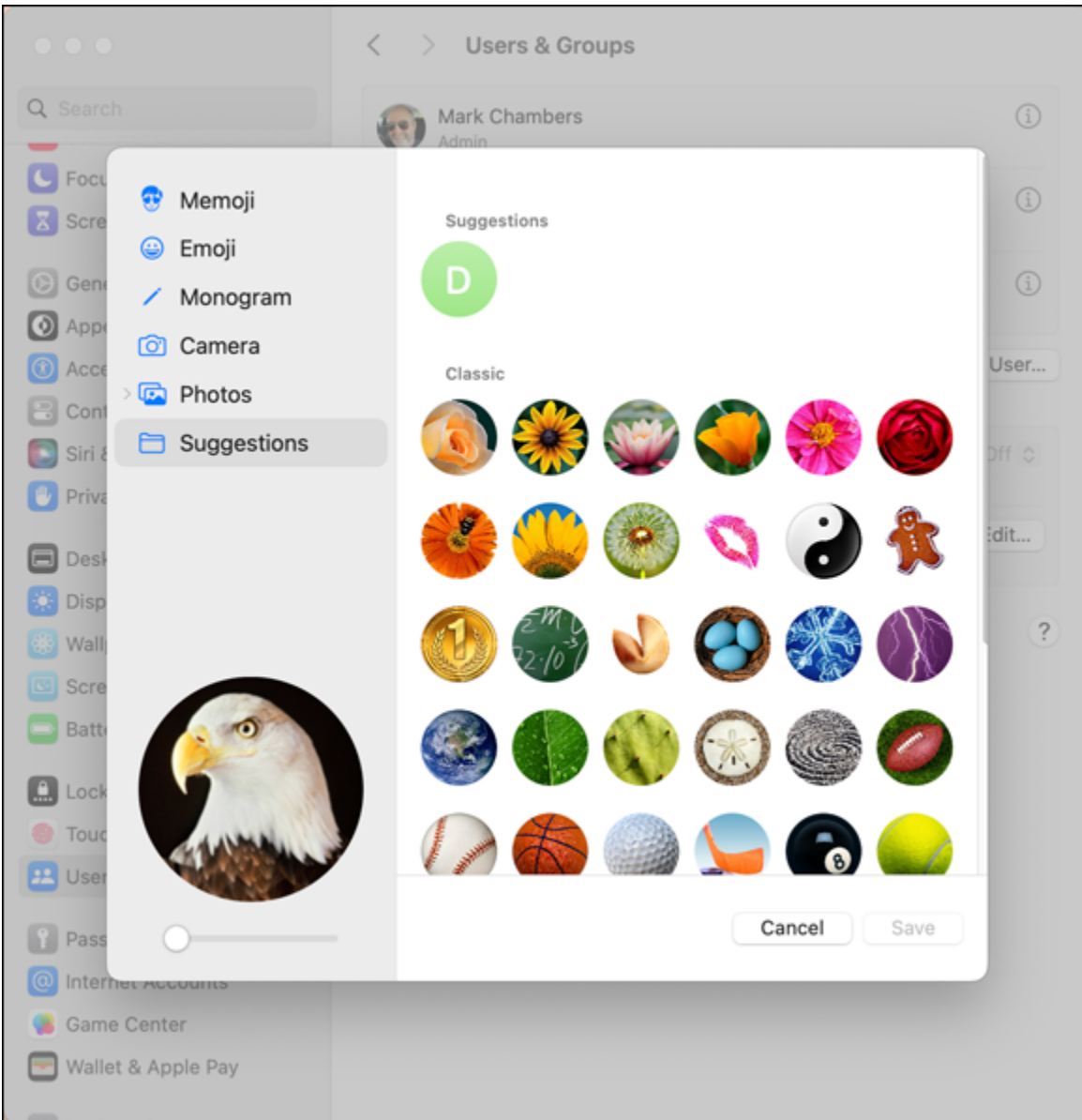


FIGURE 10-2: Choose the image that best represents a user.



TIP Standard-level users have some control of their accounts; they're not helpless, after all. Standard users can log in, open Settings, and click Users & Groups to change the account password or picture as well as the Contacts Card assigned to them in the Sonoma Contacts application. All standard users can

also set up login items, which I cover in “Setting up login items and managing access,” later in this chapter.

Every account on your MacBook can be customized. Understandably, some settings are accessible only to admin-level accounts, and others can be adjusted by standard-level accounts. In the following sections, I introduce you to the things that can be enabled (or disabled) in a user account.

Note, however, that users with limits set may not have access to Account Settings, so they can’t make changes. (Read about this topic in the upcoming section [“Managing an account’s access settings.”](#))

I banish thee, mischievous user!

Not all user accounts last forever. Students graduate, coworkers quit, kids move out of the house (at last!), and Bob might even find a significant other who has a faster broadband connection. (Or he might finally invest in an iPhone.) We can only hope.

Anyway, no matter what the reason, you can delete a user account at any time. Log in with your admin account, display the Users & Groups pane in System Settings, and then follow these steps to eradicate an account:

- 1. In the user list on the right side of the window, click the Info button next to the account you want to delete.**
- 2. Click the Delete User button.**
macOS displays the confirmation sheet shown in [Figure 10-3](#).



TIP

Note that the contents of the user's Home folder can be saved as a disk image in the Deleted Users folder (just in case you need to retrieve something). Alternatively, you can choose to leave the deleted user's Home folder as is, without removing it, but naturally you won't regain any space, even though the user account is deleted.

If you're absolutely sure that you won't be dating that person again, select the Delete the Home Folder radio button (which doesn't save anything in the Deleted Users folder). You regain all the drive space that was being occupied by the contents of the deleted user's Home folder.

- 3. To delete the account, click the Delete User button; if you're not sure, click the Cancel button to abort and return to the Accounts list.**

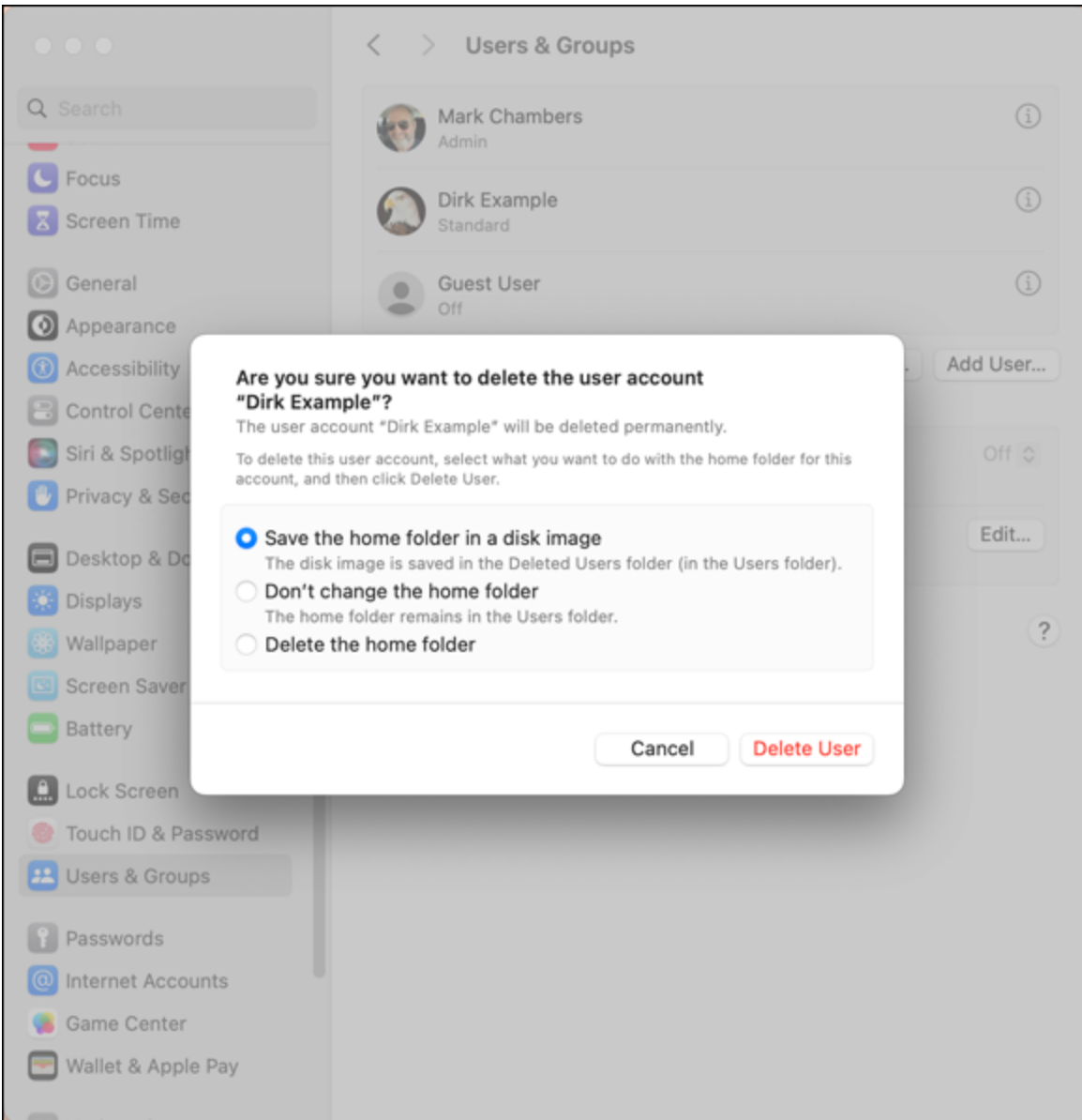


FIGURE 10-3: This is your last chance to save the stuff from a deleted user account.

Time once again for a Mark's Maxim:



**MARK'S
MAXIM**

Always delete unnecessary user accounts. Otherwise, you're leaving holes in your MacBook's security.

WORKING WITH THE GUEST ACCOUNT

The *Guest* account is a convenient method of granting someone temporary access to your MacBook. In fact, your guest doesn't even need a password to log in. Your Guest account has all the attributes of a standard account, so the visitor has little chance of accidentally (or purposely) damaging your system. Nevertheless, after the guest user logs out, the Guest account is "flushed," and all the data and files that person created in the account are deleted automatically, allowing the next guest to start with a clean slate.

By default, the Guest account is disabled. To turn this feature on, open System Settings, click Users & Groups, and then click the Info button next to the Guest User entry in the list. (You may have to provide your admin password before you can continue.) Click the switch titled Allow Guests to Log In to This Computer to enable the Guest account. (You can limit access to adult websites and allow access to shared folders from this dialog as well.) Click OK to save the change.

Oh, and don't forget that you can manage access for the Guest account using the Screen Time pane in Settings, just as you can for any other standard-level account. This feature should come in handy if your child has a slumber party coming up this weekend.

Setting up login items and managing access

Every account on your MacBook can be customized. Understandably, some settings are accessible only to admin-level accounts, and others can be adjusted by standard-level accounts. In the following sections, I introduce you to the things that can be enabled (or disabled) in a user account.

Automating with login items

Login items are applications or documents that can be set to launch or load automatically as soon as a specific user logs in, such as Apple Mail or Contacts. In fact, a user **must** be logged in to add or remove login items. Even an admin-level account can't change the login items for another user.



REMEMBER A user must have access to the Users & Groups pane in Settings to use login items. As you see in the following section, a user can be locked out of Settings, which makes it more difficult for login items to be changed for that account. (Go figure.) Therefore, if the account is limited and access to Settings has been turned off, an administrator must enable the account's access to Settings, allowing the restricted user to add or delete login items.

To set login items for your account, follow these steps:

1. **Click the System Settings icon on the Dock and then click the General entry in the System Settings sidebar.**
2. **Click the Login Items entry to display the settings shown in [Figure 10-4](#).**

It bears repeating: You can change the Login Items for only the account that's currently logged in, so be sure that the desired account appears below the Current User heading in the sidebar on the left side of the dialog.

3. **Click the Add button (with the plus sign) to display a file-selection sheet.**
4. **Navigate to the application you want to launch each time you log in, click it to select it, and then click Open.**

If you're in the mood to drag and drop, just drag the applications you want to add from a Finder window and drop them directly into the list.

5. **Press ⌘ + Q to quit Settings and save your changes.**

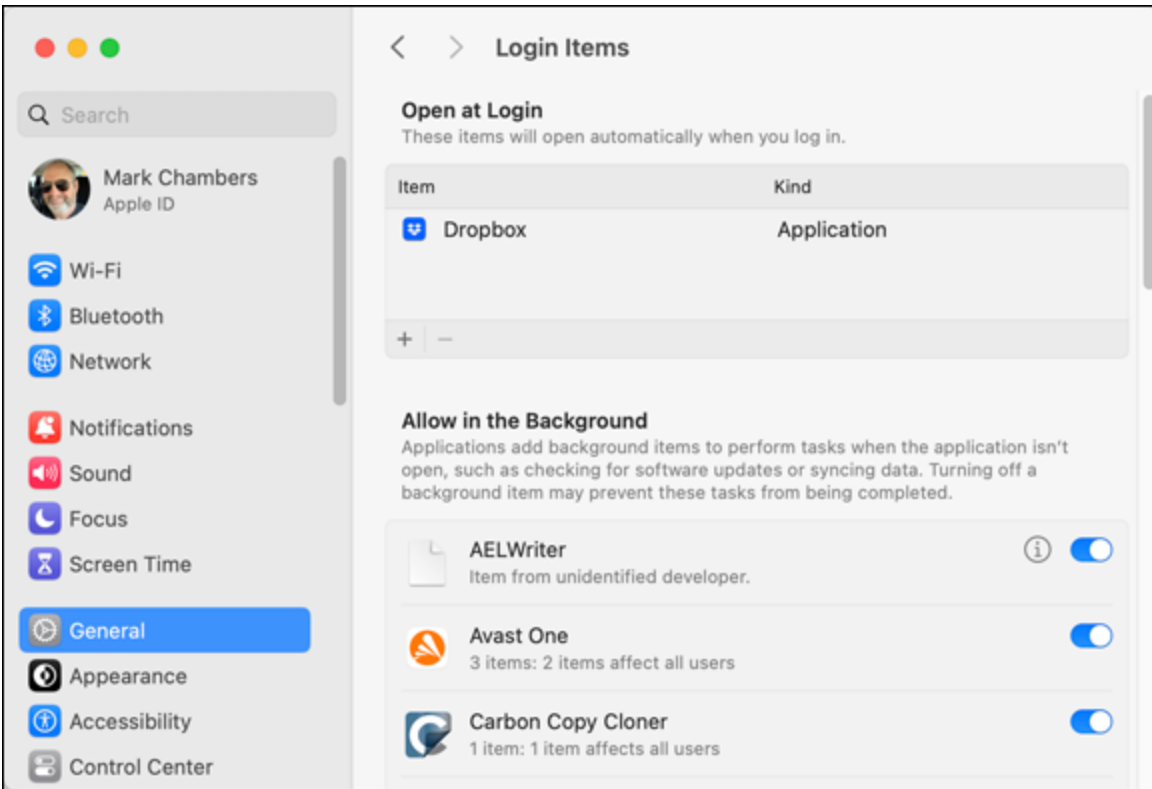


FIGURE 10-4: Add apps to your Login Items list.



TIP

If the application is running at the moment, you can take an easy shortcut to avoid these steps: Simply right-click the application icon on the Dock and choose Options ⇒ Open at Login from the shortcut menu.

Login items are launched in the order in which they appear in the list, so feel free to drag the items into any order you like.



TIP

It's a good idea to limit the amount of login items, especially on older Macs. Login items may be automatic and convenient, but too many of them can dramatically slow the boot process each time you start your MacBook. No one wants to wait 3 minutes before starting to work or play!

Managing an account's access settings

Any account on your MacBook can be limited or restricted as necessary. You can restrict access to many places in Sonoma and your MacBook's applications. Note that you can use Screen Time with your administrator account as well.



REMEMBER

In short, limits and restrictions come in handy for preventing users — family members, students, coworkers, friends, or the public at large — from damaging your files, your software, or macOS Sonoma itself.

To display the access controls for a standard account, start here:

- 1. Log in by using your Administrator account.**
- 2. Open Settings and click the Screen Time entry in the Settings sidebar.**

The Screen Time pane appears.

- 3. Click the Lock Screen Time switch to enable it and specify a passcode when prompted.**

If prompted to convert this account to a Standard account, click Allow This User to Administer This

Computer and click Continue. (You're setting just the passcode at this point.)

- 4. Click the red Close button in the top-left corner of Settings to close the window and save your changes.**
- 5. Log in using the Standard-level account you want to manage (by logging out of your administrator account or using Fast User Switching) and return to the Screen Time pane in Settings.**
- 6. Select Downtime on the right side of the pane to display the schedule settings shown in [Figure 10-5](#).**

To set a downtime schedule, click the switch in the top-right section of the pane to turn on Downtime, and then click the Schedule pop-up menu to specify whether the schedule applies every day or on a specified custom range of days. Sonoma restricts the use of your MacBook according to your settings. Click the Back button (the left arrow at the top of the pane) to return to the Screen Time settings.

- 7. Select App Limits on the right side of the pane to limit the time spent on specified applications.**

When you click the App Limits switch in the top-right section of the pane, you can limit the use of all applications to a certain amount of time or click the Add Limit button to specify a category of applications to add to the list. To change the amount of time allowed for a category, hover your cursor over the desired entry and then click the Edit button that appears. To disable the limits on an application category, click the switch next to the category — this is a good idea when you want to temporarily allow more time for a category of applications, but you plan

to restore the limit in the future. When you're finished setting limits, click the Back button to return to the Screen Time settings.



TIP

You can also remove the limit on a category entirely by displaying the Edit dialog and clicking Remove Limit, which also deletes the category completely from the Limits list.

8. Select Always Allowed on the right side of the pane to specify applications that can be used at any time.

The selected applications will *always* be available, even during downtime (and after limits on application use have been reached). Click the Back button to return to the Screen Time settings.

9. Select Content & Privacy on the right side of the pane to set restrictions on purchases through Apple Stores as well as age-appropriate content.

Click the switch next to the Content & Privacy heading to enable restrictions.

10. Click the Store Restrictions entry and make the desired changes.

Ratings limits are available for purchasing applications, movies, TV shows, books, and music across all the content available in the iTunes Store. (This feature is some powerful stuff, parents!) Besides restricting the user's ability to shop for explicit books, music and video, you can prevent the user from installing or deleting apps on iOS devices. Click Done when you're finished.

11. **Click the Content Restrictions entry (shown in [Figure 10-6](#)) to choose limits on websites and games.**

Sonoma offers three levels of control for websites from this screen. Click the Access to Web Content pop-up menu and choose the desired setting:

- **Unrestricted Access:** Select this to allow unfettered access for this user.
- **Limit Adult Websites:** You can allow Safari to automatically block websites that it deems to be adult. To specify sites that the automatic “adult filter” should allow or deny, click the Customize button.
- **Allowed Websites Only:** Choose this menu item to specify which websites the user can view. To add an approved website, click the Customize button, click the Add (plus sign) button, and respond to the prompt for a title and the website address.

Click the Done button to return to the Content & Privacy settings.

12. **Click the Preference Restrictions button to set restrictions on a range of Sonoma features.**

Click the Done button to return to the Content & Privacy settings.



REMEMBER If you want to prevent the user from removing the restrictions you've set within Screen Time, don't forget to disable the Allow Account Changes switch on the Preference Restrictions dialog! (Disabling this switch locks the settings throughout Screen Time for this user, requiring the passcode you set up in Step 3 to unlock them.)

13. **Click the red Close button in the top-left corner of System Settings to close the window and save your changes.**

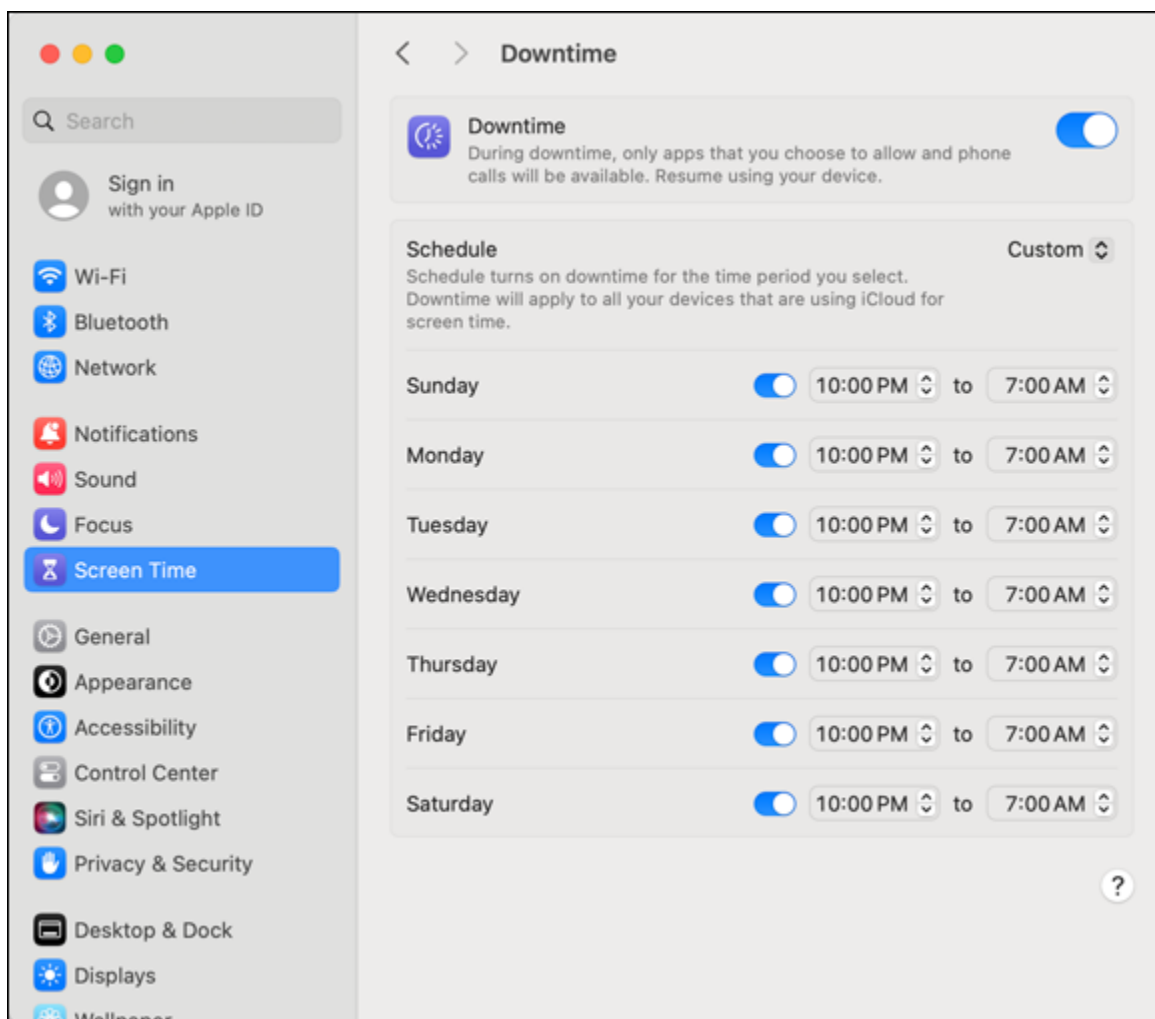


FIGURE 10-5: You can schedule downtime for restricted accounts.

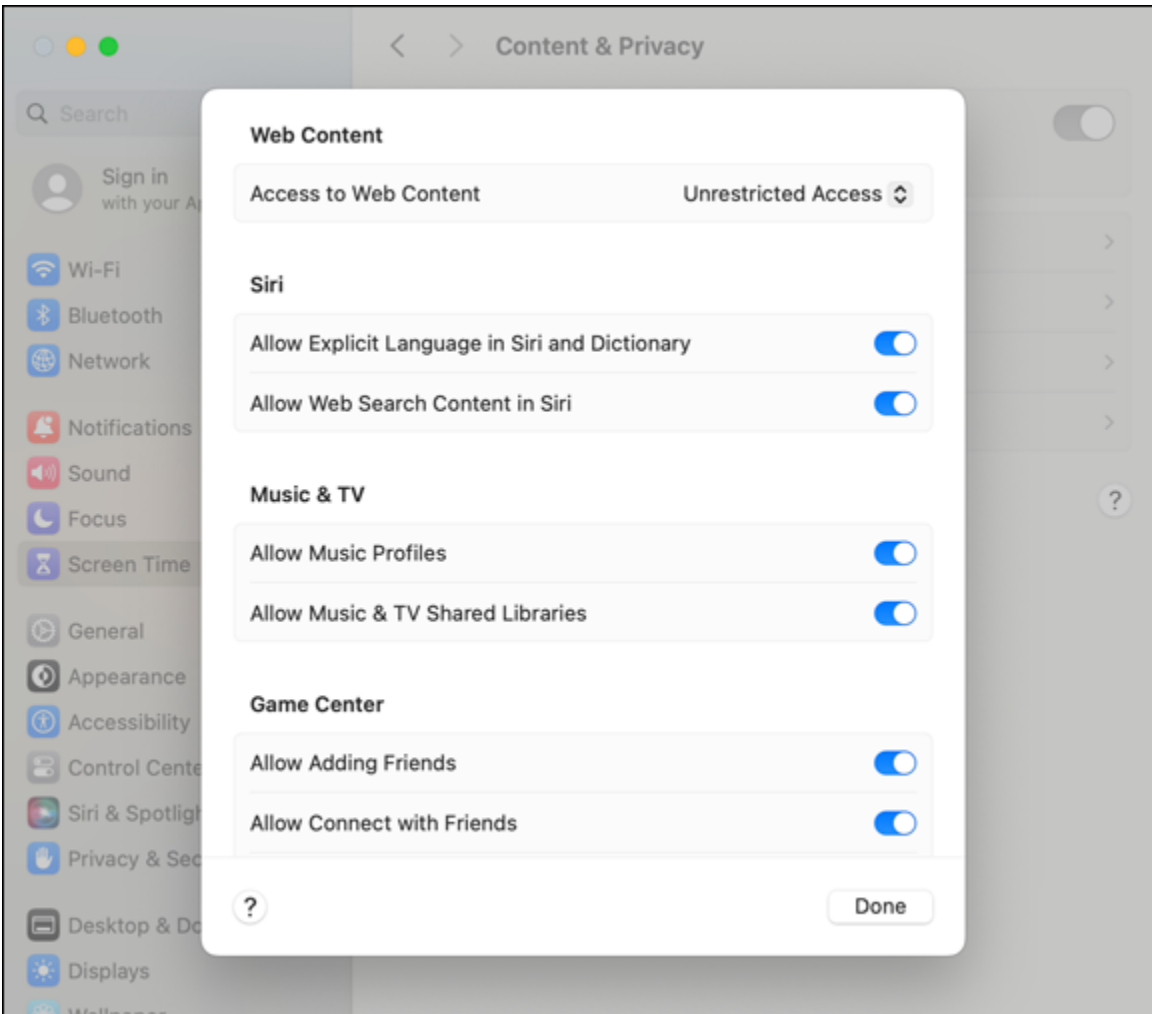



FIGURE 10-6: Sonoma keeps track of content to protect your kids.



TIP Would you like to set up a public-access MacBook? You can also change the Automatic Login account from the Users & Groups pane in System Settings. Click the Automatically Log In As pop-up menu, and choose the account that automatically logs in when macOS starts. On the confirmation sheet that appears, enter the account's password and click OK. I've made it clear elsewhere that Automatic Login is *not* a good security feature in most cases, but it can be a good feature if you're preparing a MacBook for

public use. If you set Automatic Login to your public standard-access account, macOS automatically uses the correct account if the Mac is rebooted or restarted.



REMEMBER You can always choose  ⇒ Log Out to log in under your own account, or use the Fast User Switching feature, which I describe in the next section.

Tackling Mundane Chores for the Multiuser MacBook

When you're hip to user accounts and the ways you can change them, you can turn to topics that affect all users of your MacBook. These topics include how users log in, how they can share information with everyone else on the computer, and how each user account can be protected from unscrupulous outsiders with state-of-the-art encryption. (Suddenly, you're James Bond! I told you that Sonoma would open new doors for you.)

Logging in and out of Sonoma For Dummies

Hey, how about the login screen itself? How do your users identify themselves? It's time for another of my "shortest books in the *For Dummies* series" special editions. (The title is practically longer than the entire book.)

Exploring your login options

Sonoma offers four methods of logging folks in to your multiuser MacBook, all of which you can access by clicking the Lock Screen entry in System Settings:

- » **Name and Password login:** This screen is the most secure type of login screen you'll see in Sonoma, requiring you to type your account username and password. (A typical hacker won't know all the usernames on your MacBook.) Press Return to complete the process.

When you enter your password, you see bullets rather than your password because Sonoma displays bullet characters to ensure security. Otherwise, someone could look over your shoulder and see your password.



MARK'S
MAXIM

Keep your MacBook secure: Use the Name and Password login method, and always choose a password that's tough to guess.

- » **List of Users login:** This login screen offers a good middle of the road between security and convenience. Hover your cursor over the account image on the login screen and click your username, then type your password. Press Return to continue.
- » **Fast User Switching:** This feature allows another user to log in while the previous user's applications are still running in the background. This feature is perfect for a fast email check or a scan of your eBay bids without forcing someone else off the MacBook. To turn on Fast User Switching
 1. **Open System Settings.**
 2. **Click the Control Center entry in the sidebar.**

3. **Scroll to the Fast User Switching heading.**
4. **Click the Show In Menu Bar pop-up menu and choose Account Name.**
5. **Click the Back arrow to return to the System Settings.**

Sonoma now displays the active user's name on the Finder menu bar.

To switch to another account:

1. **Click the current user's name in the Finder menu (see [Figure 10-7](#)).**
2. **Choose the name of the user who wants to log in.**

Sonoma displays the login window, just as though your MacBook had been rebooted.



WARNING The previous user's stuff is still running, so you definitely shouldn't reboot or shut down the computer!

To switch back to the previous user:

1. **Click the username on the Finder menu again.**
2. **Choose the previous user's name.**

For security, Sonoma prompts you for that account's login password.

» **Auto Login:** This option (set from the Users & Groups pane) is the most convenient method of logging in but offers no security whatsoever. Sonoma automatically logs in to the specified account when you start or reboot your MacBook.



WARNING I *strongly recommend* that you use Auto Login *only* if

- Your MacBook is in a secure location, such as your home or a locked office. If you're on the road, you and your data need the protection of a name and password login!
- You can guarantee that you're the only one using your MacBook. *Period.*
- You're setting up a public-access Mac kiosk, in which case you want your MacBook to log in with the public account.



WARNING Working in a public environment? *Never* set an admin-level account as the Auto Login account. This is the very definition of an SDI (Supremely Dumb Idea).

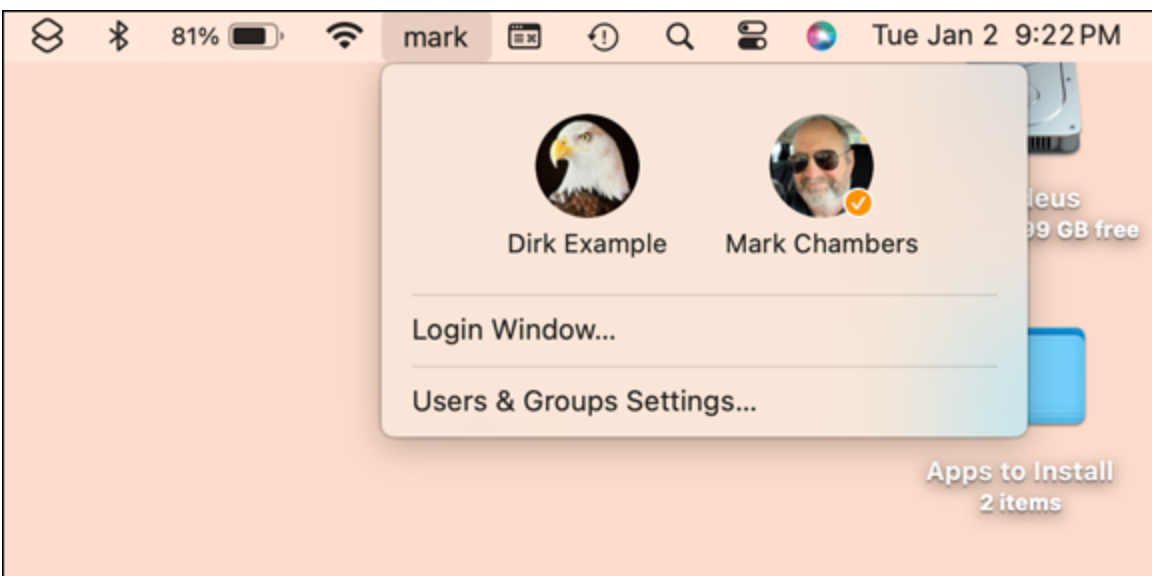



FIGURE 10-7: The Fast User Switching menu, unfurled for all to see.

Logging out

Logging out of Sonoma all the way without Fast User Switching is a cinch. Just choose  ⇒ Log Out or press ⌘ + Shift + Q. A confirmation dialog appears that automatically logs you off in 1 minute. And that 1 minute is important, because if someone walks up and clicks Cancel, they'll be using your MacBook with your account! Therefore, it's a good idea to bypass the confirmation dialog by pressing Option while choosing Log Out from the menu (or by adding the Option key to the keyboard shortcut). Your MacBook returns to the login screen, ready for its next victim. Heed this Mark's Maxim:



MARK'S
MAXIM

Always click the Log Out button in the logout confirmation dialog before you leave your Mac (or use the Option key to bypass the confirmation dialog), and double-check to make sure that the logout completes successfully.

Interesting stuff about sharing stuff

You may wonder where shared documents and files reside on your MacBook. That's a good question. Like just about everything in Sonoma, the answer is simple: The Users folder on your MacBook has a Shared folder within it. To share a file or folder, place it in the Shared folder.



TIP

You don't have to turn on file sharing in the Sharing pane of Settings to use Shared folders on your MacBook. File sharing affects only network access to your machine by users of other computers.

Each user account on your MacBook also has a Public folder in that user's Home folder. The Public folder is a read-only folder that other users on your MacBook (and across the network) can access. They can only open and copy the files it contains. (Sorry, they can't create new documents or change existing documents created by other users.)

Encrypting your Home folder can be fun

Allowing others to use your MacBook always incurs a risk — especially if you store sensitive information and documents on your computer. Although your login password should ensure that your Home folder is off limits to everyone else, consider adding an extra level of security to prevent even dedicated hackers from accessing your stuff. Have one forgetful moment in an airport or classroom, and your personal and business data is suddenly within someone else's reach. Adequate security is a Supremely Good Thing!

To this end, Sonoma includes *FileVault*, which automatically encrypts the contents of your MacBook's drive. Without the proper key (in this case, your login password, your Apple ID, or the FileVault recovery key), the data stored on your drive is impossible for just about anyone to read. (I guess that the FBI or CIA would be able to decrypt it, but they're not likely to be problems at your place!)

The nice thing about FileVault is that it's transparent to you and your users. In other words, when you log in, Sonoma automatically decrypts your encrypted files and folders. You won't even know that FileVault is on the job (which is how computers are *supposed* to work).

To turn on FileVault protection for a specific account, follow these steps:

- 1. Click the System Settings icon on the Dock and then click the Privacy & Security entry in the sidebar.**
- 2. On the Privacy & Security pane, click the FileVault entry at the bottom of the pane.**
- 3. Click the Turn On button.**
- 4. Specify whether your iCloud (Apple ID) account can be used to reset your password and unlock your disk; then click Continue.**

For most MacBook owners, the Allow My iCloud Account to Unlock My Disk option is probably fine, but if you're security-conscious, or if you've shared your iCloud account information with others, select the radio button titled Create a Recovery Key and Do Not Use My iCloud Account.

- 5. If you decide to create a separate recovery key, write down the FileVault recovery key displayed by Sonoma and store it in a safe place.**



TIP

To avoid making mistakes, you can capture an image of your screen by pressing ⌘ +Shift+5 and clicking Capture. The screen shot appears on your Desktop as an image file. You can open that file and print a copy, or even copy an image file to a USB flash drive or another computer on your network for safekeeping. (Naturally, you'll delete the image after it's been printed or copied elsewhere.)



WARNING

I love the FileVault feature and use it on all my Macs running Sonoma. Yet a risk is involved (insert ominous chord here). To wit: *Do not forget your login and iCloud account passwords (or make DOGGONE sure that you or your Admin user has access to a copy of that all-important FileVault recovery key)! macOS displays a dire warning for anyone who's considering using FileVault: If you forget these safeguards, you can't retrieve any data from your MacBook's drive. Even the smartest Apple support technician will tell you that nothing can be done. As Jerry Reed used to say, "It's a gone pecan" (with *pecan* pronounced Southern style, as "puh-kahn").*

- 6. If necessary, click Enable User, provide the login password for each user on your account, and then click Continue.**



REMEMBER Each user on your MacBook has to be enabled to use the MacBook after FileVault has been turned on. If you don't know the login passwords for the other user accounts on your system, you have to ask each person to provide their password to continue. (If an account isn't enabled, that person can't access anything on the drive after it has been encrypted.) Your MacBook automatically begins the encryption process. You can continue to use your laptop normally during encryption. Click the Back button to return to System Settings.

You're done!

Chapter 11

Working Well with Networks

IN THIS CHAPTER

- » **Considering the benefits of a network**
 - » **Choosing between wired and wireless networks**
 - » **Sharing an connection**
 - » **Gathering the stuff you need to network**
 - » **Making the network connection**
 - » **Using your network**
 - » **Protecting your MacBook with a firewall**
-

In my opinion, network access ranks right up there with air conditioning and the microwave oven. Like other “I can’t imagine life without them” kinds of technologies, it’s hard to imagine sharing data from your MacBook with others around you without a network. I guess you could still use a *sneakernet* (the old-fashioned term for running back and forth between computers with a floppy disk), but these days, Apple computers don’t even *have* floppy drives. (Even if you use a high-capacity USB-C external drive, a sneakernet is still a hassle — and somewhat of a security risk to boot.)

Nope, networking is here to stay. Whether you use a network to share an internet connection, challenge your friends to a relaxing game of World War II battlefield action, or stream your MP3 collection to other

computers, you'll wonder how you ever got along without one. In this chapter, I fill you in on all the details you need to know to get your svelte MacBook hooked up to a new (or existing) network.

What Exactly Is the Network Advantage?

If other members of your family have computers, or if your MacBook is in an office with other computers (*including* those rascally PCs), here's just a sample of what you can do with a network connection:

- » **Share an internet connection.** This is *the* major reason why many families and most small businesses install a network. Everyone can simultaneously use the same digital subscriber line (DSL), fiber, or cable internet connection on every computer on the network. Although your MacBook can do the sharing chores by itself — I show you how in this chapter — most folks either buy a standalone router as a sharing device or rent one as part of their internet service.
- » **Share a printer.** You say your fellow employee — or, even worse, your big sister — has a great printer connected to her computer? Luckily, that printer can be shared with anyone across your network.
- » **Copy and move files of all sizes.** Need to get a Keynote presentation from one Mac to another? With a network connection, you can accomplish this task in literally seconds. Otherwise, you'd have to copy that file to a USB flash drive, use AirDrop, or use an external hard drive. A network connection makes copying as simple as dragging the project folder from

one Finder window to another. (Or you could use your iCloud Drive. Your choice!)

- » **Share documents across your network.** Talk about a wonderful collaboration tool! You can drop a Microsoft Word document or Keynote presentation file in your Public folder (or save it in your iCloud Drive) and ask for comments and edits from others in your office (or around the planet).
- » **Communicate with friends and family.** Use the Messages app to send and receive instant messages (including folks using smartphones), or enjoy a video chat using FaceTime. [Chapter 12](#) covers the joys of messaging.
- » **Stream music and video.** With macOS Sonoma, you can share your audio and video media collection on your MacBook with other Macs and PCs (and even devices such as an Apple TV or an AirPlay speaker system) on your network. Your eyes and ears can't tell the difference! Using a network connection, you can also watch streaming TV and movies from services such as Netflix and Hulu.
- » **Play multiplayer games.** Invite your friends over, and tell 'em you're hosting a *LAN party* (the technonerd term for a large gathering of game players connected through the same network, all playing the same multiplayer game). Alternatively, you can play virtually all of today's games remotely, challenging other players across the internet — a great feature if you're stuck in a hotel room for the evening. (Or, as many MacBook owners discovered, if you're quarantined at home during a pandemic.)

If your MacBook isn't within shouting distance of an existing network, or if you don't plan on buying any

additional computers, you may not need to create a network. A lone MacBook hanging out in your home with no other computers around should need a network only for internet access.



REMEMBER If you have just your MacBook and an internet connection through a high-speed fiber/cable modem, and you have no plans to add another computer, wireless equipment, a network printer, or a mobile device, a network probably isn't necessary.

Should You Go Wired or Wireless?

After you decide that you indeed need a network for your home or office, you have another decision to make: Should you install a *wired* network (running cables between your computers) or a *wireless* network? Heck, should you throw caution to the wind and build a combination network with both wireless and wired hardware?

Your first instinct is probably to choose a wireless network for convenience. After all, this option allows you to eliminate running cables behind furniture, in the walls, or in your office ceiling. Ah, but I must show you the advantages of a wired network as well. [Table 11-1](#) gives you the lowdown to help you make up your mind.

TABLE 11-1 Wireless versus Wired Networks

Factor	Wireless Networks	Wired Networks
Speed	Moderate	Much faster

Factor	Wireless Networks	Wired Networks
Security	Moderate	Better
Convenience	Much better	Worse
Compatibility	Confusing standards	Easier to understand
Cables	Few (or none)	Required

As I see it, here are the advantages of choosing a wired versus a wireless network setup:

» **Wired:** Using a wired network offers two significant perks over a wireless network:

- **Faster speeds:** In general, wired networks that are compatible with your MacBook are many, many times faster than the fastest 802.11ax wireless connections.



WARNING The performance of a wireless connection can be compromised by interference (from impeding structures, such as concrete walls, and from household appliances, such as some smartphones and microwave ovens) as well as by distance. A wireless network can also slow down because of interference from other wireless networks, especially in densely populated areas. Wired networks have no such problems as long as you keep your cables to lengths of 25 feet or less.

- *Better security:* A wired network doesn't broadcast a signal that can be picked up outside your home or office, so it's more secure.



WARNING Hackers can attack through your internet connection, though, even if you're using a wired network. Hence the final section of this chapter, "[Use Your Firewall!](#)"

» **Wireless:** A wireless connection really has only one advantage, but it's a big one: *convenience* (which in this case is another word for *mobility* for all your networked devices). Laptop owners crave this independence — a freedom that desktop computer owners can only dream about.

Accessing your network anywhere within your home or office — without cables — is easy. Connecting a wireless printer is a breeze.

GRAFTING WIRELESS ACCESS TO A WIRED NETWORK

Maybe you're caught in the middle when trying to choose between wired and wireless networking. Or perhaps you're already using a wired network with your laptop but are thrilled by the idea of sitting on your deck in the sunshine, checking your email on your MacBook, untethered. By combining both technologies, you can get the faster transfers of a wired network among all the computers in your office and the freedom you crave. In fact, your cable, fiber, or DSL internet provider may offer a combo router that provides both wired and wireless connections.

In my home office, I use a wireless base station that includes a built-in wired switch. My family gets all the convenience that a wireless network offers, and everyone can connect to the internet from anywhere in our house. On the other hand, my office computers have the faster performance and tighter security of a wired network. *Sassy indeed!*

Be a Pal: Share Your Internet!

It's time to see what's necessary to share an internet connection. In the following sections, I cover two methods of connecting your network to the internet. (And before you open your wallet, keep in mind that you might be able to use your MacBook to share your broadband connection across your network!)



WARNING Naturally, sharing an internet connection should be done only with those devices and computers that you trust and consider to be secure (typically, only the hardware within your home network).

Using your MacBook as a sharing device

Because your MacBook has built-in wireless hardware, you can use your Mac to provide a shared internet connection across a simple wireless network by using a fiber, broadband DSL or cable connection.



REMEMBER When your MacBook is functioning as an internet-sharing device, it uses Sonoma's built-in internet-connection-sharing feature to get the job done, *but your MacBook must remain turned on to allow internet sharing.* (And, of course, it has to remain within wireless range of your other devices, so no road trips.) I show you how to do this in the later section "[Network internet connections.](#)"

Using a dedicated internet-sharing device

You can also choose to use a dedicated internet-sharing device (often called an *internet router*) to connect to your cable, fiber, or DSL modem. You do have to buy this additional hardware, but here's the advantage: Your MacBook doesn't have to remain turned on just so that everyone can get on the internet. (Most Mac owners prefer this method of sharing.)

As I mention earlier, internet routers usually include wired or wireless network connections, and many include both.

Setting up an internet router is usually a simple matter, but the configuration depends on the device manufacturer and usually involves changes in System Settings that vary according to the router model. Grab a diet cola, sit down with the router's manual, and follow the installation instructions you find there. (In some cases, you must set up your cable/fiber/DSL modem as a bridge between your ISP and your router, which should be covered in your modem and router manuals as well.)



TIP Most internet routers offer a DHCP server, which automatically assigns internet protocol (IP) addresses, and I *strongly* recommend that you turn on this feature! (You can read more about DHCP in the sidebar “[The little abbreviation that *definitely* could.](#)”)

What Do I Need to Connect?

Most *normal* folks (whom I define as “those who have never met a network system administrator and couldn’t care less”) think that connecting to a network probably involves all sorts of arcane chants and a mystical symbol or two. In the following sections, I provide you the shopping list you need to set up your own network or connect to a network that’s already running.

Wireless connections

Today’s MacBook laptops come complete with built-in wireless hardware, so if you already have an older AirPort Extreme or Express Base Station (or another brand of base station), you’re all set. Otherwise, hold on tight while I lead you through the hardware requirements for wireless networking.



REMEMBER The maximum signal range — and effectiveness — of any wireless network can be impeded by walls or electrical devices, such as microwave ovens and some wireless phones, all of which can generate interference.

Connecting a MacBook to an existing wireless network

Connecting an MacBook to an existing wireless network requires no extra hardware, because your hardware is built in. (Whew. That was easy!)

Using a base station to go wireless

If you decide that you want to build your own wireless network, you eschew cables, or you want to add wireless support to your existing wired network, you need a *base station*. (If you do have an existing wired network, the base station can act as a bridge between computers using wireless hardware and your wired network, allowing both types of computers to talk to each other.) Such a wireless base station will have either

- » A port that can connect to your existing wired network's switch
- » A full built-in switch for wired connectivity (which means that you can sell your old wired Ethernet switch to your sister in Tucson)

And, of course, a base station can simply act as a central switch for your wireless network (with no support for a wired network).



REMEMBER It's important to note that most internet service providers (ISPs) can supply you with a modem for your fiber, DSL, or cable connection that has a built-in wireless base station — so your existing internet connection hardware may already *have* wireless capability! If you're not sure about the capabilities of your existing modem, contact your ISP and ask them whether you have wireless support (and, if you do, ask for a tech visit to help you set up a wireless network).

The 802.11ac wireless standard used by older MacBooks delivers a connection that's several times faster than legacy 802.11b/802.11g/802.11n wireless standards of decades past. But fret not! The 802.11ax hardware that

comes with the latest MacBooks is also compatible with *all* the older standards — 802.11b/a/g/n/ac — so I highly recommend that you stick with 802.11ax in the future, which both plays well with others and provides better performance to boot!

Unfortunately, Apple no longer sells its line of wireless base stations. However, you'll find a plethora of third-party base stations that will do the job just fine.

Naturally, you should take a gander at the manufacturer's installation guide just to make sure, but I've added many brands of these devices, and I used the same general steps for each one.



TIP It's always a good idea to invest in non-Apple hardware that explicitly supports macOS Sonoma. That way, you're guaranteed both documentation and support for the Mac, and possibly even installation software! Moral of the story? Check the supported hardware and software before you invest in a base station.

Follow these steps to add a base station to your broadband connection:

- 1. If you have a DSL, fiber, or cable modem, connect it to the WAN (wide-area network) port on the base station with an Ethernet cable.**
- 2. If you have an existing wired Ethernet computer network with a switch or router, connect it to the Ethernet LAN (local-area network) port on the base station with an Ethernet cable.**
- 3. If you have a USB printer, connect it to the USB port on the base station.**



TIP

I cover the steps for sharing a printer in the later section “[Sharing a network printer.](#)”

4. **Connect the power cable.**
5. **Switch on your base station.**
6. **If your base station has macOS installation software, launch the installer on your MacBook.**

Joining a wireless network

To join a wireless network, follow these steps on each Mac with wireless support:

1. **Click the Wi-Fi status icon (which looks like a fan) on the Finder’s menu bar. If the Wi-Fi switch at the top of the menu is turned off — the switch is toggled to the left — click the Wi-Fi switch to turn it on.**
2. **Next choose an existing network connection that you’d like to join.**

The network name is the same as the network name you chose when you set up your base station. (Note that you may have to click the Other Networks entry in the menu to display it.)

3. **If you set up a secure network, enter the password you assigned to the network during setup.**

By the way, security is always A Good Thing. I strongly recommend that you enable the password-encryption features of your Apple or third-party base station while installing it. In the words of an important Mark’s Maxim:



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Keep uninvited guests out of your network! Use your base station's security features and encrypt your data by using WPA2 encryption!

Some wireless networks may not appear in your Wi-Fi menu list. These are *closed networks*, which can be specified when you set up your base station. You can't join a closed network unless you know the exact network name (which is far more secure than the base station simply broadcasting the network name). To join a closed network, follow these steps:

- 1. Click the Wi-Fi status icon on the Finder's menu bar, choose Other Network, and then click Other... at the bottom of the menu.**
- 2. Type the network's name.**
- 3. If the network is secured with WPA/WPA2, WPA2/WPA3, WEP, or Dynamic WEP encryption (the security standards for protecting your data through encryption), click the Security pop-up menu, and choose which type of encryption is being used.**

I recommend avoiding WEP and Dynamic WEP encryption whenever possible. Your best bet is WPA2 or WPA3 encryption. These types are the current standards for home wireless networks, so always choose one of them when available. Most home base stations will use the WPA2/WPA3 Personal setting.

- 4. Enter the network password, if required.**
- 5. Click Join.**

To disconnect from a Wi-Fi network, click the Wi-Fi menu and then click the Wi-Fi switch to turn it off (or connect to another wireless network). In other words, if you choose another available wireless network from the Wi-Fi menu, your MacBook automatically drops the previous connection. (You can be connected to only one wireless network at a time, which makes Good Sense.)

TRANSFERRING FILES THE EASY AIRDROP WAY

AirDrop is the local Mac-to-Mac file transfer feature built into macOS Sonoma, and it couldn't be easier to use. No setup and no passwords are involved! But it comes with two caveats:

- AirDrop uses the Bluetooth and Wi-Fi hardware built into today's MacBooks and desktops, so don't forget to turn on both Bluetooth and Wi-Fi first. (If you're displaying these wireless status icons on your Finder menu bar, click the icon and click the switch to toggle it on. AirDrop will also prompt you to turn either wireless system on when necessary.)
- You have to be within Wi-Fi signal range of another Mac to use AirDrop. Note, however, that the two computers *don't* have to be using the same Wi-Fi network. (My MacBook uses a wired connection to my network, but because the MacBook has internal Wi-Fi hardware, I can use AirDrop to send files to my MacBook Air.) Because AirDrop uses a Wi-Fi connection, file transfers are significantly slower (and far less secure) than they'd be over a wired Ethernet network. (It's a good idea to AirDrop only with folks you know.)

To use AirDrop to transfer files to another Mac, both users should click the AirDrop icon in any Finder window's Sidebar to join the AirDrop group. After a short delay, you see the account pictures for all Macs within signal range and with AirDrop open. Just drag the files you want to transfer to the person's picture. Both you and the recipient are prompted for confirmation before the transfer begins. When the transfer is complete, the files you sent are saved in the recipient's Downloads folder.

When you're done using AirDrop, just close the Finder window displaying the account pictures (or click another location on the Finder window's Sidebar) to exit the AirDrop group. (Don't forget that you have to reopen AirDrop if someone wants to send you files. I leave my AirDrop Finder window open and minimized to the Dock.)

Wired connections

If you own a late-model MacBook Air or MacBook Pro, your machine didn't come from Apple with a wired Ethernet port onboard, but you can add a USB-C/Thunderbolt-to-Ethernet connector that allows you to use a wired network. After you add the connector to your system, you can follow along without any problem. You just connect the hardware and configure the connection. Don't forget that you also need cables and an inexpensive Ethernet switch. (If you're using an internet router or other hardware-sharing device, it almost certainly has a built-in four- or eight-port switch.)



TIP If you've (wisely) invested in a docking station for your MacBook, it very likely has a wired Ethernet port as one of its array of connections — no need for a separate adapter! Check your docking station's user manual to see whether it includes an Ethernet port.

Making a connection to a wired network

If you're connecting to an existing wired network, you need a standard Cat5/Cat5E/Cat6 Ethernet cable of the necessary length. I recommend a length of no more than 25 feet, because longer cables are often subject to line interference (which can slow or even cripple your connection). You also need a live Ethernet port from the network near your MacBook. Plug the cable into your MacBook (or your USB-C/Thunderbolt Ethernet adapter) and then plug the other end into the network port.

Wired network hardware

If you don't know your switch from your NIC, don't worry. Here, I describe the hardware you need for your wired network.

WIRED NETWORK COMPONENTS

If you're building your own wired network, you need

- » **A switch:** This gizmo's job is to provide more network ports for the other computers in your network. Switches typically come in four- and eight-port configurations.



- » **TIP** As I mention earlier in this chapter, most internet routers (sometimes called *internet-sharing devices*) include a built-in switch. So if you've already invested in an internet router, make doggone sure that it doesn't come equipped with the ports you need before you go shopping for a switch. Many wireless base stations also include a built-in switch, and you can even connect a separate switch for additional ports.
- » **Ethernet cables:** Exactly how many cables you need is determined by how many computers and other devices (such as a network printer) you're connecting. If you're working with a Gigabit Ethernet system, you need Cat5E or Cat6 cables. Cat6 cables provide better performance but are more expensive.



- » **TIP** Naturally, if you're using a broadband internet connection, you also have a DSL, fiber, or cable modem. These boxes always include a port for connecting to your wired Ethernet network. If you

have one of the new breed of *wireless* modems, which act as wireless base stations, don't panic. A wireless modem should also have a wired port for connecting to your existing switch.

WIRED NETWORK CONNECTIONS

After you assemble your cables and your router or switch, connect the Ethernet cables from each of your computers to the router or switch, and then turn on the device. (Most need AC power to work.) Check the manual that comes with your device to make sure that the lights you're seeing on the front indicate normal operation. (Colors vary by manufacturer, but green is usually A Good Color.)

Next, connect your cable, fiber, or DSL modem's Ethernet port to the WAN port on your switch with an Ethernet cable. If your modem isn't already on, turn it on now, and check for normal operation.

When your router or switch is powered on and operating normally, you're ready to configure macOS for network operation. Just hop to the upcoming section "[Connecting to the Network](#)." (How about that? Now you can add network technician to your rapidly growing computer résumé!)

Joining a wired Ethernet network

After all the cables are connected, and your central connection gizmo is plugged in and turned on, you've essentially created the hardware portion of your network. Congratulations! Now you need a beard and suspenders (common equipment for the network-guru stereotype).

With the hardware in place, it's time to configure Sonoma. In this section, I assume that you're connecting to a network with an internet router or switch that

includes a DHCP server. (Jump to the sidebar “The little abbreviation that definitely could” for more on DHCP.)

Follow these steps on each Mac running macOS that you want to connect to the network:

1. **Click the System Settings icon on the Dock.**
2. **Click the Network entry in the sidebar.**
3. **In the Connection list on the right, select Ethernet (or Thunderbolt Bridge, if you’re using an adapter).**

The entry may also be named Ethernet 1, depending on the Mac model you’re configuring. Make sure that you select the Ethernet entry that does *not* carry the Wi-Fi fan symbol.

4. **Click the Details button and click the TCP/IP entry in the list at the left.**
5. **Click the Configure IPv4 pop-up menu and choose Using DHCP.**
6. **Click the OK button.**



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Enjoy the automatic goodness as macOS connects to the DHCP server to obtain an IP address, a subnet mask, a gateway router IP address, and a Domain Name System (DNS) address. (Without a DHCP server, you’d have to add all this stuff manually. Ugh.)

A few seconds after clicking the OK button, you should see the information on your connection appear.

7. Press **⌘ +Q** to quit **System Settings** and save **your work**.

You're on!

Connecting to the Network

All right! The hardware is powered up, the cables (if any) are installed and connected, and you've configured macOS Sonoma. You're ready to start (or join) the party. In the following sections, I show you how to verify that you're connected, as well as how to share data and devices with others on your network.



TIP

You can use the macOS Wireless Diagnostics application at any time to check on the condition of your wireless connection and network. Click the Spotlight search icon on the Finder's menu bar and type **Wireless Diagnostics** in the Spotlight search box; then click the app to launch it. The onscreen instructions will guide you through the diagnostic process.

THE LITTLE ABBREVIATION THAT DEFINITELY COULD

You know, some technologies are just *peachy*. (So much for my über-tech image.) Anyway, these well-designed technologies work instantly; you don't have to fling settings around like wrapping paper on Christmas Day, and every computer can use them: Mac, Windows, Linux, and even the laptops used by funny-looking creatures from Roswell, New Mexico.

Dynamic Host Configuration Protocol (**DHCP** for short) is about as peachy as it gets. This protocol enables a computer to automatically get all the technical information necessary to join a network. Let me hear you say, "Oh, yeah!" Virtually all network devices can use DHCP these days, including internet routers, switches, and (go figure) macOS. Today's networking

hardware and operating systems provide a DHCP server, which flings the proper settings at every computer on the network all by itself. Your MacBook just accepts the settings and relaxes in a placid networking nirvana.

In this book, you can bet the farm that I assume you want to use DHCP and that your network hardware supports it (which is a virtual certainty with today's hardware). That way, I don't spend 30 pages leading you through the twisting alleyways of manual network settings.

If you're connecting to an existing network, tell the network administrator that you're taking the easy route and using DHCP. A warning, however: Adding more than one DHCP server on a single network will cause a civil war, and your system will lock up tight. Therefore, before adding hardware with a DHCP server to an existing network, ask your network administrator to ensure that you aren't making a mistake.

Sharing stuff nicely with others

It works! By golly, it works! Okay, now what do you *do* with your all-new shiny chrome-plated network connection? Ah, my friend, let me be the first to congratulate you and the first to show you around! In the following sections, I cover the most popular network perks. (The good news is that these perks work with both wired and wireless connections.)

Network internet connections

If your DSL, fiber, or cable modem plugs directly into your MacBook (rather than into a dedicated internet-sharing device or internet router), you might ponder just how the other computers (or iPhones or iPads) on your network can share that spiffy high-speed broadband connection. If you're running a wireless network, it comes to the rescue!

Follow these steps to share your connection wirelessly:

- 1. Click the System Settings icon on the Dock.**
- 2. Click the General entry in the sidebar, and then click the Sharing entry in the list on the right.**

3. Click the Internet Sharing switch in the list on the right to turn it on.

Sonoma displays a warning dialog stating that connection sharing could affect other computers on your network. If you intend to share the internet connection provided on an existing network at your home or office that you didn't set up, contact your network administrator first! (It's best to avoid sowing chaos and disorder.)

4. Click Configure.

5. From the Share Your Connection From pop-up menu, choose Ethernet.

6. Click the Wi-Fi switch in the To Devices Using list to turn it on.

7. Click the Internet Sharing switch at the top of the dialog to turn it on.

Again, Sonoma requests confirmation that you do indeed want to turn on Internet Sharing.

8. Click Turn On to continue.

9. Click the Close button to exit System Settings.



REMEMBER Sharing an internet connection (without an internet router or dedicated hardware device) through macOS requires your MacBook to remain on continuously. Remind others in your office or home that that svelte MacBook *must* remain on; otherwise, they'll lose their internet connection!

Don't forget — you don't need to configure Internet Sharing if your DSL, fiber, or cable modem connects to a dedicated sharing device or router. That snazzy

equipment automatically connects your entire network to the internet.

Network file sharing

You can swap all sorts of interesting files with other Macintosh computers on your network. When you turn on File Sharing, Sonoma allows all Macs on the network to connect to your MacBook and share the files in your Public folder. (Note that sharing across a network is different from sharing a single computer among several people. I cover that environment in [Chapter 10](#).)

Follow these steps to start sharing files and folders with others across your network:

- 1. Click the System Settings icon on the Dock.**
- 2. Click the General icon in the sidebar, and then click the Sharing entry in the list on the right to display the settings you see in [Figure 11-1](#).**
- 3. Click the switch next to the File Sharing service entry to toggle it on, enabling the connections for Mac and Windows sharing.**

Other Mac users can connect to your computer by choosing Go from the Finder's menu bar and choosing the Network menu item. The Network window appears, and your MacBook is among the choices. For other Macs on your network, your MacBook's shared files and folders appear in a Finder window, listed below the Shared heading on the Sidebar.

Windows 10 and 11 users should head to the Network panel. Those lucky Windows folks also get to print to any shared printers you've set up. (The following section covers shared printers.)

- 4. Click the Close button to exit System Settings.**



TIP

Sonoma conveniently reminds you of the network name for your MacBook at the bottom of the Sharing list, and you can change it if you like.

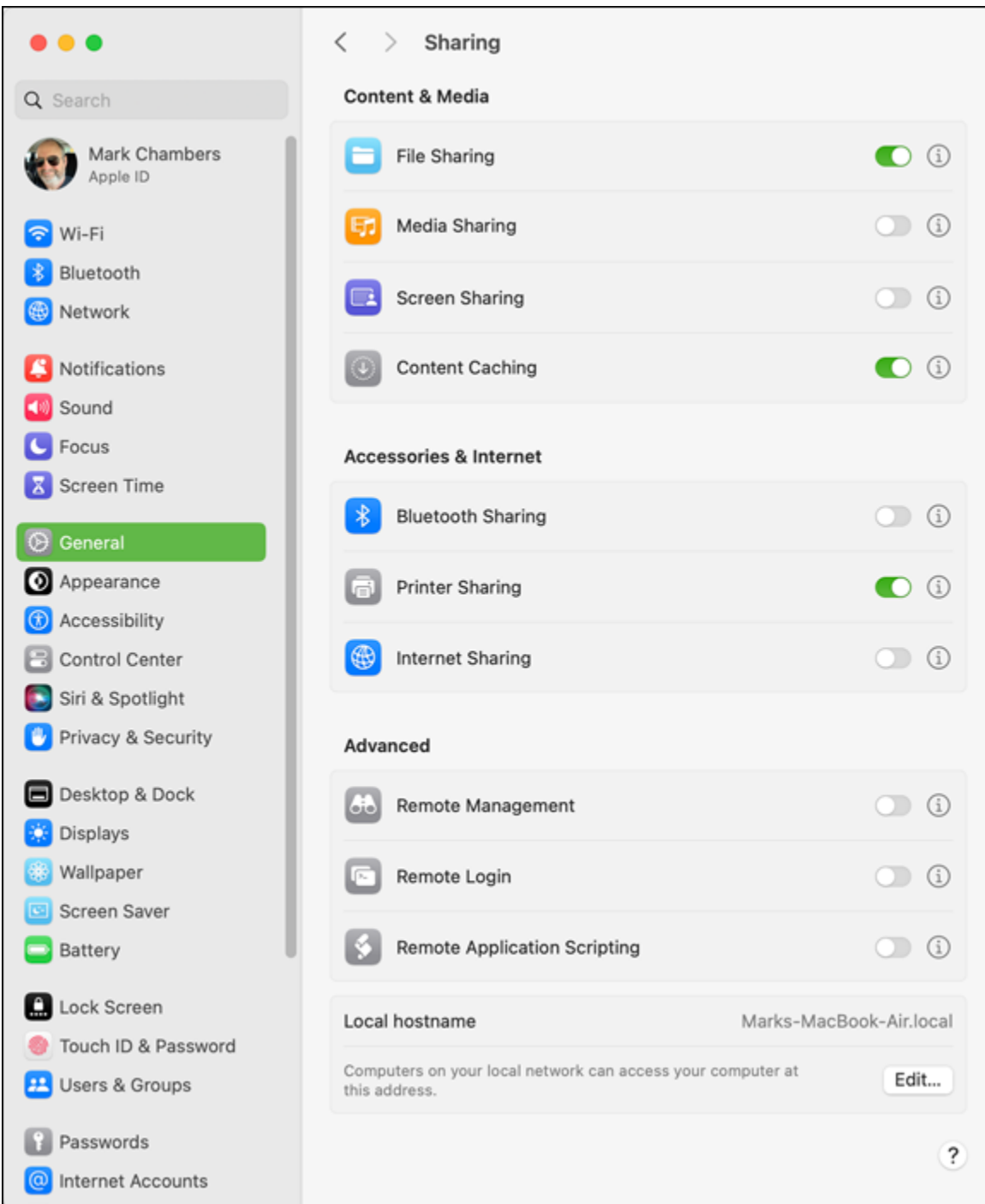


FIGURE 11-1: Sharing all sorts of content and connections on your network.

Sharing a network printer

I love describing easy procedures, and sharing a printer on a Mac network ranks high on the list! You can share a printer that's connected to your MacBook by following these simple steps:

1. **Click the System Settings icon on the Dock.**
2. **Click the General icon in the sidebar; then click the Sharing entry in the list on the right.**
3. **Click the Printer Sharing switch to toggle it on.**

To specify the printer you want to share, click the Info button next to the Printer Sharing switch. From here, you can toggle a printer as shared or private, and you can allow everyone (or just specific people) to share your printer. Click Done to return to the Sharing list.

4. **Click the Close button to exit System Settings.**

A printer you share automatically appears in the Print dialog on other computers connected to your network.

Use Your Firewall!

Yep. That's an exclamation point at the end of that title, pardner. It's that important.

The following Mark's Maxim, good reader, isn't a request, a strong recommendation, or even a regular Maxim. Consider it to be an *absolute command* (right up there with "Pay your taxes!").



MARK'S
MAXIM

Turn on your firewall *now*.

When you connect a network to the internet, you open a door to the outside world. As a consultant to several businesses and organizations in my hometown, I can tell you that the outside world is chock-full of malicious individuals who *dearly love* to inflict damage on data and would like to take control of your MacBook for their own purposes. Call 'em hackers, call 'em delinquents, or call 'em something I can't repeat, but *don't let 'em in!*

Sonoma comes to the rescue again with the built-in firewall in macOS. When you use the firewall, you essentially build a virtual brick wall between yourself and the hackers out there (both on the internet and within your local network). Follow these steps:

1. **Click the System Settings icon on the Dock.**
2. **Click the Network entry in the sidebar.**
3. **Click the Firewall entry in the list at the right.**
4. **Click the Firewall switch to toggle it on.**
5. **Click the Options button.**
6. **Click the switch titled Automatically Allow Built-In Software to Receive Incoming Connections to toggle it on.**
7. **Click the switch titled Automatically Allow Downloaded Signed Software to Receive Incoming Connections to toggle it on.**
8. **Click the Enable Stealth Mode switch to toggle it on.**

This important feature prevents hackers from trolling for your MacBook on the internet — or, in normal-speak, searching for an unprotected computer — so it's much harder for them to attack you.

9. **Click OK.**

10. Click the Close button to exit System Settings.

Sonoma even keeps track of the internet traffic that you *do* want to reach your MacBook, such as printer and file sharing. When you activate one of the network features described in the earlier section “[Sharing stuff nicely with others](#),” Sonoma automatically opens a tiny hole (called a *port* by net types) in your firewall to allow just that type of communication with your Mac.

If you decide to turn on printer sharing (as described in the preceding section), for example, Sonoma automatically allows incoming print jobs over the network from other computers.

You can also add ports for applications that aren’t on the firewall’s Allow list, such as third-party instant-messaging clients and multiplayer-game servers. Depending on the type of connection, Sonoma often displays a dialog prompting you for confirmation before allowing certain traffic, so you probably won’t need to do anything manually.

You *can* manually add a program to your list of allowed (or blocked) firewall ports, however. Follow these steps:

1. **Click the System Settings icon on the Dock.**
2. **Click the Network entry in the sidebar.**
3. **Click the Firewall entry in the list on the right and then click the Firewall Options button.**
4. **Click the Add button (which carries a plus sign).**
Sonoma displays a standard file-browsing sheet.
5. **Browse to the application that requires access to the outside world — or the application that you want to block from outside communication — and click it to select it.**

6. Click the Open button on the File sheet.

The application appears in the Firewall list. By default, it's set to Allow Incoming Connections.

7. If you want to block any communications coming into the application, click the Allow Incoming Connections pop-up menu, and choose Block Incoming Connections instead.

8. Click OK and then click the Close button to exit System Settings.

Chapter 12

Hooking Up with Your World

IN THIS CHAPTER

- » **Using Photo Booth**
 - » **Chatting with Messages**
 - » **Using Continuity Camera**
 - » **Sharing screens with others**
 - » **Connecting with FaceTime**
-

This chapter is all about getting interesting things into — and out of — your MacBook. I might surprise you with something new to you, such as your laptop’s built-in FaceTime HD video camera, which gives you the ability to place and receive video and audio calls to friends and family on their Macs, iPhones, and iPads. You can send and receive instant messages from your friends as well, whether they have Macs, iOS devices, or smartphones from another manufacturer. Your MacBook can share its display with others, too.

Heck, I also show you how to turn your MacBook into an old-fashioned photo booth, just like the expensive models at your local mall or amusement park. Think “MacBook selfies” at your next party — complete with outrageous effects!

Using Photo Booth

Many Apple Switchers and first-time owners quickly notice the tiny lens and LED light at the top of the MacBook's svelte frame. What gives?

Mystery solved, good reader: That's the lens of your MacBook's built-in FaceTime HD camera, which allows you to capture video in iMovie, video chat with FaceTime, or snap a quick, fun series of photos or video clips via the Photo Booth application that comes with macOS.

Yes, I know we've all grown to "know and love" video conferencing in this Brave New Post-Pandemic World, but how do you put that FaceTime HD camera to work? I answer that question in the next two sections!

The FaceTime HD camera's indicator light glows green whenever you're taking a snapshot or recording video ... which, when you think about it, is A Good Thing (especially if you prefer chatting at home in Leisure Mode). If you're security conscious, a number of manufacturers produce clips with sliding lens covers that can block the camera when not in use. Or, in a pinch, you can cover the camera lens with a sticky note!



TIP

If you need a quick picture of yourself for use on your web page, or perhaps your user account icon needs an update to show off your new haircut, use Photo Booth to capture images. Although today's digital cameras can produce a much higher-quality photo, you can't beat the built-in convenience of Photo Booth for that quick snapshot!

To snap an image in Photo Booth, follow these steps:

1. Launch Photo Booth from the Spotlight box or from Launchpad.

To try things out in full-screen mode, choose View ⇒ Enter Full Screen.

2. Choose to take one image, four quick photos as a group, or digital video.

The three buttons in the bottom-left corner of the Photo Booth window allow you to switch among taking one photo, four photos in a row (arranged as a square group, like an arcade photo booth), or a movie clip.

3. (Optional) Click the Effects button to choose an effect you'd like to apply to your image.

Photo Booth displays a screen of thumbnail preview images so that you can see how each effect changes the photo. To move through the thumbnail screens, click the Previous and Next arrow buttons that appear at the bottom of the window.

You can produce some of the simple effects you may be familiar with from Photoshop, such as a black-and-white image or a fancy colored-pencil filter, but you can also play with some mind-blowing distortion effects and even very convincing faux thermal and X-ray cameras!

You can always launch your favorite image editor afterward to use a filter or effect on a photo (such as the effects available in the Photos application), but Photo Booth can apply these effects automatically as soon as you take the picture.

4. (Optional) Click a thumbnail to apply the desired effect.

When you choose an effect, Photo Booth automatically closes the Effects display.



TIP

To return the display to normal, click the Normal thumbnail, which appears in the center. (Um, that would be Paul Lynde's spot, for those of you old enough to remember *Hollywood Squares*.)

5. **Click the red Camera button.**

The image (or video clip) appears in the filmstrip at the bottom of the window.

Photo Booth keeps a copy of all the images and clips you take in the filmstrip so that you can use them later. After you click a photo or film clip in the filmstrip, the familiar Share button appears in the bottom-right corner of the window, inviting you to take any of a series of actions, including:

- » Sending the photo in an email or as a Messages attachment
- » Saving the photo directly to Photos
- » Using the photo to create a new Notes entry or Reminder
- » Sending the photo to another device via AirDrop
- » Using the image as your macOS user account icon



TIP

To delete an image from the Photo Booth filmstrip, click the offending photo and then click the X button that appears in the top-left corner of the thumbnail.

Conversing with FaceTime

With Apple's FaceTime technology, you can video-chat with owners of iOS devices and Macs, and if they can run the FaceTime app, they're guaranteed to have the right video hardware!



REMEMBER Most iOS devices can use either a Wi-Fi or cellular connection to use FaceTime, and your MacBook requires either a wired or Wi-Fi connection to the internet.

To launch FaceTime, click the Launchpad icon on the Dock, and click the jaunty-looking video camera icon. (Naturally, you can also use Spotlight to launch the application.) The first time you use the application, you have to enter your Apple ID and your email address. The folks you chat with on the other end use that same email address to call you via FaceTime. (You can call iPhone owners by using their telephone numbers.)

After you sign in, you can initiate a call with any contact by clicking the New FaceTime button near the top of the FaceTime window and typing the desired name, email address, or phone number. Click the email or telephone number that FaceTime should use, and the connection process begins.

Apple isn't satisfied with providing access to your Contacts list, however. You can use the Recent Calls list (which appears as a sidebar along the left side of the window) to choose a contact whom you've called or attempted to call, or who has called you within the recent past. Hover your pointer over the contact and click the video camera icon to initiate the call.

When the call is accepted, you see a large video window with a smaller picture-in-picture display. The video of the

other person fills the large window, and the video that you're sending to that person appears in the small display. Click the End icon to end the FaceTime call.



TIP To switch FaceTime to Landscape mode and take advantage of your MacBook's widescreen display, choose Video ⇒ Use Landscape or press ⌘ +R. (Why let iPhone and iPad owners have all the landscape fun?)

Sending and Receiving Instant Messages

“If I can FaceTime or send an email, why use Messages?” you may ask. When family and friends want to communicate with you by using their computers, they could certainly use Mail or FaceTime — but video and email may not be convenient (or as fast), and you'd miss that communication. Messages allows you to plug into the popular world of internet instant messaging made familiar between smartphones and devices.

Sending a text message to another person is practically instantaneous — hence the name — and you can switch to an audio chat (sound only) or a video chat (using FaceTime) if the other person has a compatible device.

When you first run Messages, you'll be prompted to use the Messages account that you've created on your iPhone or iPad. If you don't have either of those devices, you can create a Messages account using your Apple ID. If you've already set up SMS and MMS text messaging on your iPhone, those messages are also shown in

Messages, and you can reply to them within the application as well!



REMEMBER Your MacBook must be signed in to the same iCloud account as your iPhone to send and receive SMS or MMS messages.

To send a new message, click the Create New Message icon in the Messages sidebar, or press Command+N. Messages prompts you to type a name from your Contacts list that contains an instant message address, or enter an email address or telephone number if the recipient isn't in your Contacts list. Now type your text in the entry box at the bottom of the window.



TIP If you prefer using the Siri voice assistant, you can click the Siri icon in the Finder toolbar and say “Send a message to” followed by the person’s name and the message text.

If you want to use bold or italic text, highlight the text and then press ⌘ +B for Bold (**B**) or ⌘ +I for Italic (*I*). You can also add an *emoji* (a symbol that conveys emotion; in techspeak, also called a *smiley*) to your text: Click the text where you want the emoji to appear, click the Smiley button to the right of the text entry field, and then choose the proper smiley from the list.



TIP To send a file (such as a photo or a Pages document) to someone during a chat, simply drag the file into the message area.

When your message is perfect, press Return to send it. You'll note that Messages creates an entry (called a *conversation*) in the sidebar at the left. You can click another conversation at any time to switch to that message exchange, allowing you to communicate with several people (or groups) at one time. (My youngest daughter can keep track of a dozen conversations simultaneously! Luckily, I'm not that popular.)

Sharing Your Screen

There are a slew of reasons why you'd want to share your MacBook's display over a network connection. They include:

- » Allowing someone with Mac technical skills to troubleshoot or solve a problem with your MacBook
- » Allowing your family member, friend, or coworker to demonstrate how to use an application
- » Allowing another person to flip through your Photos library to find just the right image (without having to export and send them separately)



WARNING Before going any further, though, I'd like to stress the common verb in all three scenarios — the word *allowing!* **Under no circumstances should you allow a stranger to share your MacBook's screen, unless they're an authorized Apple technician or a legitimate member of a tech support organization.** A person sharing your MacBook has all the permissions that you do, so

deleting files and folders (and even formatting your drive) would be a simple task.

Now that you've weighed the gravity of screen sharing, follow these steps to share your MacBook's screen with another Mac:

- 1. Open System Settings and click the General entry in the sidebar.**
- 2. Click Sharing, and then click the Screen Sharing switch to enable it.**

Note that screen sharing is disabled if you've already turned on the Remote Management switch at the bottom of the pane.
- 3. Click the Info icon next to the Screen Sharing switch.**

You can elect to allow anyone to request a connection, or you can click the Add button (which bears a plus sign) to select a user account on your MacBook that will have access.
- 4. Close the System Settings window.**
- 5. The person sharing your screen should launch the Screen Sharing app using the Spotlight search box.**
- 6. If the other Mac is on the same local network, the other person should click the Network entry in the Screen Sharing sidebar, select your MacBook, and click Connect.**
- 7. If the person is connecting with you over the internet, they should click the Add Connection button (which bears a plus sign). The person should enter your Apple ID.**

Do not provide both your Apple ID and your password. Only the Apple ID is required for the other person to connect.

Your visitor can now see the contents of your screen and shares control of your pointer and keyboard, allowing them to run applications and change settings on your MacBook. (You can still control your pointer and use your keyboard on your MacBook.) You can monitor and see everything that they see, making Screen Sharing an excellent tool for remote technical support.

Note that you can disconnect your visitor at *any time* by clicking the Screen Sharing icon in the Finder menu (it resembles a laptop screen with a human figure next to it) and choosing End Screen Sharing from the menu that appears.



TIP

For security, it's always a good idea to return to the Sharing pane in System Settings and turn off the Screen Sharing switch when you're not using it.

Using Continuity Camera

Here's a macOS feature that every MacBook owner with an iPhone should love! With Continuity Camera, the rear-facing camera on your iPhone is transformed into a high-resolution video camera for your laptop, surpassing even the FaceTime HD camera that's built-in to the MacBook.

First, the requirements: Your iPhone must be an iPhone XR model (or later) running iOS 17 or above to use all the bells and whistles offered by Continuity Camera, and you must use the same Apple ID on both devices. Make

sure that Bluetooth and Wi-Fi are enabled on both devices. If you're capturing high-quality video for use in other projects, you may want to invest in a display clip or iPhone stand that can keep your iPhone steady.



TIP Looking forward to a long FaceTime call? Consider connecting your iPhone to your MacBook with a USB-C cable, allowing it to charge during the conversation.

Now the fun begins, as you open any application that uses your FaceTime HD camera (including FaceTime, Photo Booth, and iMovie). Choose your iPhone as the camera from within that application, which usually involves a selection from the application's menu bar, or displaying the settings for that application. (For example, in Photo Booth, you can click Camera ⇒ iPhone Camera.) Your iPhone automatically begins streaming video from the rear camera. You can pause and resume the video stream from your iPhone's screen. The streaming ends when you close the application on your MacBook.



TIP Wondering what happens if you get a call while using Continuity Camera? Your iPhone will display a notification and give you the option of answering the call, which pauses the video streaming.

Part 4
Living the iLife

IN THIS PART ...

Build the digital media library of your dreams with Music and TV.

Create slideshows with Photos.

Put your moviemaking talents to work with iMovie.

Use GarageBand to compose and record your own music.

Chapter 13

The Multimedia Joys of Music and TV

IN THIS CHAPTER

- » **Playing, organizing, and sharing music with your MacBook**
 - » **Tuning into internet radio**
 - » **Creating eye candy with Visualizer**
 - » **Setting restrictions**
 - » **Watching movies and TV shows**
-

Sometimes, words just aren't enough. Apple's Music application is that kind of perfection.

To envision how Music changes your MacBook, you have to paint the picture with *music* — music that's easy to play, search for, and transfer from device to device. Whether it be classical, alternative, jazz, rock, hip-hop, or folk, I guarantee you won't find a better application than Music to fill your life with ... well ... music! (It's pretty doggone obvious how much I appreciate this piece of software.)

With Sonoma, Apple also supplies an application called TV for watching video — both TV shows and movies that you purchase or rent from the iTunes Store. I provide all the details you need to start watching video on your MacBook's spectacular screen.

In this chapter, I lead you through all the features of my absolute favorite Apple applications: Music and TV.

What Can I Play in Music?

Simply put, Music is a media player that plays audio files (and music videos). These files can be in any of many different formats. Music supports these common audio formats:

- » **MP3:** The small size of MP3 files has made them popular for file trading on the internet. You can reduce MP3 files to a ridiculously small size (albeit at the expense of audio fidelity), but a typical CD-quality, three-minute pop song in MP3 format has a size of 3–5MB.
- » **AAC:** Advanced Audio Coding is an audio format that's similar to MP3 but offers better recording quality at the same file sizes. However, this format is somewhat less compatible with non-Apple music players and software. (Luckily, you can still burn AAC tracks to an audio CD, just as you can MP3 tracks. They can also be exported from Music in MP3 format.) The tracks that you download from the Music Store are in AAC format, and AAC music files are becoming more popular for downloading on the internet.
- » **Apple Lossless:** Another format direct from Apple, *Apple Lossless* format (also known as ALAC) provides the best compromise between file size and sound quality. These tracks are encoded without loss of quality, although Apple Lossless tracks are somewhat larger than AAC. This format is generally the favorite of discerning audiophiles.
- » **AIFF:** This standard Mac audio format produces sound of the absolute highest quality. This high quality,

however, also means that the files are pretty doggone huge. AIFF recordings typically require about 10MB per minute of audio.

- » **WAV:** Not to be outdone, Microsoft created its own audio file format (WAV) that works much like AIFF. It can reproduce sound at a higher quality than MP3, but the file sizes are very large, similar in size to AIFF files.
- » **CD audio:** Music can play audio CDs. Because you don't usually store CD audio anywhere but on an audio CD, file size is no big whoop — but again, 10MB of space per minute of music is a good approximation.
- » **MP2:** A close cousin of the far more popular MP3 format, MP2 is the preferred format in radio broadcasting and is a standard audio format for HDV camcorders. It produces file sizes similar to MP3 format.
- » **Audiobooks:** You no longer need cassettes or audio CDs to enjoy your spoken books. Music can play them for you, or you can send them to your iOS device for listening on the go.
- » **Streaming internet radio:** You can listen to a continuous broadcast of songs from your favorite internet radio stations, with quality levels ranging from what you'd expect from FM radio to the full quality of an audio CD. You can't save the streaming songs within Music, but streaming radio is still great fun. Unlike services like Spotify, Pandora, and Apple Music, these streaming radio stations are free and don't require a subscription!

Playing Digital Audio Files

Music can play the digital audio files that you download from the internet or obtain from other sources in the

WAV, AAC, Apple Lossless, AIFF, MP2, and MP3 file formats.

After downloading or saving your audio files to your MacBook, open a Finder window and navigate to wherever you stored the files. Launch Music and click the Songs entry in the sidebar. Now you can simply drag the music files (or an entire folder of music) from the Finder window to the list of your songs on the right side of the Music window. The added files appear in your Music library. You can also drag a song file from a Finder window and drop it on the Music icon on the Dock, which adds it to your Music library as well.

To play a song, just double-click it in the Music list. Alternatively, you can click the track to select it and use the Music interface, which resembles that of a traditional CD player. The main playback controls of Music are Play, Previous/Rewind, Next/Fast Forward, and the Volume slider, as shown in [Figure 13-1](#).



FIGURE 13-1: The main playback controls: Play, Previous, and Next.

Click the Play button to begin listening to a song. While a song is playing, the Play button toggles to a Pause button. As you might imagine, clicking that button again pauses the music. If you don't feel like messing around with a mouse or trackpad, you can always use the keyboard. The spacebar acts as the Play and Pause buttons. Press the spacebar to begin playback; press it again to stop.

Click the Next button to advance to the next song. The Previous button works like the Next button but with a slight twist: If a song is currently playing and you click the Previous button, Music first returns to the beginning

of the current song (just like an audio CD player). To return to the previous song, double-click the Previous button. To change the volume of your music, click and drag the volume slider.



TIP

To move forward or rewind while playing a song, click and hold the Previous or Next button.

As with other Mac applications, you can control much of Music with the keyboard. [Table 13-1](#) lists some of the more common Music keyboard shortcuts.

TABLE 13-1 Common Music Keyboard Shortcuts

<i>Press This Key or Key Combination</i>	<i>To Do This</i>
Spacebar	Play the currently selected song if Music is idle.
Spacebar	Pause a playing song.
→	Advance to the next song.
←	Go back to the beginning of a song. Press a second time to return to the previous song.
⌘ + ↑	Increase the volume of the music.
⌘ + ↓	Decrease the volume of the music.



TIP

The Music sidebar is a convenient beast indeed. You can drop the music file(s) on top of a playlist's name in the list, and Music adds it to that particular playlist as well as to the main library. (More about playlists in a bit.) If you drop a folder of songs on top of the Playlists header in the sidebar, Music creates

a new playlist using the name of the folder and adds all the songs in the folder to the new playlist. *Bam!*

If you have an external optical drive, playing an audio CD in Music is just as simple as playing digital audio files. Just insert the CD in the drive, start Music by clicking its icon on the Dock, and click the Play button. (Note that your MacBook might be set to automatically launch Music when you insert an audio CD.) The other controls I describe in the previous section work just as well with the tracks on an audio CD.



TIP You can customize the Music sidebar to display only those media types and criteria that you prefer. (I like the Composers and Music Videos entries to be visible, for example.) To edit the entries in the sidebar, hover your pointer over the Library heading and click the Edit link that appears; then enable or disable the check boxes next to each heading as desired.

Think of the library as a master list of your audio media. To view the Music library, click the Songs entry in the sidebar, as shown in [Figure 13-2](#). (Go figure.)

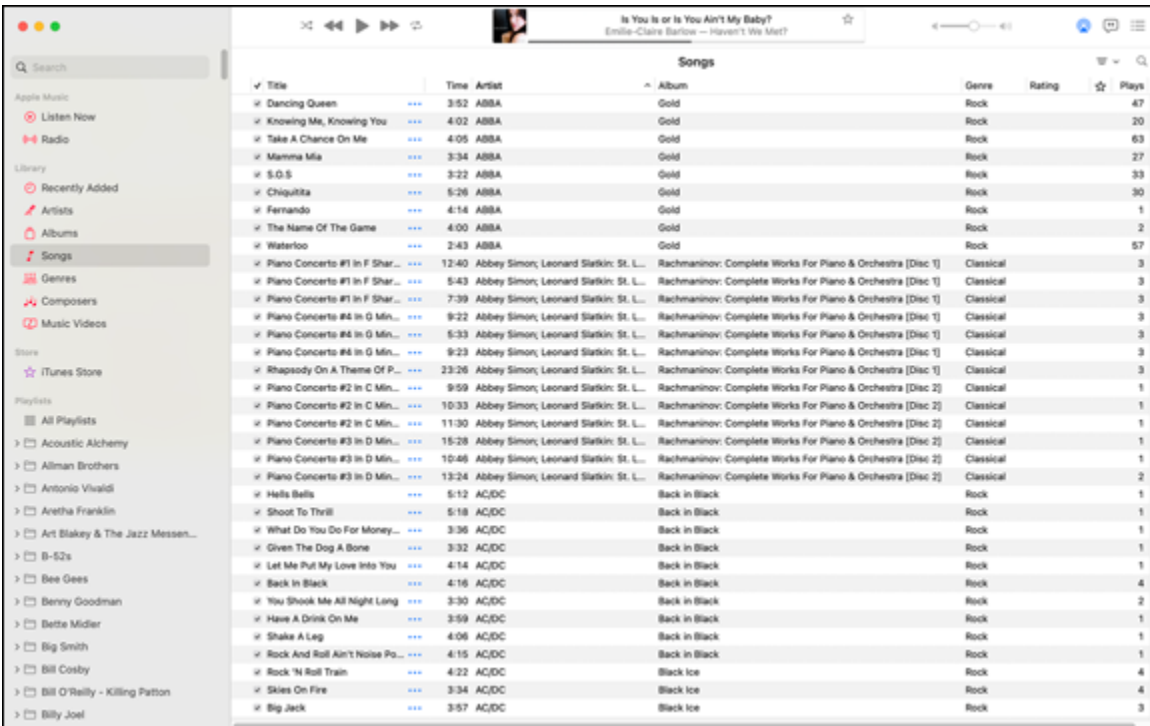


FIGURE 13-2: The Music library keeps track of all your audio files.



REMEMBER The Music window can play media from a surprising number of sources:

- » **Library:** The sidebar can display Music, Music Videos, and Audiobooks.
- » **iTunes Store:** I discuss this music source in the final section, “[Buying Digital Media the Apple Way.](#)”
- » **Radio and Listen Now:** I discuss Apple Music Radio and Listen Now in the section titled “[A New Kind of Radio Station,](#)” later in this chapter.
- » **Shared:** If another Mac or PC on your local network is running Music and is set to sync its library, the songs in that Music library appear on all devices that use the same Apple ID.

- » **Devices:** If you connect an iPhone or iPad to your MacBook, they appear in the sidebar. (And yes, Virginia, MP3 players from other companies also appear in the list if they're supported in Music.)
- » **Genius:** Choose File ⇒ New ⇒ Genius Playlist to allow Music to automatically create playlists from selected songs in your Music library. You can also allow Genius to recommend music, movies, and TV shows based on the titles you already have in your Music library. (More on this feature in "[Keeping Slim Whitman and Slim Shady Apart: Organizing with Playlists](#)," later in this chapter.)
- » **Audio CD:** A standard audio CD — anything from the Byrds to Justin Timberlake — shows up as an icon if you load the CD into your optical drive.
- » **Playlists:** Think of playlists as folders that you use to organize your music. (More on playlists later in the section titled "[Keeping Slim Whitman and Slim Shady Apart: Organizing with Playlists](#).")



TIP If you've invested in an Apple TV device, it appears when you click the AirPlay icon in the Music toolbar (which looks like a triangle topped with circular waves at the right side of the Music window). Choose the Apple TV entry from the list that appears to allow Music to share media with your Apple TV, which in turn sends it to your HDTV.

You can browse your Music library in several ways. By default, the application sorts by *Songs*, but you can choose View ⇒ Sort By to sort by different criteria (including Album, Artist [active in [Figure 13-2](#)], Genre, Plays, Title, and Time).

If you're using Songs view, the Music library may display information for each song that you add to it, including these items:

- » **Name:** The title of the song
- » **Time:** The length of the song
- » **Artist:** The artist who performs the song
- » **Album:** The album on which the song appears

If any song you're adding doesn't display anything for the title, album, or artist information, don't panic; most MP3 files have embedded data that Music can read. If a song doesn't include any data, you can always add the information to these fields manually. I show you how later, in "Setting or changing the song information manually."

If you'd rather eschew the Music menu system, it's easy to change your sort order by clicking any column heading in the Music library list; Music reorders the list according to that category. Clicking the Artist column heading, for example, alphabetizes your library by artist name. I often click the Time heading to sort my library according to the length of the songs. Oh, and you can drag column titles to reorder them any way you like (except for the check-box column displayed when you're selecting songs to burn, which remains fixed).



TIP

While listening to your music, you can always display the tracks that Music will play next — and even change their order. (Believe me, this feature is great fun for us amateur party DJs.) Choose View ⇒ Show Playing Next to display the list at the right side of the window, and drag selected songs into the perfect order! (You can also click the button with the list icon that appears on the far-right end of the toolbar.)

WILL I TRASH MY COUNT BASIE?

Novice users, take note: Music watches your back when you trash tracks.

Suppose that you delete a song from the library that's located only in the Music folder (which you didn't copy to Music from another location on your drive). That means you're about to delete the song from your MacBook, and there'll be no copy remaining on your drive. Rest assured, though, that Music prompts you to make sure you really want to move the file to the Trash. (I get fearful email messages all the time from readers who are loath to delete *anything* from Music because they're afraid they'll trash all their digital music files.)

Remember: If you delete a song from the library that *also* exists elsewhere on your drive (outside the reach of the Music folder), it isn't deleted from that other location on your drive. If you mistakenly remove a song that you meant to keep, just drag it back into Music from the Finder or even from the Trash. 'Nuff said.

Finding songs in your Music library

After your collection of audio files grows large, you may have trouble locating that Swedish remix version of "I'm Your Boogie Man." To help you out, Music has a built-in Search function. To find a song, click the magnifying glass icon to open the search box and type some text. While you type, Music tries to find a selection that matches your search text. The search is thorough,

showing any matching text from your library, as well as the Apple Music service and the iTunes Store. If you type **Electronic** in the field, Music might return results for the band named Electronic or other tunes that you classified as *electronic* in the Genre field. (The section “[Know Your Songs](#),” later in this chapter, tells you how to classify your songs by genre, among other options.)

To close the search results, click the circle with the x icon that appears at the right side of the search box.

Removing old music from the library

After you spend some time playing songs with Music, you might decide that you didn’t *really* want to add 40 versions of “Louie Louie” to your library. (I prefer either the original or the cast from the movie *Animal House*.) To remove a song from the library, click the song to select it and press the Delete key on your keyboard, or right-click the song entry and choose Delete from Library from the shortcut menu.



TIP

You can also remove a song from the library by dragging it to the Trash on the Dock.

Keeping Slim Whitman and Slim Shady Apart: Organizing with Playlists

As I mention earlier, the Music library can quickly become a fearsomely huge beastie, containing thousands upon thousands of songs. If your library grows anywhere near that large, finding all the songs in your lifelong

collection of Paul Simon albums is *not* a fun task. Furthermore, with the library, you're stuck playing songs in the order in which Music lists them.

To help you organize your music in groups, use the Music playlist feature. Typically, a *playlist* is a collection of some of your favorite songs from the library, but playlists can also include media such as movies and audiobooks. You can create as many playlists as you want, and each playlist can contain any number of items. Whereas the Music library lists all available songs, a playlist displays only the items that you add to it. Further, any changes you make in a playlist affect only that playlist, leaving the library untouched.

To create a playlist, you can do any of the following:

- » **Choose File ⇒ New ⇒ Playlist.**
- » **Press ⌘ +N.**
- » **Choose File ⇒ New ⇒ Playlist from Selection.**
This command creates a new playlist and automatically adds the selected tracks.
- » **Choose File ⇒ New ⇒ Genius Playlist.** Music builds a playlist of songs that are similar in some way (typically by matching the genre of the selection or the beats per minute, but also based on recommendations from other Music members). Note that your MacBook needs an internet connection to create a Genius playlist, and the larger your music library is, the longer it takes Music to build your playlist. You also need to turn on the Genius feature by choosing File ⇒ Library ⇒ Turn on Genius and entering your Apple ID. (Note that Genius playlists sometimes mix tracks containing explicit content with less objectionable material — especially in the comedy and rap genres.)

» **Drag a folder containing audio files from a Finder window to the Playlists heading in the sidebar.**

To help organize your playlists, it's a good idea to ... well, *name* them. (Aren't you glad now that you have this book?) Suppose that you want to plan a party for your polka-loving friends. Instead of running to your computer after each song to change the music, you could create a polka-only playlist. Select and start the playlist at the beginning of the party, and you won't have to worry about changing the music the whole night. (You can concentrate on playing the accordion.) To load a playlist, select it in the sidebar list; Music displays the songs for that playlist.

The same items can appear in any number of playlists because the items in a playlist are simply pointers to the media in your Music library — not the actual songs themselves. Add and remove them at will to or from any playlist, secure in the knowledge that the items remain safe in your library. Removing a playlist is simple: Select the playlist in the sidebar and press Delete.



REMEMBER Removing a playlist doesn't delete any songs from your library.

SOME PLAYLISTS ARE SMARTER THAN OTHERS

You can create a Smart Playlist in the Music sidebar by choosing File ⇒ New Smart Playlist or by pressing Option+⌘+N.

The contents of a Smart Playlist are automatically created from a specific condition or set of conditions that you set via the Smart Playlist dialog. You can limit the track selection by mundane things such as album, genre, or

artist; or you can get funky and specify songs that were played last, or by the dates when you added tracks, or even by the sampling rate or total length of the song. Music can even create a playlist packed with songs that are shorter than three minutes, so you can fill your iPhone with more stuff! If you want to add another criterion, click the plus sign on the right side of the dialog, and you get another condition field that allows you to refine your selection even further.

You can choose the maximum number of songs to add to the Smart Playlist or limit the size of the playlist by the minutes or hours of play or the number of megabytes or gigabytes the playlist will occupy. (Again, this feature is great for automatically gathering as much from your KISS collection as will fit into a specific amount of space.) Select the Live Updating check box for the ultimate in convenience. Music automatically maintains the contents of the Smart Playlist to keep it current with your conditions at all times in the future. (If you remove tracks from a Smart Playlist manually, Music adds other tracks that match your conditions.)

Now think about what all these settings mean when combined. *Whoa*. Here's an example yanked directly from my own Music library. I created a Smart Playlist that selects only those songs in the Rock genre. It's limited to 25 songs, selected by least often played, and live updating is turned on. The playlist is named Tracks I've Gotta Hear because it finds the 25 rock songs (from my collection of more than 10,000 songs) that I've heard least often! After I listen to a song from this Smart Playlist, Music automatically freshens it with another song, allowing me to catch up on the tracks I've been ignoring.

Know Your Songs

Besides organizing your music into Elvis and non-Elvis playlists, Music gives you the option to track your music at song level. Each song you add to the Music library has a complete set of information associated with it. Music displays this information (see [Figure 13-3](#)) on the Details tab of the Info dialog:

- » **Title:** The name of the song
- » **Artist:** The name of the artist who performed the song
- » **Album:** The album where the song appears

- » **Album Artist:** The name of the artist responsible for a compilation or tribute album
- » **Composer:** The name of the astute individual who *wrote* the song
- » **Grouping:** A group type that you assign
- » **Genre:** The classification of the song (such as rock, jazz, or pop)
- » **Year:** The year the artist recorded the song
- » **Track:** The position of the song on the original album
- » **Disc Number:** The original disc number in a multi-CD set
- » **Comments:** A text field that can contain any comments on the song
- » **Play Count:** The number of times you've listened to the song
- » **BPM:** The beats per minute (indicates the song's tempo)

You can display this information by clicking a song name and pressing ⌘ +I. The fields appear on the Details tab.

The screenshot shows a music application interface for editing song information. At the top left is the album cover for 'The Meters' and the title 'Cissy Strut'. Below the cover, the artist 'The Meters' and album 'The Very Best of The Meters' are listed. A navigation bar contains tabs for 'Details', 'Artwork', 'Lyrics', 'Options', 'Sorting', and 'File'. The 'Details' tab is active, displaying a form with the following fields and values:

- title: Cissy Strut
- artist: The Meters
- album: The Very Best of The Meters
- album artist: The Meters
- composer: The Meters, Arthur Neville, George Porter, Joseph Modeliste & Leo Nocentelli
- checkbox: Show composer in all views
- grouping: (empty)
- genre: R&B/Soul
- year: 1995
- track: 1 of 16
- disc number: 1 of 1
- checkbox: Album is a compilation of songs by various artists
- rating: ★★★★★
- bpm: (empty)
- play count: 0
- comments: (empty)

At the bottom right, there is a 'Reset' button. At the bottom left, there are navigation arrows. At the bottom right, there are 'Cancel' and 'OK' buttons.

FIGURE 13-3: View and edit song information here.

Setting the song information automatically

Each song you add to the Music library may have song information included with it. If you add music from a commercial audio CD, Music connects to a server on the

internet and attempts to find the information for each song on the CD. If you download a song from the internet, it often comes with some information embedded in the file already; the amount of included information depends on what the creator supplied. (And it's often misspelled as well; think *Leenard Skeenard* instead of *Lynyrd Skynyrd*.) If you don't have an internet connection, Music can't access the information and displays generic titles instead.

Setting or changing the song information manually

If Music can't find your CD in the online database, or someone gives you an MP3 with incomplete or inaccurate information, you can change the information yourself. Believe me, you want at least the artist and song name! To view and change the information for a song, follow these steps:

- 1. Select the song in the Song list or a playlist.**
- 2. Press ⌘ + I, or choose Song ⇒ Info.**
- 3. Click a field to edit the song's information on the Details tab (refer to [Figure 13-3](#)).**
- 4. You can also add the lyrics of the song from the Info dialog. Click the Lyrics tab and click the Custom Lyrics check box to enable it; then paste the lyrics (in text format) from any source.**



TIP

You can move to the next or previous track in the Music library list or playlist by clicking the Next or Previous button in the bottom-left corner of the Info dialog.



REMEMBER The more work you put into setting the information of the songs in your Music library, the easier it is to browse and use Music. Incomplete song information can make it more difficult to find your songs in a hurry. If you prefer, you don't have to change all the information about a song (but it makes life easier later if you do). Normally, you can get away with setting only a song's title, artist, and genre. The more information you put in, however, the faster you can locate songs and the easier they are to arrange. Music tries to help by automatically retrieving known song information, but sometimes you have to roll up your sleeves and do a little work. (Sorry, but some things just can't be automated.)

“What about cover art, Mark?” Well, I'm overjoyed that you asked! If you have an internet connection, Music can try to locate artwork automatically for the tracks you select. (Note that embedding large images can significantly increase the size of the song file.) Follow these steps:

- 1. Select the desired songs from the track list.**
- 2. Choose File ⇒ Library ⇒ Get Album Artwork.**



TIP

You can set Music to automatically attempt to add album artwork every time you rip tracks from an audio CD (as described in the next section) or when you add songs without artwork to your Music library. Choose Music ⇒ Settings, and click the Advanced tab of the Preferences dialog; then select the Automatically Update Artwork for Imported Songs check box. (By the way, if you buy tracks or an album from the iTunes Store, Apple includes album covers automatically!)



TIP

Want to add album covers to your song info manually? Select one or more songs in the track list, display the Info dialog, and click the Artwork tab. Now launch Safari, visit [Amazon.com](https://www.amazon.com), and do a search for the same album (or search an online artwork library, such as [AllCDCovers.com](https://www.allcdcovers.com)). Drag the cover image from the web page right into the Info dialog, and drop it in the center of the Artwork square. When you click OK, the image appears on the Artwork tab of the Info dialog.



REMEMBER

If you've subscribed to Apple Music or you've added lyrics to a song from the Lyrics tab, you can view the lyrics to many songs while you listen! When the music is playing, click the Lyrics button at the upper-right corner of the Music window (it looks like a speech bubble with two periods inside it). Music opens the Lyrics window and (if lyrics are available)

displays the text. To close the Lyrics window, click the Lyrics button again.

Ripping Audio Files

You don't have to rely on internet downloads or the iTunes Store to get audio files: If you have an external optical drive, you can create your own MP3, AAC, Apple Lossless, AIFF, and WAV files from your audio CDs with Music. The process of converting audio files to different formats is called *ripping*. (Audiophiles with technical teeth also call this process *digital extraction*, but they're usually ignored at parties by the popular crowd.) Depending on what hardware or software you use, each has its own unique format preferences.

The most common type of ripping is converting CD audio to MP3 (or AAC) format. To rip MP3s from an audio CD using an external CD or DVD drive, follow these steps:

- 1. Launch Music by clicking its icon on the Dock.**
Alternatively, you can locate Music in your Applications folder or in Launchpad.
- 2. Choose Music ⇒ Settings.**
- 3. In the Settings dialog that appears, click the Files tab.**
- 4. Click the Import Settings button that appears at the bottom of the dialog.**
- 5. Choose MP3 Encoder from the Import Using pop-up menu.**
- 6. Choose High Quality (160 Kbps) from the Setting pop-up menu, and click OK to return to the Settings dialog; click OK again to return to Music.**

In my experience, this bit-rate setting provides the best compromise between quality (it gives you better than CD quality, which is 128 Kbps) and file size (tracks you rip will be significantly smaller than audiophile bit rates such as 192 Kbps or higher).

7. Load an audio CD into your MacBook's external optical drive.

The CD title shows up in the Source list in the sidebar, which is on the left side of the Music window. The CD track listing appears on the right side of the window.



TIP

If Music asks whether you want to import the contents of the CD into your Music library, you can click Yes and skip the rest of the steps. If you've disabled this prompt, continue with the remaining two steps.

8. Deselect the check box next to any song you don't want to import from the CD.

All songs on the CD have a check box next to their title by default. Unmarked songs aren't imported.

9. Click the Import CD button.

Tweaking the Audio for Your Ears

Besides the standard volume controls that I mention earlier in this chapter, Music offers a full equalizer. An *equalizer* permits you to alter the volume of various frequencies in your music, allowing you to boost low sounds, lower high sounds, or anything in between.

To open the Equalizer, choose Window ⇒ Equalizer or press ⌘ +Option+E. Use the leftmost slider (Preamp) to set the overall level of the Equalizer. The remaining sliders represent various frequencies that the human ear can perceive. Setting a slider to a position in the middle of its travel causes that frequency to play back with no change. Move the slider above the midpoint to boost that frequency; conversely, move the slider below the midpoint to reduce the volume of that frequency.

Continue adjusting the sliders until your music sounds the way you like it. In case you prefer to leave frequencies to the experts, the Music Equalizer has several predefined settings to match most musical styles. Open the pop-up menu at the top of the Equalizer window to choose a genre. When you close the Equalizer window, Music remembers your settings until you change them again.

A New Kind of Radio Station

Besides playing back your favorite audio files, Music can also tune in internet radio stations around the globe. You can add your favorite stations to your playlists. You can also subscribe to the Apple Music Radio feature to create a custom station dedicated to the genres and artists you prefer. This section shows you how to do it all.



TIP

When choosing an internet radio station, keep your internet connection speed in mind. If you're using a broadband DSL, fiber, or cable connection — or if you're listening at work over your company's high-speed network — you can listen to stations broadcasting at 128 Kbps or even higher. The higher the bit rate, the better the music sounds. At 128 Kbps in AAC format, for example, you're listening to sound that's as good as an audio CD.

DISCOVERING NEW MUSIC WITH LISTEN NOW

Have you ever wondered what great music lies “just out of reach”? Perhaps a buddy hasn't yet recommended that new band, or there's an album from one of your favorite artists that you don't even know exists! If you're an Apple Music subscriber, just click the Listen Now entry in the sidebar and start exploring. (And no wasting time trying to guess which new artists may appeal to you.)

Let me explain: Listen Now starts with the music and playlists that you've already enjoyed in the past, but it actually “learns” what types of music and mixes you enjoy! Literally, the more you listen, the better it gets at predicting your musical taste. (For example, I've been pleasantly surprised by the jazz and techno suggestions that Listen Now has recommended, based on my epic enjoyment of anything from Charlie Parker and Propellerheads.)

Listen Now doesn't deliver just music, however: You'll also find interviews from all sorts of artists, suggested playlists, and even convenient links to artist biographies and additional content in the iTunes Store. (Remember, Listen Now requires an Apple Music subscription.)

Tuning in your own stations

To listen to an internet radio station, you need the station's internet address.

In Music, choose File ⇒ Open Stream URL or press ⌘ +U. In the Open Stream dialog that appears, enter the URL of your desired radio station, and click OK. In seconds, Music tunes in your station and adds the station as an item in your Songs list so that you can listen again in the future with a single click.

Radio stations in your playlists

If you find yourself visiting a particular online radio station often, you'll be glad to know that Music supports radio stations in its playlists. To add a radio station to a playlist from your library, follow these steps:

- 1. Click the Songs entry in the sidebar and locate the radio station you've added to your library.**
- 2. Drag the station entry from the Song list to the desired playlist on the left side of the window.**



TIP If you haven't created any playlists yet, see the section "[Keeping Slim Whitman and Slim Shady Apart: Organizing with Playlists](#)," earlier in this chapter, to find out how.

Creating a custom Music Radio station

Apple Music Radio makes it possible for you to listen to the artists, songs, and genres that you prefer in Music without selecting a specific internet radio station. To use Apple Music Radio, click the Radio entry below the Apple Music heading in the sidebar. After you've set up your subscription, type the artist name, song name, or genre in the Search field. (Remember that Apple Music Radio is

an Apple Music subscription service, unlike the internet radio stations I describe in the preceding section.)

As you download new music from the iTunes Store (and listen to new artists and genres in Radio), the service learns more about your musical tastes and can automatically play and recommend new music, much like the Genius feature I discuss earlier in this chapter.



REMEMBER Like internet radio, the Apple Music subscription service requires an internet connection — but unlike typical stations, Apple Music also requires an Apple ID.

Your Music Radio station is automatically shared among all your Macs running macOS (as well as any iOS devices you own). In fact, Music is connected closely with the Apple iCloud service. To download a local copy of any iCloud item, simply click the iCloud icon next to the item. After the local copy has been saved to your Mac's drive, the iCloud icon disappears, and you're ready to listen (even without an internet connection).

ISending iStuff to iPhone and iPad

If you own an iPhone or iPad, you probably already know that these devices can act as your personal music player. You can buy all sorts of applications for these devices at the iTunes Store. Music even keeps track of these applications as part of your Music library.



REMEMBER To sync correctly, both your computer and the device *must* share the same Apple ID.

You connect your iOS device to any Macintosh or Windows PC that has USB ports by using the included cable. After the device is connected, you can synchronize it with Music. By default, this process is automatic: Your iPhone or iPad and the Music software communicate and figure out what items are in your Music library (as compared with the device's library). If they discover songs, podcasts, and video in your Music library that are missing from your device, the items automatically transfer to the device. Conversely, if the iPhone or iPad contains stuff that's no longer in Music, the device automatically removes those files from its drive.



WARNING Go back and reread that last sentence: The Apple device *automatically removes* files from its drive. (I'll wait.) Apple added this feature in an effort to be responsive to copyright concerns. The reasoning is that if you connect your iOS device to your friend's computer, you can't transfer songs from the device to that computer. You could always look at it from the marketing perspective as a feature that makes sure your MacBook and iOS device are always in total sync. Whatever the case, pay close attention, and read all warning dialogs when connecting to a computer other than your own; otherwise, you might wipe out your iPhone or iPad library.

You can change your settings in the device's Summary pane so Music autosyncs only selected playlists. (Click

the device icon in the top-left corner of the window to display the Summary pane.) Or, if you're really nervous, you can choose to manage the contents of your device manually, from the Summary pane.



TIP If you'd rather lose the cable connection and sync your device wirelessly, you can first connect with a USB cable and then click the device in the Finder window sidebar. Select the General tab, and then enable the Show this Device when on Wi-Fi.

SENDING MUSIC ELSEWHERE WITH AIRPLAY

If you're using an AirPort-compatible wireless device (like Apple's wireless AirPod headphones), you can ship your songs right to your remote hardware from Music!

After your AirPlay device is plugged in, click the AirPlay button on the Music toolbar, and you can choose to broadcast the music you're playing in Music across your wireless network. Ain't technology truly *grand*?

Feasting on Music Visuals

By now, you know that Music is a feast for the ears, but did you know that it can provide eye candy as well? With just a click or two, you can view mind-bending graphics that stretch, move, and pulse with your music.

To begin viewing Music visuals, choose Window ⇒ Visualizer or press ⌘ +T. Immediately, most of your Music interface disappears and begins displaying groovy lava lamp-style animations (like, *sassy, man*). To stop the

visuals, press Esc (or press ⌘ +T again). The familiar face of Music returns.



TIP

You can still control Music with the keyboard while the visuals are zooming around your screen. See [Table 13-1](#), earlier in this chapter, for a rundown on common keyboard shortcuts.

Exercising Parental Authority

Do young children use your Mac? I'll be honest here: A large amount of content in the iTunes Store (including audio, movies, and even apps) is stuff I don't consider to be suitable for kids. And what about the media that others in the family may decide to share? Such is the world we live in today, and the good folks at Apple recognize that you may not want to inadvertently allow your kids to have access to explicit content.

Luckily, you can use the Restrictions settings in System Settings to build a secure fence around content that's for grownups only. [Figure 13-4](#) illustrates the Content & Privacy settings available within Screen Time pane.



REMEMBER

To restrict an account, you must log in with the child's username and password. (If you use your administrator account to make changes, you're actually placing Music restrictions on *yourself!*)

After you're logged in to your child's account, follow these steps:

1. **Click the Settings icon on the Dock.**
2. **Click the Screen Time pane in the Settings sidebar.**
3. **Click the Content & Privacy entry.**

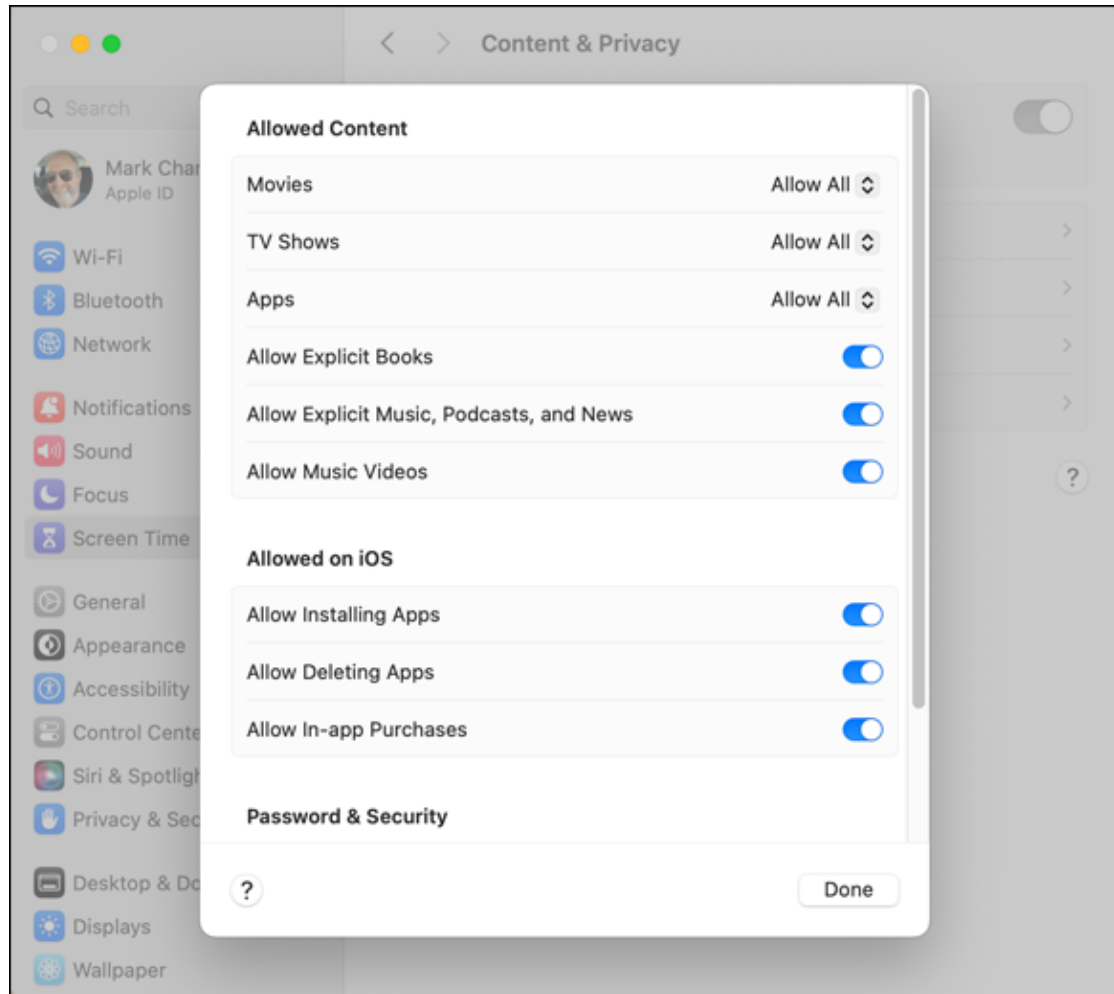


FIGURE 13-4: Protect your kids from explicit content.

4. **Click the Content Restrictions entry and click the Allow Music & TV Shared Libraries switch to turn it off.**

Turning off this feature prevents the child from watching video or listening to tracks from shared libraries on other Macs.

5. **Click Done.**

Because Apple maintains separate iTunes Stores for different nations, you can choose which country's iTunes Store to monitor.

6. To restrict specific content in the iTunes Store, click the Store Restrictions entry.

Click the Movies or TV Shows pop-up menu to choose the restriction level for that media.

Note that these restrictions apply only to content in the iTunes Store, content that can be downloaded through iCloud, and media shared with your Mac.

7. Click the Allow Explicit Music, Podcasts, and News switch to turn it off.

8. Click Done, and then close the Settings dialog to save your changes.

You can now log out of your child's account.

Watching Video with TV

"But Mark, what about the TV shows and movies you mentioned earlier?" Fear not, good reader. Apple has organized all the video you've bought from the iTunes Store into the separate TV application; full-length movies and TV shows are easy to browse and enjoy on your MacBook. (Or, with an Apple TV unit connected to your home theater system, you can watch those movies and shows from the comfort of your sofa on the other side of your living room, or even from your bedroom on the other side of your house.)

[Figure 13-5](#) illustrates the TV window, which is quite similar to the Music window. (Why mess with perfection?) You'll note the sidebar, which make it easy to display all your films and TV shows, as well as top movies or TV shows that you can rent or purchase. Some

selections are free, but most are pay-to-view. The Library categories, however, display only the video content that you've already purchased, so it's always available.

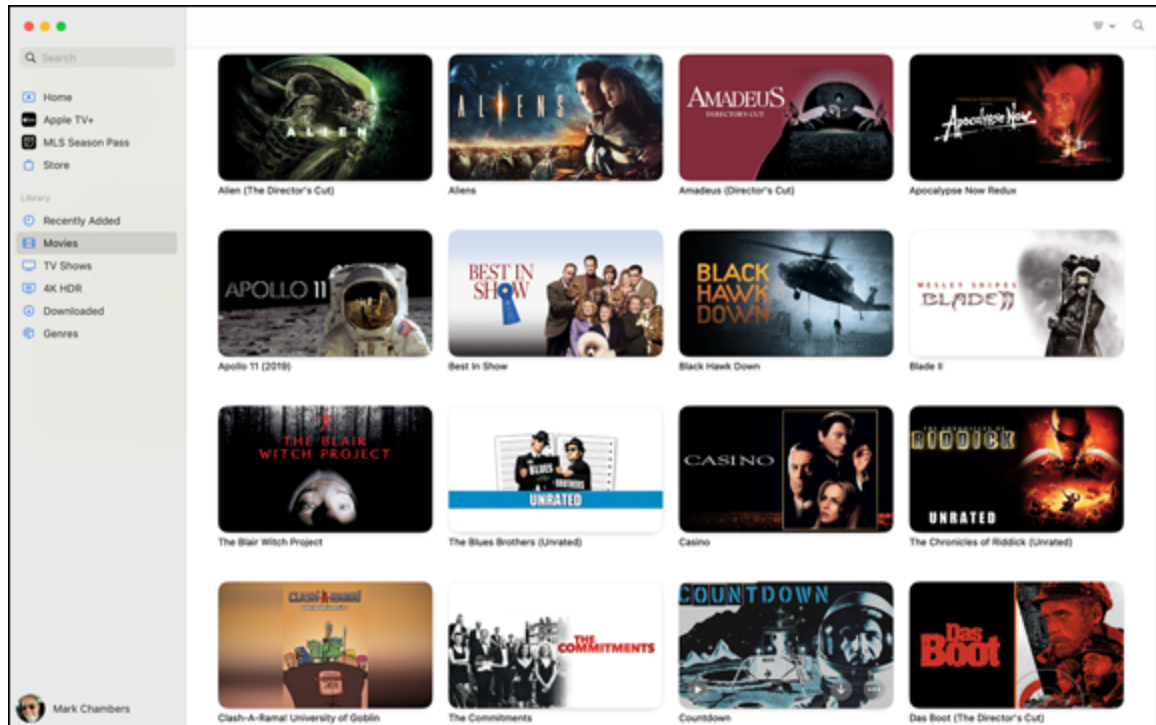


FIGURE 13-5: My collection of movies appears in TV.



REMEMBER It's important to consider all your TV shows and movies to be content that you'll watch within the TV application, especially when Apple has decided to retain your music videos within the Music application! (Somewhat confusing, I know.) That way, you won't find yourself wondering what to click when you've downloaded a new movie.

Watching video in TV couldn't be simpler. Click the desired media (or category) in the sidebar. (Music videos appear as a Smart Playlist within the Music application's sidebar, which I cover in the sidebar "[Some playlists are smarter than others](#)," earlier in this chapter.)

From your collection, you can do the following:

- » Double-click a video thumbnail. If you interrupted a video by quitting TV, the application continues the video at the point where the application was closed.
- » Drag a QuickTime-compatible video clip from the Finder window to the TV window. (These clips typically include video files ending in .mov, .mv4, or .mp4.)

TV plays video in full-screen mode. Move your pointer to display the onscreen controls, including a control strip at the bottom of the screen (which sports the standard slider bar that you can drag to move through the video). The volume control occupies the top-right corner, while the familiar Play/Pause, Fast Forward and Reverse buttons occupy the center). Icons at the bottom right allow you to select subtitles if desired. To exit the video, press Esc. Click the Exit Full Screen icon at the top-left corner of the screen to return to a windowed display.



TIP Films may display an Extras button, which you can click to view additional content, such as deleted scenes.

Buying Digital Media the Apple Way

The hottest spot on the internet for buying music is the iTunes Store, which you can reach from the cozy confines of Music — that is, as long as you have an internet connection. If you don't, it's time to turn the page to a different chapter.



REMEMBER Looking to buy TV shows or movies? You'll find them in a separate store within the TV application.

Click the iTunes Store entry in the Music sidebar, and after a few moments, you see the latest offerings, as shown in [Figure 13-6](#). Click a link in the store list to browse according to media type. The Back button at the top of the iTunes Store window operates much the same as the Back button in Safari, moving you backward in sequence through pages you've already seen.

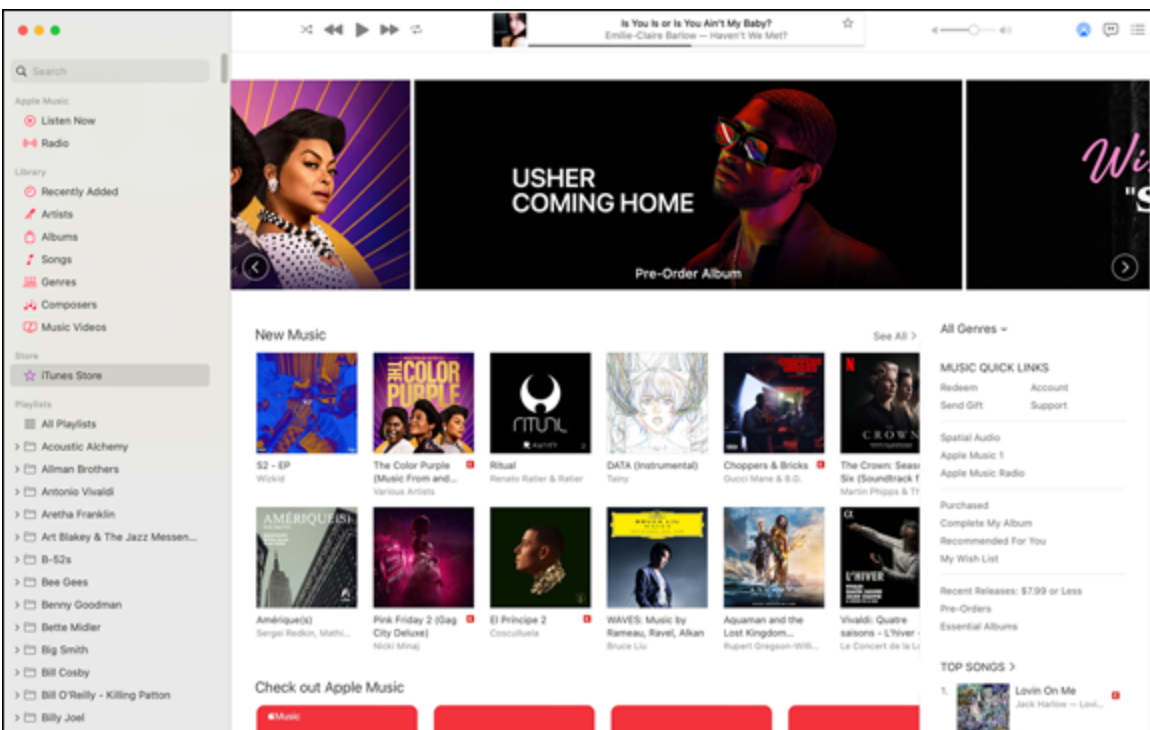


FIGURE 13-6: The iTunes Store offers a world of music for purchase.

To display the details on a specific album or track, just click it. If you're interested in buying only certain tracks (for that perfect road-warrior mix), you get to listen to 90 seconds of any track — for free, no less, and at full sound quality. When you're ready to buy, click the Buy button. (At the time of this writing, tracks are usually 99 cents to

\$1.29 a pop, and an entire album is typically \$9.99. What a bargain!)

The iTunes Store uses your Apple ID to identify you, and it keeps secure track of your payment information for future purchases. After you use the iTunes Store once, you rarely have to log in or retype your credit card information again (unless you log out after each use for security).

The tracks and files that you download are saved to a separate category in the sidebar called Recently Added. When the download is finished, you can play them, copy them to other playlists, or burn them to CD or DVD just as you can any other items in your Music library.



TIP Music will automatically download the media you purchase on another iCloud device using the same Apple ID (including another Mac, your iPhone, or your iPad). *Epic* convenience!

Chapter 14

Focusing on Photos

IN THIS CHAPTER

- » **Importing pictures from your internal drive or digital camera**
 - » **Organizing images with Photos**
 - » **Tweaking the appearance of photographs**
 - » **Sharing photos with your friends**
-

For decades now, the Mac has been the choice of professional photographers for working with digital images — which is not surprising, considering the Mac’s graphical nature (and the incredible quality of Apple displays)! Apple continues this tradition with *Photos*, its photography tool for the home user that can help you organize, edit, and even publish your photographs. (It sports more features than a handful of Swiss army knives.) After you shoot your photos with a smartphone or a digital camera, you can import them into Photos, edit them, and publish them. You’re not limited to photos that you take yourself, either; you can edit, share, and organize all kinds of digital image files, as well as video clips. You can even create a photo album and use the Photos interface to order a handsome softbound or hardbound copy shipped to you, or you can create a slideshow and upload it to YouTube.

In this chapter, I walk you through an overview of what Photos can do. After that, I give you a brief tour of the controls in Photos so that you can see what features are

available to you, including those for managing, printing, and publishing your photos.

Delving into Photos

[Figure 14-1](#) shows most of the major controls Photos offers. (Other controls appear automatically when you enter different modes; I cover them in upcoming sections.)

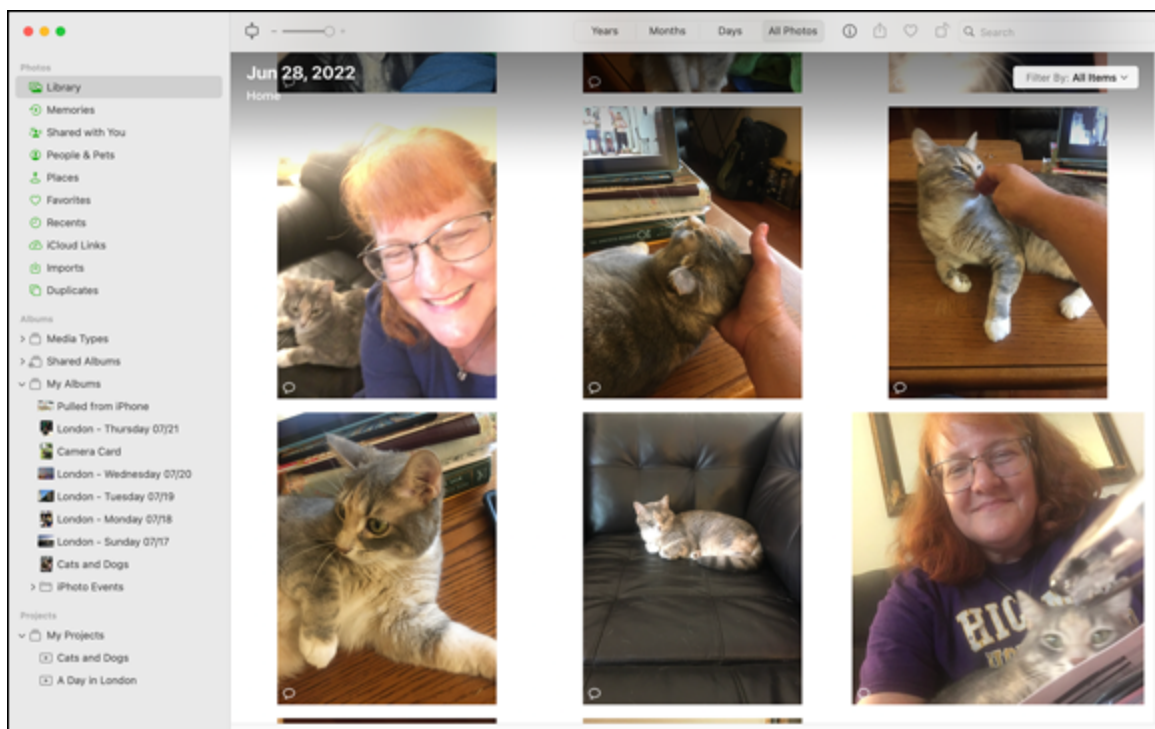


FIGURE 14-1: Photos greets you with an attractive window.

These controls and sections of the window are covered in more detail in the following sections. For now, here's a quick rundown of what you see when you launch Photos and click the All Photos mode button in the toolbar:

- » **Sidebar:** Like Music and Safari, Photos sports a sidebar that displays locations and groupings within the application — photos you've recently imported, for example, or specific photo albums, slideshows, and

book projects you've created. Switching among your photo library, albums, and projects involves a single click!

- » **Toolbar:** This group of controls determines how many images the Viewer displays and allows you to perform several actions with selected photos.
- You can display photos by *years, months, or days* (which cover three cross sections of your photos by when they were taken) or all photos at one time. If the Back button is visible, you can click it to see more images. To zoom in on a specific photo, just click the desired thumbnail. To switch among these groupings, click one of the four view buttons on the toolbar or press ⌘ +1 through ⌘ +4. Click the All Photos button to return to an overview of your entire library.
 - You can create new albums, slideshows, and print projects (such as books, calendars, and cards) from your photos. These new thumbnails appear when you click the Albums and Projects entries on the sidebar, which makes it much easier to organize your photos.
 - You can share selected photos in a slew of ways, including Apple Mail, Messages, and AirDrop networking, as well as popular online sites such as Facebook. If you've enabled iCloud Photos, you can also share photos with your other Macs and iOS devices.
 - You can search for specific images. Just click the Spotlight search box at the right side of the toolbar and start typing to search by description, title, caption, or even Faces and keywords, which I cover later, in the section "[Digging through your library with keywords.](#)"



- » **TIP** **Viewer:** This pane displays the images from your Photos library. You can click and drag or ⌘+click to select photos in the Viewer for further tricks, such as assigning keywords and editing images.
- » **Thumbnails:** If you're displaying a single image from your library, you can press Option+S to open and close the Thumbnails pane. The Thumbnails pane allows you to quickly switch to another image by clicking the desired thumbnail — a helpful feature when you're editing several images taken at around the same time. (Because you're viewing the contents of an album in [Figure 14-1](#) instead of a single image, the Thumbnails pane is hidden.)
- » **Full Screen:** Click the Full Screen/Maximize button in the top-left corner of the window (or press Control+⌘+F) to switch to full-screen display of your photos. In full-screen mode, you can double-click a thumbnail to view the image in your Mac's entire screen real estate. (The toolbar is still available at any time: Just move your pointer to the top of the screen to display it.) Press Esc to return to windowed mode.



- TIP** Choose View ⇒ Always Show Toolbar and Sidebar in Full Screen to prevent the toolbar and sidebar from disappearing in full-screen mode.
- » **Zoom:** Drag this slider to the left to reduce the size of the thumbnails in the Viewer. This technique allows you to see more thumbnails at the same time, which is convenient for making quick visual searches. Drag the

slider to the right to expand the size of the thumbnails, making it easier to differentiate details among similar photos in the Viewer. You can also use the Zoom slider when a single image is displayed.

» **Show Thumbnails as Square or Full Aspect Ratio:**

This toolbar button is displayed only in the All Photos view. (It bears a box icon with arrows pointing up and down.) Click this button to toggle the thumbnail display between uniform squares (which may not show the entire image) and the full image in reduced size. Full-aspect-ratio format doesn't require any extra space, but some Mac owners prefer uniform squares, as the iPhone and iPad display them.

» **Add To Favorites:** This toolbar button (which bears a heart icon) appears on the toolbar only while you're viewing or editing a single image. Click the Add to Favorites button to add the item that's currently displayed in the Viewer as a Favorite. You can search for Favorite photos by using keywords, which are covered in "[Organizing with keywords](#)," later in this chapter.

» **Info:** Click this button to display information on the item that's currently displayed in the Viewer.

» **Share:** Click this button to share the selected photos to your shared iCloud albums on your iPhone or iPad or to another Mac. You can also add them to a note, attach the photos to a text message, email them, or share them via AirDrop.

» **Edit:** Here's another button that's displayed on the toolbar only when you view a single image. Click this button to switch to the editing controls within Photos and make changes to the current image. (Note that the Edit button is disabled if you're viewing an image shared by someone else.) I cover editing in depth in

[“Edit mode: Removing and fixing stuff the right way,”](#) later in this chapter.

- » **Rotate Counterclockwise:** This one is pretty self-explanatory; a click rotates the selected image(s) counterclockwise. People find themselves clicking this button often, which is why Apple designers decided to park it here.
- » **Search:** Click within the familiar confines of the Spotlight search box to filter the photos displayed in the Viewer by keyword, description, filename, or date.

Working with Images in Photos

Even a superbly designed image-display and -editing application such as Photos would be overwhelming if everything were jammed into one window. Thus, Apple’s developers provide operational modes such as editing and book creation that you can use in the one Photos window. Each mode allows you to perform different tasks.

In this section, I discuss three of these modes — import, organize, and edit — and what you can do when you’re in them.

Import images 101

In *import* mode, you’re ready to download images and video clips directly from your digital camera — and you’re not limited to cameras, of course. You can also import items from a folder on your internal drive, a memory-card reader such as the SDXC card slot, a smartphone, or an external USB drive.



REMEMBER If your photos are stored on your iPhone or iPad, you don't need a physical cable connection to import your images — after you enable the iCloud Photos feature, those images are automatically available within Photos! I describe this shamelessly convenient method of importing at the end of this chapter.

Follow these steps to import images directly from your camera:

1. Connect your device to your Mac.

Plug one end of a USB cable into your camera and the other end into your computer's USB-C port.

2. Prepare your device to download files.

The procedure for downloading images and video varies by camera or smart device, but the process usually involves turning the device on and choosing a Download or PC mode. Check your device's user guide for more details.

3. Launch Photos.

Your MacBook probably launches Photos automatically when it detects your device, but you can always launch Photos manually by clicking the Photos icon on the Dock or within Launchpad.

4. Select the device in the sidebar.

Photos displays all the images and video clips currently stored on your camera in the Viewer.

5. Click the Import To drop-down menu and choose a destination for the imported files.

You can choose an existing album, create a new album, or simply add the imported photos to your

library.



TIP

To delete the original images from the device after you import them, click the Delete Items check box to enable it.

6. Click the Import All New Items button to import all new files from the device.



TIP

To select specific images to import, hold down the ⌘ key and click each desired photo; then click Import Selected instead of Import All New Photos.

The images and clips initially appear within the Last Import album in your Photos library, where you can organize them as you want.

Note that Photos automatically groups imported images and video by the year, month, and date when the files were created, if your device stores this information with each file. If you want to see photos from your son's graduation, for example, those photos will appear in each view by that date. Think about that. It's pretty tough to arrange old-fashioned film prints by the moments in time that they document, but Photos makes it easy for you to see which photos are part of the same group.

IMPORTING IMAGES FROM YOUR INTERNAL DRIVE TO PHOTOS

Adding items stored on your internal drive, an external drive, or a USB flash drive is easy. If the images and clips are in a folder, just drag that folder from a Finder window and drop it into the Viewer. You can even drag items directly

to the Photos icon on the Dock. Photos automatically creates a new album with the folder name, and you can sit back while the images are imported into that new album.

If you have individual images, you can drag them as well. Select the images in a Finder window and drag them into the desired album in the Albums display. To add them to the album currently displayed in the Viewer, drag the selected photos and drop them in the Viewer instead.

If you'd rather import images by using a standard Mac Open dialog, choose File ⇒ Import. Simplicity strikes again!

You can also allow Photos to import images directly from your iOS devices by using iCloud Photos, which I cover later in this chapter.



TIP Don't be surprised if Photos automatically appears when you connect your iPhone or iPad to your MacBook. This feature gives you a convenient opportunity to import photos with a single click. (In fact, if you've enabled the iCloud Photos feature as I demonstrate at the end of this chapter, you won't even have to physically connect your iOS device to your MacBook at all to import those snapshots!)

Organize mode: Organizing and sorting your images

In the days of film prints, you could always stuff another shoebox with your latest photos or buy another sticky-backed album to expand your library. Your digital camera, though, stores images as files instead, and many folks don't print their digital photographs. Instead, you can keep your entire collection of digital photographs and scanned images well-ordered and easy to retrieve within Photos. Then you can display them in a slideshow, email them, print them, or use them as Desktop wallpaper.

A new kind of photo album

The most familiar method of organizing images in Photos is the *album*. Each album can represent any designation you like, be it your pets, a vacation, your daughter, or your daughter's ex-boyfriends. Follow these steps:

1. Create a new album.

You can choose File ⇒ New Album or press ⌘ + N. If you've selected any item thumbnails in the Viewer, they're added to the new album automatically.

2. Type the name of your new photo album in the Untitled Album text box in the sidebar (see [Figure 14-2](#)).

3. Press Return.

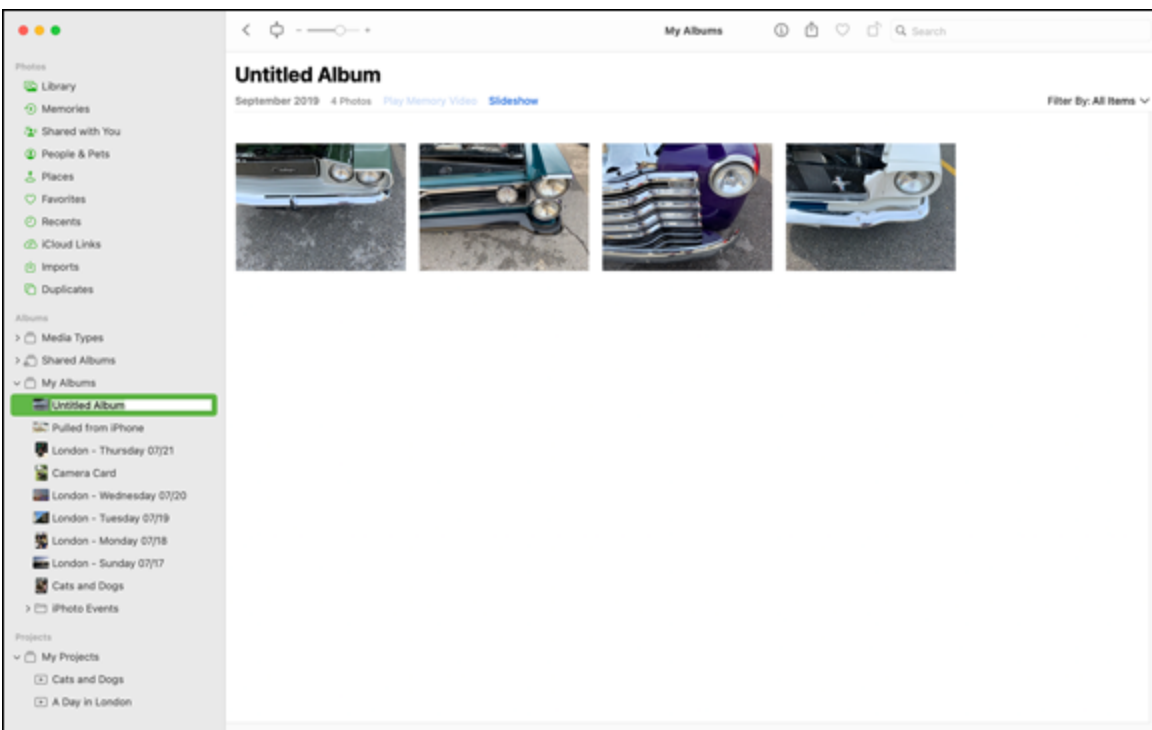


FIGURE 14-2: Adding a new album in Photos.



TIP

Memories are automated slideshows that Photos creates based on images taken on a specific day or at a specific location. You'll also see memories based on the type of photos, like Portraits. Click the Memories entry in the sidebar and double-click a thumbnail to start the show! To exit a memory, press the Esc key.

Photos also offers a special type of album called a *Smart Album*, which you can create from the File menu. (For even faster action, press ⌘ + Option + N.) If you're familiar with the Smart Folders that you can use within the Finder and the Smart Playlists within Music (see [Chapter 13](#)), you've figured this one out already.

A *Smart Album* contains only photos that match certain criteria you choose, including the keywords you assign your images. Other criteria include text in the photo filenames, the dates when the images were taken or added to Photos, a specific person or pet you've identified, and any caption or title you may have added (as well as camera-specific data, such as ISO and shutter speed).

Now here's the really nifty angle: Photos *automatically* builds and maintains Smart Albums for you. It adds new photos that match the criteria and deletes those you remove from your Photo Library. (It also removes the photos that no longer match the Smart Album's criteria.) Smart Album icons carry a gear symbol in the Photos sidebar.



TIP

You can display (or edit) information about any photo or video clip by right-clicking the thumbnail and choosing Get Info from the shortcut menu. Click the Add a Title heading in the Info dialog to display a text box, where you type a new value. You can also type a short note or description in the Add a Caption box that appears in the dialog.

You can copy selected items from the Viewer into any album you choose. Right-click the desired items, hover your pointer over the Add To menu item, and choose the destination album. You can also copy selected items to an album by dragging them from the Viewer to the desired album entry in the sidebar.

To remove a photo or video clip that has fallen out of favor, follow these steps:

- 1. Click the desired album in the sidebar.**
- 2. In the Viewer, click the item you want to remove to select it.**
- 3. Press Delete.**



REMEMBER When you remove a photo or clip from an album, you don't remove the actual file from your collection (represented by the All Photos button on the toolbar or the Library entry at the top of the sidebar). An album is just a group of links to the images in your Photos library, just as a playlist in Music is a group of links to songs in your Music library. If you want to remove an offending photo from Photos, click the Photos button at the top of the sidebar to display your entire collection of photos and clips, and delete the item there. The item disappears from all albums with which it's associated.

To remove an entire album, right-click the offending album entry in the sidebar and choose Delete Album from the shortcut menu.

To rename an album in the sidebar, click the entry below the Albums heading in the list to select it, and click again to display a text box. Type the new album name, and press Return.



TIP Change your mind? Photos comes with a handy-dandy Undo feature. Just press ⌘ +Z, and it's as though your last action never happened. (This trick is a great one for those moments when you realize that you just deleted your only image of your first car from your library.) For an extra level of backup protection for your priceless images, you can invest in an external drive and use the awesome Sonoma Time Machine backup feature. (Which you should be using anyway. Just saying.)

Working with People & Pets

Photos includes a powerful organizational tool called People & Pets, which appears as a separate item within the sidebar.

People is a sophisticated recognition system that automatically recognizes human *and pet* faces within the photos you add to your Photos library. Naturally, you have to identify — or *tag* — faces before Photos can recognize them.

To tag a face, follow these steps:

- 1. In the Viewer, double-click the photo with a person or pet you want to tag and click that person's face.**

Note that Photos indicates each individual face in the photo with a circle. If a face has already been tagged, the label (which appears when you hover your pointer over the icon) matches the face. Images shared from others using the iCloud Sharing feature (which shows a tiny speech bubble icon in the lower-left corner) cannot be tagged.



TIP

To set Photos to always show labels in the Viewer — so that you don't have to click the Add Faces link — choose View ⇒ Show Face Names.

- 2. Click the *unnamed* label below the face to open a text box, as shown in [Figure 14-3](#).**
- 3. Type the name of this person or pet and press Return.**

If the name appears on a Contacts contact card — or is recognized as an existing People & Pets name or as one of your Facebook friends — you can click the

matching entry that appears to confirm the identity. Wowzers!

4. **To delete an incorrect face recognition, right-click inside the circle that appears around the face and choose This Is Not (*Name*) from the menu that appears.**



TIP Photos might not recognize the face if the subject is turned at an angle to the camera or is in a darker area of the photo. If so, display the Info dialog and click the Add a Face button (which bears a plus sign) to display a “floating” circular outline. Then click the outline and drag the circle over the face. If necessary, you can resize the box by dragging the handle on the right side of the circle. Finally, click the *Click to Name* label and type the person’s name.

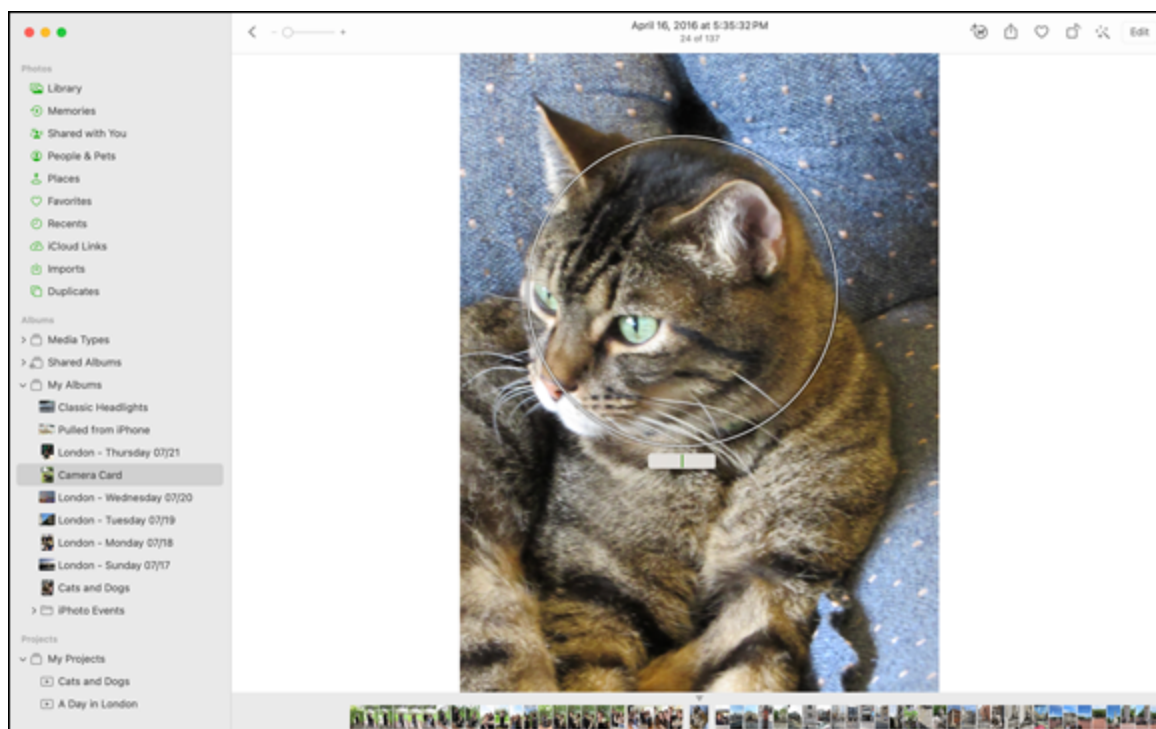


FIGURE 14-3: Adding another mug to my collection of Faces. (That doesn't sound right.)

After you tag an image, it appears in your People & Pets collection, which you can view by clicking the People & Pets entry in the sidebar. You can double-click a portrait in your People & Pets collection to see all the images that contain that person or pet.

Organizing with keywords

“Okay, Mark, albums and People & Pets are great ideas, but there has to be a way to search my library by category!” you say. Never fear, good Mac owner. You can also assign descriptive *keywords* to items to help organize your library and locate certain pictures and video clips fast. Photos comes with several standard keywords, and you can create your own as well.

To illustrate, suppose that you'd like to identify your images according to special events in your family. Birthday photos should have their own keyword, and anniversaries deserve another. By assigning keywords, you can search for Elsie's birthdays or your silver wedding anniversary (no matter what collection or album they're in), and all related photos with those keywords appear like magic!

Photos includes these keywords:

- » Favorite
- » Family
- » Kids
- » Vacation
- » Birthday
- » Flagged
- » Check mark



TIP

What's the check mark about, you ask? It's a special case: The check-mark keyword comes in handy for temporarily identifying specific items, because you can search for only your check-marked photos and clips.

To assign keywords to images (or to remove keywords that have already been assigned), select one or more photos in the Viewer. Then choose Window ⇒ Keyword Manager or press ⌘ +K to display the Keyword Manager window, shown in [Figure 14-4](#).

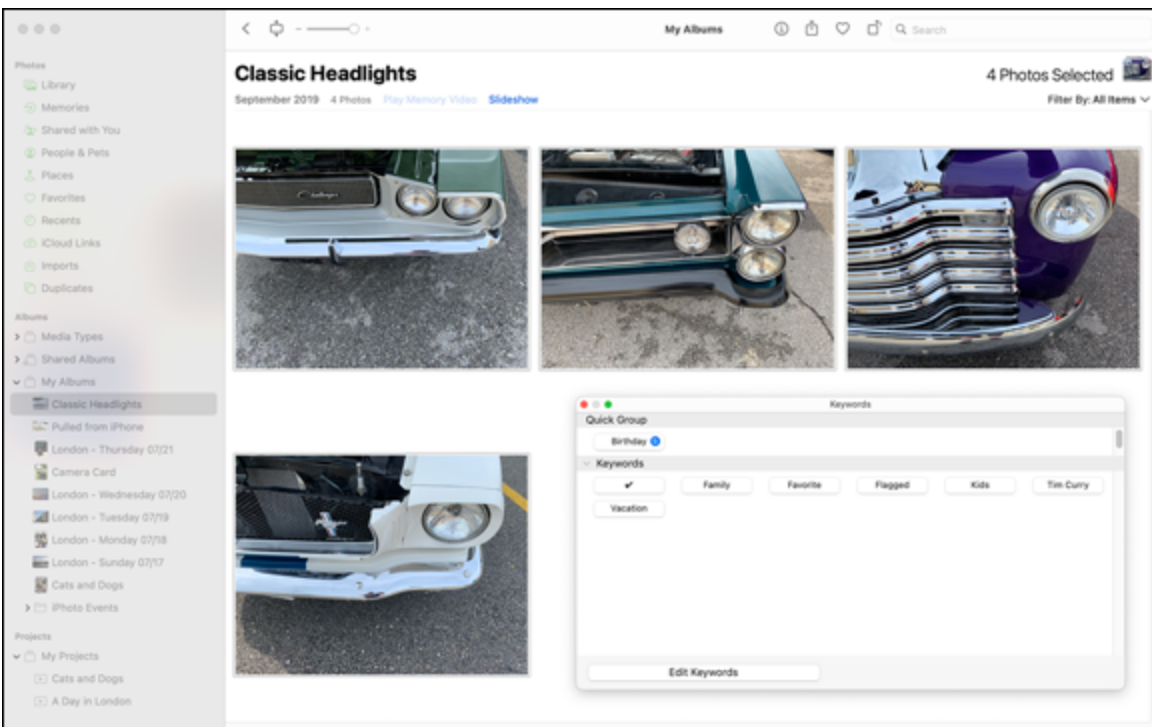


FIGURE 14-4: Add keywords to these selected images.



TIP

Drag the keyword buttons that you use most to the Quick Group section of the Keyword Manager window, and Photos automatically creates a keyboard shortcut for each keyword in the Quick Group. Now you don't even need to display the Keywords window to get business done!

Click the buttons for the keywords you want to attach to the selected images to mark them, or click the highlighted buttons for the keywords you want to remove from the selected items.

YOU NEED YOUR OWN KEYWORDS

I bet that you take photos and video clips of things other than kids and vacations. That's why Photos allows you to create your own keywords. Display the Photos Keyword Manager window by pressing ⌘ +K, clicking the Edit Keywords button, and then clicking Add (the button with the plus sign). Photos adds a new unnamed keyword to the list as an edit box, ready for you to type its name.

You can rename an existing keyword in this same window too. Click a keyword to select it and then click Rename. Remember, however, that renaming a keyword affects *all the images that were tagged with that keyword*. That may be confusing when, for example, photos originally tagged as Family suddenly appear with the keyword Foodstuffs. (I recommend applying a new keyword and deleting the old one if this problem crops up.)

To change the keyboard shortcut assigned to a keyword, click the Edit Keywords button on the Keyword Manager window, click the keyword to select it and then click the Shortcut button. While you're editing keywords, you can also remove an existing keyword from the list by clicking the keyword to select it and then click the Delete button (which bears a minus sign). When your keywords are picture-perfect (pun grudgingly intended), click OK to save them and return to the Keyword Manager window.

Digging through your library with keywords

Behold the power of keywords! To sift through your entire Library of images by using keywords, click the

Search button on the toolbar in the top-right section of the Photos window and type one or more keywords. To see all the items you've flagged as Favorites that include kids, for example, type **Favorite Kids**.



REMEMBER The images that remain in the Viewer after a search must have *all* the keywords you specified. If an image is identified by only three of four keywords you chose, for example, it isn't a match and doesn't appear in the Viewer. (You can create a Smart Album with specific keywords to get around this limitation.)



TIP To search for a photo by words in its caption, just click the search box and start typing. You can search your images by date and rating as well.

Searching by locations where photos were taken

Photos can also track the location where photos were taken automatically, but this feature requires a digital camera or device that includes GPS tracking information in the image metadata for Photos to do so without your help. (Older camera models are unlikely to support GPS tracking. Naturally, most iPhones and iPads support this feature.) You don't have to turn anything on to view photos by location.

When you're viewing photos by Memories, you'll notice that Photos often includes the location name to identify where the photos were taken. To search for all images taken at a specific location, type the location name in the Search field.



TIP

If you right-click a specific photo (that includes location information) to select it and then choose Get Info from the shortcut menu, you see a close-up map of the location where the photo was taken.

Edit mode: Removing and fixing stuff the right way

Not every digital image is perfect; just look at my collection if you need proof. For shots that need a pixel massage, Photos includes editing tools that you can use to correct common problems.

The first step in any editing job is selecting the image you want to fix. (Double-click a thumbnail in the Viewer so that it fills the screen.) Then click the Edit button on the Photos toolbar (or simply press Return) to display the Edit-mode controls on the right side of the window, as shown in [Figure 14-5](#). Now you're ready to fix problems by using the tools I discuss in the rest of this section.



FIGURE 14-5: Photos is now in edit mode. Watch out, image problems!



REMEMBER If you display a video clip in the Viewer, you can play it by hovering your pointer over the clip and clicking the Play button that appears, and a subset of video-editing controls appear when you enter Edit mode. (Need more powerful editing for your videos? Use iMovie, which I cover like a blanket in [Chapter 15](#).)

While you're editing, you can click the left- and right-arrow keys to move to the next item or back to the previous image. This trick works whether you're browsing the library or displaying the contents of an album. You can also display the Thumbnail pane in Edit mode.



TIP

If you prefer to edit images while using more of your screen real estate, click the Full Screen/Maximize button in the top-left corner of the Photos window. To switch back to the standard window arrangement, simply press the Esc key.

When you're finished with Edit mode, click the (wait for it) Done button again to return to the Viewer.

Rotating tipped-over shots

If an image is in the wrong orientation and needs to be turned to display correctly, click the Rotate button to turn it once counterclockwise. Hold down the Option key while you click the Rotate button to rotate clockwise.

Crop 'til you drop (and a whole lot more)

Does that photo or video have an intruder hovering around the edges of the subject? You can remove some of the border by *cropping* an item, just as folks once did with film prints and a pair of scissors. (We've come a long way.) With Photos, you can remove unwanted portions from the edges of an image or video — a great way to get Uncle Milton's stray head (complete with toupee) out of an otherwise-perfect holiday snapshot.

While you're in Edit mode, follow these steps to crop, flip, and straighten an item:

- 1. Click the Crop button at the top of the window.**
- 2. Select the portion of the image that you want to keep.**

In the Viewer, click and drag the right-angle handles at the corners of the rectangle to outline the part of

the image you want. Whatever is outside this rectangle disappears when the crop is complete.



TIP

When you drag a corner or edge of the outline, a semi-opaque grid (familiar to amateur and professional photographers as the nine rectangles from the Rule of Thirds) appears to help you visualize what you're claiming. (Check it out in [Figure 14-6](#).)

You can expand the outline to the image's full dimensions at any time by clicking the Reset button in the bottom-right corner.

See that attractive-looking Auto button that appears in the bottom-right corner of the Photos window when you're in Crop mode? A single click of the Auto button and Photos takes its best shot at producing the ideal cropping and straightening job for you! If you don't like the results, just use the Undo feature ($\text{⌘} + \text{Z}$) to return the photo to its previous appearance.



REMEMBER

Photos features multiple Undo levels, so you can press $\text{⌘} + \text{Z}$ several times to travel back through your past several changes. Alternatively, you can return the image to its original form (before you did any editing at all) by clicking the Reset Adjustments button.

3. (Optional) Choose a preset aspect ratio.

You might want to force your cropped selection to a specific aspect ratio, such as 4x3 or 16x9 for a widescreen desktop background or 4x6 or 5x7 to match the dimensions of photo paper. If so, choose the desired aspect ratio on the right side of the

window, under the Aspect heading (available only while cropping). Pick the Square selection for the perfect Facebook profile image or the Freeform selection to allow any aspect ratio when your cropping is done.

4. (Optional) Flip your photo or video horizontally.

Text on your T-shirt reversed? Not in Photos! A click of the Flip item at the right side of the Crop window gives you the mirror image of your original photo.

5. (Optional) Straightening what's crooked.

Was your camera slightly tilted when you took the perfect shot? Never fear! Click any of the three controls on the right side of the window (Straighten, Vertical, or Horizontal) and drag in the desired direction. (Besides straightening the subject, you can do some truly wild camera angles this way, just like in the '60s *Batman* TV series!)

6. Click the Done button.

Enhancing images to add pizzazz

If a photo looks washed out, click the Auto Enhance button to increase (or decrease) the color saturation and improve the contrast. (The toolbar button sports a very fitting magic-wand icon.) Auto Enhance is automatic, so you don't have to set anything — but be prepared to use Undo if you're dissatisfied with the changes.



FIGURE 14-6: Select the stuff you want to keep in your photo.

Removing rampant red-eye

Unfortunately, today's digital cameras and devices can still produce the same "zombies with red eyeballs" as traditional film cameras do. *Red eye* is caused by a camera's flash reflecting off the eyes' interior surface, and it can occur with both humans and animals. (I'm told that pets get *green eye* or *blue eye*, but Photos can handle them, too!)

Photos can remove that red-eye and green-eye and turn frightening zombies back into your family and friends. In Edit mode, click the Adjust button at the top of the window; hover your pointer over the Red-Eye item on the right side of the screen; and click the Auto button that appears. Photos automatically attempts to remove any red-eye effect that it detects in the photo, and a blue check mark appears next to the Red-Eye item to indicate that a change was made.

Retouching like the pros

The Photos Retouch feature is perfect for removing minor flecks or lines in an image (especially those you've scanned from prints), and Retouch has been improved in macOS Sonoma. First, click the Adjust button in the toolbar, and then click the disclosure triangle (which looks like a right arrow) by the Retouch item and click the Edit button that appears (which carries a paintbrush icon). Now hover your pointer over the photo to display the circular retouch tool. You can drag the Size slider to change the size of the retouch tool. Drag the pointer across the imperfection and click Done when you finish touching up. Don't forget to take a moment to marvel at your editing skill!

Using filters and adjustments to add a mood

Wonder whether a particular photo or video in your library would look better in black and white (*grayscale*)? Click the Filters button at the top of the window to display a list of effects that you can apply to the item, including black-and-white effects, enhanced color levels, and subtle shading. Click any thumbnail in the strip to apply the filter.

If you'd like more precise manual control of your image attributes — including sharpness, color levels, shadows, definition, and white balance — click the Adjust button at the top of the window and explore the lengthy array of options. Note that most of the adjustments offer an Auto button if you hover your pointer over the entry, and you can click the disclosure triangle to the left of each entry to display additional controls that create a different look.

I REALLY NEED A SLIDESHOW

You can use Photos to create slideshows by following these steps:

1. **Right-click the desired album in the sidebar and choose Create ⇒ Slideshow ⇒ Photos from the shortcut menu.**
2. **Type the name of the slideshow in the text box and press Return.**

Photos adds a new entry below Projects in the sidebar, and a scrolling thumbnail strip appears at the bottom of the Viewer, displaying the images in the album.

3. **Click and drag the thumbnails to appear in the desired order.**

After creating your slideshow, you can customize it with the controls on the right side of the Photos window:

- **Themes:** Click the Theme Picker button to choose the theme for your slideshow. The theme you choose controls the animation, transition type, and screen layout that Photos uses — everything from the classic Ken Burns “moving photo” animation to a nifty Sliding Panels layout.
- **Music:** Click the Music button to display Apple’s theme music as well as the tracks from your iTunes library. To choose a standard theme, open the Source pop-up menu and choose Theme Songs; then click that perfect song to select it. To choose songs from your iTunes library, open the Source pop-up menu and choose iTunes; then click the songs you want in the order in which you want them.
- **Duration:** Click the Duration Settings button and you can choose to fit the display of images to the length of the music you’ve chosen or set individual timings for the slide thumbnails you’ve selected. If you want your slideshow to loop when it finishes, click the Loop icon in the bottom-right corner of the Viewer (which carries two curved arrows) to toggle it on. (When you do, the icon turns blue.)
- **Preview:** To display a preview of your slideshow without leaving the Photos window, click the Preview button in the bottom-left corner of the Viewer. This button is a handy way to determine whether the theme and music you’ve selected are really what you want. When you’re ready to play your slideshow, click the Play button that appears below the Viewer; Photos switches to full-screen mode. To create a movie file from your completed slideshow, click Export on the Photos toolbar.

Note that you can also play the contents of an album immediately in a slideshow by right-clicking the desired album and choosing Play Slideshow. Photos gives you the opportunity to choose a theme and a music track — click Play Slideshow to start the slideshow in full screen. However, you can’t save one of these “quick and dirty” slideshows as a project, and you can’t set durations or timings.

Exploring iCloud Photos

Yes, Apple has decided that everything except the kitchen sink should be stored online in iCloud: first your Music media library; then your Pages, Numbers, and Keynote documents; and now your photographs and video clips! To turn the iCloud Photos feature on, choose Photos ⇒ Settings, click the iCloud tab of the Settings dialog, and click the iCloud Photos check box to enable it.

With iCloud Photos, your *entire* Photos library is stored online, and everything in your library is accessible from other Macs and iOS devices such as your iPad and iPhone. (Think “central storage house for everything visual that you can reach from anywhere with an internet connection.”) If you take a photo with your iPhone, for example, it appears automatically within Photos. And if you recently cropped and edited a photo to perfection with Photos, you’ll be able to retrieve that edited photo on any of your iOS devices or another Mac.

On the same iCloud pane in the Settings dialog, you can choose to

- » Download copies of the full-size images and full-resolution videos on your MacBook’s internal drive, which allows you to edit or view the originals even when you’re not connected to the internet.
- » Store smaller images and smaller-resolution videos on your MacBook with the ability to retrieve the originals from the iCloud at any time when you’re connected to the internet.

Naturally, if you're a photographer who needs constant, instant access to your original images, the first option is preferable. Choose the Download Originals to this Mac option on the iCloud tab. If your MacBook's drive is nearly full, however, and you'd like to conserve space, the second option is very attractive. Choose the Optimize Mac Storage option on the iCloud tab.

All this goodness is handled automatically, but there's a catch: Your *entire* Photos library needs to fit within your free 5GB of iCloud storage; otherwise, you'll have to pay a monthly subscription to get additional elbow room! (Storage subscriptions range from 99 cents a month for 50GB of space to \$59.99 a month for a whopping 12TB of space.) If you have only 3GB of photos, you may be able to use iCloud Photos without spending anything extra, but because my Photos Library is nearing 10GB, I'd probably need to subscribe to take full advantage of the feature. The choice is yours, dear reader.

Putting iCloud Shared Albums to Work

You can choose to share specific photos by using iCloud Shared Albums, which can be turned on from the Photos Settings dialog. (Yes, I agree that Apple *seriously* needs to work on choosing more-discrete names for these features.) Choose Photos ⇒ Settings, click the iCloud tab on the toolbar of the Settings dialog, and select the Shared Albums check box.

To subscribe to a shared-album invitation from another person, right-click the desired shared album in the sidebar and choose Accept from the shortcut menu.

To create your own shared album, select the images you want to share, click the Share button on the toolbar, select the Shared Albums item, and click the New Shared Album button. Photos prompts you for the album name and the email addresses of the folks you want to invite to your shared album. After you enter each email address, click the Create button at the bottom of the sheet to start the ball rolling. You can also add or delete items from your shared album in the same way that you would with a regular Photos album. Apple, you absolutely *rock!*

Creating an iCloud Link on the Web

If you're using iCloud Photos and you've enabled web access to iCloud, macOS Sonoma provides you with yet another way to share your images and video with others: the new iCloud Link feature.



REMEMBER In order to use iCloud.com, you must enable the Access iCloud Data on the Web switch, which you'll find on the iCloud pane in System Settings. (Visit [Chapter 5](#) for coverage of your iCloud settings.)

After you've connected to iCloud.com using Safari, sign in to your iCloud account and click the Photos tile. You'll note that the online version of Photos shares many of the same sidebar entries as the Photos application, including Favorites and Albums. Click the desired entry in the sidebar and select the photos and videos you want to share, holding down the ⌘ key while clicking to select multiple items. When you've chosen all the items, hover

your pointer over any selected thumbnail and click the icon with the three dots that appears; then pick Share from the pop-up menu.

There are two methods of sending an iCloud Link:

- » **Choose Email Link to send the link via an email message.** If you've set up an iCloud email account, iCloud.com opens the online version of Mail and creates a new message for you, complete with a title and the link embedded in the text of the message! All you have to do is enter one or more recipients, using either the person's full email address or any names you select from your Contacts. After you've addressed the message, you can add more text if you like, or just click the bold blue arrow!
- » **Click Copy Link to display the link in a dialog.** Click Copy Link and you're ready to paste the link text anywhere you like that accepts text (perhaps a Message, or even a Pages or Numbers document).



TIP For security, your iCloud Link will automatically expire after 30 days.

Chapter 15

Making Film History with iMovie

IN THIS CHAPTER

- » Taking stock of the iMovie window
 - » Importing and adding media content
 - » Putting the pieces of a movie together
 - » Creating a movie trailer
 - » Sharing your movie with others
-

Remember those home movies you used to make in high school? They were entertaining and fun to create, and your friends were impressed. In fact, some kids were so downright inspired that you're not surprised when you discover at your high school reunion that they turned out to be graphic artists or made careers in video or TV production.

iMovie, part of Apple's digital lifestyle suite, makes moviemaking as easy as those homemade movies. Apple simplifies all the technical stuff, such as importing video and adding audio, leaving you free to concentrate on your creative ideas. In fact, you won't find techy terms such as *codecs* and *keyframes* in this chapter. I guarantee you'll understand what's going on at all times. (How often do you get a promise like that with video-editing software?)

With iMovie, digital video from your smartphone or your camcorder, and the other applications that Apple

provides, you can soon produce and share professional-looking movies, with some of the same creative transitions and titles used by Those Hollywood Types every single day — all on your MacBook, all by yourself.

If you turn out to be a world-famous Hollywood-Type Director in a decade or so, don't forget the little people — like computer-book authors — you met along the way!

Shaking Hands with the iMovie Window

If you've ever tried using a professional-level video-editing application, you probably felt as though you were suddenly dropped into the cockpit of a jumbo jet. In iMovie, though, all the controls you need are easy to use and logically placed.

To launch iMovie, click the iMovie icon within Launchpad. (It looks like a star on the Hollywood Walk of Fame.) You can also click the Applications folder in any Finder window Sidebar and then double-click the iMovie icon.

To follow the examples I show you here, take these strenuous steps to create a new movie project:

1. Choose File ⇒ New Movie (or press ⌘ +N).

Alternatively, you can click the Create New thumbnail and choose the Movie entry from the pop-up menu.



TIP

You can also create movie *trailers* (short previews or teasers) within iMovie, as I demonstrate later in this chapter. Generally, however, you should

create your trailer project *after* your movie is completed (unless, of course, you're specifically creating just a trailer). Why? For the same reason that studios create trailers after the filming is finished: After you complete your movie, all the clips will be imported already, and you'll have a better idea of what you want to include while "teasing" your audience!

2. **Press ⌘ +6 to display the Theme Chooser, shown in [Figure 15-1](#).**
3. **Click a theme thumbnail to select a theme to apply to your finished movie.**



TIP

To preview the appearance of a theme, hover your pointer over the thumbnail and click the Play button that appears.

iMovie automatically adds the transitions and titles that correspond to that theme.

Normally, Step 3 is what you want to do, but you can add transitions and titles manually, as I show you later in this chapter. So if you decide not to use a theme out of the gate, you don't have to open the Theme Chooser at all.

4. **Click the Change button.**

iMovie adds the new project to the list in the sidebar, and you're on your way! Check out [Figure 15-2](#): the whole enchilada in one window.

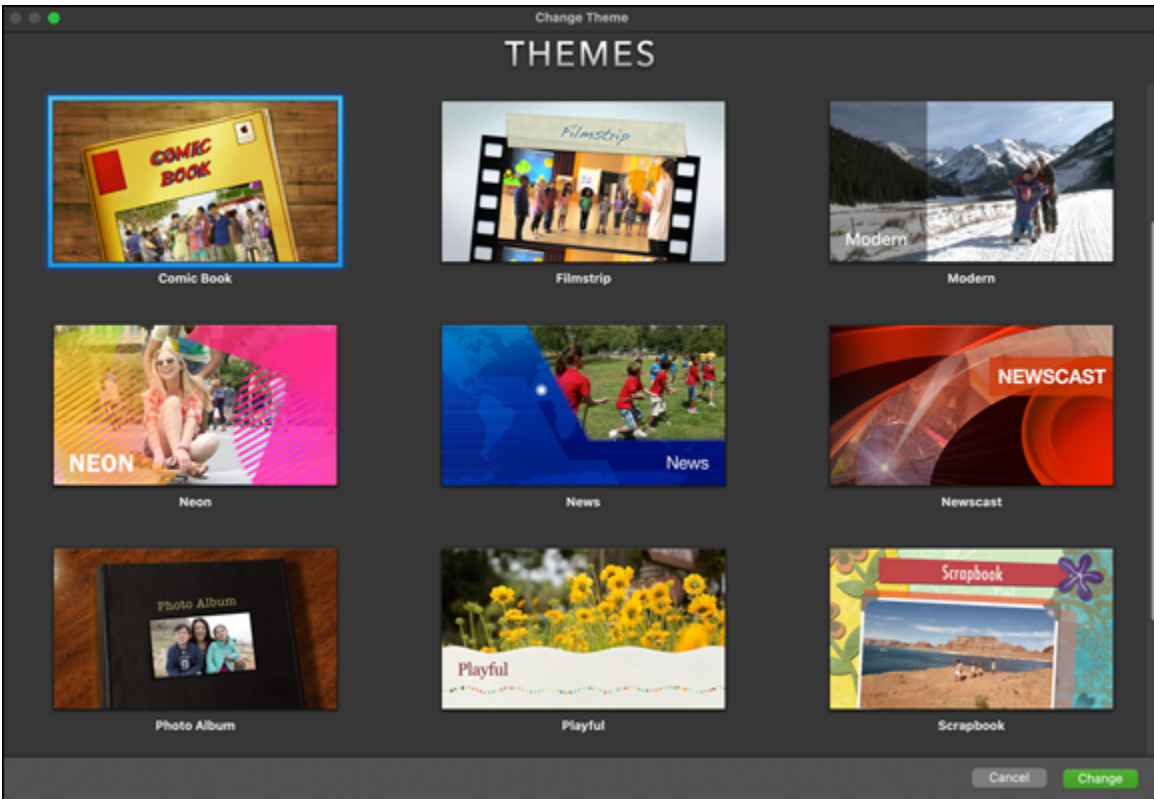


FIGURE 15-1: Applying a theme to your movie.



FIGURE 15-2: iMovie is a lean, mean, video-producing machine.

You'll use these controls and displays most often:

- » **Viewer:** Think of this as being just like your TV or computer monitor. Your video clips, still images, and finished movie play here. You also crop and rotate your video within the Viewer.
- » **Import Media button:** Click this button to import video clips from your digital camcorder, iPhone, iPad — even your MacBook's built-in FaceTime HD camera! I go over this process in detail in the section "[Importing the Building Blocks](#)," later in this chapter.
- » **Media library:** This row of buttons allows you to add photos, video clips, audio and effects such as

transitions, titles, music, and sounds.

- » **Libraries list:** This sidebar list allows you to display your photos and video clips from your Photos library. Additionally, the Libraries list displays all the video clips you can add to your project from events you've imported. The items in the list change depending on the type of content you've chosen in the Media library. You can also select an existing iMovie project from the iMovie library. To hide the Libraries list and make more room for the media pane, click the Hide button that appears in the top-right corner of the list. (To display the Libraries list again, click the same button, which now appears at the top left of the window.)



TIP

You can hide and show both the Media library and the Libraries list with one click of the Show or Hide the Media Library button, which appears in the top-left corner of the iMovie window; it bears a tiny musical note-and-filmstrip icon. By hiding both, you maximize the space available for your Viewer.

- » **Event/Project Library pane:** If you select an event in the All Events entry in the Libraries list, iMovie displays a thumbnail of that event's content in the Event pane. (Move your pointer over the Event thumbnail to see previews of the clips.) If you decide that you want to include a clip, double-click the event to display the clips and add the desired clip to your project. This pane also serves as the Project Library pane, where you can display your existing iMovie projects; click the Projects link at the very top of the iMovie window to display your existing projects as

thumbnails. To load a project, just double-click the thumbnail.



REMEMBER The Event/Project Library pane displays different content depending on the entry you select in the Libraries list.

- » **Project pane:** This pane is where most of your work gets done within iMovie, displaying the elements you've added to that specific project (such as video clips, still photos, and audio clips). Your movie appears as a linear strip of thumbnails, making it easy to select, insert, and delete elements.
- » **Playhead:** The yellow vertical line you see in the Project pane (or the red vertical line you see in the Event/Project Library pane) is the *playhead*, which indicates the current editing point while you're browsing your clips or creating your movie. When you're playing your movie, the playhead moves to follow your progress through the movie.
- » **Toolbar:** This strip of buttons allows you to enhance and adjust photos and video clips.

Those are the major highlights of the iMovie window. A director's chair and megaphone are optional, of course, but they do add to the mood.

A Bird's-Eye View of Moviemaking

I don't want to box in your creative skills. After all, you can attack the moviemaking process from several angles (pun unfortunately intended). But I've found that my

movies turn out best when I follow a linear process. So before I dive into specifics, allow me to give you an overview of moviemaking with iMovie.

Here's my take on the process, reduced to seven basic steps:

- 1. Import your video clips from your camcorder, your MacBook's FaceTime HD camera, your Photos Library, or a folder on your internal drive.**
- 2. Drag your new selection of clips from the Event pane to the Project pane and arrange them in the desired order.**
- 3. Import or record audio clips (from Music, GarageBand, or external sources, such as audio CDs or audio files you've recorded yourself) and add them to your movie.**
- 4. Import your photos (directly from Photos or your internal drive) and place them where needed in your movie.**
- 5. Add professional niceties such as voice-overs, transitions, effects, and text to the project.**
- 6. Preview your film and edit it further if necessary.**
- 7. Share your finished film through the web, email, your Apple TV, or an iOS device like your iPhone or iPad.**



TIP

Wondering how you save your project in iMovie — especially when the File menu has no Save item? iMovie automatically saves your project as you work, leaving you free to concentrate on your moviemaking art.

Importing the Building Blocks

Sure, you need video clips to create a movie of your own, but don't panic if you have a small supply. You can certainly turn to Apple's other digital media applications for additional raw material. (See, I told you that whole "digital suite" thing would come in handy.)

Along with video clips you import from your DV camcorder, your MacBook's trusty built-in FaceTime HD camera (or an external webcam), and your internal drive, you can call on Photos for the still images you'll need for your credits. On the audio side, you can call on Music and GarageBand for background audio and effects. In this section, I show you how.

Pulling in video clips

Your MacBook comes equipped with the right hardware for video editing: a superb high-resolution display, a large internal drive and ports to connect stuff.

Depending on the MacBook model you're using and your external devices, you may use a USB or Thunderbolt connection. I cover both older, tape-based camcorders and USB/Thunderbolt mass-storage devices in this section.



TIP

Are you using your iPhone or iPad camera to film your next blockbuster? If so, you can import those video clips into the Photos application using a cable connection or a wireless sync. (Alternatively, the iCloud Photos feature that's built-in to Photos can import the clips automatically.) When the clips appear in Photos, you can add them easily by selecting the Photos entry in the Libraries list to display the contents of your Photos library.

Oh, and don't forget that your MacBook has a FaceTime HD camera on board, ready to record clips. Heck, you're a self-contained movie studio!

Here's the drill if your clips are on your camcorder or mass-storage USB/Thunderbolt video device:

1. **Plug the proper cable into your MacBook.**
2. **Set the camcorder to VTR (or VCR) mode.**



TIP

Some video devices call this mode *Play*.

3. **Click the Import button (which bears a down arrow) in the top-left corner of the iMovie window (refer to [Figure 15-2](#)).**
iMovie opens the Import window.
4. **Open the Import To pop-up menu at the top of the Import window and choose the destination for your new video clips.**

To create a new event for the imported clips, choose New Event. Alternatively, you can import into an existing Event or iMovie project (including the

current project, of course). If your family reunion spanned more than one day, you can create a new event for each day. (How does Apple think up these things?)

5. Click the desired video source in the Source sidebar on the left side of the Import window.

If you're using a tape-based camcorder, playback controls appear under the Camera Import window, mirroring the controls on your camcorder. These controls allow you to control the unit from iMovie. *Keen!* If you're using a mass-storage camcorder connected by USB, you instead get an Import All button underneath the thumbnails of available clips. (Note that this button changes to Import Selected if you select one or more of the clips.)

If you choose your FaceTime HD camera from the list, you see a real-time preview and a big red Record button. Click the Record button to start and stop recording. (You can skip the rest of the steps in this section, which deal only with external camcorders.)

6. To import selected clips from your DV camcorder, advance the video to a couple of seconds before the point where you want to start your capture; then click Import.

7. Click OK and admire your handiwork.

iMovie begins transferring the footage to your drive and automatically adds the imported clips to the specified destination.



TIP

If your clips are already on your drive, rest assured that iMovie can import them, including those

in high-definition video (HDV) format. (Naturally, the higher the video resolution/video quality from the source, the better your finished project will look.) iMovie also recognizes other video formats, as shown in [Table 15-1](#).

To import a movie file, follow this bouncing ball:

1. **Click the Import button on the toolbar.**
2. **Click the drive that stores your clips in the window's sidebar and navigate to their location.**
3. **Select the desired clip(s) in the list.**
4. **From the Import To pop-up menu at the top of the Import window, choose the destination within iMovie.**
5. **Click Import (or Import All).**

[TABLE 15-1](#) Video Formats Supported by iMovie

<i>File Type</i>	<i>Description</i>
DV	Standard 4:3 digital video
DV widescreen	Widescreen 16:9 digital video
MOV	QuickTime movies
HDV and AVCHD	High-definition (popularly called widescreen) digital video, in 720p and 1080i
MPEG-2	Digital video format used for DVD movies
MPEG-4	A popular format for streaming internet and wireless digital video, as well as handheld iOS devices such as the iPad and iPhone

Alternatively, you can also drag a video clip from a Finder window and drop it in the Project pane.

Making use of still images

Still images come in handy as impressive-looking titles or as end credits to your movie. (To be truly professional, make sure that you list a *gaffer*, *key grip*, and *best boy*. I have no idea what they do, but they're always listed.)

You also can use still images to introduce scenes, close scenes, and separate clips. I use stills when delineating the days of a vacation within a movie or different Christmas celebrations over time, for example.

Here are two methods of adding stills to your movie:

- » **Adding images and video clips from Photos:** Click the Photos entry in the Libraries list to access your images right from iMovie (as shown in [Figure 15-3](#)). When you find the image you want to add, just drag it to the right spot in the Project pane.
- » **Importing images from your internal drive:** If you're a member of the International Drag-and-Drop Society, you can drag TIFF, JPEG, GIF, PICT, PNG, and PSD images directly from a Finder window and drop them into the Project pane.

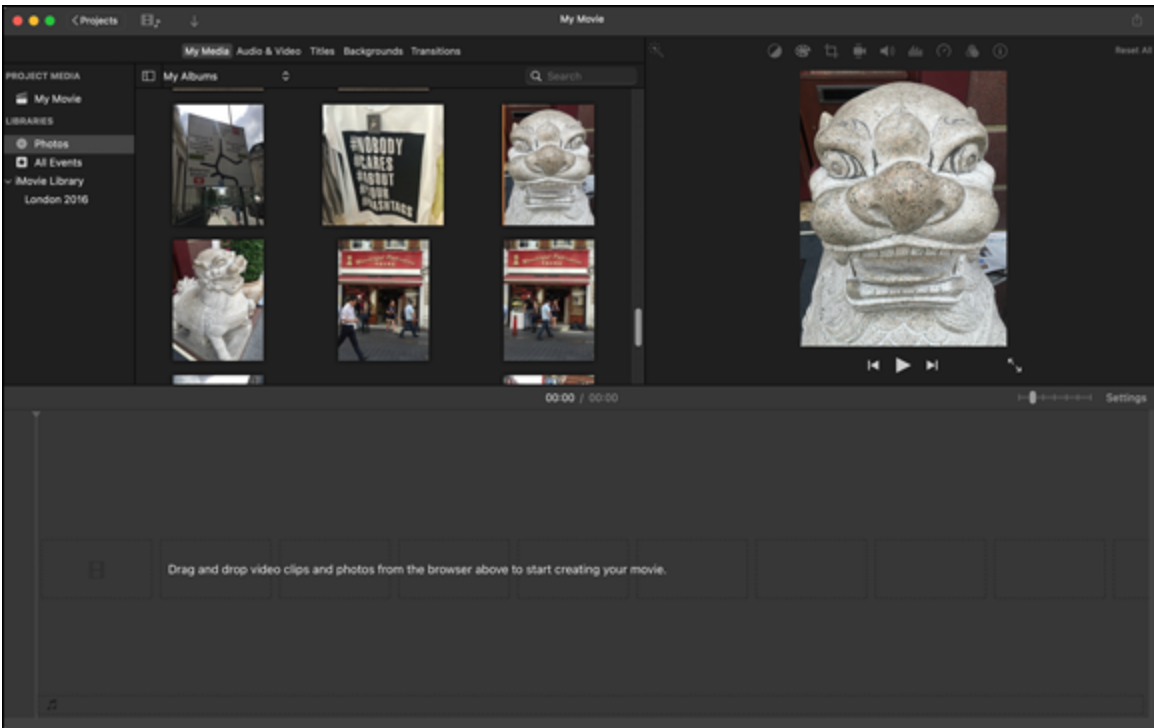


FIGURE 15-3: Pulling still images from Photos is child's play.

Importing and adding audio from all sorts of places

You can pull in everything from Wagner to Weezer as both background music and sound effects for your movie. In this section, I focus on how to get those notes into iMovie and then how to add them to your movie by dragging them to the Project pane.

You can add audio from several sources:

- » **Adding songs from Music and GarageBand:** Click the Audio & Video button in the Media library and select the Music entry in the sidebar to display the contents of your Music library. Then select the desired song in the scrolling list (which displays all your music). To display a playlist or Smart Playlist, click the Music drop-down list above the waveform display. [Figure 15-4](#) illustrates a playlist of Frank

Sinatra that I selected for this project. You can add a track to your movie by dragging any song entry from the list to the desired spot in the Project pane.

You're not limited to Music for ear candy, however. If you exported any music that you composed in GarageBand to your Music library, you can use those songs in your movie. Click the GarageBand button in the sidebar to view your GarageBand music and then drag and drop to your heart's content.

» **Adding sound effects:** If you need the sound of a horse galloping for your Rocky Mountain vacation clips, click the Audio & Video button in the Media library; then click Sound Effects in the sidebar. iMovie includes top-shelf audio effects that you can use in the sound-effects audio track in the Project pane. This way, you can add sound effects even when you've already added a background song. Again, to add a sound effect, drag it to the perfect spot in the Project pane.



TIP

If you have several gigabytes in your Music library, it may be more of a challenge to locate Janis Joplin's rendition of "Me and Bobby McGee," especially if it's included in a compilation. Let your supercomputer do the digging for you! Click the search box above the waveform (which carries the familiar magnifying-glass icon) and begin typing a song name. iMovie narrows down the song titles displayed to those that match the characters you type. To reset the search box and display all your songs in the library or selected playlist, click the X icon that appears to the right of the search box. (If you're preparing a video for posting on services like YouTube or Facebook, remember that incorporating copyrighted music into your video may violate their policies.)

- » **Recording directly from a microphone:** Yep, if you're thinking voice-over narration, you've hit the nail on the head. Check out the nearby "[Narration the easy way](#)" sidebar for the scoop.

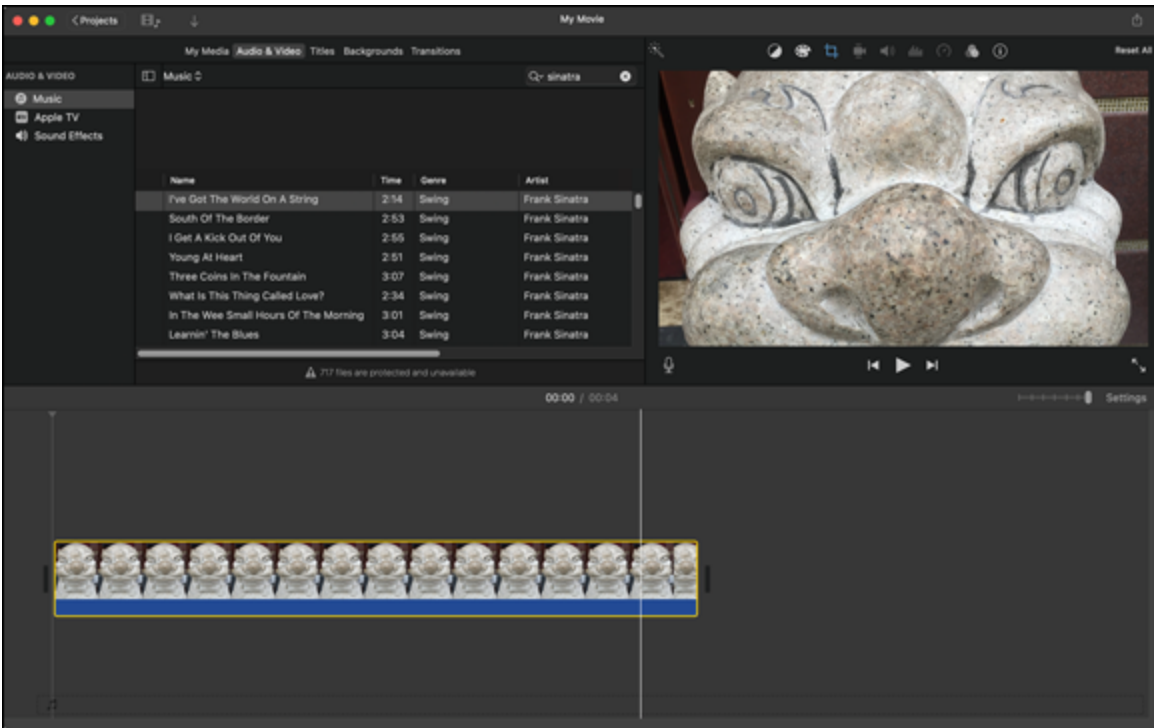


FIGURE 15-4: Calling on my Music library to add Ol' Blue Eyes to my iMovie.

NARRATION THE EASY WAY

Ready to create that award-winning nature documentary? You can add voice-over narration to your iMovie project that would make Jacques Cousteau proud. In fact, you can record your voice while you watch your movie playing, allowing perfect synchronization with the action! To add narration, follow these steps:

1. **Click the Project pane to activate it; then press V to display the Voiceover controls under the Viewer.**

Alternatively, click the microphone icon that appears at the bottom of the Viewer pane.

2. **Click the Voiceover Options button (which bears two sliders) and select the input device from the pop-up menu.**

Today's MacBook models sport *three* excellent internal microphones, but you can always add a USB microphone to your system. (Most professionals will use an external microphone to cut down on background noise.)

3. **Drag the input volume slider to a comfortable level.**

4. **To mute the audio of your movie (which may make it easier to concentrate on your narration), select the Mute Project check box.**

5. **Click the spot within your movie in the Project pane where the narration should begin.**

6. **Click the Start Recording button.**

iMovie prompts you with three tones before the playhead reaches the selected spot in your movie, so make sure that you begin speaking after the third tone.

7. **Watch the video while you narrate so that you can coordinate your narration track with the action.**

8. **Click the red Stop Recording button to stop recording.**

iMovie adds an icon to the Project pane below the video with the voice-over.

9. **Click the Close button in the Voiceover controls.**

Importing iOS iMovie projects

If you've also been developing an iMovie project on your iPhone or iPad (using the iOS version of iMovie), you can easily import that iOS project (in its entirety) into your Mac version of iMovie. As a first step, you should export your iOS project from your iOS device to your MacBook using AirDrop, Apple Mail, or your iCloud Drive. When the iOS project file is available on your MacBook, you're ready to import!

Click File ⇒ New Import iMovie iOS Projects to display a standard Open dialog, and then navigate to the location where you saved the iOS project file. (By default, iMovie uses your iMovie folder on your iCloud Drive.) Select the iOS project file and click Import. When the process is complete, the iOS project appears as a thumbnail on your Project Library pane.

Building the Cinematic Basics

It's time to dive in and add the building blocks of your movie. Along with the video clips, audio tracks, and still images you've imported, you can add Hollywood-quality transitions, optical effects, and animated text titles. In this section, I demonstrate how to elevate your collection of video clips to a real, live, honest-to-goodness movie.

Adding clips to your movie

You can add clips to your movie via the Project pane and Event/Project Library pane (refer to [Figure 15-2](#)). The Dynamic Duo works like this:

- » **Project pane:** This pane displays the media you've added to your project so far, allowing you to rearrange the clips, titles, transitions, and still images in your movie.
- » **Event/Project Library pane:** This pane serves as the source repository for all your clips, displaying them arranged by event (the date when they were shot or imported) or by project (media you've added to existing iMovie projects).

Typically, you add a clip to your movie from an event. Follow these steps:

1. **Click the My Media button in the Media library.**
2. **Click the All Events entry in the Libraries list.**
3. **Move the pointer across clips in the Event pane to watch a preview of the video.**

4. **When you've decided what to add to your project, add the entire clip or a selection:**

- **To select an entire clip:** Right-click the clip's thumbnail, and choose Select Entire Clip from the shortcut menu that appears.
- **To select a portion of a clip:** Click and hold, and then drag the pointer across the thumbnail. A yellow frame appears around your selection. To change the length of the selected video, hover the pointer over either end of the clip and drag the handle that appears on either side. If you make a mistake while selecting video, just click any empty space within the Event pane to remove the selection frame and try again.

5. **Drag the selection from the Event pane to the spot where it belongs in the Project pane.**

Alternatively, you can press the E key.



MARK'S
MAXIM

Preview your work — often.

iMovie includes a Play Full Screen button, which appears in the bottom-right corner of the Viewer. (Alternatively, press ⌘ + Shift + F or choose View ⇒ Play Full Screen to watch the selection.) Press the spacebar to pause, and press Esc to return to iMovie. You can also move the pointer across the filmstrip in the Project pane to browse your project quickly.

To play a selection from the beginning, press \ (backslash). If you've ever watched a director at work on a movie set, you may have noticed that he or she constantly watches a monitor to see what things will look

like for the audience. You have the same option in iMovie!

Marking clips

While you're watching video in the Event/Project Library pane, you may decide that a certain clip has a favorite scene or that another clip has material you don't want, such as Uncle Ed's shadow puppets. (Shudder.) iMovie features Favorite and Rejected frames, which allow you to view and use your best camera work (and ignore the worst stuff).

To mark a great video clip as a Favorite, select and right-click a range of frames or the entire clip in the Event/Project Library pane and then choose Favorite from the shortcut menu item (or press F). To mark clips that are subpar, select the offending clip in the Event/Project Library pane and press Delete (or right-click and choose Reject). Clips marked as Favorites have a green line on top of the clip, and clips marked as Rejected have a red line.



TIP When viewing your iMovie Library, you can use the Search Filter option to specify which types of marked clips are shown: Click the pop-up menu next to the Search field at the top of the Event/Project Library pane. Your options include displaying all clips, displaying just Favorite clips, hiding Rejected clips, or displaying just Rejected clips.

If you decide that a Rejected clip isn't so bad after all or that a Favorite really isn't your best work, no problem. Unmark any selected Favorite or Rejected scene in the Event/Project Library pane by choosing Mark ⇒ Unrate (or just press U).

Removing clips from your movie

Don't like a clip? Bah. To banish a clip from your movie, follow these steps:

- 1. Click the offending clip in the Project pane to select it.**

Alternatively, you can select a portion of a clip by holding down the mouse button (or maintaining pressure on the trackpad) and dragging the selection box that appears.

- 2. Press Delete.**



TIP

This step deletes the clip from the Project pane, but the clip is still available if you select All Events or the iMovie Library in the Libraries list.

If you remove the wrong clip, don't panic. Instead, use iMovie's Undo feature (press ⌘ +Z) to restore it.

Reordering clips in your movie

If Day One of your vacation appears after Day Two, you can easily reorder your clips and stills by dragging them to the proper spaces in the Project pane. When you take your finger off the mouse (or trackpad), iMovie automatically moves aside the rest of your movie with a minimum of fuss and bother.

Editing clips in iMovie

If a clip has extra seconds of footage at the beginning or end (as it should, to ensure that you get all the action), you don't want that superfluous stuff in your masterpiece. Our favorite video editor gives you the following basic functions:

- » **Crop:** Removes unwanted material from a video clip or still image
- » **Rotate:** Rotates a clip or image on its center axis
- » **Trim:** Trims frames from a video clip

Before you can edit, however, you have to select a section of a clip:

1. **Click a clip or image in either the Project pane (where changes you make are specific to this project) or the Event pane (where edits you make are reflected in any project that uses that footage).**

iMovie displays the clip or image on the monitor.

2. **To select the entire clip or image, simply click it.**
3. **Drag the pointer across the thumbnail to select the section of the media you want to edit.**

Some editing functions, such as Crop and Rotate, automatically apply to the entire clip.

The selected region is surrounded by a yellow frame. You're ready to edit that selected part of the clip.

When you move the pointer to the beginning or end of the selection, selection handles appear.



4. **TIP You can make fine changes in the selected section by dragging the selection handles.**

- **To crop:** Click the Crop button on the toolbar at the top of the Viewer (which bears an icon of two right angles forming a square). Drag the edges of the frame, using the handles, to select the section you want to keep. To preview your

selection, click the Play button that appears when you move the pointer into the Viewer pane. When you're ready, click the Done button (which bears a check mark), and everything but the selected region is removed.

- **To rotate:** Click the Crop button. Now you can click one of the two rotation buttons that appear on the right side of the Viewer (both of which carry a box and curved-arrow icon). Each click rotates the media 90 degrees in the indicated direction. Click the Done button (with the check mark) when the clip or image is properly oriented.
- **To trim:** Right-click the selection and choose Trim to Playhead from the shortcut menu. iMovie removes the frames from the selected video up to the playhead position.

Transitions for the masses

Many iMovie owners approach transitions as *visual bookends*: They merely act as placeholders that appear between video clips. Nothing could be further from the truth, though, because judicious use of transitions can make or break a scene. Which would you prefer after a wedding ceremony: an abrupt, jarring cut to the reception or a gradual fade-out to the reception?



REMEMBER Because today's audiences are sensitive to transitions between scenes, you should try not to overuse the same transition. Pick two or three that match the mood of your film and the scenes between which you're transitioning. Also carefully weigh the visual impact of a transition. You might even decide

that having no transition is most effective. (Directors call the deliberate lack of a transition a *jump cut*.)

iMovie includes a surprising array of transitions, including old favorites (such as Fade to Black and Cross Dissolve) and some nifty stuff that you may not be familiar with (such as Cube and Page Curl). To display your transitions collection (see [Figure 15-5](#)), click the Transitions entry in the Media library.

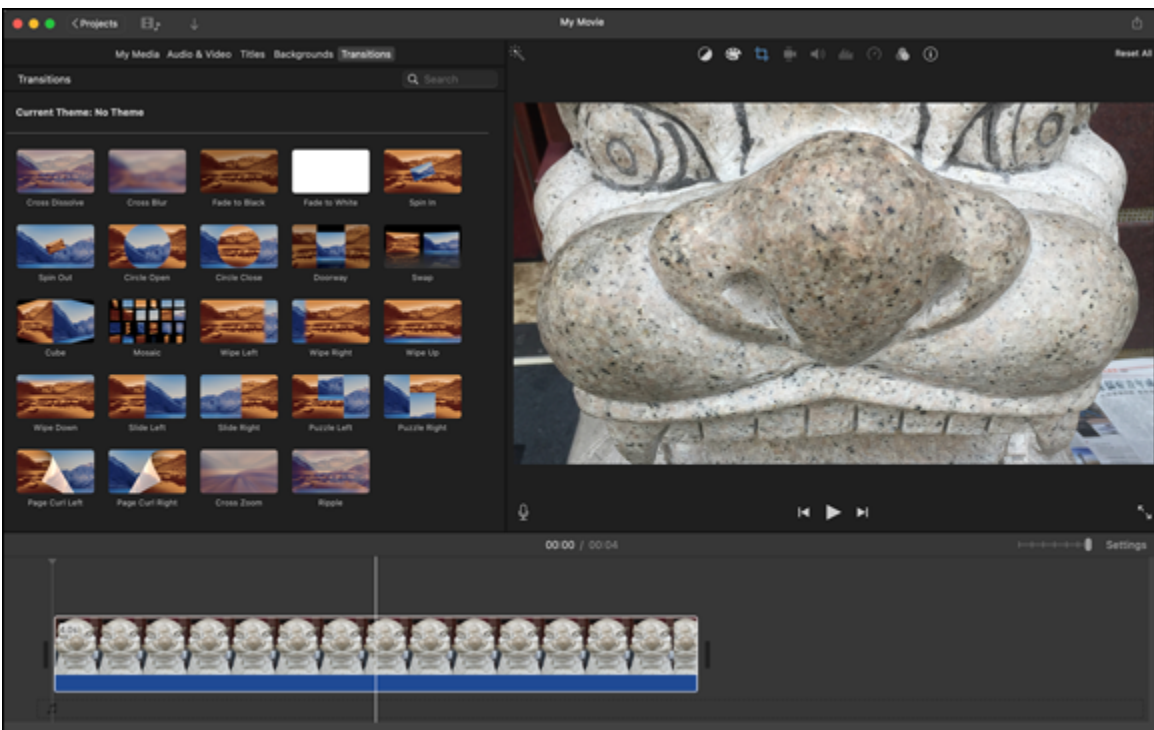


FIGURE 15-5: Add transitions for flow between clips in iMovie.

To see what a particular transition looks like, click the thumbnail to select it and then move the pointer over the thumbnail to display the transition in the Viewer.

Adding a transition couldn't be easier: Drag the transition from the thumbnail list and drop it between clips or between a clip and a still image in the Project pane. In iMovie, transitions are applied in real time.

Even Gone with the Wind had titles

The next step on the iMovie Hollywood Features Tour is the Titles list, shown in [Figure 15-6](#) (complete with a *very* familiar example from a *very* familiar science fiction movie). You find it by clicking the Titles entry in the Media library. You can add a title with a still image, but iMovie also includes everything you need to add basic animated text to your movie.

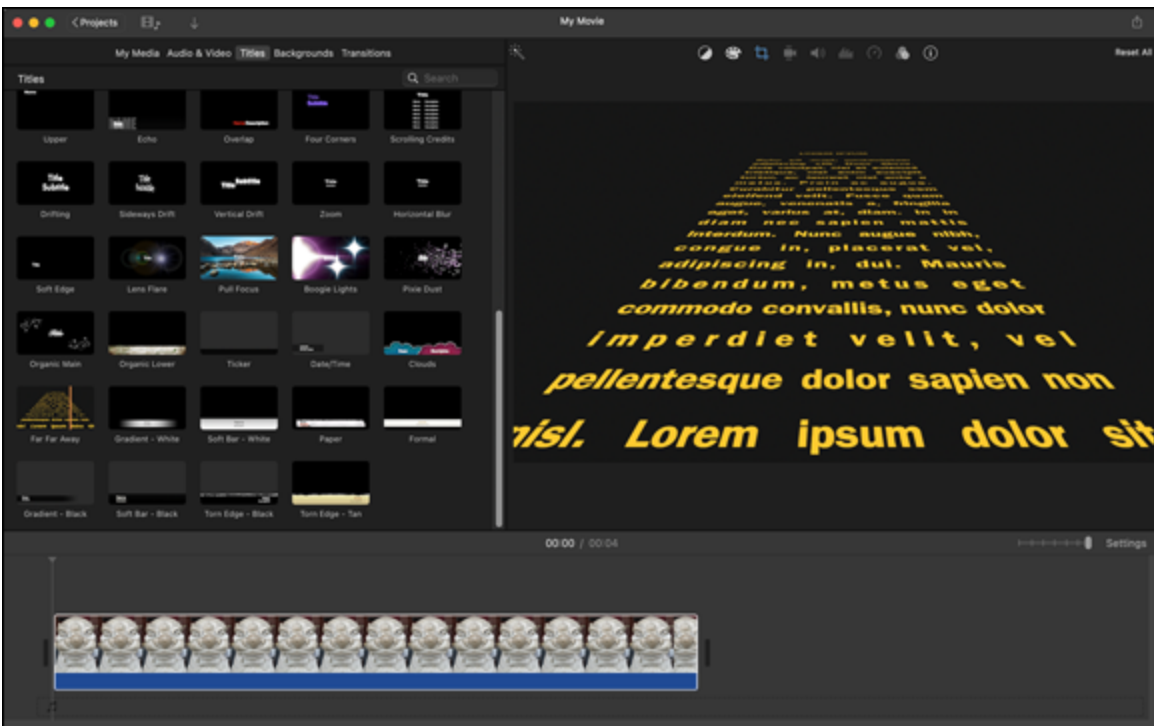


FIGURE 15-6: Add titles for your next silent film.

Most of the controls you can adjust are the same for each animation style. You can change the font, the size of the text, and the color of the text. To add a title manually, follow these steps:

- 1. Select a Title animation thumbnail in the Titles list and drag it to the desired spot in the Project pane.**

Note that the title is previewed in the Viewer as well as in the Project pane.

2. **Click the title strip in the Project pane to select it.**
3. **Click the Title Settings button (which bears a T symbol) on the toolbar to make any changes you want in the fonts or text attributes.**
4. **Click the text box within the Viewer to delete the default text and type your own titles.**
5. **Click the Done (check mark) button to save your changes.**
6. **Click the Play button in the Viewer to preview your title.**

iMovie displays a preview of the effect in the Viewer with the settings you chose.



TIP If the Automatic Titles and Transitions option is turned on, dragging a transition or title to your Project pane will result in a somewhat brusque reminder from iMovie. However, you can elect to turn off this option from the dialog, which will allow you to manually add the perfect title or transition to your masterwork.

Adding maps and backgrounds

iMovie includes easy-to-use animated maps — think Indiana Jones traveling by airplane from place to place — and static backgrounds that can be used with your titles. To display them, click the Backgrounds entry in the Media library.

To use an animated map, follow these steps:

1. **Drag one of the globe or map thumbnails to the Project pane.**
2. **When the globe or map is created, click it in the Project pane to select it.**
3. **Click the Map Settings button above the Viewer (which bears a globe icon) and then click the Start Location button (and, optionally, the End Location button) to enter the start and stop points for the animation.**

Type a city or place name to see your choices. (Heck, you can even type an airport code or decimal coordinates to specify the spot.)

4. **Click Done.**

Watch as iMovie animates your location (or your trip) in seconds!

To add a static background from the browser, drag it to the desired spot within the Project pane.

Creating an Honest-to-Goodness Movie Trailer

Yes, friends, you read that correctly: iMovie includes a Trailer feature that can turn your film clips into a Hollywood-class preview, complete with genre transitions and background music. This is *off-the-scale* cool!

To create a trailer project, follow these steps:

1. **Choose File ⇒ New Trailer.**
2. **Click a Movie Trailer thumbnail to select it.**

If you hover the pointer over the thumbnail and click the Play icon that appears, iMovie displays a nifty preview of the trailer style you selected. You can click different thumbnails to preview them before you decide. Naturally, you want to choose a trailer style that most closely matches the mood you want to project in your movie.

Note that each trailer has a suggested number of cast members. This number reflects the number of people who will appear in the clip placeholders during the editing process. (More on this in a moment.)

3. **Click Create.**

iMovie replaces the Project pane with the Trailer pane, as shown in [Figure 15-7](#).

You can fine-tune your trailer with the Outline, Storyboard, and Shot List tabs:

- **Outline:** On the Outline tab, you can edit the titles used in the trailer, as well as pop-up lists of information, such as the names of the star(s) and the logo style you want for your “studio” at the beginning of the trailer. To change a text field, click it and type the new text. The changes you make in the Trailer display appear in the Viewer in real time.
- **Storyboard:** When you complete your edits to the titles, click the Storyboard tab. Now you can edit the text for each transition: Simply click the text to display the edit box, and type. You can also drag clips from the Event pane (or from a Finder window) to fill the storyboard’s placeholders for video clips. To delete a clip from the storyboard, click it to select it and press Delete.



TIP

To preserve the look and feel of the trailer storyboard, try to match your clips with the description and suggested activity indicated by the placeholder. (In other words, don't stick a wide-angle video clip of the family dog cavorting in the yard in a placeholder marked Closeup. You get the idea.)



TIP

The Storyboard tab may not look like an editing timeline, but you can move the pointer anywhere within the storyboard to preview your trailer. The playhead indicator appears wherever the pointer appears, allowing you to watch the clip or transition it's resting on. You'll soon be sweeping the pointer to the left or right to move through the sections of your trailer.

Shot List: For a list of each clip required for the full trailer, click the Shot List tab. On this tab, clips are organized by type. All the action clips appear in one section, for example, and all the landscape and close-up clips are grouped as well. If necessary, you can add, delete, or swap video clips in the Shot List.

To preview your trailer in its entirety, click the Play button at the bottom of the Viewer (or the Play Full Screen button in the bottom-right corner of the Viewer controls). Naturally, any storyboard placeholder you haven't filled with a clip displays just the placeholder.

Note that iMovie displays your trailer in both the Libraries list and the Event/Project Library pane.

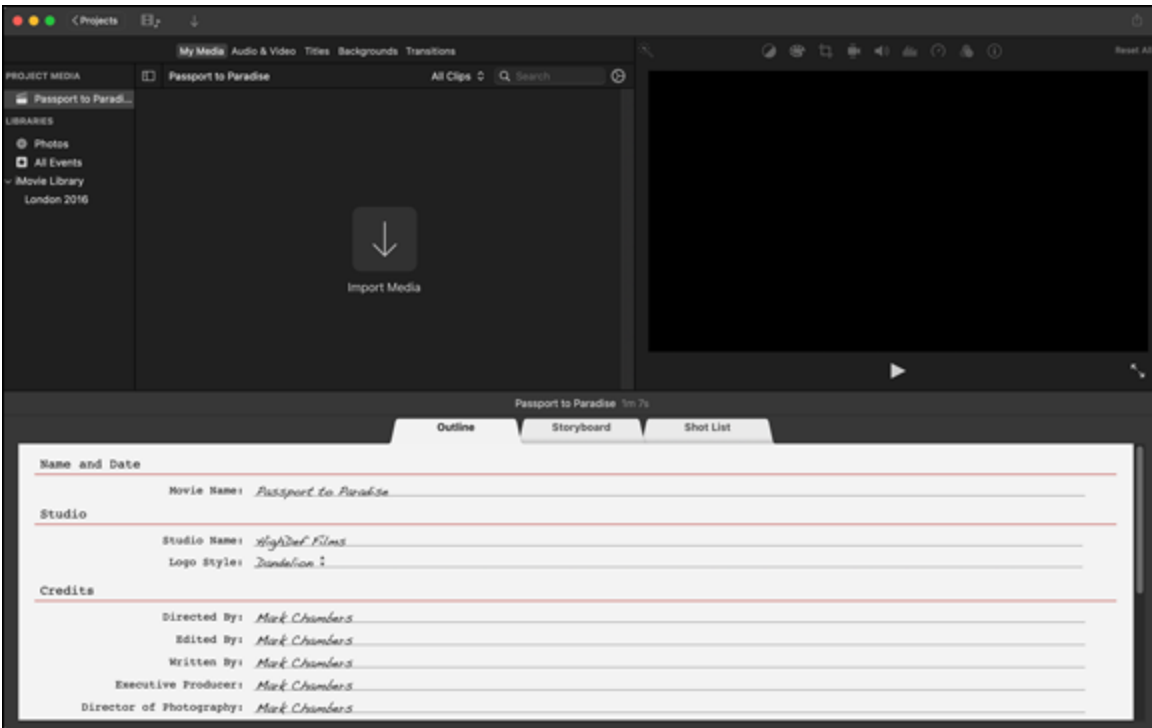


FIGURE 15-7: Build your movie trailer from the Trailer pane.

I bet that all those hard-working Hollywood video editors are fuming about how easy it is to create a trailer in iMovie!

Browsing Your Video Library

Sometimes you may lose track of which project contains what content. Even superstar directors are only human, especially those with a number of movies in production! iMovie allows you to browse through all your existing projects by clicking the Projects button at the top of the window. When you move your pointer over a specific project thumbnail, a circle icon with three dots appears next to the title, and you can click that icon to play the project (without loading it), rename it, duplicate it, or delete it from iMovie.

Sharing Your Finished Classic

Your movie is complete, and iMovie has saved it to your drive automatically. Now you're wondering where to go from here. Select your movie in the Event/Project Library pane and click the Share icon in the top-right corner of the window (or choose File ⇒ Share from the iMovie menu). iMovie can unleash your movie on your unsuspecting family and friends (and even the entire world) in several ways:

- » **Social Platforms/YouTube/Facebook:** Why, certainly you can send your iMovie directly to any of these social media platforms! Can it get any more convenient than that? (I think not.) iMovie will save the file in a compatible format, but you must upload it yourself according to the specific platform's requirements.
- » **Export File:** Create a copy of your movie on your system in one of three resolutions (from Standard Definition to High Definition), or send your movie to the Home Videos section of your Apple TV library.
- » **Email:** Send your movie as an email attachment. When you choose a sharing option, iMovie displays the suggested quality for the option and makes automatic changes in the movie attributes. (Choosing Email, for example, reduces the file size of the finished movie as much as possible.)



REMEMBER If you're worried about permanently reducing the quality of your project by sharing it in a smaller size, fear not! When you choose a sharing option to export your movie, your original project remains on your drive unchanged, so you can share a better-quality version at any time in the future.

Chapter 16

Recording Your Hits with GarageBand

IN THIS CHAPTER

- » Navigating the GarageBand window
 - » Composing a song
 - » Building arrangements
 - » Adding effects to instruments
 - » Exporting your work across the globe
-

Do you dream of making music? I've always wanted to join a band, but I never devoted the time it takes to learn the guitar. You know the drill: Rock stars struggle for years to master an instrument, practice for untold hours, and memorize chords. Wait a second, I almost forgot. You don't need to do any of that now!

Apple's GarageBand lets a musical wannabe (like yours truly) make music on your desktop with a MacBook — complete with a driving bass line, funky horns, and perfect drums that never miss a beat. In fact, the thousands of prerecorded loops on tap in this awesome application allow you to design your music to match that melody running through your head, from techno to jazz to alternative rock.

This chapter explains everything you need to know to create your first song. I also show you how to import your hit recording into Music so that you can listen to it

on your iPhone with a big silly grin on your face (as I do) or add it to your next iMovie project or Photos slideshow.

Don't be too smug when you think of all that practicing and hard work you missed out on. What a shame!

Shaking Hands with Your Band

As you can see in [Figure 16-1](#), the GarageBand window isn't complex, and that's good design. In this section, I list the most important controls so that you know your Play button from your Loop Browser button.

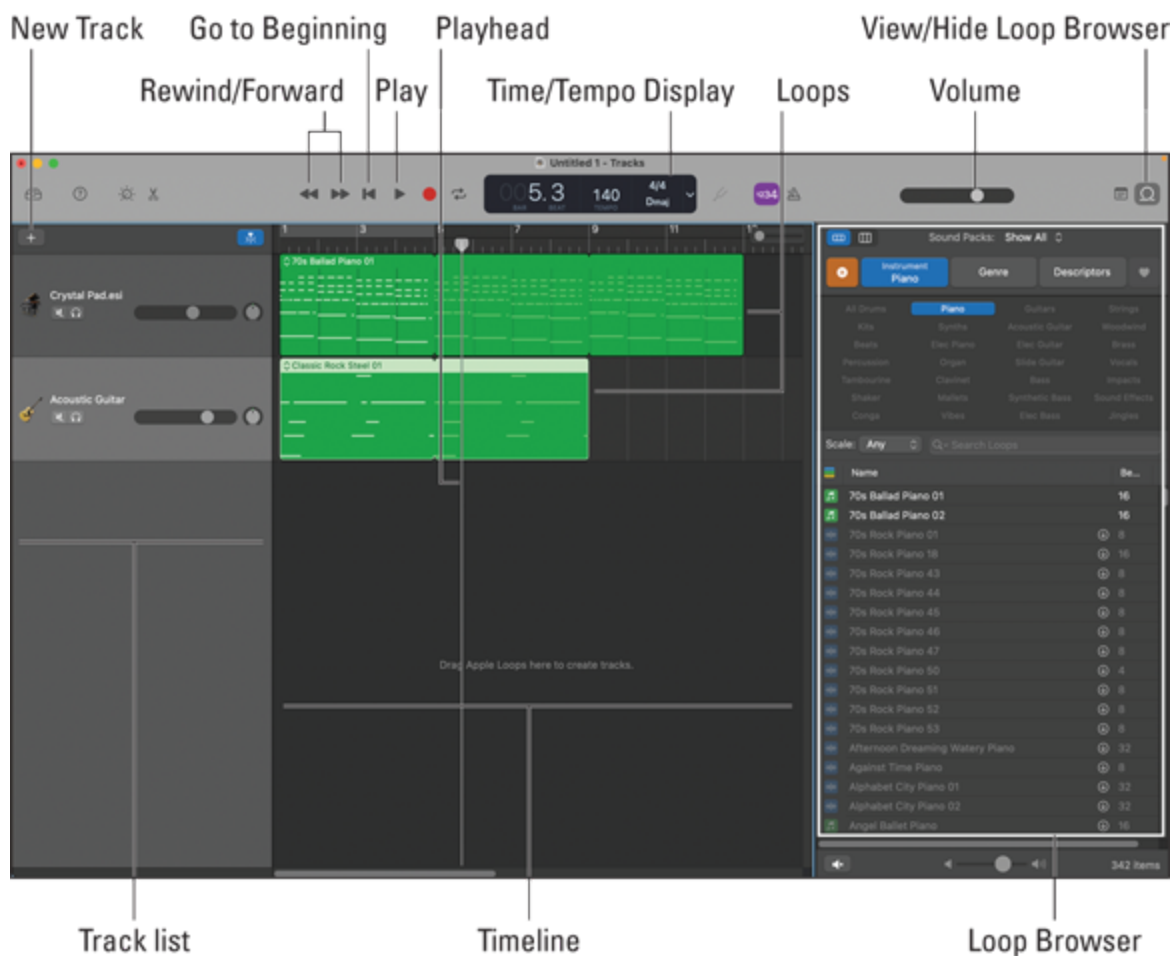


FIGURE 16-1: The GarageBand window.

Your music-making machine includes

- » **Track list:** In GarageBand, a *track* is a discrete instrument you set up to play one part of your song. A classical piece for string quartet, for example, would have four tracks, one each for violin, viola, cello, and bass. The Track list contains all the tracks in your song, arranged like the rows in a spreadsheet so you can easily see and modify them. A track begins in the list and stretches out to the right all the way to the end of the song. In the Track list shown in [Figure 16-1](#), I already have one track defined: a Classic Electric Piano.
- » **Timeline:** This scrolling area holds the loops (see the next bullet) you add, compose, or record, allowing you to move and edit them easily. When a song plays, the Timeline scrolls to give you a look at your music. (Bear with me; you'll understand that cryptic statement in a page or two.)
- » **Loop:** *Loops* — prerecorded clips of an instrument being played in a specific style and tempo — are the building blocks of your song. Most are five seconds in length, and others are even shorter. You can drag loops from the Loop Browser to a track and build a bass line or guitar solo. Loops can also be repeated within a track, which I discuss further in a page or two. (Note that loops have not been added in [Figure 16-1](#); you'll see them later.)
- » **Playhead:** This vertical line is a moving indicator that shows you the current position in your song while it scrolls by in the Timeline. You can drag the playhead to a new location at any time. The playhead also acts like the insertion pointer in a word processing application: If you insert a section of a song or a loop from the Clipboard, it appears at the playhead's current

location. (More on copying and inserting loops later, so don't panic.)

- » **New Track button:** Click this button to add a new track to your song.
- » **View/Hide Loop Browser button:** Click the button with the loop icon to display the Loop Browser on the right side of the window (shown in [Figure 16-1](#)); click it again to close it. You can see more of your tracks' contents at one time without scrolling by closing the Loop Browser.
- » **Go to Beginning button:** Clicking this button returns the playhead to the beginning of the Timeline. (Note that this button appears only when the playhead isn't already at the beginning of the Timeline.)
- » **Rewind/Forward One Measure buttons:** To move quickly through your song by jumping to the previous or next measure, click the corresponding button.
- » **Play button:** Hey, old friend! At last, here's a control you've probably used countless times before, and it works just like the same control within Music or on your audio CD player. Click Play, and GarageBand begins playing your entire song. Notice that the Play button turns green. To pause the music, click Play again; the button loses that sexy green sheen and the playhead stops.
- » **Time/Tempo display:** This cool-looking LCD display shows you the current playhead position in seconds.



TIP

You can click the drop-down menu on the right side of the display to switch between a beats and time display.

» **Volume slider:** Here's another familiar face. Just drag the slider to raise or lower the volume.

More controls are scattered around the GarageBand window, of course, but these are the main controls used to compose a song — which is the next step!



TIP Did I mention that you can work on your GarageBand music wherever the inspiration hits you? If you share a song in progress using the GarageBand application on your iPhone or iPad, you can resume that project on your MacBook using your iCloud Drive — or vice versa! To share the project on your MacBook for use on an iOS device, click Share in the GarageBand menu and choose Project to GarageBand for iOS.

Composing Made Easy

In this section, I cover the basics of composition in GarageBand, working from the beginning. Follow along with this running example:

1. **Click the GarageBand icon on the Dock.**
It looks like an electric guitar and an amplifier.
2. **If GarageBand opens a window for a previous project, close it by clicking the Close button in each window.**

GarageBand displays the top-level New Project window, as shown in [Figure 16-2](#).

3. **Click New Project in the list on the left side.**

4. Click the Empty Project icon and then click the Choose button.

GarageBand displays the Track Type dialog (not shown).

5. Click the Software Instrument icon.

In this chapter, I focus on using software instrument tracks, which are the easiest for a nonmusician to use (and don't require you to actually play any notes on an instrument).

6. Click the Create button.

You see the full GarageBand window. Now you're ready to add tracks and continue with the tutorial.

Adding tracks

Although I'm not a musician, I am a music lover. I know that many classical composers approached a new work the same way that you approach a new song in GarageBand: by envisioning the instruments they wanted to hear. (I imagine that Mozart and Beethoven would've been thrilled to use GarageBand, but I think they did a decent job with pen and paper.)

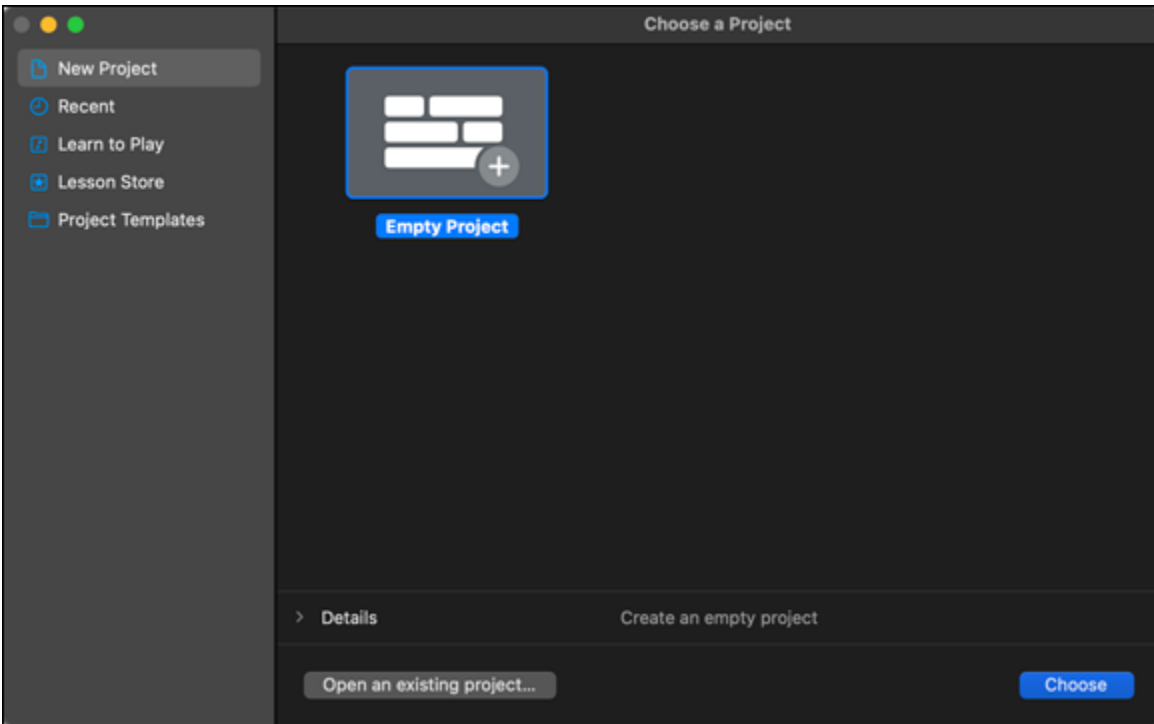


FIGURE 16-2: Start creating your new song here.

If you've followed along to this point, you've noticed these things:

- » **A Musical Typing keyboard in your GarageBand window:** You can record the contents of a software instrument track by playing the Musical Typing keyboard layout. (As you might imagine, this solution isn't the best one.) If you're a musician, the best method of recording your own notes is with a MIDI instrument, which I discuss later in the chapter. You can display the Musical Typing keyboard window at any time by pressing $\text{⌘} + \text{K}$. If the keyboard window is onscreen and you don't need it, banish it by pressing $\text{⌘} + \text{K}$ or by clicking the Close button in the keyboard window.
- » **The example song with only one empty track:** If you want to write the next classical masterpiece for Classic Electric Piano, that's fine. (I'm a big fan of this

instrument, so I use this track later in the example.) Note that you can always delete a track, however. Click the offending track to select it and then choose Track ⇒ Delete Track.

You can use five kinds of tracks in GarageBand:

- » **Software instrument tracks:** These tracks aren't audio recordings. Rather, they're mathematically precise algorithms that your MacBook *renders* (builds) to fit your needs. If you have a MIDI instrument connected to your MacBook, you can create your own software instrument tracks. (More on MIDI instruments later in this chapter.)
- » **Real instrument tracks:** These tracks are actual audio recordings, such as your voice or a physical instrument without a MIDI connection. (Think microphone.)
- » **Electric Guitar and Bass tracks:** GarageBand includes a real instrument track especially made for either an electric guitar or bass. This track allows you to access different amplifiers and *stompboxes* (those effect pedals that electric guitarists are always poking with their feet to change the sound of their instruments).
- » **Drummer track:** I call this feature "Ringo in a Box" — a drum track that's automatic, yet *very* configurable and easy to customize. You have presets galore, so you can quickly jump into different drum sets and playing styles.
- » **Movie tracks:** The video soundtrack appears if you're *scoring* (adding music to) an iMovie movie. You also get a cool companion video track that shows the clips in your movie. (More on this in the "[Look, I'm John Williams!](#)" sidebar, later in this chapter.)

It's time to add a software instrument track of your very own:

1. **Press ⌘ +Option+N (or click the New Track button).**

GarageBand displays the New Track sheet.

2. **Click the Software Instrument icon and then click Create.**

3. **Click the new track (the second in the list) to select it.**

4. **In the Library pane, choose the general instrument category you want by clicking the category name in the list.**

I chose Guitar, which prompts a second list of choices, still in the Library pane.

5. **In the second list, select your specific style of weapon, such as Classic Clean for a simple playing style.**

[Figure 16-3](#) shows the new track that ends up in your list when you follow these steps. Now you're ready to rock with both the original electric piano and an electric guitar! If you like, you can hide the Library pane by clicking the Show/Hide Library button in the top-left corner of the window.



TIP

GarageBand includes a Songwriter project (also available in the top-level New Project window). When you choose a Songwriter project, GarageBand presents a full set of instrument tracks, plus a real instrument track for your voice. You're ready to start adding loops and recording your own voice!



FIGURE 16-3: The new track appears, ready to rock.

Choosing loops

When you have a new, empty track, you can add loops to build your song from the Loop Browser. Apple gives you thousands of loops to choose among, in a mind-boggling variety. Click the Loop Browser button (which bears a loop symbol, somewhat like a roller coaster; refer to [Figure 16-1](#)) to display your collection, as shown in [Figure 16-4](#).



TIP You're not limited to just the loops that come with GarageBand — several companies sell additional royalty-free loops for all sorts of instruments.

Looking for just the right loop

The running project already includes two tracks but no loops yet. (Refer to [Figure 16-3](#).) Just for grins, add a

Classic Electric Piano loop. Follow these steps to search the loop library for just the right rhythm:

1. **Click the Classic Electric Piano track in the Track List to select it.**
2. **In the Loop Browser, click the Instrument tab and then click the button that corresponds to the instrument you're using.**

I chose the Elec Piano button (refer to [Figure 16-4](#)). A list of different beats appears in the pane at the bottom of the Loop Browser window.

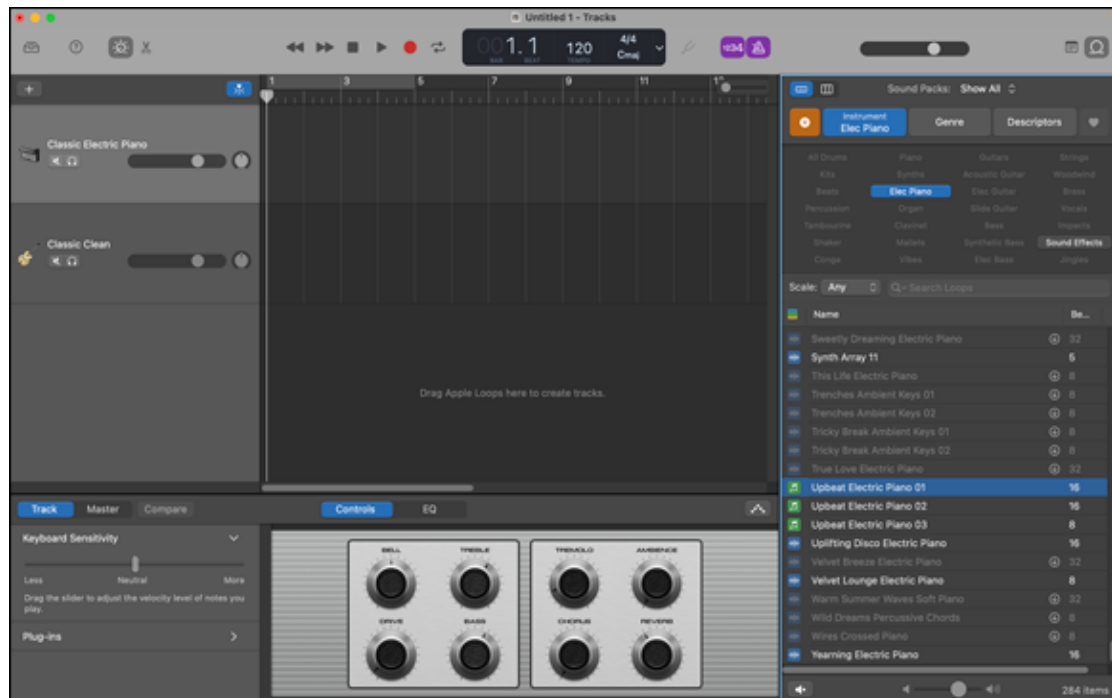


FIGURE 16-4: The Loop Browser is a great hangout for any musician.

3. **Click one of the loops that has a green musical-note icon.**

Go ahead; this is where things get fun! GarageBand begins playing the loop nonstop, allowing you to get a feel for how that particular loop sounds. (There's a mute button that allows you to mute each track

during playback, so you can focus on individual tracks if you want.)



REMEMBER The examples I chose for this chapter are software instruments, which are identified by a green musical-note icon. (If you have a MIDI instrument that you play, have at it with real instrument loops.)

4. Click another entry in the list.

The application switches to that loop.

Now you're beginning to understand why GarageBand is so cool for both musicians and the note-impaired. It's like having your own band with members who never get tired, never miss a beat, and play whatever you want while you're composing. (Mozart would've *loved* this feature.)



TIP If you want to search for a particular instrument, click the search box near the top of the Loop Browser and type the text you want to match. GarageBand returns the search results in a list.

5. Scroll down the search-results list and continue to sample loops until you find one that fits like a glove.

For this reporter, it's Upbeat Electric Piano 01 (refer to [Figure 16-4](#)).

6. Drag the entry to your Classic Electric Piano track and drop it at the beginning of the Timeline (as indicated by the playhead).

Your window looks like [Figure 16-5](#).

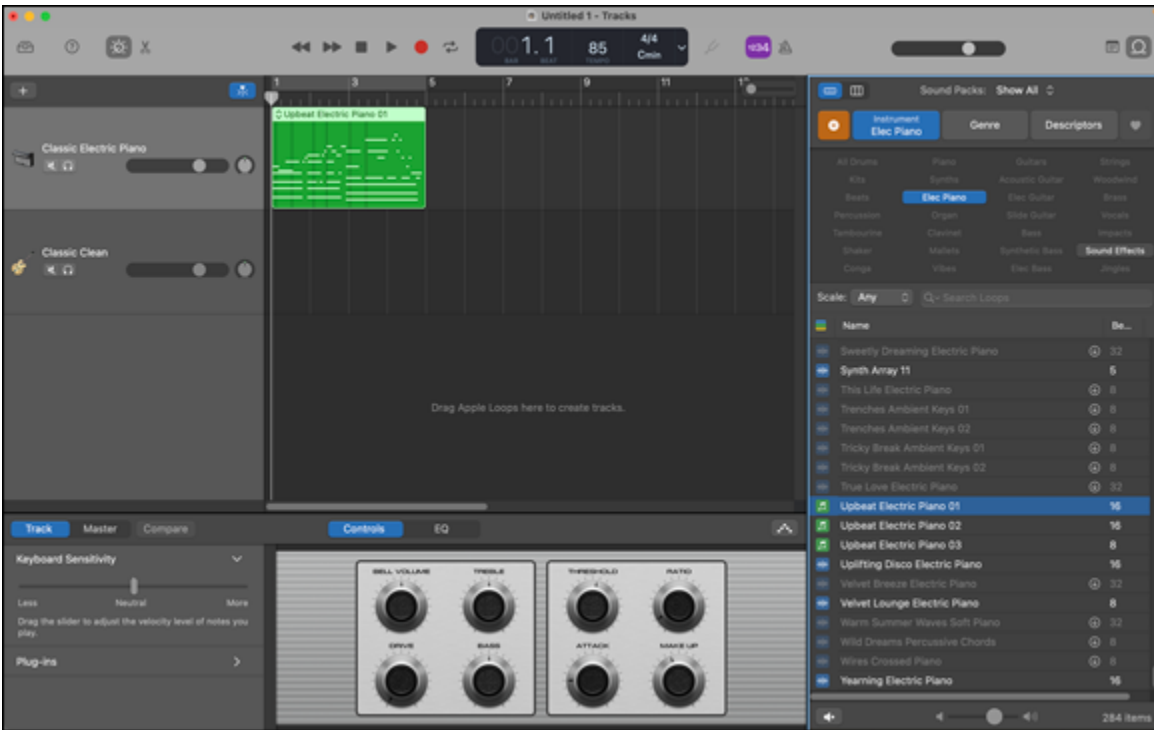


FIGURE 16-5: A track with a loop added.

Now, click the Loop Browser button at the right side of the toolbar to close the Loop Browser, which gives your Timeline additional elbow room. (You'll need that space for repeating and resizing loops in the next section.)



TIP If you want that same beat throughout the song, you don't need to add any more loops to that track. (More on extending that beat in the next section.) If you want the piano's beat to change later in the song, however, you add a second loop after the first one in the *same* track. For now, leave this track as is.



REMEMBER Whoops! Did you do something you regret? Don't forget that you can undo most actions in GarageBand by pressing the old standby ⌘ +Z immediately afterward.

Second verse, same as the first

When you compose, you can add tracks for each instrument you want in your song:

- » Each track can have more than one loop.
- » Loops *don't* have to start at the beginning; you can drop a loop anywhere in the Timeline.

LOOK, I'M JOHN WILLIAMS!

You, too, can be a famous composer of soundtracks ... well, perhaps not quite as famous as Mr. Williams, but even he had to start somewhere. To add a GarageBand score to an iMovie project, choose Track ⇒ Show Movie Track in the GarageBand menu bar to display the Movie track. Now choose File ⇒ Movie ⇒ Open Movie, select the movie, and click Open.

At this point, you add and modify instrument tracks and loops just as you would in any other GarageBand project. GarageBand displays a video preview in the Movie track. When you click the Play button, the video is shown as well so that you can check your work and tweak settings (as described later in the chapter).

When you finish composing, choose File ⇒ Movie ⇒ Export Audio to Movie. You can specify the name, location, and quality of the new movie file. Note that you can't edit your finished movie file in iMovie again, so scoring should always be the last step in your filmmaking process.

You may prefer to start a song with just your drum kit, for example, with your bass line beginning sometime later for a funkier opening.



TECHNICAL
STUFF

You put loops on separate tracks so that they can play different instruments simultaneously. If all your loops in a song are added to the same track, you hear only one loop at a time, and all the loops use the same software instrument. By creating multiple tracks, you give yourself the elbow room to bring in the entire band at the same time. It's über-convenient to compose your song when you can see each instrument's loops and where they fall in the song.



TIP

Click the Reset button in the Loop Browser (which carries an X icon) to choose another instrument or genre category.

Resizing, repeating, and moving loops

If you haven't already tried listening to your entire song, try it now. You can click Play at any time without wreaking havoc on your carefully created tracks. Sounds pretty good, doesn't it?

But wait: I bet the song stopped after about five seconds, right? (You can watch the passing seconds in either the Time/Tempo display or the second rule that appears at the top of the Timeline.) I'm sure that you want your song to last more than five seconds! When the playhead moves past the end of the last loop, your song is over. Click Play again to pause the playback; then click the Go to Beginning button (refer to [Figure 16-1](#)) to move the playhead back to the beginning of the song.

The music stops so soon because your loops are only so long. As mentioned earlier, most loops are five seconds long, and others are even shorter. To keep the groove going, you must do one of three things:

- » **Resize the loop.** Hover the pointer over the left or right edge of most loops, and an interesting thing happens: The pointer changes to an icon representing the left or right edge of the loop, with arrows pointing both ways. That's your cue to click and drag. As you drag, some loops expand to fill the space you're making, repeating the beats in perfect time. By resizing a loop, you can drag the loop's edge as far as you like.
- » **Repeat the loop.** Depending on which loop you chose, you might find that resizing it doesn't repeat the measure. Instead, the new part of the loop is simply dead air. In fact, the length of many loops is limited to anywhere from one to five seconds. But if you move the pointer over the top-right corner of a loop you want to extend, it turns into a vertical line with a circular arrow, which tells you that you can click and repeat the loop. GarageBand adds multiple copies of the same loop automatically for as far as you drag the loop. In [Figure 16-6](#), you see that I repeated the Upbeat Electric Piano 01 loop.
- » **Add a new loop.** You can switch to a different loop to change the music's flow. Naturally, the instrument stays the same, but there's no reason that you can't use a horn-riff loop in your violin track (as long as it sounds good played by a violin)! To GarageBand, a software instrument track is compatible with *any* software instrument loop you add from the Loop Browser, as long as that loop is marked with your old friend the green musical note.

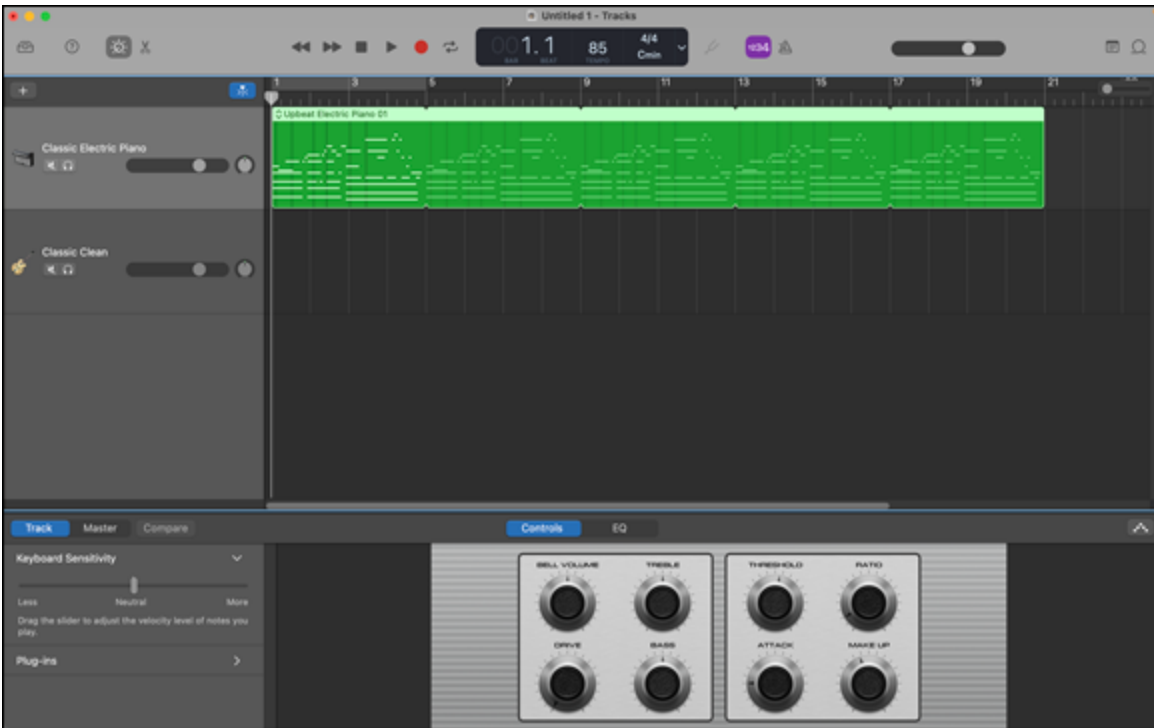


FIGURE 16-6: By repeating a loop, you can keep the notes flowing.



TIP You can also use the familiar Cut ($\text{⌘} + X$), Copy ($\text{⌘} + C$), and Paste ($\text{⌘} + V$) keyboard shortcuts to cut, copy, and paste loops both on the Timeline and from track to track. And you can click a loop and drag it anywhere.



REMEMBER A track doesn't have to be filled for every second with one loop or another. Most of my songs have repeating loops with empty space between them as different instruments perform solo.

Each track can be adjusted so that you can listen to the interplay between two or more tracks or hear how your song sounds without a specific track:

- » **Mute a track.** Click the tiny speaker button below the track name in the list, and the button turns blue to indicate that the track is muted. To unmute, click the speaker icon again.
- » **Change the volume or balance of a track.** Use the volume slider and balance knob that appear next to the track name. These controls come in handy if you want an instrument to sound louder or to confine that instrument to the left or right speaker.

Using the Arrangement track

GarageBand includes another method you can use to monkey with your music: Use the Arrangement track to define (or mark) specific sections of a song, which allows you to reorganize things by selecting, moving, and copying entire sections. You're probably familiar with a song's chorus (or refrain), for example, and how often it appears during the tune. With the Arrangement track, you can reposition the entire chorus, carrying all the loops and settings within the chorus along with it. If you need another chorus, just copy that arrangement.

To use the Arrangement track, display it by choosing **Track ⇒ Show Arrangement Track**. The Arrangement track appears as a thin strip at the top of the Track list. Click the **Add Marker** button (the circular button bearing a plus sign) at the right end of the Arrangement track, and you see a new marker, as shown in [Figure 16-7](#). (It appears in the Arrangement track row, looking rather like a rectangular tab in Safari and bearing a name — in this case, *Intro*.) You can drag the right side of the Arrangement marker to the left or right to resize it or drag it to move it anywhere in the song.



TIP To rename an Arrangement marker, double-click the current name (in [Figure 16-7](#), you would click the word *Intro*), type a new name for the marker in the text box, and press Return.



FIGURE 16-7: I just added a new marker in my song's Arrangement track.

Now, here's where Arrangement markers get *cool*:

- » **To move an entire Arrangement marker:** Click anywhere on the marker's title bar (except the title itself) and drag it anywhere you like in the song. (You can hold down Shift while clicking multiple contiguous markers to select more than one.)
- » **To copy an Arrangement marker:** Hold down the Option key and drag the desired marker's title to the spot where you want the copy to appear.

- » **To empty the regions in an Arrangement marker:**
Select it and press Delete. To delete the marker, press Delete a second time.

Tweaking the settings for a track

You don't think that The Rolling Stones and Drake just play and walk away, do you? No. They spend hours after their recording sessions are over, tweaking their music in the studio and on the mixing board until every note sounds just as it should. You can adjust the settings for a track, too. The tweaks you can perform include adding effects (pull a Hendrix by adding echo and reverb to your electric guitar track) and kicking in an equalizer (for fine-tuning the sound of your background horns).

To make adjustments in a track, follow these steps:

1. **Click the desired track in the Track list to select it. (I've chosen my Classic Clean guitar track.)**
2. **Click the Smart Controls button in the top-left corner of the GarageBand window (refer to [Figure 16-1](#)).**

You can also press B to hide or display the Smart Controls pane.

3. **Click the Controls tab to show the settings shown in [Figure 16-8](#).**

Note that the settings you see will vary according to the type of instrument track you've selected.

4. **Click the knob control or slider for a specific effect to change the sound.**



TIP

GarageBand offers a Visual Equalizer window that you can use to create a custom equalizer setting

for each track. In the Smart Controls pane, click the EQ tab. To change the Bass, Low Mid, High Mid, or Treble setting for a track, click and drag the equalizer waveform in the desired direction. And yep, you can do this while your song is playing, so you can use both your eyes *and* ears to define the perfect settings!

5. **Click the Smart Controls button (or press B) to return to GarageBand.**



FIGURE 16-8: Finesse your tune by tweaking the sound of a specific track.

Time for a Mark's Maxim:



**MARK'S
MAXIM**

Save your work often in GarageBand. One power blackout and you'll never forgive yourself. When you're pleased with the progress you've made in your project, press ⌘ +S and enjoy the peace of mind. (Use Time Machine

with an external backup drive for good measure.)

JOIN IN AND JAM ... OR SING!

GarageBand is even more fun if you happen to play an instrument! And yes, I'm envious, no matter how much I enjoy the techno and jazz music I create. After all, take away my Mac and I'm back to playing the kazoo — at least until I absorb all the Learn to Play lessons for the guitar. (More on Learn to Play in the next sidebar.)

Most musicians use MIDI instruments called *controllers* to play music on the computer. That pleasant-sounding acronym stands for *Musical Instrument Digital Interface*. A wide variety of MIDI controllers is available these days, from traditional MIDI keyboards to more exotic fun, such as MIDI saxophones. For example, the highly recommended Casio CT-S300 offers 61 keys, and it's available online for about \$180. (The keyboard connects to your trusty MacBook via a USB cable, so you'll need an adapter for the MacBook's USB-C ports.)

If you have an older instrument with traditional round MIDI ports — you'll never confuse them with USB connectors — you need a USB-to-MIDI converter. You can find this type of converter for around \$50 on websites that cater to musicians.

You can also connect microphones or traditional electric instruments to your MacBook for use with GarageBand. You'll need an audio interface, which feeds the signal from these traditional sources into your MacBook through the USB port.

When your instrument is connected, you can record tracks with any software instrument. Create a new software instrument track as I demonstrate in this chapter, select it, and play a few notes. Suddenly, you're playing the instrument you chose! If nothing happens, check the MIDI status light in the Time display to see whether it blinks with each note you play. If not, check the installation of your MIDI connection and make sure that you've loaded any required drivers, as well as your MIDI settings within QuickTime and the input settings in the System Settings Sound pane.

Drag the playhead to a beat or two before the spot in the Timeline where you want your recording to start. This step gives you time to match the beat. Then click the big red Record button and start jamming! When you're finished, click the Play button to stop recording.

Sharing Your Songs

When you finish your song, you can play it whenever you like through GarageBand. But then again, that isn't really what you want, is it? You want to share your music with others on an audio CD or download it to your iPhone or iPad so that you can enjoy it yourself while walking through the park.

Music to the rescue! As with the other digital lifestyle applications I cover in this book, GarageBand can share the music you make through the digital hub that is your MacBook. (You can find out how to become a Music power user in [Chapter 13](#).)

HEY, GARAGEBAND, TEACH ME HOW TO PLAY!

In the early days of GarageBand, you were limited to creating music. And if you were a nonmusician like yours truly, GarageBand had no practical use as a tool for teaching yourself how to *play* an instrument.

Ah, but Apple's addition of Learn to Play actually turns GarageBand into your private video tutor for basic piano and guitar! In the New Project window (refer to [Figure 16-2](#)), click the Learn to Play entry in the list on the left side to display your guitar and piano lessons. Right out of the box, you have a solid introduction to both instruments. You can also download more lessons — which cover more advanced topics such as fingering and chords — for each instrument from the Lesson Store (available from the New Project window). Your onscreen instructor can even record what you play.

In fact, GarageBand includes the How Did I Play feature, which can pinpoint the portions of a lesson you played correctly and which spots in the song you need to work on. (I'm told that musicians call such trouble spots *flubs*. Having no musical talent whatsoever, anything that I attempted to play would be one giant flub.) To try How Did I Play, open your favorite lesson, click the Record button (with the red dot in the center) and begin playing. To stop recording, click the Play button. Now you can see the portions of the song you played correctly (where the notation area is green) and spots where you, um, flubbed (where the notation area turns red). Oh, and make sure that your instrument is in tune, because even correct notes played on an instrument that's out of tune produce errors for How Did I Play!

If you find the free Learn to Play lessons valuable, you can move up to the Artist lessons, which are taught by famous musicians (including favorites of

mine such as America; Squeeze; and Alex Lifeson of Rush, who actually teaches you how to play “Tom Sawyer”)!

Creating song files in Music

You can create an AAC song file (or even a ringtone) from any project in just a few simple steps:

1. **Open the project you want to share.**
2. **Choose Share ⇒ Song to Music.**
3. **In each of the text boxes, type the title, artist name, composer name, album name, and Music playlist for the tracks you create.**

You can leave the defaults as they are if you prefer. Each track you export is named after the song’s name in GarageBand.

4. **From the Quality pop-up menu, choose the proper audio quality for the finished file.**



REMEMBER The higher the quality, the larger the file.

5. **Click the Share button.**

After a second or two of hard work, your MacBook opens the Music window and highlights the new (or existing) playlist that contains your new audio.

Exporting a project

Sometimes, you’d like to create an audio file from a GarageBand project, but you’d rather not add that song or ringtone to your Music library automatically. (Perhaps you now have audio proof that a family member **does** indeed snore.) In that case, you can always export a song

straight to your MacBook's internal drive as a standalone audio track by following these steps:

1. **Open the project you want to export.**
2. **Choose Share ⇒ Export Song to Disk.**
3. **Type a name for the audio file.**

Navigate through your internal drive to the desired folder. (The default location is your GarageBand folder, which is located within your Home folder. You can save it to a new folder on your drive by clicking the New Folder button at the bottom of the dialog.)

4. **From the Quality pop-up menu, choose the desired audio format and quality.**

As with sharing a song to Music, the higher the quality, the larger the file.

5. **Click Export.**

Burning an audio CD

Ready to create a demo CD with your latest GarageBand creation? If your MacBook has an external optical drive, follow these steps to burn an audio disc from within GarageBand:

1. **Open the song you want to record to disc.**
2. **Load a blank disc into your optical drive.**

If you see a dialog requesting that you choose an action, click the Ignore button.

3. **Choose Share ⇒ Burn Song to CD.**

Note that the CD you create has only one track. To include more tracks on the CD, share the song to your Music library (as described earlier), create a playlist

containing the desired songs, and burn that playlist within the Music application.

Part 5

Getting Productive and Maintaining Your MacBook

IN THIS PART ...

Create documents with Apple's productivity applications.

Troubleshoot and fix problems with your MacBook.

Expand your MacBook with peripherals, external drives, and more.

Maintain your MacBook properly for peak performance.

Chapter 17

Desktop Publishing with Pages

IN THIS CHAPTER

- » **Creating, opening, and saving a Pages document**
 - » **Entering, editing, and formatting text**
 - » **Inserting text, shapes, and graphics**
 - » **Cutting, copying, and pasting**
 - » **Setting document defaults**
 - » **Printing and sharing your work**
-

What's the difference between word processing and desktop publishing? In a nutshell, it's in how you design your document. Most folks use a word processor like an old-fashioned typewriter, much like I'm using the Mac version of Microsoft Word right now. (Yawn.)

A desktop publishing application allows far more creativity in choosing where to place text, how to align graphics, and how to format all the elements in your document. I think desktop publishing is more visual and intuitive, allowing your imagination a free hand in creating a document.

In this chapter, I show you how to set your inner designer free from the tedious constraints of word processing. Whether you need a simple letter, a stunning brochure, or a multipage newsletter, Pages can handle the job with ease, and you'll be surprised by how simple

it is to use. Plus, Pages is a *free* download for any MacBook (and free Apple software is always A Good Thing).

Creating a New Pages Document

To create a new Pages document, follow these steps:

1. Click the Pages icon on the Dock.

If the Pages icon doesn't appear on your Dock, click the Launchpad icon and then click the Pages icon (which looks like a document and pen). If you haven't yet installed the three Apple productivity applications — Pages, Numbers, and Keynote — click the App Store icon on your Dock and download them for free!

2. Click the New Document button in the bottom-left corner of the Open dialog.

Pages displays the Choose a Template window, shown in [Figure 17-1](#).



TIP

You can also create a new Pages document at any time. Just choose File ⇒ New to display the Choose a Template window.

3. In the sidebar on the left, click the type of document you want to create.

The thumbnails on the right are updated with templates that match your choice.

4. Click the template that most closely matches your needs.

To start with a blank page, choose the Blank template.

5. Click the **Create** button to open a new document that uses the template you selected.

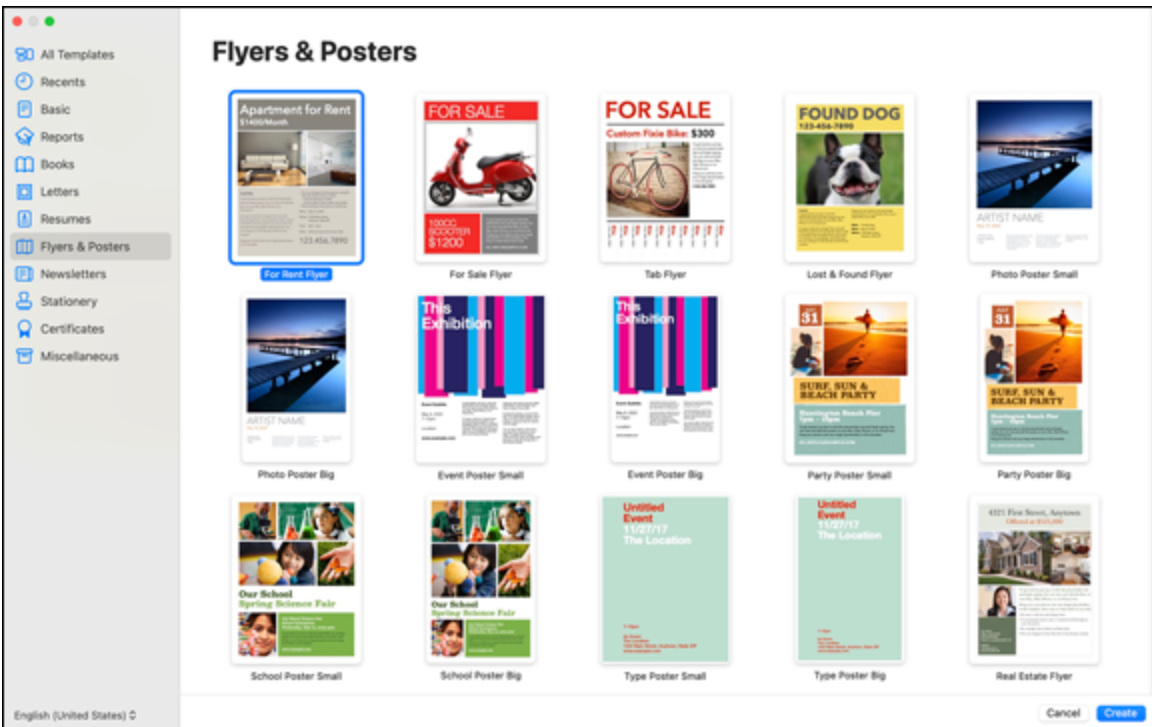


FIGURE 17-1: Select a template from the Choose a Template window.

Opening an Existing Pages Document

You can always open a Pages document from a Finder window, of course. Just double-click the document icon. You can also open a Pages document from within the program. Follow these steps:

1. **Launch Pages as described in the preceding section.**
2. **Press $\text{⌘} + \text{O}$ to display the Open dialog.**

The Open dialog operates much the same as a Finder window in Icon, List, or Column view mode. To open a document you've already saved in your iCloud Drive,

click the Pages item below the iCloud heading in the sidebar on the left side of the dialog and double-click the desired document thumbnail in the thumbnail display on the right side of the dialog. To open a document on your internal drive or network, click the desired location in the Open dialog sidebar. (If you're into convenience, as I am, click one of the locations below the Favorites heading to jump to common folders such as Downloads or Documents!)

3. Click the desired drive in the Devices list on the left side of the dialog and then click folders and subfolders until you locate the Pages document.

You can also click the search box in the top-right corner of the Open dialog and type a portion of the document's name or its contents.



TIP

If you're displaying the Preview column in Column view, you can hover the pointer over a document thumbnail and quickly flip through the pages by clicking the left and right arrows that appear. This "find" feature can help you identify a particular Pages document without even opening it.

4. Double-click the thumbnail (or filename) to load it.

If you want to open a Pages document you've edited in the recent past, things get even easier. Just choose File ⇒ Open Recent and you can open the document with a single click on the submenu that appears.



REMEMBER Pages can open, edit, and save documents created in both the Mac and Windows versions of Microsoft Word — however, documents created using some of the advanced features and formatting capabilities of Word (like Word macros) may not import properly into Pages. If this occurs, Pages will display a message alerting you that some content has changed.

Saving Your Work

Pages fully supports Sonoma’s Auto-Save feature, but you may feel the need to save your work manually after you finish a significant edit (or if you need to take a break while designing). If you’re editing a document that’s already been saved at least once, press ⌘ +S. A new version of the document is saved in its current location and you can continue with your work.

If you’re working on a new document that hasn’t been saved, follow these steps to save it:

- 1. With the Pages document open, press ⌘ +S.**
- 2. Type a filename for your new document.**
- 3. Open the Where pop-up menu and choose a location in which to save the document.**

Note that Pages defaults to your iCloud Drive as the target location. This way, you can open and edit your Pages document on any Mac or iOS device that uses the same Apple ID. Alternatively, click the button sporting the down arrow to expand the Save As sheet. This sheet allows you to navigate to a different

location on your internal drive or network or to create a new folder in which to store this Pages project.

4. **Click Save.**



REMEMBER You can create a version of a Pages document by choosing File ⇒ Save. To revert the current document to an older version, choose File ⇒ Revert To. Pages gives you the option of reverting to the last saved version, or you can click Browse All Versions to choose among multiple versions of the document.

Touring the Pages Window

Before you dive into any real work, let me show you around the Pages window. You'll find the following major components and controls, as shown in [Figure 17-2](#):

- » **Pages list:** This thumbnail sidebar displays all the pages you've created within your document. (For a single-page document, of course, the Page list contains a single thumbnail.) You can switch instantly among different pages in your document by clicking the desired thumbnail in the list. If the sidebar isn't visible, click the View button at the left end of the Pages toolbar and then click Page Thumbnails.



FIGURE 17-2: The major points of interest in the Pages window.

- » **Layout pane:** This section takes up most of the Pages window. It's where you design and edit each page in your document.
- » **Toolbar:** Yep, Pages has its own toolbar. It keeps all the most common application controls within easy, one-click reach.
- » **Inspector:** This window extension allows you to quickly switch the appearance of selected paragraphs, characters, and lists (in Format mode) or to specify settings that affect the entire document (in Document mode). You can hide and display the Inspector from the View menu or the Format or Document buttons on the toolbar.

Entering and Editing Text

If you've used a modern word processing program, you'll feel right at home typing within Pages. The bar-shaped text pointer, which looks like a capital letter *I*, indicates where the text you enter will appear in a Pages document. To enter text, simply begin typing. To edit existing text in your Pages document, select and highlight the text. As you type, Pages replaces the existing text. You can delete text by clicking and dragging across the characters to highlight them and then pressing Delete.



TIP

Need to track the number of words in your Pages document? (Say, for a class assignment?) Click View ⇒ Show Word Count. You can even display the actual character count!

Using Text, Shapes, and Graphics Boxes

Within Pages, you'll quickly learn that text, shapes, and graphics appear in *boxes*, which you can resize by clicking and dragging one of the handles that appear around the edges of the box. (Click the box to select it and then hover the pointer over one of the square handles. The handle changes to a double-headed arrow, indicating that Pages is ready to resize the box.)

You can also move a box, including all the stuff it contains, to another location within the Layout pane. Click in the center of the box and then drag the box to the desired spot. Note that Pages displays yellow

alignment lines to help you align the box with other elements around it (or with regular divisions of the page, such as the vertical center of a poster or flyer).



REMEMBER To select text or graphics within a box, you must first click the box to select it and then double-click the line of text or the graphic you want to change.

The Three Amigos: Cut, Copy, and Paste

“Hang on, Mark. You’ve covered moving stuff, but what if you want to *copy* a block of text or a photo to a second location? Or how about cutting something from a document that’s open in another application?” Good questions. That’s when you can call on the power of the cut, copy, and paste features within Pages. The next few sections explain these actions.

Cutting stuff

Cutting selected text, shapes, or graphics removes them from your Pages document and places that material on your Clipboard. (Think of the *Clipboard* as a holding area for sections of existing text and graphics you want to manipulate.) To cut, select some material and then choose Edit ⇒ Cut or press ⌘ +X.

Copying text and images

When you copy text, shapes, or graphics, the original selection remains untouched and a copy of the selection is placed on the Clipboard. Select some material and choose Edit ⇒ Copy or press ⌘ +C. To copy selected

items by dragging, hold down the Option key while you drag the items to their destination.



REMEMBER If you cut or copy a new selection to the Clipboard, it erases what was there. In other words, the Clipboard holds only the latest material you cut or copied.

Pasting from the Clipboard

Wondering what you can do with the stuff that's stored on the Clipboard? Pasting the contents of the Clipboard places the material at the current location of the insertion pointer.



WARNING You must paste the contents before you cut or copy again to avoid losing what's on the Clipboard.

To paste the Clipboard contents, click the insertion pointer at the location you want and choose Edit ⇒ Paste or press ⌘ +V.

Formatting Text the Easy Way

If you feel that some (or all) of the text in your Pages document needs a facelift, you can format that text any way you like. Formatting lets you change the color, font family, character size, and attributes as necessary.

After the text is selected, you can apply basic formatting in two ways:

- » **Use the Inspector.** The Inspector appears on the right side of the Pages window (refer to [Figure 17-2](#)) — click the Format button on the right end of the toolbar, which looks like a tiny paintbrush, to display and hide the Inspector. The controls it displays vary according to the selection you've made, as well as which of the three tabs you've selected at the top of the Inspector. Click the Text tab at the top of the Inspector; then click to select a font control and click your choice from the pop-up menu that appears. Select a portion of text and open the Font Family pop-up menu to change the font family from vanilla Arial to something more daring, for example. You can also select characteristics, such as the text's paragraph style, or choose italic or bold. In addition, the Text tab within the Inspector provides buttons for vertical and horizontal text alignment.
- » **Use the Format menu.** Most controls displayed within the Format section of the Inspector are also available from the Format menu. Click Format and hover the pointer over the Font menu item, and you can apply boldface, italics, and underlining to the selected text. You can also make the text bigger or smaller. To change the alignment from the Format menu, click Format and hover the mouse pointer over the Text menu item.

Adding a Spiffy Table

In the world of word processing, a *table* is a grid that holds text, shapes, and graphics for easy comparison. You can create a custom table layout within Pages with a few simple clicks.

Follow these steps:

1. **Click the insertion pointer at the location where you want the table to appear.**

2. **Click the Table button on the Pages toolbar.**

Pages displays thumbnail images of table styles. You have a selection of colors, and some tables even include highlighted rows and columns. Click the left and right icons to display different styles of thumbnails until you find the one that's closest to the table you need.

Don't worry if the style isn't exactly right. You can always change the layout by selecting the table and displaying the Format Inspector, where you can fine-tune all sorts of font, color, grid, and border options.

3. **Click the style thumbnail to insert the table.**

If you need to change the number of rows or columns in your table, Pages makes it easy. To add or delete rows or columns directly from the table, select it and then click the row and column buttons that appear. (Each button bears two horizontal or vertical lines, as shown in [Figure 17-3](#).)

4. **Click within a cell in the table to enter text.**

The table cell automatically resizes and wraps the text you enter to fit.



REMEMBER You can paste material from the Clipboard into a table. See the earlier section "[Pasting from the Clipboard](#)" for details.

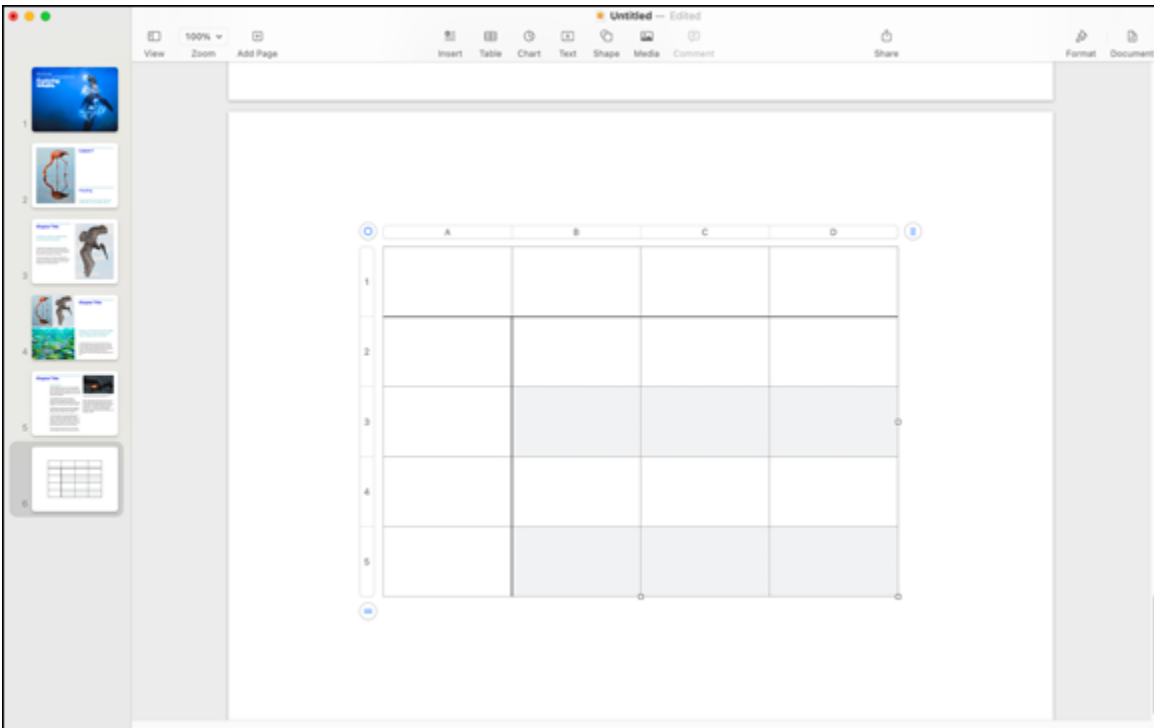


FIGURE 17-3: Use Table controls to tweak your table.

Here are a few pointers on dressing up your table and making its data more attractive and readable:

- » **Change the borders on a selected cell.** Click the Format icon on the toolbar to open the Format Inspector, click the Cell tab, and then click the desired button in the Border section.



TIP

Select a range of cells in a table by holding down Shift as you click. Hold down ⌘ and click to select multiple cells that aren't contiguous.

- » **Add a background color to selected cells, or fill them with an image for a background.** Click the Cell tab, click the Fill section in the Inspector, and choose a type of background.

Adding Alluring Photos

You can choose one of two methods of adding a picture within your Pages document:

- » **As a floating object:** You place the image in a particular spot, and it doesn't move even if you make changes to the text. To add a floating object, drag an image file from a Finder window and place it at the spot you want within your document. Alternatively, you can click the Media button on the toolbar, click Photos or Videos, navigate to the location where the file is saved, and click the image thumbnail. [Figure 17-4](#) shows the Media Browser in action.



TIP

Click the magnifying-glass icon to search for a specific item by using keywords.

Note that a floating object (such as a shape or image) can be sent to the background, where text doesn't wrap around it. To bring back a background object as a regular floating object, click the object to select it and then choose Arrange ⇒ Bring to Front. (More about background shapes in the next section.)

- » **As an inline object:** The image flows with the surrounding text as you make layout changes. To add an inline object, hold down the ⌘ key as you drag an image file from a Finder window and place it where you want within your document. You can also click the Media toolbar button and then choose Photos or Videos. Navigate to the location where the file is saved, hold down the ⌘ key, and drag the image thumbnail to the spot where you want it in the document.



TIP

To resize an image object, click the image to select it and drag one of the selection handles that appear along its border. (The handles look like tiny squares.) The side-selection handles drag only that edge of the frame. The corner-selection handles resize both adjoining edges of the selection frame. Hold down the Shift key to make the vertical and horizontal proportions remain fixed.

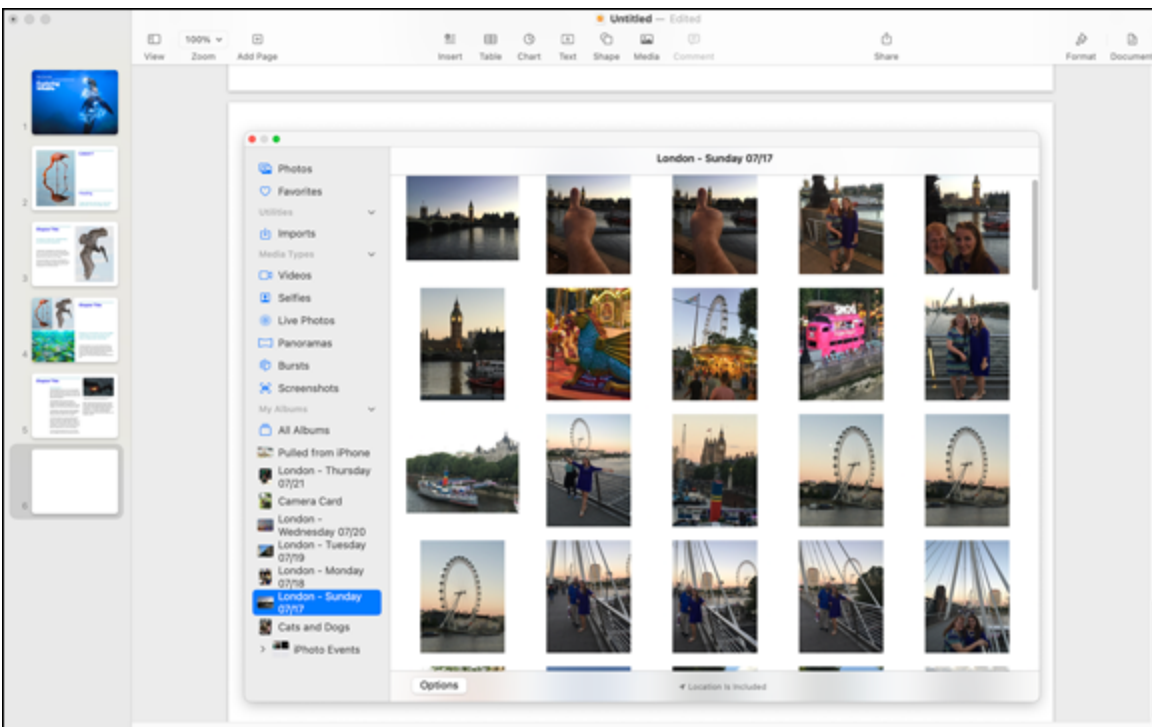


FIGURE 17-4: Hey, isn't that the Pages Media Browser?

Adding a Background Shape

To add a shape (such as a rectangle or circle) as a background for your text, follow these steps:

1. **Click the insertion pointer in the location you want.**
2. **Click the Shape button on the Pages toolbar and choose a shape.**

The shape appears in your document.

3. **Click the center of the shape and drag it to a new spot.**

Shapes can be resized or moved in the same manner as image boxes. See the preceding section.



REMEMBER You can type over a shape set as a background. Before you do, though, select the shape and then choose Arrange ⇒ Send to Back.



TIP If you've created a shape that you'd like to reuse in other documents, you can right-click that shape and choose Save to My Shapes; then type a memorable name for the shape. To see your custom shapes library, click the Shapes button in the Pages toolbar and click My Shapes at the bottom of the list on the left.

Adding 3D Objects

No, you won't need 3D glasses to see 3D objects (or *models*) in your document! If you have a file containing a 3D model in USDA, USDC, or USDZ format, you can simply drag the file from a Finder window and drop it in the desired location. You can also click our old friend the Media button in the toolbar and click Choose to display

an Open dialog, where you can navigate to the file's location; click the file to select it and click Insert to add it to your document.



TIP Have you noticed that snazzy Rotate button that appears in the center of a 3D object? (It looks like two intersecting circles.) Click and drag the Rotate button, and you can actually rotate the 3D object to the desired angle! Okay, this is just *neat*.



TIP Some 3D objects even have animation! If your 3D model includes animation, you'll see the familiar Play button appear at the lower-right corner of the object box. Click it to play the animation within your Pages document.

Are You Sure about That Spelling?

Pages can check spelling as you type (the default setting) or after you complete your document. If you find automatic spell-checking to be distracting, you should pick the latter method.



REMEMBER As my technical editor reminds me, spell-checking only confirms that a word matches an entry in the Pages dictionary, *not* that it's the right word for the job! If you've ever "red" a document that someone else "rote," you understand.

To check spelling as you type, follow these steps:

1. **Click the Edit menu and hover the pointer over the Spelling and Grammar menu item.**
2. **Choose Check Spelling While Typing from the submenu that appears.**

If a possible misspelling is found, Pages underlines the word with a red dashed line.

3. **Right-click the word to choose a possible correct spelling from the list, or choose Ignore Spelling if it's spelled correctly.**

To turn off automatic spell-checking, click the Check Spelling While Typing menu item again to deselect it.

To check spelling manually, follow these steps:

1. **Click within the document to place the text insertion pointer where the spell check should begin.**
2. **Click Edit, hover the pointer over the Spelling and Grammar menu item, and choose Check Document Now from the submenu that appears.**
3. **Right-click any possible misspellings and choose the correct spelling or choose Ignore Spelling if the word is spelled correctly.**

Setting Your Font Defaults to Speed Things Up

If you typically use the same font and font sizes for your projects — for example, if your company has a standard font that's used in all documents — you can save yourself

time and trouble by setting those defaults for everything you create using the Blank template.

To set your Blank template font defaults, follow these steps:

1. **Click the Pages menu and choose Settings.**
2. **Click the Set Font and Size for New Basic Documents check box.**
3. **Choose a font family and default font size for body text from the sheet that appears.**
4. **Click OK to save your changes.**



TIP

Note that you can also set Pages to create a new document using a template you specify. Select the Use Template radio button and then click the Change Template button to choose your default template.

5. **Click the Close button on the Settings dialog.**

Printing Your Pages Documents

Ready to start the presses? You can print your Pages document on real paper, of course, but don't forget that you can also save a tree by creating an electronic PDF instead of a printout. You'll find the PDF drop-down menu at the bottom of the standard Sonoma Print dialog; just click it and then click Save As PDF.

To print your Pages document on old-fashioned paper, follow these steps:

1. **Within Pages, choose File ⇒ Print.**
Pages displays the Print sheet.
2. **Click the Copies field and enter the number of copies you need.**
3. **Select the pages to print:**
 - **To print the entire document,** select All Pages.
 - **To print a range of selected pages,** select the Range From radio button and enter the starting and ending pages.
4. **Click the Print button to send the document to your printer.**



TIP

Note that it's possible to embed a video or audio clip into a Pages document, but of course content like that is lost in a printed document!

Sharing That Poster with Others

Besides printing (which is, after all, so *very* passé these days), you can choose to share your Pages document electronically via the internet or your network:

- » **Send a Copy:** To send a copy of the actual document (which the recipient can open in Pages on their own Mac or iOS device), choose Share from the Pages menu, click the pop-up menu at the top of the dialog, and click the Send Copy item. You can send the document via Mail, Notes, or Messages, or you can

make it available through AirDrop (if the recipient is within range of your MacBook's Wi-Fi signal).



REMEMBER If you decide to send your Pages document as an email attachment, don't forget that most internet service providers have a maximum message size. If your document is too large, your mail server probably will reject it.

- » **Export:** You're not limited to sharing over that internet thing! Pages can also export your work directly to your drive in one of seven formats: a PDF file, a Word document, an ePub file (for use with electronic book apps such as Books), a series of images (one per page, in the format you select), a document that's compatible with the 2009 version of Pages, a Rich Text Format document, and even plain text. (Remember when everything was in plain text?) Choose File ⇒ Export To and pick your format; Pages displays any options you can set for that format. When you're ready, click Save and select the location where Pages should save the file. Click Export and then sit back while your favorite desktop publishing application does all the work.



TIP If the recipient of your document doesn't need to edit your work, I recommend creating a PDF file, which keeps your document as close as possible to the way it appears in Pages.

Chapter 18

Creating Spreadsheets with Numbers

IN THIS CHAPTER

- » Getting familiar with and navigating Numbers
 - » Opening, saving, and formatting spreadsheets
 - » Selecting cells, entering data, and editing data
 - » Creating simple calculations
 - » Adding charts to your spreadsheets
 - » Printing a Numbers spreadsheet
-

Are you downright afraid of spreadsheets? Does the idea of building a budget with charts and all sorts of fancy graphics send you running for the safety of the hall closet? Well, good MacBook owner, Apple has again taken something that everyone else considers to be super complex and turned it into something that normal human beings can use! (Much as Apple did with video editing and songwriting. Is there *any* type of software that Apple designers can't make intuitive and easy to use?) And Numbers is a free download from the App Store, to boot!

In this chapter, I demonstrate how the Numbers spreadsheet program can help you organize data and analyze important financial decisions for home and business — everything from a household budget to your company's sales statistics!

Before You Launch Numbers ...

In case you're unfamiliar with applications such as Numbers and Microsoft Excel — and the documents they create — let me provide you a little background information.

A *spreadsheet* organizes and calculates numbers by using a grid system of rows and columns. The intersection of each row and column is a box called a *cell*, which can hold either text or numeric values. Cells can also hold calculations called *formulas* and *functions*, which are usually linked to the contents of surrounding cells.

Spreadsheets are wonderful tools for making decisions and comparisons because they let you plug in different numbers — such as interest rates or your monthly insurance premium — and instantly see the results. These are some of the spreadsheets that I use regularly:

- » Car and mortgage loan comparisons
- » A college planner
- » My household budget (not that I pay any attention to it)



REMEMBER Numbers can open, edit, and save documents created with Excel, but spreadsheets created with some advanced Excel features will not import properly, and Numbers will alert you if this happens. (The simpler the Excel spreadsheet, the more likely it

will open without significant errors.) Numbers can also open a CSV (or *comma-separated values*) data file, which uses plain text.

Creating a New Numbers Document

Like Pages (Apple's desktop publishing application, which I cover in [Chapter 17](#)), Numbers ships with a selection of templates you can modify quickly to create a new spreadsheet. After a few modifications, you can easily use the Budget, Loan Comparison, and Mortgage templates to create your own spreadsheets.

To create a spreadsheet project file, follow these steps:

- 1. Click the Launchpad icon on the Dock.**
- 2. Click the Numbers icon.**
- 3. Click the New Document button in the bottom-left corner of the Open dialog that appears.**

Numbers displays the Choose a Template window, shown in [Figure 18-1](#). (To display the Choose a Template window and start a new Numbers project at any time, just choose File ⇒ New.)

- 4. In the sidebar on the left, select the type of document you want to create.**

The document thumbnails in the center are updated with templates that match your choice.

- 5. Click the template that most closely matches your needs.**
- 6. Click the Create button to open a new document that uses the template you selected.**

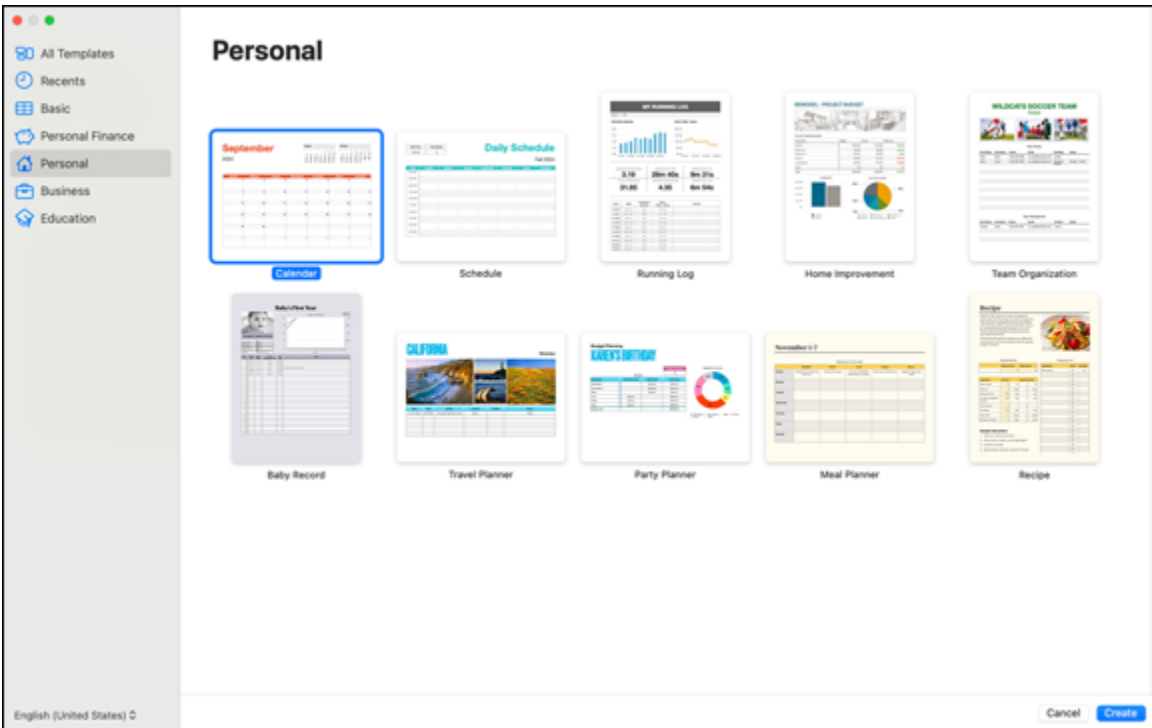


FIGURE 18-1: Hey, these templates aren't frightening at all!

Opening an Existing Spreadsheet File

If you see an existing Numbers document in a Finder window (or you find it by using Spotlight), just double-click the Numbers document icon to open it. Numbers automatically loads and displays the spreadsheet.

It's equally easy to open a Numbers document from within the program. Follow these steps:

- 1. In Launchpad, click the Numbers icon to run the program.**
- 2. Press $\text{⌘} + \text{O}$ to display the Open dialog.**



TIP

As a MacBook power user running macOS Sonoma, you can save and load Numbers documents directly to and from your iCloud Drive. All three of Apple's productivity applications — Pages, Numbers, and Keynote — feature an Open dialog that can display the contents of your iCloud Drive as well as those of your MacBook's internal drive. If the spreadsheet is stored in your iCloud Drive, click the Numbers folder below the iCloud heading in the sidebar on the left side of the dialog and then double-click the desired document thumbnail.

- 3. If the document is stored in your MacBook's internal drive, on your network, or in one of your Favorites locations, click the desired drive or folder in the sidebar on the left side of the dialog.**
- 4. Drill down through folders and subfolders until you locate the desired Numbers document.**



TIP

If you're unsure where the document is, click the search box at the top of the Open dialog and type a portion of the document name or even a word or two of text that it contains. Note that you can choose to search your drive, your iCloud Drive, or both.

- 5. Double-click the spreadsheet to load it.**



TIP

If you want to open a spreadsheet you've been working on over the past few days, choose File ⇒ Open Recent to display Numbers documents that you've worked with recently.

Save Those Spreadsheets!

Thanks to the Auto-Save feature in Sonoma, you need not fear losing a significant chunk of work because of a power failure or a coworker's mistake. But if you're not a huge fan of retyping data, *period*, you can save your spreadsheets manually after making a major change. Follow these steps to save your spreadsheet to your iCloud drive or your internal drive:

1. **Press ⌘ +S.**

If you're saving a document that hasn't yet been saved, the Save As sheet appears.

2. **Type a filename for your new spreadsheet.**

3. **Open the Where pop-up menu and choose a location in which to save the file.**

Common locations are your iCloud Drive, Desktop, Documents folder, and Home folder.



TIP

If the location you want isn't listed in the Where pop-up menu, click the down-arrow button next to the Save As text box to display the full Save As dialog. Click the desired drive in the Devices list on the left side of the dialog, and click folders and subfolders until you reach the desired location. Alternatively, type the folder name in the Spotlight search box in the top-right corner, and double-click the desired folder in the list of matching names. (As a bonus, you can create a new folder in the full Save As dialog.)

4. **Click Save.**

After you save a Numbers document for the first time, you can create a version of that document by choosing File ⇒ Save. To revert to an older version of the current document, choose File ⇒ Revert To. You can revert to the last saved version or click Browse All Versions to look through multiple versions of the document and choose one of those versions to revert to.

Exploring the Numbers Window

Apple has done a great job of minimizing the complexity of the Numbers window. [Figure 18-2](#) illustrates these major points of interest:

- » **Sheets tabs:** Because a Numbers project can contain multiple spreadsheets, they're displayed in the Sheets tabbed bar at the top of the window. To switch among spreadsheets in a project, click the desired tab.

- » **Sheet canvas:** Numbers displays the rows and columns of your spreadsheet in this section of the window; you enter and edit cell values within the sheet canvas.
- » **Toolbar:** The Numbers toolbar keeps the most common commands you'll use within easy reach.
- » **Inspector:** Located on the right side of the Numbers window, the Inspector displays editing controls for the object that's currently selected, whether it's text, a table, or a single cell. (If you enter an equal sign [=] in a cell to create a formula, the Inspector displays the Function list, where you can specify a calculation that Numbers should perform.)

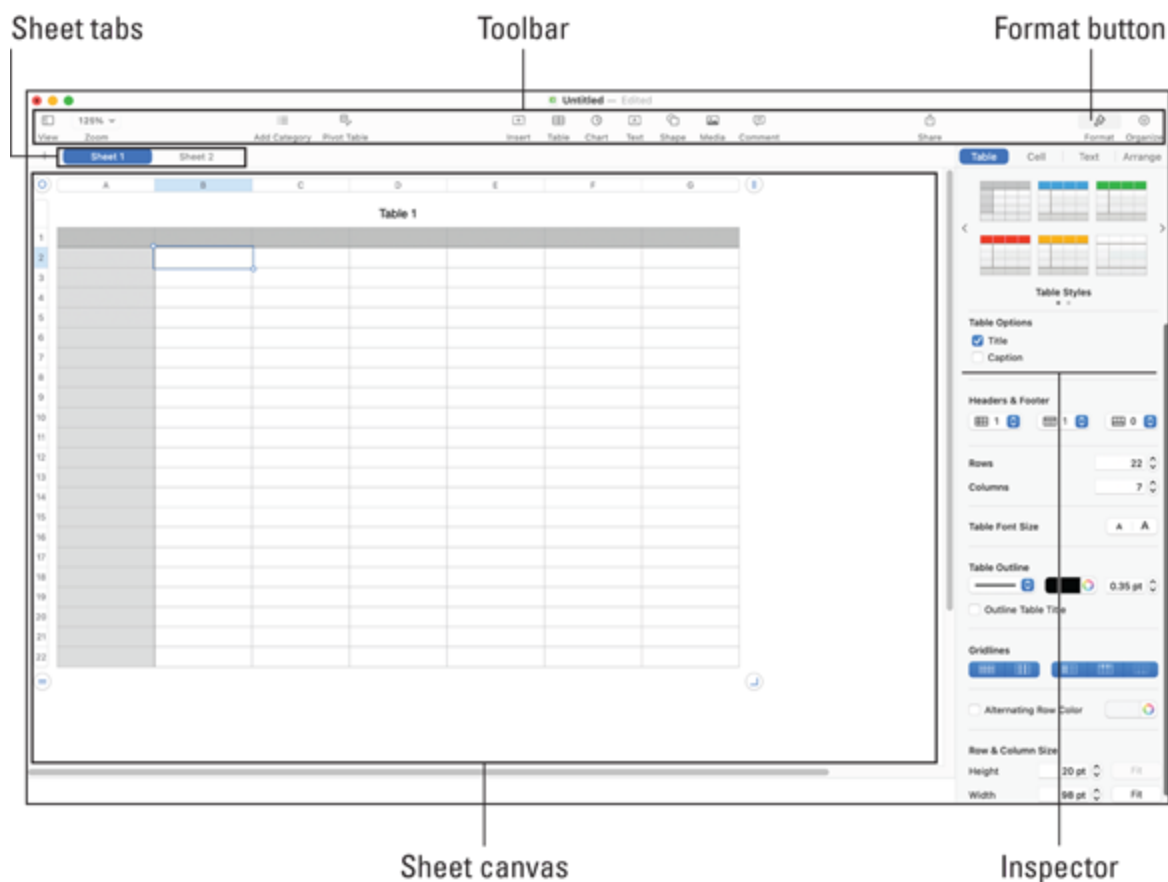


FIGURE 18-2: The Numbers window struts its stuff.

Navigating and Selecting Cells in a Spreadsheet

You can use the scroll bars to move around in your spreadsheet, but when you enter data into cells, moving your fingers from the keyboard is a hassle. Numbers has various handy shortcut keys you can employ, as shown in [Table 18-1](#). After you commit these keys to memory, your productivity level will shoot straight to the top.

You can also use the mouse or trackpad to select cells in a spreadsheet:

- » To select a *single* cell, click it.
- » To select a *range* of adjacent cells, click a cell in any corner of the range you want and drag in the direction you want.

TABLE 18-1 Movement Shortcut Keys in Numbers

Key or Key Combination	Where the Pointer Moves
Left arrow (←)	One cell to the left
Right arrow (→)	One cell to the right
Up arrow (↑)	One cell up
Down arrow (↓)	One cell down
Home (fn+←)	To the beginning of the active worksheet
End (fn+→)	To the end of the active worksheet
Page Down	Down one screen
Page Up	Up one screen
Return	One cell down (also works within a selection)

Key or Key Combination	Where the Pointer Moves
Tab	One cell to the right (also works within a selection)
Shift+Return	One cell up (also works within a selection)
Shift+Tab	One cell to the left (also works within a selection)

- » To select a *column* of cells, click the alphabetic heading button at the top of the column.
- » To select a *row* of cells, click the numeric heading button at the far-left end of the row.

Entering and Editing Data in a Spreadsheet

After you navigate to the cell in which you want to enter data, you're ready to type your data. Follow these steps to enter That Important Stuff:

1. Click the cell or press the spacebar.

A pointer appears, indicating that the cell is ready to hold any data you type.

2. Enter your data.



REMEMBER Spreadsheets can use both numbers and alphabetic characters within a cell; either type of information is considered to be data in the Spreadsheet World.

3. When you're ready to move on, press Return (to save the data and move one cell down) or press

Tab (to save the data and move one cell to the right).

Made a mistake? No big deal:

- » **To edit data:** Click the cell that contains the data error (to select the cell); then click the cell again to display the insertion pointer. Drag the insertion pointer across the characters to highlight them, and type the replacement data.
- » **To delete characters:** Select the cell, highlight the characters, and press Delete.



TIP

You can quickly step backward through changes you've made and undo them by using the Undo command. Press Command+Z or choose Edit ⇒ Undo from the Numbers menu.

Selecting the Correct Number Format

After you enter your data (in a cell, row, or column), you may need to format it so that it appears correctly.

Suppose that you want certain cells to display a specific type of number, such as a dollar amount, percentage, or date. Numbers gives you a healthy selection of number-formatting possibilities.



TIP

Characters and formatting rules — such as decimal places, commas, and dollar and percentage notation — are part of number formatting. If your spreadsheet contains units of currency, such as dollars, format it as such. Then all you need to do is type the numbers, and the currency formatting is applied automatically.

To specify a number format, follow these steps:

1. **Select the cells, rows, or columns you want to format.**
2. **Click the Format button at the right of the toolbar to display the Inspector.**
3. **Click the Cell tab in the Inspector.**
4. **From the Data Format pop-up menu, choose the type of formatting you want to apply, as shown in [Figure 18-3](#).**

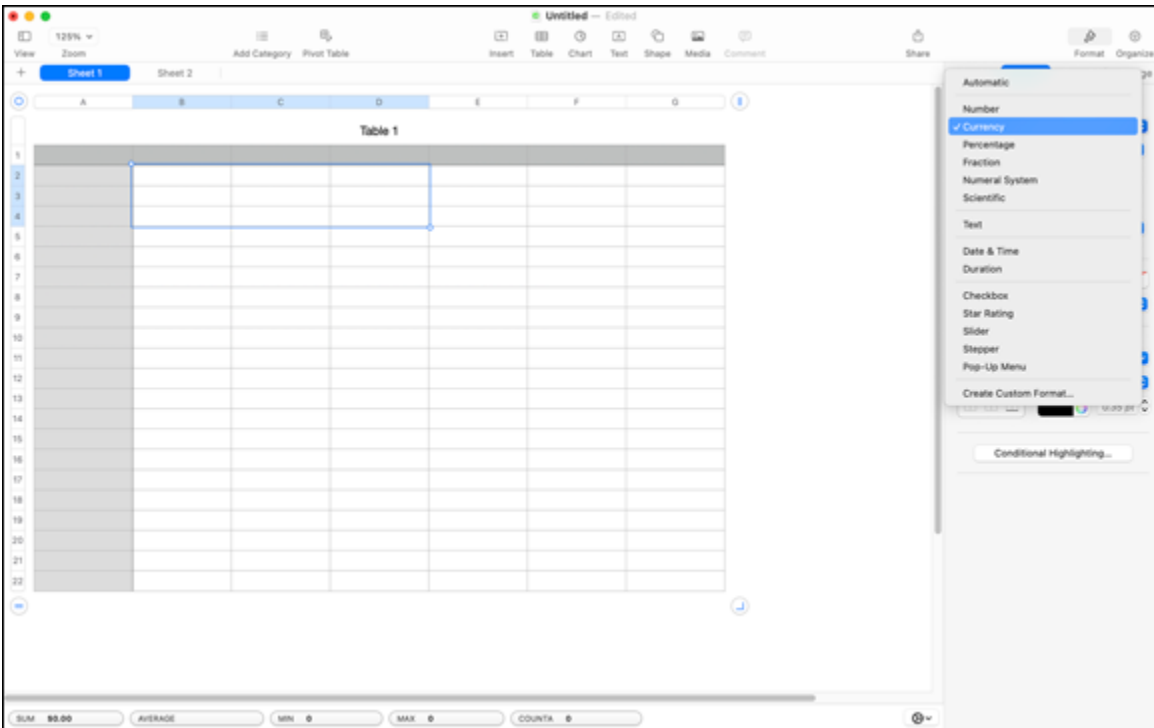


FIGURE 18-3: In the Inspector, you can format the data you’ve entered.

Aligning Cell Text Just So

You can also change the alignment of text in the selected cells, which can make a big difference in readability for titles and “crowded” data that’s packed into close columns. The default alignments are flush left for text and flush right for numeric data. Follow these steps:

- 1. Select the cells, rows, or columns you want to format.**
See the earlier section “[Navigating and Selecting Cells in a Spreadsheet](#)” for tips on selecting stuff.
- 2. Click the Format toolbar button.**
- 3. Click the Text tab of the Inspector to display the settings shown in [Figure 18-4](#).**
- 4. Click the corresponding Alignment button to choose the type of formatting you want to apply.**

You can choose left, right, center, and justified text with the strip of buttons that appear under the Text Color section. Click the buttons in the second strip to specify the left and right indent levels for text. Text can be aligned at the top, center, or bottom of a cell using the third strip of buttons.

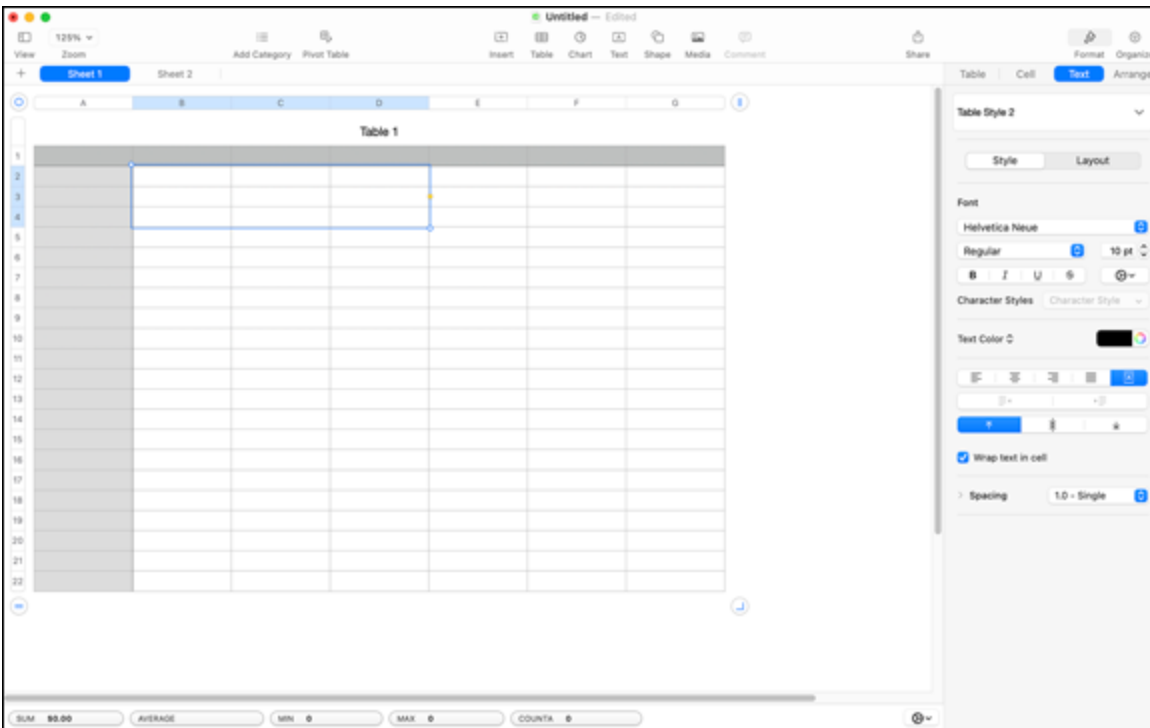


FIGURE 18-4: Set text alignment within a cell.



TIP Do you need to set apart the contents of some cells? You might need to create text headings for some columns and rows or to highlight the totals in a spreadsheet, for example. To change such formatting, select the cells, rows, or columns you want to format; then click the Font Family, Font Size, or Font Color button on the Text tab.

Formatting with Shading

Shading the contents of a cell, row, or column is helpful when your spreadsheet contains subtotals or logical divisions. Follow these steps to shade cells, rows, or columns:

- 1. Select the cells, rows, or columns you want to format.**
- 2. Click the Format toolbar button.**
- 3. Click the Cell tab of the Inspector.**
- 4. Click the triangle next to the Fill heading and choose a shading option from the Fill pop-up menu.**

[Figure 18-5](#) shows the controls for a gradient fill.

- 5. Click the color box to select a color for your shading.**
Numbers displays a color picker wheel.
- 6. Click at the desired spot within the wheel to select a color.**
- 7. After you achieve the effect you want, click the color box again to close the color picker.**

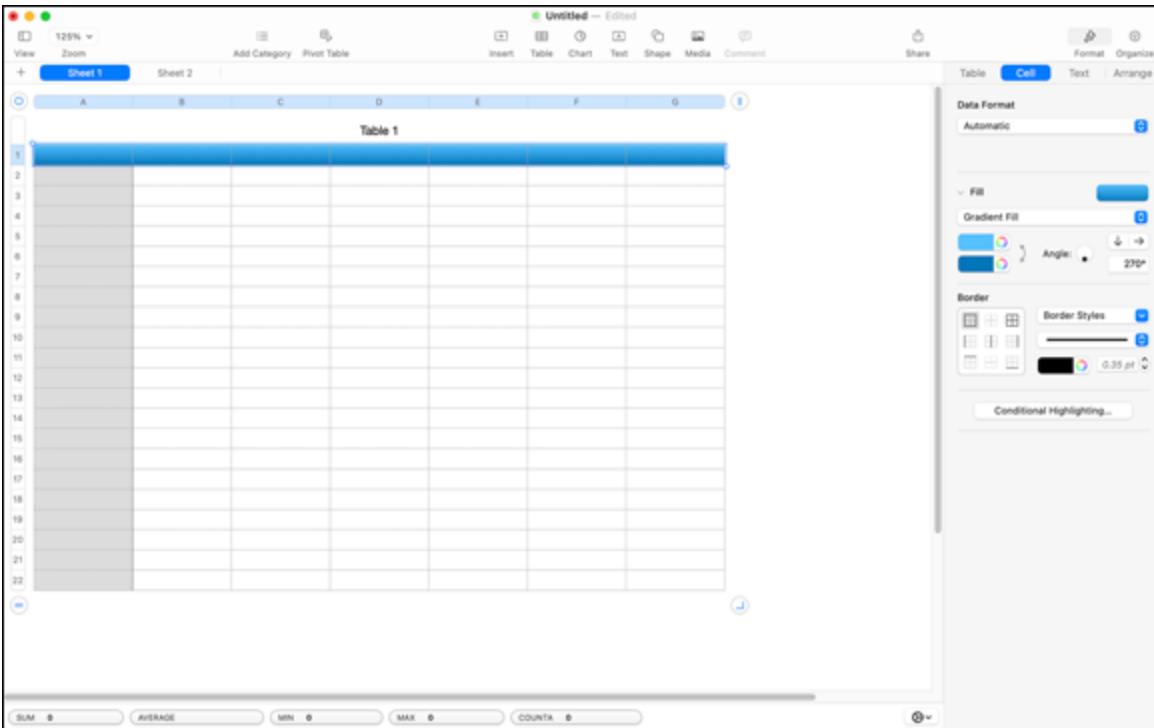


FIGURE 18-5: Adding shading and colors to cells, rows, and columns is easy in Numbers.



TIP

You can also add a custom border to selected cells, rows, and columns from the Cell tab. Use the fields under the Border heading to select just the right border.

Inserting and Deleting Rows and Columns

What's that? You forgot to add a row, and now you're three pages into your data entry? No problem. You can easily add — or delete — rows and columns. First, select the row or column adjacent to where you want to insert (or delete) a row or column, and do one of the following:

- » **For a row:** Right-click a row header and choose Add Row Above, Add Row Below, or Delete Row from the shortcut menu that appears.
- » **For a column:** Right-click a column header and choose Add Column Before, Add Column After, or Delete Column from the shortcut menu that appears.

If you select multiple rows or columns, right-click and choose Add from the shortcut menu. Numbers inserts the same number of new rows or columns that you selected. You can also copy the contents of a row or column and paste them into any location in your spreadsheet.



TIP

You can also insert rows and columns via the Table menu at the top of the Numbers window.

The Formula Is Your Friend

It's time to talk about *formulas*, which are equations that calculate values based on the contents of cells you specify in your spreadsheet. (Don't nod off yet; it gets interesting.) If you designate cell A1 (the cell in column A at row 1) to hold your yearly salary and cell B1 to hold the number 12, you can divide the contents of cell A1 by cell B1 (to calculate your monthly salary) by typing this formula in any other cell:

=A1/B1

Formulas in Numbers always start with an equal sign and may include one or more functions as well. A

function is a preset mathematical, statistical, or engineering calculation that will be performed, such as figuring the sum or average of a series of cells.

“So what’s the big deal, Mark? Why not use a calculator?” Sure, you could. But maybe you want to calculate your weekly salary. Rather than grab a pencil and paper, you can simply change the contents of cell B1 to 52, and — boom! — the spreadsheet is updated to display your weekly salary.

That’s a simple example, of course, but it demonstrates the basics of using formulas (and the reason that spreadsheets are the application of choice for predicting trends and forecasting budgets). It’s the what-if tool for everyone who works with numeric data.

To add a simple formula within a spreadsheet, follow these steps:

- 1. Select the cell that will hold the result of your calculation.**
- 2. Type = (the equal sign).**
The Formula box appears within the confines of the cell.
- 3. Click the Format button on the Numbers toolbar to display the available functions in the Inspector, as shown in [Figure 18-6](#).**
- 4. Click the category of calculation you want from the list at the top of the Inspector.**
Instead of scrolling through the entire function library, it’s easier to choose a category — such as Financial for your budget spreadsheet — to filter the selection. (Alternatively, you can click the search box and type a function name or keyword.)



TIP

To display more information about a specific function, click it in the list. In [Figure 18-6](#), choosing the SUM function brings up a description at the bottom of the Inspector.

5. After you select the perfect function in the right column, click the Insert Function button.

The function appears in the Formula box, along with any arguments it requires.

In case you're unfamiliar with the term *argument*, it refers to a value specified in a cell that a formula uses. The SUM formula, for example, adds the contents of each cell you specify to produce a total; each of those cell values is an argument.

6. Click an argument button in the formula and click the cell that contains the corresponding data.

Numbers automatically adds the cell you indicated to the formula.

7. Repeat Step 6 for each argument in the formula.

8. When you finish, click the Accept button — the green check mark — to add the formula to the cell.

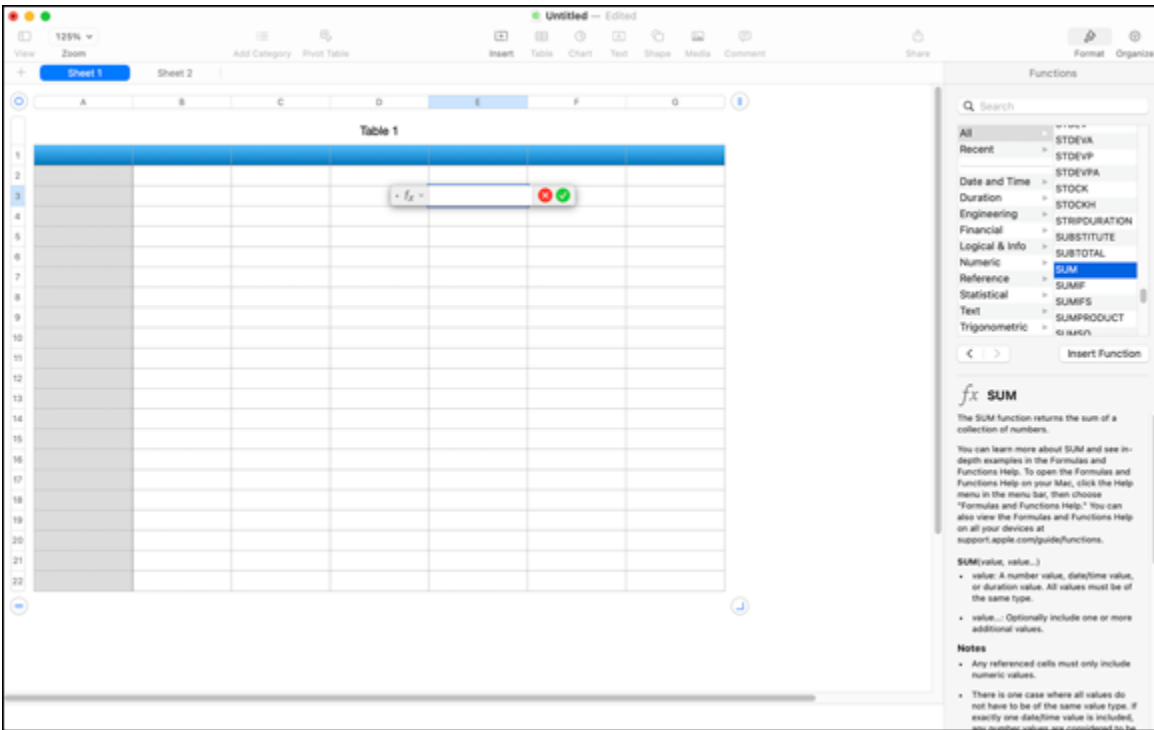


FIGURE 18-6: If you have to use formulas, at least Numbers can enter them for you.

That's it! Your formula is ready to work behind the scenes, doing math for you so that the correct numbers appear in the cell you specified.

Adding Visual Punch with a Chart

Sometimes you just have to see something to believe it, so it can help to use the data you've added to a spreadsheet to generate a professional-looking chart. After you've entered the data you want to chart, follow these steps:

- 1. Select the adjacent cells you want to chart by dragging.**



TIP

To choose individual cells that aren't adjacent, you can hold down the ⌘ key as you click.

2. Click the Chart button on the Numbers toolbar.

The Chart button bears the symbol of a bar graph.

Numbers displays the thumbnail menu shown in [Figure 18-7](#). Note that you can display different categories of charts by clicking one of the three tabs at the top (2D/3D/Interactive), and you can scroll the menu to reveal additional thumbnails by clicking the left- and right-arrow buttons.

3. Click the thumbnail for the chart type you want.

Numbers inserts the chart as an object within your spreadsheet so that you can move the chart. You can drag by using the handles that appear on the outside of the object box to resize your chart.



TIP

With your chart selected, click the Format toolbar button to display your old friend the Inspector, complete with the controls you can use to customize your chart's appearance. You can change the colors and add (or remove) the title and legend, for example.

4. To change the default title, click the title box to select it; click it again to edit the text.

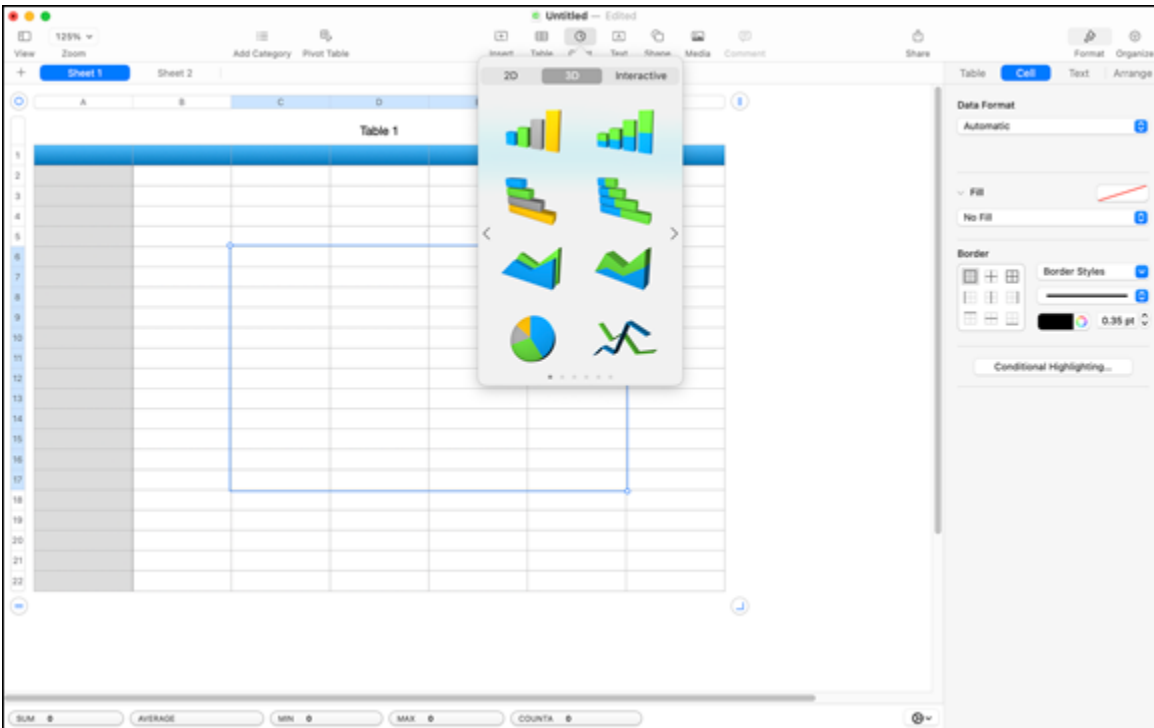


FIGURE 18-7: Numbers displays the range of chart styles you can use.

Adding Images and 3D Objects

The first rudimentary spreadsheet programs I used — back in the early '90s, the days of Mac System 7.1 and Windows 3.1 — had no option to include images, much less 3D graphics! After all, why would you want an *image* stuck in that businesslike arrangement of cells, rows, and columns?

Today's spreadsheets, of course, have evolved to feature all sorts of graphic finery, and Numbers is ready to accommodate your image, from a company logo to a video clip, or even a 3D animated model. Simply drag an image file from a Finder window and drop it into your worksheet. (This is macOS, after all.)

You can also insert an image using the Media Browser. Follow these steps:

1. **Click the insertion pointer in the cell you want.**
2. **Click the Media button on the Numbers toolbar and click Photos or Videos.**
3. **Navigate to the location of the desired image and double-click the thumbnail.**

The image appears in your worksheet.

Need to relocate the image within the worksheet? Click the center of the image object and drag it to a new spot. Like the Pages application, Numbers also allows you to resize an image object. To resize an image, click the image to select it and drag one of the square selection handles that appear along its border. If you want to maintain the original proportions of the image, hold down the Shift key while you resize.



TIP

Typically, you'll want to move the image to the background so that the contents of your cells are visible. Select the shape and then choose Arrange ⇒ Send to Back.

You add 3D objects in a similar fashion, either by dragging the object file from a Finder window or by opening the Media Browser and clicking Choose, and then navigating to the object file and double-clicking it.

You can rotate 3D objects to the desired angle by clicking and dragging the Rotate button in the center of the object. (You can't miss it, it looks like two intersecting circles.) If your 3D model includes

animation, click the Play button at the lower-right corner of the object to set things in motion!

Printing Your Spreadsheet

You can easily send a Numbers spreadsheet to a USB or shared network printer. If you'd rather create an electronic copy of the document as an Adobe PDF file, you can click the PDF button that appears on the Numbers Print dialog; choose Save As PDF from the drop-down menu; and select a location where the file will be saved.



REMEMBER You can always print to a PDF and preview how your layout will look before using any of that expensive paper!

To print a Numbers spreadsheet on your default printer, follow these steps:

- 1. Choose File ⇒ Print from the Numbers menu bar.**

Because a Numbers document can contain multiple spreadsheets, you can select a specific spreadsheet to print (by clicking it in the grid and then selecting the Print This Sheet radio button at the bottom-right corner of the window), or you can print all spreadsheets in the document (by selecting the Print All Sheets radio button in the same location).

- 2. Click the desired page orientation.**

Spreadsheets with a large number of columns are often printed in landscape orientation to ensure that everything fits on the page. You can also scale the

spreadsheet so that it automatically fits on the page by clicking the Fit button (next to the Content Scale slider).

3. Click Print at the bottom of the window.

Numbers displays the Print dialog. To display additional settings, click the Show Details button at the bottom of the sheet. (The PDF button appears in both views.)

4. Click the Copies field and enter the number of copies you need.

5. Select the pages to print:

- **To print the entire spreadsheet,** select All.
- **To print a range of selected pages,** select the From radio button and enter the starting and ending pages.

6. Click the Print button to send the document to your printer.



TIP

Click the Share menu item and choose the Send a Copy to share your spreadsheet masterpiece with others (as an actual copy of the document file). You can choose to send the copy via Mail, Messages, Notes, or AirDrop.

Chapter 19

Building Presentations with Keynote

IN THIS CHAPTER

- » **Creating, opening, and saving a presentation**
 - » **Navigating Keynote**
 - » **Working with slides**
 - » **Adding notes, media, and a background shape**
 - » **Putting together a slideshow**
 - » **Printing slides and notes**
-

It seems like only yesterday that I was giving business presentations with a clunky overhead projector and black-and-white acetate transparencies. Fancy color gradients and animation were unheard-of, and the only sound my presentations made was the droning of the projector's fan. I might as well have been using tree bark and chalk.

Thank goodness those “cave painting” days are gone. Cutting-edge presentation software like Keynote makes slide creation easy and — believe it or not — *fun!* Keynote is the application Steve Jobs once used for his *Macworld* keynote addresses every year. So much visual candy is available that you'll never need to shout to wake your audience again. Even better, this jewel of an application is a free download from the App Store!

In this chapter, I first demonstrate how simple it is to build a stunning Keynote presentation. Then I show you how to start and control your slide display from the keyboard (or even your iPhone or iPad). And don't forget that you can print your slides and notes so that your audience can keep a copy of your brilliant work.

Creating a New Keynote Project

Like the other applications in the Apple applications suite, Keynote begins the document-creation process with a Theme Chooser window. To create a new presentation project, follow these steps:

- 1. Click the Launchpad icon on the Dock.**
- 2. Click the Keynote icon, which looks like a lectern.**
- 3. Click the New Document button in the bottom-left corner of the Open dialog.**

The Choose a Theme window, shown in [Figure 19-1](#), appears. (I have to say that these stylish templates are probably the most stunning visual building blocks I've ever seen in a presentation application.)

- 4. Choose the aspect ratio, using either the Standard or Wide list box at the top of the window.**

Although you don't necessarily need to select an exact match for your MacBook's screen resolution, it's a good idea to select the value closest to your projector's maximum resolution. If someone else is providing the projector, Standard size is the more compatible choice. If you'll present on a typical high-

resolution computer monitor (or a 16:9 format projector), Widescreen provides a better display.



TIP

Nothing's stopping you from creating *two* documents of the same presentation: one in Standard and one in Wide. (As the Scouts say, "Be prepared!") After you've finished your project in either Standard or Wide aspect ratio, save it to disk. Without closing the project, click File ⇒ Change Theme and choose the other ratio; then click File ⇒ Save and use a different name to create the alternative version.

5. **Click the theme thumbnail that most closely matches your needs.**
6. **Click the Create button to open a new document that uses the theme you selected.**

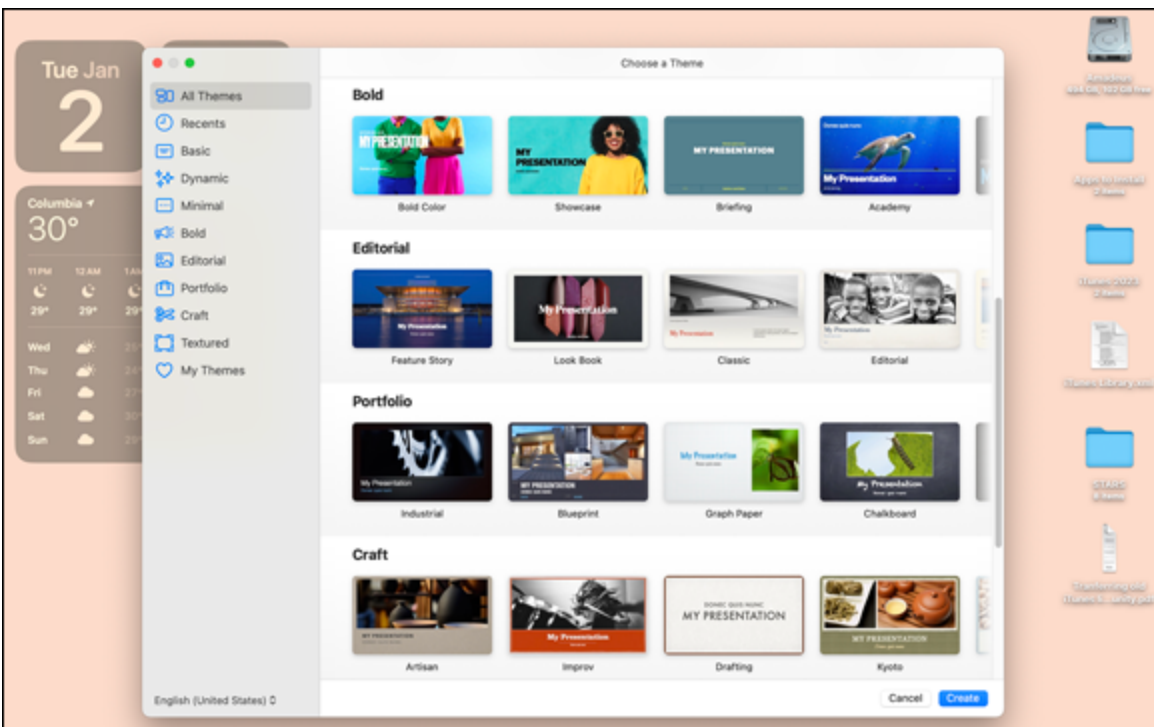


FIGURE 19-1: Select a presentation theme from the Choose a Theme window.

Opening a Keynote Presentation

If an existing Keynote presentation file is visible in a Finder window, you can double-click the document icon to open the project. If Keynote is already running, follow these steps to load a project from within the application:

1. **Press ⌘ +O to display the Open dialog.**
2. **Click the desired location in the sidebar; then click folders and subfolders until you locate the Keynote project.**

If the project is stored in your iCloud Drive, click the Keynote item below the iCloud heading in the sidebar on the left side of the dialog; then double-click the desired project thumbnail. (By default, the Where drop-down list in the top center of the Open dialog is already set to the Keynote folder in your iCloud Drive.)

You can jump directly to any location or folder below the Favorites heading simply by clicking the entry. Oh, and don't forget that you can use the search box at the top of the Open dialog to locate the document by name or by some of the text it contains.

3. **Double-click the filename to load it.**



TIP If you want to open a Keynote document you've edited in the recent past, things get even easier! Just choose File ⇒ Open Recent, and you can open the document with a single click on the submenu that appears.



REMEMBER Keynote can open, edit, and save documents created with PowerPoint. However, PowerPoint includes advanced features not found in Keynote, so not everything will import properly. If changes have to be made to a PowerPoint presentation in order to open it, Keynote will alert you.

Saving Your Presentation

Because Keynote provides full support for the macOS Auto-Save feature, saving your work often isn't as critical as it used to be. To safeguard your work in a world of power failures, though, follow these steps:

- 1. Press ⌘ +S.**

If you're saving a document that hasn't yet been saved, the familiar Save As sheet appears.

- 2. Type a filename for your new document.**

- 3. From the Where pop-up menu, choose a location in which to save the document.**

By default, Keynote saves the project directly to your iCloud Drive (iCloud appears on the Where pop-up menu), making it available to other Macs and iOS devices that use the same Apple ID. To choose a location that's not available on the Where pop-up menu, click the button with the down-arrow symbol to expand the sheet. You can also create a new folder from the expanded sheet.

- 4. Click Save.**



REMEMBER You can create a version of a Keynote presentation by choosing File ⇒ Save. To revert the current presentation to an older version, choose File ⇒ Revert To. Keynote gives you the option of reverting to the last saved version. Alternatively, you can click Browse All Versions to browse multiple versions of the presentation and revert to any saved version.

Putting Keynote to Work

Ready for the 5-cent tour of the Keynote window? Launch the application and create or load a project. You see the tourist attractions shown in [Figure 19-2](#):

- » **Slides list:** Use this thumbnail list of all the slides in your project to navigate quickly. Click a thumbnail to switch instantly to that slide.



TIP The Slides list can also display your project in outline format, allowing you to check all your discussion points. (This list is a great way to ferret out any holes in your presentation's flow.) While you're in outline mode, you can jump directly to any slide by clicking the slide's title in the outline. To display the outline, choose View ⇒ Outline. You can switch back to the default Slides list view by choosing View ⇒ Navigator.

- » **Layout pane:** Your slide appears in its entirety in this pane. You can add elements and edit the content of the slide from the Layout pane.

- » **Toolbar:** As does the toolbar in Pages and Numbers, the Keynote toolbar makes it easy to find the most common controls you'll use while designing and editing your slides. Clicking an icon on the toolbar performs an action, just as choosing a menu item does.
- » **Presenter Notes pane:** You might decide to add notes to one or more slides for your own use or to print as additional information for your audience. Click the View icon on the toolbar, and choose Show Presenter Notes (or choose View ⇒ Show Presenter Notes) to open the Notes pane. This text box appears at the bottom of the Keynote window.
- » **Inspector:** Keynote displays this pane on the right side of the window when you click the Format button (shown in [Figure 19-2](#)), allowing you to format selected text and images on the fly.

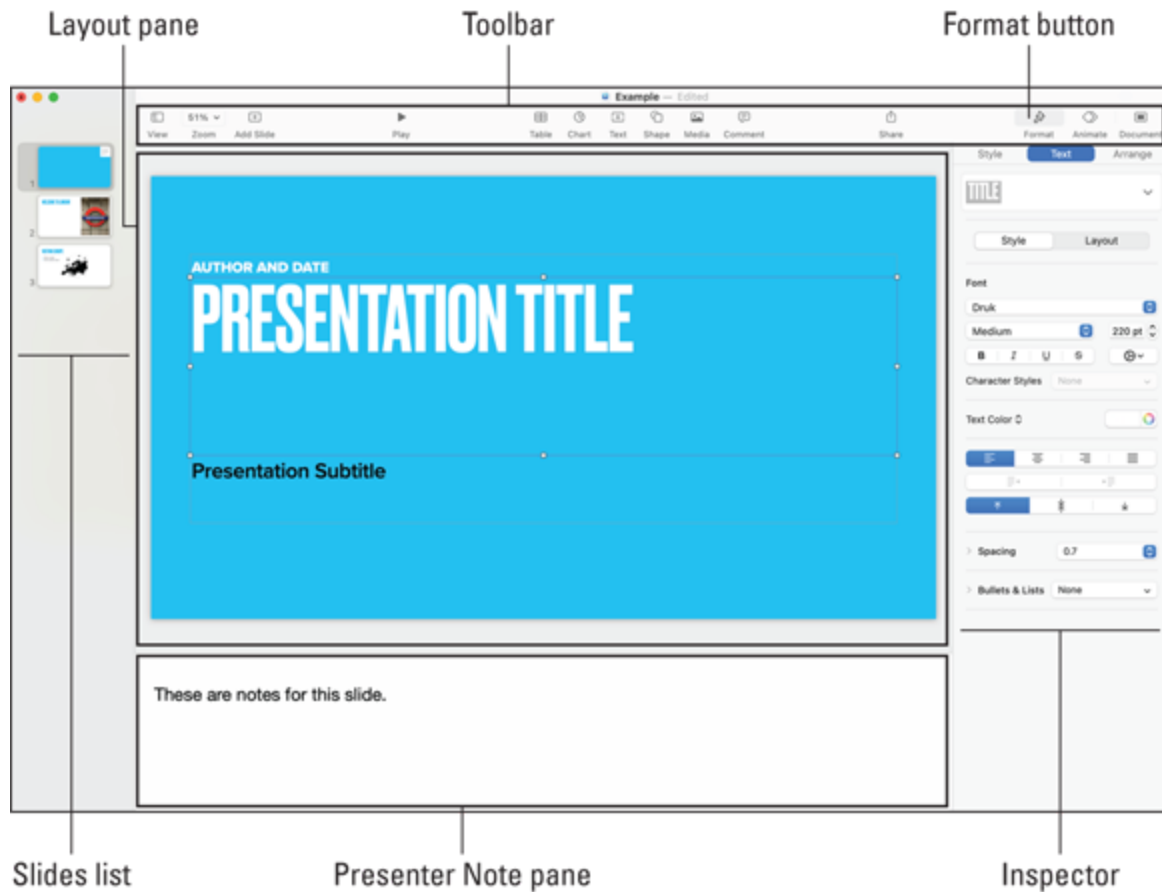


FIGURE 19-2: The Keynote window is dominated by the Layout pane.

Adding Slides

Keynote creates a single title slide when you create a project. But not many presentations are complete with just a single slide! To add more slides to your project, use one of these methods:

- » Click the Add Slide button on the toolbar.
- » Choose Slide ⇒ New Slide.
- » Press ⌘ + Shift + N.
- » Right-click an existing slide in the Slides list, and choose New Slide from the shortcut menu that appears.

Keynote adds the new slide to your Slides list and automatically switches to the new slide in the Layout pane.



TIP Need a slide that's very similar to a slide you've already designed? Right-click the existing slide and choose Duplicate from the shortcut menu to create a new slide just like it. (Consider this procedure to be cloning without the science.)

To move slides to different positions in the Slides list (that is, to change their order in your Keynote presentation), drag each slide thumbnail to the desired spot in the list.

Working with Text, Shapes, and Graphics Boxes

All the text, shapes, and graphics placeholders on your first title slide appear within boxes. Keynote uses these boxes to manipulate text, shapes, and graphics. You can resize a box (and its contents) by clicking the box and dragging one of the handles that appear around the edges of the box. (The pointer changes into a double-sided arrow when you're "in the zone.") Side selection handles drag only the edge of the frame, whereas corner selection handles resize both adjoining edges of the selection frame.



TIP To keep the proportions of a box constrained, hold down the Shift key while dragging its corner handles.

Boxes make it easy to move text, shapes, and graphics together (as a single unit) to another location within the Layout pane. Click the center of the box and drag the box to the desired spot. Keynote displays alignment lines to help you align the box with other elements around it (or with regular divisions of the slide, such as horizontal center).



REMEMBER To select a box, click it. To select text, shapes, or graphics within a box (see the next section, “[Adding and Editing Slide Text](#)”), double-click the box.

When you’re resizing a photo in a box, hold down the Shift key while you drag the frame. Doing so tells Keynote to preserve the image’s aspect ratio so that the vertical and horizontal proportions remain fixed. (Otherwise, it could end up looking “squished” or “stretched.”) You can also flip images horizontally or vertically from the Arrange menu. To delete an image, click it to select it and then press the Delete key.

Adding and Editing Slide Text

As with Pages, which also uses boxes for text layout, you can add or edit text in Keynote with ease. Suppose that you have a box with the placeholder text `Double-click to edit`. Just double-click that box, and the placeholder text disappears, leaving the field ready to accept new text. Any new text you type appears at the blinking pointer within the box.

Here are some additional ways to work with slide text:

- » **Add a new text box.** Just click the Text button in the Keynote toolbar, and click one of the sample styles that appear. Your new text box appears in the middle of the slide.
- » **Edit existing text.** Click — using the bar-shaped pointer to select just the right spot in the text — and drag the insertion pointer across the characters to highlight them. Then type the replacement text. Keynote obligingly replaces the old text with the new text.
- » **Delete text.** Click and drag across the characters to highlight them; then press Delete. You can also delete an entire box and all its contents: Right-click the offending box, and choose Delete from the shortcut menu that appears.

When a box's contents are just right, and you're finished entering or editing text, click anywhere outside the box to hide it from view. You can always click the text again to display the box later.

Formatting Slide Text for the Perfect Look

Keynote doesn't restrict you to the default fonts for the theme you chose. It's easy to format the text in your slides on the fly, using a different font family, font color, text alignment, and text attributes (such as boldface and italics).

Select the desired text by double-clicking a box and dragging the text pointer to highlight the characters. Then apply your formatting, using one of two methods:

- » **The Inspector:** Click the Format button in the Keynote toolbar to display the Inspector pane. The font controls in the Inspector work in one of two ways: After you've selected text, click a font control to display a pop-up menu, or click a button to perform an action immediately. Opening the Font Size pop-up menu, for example, displays a range of sizes for the selected text. With a single click of the B (bold) button, you add the bold attribute to the highlighted characters. To create bullets and lists, click the Text tab at the top of the Inspector.
- » **The Format menu:** When you've selected text, the controls on the Keynote Format menu generally mirror those in the Inspector. To change the alignment from the Format menu, click Format and hover the pointer over the Text submenu item to display the alignment choices. To change text attributes, click Format and hover the pointer over the Font submenu to display the different attribute settings.

Creating Your Own Themes

Do you use a standard layout in your presentations? Perhaps your company or business requires a logo on each slide, or uses a standard font for text. With Keynote, you can create your own custom theme, making it easy to produce new slides in the future with those characteristics (see “Creating a New Keynote Project,” earlier in this chapter).

To create a theme using a presentation you've completed, follow these steps:

1. **Open the presentation with the slides you want to use.**
2. **Click the File menu and choose Save Theme.**
3. **Click Add to Theme Chooser.**

Your new theme appears in the Choose a Theme window in a separate category called My Themes.

Using Presenter's Notes in Your Project

As I mention earlier, you can type presenter's text notes in the Notes pane. I use them to display related topic points while presenting my slideshow. You can also print the notes for a project along with the slides, however, so presenter's notes are also great for including reminders and to-do points for your audience in handouts.

To type your notes, click within the Notes pane. If that pane is hidden, choose View ⇒ Show Presenter Notes, or click the View button at the far-left end of the Keynote toolbar and choose Show Presenter Notes from the menu that appears. When you're finished adding notes, click the Slides list or the Layout pane to return to editing mode.



TIP

To display your notes while practicing, use the Keynote Rehearsal feature. Choose Play ⇒ Rehearse Slideshow, click the Tools icon in the top-right corner of the window, and select the Presenter Notes check box to enable it. Now you can scroll through the notes while the slideshow runs! (More on slideshows in a second.)

Every Good Presentation Needs Media

Adding audio, photos, and movies to a slide is drag-and-drop easy in Keynote! Simply drag an image, audio, or movie file from a Finder window and place it at the spot where you want it within your presentation.

You can also use the Media Browser, which even allows you to add content from your Apple devices (using the same Apple ID). To do so, follow these steps:

- 1. Click the Media button on the toolbar and choose the desired type from the submenu that appears.**

Keynote displays the contents of your various media collections (such as your Photos, iMovie, and Music libraries).

- 2. When you find the file you want to add, drag it to the spot where you want it in the Layout pane.**

[Figure 19-3](#) shows the Media Browser in action.



TIP Having trouble finding that specific photo or movie? Click the Search icon (which looks like a magnifying glass) at the top of the Media Browser, and you can specify a particular filename or keyword.

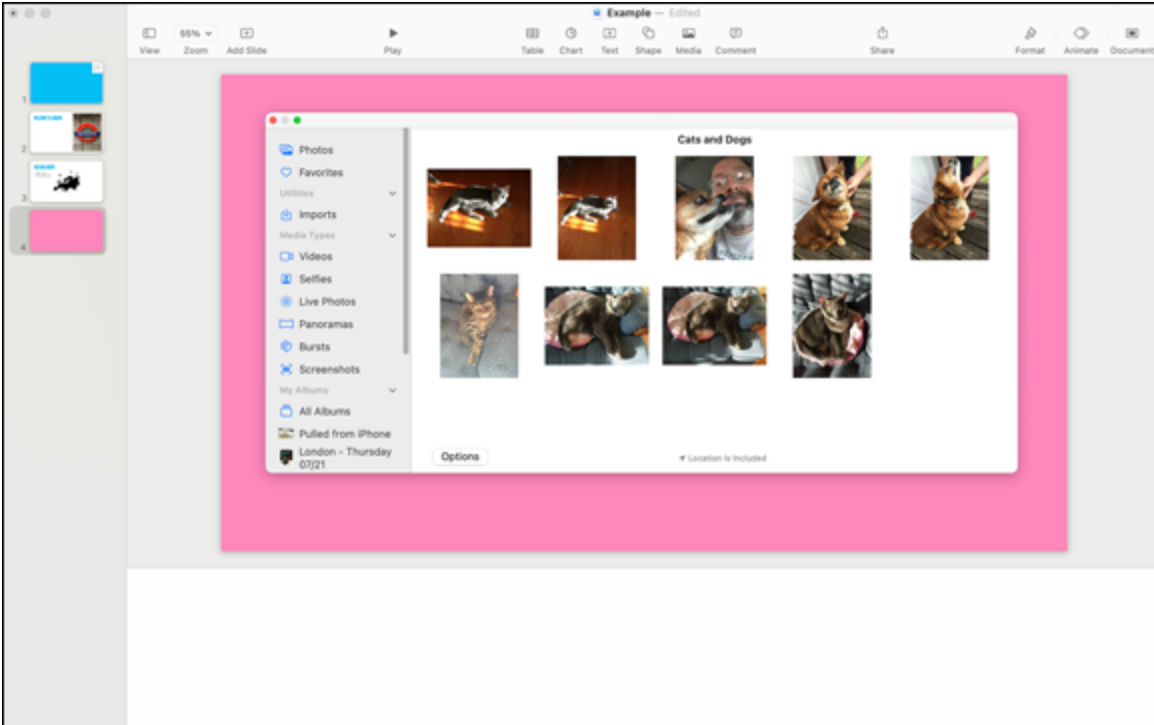


FIGURE 19-3: It's not just photos. You can add audio and movie clips to a slide, too!

Adding a Background Shape

Text often stands out on a slide when it sits on top of a background shape. To add a shape (such as a rectangle or circle) as a background for your text, follow these steps:

- 1. Click the insertion pointer in the location you want.**
- 2. Click the Shape button on the Keynote toolbar and choose a shape from the menu that appears.**
The shape appears in your document.
- 3. Click the center of the shape, and drag it to a new spot.**

As you can with image boxes, you can resize or move shapes. You can read how to do that in “Working with Text, Shapes, and Graphics Boxes,” earlier in this chapter.

4. **When the shape is properly positioned and sized, select it and choose Arrange ⇒ Send to Back.**

You want to “send the shape to the back” so that any text you enter is sitting in front of the shape, not hidden behind it.



TIP You’re not limited to creating shapes and graphics within Keynote; consider using an application such as Adobe Photoshop or Illustrator to create graphics that you can import into your slides! As I mention earlier, you can easily drag and drop your new graphic into a slide from a Finder window.

Adding 3D Objects

How cool would it be to have 3D models appear on your slides? They’d grab the attention of your audience and add a unique touch to your presentation! If you have a 3D object file on your MacBook’s internal drive, you can easily add it to the current slide by dragging the file from a Finder window and dropping it into the layout pane.

Alternatively, you can use the Media Browser to add a 3D object. Follow these steps:

1. **Click the Media button on the Keynote toolbar and click Choose.**
2. **Navigate to the location of the desired image and click it to select it.**

3. Click Insert.



TIP You can rotate your image during your presentation by clicking the icon that appears in the center of a 3D object. (It looks like two intersecting circles.) Click and drag the Rotate button to the desired angle.



TIP If your 3D model includes animation, click the Play button that appears at the lower-right corner of the object box to start the animation.

Creating Your Keynote Slideshow

The heart of a Keynote presentation is the slideshow you build from the slides you've created. A Keynote slideshow is typically presented as a full-screen presentation, with slides appearing in linear order as they're sorted in the Slides list.

You run a Keynote slideshow simply by clicking the Play button on the toolbar or by choosing Play ⇒ Play Slideshow. You can advance to the next slide by clicking or by pressing the right arrow key.



TIP

Are you running a presentation along with a videoconferencing app? You can choose to play a Keynote presentation in a window instead, which may be more convenient than the full-screen default. To use this feature, choose Play ⇒ In Window.



TIP

If you connect an external monitor to your MacBook and run a Keynote slideshow, the presentation will appear in full screen on the MacBook itself with a preview display on the external monitor. You even get an onscreen clock to monitor the time!

Other controls are available besides the ones that advance to the next slide. [Table 19-1](#) lists the shortcuts you'll use most often during a slideshow.

TABLE 19-1 Keynote Slideshow Shortcut Keys

Key	Action
Right arrow	Move to the next slide.
Left arrow	Return to the preceding slide.
Home	Jump to the first slide.
End	Jump to the last slide.
C	Show or hide the pointer.
number	Jump to the corresponding slide in the Slides list. (Click the Go button when it appears.)
U	Scroll the notes up.
D	Scroll the notes down.

Key	Action
N	Show the current slide number.
H	Hide the slideshow, and display the last application used. (The presentation appears as a minimized icon on the Dock.)
B	Pause the slideshow, and display a black screen. (Press any key to resume the slideshow.)
Esc	Quit.



TIP

Keynote offers several settings that you can tweak to fine-tune your slideshow. To display these settings, choose Keynote ⇒ Settings and click the Slideshow button in the Preferences dialog.



TIP

If you have an iPhone or iPad handy, and you've installed the iOS version of Keynote on your device, choose Keynote ⇒ Settings and click the Remotes tab. Click the Enable check box to link your device to your MacBook and Keynote. Now you can use your handheld device as a remote during your slideshow. *Sweet!*



TIP

Are you creating a Keynote slideshow for a kiosk (where it should run unattended)? If so, choose Keynote ⇒ Settings to display the Preferences dialog, and click the Slideshow tab. Deselect the Exit Presentation After Last Slide check box, and select the Require Password to Exit Slideshows check box. Now your slideshow will run continuously (a password you set is required to exit), and your audience can move backward and forward through the slides with the pointer keys.

Printing Your Slides and Notes

I'll be honest: I don't print handouts for every presentation I give. If, however, you're presenting a lengthy slideshow with plenty of information that you want your audience to remember or refer to later, nothing beats handouts that include scaled-down images of your slides (and, optionally, your presenter's notes).

You're not limited to paper. You can also use Keynote to create an electronic PDF (Portable Document Format) file instead of a printed handout, which your audience members can download from your website. Or, if you're an educator who has access to an interactive whiteboard (such as a Smart Board), you can use this cutting-edge technology with Keynote.

To print your slides and notes, follow these steps:

- 1. Within Keynote, choose File ⇒ Print or press ⌘ +P.**

Keynote displays the Print sheet, shown in [Figure 19-4](#). (Note that some printer-specific features may be different on your screen.) If necessary, expand the Print sheet to show all the settings by clicking the arrow that appears to the left of each heading.

2. Choose one of the following formats (each of which displays a different set of layout options) under the Keynote heading:

- **Slide:** Print each slide on a separate page at full size. You can choose to print the presenter notes for each slide as well.
- **Grid:** Print multiple slides on a page at a reduced size. From the Slides per Page pop-up menu, choose how many slides Keynote should print on each page.
- **Handout:** Print a handout with multiple slides per page (and, optionally, with presenter's notes). Again, you can choose how many slides appear on each page.
- **Outline:** Print the contents of your Slides list in Outline view.

3. Select the pages to print:

- **To print the entire document,** select the All Pages radiobutton under the Pages heading.
- **To print a range of selected slides,** select the Range radio button and then enter the starting and ending pages.

4. Click the Print button to send the job to your printer.

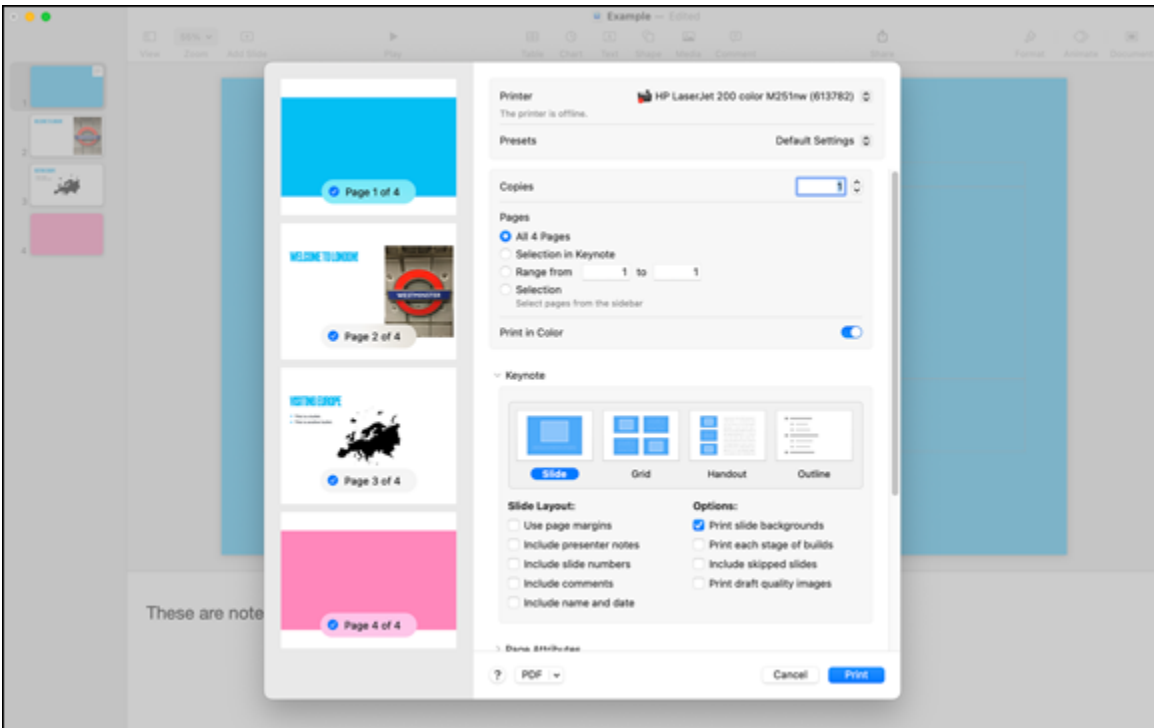


FIGURE 19-4: Keynote offers a wide range of printing options for your slides and notes.



TIP

You can also send a copy of your finished presentation as an attachment with Mail or Messages, or you can provide others a copy through X (formerly Twitter) or Facebook. Click Share on the Keynote toolbar and choose Send Copy from the drop-down list to explore your options.

Chapter 20

When Good Mac Laptops Go Bad

IN THIS CHAPTER

- » **Avoiding the blame (righteously)**
 - » **Putting basic troubleshooting precepts to work**
 - » **Using Mark's Troubleshooting Tree**
 - » **Getting help**
-

I wish you weren't reading this chapter.

Because you are, I can only surmise that you're having trouble with your MacBook, and that it needs fixing. (The other possibility — that you just like reading about solving computer problems — is more attractive but much more problematic.)

Consider this chapter a crash course in the logical puzzle that is computer *troubleshooting*: the art of finding out What Needs Fixing. I provide you with the tricks that may fix the problem when you just plain can't solve it yourself.

Not surprisingly, you're going to encounter a lot of Tips and Mark's Maxims in this chapter. I learned all of them the hard way, so I recommend committing them to memory.

Repeat after Me: Yes, I Am a Tech!

Anyone can troubleshoot. Believe it, and put these common troubleshooting myths to rest:

- » **It takes a college degree in computer science to troubleshoot.** Tell that to my troubleshooting readers all over the world. They'll think it's a hoot, because those other MacBook owners tell me about minor problems they fix all the time. You can follow all the steps in this chapter without any special training.
- » **I'm to blame.** Ever heard of viruses? Failing hardware? Buggy software? Any of those things can cause the problem. It's Mark's Maxim time:



MARK'S
MAXIM

Don't beat yourself up! Your MacBook *can* be fixed.

- » **I need to buy expensive utility software.** Nope. You can certainly invest in a commercial testing and repair utility if you like. My favorite is Techtool Pro from Micromat (www.micromat.com), but a third-party utility isn't a requirement for troubleshooting. (I do, however, consider an antivirus application a must-have; you should have one already. Hint, hint.)
- » **There's no hope if I can't fix it.** Sure, parts fail and computers crash, but your Apple Service Center can repair just about any problem. And (ahem) *if you backed up your computer* (as I preach throughout this book), you'll keep that important data (even if a new hard drive or motherboard is in your future).

» **It takes forever.** Wait until you read the number-one rule in the next section; the first step takes but 10 seconds and often solves the problem. Naturally, not all problems can be fixed so quickly. But if you follow the procedures in this chapter, you should fix your MacBook (or at least know that the problem requires outside help) in an afternoon.

With those myths banished, you can get down to business and start feeling better soon.

Step-by-Step Laptop Troubleshooting

In the following sections, I walk you through my should-be-patented Troubleshooting Tree, as well as the macOS built-in troubleshooting application, Disk Utility. I also introduce you to several keystrokes that can make your MacBook jump through hoops.

WHY IS REBOOTING SO DARNED EFFECTIVE?

Rebooting fixes problems because it resets *everything*. Your network connection, for example, might be acting up or might have timed out, and rebooting restores it. Hardware connections are reset when you reboot, which can “magically” bring recalcitrant external peripherals back to life. Rebooting also fixes problems due to brownouts or those notorious AC power flickerings you undoubtedly have noticed from time to time. Such interruptions in constant juice might not bother you or me (or your less-intelligent toaster), but they can play tricks on your MacBook that rebooting can fix. (That’s another reason that I recommend — and use — an uninterruptible power supply, or UPS.)

The number-one rule: Reboot!

The simple fact is that rebooting your MacBook can often solve many problems. If you're encountering these types of strange behavior with your MacBook, a reboot might be all you need:

- » Intermittent problems communicating over a network
- » A garbled screen, strange colors, or screwed-up fonts
- » The swirling Beach Ball of Doom that won't go away after several minutes
- » An application that locks up
- » An external device that seems to disappear or can't be opened


To put it succinctly, here's a modest Mark's Maxim:




MARK'S
MAXIM

**Always try a reboot before beginning to worry.
*Always.***

If you're in the middle of a program, try to save all your open documents before you reboot. That might be impossible, but try to save what you can.

As your first (and best) option for shutting down, click the Apple  menu and choose Shut Down. If you need to force a *locked* application (one that's not responding) to quit so that you can reboot, follow these steps to quash that locked application:

1. **Click the Apple () menu and choose Force Quit.**
The dialog shown in [Figure 20-1](#) appears.
2. **Click the offending application and then click the Force Quit button.**

When you get everything to quit, you should be able to click the Apple menu and choose Shut Down (not Restart) without a problem.

If your MacBook simply won't shut down (or you can't get the offending application to quit), do what must be done:

- 1. Press and hold your MacBook's Touch ID until it shuts itself off.**

(On older MacBooks with an actual Power button, hold that down instead.) You have to wait about 3 seconds for your Mac to turn itself off.



TIP

If holding the Touch ID button down on your MacBook doesn't do the trick, press the Touch ID button *and* the Left Option+Left Shift+Left Control keyboard shortcut at the same time for about 10 seconds; then release them all at the same time. (This method also resets some of your MacBook's internal hardware settings, which is often A Good Thing.)

- 2. Wait about 10 seconds after your laptop has shut down.**

- 3. Press the Touch ID button again to restart the computer.**

After everything is back up, check whether the problem is still apparent. If you use your MacBook for an hour or two and the problem doesn't reoccur, you likely fixed it!



FIGURE 20-1: Force a recalcitrant application to take off.

Special keys that can come in handy

Several keys have special powers over your MacBook. I'm not kidding! These keys affect how your computer starts up, and they can really come in handy while troubleshooting.

Using Safe mode

You can use Safe mode to force macOS to run a directory check of your boot drive and disable any login items that might be interfering with your system. For MacBooks with Apple's M-series processors, follow these steps:

- 1. Choose the Shut Down menu item from the Apple () menu to turn off your MacBook.**
- 2. Press and hold the Touch ID button to restart the computer.**
- 3. When you see the Loading Startup Options message displayed, you can release the Touch ID button.**
- 4. Click the disk you want to boot with and then hold down the Shift key while you click Continue in Safe mode.**
- 5. After macOS boots, you're in Safe mode. (You should see the words *Safe Boot* displayed in the Finder menu bar.) You can check the operation of your MacBook by using Disk Utility (or a commercial utility application).**
- 6. When you're ready to return to normal operation, restart your MacBook again.**

For MacBooks with Intel processors, follow these steps:

- 1. Choose the Shut Down menu item from the Apple () menu to turn off your MacBook.**
- 2. Press the Power button to restart the computer.**
- 3. Immediately after you hear the start-up tone, press and hold down the Shift key (and keep holding it down until you see the boot progress indicator).**
- 4. After macOS boots, you're in Safe mode. Again, use Disk Utility (or a commercial utility application) to check your internal drive.**
- 5. When you're ready to return to normal operation, restart your MacBook.**

Start-up keys

[Table 20-1](#) provides the lowdown on start-up keys, which are used *only* on older Intel-based MacBook models.

Hold down the indicated key either *when you push the Power button* or *immediately after the screen goes blank during a restart*. (As I just mentioned, the Shift key shortcut to Safe mode is the exception; you should press it and hold it down after you hear the start-up tone.)

TABLE 20-1 Start-Up Keys and Their Tricks

Key	Effect on Your MacBook
Option	Displays a system boot menu, allowing you to choose any bootable operating system on your MacBook
Shift	Boots in Safe mode
T	Starts your MacBook in Target Disk mode (using your Thunderbolt port)
⌘ +V	Shows macOS Console messages
⌘ +R	Boots from the macOS Recovery HD volume
⌘ +S	Starts your MacBook in Single User mode
⌘ +Option+P+R	Resets Parameter RAM (PRAM)

Some of the keys and combinations in [Table 20-1](#) might never be necessary for your machine, but an Apple technician might instruct you to use them.



TIP If you're using a wireless keyboard with your MacBook, you may have to use your laptop's original keyboard when using a start-up key (because of the delay involved while connecting with Bluetooth).

All hail Disk Utility, the troubleshooter's friend

The macOS *Disk Utility* is a handy tool for troubleshooting and repairing your MacBook's drive — you can use it to check the format and health of both drives and volumes (and automatically correct any problems). You can find Disk Utility in the Utilities folder in Launchpad.

Fire up Disk Utility to open the rather powerful-looking window shown in [Figure 20-2](#).

In the left column of the Disk Utility window, you can now see:

- » The *physical* drives in your system (the actual hardware).
- » The *containers* (the formatted portions of the drives on your system).
- » The *snapshots* (the startup data for each volume, used if you need to restore).

DANGER, WILL ROBINSON!

Many Disk Utility functions can actually *wipe your drives clean of data* instead of repairing them! These advanced functions are unlikely to help you with troubleshooting a problem with your existing volumes.

Remember: Don't use the following Disk Utility functions unless an Apple technician *tells* you to:

- Partitioning and erasing drives
- Setting up RAID arrays with the Raid Assistant
- Restoring files from disk images

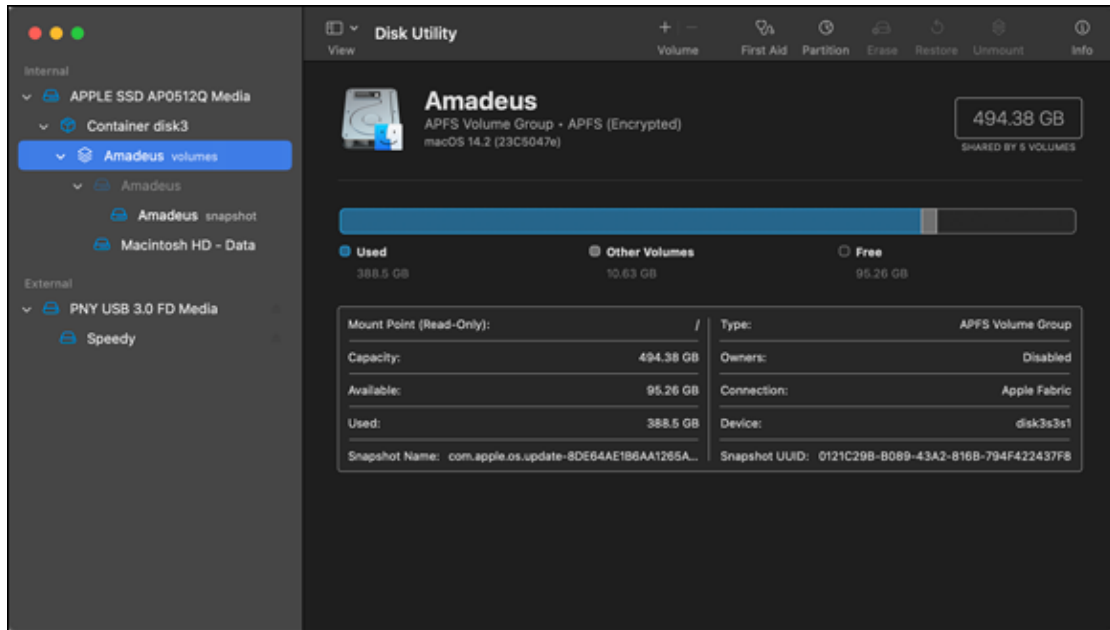


FIGURE 20-2: The physician of drives: The Sonoma Disk Utility.

» The *volumes* (the data stored on the drives).



**TECHNICAL
STUFF**

You can always tell a volume, because it's indented below the Container entry. (If you don't see physical drives and containers as well as volumes, press \mathbb{A} +2 to show all devices.)

- » Any CD or DVD loaded on your MacBook (if you have an external optical drive connected).
- » USB or Thunderbolt external drives.

[Figure 20-2](#) shows that I have one internal drive (the Apple SSD entry) and one USB flash drive (the PNY USB 3.0 entry). The internal drive has one volume (Amadeus), and the external USB flash drive has one volume (Speedy).



TECHNICAL
STUFF

The information in the bottom-right section of the Disk Utility window is the specifications for the selected drive or volume. This info includes capacity and available space for a volume, or connection type and total capacity for a drive.

Disk repair made easy

Disk Utility can check the format and health of both drives and volumes, and you can correct any problems it finds by clicking the First Aid button.

To check and repair problems using First Aid, follow these steps:

- 1. Click the Go menu and choose Utilities; then double-click the Disk Utility icon.**
- 2. In the list at the left side of the Disk Utility window, click the drive or volume you want to check.**
- 3. Click the First Aid button, and click the Run button that appears.**
- 4. Click Done to exit First Aid.**

If changes were made (or if you had to boot from the macOS Recovery HD volume), Disk Utility may prompt you to reboot after repairs have been made.

[Figure 20-3](#) illustrates the details you see if you click Show Details to expand the display. Although some of the messages might include cryptic Linux details, you can still tell from the figure that the operation is successful (and you get that snazzy green check mark). All is well!



TECHNICAL
STUFF

Using Disk Utility to repair your system drive(s) carries a couple of caveats:

- » **You may not be able to immediately repair problems on your boot drive or boot volume.** This limitation actually makes sense, because you're actually using that drive and volume right now. If First Aid finds a problem on your boot drive but reports that it can't fix that error, use one of these two methods to run Disk Utility:

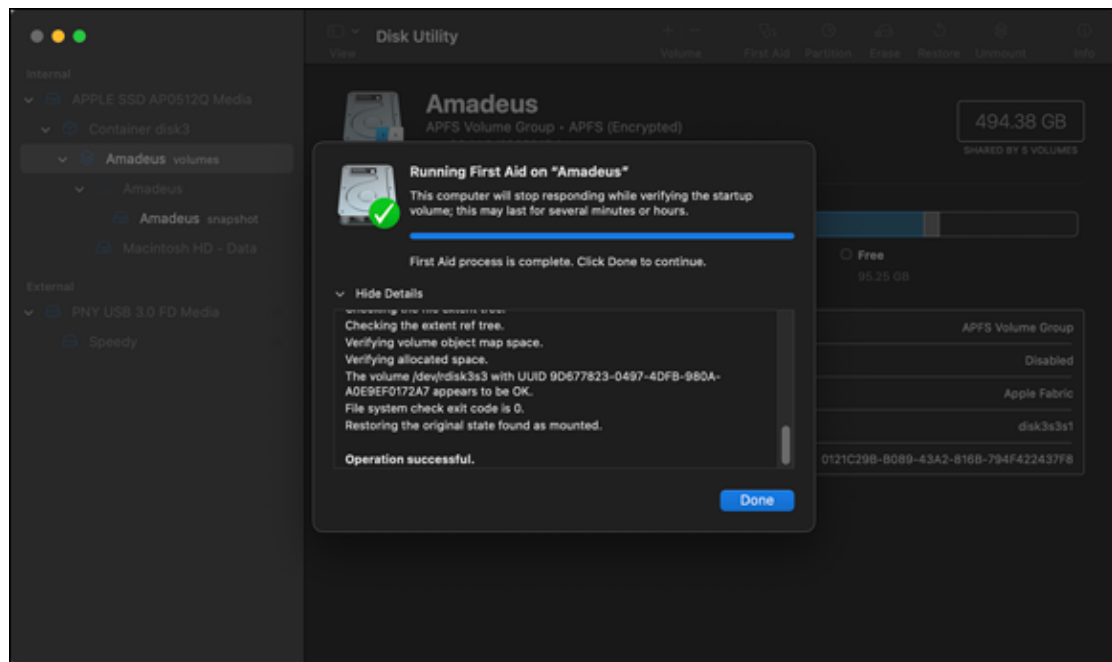


FIGURE 20-3: First Aid reports that this drive is error free.

For Apple Silicon MacBooks with an M-series processor, choose the Shut Down menu item from the Apple () menu to turn off your MacBook; then press and hold the Touch ID button to restart the computer. (When you see the Loading Startup Options message displayed, you can release the Touch ID button.) Now click the Options icon, click Continue, and click the Disk Utility entry in the list. Click your startup volume from the sidebar, and

then click First Aid to repair the problems. When you're done, click the Apple menu and choose Restart.

For older Intel-based MacBooks, boot from the macOS Recovery HD volume to run Disk Utility. Reboot and then hold down the ⌘ +R keyboard shortcut immediately after you hear the startup chord. Then run Disk Utility from the window that appears. Because you've booted your MacBook from the Recovery HD volume, you can repair those problems with your startup drive. Click your boot drive or volume from the sidebar to select it and then click the First Aid button. When First Aid has finished, click the Apple menu and choose Restart.

» **You can't repair CDs and DVDs.** If you have an external optical drive and a CD or DVD is giving your problems, remember that CDs and DVDs are read-only media and thus can't be repaired (at least by Disk Utility).

If your MacBook is having trouble reading a CD or DVD, wipe the disc with a soft cloth to remove dust, oil, and fingerprints. Should that fail, invest in a disc-cleaning contrivance of some sort.

Mark's MacBook Troubleshooting Tree

As hip-hop artists say, "All right, kick it." And that's just what my MacBook Troubleshooting Tree is here for. If rebooting your laptop supercomputer didn't solve the problem, follow these steps in order until you either find the solution or run out of steps (more on that in the next section).



TIP If you're not sure quite what's producing the error, this process is designed to be *linear* — followed in order — but if you already know that you're having a problem with one specific peripheral

or one specific application, feel free to jump to the steps that concern only hardware or software.

Step 1: Investigate recent changes

The first step is a simple one that many novice MacBook owners forget. Simply retrace your steps and consider what changes you made to your system recently. Here are the most common culprits:

- » **Did you just finish installing a new application?** Try uninstalling it by removing the application directory and any support files it might have added to your system. (And keep your applications current with the most recent patches and updates from the developers' websites.)
- » **Did you just apply an update or patch to an application?** Uninstall the application, and reinstall it without applying the patch. If your MacBook suddenly works again, check the developer's website, or contact the application's technical support department to report the problem.
- » **Did you just update macOS?** Updating Sonoma can introduce problems in your applications that depend on specific routines and system files. Contact the developer of the application, and look for updated patches that bring your software in line with the latest Sonoma updates.
- » **Did you just make a change in System Settings?** Return the options you changed to their original settings; then consult [Chapter 5](#) for information on what might have gone wrong. (If the setting in question isn't listed in [Chapter 5](#), consider searching the macOS Help system or the Apple support website for more clues.)

» **Did you just connect (or reconnect) an external device?** Try unplugging the device and then rebooting to see if the problem disappears. Remember that some peripherals need software drivers to run, such as printers; without those drivers installed, they don't work correctly. Check the device's manual or visit the company's website to search for software you might need.

If you didn't make any significant changes to your system before you encountered the problem, proceed to the next step.

Step 2: Run Disk Utility

The next step is to run Disk Utility and use First Aid. The earlier section "[Disk repair made easy](#)" shows how to complete this task on your Sonoma boot drive.

Step 3: Check your cables

Cables can work themselves loose, and sometimes they fail. Check all the cables to your external devices — make sure that they're snug — and verify that everything's plugged in and turned on. (Oh, and don't forget to check for crimps in your cables or even Fluffy's teeth marks.)



TIP

If a Thunderbolt or USB device acts up, swap cables around to find whether you have a bad one. A faulty cable can have you pulling your hair out in no time.

Step 4: Check your Trash

Check the contents of the Trash to see whether you recently deleted files or folders by accident. Click the Trash icon on the Dock to display the contents. If you

deleted something by mistake, right-click the item in the Trash and choose Put Back from the contextual menu.

I know this one from personal experience. A slight miscalculation while selecting files to delete made an application freeze every time I launched it.

Step 5: Check your internet and network connections

Now that always-on DSL, fiber, and cable modem connections to the internet are the norm, don't forget an obvious problem: Your MacBook can't reach the internet if your ISP is down or your network is no longer working!

When you're at home, a quick visual check of your modem usually indicates whether a connection problem exists between your modem and your ISP. My fiber modem has a set of informative activity lights that I always glance at first. If your MacBook is connected to the internet through a larger home or office network, however, and you can't check the modem visually, you can check your internet connection by launching Safari and connecting to www.apple.com.

If you can't reach your network at all, the problem lies in your network hardware or configuration. (In an office environment, your network system administrator will be happy to help you at this point, especially if you're blood relatives.)

Step 6: Think virus

If you've made it to this point, it's time to run a full virus scan. Make sure that your antivirus application has the latest updated data files. My antivirus application of choice is Avast Security for Mac from Avast Software (www.avast.com). It's both excellent and free!



TIP

If a virus is detected and your antivirus application can't remove it, try *quarantining* it instead. This basically disables the virus-ridden application and prevents it from infecting other files.

Step 7: Check your login items

Sonoma might encounter problems with applications you've marked as login items in System Settings. Your account's login items are applications that run automatically every time you log in to your MacBook. If one of these login items is to blame for your problems, your MacBook will encounter some type of trouble every time you log in. (This is usually the case when you receive an application error message each time you start the computer.)

To check the boot process, it's time to use that fancy Safe Boot mode I discussed earlier in the chapter. Login items are disabled when you're running in Safe mode, so if your computer starts up without any errors, you know that one or more login items are probably to blame.

If your computer starts without problems in Safe mode, the next step is to check your login items. Restart your MacBook and then follow this procedure for each item in the login list:

- 1. Open System Settings, click General in the sidebar, and then click the Login Items entry.**
- 2. Select the first item from the list and remove it.**

You can delete the selected item by clicking the Delete button, which bears a minus sign. (If a recurring error message mentions a specific

application that appears in the Login Items list, that's your likely culprit, so start by deleting that item.)

3. **Click the Close button to close System Settings and save your change.**
4. **Restart your MacBook.**
5. **If your MacBook is still misbehaving, repeat Steps 1 through 4 and disable a new login item.**

When your Mac starts up normally, you have discovered the perpetrator.

6. **Delete that application and reinstall it.**

Don't forget to add back each of the *working* login items to the Login Items list using the Add button (which carries a plus sign)!

Step 8: Turn off your screen saver

The next step is to turn off your screen saver. This remedy is a long shot, but it isn't unheard of to discover that a faulty, bug-ridden screen saver has locked up your MacBook. If you are running a screen saver other than one from Apple, and your computer never wakes up from Sleep mode or hangs while displaying the screen saver, you've found your prime suspect.

Reboot your MacBook (if necessary), open System Settings, click Screen Saver in the sidebar, and switch to an Apple screen saver. To disable the screen saver entirely, click the Lock Screen Settings button, click the Start Screen Saver When Inactive pop-up menu and choose Never.

Step 9: Run System Information

Ouch. You've reached the final step, and you still haven't uncovered the culprit. At this point, you've narrowed the possibilities to a serious problem, such as bad hardware or corrupted files in your Sonoma System folder.

Fortunately, macOS includes the System Information utility, which displays real-time information on the hardware in your system. To start System Information, follow these steps:

1. **Click the Search icon in the Finder menu bar.**
2. **Type System Information into the Spotlight search box and press Return.**
3. **Click each of the Hardware categories in the sidebar in turn, double-checking to make sure everything looks okay.**



REMEMBER You don't have to understand all the technical hieroglyphics. If a Hardware category doesn't return what you expect or displays an error message, though, that's suspicious. (If your MacBook doesn't have a specific type of hardware onboard — such as an optical drive — you won't see information in that category.)



TIP The Diagnostics category shows whether your MacBook passed the Power On self-test.

Okay, I Kicked It, and It Still Won't Work

Don't worry, friendly reader. Just because you've reached the end of my spiffy MacBook Troubleshooting Tree doesn't mean you're out of luck. In the following sections, I discuss the online help available in macOS

Sonoma and on the Apple website, as well as local help in your own town.

Local service, at your service

In case you need to take in your MacBook for service, an Apple Store or Apple Authorized Service Provider is probably in your area. To find the closest service, launch Safari and visit the Apple website Support page (www.apple.com/support); then click the Apple Repair link.

Always call your Apple Authorized Service Provider before you lug your MacBook's svelte frame all the way to the shop. Make sure you know your MacBook's serial number (which you can display in System Information) and which version of macOS you're using.

The macOS Help Center

Although most MacBook owners tend to blow off the Help Center when the troubleshooting gets tough, that's never the best course of action. Always take a few moments to search the contents of the Help Center by choosing Help on the Finder menu bar to see whether any mention is made of the problem you've encountered.

Apple Help Online

If you haven't visited the Apple MacBook Support site yet, run, don't walk, to

<https://www.apple.com/support/macbook>. There, you find:

- » The latest patches, updates, and tutorials for the MacBook line
- » MacBook and macOS discussion boards, moderated by Apple
- » Tools for ordering spare parts, checking on your remaining warranty coverage, and searching the Apple knowledge base

- » Do-it-yourself instructions (PDF files) that you can follow to troubleshoot or repair your MacBook

Hardware manufacturers

Has an external peripheral stopped working since you applied a macOS update? If you followed my Troubleshooting Tree to no avail, don't forget to check the manufacturer's website (or call their tech support directly) to see if there's a workaround you can perform to get that hardware working again.

Chapter 21

Tackling the Housekeeping

IN THIS CHAPTER

- » **Cleaning unnecessary stuff off your internal drive**
 - » **Backing up your data**
 - » **Automating tasks in Sonoma**
 - » **Updating macOS automatically**
-

Nothing runs better than a well-oiled machine, and your MacBook is no exception. (But please, don't *ever* oil your MacBook; that's just a figure of speech.) In this chapter, I demonstrate how you can make good use of every byte of storage space provided by your internal drive.

With a little macOS maintenance, such as Time Machine (for backing up and restoring your data) and frequent scans of your internal drive for disk errors, you can ensure that your MacBook is performing as efficiently as possible. Automator allows your MacBook to perform tasks automatically that used to require your attention. In addition, configuring Software Update to run automatically can allow you to live life free and easy, watching your favorite reality TV and eating ice cream (or yogurt — your pick).

Cleaning Unseemly Data Deposits

Criminy! Where does all this stuff *come* from? Suddenly, that spacious 1TB solid-state drive has 19GB left, and you start feeling pinched.

Before you consider buying a new external drive, take the smart step: Sweep your internal drive clean of unnecessary and space-hogging software.

Managing your storage in macOS (or cleaning things the elegant way)

Apple includes the Manage Storage feature within macOS to help identify and display (and optionally delete) those huge files that are taking up so much of your drive's real estate. Right-click the Desktop icon for the drive you want to clean, and choose Manage Storage. After a pause (which may be several seconds, depending on the capacity of the drive), you'll see the System Settings pane shown in [Figure 21-1](#).



FIGURE 21-1: Manage your storage to reclaim drive space.

Note the categories in the list at the right side — from here, you can see the approximate amount of space taken up by notoriously spacious items like your documents and your applications. Click the Info icon (the lowercase *i* inside the circle) next to a category to display the worst offenders, sorted by size. If you see an item that you no longer need (like that 2GB happy cat

video you downloaded two years ago), click the item to display the options you have to remove it, like uninstalling it or simply deleting it. If only cleaning your house were this easy!



TIP The Recommendations section is unique because it offers space-saving features that macOS offers rather than displaying files. For example, if you've invested in additional iCloud storage, you can choose to "offload" files, photos, and messages to iCloud rather than store them locally. (Naturally, you must be connected to the internet to retrieve them, and it may be a good idea to invest in additional iCloud storage.) You can also choose to empty your Trash automatically from here.

Getting dirty (or cleaning things the manual way)

If you're willing to dig into your data a little, you can eschew the Manage Storage feature and dive elbow-deep into your drive to hunt down every unnecessary file. All you really need is the willpower to announce, "I simply don't need this particular item any longer." (Sometimes, that's tougher than it may seem.)

Unnecessary files and unneeded folders

Consider all the stuff that you probably don't really need:

- » Game demos and shareware that you no longer play (or even remember)
- » Movie trailers and other QuickTime video files that have long since passed into obscurity
- » Temporary files that you created and promptly forgot

- » Log files that chronicle application installations and errors
- » GarageBand loops and iMovie video clips you'll never use
- » Stuffit and Zip archives that you downloaded and no longer covet
- » Music, video, and movies that no longer appeal

How hard is it to clean this stuff off your drive? Easier than you might think!

- » You can quickly delete files.
- » You can remove items from your Music and TV media library (especially movies, which take up several gigabytes of space *each*). If you've purchased an item from the iTunes Store, don't forget that you can download that item again in the future for free — perhaps when you've added an external drive to hold some of your stuff. You can also choose to stream your music and movies directly from the Music and TV apps, which takes up no space on your drive at all — just a fast broadband internet connection.
- » You can move seldom-used files and folders to external storage (such as a USB flash drive).
- » You can uninstall applications purchased from the App Store using Launchpad. From the Launchpad display, click and hold down the icon until it wiggles. If an X button appears on the icon, you can click the X to remove the application from your MacBook. Again, these applications can be reinstalled at any time.
- » You can get rid of most of the space taken by any application (often the whole application) by deleting its application folder that was created during the installation process.



WARNING Always check the application's README file and documentation for any special instructions before you manually delete any application's folder! If you created any documents in that folder that you want to keep, don't forget to move them before you trash the folder and its contents. In fact, some applications may come with their own uninstall utility, so checking the README file and documentation may save you unnecessary steps.

Removing an application or file from your drive usually takes two simple steps:

1. **Display the file or application folder in a Finder window.**
2. **Delete the file or folder with one of these steps:**
 - Drag the icon or filename to the Trash.
 - Select the icon or filename and press ⌘ + Delete.
 - Right-click the icon or filename and choose Move to Trash from the contextual menu.
 - Select the icon or filename and click the Delete button on the Finder toolbar (if you added one).

Truly, no big whoop.



**TECHNICAL
STUFF**

Unlike programs in the Windows world, most macOS applications don't need a separate, silly uninstall program (although some larger Mac applications include one for convenience).



REMEMBER Don't forget to actually *empty* the Trash, or you'll wonder why you aren't regaining any drive space. (macOS works hard to store the contents of the Trash until you manually delete it, just in case you want to undelete something.) To get rid of that stuff permanently and reclaim the space, do the following:

1. **Click the Trash icon on the Dock and hold down the button — or right-click — until the pop-up menu appears.**
2. **Choose Empty Trash.**

As I mention earlier in the chapter, if you use the Manage Storage feature you can elect to set your Trash to empty automatically.

Associated files in other folders

Some applications install files in different locations across your internal drive. (Applications in this category include the Microsoft Office suite and Adobe Creative Cloud applications like Adobe Photoshop.) How can you clear out these orphan files after you delete the application folder?

The process is a little more involved than deleting a single folder, but it's still no big whoop. Here's the procedure:

1. **Click the Search icon (which looks like a magnifying glass) in a Finder window.**

You can read more about Finder windows in [Chapter 6](#).

- 2. Type the name of the application in the Search text box and choose Name Contains from the pop-up menu.**

[Figure 21-2](#) shows a typical search. I wanted to remove orphan files associated with Parallels Desktop; I had already deleted the application itself. By searching for the word *Parallels*, I found a number of support documents and applications that are now no longer needed and could also be deleted. This trick displays files created in other folders that include your search word in their names, such as project files, PDF files, and the font files that appear in the system Fonts folder.



WARNING Never delete any files or folders from your Library or System folders because they are critical to the proper operation of macOS.

- 3. Decide which of these files belong to the to-be-deleted application.**



WARNING Be sure that the files you choose to delete are part of the deleted application. If necessary, right-click the file and choose Get Info from the shortcut menu to display more information.

Many associated files either have the same icon as the parent application or are in the Preferences, Caches, or Application Support folder.

- 4. In the Search Results window, click the associated file(s) that you want to delete and just drag them to the Trash.**



WARNING Don't empty the Trash immediately after you delete these files. Wait a few hours or a day. That way, if you realize that you deleted a file that you truly need, you can easily restore it from the Trash.

Using a commercial cleanup tool

If you'd rather use a commercial application to help you clean up your drive, several applications are available, but most are shareware applications that perform only one task. For a good all-around cleanup utility, I recommend CCleaner for Mac, from Piriform (www.ccleaner.com/ccleaner-mac), as shown in [Figure 21-3](#). This great utility can clean everything from internet crud (browser cookies and your surfing history) to those macOS system caches that can grow so doggone huge. And you can easily fine-tune whatever CCleaner for Mac wants to remove. The utility can also uninstall many applications with a single click. Oh, and did I mention that the basic edition is free? I *really* like free!

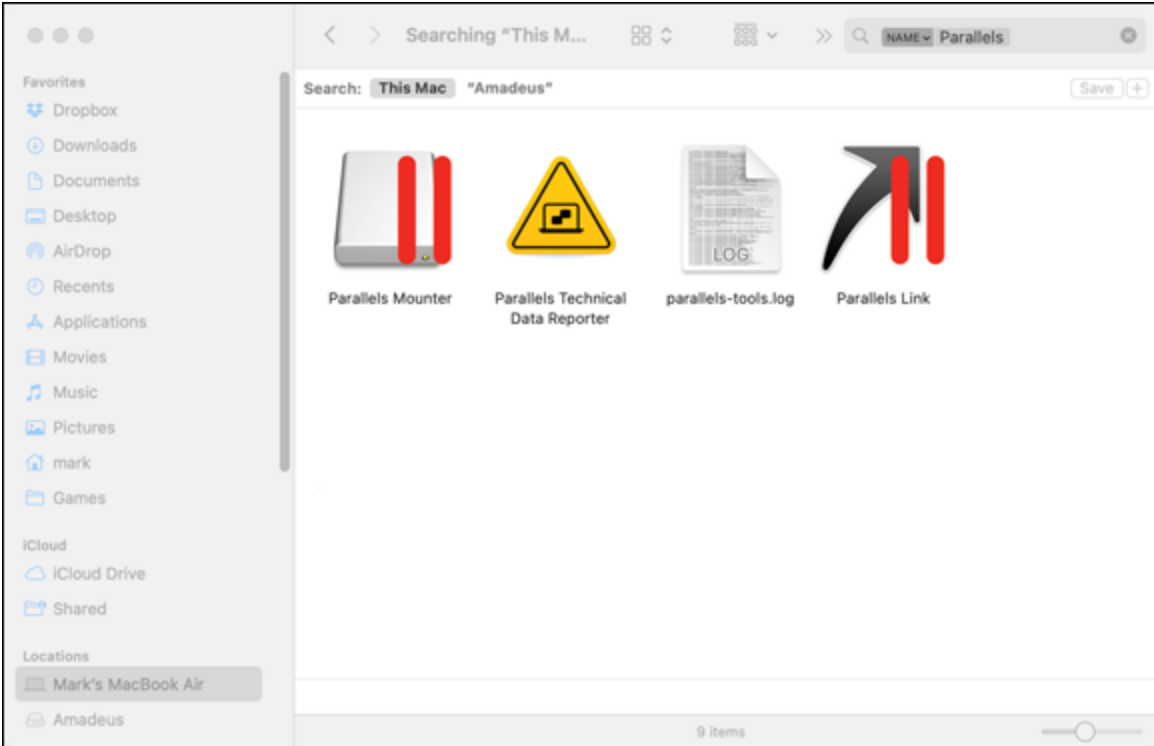


FIGURE 21-2: Mine your internal drive for additional files to delete.

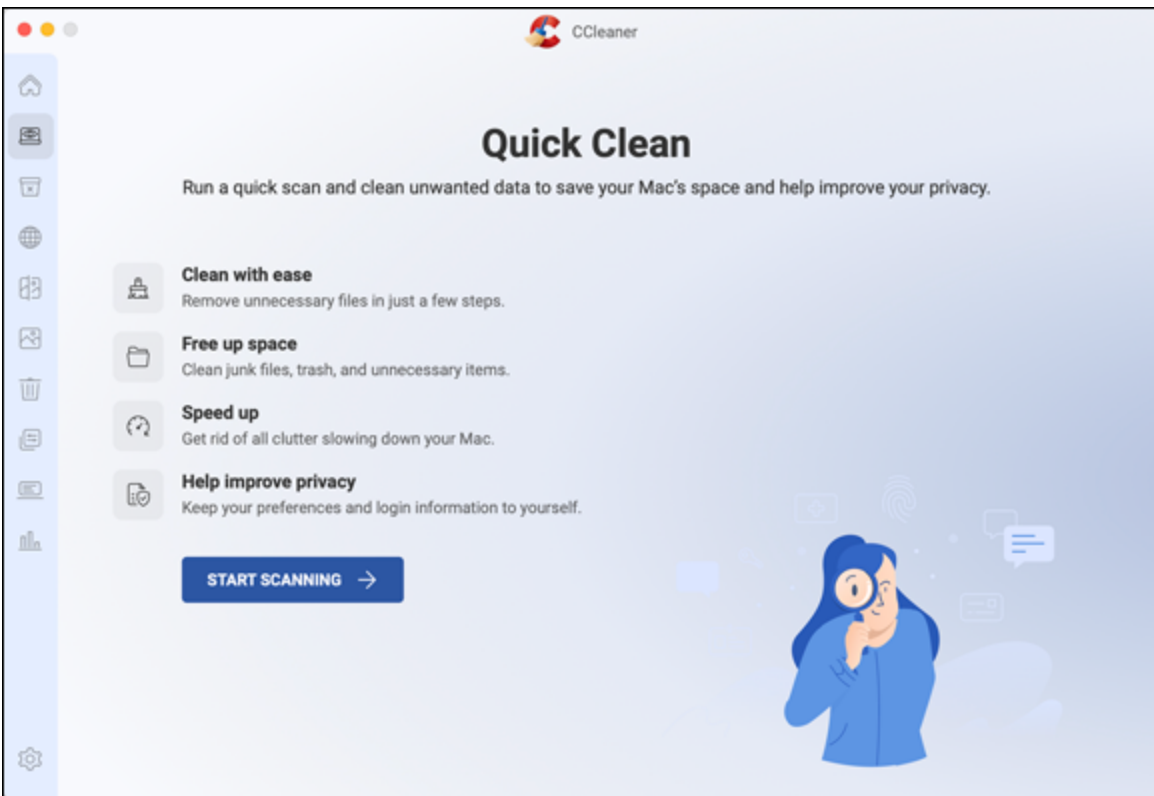


FIGURE 21-3: Piriform's CCleaner for Mac is a great tool for cleaning your MacBook's drive.

Backing Up Your Treasure

Do it.

I'm not going to lecture you about backing up your internal drive ... well, perhaps just for a moment. Imagine what it feels like to lose *everything*: names, numbers, letters, reports, presentations, saved games, photographs, video, and music. Then ask yourself, "Self, isn't all that irreplaceable stuff worth safeguarding?"

Time for a Mark's Maxim:



MARK'S
MAXIM

Back up. On a regular basis.

Take my word for it; you *will* thank me someday!

You can back up your files either by saving them to external media or — as I strongly recommend — by using the awesome Time Machine feature included with Sonoma. Read more about Time Machine in the [“Putting Things Right with Time Machine”](#) section, later in this chapter.

Saving Files

The simplest method of backing up files is simply to copy the files and folders to an external drive or USB flash drive. Nothing fancy — in fact, I call this procedure the “quick-and-dirty backup” — but it *works*.

If you have an external drive or USB flash drive on your MacBook, you can easily drag backup files to it from your internal drive:

1. **Open separate Finder windows for:**

- The external drive
- The internal drive

Because you're using macOS, you can also open a Finder tab within a single Finder window to accomplish the same task — from the keyboard, press ⌘ +T.

2. **Select the desired files that you want to back up from your internal drive.**

3. **Drag the selected files to the external drive window (or tab).**



TIP

“Mark, can I back up individual files to cloud-based storage like iCloud Drive, Dropbox, Google Drive, and OneDrive?” Of course! These services are fine for your most important files (much like backing up a handful of critical files to a flash drive), but these cloud drives aren't suitable for backing up the entire contents of your MacBook's internal drive. (You should always use Time Machine with an external drive for that important chore.) Also, don't forget that you need an internet connection to save or retrieve files from cloud storage - with Time Machine, no internet connection is necessary. (If you'd like to store just the most important stuff in the cloud, I would suggest the contents of your Desktop and Documents folders.)



TIP

If you do decide to back up to an external backup drive without using Time Machine, it's a good idea to store that backup media somewhere safe, away from calamities. On the other hand, if you back up with Time Machine — as I'm about to demonstrate — you should instead leave your external drive plugged in to your MacBook whenever possible.

Putting Things Right with Time Machine

If you enable backups via the macOS Time Machine feature, you can literally move backward through the contents of your MacBook's internal drive, selecting and restoring all sorts of data (including the entire drive, if necessary). Files and folders are ridiculously easy to restore — and I mean easier than *any* restore you've ever performed, no matter what the operating system or backup program. Time Machine can even handle some deleted items, like Contacts cards! To sum it up, Time Machine should be an important and integral part of every Mac owner's existence.



REMEMBER

Before you can use Time Machine, you must have it enabled within the Time Machine pane in System Settings. I cover the Time Machine configuration settings (and how to turn the feature on) in more detail in [Chapter 5](#). You'll also need an external drive that provides considerably more storage capacity than the drive you're backing up. I recommend that

your external Time Machine backup drive be at least twice the capacity of the drive you're backing up; for example, if your internal drive has a capacity of 512MB, shop for a 1TB external drive. (To check on the size of a drive displayed on your Desktop, right-click the drive and choose Get Info from the contextual menu.)

Here's how you can turn back time, step by step, to restore a file that you deleted or replaced in a folder:

1. **Open a Finder window and navigate to the folder that contained the file you want to restore.**
2. **Click the Time Machine icon on the Finder menu bar (which bears a clock with a counterclockwise arrow) and then click Browse Time Machine Backups.**

The oh-so-ultra-cool Time Machine background appears behind your folder, complete with its own set of buttons at the bottom of the screen. On the right, you see a timeline (that series of markings resembling a ruler) that corresponds to the different days and months included in the backups that macOS has made.

3. **Click on any segment within the timeline to jump directly to a date (displaying the folder's contents on that date).**

Alternatively, use the Forward and Back arrows at the right to move through the folder's contents through time. (You should see the faces of Windows users when you riffle through your folders to locate something you deleted several weeks ago!)



REMEMBER The backup date of the items you're viewing appears in the button bar at the bottom of the screen.

4. **After you locate the file you want to restore, click it to select it.**
5. **Click the Restore button at the bottom of the screen.**

If you want to restore all the contents of the current folder, click the Restore All button instead.

Time Machine returns you to the Finder, with the newly restored file(s) now appearing in the folder.
Outstanding!



TIP To restore specific data from your Contacts database, launch the Contacts application first and then launch Time Machine. Instead of riffling through a Finder window, you can move through time within the application window.



TIP As I mention earlier, you can easily restore the *entire* contents of your MacBook's internal drive from your Time Machine backup, too. Shut down your MacBook; then press and hold down the Touch ID button. Choose Options and click Continue to boot using the macOS Recovery HD volume; then use the Restore from Time Machine function. (In some circumstances, a full restore may not be possible, but you can still use Migration Assistant to restore your data.)

For robust backup and restore protection, Time Machine is all that a typical Mac owner at home is likely to ever need. Therefore, here's a very easy Mark's Maxim to predict:



MARK'S
MAXIM

Get an external drive, connect it, and turn on Time Machine. Do it now. Don't make a humongous mistake.

Maintaining Drive Health

Shifty-eyed, sneaky, irritating little problems can bother both your internal and external drives: *permissions errors*. Incorrect disk and file permissions can:

- » Make your MacBook lock up
- » Make applications act screwy (or refuse to run at all)
- » Cause weird behavior within a Finder window or System Settings

And that's not all: Problems with your drive's catalog file can also result in corrupted data and files that won't open.

To keep macOS Sonoma running at its best, I recommend that you fix disk errors at least once per week. Follow these steps:

- 1. Click the Launchpad icon on the Dock and then click the search box at the top of the window.**
- 2. Type the word disk.**
- 3. Double-click the Disk Utility icon.**

4. **Click the volume or named partition at the left that you want to check.**
5. **Click the First Aid button and then click Run.**

Disk Utility does the rest and then displays a message about whatever it has to fix, if anything. (When will someone invent a *car* with a Repair Me button?)



TIP

Note that running First Aid on your internal drive may cause your laptop to stop responding for several minutes, so it's always a good idea to check your internal drive when you aren't using your MacBook.

Automating Those Mundane Chores

The macOS Automator application is a big hit among MacBook power users. You use Automator (shown in [Figure 21-4](#)) to create customized tools that automate repetitive tasks. Of course, writing an application might sound daunting — akin to singlehandedly building your own nuclear submarine over a long weekend — but Automator is actually easy to use. Heck, you might find it downright *fun!*

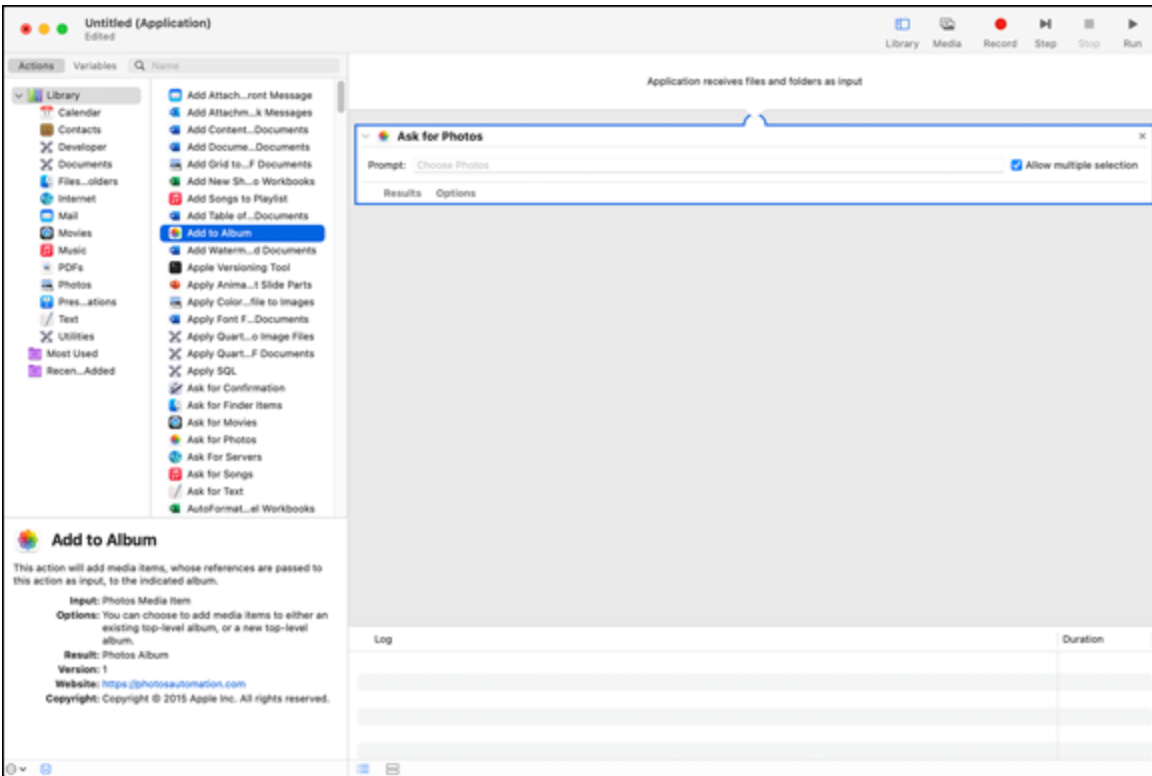


FIGURE 21-4: Automator is a dream come true for those who hate repetitive tasks.

You can also create *workflows*, which are sequential (and repeatable) operations that are performed on the same files or data, and then your Automator application can automatically launch whatever applications are necessary to get the job done.

Here's a great example: You work with a service bureau that sends you a huge .zip file every week with new product shots for your company's marketing department. Unfortunately, these images are flat-out *huge* — taken with a 48-megapixel camera — and they're always in the wrong orientation. Before you move them to the Marketing folder on your server, you have to use Preview to laboriously resize each image and rotate it, and then save the smaller version.

With help from Automator, you can build a custom application that automatically reads each image in the

folder, resizes it, rotates it, generates a thumbnail image, prints the image, and then moves the massaged images to the proper folder — and all with a single double-click! Of course, you can run Automator from Launchpad, or from your Applications folder in a Finder window. Currently, Automator can handle specific tasks within many applications (including the Finder), as well as a number of applications from third-party developers.

Creating an application in Automator

To create a simple application with Automator, launch the application and follow these steps:

- 1. Click the New Document icon.**
- 2. Select Application and click the Choose button.**
- 3. Click the desired application in the Library list.**
Automator displays the actions available for that application.
- 4. Drag the desired action from the Library window to the workflow window on the right.**
- 5. Modify any specific settings provided for the action you chose.**
- 6. Repeat Steps 3-5 until you complete the workflow.**
- 7. Click the Run button (at the upper right) to test your script.**



WARNING Use sample files while you're fine-tuning your application lest you accidentally do something deleterious to an original (and irreplaceable) file!

8. **When the application is working as you like, press ⌘ +S to save it.**
9. **In the Save dialog that appears, type a name for your new application.**
10. **Click the Where pop-up menu and specify a location where the file should be saved.**
11. **Click the File Format pop-up menu and choose Application.**
12. **Click Save.**

Your new Automator application icon includes the Automator robot standing on a document. Most normal human beings would call you a *programmer*, so make sure you're inscrutable from now on! If you plan to use your new Automator application often, don't forget that you can make it more convenient to use by dragging the application icon to the Dock or to the Desktop.



TIP To find all the actions of a certain type in the Library list, click in the search box at the top of the Library list and type a keyword, such as *save* or *burn*. You don't even need to press Return!

Creating an Automator login item

If you want your Automator application to run every time you log in (to track your time on a project, for example), follow these steps to set up the Automator application as a login item:

1. **Open System Settings.**
2. **Display the General pane.**

3. **Click the Login Items entry.**
4. **Click the plus button at the top of the list.**
5. **Navigate to the location of your new Automator application.**
6. **Click Open.**

Now your Automator application is *really* automatic. Watch your significant other gape in amazement as your MacBook begins to work without your touching the keyboard! (If you've added the application icon to your Dock, you can also simply right-click the icon and choose Options ⇒ Open at Login from the menu that appears. Either way, your MacBook gets the message.)

Updating macOS Automatically

I prefer my MacBook to take care of cleaning up after itself, so updating macOS should be automatic as well. In macOS Sonoma, operating system updates are performed by the Software Update feature within the System Settings General pane.



TIP Software Update uses the internet, so you need an internet connection to shake hands with the Apple server and download any updates.

To set Software Update to check for critical system updates and install them automatically, click the Software Update item in the System Settings General pane and then click the Info button next to the Automatic Updates button. Make sure that the Check For Updates,

Download New Updates When Available, and Install macOS Updates switches on the Automatically dialog are turned on; then click Done.



REMEMBER If you'd rather handle updates manually — perhaps your MacBook performs critical work in a video production house or lab and you'd prefer to verify that your software will be unaffected by the update — you can always leave the Install macOS Updates switch disabled. (It's also a good idea if you're using older peripherals with your laptop and you don't want them suddenly disabled after an update.) When you're satisfied that the update is safe, display the Software Update settings again, and select the desired updates to (manually) start the ball rolling.



TIP If you're using the same Apple ID on more than one Mac, the applications you've purchased through the App Store on your other Macs can be automatically downloaded to this computer as well. Display the Automatically dialog again and click the Install Application Updates From the App Store switch to enable it and click Done. Now sit back and watch convenience happen!

Part 6

The Part of Tens

IN THIS PART ...

Commit Mark's top laptop rules to memory.
Avoid the worst computing pitfalls known to humankind.

Chapter 22

Ten (Plus) Laptop Rules to Follow

IN THIS CHAPTER

- » **Protect your laptop and track it**
 - » **Pack that MacBook with RAM**
 - » **Encrypt your MacBook's drive**
 - » **Save energy by disabling wireless hardware**
 - » **Back up your laptop**
-

Ah, the sedentary life of a desktop Mac. It sits there like a bump on a log, comfortable and immobile. As long as you have a stable surface and an uninterrupted power supply, your iMac, Mac mini, Mac Studio, or Mac Pro is a happy puppy.

But you, good reader, are *mobile!* Whether you're on campus or attending a convention, your Mac laptop is rarely running in the same spot, so it's susceptible to all sorts of road-warrior pitfalls. In this chapter, I remind you of ten of the most important rules every laptop owner should follow to prevent chaos and carnage while traveling.

Keep Your Laptop in a Bag

Using a laptop case or bag sounds like common sense. But MacBooks are so doggone sexy that you'd be surprised how many people carry them around without

any protection. These Mac owners hear phrases like “unibody construction” and “solid-state drive” and figure that their laptop can survive a construction site, college campus, or hotel room.

Part of that is true. Mac laptops *are* some of the toughest ever made, but they’re not immune to bumps, scratches, and the rare fall. The moral? If you carry around your MacBook without any protection, soon it’ll look like a boxer after a bad fight.

If you’re like me, you’re proud that your computers remain in pristine condition, so use a laptop bag or case that offers ample padding and a convenient shoulder strap or carry handle. (My laptop bag even converts to a backpack. It includes plenty of extra space for power supplies, wireless mouse and keyboard, and all the assorted hoo-hah that you know you need to carry with you.) Spend an extra \$30 on a laptop bag, and your \$3,000 MacBook Pro can weather the worst the world can dish out.

Using a traditional laptop bag comes with a caveat, however. Some folks think a bag draws too much attention to its expensive cargo. (To some extent, I agree. Few people tote an obvious 15-by-7-inch bag with a hardware manufacturer’s logo emblazoned on it these days.) If you’re a member of this group, consider a *well-padded* laptop sleeve (with corner protectors) that allows you to carry your MacBook in your backpack, such as the BookBook cover I describe in [Chapter 1](#). The laptop always goes on top of those heavy books, of course. Remember, though, that the padding is the important thing. Without that extra cushion, you might as well just toss your unprotected laptop in with the rest of your books and must-have equipment.

Oh, and if you've been using your MacBook for a longer period, and it's warm to the touch, don't pack it away immediately. Allow it to cool for a few minutes before stowing it safely, and you'll help prevent damage over time to your MacBook's internal hardware.

Maximize Your RAM

Like any other computer running Windows or macOS, your MacBook will benefit from all the system RAM (memory) that you can squeeze onto it.

When your laptop has a full complement of RAM, its performance will rival the performance of a desktop computer with the same processor, and you'll be using it on the go!

Current MacBook models can be configured with anywhere from 8GB to a whopping 96GB of RAM at the time you order one from Apple, depending on the model. Unfortunately, you can't add more memory after purchase, so order your new MacBook with the maximum amount of memory you can afford!

Keep Tabs on Your MacBook

Suppose that the unthinkable happens: Your laptop is stolen while you're on vacation or on a business trip, and you know that the chances it will be returned are next to nil. You've resigned yourself to replacing it (and all your data). But wait! What if I told you that you might just be able to display your MacBook's current location, as well as wipe the data that's on it (if necessary)?

If this scenario sounds a little like a James Bond movie, you'll be surprised to discover that a *tracker application* can turn your MacBook into a transmitting beacon, broadcasting to you its current location and all the internet information it can get. Then you can alert the police, who will apprehend the crook (who may be in the middle of creating a new album in Photos).

In fact, the Find My Mac feature built into Sonoma is a tracker application in disguise! (Note that you must set up your iCloud account in the Apple Account pane in System Settings before you can use Find My Mac, as I cover in [Chapter 5](#).) If your MacBook is lost or stolen, and someone uses it to connect to the internet, you can visit <https://www.icloud.com>, sign in with the same Apple ID, and click the Find My icon; then click the entry for your MacBook in the All Devices sidebar to display its current location. From the dialog that appears, you can choose to Mark As Lost (which locks the laptop) or Erase This Device.



TIP

Invest in an Apple AirTag and add it to your bag to add yet another layer of tracking (even if your bag is separated from your MacBook)!

Keepeth Thy Drive Encrypted

In [Chapter 5](#), I discuss System Settings panes. The Privacy & Security pane is particularly important to you because it allows you to encrypt your drive. Encryption prevents just about anyone from accessing (or even *identifying*) any of the files you've stored on your

MacBook. The robust encryption provided by Sonoma will certainly stymie just about anyone but the National Security Administration. (I won't even go there.)

In System Settings, click Privacy and Security, click the FileVault entry under the Security heading, and then click Turn on FileVault. You can use your Apple ID to unlock your MacBook's drive, or you can choose a unique recovery key just in case. (Your login account password is your primary password.) Sonoma takes care of automatically encrypting and decrypting files as necessary. You won't even know that it's working.



REMEMBER To take full advantage of an encrypted drive, you need the proper login mode (as I discuss in [Chapter 10](#)). Think about this possible security back door: From the Users & Groups pane, you've set your laptop to log you in automatically every time you boot your MacBook Air. This scenario is the very definition of Not Secure, because your login account password automatically bypasses FileVault encryption! Therefore, play it smart and *make sure that you actually have to log in to access your account*. For the full scoop, see [Chapter 10](#).

Brand Your MacBook

Put your brand on your laptop! Whether you use an engraving tool on the bottom of the machine (my personal favorite) or a permanent metal tag, your MacBook deserves some sort of identifying information. After all, most people are honest, so you might not need to use the Find My Mac feature that I mention earlier in this chapter. You might have left your laptop behind by

accident, and someone would like to return it to you. (Don't forget to offer a reward!) Note that engraving or affixing a tag may void your warranty or AppleCare coverage, however, so it's a step best used with older MacBooks.

Some laptop owners want to include their name, address, and other contact information. (I've even seen business cards taped to the bottom of MacBooks.) Other road warriors feel more comfortable with just their name and email address. Whatever information you choose to provide, branding your laptop is as important as backing it up - and avoids any confusion when going through airport security!

Disable Your Wireless

Funny how we don't think about it, but wireless communications take juice, and that power comes straight from your laptop's battery! Because your Mac laptop comes with built-in Wi-Fi and Bluetooth hardware, you're constantly broadcasting — sending and receiving, or at least *trying* to exchange data with others.

Therein lies the rub: If you're not connected to a wireless network or Bluetooth device, you're wasting precious battery power. That's why Sonoma lets you turn off your Wi-Fi and Bluetooth hardware to save energy. When you're sitting in a crowded auditorium without access to an AC socket or a wireless network, the energy savings you reap when you disable your wireless hardware can be significant.



WARNING In fact, you might *have to* disable your wireless connectivity in situations where cellphones aren't

allowed, such as during airplane flight takeoffs or in certain areas of a hospital. And because I'm a security-conscious kind of guy, I always disable my wireless hardware whenever I'm not using it, even if I'm in range of a wireless network. Call me overly careful, but none of my shared files has ever been sucked out of my MacBook without my permission!

To turn off your Wi-Fi hardware from the Finder menu bar, click the Wi-Fi icon and then click the "master switch" at the top of the Wi-Fi menu to completely turn Wi-Fi off. To turn off your Bluetooth hardware from the Control Center, click the Control Center icon in the Finder menu bar, click the Bluetooth icon and then click the on/off switch.

Take a Surge Protector with You

I'll be honest: I'm usually not a huge supporter of surge protectors, because I think that they do only half the job. That job is protecting both your hardware *and* your data. And as you probably know, a surge protector doesn't provide backup power in case of a brownout or total loss of power, as a UPS (uninterruptible power supply) can.

Many locales around the world offer a less-than-perfect power grid, which sometimes translates into a sudden loss of power — usually at exactly the wrong moment. (Think *Great American Novel Takes a Nosedive*.) Unlike a desktop, however, your MacBook is smart enough to immediately switch from AC current to its battery in case of a power failure, much as a UPS does. So why am I suggesting a surge protector for your laptop, especially

seeing as how it adds bulk and weight to your laptop bag or luggage?

- » **The risk of a power spike:** A surge protector is good protection from a massive power spike, such as an overload or lightning strike.
- » **Extra sockets on tap:** Don't forget that you might need several more AC sockets for external devices, such as a DVD drive, projector, and portable printer. A surge protector can provide extra access to power even when your host can't.



REMEMBER Naturally, if you're traveling to a country with different AC standards (and different socket configurations), invest in an AC plug adapter that's compatible with the standard used at your destination.

Use Power-Saving Features

Apple allows you considerable control over your MacBook's sleep schedule, which is a real boon to power-hungry laptop owners. In System Settings, click Battery to display the Battery settings.

If your laptop is running on battery power, and you need to conserve as much power as possible, click the Low Power Mode drop-down list and choose Only on Battery. Now you're automatically squeezing the maximum amount of computing time out of your remaining battery power.

Use an External Keyboard and Mouse

Does your laptop remain in your home, dorm room, or office for long periods? If so, I recommend that you invest in an external keyboard and an external mouse, trackball, or trackpad for two very good reasons:

- » Adding external input devices helps lessen wear and tear on your laptop's keyboard and trackpad.
- » External input devices are generally more comfortable and convenient to use than those offered by your MacBook, especially for gaming.



REMEMBER Naturally, a more sedentary MacBook will also benefit from a docking station, which will provide you with all the ports you need for external devices. I discuss docking stations later in this chapter.

If price is no obstacle, a wireless keyboard and pointing device allow you far more freedom of movement. Note, though, that a standard USB keyboard and mouse do just as fine a job and cost less (and don't eat their weight in expensive batteries as well). Either way, you can also place your MacBook on a stand and elevate the display to a more ergonomic height.

Consider Adding Memory

Every computer benefits from more memory — and no, there's no *however* stuck on the end of that statement! For once, I'm happy to report, there's *no* exception, no

matter what type of computer you own. Hard as it is to believe, just keep in mind this Mark's Maxim:



MARK'S
MAXIM

More memory helps. Always.

Period. End of statement. No matter what type of computer you own, how old it is, or what operating system you use, adding more memory to your system (to the maximum that it supports) significantly improves the performance of both your operating system and practically every application you run.



TECHNICAL
STUFF

Memory maximizes the power of your computer.

The more memory you have, the less data your laptop has to temporarily store on its drive. Without getting into virtual memory and other technojunk, just consider that extra memory to be extra elbow room for your applications and documents. Believe me — both macOS Sonoma and Windows 11 efficiently use every kilobyte of memory you can provide.

If your MacBook is already stuffed with the maximum amount of memory it can hold, you're good to go. If you didn't order your laptop with the maximum amount of memory, you fit into one of these categories:

» **Owners of recent vintage MacBook models.**

Unfortunately, these models can't be upgraded because they are sealed units — literally. In fact, you must visit your local Apple hardware technician if your laptop's memory malfunctions and needs replacing.

(The same is true of the battery in all current MacBook models.)

» **Owners of older MacBook models.** These MacBooks can be upgraded with more memory by that same versatile Apple hardware technician, but most of these older laptops can't run macOS Sonoma.

A quick Google Search will usually identify whether your MacBook's memory is upgradeable, or you can take your laptop to a local Apple Store and ask for help in determining whether you can add memory.



REMEMBER If your primary applications include video or image editing, game play, or audio production, you can use all the memory that your laptop can hold.

Don't Consider an Internal Drive Upgrade!

If you've been thinking about upgrading your internal drive, in a word: *don't*. You see, for the last several years, the solid-state drives used in MacBook Air and MacBook Pro models have been soldered directly onto the laptop's motherboard — so, like your MacBook's memory modules, they can't be upgraded. (Again, it's always your best bet to buy a new or used MacBook with as much internal storage space as you can afford.)

Apple's pretty generous when it comes to configuring drive storage for its base systems. Current models run with anywhere from a 256GB solid-state drive to a positively chunky 8TB solid-state drive. Most folks simply don't need more than 256GB to 1TB of drive space.

You're likely to find that you still have plenty of elbow room on your drive for a typical family's needs unless you're heavily into

- » Digital video
- » Cutting-edge video games
- » Tons of digital audio or digital photos



TIP

If you're short on drive space, first clean up your existing drive by deleting all the crud you don't need, including game and application demos, duplicate or work copies of images and documents, archived files that you downloaded from the internet, and the contents of the Trash. You can read how in [Chapter 21](#).



WARNING

Perhaps you won't be truly satisfied with your life until you upgrade your MacBook's "hardwired" internal drive. I'm sure that you can find magazine articles or YouTube videos purporting to show you how, with instructions that claim to lead you down a rosy path to an internal MacBook drive upgrade. Here's my take on those savvy instructions: You're walking into a minefield with someone else's map, so you'd better have *complete* faith in your technical skills (and a darn good backup). My recommendation? *Don't*.

Add Storage Space Externally

“So how do I add more storage space if I can’t upgrade my internal drive?” A great question, dear reader, and one that I can easily answer: I recommend using an external drive. Use one of your MacBook’s high-speed Thunderbolt/USB-C ports to connect a second drive the quick and easy way.

You simply plug in a Thunderbolt or USB-C device, and it works. You can move your external drive between Macs with a minimum of fuss and bother. A typical external USB-C solid-state drive that holds 1TB costs less than \$100.

An external drive can do anything that your internal drive can do. You can boot from it, for example, or install a different version of macOS (great for beta testers like me). External optical drives work the same way. In fact, Apple sells a USB SuperDrive optical DVD drive for the MacBook for about \$80.



TECHNICAL
STUFF

One problem with external drives is that data typically transfers more slowly over a cable connection than via an internal drive. (A Thunderbolt 4 external drive can deliver transfer speeds comparable to those of your internal drive, but at the time of this writing, it's somewhat more expensive than USB-C hardware.) That's why most Mac owners use their external drives to store lesser-used documents and applications or Time Machine backups. Their favorite applications and often-used documents are housed on the faster internal drive.

Putting a port to work

A MacBook can carry two kinds of high-speed ports, either of which is a good match for connecting any external device:

- » **USB 3.0/C:** The USB standard is popular because it's just as common in the PC world as it is in the Mac world. (Most PCs don't have Thunderbolt ports.) Your MacBook offers a USB-C port (which acts as a USB 3.0 port with the proper adapter but can also charge the laptop), whereas older models usually carry at least two USB 2.0 or 3.0 ports. Hardware manufacturers can make one USB device that works on both types of computers.



REMEMBER Naturally, USB-C and USB 3.0 offers faster data transfer speeds than the “creaky” older USB 2.0 standard. So if your MacBook model sports USB 3.0 or USB-C ports, you should buy only USB 3.0/USB-C external drives, DVD recorders, or flash drives. 'Nuff said.

- » **Thunderbolt 3 or 4:** A Thunderbolt external drive offers much better performance than a USB 3.0 drive. Today’s shiny Thunderbolt drives are getting cheaper every day. As with USB ports, the higher the version number, the faster the port. So if your MacBook model comes with a Thunderbolt 3 or 4 port, invest in Thunderbolt 3 or 4 peripherals. Each current MacBook model proudly sports at least one Thunderbolt port.

Connecting an external drive

With Thunderbolt or USB, you can install an external drive without opening your laptop’s case. With your MacBook turned on, follow these steps:

- 1. Connect the Thunderbolt or USB cable between the drive and your computer.**
- 2. Plug the external drive into a convenient surge protector or uninterruptible power supply (if necessary).**

Note that some external devices are *bus-powered*, meaning that they don’t need a separate power supply. These devices draw their power directly from the port — but will also drain your MacBook’s battery faster.

- 3. Switch on the external drive.**

4. If the drive is unformatted or formatted for use in Windows, partition and format the external drive.

The drive comes with instructions or software for you to do this. Don't worry — your external drive comes from the factory empty, and you won't damage anything by formatting it. Partitioning divides the new drive into one or more volumes.



TIP

If the drive comes preformatted for use with a Windows PC, I **strongly** suggest reformatting it for use with macOS. Doing so will result in faster performance and more efficient use of space.

After the drive is formatted and partitioned, the volumes you've created immediately appear on the Desktop. Shazam!

Not Again! What Is It with You and Backing Up?

Yes, this is one of the Top Ten Laptop Rules as well. I'm not kidding: If you think you don't need to back up on a regular basis, *you'll eventually lose every byte of data you have. Period.* It's only a matter of time. Even if you have incredible luck and don't do something you regret with a Finder window, your MacBook is just a machine, and it'll wear out in the long run — especially with the mobile life of a road warrior, with all the bumps and bruises of travel. That's why drive manufacturers list MTBF (Mean Time Between Failures) figures for their internal drives.

Backing up your drive with Time Machine isn't difficult and doesn't take long, and it does indeed protect *every* file and folder. Also, you can restore your MacBook's entire internal drive with ease. [Chapter 21](#) explains everything you need to know. After you finish your first full backup, sit back and celebrate your Laptop Peace of Mind!

Chapter 23

Ten Things to Avoid Like the Plague

IN THIS CHAPTER

- » **Banishing older and refurbished devices**
 - » **Shunning phishing expeditions and pirated software**
 - » **Skirting viruses and malware**
 - » **Keeping liquids at arm's length**
 - » **Steering clear of the root/System Administrator account**
 - » **Sidestepping unsecured public wireless networks**
-

If you've read other books that I've written in the *For Dummies* series, you might recognize the title of this chapter. It's one of my favorite Part of Tens subjects. I don't like to see *any* computer owner fall prey to pitfalls. Some pitfalls are minor (such as not keeping your laptop clean), and others are downright catastrophic (such as providing valuable information over the internet to persons unknown).

All these potential mistakes, however, have one thing in common: They're *easy to prevent* with a little common sense as long as you're aware of them. And making you aware is my job. In this chapter, I fill in what you need to know. Consider these pages to be valuable knowledge gained easily!

USB 2.0 Storage Devices

Man, a USB 2.0 storage device is the very *definition* of sluggish. Only a creaking USB 2.0 external device such as a hard drive, USB hub, or CD-ROM drive could be as slow as a turtle on narcotics.

Unfortunately, you still find countless examples of USB 2.0 hardware hanging around, ready to ensnare unsuspecting computer owners who don't know antiques when they see them. eBay is stuffed to the gills with USB 2.0 equipment, and your family and friends might try to bestow that old 8x CD-RW drive on you as a gift. (This present, like your Aunt Harriet's fruitcake, is one you should politely refuse.) These drives were considered speedy and cool in the past, of course, when USB was a new technology. Today, a USB 2.0 external drive is simply a slow-as-maple-syrup-in-January *embarrassment*, because today's MacBooks offer only USB-C ports (which operate at USB 3.1/Thunderbolt 3.0 speeds). (Don't forget, you'll also need a adapter to use a USB 2.0 device with your USB-C port. More expense for slower performance!)

I do admit that plenty of great USB 2.0 devices are still around these days, such as joysticks, keyboards, mice, and other controllers, along with printers that work just fine with slower transfer rates. But if a peripheral's job is to store or move data quickly — including external drives, network connections, USB hubs, DVD or Blu-ray drives, and USB flash drives — take my heartfelt advice and give a USB 2.0 device a wide berth. Opt instead for a Thunderbolt, USB 3.1, or USB-C device, depending on the ports you're packin' on your MacBook.

Phishing Operations

Phishing is no phun. No, the first word is not a misspelling. In internet lingo, *phishing* refers to an attempt by unsavory characters to illegally obtain your personal information. If that sounds like an invitation to identity theft, it is. Thousands of sites have defrauded individuals like you and me (along with banks and credit card companies) out of billions of dollars. Unfortunately, the phishing industry has been growing like a weed, and more innocent folks are being ripped off every day. (The lowlifes running phishing operations are pond scum. I'm being polite here because this will appear in print.)

A phishing scam works like this: You get an email purporting to be from a major company or business, such as eBay, a government agency, or a credit card company. The message looks genuine, with all the proper graphics and company information. It warns you that you must "update" your login or financial information to keep it current or that you must "validate" your information. It even provides a convenient link to an official-looking web page. After you enter your oh-so-personal information on that bogus page, the info is piped directly to the bad guys, and they're off to the races.

Here's a Mark's Maxim that every internet user should take to heart:



MARK'S
MAXIM

No *legitimate* company or agency will ever solicit your personal information through an email or text message!



WARNING *Never respond to these messages.* If you smell something phishy, open your web browser and visit the company's site (the *real* one) directly. Then contact the company's customer-support personnel. They'll certainly want to know about the phishing expedition, and you can help by providing them the email and web addresses used in the scam. If you respond to a phishing email, the perpetrators know that your email address is "live" and you may be deluged by a flood of spam (and worse).

In fact, sending any valuable financial information (including passwords and codes) through unencrypted email — even to those you know and trust — is a bad idea. Email messages can be intercepted or read from any email server that stores your messages.

The Twin Terrors: Viruses and Malware

It's a common misconception that all Macs are safe from viral attack. I've talked to many a Mac power user who assures me that "macOS is simply not a target for malicious programs, because Windows is more popular and easier to hack." And they're right, if you happen to be living in the 1990s Believe me, those halcyon days are long gone.

Dear friend, I'm here to tell you that your MacBook is *indeed* a target for viruses and *malware* (apps that can slow down your system or even capture your personal data and send it to who-knows-where). In fact, Macs can be attacked with the extremely nasty *ransomware* strain

of virus, which encrypts your entire internal drive, preventing you from accessing any of your data unless you pay a “ransom” in digital currency. Other virus strains remain hidden, turning your Mac into a mindless zombie that spews spam (or worse) to everyone in your Contact list, all while you’re innocently using your laptop.

As I mention elsewhere in this tome, there are a number of free antivirus apps that you can run, or you can invest in a commercial app with additional features and technical support. Do what I do: Use an antivirus app, and keep it updated with the latest data files to maintain your defenses!

Submerged Keyboards

Do you *really* want a submerged keyboard? Your answer should be an unequivocal no! And that’s why you should make it a rule to keep all beverages well out of range of keyboards, trackpads, and external devices, such as speakers and mice — especially when kids or cats are in close proximity to your laptop.

If soda gets spilled on your MacBook, you’re likely to be visited with intermittent keyboard problems (or, in the worst case, a short in your laptop’s motherboard). Suffice it to say that 12 inches of open space can make the difference between a simple cleanup and an expensive replacement!

Antiquated Utility Software

Everyone's gotta play the upgrade game. If you're using macOS Sonoma, you must upgrade your older utility programs — such as an older copy of TechTool Pro from Micromat (<https://www.micromat.com>) that supports only macOS Mojave. I know you spent good money on 'em, but these older disk-utility applications can do more harm than good to an internal drive under Sonoma. You should avoid utility software designed for ancient versions of Mac OS X, such as Panther and Jaguar. (In fact, those antique applications probably wouldn't even run under Sonoma.)

Several things change when Apple makes the leap to a new version of macOS, including subtle changes in disk formats, memory management in applications, and the support provided for different types of storage and optical drives. If you use an older utility application, you could find yourself with corrupted data. In fact, most utilities now refuse to run if they don't recognize the version of macOS you're running.

Now that you're using Sonoma, make sure to diagnose and repair disk and file errors by using only a utility application specifically designed to run under Sonoma (including, of course, Disk Utility). Your laptop's drive will thank you.

Software Piracy

Avoiding pirated software is a no-brainer. Don't endorse software piracy. Remember, Apple's overall market share among worldwide computer users currently weighs in at around 12 percent. Software developers know this, and they have to expect (and *receive*) a return on their investment; otherwise, they'll find something

more lucrative to do with their time. As a shareware author, I can attest to this fact firsthand.

Pirated software may seem to be attractive. The price is right, no doubt about it. But if you use an application without buying it, you're cheating the developer, who'll eventually find that doing Macintosh programming is no longer worth the time and trouble. Believe me, the MacBook is a great machine, and Sonoma is a great operating system, but the sexiest laptop on the planet won't make up for an absence of good applications.

Pay for what you use, and everyone benefits.

The Forbidden Account

You may never have encountered the *root*, or *System Administrator*, account in macOS — and that's A Good Thing. Note that I'm not talking about a standard Administrator (or Admin) account. Every Mac needs at least one Admin account. (In fact, it may be the only visible account on your MacBook.) Any Standard user account can be toggled between Standard and Admin status with no trouble.

The root account, though, is a different beast altogether, and that's why it's disabled by default. All UNIX systems have a root account. As you know from earlier chapters, macOS is based on a UNIX foundation, so it has one too. Anyone who logs in with the root account can do *anything* on your system, including deleting or modifying operating system files (which no other account can normally access). Believe me — deliberately formatting your internal drive is about the only thing worse than screwing up your macOS Sonoma core files.

Luckily, no one can access the root/System Administrator account by accident. In fact, you can't

assign the root account through System Settings; you have to use the Directory Utility application. Unless an Apple support technician tells you to enable and use it, you should promptly forget that the root account even exists.

Unsecured Wireless Connections

I like free internet access as much as the next technology author. It's cool, it's convenient, and public-access wireless networks are popping up all over the world. Many U.S. cities even offer citywide free wireless internet access.

Just because something is *free*, however, doesn't mean that it's *safe*. (Impromptu and overly trusting bungee jumpers, take note.) Unfortunately, the free public wireless access you're likely to encounter is *not secure*. Anyone can join, and the information you send and receive can be intercepted by any hacker worthy of the name. A public network uses no WPA key, so no encryption is involved. Therefore, you have no guarantee that your private email, your company's financial spreadsheets, and your Great American Novel aren't being intercepted while you're uploading and downloading them in the airport.



REMEMBER If you *must* use your laptop on an unsecured public network, make sure that the connection itself is secure instead. Don't check your email by using a web browser, for example, unless your internet service provider or email service offers an encrypted

SSL (Secure Sockets Layer) connection. (Yep, I'm talking again about that little padlock that appears in Safari, which I discuss in [Chapter 8](#). It's not just for ordering things online!) If you need to establish a secure connection with your home or office network, use an SSL-enabled virtual private network (VPN) client, which allows you to transfer files and remotely operate a host computer with bulletproof security. I should also mention that some internet sharing devices provide their own VPN connection. (In other words, your wireless router might have VPN functionality built in, so check your router's manual closely.)

Naturally, macOS includes a built-in basic VPN client, so you don't need additional software to connect. Open System Settings, click the Network entry and then click the ... More button. Click the Add VPN Configuration entry from the pop-up menu that appears to select the proper connection, and then enter the connection settings from your VPN provider and click Create.

Refurbished Hardware

Boy, do I hate refurbished stuff. I always make it a point to dispel the myth that you're "saving" money when you buy a refurbished (or remanufactured) piece of hardware. As the saying goes, if it sounds too good to be true, *it probably is*.

Consider what you get when you buy a refurbished external drive. It's likely that the drive was returned as defective and then was sent back to the factory. There, the manufacturer probably performed the most cursory of repairs (just enough to fix the known problem), perhaps tested the unit for a few seconds, and then

packed it up again. Legally, retailers can't resell the drive as a new item, so they cut the price so low that you're willing to take a chance on it.

Before you spend a dime on a so-called bargain that's *remanufactured* (I can't get over that term), make sure to find out how long a warranty you'll receive, if any. Consider that the hardware is likely to have crisscrossed the country at least once, picking up a few bumps and bruises during its travels. Also, you have no idea how well the repairs were tested or how thoroughly everything was inspected.

I don't buy refurbished computers or hardware. Most of the tales I've heard about folks who did ended badly. (The exception is the Apple online store, where you can find a refurbished Mac with a full one-year warranty. Even then, I would strongly recommend that you purchase AppleCare for your refurbished Mac.) Take my advice: If it's not Apple, spend the extra cash on trouble-free new hardware that has a full warranty.

Dirty Laptops

Clean your machine. Every computer (and every piece of computer hardware) appreciates a weekly dusting.

You should clean your screen every two or three days — unless you *like* peering through a layer of dust, fingerprints, and smudges. *Never* spray anything directly on your screen or your MacBook's case. I highly recommend using premoistened LED/LCD cleaning wipes designed for notebook computers and computer monitors.

Your laptop's case really doesn't need a special cleaning agent. You shouldn't, in fact, use any solvents on it. But a

thorough wipe with a soft cloth should keep your MacBook's case in spotless shape.

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About the Author

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Dedication

This book is dedicated to the memory of my Aunt, Ruby Spears Chambers - a loving mother, wife, and the absolute best Aunt that I could imagine. Her 96 years were a precious gift to all who knew her.

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